Sept. 29, 1925. 1,555,425

R. McKENZIE

GOLF CLUB

Filed April 15. 1924

Fig.1.

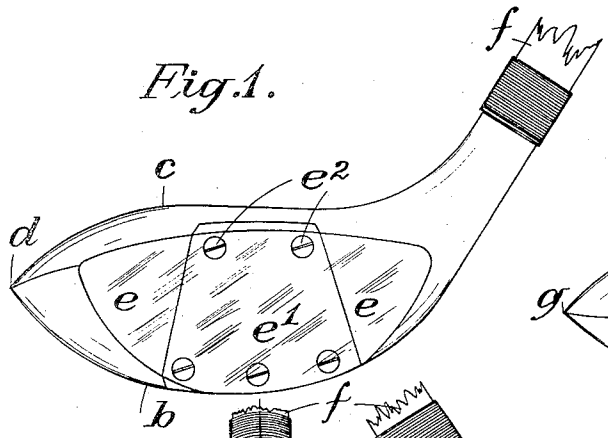


Fig.2.

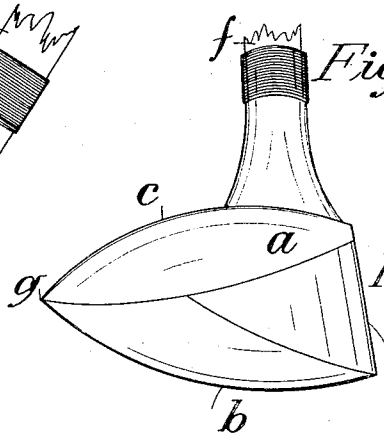


Fig.5

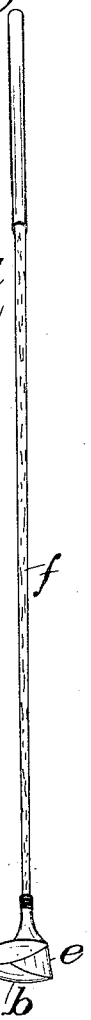


Fig.4.

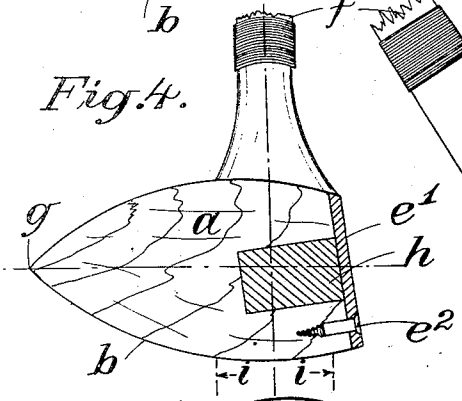


Fig.3.

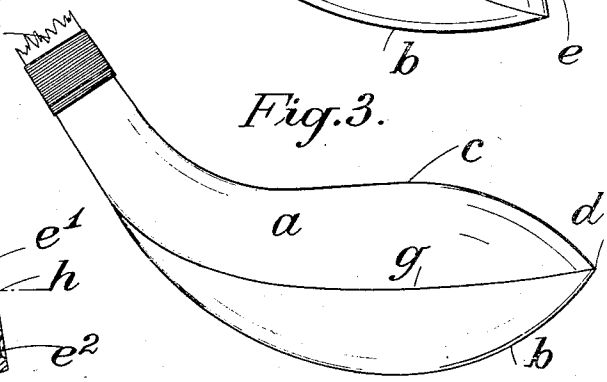


Fig.6.

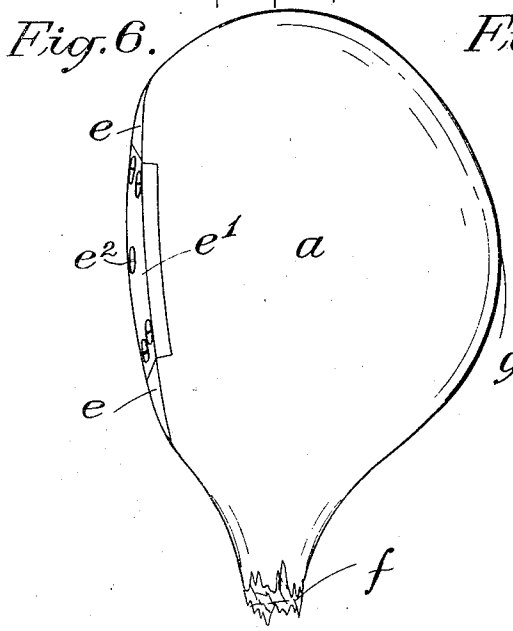


Fig.7.

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UNITED STATES PATENT OFFICE.

ROBERT McKENZIE, OF STANMORE, ENGLAND, ASSIGNOR TO THE W. P. SMITH (SPORTS) COMPANY, LIMITED, OF LONDON, ENGLAND, A COMPANY ORGANIZED UNDER THE LAWS OF GREAT BRITAIN.

GOLF CLUB.

Application filed April 15, 1924. Serial No. 706,646.

To all whom it may concern:

Be it known that I, ROBERT McKENZIE, a subject of the King of Great Britain, residing at Stanmore Golf Club, Stanmore, Middlesex, England, have invented certain new and useful Improvements in Golf Clubs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has reference to golf clubs. It is applicable to all socket or scared clubs such as drivers, brassies, cleeks, spoons and baffies in which the heads are usually of wood, but the invention may also be applied where the heads are of other material such as aluminum. By a "scared" club I mean one in which the head is spliced to the shaft by means of a single oblique splice.

According to the present invention, the head is streamlined at the rear by being smoothed off with a curved taper; the rear is fashioned to a sharp final edge of approximately semi-circular extent, a cross section through the head adjacent to this sharp peripheral trailing edge being lenticular. The head in some cases is provided towards the front or striking face with a concealed weight.

