E. V. HARTFORD.

GOLF CLUB.

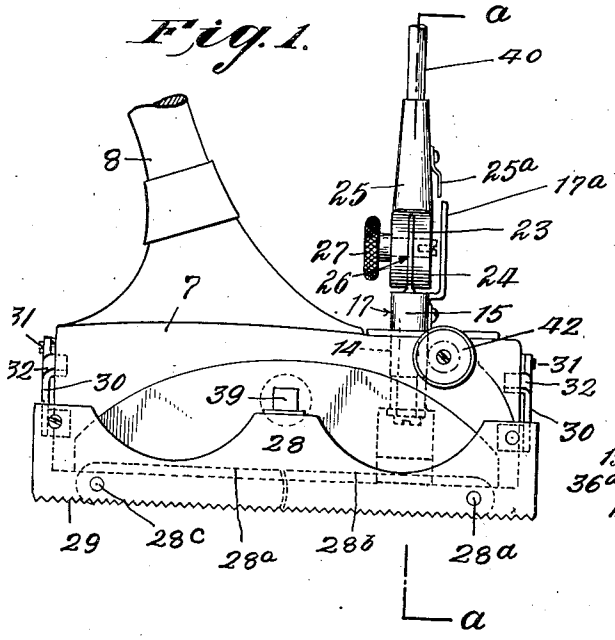
APPLICATION FILED SEPT. 24, 1918.

1,331,499.

Patented Feb. 24, 1920.

2 SHEETS—SHEET 1.

Fig. 1.



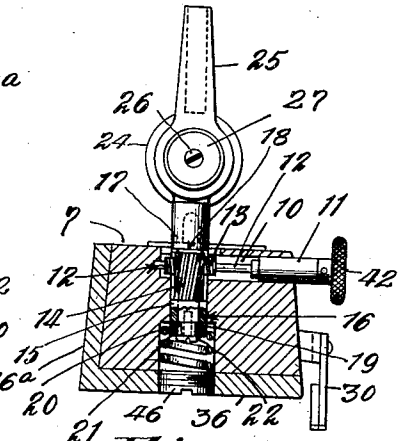
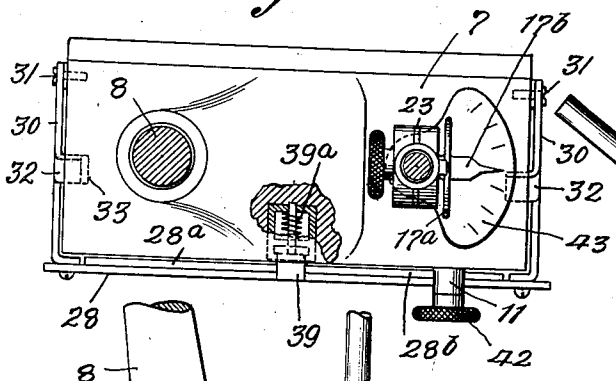


Fig. 2.

Fig. 3.



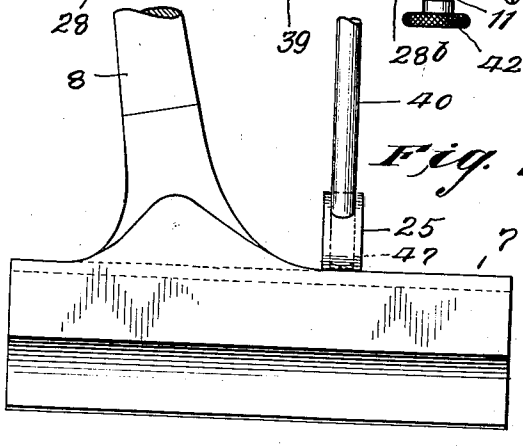


Fig. 7

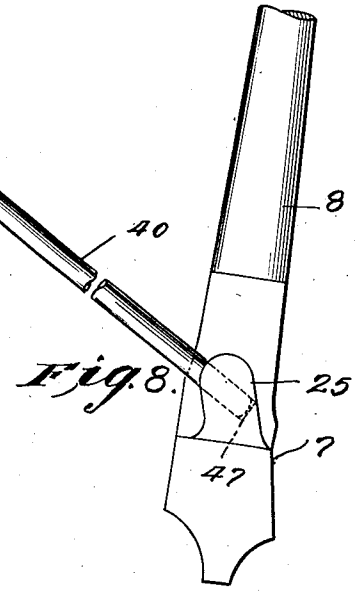


Fig. 8.

