Dec. 9, 1958 W. E. BATTS 2,863,667

GAME DEVICE

Filed April 25, 1955 3 Sheets-Sheet 1

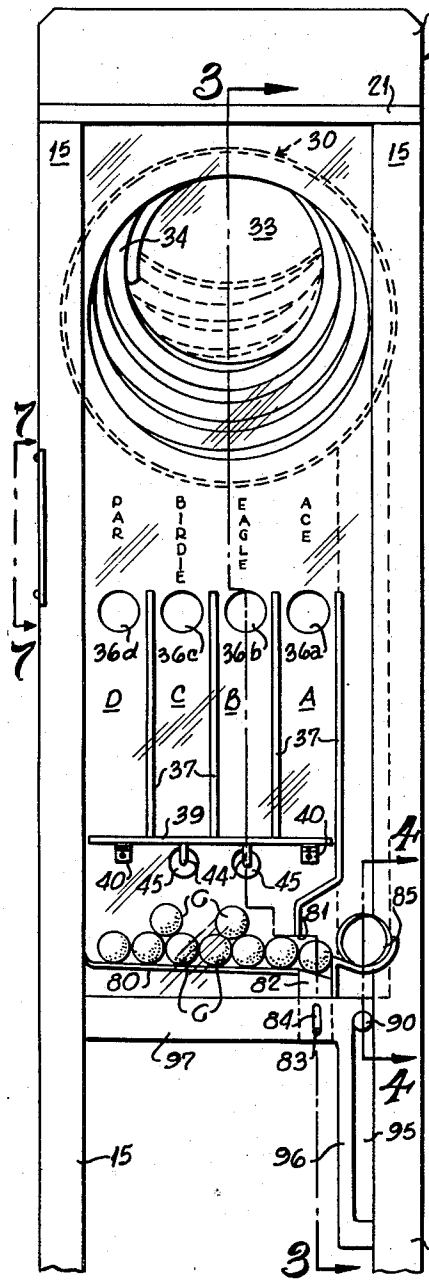


Fig-1

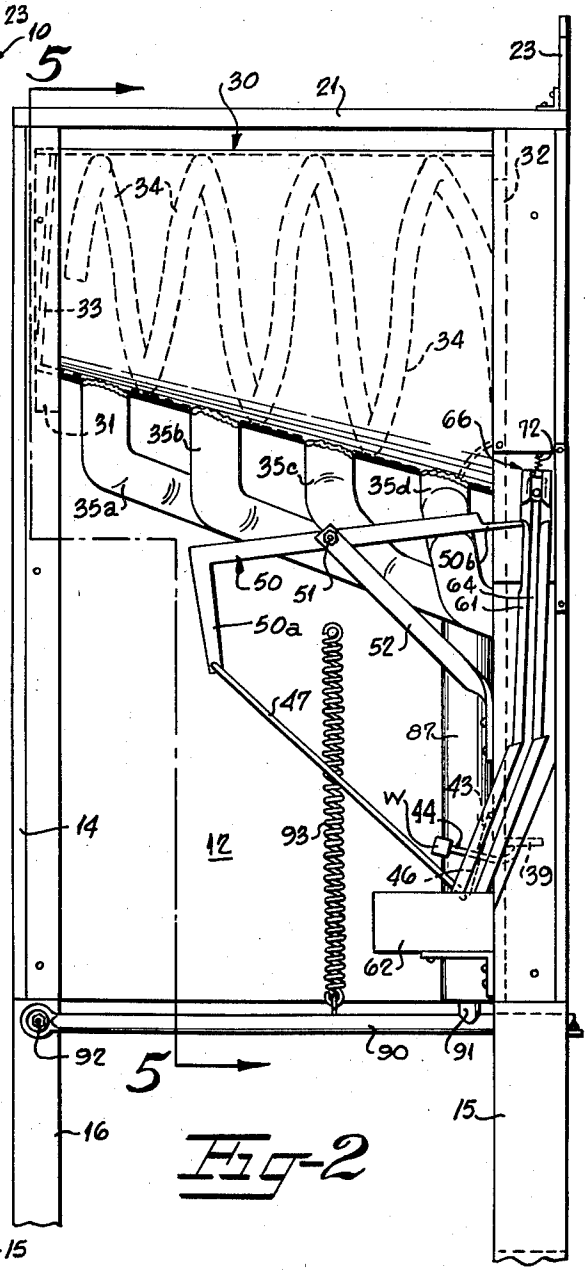


