March 21, 1950 W. H. HOLLOPETER 2,501,277

INDICATING GOLF CLUB

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Fig. 1

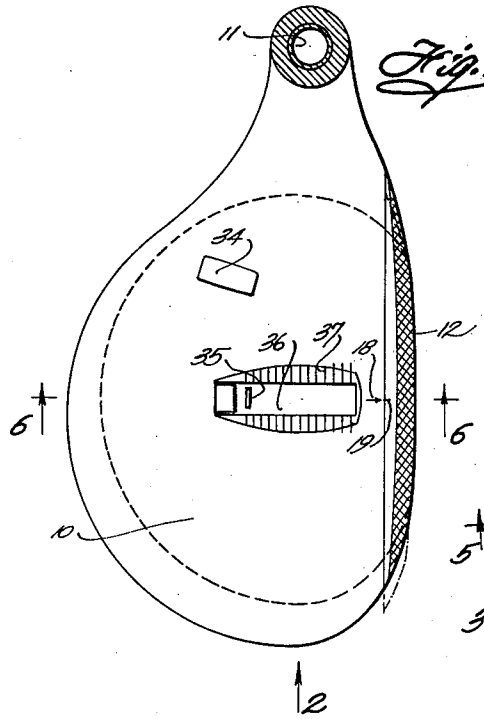


Fig. 2

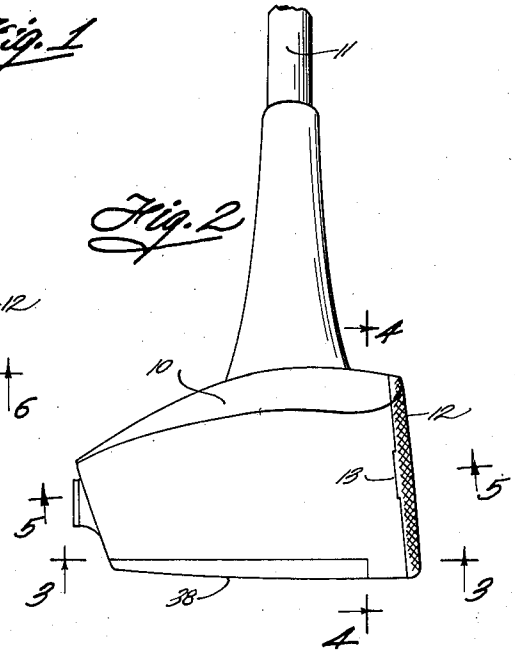


Fig. 3

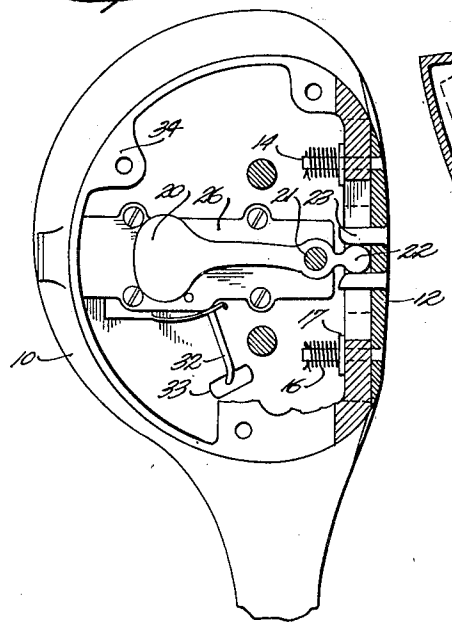
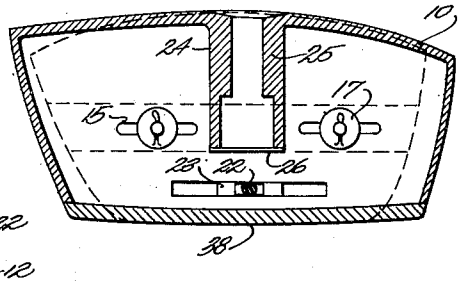


