

July 16, 1935.

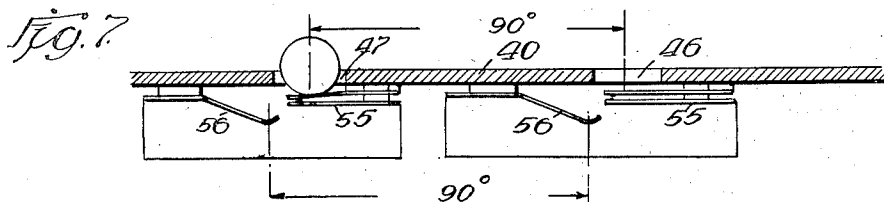
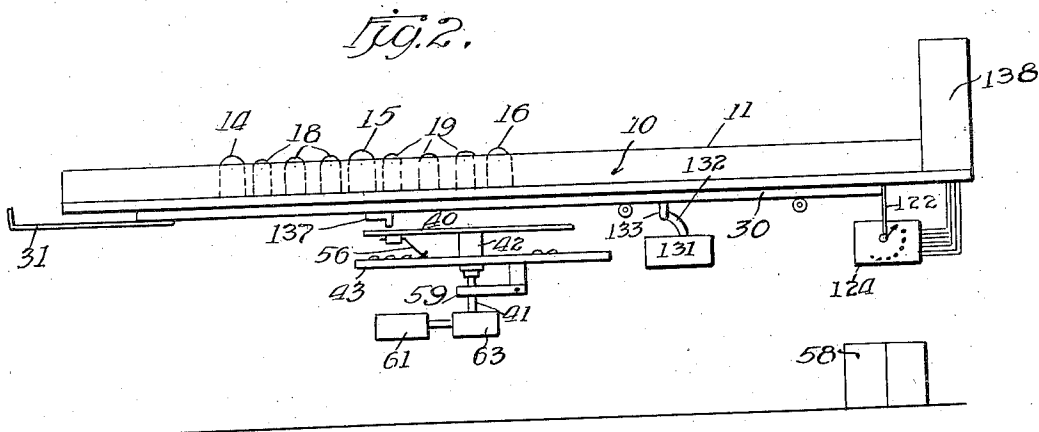
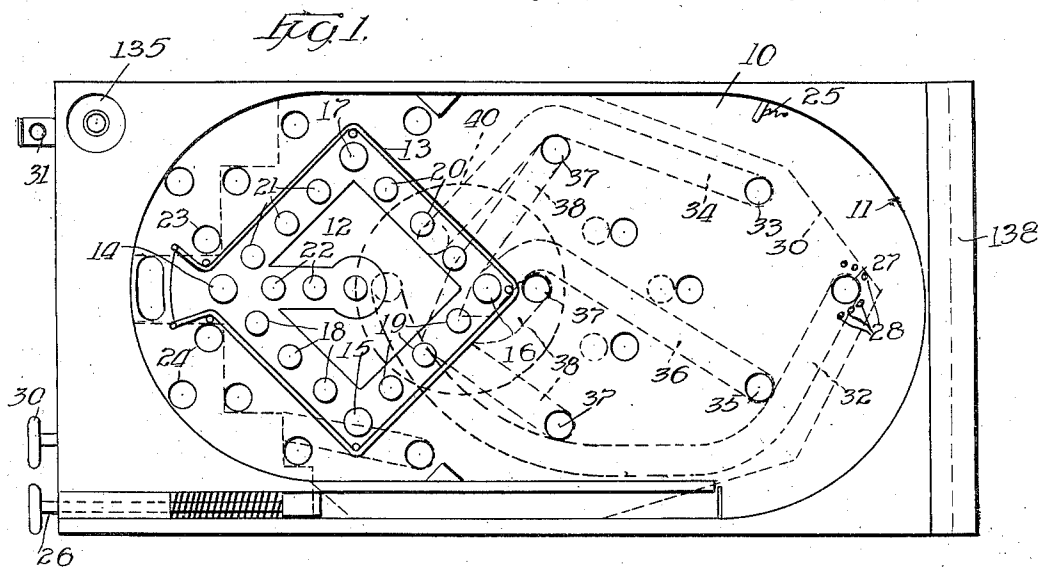
J. H. WARNER

2,008,479

GAME

Filed May 25, 1935

3 Sheets-Sheet 1



Witness:

Harry R. L. White.

Inventor

Joe H. Warner.

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July 16, 1935.

