Feb. 20, 1968 J. B. McKEE 3,369,812

SIMULATED GOLF GREEN TARGET INCLUDING CONCENTRIC RINGS DEFLECTABLE BY HIGH SPEED BALLS

Original Filed Oct. 10, 1963 6 Sheets-Sheet 1

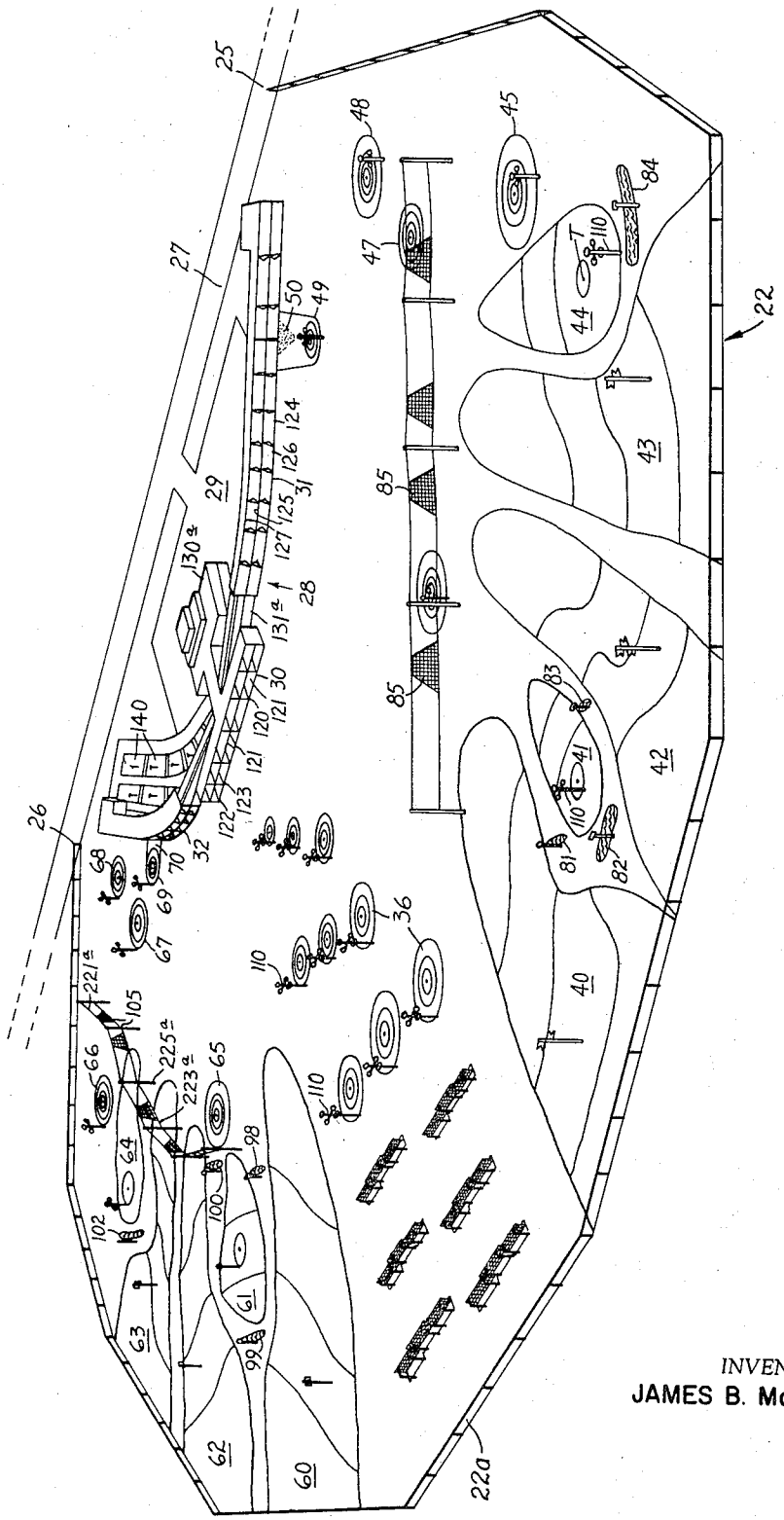


FIG. 1

INVENTOR.
JAMES B. McKEE