Fig. 4



Inventor:
WILLIAM H. HOLLOPETER
By Hazard and Miller
Attorneys

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Fig. 5

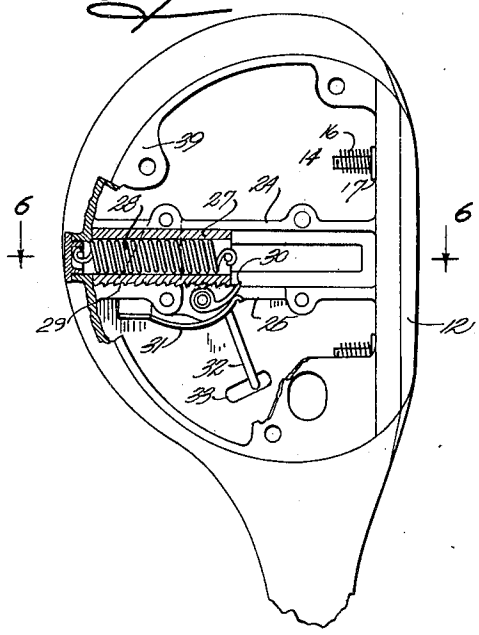


Fig. 6

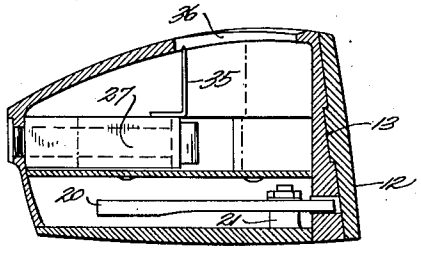
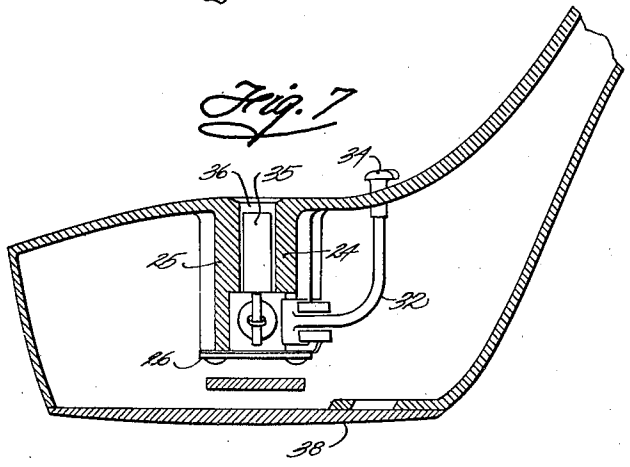


Fig. 7



Inventor
WILLIAM H. HOLLOPETER
By Townsend and Miller
Attorneys

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INDICATING GOLF CLUB

William H. Hollopeter, Oakland, Calif.

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4 Claims. (Cl. 273—77)

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This invention relates to an indicating golf club.

An object of the invention is to provide a golf club suitable for use in making practice strokes wherein a golf ball may be driven into a suitable arresting device such as a suspended fabric or the like and which will indicate to the person using the club whether his stroke therewith is such as to cause the ball to veer to the right or to the left of the intended flight, that is, "hook" or "slice" and the approximate degree thereof so that appropriate steps may be taken to make correction. By having the indicator thus embodied on the golf club itself practice shots may be taken in a relatively limited space and although the actual flight of the ball before it is arrested by the fabric is relatively short an accurate indication may be obtained indicative of whether the ball is struck with a "hook" or "slice" and the approximate degree thereof.

Another object of the invention is to provide a golf club having the above-mentioned characteristics and which has incorporated therein a means which will indicate approximately the length of flight that the ball would have taken if it had not been arrested by the arresting fabric.

