

Aug. 27, 1963

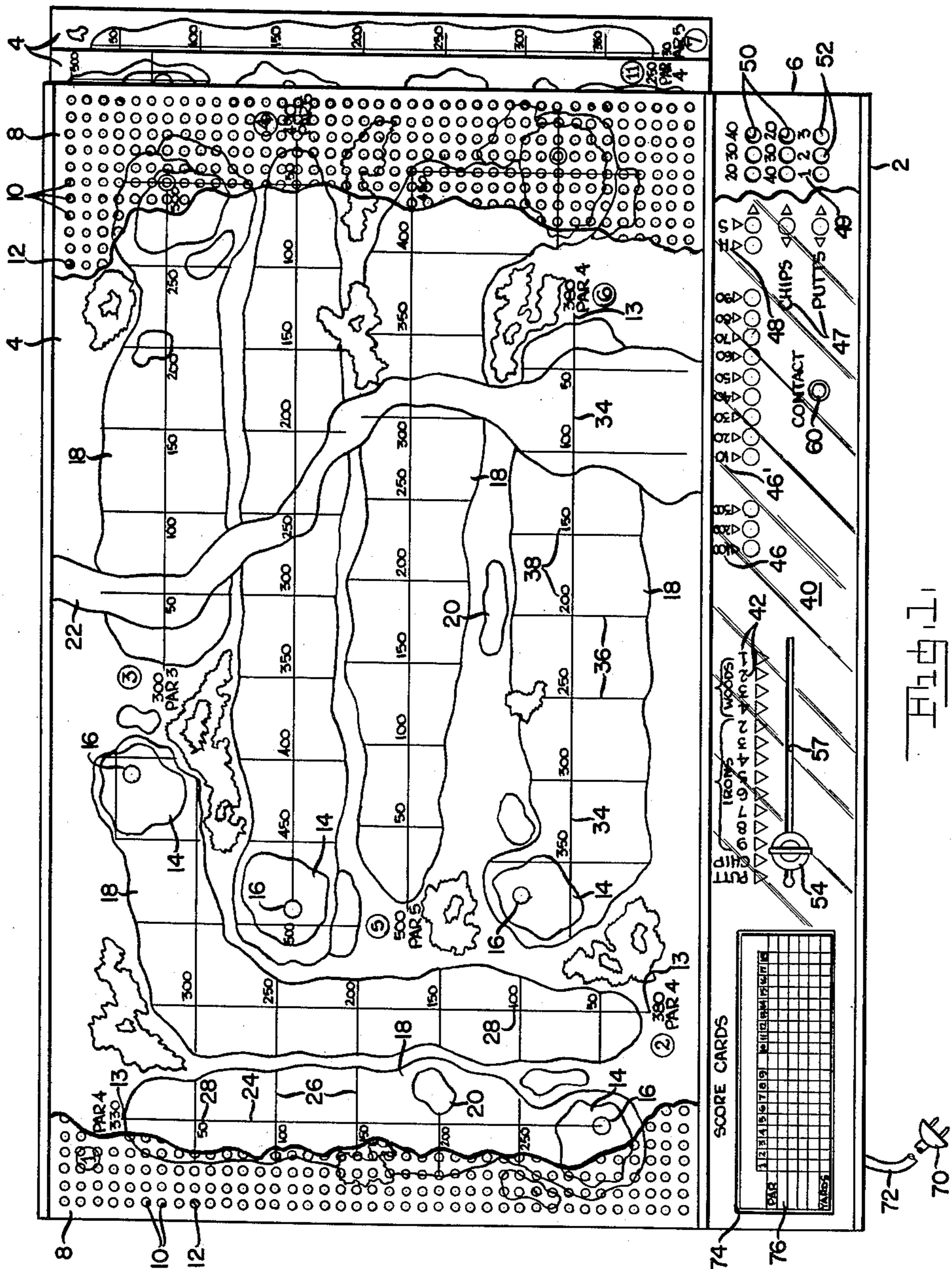
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3,101,947