Fig-2

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GAME DEVICE

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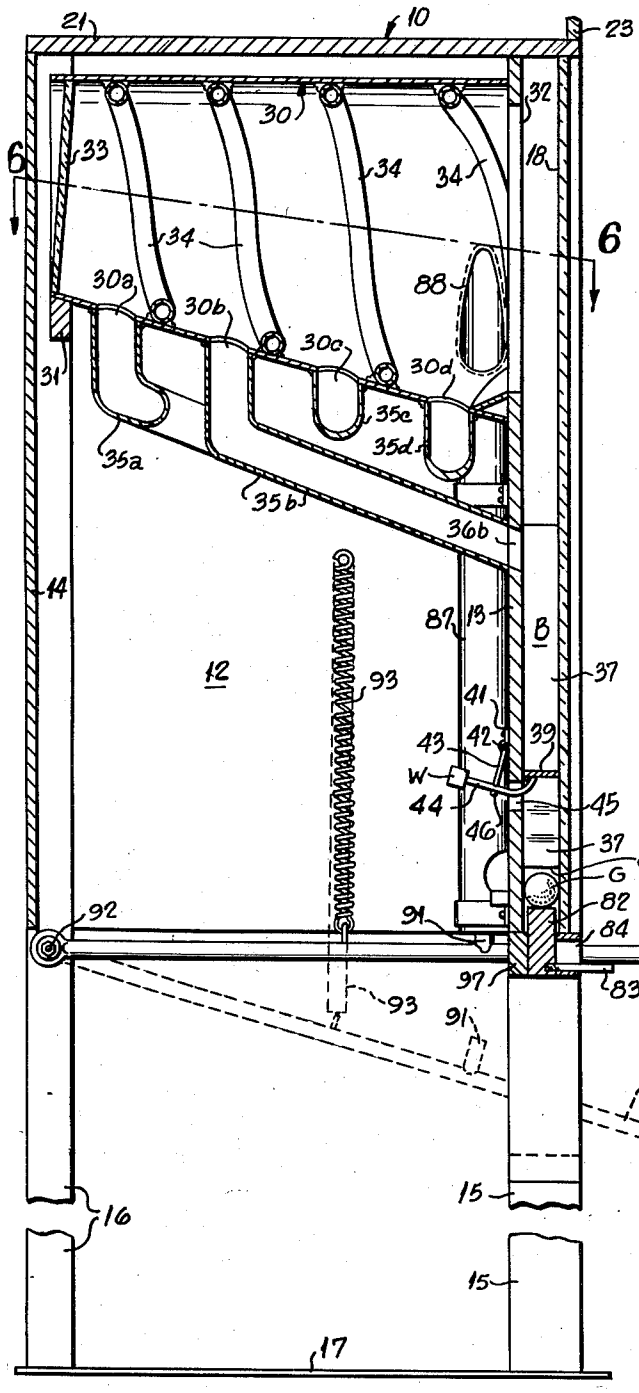


