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(54) Gaming device with games changeing automatically

(57) A video gaming machine, such as a slot machine, is described herein where the game itself changes automatically at certain times independent of the outcome of any game and without any player interaction. The changed game may be the main game or a bonus game. The time between changes may be any time such as minutes, hours, days, seasons, etc. In one embodiment, a video five-reel type game having a particular theme automatically changes at a particular time into a

different type of game, such as a four-reel game or a game having a different theme. In another embodiment, the symbols in a reel-type game change automatically to become other symbols so that the set of winning combinations of symbols or the payout schedule changes. By automatically changing the game independent of the outcome of any game and without the player's input, the playing experience is varied, and the player does not get bored by playing the same game.

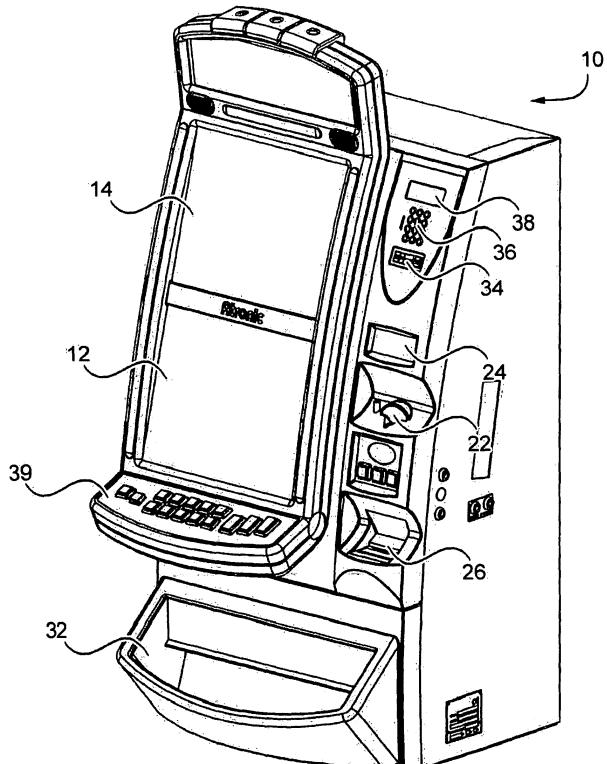


Fig. 1

Description

[0001] This invention relates to games played on a video gaming machine, such as games played on a video slot machine.

[0002] A typical video slot machine found in casinos displays multiple virtual reels that appear to rotate and randomly stop. Awards are granted to the player based upon the combinations of symbols across one or more activated paylines. The typical video slot machine only plays one version of a game. The player may tire of the same game and move to a different slot machine to play a different game.

[0003] Some slot machines store software programs for a variety of games, and the player can select which game to play by pressing a selection button. For example, a player can select between certain card games.

[0004] A video gaming machine, such as a slot machine, is described herein where the game itself changes automatically at certain times without any player interaction. The time between changes may be any time such as minutes, hours, days, seasons, etc.

[0005] In one embodiment, a video five-reel type game having a particular theme automatically changes at a particular time into a different type of game, such as a four-reel game or a game having a different theme.

[0006] In another embodiment, a video bingo game automatically changes into a video roulette game at a certain time.

[0007] In another embodiment, the symbols in a reel-type game change automatically without player interaction to become other symbols so that the set of winning combinations of symbols or the payout schedule changes. In another embodiment, the payout schedule changes without the symbols changing.

[0008] The changing over from one game to another or from one game appearance to another game appearance can take place either slowly or quickly. The length of the changeover time depends upon the type of change to be made.

[0009] By automatically changing the game without the player's input, the playing experience is varied, and the player does not get bored by playing the same game.

[0010] Additional embodiments of the concept described herein are also envisioned.

[0011] The below described drawings are presented to illustrate some possible examples of the invention.

Fig. 1 is a perspective view of one of many examples of gaming machines that can incorporate the present invention.

Fig. 2 is a block diagram of various key components in the gaming machine of Fig. 1.

Figs. 3, 4, 5, and 6 are examples of screen displays of the gaming machine of Fig. 1 as the game changes from a five-reel type game to a four-reel type

game over any length of time.

[0012] Figs. 7, 8, and 9 are examples of screen displays illustrating the changing of a bingo game into a roulette game.

[0013] Although the invention can typically be implemented by installing a software program in most types of modern video gaming machines, one particular gaming machine platform will be described in detail.

[0014] Fig. 1 is a perspective view of a gaming machine 10 that incorporates the present invention. Machine 10 includes a display 12 that may be a thin film transistor (TFT) display, a liquid crystal display (LCD), a cathode ray tube (CRT), or any other type of display. A second display 14 provides game data or other information in addition to display 12. Display 14 may provide static information, such as an advertisement for the game, the rules of the game, pay tables, paylines, or other information, or may even display the main game or a bonus game along with display 12. Alternatively, the area for display 14 may be a display glass for conveying information about the game.

