May 15, 1934. R. C. DAVID 1,958,567

GAME

Filed March 9, 1933 2 Sheets-Sheet 1

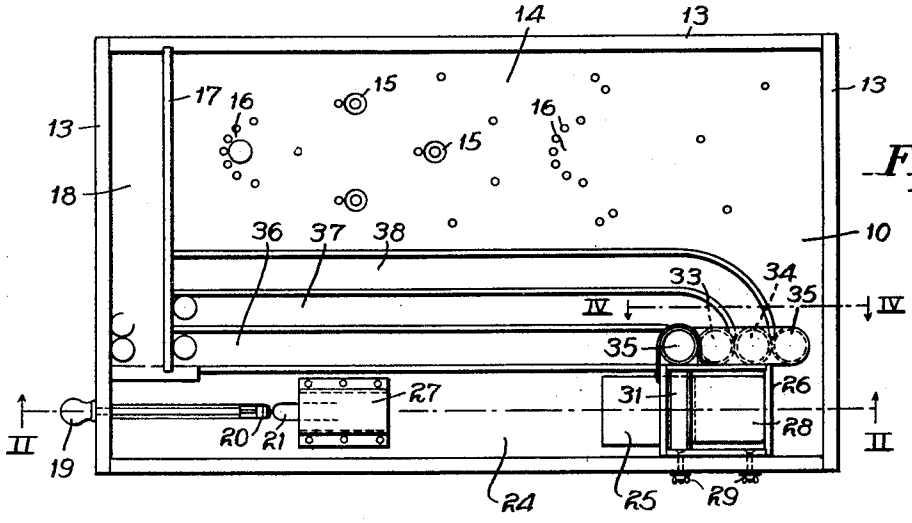


Fig. 1.

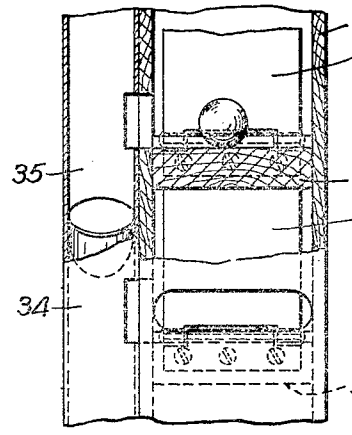


Fig. 3.

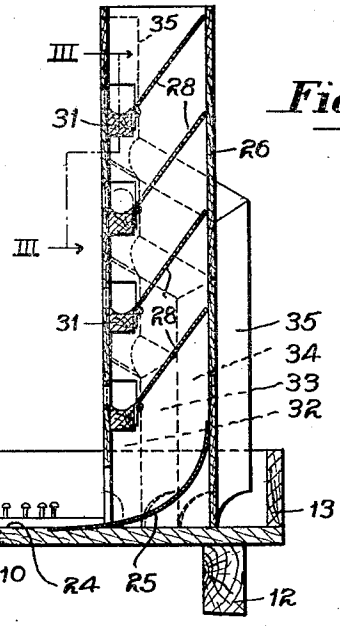


Fig. 2.

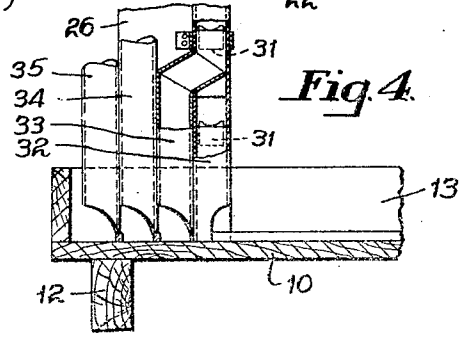


Fig. 4.

