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F. H. GOUVERNEUR

2,092,839

GOLF CLUB

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Fig. 1.

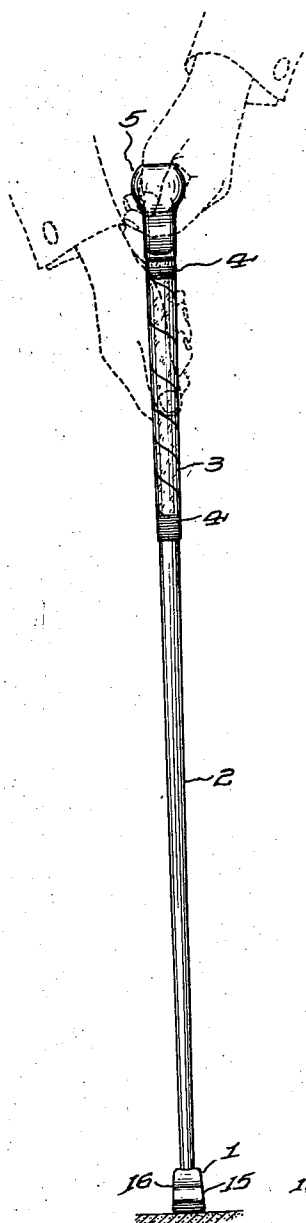


Fig. 2.

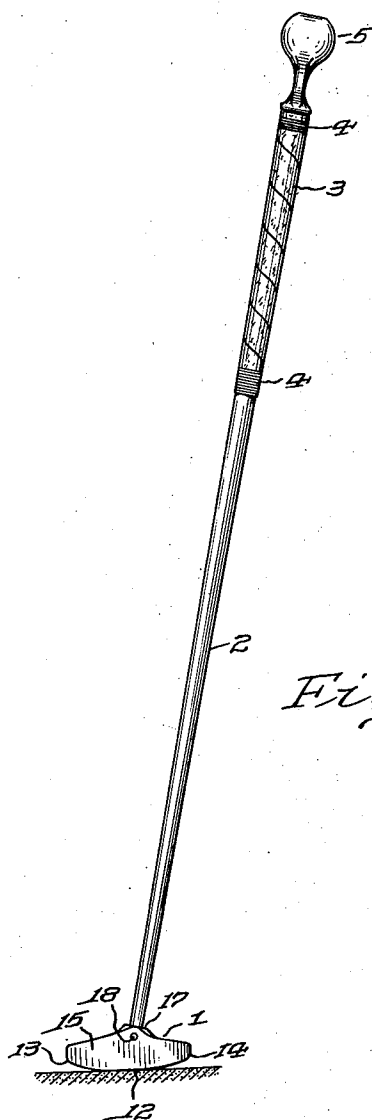


Fig. 3.

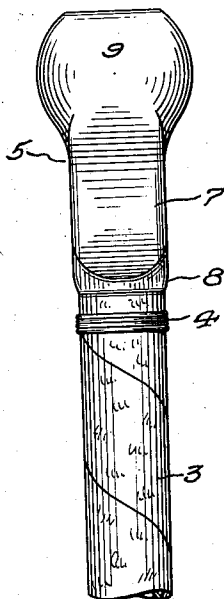
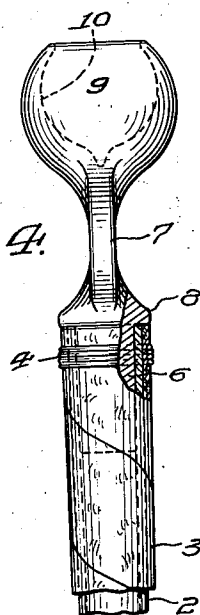


Fig. 4.



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GOLF CLUB

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5 Claims. (Cl. 273—81)

This invention relates to golf clubs and more particularly to the provision of novel means for facilitating accurate control of the movement of the club head as a stroke is made and is primarily intended for embodiment in clubs of the type known as putters.

A principal object of the invention is the provision of means associated with the club grip or handle portion which permits the weight of the club to be supported primarily from one hand and the plane of its movement largely controlled thereby, so that the other hand may be devoted substantially entirely to controlling the force or speed of the club during the back and front swings preparatory to hitting the ball and to the continuation or "follow through" of the front swing after the ball is actually struck.

Another object of the invention is to provide means for facilitating oscillatory movement of the club in a single plane about a substantially fixed pivot whereby a putting stroke may be made while the club is swinging in substantially the manner of a pendulum and its head is thus moving along an arc of constant radius whereby the accuracy of the stroke is materially enhanced even when executed by a relatively unskilled player.

