March 19, 1963 S. KRON 3,082,005

GOLF GAME

Filed Aug. 22, 1960 2 Sheets-Sheet 1

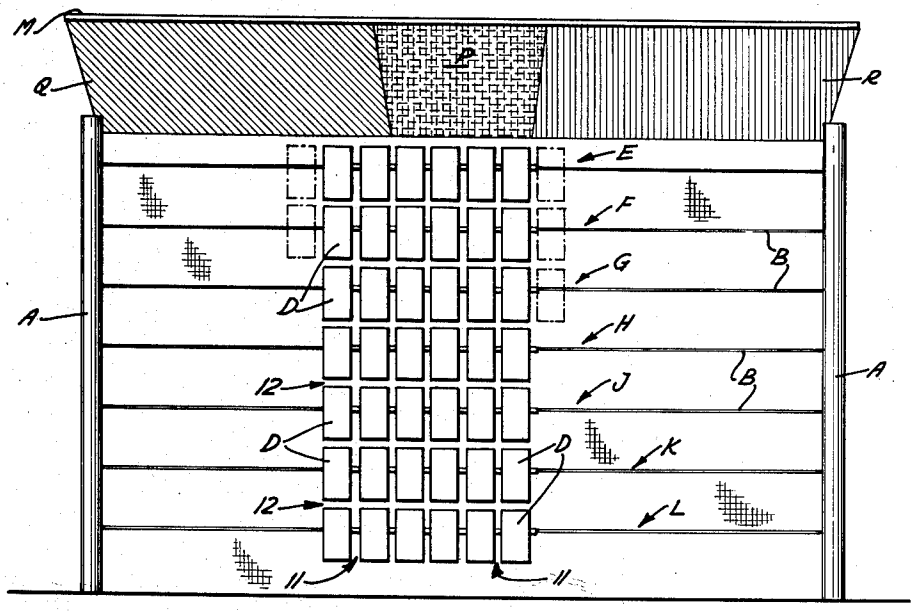


FIG. 1

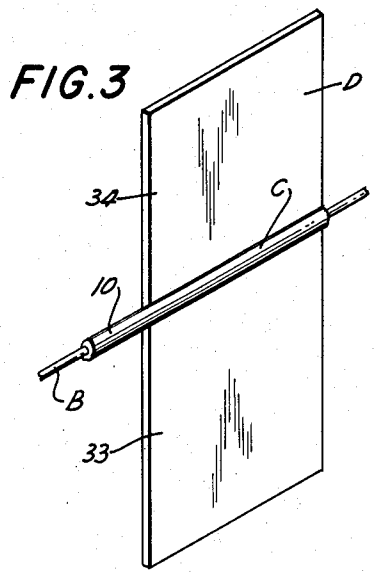


FIG. 3

FIG. 2

INVENTOR.
SAUL KRON
BY
ATTORNEY

March 19, 1963 S. KRON 3,082,005

GOLF GAME

Filed Aug. 22, 1960 2 Sheets-Sheet 2

HEIGHT AA		HEIGHT BB
102.75/108"	30° AT 15' – #5 IRON – 150 YDS	104"
	45° AT 7½' – #10 PITCHING WEDGE 100 YDS	
92.5/96"	27° AT 15' – #4 IRON – 160 YDS	92"
	42° AT 7½' – #9 IRON – 110 YDS	
82.25/84"	24° AT 15' – #3 IRON – 180 YDS	80"
	36° AT 7½' – #7 IRON – 125 YDS	
	39° #8 IRON	
72./72"	21° AT 15' – #2 IRON – 200 YDS	68"
	33° AT 7½' – #6 IRON – 140 YDS	
61.75/62"	18° AT 15' – #4 WOOD – 200 YDS	58"
	30° AT 7½' – #5 IRON – 150 YDS	
51.50/52	15° AT 15' – #3 WOOD – 215 YDS	48"
41.25/41"	12° AT 15' – #2 WOOD OR BRASSIE – 225 YDS	37.5"
31"	9° AT 15' – DRIVER – 250 YDS	27"
A		A

