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GOLF SWING INDICATOR

Ralph J. Carboni, 327 Sharon Drive,
New Orleans, La. 70124

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ABSTRACT OF THE DISCLOSURE

A golf ball driving device which will indicate whether or not the golf club is swung correctly when attempting to drive the golf ball straight and within the confines of a fairway. One feature of the device is a down-swing indicator means which utilizes a U-shaped pin, one leg of which is embedded in an impact-resistant guide pin and the other end of which is adapted to strike a pivotally mounted pointer when the guide pin is struck by the golf club head thereby indicating an incorrect down-swing. The device also includes a follow-through mechanism wherein upright tubings, engageable by the club head, are connected to a dowel mounted for movement about a horizontal axis. The dowel is spring biased to a predetermined position so that the tubings may be retained in an upright position.

This application is a continuation-in-part of application Ser. No. 398,263, filed Sept. 22, 1964, now abandoned, for Golf Practice Swing Device.

The present invention relates to an improved golf swing indicator and, more particularly, to a golf ball driving device which will indicate whether or not the golf club is swung correctly when attempting to drive the golf ball straight and within the confines of a fairway.

As more completely set forth in the aforementioned parent application for golf practice swing device, the use of professional or non-professional advice and/or the use of golf driving ranges by a golf player attempting to learn how to drive the ball straight, i.e., within the confines of the fairway, has generally not proven to be satisfactory. Professional advice is expensive and non-professional advice is often confusing and of little value while, at golf driving ranges, there is no means, other than a professional instructor, for actually showing the golfer how to swing correctly.

The golf practice swing device set forth in the parent application offers a solution to the above difficulties by providing a means which indicates an incorrect golf swing, thereby permitting the golfer to remedy same and, accordingly, perfect his driving ability. Though this device has served the purpose well and has proven to be extremely helpful, it is apparent that a device which could serve the same purpose yet which would be less expensive and less complicated would be more desirable.

The general purpose of this invention, therefore, is to provide a golf swing indicator which embraces all the advantages of similarly employed prior art devices and which possesses none of the aforescribed disadvantages. To attain this, the present invention contemplates a unique unitary construction which incorporates both a down-swing and an up-swing (or follow-through) indicator mounted on a single base to thereby provide a compact and inexpensive device.

Accordingly, an object of the present invention is to provide a golf swing indicator which is characterized by simplicity of construction, low initial cost and maintenance and ease of use.

Another object of the present invention is to provide a golf swing indicator which shows a player if the golf

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club was swung correctly during both the down-swing and the follow-through of the golf club.

Another object of the present invention is the provision of a golf swing indicator which permits the interested golfer to perfect his game either in the confines of his own yard or at a golf driving range.

A further object of the invention is to provide a golf swing indicator which requires little or no installation, which is portable and which is safe to use.

A still further object of the present invention is the provision of a golf swing indicator embodying new and improved down-swing and follow-through indicator means.

Other objects and the nature and advantages of the instant invention will be apparent from the following description taken in conjunction with the accompanying drawings, wherein:

FIG. 1 is a plan view of the golf swing indicator in accordance with the present invention;

FIG. 2 is a side elevation of the apparatus shown in FIG. 1;

FIG. 3 is a perspective view of the down-swing indicator mechanism in accordance with the present invention;

FIG. 4 is a side elevation, partly in section, taken on the line IV—IV of FIG. 3; and

FIG. 5 is a side elevation, partly in section, taken on the line V—V of FIG. 4.

Referring now to the drawings, wherein like reference characters designate like or corresponding parts throughout the several views, there is shown in FIGS. 1 and 2 a golf swing indicator, shown generally by reference character 10, comprised of a down-swing indicator section 12 and an up-swing or follow-through indicator section 13. The entire assembly is mounted on a board 14 preferably formed of a 48" x 16" section of plywood, but which may be formed of any suitable material having similar dimensions. A driving mat 15, of rubber or the like, is secured to the upper face of the mounting board 14 adjacent the extreme right-hand edge thereof with the longitudinal axis of the driving mat 15 being offset by approximately 10 degrees with respect to the longitudinal axis of the mounting board 14. If desired, the driving mat 15 may be inclined slightly to provide proper positioning of the golf ball.

A rubber tee 16 having a circular base 18 is mounted on the driving mat 15 adjacent the forward edge thereof. The tee 16 may be of conventional construction and is adapted to hold a golf ball at the proper height for driving. Of course, if the golf swing indicator 10 is used in a confined area, such as a golfer's own yard, rather than at a driving range, an actual live golf ball need not be used. In these instances, the golf swing indicator 10 can be used either with no ball at all or with a practice ball having a short range.

A guide pin 20 having a circular base 22 is mounted on the driving mat 15 near the midpoint thereof. As illustrated in FIG. 1, the guide pin 20 is located adjacent the far edge of the driving mat 15 and, in this position, the golf swing indicator 10 is intended to be utilized by a right-handed golfer, however, it should be understood that the device may also be used by a left-hand golfer by merely positioning the guide pin 20 near the other edge of the driving mat 15 and offsetting the mat in the opposite direction.

