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GOLF PUTTER INCLUDING ANGULARLY AND ROTATABLY
RELATIVELY ADJUSTABLE HEAD AND SHAFT
Filed May 9, 1963

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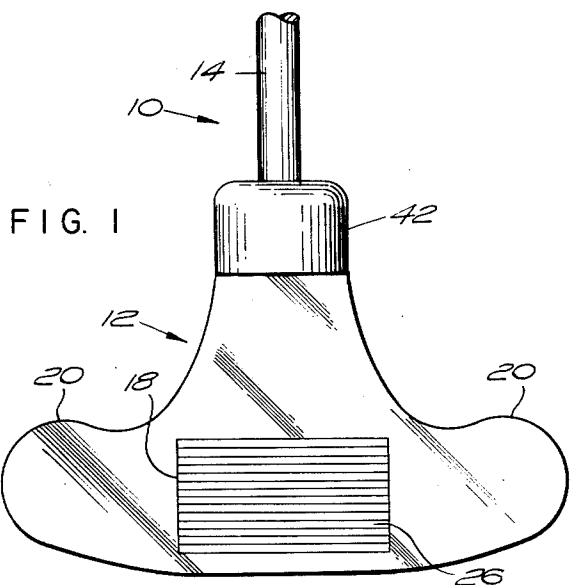


FIG. 1

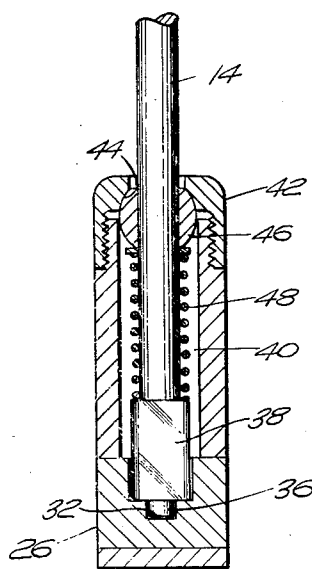


FIG. 3

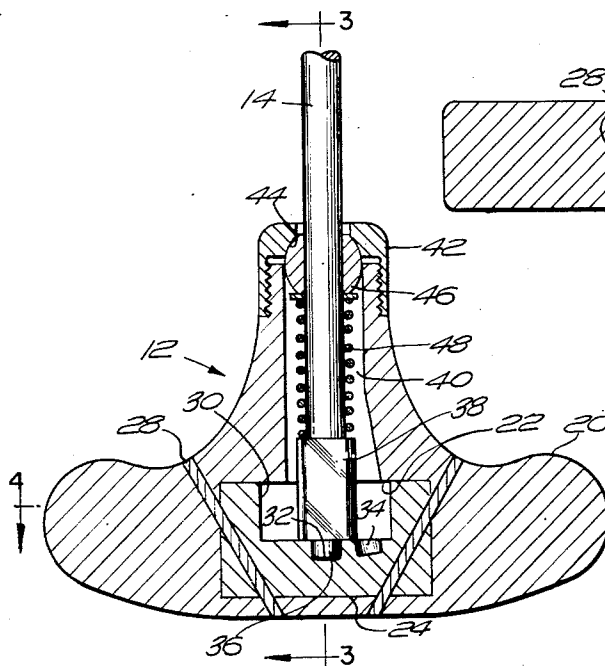


FIG. 2

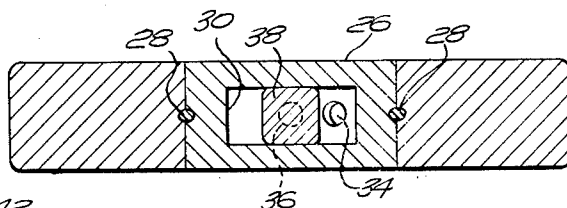


FIG. 4

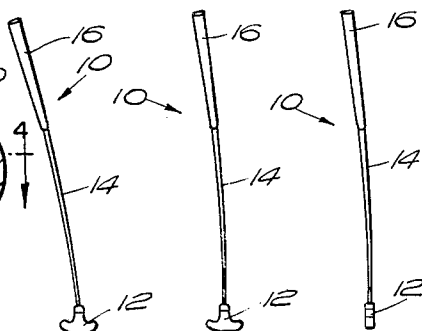


FIG. 6

FIG. 5

FIG. 7

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3,206,206 GOLF PUTTER INCLUDING ANGULARLY AND ROTATABLY RELATIVELY ADJUSTABLE HEAD AND SHAFT

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5 Claims. (Cl. 273—80.1)

The present invention relates generally to golf clubs and more particularly is directed towards a golf putter of a construction permitting the shaft handle to be angularly and rotatably adjusted with respect to the club head.

