

Sept. 3, 1968

J. L. PARSONS

3,399,571

GOLF PRACTICE DEVICE

Filed June 16, 1967

2 Sheets-Sheet 1

Fig. 1

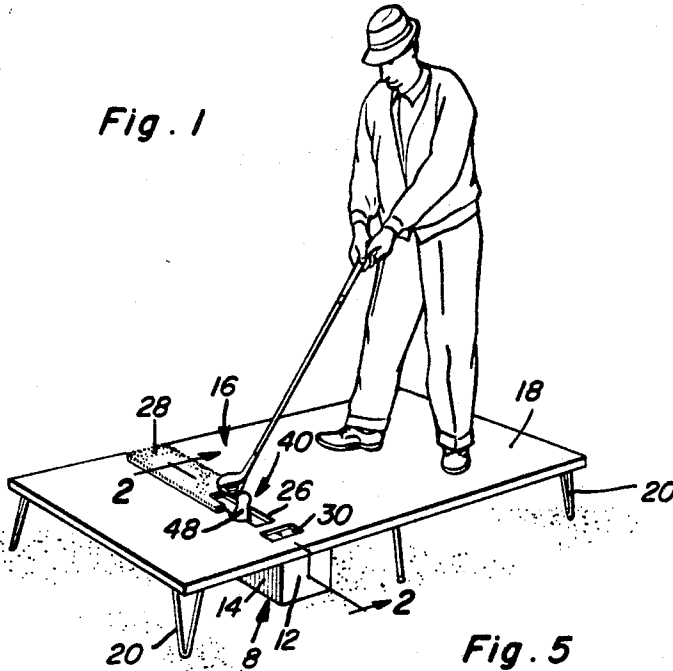


Fig. 5

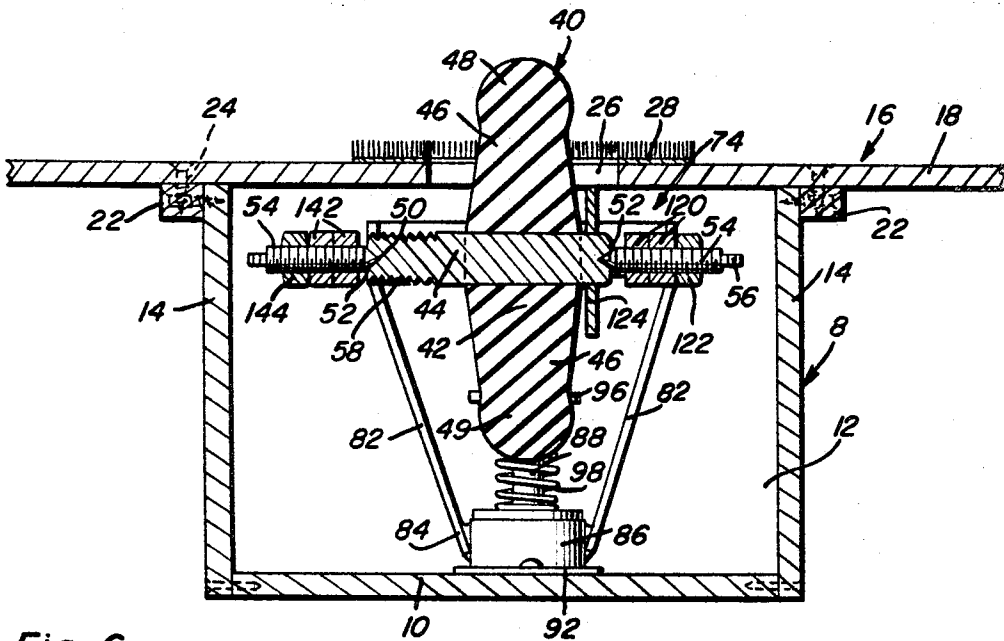
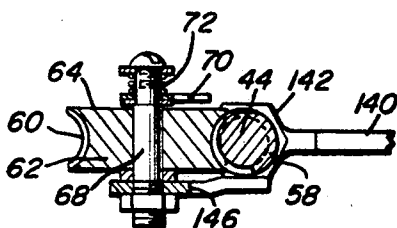