As more clearly shown in FIGS. 3, 4 and 5, a wire 24, of spring steel or the like, having a generally L-shaped cross-sectional configuration, is rotatably mounted on the driving mat 15 by means of staples 26, or the like. The wire 24 has a pair of leg members 28 and 30 which are normally vertically disposed with respect to the driving mat 15. The longer leg 28 is embedded within, and coaxial with, the upwardly projecting guide pin 20 so that,

when the guide pin 20 is struck by the golf club head and caused to pivot in the direction of arrow 31, the wire leg 28 will pivot in the same direction, as indicated by arrow 32. As is apparent, the shorter leg 30 of the wire 24 will pivot with, and in the same direction as, the longer leg 28.

A pointer 34 is pivotally mounted about a vertical axis on the driving mat 15 by means of a screw 36, or the like. The pointer 34 has integral vertical and horizontal wall surfaces 38 and 40, respectively, and a downwardly projecting vertical flange 42 extending from the horizontal wall 40. The pointer 34 is mounted on the driving mat 15 so that the downwardly projecting flange 42 is adjacent the upwardly projecting short leg 30 of the wire 24. Therefore, when the guide pin 20 is struck by the golf club head thereby pivoting legs 28 and 30 of the wire 24 in the direction of arrow 32, the short leg 30 will engage the inside face of the flange 42 thereby causing the entire pointer assembly 34 to rotate about a vertical axis through the screw 36.

In addition to the guide pin 20 with its corresponding pointer 34, the down-swing indicator 12 preferably comprises two other guide pins, 20' and 20'', respectively. Guide pin 20' is located directly behind the guide pin 20 adjacent the far edge of the driving mat 15 for a right-handed golfer while the guide pin 20'' is located adjacent the near edge of the mat 15 and slightly in front of the tee 16.

As with the guide pin 20, the guide pins 20' and 20'' are mounted in association with pointers 34' and 34'', respectively, through suitable supporting and linkage members as described above in relation to the guide pin 20.

The up-swing or follow-through section 13 of the golf swing indicator 10 is positioned at the other end of the mounting board 14 and is comprised of a cylindrical dowel or tubular member 46 having, in the embodiment illustrated in the drawing, three resilient impact resistant tubings 48, 50 and 52, respectively, embedded therein, although only two such tubings would be adequate. A $\frac{3}{32}$ " steel wire (not shown) is preferably passed through each tubing and through the dowel 46 about which such wire is hooked for providing additional strength and rigidity to the structure. The dowel 46 is rotatably secured to the mounting board 14 by means of a pair of conventional hold down clamps 54. An inclined board 56, which protects the dowel 46 from the golf club swing, is also secured to the mounting board 14 by means of a plurality of screws and a spacer block 58 with the edge 60 thereof abutting the top of the dowel 46. A spring 62 is secured to the dowel 46 and to the mounting board 14 so as to normally urge the dowel 46 and the tubings 48, 50 and 52 toward the upward full-line position indicated in FIG. 2 although such spring 62 is preferably disposed beneath the inclined board 56. A stop peg 64, embedded in the dowel 46, abuts the edge 60 of the inclined board 56, thereby preventing the dowel 46 from further clockwise rotation than as illustrated.

In one embodiment of the invention, most of the structural elements of the golf swing indicator 10 are formed of wood, although it is within the scope of the present invention to form them of any suitable material, such as cast plastics or case or fabricated metals. The tee 16, the guide pin 20 and the tubings 48, 50 and 52 may be formed of rubber or any suitable materials, such as a flexible and impact resistant plastic, e.g. polyethylene, polypropylene, plasticized vinyl resin, ABS impact polystyrene, etc. The driving mat 15 may be formed of a resilient cushioning material, preferably a brush material, such as tampico.

In order to drive a golf ball straight and within the confines of the fairway, the golf club must be swung so that the head thereof traverses an arc which goes from inside to outside. During use of the golf swing indicator 10, the player should address the golf ball properly and attempt to swing the golf club from the inside to the outside. On the down-swing, the player should, therefore,

swing the golf club as near as possible to the guide pins 20 and 20' without hitting them, whereupon the golf club head will make contact with the top of the tee 16 and the golf ball thereon, if one is used. If either of the guide pins 20 or 20' is struck by the golf club head on the down-swing, the wire 24 and the short leg 30 will pivot about a horizontal axis thereby causing the pointers 34 or 34' to rotate about a vertical axis to a different position. This indicates that the golf club was swung going out coming in, and that the golf club was swung incorrectly. Prior to the next swing, the pointer 34 or 34' must be rotated back to its normal position. Alternatively, the pointer 34 or 34' could be spring biased to automatically return to its normal position, if desired. Similarly, if the club head is not swung sufficiently near the pins 20 or 20', it will strike the guide pin 20'' causing rotation of the pointer 34'' and thereby indicating that the club was not swung sufficiently to the outside.

