

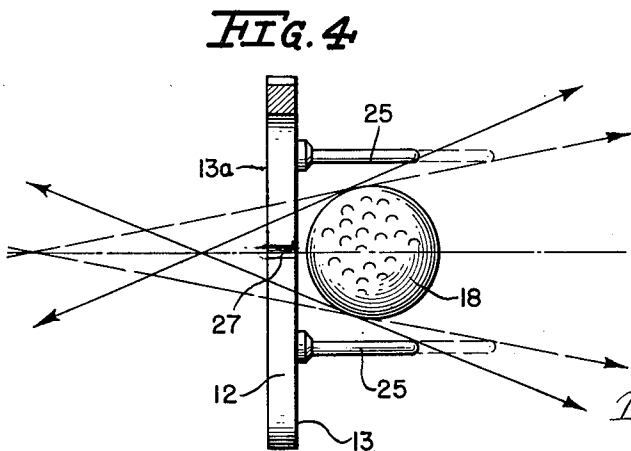
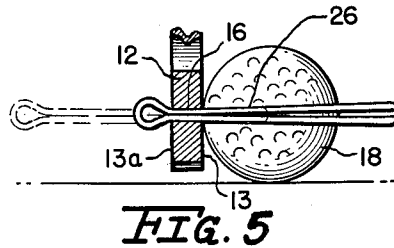
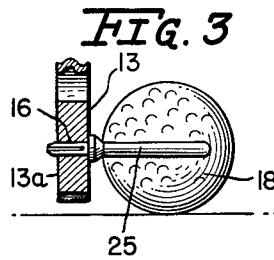
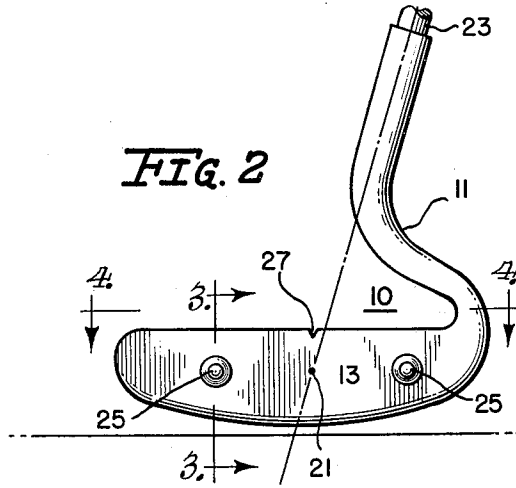
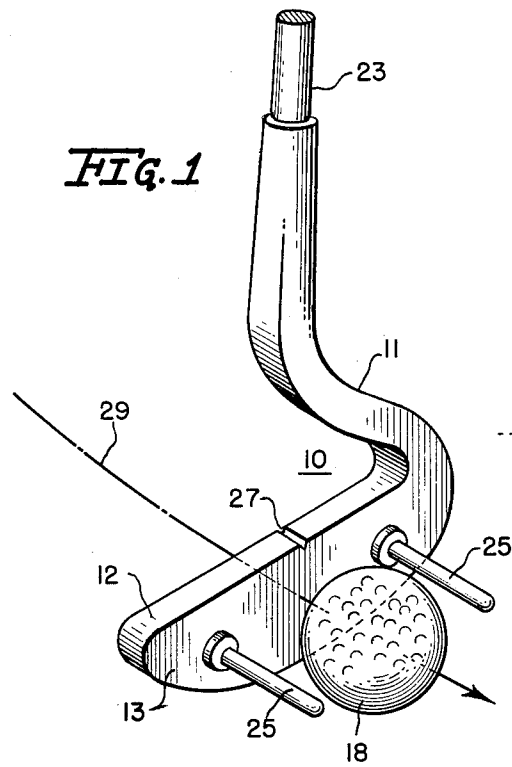
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PRACTICE GOLF CLUB

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## PRACTICE GOLF CLUB

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3 Claims. (Cl. 273-186)

This invention relates to a practice golf club for aiding a golfer in improving his golf game.

Numerous training or practice golf clubs have been developed for improving a golfer's swing. Unfortunately, most of these clubs only enable a golfer to improve his accuracy with respect to hitting a golf ball squarely, namely maneuvering the club so that the central area of the striking face meets the ball. There are, of course, many other factors of a swing, in addition to contacting the ball at the appropriate point on the club head striking face, that must be executed properly in order to propel the ball along the desired flight path. Specifically, the back stroke, down stroke and follow through are equally as important as the point of contact in determining the flight path taken by the ball. Applicant's practice golf club constitutes a significant advancement over previously developed practice clubs in that all of the factors involved in striking a golf ball may be improved. The practice golf club of the present invention, when used by a golfer, provides definite and different indications to the golfer when any of the above factors of the swing are improperly executed.

