June 23, 1936. J. V. DEAN 2,045,217

GAME APPARATUS

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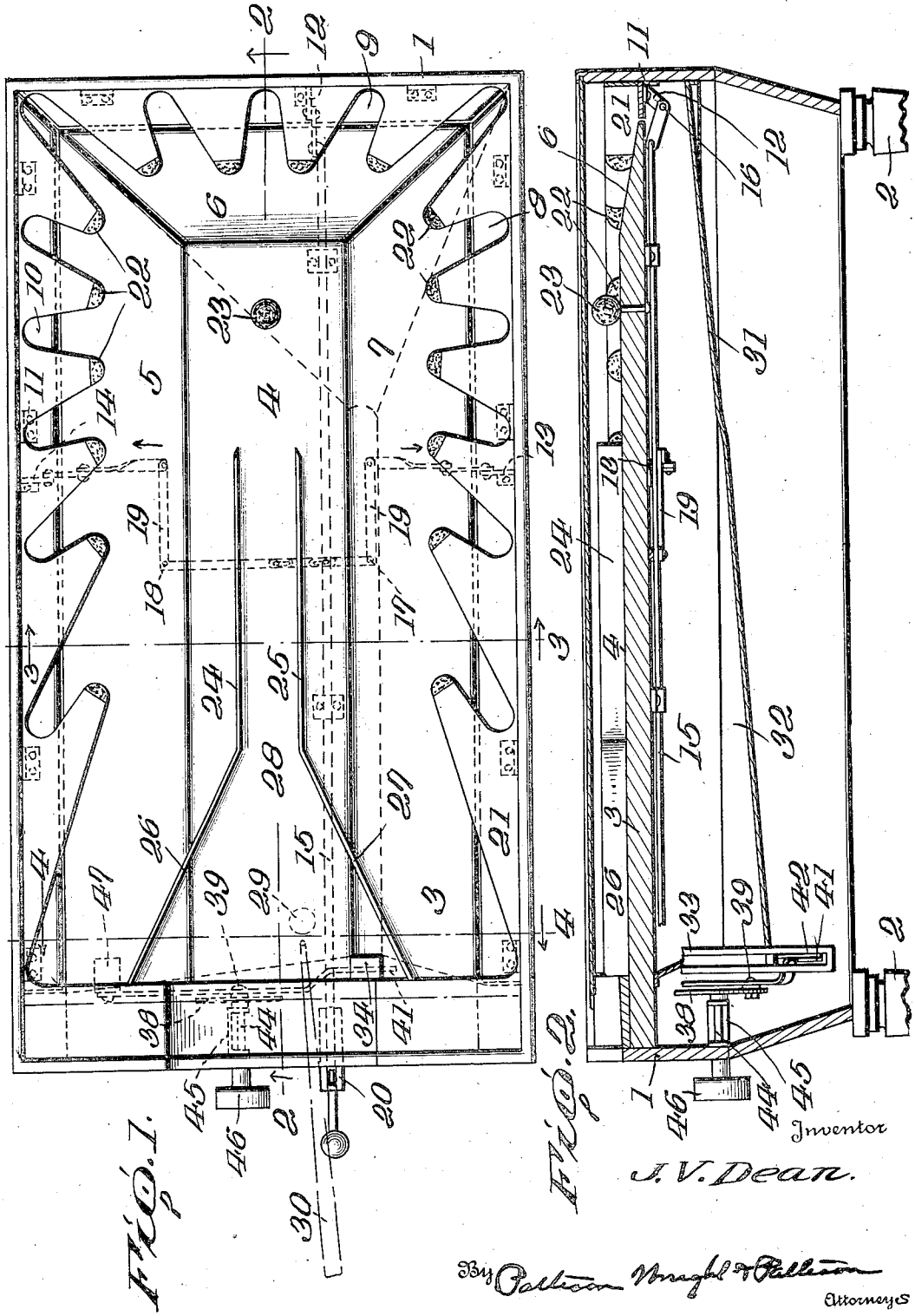


FIG. 1.

FIG. 2.

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FIG. 3.

