

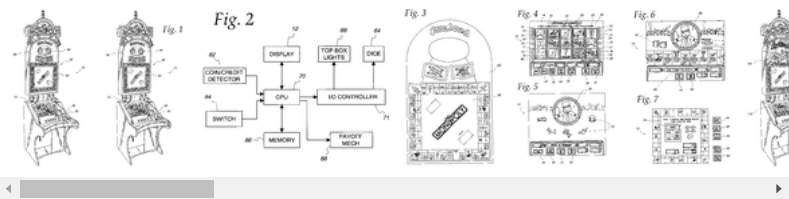
[← Back to results](#)  [monopoly; board;](#)

Gaming machines with board game theme, apparatus and method

Abstract

Gaming machines are disclosed having a basic mode defining a plurality of reels and a bonus mode defining a plurality of stations about a game board (e.g., MONOPOLY board) traversable by a token identifier. The disclosure describes a plurality of play features for the basic and/or bonus modes including (1) a feature allowing the player to select a game token; (2) a feature allowing the player to predict and wager on landing position(s) of the token identifier; (3) a feature allowing the player to obtain deferred-execution instruction(s) which are exercisable by the processor to override later-issued instruction(s) otherwise to be executed by the processor; (4) a feature in which movements of the token identifier are determined according to movement tables corresponding to the various stations of the game board; (5) a feature in which escalating bonuses are awarded for reaching a designated bonus square (e.g., the 'GO' square); (6) a feature in which bonuses are awarded for completing groups of stations (e.g., color groups); and (7) a feature in which the gaming machine includes two bonus modes, each entered upon certain symbol combinations in the basic game. The first bonus game provides an award selected from a plurality of fixed values and multipliers, and the second bonus game moves a token identifier on a game board and provides an award determined by the landing station of the token identifier.

Images (22)



Classifications

G07F17/32 Coin-freed apparatus for hiring articles; Coin-freed facilities or services for games, toys, sports or amusements, e.g. casino games, online gambling or betting

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Claims (18)

What is claimed is:

1. A method of operating a gaming machine under control of a processor, the method comprising the steps of:

executing, under control of the processor, a game program defining a plurality of stations about a game board traversable by a game token, said stations being associated with respective monetary outcomes;

selecting, under control of the processor in response to player input, a game token for illustrating movement between said stations;

displaying, under control of the processor, the selected game token landing on one or more of said stations on the game board determined by execution of the game program;

and

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Current Assignee : [Bally Gaming Inc](#)

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1999

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2001

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2002

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2003

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awarding the monetary outcomes associated with said landing stations.

2. The method of claim 1 wherein the step of selecting a game token includes the steps of:

displaying a selection screen showing a plurality of token selection options; and

selecting, under player control, a game token from among the token selection options.

3. The method of claim 2 wherein the selection screen comprises a touch-screen display and the selecting step comprises the touching the touch screen over one of the token selection options.

4. The method of claim 1 wherein the processor is operable in a basic mode and a bonus mode, the executing step being accomplished in the bonus mode.

5. A gaming machine, comprising:

a processor operable to execute a game program defining a plurality of stations about a game **board** traversable by a game token, said stations being associated with respective monetary outcomes;

a selection element for selecting, in response to player input, a game token for illustrating movement between said stations; and

a display for displaying, under control of the processor, the selected game token landing on one or more of said stations on the game **board** determined by execution of the game program, the processor awarding the monetary outcomes associated with said landing stations.

6. A gaming machine comprising:

a processor operable to execute a game program defining a plurality of stations about a game **board** traversable by a token identifier;

a game memory operably coupled to the processor, the game memory storing a plurality of movement tables each corresponding to one of the stations of the game **board**, each of the movement tables defining a set of possible movement outcomes;

means for identifying, under control of the processor, a position of the token identifier comprising any one of the stations on the game **board**; and

means for consulting, under control of the processor, one or more of the movement tables associated with the position of the token identifier to select a movement outcome.

7. The gaming machine of claim 6 wherein at least one station of the game **board** is associated with a first and second movement table stored in the game memory, the processor determining the movement outcome from said station by selecting a first outcome from the first movement table, a second outcome from the second movement table and then summing the first and second outcomes to determine said movement outcome.

8. The gaming machine of claim 6 further comprising means for moving the token identifier a number of steps on the game **board** corresponding to the selected movement outcome.

9. The gaming machine of claim 6 wherein each of the movement tables define an equal number of possible movement outcomes.

10. The gaming machine of claim 6 wherein each of the movement tables assigns a predefined selection probability to each of the possible movement outcomes.

11. A method of operating a gaming machine under control of a processor, the processor being operable to execute a game program defining a plurality of stations about a game **board** traversable by a token identifier, the method comprising:

storing a plurality of movement tables in a game memory, each of the movement tables defining a set of possible movement outcomes;

identifying, under control of the processor, a position of the token identifier comprising any one of the stations on the game **board**; and

consulting, under control of the processor, the movement table associated with the position of the token identifier to select a movement outcome.

12. A gaming machine comprising a game of chance represented on a video-type display, said video-type display depicting a plurality of **board** game stations randomly traversed by a game token, said game token stopping on one of said stations to select an associated monetary award.

13. The gaming machine of claim 12, wherein said plurality of **board** game stations scroll across said video-type display.

14. The gaming machine of claim 12, wherein the number of **board** game stations traversed by said game token prior to stopping is determined by a random movement indicator.

15. The gaming machine of claim 12, wherein said game of chance is a secondary game, and further including a basic game of chance having a plurality of randomly selected basic game outcomes, said plurality of basic game outcomes including a start-bonus outcome, said secondary game being triggered by said start-bonus outcome.

16. A method of conducting a wagering game on a gaming machine, comprising:

receiving a wager from a player;

depicting, on a video-type display, a plurality of **board** game stations randomly traversed by a game token; and

stopping said game token on one of said stations to select an associated monetary award.

17. The method of claim 16, further including conducting a basic game, said depicting step being responsive to a start-bonus outcome in said basic game.

18. The method of claim 17, wherein the basic game includes a plurality of symbol-bearing reels that are rotated and stopped to place symbols on said reels in visual association with a display area.

Description

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a divisional of U.S. patent application Ser. No. 09/274,793, filed Mar. 23, 1999, now allowed, which claims the benefit of priority of U.S. Provisional Patent Application No. 60/079,143 filed Mar. 24, 1998.

FIELD OF THE INVENTION

The present invention relates generally to gaming machines and, more particularly, to a gaming machine having various play features relating to a **board** game.

BACKGROUND OF THE INVENTION

Gaming machines, such as slot machines, video poker machines and the like, have been a cornerstone of the gaming industry for several years. Generally, the popularity of such machines with players is dependent on the likelihood (or perceived likelihood) of winning money at the machine and the intrinsic entertainment value of the machine relative to other available gaming options. Where the available gaming options include a number of competing machines and the expectation of winning each machine is roughly the same (or believed to be the same), players are most likely to be attracted to the most entertaining and exciting of the machines. Shrewd operators consequently strive to employ the most entertaining and exciting machines available, because such machines attract frequent play and hence increase profitability to the operator.

One concept which has been successfully employed to enhance the entertainment value of a game is the concept of a “secondary” or “bonus” game which may be played in conjunction with a “basic” game. The bonus game may comprise any type of game, either similar to or completely different from the basic game, which is entered upon the occurrence of a selected event or outcome of the basic game. Generally, bonus games provide a greater expectation of winning than the basic game and may also be accompanied with more attractive or unusual video displays and/or audio. Because the bonus game concept offers tremendous advantages in player appeal and excitement relative to other known games, and because such games are attractive to both players and operators, there is a continuing need to develop gaming machines with new types of bonus games to satisfy the demands of players and operators. The present invention is directed to satisfying this need.

SUMMARY OF THE INVENTION

In accordance with one aspect of the present invention, there is provided a gaming machine with a feature allowing the player to select a game token. The gaming machine comprises a processor, a selection element and a display. The processor is operable to execute a game program defining a plurality of stations about a game **board** traversable by a game token. The selection element is operable to select, in response to player input, a game token for illustrating movement between the stations, and the display is operable to display, under control of the processor, the selected game token at one or more stations on the game **board** determined by execution of the game program.

In accordance with another aspect of the present invention, there is provided a feature allowing the player to predict and wager on landing position(s) of the token identifier. The gaming machine comprises a processor operable to execute a game program defining a plurality of stations about a game **board** traversable by a token identifier. The feature comprises selecting, in response to player input, a predicted position of the token identifier to be determined by execution of the game program, the predicted position corresponding to one of the stations on the game **board**. Then, the game program is executed under processor control to determine a true position of the token identifier. The processor compares the predicted position of the token identifier to the true position of the token identifier, and a payoff is awarded to the player if the predicted position corresponds to the true position. In one embodiment, a bonus payoff is made if the predicted position was reached in response to a target movement value.

In accordance with still another aspect of the present invention, there is provided a gaming machine with a feature allowing the player to obtain deferred-execution instruction(s) which are exercisable by the processor to override later-issued instruction(s) otherwise to be executed by the processor. The gaming machine includes a processor operable in a basic mode and a bonus mode, respectively, to select basic game and bonus game outcomes. A display is provided for displaying indicia of the selected outcomes. The processor issues game control instructions associated with the respective indicia. The game control instructions include nominal executable instructions adapted for execution by the processor upon display of the respective indicia and at least one deferred executable instruction adapted for deferred execution by the processor. The deferred execution instruction might occur in the basic game and be exercised in the bonus game. In one embodiment, the game control instructions include an end-bonus instruction (e.g., GO TO JAIL) which nominally cause the processor to end the bonus game, and the deferred executions include an override command (e.g., GET OUT OF JAIL, FREE) executable to override the end-bonus instruction.

In accordance with yet another aspect of the present invention, there is provided a feature in which movements of the token identifier are determined according to movement tables corresponding to the various stations of the game **board**. The gaming machine includes a processor and a game memory. The processor is operable to execute a game program defining a plurality of stations about a game **board** traversable by a token identifier. Movements of the token identifier about the game **board** are determined according to movement tables stored in the game memory. Each of the movement tables correspond to one of the stations of the game **board** and define a set of possible movement outcomes from that station. After identifying the position (station) of the token identifier on the game **board**, the processor consults the movement table corresponding to that position to select a movement outcome. Then, the processor moves the token a number of steps on the game **board** corresponding to the selected movement outcome.

In accordance with still yet another aspect of the present invention, there is provided a feature in which escalating bonuses are awarded for reaching a designated bonus square on the game **board**. The gaming machine includes a processor operable to execute a game program defining a plurality of stations about a game **board** traversable by a token identifier, one of the stations being designated as a bonus station. As the token identifier is advanced along the game **board**, payoff(s) are made to the player when the token identifier reaches the bonus station, the payoffs escalating in value each successive time the token identifier reaches the bonus station.

In accordance with a still further aspect of the present invention, there is provided a feature in which bonuses are awarded for completing groups of stations (e.g., color groups) on the game **board**. The gaming machine includes a processor operable to execute a game program defining a plurality of stations about a game **board** traversable by a token identifier, the plurality of stations having at least one discernible subset defining a station group (e.g., a color group). As the token identifier is advanced along the game **board**, the processor identifies respective landing stations occupied by the token identifier. If the landing station is a member of a station group, the processor designates the landing station as a “completed” station. Then, the processor evaluates the station status of the other stations in the group. If each of the other stations in the group are also completed, the processor designates the group as a completed group and provides a reward to the player, which might comprise an extra “spin” or play of the game, or might increase the award otherwise associated with the station.

In accordance with a still yet further aspect of the present invention, there is provided a gaming machine with a processor operable in a basic mode and two bonus modes. In the basic mode, the processor is operable to display a basic game outcome defining a symbol group. If the symbol group includes a first bonus combination, the processor enters the first bonus mode and, if the symbol group includes a second bonus combination, the processor enters the second bonus mode. In the first bonus mode, the processor sets up the first bonus game by defining a plurality of first bonus selection elements including fixed values and multipliers. Then, the processor operates to select one of the selection elements and the player is awarded a credit based on the value of the selected selection element. In the second bonus mode, the processor operates to define a plurality of stations about a game **board** traversable by a token identifier. Then, the processor executes a movement of the token identifier to determine a landing station, and the player is awarded a credit based on the value of the landing station.

BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing and other advantages of the invention will become apparent upon reading the following detailed description and upon reference to the drawings in which:

FIG. 1 is a perspective view of a video gaming machine with a **board** game theme according to one embodiment of the present invention;

FIG. 2 is a block diagram of the gaming machine of FIG. 1;

FIG. 3 shows the top box glass of the gaming machine of FIG. 1;

FIG. 4 is an illustration of a five-reel, nine-line video gaming machine basic game which may be implemented on the gaming machine of FIG. 1;

FIG. 5 is an illustration of a "Pick Token" screen which appears on the video display of the gaming machine of FIG. 1 according to one embodiment of the present invention;

FIG. 6 is an illustration of a bonus round play screen which may appear on the video display of the gaming machine of FIG. 1 according to one embodiment of the present invention;

FIG. 7 is an illustration of a "Build Houses" screen which appears on the video display of the gaming machine of FIG. 1 according to one embodiment of the present invention;

FIG. 8 is a perspective view of a video gaming machine with a **board** game theme according to another embodiment of the present invention;

FIG. 9 is a block diagram of the gaming machine of FIG. 8;

FIG. 10 shows the top box glass of the gaming machine of FIG. 8;

FIG. 11 is an illustration of a five-reel, five-line video gaming machine basic game which may be implemented on the gaming machine of FIG. 8;

FIG. 12 is an illustration of a "Pick Token" screen which appears on the video display of the gaming machine of FIG. 8 according to one embodiment of the present invention;

FIG. 13 is an illustration of a bonus round play screen which may appear on the video display of the gaming machine of FIG. 1 according to one embodiment of the present invention;

FIG. 14 is a perspective view of a spinning reel gaming machine with **board** game theme according to yet another embodiment of the present invention;

FIG. 15 is a block diagram of the gaming machine of FIG. 14;

FIG. 16a shows a portion of the top box glass of the gaming machine of FIG. 14;

FIG. 16b shows a game **board** portion of the gaming machine of FIG. 14;

FIG. 17 is an illustration of three reel strips associated with a basic game which may be implemented on the gaming machine of FIG. 14;

FIG. 18 is an illustration of a CHANCE bonus screen which may appear on the dot matrix display of the gaming machine of FIG. 14;

FIG. 19 is an illustration of a WATER WORKS screen which may appear on the dot matrix display of the gaming machine of FIG. 14;

FIG. 20 is an illustration of an ELECTRIC COMPANY screen which may appear on the dot matrix display of the gaming machine of FIG. 14;

FIG. 21 is an illustration of a FREE PARKING screen which may appear on the dot matrix display of the gaming machine of FIG. 14;

FIG. 22 is a perspective view of a spinning reel gaming machine with **board** game theme according to yet another embodiment of the present invention;

FIG. 23 is a block diagram of the gaming machine of FIG. 22; and

FIG. 24 shows a portion of the top box glass of the gaming machine of FIG. 22;

FIG. 25 is an illustration of three reel strips associated with a basic game which may be implemented on the gaming machine of FIG. 22.

While the invention is susceptible to various modifications and alternative forms, specific embodiments have been shown by way of example in the drawings and will be described in detail herein. However, it should be understood that the invention is not intended to be limited to the particular forms disclosed. Rather, the invention is to cover all modifications, equivalents, and alternatives falling within the spirit and scope of the invention as defined by the appended claims.

DESCRIPTION OF SPECIFIC EMBODIMENTS

Turning now to the drawings and referring initially to FIG. 1, there is depicted a gaming machine **10** with a **board** game theme. In one embodiment, the gaming machine **10** is operable to play a game entitled **MONOPOLY ONCE AROUND™**, based on the popular **MONOPOLY™** board game. **MONOPOLY™** is a registered trademark owned by and used with permission by Hasbro, Inc. and Hasbro International, Inc., Pawtucket, R.I. Nevertheless, it will be appreciated that the gaming machine **10** may be implemented with any of several other **board** game themes other than **MONOPOLY™**.

The gaming machine **10** includes a video display **12** and a top box display **32**. The video display **12** may comprise a dot matrix, CRT, LED, LCD, electro-luminescent display or generally any type of video display known in the art. The top box display **32** has a facing surface **60** comprising a partially translucent material such as glass, plastic, Plexiglas or the like which includes an adaptation of a game **board 62** (e.g., **MONOPOLY**) displayed thereon. The game **board 62** is backlit by a number of lights **66** (not visible in FIG. 1) in the top box display **32**. A pair of mechanical dice **64** are displayed near the top of the top box display **32**.

FIG. 2 is a block diagram of a control system suitable for operating the slot machine **10**. Coin/credit detector **82** signals a CPU **70** when a player has inserted a number of coins or played a number of credits. Then, after the player has activated a switch **84** (e.g., by pulling a lever or pushing a button), the CPU **70** operates to display reels **14, 16, 18, 20** and **22** on the video screen **12**. Then, the player activates one or more selected paylines **72-80** and presses the "Spin Reels" button **36** or "Max Bet Spin" button **37** to "spin" the reels, as will be described in greater detail in relation to FIG. 4. The CPU **70** randomly selects a game outcome and causes the video display **12** to display indicia (e.g., symbols on reels **14, 16, 18, 20** and **22**) corresponding to the pre-selected game outcome. In one embodiment, the symbols displayed on the reels define the basic game outcome.

A system memory **86** stores control software, operational instructions and data associated with the gaming machine **10**. In one embodiment, the memory **86** comprises a separate read-only memory (ROM) and battery-backed random-access memory (RAM). However, it will be appreciated that the memory **86** may be implemented on any of several alternative types of memory structures or may be implemented on a single memory structure. A payoff mechanism **88** is operable in response to instructions from the CPU **70** to award a payoff of coins or credits to the player in response to certain winning combinations stored in memory **86**. As will be described in detail hereinafter, the payoff amounts corresponding to certain combinations is predetermined according to a pay table stored in system memory **86**. A separate I/O controller **71** coupled to the CPU **70** operates the mechanical dice **64** and top box lights **66**.

The gaming machine **10** is operable to play a "basic" game and a secondary or "bonus" game. The basic game is implemented on the video display **12** on five video simulated spinning reels, **14, 16, 18, 20** and **22** (hereinafter "reels") with nine paylines **72-80**, as best observed in FIG. 4. Generally, game play is initiated by inserting a number of coins or playing a number of credits, causing the CPU **70** (FIG. 2) to activate a number of paylines corresponding to the number of coins or credits played. After activation of the paylines, the reels **14, 16, 18, 20** and **22** are set in motion by either pulling a lever (not shown), pressing a push button, or touching a touch screen "key" on the video display **12**.

In the embodiment of FIG. 4, each of the paylines **72-80** extend through one symbol on each of the five reels **14, 16, 18, 20** and **22**. Payline **72** starts at the upper left symbol (e.g., "DOG") on reel **14**, extends through the center symbol (e.g., "DICE") on reel **16**, the lower symbol (e.g., "CHANCE") on reel **18**, the center symbol (e.g., "DICE") on reel **20** and terminates at the top symbol (e.g., "ELECTRIC CO.," hereinafter "LIGHT") on reel **22**. Payline **73** starts at the upper left symbol (e.g., "DOG") on reel **14**, extends through the center symbol (e.g., "DICE") on reel **16**, the upper symbol (e.g., "SHOE") on reel **18**, the center symbol (e.g., "DICE") on reel **20** and terminates at the top symbol (e.g., "LIGHT") on reel **22**. Payline **74** extends through the top symbol on each reel (e.g., "DOG" on reel **14**, "COMMUNITY CHEST," hereinafter "CHEST" on reel **16**, "SHOE" on reel **18**, "CAR" on reel **20** and "LIGHT" on reel **22**.) Payline **75** starts at the center symbol (e.g., "FREE PARKING," hereinafter "PARK") on reel **14**, extends through the lower symbol (e.g., "SHOE") on reel **16**, the center symbol (e.g., "RING") on reel **18**, the lower symbol (e.g., "RICH UNCLE PENNYBAGS," hereinafter "PENNY") on reel **20** and terminates at the center symbol (e.g., "DOG") on reel **22**. Payline **76** extends through the center symbol on each reel (e.g., "PARK" on reel **14**, "DICE" on reel **16**, "RING" on reel **18**, "DICE" on reel **20** and "DOG" on reel **22**.) Payline **77** starts at the center symbol (e.g., "PARK") on reel **14**, extends through the upper symbol (e.g., "CHEST") on reel **16**, the center symbol (e.g., "RING") on reel **18**, the upper symbol (e.g., "CAR") on reel **20** and terminates at the center symbol (e.g., "DOG") on reel **22**. Payline **78** extends through the lower symbol on each reel (e.g., "TRAIN" on reel **14**, "SHOE" on reel **16**, "CHANCE" on reel **18**, "PENNY" on reel **20** and "DICE" on reel **22**.) Payline **79** starts at the lower symbol (e.g., "TRAIN") on reel **14**, extends through the center symbol (e.g., "DICE") on reel **16**, the lower symbol (e.g., "CHANCE") on reel **18**, the center symbol (e.g., "DICE") on reel **20** and terminates at the lower symbol (e.g., "DICE") on reel **22**. Payline **80** starts at the lower symbol (e.g., "TRAIN") on reel **14**, extends through the center symbol (e.g., "DICE") on reel **16**, the upper symbol (e.g., "SHOE") on reel **18**, the center symbol (e.g., "DICE") on reel **20** and terminates at the lower symbol (e.g., "DICE") on reel **22**.

In one embodiment, the player selects the number of paylines (between one and nine) to play by pressing one of the five buttons in the top row **28** or by using the "Select Lines" key **34** on the video display **12**. The player then chooses one of the five buttons in the bottom row **30** that correspond to the number of coins or credits to bet on each of the nine paylines. Selecting one of the buttons in the bottom row **30** sets the five video reels, **14, 16, 18, 20** and **22** in "motion". As an alternative, the player may touch the "Bet Per Line" key **35** on the video display **12** until the desired bet is displayed and then touch the "Spin Reels" key **36** on the video display **12** to begin the game. As another alternative, if the player wishes to bet the maximum amount of lines and the maximum bet per line, the player may touch the "Max Bet Spin" key **37** on the video display **12** to begin the game. In one embodiment, the game can be set for a maximum bet of 5 or 10 credits on each payline for a maximum total bet of 45 or 90 credits per game. The CPU **70** assigns an equal amount of credits bet for each payline and then spins all five reels **14, 16, 18, 20** and **22**.

The CPU **70** uses a random number generator (not shown) to select a game outcome (e.g., "basic" game outcome) corresponding to a particular set of reel "stop positions". The CPU **70** then causes each of the video reels **14, 16, 18, 20** and **22** to stop at a preselected stop position. Video symbols (see FIG. 4) are displayed on the reels **14, 16, 18, 20** and **22** to graphically illustrate the reel stop position and indicate whether the stop position of the reels represents a winning game outcome. Winning "basic" game outcomes (e.g., symbol combinations resulting in payment of coins or credits) are identifiable by a pay table (see Table A-1). In one embodiment, the pay table is affixed to the machine **10** and/or displayed by the video display **12** in response to a command by the player (e.g., by pressing the "PAY TABLE" button **45**). The pay table enables the player to view the winning combinations and their associated payoff amounts. If the displayed symbols stop in a winning combination, the game awards the player the award corresponding to the award in the pay table for that combination multiplied by the amount of credits bet on the winning payline.

TABLE A-1
MONOPOLY - ONCE AROUND
BASIC GAME

TYPE	9 LINE		5 REEL		# OF		MaxBet 9/18/45/90					
	WIN COMBINATIONS	R #1	R #2	R #3	R #4	R #5	HITS	PAY	TOTAL	PROB	EV	
PENNYBAGS					1	2	2	2	4			
penny	penny	penny	penny	penny	1	2	2	2	4	32	20000	640000 0.000000 0.25%
penny	penny	penny	penny		1	2	2	2	44	352	1000	352000 0.000001 0.145
penny	penny	penny			1	2	2	46	48	8552	200	1710400 0.000034 0.67%
penny	penny				1	2	40	48	48	178080	20	3561600 0.000699 1.40%
DICE												
dice	dice	dice	dice	dice	4	4	7	6	7	4704	250	1176000 0.000018 0.46%
dice	dice	dice	dice		4	4	7	6	41	27552	50	1377600 0.000108 0.54%
dice	dice	dice			4	4	7	42	48	225792	10	2257920 0.000886 0.89%
dice	dice				4	4	41	48	48	1511424	5	7557120 0.005932 2.97%
CAR					4	4	4	4	6			
car	car	car	car	car	4	4	4	4	6	1536	600	921600 0.000006 0.36%
car	car	car	car		4	4	4	4	42	10752	125	1344000 0.000042 0.53%
car	car	car			4	4	4	44	48	125952	50	6297600 0.000494 2.47%
car	car				4	4	36	48	48	1327104	5	6635520 0.005208 2.60%
DOG					4	4	4	4	6			
dog	dog	dog	dog	dog	4	4	4	4	6	1536	500	768000 0.000006 0.30%
dog	dog	dog	dog		4	4	4	4	42	10752	100	1075200 0.000042 0.42%
dog	dog	dog			4	4	4	44	48	125952	30	3778560 0.000494 1.48%
dog	dog				4	4	36	48	48	1327104	3	3981312 0.005208 1.56%
SHOE					4	4	4	4	6			
shoe	shoe	shoe	shoe	shoe	4	4	4	4	6	1536	500	768000 0.000006 0.30%
shoe	shoe	shoe	shoe		4	4	4	4	42	10752	100	1075200 0.000042 0.42%
shoe	shoe	shoe			4	4	4	44	48	125952	30	3778560 0.000494 1.48%
shoe	shoe				4	4	36	48	48	1327104	3	3981312 0.005208 1.56%
ANY TOKEN												
anyt	anyt	anyt	anyt	anyt	12	12	12	12	18	359424	50	17971200 0.001411 7.05%
anyt	anyt	anyt	anyt		12	12	12	12	30	552960	20	11059200 0.002170 4.34%
anyt	anyt	anyt			12	12	12	36	48	2654208	5	3981312 0.010417 5.21%
RING					6	4	6	4	1			
ring	ring	ring	ring	ring	7	6	8	6	5	10040	300	3012000 0.000039 1.18%
ring	ring	ring	ring		7	6	8	6	43	85656	70	5995920 0.000336 2.35%

TABLE A-1													
ring	ring	ring			7	6	8	42	48	669312	20	13386240	0.002627 5.25%
TRAIN					6	6	5	5	2				
train	train	train	train	train	7	8	7	7	6	16416	250	4104000	0.000064 1.61%
train	train	train	train		7	8	7	7	42	114072	60	6844320	0.000448 2.69%
train	train	train			7	8	7	41	48	743904	15	11158560	0.002920 4.38%
FREE PARKING					7	8	5	4	1				
park	park	park	park	park	8	10	7	6	5	16760	200	3352000	0.000066 1.32%
park	park	park	park		8	10	7	6	43	143448	50	7172400	0.000563 2.81%
park	park	park			8	10	7	42	48	1100736	10	11007360	0.004015 4.32%
ELECTRIC CO.					8	8	9	11	11				
light	light	light	light	light	8	8	9	11	11	69696	100	6969600	0.000274 2.74%
light	light	light	light		8	8	9	11	37	234432	40	9377280	0.000920 3.68%
light	light	light			8	8	9	37	48	1022976	7	7160832	0.004015 2.81%
													73.05%
SCATTERED PAYS													
COMMUNITY CHEST	2	2	1	2	2								
chest	chest	chest	chest	chest	6	6	3	6	6	3888	200	777600	0.000015 0.03%
chest	chest	chest	chest		6	6	3	6	42	27216	20	544320	0.000107 0.02%
	chest	chest	chest	chest	42	6	3	6	6	27216	20	544320	0.000107 0.02%
		chest	chest	chest	48	42	3	6	6	217728	7	1524096	0.000854 0.07%
	chest	chest	chest		42	6	3	6	42	190512	7	1333584	0.000748 0.06%
chest	chest	chest			6	6	3	42	48	217728	7	1524096	0.000854 0.07%
CHANCE					2	2	1	2	2				
chance	chance	chance	chance	chance	6	6	3	6	6	3888	200	777600	0.000015 0.03%
chance	chance	chance	chance		6	6	3	6	42	27216	20	544320	0.000107 0.02%
	chance	chance	chance	chance	42	6	3	6	6	27216	20	544320	0.000107 0.02%
		chance	chance	chance	48	42	3	6	6	217728	7	1524096	0.000854 0.07%
	chance	chance	chance		42	6	3	6	42	190512	7	1333584	0.000748 0.06%
chance	chance	chance			6	6	3	42	48	217728	7	1524096	0.000854 0.07%
													0.54%
TOTAL					48	48	48	48	48	15515136		198635008	73.60%

Table A-1 is a pay table identifying various winning combinations of symbols in the MONOPOLY ONCE AROUND™ basic game and their mathematical probabilities and expected values. The various symbols used in the MONOPOLY ONCE AROUND™ basic game include: “RICH UNCLE PENNYBAGS” (“PENNY”), “DICE,” “CAR,” “DOG,” “SHOE,” “RING,” “TRAIN,” “PARK,” “LIGHT,” “CHEST” and “CHANCE.” The “WIN COMBINATIONS” column identifies the various win combinations which may occur by symbols stopping on an active payable. Generally, winning combinations require that at least two of five corresponding symbols be displayed, left to right, starting on reel **14** (designated “R #1” in Table A-1) on an active payable. For example, two “PENNY” symbols displayed on adjacent reels **14** (“R #1”) and **16** would be a winning combination. The “ANY TOKEN” combination is satisfied by any combination of three or more “CAR,” “DOG” and “SHOE” symbols stopping on an active payable, left to right, starting on reel **14** (“R #1”). For example, a “DOG” symbol on reel **14** (“R #1”), followed by a “SHOE” symbol on reel **16** (“R #2”) and another “DOG” symbol on reel **18** (“R #3”) would be a winning “ANY TOKEN” combination.

