

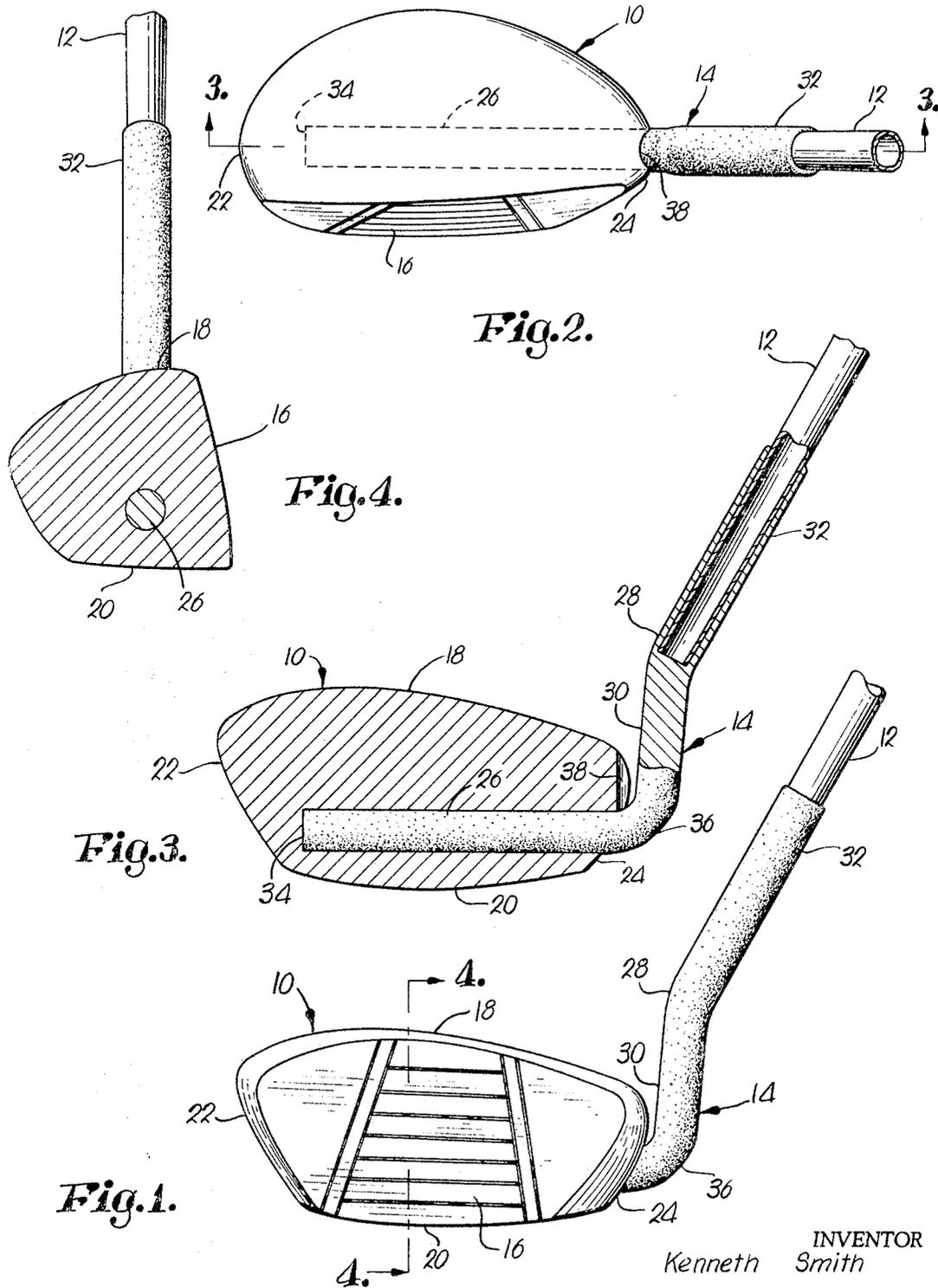
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SHAFT AND CLUB HEAD ATTACHING MEANS

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SHAFT AND CLUB HEAD ATTACHING MEANS

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5 Claims

ABSTRACT OF THE DISCLOSURE

A metallic club head is cast around a solid rod which extends into the head from the heel. The rod extends in general parallelism with the striking face of the club and is embedded in the lower half of the club head. The rod extends upwardly from the heel at approximately a right angle to the portion thereof embedded in the head. The upright section of the rod is of an obtuse, angular configuration so that its upper stretch extends generally toward the player, the lower extremity of the shaft of the club being relatively telescoped with such upper stretch and securely joined thereto.

The primary object of this invention is to provide an improved golf club, and particularly a club of metallic head design. Recently, interest has developed in the use of aluminum headed golf clubs to replace both the woods and irons that traditionally comprise a set of golf clubs.

As a corollary to the foregoing object, it is an important aim of the instant invention to provide an improved means of attaching the club head, whether of metallic or other construction, to the shaft of the club which is structurally simple and assures that the head and the shaft are rigidly and permanently interconnected.