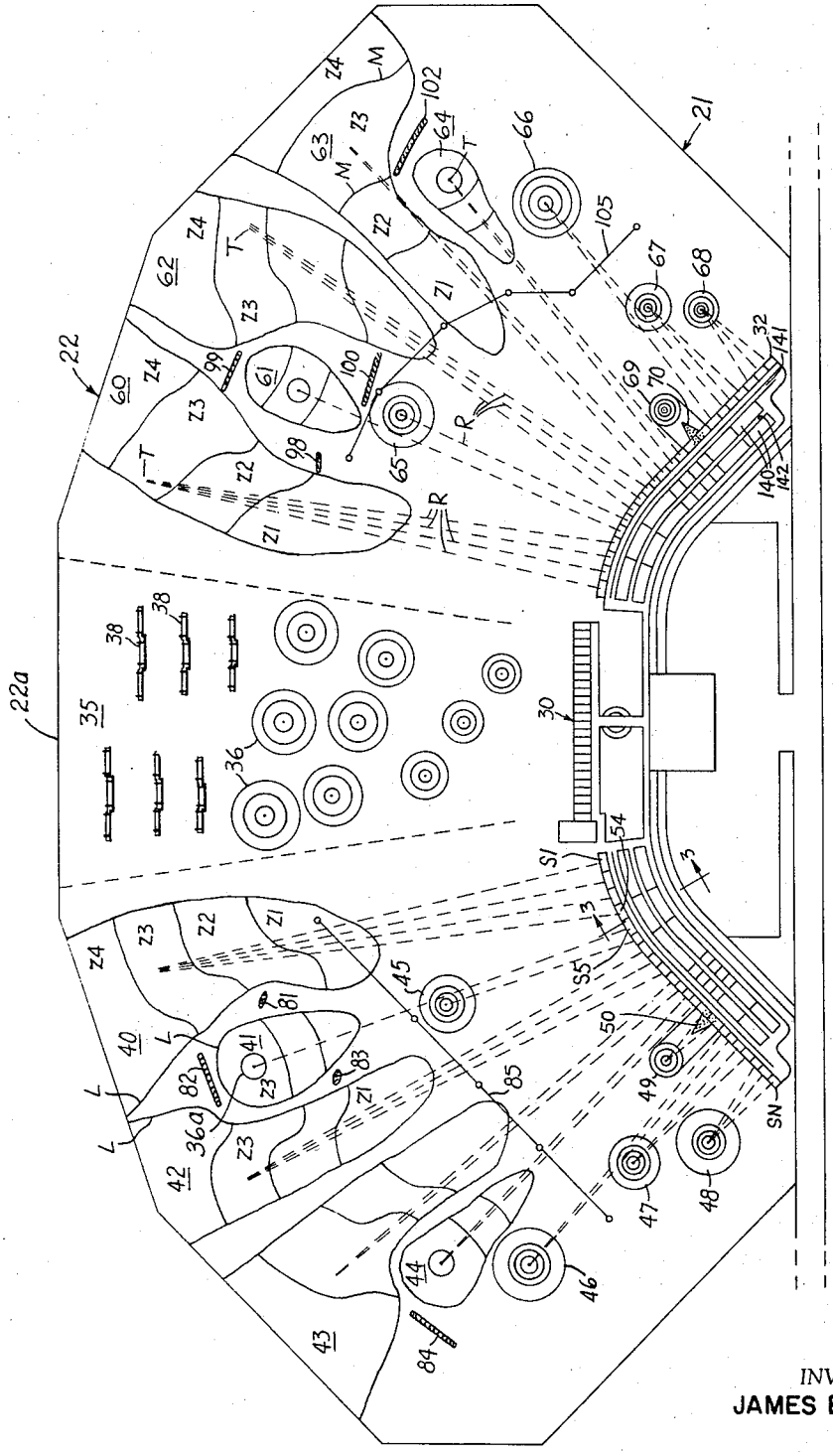
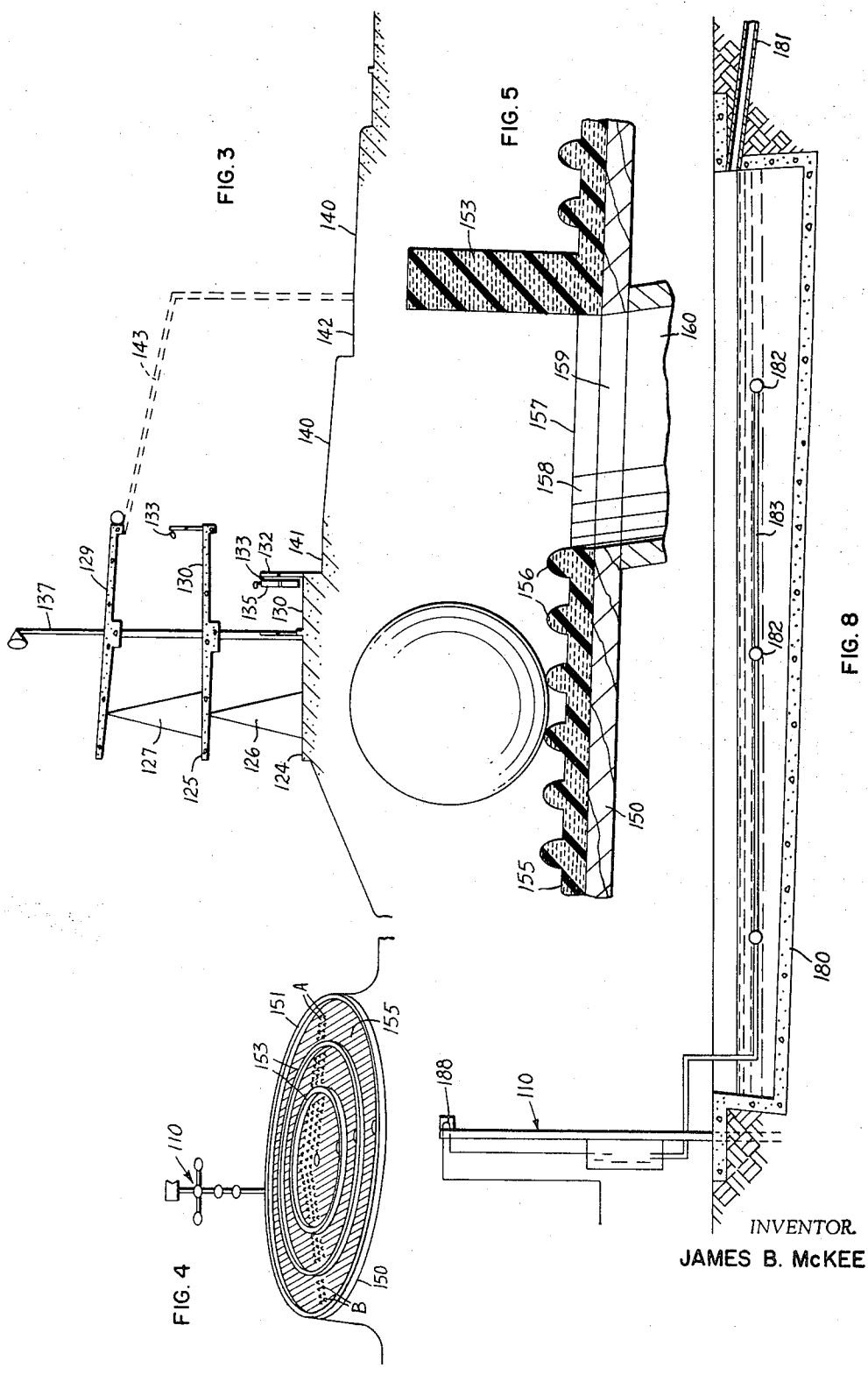


FIG. 2

INVENTOR.
JAMES B. McKEE

Feb. 20, 1968 J. B. McKEE 3,369,812
SIMULATED GOLF GREEN TARGET INCLUDING CONCENTRIC RINGS
DEFLECTABLE BY HIGH SPEED BALLS
Original Filed Oct. 10, 1963 6 Sheets-Sheet 3