In one embodiment, the “PENNY” symbol acts as a wildcard for the “RING,” “TRAIN,” and “PARK” symbol combinations. Thus, for example, the combination of “RING,” “PENNY” and “RING” on adjacent reels **14** (“R #1”), **16** (“R #2”) and **18** (“R #3”) is a winning combination.

The “SCATTERED PAYS” column identifies the various win combinations which may occur by symbols which are not necessarily aligned with an active payable. A winning combination of the scatter-pay type occurs when scatter-pay symbols are displayed, in any position, on the appropriate reels. In the MONOPOLY ONCE AROUND™ basic game, the “CHEST” and “CHANCE” symbols are scatter-pay symbols and winning combinations occur when three or more of these symbols are displayed on consecutive and adjacent interchangeable reels. For example, three “CHEST” symbols displayed on adjacent reels **16** (“R #2”), **18** (“R #3”) and **20** (“R #4”), is a winning scatter-pay combination in the MONOPOLY ONCE AROUND™ game.

The “# OF HITS” column of Table A-1 identifies, for each winning combination, the product of the number of symbols on each reel supporting the combination. For example, consider the combination of five “PENNY” symbols. This combination is the highest value combination in the MONOPOLY ONCE AROUND™ basic game because there are relatively few “PENNY” symbols on each reel and, consequently, the probability of hitting a “PENNY” symbol on each reel is very low. Specifically, in the embodiment of Table A-1, there is one “PENNY” symbol on reel **14** (“R #1”), two “PENNY” symbols on reel **16** (“R #2”), two “PENNY” symbols on reel **18** (“R #3”), two “PENNY” symbols on reel **20** (“R #4”) and four “PENNY” symbols on reel **22** (“R #5”). Thus, the “# OF HITS” for the combination of five consecutive “PENNY” symbols is 32 (i.e., 1×2×2×2×4).

The “PAY” column of Table A-1 identifies the amount of coin(s) or credit(s) awarded for the various winning combinations in the basic game, per unit wagered. Thus, for example, the “PENNY,” “PENNY” combination appearing on reels **14**, **16** (“R #1, R #2”) will pay 20 coins or credits with one coin played; that same combination will pay 100 coins or credits with five coins played.

The “TOTAL” column of Table A-1 lists, for each winning combination, the product of the “# OF HITS” value and the “PAY” value. The five “PENNY” combination, for example, having 32 hits each paying 20,000 coins or credits, has a “TOTAL” value of 640,000.

In one embodiment, each of the reels **14**, **16**, **18**, **20** and **22** have 48 symbol positions, thus the odds of hitting each unique combination relative to a single active payable is one in about 254 million (i.e., 1÷(48)⁵). The “PROB” column identifies the probability of hitting the various winning combinations in a single spin. For example, there are only 32 symbol combinations out of about 250 million symbol combinations that will result in the combination of five consecutive “PENNY” symbols. Thus, the probability of hitting that combination is 32÷254 million or about 1.25×10⁻⁷.

The “EV” column of Table A-1 identifies the expected value of the various winning combinations, which is computed as the product of the “PAY” and “PROB” values. Thus, for the five “PENNY” combination, the expected value is 0.0025 (20,000×1.25×10⁻⁷). The payout rate of the basic game, identified at the bottom of the “EV” column, is computed by summing each of the expected values. In the embodiment of Table A-1, the payout rate of the basic game is 73.60%

The Bonus Game

The bonus game is triggered when a special “start-bonus” outcome occurs in the basic game. In the MONOPOLY ONCE AROUND™ game, a winning combination of three or more “DICE” symbols in the basic game represents a “start-bonus” outcome which causes the CPU 70 to execute a game control instruction which enters the bonus game. In one embodiment, the bonus game has a board-game (e.g., MONOPOLY) theme and is implemented on the top box game board 62 and video display 12. The board game defines a plurality of stations or squares about a game board traversable by a game token, or token “identifier” indicating the position of a token, or player. For example, a token “identifier” comprises in one embodiment an illuminated station of the top box game board 62 indicating the position of a token, or player otherwise not displayed on the top box game board 62. Hereinafter, references to displaying the position of a token, or player, shall be understood to mean the display of either an actual game token or a token identifier on a game board or portion thereof.

Upon initially entering the bonus game, the CPU 70 operates to replace the display of reels 14, 16, 18, 20, 22 on video display 12 with a token selection screen (FIG. 5) offering a selection of board game tokens 40. In the MONOPOLY ONCE AROUND™ game, the token selection screen displays an animated Rich Uncle Pennybags symbol 38 above a selection of MONOPOLY tokens 40 (e.g., “CAR,” “DOG,” “HORSE,” “SHOE” and “HAT”), and the player is prompted to select one of the game tokens 40. In one embodiment, the video display 12 comprises a touch-screen display and the selection of a game token 40 is accomplished by touching the desired token on the display 12. It will be appreciated, however, that any of several known player control devices may be used to implement the selection of a token 40. In another embodiment, the player scrolls through the tokens 40 and selects a particular token by depressing a designated “select” button on the gaming machine 10 when the desired token 40 is highlighted. Scrolling through the tokens 40 prior to the selection of the desired token may also be accomplished automatically according to the game program or may be controlled by the player pressing various buttons. Once the player selects a token 40, the CPU 70 operates to display a portion of the game board on the video display 12 with the selected token on a starting station of the game board. The CPU 70 also signals I/O controller 71 to illuminate the starting station on the top box game board 62. For example, in the MONOPOLY ONCE AROUND™ game, the starting station is the ‘GO’ square. The CPU 70 operates to display the selected MONOPOLY token on the GO square of a scrolling video MONOPOLY board on the video display 12, and also signals I/O controller 71 to illuminate the GO square on the top box MONOPOLY board 62.

Next, in one embodiment, the CPU 70 selects an integer movement value defining a number of stations or steps which the token is to be moved from the GO square. In one embodiment, the integer movement value is selected from a plurality of movement values corresponding to the sum of two dice. In this case, the selection of the movement value might comprise selecting two integer values, each corresponding to a possible outcome of one of the dies, then summing the integer values. For example, in one embodiment, the CPU 70 selects a first integer value, from one to six, corresponding to the faces of a six-sided first die, then selects a second integer value, from one to six, corresponding to the faces of a six-sided second die. The CPU 70 sums the two values to define the integer movement value, comprising a number from two to twelve. Alternatively, the CPU 70 might select an integer movement value from two to twelve without selecting and summing intermediate values.

In one embodiment, the player “rolls” a pair of dice by touching a “Roll Dice” key 41 or “Auto Roll” key 42 on the video display 12. The outcome of each roll (e.g., the integer movement value) is selected by the CPU 70 which then issues game control instructions to display indicia of the pre-determined “roll.” In one embodiment, the displayed indicia comprise mechanical dice 64 and a pair of “video” dice 43 on the video display 12 (FIG. 6). In one embodiment, the mechanical dice 64 are driven by I/O controller 71, in response to game control instructions from the CPU 70, to mechanically rotate and then stop to reveal the predetermined outcome of the roll. The video dice 43 similarly “rotate” and then stop to reveal the predetermined roll in response to instructions from the CPU 70. The outcome of the roll of dice 43 (FIG. 6) and 64 (FIG. 1) determines how many spaces the token will be moved from its previous position on the game board. On the top box display 32, movement is illustrated by the illumination, in step-wise fashion, of the appropriate stations (squares) on the game board 62 (e.g., MONOPOLY board) from the previous position to the position determined by the roll of dice. On the video display 12, movement is illustrated by the selected game token 40 (e.g., “SHOE” in FIG. 6) moving, one space at a time, a corresponding number of spaces on a scrolling portion of the game board.

In one embodiment, when the token 40 stops moving for each roll, an animated character icon (e.g., Rich Uncle Pennybags, in the MONOPOLY ONCE AROUND™ game) announces the name of the station (square) landed on by the token 40. The player is awarded the amount indicated on the station multiplied by the line bet. In one embodiment, the player might be awarded an additional amount resulting from a side bet, if any, associated with the station (which will be described in relation to FIG. 7). In one embodiment, the bonus game continues with consecutive rolls of the dice, with the player collecting various amounts corresponding to the landing stations determined by the rolls of dice, until the player's token has completed one trip around the game board. If the rolls are initiated by pressing the “Roll Dice” key 41, the game will pause between rolls until the player touches the key 41 or 42. If the rolls are initiated by the “Auto Roll” key 42, the CPU 70 causes the dice to roll automatically after a small delay following the previous roll.

In the MONOPOLY ONCE AROUND™ game, if the game token 40 lands on a “Chance” or “Community Chest” station (square) during the bonus round, the CPU 70 triggers an animation on video display 12 which shows the top card of a pile of cards flipping up to reveal the “Chance” or “Community Chest” outcomes. The art on the cards resembles the cards in an actual MONOPOLY™ game. Generally, the “Chance” and “Community Chest” outcomes comprise awards of fixed coin values (e.g., “BANK ERROR IN YOUR FAVOR, \$100), or they can move the player to a new space (e.g., GO BACK ONE SPACE). If the player is moved to a property, the movement is indicated on the top box board 62 and the video display 12. The possible outcomes of the “Chance” and “Community Chest” squares in one embodiment of the MONOPOLY ONCE AROUND™ bonus game is shown in Table A-2, below.

TABLE A-2
CHANCE & COMMUNITY CHEST OUTCOMES

Community Chest	Pay	Chance	Pay
Beuty Contest	5	3rd Place in Dance Contest	7
Life Insurance Matures	25	Horse Wins the Derby	35
XMAS Fund Matures	15	You Win State Lottery	100
You Inherit Money	60	You Win at Roulette Table	25
Income Tax Refund	25	You Win at Blackjack	20
		Table	
Bank Error in Your Favor	100	Lawsuit in your Favor	40
Receive Payment for	12	Find Lost Dog	10
Services			
Stock Increases in Value	40	Building and Loan Matures	30
Grand Opera Opening	9	Bank Pays You Dividend	12
Go Back One Space	0	Sell Rare Painting	70
Average	32.33	Average	34.9
Average with Go Back	29.10		

TABLE A-2

1 Space

In one embodiment of the MONOPOLY ONCE AROUND™ game, if the game token **40** lands on station(s) other than "Chance" or "Community Chest," the CPU **70** causes the player to be awarded an amount of credits corresponding to the product of the coins or credits wagered per line in the basic game and a multiplier value associated with the respective station(s). Four of the stations (e.g., "INCOME TAX," "IN JAIL," "GO TO JAIL" and "LUXURY TAX") have zero value in the bonus game, that is, they are associated with zero multiplier amounts. All other stations have positive integer multiplier values which generally increase as the token progresses farther along the board. The multiplier values associated with the respective stations are shown in FIG. 3 and Table A-3, below.

TABLE A-3

MONOPOLY BONUS SQUARES

MONOPOLY BONUS	SNAKE		Cost/ House W/Snake						
SQUARE	MULT	PROB	EYES	Exp Pay	Exp Value	House Pay	Eyes	EV	
Mediterranean Ave.	4	0.0028	0.002778	0.01	0.001%	5	75	1750	97.22%
Community Chest	29.10	0.0278%	0.027778	0.81	0.082%				
Baltic Avenue	5	0.0556	0.00008	0.28	0.028%	5	75	2500	87.19%
Income Tax	0	0.0843	0.00077	0.00	0.000%				
Reading Railroad	10	0.1144	0.00155	1.14	0.116%				
Oriental Avenue	10	0.1469	0.00234	1.47	0.149%	5	25	400	91.03%
Chance	34.9	0.1826	0.00318	6.37	0.646%				
Vermont Avenue	10	0.1669	0.00408	1.67	0.169%	5	25	150	93.63%
Connecticut Avenue	12	0.1560	0.00507	1.87	0.190%	5	25	175	93.21%
In Jail	0	0.1482	0.00463	0.00	0.000%				
St. Charles Place	15	0.1417	0.00433	2.13	0.215%	10	50	600	94.67%
Electric Company	12	0.1346	0.00412	1.62	0.164%				
States Avenue	15	0.1251	0.00394	1.88	0.190%	10	50	800	92.06%
Virginia Avenue	18	0.1389	0.00374	2.50	0.253%	10	50	700	93.76%
Pennsylvania Railroad	10	0.1462	0.00347	1.46	0.148%				
St. James Place	20	0.1488	0.00386	2.98	0.301%	10	50	500	91.74%
Community Chest	32.33	0.1483	0.00406	4.80	0.486%				
Tennessee Avenue	20	0.1461	0.00413	2.92	0.296%	10	50	500	91.64%
New York Avenue	22	0.1433	0.00412	3.15	0.319%	10	50	600	94.30%
Free Parking	10	0.1412	0.00406	4.80	0.486%				
Kentucky Avenue	25	0.1411	0.00398	3.53	0.357%	15	75	900	92.46%
Chance	34.9	0.1419	0.00392	4.95	0.502%				
Indiana Avenue	25	0.1429	0.00392	3.57	0.362%	15	75	900	93.01%
Illinois Avenue	28	0.1436	0.00394	4.02	0.407%	15	75	900	93.51%
B & O Railroad	10	0.1440	0.00397	1.44	0.146%				
Atlantic Avenue	30	0.1441	0.00399	4.32	0.438%	15	75	900	93.98%
Ventnor Avenue	30	0.1436	0.00400	4.31	0.436%	15	75	900	93.81%
Water Works	12	0.1432	0.00400	1.72	0.174%				
Marvin Gardens	35	0.1429	0.00399	5.00	0.507%	15	75	900	93.40%
Go to Jail	0	0.1429	0.00298	0.00	0.000%				
Pacific Avenue	50	0.1430	0.00397	7.15	0.724%	20	100	1200	93.36%
North Carolina Avenue	50	0.1432	0.00397	7.16	0.7255	20	100	1200	93.45%
Community Chest	32.33	0.1434	0.00397	4.64	0.469%				
Pennsylvania Avenue	60	0.1434	0.00398	8.60	0.871%	20	100	1200	93.58%
Short Line Railroad	10	0.1434	0.00398	1.43	0.1455				
Chance	34.9	0.1433	0.00398	5.00	0.506%				
Park Place	100	0.1432	0.00398	14.32	1.451%	20	100	1200	93.52%
Luxury Tax	0	0.1432	0.00398	0.00	0.000%				
Boardwalk	300	0.1432	0.00398	42.96	4.351%	20	100	1200	93.48%
Go	5	1.0000	0.00298	5.00	0.506%				
Total Spaces	39	6.2192							
Average	29.78	0.16							
Expected Value				167.60	16.97%				

In one embodiment, the bonus game gives the player the opportunity to make side bets, apart from the coins or credits wagered in the basic game, on the stations of the game board which the player predicts will be landed on during the bonus game. The increments of the side bets which may be made on the various stations may be varied according to the game program. For example, in the MONOPOLY ONCE AROUND™ bonus game, the player has the opportunity to "build" houses (make side bets) on the properties of the MONOPOLY board which the player predicts will be landed on during the bonus game. The amount of the side bet corresponds to the "cost" of the houses built on the various properties, which generally varies according to the property selected.

If the player wishes to build house(s), the player touches the "Build Houses" key **46** on the video display **12** (FIG. 5) which appears at the beginning of the bonus round. If the "Build Houses" key **46** is selected, the CPU **70** operates to display a "Build Houses" screen (FIG. 7) on the video display. In one embodiment, the video display **12** comprises a touch-screen display and the player bets (builds houses) on a property by touching the desired property. It will be appreciated, however, that any of several alternative player control devices may be used to implement the selection and building of houses.

After selection of a property, the CPU **70** operates to display a property deed **54** corresponding to the selected property on the video display **12**. In FIG. 7, the property deed shown on the video display **54** is "Baltic Avenue," thus indicating that the player has elected to build houses on Baltic Avenue. More specifically, the player has identified the "Baltic Avenue" station as a predicted landing position of the token, to be determined by execution of the game program. The player builds houses on the selected property by touching the property again, by touching the deed **54**, or by touching the "Build Houses" key **46**. Up to five bets (houses) may be placed on each property. In one embodiment, the houses on the bottom side of the MONOPOLY™ board (from Mediterranean Ave. to Connecticut Ave.) cost 5 credits each, the houses on the left side of the board (St. Charles Place to New York Ave.) cost 10 credits each, the houses on the top side of the board (Kentucky Ave. to Marvin Gardens) cost 15 credits each and the houses on the right side of the board (Pacific Ave. to Boardwalk) cost 20 credits each.

The cost of the houses are subtracted from the credits previously earned or paid into the machine by the player. In one embodiment, the player may insert coins or bills into the machine **10** at any time during display of the "Build Houses" screen as desired to increase the credits available for building houses. If the player, having selected a property and placed house(s) on the property, wants to clear the house(s) on the selected property, the player touches a "Clear Property" key **48** on the display **12**. If the player wants to clear houses (side bets) placed on the entire board, the player touches a "Clear All Houses" key **50** on the display **12**.

In one embodiment, the video display **12** displays a number of house and hotel icons corresponding to the number of houses built on each selected property. In FIG. 7, for example, the video display **12** shows four green house icons and a red hotel icon adjacent to the Baltic Avenue property deed, thus indicating that the player has placed five bets on Baltic Avenue. The four house icons represent the first four bets and the hotel icon represents the fifth bet placed on Baltic Avenue. The displayed property deed **54** identifies the cost per house (e.g., 5 credits for Baltic Avenue) and the pay value of landing on the property (e.g., 125 credits for Baltic Avenue, with five houses).

In one embodiment, the game program defines a target integer movement value and a bonus is awarded to the player if the player "rolls" the target integer movement value to land on the selected property. The bonus comprises a higher value award, greater than the award which would otherwise be awarded by landing on the selected property. In the illustrated embodiment, the target integer movement value is two, corresponding to a roll of "Snake Eyes" (double ones). The displayed property deed **54** indicates the pay value of the "Snake Eyes" bonus, 2000 credits for Baltic Avenue (with five houses). The cost per house, pay value per house and Snake Eyes bonus value per house for the various properties in one embodiment of the MONOPOLY ONCE AROUND™ game is identified in Table A-3.

In one embodiment, a "Help" key **44** is displayed on the "Build Houses" screen. If touched by the player, the "Help" key **44** allows the player to access various information and instructions associated with the build houses feature. For example, in one embodiment, the information associated with the "Help" key **44** may allow the player to determine how much the Snake Eyes bonus is worth for the various properties.

After the player has placed the desired number of side bets, the player touches a "Return to Game" key **52** on the display **12**, causing the CPU **70** to replace the "Build Houses" screen with a display of the MONOPOLY board screen (FIG. 6) with the token starting on the GO square. Then, the player presses the "Roll Dice" button **41** or "Auto Roll" button **42** to roll the dice and commence the bonus game.

Then, the CPU **70** executes a game program, selecting integer movement values corresponding to a roll of dice to advance the game token, or token identifier along the game board. The landing station(s) of the token identifier determined by execution of the game program define "actual" or "true" position(s) of the token identifier, as opposed to the predicted positions selected via the "Build Houses" screen. After each "roll," the CPU **70** compares the true position to the predicted position(s) and, if the true position matches any of the predicted position(s), the player is paid an amount of coins or credits, as appropriate, corresponding to the cost of building the house(s) on that property. In one embodiment, the amount paid upon landing on an improved property is five times the cost of building houses on that property. The "Build Houses" award(s), if any, are supplemental to the awards given as a result of landing on the properties in the regular bonus game.

The award of coin(s) or credit(s) for the "Build Houses" feature or the regular bonus game may occur immediately upon the token **40** landing on a particular property or may be deferred until completion of the bonus game. In one embodiment, the animated Rich Uncle Pennybags will celebrate on the display **12** during all large bonus awards. After the bonus game is complete, the bonus screen will fade and the video reels screen will then be displayed on the display **12** so the player may resume playing the basic game.

Now turning to FIG. 8, there is depicted another gaming machine **110** with a board game theme. In one embodiment, the gaming machine **110** is operable to play a game entitled MONOPOLY REEL ESTATE™, based on the MONOPOLY™ board game. MONOPOLY™ is a registered trademark owned by and used with permission by Hasbro, Inc. and Hasbro International, Inc., Pawtucket, R.I. Alternatively, the gaming machine **110** may be implemented with any of several other board game themes other than MONOPOLY™.

The gaming machine **110** includes a video display **112** and a top box display **132**. The video display **112** may comprise a dot matrix, CRT, LED, LCD, electroluminescent display or generally any type of video display known in the art. The top box display **132** has a facing surface **160** comprising a partially translucent material such as glass, plastic, Plexiglas or the like which includes an adaptation of a game board **162** (e.g., MONOPOLY) displayed thereon. The game board **162** is backlit by a number of lights **166** (not visible in FIG. 1) in the top box display **132**.

FIG. 9 is a block diagram of a control system suitable for operating the slot machine **110** of FIG. 8. Coin/credit detector **182** signals a CPU **170** when a player has inserted a number of coins or played a number of credits. Then, after the player has activated a switch **184** (e.g., by pulling a lever or pushing a button), the CPU **170** operates to display reels **114**, **116**, **118**, **120** and **122** (see FIG. 11) on the video screen **112**. The player activates one or more selected paylines **172**, **174**, **176**, **178**, **180** and presses the "Spin Reels" button **136** or "Max Bet Spin" button **137** to "spin" the reels, as will be described in relation to FIG. 11. The CPU **170** randomly selects a game outcome and causes the video display **112** to display indicia (e.g., symbols on reels **114**, **116**, **118**, **120** and **122**) corresponding to the pre-selected game outcome. In one embodiment, the symbols displayed on the reels define the basic game outcome.

A system memory **186** stores control software, operational instructions and data associated with the gaming machine **110**. In one embodiment, the memory **186** comprises a separate read-only memory (ROM) and battery-backed random-access memory (RAM). However, it will be appreciated that the memory **186** may be implemented on any of several alternative types of memory structures or may be implemented on a single memory structure. A payoff mechanism **188** is operable in response to instructions from the CPU **170** to award a payoff of coins or credits to the player in response to certain winning combinations stored in memory **186**. As will be described in detail hereinafter, the payoff amounts corresponding to certain combinations is predetermined according to a pay table stored in system memory **186**. A separate I/O controller **171** coupled to the CPU **170** operates the top box lights **266**.

The gaming machine **110** is operable to play a basic game and a bonus game. The basic game is implemented on the video display **112** on five video simulated spinning reels, **114**, **116**, **118**, **120** and **122** (hereinafter "reels") with five paylines **172**, **174**, **176**, **178** and **180**, as best observed in FIG. 11. Generally, game play is initiated by inserting a number of coins or playing a number of credits, causing the CPU **170** (FIG. 9) to activate a number of paylines corresponding to the number of coins or credits played. After activation of the paylines, the reels **114**, **116**, **118**, **120** and **122** are set in motion by either pulling a lever (not shown), pressing a push button, or touching a touch screen "key" on the video display **112**.

In the embodiment of FIG. 11, each of the paylines **172**, **174**, **176**, **178** and **180** extend through one symbol on each of the five reels **114**, **116**, **118**, **120** and **122**. Payline **172** starts at the upper left symbol (e.g., "TRAIN") on reel **114**, extends through the center symbol (e.g., "WATER WORKS," hereinafter "WATER") on reel **116**, the lower symbol (e.g., "WATER") on reel **118**, the center symbol (e.g., "TRAIN") on reel **120** and terminates at the top symbol (e.g., "HAT") on reel **122**. Payline **174** extends through the top symbol on each reel (e.g., "TRAIN" on reel **114**, "ELECTRIC COMPANY," hereinafter "LIGHT" on reel **116**, "COMMUNITY CHEST," hereinafter "CHEST" on reel **118**, "RICH UNCLE PENNYBAGS," hereinafter "PENNY" on reel **120** and "HAT" on reel **122**.) Payline **176** extends through the center symbol on each reel (e.g., "FREE PARKING," hereinafter "PARKING" on reel **114**, "WATER" on reel **116**, "DOG" on reel **118**, "TRAIN" on reel **120** and "LIGHT" on reel **122**.) Payline **178** extends through the lower symbol

on each reel (e.g., "PENNY" on reel **114**, "CHANCE" on reel **116**, "WATER" on reel **118**, "CAR" on reel **120** and "PARKING" on reel **122**.) Payline **180** starts at the lower symbol (e.g., "PENNY") on reel **114**, extends through the center symbol (e.g., "WATER") on reel **116**, the upper symbol (e.g., "CHEST") on reel **118**, the center symbol (e.g., "TRAIN") on reel **120** and terminates at the lower symbol (e.g., "PARKING") on reel **122**.

In one embodiment, the player selects the number of paylines (between one and five) to play by pressing one of the five buttons in the top row **128** or by using the "Select Lines" key **134** on the video display **112**. The player then chooses one of the five buttons in the bottom row **130** that correspond to the number of coins or credits to bet on each of the five paylines. Selecting one of the buttons in the bottom row **130** sets the five video reels, **114**, **116**, **118**, **120** and **122** in "motion". As an alternative, the player may touch the "Bet Per Line" key **135** on the video display **112** until the desired bet is displayed and then touch the "Spin Reels" key **136** on the video display **112** to begin the game. As another alternative, if the player wishes to bet the maximum amount of lines and the maximum bet per line, the player may touch the "Max Bet Spin" key **137** on the video display **112** to begin the game. In one embodiment, the game can be set for a maximum bet of 5, 9 or 18 credits on each payline for a maximum total bet of 25, 45 or 90 credits per game. The CPU **70** assigns an equal amount of credits bet for each payline and then spins all five reels **114**, **116**, **118**, **120** and **122**.