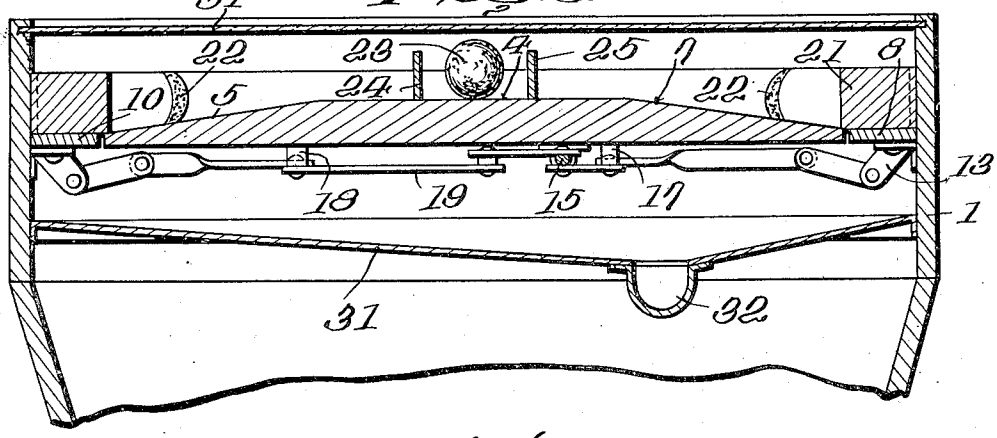


FIG. 4.

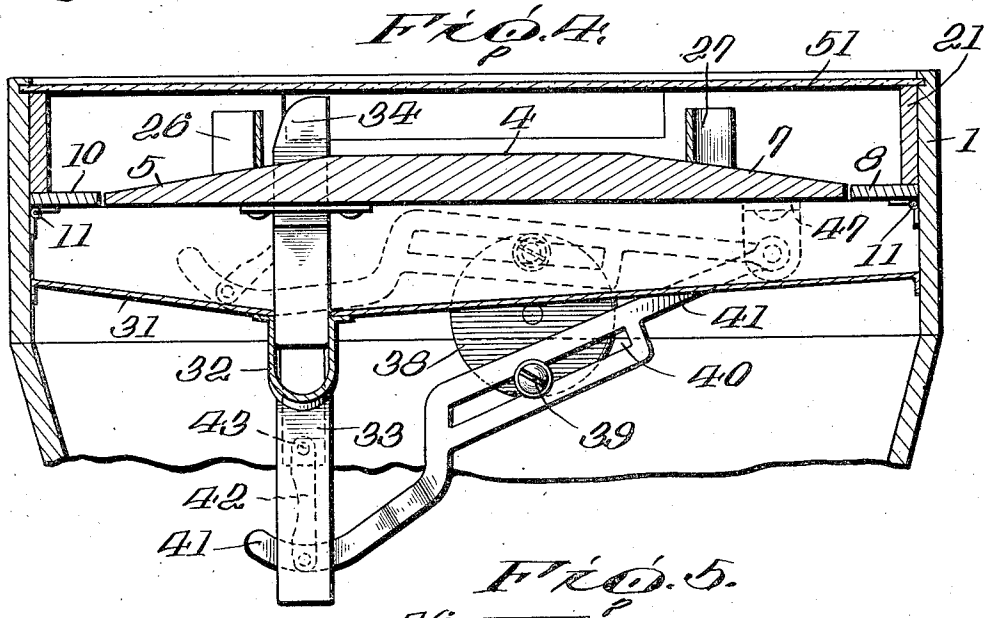
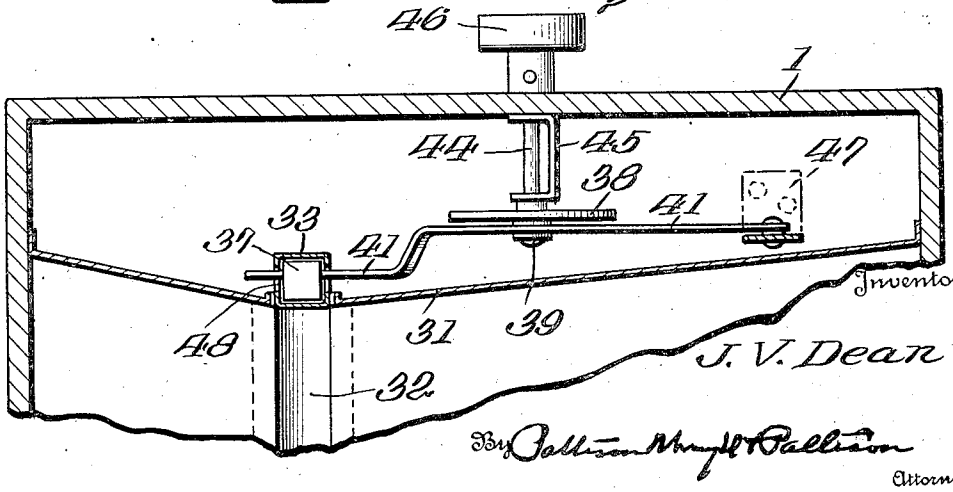


FIG. 5.

