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[54] PRACTICE DEVICE FOR GOLFERS

10 Claims, 5 Drawing Figs.

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273/187
[51] Int. Cl..... A63b 69/36
[50] Field of Search..... 273/183,
184, 185, 186, 187, 191, 192

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ABSTRACT: A relatively small mat includes a beveled portion having an aperture through which a golf tee is inserted to support a golf ball. An elongated element made of hinged sections is adjustably secured to one end of the mat to indicate the proper position of the golfer's lead foot while addressing the ball. Extending rearward of the mat are spaced apart elongated strips which are adjustably secured to the mat and assist the golfer to execute the proper backswing and downswing. The strips are made of hinged sections for packaging purposes. A pair of small relatively rigid flags mounted on flexible standards are adjustably secured to the mat on opposite sides of the tee ball to form an adjustable gateway through which the clubhead must pass to strike the ball.

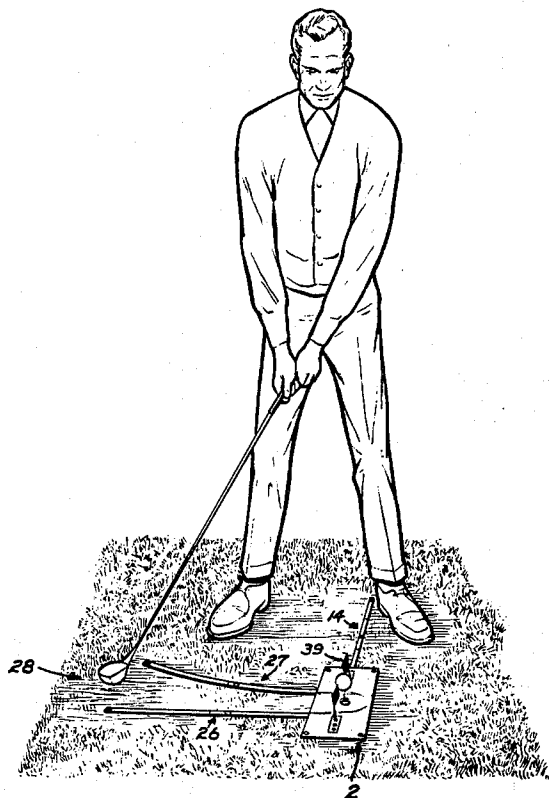
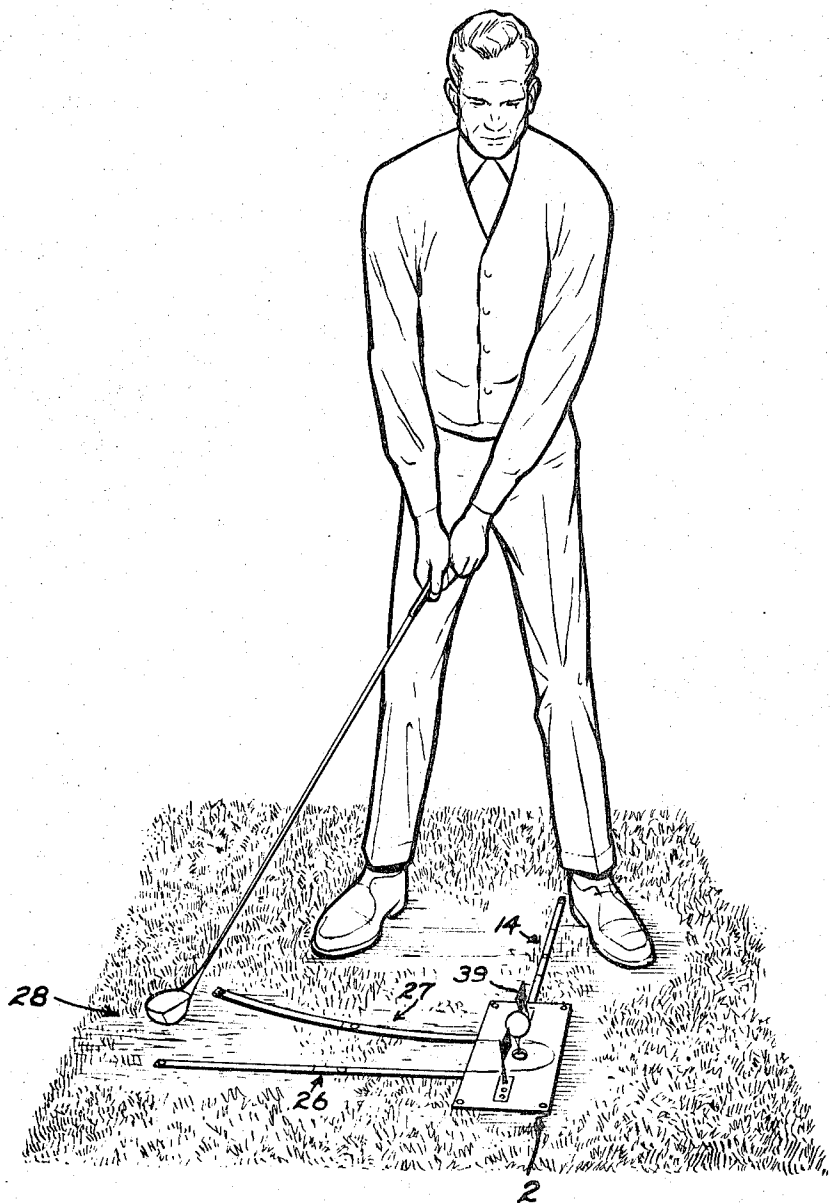