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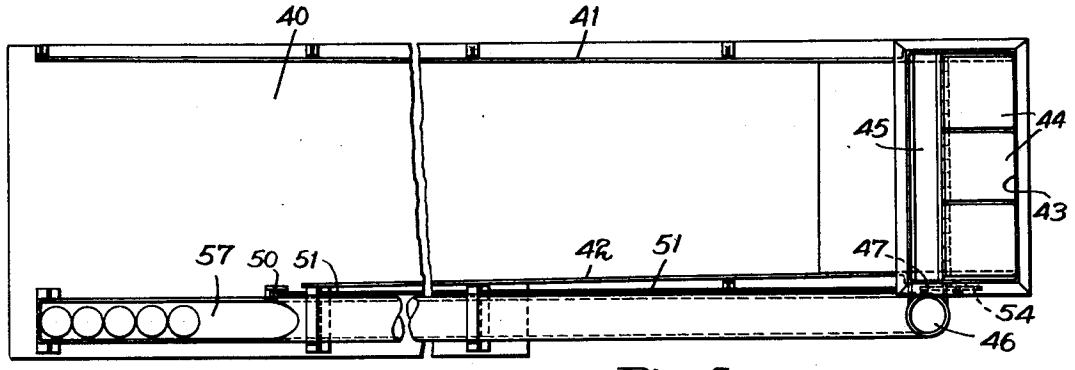


Fig. 5.

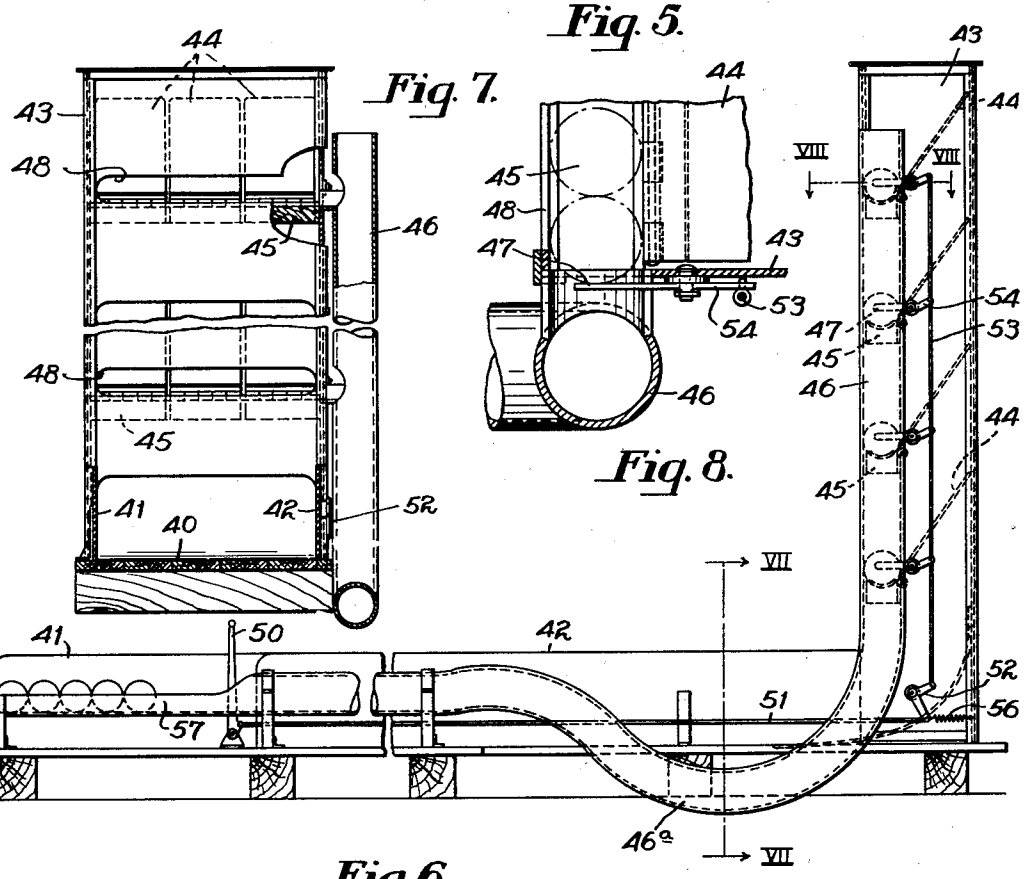


Fig. 7.

