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(54) **REEL-TYPE SLOT MACHINE**

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(57) **ABSTRACT**

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Each of a plurality of reels has an outer peripheral face and an inner peripheral face. A plural kinds of symbols are provided on the outer peripheral face of each of the reels, the symbols including at least one group of special symbols having identical shapes and different colors. An illuminator selectively emits at least one of plural colors of light to illuminate the inner peripheral face of at least one of the reels. A controller spins and stops the reels while controlling the illuminator such that the colors of the special symbols are not ascertained by a player when the at least one reel is spun, and each of the special symbols are illuminated with one of the plural colors of light pursuant to a predetermined rule, when the at least one reel is stopped.

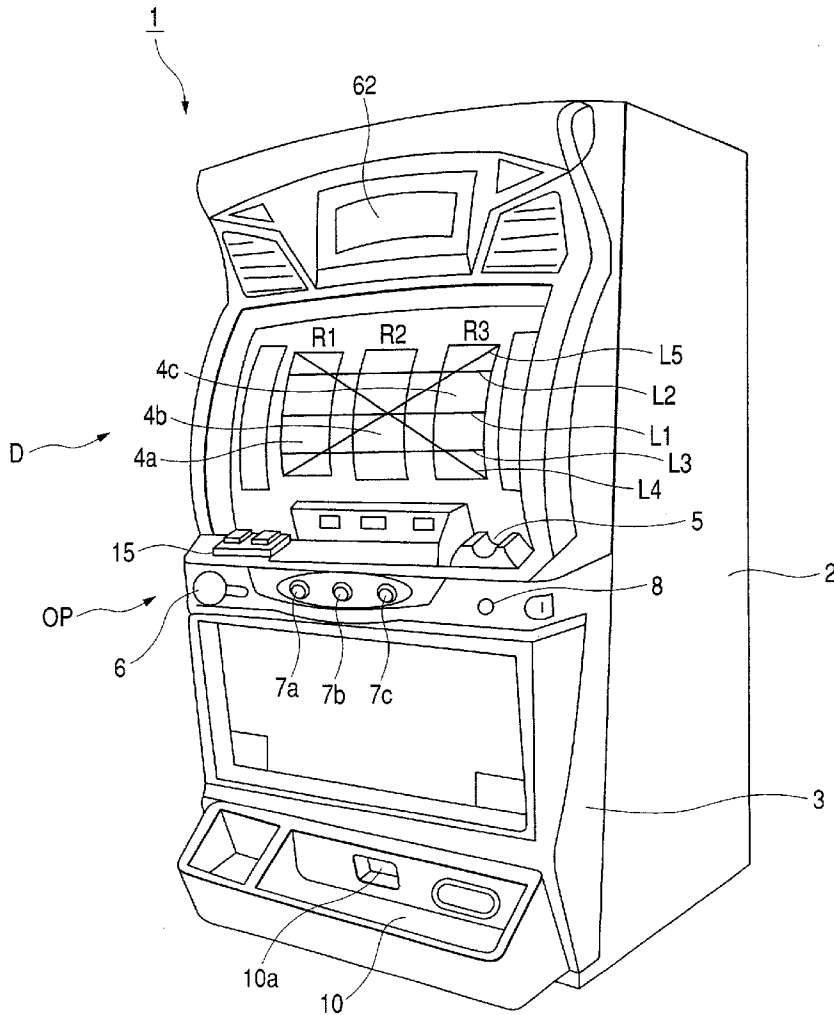


FIG. 1

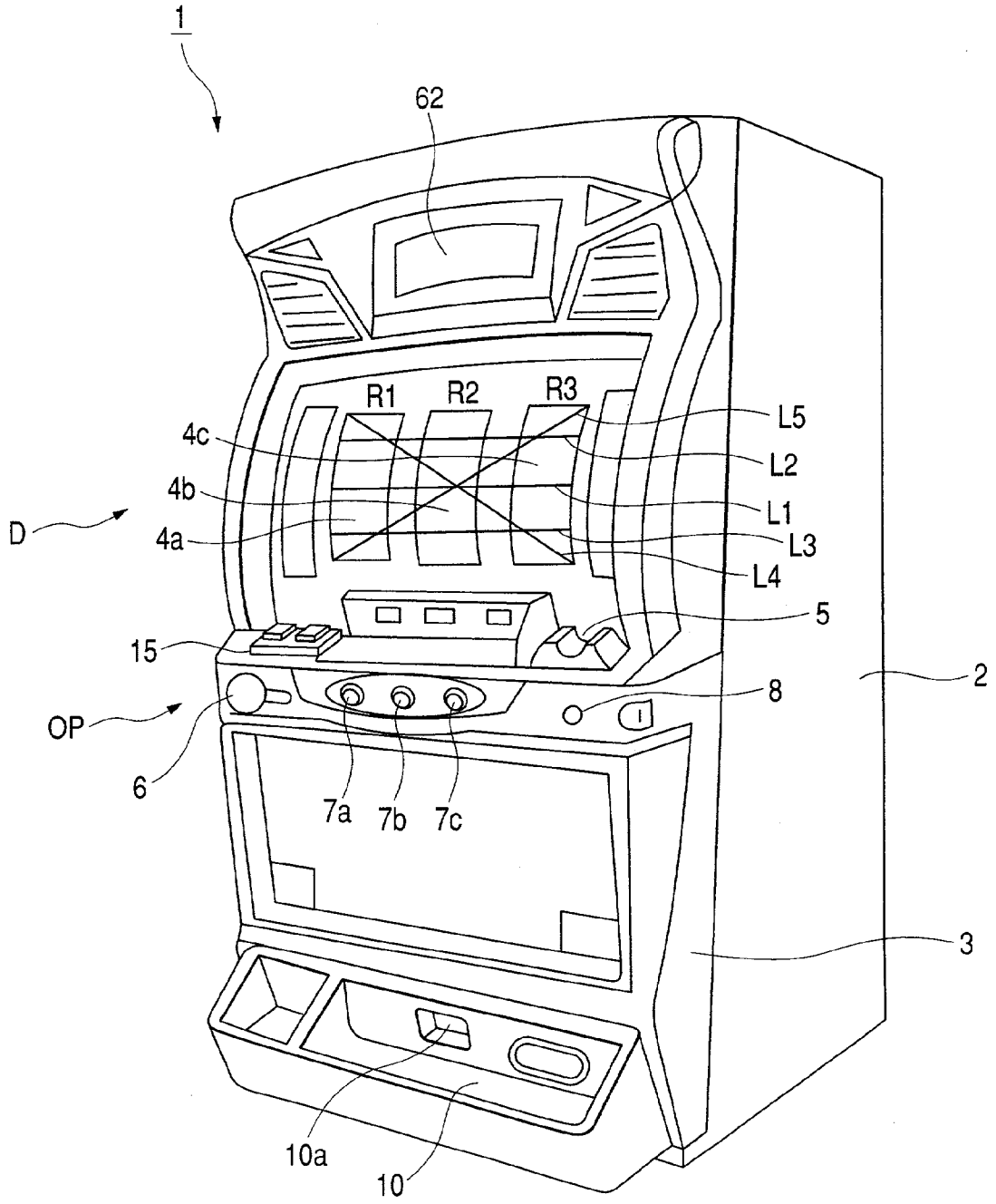


FIG. 2

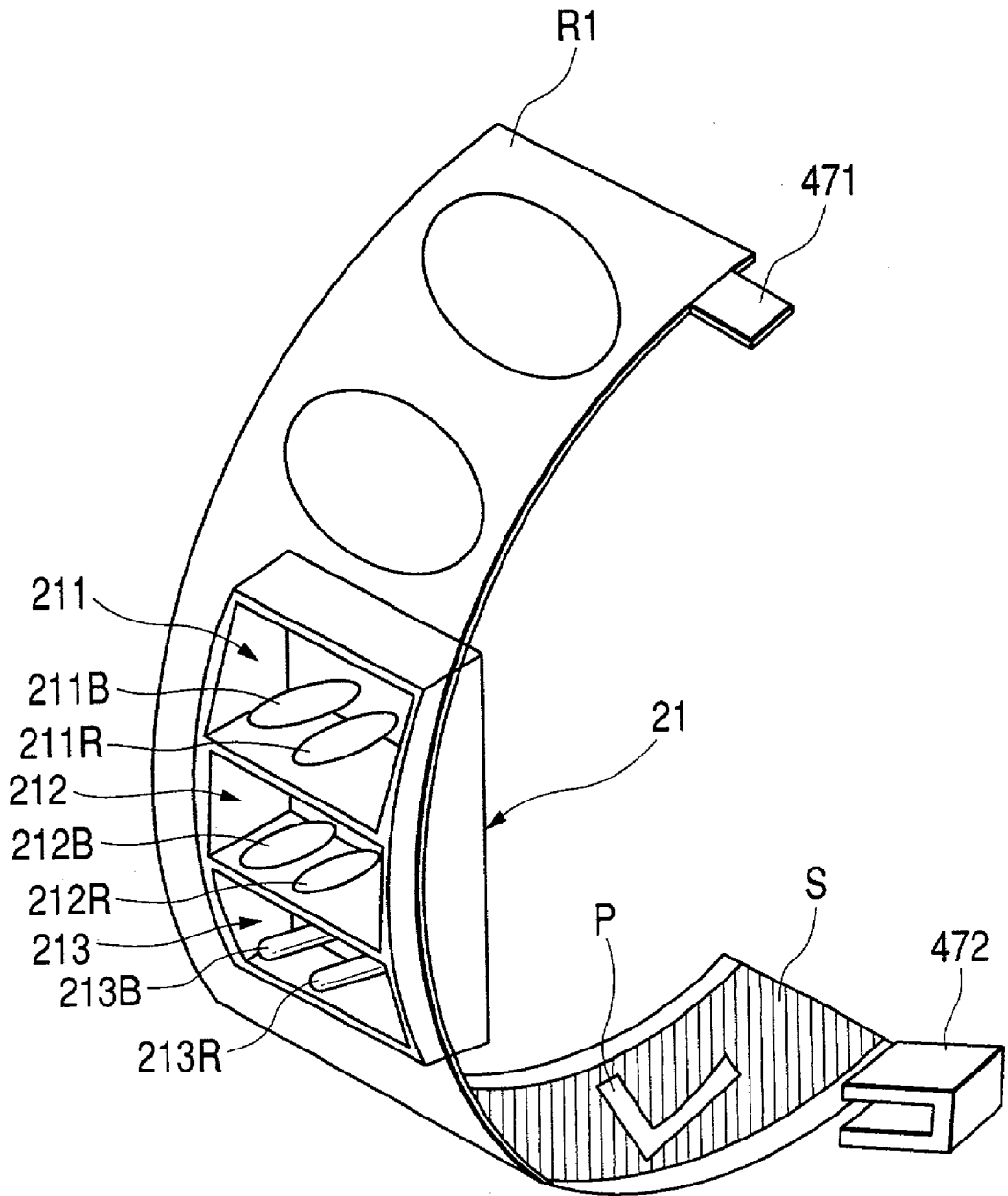


FIG. 3

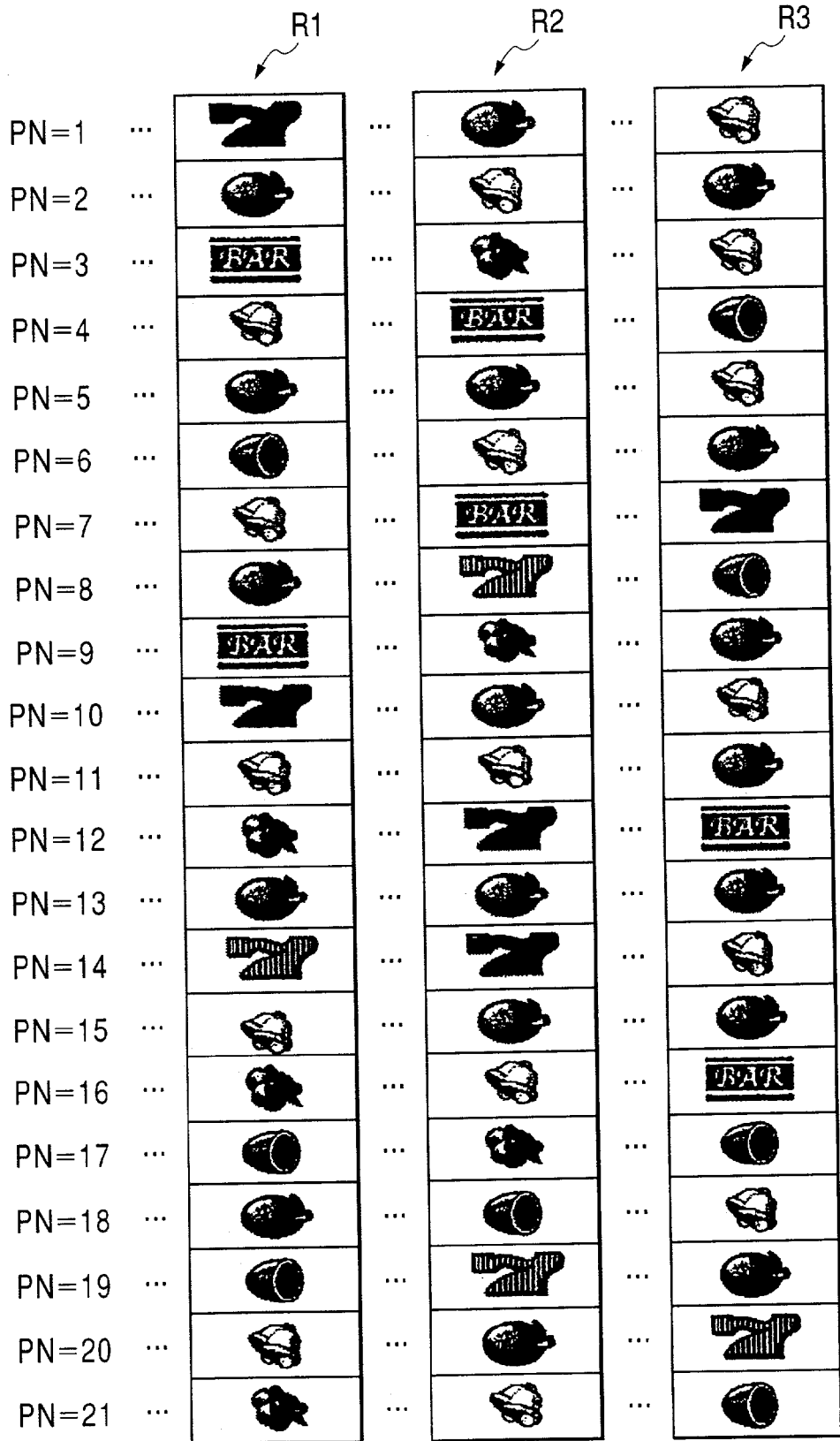
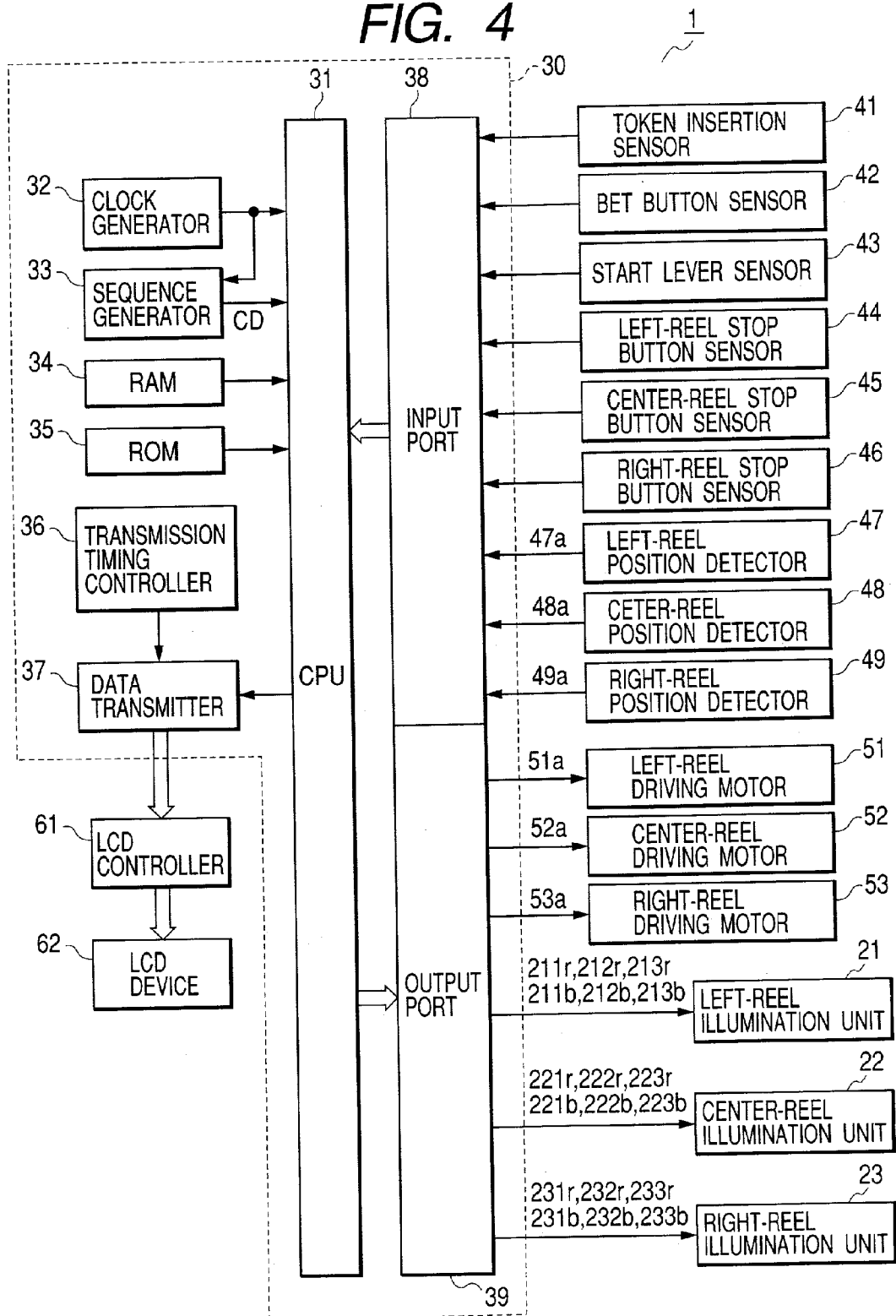


FIG. 4



# FIG. 5

TBL1

LOTTERY CLASSIFICATION DATA		
ADR1	54000	FAILURE SD=60000
ADR2	1800	REPLAY PRIZE SD=6000
ADR3	1200	CHERRY PRIZE SD=4200
ADR4	1200	BELL PRIZE SD=3000
ADR5	900	WATERMELON PRIZE SD=1800
ADR6	600	REGULAR BONUS PRIZE SD=900
ADR7	300	BIG BONUS PRIZE SD=300
		SD=1

# FIG. 6

TBL2

R1

STOP TABLE






















PN=1	...		...	3
PN=2	...		...	4
PN=3	...		...	0
PN=4	...		...	1
PN=5	...		...	2
PN=6	...		...	0
PN=7	...		...	1
PN=8	...		...	2
PN=9	...		...	3
PN=10	...		...	0
PN=11	...		...	1
PN=12	...		...	2
PN=13	...		...	3
PN=14	...		...	0
PN=15	...		...	1
PN=16	...		...	2
PN=17	...		...	3
PN=18	...		...	4
PN=19	...		...	0
PN=20	...		...	1
PN=21	...		...	2