Other objects, advantages and novel features of design and construction comprehended by the invention are hereinafter more particularly pointed out or will be apparent to those skilled in the art from the following description of a putter constructed in accordance therewith as illustrated in the accompanying drawing in which

Fig. 1 is a view of the putter in elevation as it appears from in front of the player while making a stroke, the approximate position of the player's hands, assuming he is "right handed", being indicated in dotted lines;

Fig. 2 is a side elevation of the putter showing one striking face of the head;

Fig. 3 is an enlarged fragmentary elevation of the upper end of the club shaft and associated parts as viewed in Fig. 1, and

Fig. 4 is a similarly enlarged fragmentary view thereof as shown in Fig. 2, partly broken away into vertical section.

In the several figures like characters are used to designate the same parts.

The putter generally comprises a head 1 hereinafter more fully described, and a shaft 2 which may be made of wood, although I prefer to employ and have shown in the drawing a tubular metallic shaft made with a gradually enlarging taper from the head to its opposite or upper end,

the shaft adjacent thereto being wrapped with soft leather 3 or other suitable material and bound with threads 4 in the customary manner to form the grip for the club. Ordinarily a golf club shaft terminates just above the grip, being merely smoothly finished off in the case of a wooden shaft or, in the case of a tubular one, being provided with a cap or plug closing the opening therein. However, in accordance with my invention, a member which may be termed the "gripping head" 5 is extended beyond the grip, and when a tubular metal shaft is employed this member is secured to it by the insertion of its shank 6 into the upper end of the shaft bore where it is frictionally retained by a press fit, although if desired additional securing means such as a transverse pin or the like may be employed to hold the shank rigidly in place and, of course, any convenient corresponding means may be utilized for securing the member to the end of a wooden shaft.

The gripping head 5 which is preferably made of light metal such as aluminum or an alloy thereof, or of some phenolic-condensation product such as "Bakelite", comprises a relatively thin web 7 rising upwardly from a circular shoulder 8 overlying the end of the shaft, the web extending transversely of the shaft axis in a plane substantially normal to the plane of the striking face of club head 1 and to the planes of both faces when, as shown in the drawing, a head having a striking face on each side is employed. The upper end of gripping head 5 above the web is enlarged to form a bearing ball 9 generally spherical in shape but which, as shown, may have a small segment removed from its upper portion, and may also be hollowed out from above to decrease its weight, thereby providing a cavity 10 in its interior.

As best indicated in Figs. 3 and 4 the junctures between ball 9 and web 7 and between the latter and shoulder 8 are smoothly rounded to provide comfortable surfaces for contact with the player's hand and the web itself is preferably sufficiently thin to readily lie between the player's fingers without causing excessive separation thereof. The bearing ball 9 itself is of a diameter such that it will lie easily and more or less loosely between the palm of the hand and the fingers with the web projecting outwardly and downwardly between, preferably, the index and second fingers so that the principal weight of the club is carried by these two fingers through their engagement with the lower curved surface of the ball. Thus the plane of movement of the club

when the stroke is being made is largely controlled by these fingers lying on either side the web which slides between them as the club moves back and forth, and when the hand is kept stationary, the club may therefore readily be made to swing only in the plane of the web with a pendulum-like movement or, more strictly, to oscillate in this plane about the center of the ball as a pivot point.

The striking head of the club shown in the drawing and which I prefer to employ is formed of a single unitary solid metal body having a substantially flat sole 12 curved upwardly toward its toe 13 and heel 14 and is secured to the lower end of the shaft in such way that the flat portion of the sole is disposed at an angle of about 110° to the shaft axis in conformity with usual practice. The front striking face 15 and back striking face 16 of the head are disposed at equal angles slightly less than 90° to the plane of the flat portion of the sole and the upper face 17 is substantially flat adjacent the point, somewhat nearer the heel than the toe, where the lower end of the shaft is attached; in longitudinal projection the club head is thus in the form of a segment of a substantially symmetrical wedge.

The shaft is attached to the striking head 1 through insertion of its extremity in a suitable bore in the flat portion of the upper face 17 of the latter and a small pin 18 is driven transversely through holes in the head and the shaft to insure a rigid connection of the parts although any other method of uniting them may be employed. The upper face 17 is preferably curved downwardly and outwardly from the shaft toward the toe and heel which are preferably blunt in form as indicated in Fig. 2 so that the striking faces 15, 16 are of substantial width even at their ends, but of greatest width in line with the shaft. The center of gravity of the head, and consequently the ideal point of impact with a golf ball, is thus slightly nearer the heel than the toe and lies in the plane through the shaft axis normal to the striking faces. Since web 7 also lies in this plane and tends to restrict the movement of the club thereto, the club can be made to swing smoothly in an accurate arc of constant radius under the control of only one hand, leaving the other, positioned on the grip 3, free to be devoted substantially entirely to supplying and regulating the force necessary to execute the stroke, and this is true whether the right or the left hand be employed to hold ball 9 and serve as a center bearing support.

