

Oct. 20, 1936.

C. A. ANDERSON

2,058,202

GAME BOARD

Filed May 7, 1936

2 Sheets-Sheet 1

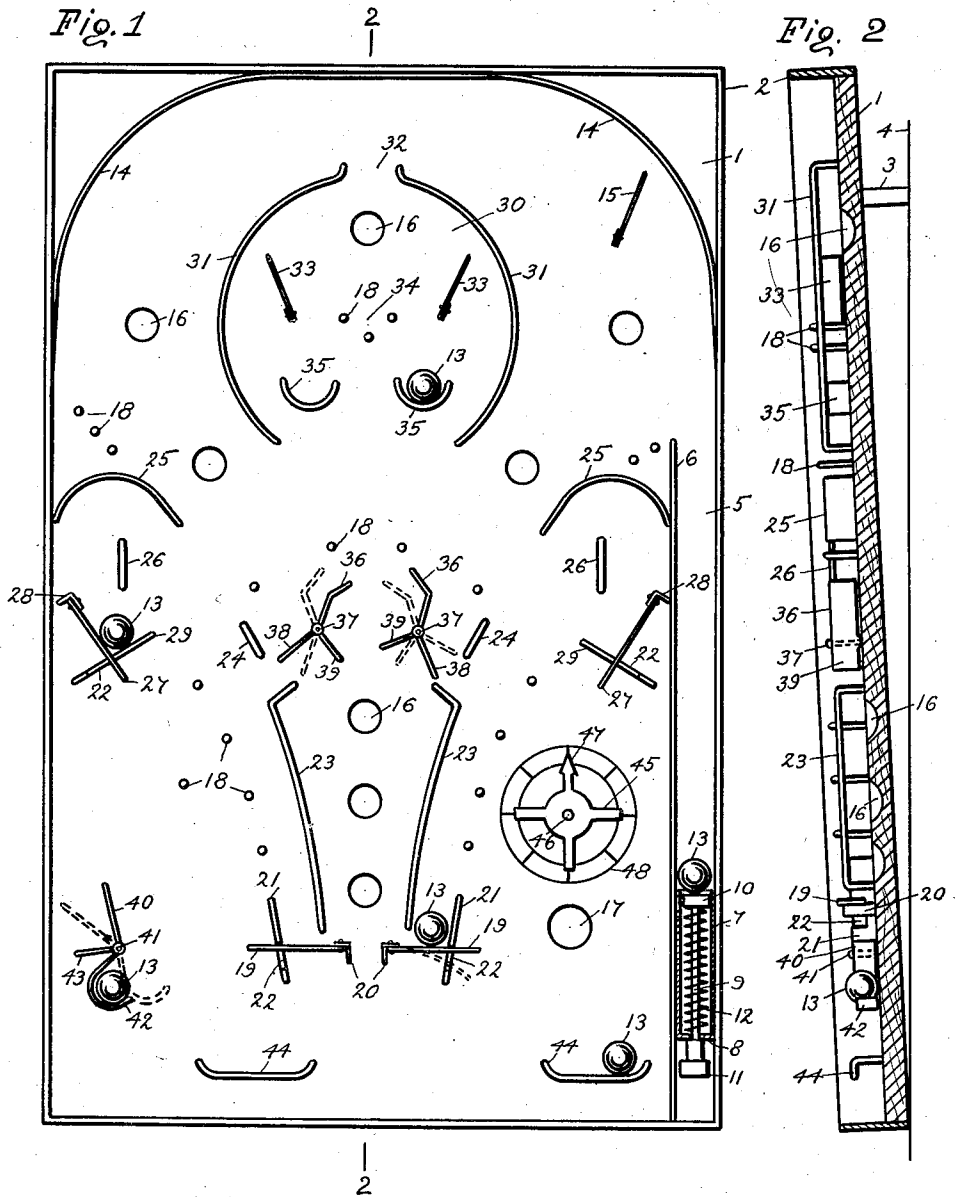
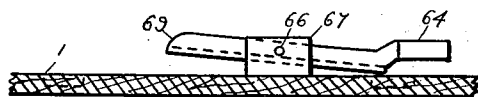