FIG. 7

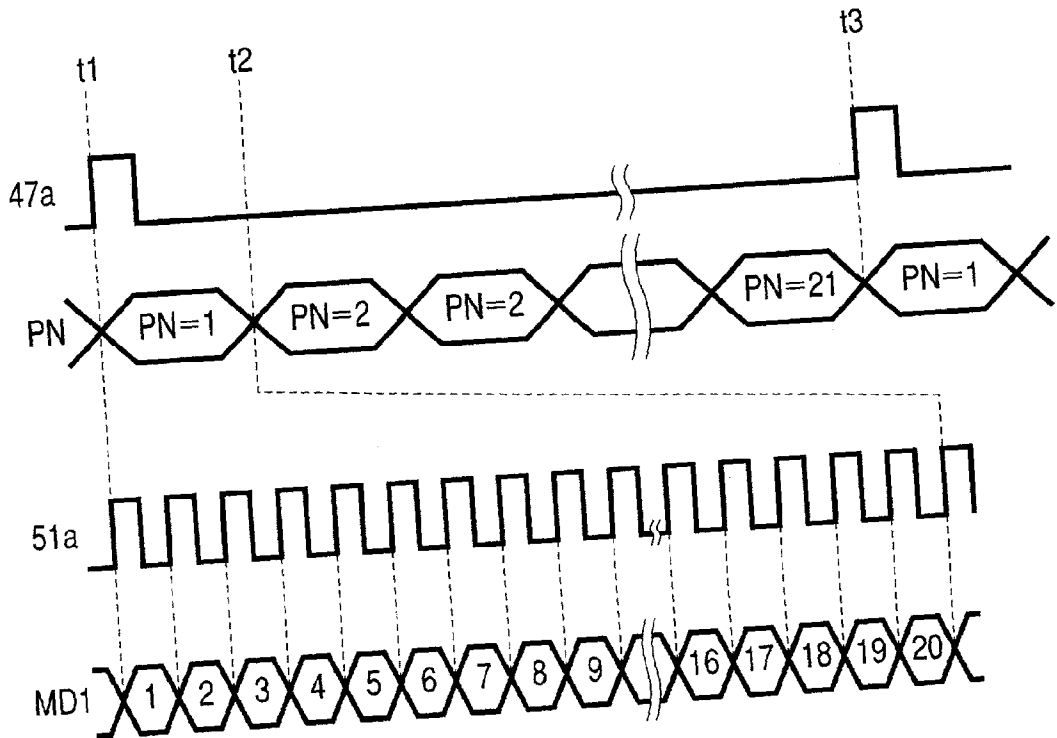




FIG. 8

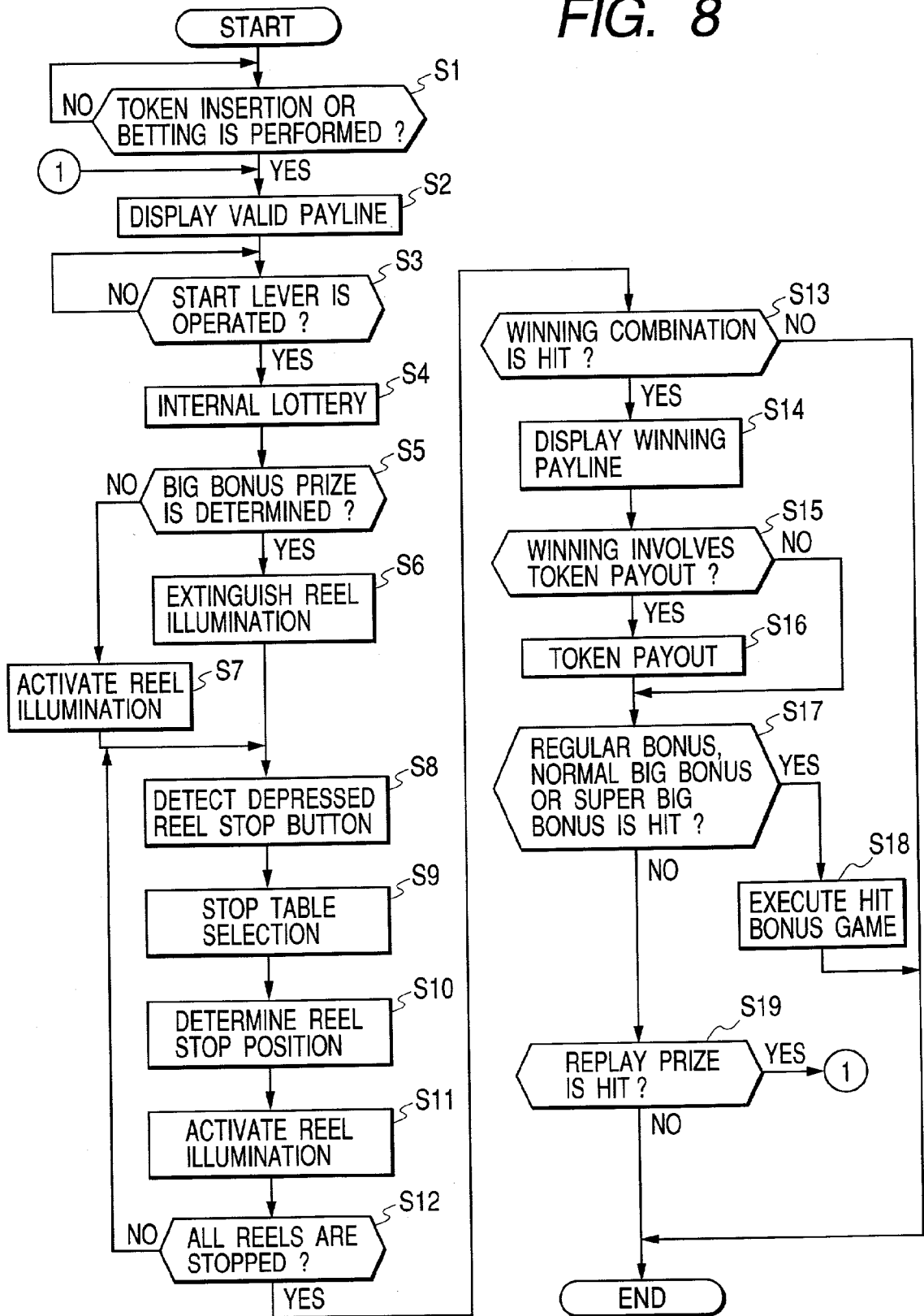
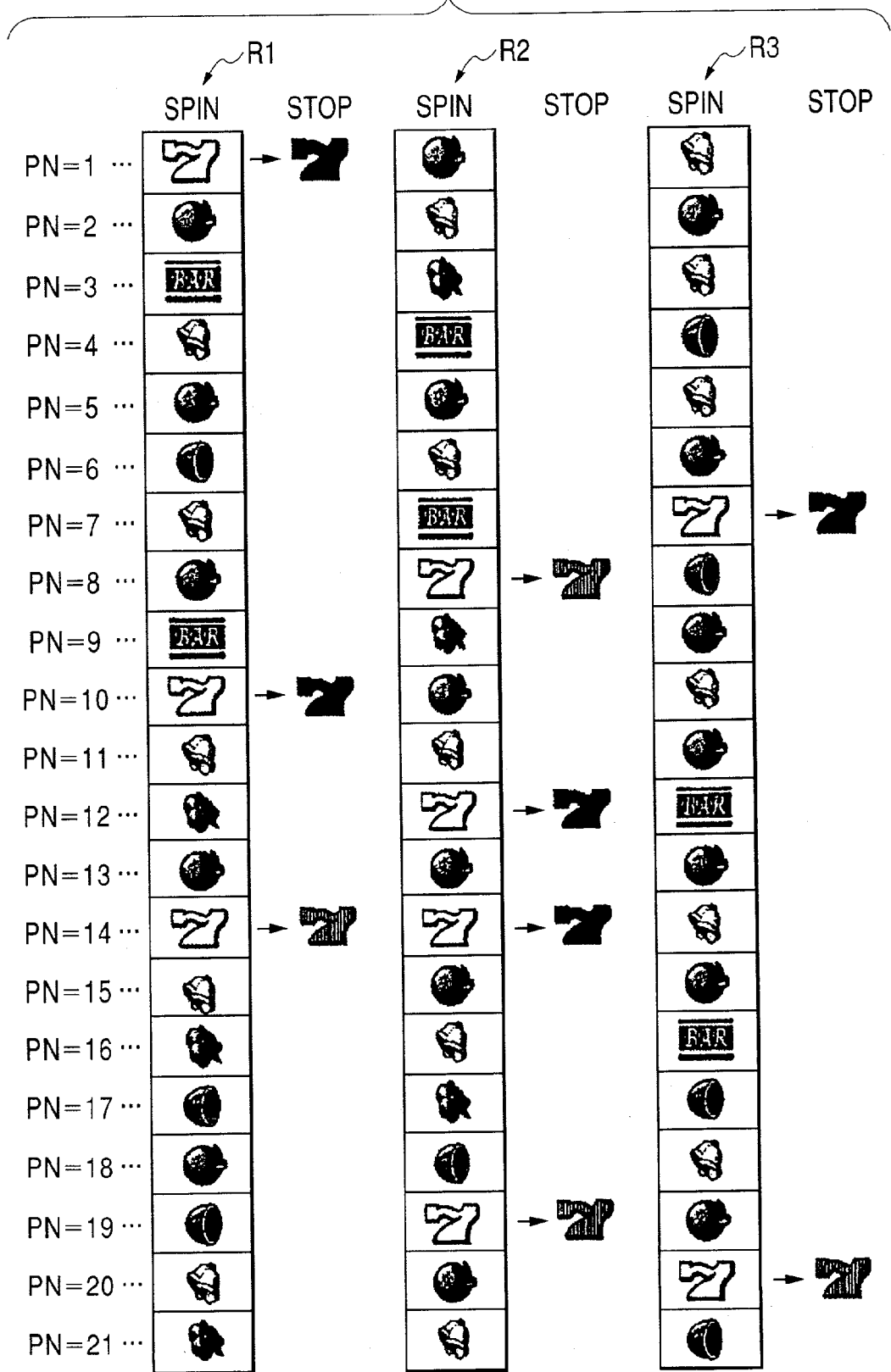
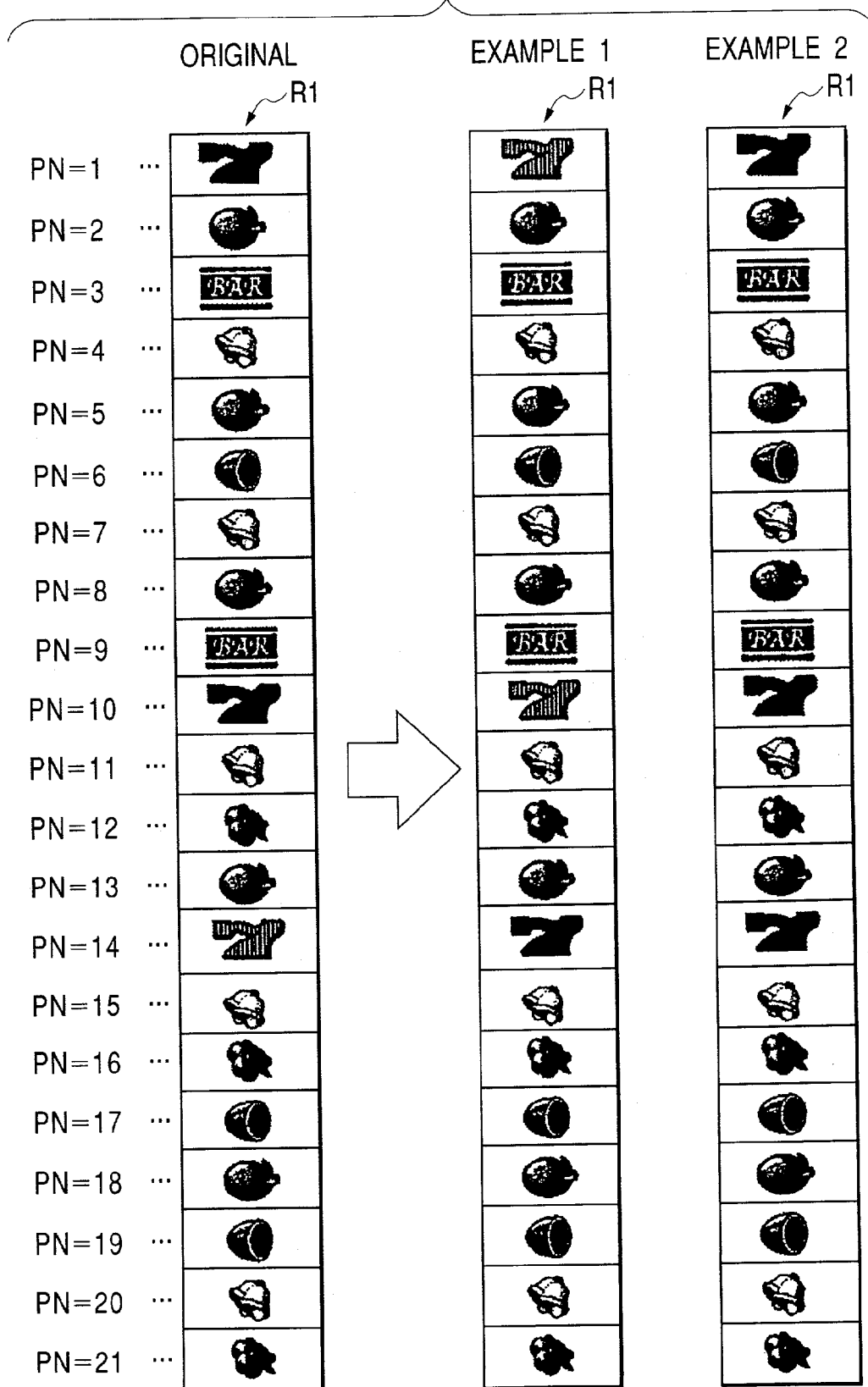


FIG. 9



# FIG. 10



**FIG. 11**

PRIZE GROUP	WINNING COMBINATION			EVENT
BIG BONUS	RED 7	RED 7	RED 7	BIG BONUS GAME
REGULAR BONUS	BLUE 7	BLUE 7	BLUE 7	REGULAR BONUS GAME
WATERMELON	WATERMELON	WATERMELON	WATERMELON	15 TOKENS PAYOUT
BELL	BELL	BELL	BELL	6 TOKENS PAYOUT
CHERRY	CHERRY	ANY	ANY	3 TOKENS PAYOUT
REPLAY	BLUE PLUM	BLUE PLUM	BLUE PLUM	REPLAY REGULAR GAME

**FIG. 12**

TBL1'

LOTTERY CLASSIFICATION DATA			
ADR1	54000	FAILURE	SD=60000
ADR2	1600	REPLAY PRIZE	SD=6000
ADR3	1200	CHERRY PRIZE	SD=4400
ADR4	1000	BELL PRIZE	SD=3200
ADR5	900	WATERMELON PRIZE	SD=2200
ADR6	800	SINGLE BONUS PRIZE	SD=1300
ADR7	500	BIG BONUS PRIZE	SD=500
			SD=1

*FIG. 13*

PRIZE GROUP	WINNING COMBINATION			EVENT
BIG BONUS	RED 7	RED 7	RED 7	SUPER BIG BONUS GAME
	BLUE 7	BLUE 7	BLUE 7	NORMAL BIG BONUS GAME
SINGLE BONUS	BAR	BAR	BAR	SINGLE BONUS GAME
WATERMELON	WATERMELON	WATERMELON	WATERMELON	15 TOKENS PAYOUT
BELL	BELL	BELL	BELL	6 TOKENS PAYOUT
CHERRY	CHERRY	ANY	ANY	3 TOKENS PAYOUT
REPLAY	BLUE PLUM	BLUE PLUM	BLUE PLUM	REPLAY BASIC GAME
JACKPOT	BLUE PLUM	BLUE PLUM	BLUE PLUM	15 TOKENS PAYOUT
	BLUE PLUM	BLUE PLUM	RED PLUM	30 ASSIST TIME GAMES
	BLUE PLUM	RED PLUM	RED PLUM	100 ASSIST TIME GAMES
	RED PLUM	RED PLUM	RED PLUM	300 ASSIST TIME GAMES

# FIG. 14









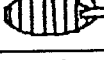








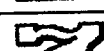
























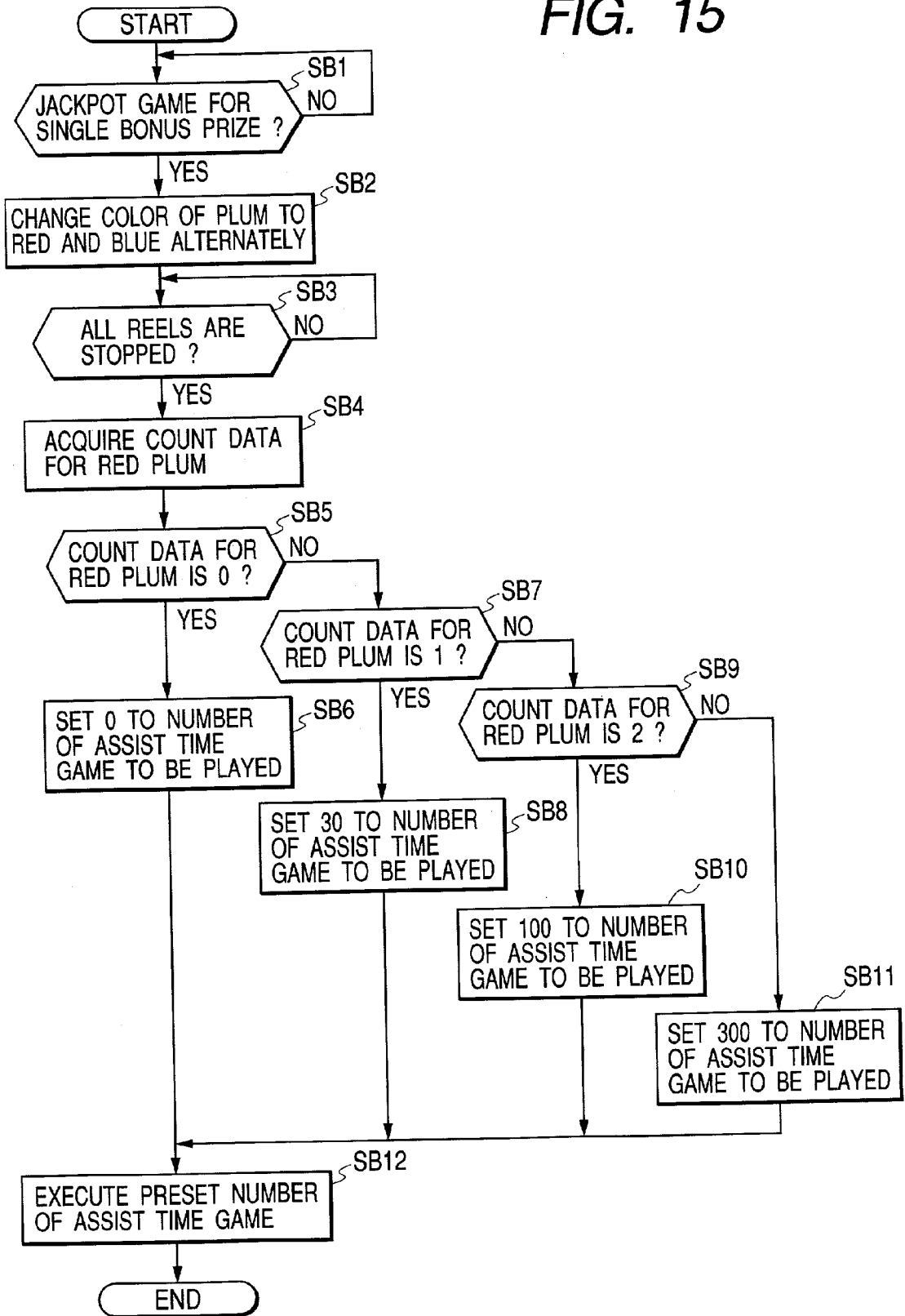
