

F. W. BREWSTER.  
GOLF CLUB.

No. 581,331.

Patented Apr. 27, 1897.

FIG. 3.

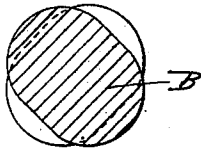


FIG. 1.

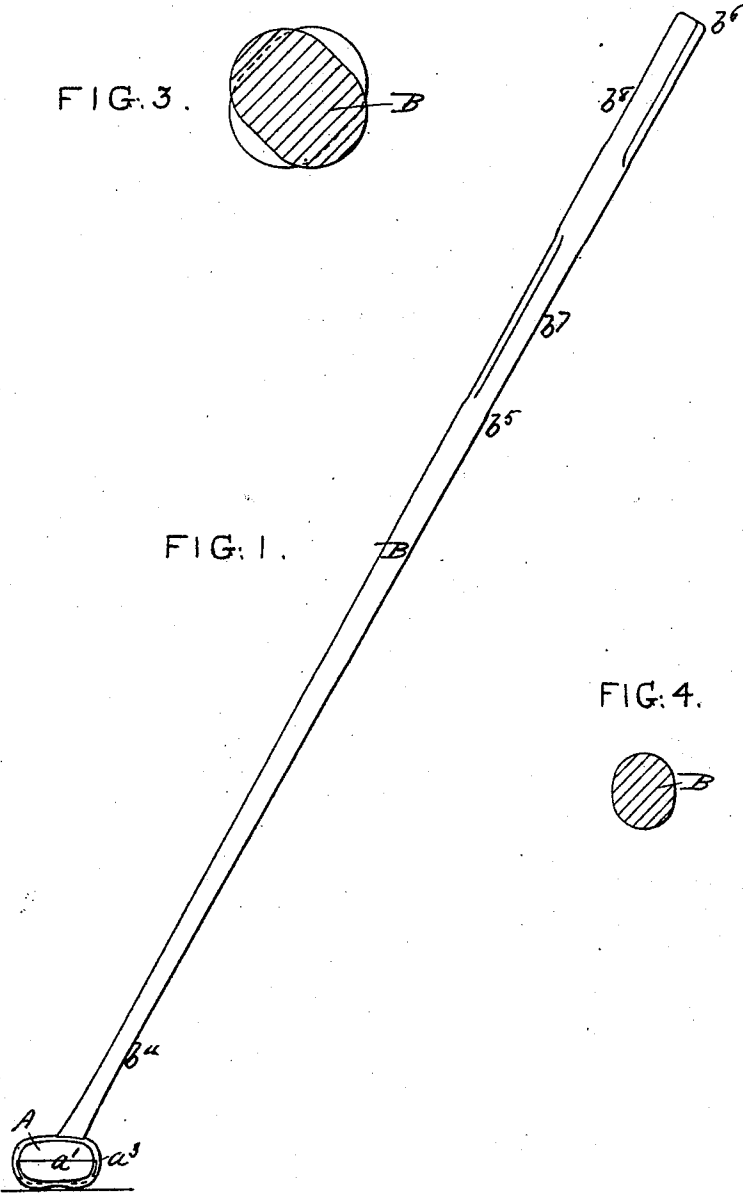


FIG. 2.

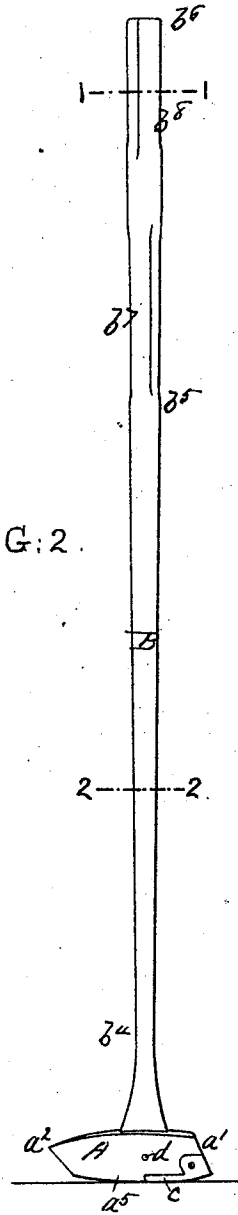
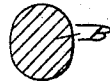


FIG. 4.