Fig. 8.

Fig. 6.

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1,958,567

GAME

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Application March 9, 1933, Serial No. 660,134

4 Claims. (Cl. 273—122)

My invention relates to games and more particularly to those of the type wherein a ball is projected or bowled in order to test the skill of the players.

One object of my invention is to provide game apparatus of the character referred to which constitutes an improvement on prior structures of this type, in that the element of skill outweighs that of mere chance.

Another object of my invention is to provide game apparatus of distinctly novel and improved form.

In the accompanying drawings, Figure 1 is a plan view of a game board; Fig. 2 is a view taken on the line II—II of Fig. 1; Fig. 3 is a view, on an enlarged scale, taken on the line III—III of Fig. 2; Fig. 4 is a view taken on the line IV—IV of Fig. 1; Fig. 5 is a plan view of a modified form of apparatus; Fig. 6 is a side elevational view thereof; Fig. 7 is a view taken on the line VII—VII of Fig. 6, and Fig. 8 is an enlarged view taken on the line VIII—VIII of Fig. 6.

Referring first to Figs. 1 to 4, the structure includes a base board 10 supported by cleats 11 and 12, the cleat 12 being of greater height than the cleat 11, so that the board will occupy an inclined position. Suitable marginal walls 13 are provided for the board or case 10. The board has a playing field portion 14 that may be provided with suitable deflector pins to guide the balls which are thrown onto the field, into pockets 15 and traps 16. The pockets and traps may be numbered to indicate scoring values. A removable partition 17 may be lifted to allow all of the balls to roll into a storage compartment 18 from which they may be removed when it is desired to utilize them in the playing of the game.

A plunger 19 is slidably supported beneath the board and carries a finger-like extension 20 which extends up through a slot in the board in position to impinge against a ball located in a recess or depression 21. A tension spring 22 is connected to the forward end of the plunger 19, and to a fixed stop 23. When the plunger 19 is drawn back against the tension of the spring 22 and then released, the plunger will snap forward into engagement with a ball lying within the depression 21. Such ball will be projected along a runway 24 and this momentum will cause it to pass over a curved guide plate 25 and upwardly in a tower 26. The height to which the ball is thrown in the tower 26 will, of course, depend upon the distance which the operator draws the plunger 19, and consequently upon the tension of the spring 22. A hood 27 serves as a guide to prevent the ball being thrown vertically by the plunger at the time of impact.

A series of traps or deflectors 28 are provided in the tower. These traps are shown as pivoted at their lower edges so that they will tilt under the impact of an upwardly-moving ball to permit the ball to pass, and will then fall back into the position shown in Fig. 2. The tower may be formed as a separate unit, so that it can be released and laid flat on the board when the board is not in use, to facilitate storage and shipping of the board. The tower is detachably held in place by means of clamping screws and nuts as shown at 29.

At the lower edge of each deflector 28, a trough 31 is provided into which balls that fall on the upper sides of the deflector will roll. It will be apparent that a ball moving at low velocity will perhaps pass only the lowermost deflector 28, and will consequently fall into the lowermost trough, while the balls of higher velocity will pass from deflectors and be caught in one of the upper troughs. The troughs are inclined toward chutes or spouts 32, 33, 34 and 35, so that each ball which is projected into the tower a sufficient distance will enter one or another of the spouts.

The spouts are open at their lower ends as shown in Figs. 2 and 4. The spout 32 discharges to a runway or trough 36; the spout 33 to a runway 37, the spout 34 to a runway 38, and the spout 35 to the field 14.

The rules of the game may be made to suit the desire of the players. For example, if a half dozen or more balls are employed, they can be projected, one by one, and the scoring rules require that a ball be played into each of the runways 36, 37 and 38, in order that the balls which roll to the field 14 and into the pockets 15 and 16 may be scored as points. Again, the rules may provide for higher scores in certain locations on the board than for other locations. For example, it may be found more difficult to project balls with sufficient accuracy that they will enter the runways 37 and 38, than to cause them to enter the runway 36, or the playing field 14.

