Nov. 7, 1967 G. H. ROBINETTE 3,351,345

GOLF PUTTING PRACTICE DEVICE

Filed March 12, 1965 2 Sheets-Sheet 1

FIG. 1

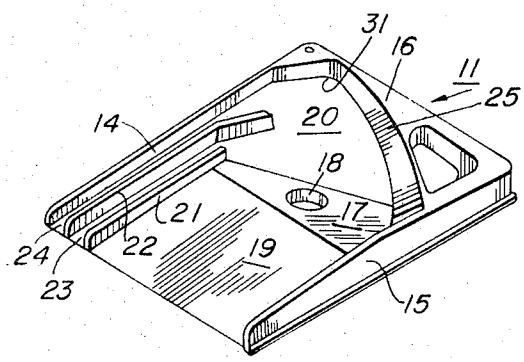


FIG. 2

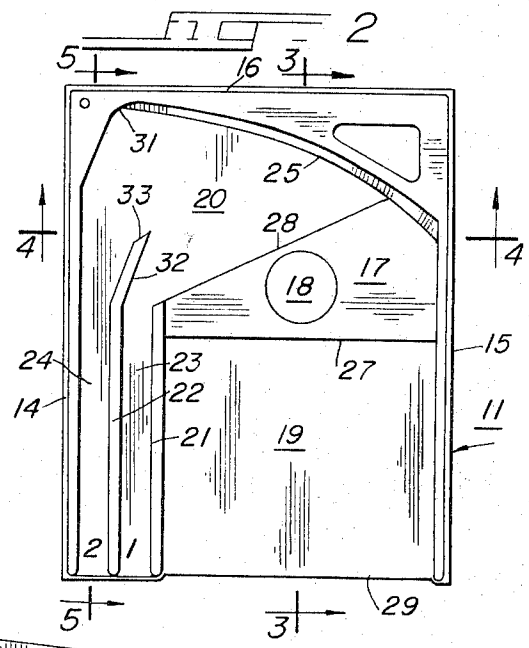


FIG. 3

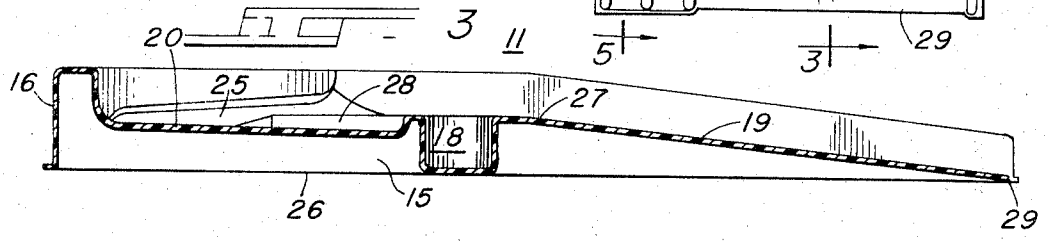


FIG. 4

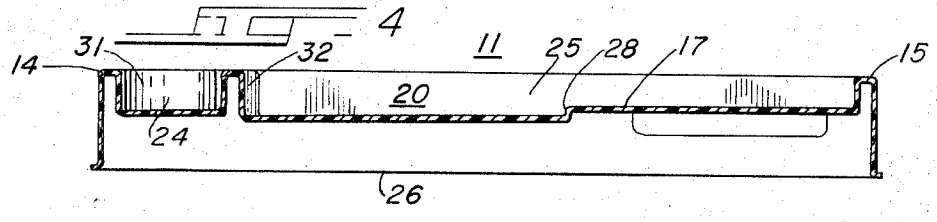
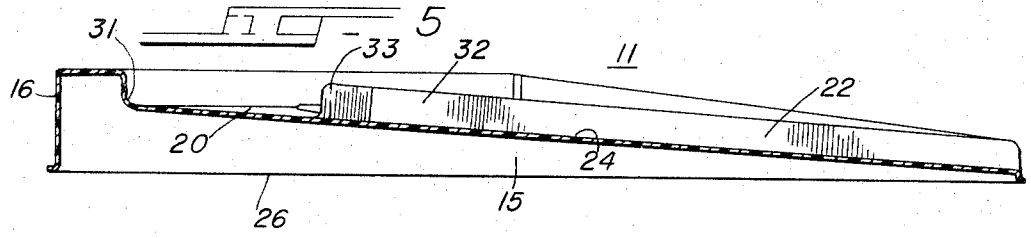


