July 10, 1934. H. K. B. DAVIS 1,965,954

HEAD FOR GOLF CLUBS

Filed April 22, 1930

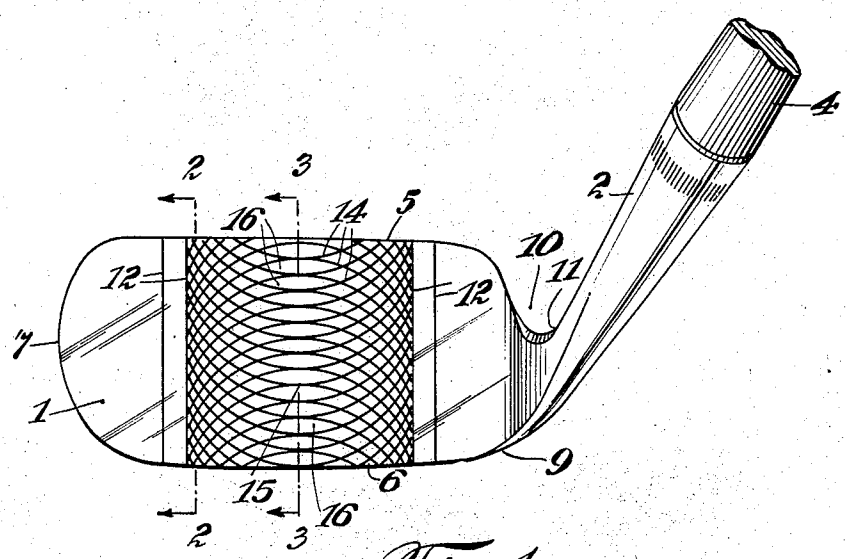

Fig. 1.

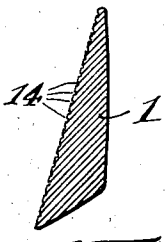

Fig. 2.

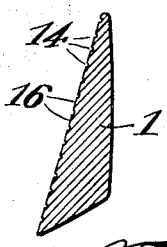

Fig. 3.

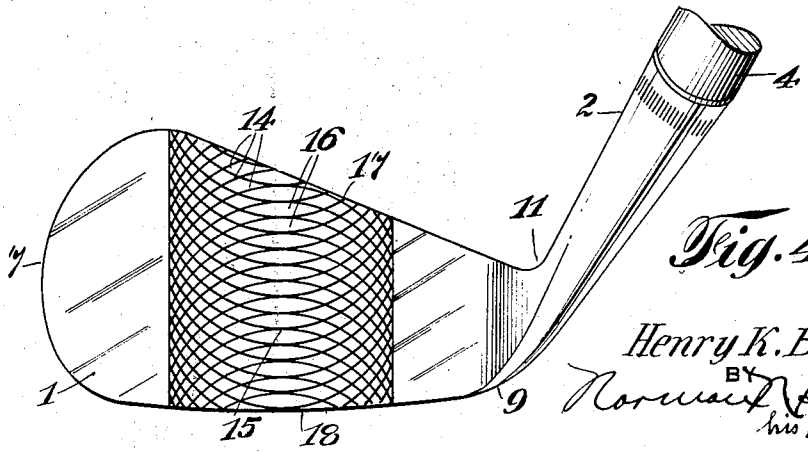

Fig. 4.

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HEAD FOR GOLF CLUBS

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Application April 22, 1930, Serial No. 446,251

9 Claims. (Cl. 273—77)

The present invention relates to golf clubs and more particularly to iron heads for golf clubs having advantageous markings thereon.

In order to drive a golf ball accurately and to obtain a maximum distance of flight, it is necessary to address the ball at substantially the center of gravity of the iron head, which is substantially the geometric center of the blade. For this reason, it is customary, in the manufacture of golf clubs, to mark the striking face to indicate the center of gravity of the club which is commonly called the "sweet spot". The most common of the several methods employed to identify the "sweet spot" is to punch-mark the club at this point. Such marking is not satisfactory because the player cannot well concentrate his attention upon both the center of the ball and the markings of the club. If the ball is not addressed properly, a hooked or sliced shot results. This is undesirable as the object of the game is to reach the hole in a minimum number of strokes. The other methods of marking are subject to similar disadvantages and are not satisfactory.