Fig. 6



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Fig. 3

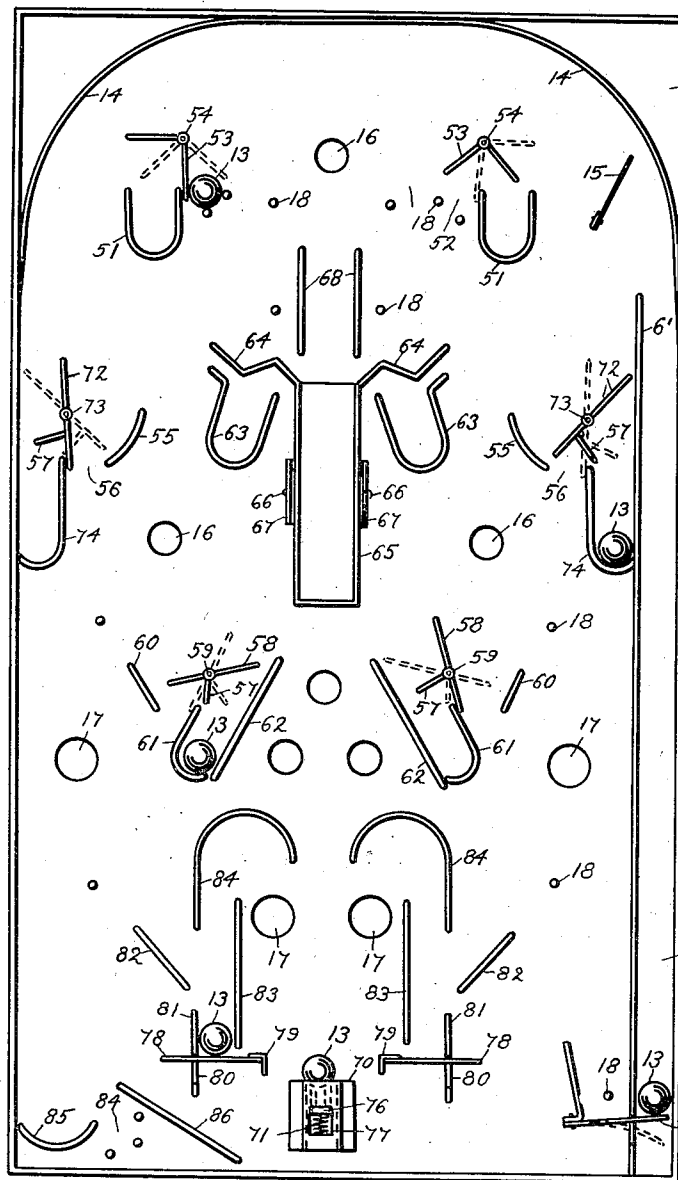


Fig. 4

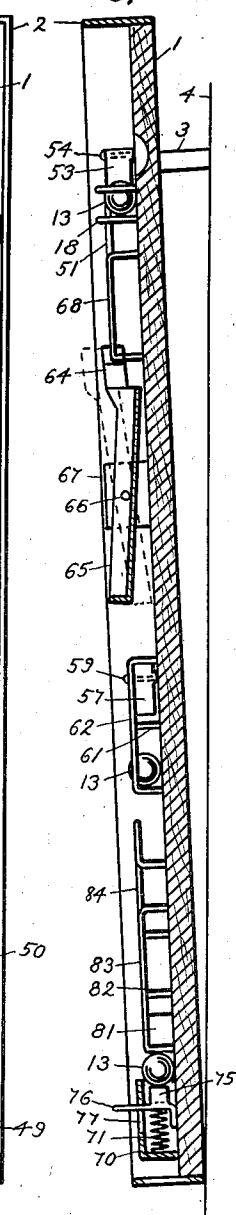
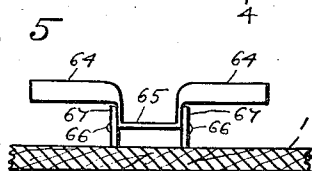


Fig. 5



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2,058,202

GAME BOARD

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5 Claims. (Cl. 273—111)

My invention relates to game boards and has particular reference to game boards in which a ball is projected to one end of the board and is allowed to roll back over a series of obstacles and traps.

The object of my invention is to provide a game board with pivoted gates disposed in coordination with certain traps and adapted to close the entrance to these traps by the passage of a ball through the gates.

Another object of my invention is to provide a game board with pivoted gates disposed in coordination with certain traps and adapted to close these traps in certain positions of the gates, but adapted to open these gates by the pressure of a ball passing on the other side of the gates and actuating an extension on the gates provided specially for this purpose. I also provide means to guide a ball on these extensions.