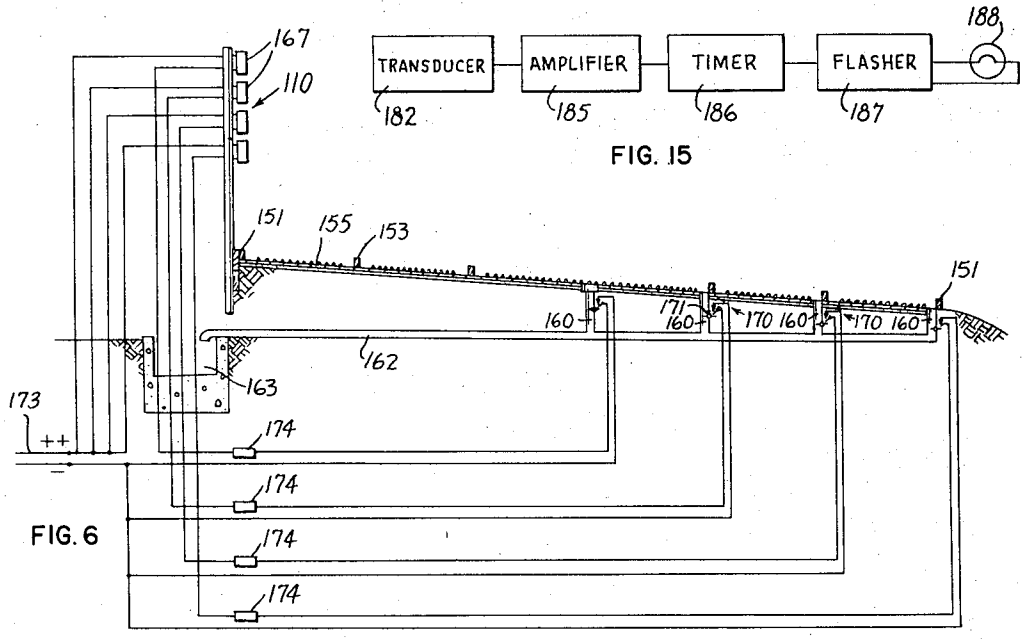


FIG. 15

FIG. 6

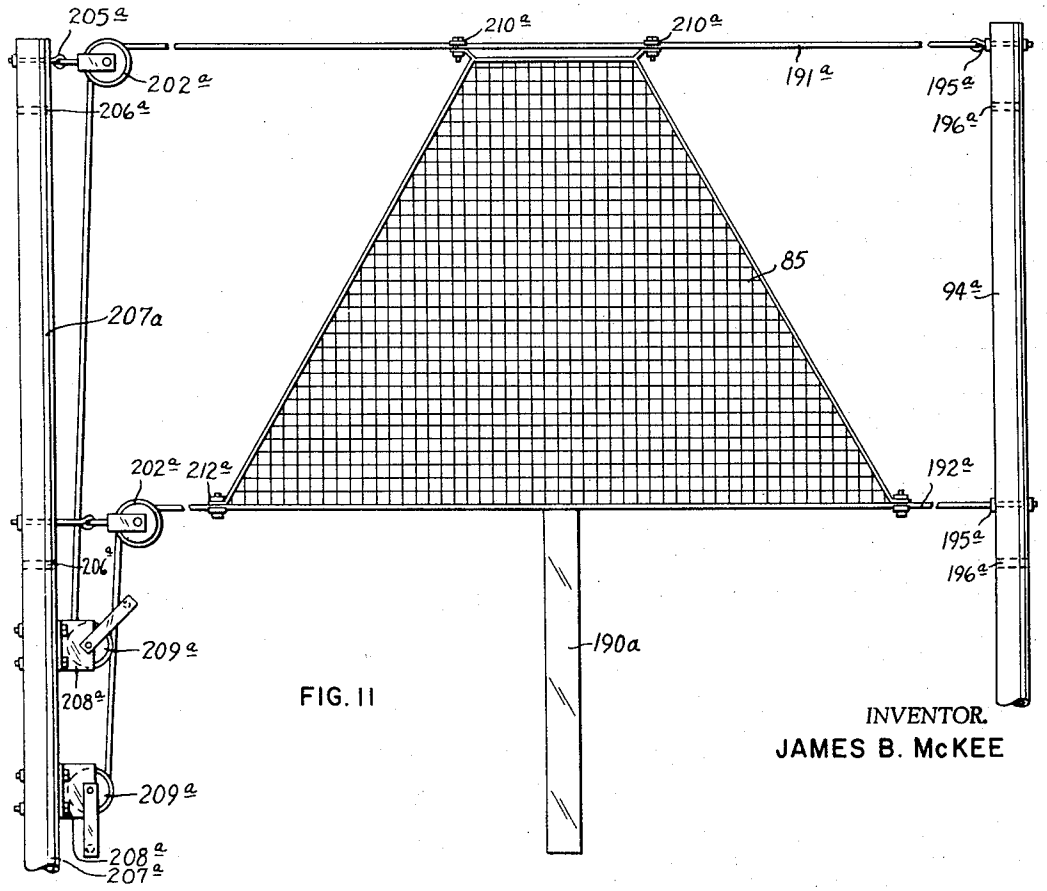


FIG. 11

INVENTOR.
JAMES B. McKEE

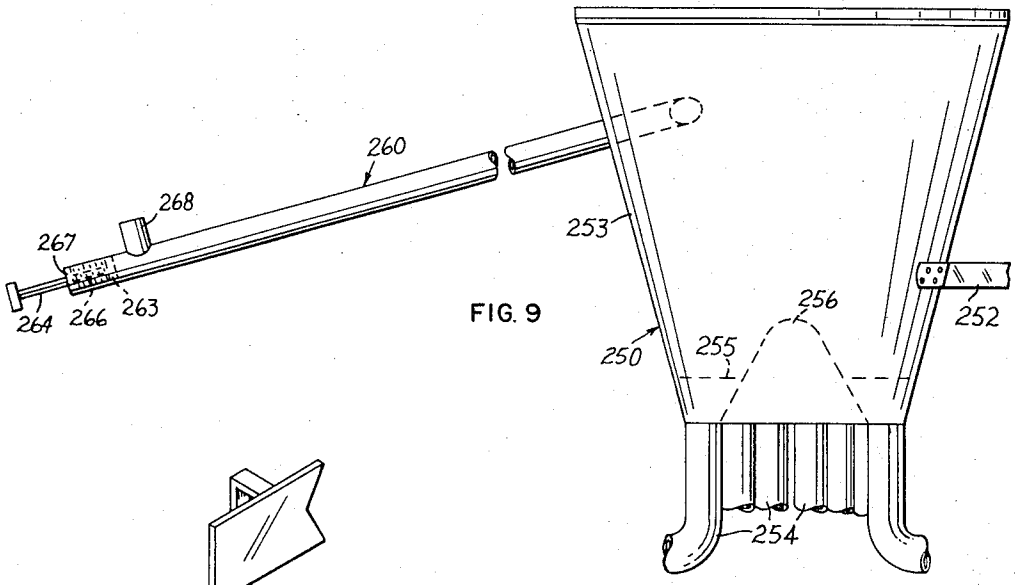


FIG. 9

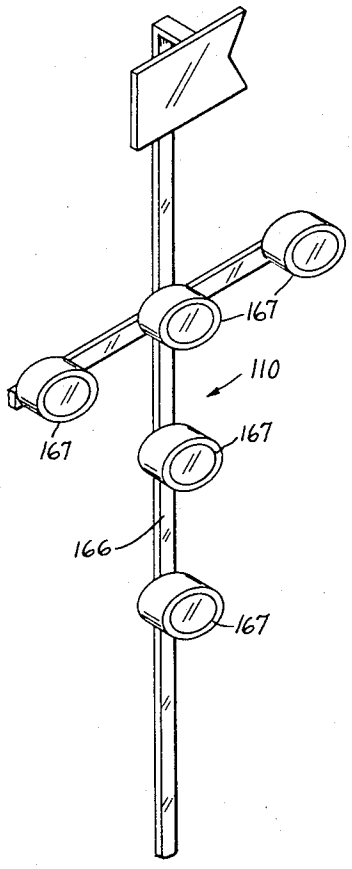


FIG. 7

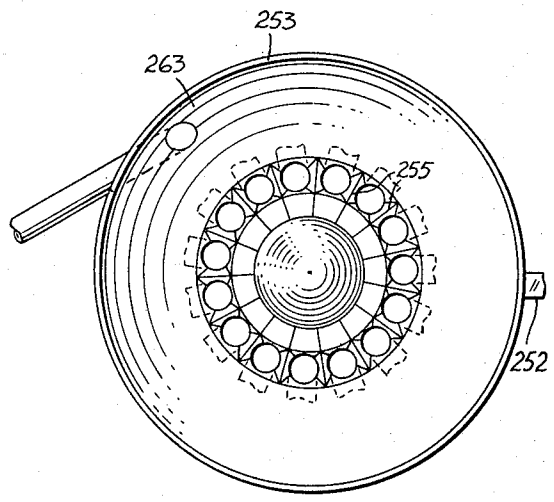


FIG. 10

INVENTOR.
JAMES B. McKEE

Feb. 20, 1968 J. B. McKEE 3,369,812

SIMULATED GOLF GREEN TARGET INCLUDING CONCENTRIC RINGS DEFLECTABLE BY HIGH SPEED BALLS

Original Filed Oct. 10, 1963 6 Sheets-Sheet 6

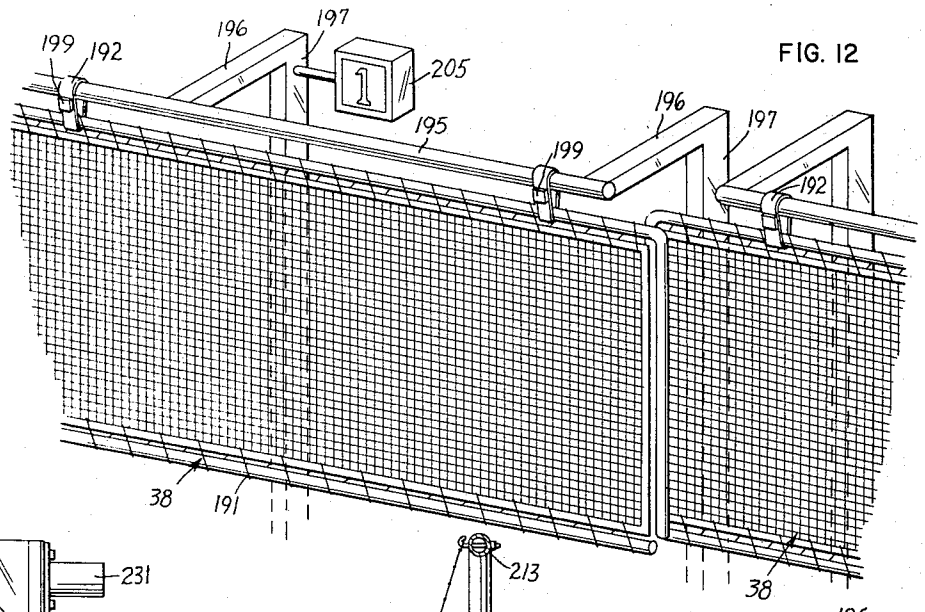


FIG. 12