FIG. 1.



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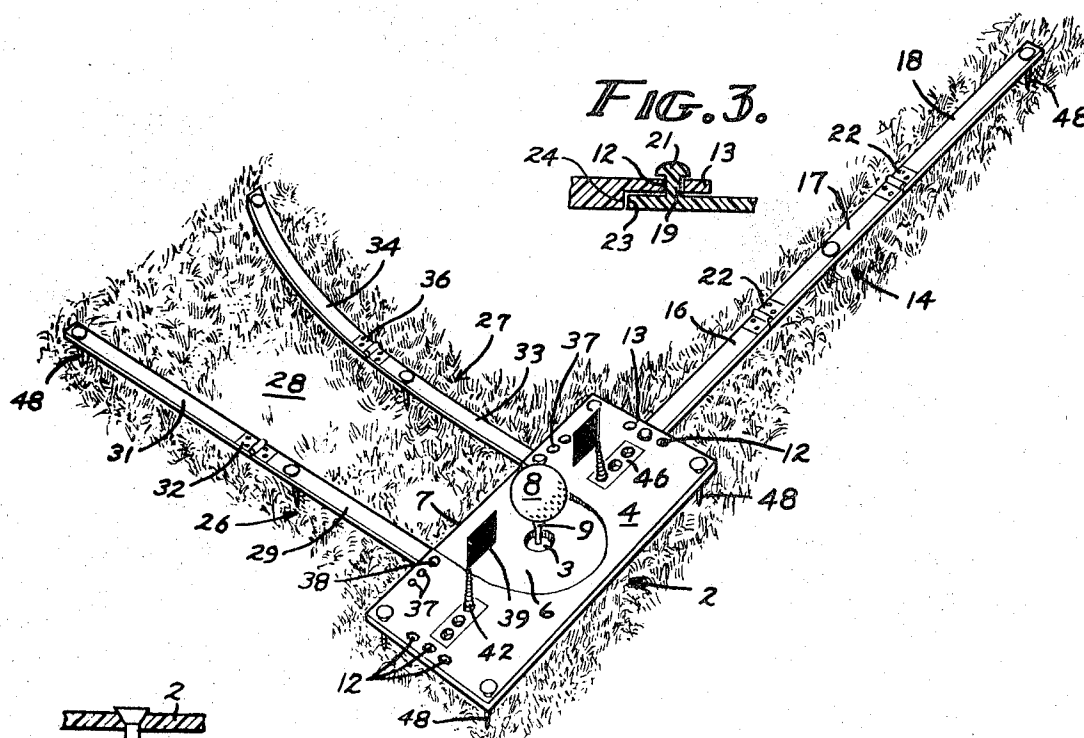


FIG. 2.

