Oct. 13, 1931. Y. DAIMARU 1,827,642

BALL GAME

Filed Nov. 7, 1929

Fig. 1.

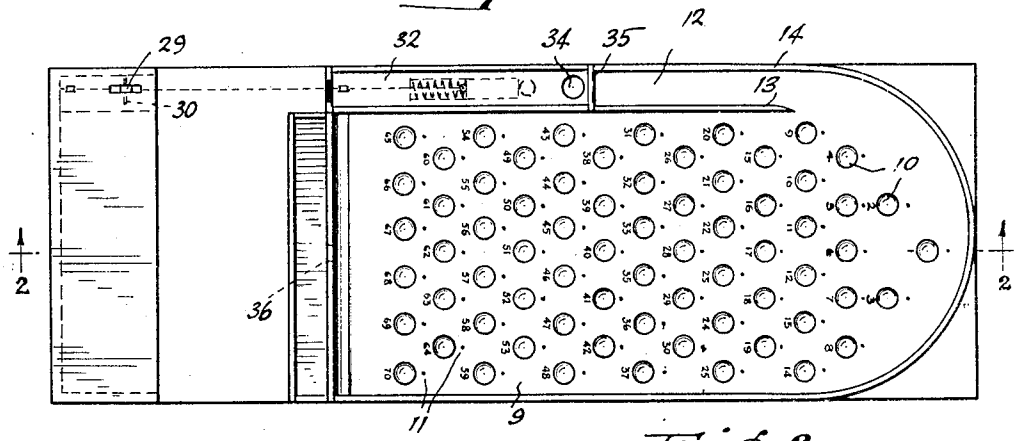


Fig. 2.

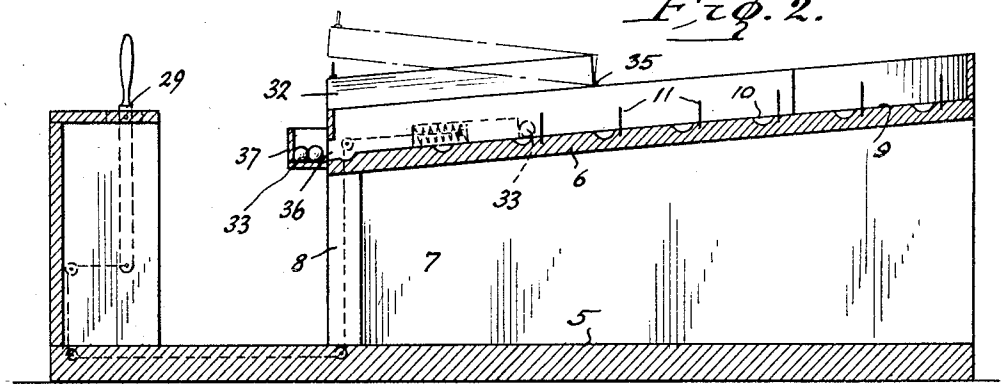
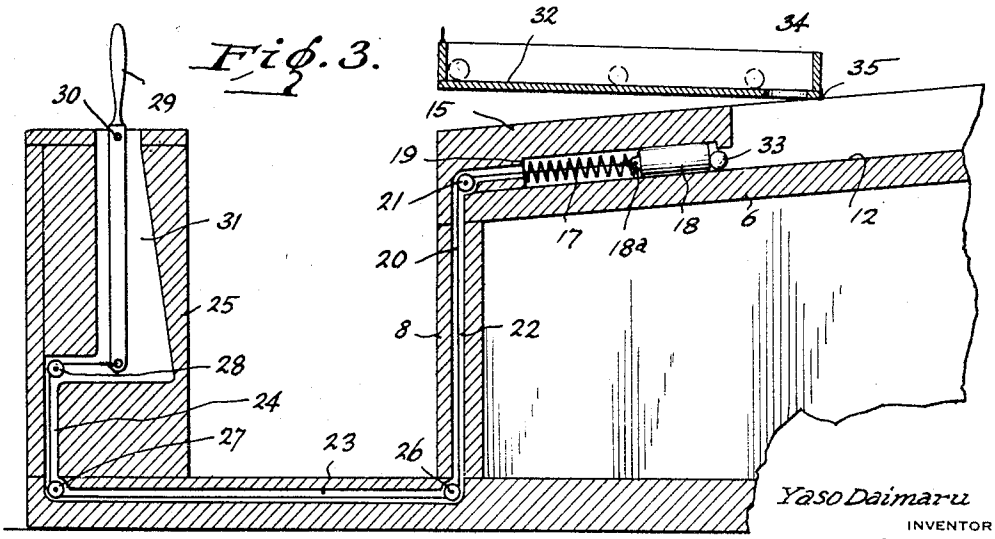