FIG. 5



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FIG. 6

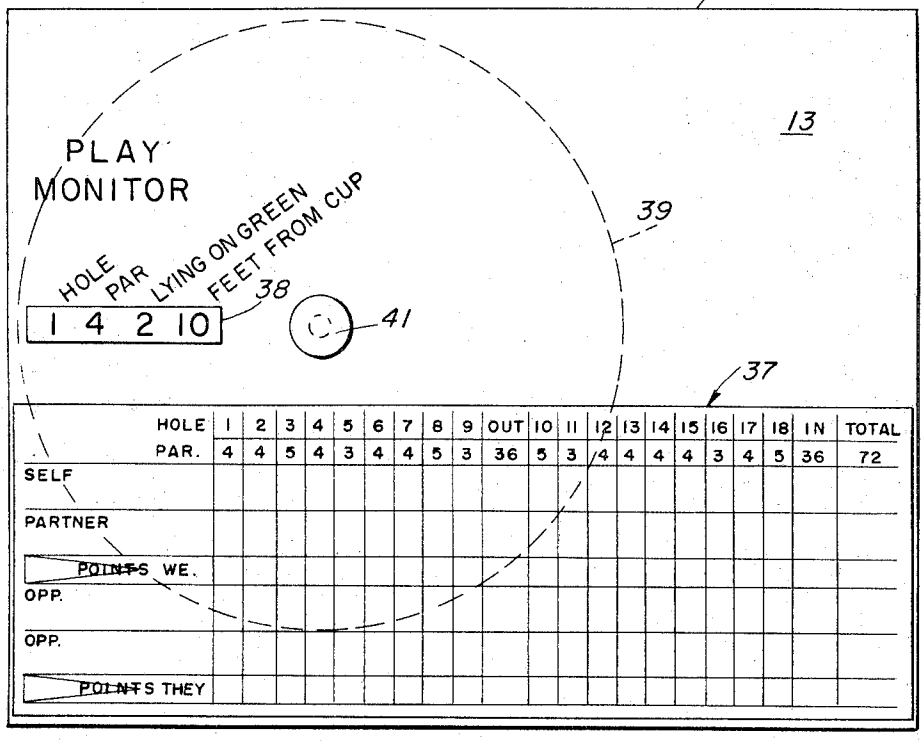


FIG. 7

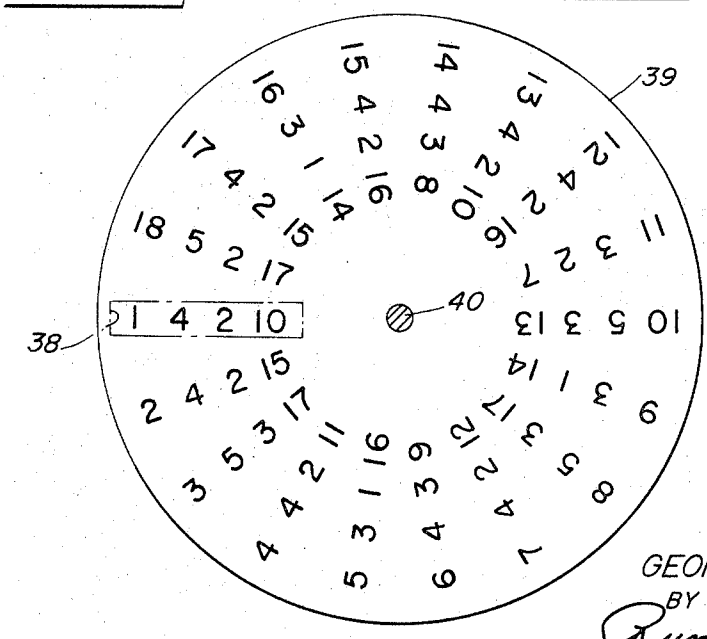
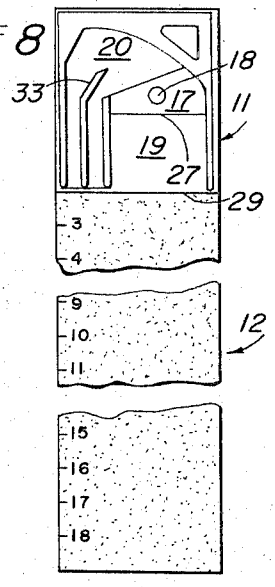


