Sept. 12, 1967 J. F. MARCELLA 3,341,208

GOLF SWING GUIDE

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FIG. 1

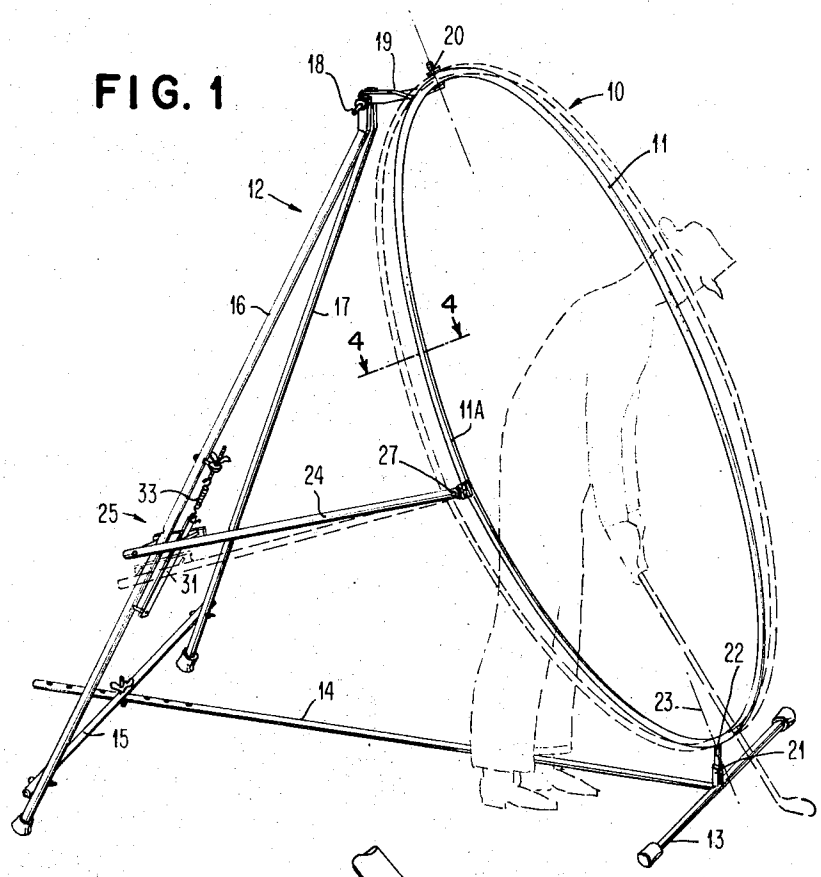


FIG. 2

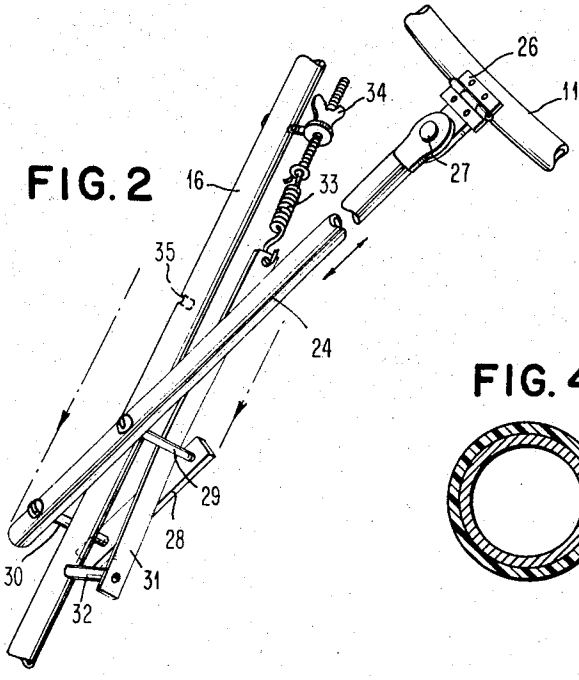


FIG. 3

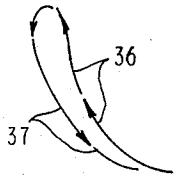


FIG. 4

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GOLF SWING GUIDE

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ABSTRACT OF THE DISCLOSURE

Golf club guide ring **11** is initially positioned to determine proper "back-swing" arc. Ring **11** then pivots about axis **23** to a new (dotted) position to guide the club on the down swing in an "inside-out" path.

This invention relates to game apparatus and more particularly to a device for assisting one in the proper execution of golf strokes.

The average golfer has a great deal of difficulty in developing the proper golf swing, especially off the tee with a driver. Most particularly, he encounters a problem in developing the so called "inside-out" swing, which is regarded as an essential technique in order to attain consistent driving with accuracy and distance.