[0015] A coin slot 22 accepts coins or tokens in one or more denominations to generate credits within machine 10 for playing games. An input slot 24 for an optical reader and printer receives machine readable printed tickets and outputs printed tickets for use in cashless gaming. A bill acceptor 26 accepts various denominations of banknotes.

[0016] A coin tray 32 receives coins or tokens from a hopper upon a win or upon the player cashing out.

[0017] A card reader slot 34 accepts any of various types of cards, such as smart cards, magnetic strip cards, or other types of cards conveying machine readable information. The card reader reads the inserted card for player and credit information for cashless gaming. The card reader may also include an optical reader and printer for reading and printing coded barcodes and other information on a paper ticket.

[0018] A keypad 36 accepts player input, such as a personal identification number (PIN) or any other player information. A display 38 above keypad 36 displays a menu for instructions and other information and provides visual feedback of the keys pressed.

[0019] Player control buttons 39 include any buttons needed for the play of the particular game or games offered by machine 10 including, for example, a bet button, a repeat bet button, a play two-ways button, a spin reels button, a deal button, hold cards buttons, a draw button, a maximum bet button, a cash-out button, a display paylines button, a display payout tables button, select icon buttons, and any other suitable button. Buttons 39 may be replaced by a touch screen with virtual buttons.

Fig. 2 illustrates basic circuit blocks in a suitable gaming device. A control unit (CPU 60) runs a gaming program stored in a program ROM 63. A coin/credit

detector 61 enables the CPU 60 to initiate a next game. A pay table ROM 64 detects the outcome of the game and identifies awards to be paid to the player. A payout device 62 pays out an award to the player in the form of coins upon termination of the game or upon the player cashing out. A payout may also be in the form of a coded paper ticket, credits on a smart card or magnetic strip card, or in any other form. A display controller 65 receives commands from the CPU 60 and generates signals for the various displays 66. If a display 66 is a touch screen, player commands may be input through the display screen into the CPU 60.

[0020] Fig. 3 is a simplified display 70, which may be displayed on display 14 or display 12 in Fig. 1. Fig. 3 illustrates a five-reel game, where the player makes a wager by pressing the MAXBET button 74 or the BET PER LINE button 75 and then presses the START GAME button 76 to cause the five reels 78 to appear to spin. The reels stop randomly, and the symbol combinations across any of the activated paylines (in this example up to 20 paylines) pay a predetermined award. The awards for the various symbol combinations are typically advertised to the player on the display glass or on a separate screen.

[0021] In the example of Fig. 3, the theme of the game is a winter theme, which includes snow-covered symbols, polar bears, seals, and penguins.

[0022] At some time specified by the designer, such as every hour, or a particular time during a day, or a particular day of the year, or at any other interval, the display of Fig. 3 changes into a different type of game. In the examples of Figs. 3-6, the five-reel game changes into a four-reel game, although the game may change into any other type of game.

[0023] In one embodiment, the CPU 60 of Fig. 2, in conjunction with a memory, keeps track of the time and date in a conventional manner and, when the time and date match a specified time and date, a changing subroutine is initiated. Writing the software program for changing the game is well within the skills of those in the art of programming gaming machines.

[0024] In Fig. 4, the change has begun and initially comprises the forming of a crack 80 in the center reel where the "K" had appeared. The crack represents a crack in the ice forming the reels.

[0025] In Fig. 5, the crack appears to be getting larger. The animation continues in any entertaining manner until the middle reel has completely disappeared or melted away. The middle reel may even appear to collapse or shatter.

[0026] In Fig. 6, after the middle reel has disappeared, the other four reels expand to take the place of the vanished middle reel. The player then plays the game as a four-reel machine. The various awards for symbol combinations and the set of winning combinations of symbols may also change. Where the awards or winning combinations change, it is desirable to use a separate display screen to display these awards rather than a

fixed display glass.

[0027] In one embodiment, the changing from a five-reel game to a four-reel game occurs periodically during a single day. At some time, the four-reel machine changes back to a five-reel machine, which may be an instantiations reversion or an amusing animation of the reversion.

[0028] In another embodiment, the winter theme of Fig. 3 slowly changes into a spring theme or other seasonal theme based upon the actual season. For example, as the seasons change, the various symbols may individually change at different times into symbols consistent with the change of season. For example, the snow-capped symbols may change so that the snow melts from the symbols. Additionally, the various polar animals may change into woodland animals. Numerous other types of embodiments are also envisioned.

[0029] If the symbols used in the game are automatically changed (e.g., from polar animals to woodland animals), the winning combinations of symbols advertised to the player must also change. So the game type can change by changing the winning combinations while keeping the game a five-reel game. The game may also change by changing the payout schedule for various winning combinations of symbols.

[0030] The symbols may also change into special symbols such as bonus symbols, wild card symbols, multiplier symbols, scatter symbols, etc., thus further changing the game. For example, the "K" in Fig. 3 may melt away into a wild card symbol, thus changing the game by changing the winning combinations and the payout schedule.