In golf, putting generally requires a greater concentration and skill than any other portion of the game. For this reason, golfers are quite fussy about selecting a putter which will feel comfortable for particular stance. However, while a golfer may regularly adopt one particular stance in putting, nevertheless there are situations where variations in the stance may be desirable or even necessary. For example, when putting a ball which is on a slight incline, greater accuracy is usually obtained if the base of the club head is flat against the green. A comfortable stance, therefore, may not be possible if the putter has a head fixed at a given angle to the shaft. As a result the golfer must stroke the ball in a manner which might be somewhat awkward with a probable loss of accuracy. Numerous other occasions also arise in which a normal stance may not be employed because of limitations in the construction of the putter. And from time to time, the golfer may wish purposely to alter his stance in the hope of improving his putting game. However, with the clubs presently available, the golfer is quite limited with respect to changes in stance.

Accordingly, it is an object of the present invention to provide a golf putter of improved construction.

Another object of this invention is to provide a golf putter in which the shaft handle may be angularly and rotatably positioned with respect to the club head.

A further object of this invention is to provide a golf putter having a shaft handle which is adjustably connected to the club head, yet which may be readily changed to one or more selected locked positions without loss of strength or rigidity.

More particularly, this invention features a golf putter comprising a head and shaft handle adjustably connected to one another in a manner permitting the shaft handle to be moved angularly with respect to the length of the head and also to be rotated axially with respect to the club head. The invention also features a novel arrangement which permits quick and easy adjustment of the handle with respect to the head and also provides a sure locking arrangement which prevents the development of looseness amongst parts of the club.

But these and other features of the invention, along with further objects and advantages thereof will become more readily apparent from the following detailed description of a preferred embodiment of the invention, with reference being made to the accompanying drawings in which:

FIGURE 1 is a fragmentary view in front elevation showing a golf putter made according to the invention,

FIGURE 2 is a fragmentary sectional view corresponding to the club shown in FIGURE 1,

FIGURE 3 is a cross-sectional view taken along the line 3—3 of FIGURE 2,

FIGURE 4 is a cross-sectional view taken along the line 4—4 of FIGURE 2, and,

FIGURES 5, 6 and 7 are elevational views showing the club in three different operating positions.

Referring now to the drawings, the reference character 10 generally indicates a putter comprising a head 12 adjustably mounted to the end of a shaft 14 having the

usual covered handle portion 16. As shown the shaft 14 is slightly curved lengthwise in the fashion of modern putters. Typically, the shaft 14 is fabricated from tubular spring steel and the head portion 12 is made of drop forged steel or other heavy material to provide the desired weight and balance for the club.

In the illustrated embodiment, the shaft 14 may be moved into any one of several operating positions with respect to the club head. For example, in FIGURE 5, the handle 14 extends at a 90° angle with respect to the flat bottom surface of the head. In FIGURE 6, the shaft has been set at an angle with respect to the head and in FIGURE 7 the shaft has been rotated about its longitudinal axis so that the shaft curves rearwardly from the flat stroking face of the club.

The club head 12 in the illustrated embodiment has a configuration somewhat similar to a mallet and includes front and rear flat-stroking faces 18 disposed between a pair of extended shoulder portions 20. The head 12 has a rectangular opening 22 extending entirely through the club head from front to back to accommodate an insert block 24. The block 24 is dimensioned to fit snugly within the opening 22 and is provided with grooved outer surfaces 26 which are the stroking faces of the club. The block 24 is held in position by means of pins 28 extending diagonally through the club head and through the body of the block 24. The block may be removed by driving out the pins and then pressing the block through the opening 22.

The block 24 is characterized by upwardly facing interior channel 30 having a pair of indents 32 and 34 formed in the bottom wall thereof. The indents 32 and 34 are employed for cooperating in locking engagement with a detent 36 formed on the lower end of the club shaft 14. The end of the shaft is also provided with a block follower 38 which is square in cross section, as viewed in FIGURE 4 and dimensioned to fit snugly, yet slidably, within the channel 30. The function of the follower is to lock the shaft 14 against rotation with respect to the head 12 when the follower is in its normal position within the channel 30.

As best shown in FIGURE 2, the lower end of the shaft 14 extends through a vertical opening 40 formed through the upper mid-portion of the head 12 into communication with the opening 22 which accommodates the block 24. The upper end of the head 12 is peripherally threaded for engaging a nut 42. The nut is formed with an opening defining a ball socket 44 to accommodate an annular ball member 46 slidably mounted on the shaft 14. A coil spring 48 is compressed between the lower portion of the ball member 46 and the upper shoulder of the follower 38 to urge the ball member 46 into seating engagement with socket 44 and at the same time urge the detent 32 into seating engagement with the indent 34 or 36, as the case may be.