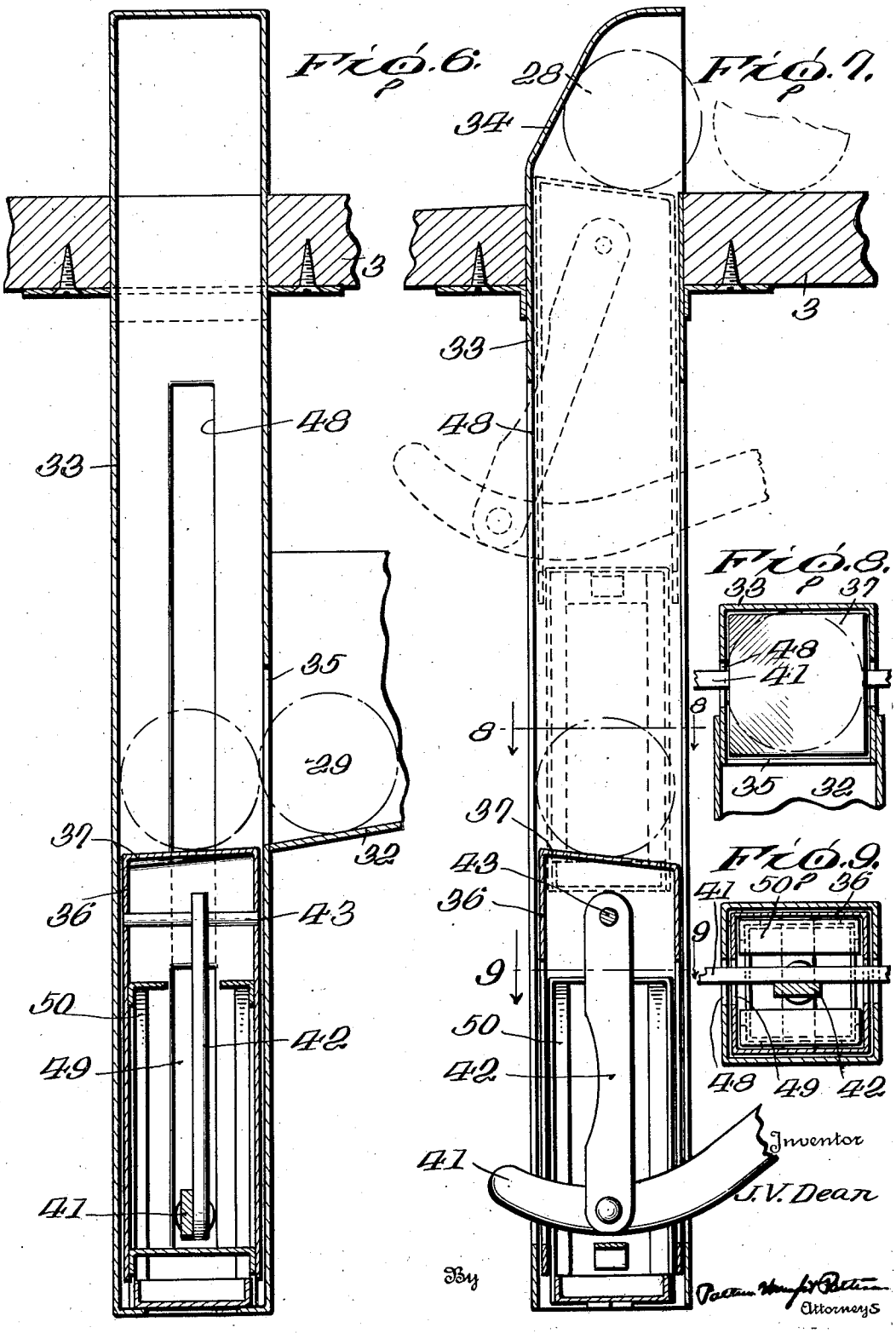


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GAME APPARATUS

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2,045,217

GAME APPARATUS

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Application August 30, 1933, Serial No. 687,497