GAME APPARATUS WITH ELECTRICALLY OPERATED PLAY SELECTING MEANS

Filed Oct. 31, 1960

4 Sheets-Sheet 1



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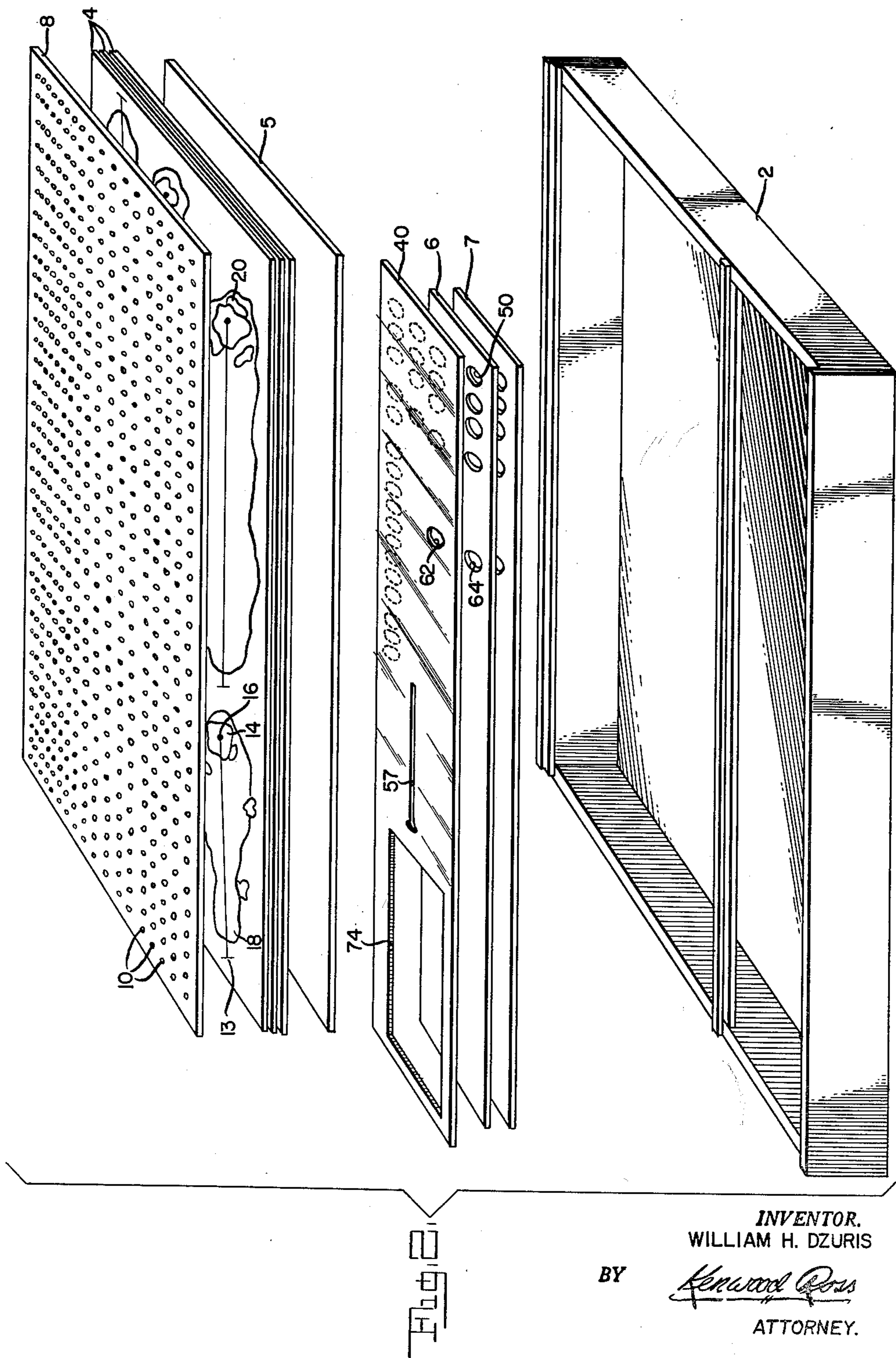
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GAME APPARATUS WITH ELECTRICALLY OPERATED PLAY SELECTING MEANS

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4 Sheets-Sheet 2



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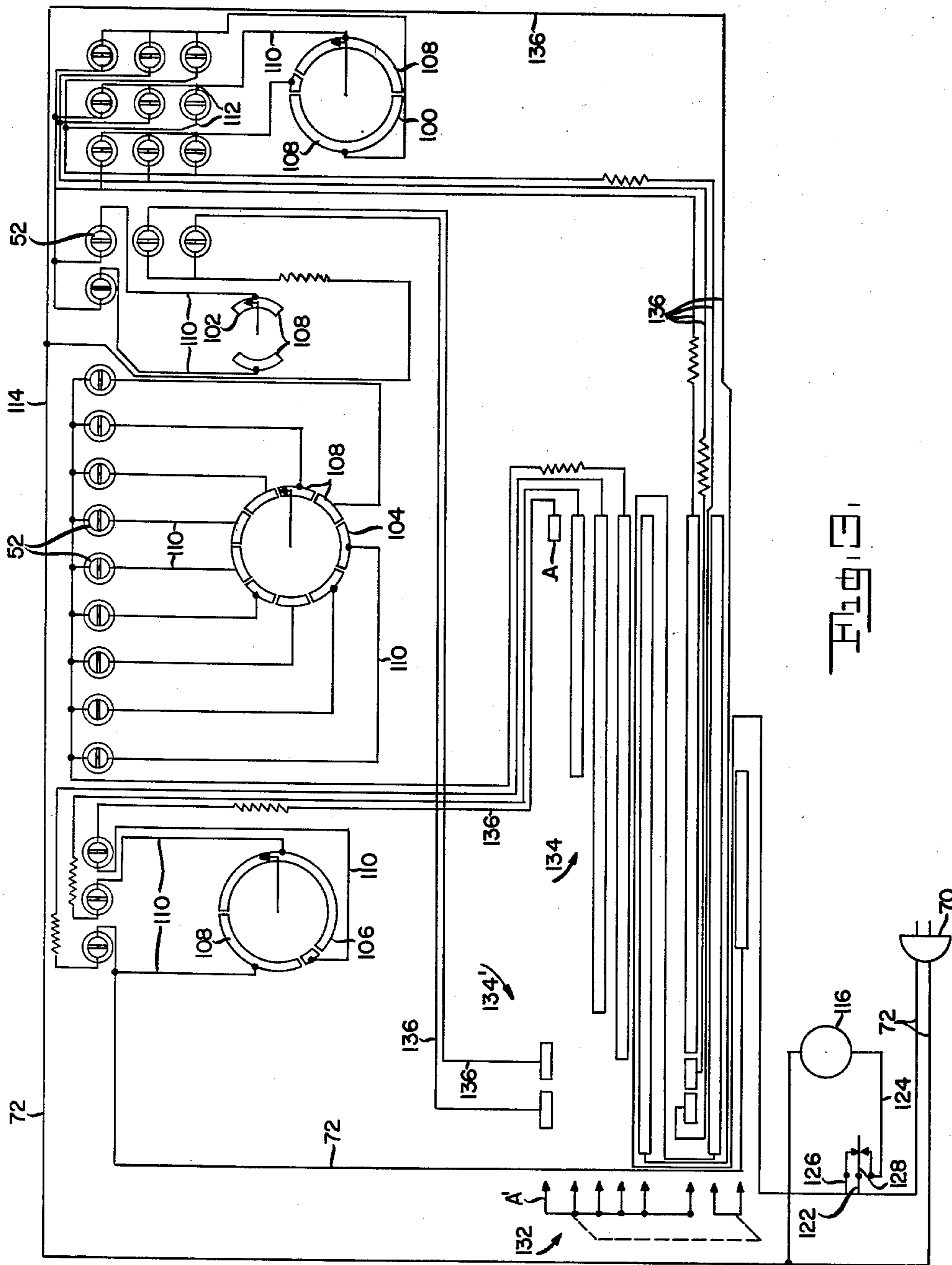
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GAME APPARATUS WITH ELECTRICALLY OPERATED PLAY SELECTING MEANS