	BASIC		JACKPOT
PN=1 ...		...	
PN=2 ...		...	
PN=3 ...		...	
PN=4 ...		...	
PN=5 ...		...	
PN=6 ...		...	
PN=7 ...		...	
PN=8 ...		...	
PN=9 ...		...	
PN=10 ...		...	
PN=11 ...		...	
PN=12 ...		...	
PN=13 ...		...	
PN=14 ...		...	
PN=15 ...		...	
PN=16 ...		...	
PN=17 ...		...	
PN=18 ...		...	
PN=19 ...		...	
PN=20 ...		...	
PN=21 ...		...	

FIG. 15



## REEL-TYPE SLOT MACHINE

### BACKGROUND OF THE INVENTION

[0001] The invention relates to a reel-type slot machine.

[0002] Slot machines are classified into reel-type slot machines having mechanical spinning reels, and video-type slot machines which variably display symbols on a display device. A video-type slot machine displays symbols on a display device on the basis of image data stored in a ROM or a like device. Hence, symbols can be displayed while their sizes and colors are freely changed. Consequently, a presentation effect of the video-type slot machine is diverse, and animation can also be displayed.

[0003] A slot machine usually comprises three reels, three reel stop buttons assigned to the respective reels, and a start lever to be used for starting a game. When a player lowers the start lever, all reels start spinning simultaneously. When the player has pressed the reel stop buttons, the reels come to a halt. When specific symbols are stopped along a valid payline, a winning combination is established, whereupon a win arises. Upon occurrence of a win, a player can acquire tokens in a number determined on the basis of the winning combination by which the win has been determined.