Fig. 6



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2 Sheets-Sheet 2

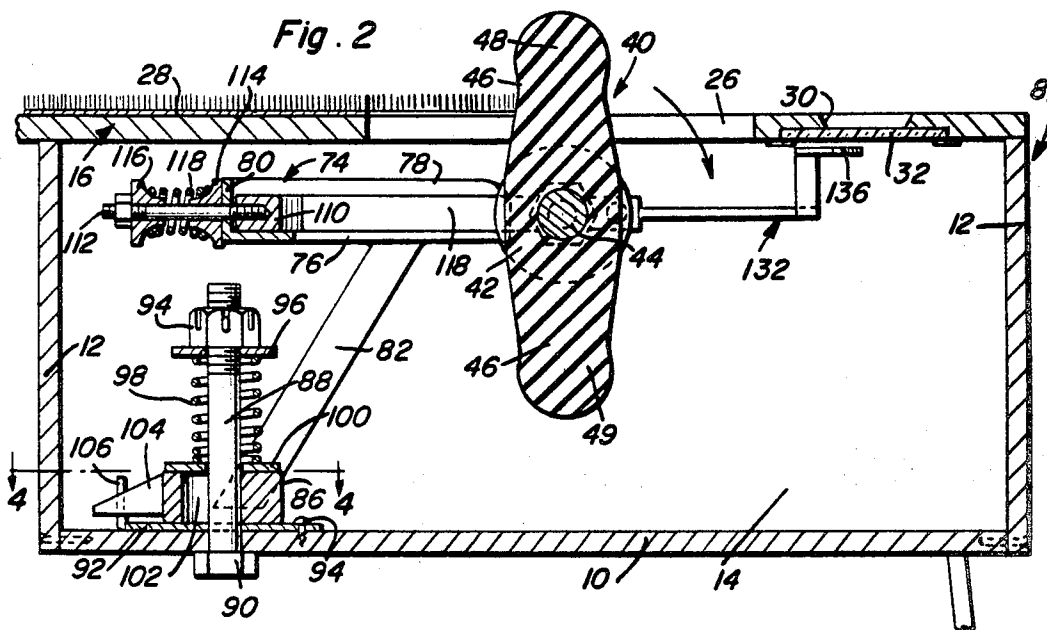
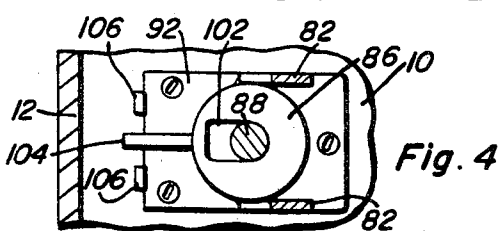
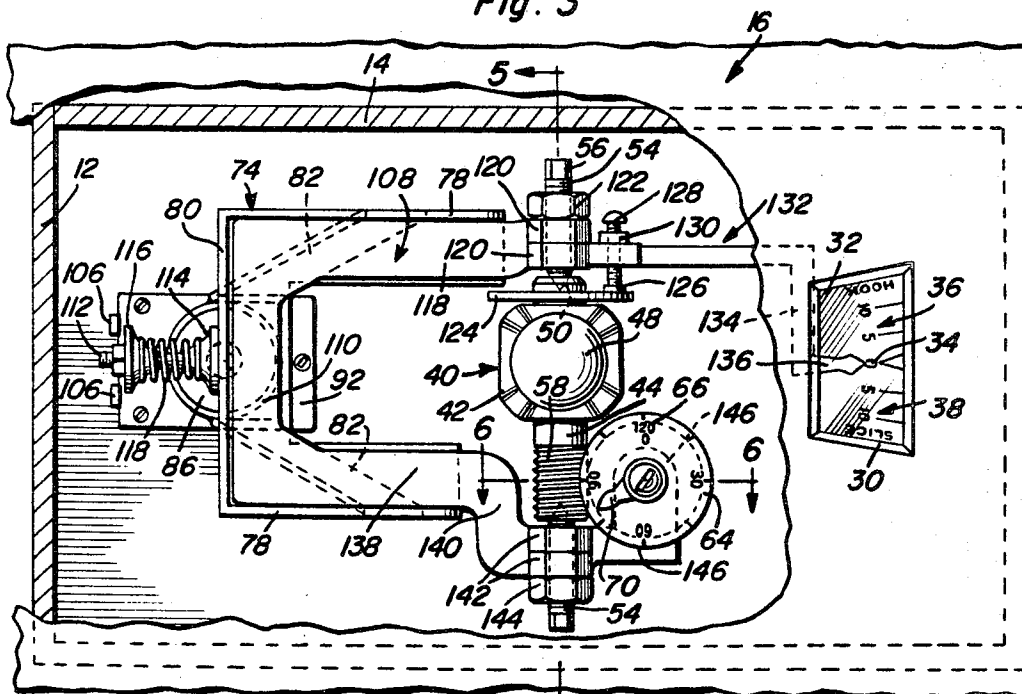