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4 Sheets-Sheet 3



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GAME APPARATUS WITH ELECTRICALLY OPERATED PLAY SELECTING MEANS

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4 Sheets-Sheet 4

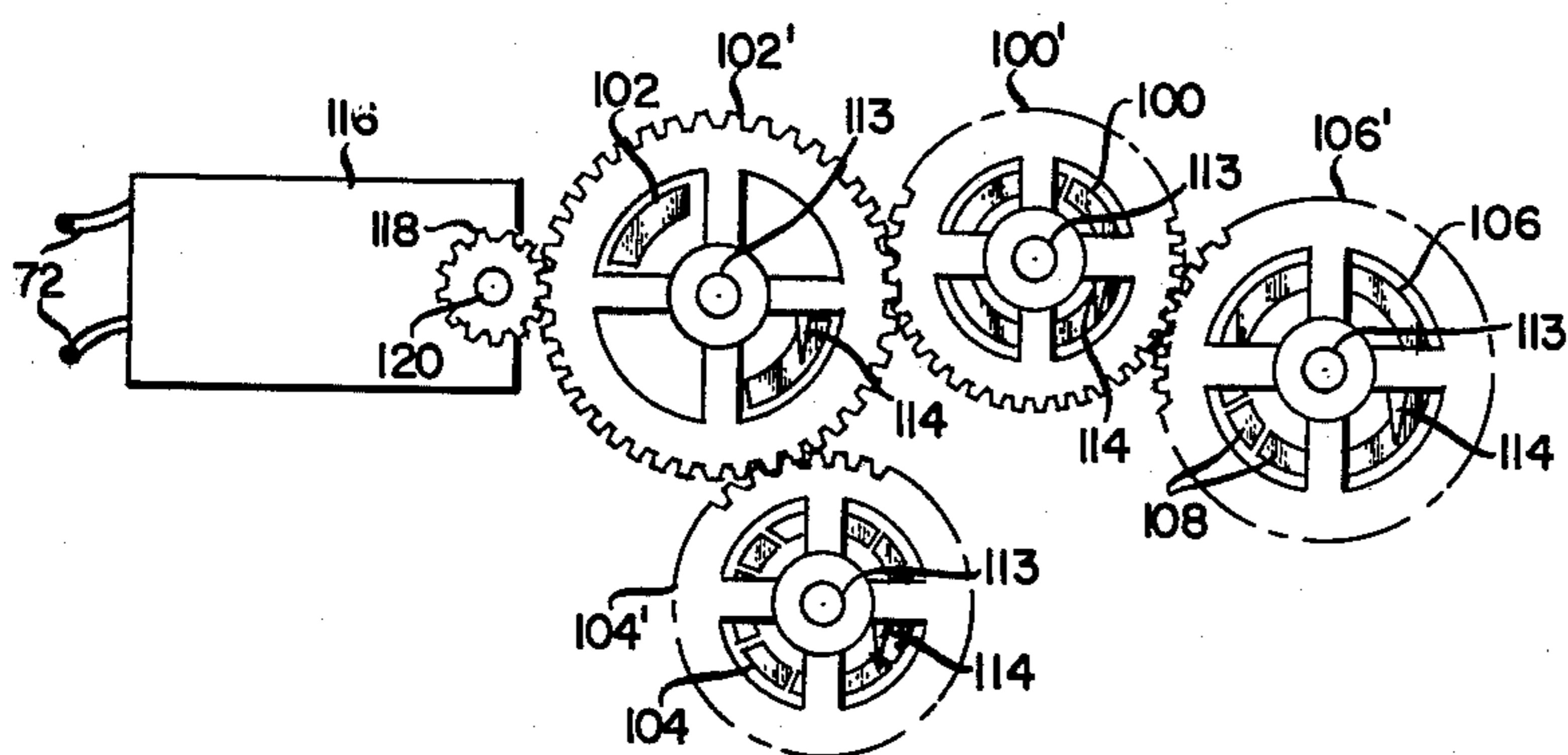


Fig. 4.

