

[54] **GOLF CLUB**

[76] Inventor: **Andrew N. Hrivnak**, 58 Ball Ave.,
 Yonkers, N.Y. 10701

[22] Filed: **Mar. 20, 1973**

[21] Appl. No.: **343,000**

[52] U.S. Cl. **273/81 C, 273/194 R**

[51] Int. Cl. **A63b 53/14**

[58] Field of Search 273/193, 194, 186, 81,
 273/81.2

[56] **References Cited**

UNITED STATES PATENTS

1,305,952	6/1919	Suesman	273/81 C
2,225,839	12/1940	Moore	273/81 C

Primary Examiner—George J. Marlo
Attorney, Agent, or Firm—Stanley J. Yavner

[57] **ABSTRACT**

A golf club structure which enables the practice of the "square-to-square" method of swinging a golf club. The structure includes a golf club handle having an indented middle handle portion onto which is fitted a rotatable sleeve. The sleeve fits snugly into the indentation and by the use of resin or another lubricant between the sleeve and the handle, a golf club handle is constructed to allow one of the golfer's hands to rotate slightly during the backswing and to accurately rotate in the opposite direction during the downswing so that the club face is effectively mechanically positioned upon impact identically with its position at the start of the backswing.

6 Claims. 8 Drawing Figures

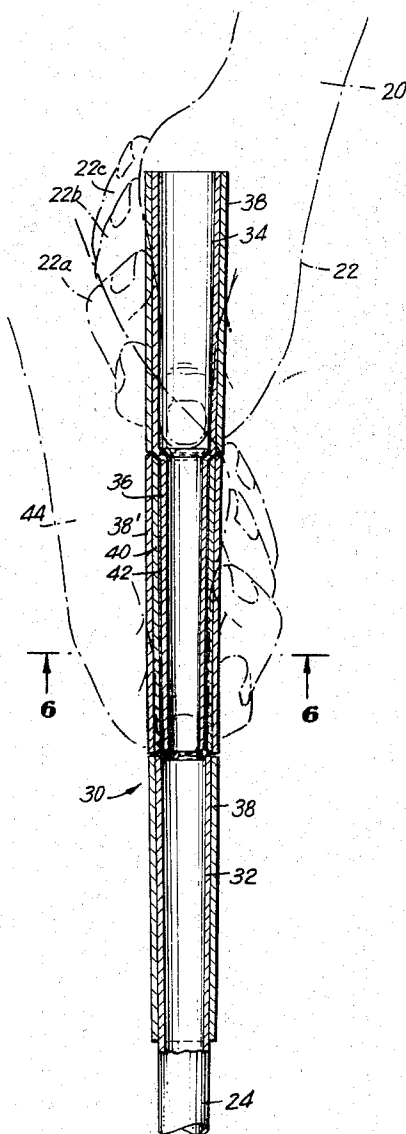


FIG. 1

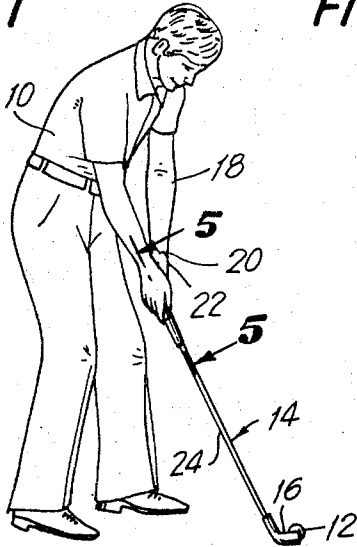


FIG. 2

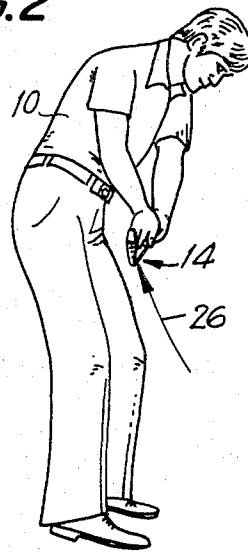


FIG. 4

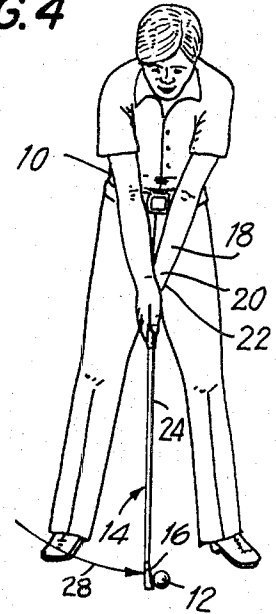


FIG. 3

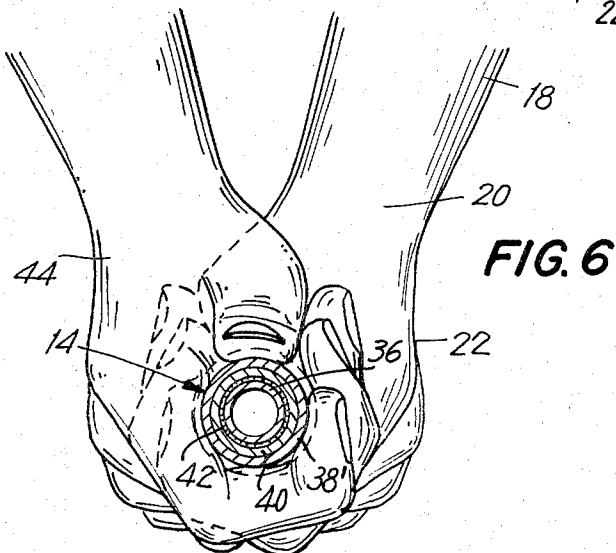
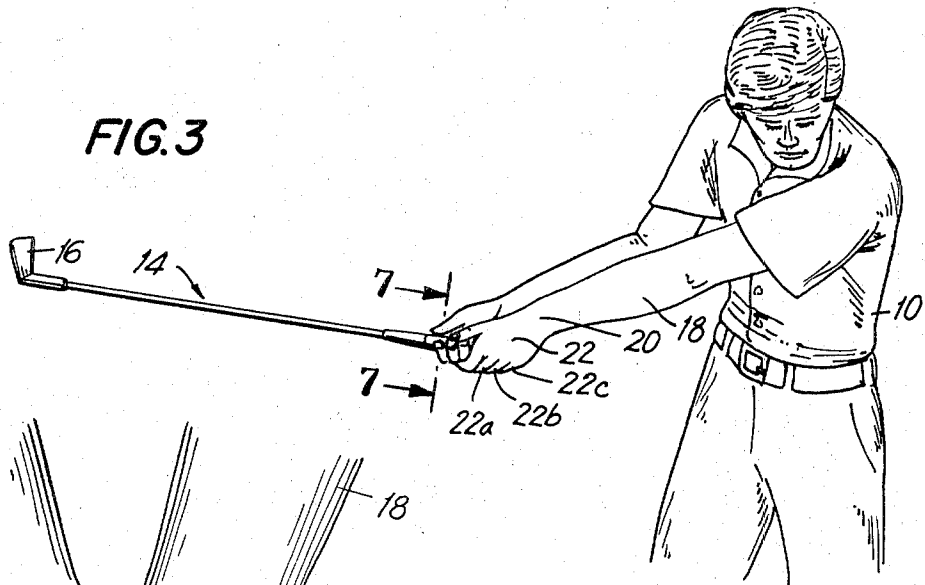


