June 8, 1937. C. A. ANDERSON ET AL 2,083,108

GAME BOARD

Filed June 27, 1936

Fig. 1

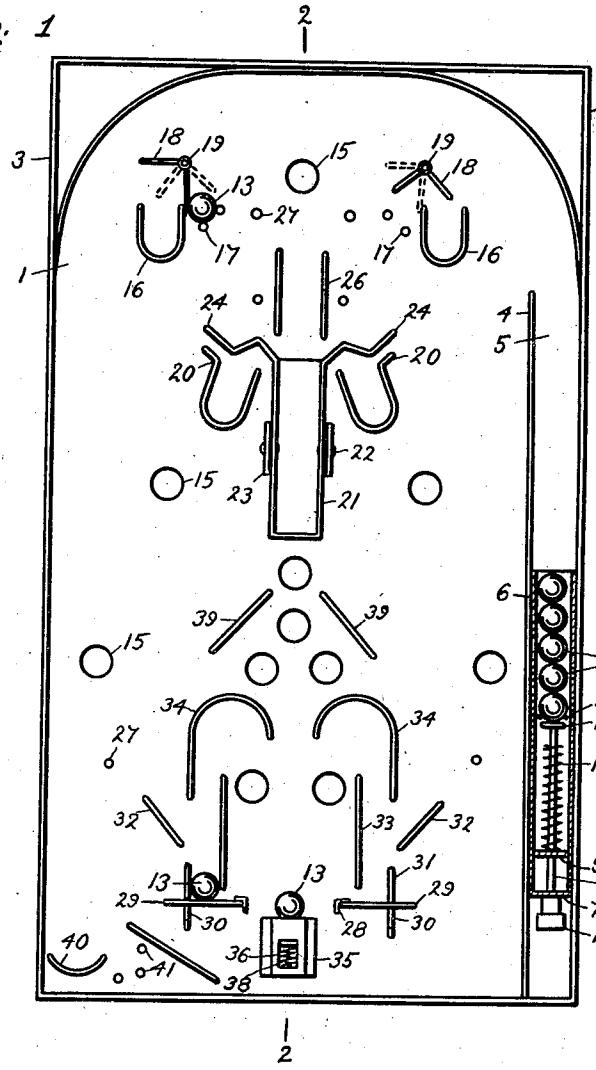


Fig. 2

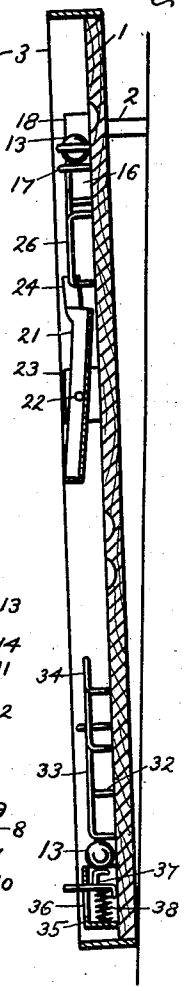


Fig. 3

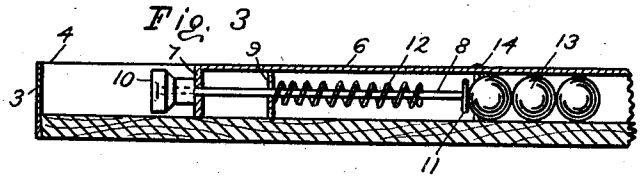


Fig. 5

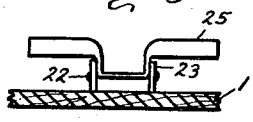
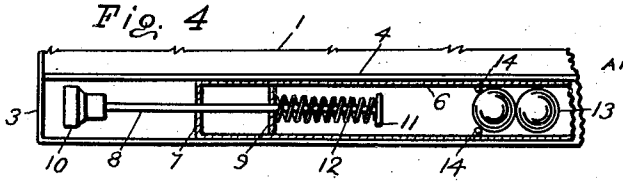


Fig. 4



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2,083,108

GAME BOARD

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3 Claims. (Cl. 273—129)

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

The object of our invention is to provide a game board having a manually controlled spring operated ball projecting device used in connection with a magazine adapted to hold a number of balls, the device being adapted to eject from the magazine one ball at a time.