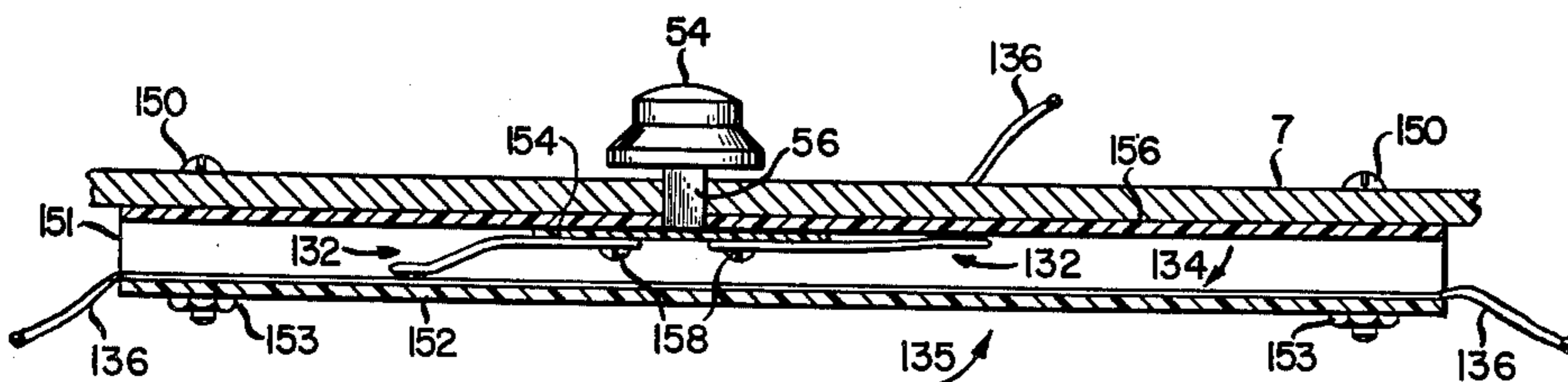


Fig. 5.

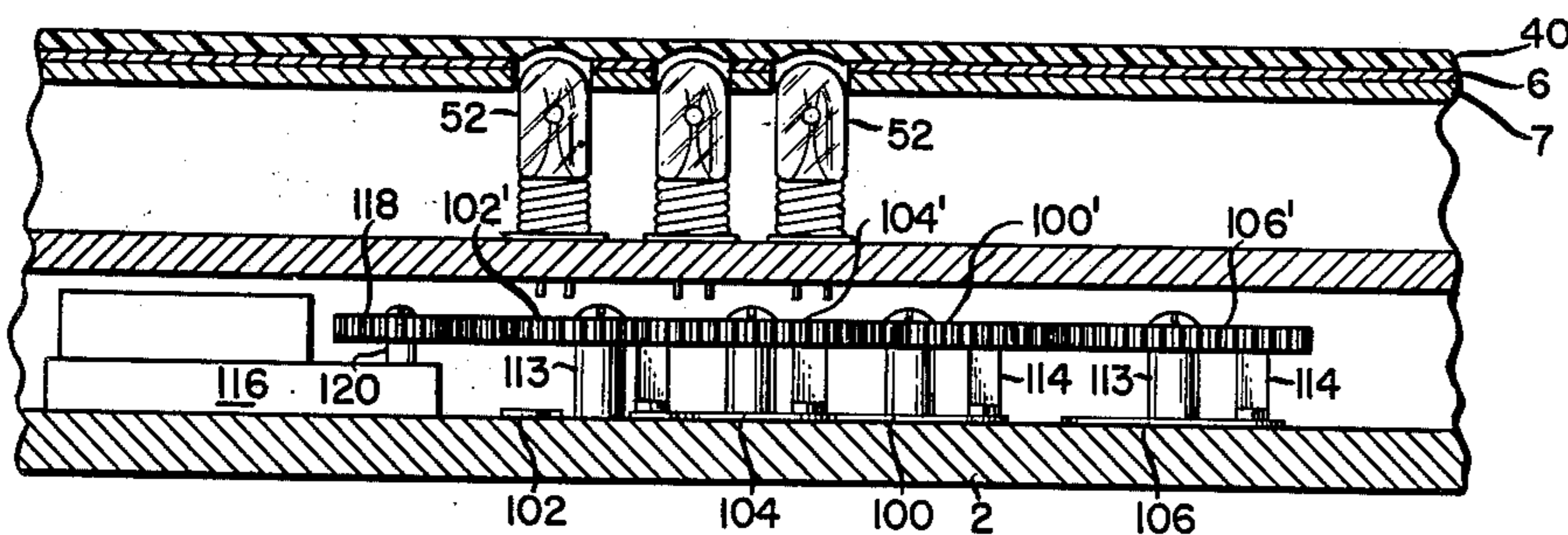


Fig. 6.

