High performance putters utilizing effective visual alignment features, enhanced feel, and excellent rolling characteristics.
ALIGNMENT OF GOLF PUTTERS WITH AN INTENDED PUTTING DIRECTION

CROSS-REFERENCE TO RELATED APPLICATION

[0001] The present application claims priority to U.S. Provisional Application No. 61/410,576, filed Nov. 5, 2010, the entire contents of which are incorporated herein by reference for all purposes.

TECHNICAL FIELD

[0002] The present invention relates to golf clubs. More specifically, the present invention relates to putters having one or more alignment aids.

BACKGROUND

[0003] For a putter to perform successfully for directing a golf ball along a desired line, the putter typically functions best when the putter looks and feels good to the golfer using the putter. The putter also needs to roll the ball in a manner that provides the golfer confidence in his or her putting skill. Additionally, for most play, the putter also preferably conforms to “The Rules for Design of Clubs” established by the United States Golf Association (USGA).

[0004] Early putter designs (sometimes referred to as traditional putters) have simple geometric shapes. For example, such putters typically comprise a rectangular blade attached to a shaft at an end of the blade. Such putters include end-shafted blade putters like “Calamity Jane” used by Bobby Jones and end-shafted modified blade putters like the Wilson 8802 made famous by Arnold Palmer. Early designers also moved the shaft away from the end of the blade and towards the center of the blade in some designs. “The Schenectady” putter was one of the earliest of these designs. Later putters were weighted and shaped to promote balance and alignment. For example, many golf professionals successfully used Acushnet’s “Bulls Eye” putter and Spalding’s “Cash-Ins” putter in the 50’s, 60’s, and 70’s. Mallet style putters are another type of common putters and comprise simple shapes. Examples include the Wilson “Biltmore” used by Billy Casper.

[0005] Karsten Manufacturing Corp. (now PING) started the modern era of putter design with the introduction of the PING putters. Early PING putters featured advancements in heel/toe weighting. Many models incorporated offset shafts as a design feature.

SUMMARY

[0008] The present invention provides high performance putters utilizing effective visual alignment features, enhanced feel, and excellent rolling characteristics. Putter embodiments of the present invention include heel/toe weighting and a linear visual alignment aid without visually distracting elements. Putter embodiments of the present invention also can function to allow the golfer’s head to be positioned behind the ball, enabling the golfer to see down the intended line of the putt more effectively. Because the front face of the putter is positioned in front of the shaft, up to a maximum of 5 inches, the ball can be positioned forward in the golfer’s stance while the hands and arms of the golfer remain centered, and hang naturally between the shoulders. Putter embodiments of the present invention, when swung along a normal putting arc, will therefore contact the ball as the arc is ascending slightly, producing topspin and a truer roll of the ball.

[0009] In an exemplary putter in accordance with the present invention, the neck comprises a simple narrow element parallel to the ground or the putting surface or both. In such a configuration, the visual cue the golfer receives is the most effective and uncluttered. Moving the neck of the putter parallel to the intended line of the putt causes the ball to roll on that line.

[0010] In an exemplary putter in accordance with the present invention, the neck of the putter linearly extends in a perpendicular direction relative to the front face of the putter, and in a direction away from the front face of the putter and opposite the intended direction of a putt.

[0011] An exemplary putter in accordance with the present invention comprises a neck that extends about 5 inches as measured from the face of the putter. It is preferable for the angle between the neck and the face to be as close to perpendicular as possible so the visual alignment effect that the neck creates for the golfer is parallel to the intended line of the putt and any optional alignment notch indicating the center of gravity of the putter that may be present.

[0012] The neck of the putter can also be positioned to coincide with the center of the putter or the heel of the putter to achieve different aesthetics and/or function as desired. In these cases, the weighting on the heel and/or toe of the putter is preferably adjusted so the center of gravity is located properly for the golfer.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] The accompanying drawings, which are incorporated in and constitute a part of this disclosure, illustrate several aspects of the present invention and together with description of the exemplary embodiments serve to explain the principles of the invention. A brief description of the drawings is as follows:

[0014] FIG. 1 is a top view of an exemplary putter in accordance with the present invention.

[0015] FIG. 2 is a front view of the exemplary putter shown in FIG. 1.

[0016] FIG. 3 is a side view of the exemplary putter shown in FIG. 1.

[0017] FIG. 4 is a perspective view of the exemplary putter shown in FIG. 1.
FIG. 5 is a top view of another exemplary putter in accordance with the present invention.

FIG. 6 is a front view of another exemplary putter in accordance with the present invention.

FIG. 7 is a perspective view of another exemplary putter in accordance with the present invention.

FIG. 8 is a perspective view of another exemplary putter in accordance with the present invention.

FIG. 9 is a perspective view of another exemplary putter in accordance with the present invention.

The exemplary embodiments of the present invention described herein are not intended to be exhaustive or to limit the present invention to the precise forms disclosed in the following detailed description. Rather, the exemplary embodiments described herein are chosen and described so that those skilled in the art can appreciate and understand the principles and practices of the present invention.

FIGS. 1-4, an exemplary putter 10 in accordance with the present invention is shown. Generally, putter 10 includes shaft 12, body 14, and neck 16 joining shaft 12 and body 14. Conventional materials and construction techniques used for golf clubs can be used to manufacture putter 10. Any desired conventional components can be used for shaft 12 and body 14. As shown, body 14 comprises face 18 and optional groove 20. Neck 16 comprises vertical portion 22 and horizontal portion 24, as shown. As can be seen best in FIG. 1, horizontal portion 24 of neck 16 is preferably generally perpendicular to face 18 as viewed from directly above putter 10, such as when putter 10 is held in a putting stance by a golfer. Horizontal portion 24 is also preferably parallel to optional groove 20, if used. Additionally, as can be seen best in FIG. 3, vertical portion 22 of neck 16 is preferably parallel or coincident with face 18 of putter 10 as viewed from the side of putter 10.

