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Evans et al.

[11] **3,719,359**

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[54] **SAND WEDGE GOLF CLUB**

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[52] **U.S. Cl.**.....**273/167 J,** 273/80.2, 273/167 A, 73/175

[51] **Int. Cl.**.....**A63b 53/04**

[58] **Field of Search**.....273/77, 167–175, 273/78, 77 R; D34/5–9

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[57] **ABSTRACT**

A golf club in the form of a sand wedge constructed with a relatively wide sole from the front edge to the rear edge with a plurality of spaced fingers extending upwardly and rearwardly therefrom which are separated and slanted for elevating the ball. The underside of the fingers converge inwardly to form a generally V-shaped finger which immediately increases the space between the fingers inwardly of the front face thereof thereby reducing resistance and friction of sand or other material passing between the fingers during the golf swing. The ball contacting surface of the fingers is slightly rounded or convex transversely which together with the space between the fingers reduces to a minimum the buffering and shock absorbing affect of the sand between the club face and the ball thereby allowing immediate and effective contact between the club face and the ball. The club face may be flat or concave which allows for a wider controlled range of elevation of the ball.

3 Claims, 6 Drawing Figures

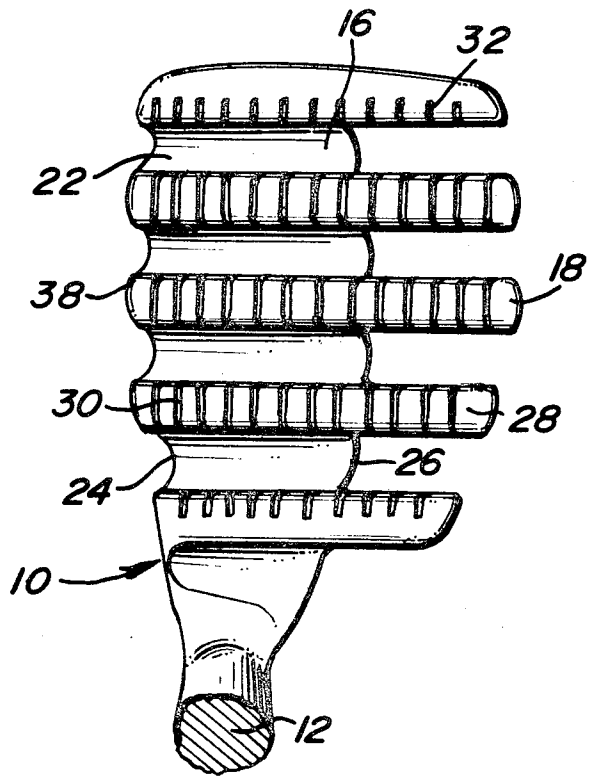


Fig. 1

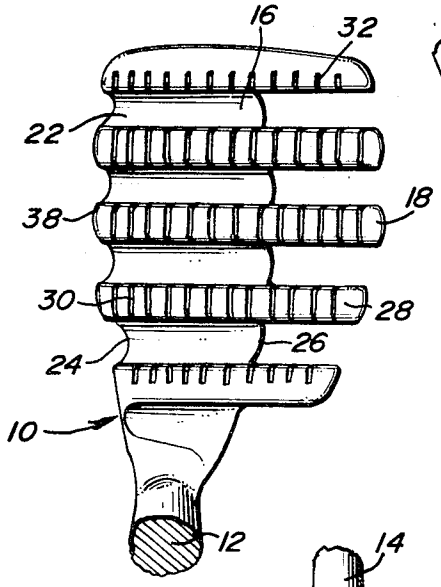


Fig. 2

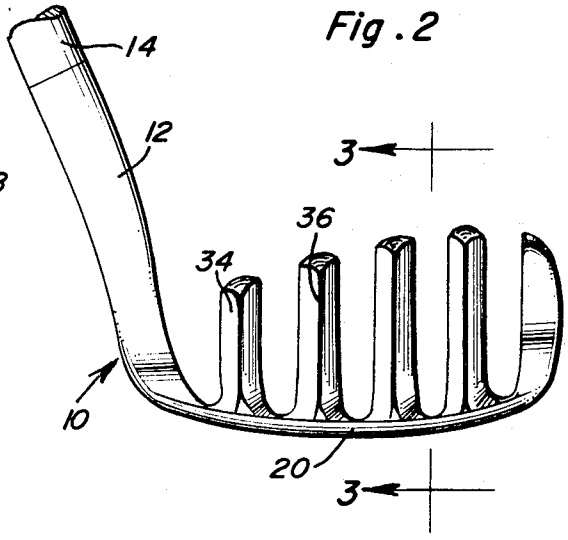


Fig. 3

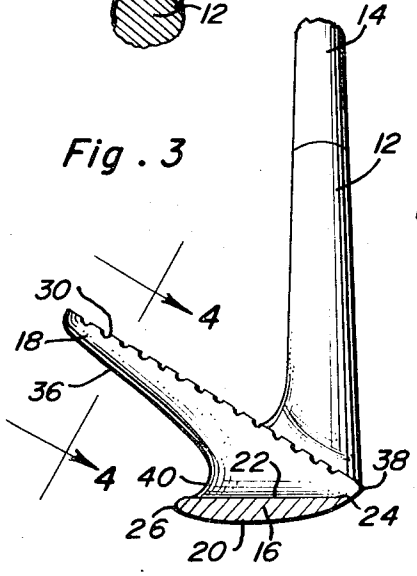


Fig. 4

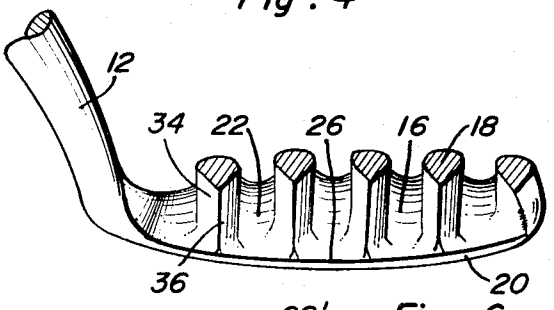


Fig. 6

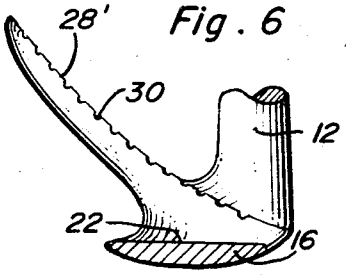
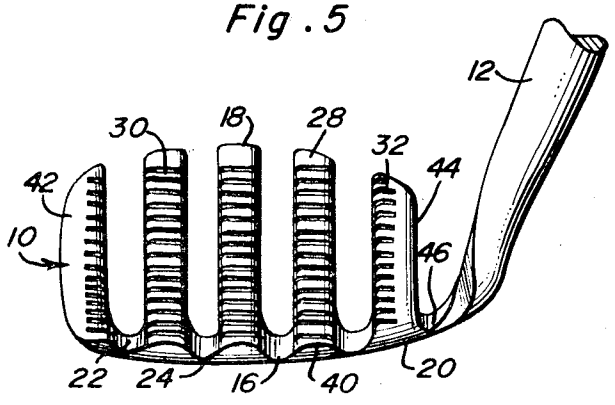


Fig. 5



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SAND WEDGE GOLF CLUB