12 Claims. (Cl. 273—125)

This invention relates to certain new and useful improvements in a game apparatus in the nature of a combination pool and billiard game table wherein a person's skill predominates over luck by providing a playing field in which is mounted a target against which is shot a ball by a cue or other means so that the ball will be deflected from the target and trapped into stalls which are designated by certain numerals so that a ball deflected into one stall will count more than one deflected into another stall, the stalls being so arranged in respect to a central shooting alley that it is impossible to shoot a ball directly into any stall as the target is so disposed as to protect the stalls to cause the player to shoot against the target and allow the ball to rebound therefrom.

Another object of my invention is to provide a game apparatus which is exceedingly simple and cheap in construction and one which is provided with means for returning the balls in position to be struck by a cue.

Another object of my invention is to provide the stalls with trap doors which are operated by a coin controlled push rod so that after a given number of balls have been played and collected into the stalls, these balls can be released by operating the trap doors in order to allow the balls to be collected in a collecting channel in which they travel by gravity in position to be elevated onto a shooting alley.

A still further object of the invention is to provide novel means for raising the balls for causing the balls to move in position to be struck by a cue.

Another object of my invention is to provide an elevating mechanism which is operated by a knob, the elevating mechanism being so constructed that the cage will be raised and lowered irrespective in what direction the knob is turned so as to provide a fool-proof device to prevent the elevating mechanism from being injured by an ignorant person playing the game.

A still further object of the invention is to provide simple means for operating the trap doors by a push rod which is preferably controlled by a suitable coin controlled mechanism so that by inserting a coin in the coin controlled mechanism, the push rod will be released in order to allow a player to release the balls from the stalls so that they will travel by gravity in position to be raised by the elevator.

A still further object of the invention is to provide a game apparatus in which the plurality of stalls are separated by partitions having rebounding members connected thereto whereby it is possible to shoot a ball against the central target and cause it to be deflected against one of the rebounding members from which it will rebound into another pocket and by having the various pockets designated with numerals and selecting the pockets requiring the greatest skill to place a ball therein, a game apparatus is provided in which not only luck enters into the playing of the same but skill.

Other and further objects and advantages of the invention will be hereinafter set forth and the novel features thereof defined is the appended claims.

In the drawings,

Figure 1 is a top plan view of a game apparatus constructed in accordance with my invention;

Figure 2 is a longitudinal section taken on line 2—2 of Figure 1;

Figure 3 is a transverse section taken on line 3—3 of Figure 1;

Figure 4 is a transverse section taken on line 4—4 of Figure 1 showing the elevating mechanism;

Figure 5 is a detail horizontal section showing the knob for operating the elevating mechanism;

Figure 6 is a vertical section through the elevator shaft and cage showing the ball collecting channel;

Figure 7 is a section through the elevator shaft and cage showing the cage raised in dotted lines in order to deposit the ball upon the shooting alley;

Figure 8 is a section taken on line 8—8 of Figure 7; and

Figure 9 is a section taken on line 9—9 of Figure 7.

In carrying out my invention I employ a table comprising a rectangular frame 1 mounted on legs 2 having a top 3 disposed therein which comprises a central horizontally disposed playing field 4 from which extends inclined portions 5, 6 and 7 which terminate short of the inner walls of the frame 1 to form an annular space around three sides of the playing field.

Disposed in this space are pivoted trap doors 8, 9 and 10 herein shown mounted on hinges 11, said doors being provided with arms 12, 13 and 14.

Slidably mounted on the under side of the top is a rod 15 having a pivoted connection at 16 with the arm 12 so that as the rod is pushed inwardly, the trap door will be swung on its hinge for the purpose hereinafter fully described.

Pivotally mounted under the top of the table are bell crank levers 17, one of which is con-

nected directly to the rod 15 and the other is connected indirectly to the rod 15 by a link 18, there being a lost motion connection between these links and levers. The opposite ends of the bell crank levers 17 are connected to the arms 13 and 14 of the trap doors 8 and 9 by links 19 so that when the door 9 is swung on its pivot by pushing the rod 15 inwardly, the trap doors 8 and 10 will be swung on their pivots so that all three trap doors are moved downwardly simultaneously by simply operating the push rod 15.

