

[54] **GOLFER'S HEAD MOVEMENT INDICATOR**

[75] Inventors: **Benjamin M. Hines**, Fairfield; **Richard I. Johnson**, Easton, both of Conn.

[73] Assignee: **Timely Products Corporation**, Fairfield, Conn.

[22] Filed: **Nov. 26, 1971**

[21] Appl. No.: **202,123**

[52] U.S. Cl. **273/183 B**, 2/199

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

[58] Field of Search 273/58, 200, 190, 273/183, DIG. 21; 2/185 R, 199

[56] **References Cited**

UNITED STATES PATENTS

| | | | |
|-----------|---------|----------------|-------------|
| 1,562,744 | 11/1925 | Dillow | 273/DIG. 21 |
| 3,397,885 | 8/1968 | Nash | 273/58 C X |
| 2,432,714 | 12/1947 | Bedard | 273/200 R |
| 2,461,826 | 2/1949 | Krautter | 273/190 B |

FOREIGN PATENTS OR APPLICATIONS

| | | | |
|--------|--------|---------------------|-----------|
| 17,630 | 0/1912 | Great Britain | 273/190 B |
|--------|--------|---------------------|-----------|

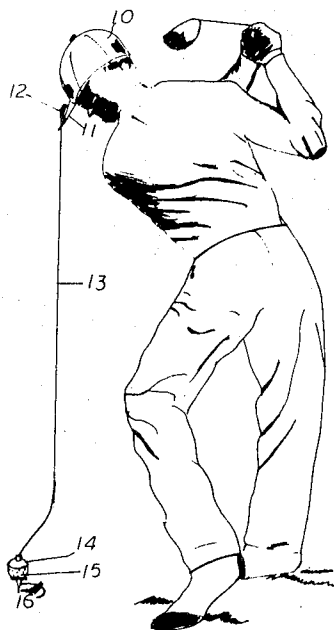
Primary Examiner—George J. Marlo
Attorney—Arthur T. Fattibene

[57] **ABSTRACT**

A golf training device which will enable any undesirable head movement of a player during a golf swing to be rendered self-detecting. This is attained by a flexible cord having one end attached to the golfer and the other end releasably connected to the ball so as to effect either a positive displacement of the golf ball prior to contact being made with the club whenever the golfer incurs excessive head movement during a golf swing to induce mis-stroke, or an excessive accumulation of slack in the string in the event of excessive dip of shoulders and/or head, and whereby in the absence of any excessive head movement, contact may be had between the club and the ball which will permit the ball to be readily released from the cord and to assume its normal flight.

The cord is wound about a reel which is attached to a head piece worn by the golfer whereby the length of the cord can be varied to suit a given player. The free end of the cord is provided with a fastener which is contoured to complement an outer peripheral portion of a golf ball and which is releasably secured to the golf ball by an adhesive.