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention generally relates to golf clubs and more particularly sand wedges constructed with a wide sole having a smaller vertical dimension and a plurality of spaced fingers extending upwardly and rearwardly therefrom with transversely convex face surfaces and diverging edge surfaces to enable unrestricted passage of sand therethrough so that the club face will contact the ball rather than sand forming a cushion between the club face and ball.

2. Description of the Prior Art

Conventional sand wedge golf clubs include a solid club face which is inclined upwardly and rearwardly in relation to a sole with the club face being swung downwardly and forwardly under the ball when lying in a sand trap so that the sand trapped between the ball and club face forms a cushioning or shock absorbing effect between the club face and the ball. In using a conventional sand wedge, most golfers employ substantial force to "blast out" of the sand trap. If the swing with the conventional sand wedge is too low, the cushion of sand will be too thick thus moving the ball only slightly and usually in a vertical direction so that the ball drops back into the sand rather than being lofted onto the green as desired. Even competent golfers frequently encounter trouble in properly using a conventional sand wedge and frequently require multiple strokes of the club to extricate the ball from the sand trap or frequently drive the ball completely over the green thus requiring additional strokes to "hole out." Prior U.S. Pat. No. 780,766 issued Jan. 24, 1905 discloses one attempt to modify a golf club head by providing openings in the club face thereof. However, the relationship of the club face and the converging edge surfaces of the passages through the club retained restriction to passage of material through the club face thus still resulting in the retention of a sand cushion between the club face and ball.

