June 26, 1945. W. J. CONWELL 2,378,983

GAME

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Fig. 1.

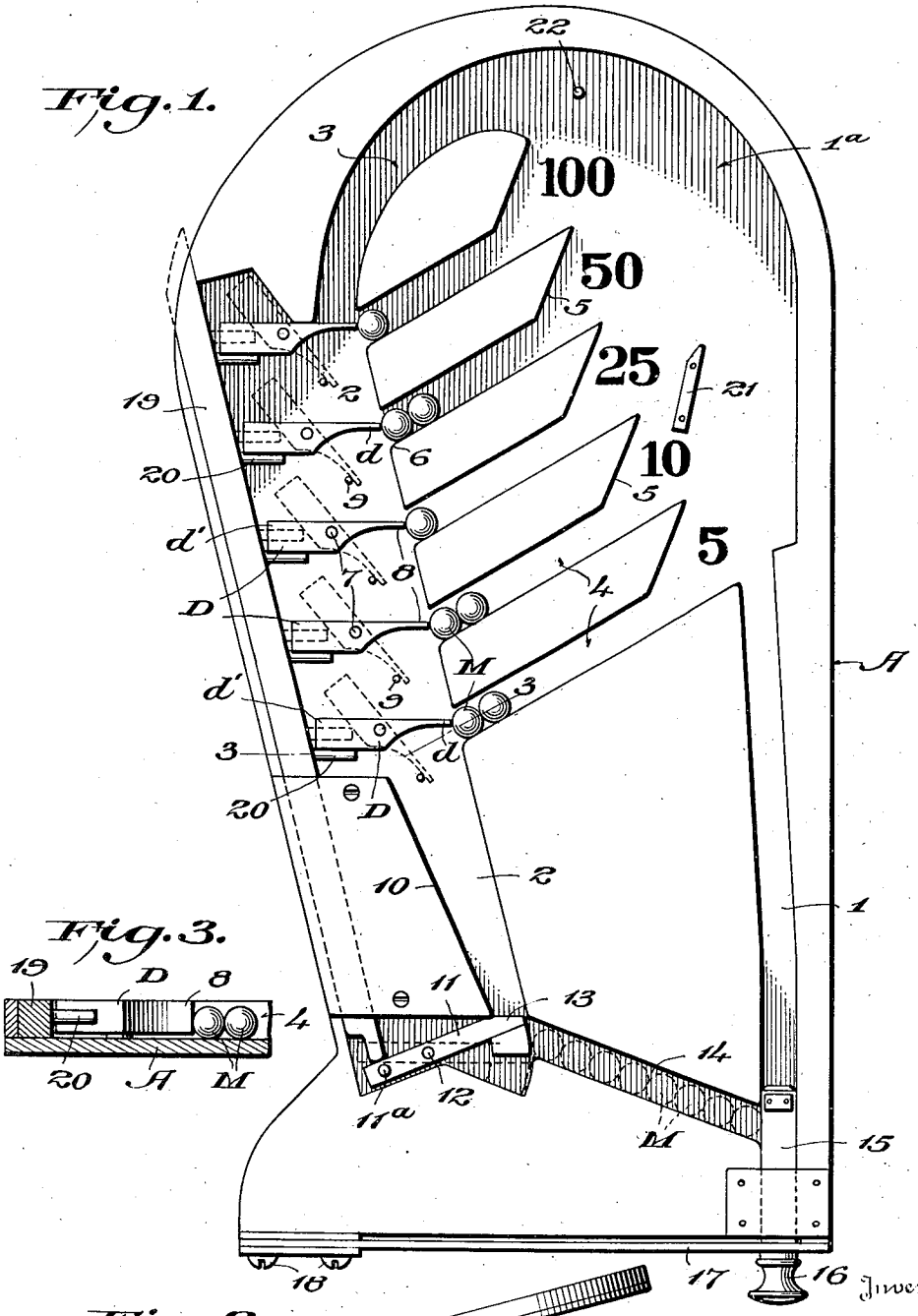
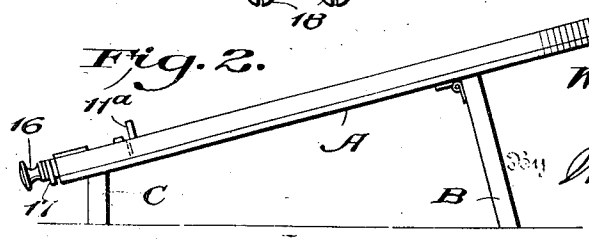


Fig. 3.

Fig. 2.



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GAME

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10 Claims. (Cl. 273—124)

This invention relates to games of the type using marbles or equivalent spheres to be projected by the player into pockets for the purposes of obtaining more or less high scores, depending upon the skill of the individual player.

