United States Patent [19]

Taylor

[11] **3,820,795**

[45] **June 28, 1974**

[54] **GOLF SWING TRAINING DEVICE**

[76] Inventor: **David L. Taylor,** 380 W. Carmel Valley Rd., Carmel Valley, Calif. 93924

[22] Filed: **Aug. 9, 1973**

[21] Appl. No.: **387,003**

[52] **U.S. Cl.** ..... **273/186 A,** 273/194 B, 240/6.4 R

[51] **Int. Cl.** **A63b 69/36**

[58] **Field of Search** ..... 240/52.1, 52.5, 6.4; 273/190, 194, 186, 162; 35/29 A

[56] **References Cited**

UNITED STATES PATENTS

2,671,209	3/1954	Habib	240/6.4 FE X
2,787,470	4/1957	Barrus et al.	273/186 A
3,037,777	6/1962	Chedister et al.	273/194 X
3,070,373	12/1962	Mathews et al.	273/186 A X
3,106,403	10/1963	Kirkman	273/186 A
3,191,939	6/1965	Hooper	273/186 A

Primary Examiner—George J. Marlo

[57] **ABSTRACT**

The invention relates to a unit which is readily attached to and detached from a golf club shaft to provide a visual self-analysis of one's own golf swing. It consists of a golf club having removably secured to its hosel a snap fitting attachment carrying a light source directing a light beam upwardly, a hosel entrance opening on said attachment is positioned on the rearward side of said hosel.

2 Claims, 6 Drawing Figures

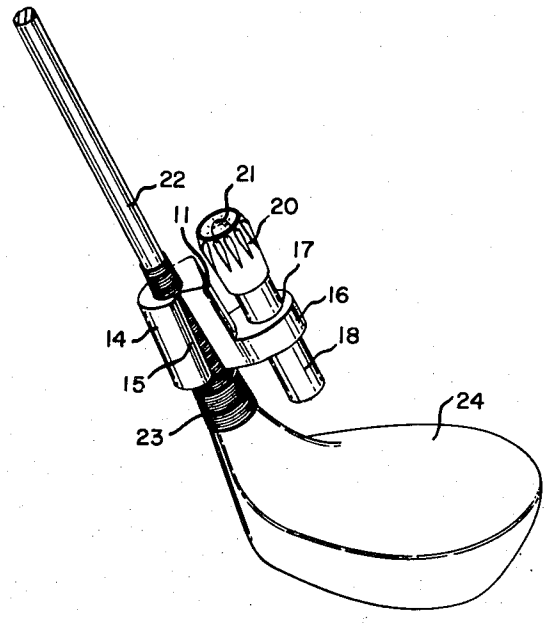
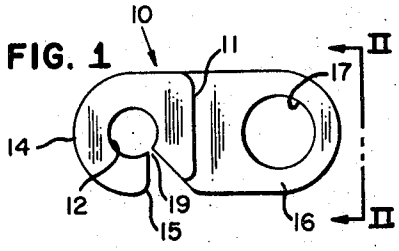


FIG. 1



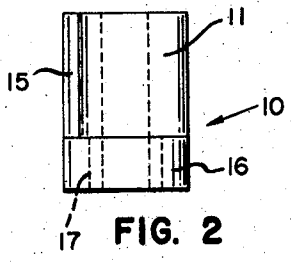


FIG. 2

FIG. 3

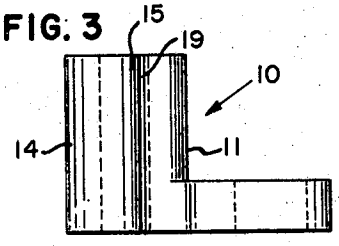
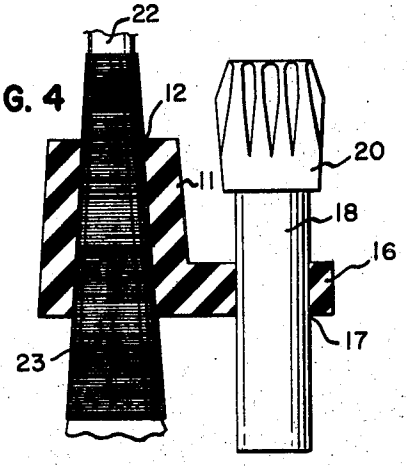


