

July 8, 1958

J. V. T. EAST
GOLF CLUB

2,842,369

Filed Nov. 29, 1954

3 Sheets-Sheet 1

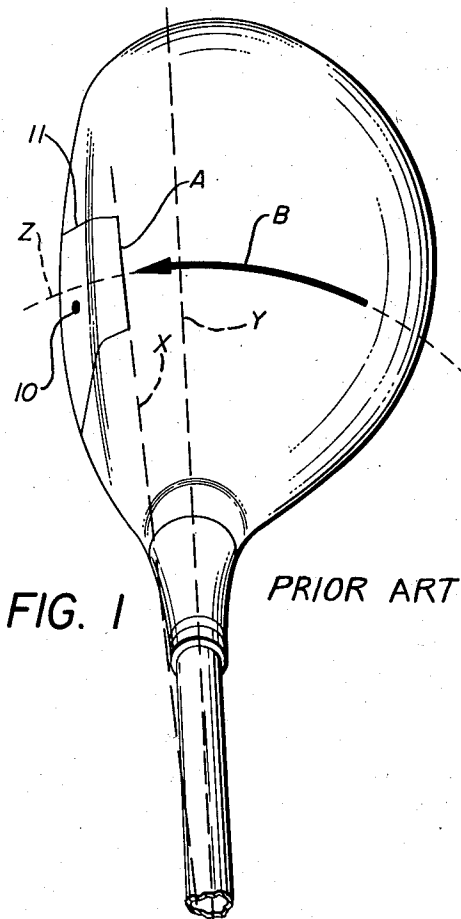


FIG. 1

PRIOR ART

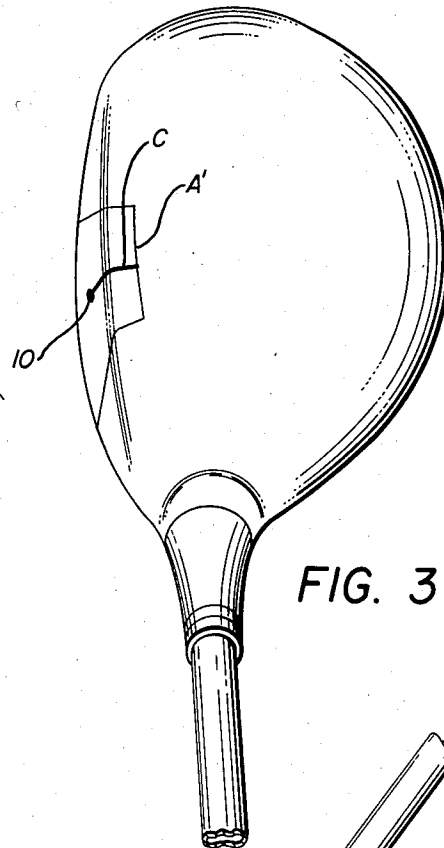


FIG. 3

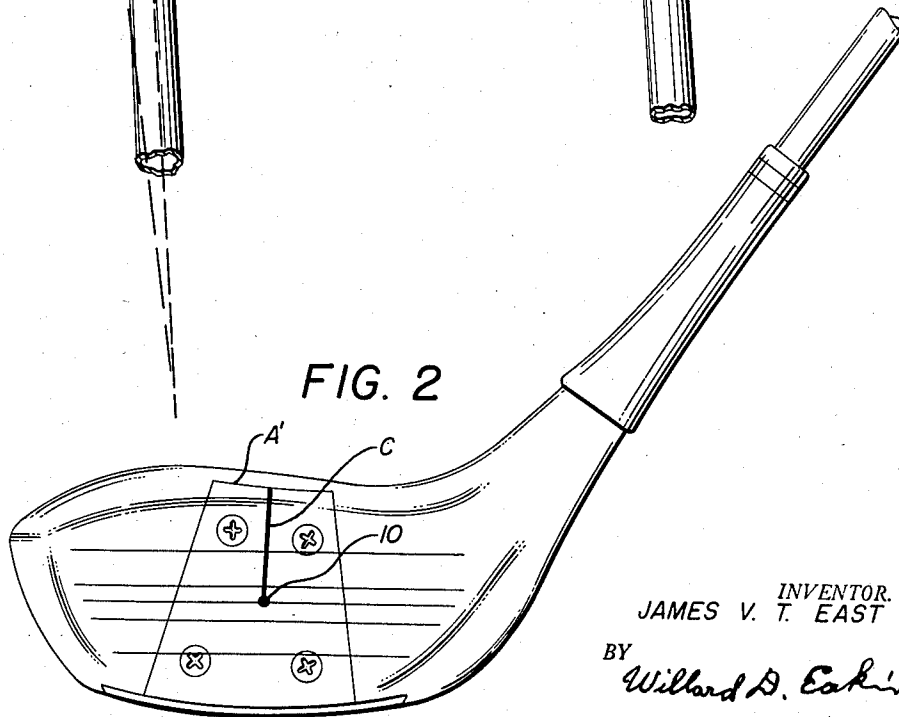


FIG. 2