[0004] Here, a win is determined in two steps. A first step is called internal lottery. In relation to internal lottery, random number selection is performed at a timing at which the start level is actuated, to thereby determine a prize group in which a win is to be determined or a failure. Internal lottery information showing a result of random selection is generated. Namely, a one-to-one correspondence arises between a prize group and a winning combination, or a plurality of winning combinations may correspond to one prize group.

[0005] In the second step, positions at which reels are to be stopped are controlled in accordance with actuation of the reel stop buttons. Specifically, in a case where the internal lottery information represents a failure, even when a player has actuated reel stop buttons at a timing when symbols that would constitute a certain winning combination approach a valid payline, a control operation is performed such that timings at which the reels are to be stopped are delayed, to thereby hinder the symbols from coming to a halt along the valid payline. In contrast, in a case where a win has been determined for a certain prize group through internal lottery, a win is achieved when the player has actuated the reel stop buttons, to thereby align, along a valid payline, symbols that would constitute a winning combination corresponding to a prize group indicated by the internal status. In other words, in order to acquire a win, the player must acquire a win for a certain prize group through internal lottery and align, along a valid payline, symbols that constitute a winning combination corresponding to the thus-determined prize group.

[0006] In a recent reel-type slot machine, lamps are disposed at the inside of the reels, thereby radiating light onto the backs of symbols. The reel-type slot machine of this kind has a merit of ability to make symbols conspicuous.

[0007] However, in a related-art reel-type slot machine, symbols on the respective reels are stationary, and the symbols are rotatably displayed in a circulatory manner. As compared with a video-type slot machine, the reel-type slot machine has a drawback of inability to change colors of symbols.

[0008] In a certain type of slot machine, a gaming status is shifted to a big bonus when BLUE 7 symbols are aligned. Further, when RED 7 symbols are aligned, a gaming status is shifted to a super big bonus. Here, a normal big bonus means a series of games which enable a player to acquire a larger payout than in an ordinary game. A super big bonus is a series of games which enable a player to acquire a much larger payout than in a normal big bonus.

[0009] Consequently, a player actuates reel stop buttons while aiming at establishment of a super big bonus. A player who is skilled in actuating reel stop buttons can acquire a super big bonus by aligning RED 7 symbols along a predetermined payline. In contrast, a player who is not familiar with actuation of reel stop buttons encounters difficulty in accurately identifying RED 7 symbols and BLUE 7 symbols and hence fails to align RED 7 symbols even while aiming at RED 7 symbols. In short, a difference in the level of skill among players leads to a great difference in the number of tokens which can be acquired.

[0010] Depending on specifications of a slot machine, it may be desirable to eliminate a difference in the level of skill between beginner players and advanced-level players. In a related-art slot machine, symbols are given fixed colors, and hence the slot machine cannot eliminate the effects of a difference in skill level.

### SUMMARY OF THE INVENTION

[0011] It is therefore an object of the present invention to provide a reel-type slot machine which makes a player unable to identify colors of symbols during the course of spinning action of reels.

[0012] In order to achieve the above object, according to the present invention, there is provided a reel-type slot machine, comprising:

[0013] a plurality of reels, each having an outer peripheral face and an inner peripheral face;

[0014] a plural kinds of symbols, provided on the outer peripheral face of each of the reels, the symbols including at least one group of special symbols having identical shapes and different colors;

[0015] an illuminator, which selectively emits at least one of plural colors of light to illuminate the inner peripheral face of at least one of the reels; and

[0016] a controller, which spins and stops the reels while controlling the illuminator such that the colors of the special symbols are not ascertained by a player when the at least one reel is spun, and each of the special symbols are illuminated with one of the plural colors of light pursuant to a predetermined rule, when the at least one reel is stopped.

[0017] Consequently, the player can be inhibited from actuating reel stop buttons while aiming at specific symbols.

[0018] Preferably, the group of special symbols includes at least a first kind of symbol related to a first type of winning combination and a second kind of symbol related to a second type of winning combination.

[0019] In this case, the player can be inhibited from aiming at specific symbols involving payment of a large



number of payouts. Hence, players can be winned gaming values without regard to their skills.

[0020] Preferably, the group of special symbols includes a first symbol illuminated with a first color of light and a second symbol illuminated with a second color of light. The controller shifts a gaming status of the slot machine from a first, basic gaming status to a second gaming status which provides higher gaming value than the first gaming status, when a winning combination involves the first symbol. The controller shifts the gaming status of the slot machine from the first gaming status to a third gaming status which provides higher gaming value than the second gaming status, when a winning combination involves the second symbol.

[0021] The controller may provide a gaming value corresponding to one of the special symbols illuminated by the determined one of the colors of light.

[0022] Here, the term "gaming value" means any values relating to games. For instance, the gaming value includes payment of tokens or a shift to a more advantageous gaming status. For instance, the first gaming status corresponds to an ordinary game; the second gaming status corresponds to a normal big bonus; and the third gaming status corresponds to a super big bonus. Further, if symbols corresponding to the normal big bonus are BLUE 7 and symbols corresponding to the super big bonus are RED 7, the player cannot actuate the reel stop buttons while aiming at RED 7. Hence, gaming values to be winned to players can be made equal between beginner players and advanced players.

[0023] Preferably, a position of each of the special symbols on the at least one reel is predetermined before the at least one reel is spun. The predetermined rule defines a relationship between a stop position of the at least one reel and a color of light emitted by the illuminator. The controller detects the stop position of the at least one reel to control the illuminator with reference to the predetermined rule.

[0024] In a case where the reel is spun by a stepping motor, the stop position of the reel can be detected based on a signal from a sensor detecting a spinning phase of the reel once per one spinning and the number of pulses supplied to the stepping motor.

[0025] Alternatively, the controller changes a position of at least one of the special symbols on the at least one reel, when a predetermined condition is satisfied. When the reels have come to a standstill, the color of the specific symbols is displayed. If the specific symbols are situated at fixed positions on the reels at all times, the player can aim at specific symbols having a high gaming value by ascertaining the color of the specific symbols from the types of symbols located before and after the specific symbols. However, if positions of the specific symbols on the reels are changed when a certain condition has been satisfied, the player encounters greater difficulty in aiming at specific symbols.

[0026] Preferably, the slot machine further comprises a plurality of stoppers, each associated with one of the reels, through which a player inputs an instruction to stop an associated one of the reels. The predetermined rule defines a relationship between a position of the at least one reel when the instruction is inputted and a color of light emitted by the illuminator. The controller detects the position of the

at least one reel when the instruction is inputted to control the illuminator with reference to the predetermined rule.

[0027] Alternatively, the slot machine further comprising:

[0028] a spin starter, through which a player inputs an instruction to spin the reels; and

[0029] a random number selector, which determines one of a plurality of lottery results including at least one special lottery result corresponding to the special symbols, based on a timing at which the instruction is inputted through the spin starter, to generate internal information indicating the determined one of the lottery results.

[0030] The controller activates the illuminator after the at least one reel is stopped, only when the internal information indicates that the determined one of the lottery result is the special lottery result.

[0031] In this configuration, the color of special symbols is displayed at the stoppage of the reels only when the internal information indicates the special lottery result. Hence, the player can ascertain that the special winning combination has been determined by the internal lottery. In general, in order to inform the player of such a result of the internal lottery, a custom-designed display device must be provided. However, the invention enables the player to be informed of a result of internal lottery by the color of specific symbols.

[0032] Alternatively, the slot machine further comprising:

[0033] a spin starter, through which a player inputs an instruction to spin the reels;

[0034] a random number selector, which determines one of a plurality of lottery results including at least one special lottery result corresponding to the special symbols, based on a timing at which the instruction is inputted through the spin starter, to generate internal information indicating the determined one of the lottery results; and

[0035] a plurality of stoppers, each associated with one of the reels, through which the player inputs an instruction to stop an associated one of the reels.

[0036] The controller controls the illuminator so as to subsequently emit the colors of light corresponding to the special symbols when the internal information indicates the determined one of the lottery result is the special lottery result, and controls the illuminator so as to determine one of the colors of light when the instruction is inputted through one of the stopper associated with the at least one reel.

[0037] Here, it is preferable that the controller provides a gaming value corresponding to one of the special symbols illuminated by the determined one of the colors of light.

[0038] In this configuration, occurrence of any one of combinations of special symbols is left to actuation of the stoppers performed by the player. A pleasure totally differing from that yielded when the player aims at the geometries of symbols during spinning of the reels can be afforded to the player. Further, a sub-game to be used for selecting special symbols can be offered without a necessity for a custom-designed device.

[0039] The following are provided as modes of control of the illuminator during spinning of the reels. First, the controller may deactivate the illuminator while the reels are spun. Second, the controller may control the illuminator so as to illuminate at least one of the special symbols with a color of light which is different from an original color of the at least one of the special symbols. Third, the controller may control the illuminator so as to emit at least one of the colors of light intermittently.

[0040] According to the present invention, there is also provided a reel-type slot machine, comprising:

[0041] a plurality of reels, each having an outer peripheral face and an inner peripheral face;

[0042] a plural kinds of symbols, provided on the outer peripheral face of each of the reels, the symbols including a first special symbol having a first color and a second special symbol having a second color;

[0043] an illuminator, which selectively emits at least one of plural colors of light to illuminate the inner peripheral face of at least one of the reels; and

[0044] a controller, which shifts a gaming status of the slot machine from a first, basic gaming status to a second gaming status which provides higher gaming value than the first gaming status, when a winning combination involves the first symbol, and shifts the gaming status from the first gaming status to a third gaming status which provides higher gaming value than the second gaming status, when a winning combination involves the second symbol,

[0045] wherein the controller controls the illuminator so as to emit the first color of light such that each of the special symbols becomes the first special symbol.

[0046] In this case, for example, the first gaming status corresponds to an ordinary game, the second gaming status corresponds to a regular bonus, and the third gaming status corresponds to a big bonus. During a big bonus, a regular bonus can be performed a predetermined number of times. According to the configuration, during a big bonus, all the special symbols can be changed to a color corresponding to a regular bonus. Hence, a regular bonus can be readily acquired from the big bonus.

[0047] According to the present invention, there is also provided a reel-type slot machine, comprising:

[0048] a plurality of reels, each having an outer peripheral face and an inner peripheral face;

[0049] a plural kinds of symbols, provided on the outer peripheral face of each of the reels, the symbols including a plurality kinds of special symbols;

[0050] an illuminator, which selectively emits at least a first color of light and a second color of light; and

[0051] a controller, which controls the illuminator so as to emit one of the first color of light and the second color of light while the reels are spun under a basic gaming status, and controls the illuminator so as to illuminate a first group of the special symbols with the first color of light and illuminate a second group of the special symbols with the second color of light while the reels are spun under a special gaming

status shifted from the basic gaming status when a predetermined condition is satisfied.

[0052] Preferably, the controller provides a gaming value to a player, in accordance with the number of the first group of the special symbols aligned on a predetermined pay line when the reels are stopped under the special gaming status.

[0053] For instance, the special gaming status corresponds to a jackpot game for a single bonus, and gaming values to be afforded to the player correspond to so-called assist time games in which a result of internal lottery is reported.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[0054] In the accompanying drawings:

[0055] FIG. 1 is a perspective view showing an appearance of a slot machine according to a first embodiment of the invention;

[0056] FIG. 2 is a perspective view showing the structure of a left reel and a peripheral configuration thereof;

[0057] FIG. 3 is a descriptive view showing an example of symbols to be displayed on the left reel, those to be displayed on a center reel, and those to be displayed on a right reel;

[0058] FIG. 4 is a block diagram showing an electrical configuration of the slot machine;

[0059] FIG. 5 is a descriptive view showing an example of contents stored in a prize group lottery table;

[0060] FIG. 6 is a descriptive view showing an example of a stop table;

[0061] FIG. 7 is a timing chart showing a relationship between a detection signal, a symbol number, a drive signal, and position data;

[0062] FIG. 8 is a flow chart showing the operation of an overall slot machine to be performed when a CPU executes a control program;

[0063] FIG. 9 is a descriptive view showing symbols to be displayed during spinning of the reels and symbols to be displayed after stoppage of the reels;

[0064] FIG. 10 is a descriptive view showing a specific example of changes in symbols RED 7 and BLUE 7;

[0065] FIG. 11 is a descriptive view showing a relationship between prize groups, winning combinations, and gaming values in a slot machine according to one modified example of the first embodiment;

[0066] FIG. 12 is a descriptive view showing contents stored in a prize group lottery table to be used for a slot machine according to a second embodiment of the invention;

[0067] FIG. 13 is a descriptive view showing a relationship between prize groups, winning combinations, and gaming values in a slot machine according to one modified example of the second embodiment;

[0068] FIG. 14 is a descriptive view showing a difference between symbols to be displayed in an ordinary game and those to be displayed in a jackpot game; and

[0069] FIG. 15 is a flowchart showing the operation of the slot machine during a period of jackpot game for a single bonus.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0070] Preferred embodiments of the invention will be described hereinbelow by reference to the accompanying drawings. Here, an explanation is given of a case where the invention is applied to a slot machine.

[0071] As shown in FIG. 1, a housing of a slot machine 1 according to a first embodiment of the invention has a main unit 2 and a front door 3 attached to the front of the main unit 2. A LCD (liquid crystal display) device 62 for providing a player with predetermined information is provided at an upper portion of the front door 3. A panel display section D disposed at a middle portion of the front door 3 has three vertically-elongated rectangular display windows 4a, 4b, and 4c. Three horizontal paylines L1 through L3 and two inclined paylines L4 and L5 are provided across the display windows 4a, 4b, and 4c. Three reels; namely, a left reel R1, a center reel R2, and a right reel R3, are rotatably provided at the inside of the panel display section D, wherein a plurality of types of symbols are drawn on outer peripheral surfaces of the respective reels. The display windows 4a, 4b, and 4c are formed from transparent material; e.g., acrylic resin. Therefore, the player can observe symbols on the left reel R1, those on the center reel R2, and those on the right reel R3 by way of the respective display windows 4a, 4b, and 4c.