11 Claims, 8 Drawing Figures



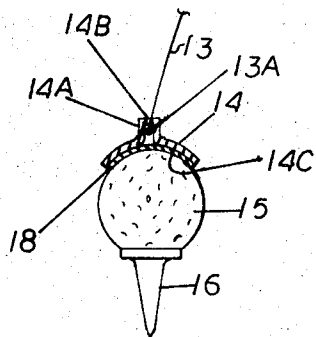
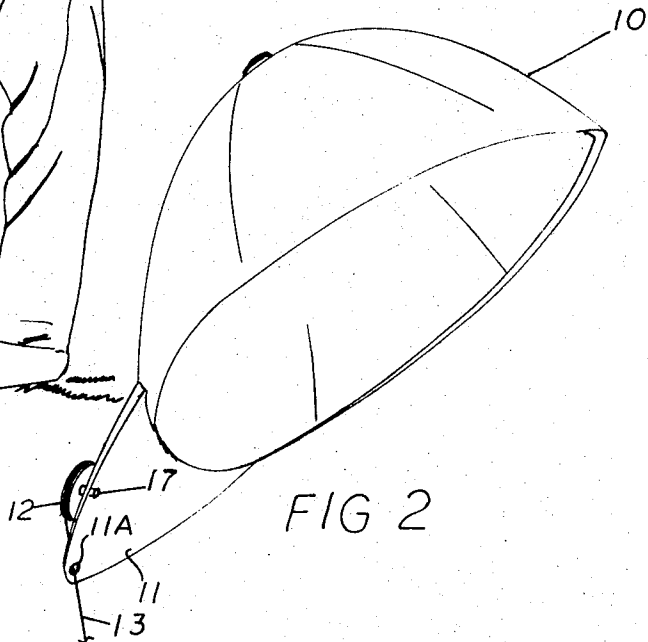
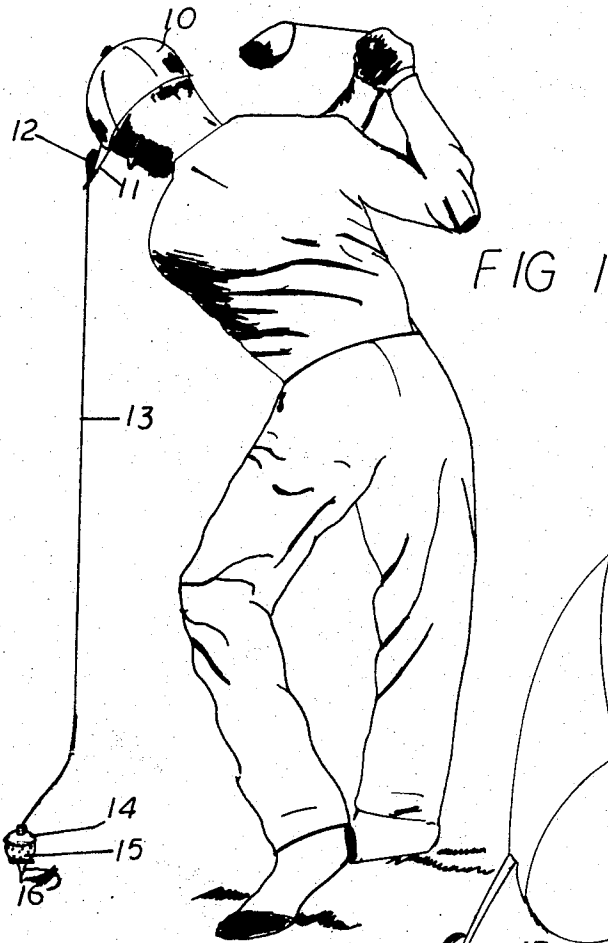
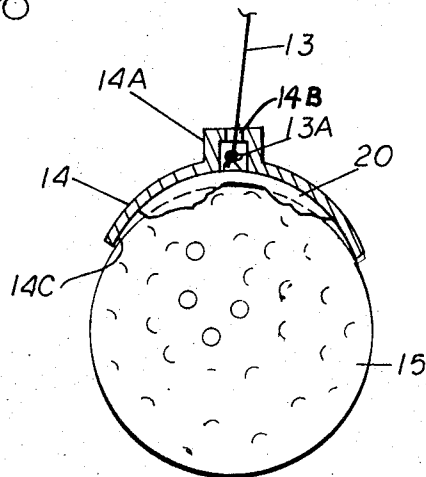
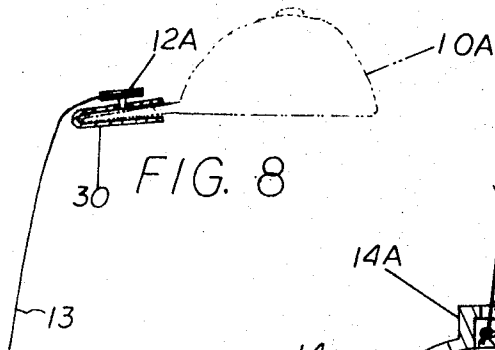
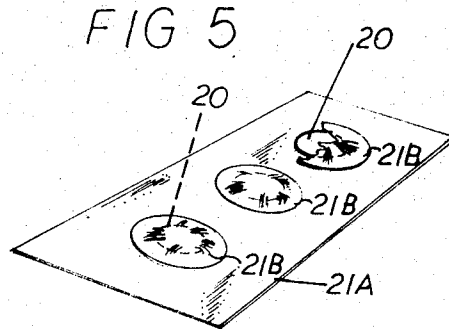
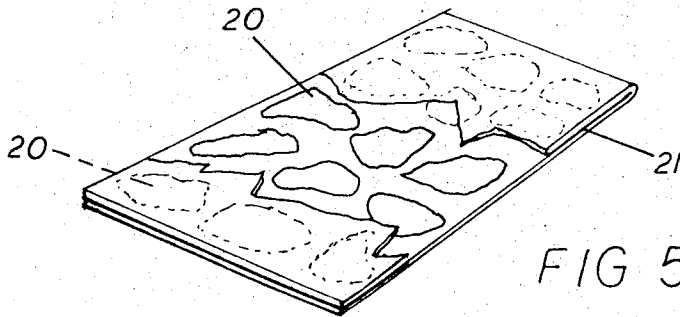
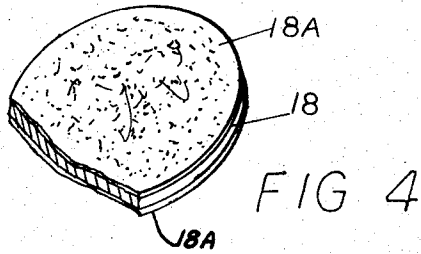