It is, therefore, an object of the invention to provide a new and improved practice golf club.

A practice golf club, constructed in accordance with the invention, comprises a club head having a golf ball striking face in which a pair of apertures, spaced apart a distance greater than the diameter of a golf ball, are provided to define that portion of the striking face which is the desired impact area. A pair of pins are respectively disposed in the apertures and extend outwardly from the face. Unless the back stroke, downstroke, contact of ball, and follow through are all properly negotiated, one or the other of the two pins will engage the golf ball, deflecting it in a direction to provide an immediate, tell-tale sign to the golfer indicating the particular factor or factors of the swing which were improperly executed.

The features of this invention which are believed to be new are set forth with particularity in the appended claims. The invention, together with further objects and advantages thereof, may best be understood, however, by reference to the following description in conjunction with the accompanying drawing, in which:

FIGURES 1-4 illustrate a practice golf club, specifically a putter, constructed in accordance with one embodiment of the invention; and,

FIGURE 5 shows a portion of the club of FIGURES 1-4 but modified in accordance with another embodiment of the invention.

Turning now to FIGURES 1-4, the illustrated putter includes a club head 10 having a gooseneck portion 11 and an elongated portion 12 which in turn has a substantially flat, golf ball striking face 13. A pair of apertures 16, one of which is shown in FIGURE 3, extend through elongated portion 12 of club head 10 in a direction generally perpendicular to the longitudinal axis of portion 12. The apertures are spaced apart along the length of striking face 13 a distance greater than the diameter of a conventional golf ball, such as ball 18 shown in the drawing. The apertures are so located that the portion of striking face 13 lying therebetween is the desired impact area, namely the area of the striking face that should engage golf ball 18 when the putter is properly swung.

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The incorporation of the gooseneck shaped portion 11 in club head 10 permits a weight distribution in the club head so that the weight center (namely, the center of gravity) of the club head may be located in the very center of the desired impact area, which center is midway between apertures 16. In other words, the weight center of club head 10 is located in elongated portion 12 along a line which intersects striking face 13 at a central point equidistant between the two apertures 16. This central point, at which the weight is theoretically concentrated, is designated by reference numeral 21 in FIGURE 2.

A shaft 23 is mechanically connected to gooseneck shaped portion 11. Specifically, an end portion of the shaft extends or telescopes into a hollowed-out portion of the club head and is mechanically affixed thereto by any appropriate means. It may even be simply a friction fit. By appropriately shaping gooseneck portion 11, shaft 23 lies along a line which intersects weight center 21. More specifically, shaft 23 leads into the club head at such an angle that the longitudinal axis of the shaft extends through the weight center 21 of club head 10, as clearly seen in FIGURE 2. With this arrangement, if the golf club is swung so that central point 21 of striking face 13 meets the golf ball, absolutely no torque results which would tend to rotate the club. This obtains since the ball is struck on the axis of the shaft rather than on one side of the axis which would produce an undesired resultant torque on the club.

Not only is there an absence of torque when hitting the ball but, moreover, no torque results during the back stroke, down stroke, or follow through. At no time during the entire swing of the club is there any torque or moment around the shaft axis to cause undesired pivoting of the club head away from the proper position. In other words, the club will never have a tendency to rotate due to its balance. Swinging of applicant's club requires relatively little effort since, being perfectly balanced, it is not necessary to grip the club as tightly as is required by most other clubs in order to overcome the torque produced by the club head. This permits the golfer to relax more.

In order to assist the golfer in developing proficiency in the use of applicant's putter as well as in the use of any club, a pair of pins 25 are respectively disposed in apertures 16 and each extends in a direction generally perpendicular to striking face 13. By means of pins 25, every factor involved in negotiating a proper swing may be checked or tested. More particularly, in using the practice putter illustrated, the golfer initially addresses the ball. A notch 27, which lies directly above central point or weight center 21, is provided in club head 10 to assist the golfer in lining up the club head with the ball in the address position. Notch 27 is perpendicular to the longitudinal axis of portion 12 of the club head. As the golfer withdraws club head 10 from the golf ball in initiating the backstroke, one of pins 25 will touch the ball and move it unless the club head is moved during the back stroke substantially along the path defined by arc 29 in FIGURE 1.

Likewise, the down stroke is checked in essentially the same manner. If the club head is not swung by the golfer substantially along the arc 29, one of pins 25 will engage the ball deflecting it in such a direction that the golfer immediately realizes in what manner he erred. Of course, the particularly one of pins 25 which touches the ball at the conclusion of the down stroke is determined by whether the club head cuts across the ball from inside out or from outside in.