[0072] Various types of symbols are printed on the surface of the left reel R1 (i.e., a surface visible by way of the display window 4a) as shown in FIG. 2. A shading film S for shading light is provided on the back of the left reel R1, except for a portion thereof. The area where the shading film S is formed does not permit transmission of light even when the back of the reel is exposed to light. The shading film S is not formed in areas on the back for specific symbols, and an irregular member P for scattering light is formed on the back of the left reel R1. In addition, areas on the back of the reel for other specific symbols are made white and translucent. In the embodiment shown in FIG. 2, the irregular member P is formed within the area defined by the contour of the symbol "7".

[0073] A left reel illumination unit 21 is disposed at a position corresponding to the display window 4a for the left reel R1. The left reel illumination unit 21 has three shades partitioned from each other by walls; that is, an upper shade 211, a middle shade 212, and a lower shade 213. The upper shade 211 has a red cold cathode tube 211R for emitting red light and a blue cold cathode tube 211B for emitting blue light; the middle shade 212 has a red cold cathode tube 212R for emitting red light and a blue cold cathode tube 212B for emitting blue light; and the lower shade 213 has a red cold cathode tube 213R for emitting red light and a blue cold cathode tube 213B for emitting blue light. Colors of specific symbols can be changed, as required, by controlling activation and deactivation of the cold cathode tubes.

[0074] A shading piece 471 is provided at a portion of the left reel R1 so as to project from a reel main body. When the left reel R1 spins, the shading piece 471 goes across a photo coupler 472. Here, the structures of the center reel R2 and

the right reel R3 and peripheral configurations thereof are identical with those of the left reel R1 described in connection with FIG. 2.

[0075] FIG. 3 shows example symbols to be displayed on the left reel R1, those to be displayed on the center reel R2, and those to be displayed on the right reel R3. As illustrated, the symbols are appended symbol numbers PN=1 to 21. Here, a solid "7" depicts a red "7" (e.g., a symbol appended PN=1 on the left reel), and a hatched "7" depicts a blue "7" (e.g., a symbol appended PN=8 on the center reel). The color of symbol "7" is determined by activation and deactivation of the blue and red cold cathode tubes. The BLUE 7 symbol can be ascertained by the player when the blue cold cathode tube is activated and the red cold cathode tube is deactivated. Similarly, the RED 7 symbol can be ascertained by the player when the blue cold cathode tube is deactivated and the red cold cathode tube is activated. Further, the symbol "7" becomes white when both the blue and red cold cathode tubes are activated.

[0076] In a play to be performed by the slot machine 1, when a predetermined combination of symbols is aligned with any of the paylines L1 through L5 that has been made valid by insertion of tokens, tokens are ejected in a number corresponding to the winning combination. Tokens are to be inserted into the slot machine 1 before start of a game. Further, tokens are required for a player to continue playing games. In short, tokens can be said to be a medium having a gaming value, such as continuation of a game.

[0077] In the following description, from among combinations of symbols, a combination of symbols that would impart gaming values is called a "winning combination," and a combination of symbols that is worthless is called a "failure." The present embodiment employs the following winning combinations.

[0078] 1) RED 7 winning combination is a combination of a symbol appended symbol number PN=1 or 10 on the left reel R1, a symbol appended symbol number PN=12 or 14 on the center reel R2, and a symbol appended symbol number PN=7 on the right reel R3.

[0079] 2) BLUE 7 winning combination is a combination of a symbol appended symbol number PN=14 on the left reel R1, a symbol appended symbol number PN=8 or 19 on the center reel R2, and a symbol appended symbol number PN=20 on the right reel R3.

[0080] 3) BAR winning combination is a combination of a symbol appended symbol number PN=3 or 9 on the left reel R1, a symbol appended symbol number PN=4 or 7 on the center reel R2, and a symbol appended symbol number PN=12 or 16 on the right reel R3.

[0081] 4) BELL winning combination is a combination of a symbol appended symbol number PN=4, 7, 11, 15, or 20 on the left reel R1, a symbol appended symbol number PN=2, 6, 11, 16, or 21 on the center reel R2, and a symbol appended symbol number PN=1, 3, 5, 10, 14, or 18 on the right reel R3. The BELL winning combination offers a payout of seven tokens.

[0082] 5) WATERMELON winning combination is a combination of a symbol appended symbol number PN=6, 17, or 19 on the left reel R1, a symbol appended symbol number PN=18 on the center reel R2, and a symbol

appended symbol number PN=4, 8, 17, or 21 on the right reel R3. The WATERMELON winning combination offers a payout of 15 tokens.

[0083] 6) CHERRY winning combination is established when any one of the symbols appended symbol numbers PN=12, 16, and 21 on the left reel R1 has stopped at a validated payline of the paylines L1 through L5, and stop positions of the other reels are irrelevant to this combination. The CHERRY winning combination yields a payout of two tokens.

[0084] 7) PLUM winning combination is a combination of a symbol appended symbol number PN=2, 5, 8, 13, or 18 on the left reel R1, a symbol appended symbol number PN=1, 5, 10, 13, 15, or 20 on the center reel R2, and a symbol appended symbol number PN=2, 6, 9, 11, 13, 15, or 19 on the right reel R3. Even when a PLUM winning combination has been established, tokens are not paid out; however, the player can play a replay game. Here, a replay game means that a player can again play a game without insertion of new tokens.

[0085] Of various kinds of winning combinations, a BELL winning combination, a WATERMELON winning combination, and a CHERRY winning combination are generically called small winning combinations. When a BAR winning combination has been established, the gaming status shifts to a first special gaming status called a regular bonus. In the regular bonus state, the player can play a jackpot game 12 times. A period of regular bonus expires when the player plays a jackpot game 12 times or achieves a win a maximum of eight times. A jackpot game is played by betting one token, to thereby make only the center payline L2 valid. A combination of symbols "PLUM-PLUM-PLUM" is adopted as a combination of symbols that would determine a win in a jackpot game. When these symbols are aligned with the payline L2, the slot machine 1 pays 15 tokens. In other words, even when a PLUM winning combination is aligned in an ordinary playing state, the player is allowed to play only a replay game. However, when a combination of symbols "PLUM-PLUM-PLUM" is aligned in a jackpot game to be offered during a period of a regular bonus or a big bonus to be described later, the player can be wined a payment of 15 tokens. A probability of a combination of symbols "PLUM-PLUM-PLUM" appearing during a jackpot game is set so as to become higher than that appearing in an ordinary game. In an regular bonus gaming status, a jackpot game which is not available in an ordinary gaming status is provided. Accordingly, the regular bonus gaming status can be said to be advantageous to the player as compared with an ordinary gaming status.

[0086] When a win is determined through a BLUE 7 winning combination, a gaming status shifts from an ordinary gaming status to a second special gaming status called a normal big bonus. During the period of big bonus, the player can establish a small winning combination a maximum of 30 times, and can play a regular bonus game a maximum of three times. A normal big bonus game is more advantageous to the player as compared with a regular bonus game.

[0087] When a win is determined through a RED 7 winning combination, a gaming status shifts from an ordinary gaming status to a third gaming status called a super big bonus. The super big bonus differs from a normal big bonus

in that a small winning combination is reported. As will be described later, in the slot machine 1, when symbols that constitute a winning combination for which a win has been determined through internal lottery are aligned with any of the valid paylines L1 through L5, a win is determined. For this reason, if the player can ascertain a winning combination which has been determined through internal lottery, the player can acquire a larger number of tokens. Reporting of a small winning combination means that the kind of a winning combination which has been determined through internal lottery is reported to the player. Consequently, a super big bonus game is more advantageous to the player as compared with a normal big bonus.

[0088] Turning again to FIG. 1, disposed below the display windows 4a, 4b, and 4c is an operation section OP in which are arranged various types of operation members to be used by a player for playing games. The operation section OP has a token insertion slot 5, a start lever 6, a left reel stop button 7a, a center reel stop button 7b, a right reel stop button 7c, a credit button 8, and a BET button 15.

[0089] The token insertion slot 5 is provided below the display window 4c and enables insertion of tokens. When one token is inserted, the payline L1 becomes valid. When two tokens are inserted, the paylines L1 through L3 become valid. When three tokens are inserted, the paylines L1 through L5 become valid. Moreover, when the player inserts more than three tokens, the fourth token and subsequent tokens are saved as credits in the slot machine 1.

[0090] The BET button 15 is disposed at a lower left position with respect to the display window 4a. The player uses the BET button 15 to specify the number of tokens to be bet in one game. By the player actuating the BET button 15, stored tokens can be bet without insertion of tokens by way of the token insertion slot 5. Therefore, the paylines L1 through L5 become valid, as required, by actuation of the BET button 15 in accordance with the specified number of tokens. The relationship between the number of tokens specified by actuation of the BET button 15 and the paylines L1 through L5 to become valid is identical with that determined in a case where tokens are inserted directly.

[0091] The start lever 6 is disposed below the BET button 15. The start lever 6 is used by the player to instruct start of a game. When the player lowers the start lever 6, the reels R1, R2, and R3 start spinning simultaneously, thereby variably displaying symbols within the respective display windows 4a, 4b, and 4c.

[0092] The left reel stop button 7a, the center reel stop button 7b, and the right reel stop button 7c are provided on the right side of the start lever 6. The left reel stop button 7a is used for stopping the left reel R1 spinning within the display window 4a; the center reel stop button 7b is used for stopping the center reel R2 spinning within the display window 4b; and the right reel stop button 7c is used for stopping the right reel R3 spinning within the display window 4c.

[0093] A credit button 8 to be used for determining whether to store tokens within the slot machine 1 is provided on the right side of the reel stop button 7c. When the player actuates the credit button 8, a change between validation of credits or invalidation of credits is enabled. In a predetermined case, tokens are paid to the player by way of a token payout port 10a and stored in a token receiver 10.

[0094] FIG. 4 shows a circuit configuration including a controller for controlling game processing operation in the slot machine 1, and a peripheral device which constitutes the slot machine 1 and is relevant to the invention.

[0095] The controller includes a control board 30 as a primary constituent element. The control board 30 has a CPU 31, a clock generator 32, a sequence generator 33, RAM 34, ROM 35, a transmission timing controller 36, a data transmitter 37, an input port 38, and an output port 39.

[0096] The CPU 31 is connected to constituent elements of the control board 30 excluding the transmission timing generator 36, by way of a bus (not shown). The CPU 31 controls respective constituent elements by executing a control program CP. A manner of activating the overall slot machine 1 is specified in the control program CP. Therefore, the CPU 31 serves as a control center of the slot machine 1. The clock generator 32 has an oscillation circuit including a quartz generator, generates a reference clock signal CLK of fixed cycle, and supplies the reference clock signal to the CPU 31 and the sequence generator 33.

[0097] The sequence generator 33 is constituted of a high-speed ring counter and produces count data CD by counting the reference clock signal CLK. Depending on contents of a prize group selection table TBL1 to be described later, the numerical values of the count data CD assume a range of, e.g., 1 to 60000. The count data CD are supplied to the CPU 31 at all times. The CPU 31 senses a timing at which the start lever 6 is pressed by the player. The count data CD are sampled at that timing, thereby producing sampling data SD.

[0098] Since the player cannot ascertain the value of the count data CD, the timing at which the player lowers the start lever 6 is random. Consequently, the value of the sampling data SD is also random. The sequence generator 33 operates in synchronism with the reference clock signal CLK. Hence, the cycle of the count data CD is very short. For example, provided that the reference clock signal CLK has a cycle of 30 MHz, a time required for the value of the count data to change from "1" to "60000" is 2 msec. Consequently, even if the player can ascertain the value of the count data CD by unauthorized means, the player cannot cause the CPU 31 to produce the sampling data SD having a desired value by actuation of the start lever 6.

[0099] Next, the RAM 34 serves as a work area of the CPU 31 and stores a result of processing currently in progress or data or the like prepared as required.

[0100] In addition to the control program CP, a prize group lottery table TBL1, a stop table group TBL2, and a winning symbol combination table TBL3 are stored in the ROM 35. Stored in the winning symbol combination table TBL3 in an associated manner are combinations of symbols that would constitute a winning combination; the numbers of tokens to be paid at the time the winning combinations arise; and a win determination code representing the winning combination.

[0101] As mentioned above, the winning combinations prepared in the slot machine 1 according to the embodiment include a RED 7 winning combination, a BLUE 7 winning combination, a BAR winning combination, a BELL winning combination, a WATERMELON winning combination, a CHERRY winning combination, and a PLUM winning

combination. Establishment of the RED 7 winning combination serves as the impetus for shifting a gaming status to a super big bonus. Establishment of the BLUE 7 winning combination serves as the impetus for shifting a gaming status to a normal big bonus. Establishment of the BAR winning combination serves as the impetus for shifting a gaming status to a regular bonus.

[0102] The gaming values which the player can acquire differ from one kind of small winning combination to another. A control operation corresponding to a difference in gaming values is required for controlling the slot machine 1. Classification of types of winning combinations according to gaming values is convenient. In the following description, an aggregate of various winning combinations is called a prize group.

[0103] As mentioned above, the RED 7 winning combination (super big bonus) and the BLUE 7 winning combination (normal big bonus) are identical with each other in terms of progress in a series of games, exclusive of report of a small winning combination. In the slot machine 1 of the embodiment, one prize group is assigned to these winning combinations. A prize group including the RED 7 winning combination and the BLUE 7 winning combination is called a big bonus prize. For the remaining winning combinations, prize groups are prepared so as to correspond to respective winning combinations. A prize group corresponding to the BAR winning combination is called a regular bonus prize; a prize group corresponding to the BELL winning combination is called a BELL prize; a prize group corresponding to the WATERMELON winning combination is called a WATERMELON prize; a prize group corresponding to the CHERRY winning combination is called a CHERRY prize; and a prize group corresponding to the PLUM winning combination is called a REPLAY GAME prize.