Fig. 3



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ABSTRACT OF THE DISCLOSURE

The device shown enables a golfer to practice in his own backyard. All essentially needed components are confined in a box-like housing which, in turn, can be embedded flush in the lawn or, alternatively, suspended beneath a low-level leg supported platform capable of serving right-handed or left-handed golfers. A rubber or equivalent member is fixed on a freely rotatable stand-supported shaft or axle and embodies selectively usable "golf balls" capable of being forcibly struck. Each whirlable ball automatically operates a responsive yardage dial and indicating pointer. The stand is also responsively movable and has an arrow to show a "hook" and a "slice" compared to a straight-away shot.

This invention relates to a golfer's practice device for home site use and which is characterized by a simple box in which the coating component parts are protectively but accessibly enclosed and wherein a suitably placed and elongated slot exposes not only the captive but rotatable golf balls but permits the golfer to clearly see a yardage registering dial located beneath the slot and to also ascertain, by separate registering means, whether the drive was straight, hooked to his left, or sliced to his right, as the case may be.

In carrying out the invention, a simple wooden or an equivalent box provides a feasible and effective housing and can be properly embedded in one's lawn or, if preferred, can be suspended beneath a leg supported panel which serves not only as a hanger for the box but a firm platform on which the golfer can assume a reliable club swinging ball driving stance.

One improvement has to do with the captive but freely whirlable member. It can be and preferably is molded in one piece from tough rubber or plastic material. It has a stout body or hub portion united with the central portion of a free spinning shaft. The end portions are fashioned into ball-shaped heads which serve as the dummy or imitation golf balls and operate in a slot provided for the purpose in the top wall of the box.

Briefly the preferred embodiment of the invention is that which is herein shown and which, as suggested above, embodies an enclosure, for example a wooden or an equivalent box-type housing. This housing can be on a leg-supported platform or embedded in the ground. The top panel in either situation has a slot, a rug or mat at the rearward end of the slot and a window at the forward end. The window is provided with a suitably graduated scale to accommodate an indicating arrow. The arrow points to zero to show when the drive is straight and swings to the left for a hook and to the right for a slice. The turnable shaft which carries the captive ball member is suspended between needle-end trunnions or journals supported by the arms of a generally U-shaped yoke. The yoke in turn is supported in the cradle. The cradle has depending legs and the legs are joined at lower end portions to a collar. This collar is mounted on bolt means and has a lug cooperable with limit stops on a cooperating plate. The threaded portion of the shaft provides a worm which is in mesh with the teeth of a worm gear. The top of the worm gear is constructed to provide a

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dial with which a pointer is cooperable. A friction brake is optionally provided on one end portion of the shaft.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIG. 1 is a view in perspective which shows that form of the golf practice device wherein the aforementioned enclosure or box is attached to and suspended from a panel, the panel being leg supported and providing the desired platform.

FIG. 2 is an enlarged view with parts in section and elevation taken on the plane of the section line 2—2 of FIG. 1.

FIG. 3 is a top plan view of the device with the top wall broken away to show the interior of the box and, more particularly, the essential component parts which go to make up the unique device.