The present invention aims to overcome these difficulties by providing a head for golf clubs adapted to cause the player subconsciously to direct his attention to the "sweet spot". This result may be obtained by shading the portion adjacent the center of the head, whereby the latter appears substantially lighter than the adjoining portions. The player's attention focuses upon the light part of the club without effort on his part. Preferably, the shading is arranged to provide substantially a band or strip extending transversely of the face at the center thereof. Inaccuracies in addressing the ball laterally from the "sweet spot" cause a hooked or sliced ball; whereas inaccuracies in a vertical direction from the "sweet spot", so long as the ball contacts fairly with the blade, are less important. In the first instance, the direction of the ball is changed materially and frequently results in the ball leaving the driveway or landing in hazards. The scored lines producing the shading in accordance with the present invention also tend to produce a back spin on the ball which is desirable in the more lofted clubs in order to prevent the ball from rolling any substantial distance after it bounds upon the ground.

An object of the present invention is to overcome the difficulties experienced by golfers in addressing a ball properly.

Another object of the invention is to provide a plurality of shaded portions on the face of a golf club to indicate the "sweet spot".

Another object of the invention is to provide a golf club head which improves the player's score without violating the ethics and rules of the game.

Another object of the invention is to minimize the occurrences of hooked or sliced shots caused by addressing the ball improperly.

A further object of the invention is to provide means for marking golf clubs which can be readily applied to clubs of various pitch and lie.

Other and further objects of the invention will be apparent upon an understanding of the illustrated embodiment about to be described, and various advantages not referred to herein will occur to one skilled in the art upon employment of the invention in practice.

A preferred embodiment of the invention has been chosen for purposes of illustration and description and is shown in the accompanying drawing, wherein

Fig. 1 is a front elevational view of a golf club illustrating a preferred embodiment of the present invention;

Fig. 2 is a sectional view taken along the line 2—2 of Fig. 1;

Fig. 3 is a sectional view taken along the line 3—3 of Fig. 1;

Fig. 4 is a front elevational view illustrating the present invention applied to the face of an iron head with the vertical border lines omitted.

While the present invention is applicable to iron heads generally, it is illustrated herein applied to the iron heads illustrated and described in my copending application, Serial No. 407,619, wherein the top and bottom lines of the blade are substantially parallel to facilitate addressing the ball. By having the top and bottom of the blade parallel, the upper side is always substantially perpendicular to the line of play, thereby furnishing the player with an accurate guide for addressing the ball. The present marking is also applicable to the various irons of a set irrespective of their loft, the usual series comprising clubs having metal heads of varying pitch from a midiron to a niblick.

Referring again to the drawing, the iron head illustrated comprises a substantially flat striking blade 1 merging into a shank 2 which may be attached in any suitable manner to a shaft 4. The blade may be lofted to any desired degree with respect to the shank 2 to determine the flight of the ball and the type of shot desired. The shaft extends upwardly from the blade in the usual manner so that the player has a full view of the ball when he is about to strike it with a club.

The top and bottom lines 5 and 6 of the blade 1, if constructed in accordance with my copending application, are substantially parallel to each other in order to aid in positioning the club properly with respect to the ball. These top and bottom lines merge into a rounded toe portion 7 at the outer end of the club. The bottom line 6 is substantially straight and meets the shank portion at 9 while the top line terminates at a cut-away portion or V-shaped notch 10 which merges with the shank at 11.

In order to drive the ball in the proper direction and secure the longest possible flight, it is necessary to strike the ball with the portion of the blade known as the "sweet spot", that is, the spot which usually coincides with the geometric center or the center of gravity of the head. A pair of scored lines 12 are provided transversely of the blade and positioned laterally of the "sweet spot" on each side thereof to indicate the playing surface.

A plurality of arcuate lines 14 are scored into the surface of the blades intermediate these transverse lines 12. These arcuate lines are substantially circular and preferably comprise two groups; one whose centers are above the "sweet spot" and the others whose centers are below the "sweet spot". Each arc of one group is preferably tangent to an arc of the other group at a point substantially in vertical alignment with the "sweet spot" of the club, as indicated at 15. In other words, each arc curved in a downward direction is tangent to an arc curved in an upward direction substantially at their middle points which are preferably in vertical alignment with the "sweet spot".

By positioning the scored lines 14 at definite intervals, the several arcs will intersect each other consecutively to form the segments or surfaces 16, substantially egg-shaped, which stand out by reason of the fact that the surfaces thereon are not scored. As the arcs 14 approach the lines 12, the intersections with the arcs of the opposite group become more numerous, dividing the face of the blade into a number of small surfaces. The relatively large, elliptical surfaces extending transversely of the center of the blade cause this transverse central band to appear substantially lighter than the adjoining portions. The portion where the intersections of the arc are more numerous and the surfaces smaller will appear darker. The contrast between these relatively large surfaces and the small surfaces directs the attention of the player subconsciously to the central part of the blade and thereby identifies the "sweet spot" when the club is viewed by the player when addressing the ball prior to the shot.