INVENTOR.
JAMES V. T. EAST
BY
Willard D. Eakin
ATTORNEY

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FIG. 4

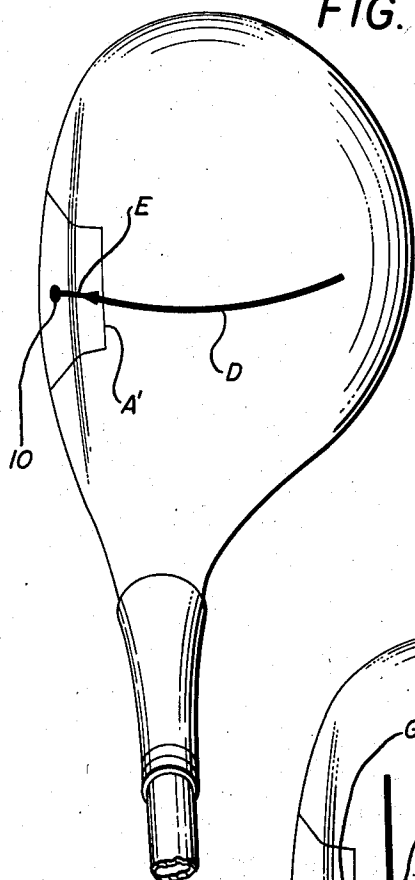


FIG. 5

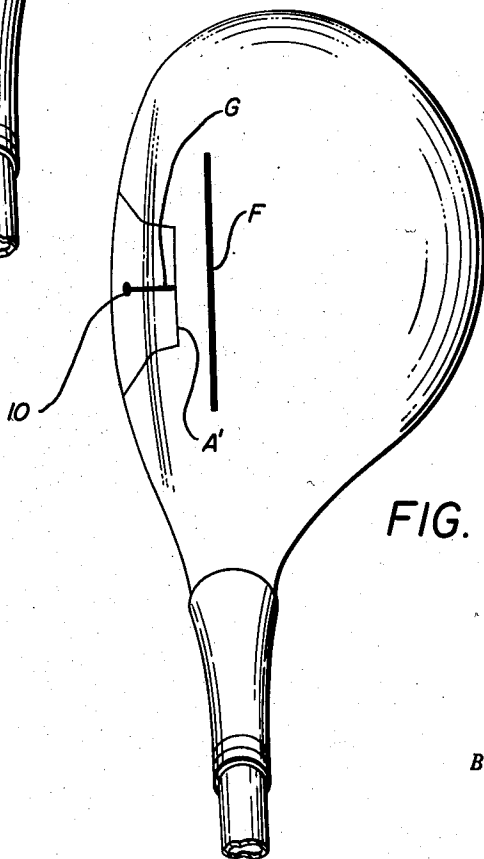
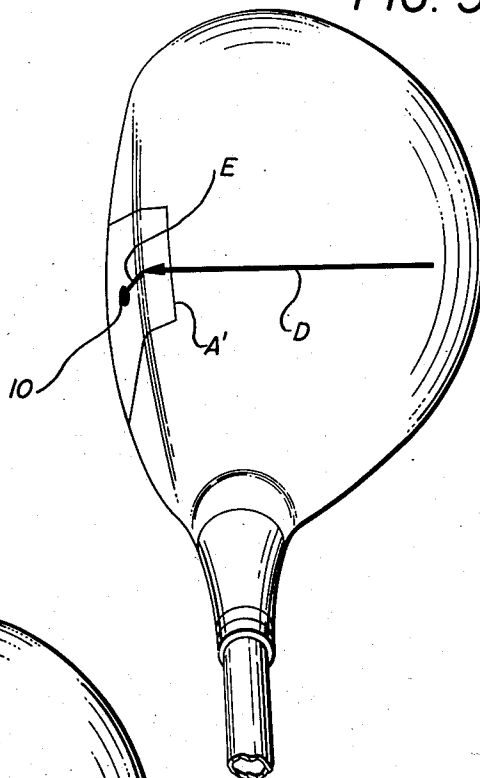