A great number of prior proposals have been directed generally to assisting the golfer to practice the correct movements but they do not combine simplicity of construction and low cost. Moreover, many of these devices do not guide the club in such a way that the normal balance or feel is preserved. Many of them remove this feel entirely by the use of carriages and the like for the club with the result that the benefits of the training are not fully realized.

Accordingly, it is an object of the present invention to provide a golf swing guide device that will effectively promote the natural development of the "inside-out" swing.

Another object is to provide a golf swing guide that will permit the average player to attain the true feel of the club in the execution of the stroke.

A further object is to provide a golf swing guide device which is utterly simple in construction, light weight and inexpensive.

It is a well-known fact that in executing a golf swing the club head must come into the ball squarely. Quite often, however, especially in the case of the average golfer, the association between the initial move away from the ball and the manner in which the club head returns is often ignored. To hit the ball from the "inside-out" does not require that the club be taken back behind one's waist or knee. Rather it requires a straight takeaway for the first few inches, turning inside only when the shoulders turn. To acquaint the user with this proper action in the back swing is one of the fundamental objectives of the golf swing guide of the present invention.

Although, as noted above, it is found desirable to bring the club straight back from the ball, thereby to attain the proper wind up and to establish a wide arc and greater leverage, this alone is not sufficient to deliver to the ball on the down swing the proper power for a good drive and to avoid "slicing." The club head must be guided into the proper hitting position.

The present invention overcomes the failures and limitations of the prior art proposals, alluded to above, by providing an automatic shift in the position of the guide device when a predetermined point established by the player is reached in the back swing. By this means, particularly, contrasted with prior art proposals, the player is urged, by maintaining the club against the guide, automatically to turn his hips and lower his hands on the down swing and therefore bring the club to the desired "inside-out" path, thereby delivering maximum power to the ball.

Another feature of the present invention resides in the construction of the golf swing guide such that complete adjustability is permitted in both regulating the predetermined point at which the changeover occurs in the position of the guide ring, as well as allowing for variation in the extent of angular change in the guide plane.

The present invention also contemplates that the guide structure be completely weatherproof. To this end, galvanized tubular members are employed and the guide ring is covered with a plastic covering, such as polyethylene, also eliminates any danger of abrasion of the club handle when executing the golf swing.

Although a single complete embodiment is illustrated in the accompanying drawings and is described in detail in the following specifications, it will be understood that this embodiment is by way of example only and that the invention is not limited in scope except as defined in the appending claims.

In the drawings:

FIG. 1 is a general perspective view of one embodiment of the device of the present invention.

FIG. 2 is an enlarged fragmentory view, from the right, of the details of the control portion of the guide device.

FIG. 3 is a perspective view, depicting the arcs described by the club head in the back swing and the down swing.

FIG. 4 is a cross sectional view of a guide ring portion of the device taken at section **4**—**4** of FIG. 1.

In the figures of the drawing, wherein like reference characters denote like parts, the numeral **10** generally designates the guide structure of the present invention consisting of a guide ring **11** pivotally mounted on a frame **12**. The frame **12** comprises base members **13**, **14**, and **15**. Base member **14** typically is welded or bolted to the front base member **13**. The other end of base member **14** is attached to base member **15**, typically by a nut and bolt arrangement, and base member **14** has a plurality of apertures therein for ready adjustability of the entire structure. Base member **15** is also attached in similar fashion to the spaced posts **16** and **17** which are brought together in a tripod-like arrangement at the top and joined by connector **18**. A stand-off element **19** is pivotally connected to this juncture of posts **16** and **17**, and is connected to the guide ring **11** by pivotal means **20**. The base member **13** provides support at the front for the guide ring **11** by means of a rigidly connected tubular post **21**. Within post **21**, a post **22** is slidingly mounted for ready adjustment of the height of the guide ring **11**. Post **22** is locked in the adjusted position by a set-screw (not shown). Post **22** is connected by pivotal means **23** to the guide ring **11**. The control mechanism for the guide ring **11** comprises an arm **24** and a control mechanism **25**.

Referring now to FIG. 2, the details of the control mechanism **25** are shown in a fragmentary view. Arm **24** is shown connected at a region **11A** of guide ring **11** by means of a double hinge **26** and pivot **27**. At the other end of the arm **24**, bar **28** is connected in parallel relationship and is secured by pins **29** and **30**. A strip **31** of flexible steel lies parallel to the post **16** and is affixed rigidly at one end to a post **32** and adjustably at the other end by spring **33**. By tightening the spring **33** by means of a wing nut **34** the tension on strip **31** is changed for proper regulation. In the post **16** a slot **35** is disposed for receiving the pin **30** which is forced therein by tension on arm **24** applied through strap **31**.

