Feb. 10, 1953 H. H. MURPHY 2,628,099

GOLF CLUB

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Fig. 1.

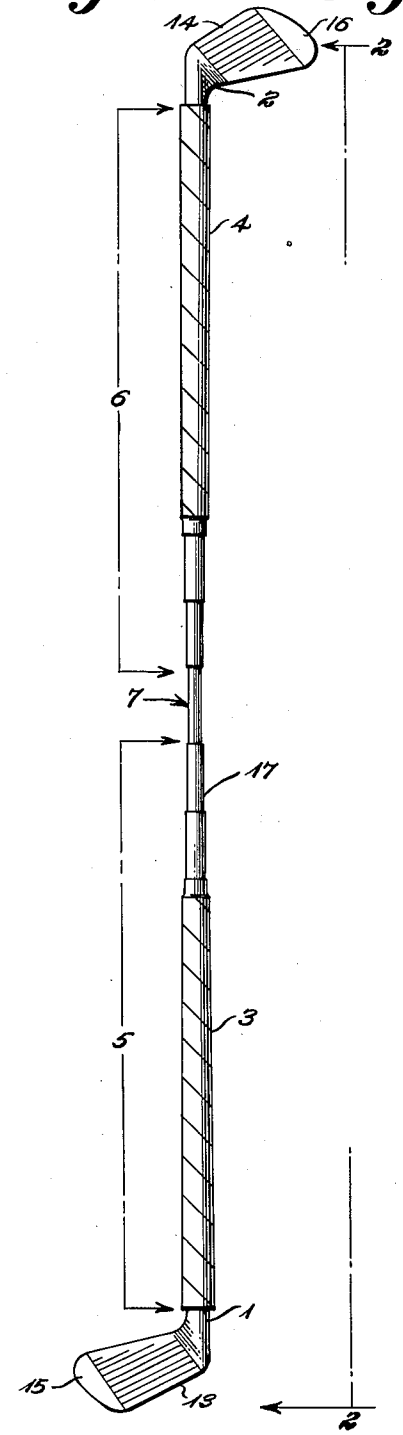


Fig. 2.

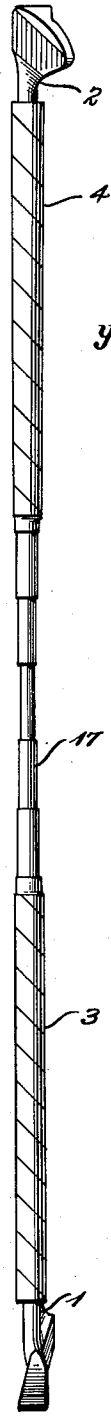


Fig. 4.

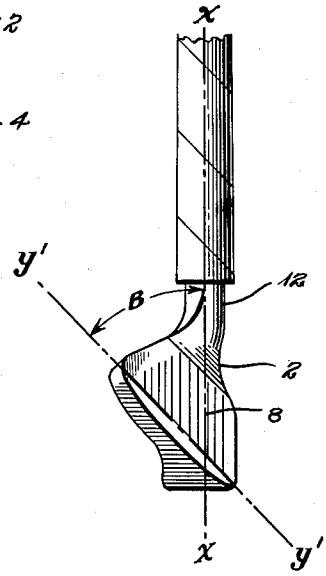
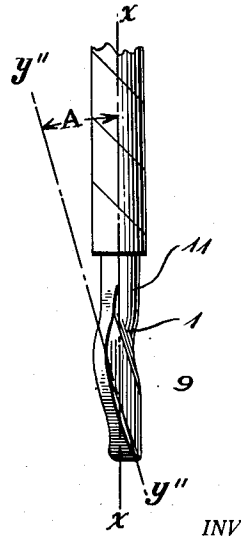


Fig. 3.



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GOLF CLUB

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5 Claims. (Cl. 273—77)

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This invention relates to golf clubs and more particularly relates to a new and useful golf club having a shaft provided at each end with a club head.

It is an object of my invention to provide a golf club of novel construction which possesses a high degree of versatility by having embodied therein combined club heads with striking faces thereon heretofore found only in a plurality of clubs. Moreover, it is an object of the invention to provide in a single club the advantages heretofore found only in "matched sets" of clubs.