FIG. 6

JAMES V. T. EAST
INVENTOR

BY *Willard D. Eakin*

ATTORNEY

July 8, 1958

J. V. T. EAST

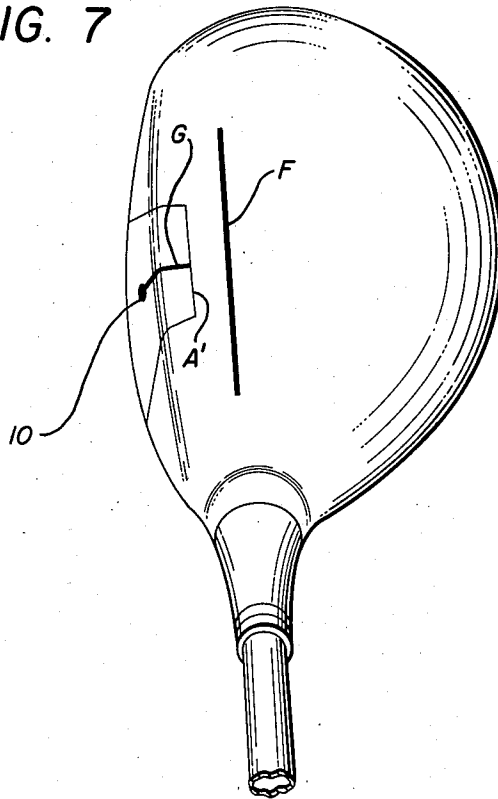
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FIG. 7



JAMES V. T. EAST^{INVENTOR.}

BY

Willard D. Eakin

ATTORNEY

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GOLF CLUB

James V. T. East, Chicago, Ill., assignor, by mesne assignments, to National Die Casting Company, Chicago, Ill., a corporation of Illinois

Application November 29, 1954, Serial No. 471,579

7 Claims. (Cl. 273—164)

This invention relates to golf clubs having visual markings on their heads to assist the player in properly striking the ball.

Because of the peculiarly non-symmetrical and confusing shape of the conventional heads of clubs of the "woods" type it is difficult for many players to associate the club-head in proper relationship to the ball, and some markings heretofore proposed, as will hereinafter be discussed, have added to the confusion instead of being helpful. For example, in a club that is of attractive appearance because of having a face plate of a color that is in contrast to that of the rest of the club-head and is exposed on the top face as well as the striking face of the club-head, the contrasting face plate, even though positioned with its center at the proper ball-contacting position and even though of uniform thickness throughout, gives to the player the impression that the club is "hooked," or more "hooked" than it actually is, with the result of causing the player to slice in his instinctive attempt to compensate for the apparent inherently hooked characteristic of the club.

My chief objects are to provide markings that will be actually helpful, or more helpful, to the player and, more particularly, to do this in the case of a club-head having a face-plate of a color that is in contrast to that of the rest of the club-head.

Of the accompanying drawings:

Fig. 1 is a perspective view of a club-head, from the viewpoint of the player as he takes his stance, illustrating types of markings heretofore used which have been confusing or misleading instead of helpful.

Fig. 2 is a front elevation of a club-head, embodying my invention in one of its simplest preferred forms.

Fig. 3 is a perspective view, from the viewpoint of the player, of the club-head shown in Fig. 2.

Fig. 4 is a view, from directly above, of a modification, with the club in preliminary-stance position.

Fig. 5 is a "player's view" of the same.

Fig. 6 is a view, from directly above, of another modification, with the club in preliminary-stance position.

Fig. 7 is a player's view of the club-head shown in Fig. 6.

In all of the views the numeral 10 will be used for a visual spot marking the ideal point of initial contact of the face-plate with the ball, such point being, for a perfect stroke, directly ahead of the effective center of momentum of the club-head, in the path of the latter.

