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(54) **GAME DEVICE FOR RECREATIONAL MACHINES OF CHANCE**

(57) Game mechanism for recreational machines of chance of the type referred to as a "labyrinth-type" game, wherein there is a game board (1) and pivots (2) defining a random labyrinth-like passage for one or more balls (3). Some of the pivots are grouped in pairs (2') between which there is arranged a scoreboard (8) to which a prize is assigned, with likewise a sensor (11) to detect presence of the ball (3) and a retention and release mechanism

for said ball (3) controlled by an actuator or any suitable electromechanical mechanism, and the interface of the machine has means for the player to be able to collect the prize associated with said pair of lugs (2') or to release the ball to allow the possibility that when it falls, said ball (3) can reach a pair of lugs (2') located on a lower level having a prize associated therewith that is greater.

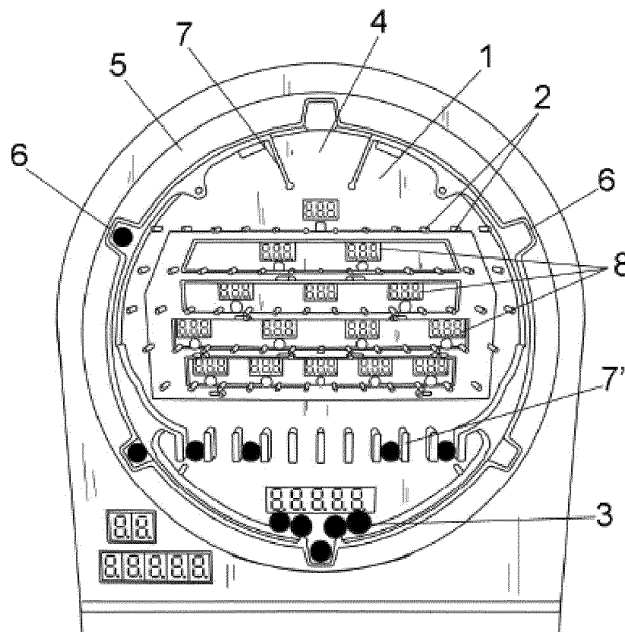


FIG. 1

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Description

Object of the Invention

[0001] The present invention relates to a labyrinth-type device that has been devised to be integrated in recreational machines of chance, such as those used in certain recreational machines, which are capable of retaining and releasing the ball in the different positions it can reach on the game board.

[0002] The object of the invention is to provide a game device that offers the player the option to collect the prize in which the ball is housed or to risk obtaining bigger prizes arranged in lower boxes by means of releasing the ball and rejecting the previously obtained prize.

Background of the Invention

[0003] Labyrinth-type games of chance used in recreational machines have been known for many years, in which there is a vertically arranged game board defining a planar housing with the collaboration of a front transparent cover, in which there are arranged a plurality of pivots forming a random labyrinth-like passage for one or more balls which gains access to the game board in the upper region thereof and fall due to gravity between said pivots until reaching any one of the multiple exits or lower passageways, which are sometimes end in grooves aimed towards different points and other that simply have respective scores which the player somehow incorporates in his/her scoreboard.

[0004] Games of this type have a drawback focused on the limitations laid down by the game itself, such that once the ball has been tossed the player cannot interfere in the game and is limited to passively seeing what the obtained prize or score will be.

Description of the Invention

[0005] The proposed game mechanism for recreational machines solves the drawback described above in a fully satisfactory manner based on a simple but extremely effective structure that allows the player to risk the obtained prizes or to choose to be conservative and keep the initially obtained prize.

[0006] To that end, and more specifically, based on the conventional structure of these "labyrinth-type" games, in which there are defined a front cover and a parallel and transparent cover, between which covers there are arranged a plurality of pivots defining a random labyrinth-like passage for one or more balls which gain access to the game board in the upper region thereof and fall due to gravity between said pivots, hitting against them arbitrarily in the attempt to reach the lower exit, it has been provided that the mechanism of the invention focuses its features on the fact that at least some of said pivots are grouped in pairs, where in the middle region thereof and slightly below said pivots, there is arranged

a ball retaining element which could be made in several ways, defining an extension perpendicular to the playing surface, which is horizontally movable in a slot through an actuator or any other conventional electronic/mechanical means, or which is retractable, i.e., it can be retracted backwards until freeing up the space between the corresponding pair of pivots, such that this retention element in the normal game situation will remain in a position in which if the ball tries to gain access through the pair of pivots with which it is associated, said ball will be retained in such position.