FIG 3

INVENTOR
BENJAMIN M. HINES
BY RICHARD L. JOHNSON
Arthur G. Feltner
ATTORNEY



INVENTOR
BENJAMIN M. HINES
BY RICHARD L. JOHNSON
Arthur G. Fattibene
ATTORNEY

GOLFER'S HEAD MOVEMENT INDICATOR**PROBLEM AND PRIOR ART**

It is well known that in the game of golf, proper form during a golf swing is extremely important in maintaining and/or improving one's skill in the game. This is because a proper stance and form has an important bearing on the distance and/or accuracy of the flight of the ball upon contact being made between the club and the ball. One of the more important factors in determining proper form is the ability to maintain the position of the head over the ball which permits a player to keep his eye on the ball throughout the golf swing. It has been established that excessive head movement, either forward or backward, or upwardly or downwardly during a golf swing will frequently result in the club head not making proper contact with the ball; or if contact is made, the desired optimum amount of impact is not properly attained.

Such undesirable head movements during a golf swing are one of the most difficult problems on the part of the golfer to notice and/or to correct. This is because the amount of un-desirable head movement is difficult for the player to detect, and/or when detected is difficult to overcome. Generally one had to be observed by or taught by an expert in order to have detected and/or to correct such head movements. Instructions, under the tutorage of a golf pro, are costly, which cost can be materially reduced if a proper aid were available to supplement such professional instructions.

Consequently many efforts have been made to develop various devices to detect such undesirable head movements during a golf swing, and to afford a manner to overcome such problem. Such efforts have been noted in U. S. Pat. Nos. 1,569,766; 1,688,023, 2,445,839 and 3,545,764.

Heretofore the prior known devices which have been conceived and/or made known to overcome the problem of detecting head movements during a golf swing relied primarily on the use of relatively complex mechanisms which were designed to sound an alarm when a player's head movement was detected. However, these devices were relatively complex, bulky, heavy and generally not practical for use during a practice round on a golf course. For this reason the prior known devices were usually related to private practice sessions off the golf course. Also such prior known devices, for the most part were relatively costly, difficult to manufacture, and generally unsuitable for the majority of golfers intent on gaining and/or enhancing their proficiency of the game.

OBJECTS

It is therefore an object of this invention to provide a relatively simple golf practice device whereby undesirable head movements on the part of the player can be rendered self-detecting.

It is another object of this invention to provide a relatively simple golf training device whereby undesirable head movements on the part of the golfer will result in effecting either a positive displacement of the ball or a change in the attitude of the string so as to reveal and enable a user to correct excessive head movement during a swing.

It is another object of this invention to provide an improved golf training device for controlling head move-

ments during a golf swing whereby improper contact is had with the ball whenever a golfer incurs excessive head movement and whereby proper contact may be had with the ball in the absence of any excessive head movement.

Another object of this invention is to provide a golf training device which is relatively simple in construction, and which can be effectively utilized by the golfer for practice indoors or outdoors.