FIG. 4

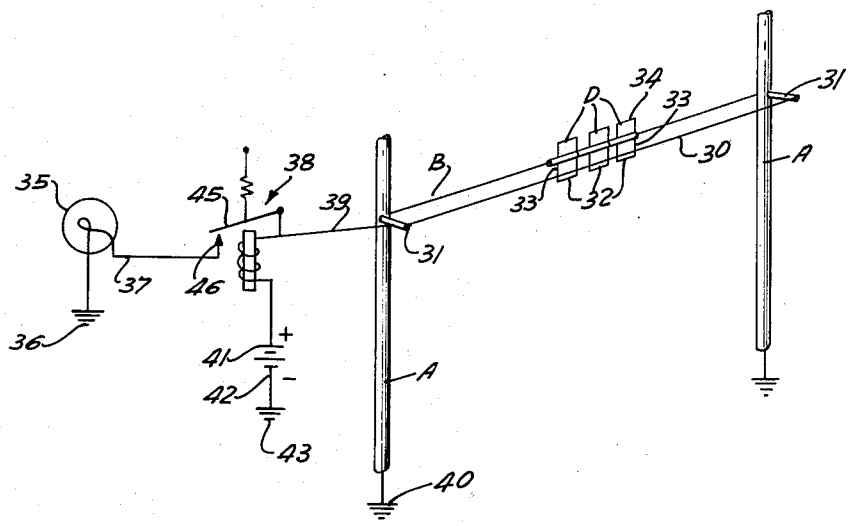


FIG. 5

INVENTOR.
SAUL KRON

BY

ATTORNEY

United States Patent Office 3,082,005 Patented Mar. 19, 1963

3,082,005

GOLF GAME

Saul Kron, 29 Morley Lane, Bloomfield, N.J.

Filed Aug. 22, 1960, Ser. No. 51,185
1 Claim. (Cl. 273—181)

The present invention relates to a golf game and it particularly relates to a golf game which may be played in a limited or restricted area.

It is among the objects of the present invention to provide a golf game which will enable accurate scoring as to wood or iron shots and which will also enable practicing by golf players or those learning to play golf.

Another object is to provide an amusement game which may be used in combination with the usual paraphernalia in playing golf in which the groups and players will indicate the score and enable an accurate determination of the score of the players.

A further object is to provide a convenient scoring game in which golf balls will be used as scoring elements and in which the player may readily determine the accuracy of his shots and obtain or derive a score therefore.

A still further object is to provide a novel golf game in which the entire structure may be applied on boardwalks, in an amusement park and/or other amusement facilities without loss of balls and without damage to spectators.

Still further objects and advantages will appear in the more detailed description set forth below, it being understood, however, that this more detailed description is given by way of illustration and explanation only and not by way of limitation, since various changes therein may be made by those skilled in the art without departing from the scope and spirit of the present invention.

In accomplishing the above objects according to one embodiment of the present invention, there is provided a series of suspended plate members closely spaced in respect to each other which when contacted with the projected golf ball will give an indication of the height and accuracy and performance of the player either visually or electrically.

In the preferred form, the side members carry a series of cross wires at various elevations with the cross wires projecting through tubular members which form pivot mounts for the swinging plates.

These tubular members desirably fix the spacing laterally whereas the wire suspension will fix the spacing vertically.

The enclosing nets which may be positioned along the sides as well as on the top of the structure may be marked with colors as to indicate a straightaway zone indicating that the shot is straight with two other side zones indicating that there has been a hook or a slice.

For example, the straightaway zone may consist of a zone 26" wide and 15 feet from the player in which area there will be positioned four or five swinging plates.

It has been found most desirable to provide superimposed rows of swinging plates which will give a broad range or height corresponding to the elevations achieved by the various clubs.