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3,101,947

GAME APPARATUS WITH ELECTRICALLY OPERATED PLAY SELECTING MEANS

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Filed Oct. 31, 1960, Ser. No. 66,090

1 Claim. (Cl. 273-134)

My invention relates to an electrical game apparatus. While, for purposes of illustration, I have shown the principles of the game as applied to a golf game, it will be understood that such disclosure is merely to demonstrate one practical application of the invention.

Essentially, the invention envisions a game wherein a multiplicity of sheets or inserts bearing delineations of playing areas are selectively disposed in seriatim, beneath a transparent planar playing surface, which playing surface is provided with a plurality of spaced playing-piece-receiving-loci, and wherein the playing areas on the sheets or inserts disposed therebeneath each carry indicia which bear a playing relationship to the playing-piece-receiving-loci on the playing surface.

Accordingly, the principles of the game could be readily applied to a game simulating a game of football, baseball, basketball, or the like, or any other reasonable equivalent, and wherein players or teams move about over a playing area representative of the game being simulated and move their playing pieces thereover in accordance with certain plays which are determined by suitable indicators.

One of the salient objects hereof is to provide a game of the general character defined which shall be highly interesting and also instructive as the plays will be made substantially in accordance with the standard rules governing the game being simulated.

More specifically, the invention relates generally to new and useful improvements and structural refinements in a golf game apparatus for playing an indoor game of golf similar in nature to and requiring a degree of skill comparable to that required in the out-door game, it being one of the objects hereof to provide a golf game bearing a similitude of a golf course and having means for following the imaginary course or path of a player's golf ball as determined by suitable distance indicating means and coacting devices to permit a clear visualization of play by strokes.

In such specific embodiment, the invention envisions a golf game wherein a multiplicity of sheets or inserts bearing delineations of different portions of the playing area of a typical 18 hole golf course may be disposed, in seriatim, beneath a transparent planar playing surface. This playing surface is provided with a plurality of spaced playing-piece-receiving-loci. The portions of the playing areas on each of the sheets or inserts disposed beneath the playing surface carry indicia which bear a playing relationship to the playing-piece-receiving-loci on the playing surface thereabove.

It will be helpful to an understanding of my invention to first briefly consider some of the essential points and more important features and aspects thereof, so that same may be kept in mind during the subsequent reading of the detailed description of the practical embodiment of my improvements and of the specific illustration thereof in the hereunto annexed drawings.

The particular illustrated embodiment, which will be described hereinafter in greater detail, embraces the concept of a golf game wherein a plurality of sheets or cards representing certain portions of a golf course are removably disposed beneath a planar playing surface comprising a clear plastic sheet, with each of the cards or sheets bearing a similitude to certain holes of an 18 hole golf course, and wherein these sheets or cards may be

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interchanged or alternated in seriatim so as to simulate the playing of an entire 18 hole golf course.

Each of the cards or sheets representative of different playing areas carries delineations to approximate portions of a golf course inclusive of the usual tees, greens, fairways, obstacles and hazards normally found therein, and also carries indicia indicating the distances involved at the various holes, which indicia bears a playing relationship to the loci carried by the transparent shield disposed over the card or sheet.

Broadly speaking, the invention is envisioned as including a playing area and an operating or control area distinct and separate therefrom.

The playing area has been broadly described above. The operating or control area will be defined as comprising a control panel having indicia delineated thereon to indicate the various clubs used in a golf game and other indicia representing yardage, chips, putts, and hooks and slices. Such panel overlies an electrical circuit having contacts and indicating means bearing a relationship to the indicia printed on the said control panel.

In playing the game, the player selects the proper golf club for use with the hole being played on the playing area. A slidable contact is moved relative to the operating card to a point on the card representing such golf club. A contact is then depressed, energizing the electrical circuit, whereupon a light flashes on below or opposite a certain yardage printed on the card. The player accordingly moves a peg or pin along the loci of the transparent sheet of the playing area to a yardage according to the intelligence indicated by the flashing light, it being understood that the particular card being used in the playing area also bears indicia representing yardage.

When all holes have been played on one of the playing cards, such card is removed from its position immediately below the transparent shield, and another playing card is substituted therefor, this procedure being followed until all playing cards accounting for all eighteen holes of the golf course have been brought into use.

Par for each hole is indicated on the playing card. The player achieving the lowest score for the eighteen holes is the winner of the game.

These foregoing objects and other incidental ends and advantages will in part be obvious and apparent and will in part be more fully pointed out as the nature of the invention is better understood in the progress of the disclosure below. To the end of attaining these and any other object and advantage hereinafter reasonably appearing, it will be explained that the invention consists substantially in the combination, construction, location and relative arrangement of parts, as described in detail hereinafter, as shown in the annexed drawings, and as defined with particularity in the appended claim.