Another object of my invention is to provide a game board with pivoted gates disposed in coordination with certain traps and balanced so as to remain in any position in which it may be placed by passing balls, exerting pressure on extending portions of the gates. The gates in their various positions may alternately open or close the entrance to various traps.

Another object of my invention is to provide a game board with manually operable supplementary ball propelling devices located so that they can receive some of the balls rolling down the board and disposed in coordination with certain traps which cannot be reached by the balls unless propelled by these supplementary devices.

Another object of my invention is to provide a game board having secondary and tertiary supplementary ball propelling devices so arranged, that each successive device may receive such balls only as have been propelled by the preceding device to be again manually propelled.

Still another object of my invention is to provide a game board with a bridge-shaped member pivoted in a plane transverse to the plane of the board and adapted to close certain traps in one of its positions, being also adapted to open these traps when a ball rolls on the bridge thereby tilting it over into another position.

My invention is more fully described in the accompanying specification and drawings in which—

Fig. 1 is a plan view of my game board, Fig. 2 is a sectional elevation of the same taken on the line 2—2 of Fig. 1, Fig. 3 is a plan view of a modified board, Fig. 4 is a sectional elevation taken on the line 4—4 of Fig. 3, Fig. 5 is a detail view of

a tilting bridge, and Fig. 6 is a modified arrangement of the bridge.

My game board consists of a flat board 1 having a wall or flange 2 around its edges and a peg 3 supporting one end of the board at a certain elevation above the surface of a table 4 or other object on which the board may be placed. A longitudinal runway 5 is formed at one side of the board by a partition 6. A ball propelling device is mounted at the lower end of the runway 5 consisting of a tube 7 closed at the rear end with a disc 8 with a hole in the center for a rod 9 with a plunger 10 at the front end and a handle 11 at the rear end. A spring 12 keeps the plunger under tension and provides the propelling force for a ball 13 placed at the front end of the plunger. By pulling on the handle 11 and releasing it, the plunger is allowed to strike the ball and propel it along the runway and out of it over a path formed by curved guides 14 at the upper end of the board. A baffle plate or brake 15 is placed at the first guide 14. This plate is made flexible and resilient so that it permits the ball to pass through, but sufficiently retards it so as to prevent its jumping over the flange 2.

The board has a number of traps for the balls in the shape of pockets or holes 16 made so that the balls can roll over them if they have sufficient speed. There are also deeper or larger pockets 17 which more readily retain the balls. Other traps are made of wire inserted by its ends into the board and bent so as to form loops adapted to retain balls which happen to fall into these loops. Different traps are assigned different values indicated by numbers (not shown) printed under the traps on the board. There are also traps formed of pins 18 inserted into the board and arranged in groups so as to form pockets. Other such pins are inserted singly in various places, forming obstructions for the balls, causing them to rebound in various directions and increasing their chances of falling into traps. The pins may be also arranged in rows so as to form guiding means for the balls.

The board has in the lower portion secondary or supplementary ball propelling devices or "shooters" consisting of flat springs 19 attached at one end to brackets 20 and adapted to be deflected by the pressure of a finger on the other end. The latter extends beyond a bar 21 with a slot 22 for the spring 19, the slot limiting the bending movements of the spring. The bar 21 forms a guiding wall for the ball, a row of the pins 18 forming continuation of the guiding wall. At the other side the ball is guided by a guide rail

23 formed of a wire inserted by its ends into the board. The upper ends of the rails 23 are bent inwardly forming clearances for the balls with the lower ends of short rails 24. Approximately
 5 in line with the rails 23 and 24 there are curved rails 25 abutting by their outer ends the walls 2 and 6. Short rails 26 are placed at a distance below the rails 25.

Second supplementary propelling springs 27
 10 are placed below the guide rails 26 and are supported on brackets 28. The springs 27 are guided by the slots 22 in bars 29. The rails 23, 24, 25 and 26 are aligned as shown so as to form a curved path for a ball projected from one of the
 15 springs 19. The ball, if shot with a proper speed, lands in a pocket formed by the spring 27 and bar 29 as shown at the left of Fig. 1. It can be then again propelled by deflecting and releasing the spring. There is an open path for the ball,
 20 propelled by the spring 27, into a space 30 partly surrounded by rails 31 and having an opening 32 at the top. Resilient baffle plates 33 are provided near the rails 31 in order to retard the flight of the balls if shot with too great a speed by the
 25 spring 27. A trap or pocket 34 is provided in the space 30 made of pins 18, also traps 35 formed of curved plates. It may be noted that balls may reach these traps only if propelled by one of the springs 27, although, of course, a ball may fall
 30 from the upper portion of the board through the opening 32, the probability of which is very small, however.