Referring now to Figs. 5 to 8, I show a game apparatus with which bowling balls or the like may suitably be employed. In this structure a bowling surface 40 of bowling-alley form is provided. The structure may be placed out-of-doors, if desired, as in amusement parks. Side boards 41 and 42 serve to confine the balls on the alley. At its forward end, the alley is provided

with a tower 43 which corresponds to the tower 26 of Fig. 2. Deflectors or traps 44 are pivotally mounted within this tower, and troughs 45 are positioned at the lower edges of the traps 44, the troughs being inclined toward, and discharging into a spout 46.

A gate 47 is pivotally mounted on the side of the chute, opposite the lower end of each trough 45, in order to releasably retain the balls in the troughs. The front wall of the tower 43 has a cut-out portion or slot 48, such slots being small enough to prevent the balls passing therethrough, but large enough to enable the players to see into which trough the balls have been deflected by the traps 44. The scoring values will depend upon the particular troughs into which the balls are directed.

When the desired number of balls have been thrown or rolled, they are released from the troughs by swinging the gates 47 to released position. The gates may be swung by a pivoted hand lever 50 that has connection with a link or pull rod 51 which is in turn connected to a bell crank lever 52. The bell crank operates a link or pull rod 53 that is connected to a crank-like extension 54 of each of the gates 47, the gates being pivotally supported by pivot pins which extend through the crank levers and the adjacent side wall of the tower 43, as shown more clearly in Fig. 8.

A spring 56 serves to return the gates to ball-retaining positions. The balls thus released will return through the spout 46 to a trough 57 where they are accessible to players. In this arrangement, as in the case of the structure shown in Figs. 1 to 4, the object of the game will be to roll the balls with the degree of force required to have them pass certain of the deflectors or traps 44.

A series of the trap plates 44 are provided at each stage in the tower 43, but it will be understood that each of the series of three could be formed as a unit, if desired, and such will be the preferred construction where used in connection with very narrow alleys. For wider alleys, a single deflector plate 44 would perhaps be too heavy, unless made of excessively light material.

The spout 46 is shown as having a bend 46*a* that will guide the balls through a curved path when they are being returned to the trough 57, thus preventing damage to the balls or the apparatus such as would occur if the balls simply dropped through a vertical portion of the spout 46 to a flat surface.

I claim as my invention:

1. Game structure comprising a runway along which balls may be projected, a tower at the forward end of said runway, a curved guide surface merging at its ends with the runway and the rear wall of the tower, and vertically-spaced inclined traps in said tower having their lower edges pivotally supported adjacent to the front wall of the tower, and their upper front edges normally resting against the rear wall of the tower.

2. Game structure comprising a runway along which balls may be projected, a tower at the forward end of said runway, a curved guide surface merging at its ends with the runway and the rear wall of the tower, vertically-spaced inclined traps in said tower, troughs disposed against the front wall of the tower in position to receive balls from said traps, and means pivotally supporting the rear edges of the traps, the upper front edges of the traps being normally disposed in proximity to the rear wall of the tower.

3. Game structure comprising a runway along which balls may be projected, a tower at the forward end of said runway, a curved guide surface merging at its ends with the runway and the rear wall of the tower, vertically-spaced inclined traps in said tower, troughs disposed against the front wall of the tower in position to receive balls from said traps, and means pivotally supporting the rear edges of the traps, the upper front edges of the traps being normally disposed in proximity to the rear wall of the tower, and the troughs being inclined and discharging the balls at one side wall of the tower.

4. Game structure comprising a runway along which balls may be projected, a tower at the forward end of said runway, a curved guide surface merging at its ends with the runway and the rear wall of the tower, vertically-spaced inclined traps in said tower, troughs disposed against the front wall of the tower in position to receive balls from said traps, means pivotally supporting the rear edges of the traps, the upper front edges of the traps being normally disposed in proximity to the rear wall of the tower, the troughs being inclined and discharging the balls at one side wall of the tower, and means for releasably retaining the balls in said troughs.

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