For example, a No. 5 iron at 15 feet with a 30° face should elevate the ball to a plate mounted about 104 inches above the ground.

This same elevation will also correspond to a No. 10 pitching wedge having a face elevation of 45° and in which the player stands away a distance of 7½ feet.

The plates then in the top row could be regulated so that it indicates correct usage of a No. 5 iron at 15 feet or correct use of a No. 10 pitch at 7½ feet.

For the next row of swinging plates at 92 inches, these

plates may indicate correct usage of a No. 4 iron at 15 feet or a No. 9 iron at 7½ feet.

For the next lower row of swinging plates, at a height of 80 inches, these may correspond to or indicate correct usage of a No. 3 iron at 15 feet or a No. 7 iron at 7½ feet shooting distance.

These plates will also indicate correct usage of a No. 8 iron since the No. 7 iron will have an elevation angle of 36° and the No. 8 iron will have an elevation of 39° which will enable usage of the same plates.

For the next row of swinging plates at 68 inches in height, the No. 2 iron at 15 feet and the No. 6 iron at 7½ feet will enable usage.

This is based upon a No. 2 iron having a face angle of 21° and a No. 6 iron having a face angle of 33°.

For the next lower row of swinging plates, there may be utilized a No. 4 wood at 15 feet or a No. 5 iron at 7½ inches, which respectfully will have angle faces of 18° and 30°.

The lower levels may then correspond respectively to a No. 3 wood having face angle of 15° with the plate having elevation of 48 inches, a No. 2 wood or brassie having elevation of 37.5" and a face angle of 12° a 15 foot shooting distance, and finally, the lowest level would be at 27 inches with a driver having face angle of 9° and a shooting distance of 15 feet for the player.

The lowermost row should be at least 20¾ inches above ground level while the highest row should be not more than 110 inches above ground level with there being two shooting positions at 7½ feet for the irons ranging from No. 5 to No. 10 and a 15 foot shooting position for the irons ranging from No. 2 to No. 5 and the wood ranging from No. 1 to No. 4.

Desirably, the plates at this distance should have a width of 4 inches, a spacing apart of 1⅜ inches and a height of 9 inches with 5⅛ inches extending below the pivot junction and 4⅛ inches above the pivot junction.

With the foregoing and other objects in view, the invention consists of the novel construction, combination and arrangement of parts as hereinafter more specifically described and illustrated in the accompanying drawings, wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which fall within the scope of the claim hereunto appended.

In the drawings wherein like reference characters denote corresponding parts throughout the several views:

FIG. 1 is a front plan view of the game device as it may be set up with the plates arranged in seven parallel superimposed rows.

FIG. 2 is a side sectional view illustrating the location of the plates and the two shooting positions.

FIG. 3 is a back perspective view of one of the plates mounting in swinging position.

FIG. 4 is a diagrammatic layout of the arrangement showing an extra row or position for plates which is not indicated in FIGS. 1 and 2.

FIG. 5 is a diagrammatic perspective view indicating an electrical scoring arrangement which may be utilized.

Referring to FIGS. 1 and 2, there is shown the side pole members A between which extends the taut stretch suspension wires B.

These wires extend through the tubular member C (see also FIG. 3) on the backs of the swinging plates D which are arranged in the rows E, F, G, H, J, K, and L as indicated particularly in FIG. 1.

The top and back are enclosed, by the netting M and N with the netting being colored as for example yellow at P to indicate a straightaway zone, the green at Q to indicate the hook zone and red at R to indicate a slice zone.

The shooting positions are indicated in FIG. 2, the main shooting position being indicated at S which is a 15 foot position enabling use of the clubs ranging from the driver through the No. 2 to No. 4 woods, and through the No. 2 to No. 5 irons.