WITNESSES.

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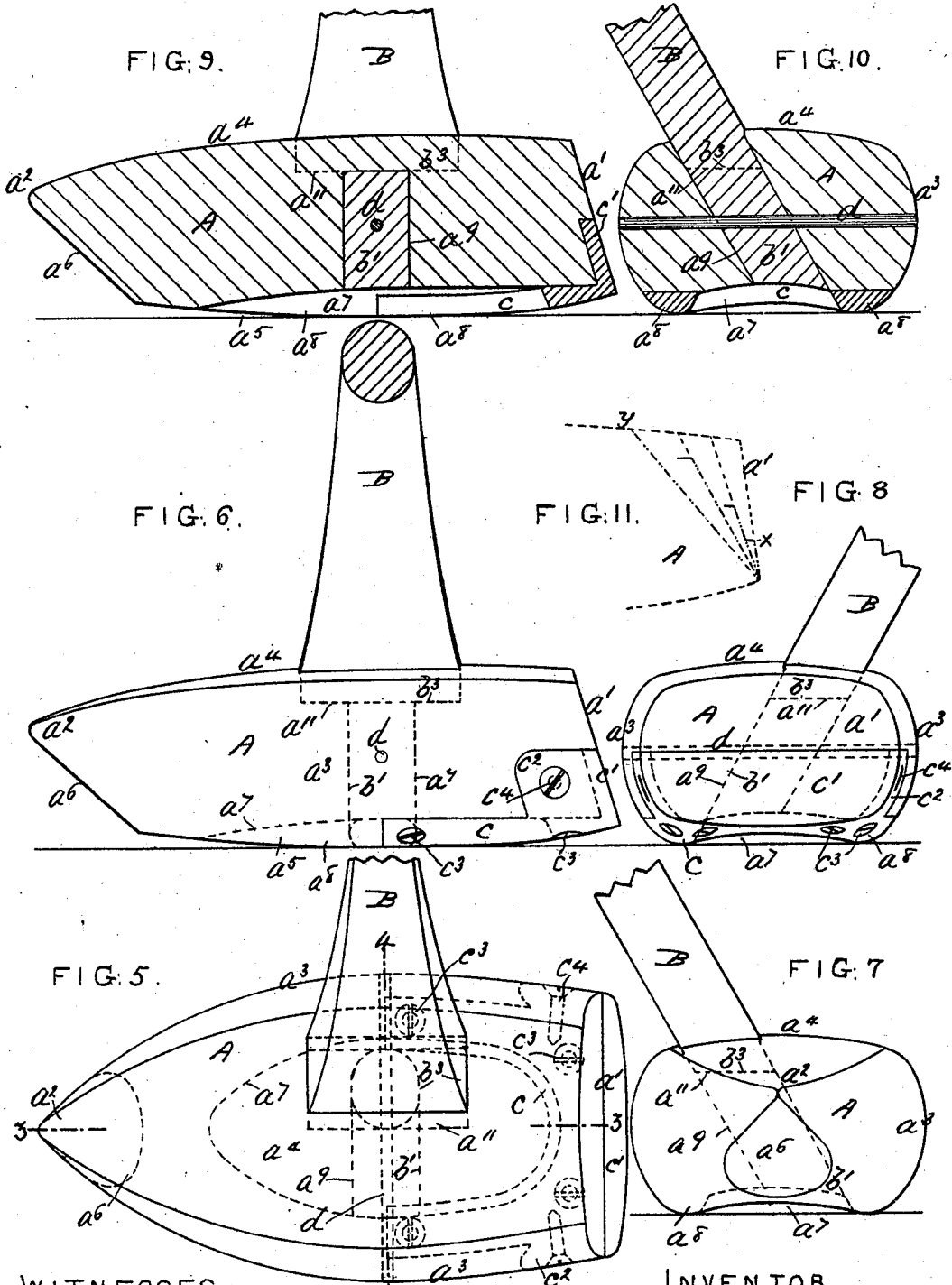
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*By J. M. Bowen*  
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# UNITED STATES PATENT OFFICE.