With the foregoing and other objects in view, which will be made manifest in the following detailed description and specifically pointed out in the appended claims, reference is had to the accompanying drawings for an illustrative embodiment of the invention, wherein:

Figure 1 is a top plan view of the head of a golf club embodying the present invention the shank of the club being illustrated in horizontal section;

Fig. 2 is a view in end elevation of the club shown in Fig. 1;

Fig. 3 is a bottom plan view of the club head, the bottom cover thereof being shown as having been removed and parts being illustrated in horizontal section. This view may be regarded as having been taken substantially upon the line 3—3 upon Fig. 2 in the direction indicated;

Fig. 4 is a vertical section taken substantially upon the line 4—4 upon Fig. 2;

Fig. 5 is a view similar to Fig. 3 the parts illustrated in horizontal section therein being taken substantially upon the line 5—5 upon Fig. 2 in the direction indicated;

Fig. 6 is a sectional view taken substantially upon the line 6—6 upon Fig. 5; and

Fig. 7 is a sectional view taken substantially upon the line 7—7 upon Fig. 6.

Referring to the accompanying drawings wherein similar reference characters designate similar parts throughout, the improved golf club

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has a head generally indicated at 10 which may conform in shape to the shape of a conventional driver or brassy. This head may be attached to the shank 11 in any conventional or preferred form. The striking face of the head is provided by a platen 12 which is laterally slidable with relation to the body of the head 10. On the back of the platen there is preferably a rib 13 slidable in a groove on the forward side of the body that guides the platen 12 during its lateral sliding movement. The platen also carries studs 14 that extend through elongated slots 15 in the body of the head 10 and these studs are surrounded by means of compression springs 16 pressing against washers 17. The studs being slidable in the elongated slots 15 permit of lateral sliding movement of the platen and the pressure of the springs 16 on the washers 17 serves to cause the platen to be frictionally held in any position to which it is moved. Opposed witness marks indicated at 18 and 19 are formed on the head 10 and the platen 12 respectively. These witness marks when aligned indicate that the platen 12 is in a central or neutral position with relation to the body of the head. Within the head 10 there is disposed a counterweight 20 pivoted as at 21 within the head and carrying a lever arm 22 disposed between spaced lugs 23 on the platen. The counterweight 20 is movable in the same plane as that in which the platen 12 is movable and is so arranged that as the golf club is swung the counterweight will be subjected to the same centrifugal action as the platen 12. The design is such that the weight of the counterweight 20 multiplied by the lever arm from the pivot 21 to its center of gravity is equal to the weight of the platen 20 multiplied by the length of the lever arm from its center of gravity to the pivot 21. Consequently when the club is swung opposing moments are created by centrifugal action about the pivot 21. As these moments are equal and are opposed the platen 12 will not be displaced centrifugally as the club is swung but if positioned in its neutral or central position will remain in that position unless subjected to some force other than the centrifugal forces.

Within the head and extending at substantially right angles to the striking face of the platen there is a tubular guide formed by spaced ribs 24 and 25 that extend downwardly from the top of the head and which are joined at their lower ends by a bottom 26. This guide has a weight 27 slidable therein but the weight is urged into its rearmost position by means of a tension spring 28 suitably anchored at the back of the head and

fastened to the forward end of the weight. Along one side the weight has ratchet teeth 29 engageable by a pawl 30. The pawl is pivotally mounted at the side of the guide and is urged into engagement with the ratchet teeth 29 by means of a spring 31 that may be secured to the bottom 26. An arm 32 is secured to the pawl and extends upwardly through the top of the head and through a slot 33 therein. The top of this arm is equipped with a button 34. On the weight 27 there is an upstanding finger 35 arranged beneath a slot 36 in the top of the head and along the sides of this slot there may be graduations 37.