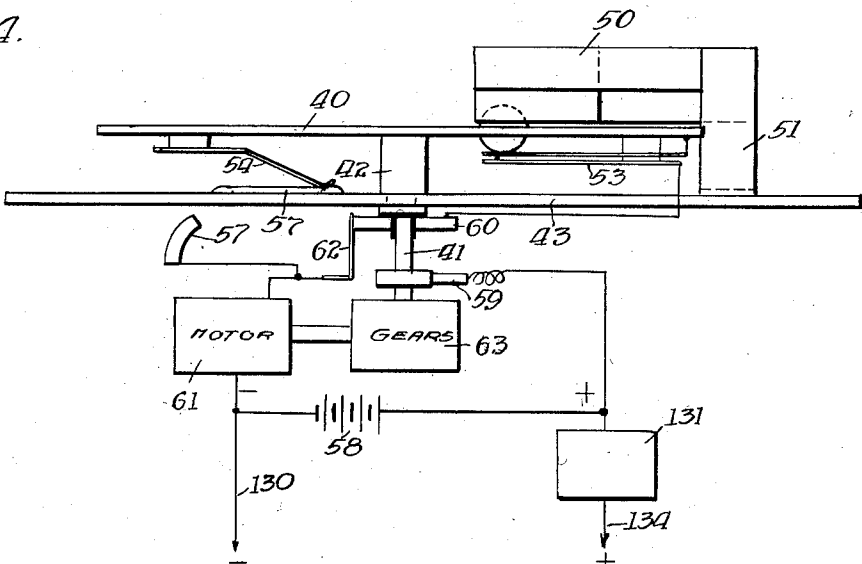
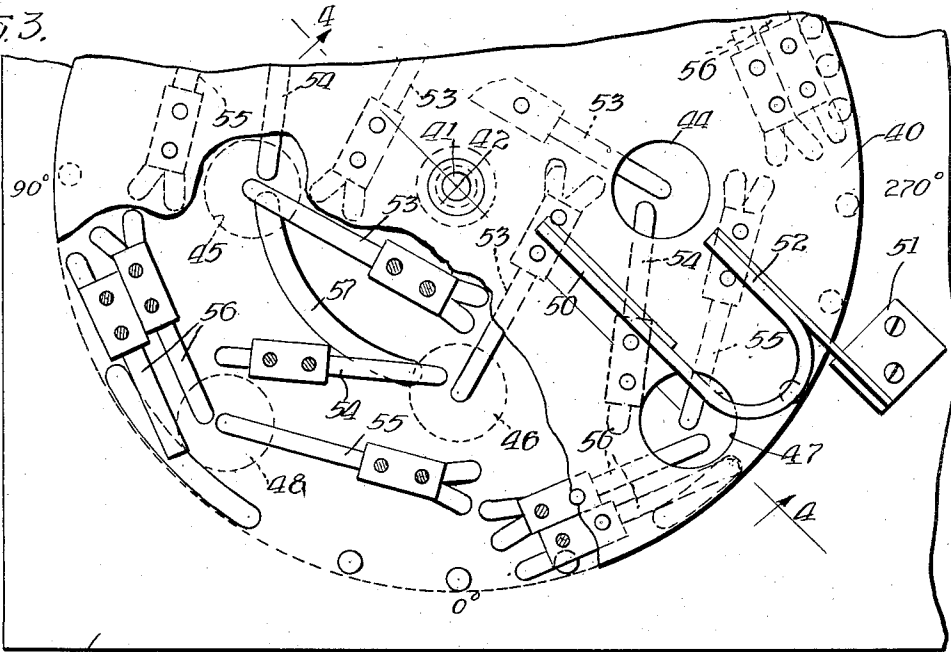
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2,008,479

GAME

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3 Sheets-Sheet 2



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2,008,479

GAME

Filed May 25, 1935

3 Sheets-Sheet 3

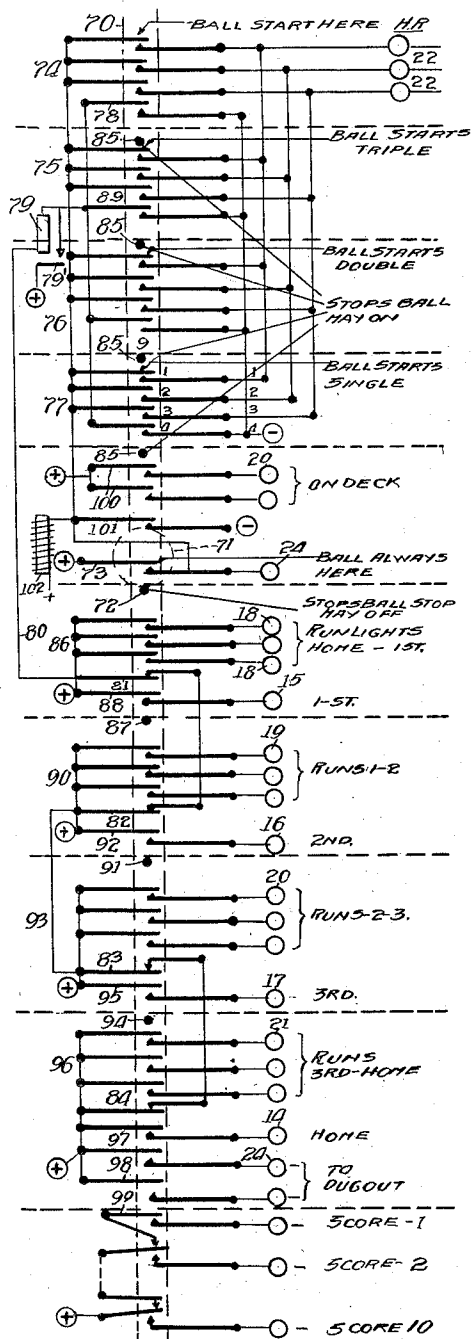


Fig. 5.