SUMMARY OF THE INVENTION

An object of the invention is to provide an sand wedge golf club having an upwardly and rearwardly inclined face defined by a plurality of generally parallel spaced fingers or ribs interconnected by a sole which has a relatively wide surface from the leading edge to the trailing edge that is relatively thin vertically from its bottom surface to the top surface with the fingers integral with the sole and having leading edges axially extending forwardly of the leading edge of the sole so that sand engaged by the club will pass quickly and rapidly between the fingers and the sole, while preventing the club from digging into the sand, will offer very little resistance to passage of the club through the sand.

Another object of the invention is to provide a golf club in accordance with the preceding object in which the fingers have a slightly transverse convex surface with ribs or serrations formed thereon to engage the ball surface and the surfaces of the fingers transversely of the convex surface thereof converging downwardly and rearwardly to reduce resistance to passage of sand therebetween.

Still another object of the invention is to provide a golf club in the form of a sand wedge in which the overall configuration of the face of the club is substantially flat or concave which provides an additional function of delayed effective contact of the ball with the rear portion of the face which is desirable when the error in swinging the golf club is too great.

Yet another feature of the invention is to provide a sand wedge golf club of one piece construction which is capable of being manufactured in the same manner as conventional golf clubs but which will be quite effective in properly driving a golf ball from a sand trap onto the green which will enable golfers between enjoy the game by reducing frustration and possible anger which frequently occurs when several strokes are necessary to drive the ball out of the sand trap.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a top plane view of the sand wedge golf club of the present invention illustrating the relationship of the fingers.

FIG. 2 is a rear elevational view of the club illustrating the rather narrow vertical dimension of the sole as well as the curvature thereof from the toe to the heel of a club.

FIG. 3 is a transverse, sectional view taken substantially upon a plane passing along section line 3—3 of FIG. 2 illustrating the inclination of the fingers and the lateral width and configuration of the sole.

FIG. 4 is a sectional view taken substantially upon a plane passing along section line 4—4 of FIG. 3 illustrating further structural details of the fingers including the converging surfaces thereof which increase the dimension of the space between the fingers.

FIG. 5 is a front elevational view of the golf club illustrating further structural details thereof.

FIG. 6 is a sectional view similar to FIG. 3 but illustrating the optional concave face on the club head.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The golf club of the present invention has a golf club head generally designated by the numeral **10** which is of one piece construction and includes an upwardly extending and inclined shank **12** connected to the club shaft **14** in a conventional manner, the details of which form no particular part of the present invention in that conventional procedures may be employed for attaching the club head to the club shaft with it also being pointed out that the club head **10** may be constructed of materials such as metal or the like which are normally used in constructing golf club heads and conventional manufacturing techniques and procedures are also employed.

The club head **10** includes a laterally extending sole **16** having a plurality of upwardly and rearwardly inclined fingers **18** integral therewith. As illustrated in FIG. 3, the lower surface of the sole **16** curves from front edge to rear edge as indicated at numeral **20** in a relatively shallow convex curve whereas the upper surface of the sole is relatively straight from front to rear edge as indicated by the numeral **22**. The leading edge of the sole formed by joining the edges **20** and **22** is in the form of a rounded edge **24** and the trailing edge of the sole **16** is correspondingly rounded as at **26**. As il-

lustrated in FIG. 2, the lower surface 20 of the sole 16 is curved smoothly from the outer end or toe of the club head 10 to the inner end thereof where the curvature of the surface 20 merges with the shank 12 so that a smooth convexly curved sole is provided having a relatively wide dimension from the leading edge to the trailing edge thereof to effectively prevent the club head from digging into the sand and in effect floating the club head through the sand.