Fig. 3.



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UNITED STATES PATENT OFFICE

YASO DAIMARU, OF NEW YORK, N. Y.

BALL GAME

Application filed November 7, 1929. Serial No. 405,489.

This invention relates to an improved indoor ball and pocket game apparatus, and one of its objects is to provide a device of this character with a series of pockets having different values, each being designed to receive a ball, abutments for deflecting the movement of a ball projected in the direction of the pockets, and manually operated means for projecting a ball into the field of pockets from a runway having a fixed relation to the field of pockets.

A further object of the invention is the provision of a ball projector which can be operated by the player to produce a fast or slow movement to the projected ball, so that its velocity through the field of sockets may be varied, and something in the nature of a selective propulsion of the ball obtained.

A still further object of the invention is the provision of a ball projecting device, wherein the operating connections between a controlling lever and the ball engaging element are concealed, and an element of mystery is provided for the players.

Other objects and advantages of the invention will be hereinafter specifically pointed out, or will become apparent, as the specification proceeds.

With the above indicated objects in view, the invention resides in certain novel constructions and combinations and arrangement of parts, clearly described in the following specification and fully illustrated in the accompanying drawings, which latter show embodiments of the invention as at present preferred.

In the drawings:—

Fig. 1 is a plan view.

Fig. 2 is a vertical sectional view taken on line 2—2 of Fig. 1, looking in the direction of the arrows.

Fig. 3 is a similar view, on an enlarged scale, taken on line 3—3 of Fig. 1, looking in the direction of the arrows.

Referring to the accompanying drawings illustrating the invention in detail 5 designates a floor or base on which the game board 6 is supported by the side supports 7 and the post 8.

This game board is provided with a field 9 on its upper surface which is formed with a series of ball pockets 10, which are shown to be arranged in transverse rows, the sockets of one row being staggered from the sockets of the adjacent row.

A resilient abutment pin 11 is disposed adjacent to each socket. The game board 6 is supported at a downward and forward inclination so that balls placed on the upper end portion of the game board will roll by gravity forwardly, and pursue a zig-zag course over the field 9, being continually deflected by the resilient abutment pins placed adjacent the uppermost side of the sockets.

The balls are projected into the field area 9 through a runway 12, which is formed upon the board 6 by the parallel guide strips 13 and 14. The inner strip 13 is considerably shorter than the outer strip 14, which is curved around the edge of the board 6 and is coextensive therewith, so as to prevent the balls from rolling from the field 9.

At the lower end of the runway 12 a block 15 is mounted, which is formed with a longitudinal groove 16 in its bottom side, in which the spring 17 and the projector or plunger 18 work. The projecting plunger 18 bears against the upper end of the spring, the lower end of which is engaged by the stop 19 formed in the block 15. A flexible pull cord or cable 20 is connected to the eye 18*a* of the plunger, and passes over the pulley 21 mounted to rotate in said block 15, and thence downwardly through the passage 22 of the post 8, and thence through the passage 23 of the floor 5, to the passage 24 of the counter fixture 25, successively engaging the pulleys 26, 27 and 28, and then connecting with the lower end of the lever 29, which is pivoted near its upper end at 30 to rock in the compartment 31 of said counter fixture 25.