[0031] In one embodiment, the theme of the game changes like a time machine, where an ancient theme (with ancient-type symbols) changes into a future theme (with future-type symbols). After some time, the theme changes back into the ancient theme.

[0032] Although the winning combinations and/or awards (payout schedule) may change as the game automatically changes, the machine may retain the same pay-in/pay-out ratio.

[0033] Figs. 7-9 illustrate another embodiment of the invention. Fig. 7 illustrates an example of a display on the gaming device of Fig. 1 for playing bingo. In such a game, numbers in an array 82 are randomly illuminated and are used to fill one or more virtual bingo cards purchased by the player to create patterns associated with awards. At some time, the bingo game, as shown in Figs. 8 and 9, is changed into a game of roulette.

[0034] Fig. 8 shows the display during the change-over process, and Fig. 9 shows the final roulette wheel 86. In the roulette game, the player makes a bet on a displayed roulette table, similar to the physical game of roulette, and the roulette wheel spins to select the outcome. In one embodiment, a simulated ball rolls around the roulette wheel instead of or in addition to the roulette wheel spinning. The final position of the ball identifies the roulette number. The player then wins an award

based on where the player placed a bet on the virtual roulette table.

[0035] The changing of one game into another may be performed on any two or more games. For example, the roulette game of Fig. 9 may change into a card game or any other type of game or may change back into the bingo game. Other possible games include keno, poker, poker reels, blackjack, or any other game. Such changing may take place at any time and may take place multiple times per day or at any other time interval. The time interval may even be random.

[0036] Additional examples of changing the game over time are provided below.

[0037] In response to a player obtaining certain outcomes in the main game, such as a certain winning combination of symbols, the player gets to play a bonus game. The bonus game can be the initiation of a special video game with generally higher awards than the main game, or the bonus game may be free spins, etc. The bonus game can be any type of game. In accordance with one embodiment of the invention, the bonus game changes automatically over time. The bonus game may be replaced with a new bonus game or additional bonus game opportunities. If additional bonus game opportunities appear, the player may choose which bonus game to play using a touch screen or control buttons. The bonus game may change over a period of time (e.g., by morphing) or may change suddenly. The bonus game may change at a random time or may change based on the time, day, season, etc. An operator that sets up the gaming machine may select the bonus game variables when configuring the machine.

[0038] Examples of bonus games that may be added to a game over time or replace another bonus game include a video or actual reel slot game, a video roulette game, a video card game (e.g., poker, blackjack), video pachinko, or other games. The player may effectively build a virtual casino by accumulating bonus games. The player may choose which bonus game to play. If the gaming machine remains idle for an extended period of time, the bonus game may revert to a default bonus game. In this way, the player is encouraged to keep playing the same machine.

[0039] In another embodiment, the main game or bonus game may automatically change over time by offering new possibilities for winning. For example, at some time, the game may add a progressive jackpot feature, where a percentage of bets from a single machine or linked machines is accumulated in a jackpot. A certain outcome of the main game or bonus game may then award the jackpot to the player. The progressive feature may then be disabled for some period of time and automatically appear in the future upon any trigger event.

[0040] Other examples of new possibilities of winning that may be enabled at various times to change the game include: 1) winning combinations that pay out from either left to right or right to left instead of only left to right; 2) symbols (e.g., wildcards) that temporarily

change value, such as a wildcard additionally multiplying the payout by two; and 3) new winning combinations.

[0041] The theme of the main game and/or bonus game may change over time along with the game itself.

5 For example, the background and symbols may change automatically over time to be a Rome theme, then an Athens theme, and then a New York theme. Each city has its own bonus game. For example Rome may have a hidden value bonus game, Athens may have a spinning wheel bonus game, and New York may have a free spin bonus game.

[0042] In one embodiment, the symbols change over time until the game becomes a different theme game. For example, some symbols on virtual reels may represent dragon eggs. Over time, the eggs hatch and the symbols morph into full grown dragons. Ultimately, the fully morphed game may be the sequel to the first game and have different rules. In one embodiment, the first game does not appear again, and the game only changes into new games never before presented by the machine. In this way, the players do not get tired of playing the same machines. In such games, the changing over into the sequel may take place over a period of days, weeks, or months.

15 **[0043]** Upcoming changes to the game may be announced by the machine by pop-up ads on the machine's video display, or the casino can separately advertise the changes. This adds excitement to the players' experience.

20 **[0044]** In another embodiment, the bonus game automatically changes by providing additional levels of the bonus game over time. For example, the bonus game may be a video game where the player makes choices of hidden value icons in an attempt to select the highest value icon. The value of the selected icon is revealed after the player selects it, and the player receives the selected award. The bonus game may change over time to add additional hidden values which, if selected, initiates a higher level bonus game or a different bonus game. The additional hidden values that are changed over time may include a very high value award that is infrequently available. The player will want to keep playing the gaming machine with the hope of playing a bonus game during a time that the bonus game has the most favorable options. By continually changing the bonus game over time, infrequent high value bonuses or bonus games may be made available to the player to keep the player playing while not increasing the long term overall payout percentage. The potential bonuses may be revealed to the player before or after the bonus game.