Fig. 1 is a carefully made tracing of a photostat, taken from the player's viewpoint, of a club-head in which the face-plate 11 is of uniform thickness throughout, extends equally from the spot 10 toward the toe and toward the heel of the head, and has actually only 1 degree of inherent hook. So far as is discernible from the player's view point the rear top line A of the face plate is straight, as shown by the traced figure.

However, as is also shown by the traced figure, the apparent degree of inherent hook, represented by the

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angle between the dotted lines x and y, is very many times the actual inherent hook of 1 degree.

The angle of the lines x and y is highly variable according to the rotative position of the club about the center-line of the shaft, because of the off-set and oblique relationship of the head to the shaft, but in the making of the photostats from which the respective figures of the drawings were traced care was taken to give the club true preliminary-stance position, with its sole face not tilted, and with accuracy believed to be at least equal to that of the average or better-than-average player.

Also in Fig. 1 the curved arrow B represents approximately the apparent curvature, from the player's viewpoint, of trademark lettering which in the actual club photostated is, as viewed from directly above, straight and also symmetrically disposed with relation to the face-plate 11 and its "sweet spot" 10.

It is to be noted that forward extension of the curved arrow, in the dotted line z, leads the eye not to the spot 10, but past it in a path definitely farther toward the toe of the club.

Both of these deceptive or confusing effects presumably are due to the non-symmetrical, three-dimensional contours of the club-head, but their causes would be difficult, even if possible, to analyze fully. My belief is that their bad effects upon the player's performance result from the fact that the player makes himself vulnerable to them by allowing himself to be governed largely by the appearance of the upper surface or the outline of the club-head instead of concentrating primarily upon the appearance of the striking face of the club.

In the embodiment shown in Figs. 2 and 3 all structural features of the club-head are the same as in Fig. 1 except that the rear top line of the face plate, the line A', is, in plan view, curved, preferably in approximate concentricity with a permissibly imaginary horizontal line on the striking face of the face-plate, extending, with curvature in a horizontal plane, through the center of the spot 10.

In practice I find that such curvature of the line A' lessens the club's appearance of inherent hook, perhaps by not being instinctively compared with the center line of the shaft, as the straight line A of Fig. 1 is. Also the line A', being harmonious with the real or imaginary horizontal, curved line mentioned, causes the attention to center upon the striking face of the club.

These same effects can be further contributed to by addition of the line C, which in Fig. 3 is an elbow line, representing the intersection with the club surfaces of a vertical plane extending directly backward from the spot 10, but with the line C preferably ending at the line A', of which it marks the middle point. It is worthy of note that in Fig. 1, not having a line such as the line C of Fig. 3, the spot 10 does not appear to be directly ahead of the middle of the line A, even with the arrow B and its extension z put out of consideration.

In the embodiment shown in Figs. 4 and 5 an arrow D applied to the upper face of the club-head is curved in such direction and in such degree, as viewed from directly above, as in Fig. 4, that it substantially represents the intersection with the head's upper face of a plane determined by three points represented by the player's eyes and a point on the upper face of the club-head, preferably, as shown, at or near the front line of the club-head's upper face and in a vertical plane extending directly rearward from the spot 10. In that case, the point of the arrow preferably is connected to the spot 10 by a line E. The player's view of the markings then is as shown in Fig. 5.

Here again the player's attention is directed to the striking face of the club and the spot 10 and without deceptive or confusing disharmony of markings as viewed

by the player, the line D appearing to him as a straight line, parallel with an imaginary straight, horizontal line from the club-head's effective center of momentum to the spot 10, assuming that the club is properly balanced and that the spot 10, visibly marked or not, is properly positioned.

In this case the player can be guided primarily by visible markings appearing to lie entirely in a vertical plane extending directly rearward from the spot 10.

In the embodiment shown in Figs. 6 and 7 a line F, straight as viewed either from above, Fig. 6, or by the player, Fig. 7, is placed a little way back of and parallel to the rear top line A of the face-plate, which in turn, as viewed from directly above, Fig. 6, is parallel to a horizontal tangent to the curved face-plate at the spot 10.

From the imaginary vertical plane extending directly rearward from the spot 10, the line F, as viewed from directly above, preferably extends a little farther toward the toe than toward the heel of the club-head, so that in the player's view, Fig. 7, because of the over-the-hill effect, the line will appear as extending equally in the two directions from that plane.