The CPU **170** uses a random number generator (not shown) to select a game outcome (e.g., "basic" game outcome) corresponding to a particular set of reel "stop positions". The CPU **170** then causes each of the video reels **114**, **116**, **118**, **120** and **122** to stop at a preselected stop position. Video symbols (see FIG. 11) are displayed on the reels **114**, **116**, **118**, **120** and **122** to graphically illustrate the reel stop position and indicate whether the stop position of the reels represents a winning game outcome. Winning "basic" game outcomes (e.g., symbol combinations resulting in payment of coins or credits) are identifiable by a pay table (see Table B-1). In one embodiment, the pay table is affixed to the machine **110** and/or displayed by the video display **112** in response to a command by the player (e.g., by pressing the "PAY TABLE" button **145**). The pay table enables the player to view the winning combinations and their associated payoff amounts. If the displayed symbols stop in a winning combination, the game awards the player the award corresponding to the award in the pay table for that combination multiplied by the amount of credits bet on the winning payline.

TABLE B-1
Pay Table for REEL ESTATE Basic Game

TYPE: 5 REEL					
Win Combinations	R #1	R #2	R #3	R #4	R #5
PENNYBAGS					1 1 1 1
PENNY	PENNY	PENNY	PENNY	PENNY	1 1 1 1
PENNY	PENNY	PENNY	PENNY		1 1 1 24
PENNY	PENNY	PENNY			1 1 22 26
PENNY	PENNY				1 1 17 26 26
PENNY					1 17 26 26 26
CAR					1 2 2 2 1
CAR	CAR	CAR	CAR	CAR	2 3 3 3 2
CAR	CAR	CAR	CAR		2 3 3 3 24
CAR	CAR	CAR			2 3 3 23 26
CAR	CAR				2 3 23 26 26
CAR					2 23 26 26 26
HAT					3 3 3 1 1
HAT	HAT	HAT	HAT	HAT	4 4 4 2 2
HAT	HAT	HAT	HAT		4 4 4 2 24
HAT	HAT	HAT			4 4 4 24 26
HAT	HAT				4 4 22 26 26
DOG					3 3 3 3 1
DOG	DOG	DOG	DOG	DOG	4 4 4 4 2
DOG	DOG	DOG	DOG		4 4 4 4 24
DOG	DOG	DOG			4 4 4 22 26
DOG	DOG				4 4 22 26 26
TRAIN					4 4 3 4 4
TRAIN	TRAIN	TRAIN	TRAIN	TRAIN	4 4 3 4 4
TRAIN	TRAIN	TRAIN	TRAIN		4 4 3 4 22
TRAIN	TRAIN	TRAIN			4 4 3 22 26
PARKING					4 4 4 5 4
PARKING	PARKING	PARKING	PARKING	PARKING	4 4 4 5 4
PARKING	PARKING	PARKING	PARKING		4 4 4 5 22
PARKING	PARKING	PARKING			4 4 4 21 26
WATER					4 4 4 4 5
WATER	WATER	WATER	WATER	WATER	4 4 4 4 5
WATER	WATER	WATER	WATER		4 4 4 4 21
WATER	WATER	WATER			4 4 4 22 26
LIGHT					4 3 4 4 6
LIGHT	LIGHT	LIGHT	LIGHT	LIGHT	4 3 4 4 6
LIGHT	LIGHT	LIGHT	LIGHT		4 3 4 4 20
LIGHT	LIGHT	LIGHT			4 3 4 22 26
SCATTERED PAYS					
CHEST					1 1 1 1 1
CHEST	CHEST	CHEST	CHEST	CHEST	3 3 3 3 3
CHEST	CHEST	CHEST	CHEST		3 3 3 3 23

TABLE B-1

Pay Table for REEL ESTATE Basic Game

CHEST	CHEST	CHEST	CHEST	CHEST	23	3	3	3	3
	CHEST	CHEST			3	3	3	23	26
	CHEST	CHEST	CHEST		23	3	3	3	23
		CHEST	CHEST	CHEST	26	23	3	3	3
CHANCE					1	1	1	1	2
CHANCE	CHANCE	CHANCE	CHANCE	CHANCE	3	3	3	3	6
CHANCE	CHANCE	CHANCE	CHANCE		3	3	3	3	20
	CHANCE	CHANCE	CHANCE	CHANCE	23	3	3	3	6
CHANCE	CHANCE	CHANCE			3	3	3	23	26
	CHANCE	CHANCE	CHANCE		23	3	3	3	20
		CHANCE	CHANCE	CHANCE	26	23	3	3	6
				TOTAL	26	26	26	26	26
	# of			MaxBet:	25/45/90				
	HITS	PAY	TOTAL	PROB	EV				
PENNYBAGS									
PENNY	1	10000	10000	8.417E-08	0.08%				
PENNY	24	1000	24000	2.02E-06	0.20%				
PENNY	568	100	56600	4.764E-05	0.48%				
PENNY	11492	10	114920	0.0009672	0.97%				
PENNY	298792	2	597584	0.0251479	5.03%				
CAR									
CAR	107	1000	107000	9.006E-06	0.90%				
CAR	1272	150	190800	0.0001071	1.61%				
CAR	10166	50	508300	0.0008556	4.28%				
CAR	77740	5	388700	0.006543	3.27%				
CAR	404248	2	808496	0.0340237	6.80%				
HAT									
HAT	254	500	127000	2.138E-05	1.07%				
HAT	3048	100	304800	0.0002565	2.57%				
HAT	39312	30	1179360	0.0033087	9.93%				
HAT	223080	2	446160	0.0187756	3.76%				
DOG									
DOG	510	300	153000	4.292E-05	1.29%				
DOG	6048	60	362880	0.000509	3.05%				
DOG	36036	20	720720	0.003033	6.07%				
DOG	223080	2	446160	0.0187756	3.76%				
TRAIN									
TRAIN	768	120	92160	6.464E-05	0.78%				
TRAIN	4224	40	168960	0.0003555	1.42%				
TRAIN	27456	15	411840	0.0023108	3.47%				
PARKING									
PARKING	1280	100	128000	0.0001077	1.08%				
PARKING	7040	30	211200	0.0005925	1.78%				
PARKING	34944	12	419328	0.0029411	3.53%				
WATER									
WATER	1280	80	102400	0.0001077	0.86%				
WATER	5376	25	134400	0.0004525	1.13%				
WATER	36608	10	366080	0.0030811	3.08%				
LIGHT									
LIGHT	1152	60	69120	9.696E-05	0.58%				
LIGHT	3840	20	76800	0.0003232	0.65%				
LIGHT	27456	5	137280	0.0023108	1.16%				
					74.60%				
SCATTERED PAYS									
CHEST									
CHEST	243	50	12150	2.045E-05	0.10%				
CHEST	1863	10	18630	0.0001568	0.16%				
	1863	10	18630	0.0001568	0.16%				
CHEST	16146	2	32292	0.0013589	0.27%				
	14283	2	28566	0.0012021	0.24%				
	16146	2	32292	0.0013589	0.27%				

TABLE B-1

Pay Table for REEL ESTATE Basic Game

CHANCE					
CHANCE	486	50	24300	4.09E-05	0.20%
CHANCE	1620	10	16200	0.0001363	0.14%
	3726	10	37260	0.0003136	0.31%
CHANCE	16146	2	32292	0.0013589	0.27%
	12420	2	24840	0.0010453	0.21%
	32292	2	64584	0.0027179	0.54%
				0.9867%	2.88%
TOTAL	1604434		9206084		3.42%

Table B-1 is a pay table identifying various winning combinations of symbols in the **MONOPOLY REEL ESTATE™** basic game and their mathematical probabilities and expected values. The various symbols used in the **MONOPOLY REEL ESTATE™** basic game include: “RICH UNCLE PENNYBAGS” (“PENNY”), “CAR,” “HAT,” “DOG,” “TRAIN,” “PARKING,” “WATER,” “LIGHT,” “CHEST” and “CHANCE.”

The “WIN COMBINATIONS” column identifies the various win combinations which may occur by symbols stopping on an active payline. Generally, winning combinations can occur when one to five corresponding symbols are displayed, left to right, starting on reel **114** (designated “R #1” in Table B-1) on an active payline. For example, one “PENNY” symbol displayed on reel **114** is a winning outcome, as is two “PENNY” symbols displayed on adjacent reels **114** (“R #1”) and **116** (“R #2”).

In one embodiment, the “PENNY” symbol acts as a wildcard for combinations of game tokens “CAR,” “HAT” and “DOG.” Thus, for example, the combination of “CAR,” “PENNY” and “CAR” on adjacent reels **114** (“R #1”), **116** (R #2) and **118** (R #3) is a winning combination.

The “SCATTERED PAYS” column identifies the various win combinations which may occur by symbols which are not necessarily aligned with an active payline. A winning combination of the scatter-pay type occurs when scatter-pay symbols are displayed, in any position, on the appropriate reels. In the **MONOPOLY REEL ESTATE™** basic game, the “CHEST” and “CHANCE” symbols are scatter-pay symbols and winning combinations occur when three or more of these symbols are displayed on adjacent reels. For example, three “CHEST” symbols displayed on adjacent reels **116** (“R #2”), **118** (R #3) and **120** (R #4), is a winning scatter-pay combination in the **MONOPOLY REEL ESTATE™** game.

The “# OF HITS” column of Table B-1 identifies, for each winning combination, the product of the number of symbols on each reel supporting the combination. For example, consider the combination of five “PENNY” symbols. This combination is the highest value combination in the **MONOPOLY REEL ESTATE™** basic game because there are relatively few “PENNY” symbols on each reel and, consequently, the probability of hitting a “PENNY” symbol on each reel is very low. Specifically, in the embodiment of Table B-1, there is one “PENNY” symbol on each of reels **114** (“R #1”), **116** (“R #2”), **118** (“R #3”), **120** (“R #4”) and **122** (“R #5”). Thus, the “# OF HITS” for the combination of five consecutive “PENNY” symbols is 1 (i.e., 1×1×1×1×1).

The “PAY” column of Table B-1 identifies the amount of coin(s) or credit(s) awarded for the various winning combinations in the basic game, per unit wagered. Thus, for example, the “PENNY,” “PENNY” combination appearing on reels **114**, **116** (“R #1, R #2”) will pay 10 coins or credits with one coin played; that same combination will pay 50 coins or credits with five coins played.

The “TOTAL” column of Table B-1 lists, for each winning combination, the product of the “# OF HITS” value and the “PAY” value. The five “PENNY” combination, for example, having 1 hit paying 10,000 coins or credits, has a “TOTAL” value of 10,000. As another example, the four “PENNY” combination, having 24 hits paying 1,000 coins or credits, has a “TOTAL” value of 24,000.

In one embodiment, each of the reels **114**, **116**, **118**, **120** and **122** have 26 symbol positions, thus the odds of hitting each unique combination relative to a single active payline is one in about 12 million (i.e., 1÷(26)⁵). The “PROB” column identifies the probability of hitting the various winning combinations in a single spin. For example, there is only 1 symbol combination out of about 12 million symbol combinations that will result in the combination of five consecutive “PENNY” symbols. Thus, the probability of hitting that combination is 1÷12 million or about 8.4×10⁻⁸.

The “EV” column of Table B-1 identifies the expected value of the various winning combinations, which is computed as the product of the “PAY” and “PROB” values. Thus, for the five “PENNY” combination, the expected value is 0.08% (10,000×8.4×10⁻⁸). The payout rate of the basic game, identified at the bottom of the “EV” column, is computed by summing each of the expected values. In the embodiment of Table B-1, the payout rate of the basic game is 74.6%

The Bonus Game

The bonus game is triggered when a special “start-bonus” outcome occurs in the basic game. In one embodiment of the **MONOPOLY REEL ESTATE™** game, the bonus game is triggered when three or more “CHEST” or “CHANCE” symbols are displayed in scatter-pay format on adjacent ones of the reels **114**, **116**, **118**, **120** and **122**. Alternatively, depending on the game program, the bonus game might be triggered when the “CHEST” or “CHANCE” symbols are displayed on an active payline on the reels **114**, **116**, **118**, **120** and **122**. The bonus game has a board-game (e.g., **MONOPOLY**) theme and is implemented on the top box game board **162** and video display **112**.

Upon initially entering the bonus game, the CPU **170** operates to replace the display of reels **114**, **116**, **118**, **120**, **122** on video display **112** with a token selection screen (FIG. 12) offering a selection of board game tokens **140**. In the **MONOPOLY REEL ESTATE™** game, the token selection screen displays an animated Rich Uncle Pennybags symbol **138** above a selection of **MONOPOLY** tokens **140** (e.g., “CAR,” “DOG,” “HORSE,” “SHOE” and “HAT”), and the player is prompted to select one of the game tokens **140**. In one embodiment, the video display **112** comprises a touch-screen display and the selection of a game token **140** is accomplished by touching the desired token on the display **112**. It will be appreciated, however, that any of several known player control devices may be used to implement the selection of a token **140**. In another embodiment, the player scrolls through the tokens **140** and selects a particular token by depressing a designated “select” button on the gaming machine **110** when the desired token **140** is highlighted. Scrolling through the tokens **140** prior to the selection of the desired token may also be accomplished automatically according to the game program or may be controlled by the player pressing various buttons. Once the player selects a token **140**.

Once the player selects a token **140**, the CPU **170** signals the I/O controller **171** to illuminate a starting station on the top box game board **162** and then illuminate successive stations around the board in step-wise fashion, rapidly at first and then, after a couple of revolutions, slowing down and stopping on an indicated station. Generally, the indicated station is randomly determined by the CPU **170** prior to the illumination of successive stations on the top box game board **162**. At a certain point, as the light on the top box game board **162** begins slowing down, the CPU **170** operates to generate a corresponding display on the video display **112**, in which the selected token **140** “moves” on a scrolling portion of the game board before ultimately stopping on the indicated station. The movement of the game token **140** on the video display **112** corresponds exactly to the illumination of stations on the top box game board **162**.

For example, in the MONOPOLY REEL ESTATE™ game, once the player selects a token, the stations (squares) of the top box MONOPOLY board 162 are illuminated in step-wise fashion, starting with the GO square. The illumination of stations starts rapidly, then slows down and stops to reveal an indicated station of the MONOPOLY board. On the corresponding video display 112 (FIG. 13), the selected MONOPOLY token 140 (e.g., "HORSE") is shown advancing on a scrolling MONOPOLY board and then stopping on the indicated station (e.g., the "GO" square in FIG. 13).

In one embodiment, when the token 140 "lands" on the indicated station, an animated character icon (e.g., Rich Uncle Pennybags, in the MONOPOLY REEL ESTATE™ game) announces the name of the indicated station and the player is awarded an amount associated with the station. If the game token 140 lands on a "Chance" or "Community Chest" square, the CPU 170 triggers an animation on video display 112 which shows the top card of a pile of cards flipping up to reveal the "Chance" or "Community Chest" outcome. The art on the cards resembles the cards in an actual MONOPOLY™ game. Generally, the "Chance" and "Community Chest" outcomes comprise awards of fixed coin values (e.g., "LIFE INSURANCE MATURES, \$12), or they move the player to a new space (e.g., ADVANCE TO BOARDWALK). If the player is moved to a property, the movement is indicated on the top box board 62 and the video display 12. The possible outcomes of the "Chance" and "Community Chest" squares in one embodiment of the MONOPOLY REEL ESTATE™ bonus game is shown in Table B-2, below.

TABLE B-2
Chance and Community Chest
Outcomes/Pay Values

Community Chest	Pay	Chance	Pay
Beauty Contest	3	Your Win 3rd Place in Dance Contest	4
Life Insurance Matures	12	Your Horse Wins the Derby	12
XMAS Fund Matures	8	You Win State Lottery	25
You Inherit Money	15	Your Number Hits at Roulette Wheel	15
Income Tax Refund	9	Lawsuit in your Favor	12
Bank Error In Your Favor	25	Find Lost Dog	3
Receive For Services	6	Your Build and Load Matures	10
From Sale of Stock You Get	10	Bank Pays You Dividend	8
Grand Opera Opening	5	Sell Rare Painting at Auction	10
Advance to Boardwalk	50	Advance to Park Place	30
Average	14.30	Average	12.90

In one embodiment of the MONOPOLY REEL ESTATE™ game, if the game token 140 lands on station(s) other than "Chance" or "Community Chest," the CPU 170 causes the player to be awarded an amount of credits corresponding to the product of the coins or credits wagered in the basic game and a multiplier value associated with the respective station(s). All of the stations have positive integer multiplier values which generally increase as the token progresses farther along the board. The multiplier values associated with the respective stations are shown in FIG. 10 and Table B-3, below.

TABLE B-3
MONOPOLY BONUS SQUARES

MONOPOLY BONUS	Number of Scatter Symbols in Win				EV	EV w/Bonus
	Mult	No monos		Weight		
Mediterranean	3	0.667	1	1	0.02%	0.03%
Community Chest	14.30	0.967	2		0.24%	0.27%
Baltic	3	0.667	1	1	0.02%	0.03%
Income Tax	2	1.000	2		0.03%	0.04%
Reading Railroad	10	1.000	2		0.16%	0.19%
Oriental	4	0.818	2	2	0.07%	0.07%
Chance	12.90	0.967	2		0.215	0.24%
Vermont	4	0.818	2	2	0.07%	0.07%
Connecticut	5	0.818	2	2	0.08%	0.09%
Jail	2	1.000	2	18	0.03%	0.04%
St. Charles	6	0.818	2	2	0.10%	0.11%
Electric Company	12	1.000	2		0.20%	0.22%
States Ave	6	0.818	2	2	0.10%	0.11%
Virginia Avenue	7	0.818	2	2	0.12%	0.13%
Pennsylvania RR	10	1.000	2		0.16%	0.19%
St. James Place	8	0.818	3	3	0.20%	0.22%
Community Chest	14.30	0.967	2		0.24%	0.27%
Tennessee Ave	8	0.818	3	3	0.20%	0.22%
New York Ave	9	0.818	3	3	0.22%	0.25%
Free Parking	4	1.000	2	23	0.07%	0.07%
Kentucky Ave	10	0.818	3	3	0.25%	0.28%
Chance	12.90	0.967	1		0.11%	0.12%
Indiana Ave	10	0.818	3	3	0.25%	0.28%
Illinois Ave	12	0.818	3	3	0.30%	0.34%

TABLE B-3

B & O Railroad	10	1.000	3			0.25%	0.28%
Atlantic Ave	15	0.818	4	4		0.49%	0.56%
Ventor Ave	15	0.818	4	4		0.49%	0.56%
Water Works	12	1.000	4			0.395	0.45%
Marvin Gardens	18	0.818	4	4		0.59%	0.67%
Go to Jail	2	1.000	4		33	0.07%	0.07%
Pacific Ave	20	0.818	4	4		0.66%	0.75%
North Carolina Ave	20	0.818	4	4		0.66%	0.75%
Community Chest	14.30	0.967	4			0.47%	0.53%
Pennsylvania Ave	25	0.818	4	4		0.82%	0.93%
Short Line	10	1.000	5			0.41%	0.47%
Chance	12.90	0.967	5			0.53%	0.60%
Park Place	30	0.667	5	5		1.23%	1.40%
Luxury Tax	2	1.000	5			0.08%	0.09%
Boardwalk	50	0.667	5	5		2.06%	2.34%
Go	10	1.000	5	0.55	46	0.41%	0.47%
Total Spaces	40		120	Total		13.05%	14.83%
Expected Value	13.05%	0.115					
Bonus Spins		1	2	3	4	Extra Spins	Total
Chance of Bonus Spins	1.0000	0.1202	0.0144	0.0017	0.0002	1.1365	
Expected Value of Bonus Spins	13.0459%	1.5675%	0.1883%	0.0226%	0.0027%	1.78%	14.83%

The bonus game nominally consists of only one indicated outcome (“spin”) resulting in a single bonus award, after which the CPU **170** returns to the basic game. In one embodiment, an animated Rich Uncle Pennybags will celebrate on the video display **112** during all large bonus awards. After the bonus game is complete, the CPU **170** causes the bonus screen to fade and the video reels to be displayed so the player may resume playing the basic game.

In one embodiment, certain of the stations of the game board **162** have characteristics which identify them as members of a discernible subset or group of the stations. For example, in the MONOPOLY REEL ESTATE™ game, as in the actual MONOPOLY board game, the various properties of the game board are associated with color groups: Mediterranean Ave. and Baltic Ave. define a purple color group, Oriental Ave, Vermont Ave. and Connecticut Ave. define a light blue color group and so forth. In one embodiment, additional spins may be awarded by “completing” all the stations of a particular color group. Upon each play of the bonus game, if the token **140** lands on a station (e.g., property square) that is part of a color group, the CPU **170** identifies the station as a “completed” station and stores the outcome of that spin in game memory. Then, in one embodiment, the CPU **170** causes the I/O controller **171** to light an indicator light associated with that property on the game board **162**, thereby indicating that the property is a “completed” property.

After each movement of the token, or token identifier, on the game board **162**, the CPU **170** assigns a “completed” status to the landing station, as appropriate, then evaluates the status of the other stations in the group. If the other stations in the group also have been completed, the CPU **170** identifies that group as a completed group and provides a reward to the player. The reward might comprise an additional bonus game “spin” or an enhanced payoff relative to the base value of the property landed on. For example, if the token lands on Mediterranean Ave., which is a member of the purple color group, the CPU **170** assigns a completed status to the Mediterranean Avenue station and then evaluates the status of the other purple station, Baltic Avenue. Continuing the present example, if Baltic Avenue were also “completed,” the CPU **170** would identify the purple group as a completed group and reward the player as appropriate, with perhaps an additional bonus game “spin.” Alternatively or additionally, other incentives might be provided for completing color groups. For example, in one embodiment, if a player’s token **140** lands on a property space that completes a color group, the player might be awarded double the value otherwise associated with that property. For instance, Mediterranean Avenue in one embodiment is associated with a “3x” multiplier, and the CPU **170** might cause the payoff to be doubled, effectively to a “6x” multiplier upon the game token landing on Mediterranean Avenue and completing the purple color group.

In one embodiment, once a station is completed, it retains its completed status (and its indicator light remains lit) when the bonus round ends and throughout additional bonus rounds until such time as all of the stations in that group are completed, thus defining a completed group. The bonus game might be played several times, by several players, before completing any station groups. Upon the completion of a group, the CPU **170** rewards the player as appropriate and then removes the completed status of the stations in the station group, causing the indicator lights to be extinguished.

For example, in the MONOPOLY REEL ESTATE™ game, a first player might enter the bonus game five times landing, respectively, on Illinois Ave. (red), Ventnor Ave. (yellow), Community Chest (no color), St. James Place (orange) and Pacific Ave. (green), causing the CPU **170** to assign completed status and illuminate indicator lights associated with those properties. A second player might then enter the bonus game three times, landing respectively on North Carolina Ave. (green) and Tennessee Ave. (orange), again causing the CPU **170** to assign completed status and illuminate indicator lights associated with those properties. A third player might then enter the bonus game and land on New York Ave. (orange), thus completing the orange color group. After identifying that New York Ave. is completed and that it completes the orange color group, the CPU **170** might then award the player a free bonus spin and clear or remove the completed status and extinguish the indicator lights on the orange properties. If the player were to land on Pennsylvania Ave. (green) in the free spin, thus completing the green color group, the CPU **170** would award the player another free bonus spin, clear the completed status and extinguish the indicator lights on the green properties. Otherwise, any other outcome would cause the CPU **170** to end the bonus game and return to the basic game.

In one embodiment, the free spin feature has a relatively low total payback of 1.9%, so that players will not feel compelled to keep playing the game until completing a color group (or conversely, to immediately leave the game after completing a color group), and so that other players will not be enticed to “sit out” and wait for machines which have a large proportion of lit properties.

Now turning to FIG. 14, there is depicted another gaming machine **210** with a board game theme. In one embodiment, the gaming machine **210** is operable to play a game entitled MONOPOLY ADVANCE TO BOARDWALK™, based on the MONOPOLY™ board game. MONOPOLY™ is a registered trademark owned by and used with permission by Hasbro, Inc. and Hasbro International, Inc., Pawtucket, R.I. Alternatively, the gaming machine **210** may be implemented with any of several other board game themes other than MONOPOLY™.

The gaming machine **210** includes a display window **270** through which a player may observe three mechanical reels, **214**, **216** and **218**. The gaming machine **210** includes a top box **232** which includes a graphics display **212** and an adaptation of a game board **262** (e.g., MONOPOLY). The graphics display **12** may comprise a dot matrix, CRT, LED, LCD, electro-luminescent display or generally any type of video display known in the art. The game board **262** comprises a partially translucent material

such as glass, plastic, Plexiglas or the like which is backlit by a number of lights **266** (not visible in FIG. 14) in the top box **232**. As best observed in FIG. 16a, the facing surface **260** of the top box is imprinted with various artwork, symbols and text associated with the **MONOPOLY ADVANCE TO BOARDWALK™** game, including a pay table **250** and instruction table **252**.

FIG. 15 is a block diagram of a control system suitable for operating the slot machine **210** of FIG. **14**. Coin/credit detector **282** signals a CPU **270** when a player has inserted a number of coins or played a number of credits. Then, after the player has activated a switch **284** (e.g., by pulling a lever or pushing a button), the CPU **270** initiates game play by setting reels **214, 216, 218** in motion, randomly selecting a game outcome and, using technology well known in the art, causes a reel motor and step controller **290** to stop the reels **214, 216, 218** at a stop position corresponding to the pre-selected game outcome. A rotational position detector **292** provides feedback to the CPU **270** to ensure that the reels **214, 216, 218** are stopped at the correct stop position. The symbols displayed on the reels at the preselected stop position define indicia of the pre-selected game outcome. In one embodiment, the symbols displayed on the reels define the basic game outcome.

A system memory **286** stores control software, operational instructions and data associated with the gaming machine **210**. In one embodiment, the memory **286** comprises a separate read-only memory (ROM) and battery-backed random-access memory (RAM). However, it will be appreciated that the memory **286** may be implemented on any of several alternative types of memory structures or may be implemented on a single memory structure. A payoff mechanism **288** is operable in response to instructions from the CPU **270** to award a payoff of coins or credits to the player in response to certain winning combinations stored in memory **286**. As will be described in detail hereinafter, the payoff amounts corresponding to certain combinations is predetermined according to a pay table stored in system memory **286**. A separate I/O controller **271** coupled to the CPU **270** operates the graphics display **212** and top box lights **266**.

The gaming machine **210** is operable to play a basic game and a bonus game. In the embodiment of FIG. 14, the basic game is implemented on the three mechanical reels, **214, 216, 218** with a center payline **276**. In one embodiment, the player can observe three symbol positions (e.g., an upper, center and lower display position) on each reel **214, 216, 218** thus defining a symbol group of nine symbols visible through the display window **270**. Payline **276** extends through the center display position on each reel.