INVENTOR

Edward V. Hartford

BY Clifford E. D

ATTORNEY

E. V. HARTFORD.

GOLF CLUB.

APPLICATION FILED SEPT. 24, 1918.

1,331,499.

Patented Feb. 24, 1920.

2 SHEETS—SHEET 2.

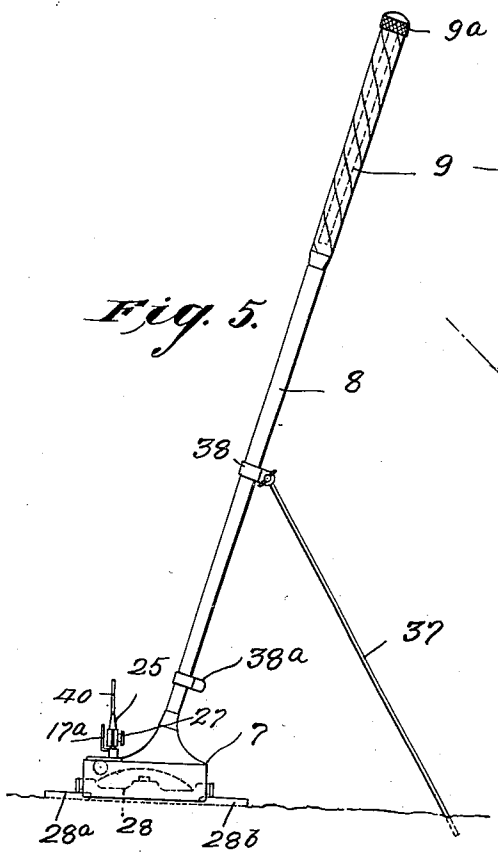


Fig. 5.

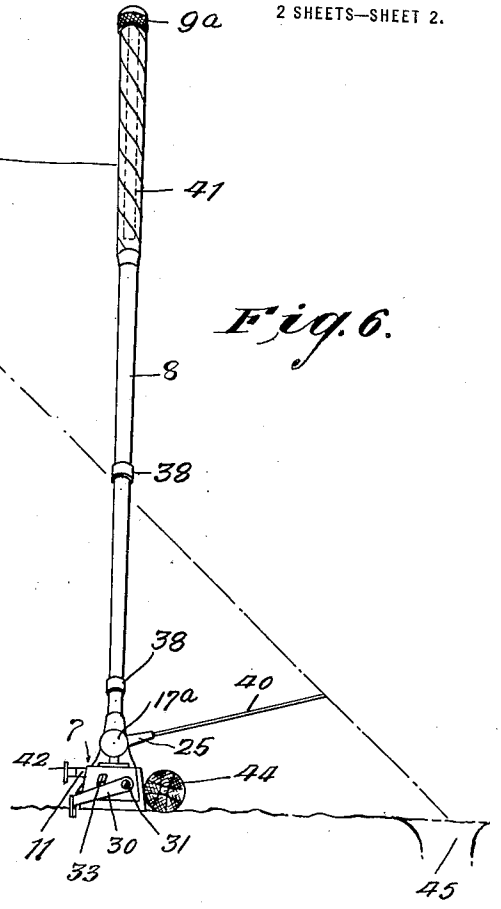


Fig. 6.

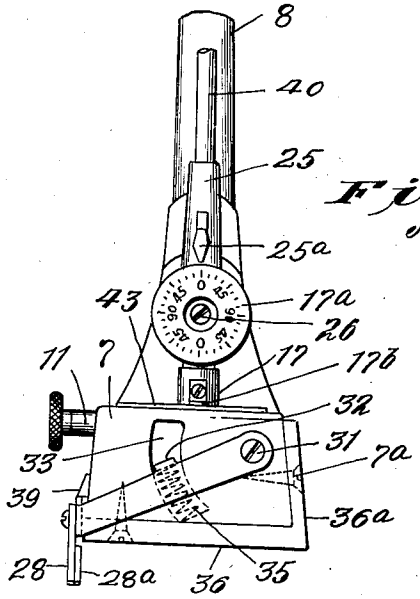


Fig. 4.

INVENTOR

Edward V. Hartford

BY Clifford L. Dann

ATTORNEY

UNITED STATES PATENT OFFICE.

EDWARD VASSALLO HARTFORD, OF DEAL, NEW JERSEY.

GOLF-CLUB.

1,331,499. Specification of Letters Patent. Patented Feb. 24, 1920.

Application filed September 24, 1918. Serial No. 255,444.