The foregoing objects and other features and advantages of this invention are attained by a golf training device comprising a length of flexible cord which is adapted to be connected at one end to the head of a golfer or to a headpiece or hat worn by the golfer, and which has connected to the other end thereof a fastening means by which the cord is releasably connected to the golf ball. With the fastening means releasably secured to the ball, the arrangement is such that certain excessive movements of the head by the player during a golf swing will cause the golf ball to be pulled off the tee or physically displaced an amount sufficient to result in a mis-stroke. When such mis-stroke occurs, the golfer will know that he incurred excessive head movement during the swing. Other types of head movements, e.g., dip head movement, may result in excessive accumulation in slack in the string as an indication thereof. Accordingly, in the absence of any such excessive movement during a golf swing, the attitude of the string evidenced and contact by the club head with the ball will result in the ball being released from the fastening means to assume its normal trajectory.

To effect adjustment in the length of the cord to compensate for players of different heights, and/or when a player utilizes clubs of varying length, a reel is provided whereby the cord may be wound and unwound thereon to adjust the length thereof accordingly. It is contemplated that the reel may be suitably secured to a headpiece or hat which may be supplied therewith, or may be suitably attached to a player's personal golfing hat or headpiece.

FEATURES

It is a feature of this invention to provide an improved golf training device whereby the ball is physically connected through a length of cord to the head of a golfer so that certain undesirable or excessive head movements on the part of the golfer during a golf swing will produce a positive displacement or movement of the golf ball to result in a mis-stroke; and certain other types of head movements, e.g., excessive dip, are rendered evident by an excessive accumulation of slack in the string.

Another feature of this invention resides in the provision that the amount or degree of head movement can be readily ascertained as the amount or extent that a ball is displaced or accumulation of slack is proportional to the amount of excessive movement of the head incurred during a golf swing.

Another feature of this device resides in the provision wherein the ball is releasably secured to the golf training device so that in the absence of any head movement, proper contact with the ball is had in which the ball assumes its normal flight.

Another feature of this invention resides in the provision that it is relatively simple in construction, can be readily fabricated and is positive in operation.

Other features and advantages will become more readily apparent when considered in view of the drawings in which:

FIG. 1 illustrates the golf training device embodying the present invention as applied to a golfer for detecting head movement during a golf swing.

FIG. 2 is a detailed perspective view illustrating the manner in which the device is secured to a headpiece.

FIG. 3 is an enlarged detail drawing illustrating the manner in which the golf ball is detachably secured to the training device.

FIG. 4 is a detailed perspective view of the detachable securing means of FIG. 3.

FIG. 5 is a detailed perspective view of a modified form of detaching means and illustrating the manner in which the same can be packaged.

FIG. 6 is a detailed construction illustrating the application of the detachable means of FIG. 5.

FIG. 7 is a view illustrating a modified manner of packaging an attaching adhesive in accordance with this invention.

FIG. 8 is a modified form of the invention.

Referring to the drawings there is shown in FIG. 1 the improved golf training device embodying the present invention for detecting any undesirable or excessive head movements of the player during a golf swing. The device in accordance with this invention comprises a length of flexible cord 13, as for example, a string of generally conventional construction or monofilament, to which there is connected at its free end, a detachable fastening means 14 which is adapted to be releasably secured to a golf ball 15. The other end of the cord is suitably connected to the head of the golfer or to the headpiece or cap 10 which the golfer may wear. It will be understood that while the headpiece is shown as a cap 10, any type of headpiece may be contemplated.

As shown in FIGS. 1 and 2, the cord 13 is adapted to be wound and unwound about a reel 12 which is rotatably journaled on the peak 11 of the cap 10 about a pivot 17. By winding the string 13 about a reel 12, the length of the string can be readily adjusted simply by winding or unwinding the string on the reel as may be desired. The device is thus rendered readily adapted to players of varying height and/or the string may be adjusted to accommodate the various lengths of clubs which a golfer may use when practicing with the device either indoors or outdoors. As best seen in FIG. 2, when the reel 12 is attached to the visor portion 11 of a cap 10, a hole 11A is located in the visor portion adjacent the reel 12 through which the cord or string 13 may be extended.