[0007] Parallel to each retention element there will be arranged a ball sensor that will allow the machine to identify the position thereof and assign the corresponding prize to it, which prize will be made visible through a scoreboard arranged in correspondence with each pair of pivots in which the ball retention/release mechanisms of this type are arranged.

[0008] Accordingly, the pairs of pivots with which the ball retention mechanism is associated will be distributed at different heights and in a varying number over the entire game board, where it is relatively likely that a ball retained at a higher level when released could gain access between another pair of lugs between which there is arranged a mechanism of the same type as the one previously described.

[0009] To that end, the player will be tempted with prizes of higher value arranged between the pairs of lugs with a blocking mechanism and prize arranged at lower levels, where it is the player who must decide between standing his/her ground and collecting the obtained prize, or taking a risk and releasing the ball by means of pushing the corresponding machine interface button, which will act on the ball release mechanism, making the extension retaining it move either backwards or horizontally until approximating one of the two final lugs between which said ball was retained, releasing it in both cases, and said ball falling due to gravity alone.

[0010] Accordingly, each of the immobilization mechanisms for immobilizing the balls at the prize-winning points is completely independent of the remaining immobilization mechanisms, in order to allow the previously described game mode, such that when a ball is released, at least the remaining blocking mechanisms located at lower levels with respect to this level are arranged in the ball blocking position.

[0011] A game mechanism that is much more interesting for users because it allows a much more exciting game mode where the level of risk can be controlled by the user is thereby obtained.

Description of the Drawings

[0012] To complement the description made below and for the purpose of helping to better understand the features of the invention according to a preferred practical embodiment thereof, a set of drawings is attached as an integral part of said description in which the following

has been depicted in an illustrative and non-limiting manner:

Figure 1 shows a depiction corresponding to a front perspective view of a game mechanism for recreational machines of chance carried out according to the object of the present invention.

Figure 2 shows a perspective view of a detail of the mechanism of the preceding figure, in which the pairs of lugs between which there is defined a prize duly indicated through a scoreboard, and in which the corresponding ball, not depicted in the figure, is intended to be immobilized by means of the corresponding blocking mechanism, can be observed.

Figure 3 shows a view similar to the view of the preceding figure, but in which it can be seen how the retention mechanism of the pair of lugs of a higher level has been actuated in order to release the corresponding ball (not depicted), where it can be seen how the remaining retention mechanisms associated with prize regions of lower levels remain in a ball blocking arrangement in case said ball were to gain access to same.

Preferred Embodiment of the Invention

[0013] As can be seen in the described figures, the game mechanism of the invention is formed from a front cover or game board (1) and a parallel and transparent cover, between which covers there are arranged a plurality of pivots (2) defining a random labyrinth-like passage for one or more balls (3).

[0014] The balls (3) gain access to the upper region of the game board (1) through a lifting mechanism of any type, which in the chosen embodiment is in the form of a ring (5) provided with a plurality of radial depressions (6) that are dimensionally suitable for housing the balls (3) therein, such that said ring is motor-driven in order to be moved angularly and thereby move the balls contained in the radial depressions (6) to the upper region (4) of the game board, where they fall due to gravity, hitting the various pivots (2) as well as guiding plates (7-7').

[0015] According to the essence of the invention, it has been provided that some of the pivots of the game board are grouped in pairs (2') between which there is arranged a scoreboard (8) to which a prize is assigned, such scoreboards being arranged at different heights and with any distribution considered appropriate, so the prize-winning ball will be retained in said position, should it gain access to same, by means of a retention mechanism, which in the chosen embodiment is in the form of a hook-like perpendicular extension (9) which is horizontally movable in a slot (10) having a breadth in accordance with the breadth of the passage defined by the pair of lugs (2') associated with the mechanism, but it could also be axially movable, i.e., backwardly movable, being controlled in both cases by an actuator or any suitable electromechanical

mechanism, such that in a normal game situation it will occupy a central position between the pair of lugs (2'), such that a ball will be retained if it gains access to said mechanism, being detected by the machine through the corresponding sensor (11).

[0016] Based on this structure, and as discussed above, before the ball is dropped into the upper region of the board, different types of prizes will be displayed on the different scoreboards (8), such that in order to make the game more interesting, the scoreboards located at lower levels will have prizes of higher value than those that are located at higher levels.

