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(54) MULTI-USE GOLF CLUB HEAD

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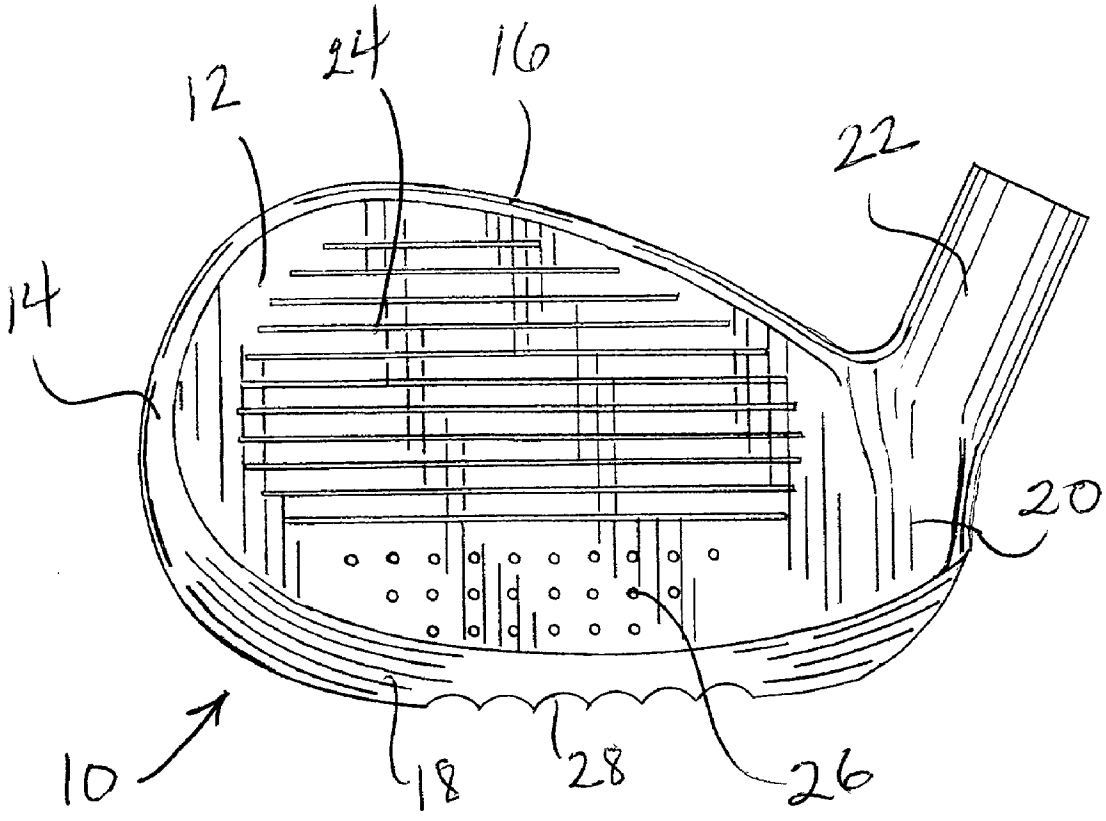
(57) ABSTRACT

A utility golf club that combines a number of features not otherwise found in any one standard golf club. A golf club having a short shaft, a heavy head, a strong loft angle, a deep face, a wide sole, a sharp edge sole pattern, an increased lie angle and hitting surface and sightline alignment aids, can be advantageously employed in a variety of difficult game situations. The short shaft aids precision and increases attack angle. The heavy head helps defeat deep rough and permits a shortened back swing. The deep face assures a greater probability of striking the ball even in the rough where the ball may sit very high. A stronger loft angle is useful for bump and run shots near the greens as well as extricating shots out of the rough. The sharp edge sole pattern permits more consistent shots on hard surfaces. The alignment aids permit accurate orientation of the club head particularly near the green where it can be controlled like a putter. In addition, the preferred embodiment of the invention utilizes a high lie angle and a hosel shifted behind the club head's leading edge to reduce turf contact particularly in the rough and thus minimize induced twisting.