Putter 10 is configured so that horizontal portion 24 of neck 16 is generally parallel to an intended putting direction (identified by reference numeral 26), and horizontal portion 24 of neck 16 is also offset from direction 26. When viewed from above, as shown in FIG. 1, horizontal portion 24 of neck 16 provides an accurate putting and alignment aid that is related to and indicates an intended putting direction. Additionally, horizontal portion 24 is not required to be horizontal and may be provided any desired angle as long as the appearance of horizontal portion 24 from above functions as an alignment aid as described herein.

In an exemplary embodiment, horizontal portion 24 of neck 16 is about 3 inches in length, although it can be longer or shorter than 3 inches. In one exemplary embodiment, vertical portion 22 of neck 16 is about 1 inch in length, although it can be longer or shorter than 1 inch. That is, horizontal portion 24 and vertical portion 22 of neck 16 can have any desired lengths. If it is desirable for the putter to meet USGA regulations, the total length of neck 16 should be less than 5 inches. Putter 10 also comprises appropriate weighting to provide proper balance.

Putters in accordance with the present invention can include any desired design features or characteristics, as long as such putters include a neck comprising at least a linear portion that appears parallel or coincident with an intended putting direction as viewed from above when such putters are held in a putting stance by a golfer. For example, neck 16 may comprise a single portion or any desired number of plural portions. That is, a horizontal and vertical portion, as shown and described herein, are not required. Neck 16 can be attached to body 14 at any desired location and preferably includes appropriate weighting adjustments to provide proper balance such as when neck 16 is not provided at the center of gravity of body 14. Neck 16 may have any desired cross-sectional shape such as round, square, rectangular, triangular, oval, and any desired combinations thereof, for example. Neck 16 may comprise any desired surface finish including surface finishes designed to improve viewing of any alignment feature such as horizontal portion 24 of neck 16 of putter 10. In an exemplary embodiment of putter 10, at least a portion of horizontal portion 24 of neck 16 is smooth and relatively small in diameter, in order to achieve a linear appearance similar to the imaginary line of the putt. Neck 16 may comprise a portion that is visually distinct from another portion of neck 16 such as by having a different shape, color, appearance, and/or the like for one portion of neck 16 as compared to another portion of neck 16. Moreover, neck 16 may comprise any desired alignment marks such as dashes, arrows, or the like that indicate direction.

FIGS. 5, 6, and 7 show an exemplary putter 28 that is similar to putter 10 described above. As shown, putter 28 preferably comprises neck 30 having horizontal portion 32 and vertical portion 34. Horizontal portion 32 is preferably coincident with an intended putting direction (identified by reference numeral 36).

FIG. 8 shows an exemplary putter 38 comprising a neck 40 extending from a heel portion of a body 42.

FIG. 9 shows an exemplary putter 44 comprising a neck 46 extending from a rear face 48 of a body 50.

The present invention has now been described with reference to several exemplary embodiments thereof. The entire disclosure of any patent or patent application identified herein is hereby incorporated by reference for all purposes. The foregoing disclosure has been provided for clarity of understanding by those skilled in the art of golf clubs. No unnecessary limitations should be taken from the foregoing disclosure. It will be apparent to those skilled in the art that changes may be made in the exemplary embodiments described herein without departing from the scope of the present invention. Thus, the scope of the present invention should not be limited to the exemplary structures and methods described herein, but only by the structures and methods described by the language of the claims and the equivalents of those claimed structures and methods.

1. A golf putter comprising a shaft, a neck, and a body, wherein the shaft extends from the neck and the neck extends from the body, the neck comprising at least a linear portion that indicates alignment with an intended putting direction as viewed from above the body of the putter when the putter is held in a putting stance by a golfer.

2. The putter of claim 1, wherein the linear portion of the neck appears parallel or coincident with the intended putting direction.

3. The putter of claim 1, wherein the linear portion of the neck comprises a horizontal portion.

4. The putter of claim 1, wherein the linear portion of the neck comprises a vertical portion.

5. The putter of claim 1, wherein the neck is positioned at the center of gravity of the body of the putter.

6. The putter of claim 1, wherein the neck is spaced from the center of gravity of the body of the putter.
7. The putter of claim 1, wherein the linear portion of the neck is visually distinct from another portion of the neck.

8. A golf putter comprising a shaft, a neck, and a body, wherein the shaft extends from the neck and the neck extends from the body at or near one of a center of gravity of the body, a heel of the body, and a rear face of the body, the neck comprising at least a linear portion that indicates alignment with an intended putting direction as viewed from above the body of the putter when the putter is held in a putting stance by a golfer.

9. A golf putter comprising a shaft having a longitudinal axis, a neck, and a body extending from the neck, wherein the neck comprises a first portion that extends radially from the shaft in a generally perpendicular direction by a first distance in a direction of a front face of the body, wherein the front face of the body is spaced from the longitudinal axis of the shaft by a distance that is at least as great as the first distance that the first portion of the neck extends from the shaft, and wherein the first portion of the neck indicates alignment with an intended putting direction as viewed from above the body of the putter when the putter is held in a putting stance by a golfer.

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