FIG. 4 is a fragmentary section on the plane of the horizontal line 4—4 of FIG. 2.

FIG. 5 is a cross-section on the section line 5—5 of FIG. 3.

And FIG. 6 is a detail view on the plane of the section line 6—6 of FIG. 3.

By way of introduction to the description of the details it is reiterated that the aforementioned box-like housing can be embedded in the ground or lawn. For purposes of the illustration here the adaptation is that shown in FIG. 1 followed by the other views.

The box-like housing is denoted generally by the numeral 8. This box is intended to contain all the essential parts, in fact the whole assembly. It may be ten inches wide, seven inches high and twenty inches long. As shown in FIG. 5 is comprises a horizontal bottom wall 10, vertical transverse end walls 12 and marginal side walls 14. The top wall, specifically speaking, comprises a panel 16 at least one end portion 18 of which provides the platform for the golfer in the manner shown in FIG. 1. Suitable relatively short supporting legs 20 at the respective corners serve to suspend the housing or box. Strip members or cleats 22 are suitably attached to the side walls and fastened as at 24 to the platform to provide the over-all portable structure shown in FIG. 1. The aforementioned elongated slot in the top wall is denoted at 26. The club head protecting mat or carpet is denoted at 28 and is in line with the slot. The numeral 30 designates a slight opening which is shown in FIG. 3 is provided with a transparent window 32 having a suitably inscribed scale thereon. The center mark is zero as denoted at 34 and the graduations to the left as at 36 designate a hook while the graduations at the right as at 38 designate a slice. Reference to FIGS. 1, 2 and 3 will clarify this aspect of the housing.

Referring now to the means on the interior of the box or housing, attention is first directed to the tough rubber or equivalent club impacting member which is denoted generally by the numeral 40. As shown in FIG. 5 this member has a stout hub or body portion 42 which is properly united with the free turning horizontal shaft or axle 44. This member comprises upper and lower tapering shank portions 46 which terminate in ball-shaped heads 48 and 49. In actual practice these heads represent the dummy or imitation golf balls and one can be colored red, the other one white or whatever is desired in case the device is used by rival participants when playing at home golf. The member 40 is of a length that when it is in use the balls 48 and 49 whirl or turn in an orbital path through and by way of the accommodation slot 26. It will be noted that the end portions of the shaft are provided with conical recesses or sockets which constitute bear-

ings 50. The construction at each end is the same and in each instance the bearing serves to accommodate the needle-like spindle or end 52 of a journaling screw 54 which is adjustably mounted in a manner to be described. These two screws are coaxial and cooperate in the manner evident in FIG. 5. Each screw is provided with adjusting means 56. The left hand end portion of the shaft in FIG. 5 is screw-threaded as at 58 to provide a worm. The threads of the worm mesh with companion threads 60 on a worm gear 62 (FIG. 6) to thus transmit rotary motion from the shaft to the gear to turn the gear in proper relation. The flat top surface of the gear denoted at 64 is provided with circumferentially spaced graduations 66 (FIG. 3) thus providing a dial. This gear is mounted on a short or stub axle 68 (FIG. 6) which is supported in the manner to be described and whose upper end is provided with an indicating arrow 70 which cooperates with the yardage markings 66. The hub portion of the indicator is held in place by a coil spring 72 which surrounds the axle in the manner shown.