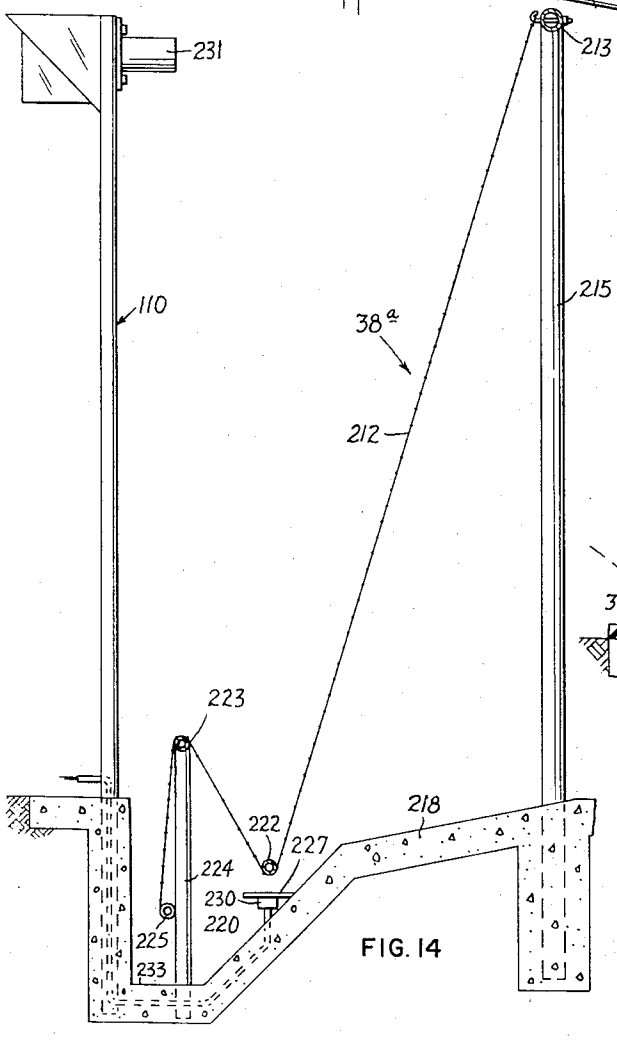


FIG. 14

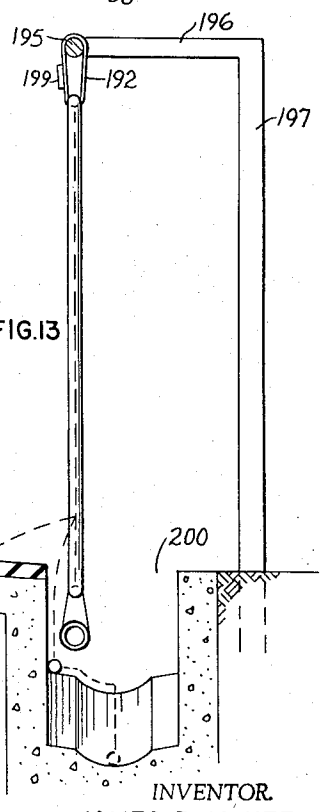


FIG. 13

INVENTOR.
JAMES B. McKEE

United States Patent Office 3,369,812 Patented Feb. 20, 1968

3,369,812

SIMULATED GOLF GREEN TARGET INCLUDING CONCENTRIC RINGS DEFLECTABLE BY HIGH SPEED BALLS

James B. McKee, 3615 Townsend Drive, Dallas, Tex. 75229

Application Oct. 10, 1963, Ser. No. 315,253, now Patent No. 3,310,310, dated Mar. 21, 1967, which is continuation-in-part of application Ser. No. 139,665, Sept. 21, 1961. Divided and this application Dec. 2, 1966, Ser. No. 611,195