The shorter shooting position indicated at T in FIG. 2 may be at 7½ feet, and it is most useful in connection with the No. 5 to No. 9 irons and the No. 10 pitch wedge.

Referring specifically to FIG. 3, the plate D may consist of aluminum, brass or steel or it may be made of plastic or wood, and it has attached to the rear thereof by welding, the tubular element C which is positioned above center so that the center of gravity will be below the suspension point.

The taut wire B will extend through the tubular member C and swingable suspended plate D.

The cable B may, for example, have an outside diameter 3/32" while the inside diameter of the tube C may be ¼" so as to provide sufficient clearance.

Lubricant may be used between the cable B and the inside of the tube C to assure free and easy swinging at all times.

The plate D may be coated with various colors and may carry scoring markings, and when made of metal, it desirably may carry a sound deadening coating to regulate the amount of noise that will result when the golf ball hits the plate.

The extension **10** of the tube element C may be about 1⅜ inches so as to space the plates laterally apart and to give the space **11** between the plates which will be too small for a golf ball to pass and assure that the golf ball will strike and act upon the swinging plates D.

The spacing between the upper and lower ends of the plates as indicated at **12** in FIG. 1 should also be about 1⅜ inches so as to prevent passage of a ball without striking a plate.

The various plates D may each be painted with a separate number to give the score which is achieved when the plate is struck, and this generally may be done by visual observation.

The plates under the zones Q and R, which are the slice and hook zones, will of course, be numbered less than the plates under the center zone P which is the straightaway zone.

The plates at the various elevations will also be rated or scored so that they will give a lesser score when a plate is hit which does not correspond to the proper elevation of the club.

Normally, for using the higher elevation club, the T position may be utilized as indicated in FIG. 2, and the S position may be used with the lower elevation clubs.

The balls will all be held by the netting M and N which also may be extended along the sides of the poles or posts, A.

Referring to the ararngement of FIG. 5, there may be an extra wire **30** carried by the rearwardly extending post **31** which will be contacted by the lower edge of the plates D when the ball strikes the lower portion of the plate D indicated at **33** in FIG. 3 which is the heaviest portion and which will give the plates D extension horizontally.

This is also accomplished after a delay if the ball strikes the upper position **34** of the plate D since the plate must then swing away from the wire **30** and then back against the wire **30**.

This will establish a circuit through the illuminated indicator bulb **35** having a ground connection **36** through the conductor **37**, the time delay, hold relay **38**, the conductor **39**, the wire **30**, the wire B, the metal pole A to the ground **40** from the positive side of the battery **41**.

The negative side **42** of the battery **41** is grounded at **43**.

This indicator circuit in FIG. 5 will give the golf player a physical indication of the yardage the ball would have taken when it was hit.

Each row of plates D may have a different colored bulb **35**.

Although the plate D will immediately break the circuit when it contacts the wire **30** momentarily, the completed circuit will actuate the relay and hold the swinging element **45** down against the contact **46** so that the light **35** will stay on sufficiently long to give a necessary indication.

These lights **35** may be held in back of a glass panel board, and they may be held on for approximately five seconds.

Each row of plates D may indicate a yardage with the top row of plates indicating 100 yards, the next lower row indicating 125 yards, etc.

Although seven rows are definitely shown in FIG. 1, it is to be understood that there may be eight or nine rows depending upon the space available.

In FIG. 4, there is diagrammatically indicated the approximate height which is to be expected to be achieved by the flight of the ball at 15 feet and 7½ feet which is defined in the arrangement as shown in FIGS. 1 and 2.

By arranging shooting positions of 15 feet, at position S and 7½ feet at position T, it is possible to take care of the complete range of the various wood and iron clubs used by a golfer.

The plates will take care of a variation of about 6 inches in height so that for each row indicated by a horizontal line in FIG. 4, one plate will suffice where the difference does not exceed 6 inches.

Even though the ball strikes squarely against the pivot position indicated by the cable B, it will roll to one side and cause a swinging of the plate D.