To all whom it may concern:

Be it known that I, EDWARD VASSALLO HARTFORD, a citizen of the United States, residing at Deal, in the county of Monmouth and State of New Jersey, have invented certain new and useful Improvements in Golf-Clubs, of which the following is a specification.

The present invention relates generally to improvements in golf clubs and is more particularly directed to that type of club known as a putter.

In what is known as putting, it is necessary to aline the putter at right angles to the line of travel which the ball is to take to the hole after being struck. It is exceedingly difficult to obtain this accuracy in direction, especially for the novice, and the principal object of my present invention is to provide a putter which will embody elements whereby the alinement of the putter with the ball and the hole may be simply accomplished, so that a high degree of accuracy may be obtained.

A further object of my invention is to provide what may be termed a scientific putter by the provision of sighting or distance gaging devices incorporated in the club which may be readily adjusted to accomplish the purposes of the invention and which will not interfere with the proper manipulation of the club when the stroke is to be made.

My invention also contemplates a putting club which may be used similarly to the ordinary form of putter when desired, the sighting and coöperating elements being so disposed that the proper club balance will be retained.

Other objects and advantages of my invention will become apparent as the description proceeds and I would have it understood that I do not limit myself to the details of structure herein shown or the specific advantages pointed out, reserving unto myself the full range of equivalents to which I may be entitled under my invention in its broadest aspect.

I shall now proceed to describe my invention with reference to the accompanying drawings wherein I have elected to show a specific embodiment for the purpose of rendering a clear understanding of my invention, and then point out with more particularity the essential elements of novelty in the appended claims.

In the drawings:

Figure 1 is a detail of the head of the club showing the sighting and coöperating means.

Fig. 2 is a transverse section on the line A—A of Fig. 1.

Fig. 3 is a top plan of the head of the club.

Fig. 4 is an end elevation of the club head.

Figs. 5 and 6 are front and end views showing the relative positions of the cooperating parts when my invention is in use, and

Figs. 7 and 8 are respectively front and end views of a club embodying a modified form of my invention.

Referring now to the drawings in detail, in which like characters of reference are employed to designate similar parts throughout the several views, 7 represents the head of the club and 8 the shaft having the usual grip 9 at its upper end, the shaft being fixed in the socket provided in the head, in the customary manner.

As is clearly shown in Fig. 2 of the drawings the head of the club 7 is recessed at 10 for the reception of a sleeve 11 forming a bearing for a spindle 12 carrying the worm 13 at its inner end. The worm 13 is in mesh with the teeth or ribs 14, formed on the periphery of the sleeve 15, positioned in the opening 16 through the head of the club. Mounted on the sleeve 15 is a sight rod carrying socket member 17 which is formed with a shoulder 18 adapted to rest upon the upper edge of the sleeve 15. This member 17 is frictionally locked to the sleeve 15 so as to rotate therewith by means of a washer 19 having a key and slot connection with the lower end of said member, which extends through said sleeve, as shown at 20, said washer being held in engagement with the lower edge of said sleeve by means of the retaining washer 21 and the screw 22 seated in said member, as shown.

The member 17 has a centrally positioned upwardly directed portion 23 which is adapted to fit within the split end 24 of the sight rod socket member 25, said member 25 being pivotally mounted on the member 17, as shown at 26, a thumb screw 27 being provided to lock the socket member in any position to which it may be moved on its pivot joint.

Normally in alinement with the rear face of the head 7 of the club is a plate 28 hav-

ing teeth formed on its lower edge, as shown at 29, this plate being connected to the ends of the club head at 31 by the arms 30. Each of said arms has an inwardly directed ear 32 moving in a recess 33 formed in the head of the club and containing an expansion coil spring 35, one end of said spring bearing against said ear while the other end is supported upon the adjacent portion of the plate 36 which is of the same area, as the base of the club head, and forms a protecting surface therefor, said plate 36 having an upwardly directed extension 36[a] forming the impact surface or face of the head, as shown in Fig. 4.