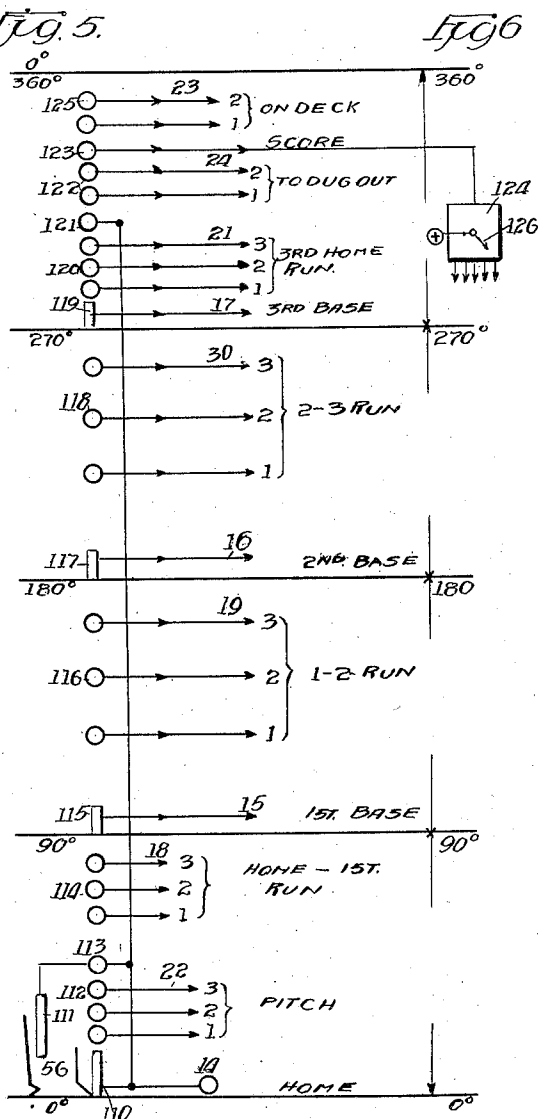


Fig. 6.

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UNITED STATES PATENT OFFICE

2,008,479

GAME

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Application May 25, 1935, Serial No. 23,489

14 Claims. (Cl. 273—119)

The present invention relates to game apparatus adaptable for use in coin operated games such as are commonly used in hotel lobbies, railway stations, cigar stores, and the like.

5 It is an object of the invention to provide a game played with balls which are propelled over a playing field that has openings in it through which the balls are adapted to fall. The field is designed to represent the playing field or court
10 of the particular game, such as baseball, and the openings through which the balls drop are marked to designate the various plays of the game.

15 A main object of the invention provides for making the game more interesting to play so that it will attract and hold the interest of players. To this end, and within the objects of the invention, lamps are provided upon the playing field and arranged to designate the various steps of the game that is to be played. That is, if the
20 game is designed to play baseball, lamps will mark a baseball diamond and will be operated to execute a pitched ball, a hit, and the running of the bases.

25 It is a further object of the invention to provide a lamp control mechanism that is operated by a ball that has dropped through one of the openings in the playing field to sequentially and intermittently light the lamps needed to picture the play designated by the opening through which
30 the ball dropped, and to register the score secured by the play if a score is made thereby.

35 Still another object of the invention lies in the provision of a control mechanism for a game of this type that is simple and rugged, is inexpensive to manufacture, is capable of being maintained in proper working condition by relatively inexperienced men and at low cost.

40 Still another object of the invention lies in the provision of a control mechanism that can be readily adapted to control the playing number of different games.

45 Further objects of the invention, not specifically mentioned here, will be apparent from the detailed description and claims which follow, reference being had to the accompanying drawings in which a preferred embodiment of the invention is shown by way of example and in which:

50 Figure 1 is a plan view of a game machine embodying the invention;

Figure 2 is an elevational view, partly diagrammatic, of the machine shown in Figure 1;

Figure 3 is a fragmentary plan view of the control mechanism of the machine drawn to an enlarged scale;

55 Figure 4 is a diagrammatic elevational view

through the control mechanism taken substantially along the line 4—4 of Figure 3 looking in the direction of the arrows;

Figure 5 is a circuit diagram illustrating the invention;

Figure 6 is a circuit diagram applied to the control mechanism in Figures 3 and 4; and Figure 7 is a diagrammatic view showing a part of the control mechanism.

So-called "pin board" games, conditioned for playing by the insertion of a coin in a suitable coin slot, and played by manual manipulation of certain levers by the player, are well known to those skilled in the art. Such machines are usually provided with a substantially planar playing field located directly beneath the glass top of the cabinet of the machine, so as to be visible therethrough. The playing field is inclined slightly with the low side adjacent to the player's position. The playing field is equipped with various baffles, traps, springs, and the like to direct the course of the ball that is being played, and is provided with a plurality of holes, openings or pockets into which the ball is to be dropped, the object of the game being to drop the ball through the openings of highest value. Such machines are usually provided with a suitable mechanism or a lamp board for indicating score made by the player with a given number of balls played, usually ten.

The present invention relates generally to a machine of this type, although, as will be apparent to those skilled in the art, the teachings of the invention may equally well be applied to other types of game apparatus. In the embodiments of the invention shown in the drawings, the invention is applied to a baseball game, this showing being made by way of example only and is to illustrate the teachings of the invention and is not to limit the invention to a baseball game. To this end, in Figure 1, there is shown a plan view of the cabinet of the machine, and a playing field 10, which is bordered by a wall 11, that rises vertically off of the field. The wall 11, is shaped to direct the course of the ball in the usual manner. Located upon the playing field is a baseball diamond 12, which is surrounded by a spring or rail 13, that serves to direct the balls used in playing the game and to prevent them from rolling across the diamond.

The home plate of the diamond is marked by a lamp 14, which may be colored and the bases are marked by lamps 15, 16, and 17, which may likewise be colored, either with the same color as home plate or with a different color.

Base running lamps 18, are positioned between home plate and first base, similar lamps 19, are positioned between first and second, lamps 20, between second and third, and lamps 21, between 5 third and home. Pitching lamps 22, extend from pitcher's box to home plate, and are preferably colored with a distinctive color.

The playing field is also equipped with a plurality of "on deck" lamps 23, and with a similar 10 plurality of "to the dug-out" lamps 24. These lamps being colored differently from the others. The lamps on the board are preferably provided with a suitable cap or housing made of transparent material to which the coloring dye is 15 applied.

The playing field is provided with a spring baffle 25, against which the ball strikes as it is propelled over the field, the propelling mechanism indicated at 26, being any conventional type of mechanism and not being of the essence of the present invention. An opening 27, is provided near the spring baffle 25, and may be designated as "home run" opening, suitable guards 28, being located adjacent to opening 27 to make the entrance of the ball therein more difficult.