FRANCIS WENTWORTH BREWSTER, OF LONDON, ENGLAND.

## GOLF-CLUB.

SPECIFICATION forming part of Letters Patent No. 581,331, dated April 27, 1897.

Application filed September 14, 1896. Serial No. 605,763. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS WENTWORTH BREWSTER, a subject of the Queen of Great Britain and Ireland, of the Golfer's Club, Whitehall, London, England, have invented a certain new and useful Improved Golf-Club, of which the following is a specification.

This invention relates to those clubs used in playing the game of golf which serve for driving or making the long strokes and are technically known as "drivers," "spoons," "cleeks," "pitchers," and "lofters," these clubs being alike in requiring to be swung through the air to deliver their strokes, and differing merely in the varied inclinations given to the acting face of the club-head to allow of driving the ball ahead or of more or less lofting it according to its environment in the position in which it may have fallen and from which it has to be struck and in the varied lengths given to the club-shaft to allow of the player getting more or less near to or over the ball to play it to the best advantage, the main objects of the invention being to cause the forces involved in such a stroke as is given by the player to the club and in such a blow as is given by the club to the ball in the game of golf to be more practically applied than is the case in existing golf-clubs, and to produce a golf-club of more effective driving power and having a less tendency to torsional movement in the handling thereof while being swung through the air and to cause the club to deliver a truer and more effective blow.

On the accompanying drawings, Figure 1 represents a front elevation of the improved club. Fig. 2 represents a side elevation. Figs. 3 and 4 are sections respectively on the lines 1 1 and 2 2, Fig. 2. Fig. 5 is a plan of the club-head. Fig. 6 is a side elevation thereof. Fig. 7 is an aft end elevation thereof. Fig. 8 is a fore end elevation thereof. Figs. 9 and 10 are sections respectively through 3 3 and 4 4, Fig. 5; and Fig. 11 is a diagram representing different angles given to the fore end of the club-head, according to its intended use as a driver, spoon, cleek, pitcher, or loft.

A represents the club-head, which is made of yarrah, oak, or other suitable hard wood, with the grain running in the direction of its length, or it may be made of vulcanite or the

like, with its length in the direction of the stroke and blow, whereby the weight and the energy of the stroke are concentrated in the plane of the arc of the swing of the club and behind the proper point of impact of the club-head with the ball. To this end the club-head is so formed and combined with the shaft that a slight excess of its bulk or weight is in advance of the axis of the latter, it being made of a boat-like formation in plan view, (*vide* Fig. 5,) symmetrical on each side of its longitudinal axis, slightly narrowing at its fore end toward its striking-face  $a^1$ , which is inclined relatively to the green, according to its particular use as a driver, spoon, cleek, pitcher, or loft, and being extended and more sharply tapered off at its aft end, terminating in a point  $a^2$  in the plane of the arc of the swing of the center of gravity of the club-head during the stroke, and in which plane the club-head is of its greatest horizontal sectional area.

The club-head is also made of its greatest vertical sectional area in the plane of its longitudinal axis, (*vide* Fig. 9,) and from which, viewed endwise, (*vide* Fig. 10,) its bulged sides  $a^3$  incurve toward its top and sole, its top  $a^4$  being rounded off and lowered toward the sides, while its sole or under face  $a^5$  is convex lengthwise practically to the sweep of an arc of a radius about equal to that of the swing of the player using the club and is tailed off at its aft end  $a^6$  toward the point  $a^2$  to insure clearance of the ground as the club rises after effecting the stroke, and is also recessed at  $a^7$ , leaving side skids  $a^8$ , thus minimizing the frictional contact of the club-head with the ground.

The fore part of the recess  $a^7$  is shod with a horseshoe-shaped sole-plate  $c$ , which is made integral with a face-plate  $c^1$  and with side lugs  $c^2$ , to receive which the club-head is cut away, so that the sole-plate, its face-plate, and lugs will all lie even with and conformably to the general contour of the club-head.