This provides very simple means for operating the trap doors so as to release the balls from the stalls after a game has been finished and as a push rod is used for operating the doors, it is very simple to provide coin operated means for controlling the push rod when it is desired to use the game in a public place and have it controlled by a coin so as to dispense with an attendant.

It will be apparent that when the rod is moved inwardly, the two crank levers will be rocked on their pivots so that the links carried by the free ends of the same will be pushed outwardly in order to force the trap doors against the side walls of the frame of the table which allows the balls to drop out of the stalls into the bottom where they roll by gravity into the collecting channel and by using a mechanism as above described, the use of springs are dispensed with and the trap doors are held by the links and levers in their adjusted position until the rod is operated to move these trap doors into open and closed position.

This push rod is controlled by suitable coin controlled mechanism 20 shown in Figure 1 so that the rod cannot be pushed inwardly until a coin is deposited into the coin mechanism, the particular construction of coin mechanism forming no part of my invention.

Secured within the box like frame 1 is a frame 21 provided with notched sides and a notched end to form a plurality of stalls, the partitions between the notches extending upwardly over the inclined portions 5, 6 and 7 and provided with resilient rebounding members 22 against which the ball is adapted to be shot so as to cause the ball to rebound therefrom into another stall as will be later described.

Disposed at one end of the horizontally disposed playing field is a resilient rebounding target 23 and this horizontally disposed playing field has secured thereon parallel arranged strips 24 and 25 which diverge as shown at 26 and 27 forming a centrally disposed shooting alley 28 onto which is adapted to be placed a ball 29 which is adapted to be struck by a cue 30 as shown in dotted lines in Figure 1 so as to strike the target 23 to cause the ball to rebound or be deflected therefrom into any of the stalls. One skilled in playing the game can cause the ball to rebound from the central target 23 against any one of the rebounding members 22 to cause the ball to enter any desired stall and as these stalls have numerals to designate the value of a ball therein, it will be apparent that one skilled with a cue can cause the ball to enter the various stalls whereby skill predominates over luck, although naturally if one without any skill strikes the ball with a cue on the playing alley, the ball to enter any one of the stalls must hit the central rebounding target and if one does not use skill, the ball will be rebounded and eventually enter one of the stalls. Naturally the stalls designated with the highest numerals will be those stalls which require the greatest skill to cause a ball to enter the same.

From the foregoing description I have described a game comprising a playing field with a plurality of stalls into which balls are adapted to enter after they have been deflected from a central target and therefore I do not wish to limit myself to the use of the trap doors for releasing the balls from the stalls as the game so far described can be played in a similar manner to pool and the balls can be lifted manually from the stalls and therefore to play my improved game it is not essential that the stalls be provided with trap doors, the trap doors being provided for the purpose of releasing the balls in order to convert my game into a game apparatus with coin controlled means for releasing the balls and allowing the balls to be elevated in position to be played by the player.

Disposed under the top within the frame is a bottom 31 which is inclined in two directions towards a ball collecting channel 32 which is adapted to collect the balls released by the trap doors and allow these balls to roll by gravity in position to be elevated by the elevating mechanism.

The elevating mechanism comprises a housing 33 forming an elevator shaft, which housing is herein shown as formed of a substantially square tube having its end extended through the top as shown at 34 and provided with an opening 35 in communication with the end of the ball collecting channel as shown in Figure 6 whereby the balls from the channel will roll by gravity into the elevator shaft as shown in dotted lines in Figure 6.

Mounted within the elevator shaft is a cage 36 provided with a top 37 inclined in two directions in order to allow the ball to roll from out of the ball collecting channel onto the inclined top against the opposite wall and to provide means for causing the ball to roll from off of the top of a cage onto the shooting alley as shown in dotted lines in Figure 7 when the cage is raised by the mechanism as hereinafter fully described.

The mechanism herein shown for raising and lowering the cage comprises a revolubly mounted disc 38 provided with an eccentric pin 39 which travels in a slot 40 of a pivoted lever 41, said lever being provided at its free end with a pivoted link 42 which in turn is pivotally connected to a pin 43 mounted within the cage as shown in Figures 6 and 7.

The disc 38 is fixed on a shaft 44 mounted in a bracket 45, said shaft extending through the frame of the table and provided with a knob 46 for turning the same.