[0104] The prize group lottery table TBL1 is used for determining a prize group during internal lottery operation. FIG. 5 shows an example of contents of the prize group lottery table TBL1. As illustrated, the prize group lottery table TBL1 stores lottery classification data pertaining to first through seventh memory areas ADR1 through ADR7 of the ROM 35. Values of the respective lottery classification data sets correspond to the sizes of classified segments for respective prize groups. For instance, lottery classification data corresponding to failures are stored in the first memory area ADR1 and assume a value of 54000. Lottery classification data corresponding to a big bonus prize are stored in the seventh memory area ADR7 and assume a value of 300. The internal lottery table TBL1 stores mere numerical values and hence has a merit of consuming only an extremely small amount of memory capacity.

[0105] Internal lottery operation comprises the following steps. In a first step, the CPU 31 reads lottery classification data from the first memory area ADR1, adds the thus-read lottery classification data to sampling data SD, and stores a result of addition into the internal register.

[0106] In a second step, the CPU 31 reads the result of addition from the internal register and compares the result with reference data. Here, the value of reference data is equivalent to a total sum of values of the respective lottery classification data sets stored in the first through seventh memory areas ADR1 through ADR7.

[0107] In a third step, when the additional value is greater than the value of reference data, the CPU 31 determines a

prize group corresponding to the lottery classification data read immediately before or a failure. In the first determination, the lottery classification data read immediately before are the data read from the first memory area **ADR1** and hence correspond to a failure. Consequently, if the additional value is greater than the value of reference data, a failure is determined in the first determination.

**[0108]** In a fourth step, when the additional value is less than the value of reference data, the CPU **31** reads lottery classification data from the second memory area **ADR2**, adds the thus-read lottery classification data to the result of previous addition read from the internal register, and stores a result of addition again into the internal register.

**[0109]** In a fifth step, the CPU **31** reads the result of addition from the internal register and compares the result with the reference data. In subsequent steps, processing is iterated until the additional value becomes greater than the value of reference data, thereby determining a prize group. Consequently, a relationship between the first sampling data **SD** and the prize groups is as shown in **FIG. 5**. As illustrated, **SD=60000 to 6001** corresponds to a failure; **SD=6000 to 4201** corresponds to a REPLAY prize; **SD=4200 to 3001** corresponds to a CHERRY prize; **SD=3000 to 1801** corresponds to a BELL prize; **SD=1800 to 901** corresponds to a WATERMELON prize; **SD=900 to 301** corresponds to a regular bonus prize; and **SD=301 to 1** corresponds to a big bonus prize.

**[0110]** The CPU **31** produces internal lottery data **ISD** on the basis of a result of determination. The internal lottery data **ISD** are 8-bit data. A first bit is allocated to a big bonus prize; a second bit is allocated to a regular bonus prize; a third bit is allocated to a BELL prize; a fourth bit is allocated to a WATERMELON prize; a fifth bit is allocated to a CHERRY prize; and a sixth bit is allocated to a REPLAY prize. If a win has been determined for any one of the prizes through internal random sampling, the CPU **31** sets the digit of a corresponding bit to "1." When no win has been determined, the digit of a bit is set to "0." Consequently, it is possible to ascertain whether or not a win has been determined or a prize group for which a win has been determined, by referring to the internal status data **ISD**.

**[0111]** Next, the stop table group **TBL2** is constituted of a plurality of stop tables. In the respective stop tables, symbol numbers **PN** to be displayed on the center payline **L1** and data pertaining to the number of frames over which reels coast (hereinafter simply called "coasting frame data") are stored in association with each other. Here, the number of frames over which reels coast means the number of frames over which the left reel **R1**, the center reel **R2**, and the right reel **R3** coast until they come to a halt from the time the player has pressed the left reel stop button **7a**, the time the player has pressed the center reel stop button **7b**, and the time the player has pressed the right reel stop button **7c**, respectively.

**[0112]** Since the left reel **R1**, the center reel **R2**, and the right reel **R3** spin at high speed, even when the player has actuated the stop buttons while aiming at specific symbols, the player is required to have a skill for stopping the reels such that desired symbols are stopped. Learning of actuation of stop buttons involves variations among individual players. Particularly, a player having a low level of kinetic vision encounters difficulty in stopping the reels such that desired

symbols appear. In contrast, a player having a high level of kinetic vision can actuate the stop buttons when desired symbols are displayed along a payline.

**[0113]** However, in order to enable a player having a low level of kinetic vision to enjoy playing games, alignment of symbols must be made easy to a certain extent. In contrast, when the result of internal lottery is a failure, there is a necessity for controlling spinning of the reels such that no winning combination is established.

**[0114]** The stop table is used for controlling such spinning actions of the reels. Positions at which the left reel **R1**, the center reel **R2**, and the right reel **R3** are to be stopped are determined by reference to a stop table. **FIG. 6** shows an example of the stop table. The stop table is for the left reel **R1**. The coasting frame data stored in the stop table are set such that symbols **BELL** are likely to be stopped at a lower payline **L3**. For example, a player is assumed to have pressed the left reel stop button **7a** at a timing at which a symbol **BAR** specified by symbol number **PN=9** is displayed along the center payline **L1**. In this case, when the stop table is referred to on the basis of the symbol number **PN=9**, there are selected coasting frame data in which the number of frames over which a reel coasts assumes three. Consequently, if spinning of the left reel **R1** is controlled on the basis of the thus-selected coasting frame data, stopping of **BELL** symbols (symbol number **PN=7**) at the payline **L3** will become possible.

**[0115]** Turning back to **FIG. 4**, description of the controller will be continued. The transmission timing controller **36** and the data transmitter **37** shown in the drawing play the role of transmitting, to the LCD controller **61**, the kind of a winning combination determined through internal lottery and information about a stop table selected in association with the winning combination. The LCD controller **61** has a ROM in which various types of image data are stored. The LCD controller **61** reads image data, as required, and supplies the image data to the LCD device **62**. The LCD device **62** displays various types of images on the basis of image data. For example, reporting of a small winning combination to be performed during the course of a super big bonus game is performed, by the CPU **31** transmitting internal status data **ISD** to the LCD controller **61** by way of the data transmitter **37**; the LCD controller **61** reading image data corresponding to a winning combination instructed by the internal status data **ISD** from the ROM; and the thus-read image data being supplied to a LCD device.

**[0116]** The input port **38** is an input interface for signals supplied from various types of sensors to be described later. The output port **39** is an output interface for supplying a control signal to motors and various devices.

**[0117]** The following are enumerated as primary input signal generators which are connected to the input port **38** and generate various types of input signals. An token insertion sensor **41** senses tokens inserted by way of the token insertion slot **5** and produces one output pulse for each token. Consequently, the CPU **31** can sense the number of inserted tokens by counting the output pulses.

**[0118]** A BET button sensor **42** senses actuation of the BET button **15**. A start lever sensor **43** senses actuation of the start lever **6**. A left reel stop button sensor **44** senses actuation of the left reel stop button **7a**; a center reel stop

button sensor 45 senses actuation of the center reel stop button 7b; and a right reel stop button sensor 46 senses actuation of the right reel stop button 7c. Further, a left reel position detector 47 senses the spinning position of the left reel R1 and produces a detection signal 47a; a center reel position detector 48 senses the spinning position of the center reel R2 and produces a detection signal 48a; and a right reel position detector 49 senses the spinning position of the center reel R2 and produces a detection signal 49a.

[0119] The left reel position detector 47 has the photo coupler 472 shown in FIG. 2, an amplifier, and a comparator. The photo coupler 472 has a light-emitting section and a light-receiving section. When the light-receiving section outputs a received light signal of a level corresponding to the quantity of received light, the amplifier amplifies the received light signal. The comparator compares the signal output from the amplifier with a predetermined threshold value, thereby producing the detection signal 47a. The signal is output as an output signal from the left reel position detector 47. When the left reel R1 spins, the shading piece 471 shown in FIG. 2 passes through the photo coupler 472 once during the course of one spin. Consequently, the spinning position of the right reel R1 can be sensed by the detection signal 47a. The right position detector reel 49 and the center position sensor reel 48 are constructed in the same manner as is the left reel position detector 47.

[0120] Primary members which are connected to the output port 39 and receive supply of various output signals include a left reel driving motor 51, a center reel driving motor 52, a right reel driving motor 53, the left reel illumination unit 21, the center reel illumination unit 22, and the right reel illumination unit 23.

[0121] The left reel driving motor 51 drives the left reel R1 so as to spin; the center reel driving motor 52 drives the center reel R2 so as to spin; and the right reel driving motor 53 drives the right reel R3 so as to spin. In the embodiment, the driving motors are constituted of stepping motors. Consequently, the CPU 31 can correctly determine a stop position for the left reel R1, that for the center reel R2, and that for the right reel R3 by adjusting the number of pulses of respective drive signals 51a, 52a, 53a to be supplied to the left reel driving motor 51, the center reel driving motor 52, and the right reel driving motor 53, respectively.

[0122] Each of the motors 51, 52, 53 is constructed so as to spin once in response to 420 pulses. As mentioned above, 21 symbols are formed on each of the reels R1, R2, and R3. One symbol can be advanced by supplying 20 pulses to the motor. The CPU 31 counts the number of pulses to be supplied to the motors 51, 52, and 53. Count results are retained as position data MD1, MD2, and MD3. Values of the position data MD1, MD2, and MD3 are reset at timings at which the detection signals 47a, 48a, and 49a become active.

[0123] FIG. 7 is a timing chart showing the relationship between the detection signal 47a, the symbol number PN, a drive signal 51a, and the position data MD1. As illustrated, when the detection signal 47a rises from a low level to a high level at time t1, the value of the position data MD1 is reset. At time t1, the shading piece 471 shown in FIG. 2 passes through the photo coupler 472. At this time, in relation to the spinning position of the left reel R1, the symbol assigned symbol number PN=1 (RED 7) shown in FIG. 3 is displayed

in a middle row of the display window 7a. In other words, attachment positions of the shading piece 471 and the photo coupler 472 are determined such that a symbol appears in the middle row of the display window 7a.

[0124] During a duration from time t1 to time t2, 20 pulses are supplied to the left reel driving motor 51 as a drive signal 51a, and the left reel driving motor 51 spins the left reel R1 one-twenty-first of a rotation. As a result, the symbol assigned symbol number PN=2 (PLUM) shown in FIG. 3 appears in the middle row of the display window 7a. Symbols are sequentially displayed in the same manner. When time t3 has come, the left reel R1 spins, and the symbol assigned symbol number PN=1 (RED 7) again appears. In this way, the detection signal 47a, the symbol number PN, the drive signal 51a, and the position data MD1 are closely related to each other. The CPU 31 can detect a displayed state of a symbol on the basis of the position data MD1.

[0125] On the basis of the position data sets MD2 and MD3, the CPU 31 can sense a displayed state of a symbol on the center reel R2 and a displayed state of a symbol on the right reel R3.

[0126] Control signals for controlling activation and deactivation of cold cathode tubes constituting the respective reel illumination units are supplied to the left reel illumination unit 21, the center reel illumination unit 22, and the right reel illumination unit 23, respectively. A control signal 211r is used for controlling illumination and extinction of a red cold cathode tube 211R of the left reel illumination unit 21; a control signal 212r is used for controlling illumination and extinction of a red cold cathode tube 212R of the left reel illumination unit 21; and a control signal 213r is used for controlling illumination and extinction of a red cold cathode tube 213R of the left reel illumination unit 21.

[0127] A control signal 211b is used for controlling illumination and extinction of a blue cold cathode tube 211B of the left reel illumination unit 21; a control signal 212b is used for controlling extinction and illumination of a blue cold cathode tube 212B of the left reel illumination unit 21; and a control signal 213b is used for controlling extinction and illumination of a blue cold cathode tube 213B of the left reel illumination unit 21.

[0128] Moreover, control signals 221r, 222r, 223r are used for controlling illumination and extinction of the respective red cold cathode tubes of the center reel illumination unit 22. Control signals 221b, 222b, 223b are used for controlling illumination and extinction of the respective blue cold cathode tubes of the center reel illumination unit 22. Furthermore, control signals 231r, 232r, 233r are used for controlling illumination and extinction of the respective red cold cathode tubes of the right reel illumination unit 23. Control signals 231b, 232b, 233b are used for controlling illumination and extinction of the respective blue cold cathode tubes of the right reel illumination unit 23. Here, the control signals are used for instructing illumination when they are at a high level and extinction when they are at a low level.

[0129] Operation of the slot machine 1A will now be described with reference to FIG. 8.

[0130] In accordance with a detection signal output from the token insertion sensor 41 and that output from the BET

button **42**, the CPU **31** determines whether or not the player has inserted or bet tokens (step **S1**). The determination operation is continued until tokens are determined to have been inserted or bet.

[**0131**] When the player has inserted or bet tokens, a result of determination is "YES." The CPU **31** displays, on the auxiliary display section **20**, those among the paylines **L1** through **L5** that have been made valid, in accordance with the number of inserted tokens or the number of tokens bet through a betting operation (step **S2**).

[**0132**] Subsequently, in accordance with a detection signal from the start lever sensor **43**, the CPU **31** determines whether or not the player has validly actuated the start lever **6**. The determination operation is continued until the detection signal output from the start lever sensor **43** becomes active (step **S3**).

[**0133**] When the detection signal output from the start lever sensor **43** becomes active as a result of the player having actuated the start lever **6**, a result of determination performed in step **S3** becomes "YES." The CPU **31** supplies the drive signal to the left reel driving motor **51** so as to start spinning of the left reel **R1**, supplies the drive signal to the center reel driving motor **52** so as to start spinning of the center reel **R2**, and supplies the drive signal to the right reel driving motor **53** so as to start spinning of the right reel **R3**. In accordance with the control program **CP**, the CPU **31** performs an internal lottery operation (step **S4**).