Moreover, either striking face of the head may be utilized with the same effect, depending upon whether the player be right or left handed, although if desired a head of the blade type or any other convenient style may be employed. The center of gravity of a blade type head, however, is offset from the shaft axis and the impact of the head against the golf ball thus tends to twist the shaft axially and may result in inaccurate stroking whereas the head herein shown and described has no such tendency.

Thus when making a stroke the player allows ball 9 to rest loosely in one hand, the left if he is a right handed player, with the web extending downwardly between two fingers, preferably the index and second fingers, and his left wrist lying approximately straight in the line of his forearm; then by grasping the grip with his other hand he may readily determine, with the aid of a few practice swings, the proper height above the ground and the angularity at which the hand

holding the ball 9 must be held to permit him to make a smooth swinging "pendulum" stroke and bring the flat part of the sole of the club head at the bottom of the stroke just above or into light contact with the turf and in parallelism with the plane of the surface on which the ball is lying and the amount of force required to be applied by his other hand under varying conditions to produce a stroke of the required length.

The manner in which the various factors in controlling the club are thus segregated and assigned to the separate hands greatly facilitates the rapid attainment of a high degree of skill, while the elimination of all necessity of movement of the hand holding the ball 9 at the upper end of the club permits the player to devote his attention substantially entirely to the control of the other hand in making the stroke. It is therefore possible with the aid of my club for even an unskilled player to rapidly acquire proficiency in putting, a department of the game in which even some professional golfers and amateurs of the highest standing are reputedly inclined to become erratic at times, and through requiring too many putts lose important matches they might otherwise win.

My club thus reduces the extent of delicate coordination between the hands required for accurate putting particularly when embodying the double faced head herein shown and described, and enables experts and others to lower their golf scores through the minimization of erratic and unnecessary putting strokes.

While I have herein described one embodiment of the invention in which a two faced club head and a gripping member of specific size, conformation and construction are employed and associated with the shaft in relationships to which particular reference has been made, it will be understood I do not desire to limit or confine myself thereto, as the gripping member may be made in different sizes and shapes, may be attached to the shaft, whether metal or wood, in different ways, and a club head of any desired type other than as herein shown and described may be utilized, and other changes and modifications in the form, construction and relationship of the several parts may be made if desired within the scope of the invention as defined in the appended claims.

Having thus described my invention, I claim and desire to protect by Letters Patent of the United States:

1. A golf club comprising a shaft, a head having a striking face at one end of the shaft, a grip adjacent the opposite end, and a gripping head projecting from the shaft beyond the grip comprising a web lying substantially normal to the plane of said striking face, the extremity of the web merging into a substantially spherical enlargement forming a bearing surface for pivotal movement of the club about a point approximately in the center of said enlargement and in the plane of the web.

2. A golf club comprising a shaft, a head having a striking face at one end of the shaft, a grip adjacent the opposite end, and a gripping head projecting beyond the grip in alignment with the shaft comprising a substantially spherical body and a substantially flat rigid web interposed between the body and the adjacent end of the shaft extending substantially normal to said striking face.

3. A golf club comprising an elongated tubular

shaft, a striking head having a pair of opposed striking faces at one end of the shaft and a gripping head carried by the opposite end comprising a shank projecting into the shaft, a substantially circular shoulder integral with the shank overlying the end of the shaft, a rigid web extending transversely of the shoulder in alignment with the shaft axis and integral with the shoulder, and a substantially spherical ball integral with the web at its opposite end.

4. In a golf club, a gripping head constituting a guide and pivotal center for movement of the club comprising a ball adapted for rotative movement within the hand of the player, a substantially flat relatively thin web extending diametrically downward from the lower surface of the

ball, and means for securing the web to the end of the club shaft in alignment with its axis.

5. In a golf club, a gripping head constituting a guide and pivotal center for movement of the club comprising a ball adapted for rotative movement within the hand of the player, a substantially flat relatively thin web extending diametrically downward from the lower surface of the ball and integral therewith, the juncture between the ball and the web being rounded in reverse curves, a substantially circular shoulder integral with the lower end of the web extending transversely thereof and merging into the web in curved surfaces, and means for attaching the head to the end of the club shaft.

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