In operation of the guide structure of the present invention, the user addresses the ball as indicated in FIG. 1. He rotates the club in executing the back swing while maintaining the club shaft lightly engaged with the ring **11**. When a predetermined point has been reached (typically about midway in the vicinity of **11A**), the pressure exerted against the guide ring **11** causes the arm **24** to move back slightly. The pin **30** secured within the slot or groove **35** is thus moved out of the slot, and the arm **24** with the associated members, drops down from the normal position to a lower position. As the arm **24** moves down, the pin **29** binds against the flexible strip **31** as it approaches post **32**, thereby bringing the arm **24** to rest. Thus the guide ring **11** has been caused to move from its normal position, as shown by solid lines, to a new position, as shown by the dotted lines. As a result, when the user begins the execution of the down swing, he is forced to bring the golf club in a new path downwardly such that his hips automatically turn and his hands automatically adjust so that the club makes contact with the ball in the desired "inside-out" fashion. The new path may be appreciated by reference to FIG. 3, which shows on a reduced scale the separate arcs described by the clubhead in both the back swing (at **36**) and the down swing (at **37**). The "follow through" swing is not illustrated.

In order to provide some detail as to a preferred construction of the guide device of the present invention, the following specifications may be used: The guide ring **11** is approximately six feet in diameter, base member **14** approximately six feet in length, and the posts **16** and **17** are also about six feet long. The guide ring **11** may preferably be composed of material such as a conventional steel electrical conduit tubing having a plastic covering, and of a nominal one inch size. The outside diameter for such a tubing is approximately one and three-eighths inches. The covering for the tubing may be composed of any non-metallic, abrasion-resistant, organic plastic material. In addition to polyethylene, materials suitable for this purpose include polytetrafluoroethylene, various vinyl compositions having basic ingredients such as polyvinyl chloride, and nylons such as polyhexamethylene adipimide.

As noted previously, various adjustments may be made in the guide structure to suit the user's characteristics and propensities. If the user is of short stature, he will want to lower the guide ring with respect to the ground plane. This is done quite easily by merely lowering the slidingly mounted post **22** within post **21** while adjusting the pivotal means **20**. This is done by changing the plane of the guide ring. The user does this by changing the position of the base member **14** with respect to member **15**, moving the nut and bolt connector to a different aperture in base member **14**, with the effect of moving the ring about pivot means **23**.

A principal advantage of the guide device of the present invention is that the user may adjust the predetermined point at which the guide ring shifts its position in response to the pressure of his club. If he finds that the control is too sensitive, he merely tightens up on the wing nut **34** to increase the tension on strip **31**.

A particularly interesting and useful feature of the invention is the manner in which the strap **31** stops the downward motion of the arm **24**. As the arm **24** moves downwardly, its motion involves rotation about pivot **27** and this also involves a rotation with respect to post **16** and the strap **31**. This rotation causes a constriction of the space between pins **29** and **30** of arm **24**, and thereby causes pin **29** to pinch against the strap **31**, tending to bias strap **31** towards the body of the post **16**. This causes a progressively increasing frictional engagement between the pins **29** and **30** and the strap **31** and the post **16** which ultimately stops the downward movement of the arm **24**. The energy of the downward motion of arm **24** is absorbed by the frictional engagement, and the deceleration at the end of the travel of the arm **24** is so well regulated by this structure that there is virtually no tendency for the frame **12** and the ring **11** to shake or "shudder" from the stopping of arm **24** and the adjustment in the position of ring **11**.

The maximum travel of the ring **11** in its rotational movement during the dropping of arm **24** is approximately ten inches at the pivot **27**. However, it is apparent that the amount of this travel can be increased by installing a longer strip **31** upon the post **16** and thereby providing a greater drop for the arm **24**.

It is also a simple matter to adjust the apparatus, as illustrated, for a shorter travel by the arm **24** to reduce the rotation of the ring **11**. This may be done by inserting a small block between the strip **31** and the leg **16**, above the post **32**. The block preferably has the proper dimension to hold the strap **31** away from the post **16** by a distance approximately equal to the length of the post **32**. It is preferably notched on the side engaging post **16** so as to partially fit around that post, and it is held in assembled relationship simply by the tension exerted by strap **31**. The vertical position of the block then determines the point at which the pin **29** binds upon the strap **31** sufficiently to stop the arm **24**. For purposes of clarity, such an adjustment block is not illustrated in the drawings.