Fig. 3

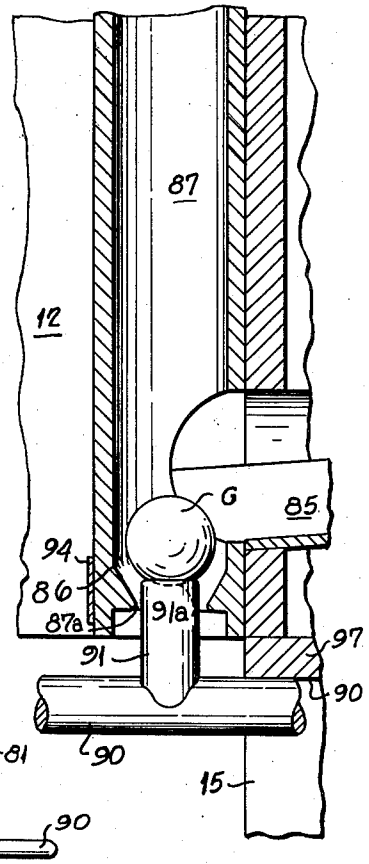


Fig. 4

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GAME DEVICE

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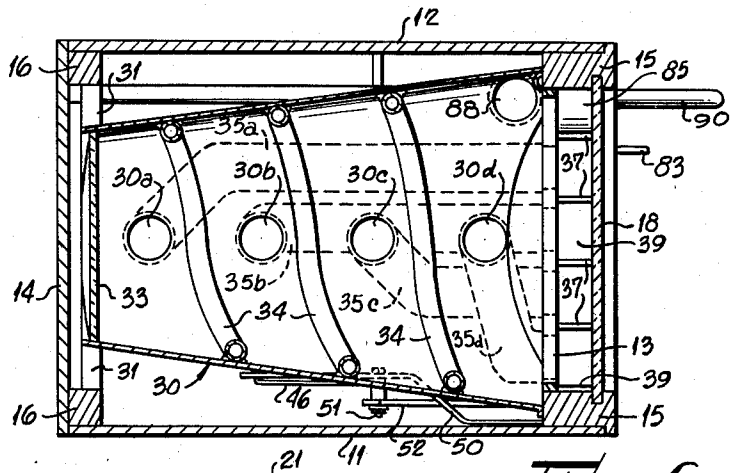


Fig-6

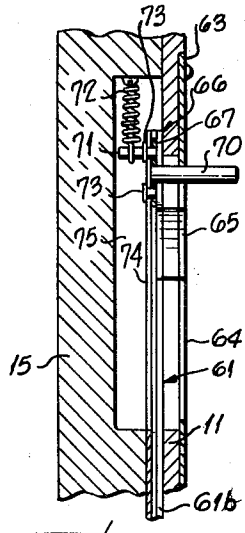


Fig-8

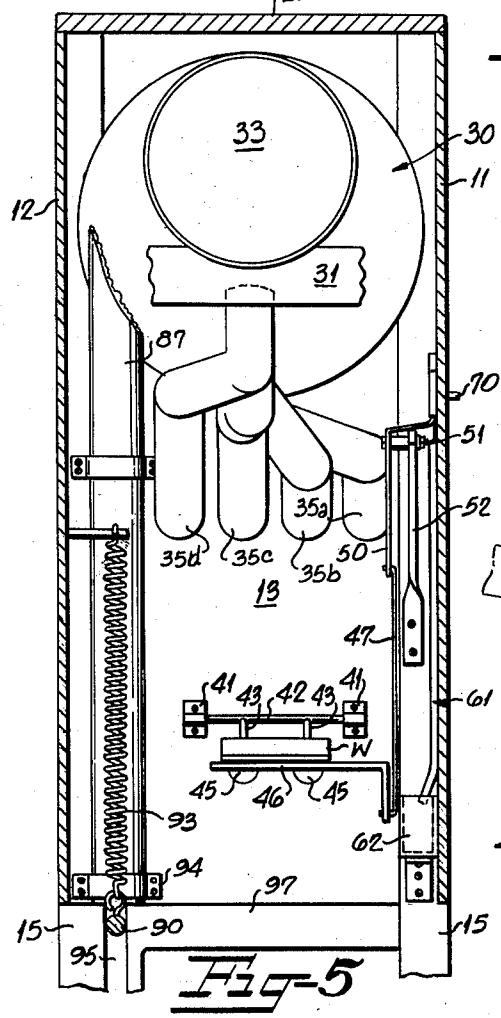


Fig-5

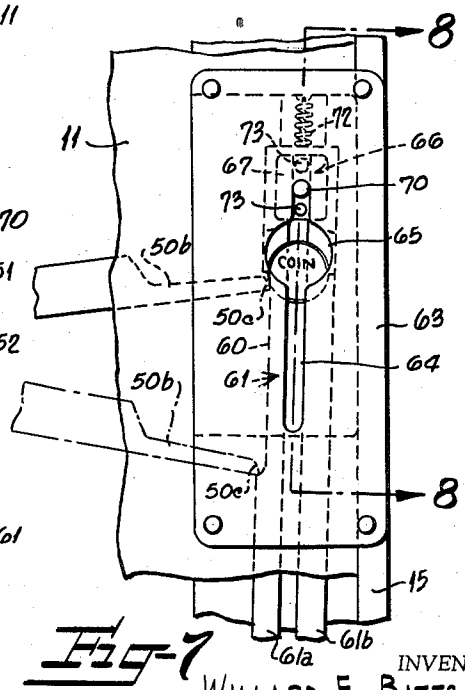


Fig-7

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United States Patent Office 2,863,667 Patented Dec. 9, 1958