[0017] So when a ball gains access to and is retained between a pair of lugs (2') with a given prize associated with said point, the sensor (11) arranged at said point detects such positioning, the control software acting accordingly, and giving the player the possibility to collect the prize, and subsequently end said game, or release the ball in order to allow the possibility that when it falls, said ball can reach a pair of lugs (2') located on a lower level which has a prize associated therewith that is of greater value than the level at which the ball is located at that time.

[0018] In any case, once the game ends, the ball will be released in any case and once said ball gains access to the bottom of the board, where the lifting mechanism thereof is located, the blocking mechanisms associated with each of the pairs of lugs (2') with a prize associated therewith will return to their closed position, these blocking mechanisms being independent from one another, or at least independent for each height level at which each of the prizes is located, i.e., a single actuator or similar electromechanical element could be arranged to release several pairs of lugs (2'), the extensions (9) being physically linked to one another, provided that said pairs of lugs (2') are aligned at one and the same height, since in said case, and given that the ball can only adopt a downward path when released, the fact that the remaining prize-winning pairs of lugs (2') of that height level are not blocked does not affect the game since the ball could never gain access to same.

Claims

1. A game mechanism for recreational machines of chance of the type referred to as a "labyrinth-type" game, wherein there is a front cover or game board (1) and a parallel and transparent cover, between which covers there are arranged a plurality of pivots (2) defining a random labyrinth-like passage for one or more balls (3) which gain access to the game board in the upper region thereof and fall due to gravity between said pivots, hitting against them arbitrarily in the attempt to reach the lower exit, **characterized in that** at least some of the pivots of the game board are grouped in pairs (2') between which there is arranged a scoreboard (8) to which a prize is as-

signed, which likewise has a sensor (11) to detect the presence of the ball and a retention and release mechanism for said ball, which mechanism is controlled by an actuator or any suitable electromechanical mechanism, it having been provided that the interface of the machine has means for the player to be able to collect the prize associated with said pair of lugs (2') or to release the ball in order to allow the possibility that when it falls, said ball can reach a pair of lugs (2') located on a lower level having a prize associated therewith that is of greater value than the level at which the ball is located at that time.

2. The game mechanism for recreational machines of chance according to claim 1, **characterized in that** there is arranged in the ball retention/release mechanism between each pair of lugs (2') a hook-like perpendicular extension (9) which is horizontally movable in a slot (10) having a breadth in accordance with the breadth of the passage defined by the pair of lugs (2') associated with the mechanism.
3. The game mechanism for recreational machines of chance according to claim 1, **characterized in that** there is arranged in the ball retention/release mechanism between each pair of lugs (2') an axially movable perpendicular extension.
4. The game mechanism for recreational machines of chance according to claim 1, **characterized in that** the ball retention mechanisms between each pair of lugs (2') are independent from one another.
5. The game mechanism for recreational machines of chance according to claim 1, **characterized in that** the ball retention mechanisms are grouped in height levels.

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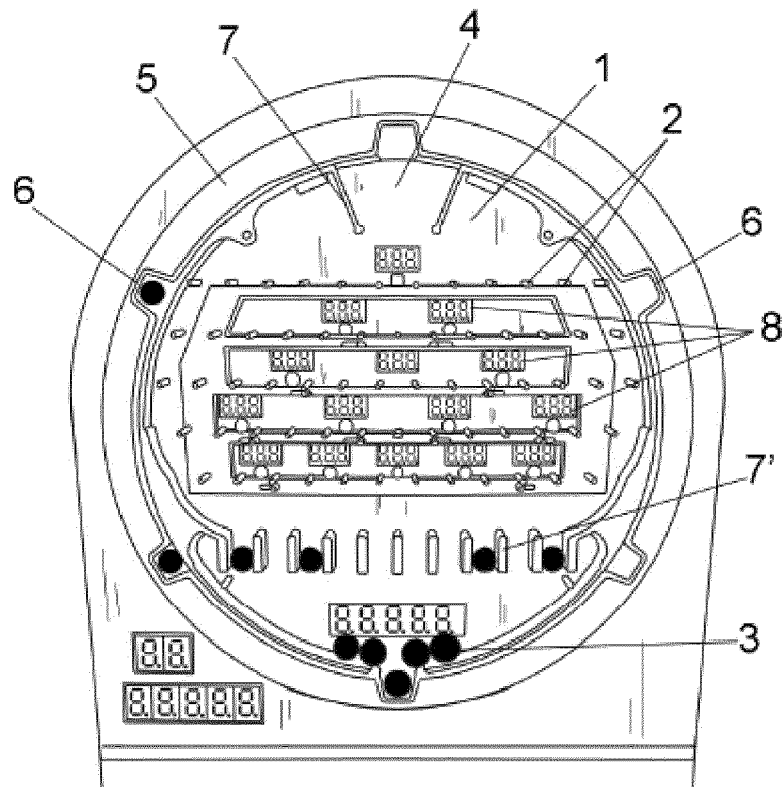