As illustrated in FIG. 1, the user of the apparatus normally stands with his feet on opposite sides of the base member **14**. The alignment of the member **14** assists the user in properly aligning his body with the apparatus.

It will be appreciated that the construction of the frame **12** may be modified in a number of ways without departing from the invention. For instance, the adjustable base member **14** may be replaced by two parallel base members extending from the ends of base member **13** to the respective ends of base member **15**.

Although a single embodiment has been illustrated, it will be appreciated that many other modifications may be made to the device. For example, although the control mechanism including arm **24** is shown for the case of a right-hand golfer, this mechanism may be arranged on the other side of the guide ring to accommodate a "lefty."

Accordingly, the following claims are intended to define the valid scope of this invention over the prior art, and to cover all changes and modifications falling within the true spirit and valid scope of this invention.

What is claimed is:

1. A golf swing guide device comprising a guide ring pivotally mounted for engagement with a golf club, means for setting said guide ring in a first plane defining the proper initial back swing movement of the golf club from the ball, and means responsive to the pressure of the golf club upon said ring during the back swing for pivotally shifting said guide ring to a second plane defining an "inside-out" path to guide the club on the down swing.

2. A device as set forth in claim **1** in which said guide ring has at least a surface portion comprised of a non-abrasive organic resinous material to prevent abrasive damage to the user's golf club.

3. A device in accordance with claim **2** in which said guide ring comprises a metal tubular member and in which the organic resin surface portion forms a covering for the metal tubular member.

4. A device as set forth in claim **1** in which both of said planes are inclined from the vertical, and the pivotal mounting of said guide ring comprises pivotal means at the top and bottom thereof.

5. A device as set forth in claim **4** including a supporting frame having at least three spaced posts, the pivotal mounting at the bottom of said guide ring being supported upon a first one of said posts, and the pivotal mounting of the top of said guide ring being supported at a juncture of second and third ones of said posts.

6. A golf swing guide device comprising an annular club guiding member affixed in an inclined plane to a supporting frame having a plurality of spaced posts, the bottom of said member being connected to a first post and

the top thereof to the juncture of second and third posts, a control arm disposed between said club guiding member and said second post, said control arm having means associated therewith for positioning said club guiding member in an initial plane, and control means affixed to said second post and engageable with said control arm for repositioning said guide member in a second plane defining an "inside-out" swing path, said control means being responsive to the back swing of a golf club.

7. In a golf swing guide device a guide ring pivotally mounted to a frame in an inclined plane, said frame including a plurality of tubular base members and two posts connected to opposite ends of one of said base members and joined to said guide ring adjacent the top of said guide ring, a third post connected to another of said base members and to the bottom of said guide ring, control means comprising an arm attached at one end to said guide ring and at the other end having means slidably bearing against a metal strip affixed to one of said two posts, said last-mentioned post including a slot, a pin attached to said arm and fitting into said slot to thereby position said arm in a first position and said guide ring in a first plane, said pin being disengageable from said slot and said slidable means being slidable against said metal strip in response to pressure from the back swing of the golf club transmitted through said arm from said guide ring to thereby cause said guide ring to rotate upon said pivotal mountings to a second plane defining an "inside-out" swing path.

8. A golf swing guide device comprising a substantially circular club guide member pivotally supported upon a supporting frame, the pivotal supports of said guide member being arranged to permit rotation of said guide member about an axis in substantially a vertical plane, means for positioning said guiding member upon said pivotal supports in a first plane corresponding to a desired plane of a golfer's back swing and substantially perpendicular to said vertical plane, means operable in response to the pressure of the shaft of a golf club held by the user against the guide member near the middle of the back swing for releasing said positioning means, and means operable upon the release of said positioning means to provide for rotation of said guide member about said pivotal

supports into a second plane defining an "inside-out" swing path.

9. A golf swing guide device as in claim 8 in which said positioning means, said pressure responsive means and said rotating means comprise an arm pivotally connected to said guide member, said arm having a latching connection to a portion of said supporting frame and being releasable from said latching connection in response to said pressure of a golf club to drop into a new position to thereby rotate said guide member to said second plane.

10. A golf swing guide device as set forth in claim 9 in which the portion of said supporting frame engaged by said releasable arm comprises a post having a resilient member attached in spaced relationship to said post, said resilient member comprising a resilient metal strap mounted at its lower end at a fixed spaced position from said post and having a tension spring mounting at its upper end to maintain said resilient member under tension, said arm including spaced transverse members fixed thereto and forming a part thereof and embracing the combination of said post and said resilient member, said transverse members being spaced to pinch said resilient member towards said post as said arm drops to position said guide member in said second plane, said pinching action being effective to limit the drop of said arm.

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