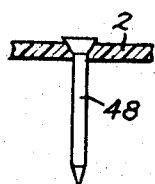


FIG. 4.

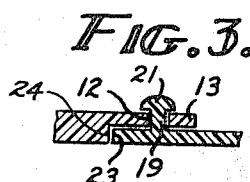


FIG. 3.

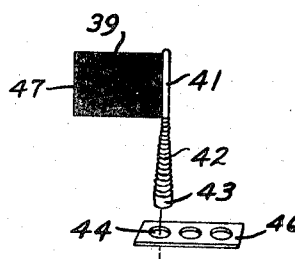


FIG. 5.

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PRACTICE DEVICE FOR GOLFERS

BACKGROUND OF INVENTION

It is generally recognized that there are relatively few fundamental rules that must be followed by a golfer to properly address and hit a golf ball. In general, it is the primary object of a golfer to swing the golf club so that the face of the club head impacts with the golf ball in a manner that the intended line of flight of the ball is perpendicular to the face of the golf club at the moment of impact. Theoretically, other factors disregarded, this will insure that the line of flight of the ball after impact will be as intended.

One of the factors which facilitates swinging the golf club so that the club face meets the ball squarely; i.e., perpendicular to the intended line of flight of the ball, is to insure that the stance assumed in addressing and hitting the ball is the same each time the golf club is swung. In general, a golfer attempts to assume a "squared" stance, meaning that for a right-handed golfer the inside of the left heel will be in substantial alignment with the center of the ball, and that the toes of both feet will be parallel to the line of flight of the ball. Minor variations from this stance will of course be required by variations in terrain, height of the golfer, and the intended flight path of the ball when consideration is given to extraneous factors influencing the flight path after the ball is airborne. With this requirement of stance in mind, it is one of the objects of the present invention to provide a practice device which compels the golfer to assume the proper stance in addressing and hitting the ball.

Another factor that determines whether or not the face of the golf club strikes the golf ball in an attitude perpendicular to the line of flight of the ball is the path followed by the club head in both the backstroke and in the downstroke. In this regard it is well known that every person has a natural rhythm, more or less developed in the sense of coordination of body movements, and that such movements are carried out naturally at a tempo which is characteristic to the individual. Physical educators know that if muscular coordination and body movements in the performance of sporting events and physical feats are developed within the framework of such natural rhythm and tempo, a higher degree of muscular development and greater coordination of body movements may be achieved than if the individual is forced to perform outside the framework of his natural rhythm and tempo. Accordingly, it is another object of the invention to provide a practice device for golfers which may be utilized to develop a proper swing within whatever natural framework of rhythm and tempo is inherent to him, and to enable the repeated practice of that swing until his muscular development in connection therewith is such that the swing is "grooved;" i.e., becomes automatic.

It is a still further object of the invention to provide a practice device for golfers which may be used indoors or outdoors, and which incorporates means for anchoring the practice device when used outdoors.

Still another object of the invention is the provision of a practice device for golfers which incorporates means for evaluating whether or not the golf club is swung in the prescribed path to impact squarely with the ball, and to indicate deviations from the prescribed path.

To be effective, practice devices for golfers when in use must of course utilize substantial space or area. On the other hand, when not in use, it is an advantage to be able to store the practice device in as little space as possible. Accordingly, it is a still further object of the invention to provide a practice device for golfers which may be collapsed or disassembled into separate and distinct parts occupying a minimum of space.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be apparent from the following description and the drawings. It is to be understood however that the invention is not limited to the embodiment illustrated as the invention may be embodied in various forms within the scope of the appended claims.

BRIEF SUMMARY OF DISCLOSURE

In terms of broad inclusion, the practice device of the invention comprises a flat mat adapted to be supported on a flat surface such as a floor, carpet or turf. The upper surface is beveled over an area over which the golf club head passes in its path before and immediately following impact with a golf ball supported on the mat.