In the illustrated form of the invention, the fastening means connected to the free end of the cord or string 13 comprises a button which is provided with a surface 14C which is preferably contoured or concaved to complement a spherical surface portion of the ball 15. The illustrated button 14 is also formed with a stem 14A having an aperture 14B formed in the end thereof through which the string 13 extends. The button 14 is suitably connected to the end of the string simply by providing a knot 13A on the end of the string of a size which prohibits it from passing through the aperture 14B and thus prevents the string 13 from being pulled through the aperture 14B. The arrangement is such that the knot 13A is accommodated within the bore

portion of the stem 14A so as to prohibit interference with the attachment of the contoured surface portion 14C with the ball.

To detachably secure the fastening means or button 14 to the ball, there is provided a means by which the ball 15 is releasably secured. Referring to FIGS. 3 and 4 the detachable or releasable means comprises a disk or strip of material in the form of a tape 18 which is preferably coated on both sides with a layer of suitable adhesive 18A so that one side of the tape 18 may be adhesively secured to the contoured surface 14C of the button 14, and the other adhesive side being adhesively secured to the ball 15 whereby the ball can be readily released when impact is had between the club and the ball. It will be understood that the ball may comprise a conventional type golf ball or may comprise the well known type of hollow, practice, plastic ball.

FIGS. 4 and 5 illustrate a modified type of releasable means for detachably securing the button 14 to a ball 15. As shown therein the releasable means of FIGS. 4 and 5 may comprise a dot or piece of pliable type of adhesive or gum 20 which may be suitably packaged or sandwiched between a strip of releasable paper backing 21. In this form of the invention, the player on peeling back the releasable paper 21 can readily remove a dot or spot of adhesive gum 20 from its package and apply the spot 20 to the contoured surface of the button 14. When the ball is then pressed against the spot of adhesive or gum, it is adhered thereto, in a readily releasable manner. In this manner a supply of adhesive spots may be suitably marketed with the device as a kit so that a player will have a supply of such adhesive means to use as needed. A suitable adhesive 20 may comprise an acrylic compound having a high solid content.

In operation, whether the ball 15 is resting on a tee 16, as indicated in FIG. 1, or lying on the ground, the cord 13 is extended between the head of the golfer to the ball to a proper length so that the button is suitably adhered to the ball; it being understood that the adjusted length of the string will be such that the golfer may assume his normal stance over the ball. With the string 13 properly adjusted, the arrangement is such that an excessive head movement incurred during the golf swing will either cause the string and fastener secured to the ball to effect a displacement or to pull the ball off the golf tee or out of the path of the swing of the golf club to result in a mis-stroke or an improperly hit ball or to impart excessive slack in the string, i.e., in the case of excessive head or shoulder dip. Consequently, every time such mis-stroke is effected, or slack accumulated, the golfer knows that he had incurred an excessive or improper movement of his head during the golf swing. In the absence of any excessive head movement, the ball is maintained in position on the tee or on the ground whereby optimum contact is imparted to the ball by the club. Upon contact with the golf club, the ball is released from the button 14 and permitted to assume its normal trajectory.

FIG. 7 illustrates a modified manner in which the adhesive gum or latex 20 may be packaged. In this form of the invention, a plurality of gum spots 20 are spaced on a suitable backing sheet 21A; from which the adhesive spot may be readily removed. A covering piece of material 21B somewhat larger than the area of the adhesive 20 is supported thereon so that the adhesive

material 20 is sandwiched between the backing sheet 21A and the cover piece 21B.

In operation, the cover piece of material 21B functions as a finger piece whereby the adhesive spot 20 can be readily peeled off the backing strip; and thereafter applied to the contoured surface 14C of the button 14. With the exposed surface of the adhesive applied to the contoured surface of the button 14, the finger or cover piece of material 21B is then readily stripped from the adhesive 20 so that the ball can be readily attached to the button. With the packaging of the adhesive spots 20 as described with respect to FIG. 7, a golfer can effect an application of the adhesive to the button 14, without the need of coming in contact with the adhesive. Also the packaging of FIG. 7 enables the adhesive material 20 to be protected at all times and prohibits the respective spots 20 from adhering to one another. The backing sheet 21A may be rolled, folded or layed one on the other without the adhesive spots 20 thereon adhering to one another.

FIG. 8 illustrates a modified embodiment of the invention. In this form the invention may be readily adapted to a conventional cap or hat 10A which a golfer owns or prefers. This is attained by providing a holding means or spring clip 30 which may be frictionally secured to the cap 10A, e.g. by embracing the visor portion thereof. The spring clip 30 is illustrated as being generally U-shaped and adapted to be spring pressed into frictional holding relationship with the cap 10A.