Each of the fingers 18 includes a top surface 28, each of which is slightly rounded in a convex manner transversely of the fingers to define a striking face for engaging a golf ball. As illustrated, five fingers are included with the center fingers having serrations or grooves 30 extending completely across the top surface thereof and the inner and outer fingers having grooves or serrations 32 extending only partially across the top surface thereof and merging with the inner edge thereof. The convexity of the surfaces which is only a slight curvature as well as the grooves or serrations assures proper contact with the surface of the ball.

The undersurface of each of the fingers 18 is defined by downwardly and rearwardly converging surfaces 34 which terminate in a rear edge 36 thus forming a finger in transverse configuration as shown in FIG. 4 so that the space between adjacent fingers actually increases in transverse dimensions from the face of the club towards the undersurface or trailing surface thereof so that sand or other material passing between the fingers 18 will not be restricted. As illustrated in FIG. 3, the leading or front edge of each finger actually projects forwardly beyond the leading edge 24 of the sole 16 with the leading edge of the fingers being designated by numeral 38. Also, the trailing edge 36 of each of the fingers extends forwardly and then reversely curves to merge with the trailing edge 26 of the sole with this curved portion of the edge 36 being designated by numeral 40. As illustrated in FIG. 5, the upper surface of the sole 22 which extends longitudinally of the sole and between adjacent fingers is transversely concavely curved. The outside edge of the outside finger is arcuately curved in a relatively flat curve as designated by numeral 42 and the inside edge of the inner finger is relatively straight as indicated by numeral 44 with the fingers 18 all having terminal ends defining a curve from toe to heel generally defining an oval-shaped configuration when observed in plan as in FIG. 1 or in front elevation as in FIG. 5. The juncture between the inner finger 44 and the shank 12 is provided with a slot-like groove or passage 46 similar to the passages between adjacent fingers. In fact, there is an uninterrupted smooth surface from front to back between each of the adjacent fingers and between the innermost finger and the shank 12. The extra width of the sole not only provides for proper functioning of the club head but also provides adequate rigidity for supporting the fingers rigidly in relation to each other.

FIG. 6 illustrates a modified form of the invention which is the same as that illustrated in FIGS. 1–5 except that the club face 28′ is provided with a slight concavity from the leading edge to the trailing edge which allows for greater and controlled range of elevation of the ball. For example, a ball contacted to the front of the club face 28′ will go higher than a ball contacted to the rear of the club face 28′. The margin of error in using the club with the concavity is reduced since the rear of the concave faced club is above the plane of the flat faced club and not as likely to pass under the ball thus totally missing any contact with the ball.

Essentially, the golf club head of the present invention is constructed to materially aid the golfer to play out and enjoy each hole on the golf course. Frequently, when the ball lands in a sand trap and a golfer makes several attempts to blast out by using all of his strength to no avail, he will become quite upset, frustrated and angry thus materially reducing his effectiveness and materially reducing the pleasure and benefits derived from golfing.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

What is claimed as new is as follows:

1. A golf club head of the sand wedge type comprising a sole having a leading edge and a trailing edge extending from the heel to the toe of the club head and defined by a top surface and a bottom surface, upwardly extending shank means rigid with the heel of said sole for connection with a club shaft, a plurality of upwardly and rearwardly inclined fingers rigid with the top surface of the sole, said fingers being elongated and disposed in spaced relation to each other, each of said fingers having a top surface defined by a leading lower edge and a trailing upper edge, the top surfaces of the fingers defining a striking face from their leading lower edges to their trailing upper edges, each of said fingers having an undersurface extending downwardly and forwardly from the trailing upper edges of the fingers and merging with the trailing edge of the sole and defining a trailing face on the club head, the space between the fingers providing passages from the striking face of the club head to the trailing face thereof for passage of sand or material therethrough to enable contact between the striking face and ball, said sole being smoothly convexly curved in a shallow curve from the leading edge to the trailing edge along its bottom surface and smoothly convexly curved in a shallow curve from the toe to the heel along its bottom surface, the sole having a relatively thin vertical dimension, the leading lower edges of said fingers extending forwardly beyond the leading edge of the sole and defining a leading edge for the striking face of the club head.

2. The structure as defined in claim 1 wherein the top surface of each of said fingers is transversely convex in configuration.

3. The structure as defined in claim 1 wherein the undersurface of each finger includes rearwardly converging side surfaces to effectively increase the space between the fingers rearwardly of the face of the club head thereby reducing the resistance of sand passing between the fingers.

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