The means for supporting or suspending the shaft 44, the adjacent parts and the captive impact member 40 constitutes what is here referred to generally as a stand. A significant part of the over-all stand is designated as a cradle 74 which is U-shaped in plan and embodies horizontal ledge flanges 76 and upstanding vertical flanges 78 and 80. The cradle is provided with a pair of downwardly converging rearwardly inclined legs 82 whose lower ends 84 (FIG. 5) are joined to diametrically opposite peripheral surfaces of an anchoring collar 86. This collar surrounds an upstanding bolt 88 conveniently designated as a kingbolt and whose headed end 90 extends up through the bottom wall and then through an adapter plate 92 which is fastened in place as at 94. The upper end of the bolt is threaded to accommodate a nut 94 and a washer held in place as at 96 by a coil spring 98 encircling the bolt. There is a lower washer at 100 which rests atop the collar. The collar has a radial slotted portion 102 which allows the collar to shift and turn to accommodate the over-all movement of the stand relative to the spring-loaded kingbolt and collar. The collar is provided on one side with an outstanding detent or lug 104 which is movable between a pair of upstanding limit stops 106. Thus the stand as a unit can switch in a horizontal plane depending on the movement of the lug 104 between the limit stops 106. The cradle supports a substantially U-shaped frame which is here referred to generally as a yoke 108. The bight portion 110 of the yoke rests on the underlying flange and is provided with a screw-threaded assembling stud 112 which extends through an opening in the flange 80, is provided with washers 114 and 116 and an intervening cushioning spring 118. Thus the bight portion 110 of the yoke is operatively linked or connected with the cradle and the yoke and cradle contribute to the production of the novel stand. One arm 118 of the yoke terminates in companion nuts 120 which serve to accommodate the adjacent journal and to the ends desired a lock-nut is provided at 122. The shaft 44 at this end is provided with a brake disk 124 to accommodate a brake shoe 126 operable by a friction adjusting screw or bolt 128 having a locknut at 130. The arm 118 is provided at this point with a substantially L-shaped extension 132 and the limb portion 134 carries an arrow 136 which is located beneath the window 32 and cooperates with the scale graduations 36 and 38 in a manner evident in FIGS. 2 and 3. The other yoke arm is denoted at 138 and has an elbow 140 carrying nuts 142 which accommodate the cooperating journaling screw 54 and the adjacent locknut 144. This part of the yoke embodies an extending suitably constructed bracket 146 which constitutes the means which operatively supports the aforementioned worm gear, axle 68 and indicating pointer 70.

It will be evident with respect to the window 32 that the zero point represents the center of the fairway while the graduations to the left and right represent the degree

of each off-center drive to the left or right as the case may be. Two or more players can play a nine hole game, each player using a different colored ball. In addition, an appropriate chart with mark-up pins (not here shown) may be and preferably will be used to enable each player to keep track of the yardage and depending on whether he is using a wood club or an iron as the case may be. In actual practice, the platform can be constructed so that it is capable of use by either right-handed or left-handed players.

As is true with almost any game apparatus, the rules and regulations for playing the game will vary for which reason it is thought that it is unnecessary here to dwell upon how each participant must play to systematically arrive at the end result desired.

It can be added that the player sets the indicating arrow at zero at each time before he hits the ball. When he hits the ball the latter will revolve and will turn the shaft and this in turn will operate the worm gearing in a manner to indicate the distance or yardage of a given drive. The player will watch the gear to see how many full revolutions it makes. The indicator will give him the yardage as it stays stationary while the worm gear is turning. He will then have to move the indicating arrow back to the zero position. Emphasis is attached to the sturdy tough rubber or equivalent captive member 40 and the manner in which it is fashioned and connected with the turning shaft as illustrated for example in FIG. 5.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A golf practice device comprising a relatively stationary box-like housing embodying a horizontal bottom wall, companion vertical side and end walls and a complementary top wall having an elongated slot, a bodily movable impact responsive stand enclosed within the confines of said housing, said stand embodying a rigid U-shaped cradle having a pair of rigid depending supporting legs connected at lower ends thereof with complementary means operatively anchoring said lower ends on said bottom wall and locating and positioning said cradle in a horizontal plane below said top wall and cooperable with said slot, a complementary yoke cooperable with and wholly supported by said cradle, said yoke being in a plane common with the plane of said cradle and having arms parallel with said slot and located to the right and left, respectively of the lengthwise edges of said slot, a shaft bridging the space between and supported for free rotation by said yoke arms, said shaft being disposed at right angles to the lengthwise dimension of said slot, an elongated one piece member having an integral hub-like body portion fixed to said shaft and rotatable in conjunction with said shaft and also having axially aligned shank portions terminating in generally spherical integral heads providing dummy golf balls, said shanks being aligned with and turnable through said slot and said golf balls being accessible above said top wall and whirlable, when in motion, through a prescribed orbital path, a rotatable gear viewable by way of said slot, said gear embodying a yardage dial, an indicator cooperable with said dial, and an operating connection between said shaft and gear.