2 Claims. (Cl. 273—181)

This application is the division of the co-pending application, Ser. No. 315,253, filed Oct. 10, 1963, now Patent No. 3,310,310, which is a continuation-in-part of the application, Ser. No. 139,665, filed Sept. 21, 1961, now Patent No. 3,129,943, issued Apr. 21, 1964.

This invention relates to golf courses and more particularly to a golf course upon which a golf game closely simulating the conventional game of golf may be played.

An object of the invention is to provide a novel type of golf course for playing a game of golf which required very little walking on the part of the participants as compared with the amount of walking required to play a conventional game of golf.

Another object is to provide a golf course wherein the golf players make all of their golf shots from a centrally located area on the course so as to reduce the amount of walking required in playing the game and permit the game to be played more speedily than a game played on a regular golf course.

Still another object is to provide a golf course which permits the playing of a golf game which closely simulates a regular golf game but which requires a much smaller tract of land than a conventional golf course.

A further object is to provide a golf course of the type described on which a game of golf may be played which closely approximates the conventional game of golf under conditions which closely approximate the conventional game of golf, the player being required to make all types of shots to different target areas of different contours.

A still further object is to provide a golf course having a central area providing a plurality of hitting positions from which the golfer must make his shots toward target areas located outwardly and radially from the key positions.

Another object is to provide a golf course having the usual obstacles such as water traps and trees, strategically located relative to the target areas in order to stimulate player interest.

Still another object is to provide a golf course having a driving range provided with means for automatically indicating the location on the driving range reached by a ball hit by a particular player.

Still another object is to provide a golf course wherein the driving range is provided with a plurality of spaced nets or barriers provided with signal means for indicating that a ball has struck or reached a particular barrier.

A further object is to provide obstacles such as artifical trees which may be easily moved to vary the difficulty and condition of the course.

A still further object is to provide a golf course wherein the fairways are provided with water traps and greens each provided with electrically actuated means for indicating when a ball reaches the green or falls into a trap.

A still further object is to provide a golf course having an area from which balls may be driven to two groups of fairways spaced radially outwardly from the driving area and having a driving range disposed between the two groups of the fairways.

Additional objects and advantages of the invention will be readily apparent from the reading of the following description of a device constructed in accordance with the invention, and reference to the accompanying drawings thereof, wherein:

FIGURE 1 is a perspective somewhat schematic view of a golf course constructed in accordance with the invention;

FIGURE 2 is a schematic plan view, with some portions of the building structures removed, of the golf course of FIGURE 1;

FIGURE 3 is a vertical fragmentary sectional view taken on line 3—3 of FIGURE 2;

FIGURE 4 is a perspective view of one of the targets or greens of the golf course;

FIGURE 5 is an enlarged fragmentary sectional view of the target illustrated in FIGURE 4;

FIGURE 6 is a vertical sectional view of a target showing schematically the ball collecting and signalling systems associated with the target;

FIGURE 7 is the perspective view of one of the signal devices associated with one of the targets;

FIGURE 8 is a vertical sectional schematic view of one of the water traps and its signalling system;

FIGURE 9 is a partly fragmentary side view of a ball dropping device for the sand traps of the golf course;

FIGURE 10 is a fragmentary top view of the ball dropping device;

FIGURE 11 is a fragmentary side view of a tree simulating obstacles of the golf course;

FIGURE 12 is a fragmentary perspective view of a screen assembly of the driving range;

FIGURE 13 is a vertical side view showing the installation of the screens of FIGURE 12;

FIGURE 14 is a vertical sectional view of a modified form of the driving range screen; and,

FIGURE 15 is a schematic illustration of the electric control circuit of the signalling devices of the golf course.

Referring now particularly to FIGURES 1 and 2 of the drawings, the golf course includes a land tract **21** about which extends a fence **22** which partially encloses the tract and has its ends **25** and **26** at opposite ends of the rear boundary line **27** of the tract. A substantially U-shaped building structure **28** is disposed inwardly of the boundary line **27** to provide a parking area **29** between the building structure and the rear boundary line. The building structure includes a central section **30** disposed forwardly of and between two end sections **31** and **32** which extend rearwardly toward the rear boundary line and the ends of the fence.

The central section provides a plurality of hitting stalls from which balls may be driven toward a central driving range or area **35** of the tract. The driving range **35** is provided with a plurality of targets **36**, which simulate the greens of the usual golf course, located in desired spaced relationship between the central section and the distance screens or targets **38** disposed between the central front section **22***a* of the fence and the most forward target **36**.

The tract area to the left of the driving range **35** is divided by suitable markings or boundary lines "L" into several fairways **40**, **41**, **42**, **43** and **44**. In addition, the left fairway area is provided with a plurality of targets or greens **45**, **46**, **47**, **48** and **49** and a sand trap **50** from which a player may make a shot to the green **49**. The area of the tract to the right of the driving range **35** is similarly divided into a plurality of fairways **60**, **61**, **62**, **63** and **64**, and is provided with a plurality of targets or greens **65**, **66**, **67**, **68** and **69**, and a sand trap **70** from which shots may be made to the green **69**.

The fairways and greens are divided by suitable markings or lines M into zones "Z" which have different score values assigned thereto.

The highest scoring zone of each fairway is indicated by the point "T" which is at the focal point of the broken

lines "R" extending from the hitting positions S–1 . . . S–*n* provided in the end sections **31** and **32** of the building structure.

Water traps **81**, **82** and **83** are located between the fairways **40**, **41** and **42** and a water trap **84** is disposed rearwardly of the fairway **44**. A plurality of spaced obstacles **85**, which simulate trees, are mounted in the left fairway area of the tract. Similarly water traps **98**, **99** and **100** are located between the fairways **60**, **61** and **62** of the right fairway area of the tract and a water trap **102** is disposed rearwardly of the fairways **64**. A plurality of obstacles, such as the obstacle **105**, are positioned in the right fairway area of the tract. The obstacles **105** may be identical with the obstacles **85** and simulate trees.