A distinctive object of the invention is to provide a game of the type set forth wherein a series of scoring pockets, having ascending score values, are each normally blocked at their outlet ends by novel detents which restrain the marbles in the pockets until the end of the game, unless, an overzealous player, or a player attempting to increase his score, overshoots the entrance to the scoring pockets and causes a marble or sphere to pass by all of the pockets and enter the return leg of the main groove thereby automatically and successively to trip all of the detents so as to release the marbles and thus destroy the accumulated score. That is to say, the arrangement of parts is such that the scoring pockets have their outlet ends normally blocked by detents, which remain in such obstructing relation to provide a cumulative score. On the other hand, if the player fails to skillfully handle each shot all of the detents may be automatically tripped to successively empty the pockets and cause the loss of score values. If the detents remain in their normal position until the player shoots out his quota, then the detents may all be manually tripped to set the game up for the next player.

A further object of the invention is to provide a simple and practical arrangement of detents, in conjunction with a common actuator controlled by a manually operated lever or gate that temporarily prevents the marbles from entering the magazine which holds the quota or supply of marbles for the succeeding round of play.

With the above and other objects in view, which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts, hereinafter more fully described, illustrated and claimed.

A preferred and practical embodiment of the invention is shown in the accompanying drawing, in which:

Figure 1 is a plan view of the game apparatus.

Figure 2 is a detail side elevation on a reduced scale showing the board in its inclined playing position.

Figure 3 is a detail transverse sectional view taken on the line 3—3 of Figure 1 and illustrating one of the detents in obstructing relation to one of the scoring pockets.

Similar reference characters designate corresponding parts throughout the several figures of the drawing.

Referring to Figure 1, it will be observed that the apparatus includes a suitable board or base, designated generally as A, adapted to be supported in an inclined playing position by a leg B, hinged to the underside thereof, and a bottom rail C, which elevates the lower end of the board sufficiently to permit ready operation of a plunger or trigger as will presently appear.

The surface of the board is provided with a playing field which generaly includes a substantially horse-shoe-shaped guideway including a projection groove 1 opening into a deploying area 1*a*, and a return groove 2 connected by an upper arcuate detour channel 3. The grooves 1 and 2 are medially connected by a plurality of transverse elongated pockets 4 which are inclined from the projection groove downwardly toward the return groove. The inlet ends of the pockets 4 are preferably flared, as indicated at 5, and open into the deploying area 1*a* while the outlet ends 6 leading to the return groove are normally obstructed by novel detents D.

As will be seen from the drawing, a detent is provided for each pocket, and each detent has its medial portion pivoted to the board, as indicated at 7. The forward arm portion *d* of each detent is so arranged or disposed as to extend across the return groove 2 while the front end or extremity 8 is in obstructing relation to its related pocket. The rear arm *d'* of each detent is weighted so that when the board is in the inclined position shown in Figure 2, all of the detents will be biased to assume the full line position, shown in Figure 1, thereby normaly to hold the marbles M in the individual related pockets. In order to limit the clockwise movement of the forward arms *d* of the detents, suitable abutment pins or stops 9 may be provided, as indicated in Figure 1. It will, of course, be understood that the rear ends of the detents D may be spring-biased to their normal position, if desired, without departing from the spirit or theory of the invention, since a spring is the well-known mechanical equivalent of a weight.

It will also be seen from the drawing that the return groove 2 of the main guideway is appropriately widened to accommodate the rear or tail ends of the detents, and that the lower end of the return groove 2 is provided with an oblique guide wall 10, which contracts or constricts the outlet thereof. The said outlet of the return groove 2 is normally obstructed by a lever 11, pivoted as at 12, and whose front end 13 serves as a gate for admitting marbles or spheres collecting in the lower end of the return groove 2 to a magazine channel 14. This channel leads to and is normally closed by the plunger 15 slidable in the entrance end of the projecting groove 1. The said plunger or trigger 15 may be provided with a knob or manipulating head 16, and is spring-urged to its normal position, in the example shown, by a flat spring 17 secured as at 18 to the end face of the board.

The lever 11 is also provided with an upstanding manipulating pin or handle 11*a*, and, as will be seen from Figure 1, the rear end of the lever 11 engages the lower end of a marble release or detent tripping bar 19. This bar is slidably mounted in the board and is provided with the offset fingers or abutments 20 for engaging beneath the over-weighted ends *d'* of the detents. The bar 19 is freely movable in its channel so that when the board is in the inclined position, Figure 2, it gravitates downwardly because of its own weight and thus maintains the offset fingers 20 below the weighted ends of the detents, and also causes the lever 11 to assume such a position that its inner end 13 normally blocks communication between the lower end of the return groove 2 and the magazine channel 14. Clearly, it is within the scope of the invention to spring-bias the lever 11 to normal position, or, alternatively, spring-bias the tripping bar 19 to normal position.