The lever 41 is herein shown pivotally mounted in a bracket 47 but it is, of course, understood that the particular manner of mounting the lever and shaft is immaterial so long as a pivoted lever is employed which is provided with a sliding connection with an eccentrically arranged wrist pin for oscillating the lever.

This construction provides means for raising and lowering the cage when the knob 46 is turned in either direction so that a fool-proof device is provided to prevent the elevating mechanism from being injured by one not familiar with the operation of the same.

The housing is provided with oppositely disposed slots 48 and the cage is provided with registering slots 49 through which the free end of the lever 41 extends and it will be seen that as the

cage is raised the ball which has been fed on the inclined top thereof from the ball collecting channel will be elevated so that when it reaches the top of the housing, it will roll by gravity from off the top of the cage onto the shooting alley where it can be readily positioned by the player.

As the cage moves upwardly, it elevates one ball at a time, pushing back the other balls and in order to agitate the balls as the cage moves up and down so that these balls within the collecting channel will be in their proper position to be fed one at a time onto the top of the cage, I provide the cage with a slot **50** which allows a portion of the ball to extend within the cage when the cage is in raised position so that as the cage is moved downwardly the balls are again agitated so that if by any chance the balls in collecting within the collecting channel should be one upon another, this agitation will cause these balls to drop between one another so as to raise properly within the channel whereby they will be fed one at a time into the elevator shaft in which they will be raised one at a time as the mechanism is operated so that after each shot has been made, the player turns the knob in either direction and the ball will be elevated and deposited on the shooting alley.

It will be noted that the cage is of such a size that when the cage is in raised position, the opening in the side of the cage through which the ball is deposited on the top of the cage is closed by the lower portion of the cage so that the balls will be properly fed and elevated to the shooting alley.

While I have shown a particular manner of elevating the cage by a pivoted lever connected to the cage by a link, I am aware that various changes can be made in the manner of raising and lowering the cage by an oscillating lever and therefore I do not wish to limit myself to any particular means for connecting the oscillating lever to the cage in order to cause it to raise and lower as my invention in the elevating mechanism consists in a reciprocating cage reciprocated by an oscillating lever through the medium of an eccentric which can be turned in either direction in order to cause the cage to be raised and lowered.

The table is preferably closed by a glass panel **51** when used in connection with a coin operated mechanism for releasing the balls, but it is, of course, understood that when a table is built without the trap door or elevating mechanism, this glass panel can be dispensed with and for home or other use an inexpensive table can be produced by eliminating these parts, whereby the game can be played by manually placing balls in position in shooting alley and therefore I do not wish to limit myself to any details of construction of forming the table as my invention consists in providing a playing table having a central shooting alley on a level playing field with a rebounding target against which a ball is adapted to be shot by a cue so said ball will be deflected on an inclined portion and caught into stalls having different values unless it strikes an auxiliary rebounding means and is deflected into other pockets.

In playing the game any number of balls can be used, preferably ten, and a ball is placed on the shooting alley and the player positions said ball where desired and strikes said ball with a cue so as to cause said ball to hit the central target and as this target is preferably formed resilient, the ball rebounds therefrom and either enters one of the stalls or strikes one of the auxiliary rebounding members from which it rebounds and either enters another one of the stalls or strikes another rebounding member, and by having a central horizontal playing field with inclined marginal portions, this ball will eventually enter one of the stalls.

A person skilled in the art of handling a cue such as one who is used to playing pool and billiards will, with a little practice, be able to cause the ball to be deflected accurately from the central target so that it will be possible with practice to cause the ball to enter most any stall desired whereby skill is recognized in playing the game.

What I claim is:

1. A game of the kind described comprising a playing field having a central horizontally disposed portion provided with a shooting alley provided with side walls and a marginal portion inclined from the central horizontally disposed portion, a plurality of stalls arranged to receive balls from the inclined portion of said playing field and a rebounding target arranged at the end of the shooting alley to be engaged by a ball shot through said shooting alley, said target and side walls of the shooting alley forming means for preventing a ball from being shot directly within said stalls.

2. A game comprising a playing field having a central horizontally disposed portion provided with a target against which a ball is adapted to be shot, said central disposed portion being surrounded upon three sides by inclined portions, a plurality of stalls having entrances on the inclined portion for collecting the balls and a shooting alley disposed on the horizontally disposed portion provided with side walls, the side walls and said target preventing a ball from being shot directly within said stalls.