Additional pockets or traps are placed in a space between the rails 23, this space being ac-
 35 cessible to the balls through an opening between gates 36. The gates are made of metal strips with three ends centrally pivoted on pins 37 on which the gates can turn with a slight friction. They are balanced so as to remain in any position in which they may be turned. At the start
 40 of the game the gates are turned so as to converge by their upper ends thereby closing the passage between them for the balls. The gate at the left is shown in such closing position. The
 45 gates may be opened by balls rolling into pockets formed by the outer lugs 38 and rails 24. The ball, pressing on the lug 38, turns the gate until a passage is opened between the lower end of the rail 24 and the upper end of the rail 23, the
 50 ball rolling through this passage. An opened gate is shown at the right in Fig. 1.

When both gates are opened, a ball may pass between them into the space between the rails 23. In passing, the ball will press on the inner lugs
 55 39 of the gates, causing the gates to turn and again to close the entrance back of the ball, the ball falling into the space between the rails 23.

Another pivoted gate 40 is shown at the left in Fig. 1. It is supported on a pin 41 near the
 60 wall 2 and closes the passage between the gate and the wall when the gate is turned to the left as shown with dotted lines. The lower lug 42 of the gate is curved forming a trap for a ball. The latter may fall into this trap only if the gate
 65 is closed, the trap being then raised into the operative position. The weight of the ball in the trap 42 causes the gate to turn opening the passage for a ball at the left of the gate. The gate is placed into the open position at the start of the
 70 game and is opened when a ball, passing in the passage at the left of the gate, presses on a lug 43, turning the gate into the closed position and exposing the trap 42.

Additional wide traps 44 are placed at the lower
 75 portion of the board.

A star wheel 45 is rotatively supported on a pin 46 and can be turned by balls rolling downward on the board. A pointer 47 is placed on one of the arms of the wheel, indicating a number on a dial 48 under the wheel.

A modified construction of the board is shown in Figs. 3 and 4. Here a spring 49 is used for propelling the ball through a runway 50. At the top of the board there are two U-shaped traps
 5 51 formed of curved wire rails, and pockets 52 10 formed at the sides of the traps 51 by pins. Gates 53 are pivotally supported above the traps 51 on pins 54, partly closing both traps.

The gates are balanced so that they tend to hang in a position shown at the right in Fig. 3.
 15 A ball may fall into the pocket 51, turning the gate, but the latter will return into its original position by gravity. The ball may also fall into the pocket 52 between the pins 18, but in such position the ball holds the end of the gate against
 20 the side of the U-trap 51 as shown at the left in Fig. 3. The other side of the gate extends then over the trap 51, preventing balls from entering it.

Similar gates 72 are supported on pins 73 above
 25 deep traps 74 abutting the wall 2 at the left and the partition 6' at the right. Guiding rails 55 direct balls into a passage 56 thereby causing the gates to be turned into the open position shown
 30 at the left in Fig. 3. A ball may then fall into the pocket 74, but on its way the ball will press against a lug 57 closing the gate, so that no more balls can fall into the pocket 74 until the gates are again opened. Another pair of similar gates
 35 58 are supported on pins 59 in coordination with guide rails 60 and pockets 61 abutting rails 62. The gates are opened by the balls passing through openings between the rails 60 and outer sides of the pockets 61.

Additional U-shaped traps 63 are closed by lugs
 40 64 on a trough 65 pivoted by its middle portion on horizontal pins 66 passing through brackets 67. The lower end of the trough is closed forming a trap as shown in Fig. 4. Balls are directed into the trough by rails 68 and, reaching the lower
 45 or closed end of the trough, cause the latter to turn or tilt on the pins 66 thereby raising the lugs 64 and opening the traps 63. The lower end of the trough may be open as shown in Fig. 6, permitting the ball to roll further down, the
 50 trough being balanced to remain in any given position on the pins.