Before proceeding to a description of the operation of the game, it may be noted that the face of the board in the zone of each pocket is provided with scoring values in ascending order, such as "5," "10," "25," "50" and "100." Also, the deploying area 1*a* adjacent the flared mouths 5 of the pockets 4 may be provided with suitable hazards or obstructions, such as the upstanding pins or posts 21 and 22. The pin 22 is located in the detour channel 3, and sometimes tends to deflect a markle M back toward the pockets when it is struck rather than to permit it to follow on through the arcuate detour section 3 of the main guideway and into the return groove 2 to automatically trip the detents D. The hazard 21 is intended to deflect the marbles into pockets of low score value.

It will also be noted that the projection leg 1 is not straight and, therefore, not precisely tangential to the arcuate outside wall of the detour section 3, thus intentionally causing the marbles under certain conditions to avoid following the outside wall of the horse-shoe-shaped main guideway. In other words, the arrangement is such that a marble emerging from the leg 1 with sufficient force will carom off the outside wall of the section 3 and fall back into a pocket, but, on the other hand, if its speed is low enough, it will simply follow the said wall and perhaps enter the return groove 2. Under these circumstances, the player has ample opportunity to assert or display his skill.

The operation of the apparatus, and a preferred procedure in playing the game are as follows:

Assuming that the magazine 14 has a specified number or quota of marbles therein, the player, by grasping the knob 16, pulls back the spring-urged plunger 15 so as to admit a marble into the projection groove 1. Thus, in its preliminary movement, the plunger 15 serves as a metering gate for admitting a marble from the magazine to playing position. With the marble thus placed, the player again manipulates the plunger 15 so as to shoot the marble into the inclined projection groove 1 in an effort to cause it to enter a selected pocket. As the marbles enter the pockets they are held therein by the ends 8 of the detents. However, if the player becomes over-zealous or ambitious in an effort to make the "100" pocket, he may cause the marble to avoid entering any of the pockets and continue its way on through the arcuate detour section 3 of the main guideway whereupon it will roll down and successively trip the detents D thus spilling all the marbles from the pockets and taking away or destroying the score otherwise accumulated. In that event, all the marbles M will collect and be held in the lower end of the return groove 2 by the gate end 13 of the lever 11. By manipulating the lever 11 against the weight of the rod 19, the marbles may roll back to the magazine.

If the player is fortunate enough to project all of the marbles into numbered pockets, the values of the pockets are added to obtain his total score. In this case when it is desired to make the game ready for the next player, the marbles may be returned to the magazine 14 by moving the lever 11, through the handle 11*a*. This will cause the marble release bar 19 to move upwardly, whereupon, the offset pins 20 will simultaneously tilt all the detents and permit the marbles from the pockets to travel back to the magazine 14, the gate end 13 of the lever being open while the bar 19 is elevated.

In the example illustrated, the playing field is shown as provided with five scoring pockets, but it will, of course, be understood that the number of pockets may be readily increased or diminished within the scope of the invention. In fact, only a single pocket may be used together with a single detent, or, on the other hand, a plurality of pockets may be employed with the detents omitted from the outlet end of some of them, in order to increase the hazards of the game. The distinctive feature, of the game, namely at least one pocket and detent, and the other features described, are always retained.

Without further description, it is thought that the features and advantages of the invention will be readily apparent to those skilled in the art, and it will, of course, be understood that changes and equivalents may be resorted to within the scope of the appended claims.

I claim:

1. A marble game apparatus, including, in combination, a board having a playing field comprising opposite projection and return grooves connected by an arcuate groove, means forming a plurality of elongated inclined pockets arranged transversely between the projection and return grooves, a plurality of pivoted detents at one side of the return groove and each normally biased to have one arm portion thereof extending across said return groove with the end of said arm portion normally disposed in obstructing relation to the outlet end of a related pocket, and means for simultaneously shifting all of said detents from their normal position.

2. A marble game apparatus, including, in combination, a board having a playing field comprising opposite projection and return grooves connected by an arcuate groove, the major axis of the projection groove being adapted to intersect the arc of the outside wall of the connecting groove, means forming a plurality of elongated inclined pockets arranged transversely between the projection and return grooves, said pockets having flaring inlet ends terminating short of the outside wall of the projection groove and said arcuate groove to provide a deploying area, marble engaging pins secured to the board in said deploying area, a plurality of pivoted detents at one side of the return groove and each normally biased to have one arm thereof extend across said return groove to position the end of said arm in obstructing relation to the outlet ends of said pockets, manually actuated means for simultaneously moving all of said detents to shift the front ends thereof out of obstructing relation to

the outlet ends of said pockets, and a magazine channel connecting the return and projection grooves.