The scored lines 12 and the arcuate lines 14 may be partially filled with a black enamel or other suitable pigment which makes them more conspicuous. This creates a greater contrast between the central part of the blade and the adjacent portions thereof. However, in the usual finishing of the iron, the surface thereof is polished to a relatively high lustre which furnishes sufficient contrast with the scored lines to cause the surfaces or segments 16 to be substantially lighter than the scored parts. For this reason, it is possible to omit enameling or coloring the scored lines, in some instances, without materially affecting the advantages of the head.

A slightly different form is shown in Fig. 4 of the drawing, where a single transverse line is utilized to indicate the termination of the shaded area and to facilitate the application of the arcuate marking. The shape of the face is also changed to conform more closely to the general orthodox iron clubs wherein the top and bottom lines 17 and 18 diverge substantially toward the toe.

In addressing the ball the player, by reason of the shading of the striking blade, can position the club accurately so that the ball will be struck by the blade along the band of segments 16, that is, the transverse polished strip extending through the "sweet spot". In the more lofted clubs, the arcuate marking is extremely effective in producing a back spin of the ball which prevents the shots from bounding too far after their flight. The arcuate markings are much more attractive than the straight line markings applied to clubs and iron heads heretofore and, therefore, enhance the appearance of the club.

It will be seen that the present invention provides an artistic iron head, which minimizes the difficulty players have in properly addressing the ball, and clearly indicates to the player the portion of the blade which should strike the ball. The markings also tend to keep the ball in the intended direction of play and to prevent it from bounding too far at the termination of its flight. The present invention may be readily applied to existing styles of heads as well as those illustrated and described in my copending application, identified above, irrespective of the form or loft thereof. The markings are scored into the metal heads and cannot be easily marred or disfigured.

As various changes may be made in the form, arrangement and construction of the parts of the preferred embodiment without departing from the spirit of the invention, it will be understood that all matter herein is to be taken as illustrative and not in a limiting sense.

Having thus described my invention, I claim:

1. A metal head for a golf club having a shaft portion and a striking face, with a plurality of intersecting arcuate lines scored in said face adapted to create a backspin on a golf ball, said points of intersection of the score lines being less dense at the centers of said lines than at their ends to designate the "sweet spot" and to facilitate positioning the club by the player when addressing the ball.

2. A golf club head having a striking face, a plurality of arcuate score lines extending longitudinally of the face with upwardly extending ends, a plurality of curved scored lines intersecting said arcuate lines, and a pair of vertical score lines on said face joining the ends of said arcuate score lines, the points of intersection of said arcuate score lines and said curved score lines being less dense at the center of the blade than at points removed therefrom, whereby the central portion of the face may be readily identified to serve as an accurate guide for the player in addressing a ball.

3. A metal golf club head having a striking face and a playing surface substantially at the central portion of said face, comprising a series of arcuate score lines and intersecting score lines, the points of intersection of said score lines being less dense at the middle of the blade than at points removed therefrom.

4. A metal golf club head having a striking face and a playing surface substantially at the central portion of said face, comprising a series of concave upward impressions and a second series of concave downward impressions intersecting the first of said series of impressions to form a group

of arcuate segments substantially at the middle portion of the playing surface.

5. A metal golf club head having a striking face and a playing surface substantially at the central portion of said face comprising a series of arcuate impressions scored into said metal head, and a second series of similar impressions inverted to and intersecting said first series, whereby a plurality of segments are formed at substantially the center of the face adapted to designate the "sweet spot" of the club.

6. A golf club head having a striking blade, a series of curved score lines at the central portion of said blade, a second series of similar score lines tangent to said first series at substantially the center of the blade, intersecting said first series at the portions adjoining the center to create a shaded area, whereby the "sweet spot" may be easily recognized.

7. A head for a golf club comprising a shaft portion and a striking face having a plurality of intersecting curved markings scored therein, said markings intersecting at a greater number of points per unit of area toward the ends of the scored portion of the face than at the portions adjoining the center thereof whereby the "sweet spot" may be readily identified.

8. A metal golf club head having a striking face and a playing surface substantially at the center portion of said face, comprising a series of curved score lines, the concave part of each curve being upward, a second series of curved score lines, the concave part of each curve being downward, the curves of one series being tangent to the curves of the other series substantially at the vertical center of the face of the club, the respective lines of one series intersecting the lines of the other series to form vertically arranged groups of plain areas, the group at the vertical center of the blade being largest in area to designate the "sweet spot" of the club.

9. A metal golf club head having a striking face and a playing surface substantially at the center portion of said face, comprising a series of arcuate impressions scored into said metal head, and a second series of impressions inverted with respect to and intersecting said first series to form vertically arranged groups of plain areas, the group at the vertical center of the blade being largest in area to designate the "sweet spot" of the club.

HENRY K. B. DAVIS.