The streamlined head may be so shaped that the underpart or sole of the head forms a convex surface of which the transverse curvature is concentric with the golfer's swing. For this purpose, the sole may be spoon-shaped with its lowest portion curved to form an arc of the circle represented by the lower part of the golfer's swing.

By streamlining the head, the forward swing of the club is reduced and it becomes possible with the same expenditure of energy to drive a longer ball. The particular shaping of the underside of the sole of the head also assists in this action and the club-head is not so likely to catch the ground if the stroke is slightly missed as is likely to be the case with a flat-soled head.

Upon the accompanying sheet of drawings, illustrating the present invention, Figure 1 is a front elevation showing the striking face. Figure 2 is an end elevation. Figure 3 is a rear elevation. Figure 4 is a cross section on line 4—4 of Figure 1. Figure 5 shows the complete club. Figure 6 is a plan view of the top of the head. Figure 7 is a plan view of the underside of the head according to a modification.

I shape the rear of the head *a* at top, bottom and sides in such a way that the head is streamlined or smoothed off with a curved taper. For this purpose, the sole or underpart *b* of the head *a* is cut away so as to curve or slope upwardly to meet the convex top *c* of the head, the whole being smoothed off rearwardly in streamline fashion from the outer end or toe *d* of the striking face *e* and around the rear of the head, (see Figure 6) to the heel or junction with the shaft *f*, so as to provide a sharp rear edge *g* or trailing portion of approximately semi-circular extent. A cross section through the head adjacent to this sharp, peripheral edge *g* would therefore be lenticular.

I may provide a concealed weight *h* in the form of a short length of metal rod, as a lead cylinder, sunk in the head *a* and having its axis arranged at right angles to the front face *e* of the head. Preferably a wedge or V-shaped metal, ivorine, fibre or the like striking surface or plate e^1 of the known kind is let into the front face *e* of the head so as to be flush therewith and such inset may if desired be secured in position by screws, pegs or the like e^2, so as to cover in the weight.

The striking plate *e* is shown oblique to the axis of the shaft *f*, and the trailing edge *g* is with advantage arranged at the level of the centre of the height of the front face *e* when the shaft *f* is at the middle position in its swing. A line from the trailing edge *g* to the centre of the height of the striking surface *e* or e^1 passes through the concealed weight *h*.

The sole *b* or bottom part of the head is preferably spoon-shaped, see Figure 3, with its lowermost portion as shown in Figure 4, at *i i* curved so as to be concentric with the golfer's swing. Thus the underpart or sole of the head *a* at its lowermost portion is curved to form an arc of the circle represented by the lower portion of the golfer's swing. The marked part *i i* is struck from a radius (indicated by the vertical dotted line in Figure 4) from the pivotal axis of the swing, and on each side of this lowermost portion of the face *i*, the sole *b* is more sharply curved upwards.

In Figure 7 I have shown a wearing piece j of horn or the like inset into, and secured as by screws j^1 to, the front portion of the sole b of the head. This view also shows the shaft f socketed in the head a.

Having thus described my invention what I claim is:—

1. In a socket or scared golf club, a head having a front striking face, a sole curved throughout its length from front to rear, a convex top and means for attachment to the shaft, said curved sole and convex top being smoothed off to the rear and streamlined to a sharp trailing edge so that a cross section through the trailing edge is lenticular.

2. In a socket or scared golf club, a head provided with a front striking face, a sole curved throughout its length, a convex top, a heel portion adjoining the junction with the shaft, and means for attachment to the shaft, said sole and top being curved to meet and form a sharp peripheral trailing edge which extends from the toe of the striking face and around the rear of the head to the heel portion.

3. In a socket or scared golf club, a head provided with a front striking face, a curved sole to said head, a convex top to said head, and means carried by the head for attachment to the shaft, said sole and convex top being curved to meet and form a sharp peripheral trailing edge which extends around the rear of the head, and said curved sole being formed as a continuous convex surface having its centre in the pivotal axis of the golfer's swing.

4. In a socket or scared golf club a shaft, a head provided with a front striking face, a sole which is curved from front to rear of the head and curved also from the toe towards the shaft of the club, a convex top and means for attachment to the shaft, said sole and convex top being curved to meet and form a sharp trailing edge which extends around the rear of the head, and said curved sole being formed of spoon-shape with its lowest portion curved concentric with the golfer's swing, this lowermost portion being curved fore and aft more sharply upwards.

5. In a socket or scared golf club, a head provided with a front face, a curved sole, a convex top and means for attachment to the shaft, said sole and convex top being continuously curved to meet and form a sharp trailing edge which extends around the rear of the head, and said curved sole having its centre in the pivotal axis of the golfer's swing, a striking plate secured upon the front face of the head, and a weight inserted in said head behind said striking plate, a line from the rear trailing edge to the centre of the height of said front plate passing through said weight.

6. In a socket or scared golf club, a head provided with a front striking face, a curved sole, a convex top and means for attachment to the shaft, said sole and convex top being curved to meet and form a sharp trailing edge which extends around the rear of the head, and said curved sole having its centre in the pivotal axis of the golfer's swing, a striking plate secured upon the front face of the head, and a weight inserted in said head behind said striking plate, a line from the rear trailing edge to the centre of the height of said striking plate passing through said weight, said weight being composed of a metal cylinder with its axis at right angles to the front plate.

7. A golf club comprising a shaft, a head, a connection between said shaft and head, an obliquely cut front to said head, a striking plate sunk in said front, a continuously curved sole and a convex top, said sole and convex top being streamlined rearwardly to form a sharp peripheral trailing edge, and said convex sole being of spoon-shape.

In testimony whereof I affix my signature.

ROBERT McKENZIE.