We are aware that similar ball projecting devices have been used with game boards, but these devices have been based on a well known principle that if a ball is driven against the end ball in a series of abutting balls placed in the line of drive, then only the last ball will be driven away, the rest of the abutting balls remaining in their places. For this purpose usually an auxiliary ball is employed between the striking device and the row of balls in the magazine.

We have found, however, that it is possible to construct a striking device which will also propel only the last ball in a magazine without any intermediate floating ball or similar body. For this purpose we employ a striking plunger with a spring so arranged, that the spring, upon being compressed and released, will propel the plunger during the first portion of its travel only, the plunger traveling the rest of the distance to the inner ball in the magazine by inertia. Our plunger therefore rebounds after striking the inner ball, and the shock is successively transmitted to the end ball, which alone becomes ejected from the magazine.

Another object of our invention is to provide a game board with traps arranged in pairs with pivotally mounted gates arranged so, that when one trap is occupied by a ball, the gate closes the entrance to the other trap. This arrangement renders certain traps more difficult for being reached by the ball, these traps being assigned correspondingly higher values in the game.

Another object of our invention is to provide a game board having a pivotally supported trough with gates for adjacent traps, the trough being balanced so that its end with the gates tends to remain in the lowered position, closing the entrance to the adjacent traps. But if a ball rolls on the trough toward its end, the latter becomes overbalanced, raising the gated end and opening the entrances to the traps. These traps therefore are also assigned high numbers in the game.

Another object of our invention is to provide a game board with supplementary ball projecting devices adapted to receive some of the balls rolling down the board, these devices being adapted to be manually operated for projecting these balls toward certain traps which cannot otherwise receive the balls.

Another object of our invention is to provide a game board having secondary supplementary ball projecting devices, adapted to receive some of the balls projected by the first supplementary projecting devices, so as to project the balls toward special traps, these traps being accordingly assigned especially high numbers or values in the game.

Our invention is more fully described in the accompanying specification and drawing in which—

Fig. 1 is a top plan view of our game board with the cover on the ball projecting device removed, Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1, Fig. 3 is a detail sectional view of the projecting device, Fig. 4 is a plan view of the same, and Fig. 5 is a detail view of a modified trough.

Our game board consists of an elongated board 1 with a peg 2 supporting one end of the board in a raised position. A metal strip 3 is fastened all around the board to its edges, forming a marginal flange for retaining playing balls on the board. A similar strip 4 is mounted near the right hand side of the board, forming a runway 5 for the balls. A device for propelling the balls is fitted in the rear portion of this runway. This device consists of an inverted trough or channel 6 closed at the rear end by a cover plate 7 with a hole for a plunger 8. A second plate 9 is fitted in the channel at a distance from the cover 7 and is also provided with a hole for the plunger 8. The plunger has on its rear end a thumb handle 10 and a flat head 11 on the front or upper end. A compression spring 12 is placed on the plunger between the head 11 and the partition plate 9. The spring is made shorter than the available space between the head 11 and the plate 9 when plunger is moved forward with the handle 10 resting against the cover plate 7. The channel 6 forms a magazine for playing balls 13 in its front portion, the inner ball resting against pins 14. These pins are placed so that the head 11 of the plunger touches the rear ball when the handle 10 rests against the cover 7.

The plunger 8 is shown in Fig. 4 pulled back by a player's finger (not shown) engaging the handle 10, compressing the spring 12. Upon release of the handle 10 the plunger moves for-

ward under action of the spring 12, until the latter fully expands to its free length as shown in Fig. 3. The plunger then continues to travel by inertia until the head 11 strikes the rear ball in the magazine. The plunger then, being relatively light, rebounds, transmitting a sharp blow to the rear ball. This blow in turn is transmitted to the other balls, the last ball only being ejected from the magazine.