FIG. 5

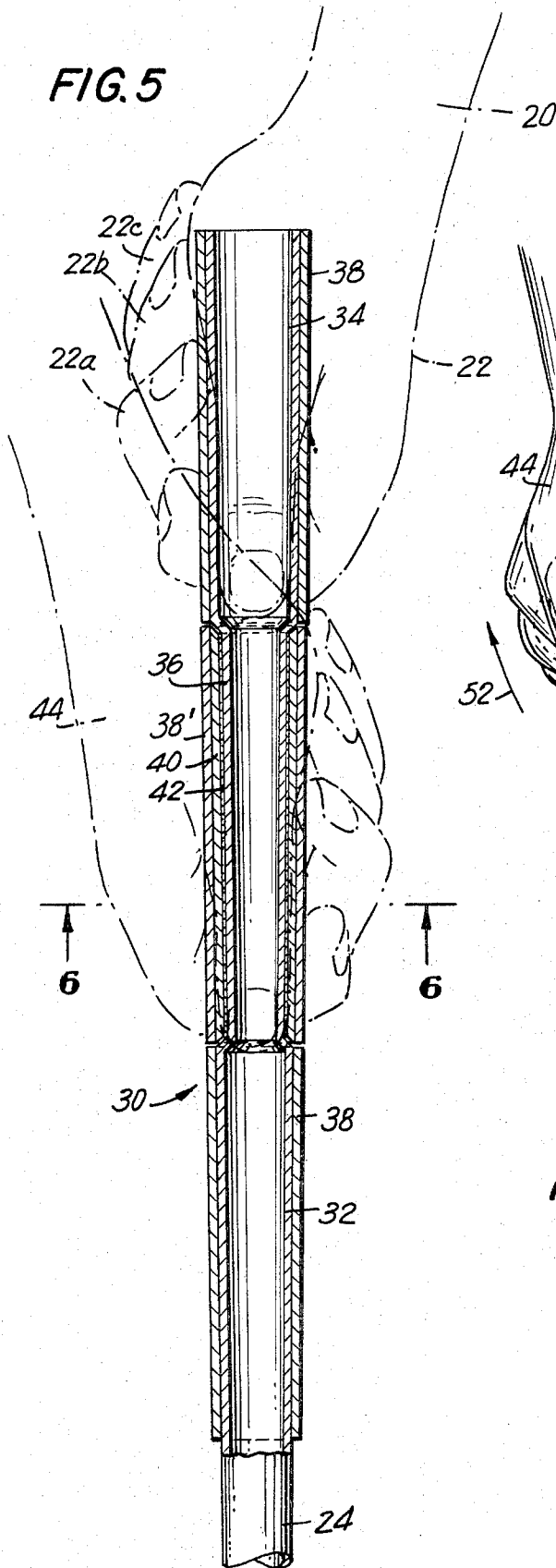


FIG. 7

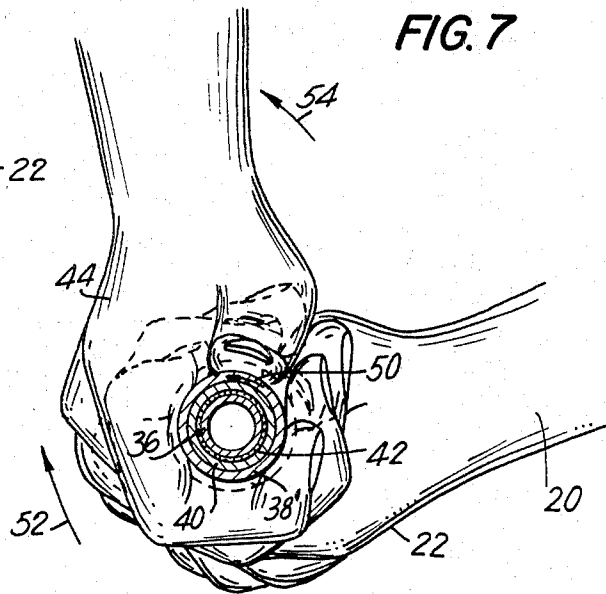
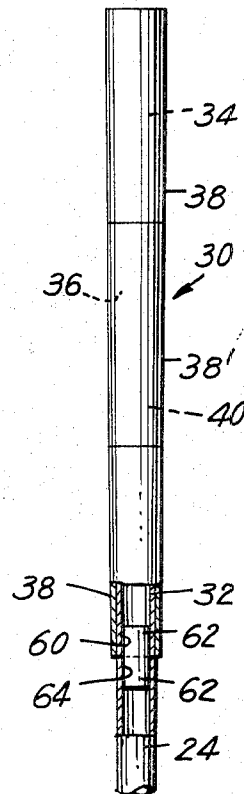


FIG. 8



GOLF CLUB

This invention relates primarily to golf clubs and more particularly to the handle structure thereof.

Most progressive professionals during recent years have endeavored to teach what is commonly referred to as the "square-to-square" method for particularly iron shots in order to control "hooks" or "slices" when using such clubs. Basically and briefly, the "square-to-square" method involves two aspects: firstly, the straight line relationship of the back of the left hand (only the right handed golfer shall be considered in this application), left wrist and forearm, both when gripping the club at the beginning of the backswing and at the time of impact with the ball; secondly, the "square" impact position of the club with the ball both at the beginning of the backswing and at the time of impact with the ball. The latter concept is a desired alternative to the so-called "open" position of the club where the club is facing at least partially away from the golfer and to the "closed" position where the club is facing at least partially towards the golfer.

The one great drawback of the "square-to-square" method that has been constantly pointed out by some golf professionals is that a compensating motion is required during the backswing in order to provide a true "square" golf club face at the time of impact relative to the ball. The compensating motion is usually referred to as "curling under" whereby the last three fingers of the left hand are curled under the right hand. In this way, the left hand is given control, but the right hand becomes dominant insofar as strength is concerned. The rotation of the club by the left hand during such compensation is such as to rotate the club clockwise (considering the point of view from the club head to the golfer) and thus to "close" the club face slightly upon impact with the ball relative to what it would have been without the compensation. Without such compensation, it is likely that a slice will result and there is always the possibility of the right elbow of the golfer "flying away" from the golfer's body. This latter effect usually results from an incorrect compensation whereby the right hand is rolling over the left rather than the left curling under the right.

