E. M. FITZJOHN & E. A. STANTON.

GOLF CLUB.

APPLICATION FILED APR. 16, 1915.

1,257,471. Patented Feb. 26, 1918.

FIG. 1.

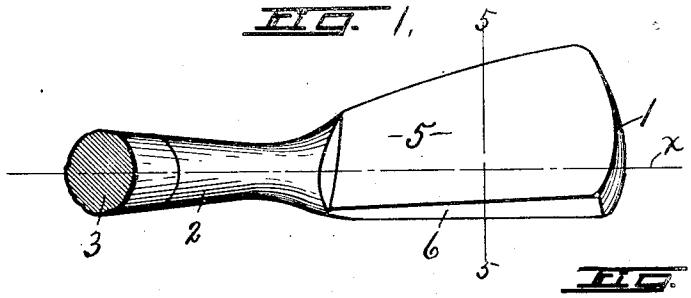


FIG. 2.

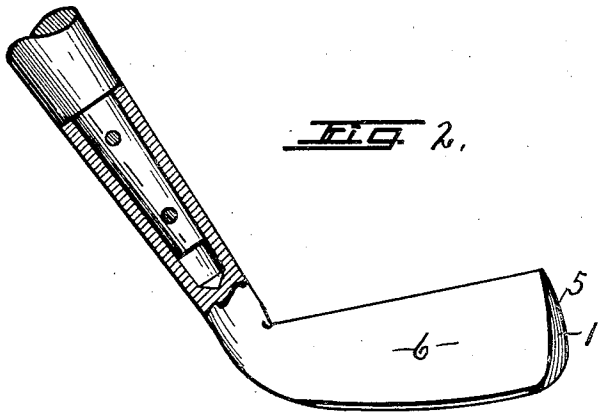


FIG. 3.

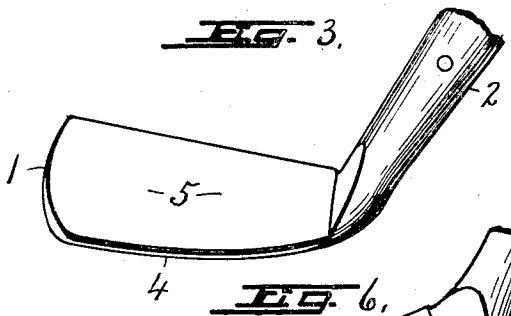


FIG. 4.

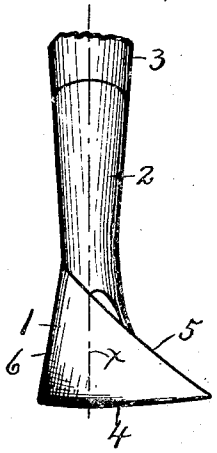


FIG. 5.

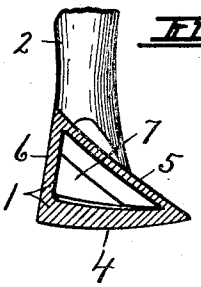
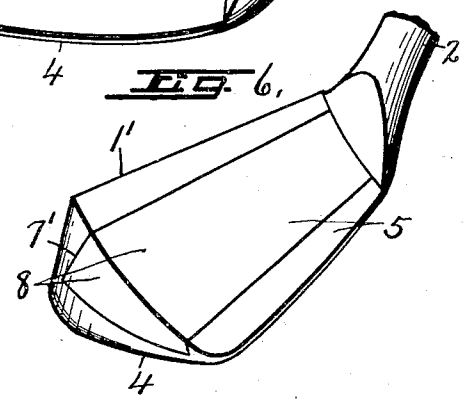


FIG. 6.



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UNITED STATES PATENT OFFICE.

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GOLF-CLUB.

1,257,471. Specification of Letters Patent. Patented Feb. 26, 1918.

Application filed April 16, 1915. Serial No. 21,810.

To all whom it may concern:

Be it known that we, EDWARD M. FITZJOHN, a subject of Great Britain, and ELMER A. STANTON, a citizen of the United States, and residents of Oneida, in the county of Madison, in the State of New York, have invented new and useful Improvements in Golf-Clubs, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to certain improvements in golf clubs, and refers more particularly to the general structure of the head.