As is customary in a game of this kind a shuffle board, indicated generally at 30, is disposed within the cabinet of the machine and directly under the playing field, this board being provided with 30 openings and levers by which the machine is cleared and conditioned for play by the insertion of a coin in the coin chute 31, and manual manipulation of the coin mechanism. The coin mechanism and arrangement by which it controls the shuffle board is conventional and is not 35 of the essence of the present invention.

The shuffle board is provided with a groove or channel 32, leading from home run opening 27, to the control mechanism so as to conduct a ball that has fallen through this opening to a proper position in the control mechanism, as will presently appear.

The playing field is also provided with an opening 33, which connects by a channel 34, in the shuffle board to the "triple" position in the control mechanism, so that a ball dropped through the opening 33, will register a "triple". An opening 35, connects by means of a channel 36, to the "double" position in the control mechanism so that a ball dropped through this opening will record a "double". There are a plurality of openings 37, which connect by channels 38, to "single" position in the control mechanism so that a ball dropped through any one of these openings will register a "single". The playing field is also 55 provided with a miscellany of holes and openings into which the ball may drop without causing the control mechanism to actuate, and these holes may be conveniently designated as "outs", "fouls" and the like.

As will be seen in Figures 2, 3, and 4, the control mechanism may comprise a disc or member 40, which is mounted upon a shaft 41, that is journaled for rotation in a suitable bushing 42, carried by a stationary plate 43. The disc may be conveniently made of metal and the plate 43, from an insulating material such as fibre or bakelite. The disc 40, contains two series of openings or pockets, an inner series comprising "single" pocket 44, a "double" pocket not shown on the drawing but located 90° around the disc from pocket 44, a "triple" pocket 45, located 180° from pocket 44, and a "home run" pocket 46, located 270° from pocket 44. A second series 75 of openings, which may be termed the control

openings, are located at the outer periphery of the disc, and comprise an opening 47, located at the starting point of the disc, second opening 48, located 90° therefrom, and third and fourth openings not shown but located 180° and 270° 5 respectively from the starting point. The channels in the shuffle board conduct the balls that have dropped through the openings in the playing field to the one of the pockets in the inner series corresponding to the value of the opening 10 through which the ball dropped.

A generally U shaped baffle or deflector 50, is supported upon a bracket 51, that is fixed upon the plate 43, the baffle extending at an angle with respect to the direction of travel of the disc 15 and extending across the path of the row of pockets 44, 45, and 46, so that balls which are resting in these pockets will be removed therefrom and carried into alignment with the outer series of openings in the disc. The U shaped 20 portion of the baffle holds the ball in alignment with the openings such as 47 and 48 until one of these openings comes within the baffle, at which time the ball drops into the opening and passes out of the baffle. The second and shorter leg 52, 25 of the baffle is in the path of travel of the outer row of openings and serves to remove the balls therefrom after the balls have traveled completely around the disc from the starting point.

The game machine is provided with arrangements for holding balls which are discarded from the disc until the end of the game, this holding means being released by an operation of the shuffle board so that those balls may be used in the next game. The arrangement for holding the 35 balls and for releasing them at the proper time is a conventional arrangement of machines of this type and not of the essence of the present invention, and has therefore been omitted to avoid an unnecessary complication of the drawings. 40

Disc 40, carries four sets of springs 53, spaced thereon so as to terminate at the approximate center of the pockets 44-46 inclusive, and also carries four sets of brushes 54, which terminate beneath the respective ones of the pockets 44-46 45 inclusive. Through these springs and brushes movements of the disc are controlled by the delivery of a ball to the proper pocket in a manner which will be hereinafter described.

Disc 40, also carries four sets of springs 55, 50 placed so that they terminate beneath the openings 47, 48, etc., in the outer series, and four sets of wipers 56, which are located one adjacent to each of these outer openings. Each wiper set, 56, comprises an inner and an outer wiper. 55

The insulating plate 43, carries a segment 57, located so as to be engaged by brushes 54. As will be seen in Figure 4, one terminal of the source of power 58, is connected by a suitable brush 59, to the shaft 41, and thence to the disc 60 40. For convenience the source of power is shown as a battery although it may be a step down transformer, or a voltage reducer if it is desired to operate the machine on commercial current. The upper one of the springs in each of the spring 65 sets 53, is connected to the disc, and the lower springs of the sets are connected to a collar 60, that is carried upon the shaft, but insulated therefrom. A motor 61, has one terminal permanently connected to the other terminal of the source 70 of current 58, and a second terminal connected by a suitable brush 62, to the ring 60. The springs of spring sets 53, are normally open. When a ball drops into one of the pockets 44-46, these springs are pressed together to close the circuit 75

to the motor, causing that motor to rotate. The motor is connected through a suitable chain of reducing gears indicated at 53 in Figure 4, to the disc, so that the disc will be rotated. Brushes 54, are disengaged from segment 57, when the disc is at rest, but are moved into engagement therewith after the disc has been rotated through a few degrees. Brushes 54, are connected to the disc 40, and through their engagement with segment 57, maintain the circuit of the motor closed independently of spring sets 53. Segment 57 is of sufficient length to insure that the disc will be moved through a definite arc each time it is started. In the embodiment shown this arc is 90°, but its value may be varied to change the number of steps required for one revolution of the disc.