All in all, it is generally agreed that "square-to-square" is a very significant method in improving one's golf game whether the golfer be a professional or a weekend duffer.

Accordingly, a primary object of the present invention is to provide a golf club construction which enables the practice of the "square-to-square" method of swinging a golf club, particularly with golf iron clubs.

A further and more particular object is to provide a golf club handle construction which enables the practice of "square-to-square" without any necessity for "curling under" compensation by the left hand.

A still further object is to provide a golf club construction whereby compensation for practicing "square-to-square" becomes mostly mechanical by means of the golf club handle construction rather than by any conscious adjustment by the golfer.

Another object of the present invention is to provide a golf club handle construction and a structure for mating such handles with existing golf clubs in order to enable an efficient and reliable replacement system for the handle without replacing the entire golf club.

These and other objects of the present invention are accomplished in one preferred embodiment which features a conventional club head and shaft in conjunction with a handle comprising a shaft extension portion whose mid-portion is of reduced diameter and whose end portions are covered by the conventional leather, plastic or rubber sheathing. Fitted over the mid-portion is a sleeve whose basic construction includes a metal base covered by a sheathing comparable to that used on the end portions of the handle. The outer diameter of the sheathing of the sleeve is such that it is co-extensive with the outer diameters of the end portions of the handle. Of course, if the handle is tapered, the sleeve is likewise tapered so that one continuous outer surface results. Between the sleeve base and the indented portion of the handle, a resin or other lubricant is deposited in order to provide a fairly constant motion for the sleeve. On the other hand, the sleeve is tightly fitted to the indented portion of the handle so that there is some friction, yet some smooth resistance to turning.

In an alternative construction of the present invention, the lower end portion of the handle is fitted with a protruding pin intended for mating the handle with the top of the golf club shaft. The mating is accomplished by means of a press fit in order to maintain the strength of the shaft and yet provide an efficient means for altering present golf clubs to provide the employment of the present invention, without the necessity of replacing the entire golf club.

The above brief description, as well as further objects, features and advantages of the present invention will be more fully appreciated by reference to the following detailed description of the preferred, but nonetheless illustrative, embodiment when taken in conjunction with the accompanying drawings, wherein:

FIG. 1 is a perspective view illustrating the relative position of a golf club according to the present invention, the golfer and the golf ball at the beginning of the backswing;

FIG. 2 is a perspective view similar to that shown in FIG. 1, but showing the relative positions of the mentioned objects during the backswing;

FIG. 3 is an enlarged perspective showing the position of the golfer and a club according to the present invention, near the end of the backswing;

FIG. 4 is a perspective view similar to that of FIGS. 1 and 2, but showing the relative positions upon impact;

Fig. 5 is a section view taken along the line 5-5 of FIG. 1 and showing particularly the handle structure for a golf club according to the present invention;

FIG. 6 is a section view taken along the line 6-6 of FIG. 5 and showing particularly the desired relative position of the golfer's hands, and a club constructed according to the present invention at the beginning of the backswing using the "square-to-square" method;

FIG. 7 is a section view taken along the line 7-7 of FIG. 3 and showing particularly the mechanical rotation of the right hand of the golfer by use of a golf club constructed according to the present invention; and

FIG. 8 is a view of a golf club handle and shaft, partially in section, showing particularly the mating relationship therebetween enabled by a construction according to an alternative embodiment of the present invention.

Referring to the drawings, the "square-to-square" method and the relative positions desired between the ball, club and golfer are particularly shown in FIGS. 1 through 4. FIG. 1 shows the golfer 10 addressing the ball 12 with his club generally designated 14. Club 14 includes a club face 16 "square" to the ball and the golfer's lower forearm 18, his left wrist 20, and the back of his left hand 22 in line with the shaft 24 of the golf club 14. This, of course, according to the "square-to-square" method, should be the same positions at the time of impact with the ball 12.

The backswing of the golfer 10 is illustrated in FIG. 2. The motion of the club in FIG. 2 is designated by directional arrow 26 and the turning of the golfer's shoulders in an upright plane (more like a ferris wheel than a merry-go-round) is also illustrated.