25 **[0045]** Having described the invention in detail, those skilled in the art will appreciate that given the present disclosure, modifications may be made to the invention without departing from the spirit and inventive concepts described herein. Therefore, it is not intended that the scope of the invention be limited to the specific embodiments illustrated and described.

Claims

1. A method performed by a gaming machine (10) comprising:

displaying and conducting a first type of game, one or more outcomes of the first type of game providing awards to the player;

displaying and conducting a second type of game different from the first type of game, one or more outcomes of the second type game providing awards to the player; and

automatically changing the game displayed and conducted by the gaming machine (10) from the first type of game to the second type of game independent of the outcome of a game and without player interaction.

2. The method of Claim 1 wherein the first type of game comprises displaying the rotation of X reels and stopping the rotation of the X reels to grant an award based upon combinations of symbols across one or more paylines, and the second type of game comprises displaying the rotation of Y reels and stopping the rotation of the Y reels to grant an award based upon combinations of symbols across one or more paylines, wherein X does not equal Y.

3. The method of Claim 1 wherein the first type of game comprises displaying a bingo game (82), and the second type of game comprises displaying a roulette game (86).

4. The method of Claim 1 wherein the first type of game comprises displaying the rotation of reels having a first set of symbols and stopping the rotation of the reels to grant an award based upon combinations of symbols from the first set across one or more paylines, and the second type of game comprises displaying the rotation of the reels having a second set of symbols, different from the first set of symbols, and stopping the rotation of the reels to grant an award based upon combinations of symbols from the second set across one or more paylines.

5. The method of Claim 4 wherein at least some of the symbols in the first set of symbols automatically change into at least some of the symbols in the second set of symbols.

6. The method of Claim 4 wherein at least some of the symbols in the first set of symbols automatically change into special symbols that perform a special function.

7. The method of Claim 1 wherein the first type of game has winning outcomes different from winning outcomes of the second type of game.

5 8. The method of Claim 1 wherein the first type of game has a payout schedule different from a payout schedule of the second type of game.

10 9. The method of Claim 1 wherein the first type of game has winning combinations of symbols different from winning combinations of symbols in the second type of game.

15 10. The method of Claim 1 wherein the first type of game changes into the second type of game by changing a theme of the first type of game.

20 11. The method of Claim 1 wherein the first type of game changes to the second type of game over a period of time exceeding a day.

25 12. The method of Claim 1 further comprising automatically changing the second type of game back to the first type of game.

13. The method of Claim 1 wherein the first type of game and the second type of game are bonus games.

30 14. The method of Claim 13 wherein the first type of game and the second type of game have different game rules.

35 15. The method of Claim 1 wherein the second type of game includes a progressive jackpot feature that is unavailable in the first type of game.

16. A gaming device (10) comprising:

40 a video display screen (12, 14); and
a processor (60) programmed for carrying out the following method:

45 displaying and conducting a first type of game, one or more outcomes of the first type of game providing awards to the player;

50 displaying and conducting a second type of game different from the first type of game, one or more outcomes of the second type game providing awards to the player; and

55 automatically changing the game displayed and conducted by the gaming machine from the first type of game to the sec-

ond type of game independent of the outcome of a game and without player interaction.

17. The device of Claim 16 wherein the first type of game comprises displaying the rotation of X reels and stopping the rotation of the X reels to grant an award based upon combinations of symbols across one or more paylines, and the second type of game comprises displaying the rotation of Y reels and stopping the rotation of the Y reels to grant an award based upon combinations of symbols across one or more paylines, wherein X does not equal Y. 5

18. The device of Claim 16 wherein the first type of game comprises displaying the rotation of reels having a first set of symbols and stopping the rotation of the reels to grant an award based upon combinations of symbols from the first set across one or more paylines, and the second type of game comprises displaying the rotation of the reels having a second set of symbols, different from the first set of symbols, and stopping the rotation of the reels to grant an award based upon combinations of symbols from the second set across one or more paylines. 15 20 25

