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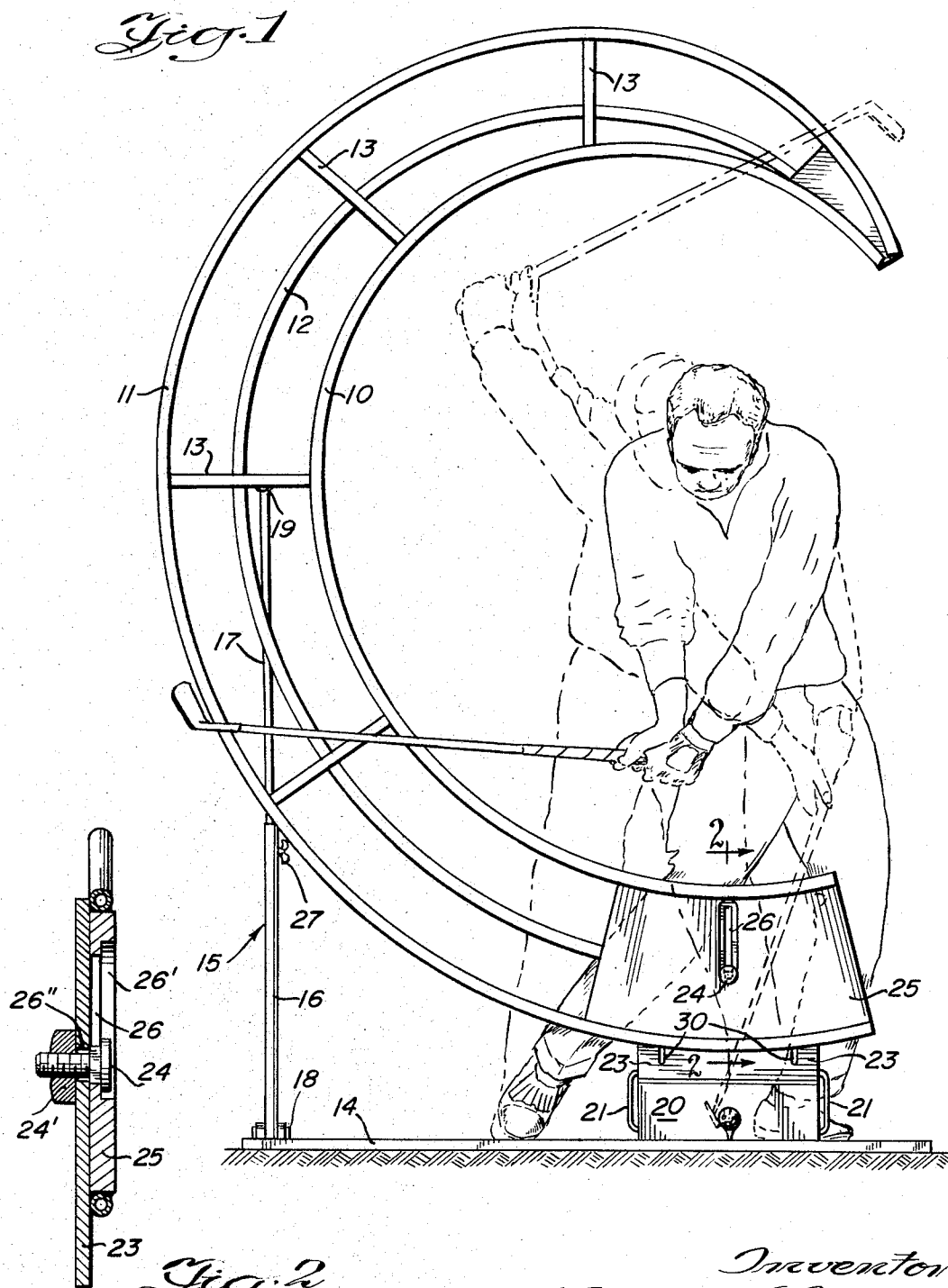
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GOLF TRAINING CLUB GUIDE