FIG. 3 shows the position of golfer 10 and his club 14 near the end of the backswing. It is at this point that the compensating adjustment by "curling under" the last three fingers 22a, 22b, 22c of the left hand 22 usually takes place. However, such compensation becomes unnecessary, or at least mechanically assured, by use of a golf club constructed according to the present invention. In this way, a position similar to that shown in FIG. 4 will be assumed after the backswing is completed and at the time of impact when the golf club 14 is moved in direction 28 to ball 12. It should be noticed in FIG. 4 that the "square" position has been again assumed at the time of impact in two respects: firstly, the club face 16 is "square" to ball 12 and, secondly, the left forearm 18, the left wrist 20 and the back of the left hand 22 are in line with shaft 24 of golf club 14.

What enables the positions shown in FIGS. 1 through 4, without the necessity of "curling under" by the left hand, is the construction particularly shown in FIG. 5 wherein the golf handle, generally designated 30 is shown to include a lower end portion 32, an upper end portion 34 and a mid-portion 36 of reduced diameter. End portions 32, 34 are covered, as with conventional golf clubs, by a sheathing material 38. The indented mid-portion 36 is surrounded by a metal sleeve 40 which is covered by a sheathing material 38' matching that used for end portions 32, 34. A resin or another lubricant 42 is inserted between sleeve 40 and handle mid-portion 36, and the sleeve 40 is closely fitted to mid-portion 36 to provide a smooth but non-free-wheeling rotation of sleeve 40 about mid-portion 36. The mid-portion of handle 30 is located such that it accommodates approximately the entire right hand 44 of the golfer. Such a location would be approximately the middle third of a normal golf club handle which is approximately 12 to 16 inches long. In other words, the mid-portion is approximately 5 inches long and begins about 5 inches from the top of the club.

FIGS. 1, 5 and 6 show various views of the golfer 10 and a club 14 constructed according to the present invention at the time of first addressing the ball and before beginning the backswing. The club face 16 is "square" with ball 12, and the position of forearm, wrist and hand of the golfer are in line with club 14. This is also the position desired, according to the "square-to-square" method at the time of impact. In order to accomplish such positions, as has been stated previously herein, the last three fingers 22a, 22b and 22c of the left hand are normally "curling under" the right hand, but with the difficulties attendant to such

motion. By use of a golf club construction according to the present invention as particularly shown in FIG. 7, the right hand rotates sleeve 40 in a counter-clockwise direction 50 thus causing movement of the right hand as illustrated by directional arrows 52, 54. Such motion eliminates the necessity for great strength occasioned by the left hand motion previously described and yet causes the same relative motion of the end portions of the handle 32, 34 with respect to the grip that was accomplished by the left hand "curling under." That is, the left hand being on the top end portion 34 of the handle is moved clockwise relative to the right hand as it did using "curling under," but it is the right hand 44 that is actually moving counterclockwise; and the motion of the right hand is mechanically enabled by sleeve 40 with an assurance that from the end of the backswing to impact a clockwise adjustment of the right hand will be made mechanically to cause its original position as shown in FIG. 6.

FIG. 8 illustrates the assembled outside view of a handle 30 constructed according to the present invention with its end portions 32, 34 and its indented mid-portion 36 covered by sleeve 40. The lower end of end portion 32 defines bore 60 into which is press-fitted pin 62 in order to enable mating of handle 30 with a shaft 24, likewise defining a bore 64 to accommodate extending pin 62. By such and other mating means, a conventional golf iron club can be preserved insofar as its shaft and head are concerned and yet used to accommodate a novel handle according to the present invention.

Thus, a golf club construction is presented to effectively enable use of the "square-to-square" method of hitting a golf ball with a golf club, but without the difficulties usually attendant to practice of that method.

What is claimed is:

1. A golf club comprising a handle, a shaft depending from said handle and a head defining a club face, said handle including an upper handle end portion, a lower handle end portion, a mid-portion, said mid-portion being indented with respect to said lower and upper end portions, and a sleeve covering said mid-portion, said sleeve being rotatable relative to said mid-portion.

2. The invention according to claim 1 wherein said lower and upper handle end portions are co-extensive in outer diameter with the outer diameter of said sleeve.

3. The invention according to claim 1 wherein said handle is tapered with said upper and lower end portions and said sleeve defining a continuous, outer surface.

4. The invention according to claim 1 wherein said upper and lower end portions and said sleeve are each covered by a sheathing and said golf club further comprises a lubricant between said sleeve and said mid-portion.

5. The invention according to claim 4 wherein said mid-portion is approximately five inches long and its upper edge is approximately five inches from the upper edge of said club.

6. The invention according to claim 1 wherein said shaft defines an upper portion which in turn defines a first bore, the lower end portion of said handle defines a second bore and a pin extends into said bores with a press fit to hold said handle and said shaft together.

* * * * *