2. The practice device according to claim 1, and wherein end portions of the arms of said yoke are provided with a pair of opposite and aligned shaft supporting screws adjustably mounted and having inner needle-like journaling ends projecting into coacting conical bearing sockets provided therefor in the respective terminal ends of said shaft, one end portion of said shaft being threaded to provide a motion transmitting worm, said gear comprising a

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worm gear which is meshed with said worm, the top surface of said gear being graduated to provide said dial, a vertical stub axle carried by one arm of said yoke, said gear being rotatable on said axle and a manually regulatable spring-held yardage indicating pointer operatively mounted on said axle and adapted to cooperate with the graduations on said dial.

3. The practice device defined in and according to claim 2, and wherein said top wall has a sight opening forwardly of said slot, aligned therewith and provided with a window having a graduated scale indicative of a "hook" or a "slice," as the case may be, one of the arms of said yoke being provided with a substantially L-shaped extension terminating in an indicating arrow which is beneath the window and is cooperable with the graduations on said scale.

4. The practice device defined in and according to claim 1 and wherein said anchoring means comprises a king bolt carried by said bottom wall and projecting vertically into said housing through a base plate fixed atop the bottom wall, a collar having a radially slotted central hub portion embracing said bolt and movably shiftable atop said base plate, upper and lower washers encircling said bolt with the lower washer residing atop said collar, a coil spring surrounding said bolt between said washers, the lower ends of said legs being fixed to diametrically opposite peripheral surfaces of said collar.

5. The practice device defined in and according to claim 1, and wherein said cradle embodies angle members providing horizontal ledge flanges and upstanding vertical flanges, said yoke being correspondingly U-shaped and having its bight portion and complemental arms seated on the ledge flanges and confined by the vertical flanges, and spring-loaded bolt means separately and adjustably bolting said bight portion to the companion bight portion of said cradle.

6. The practice device defined in and according to claim 5 and wherein said anchoring means comprises a king bolt carried by said bottom wall and projecting vertically into said housing through a base plate fixed atop the bottom wall, a collar having a radially slotted central hub portion embracing said bolt and movably shiftable atop said base plate, upper and lower washers encircling said bolt with the lower washer residing atop said collar, a coil spring surrounding said bolt between said washers, the lower ends of said legs being fixed to diametrically opposite peripheral surfaces of said collar.

7. A golf practice device comprising, in combination, a stand adapted to be confined within the limits of a housing when in use, said stand comprising a substantially U-

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shaped cradle, said cradle having a pair of rearwardly inclined and converging legs, a king bolt, a collar rotatably and shiftable mounted on said bolt, an adapter plate, said collar being shiftable on said plate and provided with an outstanding detent, said plate having a pair of upstanding limit stops and said detent being movable from left to right between said limit stops, the lower ends of said legs being joined to diametrically opposite sides of said collar, said bolt projecting above the plane of the collar and being provided with an encircling coil spring, said spring interposed between upper and lower washers provided on and encircling said king bolt, a yoke, said yoke being detachably and adjustably supported by cooperating component parts of said cradle, said yoke embodying a pair of coplanar arms provided with coaxial journals, a shaft having end portions supported rotatably between the respective journals, an impact member fixedly mounted on said shaft and embodying selectively usable dummy golf balls.

8. The golf practice device defined in claim 7 and in combination, a worm gear provided with a dial, an indicating arrow cooperating with said dial, said shaft having a threaded end portion providing a worm and the threads of said worm meshing with the threads of said worm gear.

9. The golf practice device defined in claim 7 and in combination, a worm gear provided with a dial, an indicating arrow cooperating with said dial, said shaft having a threaded end portion providing a worm and the threads of said worm meshing with the threads of said worm gear, said shaft being provided at one end with a friction brake disk, and a friction shoe adjustably mounted on a component part of said yoke and cooperating with said disk.

10. The golf practice device defined in claim 8 and in combination, an L-shaped extension provided on one of the arms of said yoke, said extension terminating in an indicating arrowhead.

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