2,863,667

GAME DEVICE

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Application April 25, 1955, Serial No. 503,679

2 Claims. (Cl. 273—125)

This invention relates to games and more particularly to a coin operated game mechanism wherein a player imparts upward and lateral motion to successive balls to cause them to pass through one of various passageways, depending on the skill of the player, and into a corresponding designated receiving and scoring chamber.

An object of the invention is to provide a coin operated game device having a minimum number of moving parts therein and thus one that can be economically manufactured.

Another object of the invention is to provide a game device having a cone-like barrel wherein a spirally arranged rib portion separates the barrel into a plurality of zones each communicating with scoring compartments of different values.

It is also an object of the invention to provide a coin operated game mechanism wherein a plunger is provided for forcing a coin downwardly into a coin receptacle, and said coin in its downward path causing the release of the playing balls for the game.

It is a further object of the invention to provide a coin operated game device that is non-tiltable so that a player may not operate the same until a coin has been placed in the device.

It is also a further object to provide a coin operated game device wherein the playing balls are retained in the scoring compartments by a novel counterweight arrangement.

Some of the objects of the invention having been stated, other objects will appear as the description proceeds when taken in connection with the accompanying drawings, in which—

Figure 1 is a front elevation of the game device;

Figure 2 is a side elevation taken from the left side of Figure 1 with the side panel removed;

Figure 3 is a vertical sectional view taken along line 3—3 in Figure 1;

Figure 4 is a fragmentary vertical sectional view taken along the line 4—4 in Figure 1;

Figure 5 is a vertical sectional view taken along the line 5—5 in Figure 2;

Figure 6 is a horizontal section taken along line 6—6 in Figure 3;

Figure 7 is a fragmentary side elevation on an enlarged scale taken along the line 7—7 in Figure 1;

Figure 8 is a vertical section taken along line 8—8 in Figure 7.

The game device is provided with a substantially upright rectangular casing or cabinet 10 comprising side walls 11 and 12, front and back walls 13 and 14 and four corner posts terminating in a pair of front and back legs 15 and 16 shown resting on a floor surface 17. The front wall 13 of the cabinet is covered by wall 18 formed of clear glass or plastic to enable a player to observe the path of the balls as the game is played. A panel member 21 closes the top of the casing or cabinet 10 and a suitable display advertising surface 23 is preferably affixed to the top panel 21.

Spaced immediately below the top wall 21 is a tapered barrel or cone-like ball-playing chamber or barrel 30 having a reduced rear portion resting on a cross member 31 which is connected to side members 11 and 12 by any suitable means. The front of the playing chamber 30 is secured to the inner surface of front wall 13 which has an aperture or opening 32 corresponding with the open front of the barrel 30 to permit observation of the path of the balls within the barrel 30 when playing the game.

The rearmost or reduced end of the cone-like chamber 30 is enclosed by a ball rebounding member or mirror 33 preferably formed of stainless steel and tilted slightly forward to reflect the path of the balls in the chamber. The mirror 33 also gives the illusion of greater depth to the chamber 30 and an optical illusion of two balls traveling at one time when in fact there is only one.

The inner surface of the cone-like chamber 30 is provided with a spirally arranged tubing or rib 34 which guides the playing ball in its travel. Portions of the spirally arranged rib 34 divide the chamber 30 into four scoring zones or segments having apertures or openings 30*a*, 30*b*, 30*c* and 30*d* in the bottom thereof serving as drop-down outlets for the playing balls G. Each of these four openings is connected by a downwardly sloping passageway or duct means 35*a*, 35*b*, 35*c*, 35*d* secured to the inner surface of wall 13 by any suitable means. The duct means or passageways permit the playing balls to roll therethrough from the chamber 30 and out of their lowermost ends 36*a*, 36*b*, 36*c*, 36*d* into compartments A, B, C and D formed between the transparent wall 18 and wall 13 by separators or wall side portions 37. The compartments A, B, C and D are designated with suitable inscription or legend such as Ace, Eagle, Birdie and Par for purposes of scoring the game. The Ace compartment is the highest scoring compartment and the Par the lowest.