FIG. 4



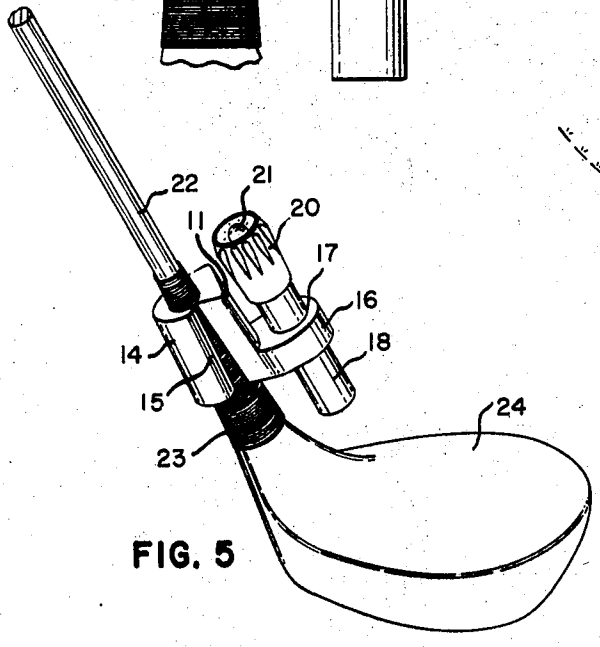


FIG. 5

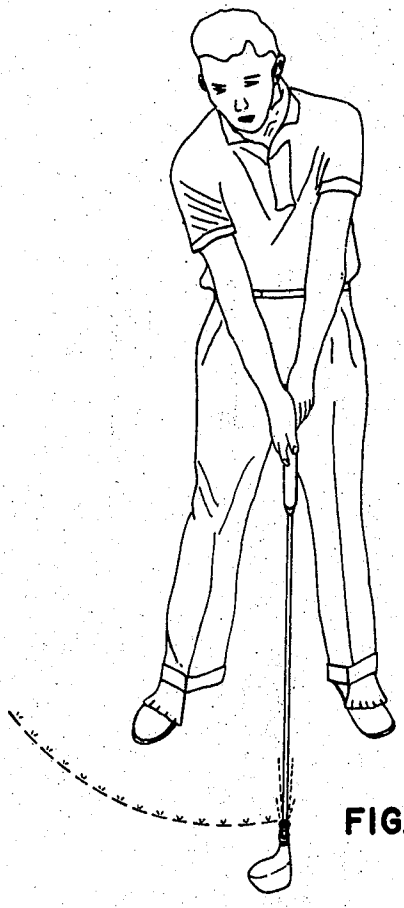


FIG. 6

GOLF SWING TRAINING DEVICE

This is a refiling of abandoned U.S. Pat. application Ser. No. 676,363, filed Oct. 18, 1967.

BACKGROUND OF THE INVENTION

Many golfers, and in fact most of them, are weekend golfers who have a limited time to devote to the game of golf and as a consequence devote the available time to playing rather than to practicing. If practice time is available, it is usually not as effective as it might be because up to the present time there has been no convenient way for the golfer to analyze his own swing with his own clubs. If he was fortunate enough to know the fundamental and correct golf swing, there was no way for him to know whether or not he was executing it properly.

It is now generally accepted that the fundamental and correct golf swing is the out-to-in swing. As the golfer addresses the ball and swings, the backward swing and the forward swing are not in the same vertical plane. To produce the correct swing the forward swing must be inside of the arc of the backward swing. This is not a natural movement because the right hand being lower on the grip and closer to the ball than the left hand, takes command and clearly comes outside of the backward swing, imparting a spin to the ball and causing the ball to slice or curve to the right. Since the golfer is not able to see his own swing he is unable to tell whether he is producing the correct out-to-in swing, except by the unsatisfactory results.

However, knowing what to do is not enough, as it is the doing of it which is important to the average golfer. The difficulty is in knowing precisely what one is doing before there can be any effective determination of what needs correction, and then checking the counter measures to determine whether or not the proper swing results.