FIG. 8



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United States Patent Office 3,351,345 Patented Nov. 7, 1967

3,351,345

GOLF PUTTING PRACTICE DEVICE

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Filed Mar. 12, 1965, Ser. No. 439,183
6 Claims. (Cl. 273—176)

This invention relates to a facility for the simulated indoor playing of outdoor golf with the object of improving putting proficiency.

Many devices and/or facilities have been marketed, over the years, to permit golfers to practice indoors one or another aspect of outdoor play. In the main, these prior facilities have lacked realism sufficient to materially benefit the golfer when he resumes his out-of-door playing. This is true especially of the types of putting facility heretofore provided.

The main objects of this invention are: to provide an improved indoor golf facility for use in closely simulating the playing of outdoor golf; to provide a facility of this kind that affords a high sense of realism in off-the-course use; to provide an improved form of association of multiple elements the indoor use of which ensures improvement of on-the-course putting; to provide a multiple-element facility of this kind which permits either one person to practice putting, or a number of persons to practice putting in a scored contest, either of which has a high degree of realism in the results hoped for in play in the outdoor game; and to provide an indoor, multiple-element facility of this kind of such construction and relative association as to make the manufacture and marketing thereof very economical and the use thereof highly gratifying even by skilled golfers.

A specific embodiment of this invention is shown in the accompanying drawings in which:

FIGURE 1 is a perspective view of the cup element, of an indoor golf-game facility, constructed in accordance with this invention;

FIG. 2 is a plan view of the cup-element;

FIG. 3 is an enlarged, cross-sectional view of the cup-element taken on the plane of the line 3—3 of FIG. 2;

FIG. 4 is an enlarged, cross-sectional view of the cup-element taken on the plane of the line 4—4 of FIG. 2;

FIG. 5 is an enlarged, cross-sectional view of the cup-element taken on the plane of the line 5—5 of FIG. 2;

FIG. 6 is a plan view of a play-monitor element for use in directing a scored use of the facility;

FIG. 7 is a plan view of the scoring-indicia counter shown in dotted outline in FIG. 6; and

FIG. 8 is a miniature plan view of a putting approach element in use position with the cup-element read for play.

The essential concept of this invention involves a three-element facility, two of which elements are adapted for juxtaposed association on a floor to permit putting with standard equipment, as directed by a third element, to closely simulate the scored equivalent of a game played on an outdoor standard course.

An indoor golf-game facility embodying the foregoing concept (FIG. 8) comprises a cup-element 11, a simulated "greens" putting approach element 12 and a play-monitor element 13 (FIG. 6) the first two of which elements are adapted for juxtaposed positioning on a floor to permit putting under the direction of the play monitor element to allow one or more persons to engage in scored play closely approximating outdoor play on a standard 18 hole course.

The cup-element 11, as herein shown, is molded plastic of rectangular contour—in the illustrated embodiment of approximately 29" by 22.5"—as defined by two side rims 14 and 15 and an end rim 16. The thusly-defined body of the element 11 has an elevated median portion

17 embracing a depressed pocket 18 with portions of the body extending forwardly and rearwardly of such median portion 17 and inclined to provide flat approach and regress surfaces 19 and 20, respectively, to and from the pocket 18, the regress portion being recessed below the plane of the median portion 17. Associated with these surfaces 19 and 20 is a pair of rails 21 and 22 forming channels 23 and 24 for the return of balls that have been stroked beyond the median portion 17. The side rims 14 and 15 are of narrow width whereas the end rim 16 has an inwardly-extending apron with a specially shaped face 25, as will be explained presently. These rims 14, 15 and 16 preferably have their under perimeters slightly flanged to form a continuous bottom edge 26 for properly positioning the element 11 in play use on a floor.