Filed May 12, 1965

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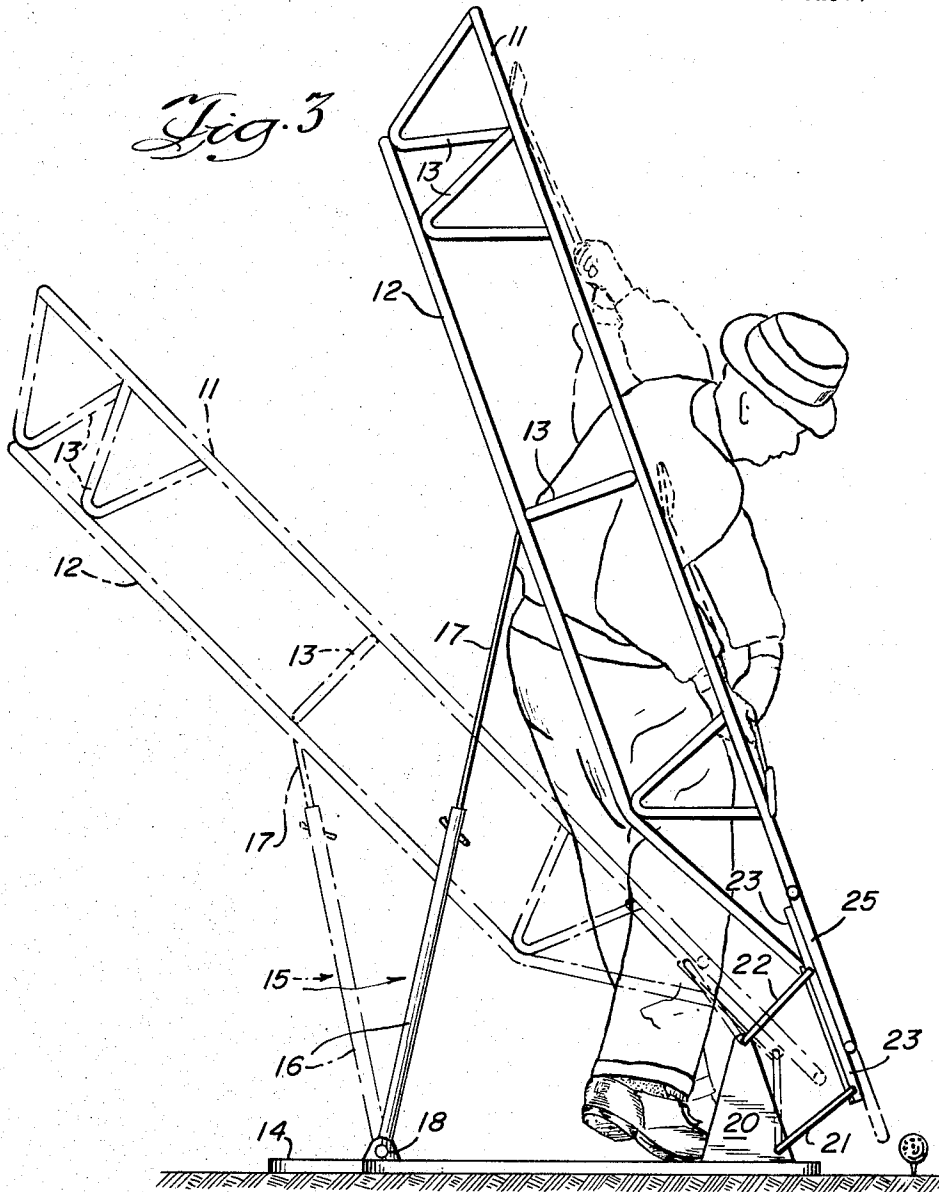
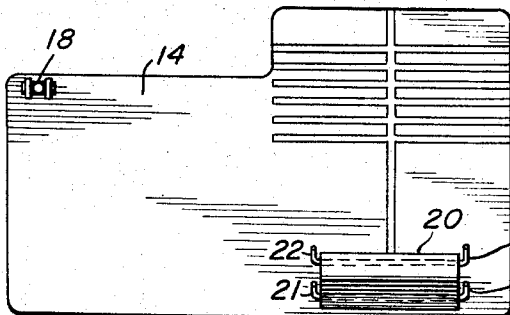