Thus it will be seen that if a ball is dropped into the pocket 44, representing a "single", the disc will start and will move in a clockwise direction as seen in Figure 3. After the disc has moved through approximately 30° the ball will be removed from the opening 44, by baffle 50. Before this happens wiper 54, will be in engagement with segment 57 and rotation of the disc will continue through the balance of the 90° arc. Similarly, if a ball is placed in opening 45, the disc will be moved through 180° to bring the opening 45, into the position in which opening 44, is shown in Figure 3, after which the disc will move through another 90° as above explained. If a ball is placed in opening 46, the disc will be moved through 270° to bring that opening into the position in which opening 44, is shown in Figure 3, and will move through another 90° from that position. It will be readily understood that there is but one segment 57, on the plate, and that that segment is successively engaged by succeeding ones of the brushes 54, as the disc is rotated.

In order to translate the movement of the disc as above explained into sequential operations of the lights upon the playing field, circuit connections are extended through the outer sets of springs and wipers in the manner presently to be described. In Figure 5 I have shown a schematic diagram of the circuit arrangement best illustrating the underlying principle of the invention, although it does not employ the disc above referred to. Referring now to Figure 5 in more detail I have indicated by dotted lines 70, the path to be taken by a ball after it has dropped through the opening in the playing field. A ball dropped into the "home run" opening starts at the top of the figure at the point indicated by the arrow leading from the "home run" legend. A plurality of spring sets each comprising a main and a make contact are positioned so that the ball will press the springs together as it travels along the path, 70. A ball delivered from the "triple" hole in the playing field enters the path at the point indicated by the arrow leading from the legend "triple", there being a similar set of springs adjacent to that point. Similarly, the ball from the "double" enters the path at the point of the arrow leading from the legend "double", and the ball delivered from the "single" opening at the point indicated by the arrow leading from the legend "single", there being spring sets adjacent each of these points.

When the game is conditioned for playing a ball 71, is held in path 70, below the aforementioned spring sets by a suitable stop 72, the ball resting upon main spring 73, and presses it into engagement with its make contact to extend a

circuit from the plus side of a source of current through that spring and its make contact to main springs sets 74, 75, 76, and 77 above referred to. This circuit also extends to the "home plate" lamp 14. All lamps have one terminal connected to negative battery, and lamps 14, will be lighted to indicate "batter up". The make contacts of these spring sets are connected together and connected to the free terminal of pitching lamps 22. Thus as a ball entering the path at "home run" position rolls across the main springs of set 74, pitching lamps 22, will be lighted one after another. Spring set 74, also includes a main spring 78, whose make contact is connected to the negative terminal of the source of current. The main spring is connected to one terminal of the electromagnet 79, the other terminal of which is connected by conductor 80, through a chain of normally closed contacts 81, 82, 83 and 84, to the other or positive terminal of the source of current. When the ball rolls over main spring 78, magnet 79, energizes and moves stops 85, into the path 70. Energization of magnet 79, closes make contact 79' and extends a circuit from the negative terminal of the source of current to the magnet independently of spring 73. The movement of the ball is arrested by stop 85.

Energization of magnet 79, removes stop 72, from in front of ball 71, to permit that ball to travel downward along path 70. Main springs 86, are connected to the positive terminal of the source of current and positioned so as to be pressed into engagement with their respective make contacts by ball 71, whose make contacts are connected to the free terminals of the run lamps 18, located between home plate and first base, and the lamps are lighted one after the other.

When the ball 71, strikes the main spring 81, in spring set 86, it opens the chain circuit of magnet 79, to permit that magnet to de-energize, whereby stop pin 87, is returned to the path 70, to stop the ball 71. The ball is then resting upon main spring 88, to hold it in engagement with its make contact which leads to one terminal of the lamp 15, at first base, so as to light the lamp to indicate that the runner is on first base.

De-energization of the magnet 79, removes stop 85, from in front of the play ball to permit that play ball to pass over the main springs in set 75. Since there is no ball located upon springs 73, the main springs of set 75, will not be connected to positive battery and the pitching lamps 22, will not be lighted. When the ball engages main spring 89, in set 75, magnet 79, will again be energized and locked through the chain circuit. Energization of the magnet removes stop 87, from in front of ball 71, to permit that ball to continue in path over the main springs of set 90, thereby to first extinguish the first base light as ball moves off of spring 88, and then to light the run lamps 19, between first and second bases as the ball proceeds. When main spring 82, is engaged by ball 71, the chain circuit of magnet 79, is broken and that magnet de-energizes to place stop 91, in front of the ball so that it is stopped upon main spring 92. The make contact of this main spring extends to second base lamp 16, to light that lamp and indicate that the runner is on second base.

De-energization of the magnet 79, releases the play ball which advances over the main springs in set 76, and re-energizes the magnet 79, as before. The re-energization of the magnet removes stop pin 91, from in front of ball 71, to

permit that ball to travel over the main springs in set 93. The make contacts of these main springs are connected to run lamps 20, located between second and third bases, and these lamps
5 are lighted to indicate the progress of the runner. The chain circuit is broken when the ball 71, strikes main spring 83, whereupon magnet 79, is de-energized and stop pin 94, is positioned to stop ball 71, upon main spring 95, whose make
10 contact leads to the third base lamp 17. That lamp is lighted to indicate the position of the runner on third base.