The two indents are spaced from one another at the base of the channel with indent 32 being located in the center directly below the opening 40 while the indent 34 is located to one side thereof. In practice the club may be set into any one of the three operating positions shown in FIGURES 5, 6 and 7. In FIGURE 5 the shaft 14 is at a right angle relative to the flat base of the head. In this position the detent 36 is located in the indent 32 as shown in FIGURES 2 and 4. In FIGURE 6 the shaft 14 is angularly offset from the flat base of the club head and in this position the detent 36 is located in the indent 34. The adjustment in position is made by grasping the head in one hand and the shaft in the other and then pulling the shaft with sufficient force to overcome the spring 48. This will release the detent from the indent 32 and the handle is swiveled so as to snap the detent into the indent 34. In the position of FIGURE 5, the

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club may be used for playing on a flat surface and with the player's head directly over the club head. In FIGURE 6 the club may be used on an inclined surface or with the club extended out in front of the player as desired.

In certain situations it is desirable to stroke the ball by swinging the club between the legs as a mallet. For this type of stroke the club is set in the position shown in FIGURE 7 with the club head rotated 90° about the longitudinal axis of the shaft. This position of the club is obtained by pulling the shaft against the spring 48 so that the block follower 38 comes entirely out of the channel 30. With the follower clear of the channel the shaft and follower are rotated 90° and then snapped back into the channel with the detent 36 in the center indent 32. The club will then be in the position illustrated in FIGURE 7.

The club illustrated and described herein is of simple, rugged construction and may be produced at a relatively low cost. In addition its flexibility adds interest to the game and permits the golfer to adopt anyone of a variety of stances as is best suited to the position of the ball and the judgement of the player. The club may be quickly and easily changed from one position to another by merely pulling the shaft against the head and selecting the desired position. When released, the head will snap firmly into locked position and the club may be put to use.

While the invention has been described with particular reference to the illustrated embodiment, it will be understood that numerous modifications thereto will appear to those skilled in the art. It also should be understood that the above references and accompanying drawings should be taken as illustrative of the invention and not in a limiting sense.

Having thus described the invention, what I claim and desire to obtain by Letters Patent of the United States is:

1. A golf club comprising an elongated shaft, a head adjustably connected to one end thereof, said head being formed with a flat striking face on at least one side thereof, said head being formed with an opening at its upper end to accommodate the end of said shaft, means adjacent said opening connecting said head to said shaft for rotary and pivotal movement therebetween said head also being formed with an interior channel extending parallel to said face and facing oppositely said opening, spaced indexing means disposed along said channel for angularly and rotatably positioning the head-engaging end of said shaft relative to said head, and spring means urging said shaft and said head into a selected indexed position.

2. A golf club comprising an elongated shaft, a head adjustably connected to one end thereof, said head being formed with an opening at its upper end to accommodate the end of said shaft, said head being formed with an interior channel extending lengthwise of said head and facing oppositely said opening, the bottom wall of said channel being formed with a plurality of longitudinally spaced indents, a block follower disposed on the head-engaging end of said shaft and normally disposed within said channel, a detent stop formed on the end of said follower for a mating engagement with a selected one of said indents, said head being formed with a ball socket about said opening spaced from said detent, an annular ball member slidably mounted on said shaft between said block follower and said socket for pivotally and rotatably con-

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necting said shaft to said head at a point spaced from the end of said shaft and a coil spring compressed between said ball and said follower urging said follower into said channel.

3. A golf club according to claim 2 wherein said shaft is inherently formed with a substantial longitudinal curvature.

4. A golf club comprising an elongated and inherently curved shaft, a head adjustably connected to one end thereof, said head having an elongated striking face formed on at least one side thereof, said head being formed with an opening at its upper end to accommodate the end of said shaft, said head also being formed with an interior channel extending lengthwise of said head and facing oppositely said opening, the bottom wall of said channel being formed with a plurality of longitudinally spaced indents, a block follower dimensioned to fit squarely in said channel mounted on the head-engaging end of said shaft and normally disposed within said channel, a detent stop formed on the end of said follower for a mating engagement with a selected one of said indents, said head being formed with a ball socket about said opening and spaced from the end of said shaft, an annular ball member slidably mounted on said shaft between said block follower and said socket and a coil spring compressed between said ball and said follower urging said follower into said channel.

5. A golf club, comprising

- (a) an elongated shaft having a substantial and inherent longitudinal curvature,
- (b) a head formed with a striking face on at least one side thereof,
- (c) said head being formed with a generally vertical opening centrally thereof,
- (d) the lower portion of said opening defining a socket of non-circular cross-section,
- (e) the upper portion of said opening defining a chamber larger in cross section than said socket,
- (f) a follower fixed on one end of a said shaft and adapted to be accommodated in said socket,
- (g) said follower having a cross sectional configuration at least partially conforming with said socket cross section to prevent axial rotation of said shaft with respect to said head when said follower is within said socket,
- (h) resilient means connecting said shaft to said head and normally urging said follower into said socket,
- (i) said resilient means permitting said follower to be axially withdrawn from said socket into said chamber whereby said follower may be rotated into a new position with respect to said head and then released into said socket for locking engagement therewith.

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