In employing my invention the club or putter is placed in the position shown in Fig. 5 and is rendered self-supporting as shown by the rod 37 pivoted to the collar 38, surrounding the shaft 8, the head of the club being maintained in place by the teeth of the plate 28 being embedded in the soil or turf, the plate 28 being pressed down against the tension of the spring 35 until the upper edge thereof is engaged by the spring actuated latch 39, as shown in Figs. 3 and 4. The sighting rod 40 is then removed from within the recess 41, shown in dotted line, in the grip of the shaft and placed in the socket 25, as shown in Figs. 1, 4, 5 and 6. The socket member may then be rotated on its pivot 27 to give the sighting rod the proper degree of inclination, as will be indicated by the position of the pointer 25[a] relative to the graduations on the member 17[a] carried by the member 17, lateral adjustment of the sighting rod being obtained by the manipulation of the thumb screw 42 keyed to the rod 12, this effecting the rotation of the member 17 so as to bring the pointer 17[b] fixed thereto into registry with any desired graduation upon the plate 43.

When the ball 44 has been properly alined with the hole 45 through the medium just described, the catch 39 is depressed against the tension of its spring 39[a], so that the plate 28 returns to its normal position in alinement with the rear face of the head of the club 7 by the expansion of the springs 35. The rod 37 may then be moved into normal position parallel to the shaft 8 and held there between the ends of the spring clamp 38[a] whereupon the stroke may be made.

In order to afford greater stability to the club when it is in sighting position, I have found it expedient to provide a plate 28 with the extensions 28[a] and 28[b] which are pivoted thereto, as shown as 28[c] and 28[d], these extensions being adapted to fold up in the rear of said plate 28 when their use is not required. 9[a] is a cap which may be secured to the grip end of the shaft 8 in any suitable manner to hold the rod 40 in its recess 41. The plate 36 may be secured to the head of the club in any suitable manner, such as for instance, as by the screws 7[a], and I have found it desirable to close the opening 16 extending through the club head and the adjacent portion of the plate 36 by means of a screw plug 46.

In the modified form of my invention in Figs. 7 and 8, I have disclosed a putter wherein the sighting rod socket member 25 is fixed to the head 7 of the club, the socket shown in dotted line at 47 being given a degree of inclination which will support the rod 40 in a position to meet the requirements of those who do not desire to avail themselves of the finer degrees of angular adjustment, which may be obtained by the structure shown in the remaining figures of the drawings.

Having thus described my invention what I claim as new and desire to secure by Letters Patent of the United States, is:

1. A golf club having a shaft and a head portion, and means for alining said head portion with a ball and the objective hole, said means comprising a socket member mounted in said head portion for rotary movement in planes at right angles to each other and a sighting rod adapted to be adjustably seated in said member.

2. A golf club having a shaft and a head portion, and means for alining said head portion with a ball and the objective hole, said means comprising a socket member mounted on said head portion for rotary movement in planes at right angles to each other, a sighting rod removably seated in said member and means for rendering said club self-supporting during the alinement thereof with the ball and hole.

3. A golf club having a shaft and a head portion, and means for alining said head portion with a ball and the objective hole, said means comprising a socket member mounted on said head portion for rotary movement in planes at right angles to each other, a sighting rod removably seated in said member and means on the shaft and head portion of said club adapted to cooperate to render the club self-supporting during the alinement thereof with the ball and hole.

4. A golf club having a shaft and a head portion, and means for alining said head portion with a ball and the objective hole, said means comprising a socket member mounted on said head portion, a sighting rod removably seated in said socket, means for rotating said socket member on a vertical axis and means whereby said socket member may be moved on a horizontal axis to function said sighting rod.

5. A golf club having a shaft and a head portion, and means for alining said head portion with a ball and the objective hole, said means comprising a socket member

mounted on said head portion, a sighting rod removably seated in said socket member, means incorporated in said head portion for rotating said socket member on a vertical axis and means for permitting the rotation of said socket member on a horizontal axis to function said sighting rod, and means for rendering said club self-supporting during the sighting operation.

6. A golf club having a shaft and a head portion, and means for alining said head portion with a ball and the objective hole, said means comprising a sight rod, a socket member to receive said rod mounted on said head portion, means embodied in said head portion for rotating said socket member on a vertical axis and means whereby said socket member may be moved on a horizontal axis to function said rod, and means carried by the head portion and shaft of said club, respectively, to render said club self supporting during the sighting operation.

7. A golf club having a shaft and a head portion, and means for alining said head portion with a ball and with the objective hole, said means comprising a sight rod, a socket member to receive said rod mounted on said head portion, means embodied in said head portion for rotating said socket member about a vertical axis and means whereby said socket member may be moved upon a horizontal axis to function said sight rod, a toothed plate mounted on the head portion of said club, a rod carried by the shaft of said club and means whereby said plate and said rod may be made to coöperate to render said club self-supporting during the sighting operation.

EDWARD VASSALLO HARTFORD.