The face-plate  $c^1$  will vary in its inclination conformably with that of the striking-face of the club-head, and will extend more or less up the striking-face from the minimum represented at  $x$ , Fig. 11, to covering the entire striking-face, as at  $y$ , as represented by the double dotted lines in Fig. 11, accordingly as

the club is intended for use as a driver, spoon, cleek, pitcher, or lofted, more of the end wood or material of which the club-head is made being exposed and uncovered by the face-plate the more the club is intended for driving the ball ahead, and more of such wood or material being covered by the face-plate the more the club is intended for lofting the ball.

The sole  $c$  is secured to the club-head by under screws  $c^3$ , and its face-plate is secured thereto and prevented from springing from the striking-face by screws  $c^4$ , passing through the lugs into the head.

The aforesaid features coact to concentrate the weight of the club-head and the effective force of the blow in the line of the stroke and at the rear of the point of the striking-face it is desired to bring in contact with the ball, and also to reduce the air resistance both in swinging the club back after taking aim preparatory to making the stroke and forward in making the stroke, and insure a well-balanced head most agreeable to the player in allowing him to concentrate his attention upon the trueness of his aim and stroke.

The club-head is bored at  $a^9$  through the head diagonally in relation to its striking position on the green, (*vide* Fig. 10,) and its upper part is mortised in the direction of the length of the club-head and shouldered at  $a^{11}$ . (*Vide* Fig. 9.)

The bore and mortise in the club-head serve as a seating to the correspondingly-shaped end  $b'$  of the club-shaft B, which fits the bore and is formed with shoulders  $b^3$ , which take an effective seating in the mortise, and when so seated the shaft and club-head are secured by a pin  $d$ , passing through the club-head. The bore and mortise are so situated as to cause the axis of the shaft to intersect that of the club-head just to the rear of the center of gravity of the latter, which also operates to concentrate the energy of the blow directly at the rear of the proper striking-point of the club-head.

From where the shaft joins the head it gradually narrows (*vide* Fig. 2) in the direction of the stroke to the point  $b^4$ , from which up to the grip  $b^5$  the shaft is made of a circular or approximately circular form in section. (*Vide* Fig. 4.) The grip from  $b^5$  to  $b^6$  is formed

in lower and upper half portions  $b^7$   $b^8$ , respectively adapted for the right and left hands of the player, each such half-length being made of an oblong formation in section and the two such half-lengths being adjusted in an angular relation or crosswise, conformably with the natural gripping positions of the two hands when both simultaneously engaged in gripping the club-handle. This formation of the handle prevents the club from twisting in the hands and is of immense assistance in delivering the stroke truly, and consequently with the desired effect, almost absolutely insuring a true swing of the club, and thus giving the player less to think about when playing.

I claim as my invention—

A golf-club for driving or making the long strokes, consisting of a club-head A, made with its length in the direction of its stroke and of a boat-like shape slightly narrowing from its mid cross-section toward its striking-face  $a'$ , and sharply tapering off to its aft end  $a^2$ , bulged centrally at its mid vertical and horizontal sections at its top  $a^3$ , and sides  $a^3$ , and at its bottom  $a^5$ , curved longitudinally to the swing of the club and tailed off at its aft end  $a^6$ , and recessed at  $a^7$ , leaving side skids  $a^8$ , and shod with a horseshoe sole-plate  $c$ , made integral with a face-plate  $c'$ , and side lugs  $c^2$ , and bored angularly through its center of gravity with an upper shouldered mortise  $a^{11}$ , extending lengthwise of the head, and of a club-shaft B, shaped and shouldered correspondingly to the bore and mortise in the club-head and gradually narrowing in the direction of the stroke and assuming a circular or approximately circular form in section up to the grip, and formed with a grip made of upper and lower portions  $b^7$ ,  $b^8$ , respectively of an oblong formation in section and set at an angular relation to each other, the club-head and shaft being held together by a through-pin  $d$ , as set forth.

Signed at Bowenemouth, Hampshire, England, this 26th day of August, 1896.

FRANCIS WENTWORTH BREWSTER.

Witnesses:

ROBERT SIDNEY PAYNE,  
ARTHUR HENRY THOMPSON.