The median portion 17 is of irregular polygon contour disposed between and below the upper perimeters of the side rim 15 and the rail 21. The forward defining edge 27, of the portion 17, is disposed transversely normal to the rim 15 and rail 21 slightly forward of the end of the rail 21. The rear edge 28 of this portion 17 defines the top of a vertical wall that drops to the level of the recessed regress portion 20 and this wall extends transversely outward from the inner end of the rail 21 at an angle of between 25 and 30 degrees to the forward edge 27. The median portion 17 is also slightly inclined rearwardly to assure delivery to the regress portion 20 and return of any putted ball that misses the pocket 18.

The depressed pocket 18 is of a diameter standard for outdoor golf cups. It is located in the median portion 17 approximately centrally of the side rim 15 and the rail 21 and the edges 27 and 28 of the median portion.

The approach surface 19 slopes gradually forward from the edge 27 of the median portion 17 at a predetermined angle. That angle has been determined carefully to provide a lag for a stroked ball approximating the resistance of the texture of a conventional outdoor golf-course green. The forward end 29 of this approach surface 19 terminates slightly inwardly from the forward ends of the rim 15 and rail 21 (FIG. 2). Such forward end 29 contacts the floor substantially flush when the element 11 is in normal use.

The regress surface 20 slopes gradually upward away from the base of the edge 28 of the median base portion 17, with the juncture of the surface 20 with the shaped face 25 of the rim 16 gradually approaching to the high point 31 and then slanting forwardly to the rim 14 to facilitate entrance to the channel 24, for reasons that will be explained presently.

The rails 21 and 22, as clearly shown, are fixedly disposed above the forwardly-extending portion of the regress surface 20 which continues to the forward end of the element 11 to provide a floor for the channels 23 and 24, as shown in FIG. 5.

As will be noted from FIGS. 1 and 2, these rails 21 and 22 are evenly spaced transversely to and closely parallel with the side rim 14 so that the discharge channels 23 and 24 are the same width to easily accommodate the conventional-diameter golf balls used on the American standard courses. The intermediate rail 22 has an inner-end extension 32 disposed rearwardly beyond the inner end of the rail 21. This extension 32 is angled inwardly from the side rim 14 and has a tapered extremity 33. The function of such an extension 32 will be made apparent in the later outline of the use of this element in association with the putting approach element 12 and the play-monitor element 13. The provision for the two channels 23 and 24 is one of the very significant features of such a structured cup element 11 as will be made clear in the later use-outline of these three elements.

The arc and slope of the face 25, of the end rim 16, and its relation to the slope and dimensions of the regress

surface 20 has been determined from a long series of very carefully-arranged experiments with balls variously stroked from various distances on the hereinafter described putting-approach element 12. Obviously, if the stroke of a ball, from any distance forwardly of the cup element 11, is of such force as to send the ball beyond the rear edge 28 of the flat medium body part 17 the ball is going to have its continuing momentum effected by the above-noted factors, i.e. the incline of the regress surface 20 and the curve and slope of the face 25 of the end rim 16. For example, if a ball should have just enough momentum to barely pass the edge 28, the chances are the slope of the regress surface 20 will direct the ball into channel 23. If, on the other hand, the ball is so stroked as to carry it with such force as to produce considerable impact against the face 25, the rebound of the ball most likely will cause it to go beyond the inclined extremity 33 of the rail 22 so that it will enter the channel 24. Naturally, in outdoor play, strokes of such differing forces would determine the distances the ball would be from a cup. For the one ball the distance might be so small as to make it a "concede" for most non-professional players. The other ball might be so far from the cup that it would take a very careful first next putt to position the ball close enough for a "concede."

Hence, in the use of this cup element 11—generally in association with the other two, now-to-be-described elements 12 and 13—a ball returned through the respective channels 23 and 24 would be accorded different score values, as will be explained more specifically presently.

The putting-approach element 12 is diagrammatically illustrated in use-association with the cup element 11 in FIG. 8. This element 12 is in the form of a mat of suitable material specifically surfaced to very closely match the grass texture for the conventional golf green. The mat, preferably, is approximately 21 feet long and is wide enough to permit one to stand thereon when putting. The position of the ball transversely of the mat would be in selected alignment with the space between the side rim 14 and the rail 15 of the cup element 11. Along one or the other (or both) margins of the mat are appropriate markings to indicate "feet from cup."