Fig. 8

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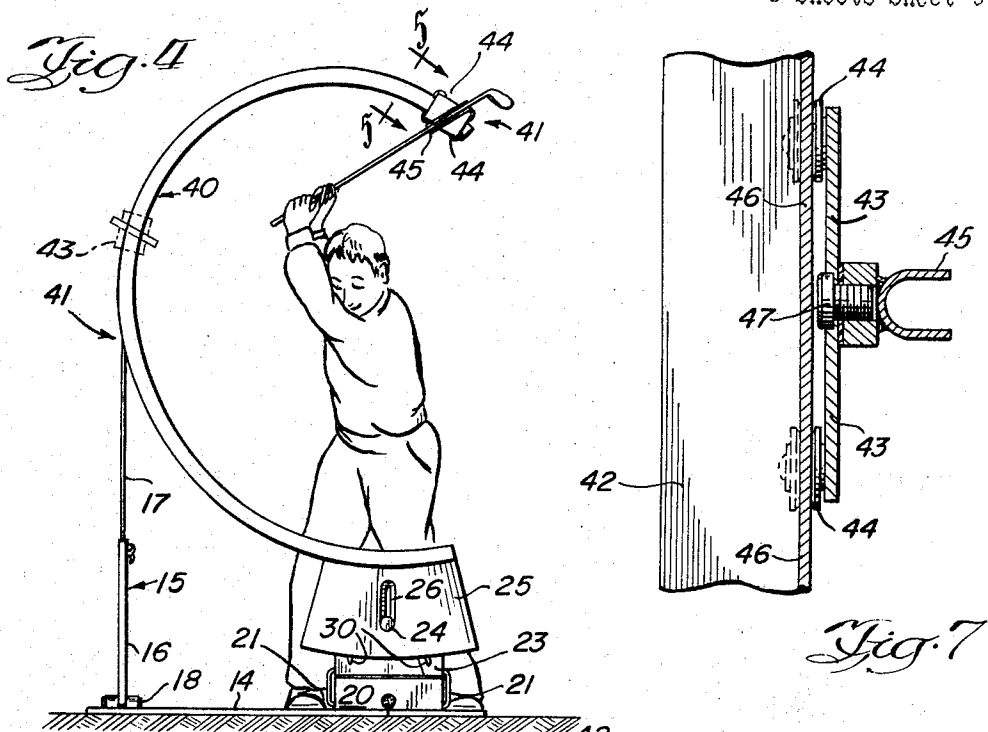
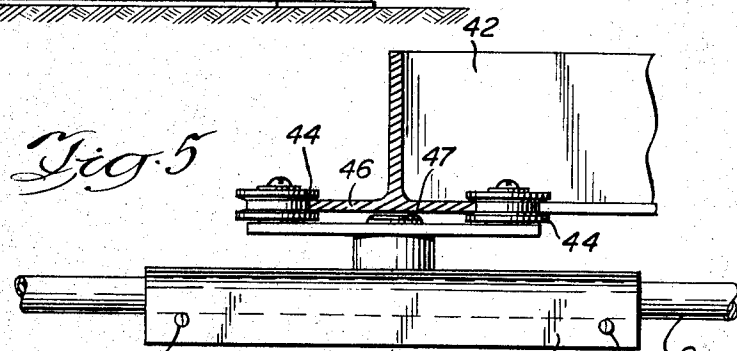
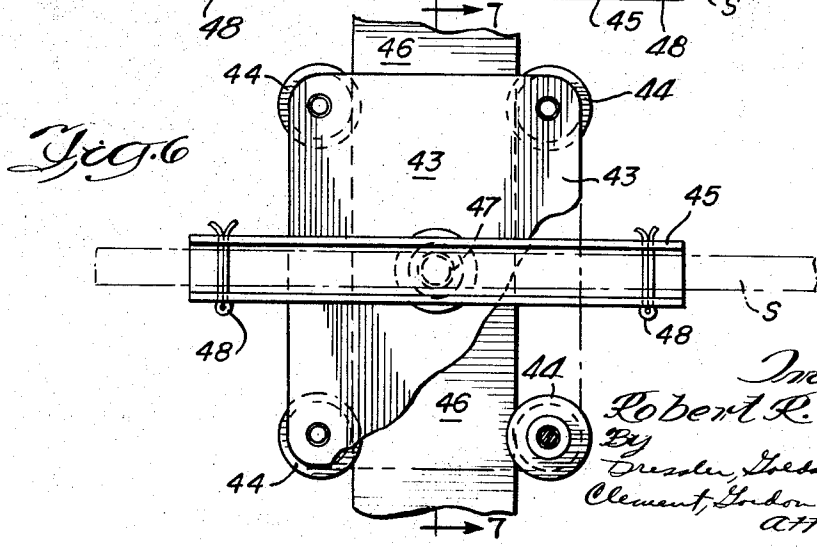
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3 Sheets-Sheet 3



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GOLF TRAINING CLUB GUIDE

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This invention relates to golf training devices, especially of the type which guide a player's club, so that the club will not deviate from a constant plane during a practice swing.