When the game is completed the balls rest on a pivotally mounted plate or swinging member 39 forming the bottom wall of the compartments A, B, C, D. The plate or bottom wall 39 is hingedly connected to the outer surface of wall 13 by a pair of hinge or pivot members 40 (Figure 1). Bracket members 41 (Figures 3 and 5) are suitably secured to the inner surface of wall 13 and rotatably support rod 42 which has downwardly extending spaced links 43 extending therefrom, each of which spaced links carries a pressure finger-like rod 44 with an upturned front end which extends through spaced apertures 45 in the front wall 13 to make frictional contact with the bottom surface of bottom wall or swinging member 39. Counterweight bar W connects the finger-like rods 44 and is of sufficient weight to enable finger-like rods 44 to support the plate or bottom wall 39 with the balls thereon and prevent the member 39 from pivoting and releasing the playing balls from the compartments A, B, C and D until a coin has been inserted in the apparatus.

A rod 46 is suitably connected to the finger-like members 44 immediately below the point where links 43 connect to members 44. The rod 46 has a normally positioned downturned end integral therewith to which is pivotally connected one end of link 47. The other end of link 47 (Figures 2, 5 and 7) connects the sort portion 50*a* of an L-shaped lever 50 having a reduced, elongated front end 50*b* terminating in an arcuate-shaped nose portion 50*c*.

Lever 50 is pivotally secured by suitable means such as bolt 51 at an intermediate portion to bracket member

52 which is securely fastened to the front wall 13 by any suitable means.

As will be observed in Figures 5 and 6, the lever 50 has an off-set angular portion between the mounting bolt 51 and the reduced, elongated front portion 50*b* which off-set portion alines portion 50*b* of the lever 50 with a slot 60 (Figure 7) in the side wall of coin guide track 61.

A coin guide track 61 is suitably secured to the front corner post adjacent side wall 11 as clearly shown in Figures 5 and 8. The coin guide track is substantially C-shaped with opposing wall edge portions 61*a*, 61*b* (Figure 7) spaced apart to define a guideway for a coin plunger handle 70 which travels in a vertical path.

It will be noted in Figure 7 that the coin track 61 is positioned inclined to front wall 13 to prevent a coin from falling out the slot 60 and to aline the slot 60 with the path of the movement of the nose 50*c* of the lever 50 to be later explained.

The lower end of the coin guide track 61 terminates at a suitable coin box or receptacle 62 which collects all the coins.

Secured to the outer surface of wall 11 by any suitable means is a plate 63 (Figure 7) provided with an elongated opening 64 therein which corresponds in width to the slot defined by the opposed edges 61*a*, 61*b* of coin tract 61. Intermediate the ends of an elongated opening or slot 64 is an enlarged coin inserting opening 65. It will be observed that the track 61 has its sides cut away behind the opening 65 to permit a coin to readily enter the inside guiding surface of the track 61.

After a coin is inserted in the opening 65 into track 61, a coin plunger broadly indicated at 66 and having a block or driver portion 67 lying within the confines of the track 61 is manually forced downwardly to push the coin downwardly against the nose 50*c* of lever 50 to operate the same and to permit the coin to move down the track 61 into the receptacle 62. It will be noted that the block 67 has a width less than the diameter of the coin and less than the diameter of the guiding surface of the track 61 so that it will clear nose 50*c* in the absence of a coin being inserted therein. Thereby the game device is prevented from being operated until a coin has been placed in the slot 61 to actuate lever 50.

The coin plunger 66 comprises a handle 70 extending horizontally outwardly between the edges 61*a*, 61*b* of track 61 and through elongated slot 64, and block portion 67 positioned within the confines of slot 61. To the block 67 is secured a horizontally inwardly extending stud 71 having a resilient member or spring 72 in engagement therewith which serves to return and retain the plunger 66 in the normal position as shown in Figures 2, 7 and 8 after it has forced a coin down the passageway 61 to operate the apparatus.