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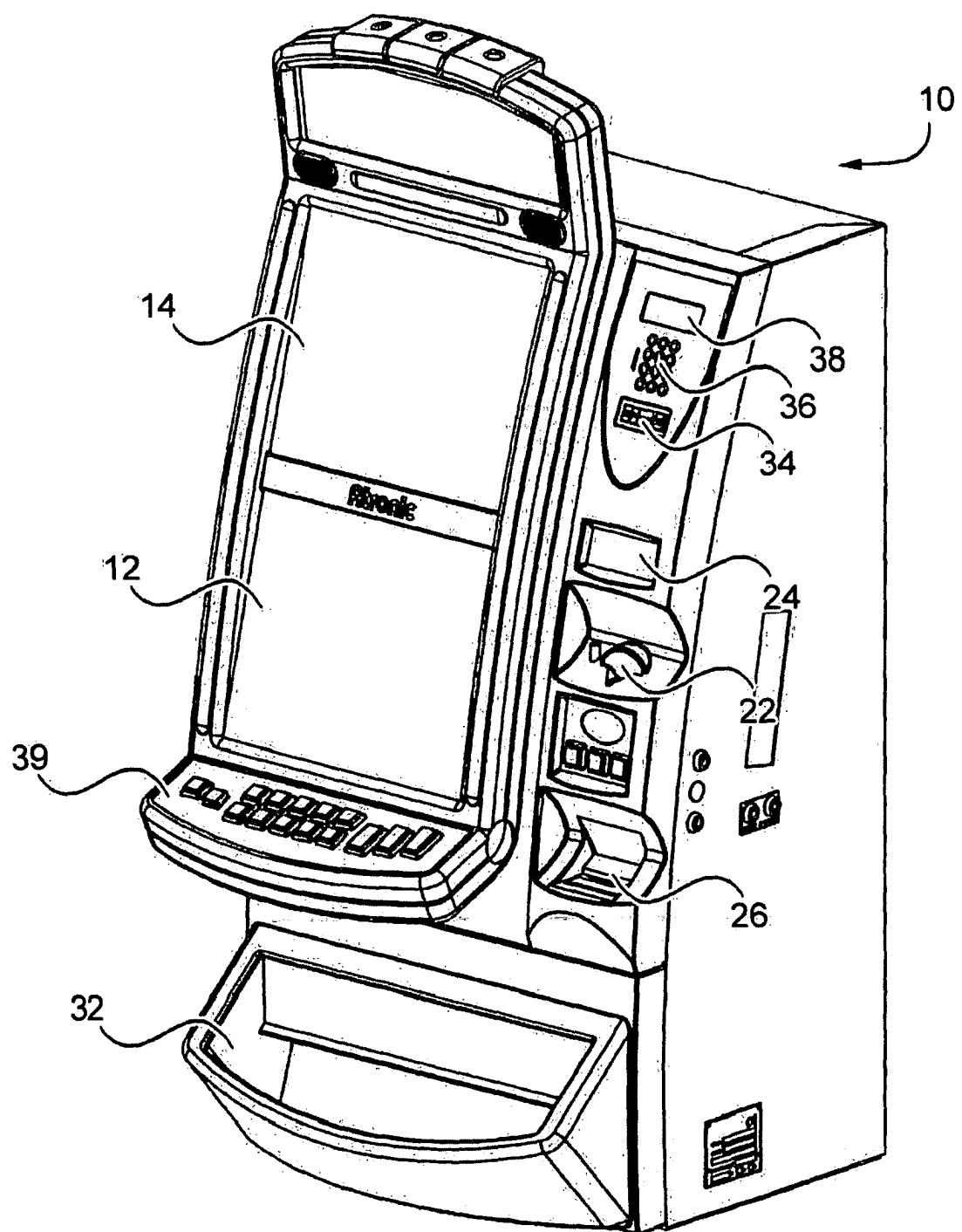