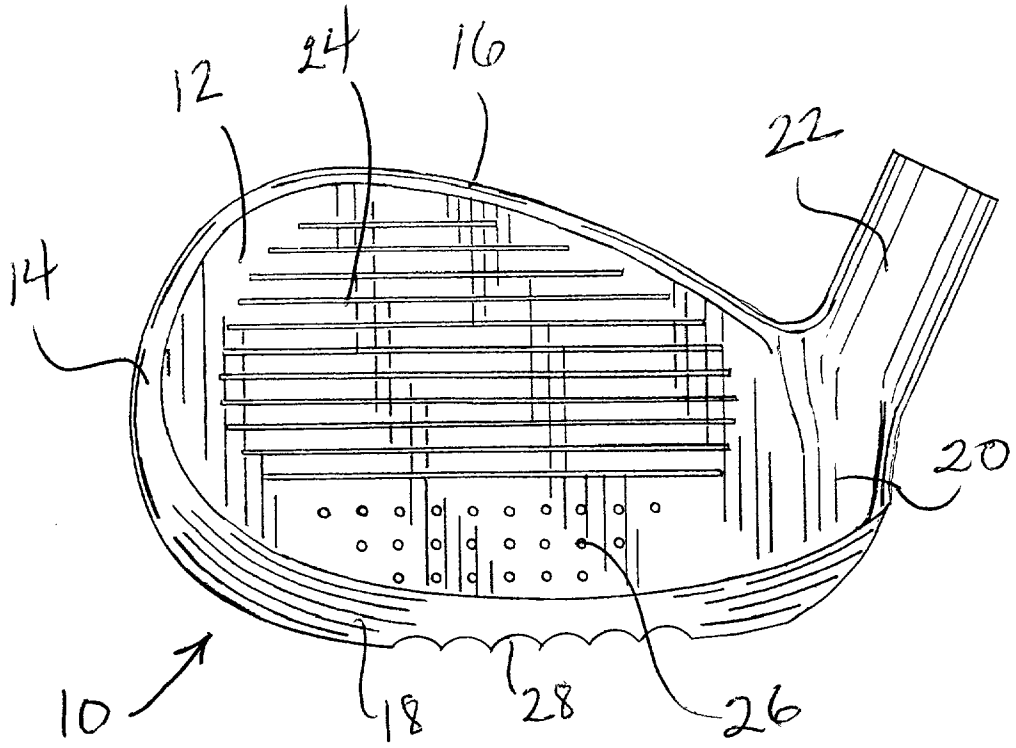


FIG. 1

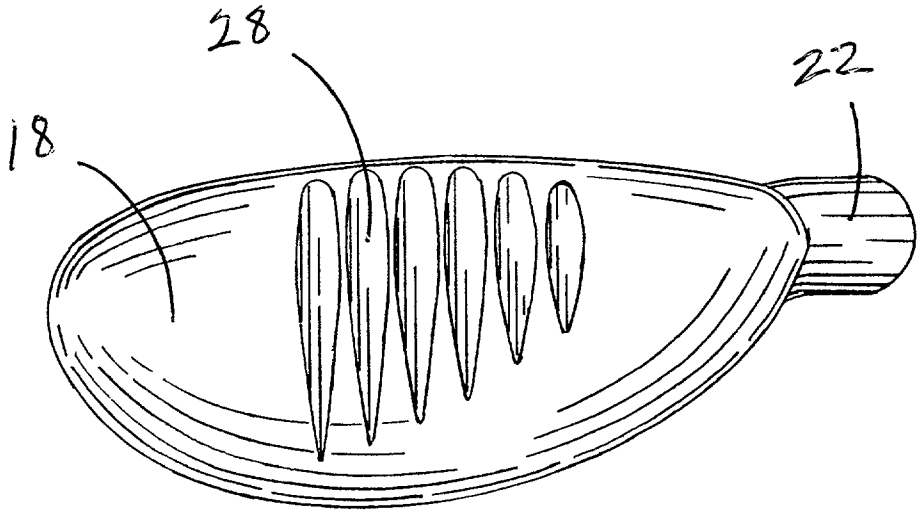


FIG. 2

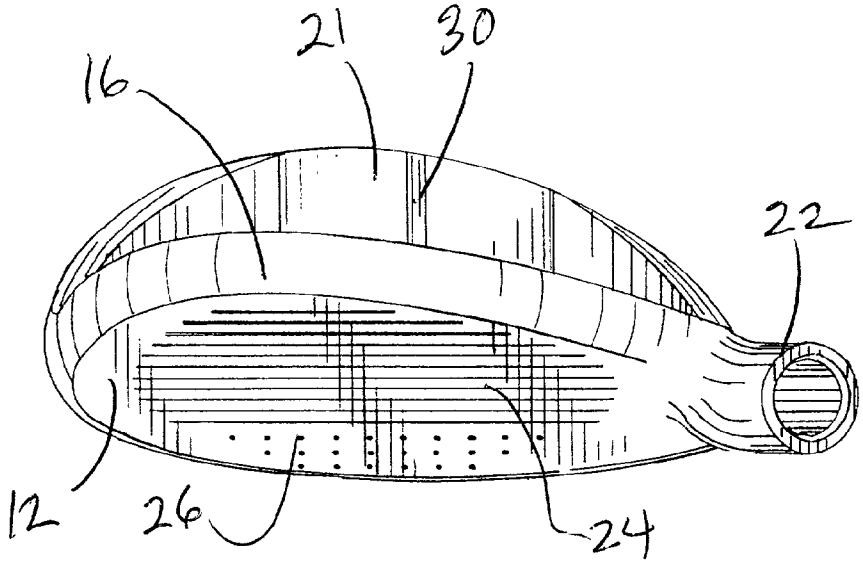


FIG. 3

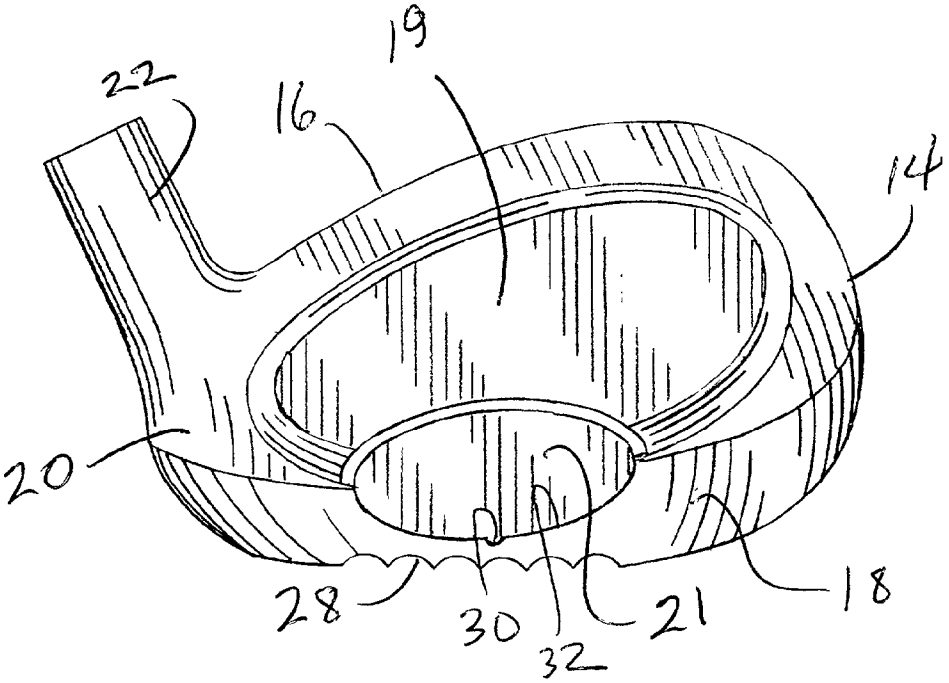


FIG. 4

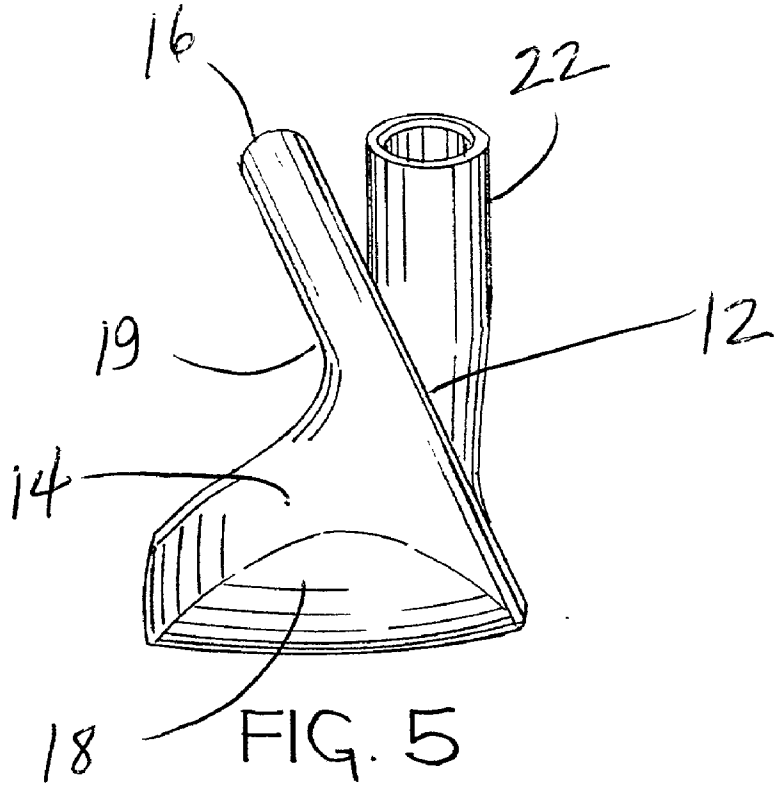


FIG. 5

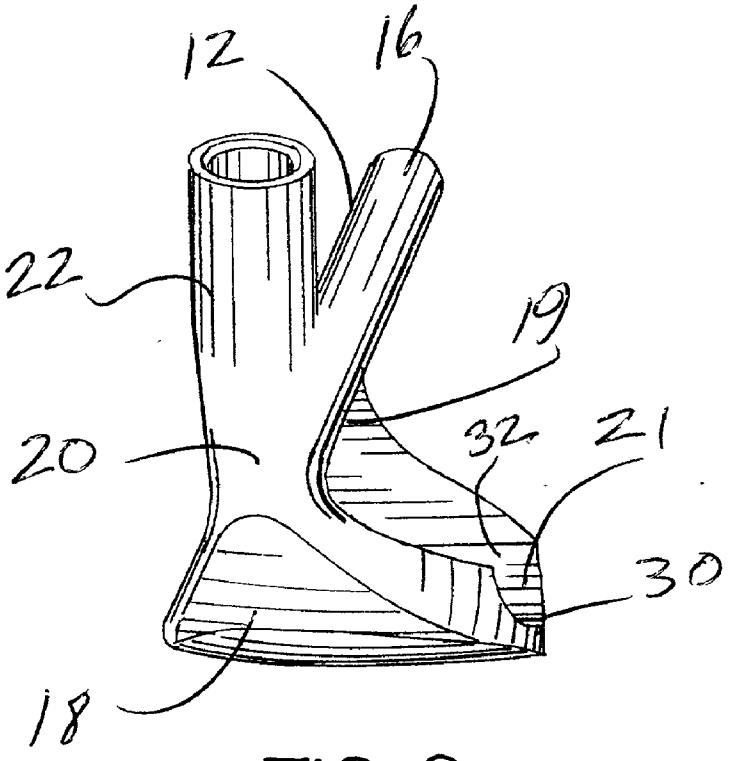


FIG. 6

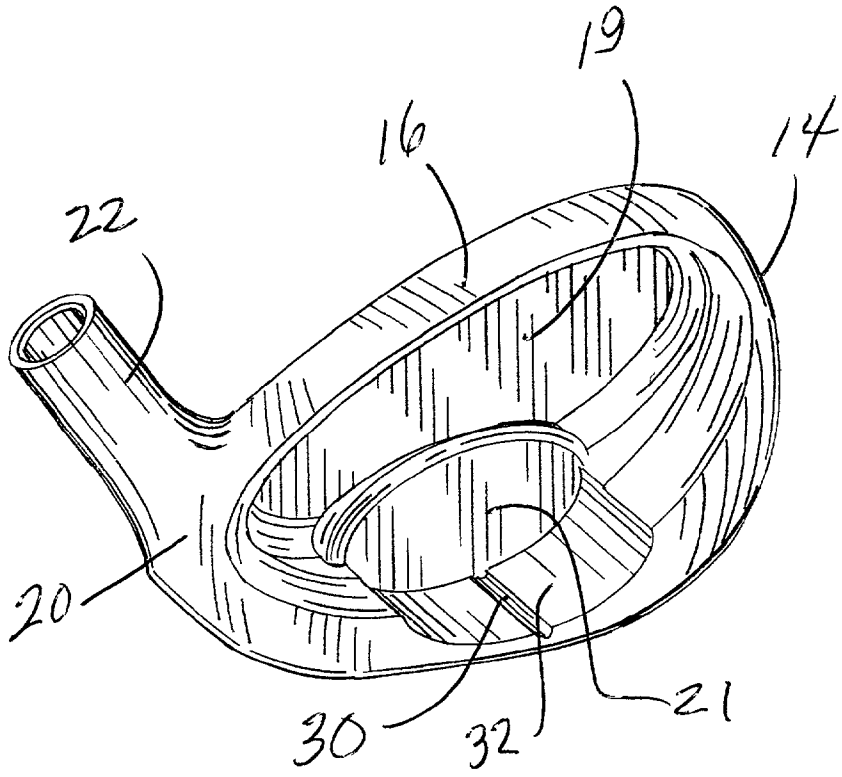


FIG. 7

MULTI-USE GOLF CLUB HEAD

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates generally to golf clubs and more specifically to golf clubs employing a uniquely configured multi-use, multi-lie golf club head.

[0003] 2. Background Art

[0004] The typical set of golf clubs used by the average golfer to play a round of golf includes both irons and woods and a putter totaling fourteen clubs, which is the allowed maximum. The irons usually consist of irons numbered three through nine plus at least a pitching wedge and a sand wedge. The woods usually consist of a driver and one or two fairway woods such as a number three and a number five wood. This leaves the golfer with a choice of one or two additional cubs which could fill a gap in needed shot distance, loft and lie. For example, some golfers may carry a higher loft wedge for close in shots near the greens where even a sand wedge may be difficult to control. Other golfers may prefer to carry a "utility" or a "trouble" club, that is, a club designed for use in deep rough or heavy growth. Still other golfers carry an especially long iron such as a number two iron or an especially short wood such as a number seven or number nine wood. The concept of carrying such a club is to fill the performance gaps of a standard set of irons and woods so that a suitable club is available for virtually any shot no matter how challenging.