The characteristic features which I consider to be novel with my invention, as to its construction and organization and as to its method of operation, will be better understood from a consideration of the following detailed description forming a part of this specification, when read in conjunction with the accompanying drawings, wherein like characters of reference are employed to designate like or corresponding parts throughout the several views and in which:

FIG. 1 is a top plan view of a golf game apparatus embodying the principles of my invention;

FIG. 2 is an exploded perspective view of the apparatus shown in FIG. 1;

FIG. 3 is a schematic wiring diagram of the electrical circuit for the apparatus;

FIG. 4 is a diagrammatic plan view of the brush-carrying gears which operate in conjunction with the electrical circuit;

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FIG. 5 is a fragmentary sectional view of the slide means of the control panel of the invention; and

FIG. 6 is a fragmentary sectional view showing certain components of the apparatus.

With continued reference now to the drawings, which illustrate a typical and preferred embodiment for the purposes of disclosure and form a part of this specification, I have shown a golf game generally comprising a casing or supporting frame 2, a plurality of cards or sheets 4 each carrying delineations thereon in similitude of a portion of the playing area of a golf course, a control panel 6, and a playing surface 8 comprising a clear plastic planar member provided with a multiplicity of spaced and aligned loci or openings 10 extending throughout the length and width thereof, into which loci 10 pegs 12 are adapted to be selectively placed and temporarily held to indicate the position of a golf ball in the course of play.

With the openings so located on all sides of all of the tees, fairways and greens delineated on each of the inserts, the overdriving of said greens and/or the hooking or slicing of balls relative to said fairways is provided for so as to add to the realism achieved by the game hereof.

As envisioned, each of the cards or sheets 4 is laid out to approximate a portion of a golf course including tees 13, greens 14, cups or holes 16, fairways 18, sand traps 20, water traps 22, and the like.

In the present embodiment, each of the three cards or sheets 4 represents six holes of a golf course. It will be understood, however, that a greater or lesser number of cards may be utilized, with each card representing a lesser or greater number of holes, all as may be desired.

Said cards 4 will rest upon a base or supporting member 5 disposed below the clear shield 8, which base member is supported in generally horizontally disposed position by the upstanding side and end walls of the casing or supporting frame 2.

The distance between each tee and its corresponding cup is laid off in spaced, linear measure. For example, in FIG. 1, a distance line 24 extends from the tee 13 to the cup 16 of hole number one.

Said distance line 24 is intersected by a multiplicity of increment lines 26 which are disposed in evenly spaced parallel relationship, each in right angular relationship to said distance line, with the distance between two adjacent increment lines 26 being representative of a certain distance, as for example 50 yards.

Each point of intersection between lines 24 and 26 is marked by suitable indicia 28 indicative of progressive distance along the fairway between the tee and hole.

On the other hand, a horizontal distance line 34 extends from the tee 13 to the corresponding cup 16 of hole number 6. The distance line 34 is intersected at 50 yard intervals by vertical increment lines 36, with each point of intersection between the lines 34 and 36 being marked with suitable indicia 38.

The loci 10 provided in the clear plastic shield 8, are spaced to correspond to ten yard intervals on the playing area and will overlie the distance and increment lines 24-26 and 34-36.

Accordingly, the insert 4, in coaction with the playing surface 8 disposed thereover, facilitates the ready calculation in tens of yards of distance relative to each cup inclusive of the distance from its respective tee, and of distances away from and on either side of the centerline between tee and cup in order to calculate and plot the imaginary positioning of a ball in the event that hooks or slices are simulated in the event of over-shots or under-shots being called for in the course of play.

The control panel 6 rests upon a horizontally disposed base 7 supported by the casing or frame 2 and has a clear plastic shield 40 superposed thereon and has indicia 42 imprinted thereon to indicate various types of golf clubs.

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Indicia 46 and 46' indicates yardage. Indicia 47 indicates chips or putts. Indicia 48 indicates hooks and slices. Indicia 49 indicates yardage therefor.

A plurality of spaced openings 50 are provided in the control panel adjacent the various indicia above mentioned, through which openings a plurality of small low voltage lamps 52 are receivable.

A control knob 54 is provided adjacent indicia 42 and is disposed at the upper end of a shaft 56 extending through longitudinal slot 57 provided in shield 40 and a corresponding slot (not shown) in control panel 6. Shaft 56 is connected at its lower extremity to an electrical circuit, subsequently to be described.

A button switch 60 extends through openings 62 and 64, provided in the shield and control panel respectively, and serves to energize the said electrical circuit.

A male plug 70 is connected to a power line 72 which leads to the electrical circuit whereby energy from an exterior source may be employed.

If desired, plastic shield 40 may be apertured as at 74 whereby a score card 76 may be placed upon control panel 6.

In operating the device, knob 54 is moved along slot 57 to a point adjacent the desired club as indicated by indicia 42. Button or contact switch 60 is then depressed to effectuate the lighting of lamps 52 indicating yardage as by indicia 46 and/or 46' or hooks and slices as by indicia 48. It will be understood that these factors may be controlled and varied by retaining contact 60 in the depressed position for longer or shorter durations of time.

For example, players A and B may be envisioned as playing off tee 13 for hole number one. As seen in FIG. 1, the distance from said tee to its respective cup 16 is three hundred yards. Player A selects the number one wood and moves the knob 54 along the slot 57 to a point opposite the indicator for said club on the control panel and then depresses contact 60, holding it in this position for a period of time. Upon releasing the contact, two bulbs 52 are lit adjacent indicia 46 and 46' respectively, one indicating two hundred yards and one indicating twenty yards. Player A now has an indication of the length of his drive (two hundred and twenty yards) and may now plot his drive upon the game board.