To the block portion 67 of coin plunger 66 are secured two spaced studs 73 (Figures 7 and 8) having enlarged head portions which serve as guide members and bear against the back surface portion of track 61 to maintain the plunger 66 in its proper vertical path of movement. Accordingly, handle 70 has a path of movement between opposed edges 61*a* and 61*b* of track 61 and studs 73 have a path of movement in an elongated opening 74 provided in the top back portion of track 61 as shown in Figure 8.

An opening or cut-away portion 75 as shown in Figure 8 is provided in the left front corner post to receive the moving parts 71, 72, 73 of plunger 66 and to permit freedom of movement of the same therein.

Below bottom wall 39 is a ball collecting rack 80 (Figure 1) upon which the balls G rest after they have been emptied from compartments A, B, C and D by the pivoting of wall 39 on hinges 40. The right portion of rack 80 is slightly downwardly inclined to permit the playing balls G to move by gravity, one at a time, through an aperture 81 formed in the lower extending portion of side wall 37 of compartment A.

After the balls pass through aperture 81, one at a time, they rest on an elevator or block 82 having an outwardly horizontally extending handle 83. Elevator 82 has a top surface downwardly inclined to correspond with the inclined portion of rack 80. As will be observed in Figure 1, the elevator operating handle 83 is guided in a vertical elongated slot 84 formed in a cross member 97 connecting the pair of front legs 15.

When the elevator handle 83 is manually raised the elevator 82, guided in the cross member 97 connecting the pair of front legs 15, lifts the playing ball onto the inclined chute or passageway 85 which leads to the impact or starting zone 86 in the bottom end of passageway 87. It will be noted that the lower end of passageway 87 defining the starting zone 86 has inwardly sloping wall portions to define an aperture 87*a* which confines a playing ball therein to prevent same from dropping out of passageway 87. However, the aperture 87*a* defined by the inwardly sloping wall portions of passageway 87 is of sufficient diameter to permit the upright stud or ball impact member 91 secured to a medial portion of operating handle 90 to enter therethrough and make contact with the playing ball to drive same upwardly through passageway 87 through outlet 88 into the playing chamber or zone 30. The rear end of operating handle 90 is pivotally mounted by suitable means such as a bolt 92 to a back leg 16. A spring 93 resiliently maintains the handle 90 in the normal horizontal position as shown in full lines in Figure 3. As will be observed in Figure 4, the upright stud or ball impact member 91 has a concave upper surface 91*a* to receive portions of the outer surface of the playing balls G to thereby obtain a greater driving force against the balls. Operating handle 90 is guided in an elongated vertical slot 95 (Figure 1) formed between the right front leg 15 and depending portion 96 of cross member 97.

Operation of the device

To operate the same, a coin is inserted in aperture 65 and will drop into the coin guide track 61 until it engages the nose 50*c* of the lever 50 extending into the track through the slot 60. The player will then grasp the handle 70 of the coin plunger 66 and will move the same vertically downwardly whereby the block portion 67 of the plunger 66 engages the coin and moves the coin and the nose portion 50*c* of the lever 50 downwardly. When the nose portion 50*c* reaches the dotted line position shown in Figure 7 the coin is free to drop into the coin receptacle 62 since the pivoting of lever 50 has caused the nose 50*c* to be substantially retracted from the slot 60 in the track 61. The handle 70 can then be released to return to its normal upward position under the influence of the spring member 72. As the nose 50*c* of the lever 50 is lowered, the lever 50 will pivot at 51 as observed in Figure 2 and the lever portion 50*a* will thus be elevated to carry with it the link member 47 which will thus move the rod 46 upwardly which will cause the finger-like members 44 to be pivoted by the links 43 on the rod 42 thus moving the finger-like members 44 away from the bottom wall or swinging member 39 of the compartments A, B, C and D.