In one embodiment, the symbol group displayed on reels **214, 216, 218** may indicate any of four possible basic game outcomes, including (1) a standard winning outcome causing the CPU **270** to award the player a predetermined amount of coin(s) or credit(s) corresponding to a displayed pay table; (2) a surprise winning outcome causing the CPU **270** to award the player a predetermined amount of coin(s) or credit(s) corresponding to a "surprise" winning outcome not identified on a displayed pay table; (3) a start-bonus outcome causing the CPU **270** to enter a bonus game; and (4) a losing outcome causing the processor **40** to continue operation in the basic mode without awarding any coin(s) or credit(s).

Generally, both the standard and surprise winning outcomes are characterized by the display of one or more predefined combinations of symbols. The symbols and payoffs defining the standard and surprise winning combinations are stored in the game memory **286**. In one embodiment, the symbols and payoffs defining the standard winning combinations are shown in the pay table **250** (FIG. 16a) on the face of the slot machine **210** so that they may be observed by the player, whereas the symbols defining the surprise winning combinations are not shown on the top box **232** and hence will likely "surprise" the player when they result in a payoff. In the **MONOPOLY ADVANCE TO BOARDWALK™** game, the symbols defining the surprise winning combinations are identified only generally on the top box **232** as a "mystery blank combination" which starts the **ADVANCE TO BOARDWALK™** bonus game. The specific combination of **BLANK** symbols which define the "mystery blank combination" is predefined and stored in game memory **286**.

The symbols defining the start-bonus combinations are preferably identified on the pay table or other portion(s) of the top box display **232**. For example, as will be described in greater detail hereinafter, the **MONOPOLY ADVANCE TO BOARDWALK™** game has two bonus features: a **CHANCE** bonus feature and an **ADVANCE TO BOARDWALK** bonus feature. In the embodiment of FIG. 16a, the **CHANCE** bonus feature and the symbols (i.e., start-bonus combinations) which trigger the **CHANCE** bonus feature are explained in the text underlying the **CHANCE** icon at the center-left of the top box display **232**. Specifically, the display **232** includes the following description of the **CHANCE** bonus feature in the illustrated embodiment:

CHANCE SYMBOL matches only **7**'s and **BARS** on the payline. When **CHANCE** symbol is in a winning combination, the **CHANCE BONUS FEATURE** starts in the display. The **CHANCE BONUS** is a randomly awarded multiplier from 2-10 or 2-25 bonus coins. **CHANCE SYMBOL** does not substitute for **WILD**.

The **ADVANCE TO BOARDWALK** bonus feature and the symbols (i.e., start-bonus combinations) which trigger the **ADVANCE TO BOARDWALK** bonus feature are explained in the field **252** at the lower-right of the top box display **232**, as follows:

THREE RICH UNCLE MONEYBAGS in any position starts the **ADVANCE TO BOARDWALK GAME**. Player starts on 'GO'. A random number shown on the display will move the player around the board. Player collects the displayed coins on each space landed upon. Player continues accumulating coins until the player lands on a 'GAME OVER SPACE', or has been awarded the '6th PASS GO' BONUS. Drawing a 'GO TO JAIL' CARD from **CHANCE** or **COMMUNITY CHEST** will send the player to the 'IN JAIL' space, **ENDING** the **BONUS BOARD GAME**. **GOING TO JAIL** does not award 'PASS GO' Bonuses. **CHANCE** and **COMMUNITY CHEST** board squares award 5-50 credits. Mystery blanks combination start the **Advance to Boardwalk Game**. **PASS GO SIX TIMES AND WIN OVER 2,100 COINS**.

FIG. 17 shows a set of reel strips for use with the slot machine **210** to implement the **MONOPOLY ADVANCE TO BOARDWALK™** game. The reel strips correspond to the reels **214, 216, 218** in FIG. **14** and will be identified by corresponding reference numerals **214, 216, 218**. Each of the reel strips **214, 216, 218** include twenty-four symbols (including blanks) corresponding to twenty-four available reel stopping positions. The symbols include **WILD, SEVEN, CHANCE, 3-BAR, 2-BAR, 1-BAR, BLANK** and **CHERRY** which, if displayed in certain predefined combinations relative to payline **22**, define the standard and surprise winning combinations. Three of the **BLANK** symbols on each reel define mystery blanks which, if aligned on the payline, will trigger a "surprise" winning outcome. Also shown on the reel strips **214, 216, 218** are small **RICH UNCLE PENNYBAGS** (hereinafter "PENNY") symbols which are displayed on top of (and thereby share the same reel stopping position as) some of the other symbols. In one embodiment, the **PENNY** symbols do not form the basis of standard winning combinations in the basic game. **define start-bonus combination(s)**, if displayed in scatter-pay format on the reels **214, 216, 218**.

Specifically, the symbols which appear on reel strip **214** include, in sequence **3-BAR, Blank, 1-BAR, Blank, SEVEN, Blank, 1-BAR, Blank, 3-BAR/PENNY, Blank, 1-BAR, Blank, 2-BAR, Blank, 1-BAR, Blank, 3-BAR, Blank, 2-BAR/PENNY, Blank, 1-BAR, Blank, 2-BAR** and **Blank**. The symbols which appear on reel strip **216** include, in sequence, **3-BAR, Blank, Blank/PENNY, Blank, 2-BAR, Blank, SEVEN, Blank, 1-BAR, Blank, 2-BAR, Blank, WILD/PENNY, Blank, 2-BAR, Blank, CHERRY, Blank, 1-BAR, Blank, CHANCE, Blank, 1-BAR** and **Blank**. Finally, the symbols which appear on reel strip **218** include, in sequence, **3-BAR, Blank, 2-BAR, Blank, 1-BAR, Blank, SEVEN/PENNY, Blank, 1-BAR, Blank, 2-BAR, Blank, 1-BAR, Blank, 2-BAR, Blank, 1-BAR, Blank, 2-BAR** and **Blank**.

TABLE C-1
Pay Table for **ADVANCE TO BOARDWALK** Basic Game

	1st COIN 2nd COIN 3rd COIN 4th COIN				
SEVEN	WILD	SEVEN	200	400	1000 3 RICH UNCLE PENNYBAGS in
SEVEN	SEVEN	SEVEN	70	140	210 any position
3BAR	3BAR	3BAR	40	80	120 starts the ADVANCE TO
2BAR	2BAR	2BAR	20	40	60 BOARDWALK bonus game.
1BAR	1BAR	1BAR	10	20	30 (further disclaimers below)

TABLE C-1

anyBAR	anyBAR	anyBAR	5	10	15
—	CHERRY	—	2	4	6
—	WILD	—	1	2	3

Table C-1 is a pay table identifying various winning combinations of symbols in the **MONOPOLY ADVANCE TO BOARDWALK™** game. The winning combinations include various standard symbol combinations (e.g., SEVEN, WILD, SEVEN) and start-bonus combinations (e.g., "Three Rich Uncle Pennybags Starts the Advance to Boardwalk Bonus Game). In one embodiment, the game accepts from one to four coins. The winning standard combinations can occur for any number of one to four coins played if the indicated symbols are displayed on reels **214, 216, 218** in alignment with the center payline **276**. For example, three "1-BAR" symbols displayed on reels **214, 216, 218** on the center payline **276** is a standard winning combination which will pay 10 credits for 1 coin played, 20 credits for 2 coins played and 30 credits for 3 or 4 coins played. The "Any Bar" combination is satisfied by any combination of three or more "1-BAR," "2-BAR" and "3-BAR" symbols stopping on the center payline **276**.

In one embodiment, the "WILD" symbol acts as a wildcard for all of the BAR combinations. Thus, for example, the combination of "2-BAR," "WILD" and "2-BAR" is a standard winning combination which would pay the same as the combination of three "2-BAR" symbols, corresponding to the number of coins played. In one embodiment, the "CHANCE" symbol acts as a wildcard for "SEVEN" and "BAR" combinations and also triggers the CHANCE bonus feature (to be described later) if it is in a winning combination. Thus, for example, the combination of "2-BAR," "CHANCE" and "2-BAR" is a standard winning combination which would pay the same as the combination of three "2-BAR" symbols, corresponding to the number of coins played and also is a start-bonus combination which starts the CHANCE bonus feature.

In one embodiment, if the player wagers 4 coins, and if three Rich Uncle Pennybags ("PENNY") symbols are displayed in scatter-pay format on reels **214, 216, 218**, the game starts the ADVANCE TO BOARDWALK bonus feature (to be described later). In the scatter-pay format, the PENNY symbols are not required to be aligned with the center payline **276**. Rather, the ADVANCE TO BOARDWALK bonus starts if reel **214** displays PENNY in either of the upper, center or lower display positions, reel **216** displays PENNY in either of the upper, center or lower display positions (which need not correspond to the display position of PENNY on reel **214**) and reel **218** displays PENNY in either of the upper, center or lower display positions (which need not correspond to the display positions of PENNY on reels **214** or **216**).

TABLE C-2

ADVANCE TO BOARDWALK Pay Information

Pays	Pay/1 Coin	Pay/2 Coin	Pay/3 Coin	Pay/4 Coin	1-3 prob	4cn prob
non-win	0	0	0	0	0.83775	0.82928
1 Wild	1	2	3	3	0.03284	0.03154
1 Cherry	2	4	6	6	0.04167	0.04167
anybar	5	10	15	15	0.06496	0.06496
1 Bars	10	20	30	30	0.00904	0.00904
anybar/Ch	16.75385	33.50769	50.26154	50.26154	0.00564	0.00564
2 Bars	20	40	60	60	0.00434	0.00434
1 Bar/Ch	29.50385	59.00769	88.51154	88.51154	0.00181	0.00181
3 Bars	40	80	120	120	0.00043	0.00043
2 Bar/Ch	55.00385	110.0077	165.0115	165.0115	0.00109	0.00109
Sevens	70	140	210	210	7.2E-05	7.2E-05
3 Bar/Ch	106.0038	212.0077	318.0115	318.0115	0.00022	0.00022
Seven/Ch	182.5038	365.0077	547.5515	547.5115	7.2E-05	7.2E-05
7-Wild-7	200	400	1000	1000	7.2E-05	7.2E-05
1st to 3rd coin totals: Hit Rate						
0.16225						
Uncles	0	0	0	98.41212	0.00781	
Surprise	0	0	0	98.41212	0.00195	
4th Coin totals: Hit Rate						
0.17072						
Pay/4 Coin		4 cn prob				
2100+		1.3E-05				
4th coin						
Pays	1 cn EV	2 cn EV	3 cn EV	4 cn EV	Pulls/Hit	Mx.Contr
non-win	0	0	0	0	1.205862	0
1 Wild	0.032841	0.032841	0.032841	0.023655	31.70642	0.025693
1 Cherry	0.083333	0.083333	0.083333	0.0625	24	0.067885
anybar	0.324797	0.324797	0.324794	0.243598	15.39421	0.264587
1 Bars	0.090422	0.090422	0.090422	0.067817	110.592	0.07366
anybar/Ch	0.094531	0.094531	0.070898	0.070898	177.2308	0.077007
2 Bars	0.086806	0.086806	0.086806	0.065104	230.4	0.070714
1 Bar/Ch	0.053356	0.053356	0.053356	0.040017	552.96	0.043465
3 Bars	0.017361	0.017361	0.017361	0.013021	2304	0.014143
2 Bar/Ch	0.059683	0.059683	0.059683	0.044762	921.6	0.048619
Sevens	0.005064	0.005064	0.005064	0.003798	13824	0.004125
3 Bar/Ch	0.023004	0.023004	0.023004	0.017253	4608	0.01874
Seven/Ch	0.013202	0.013202	0.013202	0.009901	13824	0.010755
7-Wild-7	0.014468	0.014468	0.024113	0.018084	13824	0.019643
Coin 1%		Coin 2%	Coin 3%	Pulls/Hit		

TABLE C-2
ADVANCE TO BOARDWALK Pay Information

	0.898869	0.898869	0.908514	6.163174
Uncles			0.192211	128 0.208772
Surprise			0.048053	512 0.052193
			Coin 4%	Pulls/Hit
			0.920673	5.857627
				Pulls/Hit
				79701.54

Table C-2 summarizes payoffs, probabilities and expected values associated with various combinations of the ADVANCE TO BOARDWALK™ game. The combinations are designated, in order of appearance: “non-win,” “1 Wild,” “1 Cherry,” “anybar,” “1 Bars,” “anybar/Ch,” “2 Bars,” “1 Bar/Ch,” “3 Bars,” “2 Bar/Ch,” “Sevens,” “3 Bar/Ch,” “Seven/Ch,” “7-Wild-7,” “Uncles” and “Surprise.”

The “Pay/1 Coin,” “Pay/2 Coin,” “Pay/3 Coin” and “Pay/4 coin” columns identify payoff amounts associated with the respective combinations in Table C-2. In the case of the standard winning combinations, the payoff amounts are predetermined amounts stored in system memory. For example, the “1 Cherry” combination is a standard winning combination which will award 2 coins or credits in a 1-coin game, 4 coins or credits in a 2-coin game and 6 coins or credits in a 3- or 4-coin game.

In the case of the “start-bonus” combinations, the payoff amounts represent average payoff amounts which may be expected in the bonus game. For example, the “anybar/Ch” combination (i.e., a winning “anybar” combination with a CHANCE wildcard symbol) will start the CHANCE bonus and will pay, on average, 16.75 coins or credits in a 1-coin game, 33.5 coins or credits in a 2-coin game and 50.26 coins or credits in a 3- or 4-coin game. The “Uncles” and “Surprise” combinations represent combinations of RICH UNCLE PENNYBAGS (“PENNY”) symbols and mystery blank symbols which trigger the ADVANCE TO BOARDWALK bonus. Both of these combinations are available only with 4 coins played and will pay, on average 98.4 coins or credits.

The “1-3 prob” column identifies the probabilities of hitting the various outcomes of Table C-2 associated with a 1-coin, 2-coin and 3-coin game in a single spin. The “4cn prob” column identifies the probabilities of hitting the various outcomes of Table C-2 associated with a 4-coin game in a single spin. Where the reels each have twenty-four reel stop positions, as in the ADVANCE TO BOARDWALK™ game, there are 13,824 (24×24×24) possible symbol combinations. The probability of hitting any particular combination in a single spin is determined by dividing the number of possible “hits” associated with that combination (which is a function of the number of reel positions of the symbols supporting that combination) by the total number of possible combinations (i.e., 13,824). For example, consider the “7-Wild-7” combination. Because there is only one SEVEN symbol on reel **214**, one WILD symbol on reel **216** and one SEVEN symbol on reel **218**, there is only one “hit” associated with that combination. The probability of hitting that combination is therefore 7.2×10^{-5} (i.e. $1 \div 13,824$). In a 4-coin game, the probability of hitting an “Uncles” combination is 0.00781 and the probability of hitting a “Surprise” combination is 0.00195.

The “1 cn EV,” “2 cn EV,” “3 cn EV” and “4 cn EV” columns identify the normalized expected values of the outcomes of Table C-2 for a 1-coin game, 2-coin game, 3-coin game and 4-coin game, respectively. These values are computed for each outcome by taking the product of the pay value (or average pay value) associated with that outcome and the probability associated with that outcome, then dividing by the number of coin(s) played. Thus, for example, the “Sevens” outcome has a 1-coin expected value of 0.005064 ($70 \times 7.2 \times 10^{-5} \div 1$), a 2-coin expected value of 0.005064 ($140 \times 7.2 \times 10^{-5} \div 2$), a 3-coin expected value of 0.005064 ($210 \times 7.2 \times 10^{-5} \div 3$) and a 4-coin expected value of 0.003798 ($210 \times 7.2 \times 10^{-5} \div 4$). The “Uncles” outcome has a 4-coin expected value of 0.192211 ($98.41212 \times 0.00781 \div 4$) and the “Surprise” outcome has a 4-coin expected value of 0.048053 ($98.41212 \times 0.00195 \div 4$).

The payout rate of the basic game is computed independently for a 1-coin, 2-coin, 3-coin and 4-coin game by summing the normalized expected values in the respective “1 cn EV,” “2 cn EV,” “3 cn EV” and “4 cn EV” columns. In the embodiment shown in Table C-2, the payout rates for a 1-coin and 2-coin game are 0.898869 (89.89%), the payout rate for a 3-coin game is 0.908514 (90.85%) and the payout rate for a 4-coin game is 0.920673 (92.07%).

The “4th coin Pulls/Hit” column indicates how many pulls, on average, would be expected to hit the respective combinations in a 4-coin game. This is computed by taking the inverse of the probability values associated with a 4-coin game.

The “Max Contribution” column indicates, for a 4-coin game, the percentage contribution of the respective “4 cn EV” values to the total payout rate for a 4-coin game. Thus, for example, for the “Uncles” outcome, the contribution is 20.88% ($0.192211 \div 0.920673$). The remaining “Max Contribution” values are computed in similar fashion.

The CHANCE Bonus Feature

In the MONOPOLY ADVANCE TO BOARDWALK™ game, if the “CHANCE” symbol is displayed on the payline and is included in a basic winning combination, the CHANCE bonus game begins. In one embodiment, there is only one “CHANCE” symbol on reel **216** (the center reel) and, according to the game rules, it matches only SEVENS and BARs on the payline, thus the combinations which would trigger the CHANCE bonus are: SEVEN, CHANCE, SEVEN; 3 BAR, CHANCE, 3 BAR; 2 BAR, CHANCE, 2 BAR; 1 BAR, CHANCE, 1 BAR; and ANYBAR, CHANCE, ANYBAR.

The Chance bonus game can be activated by playing from one-four coins. In one embodiment, the CPU **270** sets up the CHANCE bonus game by first selecting, from a weighted table, one of several possible sets of selection elements. Generally, the sets of selection elements comprise a combination of multiplier values and/or fixed coin amounts. The magnitude of the respective multiplier values and/or fixed coin amounts are unique to each particular set of selection elements. The selection elements themselves may be varied according to the game program. In one embodiment, each set includes 10 selection elements but otherwise the numbers and/or values of multipliers and fixed coin awards may be varied from set to set. For example, one of the sets of selection elements might include 2×, 3×, 4×, 5× and 10× multipliers, and 2, 5, 10, 20, and 25 coin awards, whereas another set might include 2×, 3×, 4×, 5× and 10× multipliers and 5, 10, 25, 50 and 100 coin awards. Still another set might include 2×, 3×, 5× and 10× multipliers and 2, 5, 10, 25, 50 and 100 coin awards.

In one embodiment, as shown in FIG. 18, the CPU **270** causes the selected set of selection elements to be displayed on the graphics display **212** in roughly an oval shape around a center area where messages are displayed. In the illustrated embodiment, the message area prompts the player to “PRESS ‘SPIN REELS’ TO WIN THE CHANCE BONUS.” From the display screen shown in FIG. 18, the CHANCE bonus is initiated by the player pressing the “Spin Reels” button or pulling a lever (not shown). The CPU **270** then operates according to its game program (stored in system memory **286**) to randomly select one of the selection elements from the set. In one embodiment, the various selection elements have generally different probabilities of being selected, as determined by a table stored in system memory **286**. In one embodiment having a set of selection elements including 2×, 3×, 4×, 5× and 10× multipliers and 2, 5, 10, 20 and 25 coin awards, the probabilities of selecting the respective selection elements are: 0.219231 for the 2× multiplier; 0.153846 for the 3× multiplier; 0.061538 for the 4× multiplier; 0.053846 for the 5× multiplier; 0.069231 for the 10× multiplier; 0.126923 for the 2 coin award; 0.138462 for the 5 coin award; 0.076923 for the 10 coin award; 0.042308 for the 20 coin award; and 0.057692 for the 25 coin award.

In one embodiment, the selection of the CHANCE bonus award element is depicted on the graphic display **212** by highlighting, one at a time, consecutive selection elements in a clockwise sequence, quickly at first and then slowing down and stopping to reveal the selected award element, which might be a fixed coin amount or a multiplier. At this point, the message area will display the total amount of coins or credits won. For example, if the award from the basic game reels was 10 credits, and

the highlight stopped on a 25 Coin amount, the message area will contain “10+25=35 COINS”. If, however, the award from the basic game reels was 10 credits, and the highlight stopped on a 4× multiplier, the message area will contain “10×4=40 COINS”. The game would then total the amount won on the win meter and show a total screen on the display **112** announcing how many coins were won in the CHANCE bonus game. If the amount won is over the selected handpay level, a jackpot display and animation will then be shown on the display **112**. In one embodiment, after the amount won is credited or paid out, the CHANCE bonus feature ends and the game returns to the basic game.

In one embodiment of a 4-coin game, the coin awards are multiplied by two for two coins bet and multiplied by three for three or four coins were bet. The fourth coin allows the player the opportunity to play the **MONOPOLY ADVANCE TO BOARDWALK™** bonus game and does not increase the value of the CHANCE bonus.

The ADVANCE TO BOARDWALK™ Bonus Game

In one embodiment, the CPU **270** enters the ADVANCE TO BOARDWALK™ bonus game when the player is betting four coins and a special “start-bonus” combination of three RICH UNCLE PENNYBAGS (“PENNY”) symbols occurs on the reels **214, 216, 218**, in scatter-pay format, in the basic game. As described earlier, scatter-pay format means that the scatter pay symbols (e.g., “PENNY” symbols in the ADVANCE TO BOARDWALK™ game) may be displayed in either the upper, lower or center position on the respective reels.

The ADVANCE TO BOARDWALK™ bonus game has a board-game (e.g., **MONOPOLY**) theme and is implemented on the top box game board **262** and graphics display **212**. Upon initially entering the bonus game, the CPU **70** causes an introductory animation to be displayed on the graphics display **212** with an audio fanfare and then signals I/O controller **271** to illuminate the GO square on the top box **MONOPOLY** board **262**. The player is prompted to spin the reels to to play the bonus game. Then, in one embodiment, the CPU **270** operates to select an integer-value movement indicator and causes the selected movement indicator to be displayed on the graphics display **212**.

In one embodiment, the movement indicator is not immediately shown on the graphics display **212** but is revealed slowly so as to heighten the player's anticipation of the indicator. In one embodiment, the graphics display **212** shows the movement indicator on a display field which is intentionally fuzzy or cloudy at first, so as to “hide” the indicator but which is slowly cleared up to reveal the selected indicator. In one embodiment of the **MONOPOLY ADVANCE TO BOARDWALK™** game, for example, the graphics display shows an animation of a Rich Uncle Pennybags character seated at a desk-type “control panel.” A message area on the control panel includes an animated computer or television-type monitor adapted to reveal the selected indicator. The monitor is filled with “static” at first so as to obscure the movement indicator. For example, the message area on the control panel might read, “YOU MOVE [blank] SPACES,” where the blank is filled in by the number to be displayed on the monitor. After a short time, the Rich Uncle Pennybags character twiddles dials and levers on the control board to clear up the static and reveal the selected indicator. At this point, for example, the message area might read “YOU MOVE [7] SPACES,” where the “7” is displayed on the animated monitor.

In one embodiment, the movement indicator (e.g., “7”) identifies an amount of spaces, from two to twelve, which the token will be moved from its previous position on the game board, in much the same manner as would a roll of dice. In one embodiment, the CPU **270** selects the movement indicator pseudo-randomly, that is, certain indicator values might occur more frequently than other indicator values, depending on the space the player is presently “on.” For example, the CPU **270** might be more likely to select a movement indicator of “7” if the player were on INDIANA AVENUE (thus landing the player on GO TO JAIL), than if the player were on ILLINOIS AVENUE. In one embodiment, a plurality of movement tables is stored in game memory, wherein each movement table corresponds to a particular square of the **MONOPOLY** board. The CPU **270** selects, from the movement table corresponding to present space, a movement indicator by first picking a random number, then consulting the movement table to determine the movement indicator corresponding to the random number.

In one embodiment, the movement tables define, for each square, a number of occurrences of each possible outcome from two to twelve. For example, one movement table might define a set of 46 possible occurrences, including 2 occurrences associated with a movement of 2 spaces, 2 occurrences associated with a movement of 3 spaces, 3 occurrences associated with a movement of 4 spaces, 5 occurrences associated with a movement of 5 spaces, 8 occurrences associated with a movement of 6 spaces, 6 occurrences associated with a movement of 7 spaces, 5 occurrences associated with a movement of 8 spaces, 7 occurrences associated with a movement of 9 spaces, 6 occurrences associated with a movement of 10 spaces, 1 occurrence associated with a movement of 11 spaces and 1 occurrence associated with a movement of 12 spaces.

The CPU **270** might select a movement indicator from the example table by selecting a random number from one to 46, then stepping through each occurrence until it finds the movement indicator corresponding to that random number. For example, for the example movement table above, a random number of 5 might indicate that the selected movement indicator would be “4,” since the first two “step throughs” are 2, the next two “step throughs” are 3 and the fifth step ends on an indicator of 4.

After the selection of a movement indicator number and display of the indicator on the graphics display **212**, the CPU **270** operates to illuminate, one space at a time, the appropriate squares on the game board **262** (e.g., **MONOPOLY** board) from the previous position to the position determined by the movement indicator.

In one embodiment, when the lights stops moving for each roll, an animated character icon (e.g., Rich Uncle Pennybags) on the graphics display **212** announces the name of the square landed on and the amount of coins or credits, if any, associated with the square. In one embodiment, the bonus game continues with consecutive selections of movement indicators, and corresponding movement around the game board, until the player “lands” on a designated square which ends the bonus game. In one embodiment, the CPU **270** will end the bonus game if the player lands on the IN JAIL, INCOME TAX or LUXURY TAX squares, otherwise will continue the bonus game.

If the player lands on an ELECTRIC COMPANY, WATER WORKS or FREE PARKING square during the bonus round, the CPU **270** selects a win amount from a plurality of possible win amounts associated with the square. In one embodiment, the CPU **270** triggers an appropriate animation on the graphics display **212** to illustrate the selection of a win amount. FIGS. **19, 20** and **21**, show exemplary displays which might occur in response to the player landing on WATER WORKS, ELECTRIC COMPANY or FREE PARKING, respectively.

Generally, each of the WATER WORKS, ELECTRIC COMPANY and FREE PARKING displays show a pre-selected award value and a number of other, different values at various graphical locations. The display animation appears to “select” an award value, which has already been pre-selected by the CPU **270**, by pointing to the pre-selected value or “erasing” the other values. In FIG. **19** (WATER WORKS), for example, there are four possible award values (e.g., 5, 10, 25 and 50) displayed at four graphical locations (e.g., underneath four pipes). An animated Rich Uncle Pennybags character turns a valve, causing water to come out of one of the pipes and “wash away” the underlying displayed value. He will do this three times, causing three of the award values to be “washed away,” and the player will be awarded the remaining award value. In FIG. **20** (ELECTRIC COMPANY), there are four possible award values (e.g., 5, 20, 25 and 50) displayed on four light bulbs. An animated Rich Uncle Pennybags character presses a button, causing one of the light bulbs to light up then explode, so as to erase the award value associated with the exploded bulb. As in FIG. **19**, he will do this three times, causing three of the award values to be erased, and the player will be awarded the remaining award value. In FIG. **21** (FREE PARKING), there are seven possible award values (e.g., 10, 15, 20, 25, 50, 100 and 200) displayed on an animated parking meter. A pointer in the parking meter moves back and forth, then slowly comes to a stop so as to point to one of the award values, and the player is awarded the indicated award value.

In one embodiment, the indicated award values for the ELECTRIC COMPANY, WATER WORKS and FREE PARKING squares are pre-selected by the CPU **270** from weighted tables of award values stored in game memory. The CPU **270** selects, from the award table corresponding to the ELECTRIC COMPANY, WATER WORKS or FREE PARKING space, an award by first picking a random number, then consulting the appropriate award table to determine the award corresponding to the random number.