De-energization of the magnet 79, again releases the play ball and permits it to travel across
15 main springs 77, at the end of which travel, magnet 79, is energized as before and a stop 85, positioned to arrest the movement of the play ball. Energization of the magnet removes stop 94, from path of play ball 71, to permit
20 that ball to travel over the main springs of set 96, whose make contacts are connected to run lamps 21, located between third base and home, to light those lamps in sequence as before. When the ball strikes contact 84, the chain
25 of magnet 79, is broken, and that magnet falls back, but ball 71, is not arrested. The ball continues engaging main spring 97, which is connected through its make contact to home plate light 14, to flash that lamp indicating the scoring
30 of the run, and continues across main springs 98, which are connected through their respective contacts to one terminal of the "dug-out" lamps 24, to light those lamps to indicate the return
35 of the player to the dug-out. The ball continues in path 70, into engagement with main spring 99, in the scoring mechanism thereby closing a circuit from the positive terminal of the source of current through a chain of contacts in the scoring mechanism, through main spring 99,
40 and its make contact to score lamp 1. The ball 71, comes to rest upon main spring 99, to maintain score lamp 1, lighted to indicate that one run has been scored. De-energization of magnet 79, by ball 71, engaging main spring 84, releases the play ball and permits it to pass over
45 main springs 100, which through their make contacts are connected to "on deck" lamps 23, to light those lamps and indicate the coming to bat of another player. The play ball continues
50 across main spring 101, to energize a kicker magnet 102. Kicker magnet 102, is arranged to remove the second one of two balls from the runway should two balls be located at the home plate main spring 73, at the same time. The play
55 ball comes to rest upon main spring 73, in position in which ball 71, is shown in Figure 5, to light home plate lamp 24, as before.

From the foregoing it will be seen that when a home run is hit, the play ball moves in four
60 distinct steps to advance a control ball through four distinct steps and thereby run a player around the bases in order to register a run. Obviously, if the play ball enters the path 70, at a "triple" point, only three steps will be carried out, and control ball 71, will be stopped
65 at third base position on spring 95, and the play ball will then be brought into the home position on spring 73. In the case of a "double" only two steps are executed and in the case of a
70 "single" one step. Successive singles will position three control balls in path 70, one on each of the three bases, and the next hit will advance as many of those balls over the home plate as the value of the hit warrants.

75 The foregoing description of the schematic ar-

5 rangement shown in Figure 5 will aid in the understanding of Figure 6, which shows in diagrammatic form the arrangement of contacts upon the plate 43, which contacts are engaged by
wipers 56. Referring to Figure 7, in conjunction with Figure 6, the control ball, corresponding to ball 71, is positioned in the opening 47,
10 located at the starting position of the disc. The ball presses together springs 55, to extend a circuit from disc to wipers 56. These wipers are
15 normally resting upon a segment 110, which is connected to home plate lamp 14. Since the disc is connected to one terminal of the source of current, the home plate lamp will be lighted to indicate that the batter is up to bat. When the disc
20 is moved, as previously explained, wipers 56, move along contact segment 110, the outer wiper 56, moving off of that segment after inner wiper 56, moves on to segment 111. This latter segment
25 is connected to segment 110, to maintain the home plate lamp 14, lighted. Outer wiper 56, then moves into engagement with the contacts 112, which are connected to pitch lamps 22, to light those lamps in sequence. The inner wipers 56,
30 move off of contact 111, at the instant that the outer wiper engages the last one of the pitch contacts 112, so that the home plate lamp 14, is extinguished. When wiper 56, engages contact 113,
home plate lamp is again lighted for a moment to indicate a hit. The wiper then moves into
35 engagement with the contacts of group 114, which are connected to base running lamps 18, to indicate the advance of a player to first base. Wiper 56, then moves into engagement with segment 115,
which is connected to first base lamp 15, and
40 which is located 90° from the starting point. If a "single" has been registered the disc comes to rest at this point as previously explained.

Assuming for the moment that a home run has been hit, the disc continues to rotate and wiper 56,
45 moves off of contact 115, to extinguish first base lamp 15, and into engagement with contacts 116, which are connected to base running lamps 19, located between first and second bases, to light those lamps in sequence. Wiper 56 then moves
50 into engagement with second base contact 117, to light it for an interval slightly longer than the interval during which the running lamps are lighted. Contact 117, is located 180° from the starting point. Wiper 56 continues into engagement
55 with contacts of group 118, which are connected to base running lamps 20, between second and third bases to light those lamps, and then into engagement with contact 119, located 270° from starting point and connected to third base
60 lamp 17. As wiper 56 continues, the contacts of group 120 are engaged, these contacts being connected to the run lamps 21, located between third base and home plate. It will be noted that the contacts of group 120, are spaced closer together than the contacts of the other base running groups so that the player advances to home
65 plate rapidly. Wiper 56 then engages contact 121, which is connected to the home plate lamp 4, to flash that light and indicate the scoring of the run, and then proceeds to contacts 122 which lead to "to dug-out lamps" 24, thence to contact 123,
70 leading to a scoring mechanism 124, and thence to contacts 125, which lead to the "on deck" lamps 23, the wiper coming to rest upon the completion of 360° travel in engagement with segment 110, leading to the home plate lamp 14.

The original control ball which has traveled around the disc is removed therefrom just after the "on deck" lamps have been lighted, thereby
75

opening springs 55 to insulate wiper 56. The play ball, which fell into the home run pocket in the disc is removed from that pocket and held in the baffle 59, as explained above. During the latter part of the travel of the disc the opening 47, is aligned with the baffle and the play ball drops into it to become the control ball in the next play. The ball recloses springs 55, to connect positive battery to the wiper 56, so that when the disc comes to rest, home plate lamp 14 will be lighted.

The scoring mechanism 124, is a standard mechanism which per se does not form a part of the present invention. The mechanism comprises a magnet which is energized when the wiper 56, engages contact 123, to advance the wiper 126, one step, the wiper being held by mechanical means when the magnet is de-energized. The wiper is connected to one terminal of the source of power and when advanced one step engages a contact leading to the first one of the score lamps, lighting that lamp to indicate that one score has been registered. As will be seen in Figure 2, the scoring mechanism is also provided with a clear-out arm 127, which is engaged by the shuffle board 30, and actuated by that board in its movement to condition the game for playing. An actuation of lever, 127, removes the mechanical restraining means or wiper 126, to permit that wiper to return to its normal position in which it is out of engagement with all of its contacts.