The water traps and the obstacles increase the difficulty of reaching the fairways and green and thus heighten the interest of the players in the game.

Signaling devices **110** are positioned forwardly of certain of the targets and greens and indicate the particular target or zone reached by a hit ball.

The zones of each of the fairways, which are irregular in shape with their boundaries conforming somewhat to the contour of the terrain, preferably are so located as to provide players of greater skill and accuracy an opportunity to achieve better scores than players with lesser skill and accuracy. For example, the zone Z2 of the fairway **40** has a rear left hand portion, FIGURE 2, which is relatively close to the hitting stalls S1–S4, and which can be reached by a relatively short drive. Since this portion of the zone Z–2 is adjacent to the water trap **81** and the boundary of the zone, if the drive is not accurately directed or is too long, the ball may fall into the water trap **81** or land to the left of the fairway. As a result, the accurate player will drive his ball along the left hand side of the fairway so that he will make a relatively good score even if his drive is short. A player of lesser skill who is tempted to reach such spot by a short drive may find his ball falling into a water trap or off the fairway. The fairways are thus designed to provide an optimum variety of play to provide interest for players of different degrees of skill and to enable a player of greater skill to make a better score than a player of lesser skill.

The central section **30** of the building structure has two floors whose lower or ground floor **120** is divided by suitable partitions **121** into a number of driving stalls and whose second floor **122** is similarly divided by suitable partitions **123** into a plurality of driving stalls. All of the driving stalls face forwardly onto the driving range **35** of the tract. The end sections of the building structure each have a ground floor **124** and a second floor **125** divided by partitions **126** and **127**, respectively, into a plurality of driving or hitting stalls which face outwardly onto the left and right fairway areas of the tract. The hitting stalls are of course sheltered since the building structure is provided with a roof **129** over the hitting stalls of the second floor. The floors of the building structure have walkways, such as the walkway **130**, immediately behind the hitting stalls so that the players may walk behind the hitting stalls without interfering with the play of other players in such stalls. Each of the floors of the building structure has a rear wall **132** on which a suitable rail **133** is secured and on which the golf bags **135** of the players may be movably mounted by suitable trolleys, not shown, so that the players need not carry their bags from stall to stall but merely roll the bags along as they walk from stall to stall on the walk ways **130**. The building structure **28** has a plurality of floor lights **137** on the roof which light the driving range and the fairway areas to permit the use of the course at night.

The three building structure sections are connected to a club house **130***a* by means of a walk way structure **131***a*. Suitable stairways or ramps are provided to give the players access to the second floor of the building so that the players may walk from the club house to the building structure and from stall to stall while playing the game without exposure to the elements.

A plurality of putting greens **140** are disposed rearwardly of the building structure and walk ways **141** and **142** provide access to the greens. If desired, at least some of the putting greens may be covered by a suitable roof structure **143** which may constitute an extension of the roof **129** of the end sections of the building structure.

All of the target greens may be substantially similar in structure and function and each has a substantially circular base **150** of wood or the like supported on the earth and inclined downwardly and toward the driving stalls from which the balls are driven thereto. The base is provided with an outer circular rim or ring **151** and a plurality of concentric spaced rings **153** which extend upwardly therefrom and divide the green into several different scoring zones. Resilient mats or pads **155** are disposed on the base between the rings. The mats have upwardly extending protrusions **156** arranged in spaced rows "A" which extend outwardly and downwardly, FIGURE 4, from the center of the green, and also in rows "B" which extend downwardly and toward the hitting stalls. Each of the resilient mats has a peripheral edge portion thereof immediately adjacent and inwardly of its outer ring free of the protrusions to provide runways **157** which slope downwardly and rearwardly to the apertures **158** and **159** in the mats and the base at the lowermost point within each ring to direct the balls into the collector pipes **160**. The central aperture of the green is in the center of the innermost ring and corresponds to the usual cup of a green so that a ball landing in the central aperture constitutes a hole-in-one. The protrusions slow down the ball hitting the mat and tend to prevent it from bouncing over the rings of the green. The rings are flexible and deform to permit a ball travelling at a considerable speed to roll therepast from one zone to another but prevent a ball travelling at a relatively slow speed from moving out of the zones defined by the rings. The ball whose speed has slowed down then rolls between a pair of adjacent rows "B" or between a pair of adjacent rows "A" to the outer periphery of the mat to the passageway **157** thereof and thence downwardly to the aperture **158** and thus into the collector pipe **160**. The collector pipes **160** extend downwardly and open into a common collector pipe **162** which slopes downwardly to a collector trough **163** so that a ball entering one of the collector pipes **160** moves by gravity downwardly through such collector pipe into the common collector pipe **162** and thence to the trough **163**.

The signaling device **110** associated with each of the greens may be in the form of a vertical post or standard **166** on which is mounted one or more lights **167**, one such signal light being provided for each zone of the green. Each light is controlled by a suitable switch **170** operatively associated with a collector pipe **160** of its zone. The lamps may be of different colors, such as green and red, and their colors and positions on the standard indicate which scoring zone of the green was reached by a ball. Each switch is actuated by a lever **171** which extends into its associated collector pipe **160** and is pivoted downwardly, as is fully explained in the co-pending application, Ser. No. 139,665, to close its switch **170** when a ball moves through the collector pipe and connect its lamp or signal light **167** across the input circuit **173**. The control lever which is pivotally secured to the collector pipe and has one end extending thereinto to be engaged by the ball and its other end engages and actuates the switch **170**.

If desired, a suitable flasher or intermittently actuated switch **174** may be connected in series with each switch **170** to cause the signal light to be flashed intermittently as the ball rolls through the collector pipe and holds the switch in closed position. The ball rolls through the collector pipe relatively slowly so that the light **167** will remain lit for an appreciable period of time. If desired, a suitable time device may be connected in the circuit of the flasher and the switch **170** to cause the signal light to

remain lit for a predetermined period of time regardless of how long the switch **170** is held closed.

Each of the water traps may include a concrete or plastic upwardly opening container or basin **180** embedded in the ground and into which an overflow pipe **181** opens so that excess water will drain through the overflow pipe **181** and thus maintain the water from exceeding a predetermined level in the basin or container **180**. A plurality of transducers, such as suitable hydrophones **182**, are mounted on a suitable tubular pipe through which the electrical conductors to the hydrophones extend. The hydrophones are positioned in spaced relationship in the water and transmit an electric signal when vibrations or shock waves are imparted to the water as a ball lands therein. Each of the transducers as connected in a suitable circuit which may include an amplifier **185** which amplified the signal from the hydrophone. A suitable timer switch means **186** which is closed by the signal received from the hydrophone for a predetermined period of time, the flasher means **187** which is energized when the timer switch is closed, and a signal lamp **188** mounted on the standard so that any time a ball is driven into the water trap the signal produced by the hydrophones in the water trap causes the signal lamp **188** of the signaling device associated with the water trap to flash for a predetermined period of time.