The drive having been visualized as being two hundred and twenty yards in distance, a peg 12 is pegged in the opening at the two hundred and twenty yard mark as represented on the insert.

Player B is then ready to drive as in a real golf game.

Player B may also select the number one wood, but may hold the contact 60 in the depressed position for a longer or shorter time interval. Upon releasing the contact, player B determines that the bulbs are lit on the yardage indicia 46 and 46' indicating a drive of two hundred and twenty yards; however, also lit may be a bulb adjacent the indicia 48 indicating a hook of forty yards.

Player B then moves his peg from the tee along the distance line 24 to a point corresponding to two hundred and twenty yards. However, on reaching this point, he must then move the peg four spaces to the left of the distance line 24 on the shield 8 representative of a hook of forty yards. Here, it will be remembered that the distance between the loci of the shield 8 is representative of a distance of ten yards.

Each player may next select an iron, wood or putter, the yardage and any penalty indicated on the indicia 46, 46' and 48 being played vertically and then horizontally to or past the cup. In other words, if on his next play, a player uses iron number four for a distance of one hundred and twenty yards, he would move the peg 12 vertically along the loci of the shield 8 to a point on a line with the cup 16 of hole number one whereupon he then moves horizontally four spaces to the right to overlie the cup 16.

A reasonable latitude is allowed as to putting, so that if

the machine registers a length of putt which exceeds by less than ten yards, for instance, the distance from the ball to the cup, the hole is conceded to the player.

A single player, a twosome, or foursome may play the game.

By leaving the pegs in the respective holes until the end of the game, each player may visualize his plays and analyze his game or compare it with another's game.

By tallying the number of strokes required for each hole and taking into consideration the strokes lost by hitting the ball into a natural water course or out of bounds or the like, a player will be able to obtain a very fair idea of his skill at the game.

A set of ground rules may be worked out and adhered to in order that every player will be on an equal footing.

It will thus be appreciated that I have provided a golf game board which affords a very interesting as well instructive game of indoor golf.

I am aware that numerous details of construction may be varied through a wide range without departing from the spirit of this invention, and I do not desire limiting the patent granted otherwise than as necessitated by the prior art.

It will be understood that the electrical circuit, subsequently to be described, is so constructed as to limit the maximum yardage which may be achieved by using any one of the golf clubs shown by indicia 42.

Further, a player penalized by a hook or slice must always play his next shot or shots so as to dispose the peg at right angles to the cup.

While a knowledge of the game of golf is desirable, it is not essential to operate the game intelligently.

Having thus described the manner in which the game is played, I will now describe the electrical circuits by means of which lamps 52 are lit to represent yardage and the like adjacent indicia 42, 46, 46', 47 and 48.

The means influenced by the electrical energization of the apparatus and causing the flow of current to different lamps 52 at different times may be described as being a combination electrical and mechanical system. Briefly stated, the electrical current flowing to the circuit actuates a motor to drive a plurality of meshed gears. Each of said gears carries a metallic brush which contacts a metallic ring having lines leading therefrom to the lamps 52. Which of the lamps 52 will ignite will generally be determined by the positions of the brushes relative to the rings beneath the aforementioned gears.

The lamps 52 are disposed in groups which approximate the groupings of the indicia 42, 46, 46', 47, 48 and 49 imprinted on the control board.

Each of the groupings or banks of lights are primarily controlled by metallic rings or portions thereof fixed to the base of the frame 2. Generally speaking, the bank of lights underlying indicia 49 is controlled by a split ring 100, those underlying indicia 48 by a split ring 102, those underlying indicia 46' by a split ring 104, and those underlying indicia 46 by a split ring 106.

Each of said rings 100-106 is divided into segments 108 having connections 110 leading therefrom to certain of the lamps 52.

Each of the lamps controlled by ring 100 is tied in vertical series to each of the lines 110 leading therefrom as by lines 112.

Gears 100', 102', 104' and 106' revolve on shafts 113 journaled in and extending upwardly from the base of frame 2. The said gears each overlie one of the rings 100-106 and each has a metallic brush 114 depending therefrom.

When the player depresses button 60, he causes current to pass through line 72 to activate a motor 116 thereby rotating a gear 118 carried by a shaft 120 driven by said motor. The gear 118 is meshed with gear 102', while gear 102' is meshed with gears 104' and 100', and gear 100' is meshed with gear 106'. Thus, as the shaft 120

rotates, each of the gears 100'-106' is also caused to rotate.

When the player releases the button 60, the motor is inactivated, thereby causing the gears to cease their rotation, with the brushes thereof coming to rest on certain of the segments 108 of each of the rings, thereby determining which of the lamps 52 will be lighted.

The button 60 controls a switch 122 of the three point type having a line 124 leading to the motor 116 and lines 126 and 128 leading to the power line 72.