One of the specific objects of the invention is to provide a golf club construction in which the head and the normally lowermost end of the shaft are interconnected without the employment of a neck or hosel forming a part of the head, and in which the head and the interconnecting means present a solid unitary body.

Another specific object of the invention is to provide a connecting member between the shaft and the head of a golf club which is embedded in the head and enters the latter at the heel of the head in order to impart improved handling characteristics or "feel" to the club, particularly in the case of clubs having metallic heads of oval configuration similar to the shape of traditional wood clubs.

In the drawing:

FIG. 1 is a front elevational view of the club, including the lower extremity of the shaft and the head connected thereto;

FIG. 2 is a plan view of the construction shown in FIG. 1;

FIG. 3 is a sectional view taken along line 3—3 of FIG. 2, the embedded rod being revealed in elevation for clarity; and

FIG. 4 is a sectional view taken along line 4—4 of FIG. 1.

A cast head 10 of aluminum or other suitable metallic substance is secured to the lower extremity of a flexible, tubular shaft 12 by a generally L-shaped connecting member 14 which may be composed of steel. Head 10 is of generally oval-shaped configuration similar to the shape of traditional wooden heads, and has a relatively flat hitting face 16, a top 18, a sole 20, a toe 22, and a heel 24. Sole 20 is slightly rounded and rests upon the ground behind the ball when the latter is addressed. Only the lowermost extremity of shaft 12 is illustrated since the shaft may be of any suitable type depending upon the needs of the player and is provided with the usual handle at its upper end.

Connecting member 14 includes a normally horizontal leg 26 and a normally upright leg 28, the latter having an inner stretch 30 defining approximately a right angle with the horizontal leg 26. The outer, upper stretch 32 of leg 28 forms an obtuse angle with inner stretch 30 substantially greater than 90°, the exact angle being dependent upon the height, reach and stance of the player in the case of custom-made clubs. Legs 26 and 28 are integral with each other and are formed from solid bar stock, the upper stretch 32 of leg 28 being bored to complementally receive the lowermost extremity of shaft 12, the common longitudinal axis of stretch 32 and shaft 12 extending therefrom downwardly through the heel portion of head 10 as is clear in the figures. Solder may be employed in a thin layer between the mating surfaces of the relatively telescoped stretch 32 and shaft 12 to securely joint the same together.

The horizontal leg 26 of connecting member 14 is effectively embedded in head 10 during construction of the club by casting the head around leg 26. In this manner, head 10 and leg 26 form a unitary body for solidly striking the ball; note that leg 26 terminates at 34 within head 10 but in closely spaced relationship to toe 22.

In order to get proper action behind the ball and maximum impact, leg 26 is disposed in closer spaced relationship to sole 20 than the top 18. Leg 26, as viewed in FIG. 3, is roughly centered in the lower one-half of head 10, in approximately parallel relationship to sole 20.

Leg 26 enters head 10 at heel 24 and is entirely embedded therein except for the outermost extremity thereof which merges with the lowermost extremity of leg 28 at approximately a right angle bend 36. In order to preclude interference of head 10 with bend 36 and the stretch 30 of leg 28, heel 24 is notched at 38 to provide the requisite clearance. It will now be appreciated that a golf club is provided in which the head and the shaft are securely and permanently interconnected without the use of a neck or hosel on the head, thereby providing a club with a lower center of gravity to concentrate the hitting force at the level of the ball.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. In a golf club:

an elongated club head provided with a toe and a heel at opposite ends thereof and an essentially flat hitting face on one side of said head;

a shaft having a normally lowermost extremity; and a generally L-shaped connecting member having a pair of legs,

one of said legs being rigid with said head, extending longitudinally therewithin from said heel toward said toe in substantial parallelism with said face, and entering the head through said heel,

said one leg presenting with said head a unitary body, the other of said legs being normally upright and disposed entirely exteriorly of said head adjacent said heel,

said other leg having an inner stretch and an outer stretch forming an obtuse angle,

said outer stretch being rigidly secured to said extremity of the shaft in longitudinal alignment therewith, said outer stretch and said shaft having a common longitudinal axis extending downwardly therefrom in substantial alignment with said heel,

said inner stretch extending at substantially a right angle with respect to said one leg whereby said inner stretch diverges from said axis and lowers the center of gravity of the club head while the shaft remains in a normal position relative to the club head to provide proper balance.

2. The invention of claim 1,

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said head having a top, and a sole adapted for ground contact when addressing the ball, said one leg being disposed in substantially closer spaced relationship to said sole than to said top, entirely within the lower one-half of said head.

3. The invention of claim 2, said one leg terminating within said head in closely spaced relationship to said toe, the head being in complementary engagement with said one leg within said head from the heel to the termination of said one leg.

4. The invention of claim 2, said heel having a notch therein at the entrance of said one leg into said head, clearing said inner stretch to preclude interference between the latter and said heel.

5. The invention of claim 2, said head being composed of a metallic substance throughout and having a generally oval-shaped con-

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figuration with a relatively flat hitting face on one side thereof, said one leg including a solid rod embedded in said head.

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