Extending from one end of the mat in a direction toward the feet of the golfer is a stance guide strip detachably secured to the mat and adjustable in position to accommodate users having different stances. Detachably secured to an adjacent edge of the mat is a swing guide means in the form of a pair of spaced strips extending in a direction opposite to the line of flight of the ball and defining a prescribed swing path for the clubhead during the backstroke as well as during the forward or downstroke prior to impact with the ball. Mounted on the upper surface of the mat are swing guide and evaluator means in the form of a pair of spaced flexible shafts supporting a pair of mutually extending flags adjustable to vary the space between the adjacent edges of the flags in correlation to the prescribed path of a golf clubhead as it impacts with a golf ball supported on the mat between the flags. Means are provided for anchoring the mat and its appendages to the supporting surface.

DESCRIPTION OF DRAWINGS

FIG. 1 is a perspective view illustrating the practice device in use.

FIG. 2 is a perspective view on an enlarged scale illustrating the practice device in an attitude of use.

FIG. 3 is a fragmentary sectional view illustrating the means for detachably securing the projecting stance and swing guide means to the mat.

FIG. 4 is a fragmentary sectional view partly in elevation illustrating the manner by which a conventional golf tee may be used to anchor the practice device to the turf.

FIG. 5 is a perspective view illustrating the swing evaluator means apart from the mat.

DESCRIPTION OF PREFERRED EMBODIMENT

In terms of greater detail, the practice device of the invention comprises a mat designated generally by the numeral 2, conveniently fabricated from a tough and resilient synthetic resinous material having desirable molding characteristics. The mat can of course be molded from a natural or synthetic rubber, and is preferably rectangular in form as shown, preferably being about 10 inches long in a dimension transverse to the intended line of flight of a golf ball, and about 6 inches wide.

The mat is preferably provided with an aperture 3 centrally disposed between the opposite end and side edges of the mat. The top surface 4 of the mat is beveled over an area 6 surrounding the central aperture, the bevel having its greatest depth at the rear edge 7 of the mat. A golf ball 8 is centrally disposed and supported above the beveled area of the mat on an appropriate golf tee 9 the shank of which projects through aperture 3 and is embedded in the turf beneath the mat. In some instances, when the device is used indoors, a modified tee (not shown) designed to engage the inner periphery of the aperture 3 may be utilized to support the golf ball in proper position.

In general, the beveled area may be a curved surface concentric with the arc generated by a club swung to hit the ball, the bevel on the downrange side of the ball merging smoothly with the top surface of the mat. For all practical purposes however the beveled surface may constitute a flat surface in both transverse and longitudinal dimension, the depth being proportioned to permit passage of the clubhead without fear of hitting the mat.

Adjacent end edges of the mat there are provided a plurality of apertures 12 formed through an edge portion 13 of the mat which is reduced in thickness as shown best in FIG. 3 to form a

socket. Detachably secured to the associated edge of the mat and locked into the socket is an elongated stance guide means designated generally by the numeral 14 and comprising a plurality of separate sections 16, 17 and 18, the innermost section 16 at one end being a stud 19 the stem of which extends through one of the apertures 12, and the head 21 of which detachably locks the strip to the mat. These separate sections are suitably joined by hinges 22 to permit folding of the elongated stance guide means, which in its extended position is approximately 36 inches long. The stance guide means is preferably fabricated from the same material as the mat.

As shown, the stance guide means is detachably secured to the associated edge of the mat in a manner which generally insures that the stance guide means will extend from the mat parallel to an axis extending centrally through the mat and coincident with the axis of aperture 3. Preferably, the end of the strip section 16 associated with the mat is proportioned so that the square end 23 thereof snugly abuts the shoulder 24 formed by the socket so as to retain the extended stance guide means in proper position. Because of variations in stance, it is desirable that the stance guide means be adjustable laterally with respect to the mat. Accordingly, on either side of the central aperture in the group of apertures 12, there is provided another aperture into which the stud 19 may be pressed to effect such adjustment of the stance guide means.

Having taken a proper stance, it is desirable that the golfer control his body movements so that the clubhead will follow a prescribed path leading to impact with the ball when the face of the clubhead is perpendicular to the intended line of flight of the ball. To assist the golfer in developing the requisite body movements into a habit which becomes automatic whenever he steps up to address a golf ball, it is desirable that the golfer have some type of a guide which will enable him to "groove" his swing so that his body movements are substantially identical with each swing.