Above the runway 12 a ball holding tray or chute 32 is mounted to hold the balls 33 employed in connection with the game apparatus. The forward end of this tray is provided with a discharge opening 34 through which the balls are allowed to drop, or may be pushed, one by one, into the runway 12. This tray may be mounted rigidly in place on the board 6 over the runway 12,

or pivoted as by the lug or lugs 35 to the sides or strips 13 and 14, or directly to the board 6.

When the tray is pivoted, as shown, it may be tilted by lifting its rear end upwardly and controlling the discharge of the balls, by a suitable hand rake, or by pushing the balls one by one through the discharge opening of the tray by the use of the rake.

To operate the improved game apparatus or device the player grasps the upper end of the lever and quickly rocks it. The quickness of this rocking action, and the extent of the movement of the lever, will determine the degree of compression of the coil spring 17, and its resultant rebound or reaction, when hand pressure is released from the lever, by a quick forward motion thereof.

When the plunger is propelled by the reaction of the coil spring, due to the release of manual pressure on the lever, the ball, which remains in contact with the plunger, by reason of the downward and forward slope of the board 6, will be projected at a velocity corresponding to the force of the upward movement of the plunger, into the upper area of the field 9.

The velocity of the ball as it enters the ball socket field will determine the relative time required to bring the ball to rest on the board, and the relative number of zig-zag movements which it will produce before coming to a rest.

The sockets are numbered consecutively, or in any group or indicating order desired, and different values may be assigned to the different sockets. The ball can only enter any given socket by an angular rolling movement, because of the resilient abutment pin, which is located on the upper side of each socket.

The results which a player may accomplish by the operation of the lever can be increased by the skillful operation of the lever.

The balls entering the sockets are displaced by means of a hand rake, so that they will roll through the opening 36 into the trough 37, at the lower end of the game board.

The hereinbefore described construction admits of considerable modification without departing from the invention, therefore, I do not wish to be limited to the precise arrangements shown and described, which are, as aforesaid, by way of illustration merely. In other words, the scope of protection contemplated is to be taken solely from the appended claims, interpreted as broadly as is consistent with the prior art.

I claim as new:—

1. A game apparatus consisting of an inclined game board having a field provided with a series of ball receiving pockets, a runway located on one side of the field, means to propel a ball along said runway, said means including a plunger slidably mounted in line with said runway, a compressible spring engaging one end of the plunger, a lever pivoted distantly of the plunger, a concealed connection between the lever and the plunger for compressing the spring, and means for presenting a ball in advance of said plunger, said ball presenting means including a tiltable chute above said runway, said chute having an aperture to permit a ball to drop down in advance of said plunger when said chute is tilted.

2. A game equipment including, in combination, a base, an inclined game board disposed at an elevation above said base, said game board having a field provided with a series of ball sockets and abutment pins located in spaced relation to the sockets, a ball runway located on said board on one side of said field, a curved guiding wall located against the upper side of the field, a plunger operating in line with said runway, means for presenting a ball in advance of said plunger, a spring for propelling the plunger in one direction, a cable for compressing the spring, and a hand lever for pulling the cable to compress the spring, said hand lever having an operating portion disposed substantially in the horizontal plane of said game board and at a distance from said ball presenting means.

3. A game equipment including, in combination, a base, an inclined game board disposed at an elevation above said base, said game board having a field provided with a series of ball sockets and abutment pins located in spaced relation to the sockets, a ball runway located on said board on one side of said field, a curved guiding wall located against the upper side of the field, a plunger operating in line with said runway, means for presenting a ball in advance of said plunger, a spring for propelling the plunger in one direction, a cable for compressing the spring, and a hand lever for pulling the cable to compress the spring, said hand lever having an operating portion disposed substantially in the horizontal plane of said game board and at a distance from said ball presenting means, said ball presenting means including a chute tiltably mounted above said runway, said chute having an aperture to permit a ball to drop down in front of said plunger when said chute is tilted.

In testimony whereof I hereby affix my signature.

YASO DAIMARU.