Suppose, for example, an ELECTRIC COMPANY square has five possible awards: 5, 10, 20, 25 or 50 coins. An award table associated with the ELECTRIC COMPANY square might define a set of eight possible occurrences of the various awards: 2 occurrences associated with an award of 5 coins, 2 occurrences associated with an award of 10 coins, 2 occurrences associated with an award of 20 coins, 1 occurrence associated with an award of 25 coins and 1 occurrence associated with an award

of 50 coins. The CPU **270** might select an award from the award table by selecting a random number from one to 8, then stepping through each occurrence until it finds the award corresponding to that random number. Continuing the above example, a random number of 5 might indicate that the selected award would be 20 coins, since the first two “step throughs” are 5 coins, the next two “step throughs” are 10 coins and the next step ends on an award of 20 coins.

Similarly, suppose the FREE PARKING square has seven possible awards: 10, 15, 20, 25, 50, 100 and 200 coins. An award table associated with the FREE PARKING square might define a set of nine possible occurrences of the various awards: 1 occurrence associated with an award of 10 coins, 1 occurrence associated with an award of 15 coins, 2 occurrences associated with an award of 20 coins, 2 occurrences associated with an award of 25 coins, 1 occurrence associated with an award of 50 coins, 1 occurrence associated with an award of 100 coins and 1 occurrence associated with an award of 200 coins. The CPU **270** might select an award from the award table by selecting a random number from one to 9, then stepping through each occurrence until it finds the award corresponding to that random number. Continuing the above example, a random number of 5 might indicate that the selected award would be 25 coins, since the first “step through” is 10 coins, the next “step through” is 15 coins, the next two “step throughs” are 20 coins and the next step ends on an award of 25 coins.

If the player lands on CHANCE or COMMUNITY CHEST, the CPU **270** triggers an animation on graphics display **212** which shows the top card of a pile of cards flipping up to reveal the “Chance” or “Community Chest” outcomes. The art on the cards resembles the cards in an actual MONOPOLY™ game. Generally, the “Chance” and “Community Chest” outcomes comprise awards of fixed coin values (e.g., “BANK PAYS YOU DIVIDEND OF 25 COINS), or move the player to a new space (e.g., ADVANCE TO NEAREST RAILROAD). If the player is moved to a property, the movement is indicated on the top box board **262** and an animation associated with the property is shown on the graphics display **212**.

If the player draws a GO TO NEAREST UTILITY card, the light will move to either ELECTRIC COMPANY or WATER WORKS clockwise (whichever is nearest). In one embodiment, if movement to the nearest utility causes the player to pass GO, the player will be awarded a “passing GO bonus,” in addition to the award, if any, associated with the nearest utility.

If the player draws a GO TO JAIL card, the game will play an animation of RICH UNCLE PENNYBAGS going to jail, and the light will quickly move counter-clockwise to the IN JAIL space. If the player stops on LUXURY TAX, INCOME TAX or IN JAIL, the display **212** will show an appropriate animation including a display of the total coins won in the bonus game. The CPU **270** will cause the payoff mechanism **288** to award coins or credits as appropriate, corresponding to the amount won in the bonus game and then return to the basic spinning reel game.

In one embodiment, a bonus is awarded whenever the player passes, or lands on, the GO square. As best observed in FIG. 16*b*, the bonuses are enumerated by a number of indicator lights **290** on the top box MONOPOLY board **262**. In the illustrated embodiment, there are seven indicator lights associated with escalating 5, 10, 25, 100, 150, 500 and 1,500 coin bonuses. When the game begins, the player receives an automatic 5 coin bonus for being on GO and, accordingly, the 5 COIN indicator is lit on the board **262**. If the player passes GO on his first cycle **1** around the board, the 10 COIN indicator will light, and the player will be awarded with 10 coins. If the player cycles around the board again, then the 25 COIN indicator will light, and the player will be awarded with 25 coins. If the player continues to pass GO a third, fourth, fifth and sixth time, the respective 100 COIN, 150 COIN, 500 COIN and 1500 COIN bonus indicators will become lit and the player will be awarded with 100 coins, 150 coins, 500 coins and 1500 coins respectively.

In one embodiment, the board may be cycled a maximum of six times. If a player successfully cycles the board six times, the bonus game will end and player will receive all accumulated awards, plus the 1500 coin bonus, plus the award, if any, associated with the final space. If the final space causes the player to move to another square (e.g., GO TO NEAREST UTILITY), the player will be awarded the bonus, if any associated with that other square. For example, suppose the player has completed five trips around the board and has accumulated 1754 coins or credits so far in the bonus game. Suppose further that the player is currently on PARK PLACE and Rich Uncle Pennybags selects a movement indicator of “5,” causing the player to pass GO and land on the COMMUNITY CHEST square. The player will be awarded the 1500 coin bonus for passing GO the sixth time plus an amount associated with the COMMUNITY CHEST square. Continuing the example, suppose Rich Uncle Pennybags selects a COMMUNITY CHEST card of GO TO NEAREST UTILITY. The player will move to the next utility, ELECTRIC COMPANY, and will be awarded a selected value, say 25 coins. The bonus game will end after displaying, and then paying (in the present example), a win amount of 3279 coins (e.g., 1754+1500+25).

Now turning to FIG. 22, there is depicted another gaming machine **310** with a board game theme. In one embodiment, the gaming machine **310** is operable to play a game entitled MONOPOLY ROLL & WIN™, based on the MONOPOLY™ board game. MONOPOLY™ is a registered trademark owned by and used with permission by Hasbro, Inc. and Hasbro International, Inc., Pawtucket, R.I. Alternatively, the gaming machine **110** may be implemented with any of several other board game themes other than MONOPOLY™.

The gaming machine **310** includes a display window **370** through which a player may observe three mechanical reels, **314**, **316** and **318**. The gaming machine **310** includes a top box **332** which includes a graphics display **312**, mechanical dice **364** and an adaptation of a game board **362** (e.g., MONOPOLY). The graphics display **312** may comprise a dot matrix, CRT, LED, LCD, electroluminescent display or generally any type of video display known in the art. The game board **362** comprises a partially translucent material such as glass, plastic, Plexiglas or the like which is backlit by a number of lights **366** (not visible in FIG. 22) in the top box **332**. As best observed in FIG. 24, the facing surface **360** of the top box is imprinted with various artwork, symbols and text associated with the MONOPOLY ROLL & WIN™ game, including a pay table **350**.

FIG. 23 is a block diagram of a control system suitable for operating the slot machine **310** of FIG. 22. Coin/credit detector **382** signals a CPU **370** when a player has inserted a number of coins or played a number of credits. Then, after the player has activated a switch **384** (e.g., by pulling a lever or pushing a button), the CPU **370** initiates game play by setting reels **314**, **316**, **318** in motion, randomly selecting a game outcome and, using technology well known in the art, causes a reel motor and step controller **390** to stop the reels **314**, **316**, **318** at a stop position corresponding to the pre-selected game outcome. A rotational position detector **392** provides feedback to the CPU **370** to ensure that the reels **314**, **316**, **318** are stopped at the correct stop position. The symbols displayed on the reels at the preselected stop position define indicia of the pre-selected game outcome. In one embodiment, the symbols displayed on the reels define the basic game outcome.

A system memory **386** stores control software, operational instructions and data associated with the gaming machine **310**. In one embodiment, the memory **386** comprises a separate read-only memory (ROM) and battery-backed random-access memory (RAM). However, it will be appreciated that the memory **386** may be implemented on any of several alternative types of memory structures or may be implemented on a single memory structure. A payoff mechanism **388** is operable in response to instructions from the CPU **370** to award a payoff of coins or credits to the player in response to certain winning combinations stored in memory **386**. As will be described in detail hereinafter, the payoff amounts corresponding to certain combinations is predetermined according to a pay table stored in system memory **386**. A separate I/O controller **371** coupled to the CPU **370** operates the graphics display **312**, mechanical dice **364** and top box lights **366**.

The gaming machine **310** is operable to play a basic game and a bonus game. In the embodiment of FIG. 22, the basic game is implemented on the three mechanical reels, **314**, **316**, **318** with a center payline **376**. In one embodiment, the player can observe three symbol positions (e.g., an upper, center and lower display position) on each reel **314**, **316**, **318** thus defining a symbol group of nine symbols visible through the display window **370**. Payline **376** extends through the center display position on each reel.

In one embodiment, the symbol group displayed on reels **314**, **316**, **318** may indicate any of three possible basic game outcomes, including (1) a standard winning outcome causing the CPU **370** to award the player a predetermined amount of coin(s) or credit(s) corresponding to a displayed pay table; (2) a multiplier bonus outcome (e.g., a ROLL THE DICE feature) causing the CPU **370** to award the player the product of a predetermined amount of coin(s) or credit(s) and a randomly determined multiplier; (3) a start-bonus outcome causing the CPU **370** to enter a bonus game (e.g., the ROLL & WIN bonus); and (4) a losing outcome causing the CPU **370** to continue operation in the basic mode without awarding any coin(s) or credit(s).

Generally, the standard winning outcomes are characterized by the display of one or more predefined combinations of symbols. The symbols and payoffs defining the standard winning combinations are stored in the game memory **386**. In one embodiment, the symbols and payoffs defining the standard winning combinations are shown in the pay table **350** (FIG. 24) on the face of the slot machine **310** so that they may readily be observed by the player. Preferably, the symbols defining the ROLL THE DICE feature and ROLL & WIN bonus are also identified on the pay table or other portion(s) of the top box display **332**.

FIG. 25 shows a set of reel strips for use with the slot machine **310** to implement the **MONOPOLY ROLL & WIN™** game. The reel strips correspond to the reels **314, 316, 318** in FIG. **14** and will be identified by corresponding reference numerals **314, 316, 318**. Each of the reel strips **314, 316, 318** include twenty-two symbols (including blanks) corresponding to twenty-two available reel stopping positions. The symbols include RICH UNCLE PENNYBAGS (“PENNY”), WILD, WILD DICE, SEVEN, 3-BAR, 2-BAR, 1-BAR, BLANK and CHERRY which, if displayed in certain predefined combinations relative to payline **376**, define the standard and surprise winning combinations.

Specifically, the symbols which appear on reel strip **314** include, in sequence 1-BAR, Blank, PENNY, Blank, 2-BAR, Blank, PENNY, Blank, 1-BAR, Blank, PENNY, Blank, SEVEN, Blank, 2-BAR, Blank, 3-BAR, Blank, PENNY, Blank, 2-BAR and Blank. The symbols which appear on reel strip **316** include, in sequence 2-BAR, Blank, WILD, Blank, PENNY, Blank, WILD DICE, Blank, PENNY, Blank, WILD, Blank, SEVEN, Blank, PENNY, Blank, 3-BAR, Blank, WILD, Blank, 1-BAR and Blank. Finally, the symbols which appear on reel strip **318** include, in sequence 2-BAR, Blank, CHERRY, Blank, 3-BAR, Blank, 1-BAR, Blank, PENNY, Blank, SEVEN, Blank, PENNY, Blank, CHERRY, Blank, PENNY, Blank, 1-BAR, Blank, CHERRY and Blank.

TABLE D-1
Pay Table for ROLL & WIN™ Basic Game

Reel1	Reel2	Reel3	1Coin	2Coin	3Coin	4Coin
Seven	Seven	Seven	50	100	150	150
3Bar	3Bar	3Bar	40	80	120	120
2Bar	2Bar	2Bar	20	40	60	60
1Bar	1Bar	1Bar	10	20	30	30
AnyBar	AnyBar	Anybar	5	10	15	15
Anything	Wild	Cherry	5	10	15	15
Anything	Anything	Cherry	2	4	6	6

Table D-1 is a pay table identifying various standard winning combinations of symbols in the **MONOPOLY ROLL & WIN™** game. In one embodiment, the game accepts from one to four coins. The winning standard combinations can occur for any number of one to four coins played if the indicated symbols are displayed on reels **314, 316, 318** in alignment with the center payline **376**. For example, three “1-BAR” symbols displayed on reels **314, 316, 318** on the center payline **376** is a standard winning combination which will pay 10 credits for 1 coin played, 20 credits for 2 coins played and 30 credits for 3 or 4 coins played. The “AnyBar” combination is satisfied by any combination of three or more “1-BAR,” “2-BAR” and “3-BAR” symbols stopping on the center payline **376**.

In one embodiment, the “WILD” and “WILD DICE” symbols acts as wildcards for any other symbol on the payline **376**. Where the “WILD” symbol is used to complete a winning combination, the payout will be the same as the standard winning combination as if completed without the WILD symbol. Thus, for example, the combination of “2-BAR,” “WILD” and “2-BAR” is a standard winning combination which would pay the same as the combination of three “2-BAR” symbols, corresponding to the number of coins played. Where the “WILD DICE” symbol is used to complete a winning combination, the ROLL THE DICE FEATURE is triggered to identify a multiplier value, as heretofore described, and the multiplier value is used to multiply the amount otherwise associated with the combination.

The ROLL THE DICE Multiplier Feature

In the **MONOPOLY ROLL & WIN™** game, if the “WILD DICE” symbol is displayed on the payline **376** and is included in a wining combination, the ROLL THE DICE multiplier feature begins. In one embodiment, there is only one “WILD DICE” symbol on reel **316** (the center reel) and the combinations which would trigger the ROLL THE DICE feature are: SEVEN, WILD DICE, SEVEN; 3 BAR, WILD DICE, 3 BAR; 2 BAR, WILD DICE, 2 BAR; 1 BAR, WILD DICE, 1 BAR; ANYBAR, WILD DICE, ANYBAR and PENNY, WILD DICE, PENNY. The PENNY, WILD DICE, PENNY combination also triggers the ROLL & WIN bonus game, to be described later.

The ROLL THE DICE feature can be activated by playing from one-four coins. When the WILD DICE symbol appears in a standard winning combination, the CPU **370** activates the ROLL THE DICE feature by randomly selecting a multiplier value, then multiplies the base amount associated with the standard winning combination by the selected multiplier value. When the WILD DICE symbol appears in the PENNY, WILD DICE, PENNY combination, a “start-bonus” combination which also triggers the ROLL & WIN bonus game, the CPU **370** enters the ROLL & WIN bonus game first and then, after the bonus game has ended, randomly selects a multiplier value and multiplies the amount won in the bonus game by the selected multiplier value.

In one embodiment, the CPU **370** selects the multiplier value by selecting a number corresponding to the roll of two six-sided dice. This is accomplished in one embodiment by randomly selecting two integer values from one to six (each corresponding to a roll of a single six-sided die), then summing the integer values to arrive at the multiplier value. Specifically, there are 36 possible outcomes of the two integer values which might occur: (1,1), (1,2), (1,3), (1,4), (1,5), (1,6), (2,1), (2,2), (2,3), (2,4), (2,5), (2,6), (3,1), (3,2), (3,3), (3,4), (3,5), (3,6), (4,1), (4,2), (4,3), (4,4), (4,5), (4,6), (5,1), (5,2), (5,3), (5,4), (5,5), (5,6), (6,1), (6,2), (6,3), (6,4), (6,5), and (6,6). These outcomes correspond to 11 possible sums: 2 (1 occurrence), 3 (2 occurrences), 4 (3 occurrences), 5 (4 occurrences), 6 (5 occurrences), 7 (6 occurrences), 8 (5 occurrences), 9 (4 occurrences), 10 (3 occurrences), 11 (2 occurrences) and 12 (1 occurrence).

In one embodiment, each of the possible outcomes of integer values (corresponding to the roll of two dice) has an equal probability of occurrence and consequently, the probability of the CPU **370** selecting the various multiplier values (corresponding to the sum of two fair dice) is as follows: 2.7% (i.e., 1÷36) for the “2x” and “12x” multipliers; 5.5% (i.e., 2÷36) for the “3x” and “11x” multipliers; 8.3% (i.e., 3÷36) for the “4x” and “10x” multipliers; 11.1% (i.e., 4÷36) for the “5x” and “9x” multipliers; 13.9% (i.e., 5÷36) for the “6x” and “8x” multipliers; and 16.7% (i.e., 6÷36) for the “7x” multiplier.

In one embodiment, the selection of the ROLL THE DICE multiplier is depicted both graphically, on the graphic display **312** and mechanically, by the mechanical dice **364**. On the graphics display **312**, the CPU **370** generates a display of two dice which are rolling at first, then stop, one at a time to reveal two die faces. The die faces selected for display correspond to the integer values from one to six selected by the CPU **370**. For example, having selected integer values of “1” and “6,” the CPU **370** will display a pair of dice, one of which indicates a roll of “1” and the other indicating a roll of “6.” The CPU **370** then adds the two integer values to determine the multiplier value (e.g., “7x”) which in one embodiment is displayed adjacent to the two die faces on the graphics display **312**. Similarly, the CPU **370** causes the two mechanical dice **364** to rotate or “roll” at first, then stop, one at a time to reveal two die faces. The die faces on the mechanical dice **364** correspond to the die faces on the graphics display **312**.

Then, the CPU **370** then generates a screen on the graphics display **312** showing the total win. For example, suppose a “7x” multiplier is selected by the CPU **370** in a ROLL THE DICE feature which resulted from a SEVEN, WILD DICE, SEVEN symbol combination. In one embodiment, the graphics display shows the basic win amount associated with the SEVEN, WILD DICE, SEVEN symbol combination (e.g., 150 coins with 3 coins played), the selected multiplier (e.g., “7x”) and the product of the multiplier and basic win amount (e.g., 1050 coins).

The ROLL & WIN™ Bonus Game

In one embodiment, the CPU **370** enters the ROLL & WIN™ bonus game when the player is betting four coins and a special “start-bonus” combination of three RICH UNCLE PENNYBAGS (“PENNY”) symbols occurs on the center payline **376** of reels **314**, **316**, **318** in the basic game. The ROLL & WINE™ bonus game has a **board-game** (e.g., **MONOPOLY**) theme and is implemented on the top box game **board 362** and graphics display **312**. Upon initially entering the bonus game, the CPU **370** causes an introductory animation to be displayed on the graphics display **312** with a musical jingle and then operates to display an animation of a game token traveling around a **MONOPOLY board**. The CPU **370** also signals I/O controller **371** to illuminate the appropriate to illuminate a starting square on the top box game **board 362** and then illuminate successive squares around the **board** in step-wise fashion, rapidly at first and then, after a couple of revolutions, slowing down and stopping on an indicated square. Generally, the indicated square is randomly determined by the CPU **370** prior to the illumination of successive squares on the top box game **board 362**.

In one embodiment, when the player “lands” on the indicated square, the graphics display **312** shows an animation for that square. As best observed in FIG. 24, the squares of the game **board 362** in one embodiment of the **MONOPOLY ROLL & WIN** game are: “GO,” “BALTIC & MEDITTERANEAN AVENUE” (hereinafter “BALTIC”), “READING & PENNSYLVANIA & B. & O. & SHORT LINE RAILROAD” (hereinafter “RAILROAD”), “CONNECTICUT & VERMONT & ORIENTAL AVENUE” (hereinafter “VERMONT”), “IN JAIL,” “VIRGINIA & STATES AVENUE & ST. CHARLES PLACE” (hereinafter “VIRGINIA”), “CHANCE,” NEW YORK & TENNESSEE AVENUE & ST. JAMES PLACE” (hereinafter “NEW YORK”), “FREE PARKING,” “KENTUCKY & INDIANA & ILLINOIS AVENUE” (hereinafter “ILLINOIS”), “UTILITIES,” “MARVIN GARDENS & VENTNOR & ATLANTIC AVENUE” (hereinafter “MARVIN GARDENS”), “GO TO JAIL,” “PENNSYLVANIA & NORTH CAROLINA & PACIFIC AVENUE” (hereinafter “PENNSYLVANIA”), “COMMUNITY CHEST” and “BOARD WALK & PARK PLACE” (hereinafter “BOARDWALK”).

When the player lands on a square, the CPU **370** causes the player to be awarded the amount, if any, associated with the square. If the player is moved to a property, the movement is indicated on the top box **board 362**, an animation of the property is shown on the graphics display **312** and the player is awarded an amount, if any associated with the square. In one embodiment, the CPU **370** returns to the basic game after landing on a property square. If the game token **140** lands on a CHANCE or COMMUNITY CHEST square, the CPU **370** randomly selects an outcome from a plurality of possible CHANCE and COMMUNITY CHEST outcomes, and causes the graphics display **312** to display the selected outcome. If the CHANCE or COMMUNITY CHEST outcome is a fixed coin award, the graphics display **312** shows an animation of the award, the player is awarded the designated amount and then the CPU **370** returns to the basic game. If the player is moved to a new space as a result of a CHANCE or COMMUNITY CHEST outcome, the movement is indicated on the top box **board 362**, an animation of the square is shown on the graphics display **312**, the player is awarded an amount, if any associated with the square and then the CPU **370** returns to the basic game.

TABLE D-2
MONOPOLY ROLL & WIN Square Values

Pay	Occ	Prob	EV	Pulls/Hit	
200	480	0.037494142	7.49882831	26.670833	Go
20	480	0.037494142	0.74988283	26.670833	Baltic
150	640	0.049992189	7.49882831	20.003125	RailRoad
25	540	0.037494142	0.93735354	26.670833	Vermont
0	1	7.81128E-05	0	12802	Jail
30	480	0.037494142	1.12482425	26.670833	Virginia
62.45	2080	0.162474613	10.1465396	6.1548077	Chance
40	960	0.074988283	2.99953132	13.335417	NewYork
100	1120	0.08748633	8.74863303	11.430357	Free parking
50	960	0.074988283	3.74941415	13.335417	Illinois
75	1120	0.08748633	6.56147477	11.430357	Utilities
100	1120	0.08748633	8.74863303	11.430357	Marvin Gardens
0	1	7.81128E-05	0	12802	Go to Jail
125	736	0.057491017	7.18637713	17.394022	Penn-sylvania
62.4	2080	0.162474613	10.1384159	6.1548077	Comm Chest
1000	64	0.004999219	4.99921887	200.03125	Boardwalk
	12802	1	81.087955		

Table D-2 identifies various pay values, probabilities and expected values associated with the squares of the game **board 362** in one embodiment of the **MONOPOLY ROLL & WIN** bonus game. The “Pay” column of Table D-2 identifies payoff amounts associated with the various squares. Other than the CHANCE and COMMUNITY CHEST squares, the payoff amounts are predetermined amounts stored in system memory. For example, the “GO” square will pay 200 coins or credits, the “BALTIC” square will pay 20 coins or credits, and so forth. In one embodiment, the IN JAIL and GO TO JAIL squares have zero value, consequently a player landing on those squares will not be paid any credits in the bonus game. In the case of the CHANCE and COMMUNITY CHEST squares, the payoff amounts represent average payoff amounts which may be expected by landing on CHANCE or COMMUNITY CHEST, respectively. In one embodiment, both the CHANCE and COMMUNITY CHEST squares will pay, on average 62.4 coins or credits in the bonus game.

TABLE D-3
COMMUNITY CHEST Pay Information

Pay	Occ	Prob	EV	Pulls/Hit	
50	15	0.15	7.5	6.6666667	Opera
100	5	0.05	5	20	Inherit
45	15	0.15	6.75	6.6666667	Sell Stock
10	5	0.05	0.5	20	Beauty
200	4	0.04	8	25	Adv. Go
200	4	0.04	8	25	Bank Error
25	10	0.1	2.5	10	Services
20	12	0.12	2.4	8.3333333	Inc. Refund

TABLE D-3						
100	5	0.05	5	20	Life Ins	
100	10	0.1	10	10	Xmas Fund	
45	15	0.15	6.75	6.6666667	Property Value	
	100	1	62.4			

TABLE D-4

CHANCE Pay Information

Pay	Occ	Prob	EV	Pulls/Hit	
15	24	0.08	1.2	12.5	Horse Race
10	22	0.073333333	0.73333333	13.636364	BlackJack
10	20	0.066666667	0.66666667	15	Dog Show
25	25	0.083333333	2.08333333	12	Slots
30	30	0.1	3	10	Adv
					St. Charles
150	17	0.056666667	8.5	17.647059	Adv. Rail
75	32	0.106666667	8	9.375	Adv. Util
50	33	0.11	5.5	9.0909091	Adv. ILL
50	35	0.116666667	5.83333333	8.5714286	Dividend
1000	2	0.006666667	6.66666667	150	Adv. Board
200	12	0.04	8	25	Adv.Go
40	32	0.106666667	4.26666667	9.375	Lottery
150	16	0.053333333	8	18.75	Loan
	300	1	62.45		

The various CHANCE and COMMUNITY CHEST outcomes, and their pay values, probabilities and expected values in one embodiment are identified in Tables D-3 and D-4, above. Generally, the CHANCE and COMMUNITY CHEST outcomes include awards of fixed coin values (e.g., "LIFE INSURANCE MATURES," \$100) or instructions for movement to a particular square (e.g., ADVANCE TO BOARDWALK), where the indicated square is associated with a fixed coin award. As identified in Table D-3, the COMMUNITY CHEST outcomes range in value between 10 coins or credits (e.g., "BEAUTY CONTEST", 10 coins) to a maximum of 200 coins or credits (e.g., ADVANCE TO GO, and BANK ERROR IN YOUR FAVOR). The average value of the COMMUNITY CHEST square is 62.4 coins or credits. As identified in Table D-4, the CHANCE outcomes range in value between 10 coins or credits (e.g., "DOG SHOW", 10 coins) to a maximum of 1000 coins or credits (e.g., ADVANCE TO BOARDWALK).

In one embodiment, the likelihood of landing on a particular square is predefined and stored in an occurrence probability table in game memory. The CPU **370** selects a particular square in a manner which is consistent with the occurrence probability table. Generally, the occurrence probability table might cause certain squares to be landed on more frequently than other squares. In Table D-2, the "Occ" column identifies a predefined number of outcomes or "occurrences" of each square of the **MONOPOLY ROLL & WIN** game board, and the "Prob" column identifies the probability of selecting or "landing" on the respective squares. An inspection of Table D-2 reveals that there is only 1 outcome, out of 12,802 possible outcomes, which will result in the player landing on the IN JAIL square. Similarly, there is only 1 outcome, out of 12,802 possible outcomes, which will result in the player landing on the GO TO JAIL square. Thus, the probability of the player landing on IN JAIL or GO TO JAIL (and thereby getting no award) is very small, 7.811×10^{-5} (i.e., $1 \div 12,802$). The probability of landing on the other squares is generally much greater and also corresponds to the predefined number of outcomes or "occurrences" associated with the squares. For example, consider the "GO" square. The "Occ" column of Table D-1 indicates that there are 480 outcomes, out of 12,802 possible outcomes, which will result in the player landing on the GO square. Thus, the probability of the player landing on the GO square (and thereby getting an award of 200 coins or credits) is 0.037494 (i.e., $480 \div 12,802$). The probability of landing on other squares is computed from the "Occ" column in similar fashion.

Similarly, in one embodiment, the likelihood of selecting certain CHANCE or COMMUNITY CHEST cards is predefined and stored in an occurrence probability table in game memory. The CPU **370** selects a particular CHANCE or COMMUNITY CHEST card in a manner which is consistent with the occurrence probability table. Generally, the occurrence probability table might cause certain cards to be "drawn" more frequently than other cards. In Tables D-3 and D-4, respectively, the "Occ" column identifies a predefined number of outcomes or "occurrences" which might occur as a result of landing on CHANCE and COMMUNITY CHEST on the **MONOPOLY ROLL & WIN** game board. The "Prob" column identifies the probability of selecting or "drawing" the respective CHANCE and COMMUNITY CHEST outcomes. The various probabilities of the CHANCE and COMMUNITY CHEST outcomes are computed by dividing the number of occurrences of the particular outcome by the total number of CHANCE or COMMUNITY CHEST outcomes, as appropriate. For example, consider the "ADVANCE TO GO" outcome in COMMUNITY CHEST. Table D-3 shows that there are 4 outcomes, out of 100 possible COMMUNITY CHEST outcomes, which will result in drawing the "ADVANCE TO GO" card. Thus, having landed on the COMMUNITY CHEST square, the probability of the player drawing the "ADVANCE TO GO" card (and thereby getting an award of 200 coins or credits) is 0.04 (i.e., $4 \div 100$). Next consider the "ADVANCE TO GO" outcome in CHANCE. Table D-4 shows that there are 12 outcomes, out of 300 possible CHANCE outcomes, which will result in drawing the "ADVANCE TO GO" card. Thus, having landed on the CHANCE square, the probability of the player drawing the "ADVANCE TO GO" card (and thereby getting an award of 200 coins or credits) is 0.04 (i.e., $12 \div 300$). The probability of drawing other cards is computed in similar fashion.