Accuracy in contacting the ball at the central point 21 is also tested by the manner in which the golf ball is propelled or deflected by pins 25. If the club head is swung

through an arc that is neither outside in or inside out but is parallel to and spaced from arc 29 to the extent that the golf ball does not meet the striking face between pins 25, the golf ball will be struck by the free end of one of the pins. It will thus be propelled in a unique direction which provides a clear telltale sign of the particular error made.

Finally, unless the follow through is properly executed, the golf ball will engage one of the pins and will be carried in a direction unique to the particular error committed in the follow through.

Pins 25 may be affixed to apertures 16 in any appropriate manner. For example, they may be provided with slots at their ends which are disposed in the apertures, as clearly shown in FIGURE 3. The slots permit the ends of pins 25, inserted in the apertures, to be compressed when making the insertion. Once inserted, the pins are spring biased against the internal surfaces of the apertures, thereby holding them in place. Shoulders are provided on pins 25 to limit the extent to which they may be inserted in apertures 16.

Of course, pins 25 may be readily removed merely by pulling them out of their respective apertures. It is contemplated that the golfer will insert the pins only when he wishes to practice.

It is apparent that the distance to which pins 25 extend from striking face 13 determines the degree of accuracy that may be practiced. This is clearly shown in FIGURE 4 where longer pins 25 are shown in dashed construction. Also, pins 25 may be moved closed together if it is desired to provide an indication any time the club head deviates even slightly from arc 29.

It is contemplated that as the golfer's proficiency increases he will insert longer pins 25 in apertures 16. Alternatively, and in accordance with the embodiment in FIGURE 5, the pins are made adjustable so that they may be positioned to any selected one of a multiplicity of different positions in order to vary the distance to which the pins extend from the striking face. More particularly, in FIGURE 5 a pair of cotter pins 26, only one of which is shown, are respectively disposed in apertures 16. As shown in dashed construction, pins 26 may be moved to any desired position and they will remain there by virtue of the spring bias they exert against the internal surfaces of apertures 16.

It should, of course, be appreciated that the described club may be used by either left- or right-hand golfers; the pins may extend from the club on either side. Face 13a (see FIGURES 3-5) provides the striking face when the club is used by a left hander, and pins 25 or pins 26 may extend outwardly from surface 13a.

While particular embodiments of the invention have been shown and described, modifications may be made, and it is intended in the appended claims to cover all such modifications as may fall within the true spirit and scope of the invention.

I claim:

1. A practice golf club comprising:
  - a club head having a substantially flat golf ball striking face in which a pair of apertures, substantially perpendicular to said face and spaced apart a distance greater than the diameter of a golf ball, are provided to define that portion of said face which is the desired impact area;
  - and a pair of pins spring held in respective ones of said apertures for releasable insertion and each having a length which is at least a substantial portion of the diameter of a golf ball such that one or the other of said pins engages the golf ball if the complete swing of the golf club is not properly executed.
2. A practice golf club comprising:
  - a club head having a substantially flat golf ball striking face in which a pair of apertures, substantially perpendicular to said face and spaced apart a distance greater than the diameter of a golf ball, are provided to define that portion of said face which is the desired impact area;
  - and a pair of pins of adjustable length spring held in respective ones of said apertures for releasable insertion, the full length of each of said pins being at least a substantial portion of the diameter of a golf ball such that one or the other of said pins engages the golf ball if the complete swing of the golf club is not properly executed.
3. A practice golf club comprising:
  - a club head having a substantially flat golf ball striking face in which a pair of apertures, substantially perpendicular to said face and spaced apart a distance greater than the diameter of a golf ball, are provided to define that portion of said face which is the desired impact area;
  - and a pair of metallic pins each having two split portions which when compressed together permits releasable insertion in a respective one of said apertures so that said pins may extend outwardly from said face an adjustable distance, the maximum distance being at least a substantial portion of the diameter of a golf ball, said pins being spring biased against the internal surface of said apertures to hold said pins in place irrespective of the distance they extend.

#### References Cited by the Examiner

#### UNITED STATES PATENTS

664,338	12/00	Sprague.	
1,464,029	8/23	Coughtrie	273-194
1,572,527	2/26	Goldsworthy	273-193 X
2,057,821	10/36	Costello	273-194
2,926,913	3/60	Stecher	273-168 X
3,021,141	2/62	Polsky et al.	273-194
3,039,776	6/62	Faini	273-194 X
3,042,409	7/62	Johnson	273-164

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