SUMMARY OF THE INVENTION

[0005] The present invention comprises a utility golf club that combines a number of features not otherwise found in any one standard golf club. The preferred embodiment of the present invention comprises a golf club having a short shaft, a heavy head, a strong loft angle, a deep face, a wide sole, a sharp edge sole pattern, an increase lie angle and hitting surface and sightline alignment aids. These features combine to provide a very useful extra club that can be advantageously employed in a variety of difficult game situations. The short shaft aids precision and increases attack angle. The heavy head helps defeat deep rough and permits a shortened back swing. The deep face or hitting surface, assures a greater probability of striking the ball even in the rough where the ball may sit very high. A stronger loft angle is useful for bump and run shots near the greens as well as extricating shots out of the rough. The sharp edge sole pattern permits more consistent shots on hard surfaces. The alignment aids permit accurate orientation of the club head particularly near the green where it can be controlled like a putter. In addition, the preferred embodiment of the invention utilizes a high lie angle and a hosel shifted behind the club head's leading edge to reduce turf contact particularly in the rough and thus minimize induced twisting.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] The aforementioned objects and advantages of the present invention, as well as additional objects and advantages thereof, will be more fully understood hereinafter as a result of a detailed description of a preferred embodiment when taken in conjunction with the following drawings in which:

[0007] **FIG. 1** is a front view of the preferred embodiment of the invention;

[0008] **FIG. 2** is a bottom plan view of the preferred embodiment;

[0009] **FIG. 3** is a top plan of the preferred embodiment;

[0010] **FIG. 4** is a rear view;

[0011] **FIG. 5** is a toe end view;

[0012] **FIG. 6** is a heel end view; and

[0013] **FIG. 7** is a rear perspective view.

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

[0014] Referring to the accompanying drawings, it will be seen that in a preferred embodiment shown in FIGS. **1-7**, a golf club head **10** comprises a hitting surface or face **12** framed by a toe **14**, a top line **16**, a sole **18**,and a heel **20**. The head **10** includes a hosel **22** for connection to a shaft (not shown).

[0015] Face **12** is characterized by a unique score line pattern comprising horizontal score lines **24** and a punch mark pattern **26** forming a vertically oriented visual alignment aid.

[0016] Sole **18** is characterized by a unique groove pattern **28** which is a trapezoidal configuration. In the illustrated embodiment pattern **28** (seen best in **FIG. 2**) has a heelward groove that is shorter than the toeward groove. The grooves terminate close to the junction of the sole **18** and the face **12** thereby forming teeth-like sharp edges which are helpful on hardpan surfaces. The sharp edges dig into the hardpan and thereby delay ricochet action of the head to get the leading edge of the head under the ball to avoid a "thin" shot.

[0017] The rear of the head **10** comprises a rear cavity **19**, a medallion area **21** and a ledge **32** extending rearwardly of the face **12**. A recess **30** is formed in the ledge **32**. Recess **30** provides a directional sightline alignment aid when addressing the ball with head **10**.

[0018] Various features of the inventive golf club that render it especially useful as a utility club, include the following:

[0019] The loft of the head **10** is preferably stronger (i.e., less than) 30°. The strong loft angle keeps shots down among trees and under branches, enables bump and run shots around the greens and permits advantageous tee shots particularly in tight or narrow fairways where accuracy is more important than distance.

[0020] The mass of head **10** is preferably greater than 320 grams to generate high ball speed even with slower swing speed and to promote straight shots even through rough.

[0021] The depth of the face **12**, that is, the distance along the face between the sole **18** and the top line **16**, is preferably 1.75 inches or more. Such a deep face enlarges the sweet spot which reduces the negative effects of a mishit and it improves the likelihood of good ball contact in the rough. The sole **18** preferably has a width, that is, a distance from face **12** to the back of read ledge **32**, of at least 1.2 inches.

This wider sole prevents unwanted digging particularly in difficult lies while still permitting good ball contact even in the rough.

[0022] The overall length of the club is comparable to that of a standard sand wedge. The inventive club employs a shaft which is preferably less than 37 inches in length. This feature permits close ball proximity and increased attack angle into the ball which promotes accuracy even in the rough.