The "EV" column identifies the expected values associated with the various squares (Table D-2), COMMUNITY CHEST cards (Table D-3) or CHANCE cards (Table D-4). These values are computed for each outcome by taking the product of the pay value (or average pay value) associated with that outcome and the probability associated with that outcome. Thus, for example, the "GO" square has an expected value of 7.49882831 (i.e., 200×0.037494142), and the "ADVANCE TO GO" card (in both CHANCE and COMMUNITY CHEST) has an expected value of 8 (i.e., 200×0.04).

The "Pulls/Hit" value represents the number of times, on average, that the game must be played before landing on the particular square (Table D-2) or drawing the particular CHANCE or COMMUNITY CHEST cards (Tables D-3 and D-4). The "Pulls/Hit" column is simply the inverse of the "Prob" values in Tables D-2, D-2 and D-4. Thus, for example, the "GO" square has a "Pulls/Hit" value of 26.67 (i.e., $1 \div 0.037494142$), and the "ADVANCE TO GO" card (in both CHANCE and COMMUNITY CHEST) has a "Pulls/Hit" value of 25 (i.e., $1 \div 0.04$).

TABLE D-5								
ROLL & WIN Pay Information								
Pay		Mult	Comb	Prob	EV	4thCoin	Pulls/Hit	MaxEval
600		12	7Roll7	2.6087E-06	0.0015652	0.00117393	383328	0.127201

TABLE D-5

550	11	7Roll7	5.2175E-06 0.0028696	0.0021522 191664	0.233203
500	10	7Roll7	7.8262E-06 0.0039131	0.00293482 127776	0.318004
450	9	7Roll7	1.0435E-05 0.0046957	0.00352179 95832	0.381604
400	8	7Roll7	1.3044E-05 0.0052175	0.0039131 76665.6	0.424005
350	7	7Roll7	1.5652E-05 0.0054783	0.00410875 63888	0.445205
300	6	7Roll7	1.3044E-05 0.0039131	0.00293482 76665.6	0.318004
250	5	7Roll7	1.0435E-05 0.0026087	0.00195655 95832	0.212002
200	4	7Roll7	7.8262E-06 0.0015652	0.00117393 127776	0.127201
150	3	7Roll7	5.2175E-06 0.0007826	0.00058696 191664	0.063601
100	2	7Roll7	2.6087E-06 0.0002609	0.00019565 383328	0.0212
50		777	0.00037566 0.0187829	0.01408715 2662	1.526418
480	12	3BRoll3B	2.6087E-06 0.0012522	0.00093914 383328	0.101761
440	11	3BRoll3B	5.2175E-06 0.0022957	0.00172176 191664	0.186562
400	10	3BRoll3B	7.8262E-06 0.0031305	0.00234786 127776	0.254403
360	9	3BRoll3B	1.0435E-05 0.0037566	0.00281743 95832	0.305284
320	8	3BRoll3B	1.3044E-05 0.004174	0.00313048 76665.6	0.339204
280	7	3BRoll3B	1.5652E-05 0.0043827	0.003287 63888	0.356164
240	6	3BRoll3B	1.3044E-05 0.0031305	0.00234786 76665.6	0.254403
200	5	3BRoll3B	1.0435E-05 0.002087	0.00156524 95832	0.169602
160	4	3BRoll3B	7.8262E-06 0.0012522	0.00093914 127776	0.101761
120	3	3BRoll3B	5.2175E-06 0.0006261	0.00046957 191664	0.050881
80	2	3BRoll3B	2.6087E-06 0.0002087	0.00015652 383328	0.01696
40		3B3B3B	0.00037566 0.0150263	0.01126972 2662	1.221134
240	12	2BRoll2B	7.8262E-06 0.0018783	0.00140872 12776	0.152642
220	11	2BRoll2B	1.5652E-05 0.0034435	0.00258264 63888	0.279843
200	10	2BRoll2B	2.3479E-05 0.0046957	0.00352179 42592	0.381604
180	9	2BRoll2B	3.1305E-05 0.0056349	0.00422615 31944	0.457925
160	8	2BRoll2B	3.9131E-05 0.006261	0.00469572 25555.2	0.508806
140	7	2BRoll2B	4.6957E-05 0.006574	0.0049305 21296	0.534246
120	6	2BRoll2B	3.9131E-05 0.0046957	0.00352179 25555.2	0.381604
100	5	2BRoll2B	3.1305E-05 0.00031305	0.00234786 31944	0.254403
80	4	2BRoll2B	2.3479E-05 0.0018783	0.00140872 42592	0.152642
60	3	2BRoll2B	1.5652E-05 0.0009391	0.00070436 63888	0.076321
40	2	2BRoll2B	7.8262E-06 0.000313	0.00023479 127776	0.02544
20		2B2B2B	0.00112697 0.0225394	0.01690458 887.3333333	1.831701
120	12	1BRoll1B	1.0435E-05 0.0012522	0.00093914 95832	0.101761
110	11	1BRoll1B	2.087E-05 0.0022957	0.00172176 47916	0.186562
100	10	1BRoll1B	3.1305E-05 0.0031305	0.00234786 31944	0.254403
90	9	1BRoll1B	4.174E-05 0.0037566	0.00281743 23958	0.305284
80	8	1BRoll1B	5.2175E-05 0.004174	0.00313048 19166.4	0.339204
70	7	1BRoll1B	6.261E-05 0.0043827	0.003287 15972	0.356164
60	6	1BRoll1B	5.2175E-05 0.0031305	0.00234786 19166.4	0.254403
50	5	1BRoll1B	4.174E-05 0.002087	0.00156524 23958	0.169602
40	4	1BRoll1B	3.1305E-05 0.0012522	0.00093914 31944	0.101761
30	3	1BRoll1B	2.087E-05 0.0006261	0.00046957 47916	0.050881
20	2	1BRoll1B	1.0435E-05 0.0002087	0.00015652 95832	0.01696
10		1B1B1B	0.00150263 0.0150263	0.01126972 665.5	1.221134
60	12	ABRollIAB	4.174E-05 0.0025044	0.00187829 23958	0.203522
55	11	ABRollIAB	8.3479E-05 0.0045914	0.00344353 11979	0.373124
50	10	ABRollIAB	0.00012522 0.006261	0.00469572 7986	0.508806
45	9	ABRollIAB	0.00016696 0.0075131	0.00563486 5989.5	0.610567
40	8	ABRollIAB	0.0002087 0.0083479	0.00626096 4791.6	0.678408
35	7	ABRollIAB	0.00025044 0.0087653	0.006574 3993	0.712328
30	6	ABRollIAB	0.0002087 0.006261	0.00469572 4791.6	0.508806
25	5	ABRollIAB	0.00016696 0.004174	0.00313048 5989.5	0.339204
20	4	ABRollIAB	0.00012522 0.0025044	0.00187829 7986	0.203522
15	3	ABRollIAB	8.3479E-05 0.0012522	0.00093914 11979	0.101761
10	2	ABRollIAB	4.174E-05 0.0004174	0.00031305 23958	0.03392
5		ABABAB	0.01051841 0.052592	0.03944403 95.07142857	4.273969
60	12	AnyRollCherry	0.00017218 0.0103306	0.00774793 5808	0.83953
55	11	AnyRollCherry	0.00034435 0.0189394	0.01420455 2904	1.539138
50	10	AnyRollCherry	0.00051653 0.0258264	0.01936983 1936	2.098824

TABLE D-5

45	9	AnyRollCherry	0.00068871	0.0309917	0.0232438	1452	2.518589
40	8	AnyRollCherry	0.00086088	0.0344353	0.02582645	1161.6	2.798432
35	7	AnyRollCherry	0.00103306	0.036157	0.02711777	968	2.938354
30	6	AnyRollCherry	0.00086088	0.0258264	0.01936983	1161.6	2.098824
25	5	AnyRollCherry	0.00068871	0.0172176	0.01291322	1452	1.399216
20	4	AnyRollCherry	0.00051653	0.0103306	0.00774793	1936	0.83953
15	3	AnyRollCherry	0.00034435	0.0051653	0.00387397	2904	0.419765
10	2	AnyRollCherry	0.00017218	0.0017218	0.00129132	5808	0.139922
5		2Cherry	0.01859504	0.0929752	0.0697314	53.77777778	7.555767
2		Cherry	0.11157025	0.2231405	0.16735537	8.962962963	18.13384
Base Game Totals	0.1526108	0.834523	0.625892				
973.0555	12	UncleRollUncle	3.1305E-05		0.00761532	31944	
891.9675	11	UncleRollUncle	6.261E-05		0.01396142	15972	
810.8796	10	UncleRollUncle	9.3914E-05		0.01903831	10648	
729.7916	9	UncleRollUncle	0.00012522		0.02284597	7986	
648.7036	8	UncleRollUncle	0.00015652		0.02538441	6388.8	
567.6157	7	UncleRollUncle	0.00018783		0.02665363	5324	
486.5277	6	UncleRollUncle	0.00015652		0.01903831	6388.8	
405.4398	5	UncleRollUncle	0.00012522		0.0126922	7986	
324.3518	4	UncleRollUncle	9.3914E-05		0.00761532	10648	
243.2639	3	UncleRollUncle	6.261E-05		0.00380766	15972	
162.1759	2	UncleRollUncle	3.1305E-05		0.00126922	31944	
			0.00112697				
81.08796		UncleUncleUncle	0.00676183		0.13707581	147.8888889	
Board Game Totals	0.0078888		0.296998	126.7619048			
Base and Bonus Games	0.1604996		0.92289				
Probability of Top Award (BoardWalk w/dice roll of 12) = 1.9041E-07	5251888.973	pulls					

Table D-5 identifies various symbol combinations, probabilities and expected values associated with the ROLL & WIN game according to one embodiment of the present invention. The combinations include various standard winning combinations including “777,” “3B3B3B,” “2B2B2B,” “1B1B1B,” “ABABAB,” “2 Cherry” and “Cherry,” various combinations which will start the ROLL & WIN bonus game including “UncleUncleUncle,” and various combinations which will trigger the ROLL THE DICE multiplier feature, including “7Roll7,” “3BRoll3B,” “2BRoll2B,” “1BRoll1B,” “ABRollAB” and “AnyRollCherry” and “UncleRollUncle.” In Table D-5 and the description to follow, “Roll” is a shorthand notation for the WILD DICE symbol, “3B,” “2B,” “1B” and “AB” are shorthand notations for the 3 BAR, 2 BAR, 1 BAR and ANY BAR symbols and “Uncle” is a shorthand notation for the RICH UNCLE PENNYBAGS symbol.

The “Pay” column identifies payoff amounts associated with the respective combinations in Table D-5, for 1 coin played. In the case of the standard winning combinations, the payoff amounts are predetermined amounts stored in system memory. For example, the “777” combination is a standard winning combination which will award 50 coins or credits in a 1-coin game. In one embodiment, the coin awards are multiplied by two for two coins bet and multiplied by three for three or four coins bet. The fourth coin allows the player the opportunity to play the MONOPOLY ROLL & WIN™ bonus game and does not increase the value of the standard winning combinations above the 3-coin payoff amount. Thus, for example, the “777” combination which, as noted above, will award 50 coins or credits in a 1-coin game, will award 100 coins or credits in a 2-coin game and 150 coins or credits in a 3- or 4-coin game.

In the case of the combinations starting the ROLL & WIN bonus game, the payoff amounts represent average payoff amounts which may be expected in the bonus game. For example, the “UncleUncleUncle” combination will start the ROLL & WIN bonus game (if 4 coins or credits are played) which will pay, on average, 81.08796 coins or credits.

In the case of the combinations including a “Roll” (WILD DICE) symbol, the payoff amounts represent the product of the standard payoff (or average bonus payoff) with various multiplier values 2 to 12 which might result from the ROLL THE DICE multiplier-bonus. For example, “2 7Roll7” is a shorthand notation for the 7, WILD DICE, 7 combination which triggers the ROLL THE DICE feature, and in which a multiplier bonus of “2” is selected in the ROLL THE DICE feature. The payoff amount for the “2 7Roll7” combination is 100, or twice the payoff of the “777” combination. Similarly, “3 7Roll7” is a shorthand notation for the 7, WILD DICE, 7 combination in which a multiplier bonus of “3” is selected in the ROLL THE DICE feature to triple the payoff of the “777” combination, and so forth.

With the exception of the “UncleRollUncle” combination, which is only available for 4 coins played, the various combinations including a “Roll” (WILD DICE) symbol are multiplied by two for two coins bet and multiplied by three for three or four coins bet. The fourth coin allows the player the opportunity to play the MONOPOLY ROLL & WIN™ bonus game and does not increase the value of the standard winning combinations above the 3-coin payoff amount. Thus, for example, the “2 7Roll7” combination which, as noted above, will award 100 coins or credits in a 1-coin game, will award 200 coins or credits in a 2-coin game and 300 coins or credits in a 3- or 4-coin game.

The “Prob” column identifies, for the standard winning combinations, the probabilities of hitting the outcomes in a single spin. For the combinations including a WILD DICE (“Roll”) symbol, the “Prob” value takes into account the probability of rolling the indicated multiplier as well as the probability of “hitting” the indicated outcome. Where the reels each have twenty-two reel stop positions, as in the ROLL & WIN™ game, there are 10,648 (22×22×22) possible symbol combinations. The probability of hitting any particular combination in a single spin is determined by dividing the number of possible “hits” associated with that combination (which is a function of the number of reel positions of the symbols supporting that combination) by the total number of possible combinations (i.e., 10,648). For example, consider the “777” combination. Because there is one SEVEN symbol on reel **314**, one SEVEN symbol on reel **316** and one SEVEN symbol on reel **318**, there is one “hit” associated with that combination. The probability of hitting that combination is therefore 9.39×10⁻⁵ (i.e. 1÷10,648).

Next consider the various “7Roll7” combinations. If the ROLL THE DICE multiplier is determined according to the roll of a pair of fair dice, the probability of selecting a “2×” or “12×” multiplier is 2.7%, the probability of selecting a “3×” or “11×” multiplier is 5.5%, the probability of selecting a “4×” or “10×” multiplier is 8.3%, the probability of selecting a “5×” or “9×” multiplier is 11.1%, the probability of selecting a “6×” or “8×” multiplier is 13.9% and the probability of selecting a “7×” multiplier is 16.7%. The probability of “hitting” the “2 7Roll7” and 12 7Roll7” combinations is therefore 2.53×10⁻⁶ (i.e. 9.39×10³¹ 5×0.027). The remaining probabilities are computed in similar fashion.

The "EV" column identifies the normalized expected values of the various standard winning outcomes of Table D-2 for a 1-coin, 2-coin or 3-coin game. These values are computed for each outcome by taking the product of the pay value (or average pay value) associated with that outcome and the probability associated with that outcome, divided by the number of coins played. Thus, for example, the "12 7Roll7" outcome has a 1-coin expected value of 0.0015652 ($600 \times 2.6087 \times 10^{-6} \div 1$), a 2-coin expected value of 0.0015652 ($1200 \times 2.6087 \times 10^{-6} \div 2$) and a 3-coin expected value of 0.0015652 ($1800 \times 2.6087 \times 10^{-6} \div 3$).

The "4thCoin" column identifies the normalized expected values of the various standard winning outcomes of Table D-2 for a 4-coin game. These values are computed in similar fashion as the 1-coin, 2-coin and 3-coin expected values but differ because the pay value of the standard combinations does not increase from a 3-coin to a 4-coin game. Thus, for example, the "12 7Roll7" outcome has a 4-coin expected value of 0.00117393 ($1800 \times 2.6087 \times 10^{-6} \div 4$).

Any of the gaming machines heretofore described can be implemented with bonus-resource outcomes, causing the processor to generate a deferred instruction which is exercisable to enhance the excitement and/or winning expectation in the bonus game. Generally, the deferred instruction associated with the bonus resource is exercisable in response to later outcomes or events in the game. For example, the bonus resource might be obtained in response to special symbol combination(s) the basic game and the deferred instruction associated with the bonus resource might be exercised in the bonus game. The deferred instruction might be executed automatically by the CPU in response to certain later-displayed indicia in the game or might be exercisable in response to player input. In one embodiment, the CPU continues to operate in the basic mode after the occurrence of a bonus-resource outcome in the basic game. In this embodiment, any number of bonus-resource outcomes may occur through several repetitions of the basic game (causing the CPU to store a corresponding number of deferred instructions in game memory) before entering the bonus mode. In one embodiment, the CPU exercises the deferred instruction(s) associated with the bonus-resource(s), if at all, in the bonus game.

In one embodiment, the bonus game resource comprises a multiplier (e.g., 2x, 5x, 10x, etc.) associated with a deferred instruction to multiply a later displayed value, such as an amount of coin(s) or credit(s) otherwise awarded in a bonus game. For example, a "5x" resource, obtained as a result of a particular outcome of the basic game, might be exercised in the bonus game to instruct the CPU to multiply an otherwise-indicated award of 5 coins by five, resulting in an award of 25 coins. In another embodiment, the deferred instruction associated with the bonus game resource comprises an "override" command causing the CPU to override or block the performance of an instruction otherwise indicated in the bonus game. For example, a deferred "override" command, obtained in the basic game as a result of a particular bonus-resource outcome, might be played in the bonus game to override an "end-bonus" instruction encountered in the bonus game. Whereas the "end-bonus" instruction would otherwise have caused the CPU to end the bonus game, the exercise of the "override" command would allow the player to continue the bonus game. With particular reference to the MONOPOLY-theme games described herein, one bonus-resource might comprise a "GET OUT OF JAIL FREE" card, obtainable as a result of a special symbol combination in the basic game and associated with a deferred instruction to "get out of jail," or in other words to override the instruction nominally associated with the IN JAIL square. Thus, for example, if the IN JAIL square is nominally associated with an "end-bonus" instruction, causing the CPU to end the bonus game, a player landing on the IN JAIL square might exercise a "GET OUT OF JAIL FREE" card to override the nominal end-bonus instruction and continue the bonus game.

It will be appreciated that the present invention has generally been described with reference to the particular games ADVANCE TO BOARDWALK™, REEL ESTATE™, ONCE AROUND™ and ROLL & WIN™, based on the MONOPOLY™ board game but is not limited to these particular games. For example, while the aforementioned games have a basic game in the form of a slot machine, the present invention may be implemented with virtually any type of game of chance or skill or combination of such games having outcomes (e.g., "start-bonus" outcomes) which may trigger play of a bonus game. The basic game may comprise, for example, a video poker or video blackjack game. Moreover, the present invention may be based on board games other than MONOPOLY. Other variations within the scope of the present invention include basic games or bonus games with different numbers and types of reels and/or symbols, different payline configurations, different values of coin awards, different probabilities, payback percentages, etc.

While the present invention has been described with reference to one or more particular embodiments, those skilled in the art will recognize that many changes may be made thereto without departing from the spirit and scope of the present invention. Each of these embodiments and obvious variations thereof is contemplated as falling within the spirit and scope of the claimed invention, which is set forth in the following claims.

Patent Citations (111)

Publication number	Priority date	Publication date	Assignee	Title
US3281149A	1964-02-05	1966-10-25	Miller Alvin	Mechanical card game apparatus
FR1474617A	1966-04-05	1967-03-24		fun game type race and bet combined nonprofit
GB1129607A *	1966-09-27	1968-10-09	Jack Lennard	Improvements in or relating to gaming machines
GB1476848A *	1974-05-30	1977-06-16	Schulze Loewen Automaten	Coin-freed gaming device
US4095795A	1974-06-24	1978-06-20	Saxton James C	Amusement apparatus and method
GB2006991A *	1977-10-31	1979-05-10	Commercial Shearing	Rotary to linear servo mechanisms
GB1591623A *	1978-01-11	1981-06-24	Jpm Automatic Machines Ltd	Coin-operated gaming or amusement machines
GB2072395A *	1980-03-13	1981-09-30	Kennedy R J	Gaming or amusement machine
US4306768A	1979-04-13	1981-12-22	Taito America Corporation	Creation of multiplanular images
GB2083936A *	1980-09-12	1982-03-31	Coin Operated Parts Service Lt	Amusement machine
GB2084371A *	1980-09-30	1982-04-07	Bally Mfg Corp	Gaming Apparatus
US4335809A	1979-02-13	1982-06-22	Barcrest Limited	Entertainment machines

GB2096376A *	1981-04-03	1982-10-13	Barcrest Ltd	Entertainment machines
GB2097160A *	1981-02-06	1982-10-27	Barcrest Ltd	Entertainment machines
GB2105891A *	1981-08-11	1983-03-30	Jpm	Coin-operated gaming or amusement machines
GB2106685A *	1980-03-13	1983-04-13	Ronald John Kennedy	Gaming or amusement machine
GB2117952A *	1982-04-02	1983-10-19	Barcrest Ltd	Entertainment machines
US4448419A	1982-02-24	1984-05-15	Telnaes Inge S	Electronic gaming device utilizing a random number generator for selecting the reel stop positions
US4508345A	1982-04-26	1985-04-02	Kabushiki Kaisha Universal	Slot machine with player-friendly bonus game
GB2147442A *	1983-08-05	1985-05-09	Jpm	Coin operated gaming or amusement machines
GB2147773A *	1983-09-14	1985-05-15	Igt Reno Nev	Lottery game terminal
EP0142371A2	1983-11-14	1985-05-22	Kabushiki Kaisha Universal	Slot machine
EP0148001A2	1983-12-19	1985-07-10	Arthur Edward Thomas Limited	Gaming machines
GB2152262A *	1983-11-30	1985-07-31	Barcrest Ltd	Entertainment machines
GB2157047A *	1984-04-05	1985-10-16	David Jones	Entertainment machines
GB2165385A *	1984-10-04	1986-04-09	Barcrest Ltd	Entertainment machines
GB2170636A *	1985-02-01	1986-08-06	Jpm	Gaming or amusement-with- prizes machines
US4624459A	1985-09-12	1986-11-25	Bally Manufacturing Corporation	Gaming device having random multiple payouts
GB2180087A *	1985-07-24	1987-03-18	Bell Fruit Mfg Co Ltd	Gaming and amusement machines
GB2181589A *	1985-10-09	1987-04-23	Barcrest Ltd	Entertainment machines
GB2183882A *	1985-12-05	1987-06-10	Barcrest Ltd	Entertainment machines
GB2191030A *	1986-05-22	1987-12-02	Bell Fruit Mfg Co Ltd	Gaming and amusement machines
US4721307A	1986-03-17	1988-01-26	Kabushiki Kaisha Universal	Slot machine
GB2197974A *	1986-10-27	1988-06-02	Conimaster Mfg Ltd	Coin or token freed machines
DE3700861A1	1987-01-14	1988-07-28	Nsm Apparatebau Gmbh Kg	Coin-operated spielgeraet
US4763256A	1986-09-19	1988-08-09	Williams Electronics Games, Inc.	System to detect and bypass inoperative game features in an amusement device
US4772023A	1986-03-14	1988-09-20	Kabushiki Kaisha Universal	Slot machine
GB2202984A *	1987-03-30	1988-10-05	Franco Recreativos Sa	Apparatus for playing a game
WO1988008179A1	1987-04-04	1988-10-20	Nsm Apparatebau Gmbh & Co Kg	Coin-operated game machine
GB2204436A *	1987-03-06	1988-11-09	Barcrest Ltd	Entertainment machines
US4805907A	1985-03-08	1989-02-21	Sigma Enterprises, Incorporated	Slot machine
GB2210191A *	1987-09-18	1989-06-01	Barcrest Ltd	Entertainment machines
EP0333338A2	1988-02-23	1989-09-20	James Phillips Mc Cann	Improvements in and relating to video game machines
WO1989012875A1	1988-06-23	1989-12-28	Raha-Automaattiyhdistys	A game playing device
GB2222712A *	1988-06-08	1990-03-14	Barcrest Ltd	Entertainment machines
GB2226907A *	1988-12-13	1990-07-11	Bell Fruit Mfg Co Ltd	Gaming machines
GB2229565A *	1989-02-28	1990-09-26	Barcrest Ltd	Gaming apparatus or system
GB2230373A *	1989-03-17	1990-10-17	Bell Fruit Mfg Co Ltd	Gaming and amusement machines
GB2233806A *	1989-07-15	1991-01-16	Barcrest Ltd	Display of symbols on reels
DE4014477A1	1990-01-22	1991-07-25	Bergmann & Co Th	Roulette type games machine - has microprocessor controller allowing jack-pot game odds to be varied
GB2242300A *	1990-03-24	1991-09-25	Bell Fruit Mfg Co Ltd	Gaming and amusement machines.
US5083785A	1989-08-30	1992-01-28	Kabushiki Kaisha Universal	Win control method and apparatus for game machines
WO1992010818A1	1990-12-10	1992-06-25	Nsm Aktiengesellschaft	Coin-operated gambling machine