In the past, golf training devices of this nature have been quite complex in structure, as well as in use. These devices required many adjustments when setting them up, and were quite difficult to adapt to larger or smaller players. Usually, in order to change the angle of the device with respect to the ball (to adjust to different players or the use of different clubs), quite a few adjustments had to be made and tried before the device was properly set. In many cases, adjustment of the device was so intricate that, without a thorough understanding of the principles of adjustment, the device could not be set properly at all.

Also, some golf training devices are equipped with fixed roller operated control mounts for the golf club. These require the club to be secured in the mount and prevent the club from turning about its own axis during the swing, which is the natural movement of the club due to the movement of the player's arms during the swing. In the top of the stroke, the club is usually in an "open position," that is, the face of the club lies in the plane of the swing, and in the bottom of the stroke, the club is in a "half-closed position," that is, the face of the club is normal to the plane of the swing and positioned to contact the ball. As the player moves the club from the top position to the bottom position, the club turns providing a smooth, coordinated swing, but when the club is held rigid in the "half-closed position," the swing is not smooth but rigid and inhibits the player's normal movement.

Structures incorporating the present invention, however, are such as to dramatically reduce these complexities. These simplified structures, for example, can be quickly and easily positioned to define various planes thereby facilitating use by golfers swinging different clubs, and can also be quickly and easily adjusted for players of varying heights. In this respect, such training devices incorporate only two basic adjustments, one for accommodating the different angles of swing employed for the various golf clubs, and the other for accommodating different size golfers.

Not only is the golf training device of the present invention capable of being easily adjusted, such adjustments may be accomplished while leaving the training device in place without varying the tee position of the golf ball. This allows for the present invention to be utilized in situations wherein only fixed tees are available, such as in golf driving ranges or indoor training centers.

Furthermore, the training device can be positioned by adjusting only a single support with one hand while the golf clubs held by the other hand at the proper address angle serves as a point of reference. Because the plane defined by the training device continually pivots about the tee position, it is apparent that once the device is positioned so as to intersect the tee, a desired angle may be selected by holding a club in the address position with one hand, e.g., the left hand, while reaching back and adjusting the device with the other. Therefore, not only may the device be used at training centers, such as driving ranges, because of its unique ability to pivot around the tee point, but is also usable for training purposes because of its ability to be adjusted by the golfer while in place.

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More specifically, golf training devices incorporating features of the present invention include a platform on which a generally C-shaped trackway is adjustably supported at only two points in an inclined position approximating a golfer's swing. A first adjustable support underlies the generally central portion of the trackway while the lower end of the trackway is supported by a plurality of spaced apart links which allow it to pivot about the golf tee position as the inclination of the trackway is varied.

In order to accommodate for various heights of golfers who may utilize the structure, the trackway is coupled to the links by an adjustable slideplate which may raise or lower the trackway once it is properly positioned at the selected angle. Furthermore, the training device is constructed so that the trackway contacts the golf club throughout its entire swing at two points spaced sufficiently far apart to stabilize the club in the plane of the track. For example, the trackway may include two rails so oriented as they contact the club so as to span at least 20 percent of the club length. Furthermore, the specific dimensions of the structure are such as to allow the training device to be designed in two sizes, one accommodating larger golfers and the other the smaller golfers.

Numerous other advantages and features of the present invention will become readily apparent from the following detailed description of the invention and of one embodiment thereof, from the claims and from the accompanying drawings in which each and every detail shown is fully and completely disclosed as a part of this specification in which like reference numerals refer to like parts and in which:

FIGURE 1 is a front elevation of the golf teaching device as it would appear in use;

FIG. 2 is an enlarged cross-sectional view taken on line 2—2 of FIG. 1, showing the slot adjustment for varying the height of the device;

FIG. 3 is a side view of the device showing it at different angles;

FIG. 4 is a front elevation of a modified form of the device of the invention;

FIG. 5 is a cross-section taken on the line 5—5 of FIG. 4;

FIG. 6 is a front elevation of the device shown in FIG. 5;

FIG. 7 is a cross-section taken on the line 7—7 of FIG. 6; and

FIG. 8 is a plan view of the base platform on which the training device is mounted.