[0023] The position of the hosel **22** relative to the hitting surface **12** is also unique in the present invention. The hosel is oriented to provide an increased or more upright lie angle to promote a more upright swing to minimize turf contact. The hosel **22** is also closer to the center of gravity of the head **10** to reduce contact with grass just prior to contact with the ball. Moreover, the hosel is positioned further behind the leading edge of the head **10** to more uniformly distribute the turf load and thus prevent twisting particularly in the rough.

[0024] Having thus disclosed a preferred embodiment of the invention, it being understood that numerous variations are contemplated as being within the inventive principles described herein, and that the scope of the invention is limited only by the appended claims and their equivalents; what is claimed is:

1. A golf club head having a hitting surface defined by a sole, a toe, a heel and a top line surface; the head comprising a hitting surface having a plurality of score lines and a plurality of punch marks, the punch marks configured as a visual aid formed as apparent lines that are perpendicular to said score lines.

2. A golf club head having a hitting surface defined by a sole, a toe, a heel and a top line surface; the head comprising a sole having a groove pattern formed from a plurality of parallel grooves terminating adjacent said hitting surface and providing teeth-like edges adjacent said hitting surface.

3. The golf club head recited in claim 2 wherein said groove pattern is trapezoidal.

4. The golf club head recited in claim 3 wherein a groove of said groove pattern that is closest to said heel is shorter than a groove that is closest to said toe.

5. A golf club iron head having a hitting surface defined by a sole, a toe, a heel and a top line surface; the iron head comprising a hitting surface that has a maximum distance between said sole and said top line surface that is at least 1.75 inches, a sole that has a maximum distance from said hitting surface that is at least 1.2 inches.

6. The golf club iron head recited in claim 5 wherein said head has a loft angle that is less than 30°.

7. The golf club iron head recited in claim 5 wherein said head has a total mass which exceeds 320 grams.

8. A golf club iron having a shaft connected through a hosel to a golf cub head having a hitting surface defined by a sole, a toe, a heel and a top line surface; the head comprising:

a sole having a groove pattern formed from a plurality of parallel grooves terminating adjacent said hitting surface and providing teeth-like edges adjacent said hitting surface.

9. The golf club head recited in claim 8 wherein said groove pattern is trapezoidal.

10. The golf club head recited in claim 8 wherein a groove of said groove pattern that is closest to said heel is shorter than a groove that is closest to said toe.

11. A golf club iron having a shaft connected through a hosel to a golf cub head having a hitting surface defined by a sole, a toe, a heel and a top line surface; the head comprising:

the iron head comprising a hitting surface that has a maximum distance between said sole and said top line surface that is at least 1.75 inches, a sole that has a maximum distance from said hitting surface that is at least 1.2 inches.

12. The golf club iron recited in claim 11 wherein said head has a loft angle that is less than 30°.

13. The golf club iron recited in claim 11 wherein said head has a total mass which exceeds 320 grams.

14. The golf club iron recited in claim 11 wherein said shaft has a length which is less than 37 inches.

15. The golf club iron head recited in claim 5 wherein said head has a loft angle that is less than 30° wherein said head has a total mass which exceeds 320 grams.

16. The golf club head recited in claim 11 wherein a groove of said groove pattern that is closest to said heel is shorter than a groove that is closest to said toe;

a shaft connected through a hosel to a golf cub head having a hitting surface defined by a sole, a toe, a heel and a top line surface; the head comprising:

the iron head comprising a hitting surface that has a maximum distance between said sole and said top line surface that is at least 1.75 inches, a sole that has a maximum distance from said hitting surface that is at least 1.2 inches;

wherein said head has a loft angle that is less than 30°.

17. A golf club iron head having a sole, a toe, a heel and a top line surface, all defining a hitting surface and a rear cavity; the head comprising a flange extending from said rear cavity away from said hitting surface, the bottom of said flange being defined by a portion of said sole, the top of said flange having a groove that is parallel to the desired direction of travel of a ball hit by said hitting surface.

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