GB2253154A *	1991-02-27	1992-09-02	Bell Fruit Mfg Co Ltd	Gaming or amusement machines
US5169147A	1990-12-29	1992-12-08	Takasago Electric Industry, Co., Ltd.	Stop-control device of rotary gaming machine
US5205555A	1991-05-23	1993-04-27	Takasago Electric Industry Co., Ltd.	Electronic gaming machine
GB2262642A *	1991-12-18	1993-06-23	Maygay Machines	Game machine
US5259616A	1990-05-07	1993-11-09	Tjark Bergmann	Roulette-type coin-operated gaming machine
EP0577415A2	1992-07-01	1994-01-05	Bell-Fruit Manufacturing Company Limited	Machines for amusement and playing games
WO1994001840A1	1992-07-09	1994-01-20	Novo-Invest Casino Development Aktiengesellschaft	Gaming machine
US5292127A	1992-10-02	1994-03-08	Lazer-Tron Corporation	Arcade game
GB2270787A *	1992-09-16	1994-03-23	Barcrest Ltd	Entertainment machines.
GB2273384A *	1992-12-09	1994-06-15	Jpm	Gaming or amusement with prizes machines
US5342049A	1993-03-03	1994-08-30	Michael Wichinsky	Gaming machine with skill feature
US5342047A	1992-04-08	1994-08-30	Bally Gaming International, Inc.	Touch screen video gaming machine
US5380008A	1993-12-03	1995-01-10	Spintek International	Electronic gaming apparatus
US5393057A	1992-02-07	1995-02-28	Marnell, Ii; Anthony A.	Electronic gaming apparatus and method
US5401024A	1994-05-09	1995-03-28	Wms Gaming Inc.	Keno type video gaming device
US5415404A	1993-11-19	1995-05-16	Wms Gaming, Inc.	Multi-pay video poker machine
US5429361A	1991-09-23	1995-07-04	Bally Gaming International, Inc.	Gaming machine information, communication and display system
US5431408A	1994-09-23	1995-07-11	Dd Stud, Inc.	Card game with travelling wild card
US5449173A	1994-09-26	1995-09-12	Wms Gaming Inc.	Reel-type slot machine with supplemental payoff
GB2287567A *	1994-03-05	1995-09-20	Barcrest Ltd	Display for entertainment machines
US5456466A	1993-11-03	1995-10-10	Barcrest Ltd.	Entertainment machines
US5456465A	1994-05-20	1995-10-10	Wms Gaming Inc.	Method for determining payoffs in reel-type slot machines
US5542669A	1994-09-23	1996-08-06	Universal Distributing Of Nevada, Inc.	Method and apparatus for randomly increasing the payback in a video gaming apparatus
GB2297857A *	1995-02-09	1996-08-14	Barcrest Ltd	Reel for fruit machine
US5547192A	1993-04-16	1996-08-20	Universal Sales Co., Ltd.	Display apparatus for gaming machine
GB2298508A *	1995-03-02	1996-09-04	Barcrest Ltd	Entertainment machines
US5624119A	1995-04-24	1997-04-29	Prisms, Llc	Multiple variable game equipment and system for generating game faces
US5647798A	1995-03-10	1997-07-15	Slingo, Inc.	Apparatus for playing bingo on a slot machine
US5664781A	1996-09-30	1997-09-09	New Vision Gaming And Development, Inc.	Method and apparatus for playing a poker-type card game
US5697843A	1992-12-16	1997-12-16	Spielo Gaming International	Video gaming machine
US5704835A	1995-12-13	1998-01-06	Infinity Group, Inc.	Electronic second spin slot machine
US5722891A	1994-04-05	1998-03-03	Eagle Co., Ltd.	Slot machine having two distinct sets of reels
US5779545A	1996-09-10	1998-07-14	International Game Technology	Central random number generation for gaming system
US5788573A	1996-03-22	1998-08-04	International Game Technology	Electronic game method and apparatus with hierarchy of simulated wheels
US5823872A *	1996-09-18	1998-10-20	Chicago Casino Systems, Inc.	Simulated racing game
US5823874A	1994-09-23	1998-10-20	Anchor Gaming	Method of playing game and gaming device with an additional payout indicator
US5848932A	1994-09-23	1998-12-15	Anchor Gaming	Method of playing game and gaming games with an additional payout indicator
US5951397A	1992-07-24	1999-09-14	International Game Technology	Gaming machine and method using touch screen
Family To Family Citations				

US4467424A *	1979-12-17	1984-08-21	Hedges Richard A	Remote gaming system
GB2066991B	1980-01-08	1983-06-02	Middleton D W	Fruit machine
GB2090690B *	1981-01-05	1984-04-11	Summit Coin Ltd	Coin-freed gaming machine
GB2112984A *	1981-12-31	1983-07-27	Marian Electronics Limited	Gaming machines
GB8611455D0 *	1986-05-10	1986-06-18	Bell Fruit Mfg Co Ltd	Gaming & amusement machines
JP2505204B2 *	1987-06-26	1996-06-05	ユニバーサル販売株式会社	Surotsutomashin
US4960094A	1988-10-11	1990-10-02	Honda Giken Kogyo Kabushiki Kaisha	Knocking control system for internal combustion engines
GB8826245D0 *	1988-11-09	1988-12-14	Bell Fruit Mfg Co Ltd	Gaming & amusement machines
JPH0693937B2 *	1991-05-30	1994-11-24	株式会社セガ・エンタープライゼス	Competition game machine of the video synchronization device
EP0554589B1 *	1992-02-04	1995-12-06	Bally Wulff Automaten GmbH	Device for driving a symbol carrier
GB2295508B	1992-02-18	1996-09-04	Hitachi Ltd	An apparatus for controlling parallel running of inverters
GB9203871D0 *	1992-02-24	1992-04-08	Arthur Edward Thomas Limited	Gaming or amusement machine
GB2268415A *	1992-07-01	1994-01-12	Bell Fruit Mfg Co Ltd	Machines for amusement and playing games
US5803451A *	1992-10-02	1998-09-08	Rlt Acquisition, Inc.	Arcade game having multiple score indicators
US5332219A *	1992-10-08	1994-07-26	Rio Properties, Inc.	Apparatus and method for playing an electronic poker game
US5560603A *	1995-06-07	1996-10-01	Atlantic City Coin & Slot Service Company, Inc.	Combined slot machine and racing game
US5964463A *	1995-09-15	1999-10-12	Gulf Coast Gaming Corporation	Method of playing a dice game
JP3385852B2 *	1996-05-31	2003-03-10	日産自動車株式会社	Air bag device for a vehicle
CA2212305C *	1997-08-05	1999-07-20	Raphael Mourad	Gaming apparatus including slot machine
US6159097A *	1999-06-30	2000-12-12	Wms Gaming Inc.	Gaming machine with variable probability of obtaining bonus game payouts

* Cited by examiner, † Cited by third party

Non-Patent Citations (57)



Title
Advertisement for "Acropolis," Automatic (Fruit) Designs, Ltd., 2 pages (date unknown).
Advertisement for "Adders & Ladders," Barcrest, 2 pages (date unknown).
Advertisement for "Bonus Card," Andries Robert Automatic s.p.r.l., 1 page (date unknown).
Advertisement for "Club Double," M-D-M Coin Sales Ltd., 2 pages (date unknown).
Advertisement for "Club Make a Million," Bell-Fruit Manufacturing Co., Ltd., 2 pages (date unknown).
Advertisement for "Club Vegas," Barcrest, 1 page (date unknown).
Advertisement for "Colossus," AFD, 1 page (date unknown).
Advertisement for "Fortune Wheel," Project Customer Services, 2 pages (date unknown).
Advertisement for "Golden Circle," Delta Automaten, 1 page (date unknown).
Advertisement for "Happy Clown," Andries Robert Automatic s.p.r.l., 1 page (date unknown).
Advertisement for "Instant Jackpots," Bell-Fruit Manufacturing Co., Ltd., 2 pages (date unknown).
Advertisement for "Jackpot Stampede," WMS Gaming Inc., 2 pages (date unknown).
Advertisement for "Lucky Bank," 1 page (date unknown).
Advertisement for "Lucky Horseshoes," JPM Automatic Machines Ltd., 2 pages (date unknown).
Advertisement for "Lucky Jackpots," JPM Automatic Machines Ltd., 2 pages (date unknown).
Advertisement for "Main Attraction," Bell-Fruit Manufacturing Co., Ltd., 2 pages (date unknown).

Advertisement for "Midas Touch," 2 pages (date unknown).
Advertisement for "MONOPOLY," JPM Automatic Machines Ltd., 2 pages (date unknown).
Advertisement for "Monopoly: Maygay There for the Taking," 2 pages (date unknown).
Advertisement for "Only Fools and Horses," Bell-Fruit Manufacturing Co., Ltd., 2 pages (date unknown).
Advertisement for "Premier Club Manager," Bell-Fruit Manufacturing, 2 pages (date unknown).
Advertisement for "Road Hog," Barcrest, 2 pages (date unknown).
Advertisement for "Super Square," Maygay Machines Ltd., 2 pages (date unknown).
Advertisement for "The Big Breakfast," Channel Four Television Corporation, 2 pages (1993).
Advertisement for "The Wild West," Bell-Fruit Manufacturing, 2 pages (date unknown).
Advertisement for "Treasure Island," American Alpha, Inc., 1 page (date unknown).
Advertisement for "Viva Club Vegas!," Barcrest, 1 page (date unknown).
Advertisement for "Viva! Six! Las Vegas," Barcrest, 2 pages (date unknown).
Advertisement for "Wheel of Fortune," Project Creating Entertainment, 2 pages (date unknown).
Advertisement for Barcrest Limited, 1 page (date unknown).
Article titled "Bangkok on the Brink," Euroslot. The International Coin-Operated Machine Journal, 2 pages (Nov. 1993).
Article titled "Scandinavia on the Brink of the EU melting pot," Euroslot. The International Coin-Operated Machine Journal, 2 pages (Aug. 1994).
Bally Bingo Advertisement for excerpt from "Lemons, Cherries and Bell Fruit Gum," Richard M. Bueschel, 1 page (date unknown).* *
Bally Circus Advertisement for excerpt from "Lemons, Cherries and Bell Fruit Gum," Richard M. Bueschel, 3 pages (date unknown).* *
Brochure for "JPM Presents MONOPOLY Deluxe," JPM International Ltd., 5 pages (date unknown).
Brochure for "Perfect Universal Slot Machines," Universal Co., Ltd., 16 pages (date unknown).
Brochure for "The 50th Show," Ate International, 2 pages (Jan. 1994).
Brochure for "World Players," Barcrest, 6 pages (date unknown).
Chapters 10, 11 & 12, excerpts from "Lemons, Cherries and Bell-Fruit-Gum," Richard M. Bueschel, 71 pages (1995).
Cover page for "Covers Your World," Euroslot. The Currency of the Coin Machine Industry, 1 page (date unknown).
Cover page, "Enter Disposable Gaming," Euroslot. The International Coin-Operated Machine Journal, 1 page (Apr. 1994).
Las Vegas Slot Machine Advertisement for excerpt from "Lemons, Cherries and Bell Fruit Gum," Richard M. Bueschel, 1 page (date unknown).* *
Operations Manual for "Phantom Haus," Williams Electronics Games, Inc., 69 pages (Jul. 1996).
Product Sheet for "Big Money," WMS Gaming Inc., 1 page (date unknown).* *
Product Sheet for "Double Wild & Loose," Williams Electronics Games, Inc., 3 pages (date unknown).
Product Sheet for "Double Wild Cherry (195A)," International Game Technology, 3 pages (Nov. 7, 1994).
Product Sheet for "Kaleidoscope," Williams Electronics Games Inc., 3 pages (date unknown).
Product Sheet for "Monopoly SWP," Ltd., 4 pages (date unknown).* *
Product Sheet for "Piggy Bankin'," WMS Gaming Inc., 1 page (date unknown).* *
Product Sheet for "Pirate's Thunder," WMS Gaming Inc., 1 page (date unknown).* *
Product Sheet for "Wild Cherry (120A)," International Game Technology, 2 pages (Nov. 7, 1994).
Website Publication for "Arabian Riches," Silicon Gaming Inc., 2 pages (Jul. 17, 1998).
Website Publication for "Buccaneer Gold," Silicon Gaming Inc., 2 pages (Jul. 17, 1998).
Website Publication for "Fort Knox," Silicon Gaming Inc., 2 pages (Jul. 17, 1998).
Website Publication for "Lady of Fortune," Silicon Gaming Inc., 2 pages (Jul. 17, 1998).
Website Publication for "Phantom Haus," Williams Electronic Games, Inc., 2 pages (date unknown).* *
Website Publication for "Riddle of the Sphinx," Silicon Gaming Inc., 2 pages (Jul. 17, 1998).

* Cited by examiner, † Cited by third party



Publication number	Priority date	Publication date	Assignee	Title
US20020070309A1 *	2000-11-24	2002-06-13	Ferag Ag	Method and installation for exchanging roll supports on winding stations arranged in a row
US20020115485A1 *	2000-12-07	2002-08-22	Muir Robert Linley	Reel strip interaction
US20020123378A1 *	2001-02-07	2002-09-05	Helen Bucknall	Gaming machine with transparent symbol carriers
US20020198044A1 *	2001-04-11	2002-12-26	Walker Jay S.	Method and apparatus for facilitating a secondary wager at a slot machine
US20030162583A1 *	2002-02-28	2003-08-28	Baerlocher Anthony J.	Apparatus and method of operating a gaming device having a central game and a plurality of peripheral games
US6682073B2 *	2001-02-07	2004-01-27	Aristocrat Technologies Australia Pty Ltd.	Gaming machine with tool feature
US20040053660A1 *	2002-09-12	2004-03-18	Webb Bayard S.	Gaming device having a wheel with multiple indicators
US20040053665A1 *	2002-09-12	2004-03-18	Baerlocher Anthony J.	Gaming device having a multiple selectable indicator game
US20040185929A1 *	1997-12-31	2004-09-23	Walker Jay S.	Game based on speed of play
US20040195763A1 *	1997-12-23	2004-10-07	Perrie Kenneth Allan	Poker dice casino game method of play
US20040227294A1 *	2003-05-12	2004-11-18	Au-Yeung Chi Fat	Card game
US20040242320A1 *	2003-03-25	2004-12-02	Jackson Kathleen Nylund	Progressive game with bonus
US20050003880A1 *	2003-07-02	2005-01-06	Englman Allon G.	Gaming machine having multiple level progressive feature with player controlled outcome
US20050003886A1 *	2003-07-02	2005-01-06	Englman Allon G.	Gaming machine having a community game with side wagering
US20050043081A1 *	2003-08-20	2005-02-24	Baerlocher Anthony J.	Gaming device having related award component selection
US20050049025A1 *	2002-09-04	2005-03-03	Hall Geoffrey William	Blackjack push
US20050054434A1 *	2001-03-30	2005-03-10	Baerlocher Anthony J.	Gaming device having a plurality of symbol generators and accumulation game with multiple independent terminating conditions
US20050054435A1 *	2000-09-07	2005-03-10	Paulina Rodgers	Gaming device with multiple levels which determine the number of indicators of a symbol generator
US20050059481A1 *	2003-09-11	2005-03-17	Joshi Shridhar P.	Gaming terminal with multi-level progressive jackpot
US20050059461A1 *	2001-03-30	2005-03-17	Ching Erick T.	Gaming device having a player selection game
US6871194B1 *	1999-07-13	2005-03-22	Compudigm International Limited	Interaction prediction system and method
US20050070353A1 *	2000-10-12	2005-03-31	Webb Bayard S.	Gaming device having a primary game scheme involving a symbol generator and secondary award wheels
US20050192085A1 *	2004-02-27	2005-09-01	Aruze Corp.	Gaming machine with game effect
US20050192083A1 *	2004-02-27	2005-09-01	Aruze Corporation	Gaming machine with payout table
US20050261055A1 *	2004-05-19	2005-11-24	Casey Michael P	Wagering game with award enhancement feature
US20050273720A1 *	2004-05-21	2005-12-08	Cochran Don W	Graphical re-inspection user setup interface
US20060003829A1 *	2004-06-30	2006-01-05	Alfred Thomas	Wagering game having progressive amounts represented in various ways
US20060009283A1 *	2003-07-02	2006-01-12	Wms Gaming Inc.	Gaming machine having a community game with side wagering
US20060030403A1 *	2004-08-03	2006-02-09	Wagerworks, Inc.	Gaming method and device involving progressive wagers
US20060035706A1 *	2004-08-13	2006-02-16	Alfred Thomas	Wagering game with payoff rounding feature
US7014559B1	1999-10-18	2006-03-21	Aristocrat Technologies Australia Pty., Ltd.	Gaming machine with substitute symbols

US20060073897A1 *	2004-10-01	2006-04-06	Wms Gaming Inc.	Wagering game with group jackpot
US20060073871A1 *	2004-09-30	2006-04-06	Paulina Rodgers	Gaming device having accumulation game with selection of terminator symbols
US20060073873A1 *	2004-09-29	2006-04-06	Paulina Rodgers	Gaming device having multiple interacting independently operable wheels
US20060079319A1 *	2004-09-30	2006-04-13	Aoki Dion K	Wagering game with shared payoff based on multiple player selections
US20060079318A1 *	2004-09-30	2006-04-13	Aoki Dion K	Wagering game with bonus game triggered by linked terminal
US20060094495A1 *	2004-10-29	2006-05-04	Philip Gelber	Wagering game with competitive multi-tier event
US20060100019A1 *	2004-10-01	2006-05-11	Hornik Jeremy M	Wagering game with unilateral player selection for developing a group
US20060111169A1 *	2004-10-01	2006-05-25	Hornik Jeremy M	Wagering game with award unlocking feature
US20060135243A1 *	2003-07-02	2006-06-22	Wms Gaming, Inc.	Gaming machine having a community game with side wagering
US20060135254A1 *	2004-12-20	2006-06-22	Alfred Thomas	Gaming terminal with special-event wager having different denomination increment than basic wagering game
US20060160605A1 *	2005-01-18	2006-07-20	Wms Gaming Inc.	Wagering game with enhanced payline-ordering feature
US20060160625A1 *	2005-01-18	2006-07-20	Wms Gaming Inc.	Wagering game with alternating picks
US20060172791A1 *	2005-01-31	2006-08-03	Wolf Bryan D	Central determination offer and acceptance game with multiplier
US20060183536A1 *	2005-02-07	2006-08-17	Wms Gaming Inc.	Wagering games with pooling of awards
US20060189376A1 *	2005-01-31	2006-08-24	Wms Gaming, Inc.	Wagering game with enhancement feature for allowing additional wager during performance of the wagering game
US20060287043A1 *	2005-06-06	2006-12-21	Wms Gaming Inc.	Wagering game with community award based on best selection from all players
US20070018405A1 *	2005-07-20	2007-01-25	Chi Fat Au-Yeung	Apparatus and method of playing a game
US20070021183A1 *	2005-06-27	2007-01-25	Wms Gaming Inc.	Gaming machine with playing-board bonus game affected by free spins of the reels
US20070032286A1 *	2005-08-04	2007-02-08	Igt	Methods and apparatus for auctioning an item via a gaming device
WO2007015887A1 *	2005-07-20	2007-02-08	Wms Gaming Inc.	Sharing game assets in a wagering game network
US20070060263A1 *	2005-08-16	2007-03-15	Wms Gaming Inc.	Gaming system with challenge feature
US20070057607A1 *	2005-09-14	2007-03-15	Leo Caissie	Stand for gaming device or other object
US20070117610A1 *	2000-10-12	2007-05-24	Igt	Gaming device having a first game scheme involving a symbol generator, a second game and a first game terminator
US20070135211A1 *	2003-09-12	2007-06-14	Block Rory L	Gaming system using single player-identification card for performing multiple functions
US20070167218A1 *	2004-02-26	2007-07-19	Rothschild Wayne H	Method and apparatus for utilizing tickets to progress game play in a gaming machine
US20070191087A1 *	2006-02-10	2007-08-16	Wms Gaming Inc.	Wagering game with wrap-around paylines
US20070202943A1 *	2004-03-31	2007-08-30	Alfred Thomas	Symbol Driven Contributions For A Prize Pool In A Wagering Game
US20070213114A1 *	2004-03-30	2007-09-13	Caspers Christopher J	Wagering Game Providing Free Game Play as a Progressive Award
US20070259711A1 *	2004-07-28	2007-11-08	Alfred Thomas	Wagering Game with Randomly Funded Progressive Amounts
US20070259714A1 *	2003-09-12	2007-11-08	Block Rory L	Player Identification Feature for Restricted-Access Wagering Games
US20070298874A1 *	2006-06-09	2007-12-27	Igt	Gaming system and method for enabling a player to select progressive awards to try for and chances of winning progressive awards
US20080015012A1 *	2004-05-18	2008-01-17	Englman Allon G	Wagering Game with Enhanced Progressive Game
US20080020847A1 *	2004-08-19	2008-01-24	Igt	Gaming system having multiple gaming machines which provide bonus awards
US20080045341A1 *	2004-05-13	2008-02-21	Englman Allon G	Bank Wagering Game
US20080070676A1 *	2004-08-19	2008-03-20	Igt	Gaming system having multiple gaming machines which provide bonus awards
US20080076515A1 *	2006-06-09	2008-03-27	Igt	Gaming system and method for enabling a player to select progressive awards to try for

				and chances of winning progressive awards
US20080076517A1 *	2006-06-09	2008-03-27	Igt	Gaming system and method for enabling a player to select progressive awards to try for and chances of winning progressive awards
US20080102920A1 *	2006-11-01	2008-05-01	Igt	Gaming system and method of operating a gaming system having a bonus participation bidding sequence
US20080113759A1 *	2001-09-21	2008-05-15	Igt	Gaming device having wager dependent bonus game play
US20080113765A1 *	2006-11-10	2008-05-15	Igt	Gaming system and method providing venue wide simultaneous player participation based bonus game
US20080153584A1 *	2003-08-28	2008-06-26	Igt	Gaming device having match game with award determined by prediction of correct matches
US20080157474A1 *	2006-12-30	2008-07-03	Chi Fat Au-Yeung	Card games
US7419430B1	2005-06-16	2008-09-02	Wms Gaming, Inc.	Wagering game for tracking various types of wager inputs
US20090042638A1 *	2006-04-05	2009-02-12	Alfred Thomas	Wagering game with multiplier for progressive fund pool
US20090093298A1 *	2006-04-27	2009-04-09	Wms Gaming, Inc.	Community wagering game with alternating player selections
US20090117974A1 *	2005-09-01	2009-05-07	Hornik Jeremy M	Wagering game with progressive game triggered by multiple players
US20090124366A1 *	2005-09-09	2009-05-14	Wms Gaming Inc.	Wagering game with special event shard by adjacent gaming machines
US20090131159A1 *	2005-05-31	2009-05-21	Englman Allon G	Adjustment of awards in progressive system based on wager
US20090170595A1 *	2007-02-16	2009-07-02	Walker Jay S	Re-characterization of bets at table games
US20090305777A1 *	2005-05-31	2009-12-10	Anderson Peter R	Progressive wagering game with funding distribution feature
US20090325688A1 *	2008-06-30	2009-12-31	Waterleaf Limited	Method and System for Determining a Progressive Multiplier
US20100016060A1 *	2006-11-02	2010-01-21	Wms Gaming Inc	Wagering Game With Progressive Award Indicator Having An Incrementing Feature
US20100113131A1 *	2006-08-15	2010-05-06	Wms Gaming Inc.	Wagering Game with Progressive Feature
US20100120514A1 *	2008-11-13	2010-05-13	Igt	Gaming system and method providing a primary game with accumulated secondary game elements
US7731196B2	2007-05-11	2010-06-08	Scoccia Adelmo A	Tossed projectile game
US20100171267A1 *	2007-02-16	2010-07-08	Walker Jay S	Recharacterization of bets at table games
US20100227667A1 *	2009-03-03	2010-09-09	Wms Gaming Inc.	Wagering Game Providing Player Options For Time-Based Special Event
US7794317B2	2002-09-12	2010-09-14	Igt	Gaming device having award generation with multiple indicators and indicator determination device
US7867074B2	2001-03-30	2011-01-11	Igt	Gaming device having a bonus scheme with multiple potential award sets
US20110039610A1 *	2009-08-12	2011-02-17	Igt	Gaming apparatus and methods for providing one or more gaming sessions
US20110070940A1 *	2009-09-21	2011-03-24	Wms Gaming Inc.	Competitive-collaborative community event
US7914377B2	2006-11-07	2011-03-29	Igt	Gaming device with dynamic progressive and bonus architecture
US20110092277A1 *	2009-10-15	2011-04-21	Wms Gaming Inc.	Wagering Game With Multi-Level Progressive Jackpot With Partial Reset
US20110098102A1 *	2009-10-28	2011-04-28	Wms Gaming Inc.	Wagering Game For Awarding Attributes In A Plurality Of Plays
US7942737B2	2000-09-07	2011-05-17	Igt	Gaming device having a game with multiple selections and progressive game incrementation
US20110118005A1 *	1999-08-25	2011-05-19	Aristocrat Technologies Australia Pty Ltd	Gaming machine with buy feature games
US20110130192A1 *	2007-11-08	2011-06-02	Wms Gaming Inc.	Wagering game with community event poker game
US7980938B2	2004-03-29	2011-07-19	Wms Gaming Inc.	Wagering game with video lottery bonus game

US8012014B2	2006-08-22	2011-09-06	Igt	Gaming system having awards provided based on rate of play
US20110230251A1 *	2010-03-17	2011-09-22	Igt	Gaming system and method providing a multi-player bonus game
US20110287824A1 *	2010-05-20	2011-11-24	Bally Gaming, Inc.	Slot machine game for two players
US20120034968A1 *	2010-08-06	2012-02-09	Multimedia Games, Inc.	Wagering game, gaming machine, gaming system, and method with a player-determinable feature game aspect
US8137180B2	2004-07-28	2012-03-20	Wms Gaming Inc.	Wagering game having progressive amounts displayed in a matrix
US8216065B2	2005-09-09	2012-07-10	Igt	Gaming system having multiple adjacently arranged gaming machines which each provide a component for a multi-component game
US8235804B2	2007-05-14	2012-08-07	Wms Gaming Inc.	Wagering game
US8317587B2	2007-11-01	2012-11-27	Wms Gaming Inc.	Gaming system having free spin enhancement features
US8360851B2	2010-10-15	2013-01-29	Wms Gaming Inc.	Wagering game with progressive game award values associated with reel symbols
US8506390B2	2010-11-04	2013-08-13	Wms Gaming Inc.	Wagering game having game assets with multiple levels of enhancement
USRE44449E1	2000-12-07	2013-08-20	Aristocrat Technologies Australia Pty Ltd	Reel strip interaction
US8545305B2	2010-06-28	2013-10-01	Wms Gaming Inc.	Devices, systems, and methods for dynamically simulating a component of a wagering game
US8545312B2	2011-09-22	2013-10-01	Igt	Gaming system, gaming device, and method changing awards available to be won in pending plays of a game based on a quantity of concurrently pending plays of the game
US8562418B2	2009-10-28	2013-10-22	Wms Gaming Inc.	Gaming system with non-cash-based progressive awards
US8616981B1	2012-09-12	2013-12-31	Wms Gaming Inc.	Systems, methods, and devices for playing wagering games with location-triggered game features
US8628400B2	2010-07-21	2014-01-14	Wms Gaming Inc.	Progressive wagering game having symbol-triggering award feature
US8641520B2	2010-10-27	2014-02-04	Wms Gaming Inc.	Wager equalized bonus trigger allocation and redemption
US8795048B2	2011-12-06	2014-08-05	Igt	Gaming system, gaming device, and method providing a multi-stage dice bonus game
US8814648B2	2004-08-19	2014-08-26	Igt	Gaming system having multiple gaming machines which provide bonus awards
US8979635B2	2012-04-02	2015-03-17	Wms Gaming Inc.	Systems, methods and devices for playing wagering games with distributed and shared partial outcome features
US9058714B2	2011-05-23	2015-06-16	Wms Gaming Inc.	Wagering game systems, wagering gaming machines, and wagering gaming chairs having haptic and thermal feedback
US9064377B2	2010-04-06	2015-06-23	Multimedia Games, Inc.	Wagering game, gaming machine, networked gaming system and method with a base game and a simultaneous bonus currency game
USD733088S1	2011-09-16	2015-06-30	Touchtunes Music Corporation	Jukebox stand
US9082257B2	2011-09-30	2015-07-14	Igt	Gaming system and method providing a community selection game providing bonus game selection
USD734735S1	2013-12-24	2015-07-21	Touchtunes Music Corporation	Jukebox
US9142083B2	2011-06-13	2015-09-22	Bally Gaming, Inc.	Convertible gaming chairs and wagering game systems and machines with a convertible gaming chair
USD741284S1	2014-03-25	2015-10-20	Touchtunes Music Corporation	Jukebox and jukebox stand
US9171418B2	2011-12-15	2015-10-27	Bally Gaming, Inc.	Gaming devices and gaming systems with multiple display device arrangement
US9275510B2	2005-05-06	2016-03-01	Bally Gaming, Inc.	Wagering game with time-based bonus
US9305433B2	2012-07-20	2016-04-05	Bally Gaming, Inc.	Systems, methods and devices for playing wagering games with distributed competition features