Referring now to Figures 2 and 4 it will be seen that one, or negative terminal of the source of current 58, shown for convenience as a battery, is directly connected to a lead 130, which extends to the lamps, as previously indicated. The other, or positive terminal of the battery is extended through the timing switch 131, which is provided with a re-set lever 132, that engages a stop 133, upon the shuffle board 30. When the shuffle board is moved to condition the machine for playing, the timing mechanism is started and the circuit from positive side of battery 58, is extended to a wire 134. The timing mechanism is arranged to maintain this circuit closed for a definite length of time, preferably about three minutes, after which the mechanism automatically opens it. By this arrangement the lamps left lighted in the game when the player finishes playing are extinguished after a few moments and unnecessary running down of the battery is avoided.

Games of this type are usually provided with a tilt lamp which is lighted to indicate that the game has been tilted in an effort to further the advantage of the player. In Figure 1 I have shown the tilt light control 135, which comprises a small metallic ball located upon a pedestal and arranged to roll off the pedestal when the game is tilted. This ball closes the circuit to a lamp, not shown, to indicate a misoperation of the machine.

The score board 138, extends upwardly at the rear of the machine and contains ten score lamps and the tilt lamp. A glass plate closes the front of the board and contains the legends indicating the score, so arranged that the lamp shines through to illuminate the score figure. The tilt lamp is preferably red so that the fact that it is burning will be readily apparent. The particular type of score board and its position upon the machine, may be varied within the teachings of the invention.

It will frequently happen that when a player has finished his game there will be one or more men left on the bases, that is play balls will be

located in the openings in disc 40. To permit removing the balls by an operation of the shuffle board I have provided a clear-out bracket 137, Figure 2, on the shuffle board. This bracket is arranged to strike against the balls in the openings and remove them therefrom to permit them to roll into the ball receptacle of the machine. The clear-out bracket 137, does not engage the ball that is located in the opening at the starting position of the disc, that ball serving to indicate "batter up" and to initiate base running when the game is again conditioned for playing, that is, it is the control ball corresponding to ball 71 in Figure 5. Games of this type usually permit the player to shoot ten balls over the playing field after a single coin has been inserted in the coin slot, in which case, in the apparatus shown, eleven balls will be provided, the extra ball being retained in the control mechanism and never made available to the player.

From the foregoing it will be seen that I have provided a new and improved game which is made more attractive than the games of the prior art by the use of running lights controlled through the play balls. I have also provided an improved mechanism for controlling games of this type, a mechanism which offers many advantages over the mechanisms known heretofore.

While I have chosen to illustrate and describe my invention in connection with a baseball game which is played in four distinct steps, I have done so by way of example only as the invention may be equally well applied to games played in a greater or smaller number of steps. I am not to be limited by the illustration and description shown by way of example but rather by the scope of the appended claims.

What is claimed is:

1. In a game machine, a playing field having openings marked to indicate various plays of the game, a plurality of play balls, means for delivering said balls to the playing field one at a time, means for propelling the balls over the playing field, said ball falling into one of said openings, a control mechanism including a rotatable member having ball-receiving apertures corresponding to said openings, a plurality of series of lamps on said field arranged to simulate the various steps in the game, and means controlled by the ball that has fallen into said opening and into one of said apertures for sequentially lighting the lamps of the number of said series of lamps indicating the value of the opening through which the ball fell, to simulate the movement of a player executing the corresponding play.

2. In a game, the combination with a playing field having holes, each marked to designate a play in the game, baffles around the holes, and means for propelling a ball over the field into one of said holes, of a plurality of lamps on said field arranged to represent the plays of the game, a control mechanism including a rotatable member having ball-receiving apertures, means for conducting the ball that has dropped through one of said holes to an aperture in said rotatable member corresponding to said hole, means actuated by said ball in said rotatable member for lighting certain ones of said lamps sequentially to execute the play designated by the hole into which the ball fell, a score board, lamps therein, and means actuated by said ball in said control mechanism for closing a circuit to a lamp in said score board indicating the score made by said play to light that lamp.

3. In a game, the combination with a playing

field having holes, each marked to designate a play in the game, baffles adjacent to the holes, and means for propelling a ball over the field into one of said holes, of a plurality of lamps on
 5 said field arranged to simulate the plays of the game, a control mechanism including a rotatable apertured member, means for conducting the ball that has dropped through one of said holes to an aperture in said member corresponding to said
 10 hole, means actuated by said ball in said member for lighting certain ones of said lamps sequentially to execute the play designated by the hole into which the ball fell.

4. The combination with a game board having
 15 a playing field, means for propelling a ball over the field, and baffle means for directing the course of the ball, there being a plurality of holes into one of which the ball drops to start the play designated by that hole, of series of lamps on
 20 said field arranged to represent the plays of the game, a control mechanism, a disc in said mechanism having a set of motor holes and a set of control holes, means for holding a ball in the control hole located at a starting point, means
 25 for delivering the play ball to the one of said motor holes corresponding to the hole in the playing field through which the ball dropped, a motor for moving said disc, a source of current, a circuit for said motor closed through said
 30 source of current by the play ball in one of said motor holes to start the motor and move the disc, wipers carried by the disc, contacts engaged by the wipers and connected through the said lamps to one side of said source of current, and
 35 means actuated by the ball in said control hole for extending a connection from the other side of said source of current to said wiper to complete circuits through said lamps sequentially to execute the play designated by the hole through
 40 which the play ball fell as the disc moves.