3. A marble game apparatus, including, in combination, a board having a playing field comprising opposite projection and return grooves connected by a communicating arcuate groove, means forming a plurality of elongated inclined pockets disposed transversely between the projection and return grooves, said means being arranged to provide flaring entrance portions for the grooves and a deploying area whereby marbles discharged from the projection groove may travel about said area and enter the pockets, a plurality of pivoted detents normally biased to project across the return groove and obstruct the outlet ends of said pockets, a magazine channel connecting the lower ends of the projection and return grooves, a manually actuated lever pivoted at the board and having one arm controlling the passage of marbles from the return groove to the magazine channel, and a marble release bar slidable in the board and having its lower end engaging the other arm of said lever to be moved thereby, said release bar having means for simultaneously engaging all of the detents to tilt them when said lever is moved to simultaneously actuate the bar and permit communication between the end of the return groove and the magazine channel.

4. A marble game apparatus, including, in combination, a board adapted to be supported with its upper end elevated above its bottom end and having a playing field formed with a substantially horse-shoe-shaped guideway including marble projection and return grooves and an arcuate connecting detour section, said board also having a magazine channel connecting the lower ends of the projection and return grooves, means forming a plurality of intermediate relatively transversely disposed scoring pockets inclined from the projection groove toward the return groove, detents medially pivoted to the board so that their front arm portions normally project across the return groove and their front ends obstruct the outlet ends of said transverse pockets, whereby, a marble descending the return groove will trip the detents successively to release marbles held in said pockets, marble release means adapted upon manual actuation to engage the rear ends of all of the detents to tilt them simultaneously out of obstructing relation to the pockets, and a manually operated lever having its inner end adapted to block the passage between the return groove and the magazine channel, said lever having its outer end adapted to engage said marble release means.

5. A marble game apparatus, including, in combination, a board having a playing field comprising opposite projection and return grooves and a connecting groove, means forming an elongated inclined pocket having an inlet end and an outlet end and arranged transversely between the projection and return grooves, a pivoted detent having an arm normally biased to close the outlet end of said pocket, said arm projecting across the return groove to be automatically tripped by a marble in play and descending the return groove, thereby to move the detent arm from obstructing relation to the outlet end of the pocket and release a marble held therein into the return groove.

6. In a marble game apparatus, the combination, including, a board having a playing field, means on said board forming a pocket having an inlet end and an outlet end and a return groove communicating with said pocket and said pocket having its outlet end opening into said groove, and a detent pivotally supported relative to the pocket and groove to normally have one end thereof disposed in obstructing relation to the outlet end of said pocket and to be tripped by a marble descending said groove.

7. In a marble game apparatus, the combination, including, a board having a playing field, means on said board forming a pocket having an inlet end and an outlet end and a return groove communicating with said pocket and said pocket having its outlet end opening into said groove, and a detent including front and rear arms, pivoted medially of said arms for tilting movement, said front arm extending across the groove and said rear arm being over-weighted relative to said front arm and cooperating with an abutment, thereby to cause the tip of the front arm normally to obstruct the outlet end of the pocket and to be tripped by a marble descending said groove.

8. In a marble game apparatus, the combination, including, a board having a playing field, means on said board forming a pocket having an inlet end and an outlet end and a return groove communicating with said pocket and said pocket having its outlet end opening into said groove, and a detent comprising a body having a relatively rectangular rear arm and a relatively thin elongated front arm, a pivot arranged medially of said arms to mount the detent for tilting movement, and an abutment adapted to be engaged by the rear arm, said rear arm being relatively heavier than the front arm, thereby normally to hold the detent against the abutment and position the end of the front arm in obstructing relation to the outlet end of said pocket and to be tripped by a marble descending said groove.

9. A marble game apparatus, including, a board having a playing field, means on said board forming a pocket having an inlet end and an outlet end, and means on said board forming a return groove, said pocket having its outlet end opening into said groove, a pivoted detent normally biased to close the outlet end of said pocket, said detent arranged in relation to the groove to be automatically tripped by a marble in play when descending the groove, thereby to move the detent from obstructing relation to the pocket and release the marble held therein into said groove.

10. In a marble game apparatus, the combination, including, a board providing a playing field, means on said board forming an inclined pocket having an inlet end and an outlet end, means also on said board forming a groove at the outlet end of the pocket, and a detent mounted for limited angular movement normally to prevent marbles from passing through said outlet end of the pocket, said detent comprising a body medially pivoted to the board to provide front and rear arm portions, said rear arm being over-weighted relative to the front arm, whereby the latter is normally projected across the groove so that its forward extremity is normally disposed in obstructing relation to the outlet end of the pocket, and whereby said detent is returned to normal position after its front arm is struck by a marble descending said groove.

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