Referring more particularly to FIG. 1, the golf training device pictured is a compact unit which employs arcuate rails 10 and 11 in a single plane. These rails 10 and 11 together provide a generally C-shaped trackway which functions to guide a club being swung through a swing to the golf ball, the rails 10 and 11 tending to keep the swing in a single plane which helps to develop accuracy of swing and the capacity to strike the golf ball with consistency. In the form of the invention shown in FIG. 1, the rails 10 and 11 are constructed of tubular framing and are held together by means of supporting rail 12 and interconnecting rails 13. As will be seen in FIG. 3, the rails 12 and 13 are behind the plane of the rails 10 and 11 to avoid interfering with the golf swing in which the club, as pictured in FIG. 3, rides along the forward surface of the rails 10 and 11 constituting the trackway.

The structure is mounted upon a platform 14 supported on the ground, as shown. Both FIGS. 1 and 3 include a golf ball positioned on a tee. It will be understood that the tee is in a fixed position which, in turn, fixedly positions the golf ball. The structure under consideration is of particular importance because it facilitates adjust-

ment of the trackway while the same is maintained in a position for stroking a ball which is in a constant position, thus accommodating the situation, for example, in which the golf balls may be automatically supplied to a predetermined golf tee position, or where only a fixed tee is available.

Referring more particularly to the trackway support structure, a telescoping support rod 15 is pivotally connected at one end, as shown at 18, to the rear of the platform 14, and pivotally connected, at the other end, to the trackway by a pivotal securement, shown at 19, to an interconnecting rail 13 at the generally central portion of the C-shaped guide rail. The pivotal securement at 18 may be a tight fit to create a frictional resistance to movement which can be overcome by the imposition of positive force when the trackway is hand-manipulated into a desired position. The telescoping rod 15 is composed of two elements, a tubular housing 16 and an extendable arm 17 telescopically fitted within the tubular housing 16. The length of the rod 15 is adjustable by extending or retracting the arm 17. Manually operable means, e.g., wing nut 27, is carried by tubular housing 16 to bear against and hold the rod 15 at any desired length.

The C-shaped trackway has its lower end positioned by spaced apart links 21 and 22, as shown in FIG. 3. The links 21 and 22 are pivotally connected at one end thereof to a mount 20 supported by platform 14. The other ends of the links 21 and 22 are pivotally connected to a plate housing 23. The spacing between the links 21 and 22 at the mount 20 differs from the spacing between them at the plate housing 23 which enables plate housing 23 to swing about the mount 20 while the plane of the plate (and hence the plane of the trackway) effectively pivots about a fixed golf ball tee position.

The lower end of the trackway is fitted with a flat plate 25 secured between the rails 10 and 11 and having a vertical slot 26 extending from its midsection upwardly to a point below the top thereof. The slot 26 serves to house and guide a bolt 24, which adjustably secures the trackway to the plate housing 23 thereby allowing the trackway to be adjusted up and down to accommodate the height of different players. The head of the bolt 24, as shown in FIG. 2, is housed in a recess 26' in the slot 26, and the bolt then extends through a hole 26''. The bolt 24 is held in place by nut 24'. By manual manipulation (loosening and tightening the bolt 24), the trackway and plate can be adjusted up or down on the plate housing 25, thereby accommodating the height of different players.

Referring to FIG. 4, there is shown a second embodiment of the invention, employing a unitary C-shaped trackway 40 of T-shaped cross-section, having a wheel mounted golf club guide 41 slidably attached thereto. The trackway 40 is adjustably supported in the same manner as described hereinbefore, with the exception that the upper end of the telescoping rod 15 is pivotally connected to the downwardly extending flange 42 of the rail 40 (indicated at 47), and the plate 25 is secured in the plane of the golf club swing to the horizontal flange 46 at the lower end of the guide rail 40.

The golf club guide 41, as shown in FIG. 6, comprises a base plate 43 of sufficient width to provide for the rotatable securement of four grooved wheels 44 at each corner thereof, the horizontal flange 46 extending between the wheels, so that two wheels engage each of the opposite sides of the flange 46, as shown in FIG. 5. The golf guide 41 also includes an elongated U-shaped golf shaft guide 45 rotatably connected at the center of the base plate 43, by means of screw bolt 47, as shown in FIG. 7.

A golf club shaft S is fitted into the U-shaped guide 45 and held in position by two cotter pins 48, or like means. The loose fit of the shaft within the elongated U-shaped guide 45 permits the natural rotation of the golf

club during the swing, and also functions to control the plane of the golf club shaft during the swing so that it does not pull away from the plane of the C-shaped trackway 40.

It will readily be observed from the foregoing detailed description of the invention and in the illustrated embodiment thereof that numerous variations and modifications may be effected without departing from the true spirit and scope of the novel concepts and principles of this invention.