Referring now particularly to FIGURES 12 and 13, each of the distance screens **38** of the driving range may comprise a suitable vertical screen stretched or secured to a rectangular frame **191** suspended by means of suitable flexible straps or cables **192** from a support bar **195** rigidly secured to the forward ends of the upper horizontal arms **196** of the posts or standards **197** whose lower ends are embedded and rigidly secured to the ground. Suitable transducers, such as strain gauges **199** are secured to the flexible means **192** to sense the vibrations imparted to the screen whenever the screen is struck by a ball. The lower ends of the screens may extend downwardly into a channel shaped trough **200** in order that balls hitting the screen, either directly or after striking a pad **300** which extends immediately forwardly of the screen, will fall into the trough which is inclined in one direction and roll therethrough to a central collecting point. The strain gauges or transducers **199** are connected in a circuit such as that illustrated in FIGURE 15 to cause a lamp or signal light **205** secured to one of the standards **197**, on which the screen is mounted to flash for a predetermined period of time each time the ball strikes the net. A plurality of such screens **38** may extend across the driving range with adjacent ends of adjacent screens positioned in overlapping relationship to one another, in FIGURE 12, to prevent the balls from moving between adjacent ends of such screens without striking either one of them.

Referring now particularly to FIGURE 14, the modified form of a distance screen **38***a* there illustrated, includes the screen **212** which extends transversely across a predetermined portion of the driving range and whose upper end is secured by any suitable means to a horizontal pipe **213** secured to the upper ends of spaced standards or pipes **215** embedded in a concrete base **218**. The screen extends downwardly and forwardly relative to the hitting stalls into a trough **220** about a rigid horizontal pipe **222** and then upwardly and forwardly about a pipe **223** rigidly secured to vertical standards **224**. The free end of the screen is weighted by a pipe **225**. The pipe **222** is secured to any suitable standard immediately above a striker plate **227** onto which balls, which strike the screen **212** or roll into the trough **220**, fall and cause the plate to vibrate. Suitable vibration sensing devices **230**, such as geophones or the like, connected to the striker plate **227** are connected in a suitable electric circuit, such as the circuit illustrated in FIGURE 15, to cause a signal lamp **231** associated with each such distance screen **38***a* to flash whenever a ball reaches the trough **220** either by striking the screen **212** and falling thereof into the trough or by rolling into the trough. The lowermost portion **233** of the trough may slope in one longitudinal direction so that as the balls roll off the striker plate and into the lower end of the trough they roll downwardly to a central collecting area.

It will be noted that the distance screens are set in progressively spaced locations from the hitting stalls of the central building structure section **30** so that balls driven different distances strike different screens which may be readily ascertained by observing the signal lights.

The obstacles **85** and **105** are in the form of triangular transparent screens **85** to whose lower ends are secured dependant portions **190***a* which simulate the trunks of trees and are secured to pair of vertically spaced cables **191***a* and **192***a*. One end of each of the cables is rigidly secured to an end post **194***a* by any suitable means such as bolts **195***a* which are receivable in any one of plurality of vertically spaced apertures **196** of the post so that the ends of the cables may be positioned at different vertical positions relative to the ground. The cables extend about the direction changing sheaves **202***a* which are secured by suitable bolts **205***a* which extend through the suitable apertures **206***a* of the end post **207***a*. The other ends of the cables are connected to the drums **209***a* respectively, which are also rotatably mounted on the end post **207***a* by T brackets **208***a*. The drums are provided to permit the cables **191***a* and **192***a* to be stretched taut and have any suitable latch or lock means to releasably hold them against rotation in a direction permitting the cables to loosen.

The top ends of the screen **85** are securable to the upper cable **191***a* by means of any suitable releasable clamps **210***a* and similarly the lower ends of the screen are releasably securable to the lower cable **192***a* by any suitable releasable clamps **212***a*. It will now be apparent that the transparent screens **85** which are somewhat tree-shaped may be positioned at various heights above the ground and at various positions between the posts relative to the left fairway so that the difficulty of the course may be varied from time to time by raising or lowering the cables on their posts and also by moving the obstacles **85** to different positions on the cables between the end posts. The obstacles **105** are identical to the obstacles **85** and are similarly mounted to the upper and lower cables **221***a* and **223***a* which are supported by the posts **225***a* in the same manner as the cables **191***a* and **192***a* are connected to their posts.

The sand traps **50** and **70** which extend forwardly from the forward side of the end sections **31** and **32**, respectively, of the building structure may have ball droping devices **250** positioned thereabove, as by the horizontal bar **252**, which is secured to the building structure. The ball dropping device includes a substantially frusto-conical hopper **253** whose lower end is provided with a plurality of circumferentially arranged outlet pipes **254** which open outwardly into the hopper between the radial ribs or partition **255** which extend between the hopper and the central domed bottom **256** thereof. A projectile tube **260** is secured to the hopper and opens as at **261** to the inside of the hopper adjacent the upper end thereof. A piston **263** is slidably mounted in the lower end of the projectile tube with its rod **264** extending outwardly of the lower end of the projectile tube. A spring **266** disposed between the piston and the end **267** in the projectile tube biases the piston upwardly in the tubes an inlet duct **268** extends upwardly from the tube and provides of passage through which a golf ball may be dropped into the tubes so that when the piston is pulled outwardly against the force of the spring and is then released, the piston propels the ball through the projectile tube **260** and causes it to roll around the inside wall of the hopper until its velocity decreases and it falls into one of the tubes **254** which directs it to the sand trap. By use of the ball dropping device **250**, each player drives his ball from the sand traps **50** and **70** to

the greens 49 and 69, respectively from different randomly selected spots.

If a player wishes to practice driving a ball for distance or for accuracy, he may take a position in one of the driving stalls of the central building structure section 30, either of the first floor or of the second floor. He then drives golf balls, if for distance, toward any one of the distance screens 38 and will be immediately informed as to where he has driven the ball by the flashing of the signal light associated with a particular distance screen 38 as the ball hits such a screen and causes the strain gauge thereof to generate an electric signal. If the course is provided with the distance screens 38*a*, the signal light flashes when the ball hits the striker plate and causes the vibration sensing devices or geophones secured to the striker plate to generate an electric signal. If the player is desirous of practicing the accuracy of his drives toward any one of the greens 36, each of which may be provided with the signaling device 110, he is informed as each ball hits a green as to whether his ball hit the center of the green or any one of the annular or circular zones thereabout defined by the rings thereof. Similarly, the player may of course practice putting on a selected one of the putting greens.