On the up-swing or follow-through, the club head should strike any one or two of the three tubings 48, 50 and 52, thereby indicating that the club was swung correctly. When struck, the tubings 48, 50 and 52 will rotate downwardly about a horizontal axis to the dotted line position indicated in FIG. 2 and then will spring back upwardly to its normal position under the urging of spring 62. Alternatively, the tubings 48, 50 and 52 or the dowel 46 could be arranged to close an electrical circuit when struck, thereby either ringing a bell or turning on a light in addition to the rotation thereof. Of course, both the downswing and the follow-through must be swung correctly in order to drive the ball straight. Therefore, when driving the ball from the tee 16, the club head should not strike the guide pin 20 but should strike one or more of the tubings 48, 50 and 52. If either the guide pin 20 is struck or the tubings 48, 50 and 52 are missed, the swing was incorrect.

It will be obvious to those skilled in the art that various changes may be made without departing from the spirit of the invention and therefore the invention is not limited to what is shown in the drawings and described in the specification, but only as indicated in the appended claims.

What is claimed is:

1. A golf swing indicator comprising: means for teeing a golf ball mounted on a driving mat and a down-swing indicator mechanism mounted on said driving mat and spaced behind said laterally from said ball teeing means; said indicator mechanism comprising at least one upwardly projecting substantially vertical guide pin, a relatively rigid wire having a pair of connected upwardly extending spaced legs of unequal height, the longer of which is imbedded in the guide pin, means mounting said wire for rotatable movement about a horizontal axis, and an integral rotatably mounted pointed mechanism having a flange projecting therefrom, said flange being disposed adjacent the shorter leg of said wire so that when said guide pin is struck by a golf club head on the down swing thereof, said guide pin and both legs of said wire are caused to pivot about said horizontal axis and cause said shorter leg to engage and move said flange to effect rotation of said pointer mechanism.

2. A golf swing indicator in accordance with claim 1 wherein: said ball teeing means and said guide pin are formed of a resilient impact resistant material and said driving mat is formed of a resilient cushioning material.

3. A golf swing indicator in accordance with claim 1 wherein: said indicator mechanism comprises a second and third upwardly projecting substantially vertical guide pin, a second and third wire each having a pair of connected upwardly extending spaced legs of unequal height, the longer legs of said second and third wires being embedded in said second and third guide pin, respectively, each of said second and third wires being mounted for rotatable movement about a horizontal axis, and second and third pointed mechanisms each having, respectively, a second and a third flange projecting therefrom, said

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second flange being disposed adjacent the shorter leg of said second wire, and said third flange being disposed adjacent the shorter leg of said third wire so that movement of said second and third guide pins by a golf club head causes said second and third wires to pivot about a horizontal axis and the shorter legs of said second and third wires to engage and move said flanges of said second and third pointer mechanisms to effect rotation thereof said second guide pin being disposed behind said first mentioned guide pin, and said third guide pin being disposed slightly in front of said ball teeing means and laterally spaced therefrom in a direction opposite to the lateral spacing from said ball teeing means of said first and second vertical guide pins.

4. A golf swing indicator in accordance with claim 1 further comprising a follow-through indicator mounted in front of said tee mechanism, said follow-through indicator comprising a dowel mounted for rotatable movement about a horizontal axis and including spring means biasing said dowel to a predetermined rotary position about said horizontal axis, and a plurality of golf-club contacting tubings projecting from said dowel in an inclined upward position, whereby, when said tubings are struck by said golf club head on the follow-through thereof, said dowel and tubings will be caused to rotate about said horizontal axis thereby indicating a correct follow-through and said spring biasing means will cause said tubing to be returned to said inclined upward position.

5. A golf swing indicator comprising a downswing indicator means and a follow-through indicator means located in front of said down-swing indicator means; said down-swing indicator means comprising an upwardly projecting vertical guide pin formed of resilient impact-re-

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sistant material, a wire having a bottom portion rotatably mounted about a horizontal axis and a pair of spaced legs of unequal height extending upwardly from said bottom portion, and the longer of said legs being embedded in said guide pin, and a pointer mechanism mounted for rotatable movement about a vertical axis, said pointer having a vertical wall and a horizontal wall integral with said vertical wall, a downwardly projecting flange extending from an edge of said horizontal wall, said flange being disposed adjacent the shorter leg of said wire so that when said guide pin is struck by said golf club head on the downswing thereof, said guide pin and both legs of said wire are caused to pivot about said horizontal axis thereby causing said shorter leg to move said flange to effect rotation of said pointer about its vertical axis.

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30 ANTON O. OECHSLE, *Primary Examiner.*

GEORGE J. MARLO, *Assistant Examiner.*