This movement of the finger-like members 44 from the under surface of the bottom wall 39 will permit the playing balls G which have been retained in compartments A, B, C and D to drop downwardly since the bottom wall 39 is now free to pivot on its hinges 40. The playing balls G as seen in Figure 1 will then be positioned on the rack 80 which slopes to the right to thus permit the playing balls one at a time to move through the aperture 81 and onto the elevator or block member 82. The handle portion 83 of the elevator block member 82 will then be manually moved upwardly in the elongated slot 84 to thus permit the playing ball

which is positioned on the upper face of the member 82 to roll onto the inclined chute or passageway **85** (Figure 4), down which the playing ball rolls into the starting or impact zone 86 of the passageway. The inwardly sloping wall portions of the passageway **87** define the small aperture *87a* which is of a sufficient diameter to retain the playing ball therein and prevent same from dropping downwardly and out of the passageway **87**.

The operating handle **90** is then manually lowered by the player to the bottom portion of elongated slot **95** and then released. Spring member **93** will then return the handle member **90** with the upright stud or impact member **91** affixed thereto to its uppermost position, during which movement, the stud or impact member **91** will pass through the aperture *87a* of the passageway **87** to make contact with the playing ball to drive same upwardly through the passageway **87** and out through the outlet **88** into the cone-like barrel or playing chamber **30**. Since the spring member **93** attached to the operating handle **90** imparts a strong driving force to the playing ball, the ball will roll around the cone-like barrel **30** which has the spirally arranged rib or tubing **34** to guide the path of the ball. The force with which the playing ball is struck by the plunger **91** will determine from which of the outlets *30a*, *30b*, *30c*, *30d* the ball leaves the cone-like barrel member **30**.

To obtain the best score, the playing ball must receive an impact from the member **91** of sufficient force to carry it upwardly through the passageway **87** and out the outlet **88** so the ball will travel around the barrel-like member **30** guided by the spiral rib **34** until it reaches the outlet *30a* which is connected by the passageway *35a* to the high scoring chamber A as shown in Figure 1. It will readily be appreciated that if the ball travels at too fast a speed, the ball will reach the outer end of the cone-like member **30** and strike the mirror **33** and rebound back to a lower scoring zone.

Preferably, nine playing balls are provided for the game to simulate a nine hole golf course with appropriate golf game markings on the ball receiving compartments A, B, C and D to score the results.

The remaining eight balls on the rack member **80** are then played one at a time in the same manner as explained above for the first ball.

It will thus be seen that a novel coin operated game device preferably simulating a golf game has been provided wherein the balls are played one at a time by the player.

In the drawings and specification there has been set forth a preferred embodiment of the invention, and although specific terms are employed, they are used in a generic and descriptive sense only and not for purposes of limitation, the scope of the invention being defined in the claims.

I claim:

1. In a coin operated game device having a substantially rectangular enclosure, a playing area divided into a plurality of scoring portions, means for receiving the playing balls to be scored and means connecting the scoring portions with the ball receiving means; the combination of coin actuated means for releasing playing balls from the ball receiving means, elevator means for lifting the balls one at a time, a chute provided to receive the balls lifted by said elevator means, a starting zone adjacent said chute means for receiving the ball, said starting zone comprising a vertically disposed passageway having a confined lower end defining an aperture, the upper end of said passageway connecting the front end portion of said playing area, said playing area comprising a horizontally disposed cone-like barrel member, resiliently urged means for penetrating said aperture in the passageway whereby a ball positioned therein is driven upwardly through said passasgeway into one end of said cone-like barrel member, and a mirror to close the end of said barrel member remote from the ball entering end.

2. In a game device utilizing playing balls, a playing area comprising an elongated cone-like barrel member having a horizontally disposed axis, means separating said cone-like barrel member into a plurality of scoring zones of varying diameter, means for receiving the playing balls to be scored, means providing communication between said scoring zones and said ball receiving means, a starting zone for the playing balls in the form of a passageway communicating with one end of said cone-like barrel member, means disposed in said passageway at a point spaced from said cone-like barrel member for providing power to drive a playing ball from said passageway into said one end of the cone-like barrel member, and a mirror closing the other end of said cone-like barrel member, whereby the flight of the playing ball along said cone-like barrel member will be arrested by said mirror if driven too hard, said mirror affording observation of the playing ball as it travels through said cone-like barrel member by the player of the game device.

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