The present unit is intended for use by every golfer from the very beginner to the professional. It provides a visual means which can be readily attached to one's own golf clubs for use at a time convenient to any golfer and without any necessity for someone else to observe and correct the errors made in the golf swing. It is intended to provide a visual self-analysis of one's own golf swing with his own golf clubs. It is a completely relaxed use because without violating the fundamental principle of golf, i.e., that the head must remain still at all times during the swing, the swing in all of its stages is easily traced by a light trail which is constantly within the vision of the golfer. Most individuals have a persistence of light image as well as peripheral vision which permit the tracing of the light through the entire swing path without moving the head. The use of this unit permits the golfer to practice his swing, analyze it instantaneously and at the same time concentrate on doing the many things which are required to improve the golf swing.

The present invention permits the golfer to try out and make changes in his swing or provide other adjustments such as changing the grip, the position of the hands, the pointing of the feet, and all manner of things, with instantaneous observable results through the use of the visual light tracer.

Golf is a game which is played in daylight hours at distant specialized locations. Usually it is not feasible to secure the time and place for proper practice. With the use of the light tracer there is no need to go to any special location and even daylight is not required. The light tracer unit is more discernible as the daylight is reduced and of course is available for use anywhere there is room enough to swing a golf club safely.

All of these and many others are the purposes and the accomplishments of the present invention.

Further objects are to provide a construction of maximum simplicity, economy and ease of assembly and disassembly, also such further objects, advantages and capabilities as will fully appear and as are inherently possessed by the device and invention described herein.

The invention further resides in the combination, construction and arrangement of parts illustrated in the accompanying drawing, and while there is shown therein a preferred embodiment thereof, it is to be understood that the same is illustrative of the invention and that the invention is capable of modification and change and comprehends other details of construction and materials without departing from the spirit thereof or the scope of the appended claims.

In the Drawings:

FIG. **1** is a top view of the resilient member for the tracer attachment to a golf club shaft;

FIG. **2** is a front elevational view of the resilient member;

FIG. **3** is a side elevational view of the resilient attachment;

FIG. **4** is a side elevational view showing the resilient member in section and in position on the hosel of a golf club shaft, with the light means also shown in position;

FIG. **5** is a perspective view of the resilient tracer attachment in position on the hosel of a portion of a golf club shaft of a wood club; and

FIG. **6** is a view showing the manner of using the tracer light of the attachment in following the swing of a golf club.

Referring now more particularly to the drawings, in which like reference numerals indicate like parts in the several views, there is shown a simple and readily attachable and detachable unit for the practical study and correction of a golf swing. The unit comprises a resilient flexible member which is generally designated **10.** This portion or member is cylindrical in shape with its outer face **11** flattened throughout its entire length. It is provided with an axial bore **12** which tapers to the largest diameter at the bottom, as shown in FIG. **4.** The cylindrical wall **14** is opened with a V-cut **15** which extends for the entire longitudinal length of the unit and opens into the central bore **12** with a narrow slot **19.** Integrally attached to the bottom of the cylinder **14** is a planar lip **16** which extends radially outward. It is provided with a through bore **17** and has its center in the same vertical plane as the center of the axial bore **12.** The bore **17** provides a sufficient opening to receive and frictionally hold the shell or casing of a standard miniature flashlight **18** which has a crowned top **20.** By rotating the top **20** clockwise, the light bulb **21** is brought in contact with the battery terminals within the shell **18,** to light the same and it remains lit until the top **20** is rotated counter-clockwise to life the light bulb **21** away from the battery terminals.

The manner of using the swing tracer attachment is to slip the shaft of a golf club laterally into the opening **15** and through the narrow slot **19** so that the axial

through bore **12** surrounds the shaft **22.** The resilience of the material will permit this insertion and return to its usual form around the shaft. With the resilient member in this position it is moved downwardly onto the hosel **23** of the shaft **22** until the resilience of the member **10** firmly grips the windings, or other means, used to secure the club head to the shaft **22.** It does not make any difference whether the club head is for a wood club **24,** or for an iron which is not shown. The tapered longitudinal face and the flexibility of this unit are sufficient to accommodate to any size hosel. In positioning the resilient member **10** on the hosel care should be exercised that the flat portion **11** is directed substantially in a plane which is perpendicular to the angle of address to the ball.