The line preferably is of such contrasting color or of such width as to dominate the attention of the player and thus present a concept of a vertical plane intersecting at right angles another vertical plane, extending directly rearward from the spot 10, to the apparent middle of the line F. The effect can be further contributed to by a directly upward-and-rearward line G.

In each of these embodiments the club-head is provided, at least partly upon its top surface, with dominant visual indicia so shaped and positioned that as viewed by the player in preliminary stance it is accurately indicative of an imaginary vertical plane extending in the club-head directly rearward from the preferred point of initial contact of the club-head with the ball.

Such dominant indicia is in Figs. 2 and 3 the curved line A', preferably supplemented by the line C; in Figs. 4 and 5 the line D, preferably supplemented by the line E; and in Figs. 6 and 7 the line F, preferably supplemented by the line G.

Variations are possible without departure from the scope of the invention as defined in the appended claims. I claim:

1. In a golf club having a head formed with a striking face of three-dimensional convex shape at the forward portion thereof and a top surface of three-dimensional convex shape, and a shaft attached to said head at the heel portion thereof and extending in angular relation to said head, the improvement comprising means defining on said head a line extending along the intersection of the face and a first plane passing through the preferred point of initial contact of the face with a ball and perpendicular to a second plane tangent to the face at said preferred point of initial contact, which planes being vertical when the club is in initial stance position, said line extending at least from said preferred point of initial contact upwardly along the striking face and onto the adjacent portion of the top surface of the head.

2. The invention as set forth in claim 1 wherein means are provided defining an arcuate line on the top surface of said head which line is spaced rearwardly from and is concave in a direction rearwardly from the juncture of the striking face and the top surface of the head and is substantially concentric with a line of intersection with the striking face of a plane which passes through said preferred point of initial contact and is horizontal when the club is in initial stance position.

3. The invention as set forth in claim 1 wherein means are provided defining an arcuate line on the top surface of said head which line is spaced rearwardly from

and is concave in a direction rearwardly from the juncture of the striking face and the top surface of the head and is substantially concentric with a line of intersection with the striking face of a plane which passes through said preferred point of initial contact and is horizontal when the club is in initial stance position and wherein said first line intersects and terminates at said second line.

4. The invention as set forth in claim 1 wherein said means for defining said line includes a face plate contrasting in color with the remainder of the club head, is inset and flush with the striking face of the head and having an exposed top portion flush with the top surface of the head adjacent the juncture of the striking face and the top surface of the head, said exposed top portion having an arcuate rear edge spaced from and concave in a direction rearwardly from the juncture of the striking face and the top surface of the head and substantially concentric with a line of intersection with the striking face of a plane which passes through the preferred point of initial contact and is horizontal when the club is in initial stance position.

5. The invention as set forth in claim 1 wherein means are provided defining an arcuate line on the top surface of said head which extends rearwardly from said first-named line and is arcuate and convex in a heelward direction, the convexity being such that when said second line is viewed by a player in preliminary stance position it appears as a straight line.

6. The invention as set forth in claim 1 wherein means are provided defining a line on the top surface of said head spaced rearwardly from the juncture of said striking face and said top surface and lying in a plane which is parallel to said tangent plane and is vertical when the club is in initial stance position, said second line being of such length and so positioned that its center is toward of said first vertical plane a distance sufficient that when viewed by a player in initial stance position it appears to extend equal distances toward and heelward from the rearward end of said first line.

7. In a golf club having a head formed with a striking face of three-dimensional curved shape at the forward portion thereof and a top surface of three-dimensional convex shape, a face plate inset in and flush with the striking face and having a portion exposed on and flush with the top surface of the head, and a shaft attached to said head at the heel portion thereof, the improvement wherein said face plate is of a color contrasting with the color of the head and has an arcuate rear edge exposed on the top surface of the head defining a line which is spaced rearwardly from and concave in a rearward direction and is substantially concentric with the line of intersection with the striking face of a plane which passes through said preferred point of initial contact and is horizontal when the club is in initial stance position and wherein said face insert defines a second line extending from the midpoint of said arcuate line at least to said preferred point of initial contact and lying in a plane which passes through said point of initial contact and perpendicularly to a plane tangent to the face at said preferred point of initial contact, which planes are vertical when the club is in initial stance position.

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