The play-monitor element 13 is illustrated in FIGS. 6 and 7. As here shown this is in the nature of a stable panel 36 mounting a pad 37 of score sheets, and having a window opening 38 with legends arranged along one perimeter of the window and rotatably mounting a disk 39.

The panel 36 may be any suitable, sufficiently-stiff paper-stock or plastic for self-sustained planar disposition.

The pad 37 of score sheets, as here shown, is adhered along one margin to occupy the lower half of the panel 36. As is obvious, from FIG. 6, the score sheets are of a form such as used for conventional outdoor golf. One horizontal column has the numerals indicating the sequence of holes for an 18-hole golf course. The lower matching column has numerals indicating conventional par for each hole of a predetermined standard outdoor course. The transverse rows of blank spaces provide for the names and the scores of four players.

The window opening 38 here is shown as rectangular and positioned above the left-hand end of the pad 37, and in alignment with the pivot axle 40 of a turning knob 41 for the disk 39. Along the upper perimeter of the window is a series of legends "Hole," "Par," "Lying on green" and "Feet from cup."

The disk 39, as shown in full outline in FIG. 7, has four concentric series of numerals arranged to register, respectively, with the legends along the window opening 38. Thus, the outer circular series of numerals indicates the conventional sequence of holes for the usual outdoor course. The next inward series of numerals indicates what, generally, would be the "par" for each of the respective holes. The next two inward series of numerals are arbitrary selections for indicating what, for a normal outdoor course, might be the number of strokes for "lying on green" and "feet from cup," respectively.

The hereinshown and above-described facilities conjointly provide for two uses. One such use is for an individual to practice putting as a basis for scoring closely simulated play on an outdoor standard 18-hole course. The other such use is for two or more persons to practice putting as a basis for scoring competitive play closely simulating conditions on an outdoor standard 18-hole course. In either of these opportunities the facilities are used in the following manner:

Using the play-monitor element 13 as a guide, the disk 39 is turned by means of the knob 41 to display, through the panel window 38, the radial row of numerals 1, 4, 2, 10. These, respectively, indicate play is to begin with "hole" number 1; that "par" for that hole is 4, that the player's ball is "lying on green" in 2; and that the ball is 10 "feet from cup."

Thereupon, the player places his ball on the putting approach facility 12, hereinafter referred to as "mat," opposite the mark showing 10 feet. The ball may be placed in any transverse position opposite the marking "10." The player then stands on the mat and strokes his ball with a force he believes will put the ball very close to the pocket 18, if not in it. Obviously, if the ball drops into the pocket 18 such a "one putt," plus the two strokes for "lying on green," makes for a "birdie" hole.

If, on the other hand, the ball passes over the flat median portion 17, which is slanted rearwardly, the ball is going to be deflected along the regress surface 20 into one or the other channels 23 or 24. Should such momentum be just enough to get the ball over the edge 28, the ball will be deflected by the leftward (FIG. 4) and forward (FIG. 3) slant of the surface 20 to engage the rail extension 32 and roll out along the channel 23. On the other hand, should the ball have sufficient momentum to cause a rather vigorous contact with the curved face 25 of the end rim 16, the ball would be deflected beyond the end 33 of the extension 32 for discharge through the channel 24. In either case, the ball is automatically delivered back to the mat 12.

A ball that has passed over the flat median portion 17 just enough to cause it to be discharged through channel 23 is regarded as comparable to a putt on an outdoor green, so close to the cup as to be conceded one more putt. Thus, the scoring would be a "par" hole and the channel 23 is marked with a numeral "1" to so designate. A ball that passed over the flat median portion 17 so that it was deflected to return through channel 24, would, however be regarded as having gone so far beyond the cup as to require two additional putts in order to "hole out" and the play would therefore be scored a "bogey" or one-over-par hole.