What is claimed is:

1. A golf training device comprising a trackway substantially encircling an open central region and defining an inclined plane, means for adjustably supporting said trackway above a generally horizontal surface to selectively position said trackway at various angles to said surface, and means for constraining said trackway to continuously and substantially pivot about a fixed tee position defined by the intersection of said inclined plane and said horizontal surface.

2. A training device for use in developing a uniplanar golf swing comprising in combination a generally planar trackway substantially encircling an open central region, said trackway defining a plane through which the club is to pass, said trackway including shaft contacting regions disposed side by side in the plane and located to present a stable pair of surfaces for the club shaft throughout its entire swing, a first longitudinally adjustable support pivotally connected at opposite ends to said trackway and to a horizontal surface for changing the inclination of said trackway relative to said surface, and a second support pivotally connected at opposite ends to said trackway and to a mounting member on said surface, whereby said plane defined by said trackway may be pivoted about a fixed tee position defined by the intersection of said plane and said horizontal surface.

3. A golf training device comprising an inclined generally C-shaped trackway, a plurality of links spaced from each other in a vertical plane, each of said links having one end pivotally supported in a fixed mount and having its other end pivotally connected with the lower portion of said trackway for constraining said trackway to continuously define a plane intersecting a fixed tee position, and means underlying the central portion of said trackway for adjustably supporting said trackway in an inclined position to define a plane approximating a golfer's swing, said support means being easily and manually operable to allow for repositioning said trackway at an angle defined by a golf club in the ball address position.

4. An aid for developing a uniplanar golf swing comprising in combination a generally C-shaped inclined trackway including a pair of spaced apart rails defining a plane approximating a golfer's swing, an adjustable support underlying the central portion of said trackway, manually operable means for adjusting said support to any desired length to selectively position said trackway at a given angle, a plurality of vertically spaced apart links each of which has one end pivotally mounted on a support and the other end pivotally connected to a plate housing, a slotted plate fitted between the lower portion of said spaced apart rails, and securing means connecting said plate and said plate housing for vertically adjusting said trackway with respect to said housing to accommodate players of various heights.

5. A uniplanar golf training device comprising in combination a generally C-shaped trackway including a pair of spaced apart rails defining an inclined plane approximating a golf swing, said rails disposed side by side in the plane and located to present a stable pair of surfaces for a golf club shaft throughout its entire swing, an adjustable support connected to said trackway to allow for ready manual repositioning of said trackway into various angular positions, means pivotally supporting said trackway at its lower end, said pivotal support means comprising a plurality of vertically spaced apart links having

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their respective ends pivotally connected to said trackway and a support to constrain the movement of said trackway so the plane defined thereby intersects a fixed tee position independently of the angular position selected.

6. A golf training device comprising, a supporting platform, a generally C-shaped trackway including a pair of spaced apart rails, means carried by said platform for adjustably supporting said trackway in an inclined position to define a plane approximating a golfer's swing, said means comprising a telescoping support underlying the central portion of said trackway and pivotally connected at one end to said platform and pivotally connected at the other end to said trackway, manually operable means for holding said telescoping support at any desired extended length, a slotted plate fitted between the lower portion of said co-planar rails, a plate housing, means for slidably securing said plate to said plate housing to allow for adjustment of said trackway up or down with respect to said housing to accommodate the height of different players, a plurality of vertically spaced apart links each having one end mounted in a support for pivotal movement relative thereto and having its other end pivotally connected to said plate housing for positioning said trackway when said telescoping support is released, said spaced apart links and said telescoping support moving through different arcs whereby said trackway pivots about a fixed tee position.

7. A golf training device comprising, a supporting platform, a generally C-shaped trackway having a T-shaped cross-section, a golf club guide slidably attached

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to said trackway, means carried by said platform for adjustably supporting said trackway in an inclined position approximating a golfer's swing comprising a telescoping support underlying the midsection of said trackway pivotally connected at one end to said platform and pivotally connected at the other end to said trackway, manually operable means for holding said telescoping support at any desired extended length, and vertically spaced apart links each having one end pivotally connected with the lower end of said trackway and the other end pivotally connected to a support for positioning said trackway when the length of said telescoping support is altered, said spaced apart links and said telescoping support thereby being adapted to move through different arcs whereby said trackway may be pivoted about a fixed tee position.

8. A golf training device as recited in claim 7, in which includes an elongated U-shaped golf club shaft-encompassing element is rotatably connected to said golf club guide.

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