FIG. 1

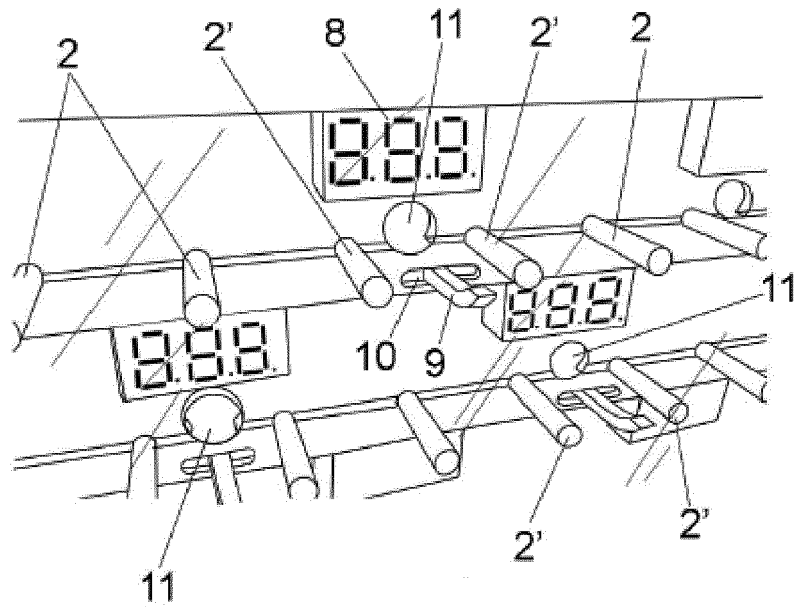


FIG. 2

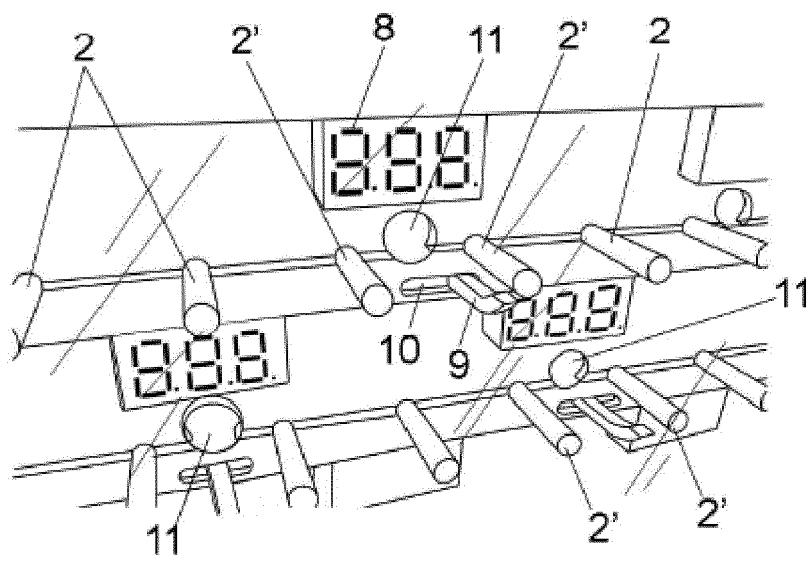


FIG. 3



EUROPEAN SEARCH REPORT

Application Number
EP 17 19 0707

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A	JP H06 54945 A (TOYOMARU SANGYO KK) 1 March 1994 (1994-03-01) * abstract; figure all *	1-5	
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A	US 6 279 904 B1 (HUANG SMING [US]) 28 August 2001 (2001-08-28) * figure 2 *	1-5	TECHNICAL FIELDS SEARCHED (IPC)
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 8 March 2018	Examiner Wolles, Bart
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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