However, in the event that the ball first stroked from the mat should not have enough momentum to reach the flat median base portion 17, it will roll back onto the mat due to the backward inclination of the surface 19 toward the front edge 29. Accordingly, the player must make another try at putting. That well might result in having the hole scored as a "par," should the ball drop into the pocket 18, a "bogey" if the ball should be returned through the "1" channel 23, or a "double bogey" if the ball should be returned through the "2" channel 24. To be sure, a player might have to putt a third time from the mat, before dropping the ball in the pocket 18, or having it returned through either channel 23 or 24. The consequence then might be a "disastrous" showing on the score card.

Having completed the simulated play for the "first" hole, the disk 39 is turned to bring into registration, with the window 38, the next radial row of numerals. Thereupon, play is continued for the next hole.

After completing this simulated play for eighteen holes,

the practicing of putting under these circumstances, may afford one a very reasonable indication of one's real abilities for play on outdoor standard courses. Moreover, the more one makes use of this facility, as herein set forth, the more skill will one be likely to acquire for improving his play on the outdoor standard course.

A particular advantage of this invention is the automatic indication of the quality of the first putt, in so far as closeness to the cup is concerned. Thus the player learns skill for force as well as direction in the putting performance. For this purpose the shape and curvature of the end rim face 25 is determined so that putted balls that widely miss the cup 18, or which are stroked too hard, will be deflected over the extremity 33 of the rib extension 32 so as to enter the "2" channel 24 and be delivered therefrom onto the putting mat. "Close" putts will automatically be directed into the "1" channel for a "par" indication.

Although but one specific embodiment of this invention is herein shown and described, it will be understood that details of the construction shown may be altered or omitted without departing from the spirit of the invention as defined by the following claims.

I claim:

1. An indoor golf-game facility, comprising a cup element structured to rest flat on a floor with the body thereof defined by side rims and a rear end rim the bottom edges of which rims are adapted to support the element on a floor, a median portion of the body being disposed above the bottom edges of the rims and having a depressed ball-receiving pocket nearly centrally therein, and portions of the body forwardly and rearwardly of the pocket being inclined to form approach and regress surfaces, respectively, to and from the pocket, said median portion being generally horizontal and the approach surface extending forwardly and downwardly therefrom to terminate substantially flush with the floor, the regress portion being inclined laterally and forwardly downward relative to the plane of said median portion, and said cup element body having a channel means leading from the lowest part of said regress portion to open at the forward end of said body.

2. An indoor golf-game facility as set forth in claim 1 wherein the channel means is defined by a pair of spaced rails disposed inwardly of the adjacent side rim and extending from the regress surface to the front end of said body to channel forwardly from the element a ball moving past the pocket.

3. An indoor golf-game facility as set forth in claim 2 wherein the pair of rails extend rearwardly from the front edge of the element, the innermost rail terminating substantially at the rearward end of said median portion, and the adjacent rail extending rearwardly beyond the rear end of the innermost rail with its rearward end portion disposed at an angle to project toward the plane of the innermost rail.

4. A game facility as defined by claim 1 wherein the cup element is substantially rectangular in contour with its body defined by two parallel side rims and a rear rim, the forward edge of said medial portion is disposed transversely normal to the side rims, and the rear edge of the medial portion extends away from said channel means and toward said rear rim at an angle of about 25 to 30 degrees from said forward edge.

5. A game facility as defined by claim 1 wherein said regress portion is generally recessed below the plane of said medial portion.

6. An indoor golf-game facility comprising, a cup element substantially rectangular in contour with the body thereof being defined by two side rims and one end rim the bottom edges of which are adapted to support the element on a floor, the element body having a medial portion elevated above said edges and a ball-receiving pocket recessed therein, portions of the element body forwardly and rearwardly of the medial portion being inclined forwardly to form approach and regress surfaces, respectively, to and from the pocket, and the regress surface portion being generally recessed below the plane of said medial portion, a pair of laterally-spaced rails fixed interiorly on the regress surface and extending substantially parallel with one side rim of the element to form a pair of exit channels leading forwardly outward from the element, the face of the rear rim contiguous with the regress surface curving arcuately and forwardly from adjacent the rear end of said one side rim to the opposite side of said medial portion and being inwardly inclined toward the regress surface to cause a ball passing the said pocket to enter one or the other of the exit channels depending upon the force whereby the ball is stroked toward the cup element and into contact with the said arcuate face of the rim.

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