For this purpose, the mat is provided on the impact side of the ball with swing guide means in the form of a pair of spaced strips designated generally by the numerals 26 and 27, the strips being spaced apart to define a swing path designated generally by the numeral 28. It should be noted that the swing guide strip 26 is formed by a pair of elongated members 29 and 31 joined end-to-end by a hinge 32 to permit folding of each strip for packaging purposes. The swing guide strip 27 is similarly divided into separate members 33 and 34 joined end-to-end by a hinge 36. The swing guide strip 27 is curved adjacent its outer end remote from the mat, while the swing guide strip 26 extends from the mat substantially at right angles thereto. The strip 26 defines the outer boundary beyond which the golf clubhead is not intended to pass under any circumstances. The curved strip 27 parallels the curved path followed by the golf clubhead during the backstroke and during the forward stroke prior to impact with the ball. It has been found that if the backswing of the golfer is controlled so that the golf clubhead follows essentially the same path that it is intended to follow in the downswing, the golfer retains much more control over the golf club than is otherwise the case. As with the stance guide strip, the swing guide strips forming the swing guide means are preferably fabricated from a tough resilient material similar to the material from which the mat is fabricated.

Since it is sometimes desirable that the swing path defined by the swing guide strips be varied in width, the edge of the mat adjacent the associated ends of strip sections 29 and 33 is provided with a plurality of aligned apertures 37 as shown through which a stud 38 formed integrally on the inner end of the strip sections 29 and 33 may be engaged in the manner indicated by FIG. 3. It will thus be seen that all that is required to vary the width of the swing path is to shift the stud from the aperture shown to one of the outboard apertures. Preferably, the swing guide strips are moved symmetrically with respect to the aperture 3 over which the golf ball 8 is supported. Such symmetry provides a frame of reference for the golfer which he may visualize even when he does not use the device, and

facilitates "grooving" his swing so that each time he swings the golf club the head passes over the prescribed path.

It has been found that it is not enough merely to define the swing path over which a golf clubhead ought to pass. Since the body motions required to effect a proper swing and maintain a proper stance require that considerable attention be given to these factors, it is frequently difficult or impossible for the golfer to determine whether the golf clubhead is transversing the prescribed swing path with each successive swing. Accordingly, means are provided detachably secured on the mat to evaluate each swing and indicate to the golfer whether the golf clubhead has traversed the prescribed swing path.

As viewed in FIG. 3, the golf ball is supported directly above the top surface of the mat and substantially centrally disposed from the longitudinal and end edges thereof. Additionally, a median line through the swing path 28 will ordinarily extend through the axis of aperture 3, and a golf clubhead caused to follow such median path will in general impact with the golf ball at a point on the face of the golf club midway between the toe and heel of the club, and generally midway between the top and bottom edges of the face of the club.

If the golfer's stance is improper, or if his body motions are uncoordinated, the swing path will vary so that the golf clubhead will strike the golf ball improperly. The effect usually is that the face of the golf club is canted or angularly disposed with respect to the intended line of flight of the ball. This result usually occurs when the golfer swings so that his swing path is from the inside, thus causing the ball to hook to the left away from the golfer. On the other hand, if the swing path followed by the clubhead is from the outside-in, the ball will have a tendency to slice to the right. Accordingly, to drive the ball accurately along the intended line of flight, it is imperative that the golf clubhead be properly positioned with respect to the ball at the moment of impact. To insure such proper positioning of the clubhead upon impact there is provided a gateway through which the clubhead must pass and which is defined on either side of the ball by a flag 39 (FIG. 5) formed conveniently from a relatively rigid but light plastic material which will not be damaged upon impact with a golf clubhead. Each flag is preferably supported on the upper end 41 of a flexible standard 42 the lower portion of which forms a plug 43 adapted to seat snugly within one of a plurality of apertures 44 formed in a mounting plate 46 proportioned to seat snugly within a complementary recess formed in the top surface of the mat.