Fig. 1

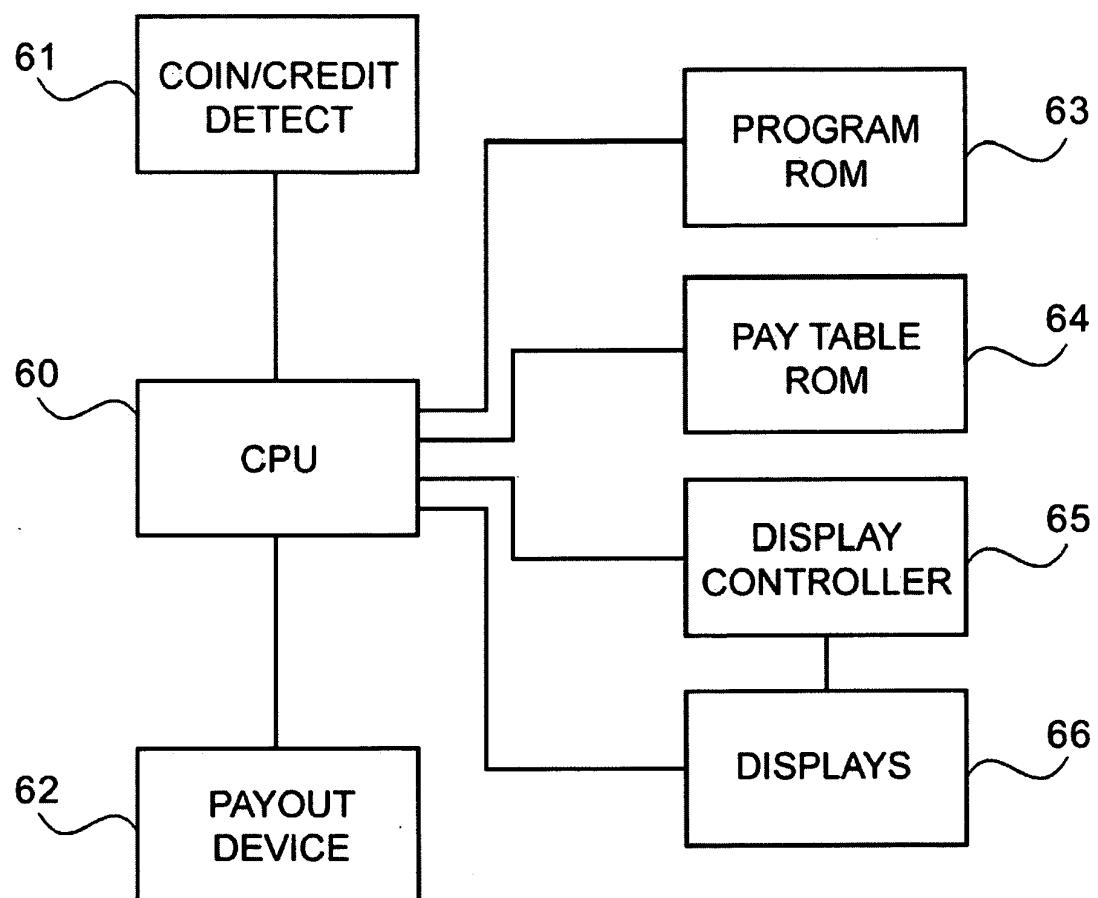


Fig. 2

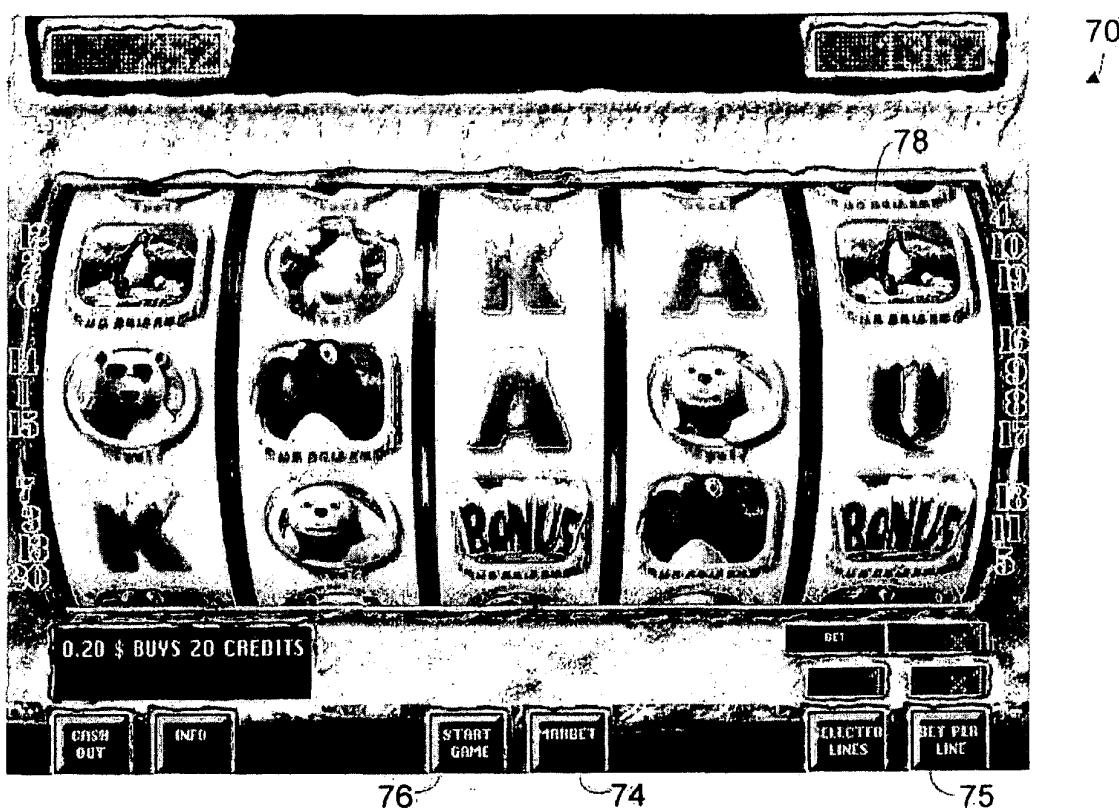


Fig. 3

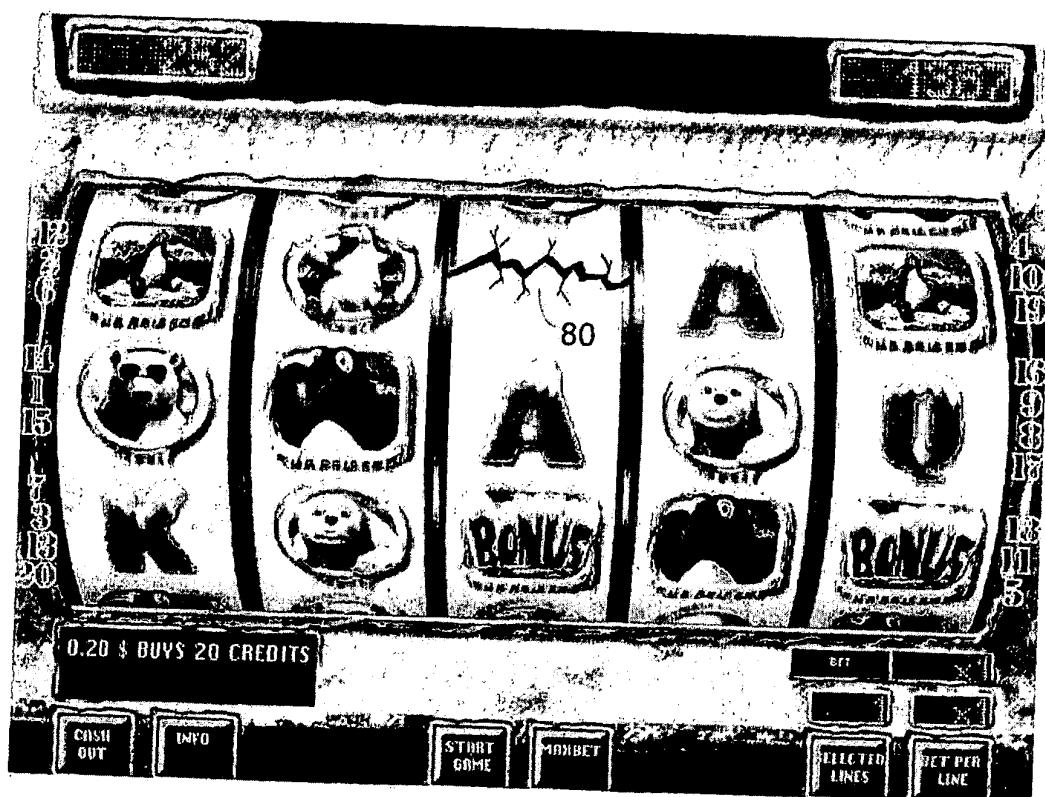


Fig. 4

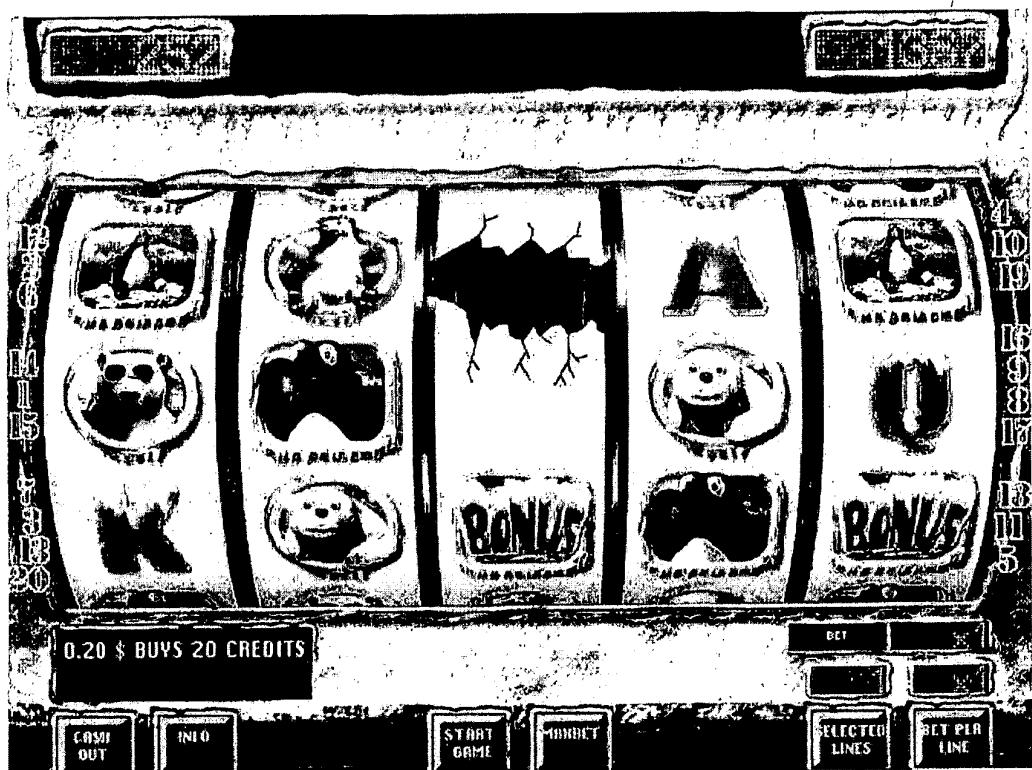


Fig. 5

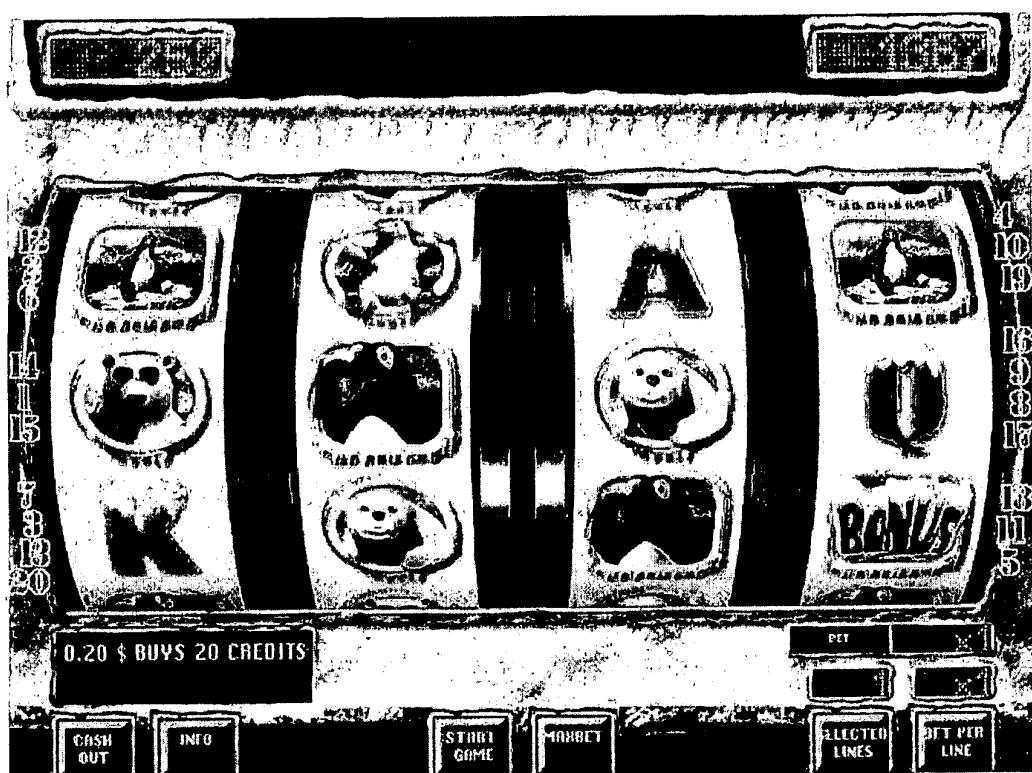


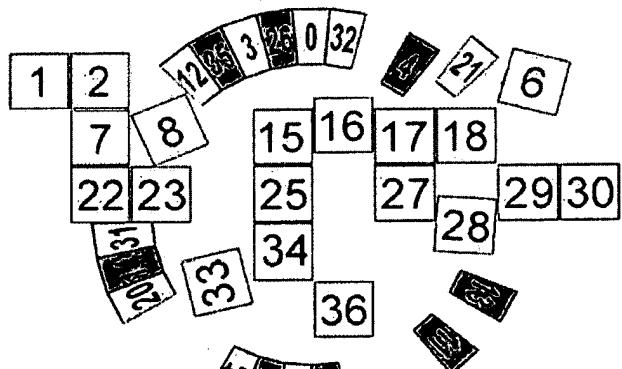
Fig. 6

BINGO

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

Fig. 7

Roulette



Roulette

Fig. 8

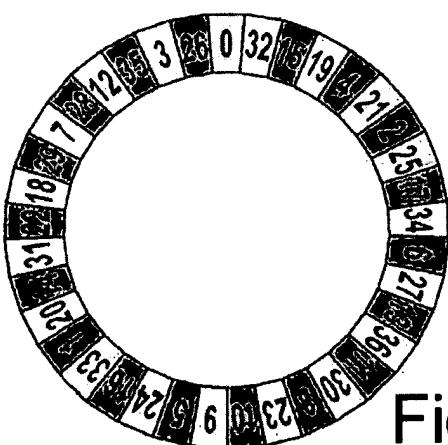


Fig. 9



DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
X	US 2003/153379 A1 (BEAULIEU NICOLE) 14 August 2003 (2003-08-14) * abstract; figures 2,4 * * paragraph [0005] - paragraph [0009] * * paragraph [0030] * * paragraph [0039] - paragraph [0040] * * paragraph [0052] - paragraph [0054] * * paragraph [0086] - paragraph [0087] * * paragraph [0091] * ----- X EP 1 253 563 A (MIDWAY AMUSEMENT GAMES, LLC) 30 October 2002 (2002-10-30) * abstract * * paragraph [0005] - paragraph [0011] * -----	1-18	G07F17/32
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			G07F
1 The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
Munich		13 September 2005	Peller, I
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T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 05 00 3018

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

13-09-2005

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