It is a further object of my invention to provide a golf club that will enable the golfer to consistently make more accurate shots, and shots of longer "carry" than usually made with a conventional club of the same relative "pitch." It is a further object of the present invention to provide in the golf club a resistance to shaft rotation inherently resulting when a golf ball is struck with the striking face or head.

It is a further object of this invention to provide a golf club which utilizes a combination of elements in a novel way to make the game more enjoyable for the player and improve his score.

One of the outstanding advantages of this invention is the provision of means to play the entire game of golf with a single club. As is well-known there are various basic shots utilized in a round of golf. These basic shots may be broken down into four classes: the tee shot or drive; the putt; the long fairway or long iron shot; and the approach or short fairway or pitch shots out of sand traps over trees or a hill. The requirements of clubs with which the tee shot and long fairway shots are to be made are very similar, namely, low trajectory and distance, including long roll on the fairway. Therefore, it is necessary to have one club having a relatively steep, low pitch striking face, to obtain low trajectory and maximum roll.

In contrast, the requirements of the approach, short fairway shot or pitch shot are high trajectory and little or no roll. This requires a plurality of different clubs, depending upon the distance to the green, the lie of the ball, and the position of intervening hazards. Ordinarily, the respective clubs used for this purpose each has a relatively shallow or high pitch striking face and may include different pitches, such as in the clubs commonly referred to as a mashie niblick or niblicks.

The putt, on the other hand, requires a club head having a relatively steep striking face so that when the ball is stroked it remains in contact with the ground as it rolls across the green.

The golf club of this invention utilizes, in combination, a shaft with a club head at each end thereof. Symmetry about a portion midway between the ends of said shaft is obtained by virtue

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of a taper from each end thereof to that portion substantially midway there-between, and the distances from said mid-portion to the center of gravity of each club head are substantially equal. Grip portions on said shaft adjacent the ends thereof are provided so as to enable the golfer to grip the club more securely.

One form of the present invention is illustrated in the accompanying drawing, the "pitch" of each striking face being set at an angle to satisfy the requirements of a given type of shot. As shown herein, and described more fully hereinafter, one of said club heads is provided with a steep or low pitch striking face to satisfy the requirements of the drive, long fairway shot, and putt. The other club head is provided with a shallow or high pitch striking face in order to satisfy the requirements of the short fairway or pitch shot.

For purposes of illustration but without intending to limit the scope of the invention thereto, a club made in accordance with the teachings of the present invention is shown in the accompanying drawings, wherein:

Fig. 1 is a plan view of the golf club of the present invention;

Fig. 2 is a view as seen from line 2—2 of Fig. 1;

Fig. 3 is an enlarged view of a club head of low pitch carried at one end of the golf club shaft;

Fig. 4 is an enlarged view of a club head of high pitch carried at the other end of the golf club shaft.

Referring now to Figs. 1 and 2, low pitch club head 1 and high pitch club head 2 are carried by symmetrical shaft 17 at the respective ends thereof. Grip portions 3, 4, respectively, adjacent thereto are carried by said shaft 17, which includes tapering portions 5 and 6, each tapering portion extending from one end of the shaft 17 to a point 7, of reduced diameter, substantially midway there-between.

In Fig. 3, club head 1 is shown as having a striking face 9 and shank 11, the pitch angle A being defined as that angle between the line of intersection of the plane of striking face 9 and the plane perpendicular thereto in which lies the axis of shank 11 and the axis of said shaft in said plane.

In Fig. 4, club head 2 has striking face 8 and shank 12 with the pitch angle B defined as above.

In order to attain consistency in shot making, it is advantageous if the different clubs used from an ordinary set have the same "feel." This is found to be so if, on successive shots made with different clubs, the "feel" or weight distribution of the club varies; the golfer finds that his swing is affected, frequently resulting in a dubbed shot. Therefore, it is not merely desirable, but highly essential to a satisfactory game that the clubs

used for successive shots have the same "feel." This has been accomplished heretofore by the use of a matched set, but the present invention has embodied in its structure substantially all of the advantages of matched clubs without the inherent disadvantages. The shaft has uniformly tapered portions extending from each end thereof to a point or portion of reduced diameter substantially midway between, whereby symmetry exists between the club heads carried by said shaft. Furthermore, the club heads are of substantially equal weight and balanced so that the center of gravity is at the same point relative to the base thereof in each, whereby irrespective of the manner in which the club is utilized, the "feel" is the same.