5. The combination with a game board having a playing field, means for propelling a ball over the field, and baffle means for directing the course of the ball, there being a plurality of holes into
 45 one of which the ball drops to start the play designated by that hole, of series of lamps on said field arranged to simulate the game, a control mechanism, means defining a path through said mechanism, means for holding a ball at a
 50 starting point on said path, means for conducting the play ball from the hole through which it has dropped to a point on said path corresponding to said hole from which point said play ball moves toward said starting point, means actuated
 55 by said play ball as it moves in said path for moving said held ball over said path away from starting point, and means controlled by said latter ball for sequentially lighting said lamps to execute the play designated by the hole
 60 through which the ball dropped, said ball holding means holding said play ball at said starting point and at the end of said play said ball moving means holding said other ball to maintain one of said lamps lighted to indicate the
 65 end of said play.

6. The combination with a game board having a playing field, means for propelling a ball over the field, and baffle means for directing the course of the ball, there being a plurality of holes into
 70 one of which the ball drops to start the play designated by that hole, of series of lamps on said field arranged to represent the plays of the game, a control mechanism including a rotatable member having ball-receiving apertures, means
 75 in said mechanism defining the path to be taken

by the ball that has dropped through a hole in the playing field, means for conducting the ball from the hole through which it has dropped to an aperture in said member corresponding to
 5 said hole, means actuated by the ball for controlling the movement of the ball along said path, circuit means controlled through the ball moving along said path for lighting said lamps sequentially to execute the play designated by the
 10 hole into which the ball fell, and means for removing said ball from said path at the completion of said play.

7. The combination with a game board having a playing field, designed to represent the playing field of the game to be played, means for propelling a ball over the field, and baffle means
 15 for directing the course of the ball, there being a plurality of holes into one of which the ball drops to start the play designated by that hole, a series of lamps on said field arranged to represent the plays of the game, mechanism including
 20 a rotatable disc having apertures corresponding to said holes for controlling said lights, means for conducting said ball through said mechanism from a starting point corresponding to the hole into which the ball dropped, and means in said
 25 mechanism actuated by said ball for lighting said lamps sequentially to execute the play designated by the hole into which the ball fell.

8. In a base ball game, a diamond, lamps marking the home plate, first, second and third bases
 30 on said diamond, running lamps located between home and first base, first and second bases, second and third bases, third base and home plate, pitching lamps located between pitcher's box and
 35 home plate, a playing field adjacent to said diamond, there being openings in said field, designating hits, fouls, and outs, means for propelling a ball over said field into one of said openings, a control mechanism including a rotatable member
 40 having ball receiving apertures corresponding to said openings and means controlled by said ball dropping into certain ones of said openings and said apertures for lighting said pitching lamps one after the other and for then lighting as many
 45 of said running and base lights as are necessary to execute the play designated by the hole through which the ball dropped.

9. In a game, a control mechanism comprising a stationary plate, a member journaled for rotation
 50 on said plate, a motor for driving the member, a source of current, there being a plurality of openings in said member, means for inserting a ball into one of said openings, means actuated by said ball for closing a circuit through said
 55 source of current and motor to actuate the motor and rotate the member, and means for maintaining said circuit closed until said member has moved through a definite arc.

10. In a game, a control mechanism comprising a stationary plate, a member journaled for rotation
 60 on said plate, a motor for driving the member, a source of current, there being a plurality of openings in said member, means for inserting a ball into one of said openings, means actuated by said ball for closing a circuit through said
 65 source of current and motor to actuate the motor and rotate the member, and a brush carried by said member, and means on said plate engaged by said brush for maintaining said circuit closed until said member has moved through a definite
 70 arc.

11. In a game, a control mechanism comprising a stationary plate, a member journaled for rotation
 75 on said plate, a motor for driving the mem-

ber, a source of current, there being a plurality of openings in said member, means for inserting a ball into one of said openings, means actuated by said ball for closing a circuit through said source of current and motor to actuate the motor and rotate the member, and a brush carried by said member, and means for moving said ball from said opening to another one of the openings in said member during the movement of said member through said arc.

12. In a game, a control mechanism comprising a stationary plate, a member journaled for rotation on said plate, a motor for driving the member, a source of current, there being a plurality of openings in said member, a ball normally disposed in one of said openings, means for inserting a second ball into a second one of said openings, means actuated by said ball for closing a circuit through said source of current and motor to actuate the motor and rotate the member, means for moving said second ball from the second one of said openings into a third one of said openings during said movement of said member, contacts on said plate, indicating means connected to said contacts, wiper means on said member moved into engagement with said contacts by said movement of the member, and means actuated by said first ball for closing a circuit through said source of current, indicating means, contacts and wiper to actuate the indicating means.

13. In a game apparatus, a control mechanism

including a rotatable ball-receiving member operable through a plurality of steps, a control ball in said mechanism, a plurality of lamps, a source of current, means actuated by said ball for extending a circuit through said source of current and one of said lamps to light the same, means for delivering a ball to said member, and means actuated by said latter ball for operating said mechanism through the number of steps necessary to position said latter ball at a fixed point, said means moving said control ball to break the circuit of said lamp and sequentially close circuits to others of said lamps.

14. In a game apparatus, a control mechanism including a rotatable ball-receiving member operable through a plurality of steps, a control ball in said mechanism at a starting point, a plurality of lamps, a source of current, means actuated by said ball for extending a circuit through said source of current and one of said lamps to light the same, means for delivering a ball to said member, means actuated by said latter ball for operating said mechanism through the number of steps necessary to position said latter ball at a fixed point, and means at said fixed point for moving said latter ball from said fixed point to the starting point of said control ball, said operation of said mechanism having moved said control ball to break the circuit of said lamp and sequentially close circuits to others of said lamps.

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