The main object is to provide a golf club with a combined "lofting" and "driving" head which is light yet strong and durable and in which the predominance of weight is concentrated at or near the base or ground face of the head and is so distributed with relation to the "lofting" and "driving" faces of the head as to bring the center line of gravity in a plane substantially coincident with the axis of the handle when the ground face of the head is in a substantially horizontal position, thereby producing a balanced condition when the golf stick is held in the usual manner for "lofting" or "driving" the ball.

Another object is to provide the head with a transversely curved or convex lower face of comparatively long radius having its center at approximately the point of grip of the hands on the handle so that the advancing edge of the "lofting" or striking face may swing with greater accuracy under or against the ball, and at the same time allowing the heel to swing through the same arc to reduce the liability of restraining contact with the ground.

Other objects and uses will be brought out in the following description.

In the drawings—

Figure 1 is a top plan of the head of a golf stick, the greater portion of the handle being broken away and the remaining portion shown in section.

Figs. 2 and 3 are opposite side elevations of the head, a portion of the shank being shown in section in Fig. 2.

Fig. 4 is an end view of the head showing the adjacent portion of the shank and handle in elevation.

Fig. 5 is a transverse sectional view through the head taken on line 5—5, Fig. 1.

Fig. 6 is a perspective view of a slightly modified form of head having an insert in its "lofting" face.

This golf stick comprises a head —1— having a ferrule shank —2— for receiving a handle —3—, the head —1— being substantially triangular in cross section and gradually reducing in width from its outer end toward the shank, the length of the head being somewhat greater than its width.

The head —1— is provided with a transversely curved convex face —4— of comparatively long radius having its center approximately at the point of grip of the hands on the handle, said head being also provided with opposite driving faces —5— and —6—, both of which are disposed at acute angles with the bottom or lower face —4—, the driving face —5— being disposed at a considerably less angle with the bottom —4— than the angle between the opposite face —6— and said bottom, and in practice, we have found that this angle should be less than 45 degrees and not greater than 30 degrees, the object of which is two-fold, viz; to loft the ball to a considerable height, and at the same time to impart to it a backward rotary motion so that when it strikes the ground the resistance of its backward motion will cause it to stop in approximately the place of striking.

This face —5—, therefore, constitutes what may be termed a combined lofting and driving face and is particularly advantageous in lofting and driving the ball out of a hollow and over obstructions in the direction in which it is desired to drive it.

The opposite face —6— which is also disposed at an acute angle with the bottom —4— is only slightly inclined from a perpendicular to said bottom and may be used for left hand driving when necessary or desirable, thereby increasing the range of usefulness of the same golf club and obviating the necessity for carrying extra clubs.

As illustrated in Figs. 1 to 5 inclusive, the head —1— is preferably cast or forged metal, the central portion of which is chambered at —7— to reduce its weight without sacrificing its strength or durability, and at the same time brings the predominance of weight at the base or bottom some distance below the longitudinal center.

This weight is so distributed as to bring its center line of gravity, represented by

the line —x— Figs. 1 to 4, in approximately the same plane as the axis of the handle, thus producing a balanced condition which enables the golf club to be manipulated with greater certainty and accuracy in driving the ball.

In the modified structure shown in Fig. 6, the head as —1'— is of substantially the same outline as that shown in the previously described figures, the only difference being that its chamber as —7'— extends downwardly from the inclined driving and lofting face as —5'— and is filled by a core or insert —8— of relatively lighter material than the remaining metal portions, the side walls of the recess being dove-tailed, while the edges of the core or filling —8— are correspondingly beveled to retain the insert in place, suitable means being applied to the joints to assist in such retention.

This filling may be made of wood, aluminum or other comparatively light substance, the purpose being to leave the predominance of weight at the base or below such filling, although the center line of gravity is disposed in a plane substantially coincident with the axis of the handle the same as described for the head shown in Figs. 1 to 5 inclusive, so that when the balanced head is held in position for lofting or driving the ball, it will be substantially balanced.

What we claim is:

A golf club having its head substantially triangular in cross-section from end to end and its lower ground face convexed longitudinally, and convexed transversely in an arc of relatively long radius having its center approximately at the point of grip of the hands on the handle, the rear face of the head being substantially vertical and of less width than the ground face, and the driving face being straight longitudinally and transversely curved, and inclined rearwardly and form the hypotenuse of the triangle.

In witness whereof we have hereunto set our hands this 7th day of April 1915.

EDWARD M. FITZJOHN.
ELMER A. STANTON.

Witnesses:
T. M. CHILDS,
F. H. MUNZ.