[**0134**] Internal random sampling operation is performed in the following manner. First, the CPU **31** samples count data **CD** at a timing at which a detection signal output from the start lever sensor **43** has become active, to thereby acquire sampling data **SD**. Second, the CPU **31** generates internal status data **ISD** by reference to the prize group lottery table **TBL1** stored in the ROM **35**. For instance, **FIG. 5** shows contents stored in the prize group lottery table **TBL1**. When the value of the sampling data **SD** is assumed to have a value of "150," the internal lottery data **SD** represent a win for a big bonus prize.

[**0135**] When the internal lottery operation has been completed, the CPU **31** determines whether or not a win has been determined for a big bonus prize, on the basis of the internal status data **ISD** (step **S5**). Specifically, if the first bit of the internal status data **IDS** assumes a value of "1," the CPU **31** determines that a win has been determined for a big bonus prize. In contrast, if the first bit assumes a value of "0," the CPU **31** determines that a win is not determined for the big bonus prize.

[**0136**] When a result of determination made in step **S5** is "YES," the CPU **31** starts extinction processing (step **S6**). In this case, the CPU **31** sets all the control signals **211r** to **213r**; **211b** to **213b**, **221r** to **223r**; **221b** to **223b**, **231r** to **233r**; and **231b** to **233b** to a low level. As a result, the cold cathode tubes constituting the left reel illumination unit **21**, those constituting the center reel illumination unit **22**, and those constituting the right reel illumination unit **23** are extinguished. Therefore, during a period of time in which the reels **R1** through **R3** are spinning, the symbols **RED 7** and **BLUE 7** are displayed in white. In this case, even when the player has ascertained spinning of a symbol assuming the shape of numeral 7, the player cannot identify the color of that symbol. Consequently, the symbol **RED 7** and the

symbol **BLUE 7** appear to be identical, thereby hindering the player from aiming at a more advantageous combination of symbols **RED 7**.

[**0137**] When a result of determination made in step **S5** is "NO," the CPU **31** performs illumination processing (step **S7**). In this case, the CPU **31** sets levels of the respective control signals so that the symbol **RED 7** can be distinguished from the symbol **BLUE 7**, on the basis of the position data **MD1** through **MD3**.

[**0138**] When a win for a big bonus prize has not been determined through internal lottery, the player can ascertain each of the symbols **RED 7** and **BLUE 7** during the spinning of the reels **R1** through **R3**. When a win for a big bonus prize has been determined through internal lottery, the player cannot ascertain each of the symbols **RED 7** and **BLUE 7** during spinning of the reels **R1** through **R3**. Therefore, the player can ascertain whether or not a win for a big bonus prize has been determined through internal lottery with reference to the color of "7" symbols. In other words, the player can be informed of whether or not a win for a big bonus prize has been determined through internal lottery, by the illumination and extinction processing.

[**0139**] Subsequently, the CPU **31** acquires a button number **BN** assigned to a currently-pressed reel stop button (step **S8**). Acquisition of a button number is performed in accordance with the following procedures. First, the CPU **31** assigns button numbers **BN=1**, **BN=2**, and **BN=3** to the left reel stop button **7a**, the center reel stop button **7b**, and the right reel stop button **7c**, respectively. Second, the CPU **31** senses a pressed button in accordance with a detection signal output from the left reel stop button **44**, a detection signal output from the center reel stop button **45**, and a detection signal output from the right reel stop button **46**. Third, the CPU **31** stores the button numbers **BN** corresponding to the detected buttons into a predetermined memory area of the RAM **34** specified by the control program **CP**.

[**0140**] Next, in accordance with the internal random sampling data **ISD** and the button number **BN**, the CPU **31** selects one stop table from the stop table group **TBL2** (step **S9**).

[**0141**] Then, the CPU **31** determines stop positions of the reels by reference to the thus-selected stop table (step **S10**). In the processing for determining stop positions of the reels, the CPU **31** senses the timings at which the reel stop buttons **7a**, **7b**, **7c** have been pressed, in accordance with the signals output from the reel stop button sensors **44** through **46**, thereby acquiring symbol numbers **PN** assigned to the timings. The CPU **31** reads coasting frame data by reference to the stop table in accordance with the symbol number **PN**, thereby controlling the reel driving motors **51** through **53** such that the reels spin by only the number of frames over which the reels are to coast, the number being instructed by the data. The reel driving motors **51** through **53** are constituted of stepping motors, and the CPU **31** imparts, to the reel driving motors **51** through **53**, drive pulses in a number corresponding to the number of frames over which frames are to coast.

[**0142**] The CPU **31** performs illumination processing (step **S11**). During the illumination processing, the CPU **31** first senses whether or not the symbol **RED 7** or **BLUE 7** has stopped in any one of the upper row of the display window



4a, the middle row of the display window 4b, and the lower row of the display window 4c or whether or not the symbol RED 7 or BLUE 7 has stopped within a display window. Second, the CPU 31 sets the level of the control signals in accordance with the position where the symbol RED 7 or BLUE 7 is stopped. For example, when the symbol RED 7 (appended symbol number PN=1 shown in FIG. 3) is assumed to have stopped in the middle row of the display window 4a, the CPU 31 sets the control signal 212r to a high level and the control signals 211r, 213r, 211b, 212b, and 213b to a low level. Accordingly, the CPU 31 can illuminate only the red cold cathode tube 212R from among the cold cathode tubes constituting the left reel illumination unit 21.

[0143] Through the foregoing illumination processing, as shown in FIG. 9, the symbol "7" displayed in white during spinning of the reels R1 through R3 is changed to either a predetermined red or blue color after stoppage of the reels R1 through R3.

[0144] Subsequently, a determination is made as to whether or not all reels have stopped (step S12). Processing pertaining to steps S9 through S12 is repeated until all spinning reels come to a halt. When all reels have stopped, the CPU 31 repeats processing from step S9 to step S12. When all the reels have come to a halt, the CPU 31 determines whether to proceed processing to step S13. If a win has been determined, a payline along which the win has been determined is displayed (step S14).

[0145] Subsequently, the CPU 31 determines whether or not the win corresponds to a win involving payment of tokens (step S15). If the win corresponds to the win involving payout of tokens, the CPU 31 controls individual sections such that tokens are paid out in a number corresponding to the winning combination, by reference to the winning symbol combination table TBL3 (step S16).

[0146] If the win does not correspond to payout of tokens, the CPU 31 omits processing pertaining to step S16 and advances processing to step S17, thereby determining whether or not there has been achieved a win corresponding to any one of the bonus games, such as a regular bonus, a normal big bonus, and a super big bonus (step S17). If the win corresponds to any one of the bonus games, the CPU 31 performs predetermined processing for advancing the bonus game (step S18). In contrast, if the win does not correspond to any bonus game, the CPU 31 determines whether or not the win is a REPLAY game (step S19). If the symbols that would constitute a winning combination are symbols which would constitute a PLUM winning combination, the CPU 31 returns processing to step S2. If the symbols are not symbols which would constitute a PLUM winning combination, a round of processing operations is terminated.

[0147] As has been described, the slot machine 1 is based on the premise that occurrence of either a win for a super big bonus or a win for a normal big bonus is left to actuation of the reel stop buttons 7a, 7b, and 7c performed by the player. When a win for a big bonus prize has been determined through internal lottery, symbols that would constitute a super big bonus cannot be distinguished from symbols that would constitute a normal big bonus from colors of the symbols during spinning of the reels R1 through R3, thereby certainly hindering the player from aiming at a RED 7 winning combination.

[0148] Modified examples of the first embodiment will be described below.

[0149] (1) Even when a win for a big bonus prize has not been determined, the cold cathode tubes may be extinguished during spinning of the reels R1 through R3. In this case, the CPU 31 omits processing pertaining to steps S5 through S7 shown in FIG. 8 and performs processing pertaining to step S8 immediately after having performed processing pertaining to step S4. During a duration between steps S3 and S4, all the cathode tubes are extinguished.

[0150] (2) After a super big bonus or a normal big bonus has been completed, the symbol RED 7 and the symbol BLUE 7 may be changed, as required. For instance, as in the case of an example 1 shown in FIG. 10, the symbol RED 7 and the symbol BLUE 7 may be interchanged before and after a change. Alternatively, all symbols "7" may be changed to RED 7, as in the case of an example 2.

[0151] When the symbols RED 7 and BLUE 7 are interchanged, as in the case of the change example 1, the player 7 encounters more difficulty in aiming at the symbol RED 7 even when having memorized the sequence of symbols, because of a change in the sequence of symbols. As in the case of the change example 2, when all the symbols "7" are changed to RED 7, a gaming status inevitably shifts to a super big bonus if a win for a big bonus prize has been determined through internal lottery, thus giving the player a great expectation.

[0152] If the color of specific symbol is changed when a certain condition has been satisfied as mentioned above, a series of changes can be imparted to the game, thereby affording a variety of presentations to the player.

[0153] (3) In the foregoing first embodiment, when a win for a big bonus prize has been determined, the cold cathode tubes are extinguished, thereby making it difficult for the player to distinguish the symbol RED 7 from the symbol BLUE 7. The symbols RED 7 corresponding to the symbol numbers PN and the symbols BLUE 7 corresponding to the symbol numbers are fixed. In a slot machine of a modification, the color of symbol "7" is indefinite during spinning of the respective reels. The color of the symbol "7" is determined in accordance with actuation of the reel stop buttons 7a, 7b, and 7c performed by the player.

[0154] Specifically, processing for determining stop positions of the reels to be performed in step S10 and illumination processing pertaining to step S11 are performed in the following manners.

[0155] As a first step, the CPU 31 senses timings at which the reel stop buttons 7a, 7b, and 7c have been pressed, in accordance with signals output from the respective reel stop button sensors 44 through 46, thereby acquiring symbol numbers PN for the respective timings.

[0156] As a second step, the CPU 31 reads coasting frame data by reference to a stop table on the basis of the symbol number PN.

[0157] As a third step, the CPU 31 compares the value of the coasting frame data with a predetermined reference value. When the coasting frame data are smaller than a reference value, the color of symbol "7" is set to a red color. In contrast, when the coasting frame data exceed a reference value, the color of symbol "7" is set to a blue color. For

instance, provided that the maximum value of coasting frame data assume a value of "4" and the reference value assumes a value of "1," when the coasting frame data assume a value of 0 to 1, the color of "7" is set to red, whereas, when the coasting frame data assume a value of 2 to 4, the color of "7" is set to blue.

[0158] As a fourth step, the CPU 31 controls the reel driving motors 51 through 53 such that spinning of the reels is advanced by only the number of frames over which the reels are to coast, the number being instructed by the coasting frame data.

[0159] As a fifth step, the CPU 31 senses that the symbol "7" is stopped at a specific one of the upper row of the display window 4a, the middle row of the display window 4b, and the lower row of the display window 4c, on the basis of the position data MD1 through MD3 obtained when the reels have been stopped.

[0160] As a sixth step, the CPU 31 sets the level of the control signals in accordance with information about the stop position of the symbol "7" and information about the color of symbol "7" acquired in the third step.

[0161] In this modified example, when the value of coasting frame data is small; namely, when the player has actuated reel stop buttons in a comparatively-accurate manner, the color of symbol "7" is changed to red. When the value of coasting frame data is large; namely, when the player has actuated reel stop buttons in a comparatively-rough manner, the color of symbol "7" is changed to blue. Accordingly, as the player actuates the reel stop buttons accurately, acquisition of a super big bonus becomes more easy. In other words, a gaming value corresponding to skill can be imparted to a player.

[0162] Since the three reel stop buttons 7a, 7b, and 7c are provided on the slot machine 1, the player actuates the stop buttons three times during the course of one game. Here, the modification of processing may be applied to all the stop buttons or to only the first stop processing operation, in which case second and third processing operations are performed in the same manner as in the first embodiment.

[0163] When the color of the symbol "7" is changed in accordance with the value of coasting frame data, occurrence of a small winning combination through internal lottery can be indirectly reported to the player. When a small winning combination has been determined, the CPU 31 selects a stop table in which symbols that would constitute the small winning combination for which a win has been determined are easily aligned. For instance, when the color of symbol "7" has been changed to blue as a result of first reel stop processing, a draw-in control operation corresponding to internal lottery is expected to be performed. The probability is high that a win has already been determined to a small winning combination. In such a case, the player predicts occurrence of a win for a small winning combination and can actuate the second and third reel stop buttons in light of this knowledge.

[0164] In the first embodiment, the cathode tubes are extinguished at all times during spinning of the reels R1 through R3. Only when a win for a big bonus prize has already been determined through internal lottery, the color of the symbol "7" may be changed after stoppage of the reels. In this case, the player can ascertain occurrence of a win for

a big bonus prize through internal lottery on the basis of whether the symbol "7" is illuminated or remains extinguished.

[0165] In addition, even when a win for a big bonus prize has not yet been determined, the color of symbol "7" may be changed when a first reel has come to a halt at a certain probability. In this case, the player can be given an expectation for occurrence of a win for a big bonus prize through internal lottery.

[0166] (4) The type of RED 7 winning combination (super big bonus) or BLUE 7 winning combination (normal big bonus) may be determined by offering a sub-game utilizing a change in the color of the symbol "7" after the reels have come to a halt.

[0167] One of the related-art slot machines determines whether to proceed to a super big bonus or a normal big bonus, depending on a result of a sub-game, by offering the sub-game after a win for a big bonus prize has been determined.

[0168] However, this type of slot machine has a drawback of a necessity for an additional special display device for offering a sub-game. For this reason, the configuration of the slot machine becomes complicated and leads to a hike in the costs of the slot machine.