The open trough or tilting bridge 69 may admit the ball into the space between the rails 62. With the closed trough 65 the space between
 55 the rails 62 can be reached by balls propelled by a shooter 70 comprising a tubular chamber with a helical spring 71 inside and a hammer 75 with a lug 76 extending outside through a slot 77 and adapted to be pulled down by a
 60 finger for striking the ball which may be found on top of the chamber as shown in Fig. 3. The ball may be directed into the shooting position on top of the chamber by propelling it by supplementary or secondary springs 78. The springs
 65 are fastened to brackets 79 and can be moved by a finger being guided by slots 80 in bars 81 which form guide rails for the balls, together with guide rails 82 and 83. Curved guide rails
 70 84 turn the ball back into the space between the rails 83 where it may fall into some of the traps, or land on the muzzle of the tertiary shooter 70. The traps which can be reached by the tertiary shooter only, are marked with high numbers, being especially difficult to reach. Similarly are
 75

marked with high numbers difficult traps, like a trap 84 partly obstructed by rails 85 and 86, the rail 85 forming a low-numbered trap.

Important advantages of my game board are that it contains interesting interlocking obstructions and gates for the traps, rendering the operation of the board more difficult and requiring a greater skill for scoring high numbers.

It is understood, of course, that my board may be further modified without departing from the spirit of my invention as set forth in the appended claims.

I claim as my invention:

1. In a game board having a manually operable ball-projecting means and a plurality of obstructions for the balls, a trap for the balls, and a gate rotatively supported at the entrance to the trap and consisting of three legs extending in different directions substantially parallel to the board, the first leg extending to one side of the trap, the second leg extending in front of the trap, and the third leg extending into the trap, the second leg being adapted to uncover the trap when the gate is turned in one direction by a ball striking the first leg, and being later adapted to close the trap when the gate is turned in the opposite direction by the ball striking the third leg.

2. In a game board having a longitudinally inclined playing surface and manually operable ball projecting means; a trap for said balls having at least one side extending from the lower end of the trap towards the higher end of the playing surface, a ball obstruction fixed on the field adjacent to and extending towards the upper end of said trap side, the lower end of said obstruction being spaced from the trap side to provide a ball passage between the obstruction and trap side, and a gate movable between two positions and having three arms and pivoted at the junction of two of said arms forwardly of the end of the side of the trap, one of said arms extending downwardly from the pivot and forming a continuation of the trap side in one position and closing said passage in its second position, the second of said arms extending upwardly and closing the trap in the first position and having the trap open in the second position, the third arm extending across the trap in the second position and leaving the trap open in the first position.

3. In a game board having a longitudinally inclined playing surface and manually operable ball projecting means; a trap for said balls having at least one side extending from the lower end of the trap towards the higher end of the playing

surface, a ball obstruction fixed on the field adjacent to and extending towards the upper end of said trap side, the lower end of said obstruction being spaced from the trap side to provide a ball passage between the obstruction and trap side, and a gate movable between two positions and having three arms and pivoted at the junction of two of said arms forwardly of the end of the side of the trap, one of said arms extending downwardly from the pivot and forming a continuation of the trap side in one position and closing said passage in its second position, the second of said arms extending upwardly and closing the trap in the first position and having the trap open in the second position, the third arm extending across the trap in the second position and leaving the trap open in the first position, said first arm engaging the trap side in the first position to limit movement of the gate in one direction and the second arm engaging the trap in the second position to limit movement of the gate in the opposite direction.

4. In a game board having a manually operable ball projecting means and a plurality of obstructions for the ball, a trap for the ball having an entrance at one end, and a gate rotatively supported at the entrance to the trap and consisting of three legs substantially parallel to the board, one leg normally closing the trap, the second leg extending outside of the trap and being adapted to turn the gate in one direction so as to move the first leg away from the entrance to the trap upon the second leg being struck by a ball passing outside of the trap, the third leg being positioned across the entrance to the trap upon the second leg being struck by the ball and adapted to turn the gate in the opposite direction for closing the trap by movement of the first leg when struck by a ball passing into the trap.

5. In a game board having a manually operable ball-projecting means and a plurality of obstructions for the balls, a trap for the balls having an entrance at one end, and a gate rotatively supported at the entrance to the trap by its middle portion and consisting of three legs symmetrically extending from its middle portion in different directions substantially parallel to the board, one leg of said gate normally closing the trap and being adapted to open the entrance to the trap when turned in one direction by a ball striking the second leg, and being later adapted to close the trap by movement of its first leg when turned in the other direction by a ball striking the third leg.

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