To summarize, the device of the present application gives a miniature driving range which may be played in an area 15 feet long and 10 feet wide, and the player may use any of the wood or iron clubs to simulate actual driving conditions that would be experienced on a full size golf course.

There will also be an indication as to whether the golf ball will have traveled straight down the fairway or whether it was hooked or sliced.

The plates are adjusted to take care of the 9° loft of the driver club, the 12° loft of a No. 2 wood, or brassie, a 15° loft of the No. 3 wood, the 18° loft of the No. 4 wood, and the 3° progression which starts at 21° for the No. 2 iron and increases 3° for each successive iron.

The two upright side pole members A may have a 10 foot separation and be sunk in the ground, and they may extend 8 feet above the ground.

The metal plates which are hung upon each taut wire cable B may be approximately 4 inches wide and 9 inches long and spaced apart 1⅜ or 1¼ inches.

There may be from seven to nine of such lateral rows of swinging plates with the top row being about 108 inches above ground.

The height chart BB at the right of FIG. 4 indicates the height measurement which a golf ball will reach when hit by a golf club at a distance of 15 feet at right angles to the upright pipes A.

The height chart AA at the left of FIG. 4 is the measurement above ground of each of the wires in the rows E and L with each of the wires being placed 4 inches higher of the flight of the ball.

This compensation is made to permit hitting the ball to the center of the depending or hanging portions **33** of the plates D.

Desirably, the straightaway P may have a width of four or five hanging plates in the target area, and the plates may be painted yellow as the screen or net.

The proper yardage number may be placed on these plates to correspond to the proper wire height of the cross wires B.

The plates in the hook area may be painted green to

correspond to the green of the net Q while those in the area R may be painted red to correspond to the slice area.

The hanging metal plates will indicate the proper distance of a hit ball as well as the deflection of the ball to the left or to the right indicating hooking or slicing.

At the same time there will be an indication as to each club as to whether the club is being properly utilized to achieve the pre-determined elevation.

The invention thus provides a novel golf game which will indicate elevation, distance and proper use of various clubs in a fairly compact space.

This game may be readily employed in a small available space, in backyards and on boardwalks or amusement areas.

As many changes could be made in the above golf game, and many widely different embodiments of this invention could be made without departing from the scope of the claim, it is intended that all matter contained in the above description shall be interpreted as illustrative and not in a limiting sense.

Having now particularly described and ascertained the nature of the invention, and in what manner the same is to be performed, what is claimed is:

A restricted area golf game comprising spaced side vertical posts mounted permanently at their bottom ends, a series of closely vertically spaced taut suspension wires extending horizontally between said posts, a plurality of horizontally and vertically closely spaced rows of rectangular plaques swingingly mounted on said wires, each

of said plaques having two vertical side edges, a back and a center of gravity, a horizontal spacer tube transversely mounted on the back of each of said plaques above the center of gravity of the plaque, said tube terminating at one of said vertical side edges of each of said plaques and extending beyond the other of said vertical side edges, each of said wires passing through a plurality of said tubes to swingingly mount a plurality of said plaques in spaced horizontal relationship on each of said wires, there being separate rows corresponding to No. 2 to No. 4 woods and No. 2 to No. 10 irons, a contact wire horizontally extending behind each of said rows of plaques and spaced therefrom a distance small enough to be struck by one of said plaques when said plaque is pivoted about said swinging mounting, and an indicating circuit operatively connected to each of said contact wires, said indicating circuit including an indicator, means to actuate said indicator on contact of one of said plaques with one of said contact wires, and means to maintain said indicator in actuated condition for a predetermined period of time.

References Cited in the file of this patent

UNITED STATES PATENTS

1,512,739	Baker	Oct. 21, 1924
2,247,501	Jenks et al.	July 1, 1941

FOREIGN PATENTS

600,979	Great Britain	Apr. 23, 1948