A reel 12A is rotatably journaled or otherwise fixed to the clip 30 about which the string or cord 13 may be wound or unwound to adjust the length as hereinbefore described.

The embodiment of FIG. 8 thus enables the inventions to be applied to a golfer's personal cap. In all other respects the operation and structure of the embodiment of FIG. 8 is similar to that hereinbefore described.

From the foregoing it will be noted that the golf training device described is a relatively simple construction and can be readily adapted to one's favorite headpiece and/or may be manufactured and distributed in combination with a headpiece 10 specifically constructed therefor. The device is sufficiently simple and practical so that, if desired, a golfer may use it during an actual practice play of the game of golf and/or may resort to the use of the device in private practice sessions, as for example, in one's backyard, on a driving range, or even indoors.

While the fastening means 14 has been illustrated as comprising of a fastening button by which attachment is achieved through the means of tape adhesively coated on both sides or a spot 20 of adhesive material, it will be understood that other forms of releasable fastening means may be provided. For example, if desired, the fastening means may comprise of complementary releasable pile construction, commonly known as "Velcro". With such material, a piece of "Velcro" may be secured to the end of the string, and a complementary piece of "Velcro" attached to the golf ball.

Other types of fastening means may comprise a pin or tack connected to the string which may be releasably secured to a golf ball.

It will be understood by those who play the game, that the device herein described is recommended for improving one's form, and is not intended for use during professional play of the game, or under organized rules of play which prohibit the use of golfing aids.

While the present invention has been disclosed with respect to certain embodiments thereof, it will be readily appreciated and understood that variations and modifications may be made without departing from the spirit or scope of the invention.

What is claimed is:

1. A golfing device for rendering undesirable head movements self-detecting during a golf swing comprising:

a headpiece adapted to be worn by a golfer, a flexible cord connected to said headpiece and having a length at least extending from the headpiece to a golf ball to be hit by the swing of a club, a fastener connected to the free end of the cord, said fastener including a button having a contoured surface adapted to complement an outer peripheral portion of the golf ball, and an adhesive means supplied to said contoured surface of said button for releasably attaching said button to said golf ball permitting the golf ball to assume free flight upon being hit.

2. The invention as defined in claim 1 and including a reel rotatably journaled to said headpiece for reeling and unreeling said cord thereon for adjusting said cord to a desired length.

3. A golfing device for rendering undesirable head movements self-detecting during a golf swing comprising,

a headpiece adapted to be worn by a golfer, said headpiece comprising a hat having a connected visor, a reel rotatably mounted on said visor, a length of cord wound about said reel whereby said cord may be wound and unwound thereon to adjust the length thereof to extend from said headpiece worn by a particular golfer to a golf ball to be hit by the swing of the club, by the particular golfer, a fastener connected to the free end of said cord, said fastener including a button having a contoured surface adapted to complement a portion of the spherical surface of the golf ball, and an adhesive means applied to the contoured surface of said button whereby said button is releasably secured to said golf ball so the golf ball is released when hit.

4. The invention as defined in claim 3 and including a clip connected to said reel whereby said reel is detachably connected to said headpiece.

5. The invention as defined in claim 4 wherein said headpiece includes a hat having a visor, and said clip detachably securing said reel to said visor.

6. The invention as defined in claim 3 and said button including:

a stem portion having an aperture formed in the end thereof connected to said surface, and said string being adapted to extend through said stem and aperture formed therein.

7

8

7. The invention as defined in claim 3 wherein said adhesive means includes a strip of material adhesively coated on both sides for adherence to both the contoured surface and the ball.

8. The invention as defined in claim 3 wherein said adhesive means includes a spot of adhesive gum adapted to be placed on said contoured surface.

9. The invention as defined in claim 3 wherein said adhesive means includes a supply of adhesive adapted

to be readily applied to said fastening means as needed.

10. The invention as defined in claim 9 wherein said adhesive means includes a plurality of tape strips adhesively coated on both sides.

11. The invention as defined in claim 9 wherein said adhesive means includes a plurality of gum spots releasably attached to a strip of backing paper.

* * * * *

10

15

20

25

30

35

40

45

50

55

60

65