The board has several pockets 15 for the balls, these pockets being assigned different values or numbers according to their location. There are also traps 16 and 17 for the balls. The trap 16 is placed near the trap 17 and a swinging gate 18 is placed in front of these traps, pivotally mounted on a pin 19. The gate has two sides at an angle to each other and balanced so as to take position shown at the right in Fig. 1, closing both traps. A ball, being caught in the trap 17, holds one leg of the gate against the side of the trap 16 thereby preventing further rotation of the gate and positively closing the trap 16. Therefore both traps can receive balls only in case if a ball falls first in the trap 16, the latter trap being of a higher value in the game.

A pair of traps 20 are placed at the sides of a trough 21 rotatively supported on pivots 22 in brackets 23. The front end of the trough is open but has gates 24 at the sides extending in front of the traps 20. The trough is balanced so that its front end is heavier and tends to rest against the board as shown in Fig. 2 thereby closing the traps 20 by the gates 24. The rear end of the trough is closed so that when a ball rolls on the trough, it is stopped at the rear end of the latter causing the trough to tilt over thereby opening the traps 20. These traps can then receive balls and are accordingly assigned high numbers in the game.

The trough may be balanced so as to remain in either of its operative positions and have its rear end open as shown in Fig. 5. The ball, when rolling over the trough 25, tilts it over so as to open the gates in front of the traps 20, the ball continuing to roll further until it falls into one of the pockets or returns to the rear of the board without scoring any number.

The balls are guided or deflected by rails 26 and pins 27.

Supplementary ball projecting devices are located in the rear portion of the board. These devices consist of flat springs attached at one end to brackets 28. The other end of a spring 29 is placed over an open slot 30 in a plate 31. Balls are guided to the secondary propelling devices by rails 32 and 33. The balls are projected by deflecting springs 29 and releasing them again, the end of the spring extending beyond the plate 31 so as to be accessible to the player's finger. Curved guiding rails 34 direct the balls from the springs 29 to a secondary supplementary (or tertiary) projecting device 35 consisting of a tube with a slot 36 for a handle of a plunger 37. A spring 38 keeps the plunger under tension. Rails 39 prevent balls from reaching the secondary supplementary projecting device or gun 35.

Other traps 40 and 41 are located at the rear of the board.

It is understood that our game board may be further morified without departing from the spirit of our invention as set forth in the appended claims.

We claim as our invention:

1. A game board comprising a ball projecting device consisting of a tubular member, forming a magazine for playing balls in its rear portion, a plunger slidably fitted in the front end of the tubular member, a partition in the member separating the magazine from the plunger and provided with an aperture for the innermost ball, the ball being adapted to rest against the edges of the aperture partly projecting beyond the partition, a flat head on the plunger adapted to strike centrally the projected portion of the innermost ball, and a spring on the plunger adapted to move the plunger forward, the front end of the plunger extending beyond the tubular member and being adapted to be manually pulled out for compressing the spring, the spring being shorter than the total travel of the plunger, the last portion of the travel of the plunger being thereby effected by the force of inertia only.

2. A game board comprising a ball projecting device consisting of a tubular member forming a magazine for playing balls in its rear portion, a plunger slidably fitted in the front end of the tubular member, a partition in the member provided with a relatively large aperture for the innermost ball, the latter being adapted to partly project through the aperture toward the plunger, a flat head on the plunger, and a spring on the plunger adapted to move the plunger against the balls, the front end of the plunger extending beyond the tubular member and being adapted to be manually pulled out for compressing the spring, the flat head being adapted to strike the innermost ball exactly through its center of gravity, the spring being shorter than the total travel of the plunger, the last portion of the plunger travel being thereby effected by the force of inertia only.

3. A game board comprising a ball projecting device consisting of a tubular member forming a magazine for playing balls in its rear portion, a plunger slidably fitted in the front end of the tubular member by its middle portion, a partition in the tubular member at the inner end of the magazine provided with a relatively large aperture for the innermost ball, the latter being adapted to partly project beyond the edges of the aperture toward the plunger, a flat head on the rear end of the plunger, and a spring supported on the plunger between the front end of the tubular member and the flat head, the front end of the plunger being adapted to be manually pulled for compressing the spring, the flat head being adapted to strike the innermost portion of the ball through its center of gravity.

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