The operation of the club is substantially as follows: In making practice shots with a golf ball the platen 12 is adjusted so that the witness marks 18 and 19 are opposite each other. The button 34 is moved to cause the pawl 30 to disengage the ratchet teeth 29 and thus allow the weight 27 to be returned by the spring 28 to the back of the head. The club is swung in the conventional manner and during the swinging of the club the platen 12 is held against being thrown outwardly under centrifugal action by the counterweight 20. When the ball is struck if the club head is moved in such a direction as to impart a "hook" or "slice" thereto this will disturb or displace the platen 12 with respect to the body of the head and will be observable by the witness marks 18 and 19 becoming disaligned. Thus if the ball is struck in such a manner as to cause a "slice," platen 12 will slide outwardly or toward the toe of the club head. Conversely if the ball is struck in such a manner as to create a "hook" the platen 12 will slide inwardly. Once that the platen has been displaced from its normal or neutral position it remains in this displaced position throughout the swinging movement of the club due to the frictional engagement of the washers 17 with the back of the forward side of the club head.

At the instant of the impact there is a slight arresting of the forward movement of the club head and the inertia of the weight 27 causes this weight to slide forwardly in its guide against the action of the tension spring 28. During forward movement of the weight the ratchet teeth merely slide or pass beneath the pawl. The pawl, however, locks the weight in its forwardmost position and the extent to which the weight has moved forwardly may be read on the graduations 37 against the finger 35. Thus the improved golf club serves not only to indicate whether the ball is being driven with a "hook" or a "slice" but also indicates on the graduations 37 the approximate distance that the ball would be driven despite the fact that the actual flight of the ball may be arrested by a canvas fabric or the like quite close to the point where the ball is driven. The entire structure within the head is preferably enclosed by means of a removable bottom 38 which is fastened to the bottom of the head by means of screws passing through drilled and tapped ears 39 on the body of the head.

From the above-described construction it will be appreciated that a practice golf club is provided which will indicate not only the approximate distance that the ball would be struck if allowed to continue its flight but will also indicate whether the ball is being hit with a "hook" or a "slice" so that protective measures may be taken. After each strike the platen 12 if displaced is returned to its normal or neutral position and the pawl is caused to release the weight by means of the button 34 to allow the weight 27 to return to its initial position.

Various changes may be made in the details of construction without departing from the spirit and scope of the invention as defined by the appended claims.

I claim:

1. A golf club having a head, means providing a striking face for the head, said means being mounted on the head for lateral movement relatively thereto in the course of striking a golf ball therewith, and means for indicating a neutral position of the striking face providing means with relation to the head whereby the direction of displacement of the striking face providing means relative to the head can be ascertained.

2. A golf club having a head, means providing a striking face for the head movable outwardly toward the outer end of the head or inwardly toward the inner end of the head from a neutral position, and means for counterbalancing the striking face providing means so that during swinging of the club it will not be shifted relatively to the head by centrifugal forces developed therein.

3. A golf club having a head, means providing a striking face for the head, means shiftably mounting the striking-face providing means on the head for movement toward the toe of the head or toward the heel thereof from a neutral position, a counterweight mounted on the head for movement toward the toe or toward the heel, and means connecting the striking-face providing means and the counterweight in mutually counterbalancing relationship whereby when the club is swung centrifugal forces developed in the striking-face providing means and the counterweight respectively will counterbalance each other and the striking-face providing means will be displaced from its neutral position only by the manner in which it may engage a ball.

4. A golf club having a head, means providing a striking face for the head, means shiftably mounting the striking-face providing means on the head for movement toward the toe of the head or toward the heel thereof from a neutral position, a counterweight pivotally mounted in the head for movement about its axis of rotation toward the toe or toward the heel, and means connecting the striking-face providing means and the counterweight in mutually counterbalancing relationship whereby when the club is swung centrifugal forces developed in the striking-face providing means tending to shift it toward the toe will be counterbalanced by centrifugal forces developed in the counterweight and the striking-face providing means will be displaced from its neutral position only by the manner in which it may engage a ball.

WILLIAM H. HOLLOPETER.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,039,491	Collins et al.	Sept. 24, 1912
1,817,896	Henderson	Aug. 4, 1931
2,157,415	Jones	May 9, 1939
2,214,356	Wettlaufer	Sept. 10, 1940
2,244,972	Stumpf	June 10, 1941