[0169] After symbols "7" have been aligned, the slot machine of the modification illuminates the red cathode lamps and the blue cathode lamps alternately. When the player has actuated any one of the reel stop buttons, the slot machine fixes the color of illumination to the color of timing at which actuation is to be performed. When the player actuates the reel stop buttons at the time of color, a RED 7 winning combination is established, whereby a gaming status proceeds to a super big bonus. In contrast, when the player has actuated the reel stop buttons at the timing of blue color, a BLUE 7 winning combination is established, and the gaming status proceeds to a normal big bonus.

[0170] As a result, a necessity for a device for sub-game purpose can be obviated. Further, a sub-game is for determining the color of a symbol. Hence, a target for which the player is required to actuate the reel stop buttons becomes clear.

[0171] (5) In the first embodiment, when a win for a big bonus prize has been determined, the cold cathode tubes are extinguished, thereby hindering the player from distinguishing the symbol RED 7 from the symbol BLUE 7. After spinning of the reels has been completed, the color of the symbol "7" is displayed, thereby distinguishing a super big bonus from a normal big bonus.

[0172] The big bonus game includes three regular bonus games. Even when symbols corresponding to a big bonus prize have been aligned during a period of big bonus, a mere 15 tokens are paid out. Therefore, symbols corresponding to a big bonus prize do not need to be displayed during a period of big bonus.

[0173] Here, symbols corresponding to a big bonus and symbols corresponding to a regular bonus are set so as to assume identical shapes but different colors. During a big bonus, symbols may be displayed so as to assume the same color as that assumed in a regular bonus.

[0174] FIG. 11 shows a relationship between prize groups, winning combinations, and gaming values. In a slot machine of this embodiment, symbols provided on reels do not include any symbols BAR. In an ordinary game, cold cathode tubes are extinguished so as not to display the color of symbol "7." During a period of big bonus, the blue cold cathode tubes are illuminated at all times, and the red cold cathode tubes are extinguished at all times. As a result, all the symbols "7" can be handled as BLUE 7 during a period of big bonus.

[0175] In the slot machine of the first embodiment, after stoppage of the reels, the color of symbols "7" is displayed, thereby informing the player of whether to proceed to a normal big bonus or a super big bonus. In a slot machine of the second embodiment, in addition to a change in the color of symbols "7," the color of symbols PLUM is also changed during a jackpot game.

[0176] A difference between the slot machine of the second embodiment and the slot machine of the first embodiment will now be described.

[0177] The slot machine of the second embodiment differs from that of the first embodiment in terms of the structure of the left reel R1, that of the center reel R2, and that of the right reel R3. More specifically, the irregular member P for scattering light is provided in place of the shading film S on the back surfaces of the respective reels R1 through R3 for the symbols "PLUM" as well as for the symbols "7." Consequently, when the red cold cathode tubes are illuminated, the symbols "PLUM" are displayed in red. When the blue cold cathode tubes are illuminated, the symbols "PLUM" are displayed in blue.

[0178] In the slot machine of the second embodiment, a prize group lottery table TBL1' shown in FIG. 12 is used in place of the prize group lottery table TBL1 of the first embodiment. The prize group lottery table TBL1' has lottery classification data corresponding to a single bonus prize. When a win for a single bonus prize has been determined, the player acquires a single bonus, so that the foregoing jackpot game is provided once.

[0179] FIG. 13 shows a relationship between the prize groups, the winning combinations, and the gaming values. In the slot machine of this embodiment, when symbols "BAR-BAR-BAR" have been aligned, a win for a single bonus prize is determined. The CPU 31 produces the control signals 211r to 213r, 221r to 223r, 231r to 233r, 211b to 213b, 221b to 223b, and 231b to 233b such that the symbols "PLUM" assume a blue color during a period other than the period of a jackpot game for a single bonus.

[0180] The CPU 31 produces the control signals 211r to 213r, 221r to 223r, 231r to 233r, 211b to 213b, 221b to 223b, and 231b to 233b such that the color of the symbols "PLUM" is switched between a blue color and a red color during a period other than the period of a jackpot game for a single bonus.

[0181] For instance, the symbols "PLUM" on the left reel R1 assume a blue color during an ordinary game shown in FIG. 14. However, in a jackpot game, the symbols "PLUM" appended symbol numbers PN=2, 8, 18 are displayed in blue, and the symbols "PLUM" appended symbol numbers PN=5, 13 are displayed in red.

[0182] In a jackpot game for a single bonus, when symbols RED PLUM come to a halt at a payline, the number of assist time games is determined in accordance with the number of symbols. The assist time game is performed after completion of the jackpot game. When a small winning combination has been established, that winning combination for which a win has been determined is reported to the player.

[0183] Next, operation of the slot machine to be performed during a jackpot game for a single bonus will be described by reference to FIG. 15. The CPU 31 determines whether or not a current jackpot game is a jackpot game for a single bonus (step SB1). If this is true, the left reel illumination unit 21, the center reel illumination unit 22, and the right reel illumination unit 23 are controlled such that the color of symbols "PLUM" is alternately changed between a blue color and a red color. As a result, the symbols "PLUM" are displayed in the respective display windows 4a, 4b, and 4c while changing color. In a state in which the reels R1 through R3 are stationary, because the number of RED PLUMs is larger, a greater gaming value is imparted. Hence, the player actuates the reel stop buttons 7a, 7b, and 7c while aiming at the RED PLUMs.

[0184] Next, the CPU 31 determines whether or not all the reels R1 through R3 have come to a halt (step SB3). After all the reels R1 through R3 have come to a halt, count data representing the number of RED PLUMs are acquired (step SB4).

[0185] Subsequently, the CPU 31 determines whether or not the number of RED PLUMs is "0," on the basis of the count data (step SB5). If the number of RED PLUMs is "0," the number of assist time games is set to "0" (step SB6).

[0186] If the number of RED PLUMs is not "0," the CPU 31 proceeds processing to step SB7, thereby making a determination as to whether or not the number of RED PLUMs is "1." If the number of RED PLUMs is "1," the CPU 31 sets the number of assist time games to "30" (step SB8). If the number of RED PLUMs is not "1," the CPU 31 proceeds processing to step SB9. In step SB9, the CPU 31 determines whether or not the number of RED PLUMs is "2." If the number of RED PLUMs is "2," the number of assist time games is set to "100." In contrast, if the number of RED PLUMs is not "2," the number of assist time games is set to "300." After completion of a jackpot game, the CPU 31 executes an assist time game in a number corresponding a preset number (step SB12) and terminates processing.

[0187] Of the symbols provided on the respective reels R1 through R3, the symbols PLUM are provided in highest number. If the symbols PLUM are combined with a draw-in control operation, a symbol PLUM can be stopped without a pinpoint stopping action even when the player performs a stop operation at arbitrary timing. In other words, the player can acquire a win in a jackpot game without regard to his/her level of skill. For this reason, a jackpot game offered by a related-art slot machine is monotonous. In contrast, the slot machine of the embodiment has RED PLUMs, thereby enabling the player to acquire higher gaming values. For this reason, the player actuates the reel stop buttons 7a, 7b, and 7c while aiming at RED PLUMs. Consequently, the slot machine of the embodiment adopts a new element, such as a color-targeted pinpoint stopping action, thereby imparting a great entertainment characteristic to the jackpot game for a single bonus.

[0188] In a jackpot game to be performed during a big bonus game, processing analogous to that performed for the previously-described jackpot game in a single bonus is performed. When symbols that would constitute winning combinations include RED PLUMS, it may be the case that a win for a jackpot game is not determined, and payment of 15 tokens is not performed. Further, if a win for a single bonus prize has been determined during the course of an assist time game and the player has also acquired the right to play an assist time game during a jackpot game provided as a reward for the win, the number of assist time games may be accumulated.

[0189] As has been described, the invention has been described in connection with the most practical and preferable configuration as of now. However, the invention is not limited to the embodiments described in the specification and susceptible to modifications, as required, within the gist or concept of the invention that can be read from claims and the entire specification. Slot machines involving such modifications must also be construed as falling within the technical scope of the invention.

[0190] As has been described, according to the invention, there can be provided a slot machine which hinders a player from distinguishing the colors of specific symbols from among symbols provided on reels during spinning of the reels.

What is claimed is:

1. A reel-type slot machine, comprising:
  - a plurality of reels, each having an outer peripheral face and an inner peripheral face;
  - a plural kinds of symbols, provided on the outer peripheral face of each of the reels, the symbols including at least one group of special symbols having identical shapes and different colors;
  - an illuminator, which selectively emits at least one of plural colors of light to illuminate the inner peripheral face of at least one of the reels; and
  - a controller, which spins and stops the reels while controlling the illuminator such that the colors of the special symbols are not ascertained by a player when the at least one reel is spun, and each of the special symbols are illuminated with one of the plural colors of light pursuant to a predetermined rule, when the at least one reel is stopped.
2. The slot machine as set forth in claim 1, wherein the group of special symbols includes at least a first kind of symbol related to a first type of winning combination and a second kind of symbol related to a second type of winning combination.
3. The slot machine as set forth in claim 1, wherein:
  - the group of special symbols includes a first symbol illuminated with a first color of light and a second symbol illuminated with a second color of light;
  - the controller shifts a gaming status of the slot machine from a first, basic gaming status to a second gaming status which provides higher gaming value than the first gaming status, when a winning combination involves the first symbol; and

the controller shifts the gaming status of the slot machine from the first gaming status to a third gaming status which provides higher gaming value than the second gaming status, when a winning combination involves the second symbol.

4. The slot machine as set forth in claim 1, wherein:

- a position of each of the special symbols on the at least one reel is predetermined before the at least one reel is spun;

- the predetermined rule defines a relationship between a stop position of the at least one reel and a color of light emitted by the illuminator; and

- the controller detects the stop position of the at least one reel to control the illuminator with reference to the predetermined rule.

5. The slot machine as set forth in claim 1, wherein the controller changes a position of at least one of the special symbols on the at least one reel, when a predetermined condition is satisfied.

6. The slot machine as set forth in claim 1, further comprising a plurality of stoppers, each associated with one of the reels, through which a player inputs an instruction to stop an associated one of the reels, wherein:

- the predetermined rule defines a relationship between a position of the at least one reel when the instruction is inputted and a color of light emitted by the illuminator; and

- the controller detects the position of the at least one reel when the instruction is inputted to control the illuminator with reference to the predetermined rule.

7. The slot machine as set forth in claim 1, further comprising:

- a spin starter, through which a player inputs an instruction to spin the reels; and

- a random number selector, which determines one of a plurality of lottery results including at least one special lottery result corresponding to the special symbols, based on a timing at which the instruction is inputted through the spin starter, to generate internal information indicating the determined one of the lottery results,

- wherein the controller activates the illuminator after the at least one reel is stopped, only when the internal information indicates that the determined one of the lottery result is the special lottery result.

8. The slot machine as set forth in claim 1, further comprising:

- a spin starter, through which a player inputs an instruction to spin the reels;

- a random number selector, which determines one of a plurality of lottery results including at least one special lottery result corresponding to the special symbols, based on a timing at which the instruction is inputted through the spin starter, to generate internal information indicating the determined one of the lottery results; and

- a plurality of stoppers, each associated with one of the reels, through which the player inputs an instruction to stop an associated one of the reels,

wherein the controller controls the illuminator so as to subsequently emit the colors of light corresponding to the special symbols when the internal information indicates the determined one of the lottery result is the special lottery result, and controls the illuminator so as to determine one of the colors of light when the instruction is inputted through one of the stopper associated with the at least one reel.

9. The slot machine as set forth in claim 8, wherein the controller provides a gaming value corresponding to one of the special symbols illuminated by the determined one of the colors of light.

10. The slot machine as set forth in claim 1, wherein the controller deactivates the illuminator while the reels are spun.

11. The slot machine as set forth in claim 1, wherein the controller controls the illuminator so as to illuminate at least one of the special symbols with a color of light which is different from an original color of the at least one of the special symbols.

12. The slot machine as set forth in claim 1, wherein the controller controls the illuminator so as to emit at least one of the colors of light intermittently.

13. The slot machine as set forth in claim 1, wherein the controller provides a gaming value corresponding to one of the special symbols illuminated by the determined one of the colors of light.

14. A reel-type slot machine, comprising:

a plurality of reels, each having an outer peripheral face and an inner peripheral face;

a plural kinds of symbols, provided on the outer peripheral face of each of the reels, the symbols including a first special symbol having a first color and a second special symbol having a second color;

an illuminator, which selectively emits at least one of plural colors of light to illuminate the inner peripheral face of at least one of the reels; and

a controller, which shifts a gaming status of the slot machine from a first, basic gaming status to a second gaming status which provides higher gaming value than the first gaming status, when a winning combination involves the first symbol, and shifts the gaming status from the first gaming status to a third gaming status which provides higher gaming value than the second gaming status, when a winning combination involves the second symbol,

wherein the controller controls the illuminator so as to emit the first color of light such that each of the special symbols becomes the first special symbol.

15. A reel-type slot machine, comprising:

a plurality of reels, each having an outer peripheral face and an inner peripheral face;

a plural kinds of symbols, provided on the outer peripheral face of each of the reels, the symbols including a plurality kinds of special symbols;

an illuminator, which selectively emits at least a first color of light and a second color of light; and

a controller, which controls the illuminator so as to emit one of the first color of light and the second color of light while the reels are spun under a basic gaming status, and controls the illuminator so as to illuminate a first group of the special symbols with the first color of light and illuminate a second group of the special symbols with the second color of light while the reels are spun under a special gaming status shifted from the basic gaming status when a predetermined condition is satisfied.

16. The slot machine as set forth in claim 15, wherein the controller provides a gaming value to a player, in accordance with the number of the first group of the special symbols aligned on a predetermined pay line when the reels are stopped under the special gaming status.

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