The shell or case **18** for the flashlight is then inserted through the bore **17** in the manner shown in FIGS. **4** and **5,** so that the light bulb **21** is directly upwardly substantially parallel to the shaft **22.** It is apparent that the flashlight case **18** may be left in the resilient member **10** whether it is on or off the golf club and that it is not necessary to insert the flashlight into position after the resilient portion is in place on the hosel **23.**

When the flashlight **18** and its resilient holder are in position as a tracer unit on the golf club adjacent the head thereof, the light may then be turned on in the manner heretofore described, and with the light on, the golfer may take his usual grip on the club and swing it through the arcs of his normal swing.

It is a fundamental principle of a correct golf swing that the golfer's head remain substantially unmoved from the position shown in FIG. **6,** and even though the head remains in the same position with the eyes directed to the point of contact of the club head with the ball, the arc of the swing both on the backward swing and on the forward swing, can be followed by means of the path defined by the illumination of light bulb **21.**

The natural phenomenon of peripheral vision plus that of the stroboscopic effect of the persistence of light, makes the use of this unit possible.

There is also a further unexpected improvement in the swing. The golfer is so concentrated on the light trail of the swing during practice that he will naturally keep his head down as the club passes through the hitting area or zone. This develops the added discipline to form the important habit of not raising one's head, or as commonly called "looking up," as the ball is struck. It would be quite impossible to see the light trail of the stroke through the hitting area or zone and suffer the fault of looking up at the same time or just prior to the moment when the ball is struck.

It is not necessary that this practice and analysis of one's own golf swing be done in a darkened room or in a darkened area, although, of course, it works better in subdued light. However, if the eyes are properly positioned with respect to the point of contact with the ball and the head remains still, merely by following and tracing the arc defined by the light **21** in the swing, it is possible to make a self-analysis of one's own golf swing and then practice to correct or improve the swing. In this manner one may practice a proper swing alone and unassisted. The practice becomes effective and not the unknowing repetition which merely entrenches bad habits.

As has been indicated earlier, one of the most difficult things in golf is self-analysis and particularly with respect to the actual swing itself. By using the attachment provided by this invention it is possible for every golfer from the status of beginner to seasoned professional to study his own swing at his own time and have an accurate instantaneous, observable light analysis of the path of the swing. The use of this device is not restricted to wood clubs but is readily adaptable for all other clubs, including the long and the short irons.

The putting stroke can also be greatly improved by practice with this unit. The true putting stroke is made in a straight line back and forth swing through the ball. Due to the brevity of this stroke, this can be accomplished with consistent practice; however, normally it is very difficult to see and interpret the path of the stroke. The use of the present unit makes it possible for the first time through the visible swing light path, to observe and develop a proper putting stroke. It will also clearly show any slightly curved swing path which is usual with almost every golfer. With the visual control it is possible to overcome the improper swing of the putting stroke.

Since this attachment can be placed on any club, it is apparent that it is available to any golfer, at any time, and for use with his own clubs. The training thus has the benefit of convenience and use with the very clubs employed in the play.

It is further apparent that the use of this analysis and training device does not in any way involve a hazard. Through the resilient gripping means the device remains in position on the hosel of the club at all times and there is no danger of hitting or striking the battery or the bulb, or having the unit unexpectedly release itself because of the centrifugal force generated by the swing.

While the above is true, it is not recommended that this training device be used when actually striking a golf ball. Use with the common lightweight wool or plastic balls which simulate golf balls may be substituted, but it is suggested that the use of a simulated golf ball is not necessary to the analysis of one's golf swing and practice with the light tracer unit.

I claim:

1. Golf swing training apparatus comprising a golf club having removably secured to the hosel thereof a resiliently expandable and self-contractable cylindrical member having, when detached from said hosel, an axial bore therethrough of a normal diameter less than the diameter of said hosel and a wedge-shaped entry to said bore throughout its entire length, said member being so positioned on said hosel that said wedge-shaped entry is on the rearward side of said hosel, and said member being secured to said hosel solely by the contracting forces resulting from having expanded the diameter of the bore therein beyond its normal diameter to accommodate the larger diameter of said hosel, means extending from and integral with said cylindrical member for receiving and holding a self-powered light source in spaced relation from and parallel to the hosel and shaft of the club, and a self-powered light source removably held in said means so that a light beam therefrom may be directed upwardly parallel to said shaft and give a continuous light beam during use whereby all positions of the upward and downward, start and finish of a golf swing may be visually observed by the golfer-user.

2. The golf swing training apparatus of claim **1** wherein the self-powered light source is a small flash light.

* * * * *