If a game which simulates the usual golf game is to be played by a player, the player makes successive drives from each of the hitting stalls S–1 through S*n* of the left-hand section of the building structure and then similarly hits a drive from each one of the hitting stalls S–1 . . . S*n* of the right-hand building structure section 32. For example, the player hangs his golf bag on a suitable trolley mounted on the rail which extends behind the hitting stalls, moves from stall to stall, hitting one drive from each of the first four stalls S1–S4 toward the fairway 40 attempting to reach the zone Z3 and will mark the score he makes on each of his four shots. He may then drive balls from the hitting stalls S5 and S6 toward the zone Z3 of the fairway 41 and the green 45, respectively. The fairway 41 may be provided with a target or green 36*a* with only a single hole so that he can determine whether he scores a hole-in-one.

His next three shots from the next three stalls are to the fairway 42 wherein his best score is obtainable if his ball hits the zone Z3, then one drive from each of the next two stalls to the fairway 43 and next one shot from each of the next two stalls to the fairway 44 which may also be provided with a green 36*a*. The player may then go to the sand trap 50, cause a ball to be dropped at a random location by the use of the ball dropping device 250 and make two sand trap shots toward the green 49. Alternately he may make his two shots to the green 49 from two hitting stalls. The player then successively takes two shots to the green 46, two shots to the green 47 and then three shots to the green 48. The player then goes to a putting green to take a predetermined number of putts and then proceeds to the hitting stalls of the right-hand section 32 where he similarly drives a ball successively from each of the driving stalls thereof to the various fairways into the greens thereof as well as making two shots from the sand traps 70 toward the green 69 and then makes a predetermined number of putts on the putting green behind the right-hand end section 32.

An appropriate score is assigned to each zone of each fairway and of each green so that a player may achieve a "par" score or any over or under "par" score in the same manner as on a regular golf course.

It will now be seen that a new and improved course for playing the game simulating the usual golf game has been illustrated and described on which a large number of players may play simultaneously and that each may observe the flight of his ball since each is hitting a ball from a different stall and at a different angle toward a fairway or a green even though two or more players may simultaneously be driving a ball to the same fairway or to the same green.

It will further be seen that the players may play in inclement weather since they are under shelter as they move from stall to stall and are not required to walk on the fairways to make their shots.

It will further be seen that the golf course is provided with signaling devices which provide a visual signal whenever a driven ball reaches a predetermined target, such as one of the greens of the course, so that the player can easily determine his score for a particular drive.

It will further be seen that the targets or greens are substantially circular in form and divided by upstanding rings into a plurality of zones that resilient mats or means 155 are disposed between the rings and have means, such as the protrusions 156, which cause a ball which reaches a green to tend to remain in the target area of the green it reaches without bouncing therefrom and which direct such ball towards an aperture, through which the ball rolls to actuate the signal, and that the green is so sloped as to cause each ball as it reaches the green to move therefrom by a gravity to prevent any confusion which would occur if a number of balls were to accumulate on each green.

It will further be seen that the course is provided with a plurality of movable transparent obstacles such as the artificial trees 85 and 105 which permit the observation of the fairways while at the same time stopping misdirected drives.

It will further be seen that the vertical positions of these obstacles may be varied by adjusting the vertical positions of the cables on which they are mounted and that the positions of the obstacles themselves on the cables along the length may also be varied.

It will also be apparent if desired the posts on which these cables are secured may be positioned or moved from location to location on the course to further provide variety and change to the course.

It will further be apparent that the golf course has a central driving range or area provided with distance screens which stop the flight or movement of the ball and which causes a signal device to be actuated, such as the strain gauges of the screens 38 and the striker plates 227 of the distance screens 38*a*, so that each player may determine the accuracy of distance and direction which his ball has traveled.

It will further be apparent that the screens extend across the path of movement of balls driven from the central section of the building structure and have their lower portions extending into troughs to cause balls to be deflected into the troughs and off the driving range.

It will further be apparent that the driving range is provided with a plurality of target greens 36 each of which is provided with its own signaling device so that the player may also practice the accuracy of his drives to greens located at different distances from the hitting stalls.

It will further be seen that each of the target greens is provided with upwardly extending rings 151 and 153 which may be integral with the mats 155 and formed of a resilient substance so that a ball traveling at a relatively high rate of speed will cause the rings to flex and permit its movement therepast as it strikes the rings while a ball traveling at a relatively low rate of speed will not have sufficient momentum to bend the rings. The balls therefore tend to move over the target greens in substantially the same manner and lose speed at substantially the same rate as balls moving over the usual grass greens of a golf course and roll to the collector pipes 160 to indicate which zone of the target green they have reached and what score should be given for the particular drive.

It will further be seen that a large number of the balls driven either to the driving range or to the target greens and fairways will fall into the various troughs associated with the distance screens 38 or 38*a* and the collector pipes 160 of the various target greens.

The foregoing description of the invention is explanatory only, and changes in the details of the construction illustrated may be made by those skilled in the art, within the scope of the appended claims, without departing from the spirit of the invention.

What is claimed and desired to be secured by Letters Patent is:

1. A golf course target green comprising: a substantially circular base sloping downwardly; a plurality of substantially concentric spaced rings supported on said base defining different scoring zones of the green; resilient mats on said base between said rings, said rings extending upwardly above said mats, and said mats having means for directing balls to peripheral lowermost areas of each scoring zone, said base and mats having aligned apertures therethrough at the lowermost portions of said zones whereby balls reaching each of said zones may move by gravity off said mats through said apertures, said mats and said rings being formed of a resilient material and said rings being so resilient that they may deflect upon engagement by balls driven at a high speed and permit said balls to move therepast.

2. The target green of claim 1 wherein said mats have upwardly extending protrusions arranged in both radially outwardly extending and downwardly inclined rows, said mats having peripheral portions thereof adjacent the said rings defining passageways along which balls may roll unimpeded to said apertures.

References Cited

UNITED STATES PATENTS

1,923,152	8/1933	Kohn	273—181
1,979,584	11/1934	Thompson	273—180
2,164,808	7/1939	Everett	273—176 X
2,173,014	9/1939	Hall	273—184 X
2,232,569	2/1941	Johnson	273—182
2,701,140	2/1955	Fortino	273—176

ANTON O. OECHSLE, *Primary Examiner.*

GEORGE J. MARLO, *Examiner.*