It will thus be seen that for a beginner the flexible standards and the flags which they support may be positioned in the apertures 44 most distant from the golf ball so as to make the gateway as wide as possible. With practice the golfer will find that his control of the swing path of the golf clubhead has increased to the point where the flexible standards may be moved inwardly so as to decrease the width of the gateway through which the golf clubhead must pass upon impact with the ball. Ultimately, the flags will be moved inwardly into the position illustrated in FIGS. 1 and 3 in which the inner edges 47 of the flags define a narrow gateway which constitutes an extension of the swing path or guide means and which will permit passage of the golf clubhead without displacing one or the other of the flags only if the golf clubhead has followed the prescribed swing path for optimum impact with the ball.

To prevent damage to the flags and standards, the standard is preferably wound from a relatively light and flexible spring material so that if the golf clubhead strikes the flag or any portion of the standard, the standard will immediately flex without damage and return to its original position after the golf clubhead has passed.

When the practice mat is intended for use out-of-doors, as for instance on a driving range or lawn that provides an appreciable depth of turf, it is helpful that the practice device be anchored to the turf. For this purpose, the stance and swing guide strips and the mat are apertured at intervals to permit the insertion of standard golf tees 48 which project downwardly through the strips and mat to anchor the device to the supporting turf.

It has been found that if an aspiring golfer utilizes this practice device only minutes a day, within very few days there is an appreciable improvement in his golf game merely by virtue of the fact that following the swing path prescribed by the practice mat "grooves" the golfer's swing so that each time he swings the golf club the clubhead follows a predetermined and prescribed path for proper impact with the ball. It has been found that this result is achieved because the constant practice permitted by the device conditions the golfer's coordination so that to the extent possible his movements are identical with each swing of the club.

We claim:

1. A practice device for golfers for use in evaluating and developing stance and swing patterns when addressing and hitting a golf ball, comprising:

- a. mat means adapted to lie on a flat surface and having means associated therewith for supporting a golf ball in position to be hit;
- b. stance guide means adjustably secured to the mat means and extending away therefrom to a point correlated to the proper position of the lead foot of a person addressing a golf ball supported on the mat means;
- c. swing guide means adjustably secured to the mat means and extending away therefrom in a direction generally perpendicular to said stance guide means and defining a prescribed swing path for a golf club swung to properly hit a golf ball supported above the mat; and
- d. swing evaluator means adjustably secured on the mat means adjacent the associated end of the swing guide means and in correlation with said prescribed swing path forming a gateway of adjustable width through which the golf clubhead is guided for proper impact with the ball.

2. The combination according to claim 1, in which said mat means is centrally apertured to provide a depression for retaining a golf ball in position to be struck.

3. The combination according to claim 1, in which said mat

means is generally rectangular and fabricated from a tough resilient material resistant to scuffing.

4. The combination according to claim 1, in which said mat means is beveled over an area disposed adjacent said swing guide means, said beveled area constituting a continuation of the swing path defined by said swing guide means.

5. The combination according to claim 1, in which means are provided detachably interconnecting said mat means and said stance guide means for selective adjustment of the stance guide means transversely in relation to the mat means.

6. The combination according to claim 1, in which means are provided detachably interconnecting said mat means and said swing guide means for selective adjustment of the swing guide means longitudinally in relation to the mat means.

7. The combination according to claim 1, in which said swing evaluator means comprises a pair of flexible standards detachably secured to the mat means on opposite sides of said prescribed swing path, and a relatively inflexible flag supported on each standard and projecting cantilever fashion toward a golf ball supported on said mat means, the spacing between said mutually projecting flags defining the outer limits of the prescribed swing path for properly hitting a golf ball supported over the mat means between said flags.

8. The combination according to claim 1, in which said stance guide means comprises an elongated strip fabricated from a plurality of axially aligned sections hinged together to enable folding of the elongated strip.

9. The combination according to claim 1, in which said swing guide means comprises a pair of spaced elongated strips each detachably secured to the mat means along one edge thereof.

10. The combination according to claim 1, in which means are provided associated with said mat means, stance guide means and swing guide means to effect anchoring thereof to the surface on which the practice device is supported.

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