In actuality, there are primary and secondary electrically controlled means, with knob 54 and its circuit being referred to as primary electrically controlled means, and switch or button 60 and its circuit being referred to as the secondary electrically controlled means. Said knob 54 carries a shaft 56 which has a set of finger contacts generally indicated by 132 fixed to its lower end which finger contacts overlie a plurality of metallic strips of varying lengths generally indicated by 134 disposed in parallelism upon the base of a control box 135 subsequently to be described.

Each of the metallic strips 134 is connected by leads 136 to certain of the lamps 52, which leads are opposed to leads 110 leading from rings 100-106 to said lamps.

Thus, when the player moves knob 54 along slot 57 of the control panel, he causes the finger contacts to overlie certain portions of metallic strips 134.

Upon depressing the button 60, switch 122 is closed thereby sending current through motor 116 causing gears 100'-106' to rotate.

Upon releasing button 60, brushes 114 will overlie certain of the segments 108 of the rings. If one of the fingers 132 is overlying one of the metallic strips 134 which is connected to the lamp controlled by that segment, the lamp will be lighted, the circuit having been completed.

For example, assume that finger contact A' shown in FIG. 3 overlies metallic strip A, which strip is connected to one of the lamps controlled by ring 106. If the metallic brush fixed to gear 106' should stop on the segment 108 which is also connected to this lamp, the lamp will be lighted.

To correlate the movement of control knob 54 with the circuit just described, assume that a player selects wood number one on indicia 42 imprinted on the control panel. In making this selection, he will move finger contacts 132 to overlie certain of the strips 134. Button 60 is now depressed, causing gears 100'-106' to rotate. Upon release of the button, brushes 114 will be in contact with certain of the segments 108 of the rings. This point will determine what yardage is indicated relative to indicia 46 and 46' and whether the player will be penalized by a hook or slice of certain yardage as determined by indicia 48 and 49.

The control box 135 is disposed immediately below the base support 7 of the control panel and is fixed thereto as by downwardly extending bolts or screws 150 which pass through side walls 151 and a base 152 and have nuts 153 threaded thereon.

The knob carrying shaft 56 is fixed at its lower end to a plastic plate 154 which embraces the lower surface of a sheet 156 carrying the metallic strips 134'.

Finger contacts 132 are fixed to plate 154 as by screws 158, and ride on the lower base plate 152, to which the metallic strips 134 are fixed, and on the lower surface of sheet 156 to which the metallic strips 134' are fixed.

Without further analysis, the foregoing is intended to so fully reveal the gist of my invention and its construction and operation that others can, by applying current knowledge, readily adapt it for various applications without omitting features which, from the standpoint of prior art, fairly constitute essential characteristics of its generic and/or specific aspects. The substitution of equivalents and other changes, modifications and alterations as circumstances may suggest or render expedient, are contemplated.

plated since the invention is susceptible of such without departing from its real spirit or underlying principles. Stated otherwise, it is not desired to limit this invention to the exact construction shown and described as the objects hereof may be attained by the use of constructions different in certain respects from that disclosed.

The protection which is sought for this invention is covered by the language of the above specification and the spirit represented thereby and same is limited only by the prior art and the scope of the appended claim, in which it is my intention to claim all novelty inherent in my invention as broadly as possible.

The invention is claimed, broadly as well as specifically, as indicated in the appended claim, and same is desired to include within the scope thereof all of said suitable variations, modifications and equivalents by which substantially the results of the invention may be obtained through the use of substantially the same or equivalent devices or means. Accordingly, limitation hereof should only be made as determined by a proper interpretation of the subjoined claim.

I therefore particularly point out and distinctly claim as my invention:

A game apparatus comprising, a transparent playing surface carrying rows of spaced and aligned playing-piece receiving loci therethrough disposed in evenly spaced relationship throughout the length and width thereof, a plurality of inserts bearing indicia representing various distances and bearing delineations of different playing areas, said inserts being selectively disposed in seriatim beneath and in registry with the playing piece receiving loci in said playing surface, a plurality of playing pieces being movable over said playing surface and disposable in the play-

ing-piece receiving loci according to a determination of plays to indicate movements of the respective players, said determination of plays being controlled by an electrically operable control panel containing data delineated thereon pertaining to various plays and penalties and distances, primary and secondary electrically controlled means for effecting a selection of the data on said control panel for indicating particular plays and penalties and distances for the players along said playing surface, said control panel overlying primary and secondary electrical circuits having contacts and indicating means bearing a relationship to the data delineated on said control panel, and said control panel being operable in conjunction with a mechanical system comprising a motor and a plurality of meshed gears driven by said motor, each of said gears carrying contact means adaptable to contact portions of said electrical circuits to complete said circuits wherefore a signal is emitted at said control panel.

References Cited in the file of this patent

UNITED STATES PATENTS

715,794	Haskell	Dec. 16, 1902
1,102,954	Ries et al.	July 7, 1914
1,736,523	Decker	Nov. 19, 1929
1,858,060	Ricci	May 10, 1932
2,491,888	Baker	Dec. 20, 1949
2,609,203	Bula	Sept. 2, 1952
2,794,641	Baker et al.	June 4, 1957
2,824,295	Zaruba	Feb. 18, 1958
2,825,894	Marmorstone	Mar. 4, 1958
2,893,734	Tarte	July 7, 1959

FOREIGN PATENTS

229,001	Great Britain	Feb. 16, 1925
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