3. A game of the kind described comprising a playing field having a central horizontally disposed portion surrounded by inclined portions, stalls for collecting the balls disposed around the marginal edge of said playing field, a rebounding target disposed in said playing field and a shooting alley through which a ball is adapted to travel having walls guarding a plurality of said stalls, the walls of said shooting alley and rebounding target forming means for preventing a ball from being shot directly into any one of said stalls.

4. A game of the kind described comprising a table having a top provided with a central horizontal disposed portion having a shooting alley at one end and a target at its other end, inclined portions extending from said central disposed portion, stalls provided to receive balls from said inclined portions, trap doors for said stalls, means for collecting balls released from said stalls by said trap doors and means for elevating balls from said collecting means and depositing said balls one at a time upon said shotting alley.

5. A game of the kind described comprising a table having a top forming a playing field provided with a central horizontally disposed portion with marginal inclined portions surrounding said horizontally disposed portion, stalls disposed to collect balls from said inclined portions and provided with trap doors, a shooting alley formed on said horizontal disposed portion, a rebounding target disposed in a line with said shooting alley, the partitions forming said stalls being provided with rebounding members and means for collecting and elevating the balls released by said trap

doors for depositing the balls one at a time on the shooting alley.

6. A table of the kind described comprising a playing field provided with stalls for receiving balls, the ends of said stalls being provided with trap doors, means for operating said trap doors to release the balls from said stalls, an elevating shaft, a cage mounted therein, means for feeding the balls released from the trap doors into said elevating shaft one at a time, an oscillating lever for raising and lowering the cage, and an eccentric provided with an eccentric pin having a sliding connection with said oscillating lever for operating the same.

7. A game of the kind described comprising a table having a top with a playing field provided with a central horizontally disposed portion having a restricted shooting alley formed at one end, said top being provided with inclined portions on two of its sides and its end, and having marginal stalls to receive balls, a rebounding target disposed on said top in a line with said shooting alley having side walls for protecting a plurality of said stalls, said stalls being provided with trap doors for releasing the balls retained therein and means for collecting and returning the balls to the shooting alley.

8. A game of the kind described comprising a table having a playing field surrounded by a plurality of stalls provided with trap doors, said playing field having a flat portion with an inclined portion leading therefrom to the stalls, a resilient rebounding target positioned upon said playing field to be engaged by a ball, the partitions of said stalls being provided with rounded rebounding members and means for collecting and returning the balls to the playing field in position to be projected thereon, a shotting alley provided with side walls, said side walls and rebounding target forming means for protecting the stalls.

9. A game of the kind described comprising a table having a playing field surrounded by a plurality of stalls protected by rebounding members, said field having a central horizontally disposed portion with a marginal portion inclined towards said stalls, said stalls being provided with trap doors comprising longitudinally disposed plates and a transverse plate and a push rod having a connection with said plates to cause said plates to swing downwardly when moved in one direction and to be moved upwardly into horizontal position when moved into another direction and means for collecting the balls and returning the same to the playing field.

10. A game of the kind described comprising a table having a playing field provided with a plurality of stalls into which balls are adapted to be collected, said playing field comprising a central horizontally disposed portion provided with a shooting alley having side walls protecting a plurality of said stalls and a marginal portion inclined therefrom towards said stalls and a resilient target disposed in said playing field in a line with said shooting alley forming means for preventing the direct travel of a ball from said shooting alley to said stalls.

11. A game of the kind described comprising a playing field having a shooting alley, having side walls and a plurality of stalls, a central target arranged in a line with said shooting alley against which the ball is adapted to be projected and a plurality of rebounding members arranged on said playing field outside of said shooting alley for causing the ball projected from the shooting alley against the target to be rebounded from one rebounding member to another, the side walls of said alley and said target forming means for preventing a ball from being shot directly into said stalls.

12. A game apparatus of the kind described comprising a game board having a plurality of partitions forming side and end stalls, each partition having a rebounding surface, a shooting alley formed centrally on said board provided with side walls protecting the said stalls, a rebounding member arranged in alinement with the open end of said shooting alley and protecting the end stall, trap doors for said stalls, means for operating said trap doors, and means for collecting and raising said balls and depositing said balls in said shooting alley.

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