As best seen in Figs. 3 and 4, a different pitch is provided on the face of each club head. In order to satisfy the requirements of versatility in shot making means, as is ordinarily provided for by a plurality of clubs, the pitch angle A of club head 1 is established arbitrarily at 15°, and the pitch angle B of club head 2 is set at 45°. By so providing, it is seen that the requirements of versatility are satisfied by the invention. The driving club head or low pitch head 1 is available to be utilized for the tee shot, long fairway shot, and the putt; while the high pitch head 2, embodying some of the advantageous features of the conventional niblick, is available to be utilized for the approach, short fairway shot and to carry over hills, trees, or out of a sand trap.

The club heads 1 and 2 are carried by said shaft 17 so that the respective bottom edges 13 and 14 thereof extend in opposite directions from the axis of shaft 17. It is seen, therefore, that a new and novel torque resistance means exists by virtue of this construction. When the striking face of one club head, in the course of the swing, comes into contact with the ball a torque exerted on said shaft normally is overcome by the hands and wrists of the golfer. To minimize rotation of the shaft in the hands of the golfer, tended to be produced by this torque, it is seen that the inertia of the club head carried by said shaft at the upper end thereof will counteract the torque, thereby aiding more consistent shot making and shots of longer carry by reason of the maintenance of a relatively stable hitting surface during contact of the club head with the ball.

It will be seen that by virtue of the elasticity of the shaft in torsion there will be returned to the club head used to contact the ball some of the torque resisted by the inertia of the club head at the opposite end of said shaft. This will result in a movement of the club head during the short interval of time the striking face is in contact with the ball, that would not occur during that same interval of time if a conventional golf club were used. Said movement being in nature opposite to that kind which produces the well-known "slice," will tend to reduce slicing.

As is obvious to those skilled in the art, the shaft in the preferred embodiment of my invention may be made of any material having the requisite properties of flexibility, strength, and weight. Although the club described herein is a new, novel and useful structure, mere changes in the form, materials used, or variations of the pitch angles of the striking faces thereof, may be made without departing from the spirit of the invention.

I claim:

1. A golf club comprising a shaft tapering from each end to a point of reduced diameter substantially midway of said shaft; and an elongated ball-striking head carried by said shaft at each end, the striking face of one of said club heads having a pitch angle of substantially 15°, the striking face of the other of said club heads having a pitch angle of substantially 45°, said striking faces being oppositely directed from the axis of said shaft whereby a striking face is in playing position regardless of the end by which the club is held.

2. A golf club comprising a shaft; and a ball-striking head carried by said shaft at each end, the striking faces of said ball-striking heads being of different pitch, said ball-striking heads extending in generally opposite directions from the axis of said shaft so as to resist torque.

3. A golf club comprising a shaft tapering from each end to a point of reduced diameter substantially midway of said shaft; and a ball-striking head carried by said shaft at each end, the striking face of one of said heads having a low pitch angle and the striking face of the other head having a high pitch angle, said ball-striking heads extending in generally opposite directions from the axis of said shaft so as to resist torque.

4. A golf club comprising a shaft tapering from each end to a point of reduced diameter substantially midway of said shaft; and an elongated ball-striking head carried by said shaft at each end, the faces of the ball-striking heads being of different pitch and the bottom edges of said heads extending in substantially opposite directions from the axis of said shaft; a hand-grip portion on said shaft adjacent each of said heads carried thereby, said heads being so formed that the center of gravity of each is substantially equi-distant from the base thereof whereby symmetry exists about a point substantially midway between the ends of said shaft.

5. A golf club comprising a shaft tapering from each end to a point of reduced diameter substantially midway of said shaft; and an elongated ball-striking head carried by said shaft at each end, the striking face of one of said heads having a low pitch angle and the striking face of the other head having a high pitch angle and the bottom edges of said heads extending in substantially opposite directions from the axis of said shaft; a hand-grip portion on said shaft adjacent each of said heads carried thereby, said heads being so formed that the center of gravity of each is substantially equi-distant from the base thereof whereby symmetry exists about a point substantially midway between the ends of said shaft.

HOWARD HAINES MURPHY.

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