US9336645B2	2013-09-18	2016-05-10	Igt	Gaming system and method for playing a game including a plurality of linked symbol generators
USD765052S1	2010-12-14	2016-08-30	Touchtunes Music Corporation	Jukebox
US9449467B2	2012-09-25	2016-09-20	Igt	Gaming system and method providing a selection game associated with a plurality of different sets of pickable selections
US9489804B2	2012-09-28	2016-11-08	Bally Gaming, Inc.	Community gaming system with varying eligibility criteria
US9524615B2	2012-05-17	2016-12-20	Igt	Gaming systems and method providing game with multidirectional spinning symbol displays
US9533216B2	2012-09-25	2017-01-03	Igt	Gaming system and method for providing a multiple player game
US9564007B2	2012-06-04	2017-02-07	Bally Gaming, Inc.	Wagering game content based on locations of player check-in
USD780201S1	2014-09-26	2017-02-28	Igt	Gaming system display with graphical user interface
US9659430B2	2013-09-16	2017-05-23	Igt	Gaming system and method providing game with multiple award displays
US9685039B2	2006-11-08	2017-06-20	Igt	Gaming system and method which provides players an opportunity to win a progressive award
USD801299S1	2016-10-03	2017-10-31	Ami Entertainment Network Llc	Jukebox
US9875618B2	2014-07-24	2018-01-23	Igt	Gaming system and method employing multi-directional interaction between multiple concurrently played games
US9965918B2	2014-07-31	2018-05-08	Bally Gaming, Inc.	Overlapping LCD displays for a gaming machine
US9990804B2	2014-09-24	2018-06-05	Bally Gaming, Inc.	Wagering game having interlinked progressive values with shared increment
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US9495824B2	1997-02-07	2016-11-15	Aim Management, Inc.	Lottery system/electronic gaming device interface and gambling game
US7695358B2	1998-03-31	2010-04-13	Walker Digital, Llc	Method and apparatus for team play of slot machines
US20020045472A1 *	1998-10-09	2002-04-18	William R. Adams	Method of playing a wagering game and gaming devices with a bingo-type secondary game
US6705944B2 *	1999-03-23	2004-03-16	Sierra Design Group	Multiple game apparatus and method
US7819741B1 *	1999-03-23	2010-10-26	Bally Gaming, Inc.	Slot machine with a second wheel game
US6592457B1	1999-05-26	2003-07-15	Wms Gaming Inc.	Gaming machine with player selected events
US6508709B1	1999-06-18	2003-01-21	Jayant S. Karmarkar	Virtual distributed multimedia gaming method and system based on actual regulated casino games
GB9924211D0 *	1999-10-14	1999-12-15	Project Leisure Ltd	Gaming machines
AUPQ346199A0 *	1999-10-15	1999-11-11	Aristocrat Leisure Industries Pty Ltd	A gaming machine with improved display means
AUPQ556400A0 *	2000-02-11	2000-03-02	Aristocrat Leisure Industries Pty Ltd	Gaming machine with interactive bonusing
US6517432B1 *	2000-03-21	2003-02-11	Wms Gaming Inc.	Gaming machine with moving symbols on symbol array
US7011581B2 *	2000-05-16	2006-03-14	Cole Joseph W	Gaming device having main game activating a bonus event
US6688977B1 *	2000-06-23	2004-02-10	Igt	Gaming device with bonus scheme having multiple award levels
US6511375B1 *	2000-06-28	2003-01-28	Igt	Gaming device having a multiple selection group bonus round
US7361088B2 *	2000-07-27	2008-04-22	Igt	Gaming device having a game with incremental value disclosure and value modification

US6582306B1 *	2000-07-27	2003-06-24	Igt	Gaming device having bonus scheme incremental value disclosure
US6988947B2 *	2000-08-01	2006-01-24	Igt	Gaming device with bonus scheme having multiple symbol movement and associated awards
AUPQ958700A0	2000-08-22	2000-09-14	Aristocrat Technologies Australia Pty Limited	Gaming machine with multi scatter game
US6607437B2 *	2000-08-25	2003-08-19	Wms Gaming Inc.	Selection feature for a game of chance
US6960133B1 *	2000-08-28	2005-11-01	Igt	Slot machine game having a plurality of ways for a user to obtain payouts based on selection of one or more symbols (power pays)
US6761632B2	2000-08-31	2004-07-13	Igt	Gaming device having perceived skill
US6780103B2	2000-08-31	2004-08-24	Igt	Gaming device having skill/perceived skill bonus round
US6632139B1 *	2000-08-31	2003-10-14	Igt	Gaming device having a bonus scheme with symbol generator and symbol terminating condition
US7559837B1 *	2000-09-01	2009-07-14	Igt	Video gaming system with wild card system and bonus system
US6726563B1	2000-09-08	2004-04-27	Igt	Gaming device having a selectively accessible bonus scheme
US6960136B2	2000-10-04	2005-11-01	Wms Gaming Inc.	Gaming machine with visual and audio indicia changed over time
AUPR057900A0 *	2000-10-05	2000-10-26	Aristocrat Technologies Australia Pty Limited	Player choice game feature
US6572473B1 *	2000-10-06	2003-06-03	Igt	Gaming device having game scheme allowing player skill to affect symbol movement without affecting award
US6602136B1	2000-10-11	2003-08-05	Igt	Gaming device with a bonus scheme involving movement along paths with path change conditions
US6554703B1 *	2000-10-12	2003-04-29	Igt	Gaming device having multiple audio, video or audio-video exhibitions associated with related symbols
US6582303B1 *	2000-10-13	2003-06-24	Casino Data Systems	Gaming device and method
US6537152B2 *	2000-10-17	2003-03-25	Atlantic City Coin & Slot Service Company, Inc.	Gaming device having an animated figure
US20040147300A1 *	2000-10-17	2004-07-29	Atlantic City Coin & Slot Service Company, Inc.	Gaming device having an animated figure
AU780702B2 *	2001-02-07	2005-04-14	Aristocrat Technologies Australia Pty Limited	Gaming machine with tool feature
US6769983B2	2001-03-01	2004-08-03	Igt	Bonus game
US6685560B1 *	2001-03-31	2004-02-03	Wms Gaming Inc.	Gaming machine with virtual opponent feature
US6394902B1	2001-04-18	2002-05-28	Igt	Gaming device having different sets of primary and secondary reel symbols
US7704142B2 *	2001-04-20	2010-04-27	King Show Games, Inc.	System and method for facilitating trades for bonus activity in gaming systems
US6620045B2 *	2001-04-20	2003-09-16	King Show Games, Llc	System and method for executing trades for bonus activity in gaming systems
US8038522B2 *	2001-05-16	2011-10-18	Case Venture Management, Llc	Spin keno
US6652378B2	2001-06-01	2003-11-25	Igt	Gaming machines and systems offering simultaneous play of multiple games and methods of gaming
US7841936B2	2001-07-16	2010-11-30	Igt	System and method for presenting payouts in gaming systems
US6632140B2 *	2001-07-16	2003-10-14	King Show Games, Llc	System and method for providing repeated elimination bonus in gaming activities
US20030027619A1 *	2001-07-25	2003-02-06	Nicastro John P.	Gaming device with a skill based bonus game
US7927212B2	2001-08-03	2011-04-19	Igt	Player tracking communication mechanisms in a gaming machine

US8784211B2	2001-08-03	2014-07-22	Igt	Wireless input/output and peripheral devices on a gaming machine
US8210927B2	2001-08-03	2012-07-03	Igt	Player tracking communication mechanisms in a gaming machine
US7112138B2 *	2001-08-03	2006-09-26	Igt	Player tracking communication mechanisms in a gaming machine
JP2003062177A *	2001-08-24	2003-03-04	Aruze Corp	Game machine and method for controlling the same
US7192349B2	2001-08-31	2007-03-20	Igt	Gaming device having multiple round bonus scheme with residual awards
US6869360B2 *	2001-09-20	2005-03-22	Konami Gaming, Inc.	Gaming apparatus and method including a multiplier feature and bonus features
US6758747B2	2001-09-20	2004-07-06	Igt	Gaming device including choices having varying probabilities of contributing to game's termination
US7066814B2 *	2001-09-21	2006-06-27	Igt	Gaming device having regenerating multiple award opportunities
US6582307B2	2001-09-21	2003-06-24	Igt	Gaming device having a selection-type bonus game that activates a mechanical device
US7314409B2	2001-09-26	2008-01-01	Igt	Gaming device having a selectable combination bonus game
US7121943B2 *	2001-09-26	2006-10-17	Igt	Gaming device with an increasing goal advancement game
US6958013B2	2001-09-26	2005-10-25	Igt	Gaming device having an accumulating award symbol
US6602137B2	2001-09-26	2003-08-05	Igt	Gaming device having an accumulated award selection bonus scheme
US6796900B2 *	2001-09-26	2004-09-28	Igt	Gaming device having achievement criteria for advancement
US6852027B2	2001-09-28	2005-02-08	Igt	Gaming device having rate dependent game
US6764398B2 *	2001-09-28	2004-07-20	Aristocrat Technologies Australia Pty, Ltd	Gaming device and method
US20030064772A1 *	2001-09-28	2003-04-03	Kim Tempest	Gaming device and method
US6607438B2 *	2001-09-28	2003-08-19	Igy	Gaming device having termination variables
US20030064787A1 *	2001-09-28	2003-04-03	Weiss Steven A.	Gaming device and method
US7018293B2 *	2001-09-28	2006-03-28	Case Venture Management, Llc	Game and gaming machine with operative theme having element linking logic organization
US6634945B2	2001-09-28	2003-10-21	Igt	Gaming device having independent bonus reels
US6942566B2 *	2001-09-28	2005-09-13	Igt	Gaming device having an improved offer/acceptance bonus scheme
US6796902B2 *	2001-09-28	2004-09-28	Igt	Gaming device including awards that generate another award
US6743096B2 *	2001-09-28	2004-06-01	Aristocrat Technologies Australia Pty Ltd	Gaming device and method having an internally-based competition-type bonus event
US6755737B2 *	2001-09-28	2004-06-29	Sigma Game, Inc.	Gaming machine having bonus game
US7371168B2	2001-10-05	2008-05-13	Igt	Gaming apparatus and method of gaming including interactive gaming symbols for producing different outcomes
US7473174B2 *	2001-10-15	2009-01-06	Igt	Gaming device having a re-triggering symbol bonus scheme with a bonus symbol accumulation and player selection of accumulation total
US6955600B2	2001-10-15	2005-10-18	Igt	Gaming device having a re-triggering symbol bonus scheme with a bonus symbol accumulator
US6913532B2 *	2001-10-15	2005-07-05	Igt	Gaming device having a re-triggering symbol bonus scheme
US7892088B2 *	2001-10-18	2011-02-22	Steve Brandstetter	Gaming device having a second separate bonusing event
AUPR859201A0 *	2001-10-31	2001-11-29	Ainsworth Game Technology Limited	Gaming machine
US7458889B2 *	2002-10-21	2008-12-02	Atronic International Gmbh	Bonus round for multiple gaming machines where award is multiplied based on certain variables
US6780111B2	2001-11-30	2004-08-24	Igt	Method, apparatus and system for perpetual bonus game
US20030109304A1 *	2001-12-11	2003-06-12	Michael Gauselmann	Gaming machine having dynamically controlled light display
US6890255B2	2001-12-17	2005-05-10	Igt	Multiple wheel roulette game

US6984174B2 *	2001-12-20	2006-01-10	Igt	Method and apparatus for a player-controllable bonus game
US20030125107A1 *	2001-12-21	2003-07-03	Cannon Lee E.	Method and apparatus for competitive bonus games based upon strategy or skill
US7052392B2	2001-12-31	2006-05-30	Igt	Method and apparatus for providing an advantage to a player in a bonus game
US7077744B2 *	2002-01-02	2006-07-18	Igt	Competitive, matrix type game, play thereof as a bonus event to a primary game, and apparatus and systems for implementing the game
US6896118B2	2002-01-10	2005-05-24	Cummins-Allison Corp.	Coin redemption system
AU2003200419B2 *	2002-02-08	2008-07-31	Igt	Gaming Device Having a Pick Reduction Game
US7413510B2	2002-02-08	2008-08-19	Igt	Gaming device having a related symbol selection game
AUPS052602A0	2002-02-13	2002-03-07	Aristocrat Technologies Australia Pty Limited	Gaming machine with wagering feature
US7494413B2	2002-02-20	2009-02-24	Igt	Slot machine game having a plurality of ways for a user to obtain payouts for one or more additional pay lines formed by the appearance of special symbols in a symbol matrix
US7381134B2 *	2002-02-28	2008-06-03	Igt	Gaming device having a multi-function free game bonus
US7258611B2	2002-02-28	2007-08-21	Igt	Gaming device having free game bonus with a changing multiplier
US6939224B2 *	2002-03-12	2005-09-06	Igt	Gaming device having varying risk player selections
US7169047B2	2002-03-28	2007-01-30	Igt	Providing an indication of a hidden bonus on a casino gaming apparatus
US6817614B2 *	2002-04-12	2004-11-16	Sterling Gaming, Llc	Method of conducting a wagering game
US20050130727A1 *	2002-04-12	2005-06-16	Ed Cebulko	Method of conducting a wagering game
US20030224852A1	2002-04-19	2003-12-04	Walker Jay S.	Method and apparatus for linked play gaming with combined outcomes and shared indicia
US7037191B2	2002-05-01	2006-05-02	Igt	Gaming device having multiple pay slots
JP2003325726A *	2002-05-09	2003-11-18	Ohira Giken Kogyo Kk	Roulette game machine
JP3867624B2 *	2002-06-06	2007-01-10	セイコーエプソン株式会社	Nonvolatile semiconductor memory device and a driving method thereof
US7485043B2	2002-06-19	2009-02-03	Igt	Elimination games for gaming machines
US20030236115A1 *	2002-06-24	2003-12-25	John Chamberlain	Gaming apparatus with a consecutive wins multiplier
US7198570B2 *	2002-06-27	2007-04-03	Igt	Gaming device having a bonus award wheel with a terminator
AU2002950063A0 *	2002-07-09	2002-09-12	Aristocrat Technologies Australia Pty Ltd	Gaming machine with feature trigger
US7300348B2 *	2002-07-31	2007-11-27	Igt	Gaming device having a masked award game
AU2002950716A0 *	2002-08-12	2002-09-12	Aristocrat Technologies Australia Pty Ltd	A gaming machine with bonus feature
US8157633B2	2002-08-30	2012-04-17	Igt	Gaming device having a multi-trigger bonus
US7235011B2 *	2002-09-06	2007-06-26	Igt	Gaming device having a bonus game with multiple player selectable award opportunities
US7074127B2 *	2002-09-11	2006-07-11	Igt	Gaming device having a probability-enhancing trigger symbol
US7094148B2	2002-09-11	2006-08-22	Igt	Gaming device having a free spin game
US7090580B2	2002-09-11	2006-08-15	Igt	Gaming device including a game having a wild symbol related award
US7666083B2	2002-09-11	2010-02-23	Igt	Gaming device having a free spin game including an accumulated modifier
US20040048645A1 *	2002-09-11	2004-03-11	Webb Bayard S.	Gaming device having mechanical wheel and reel displays
US7682246B2	2002-09-11	2010-03-23	Igt	Gaming device and method having free activation mode and free activation mode with free activation retrigger
US7056213B2	2002-09-11	2006-06-06	Igt	Gaming device having a probability enhancing trigger symbol
US7338366B2 *	2002-09-12	2008-03-04	Igt	Gaming device having a mechanical secondary display

US7247093B2	2002-09-12	2007-07-24	Igt	Gaming device having a mechanical secondary display
US7121942B2	2002-09-12	2006-10-17	Igt	Gaming device including a game having a player selected function based on symbols in a free spins game
US6960134B2	2002-09-12	2005-11-01	Igt	Alternative bonus games associated with slot machine
US7789756B2	2002-09-13	2010-09-07	Igt	Wagering gaming device having simulated control of movement of game functional elements
US7374491B1	2002-09-13	2008-05-20	Bally Gaming, Inc.	Gaming machine with space efficient configuration and multiple pin deck latch and intuitive ticket redemption system
WO2004026417A2	2002-09-18	2004-04-01	Wagerworks, Inc.	Interactive streak game
US7402102B2 *	2002-09-20	2008-07-22	Igt	Gaming device having multiple symbols at a single symbol position
AU2002952319A0 *	2002-10-29	2002-11-14	Aristocrat Technologies Australia Pty Ltd	Gaming machine with mine feature
US7435175B2 *	2002-12-03	2008-10-14	Wms Gaming Inc.	Gaming machine with scrolling indicia feature
US6942568B2	2002-12-13	2005-09-13	Igt	Gaming device having skill and dexterity element
CA2513090A1	2002-12-20	2004-07-08	Igt-Uk Limited	Entertainment machines
US7419431B2 *	2003-01-09	2008-09-02	Atronic International Gmbh	Game for a gaming device having displayed symbols creating a maze
US8021223B2 *	2003-01-13	2011-09-20	Wms Gaming Inc.	Gaming machine having a pendulum-based payout indicator
AU2003900134A0 *	2003-01-14	2003-01-30	Aristocrat Technologies Australia Pty Ltd	A gaming machine with enhanced feature indicator
JP2004242879A *	2003-02-13	2004-09-02	Aruze Corp	Game machine
WO2004079671A2 *	2003-03-04	2004-09-16	Walker, Digital, Llc	Multiplayer gaming device and methods
US7179296B2 *	2003-04-02	2007-02-20	Howmedica Osteonics Corp.	Partially constrained ball and socket
US7294054B2 *	2003-04-10	2007-11-13	David Schugar	Wagering method, device, and computer readable storage medium, for wagering on pieces in a progression
US7530892B2 *	2003-04-25	2009-05-12	Igt	Valued end bonus event for gaming machine
CA2523644A1 *	2003-04-30	2004-11-18	Cyberscan Technology, Inc.	Electronic game
US7614951B2 *	2003-05-20	2009-11-10	Wms Gaming Inc.	Gaming machine having a plurality of movable elements for indicating a game outcome
US7402101B2 *	2003-05-29	2008-07-22	Wms Gaming Inc.	Slot machine with activatable pay arrangements
GB0312291D0 *	2003-05-29	2003-07-02	Waterleaf Ltd	Gaming apparatus
US7306520B2 *	2003-06-09	2007-12-11	Igt	Gaming device including movable symbol indicator plates
US7338371B2 *	2003-07-03	2008-03-04	Igt	High low series gambling game
US20060089193A1 *	2003-07-11	2006-04-27	The Edugaming Corporation	DVD game architecture
US7297058B2 *	2003-07-15	2007-11-20	Wms Gaming Inc.	Gaming machine with integrated display
GB0316798D0 *	2003-07-17	2003-08-20	Nt Media Ltd	Gaming system
US7361087B2 *	2003-07-18	2008-04-22	Igt	Gaming device having high-low game
US7314408B2	2003-07-23	2008-01-01	Igt	Methods and apparatus for a competitive bonus game with variable odds
US7217189B2 *	2003-07-29	2007-05-15	Igt	Gaming device having a rotatable mechanical award indicator partially covered by a mask
US7708628B2 *	2003-07-30	2010-05-04	Igt	Gaming device having a multiple coordinate award distributor
US7354342B2 *	2003-07-30	2008-04-08	Igt	Gaming device having a multiple coordinate award distributor including award percentages
US7393277B2	2003-08-25	2008-07-01	Igt	Horseshoe payline system and games using that system

US7361086B2 *	2003-08-27	2008-04-22	Wms Gaming, Inc.	Gaming machine with simulated AI feature
US7455588B2	2003-08-28	2008-11-25	Igt	Gaming device having competing positive and negative outcome events
US7588494B2 *	2003-09-05	2009-09-15	Igt	Gaming device having a high-low game
US7278919B2 *	2003-09-08	2007-10-09	Igt	Gaming device having multiple interrelated secondary games
US7591722B2 *	2003-09-08	2009-09-22	Igt	Gaming device having board and converting chip game
US7867077B2 *	2003-09-10	2011-01-11	Igt	Gaming device having bonus game dependent upon variable wager component selection
US7922573B2	2003-09-12	2011-04-12	Igt	Gaming device having concentric reels including an outer reel with display areas having different sizes and positions
US7473173B2	2003-09-12	2009-01-06	Igt	Gaming device having concentric reels including an outer reel with display areas having different sizes and positions
US7918725B2	2003-09-10	2011-04-05	Igt	Gaming device having symbol revealing mechanism
US7771266B2 *	2003-09-11	2010-08-10	Igt	Gaming device having a multiple accumulated symbols game
US7585218B2	2003-09-12	2009-09-08	Igt	Gaming device having multiple selection groups with randomly aligning advances
US7316609B2	2003-09-15	2008-01-08	Shuffle Master, Inc.	Reveal-hide-pick-reveal video wagering game feature
AU2004305823B2	2003-09-15	2011-03-17	Igt	Player specific network
US20050059486A1 *	2003-09-15	2005-03-17	Kaminkow Joseph E.	Gaming device having an award plate and an indicator plate for displaying selected awards
US20050079908A1 *	2003-10-10	2005-04-14	Pacey Larry J.	Gaming machine having an award-trading scheme
US8585479B2	2003-10-20	2013-11-19	Tipping Point Group, LLC	System to decode video signal from electronic gaming device and to determine play information
US7163458B2 *	2003-10-21	2007-01-16	David Schugar	Casino game for betting on bidirectional linear progression
US20050096113A1 *	2003-10-30	2005-05-05	Varujan Gabuchian	Gaming device and game
US7607980B2	2003-11-10	2009-10-27	Igt	Gaming device having free potential winning combinations
US8002620B2	2003-11-18	2011-08-23	Igt	Gaming device providing an award based on a count of outcomes which meets a condition
US7682239B2 *	2003-12-12	2010-03-23	Olympian Gaming LLC	Video games adapted for wagering
US7749071B2	2004-01-02	2010-07-06	Igt	Gaming device including player selectable wild symbols
US7341511B2 *	2004-01-21	2008-03-11	Wms Gaming, Inc.	Gaming terminal having an element moveable along a nonlinear path for indicating a game outcome
US7628690B2 *	2004-02-13	2009-12-08	Wms Gaming Inc.	Gaming machine with selection feature
JP2005230125A *	2004-02-17	2005-09-02	Aruze Corp	Game device and game program
US7513828B2 *	2004-02-17	2009-04-07	Igt	Gaming device having secondary game played in parallel with primary game
US20050181879A1 *	2004-02-18	2005-08-18	Rothschild Wayne H.	Gaming terminal having secondary display
US7674172B2	2004-02-23	2010-03-09	Igt	Gaming device having a wheel-based game
WO2005081958A2	2004-02-23	2005-09-09	Wagerworks, Inc.	Bonus structures for multi-outcome/multi-bet gambling games
US20050187005A1 *	2004-02-25	2005-08-25	Wms Gaming Inc.	Gaming machine with award reveal feature
JP2005237844A *	2004-02-27	2005-09-08	Aruze Corp	Game machine
JP2005312545A *	2004-04-27	2005-11-10	Aruze Corp	Game machine
JP2005312546A *	2004-04-27	2005-11-10	Aruze Corp	Game machine
ITFI20040127A1 *	2004-06-09	2004-09-09	Franco Fini	System and method for the production of combustible substances by depolymerisation of rubber products
WO2006002241A2	2004-06-22	2006-01-05	Wms Gaming Inc.	Wagering game with win-deferral feature for payoffs
US20050288096A1 *	2004-06-23	2005-12-29	Walker Digital, LLC	Methods and apparatus for facilitating a payout at a gaming device using audio / video content

US8303391B2 *	2004-06-25	2012-11-06	Wms Gaming Inc.	Wagering game with bonus feature that performs secondary analysis to determine award
US7572185B2 *	2004-10-01	2009-08-11	Atlantic City Coin & Slot Service Company, Inc.	Gaming device with animated figure and movable object display
US9070246B2 *	2004-06-30	2015-06-30	Wms Gaming, Inc.	Wagering game with character learning
US8425323B2 *	2004-06-30	2013-04-23	Wms Gaming Inc.	Wagering game with asset trading
US20070259713A1 *	2004-06-30	2007-11-08	Wms Gaming, Inc.	Wagering Game with Character Building
AU2005272024A1 *	2004-07-07	2006-02-16	Wms Gaming Inc.	Wagering game with changed game indicia over multiple gaming sessions
US7713118B2 *	2004-07-26	2010-05-11	Mickey Roemer	Timed gaming event
US7347775B2 *	2004-07-26	2008-03-25	Mickey Roemer	Gaming machines with communication links configured to present bonus games
US7371171B1	2004-08-04	2008-05-13	Wms Gaming Inc.	Wagering game with secondary symbol
US8113940B2 *	2004-08-05	2012-02-14	Wms Gaming Inc.	Gaming machine with element selection feature
US7963847B2 *	2004-08-19	2011-06-21	Igt	Gaming system having multiple gaming machines which provide bonus awards
US8021230B2 *	2004-08-19	2011-09-20	Igt	Gaming system having multiple gaming machines which provide bonus awards
US7326115B2	2004-08-20	2008-02-05	Igt	Gaming device and method having a first interactive game which determines a function of a second wagering game
US7575514B2 *	2004-08-20	2009-08-18	Igt	Gaming device having a matrix and symbol generator
WO2006026250A2 *	2004-08-25	2006-03-09	Wms Gaming Inc.	Wagering game with board-game feature for payoffs
US7311604B2 *	2004-09-01	2007-12-25	Igt	Gaming system having multiple gaming devices that share a multi-outcome display
US7950994B2	2004-09-10	2011-05-31	Igt	Replacement reel gaming device and method
US20060058100A1 *	2004-09-14	2006-03-16	Pacey Larry J	Wagering game with 3D rendering of a mechanical device
US20060068900A1 *	2004-09-16	2006-03-30	Englman Allon G	Gaming machine having rotatable bodies
US7442123B2	2004-09-22	2008-10-28	Igt	Gaming device having mechanical indicator with values and modifiers and selection of values and modifiers
US20060079316A1 *	2004-09-24	2006-04-13	Wms Gaming Inc.	Wagering game with an array of player-selectable elements that are preserved for subsequent gaming sessions
US8162740B2 *	2004-09-24	2012-04-24	Wms Gaming Inc.	Wagering game with associated outcomes
US20060079317A1 *	2004-09-24	2006-04-13	Wms Gaming Inc.	Wagering game with bonus-game assets that can be preserved for subsequent gaming sessions
US8408998B2 *	2004-09-28	2013-04-02	Wms Gaming Inc.	Transmissive LCD display system for gaming machine
US8764537B2 *	2004-09-29	2014-07-01	Wms Gaming Inc.	Wagering game with symbols collection
US7740536B2	2004-09-29	2010-06-22	Igt	Gaming device having player selection of scatter pay symbol positions
US7749063B2	2004-09-29	2010-07-06	Igt	Gaming device having free spin mode with symbol elimination
US766089B2	2004-09-30	2010-02-23	Igt	Gaming device having accumulation game with changing selections
AU2005292264B2 *	2004-10-01	2009-06-11	Wms Gaming Inc.	System and method for 3D image manipulation in gaming machines
US20060073874A1 *	2004-10-01	2006-04-06	Cregan Karen M	Gaming device having random generation of values and mathematical operations performed on the values
US7322887B2	2004-10-01	2008-01-29	Igt	Gaming device having sequential activations of a game and replay of previous activations of the game
US7513826B2	2004-10-01	2009-04-07	Igt	Gaming device with changing wild symbols
US8651939B2 *	2004-10-01	2014-02-18	Igt	Gaming system having a plurality of adjacently arranged gaming machines and a mechanical moveable indicator operable to individually indicate the gaming machines

US20080108413A1 *	2004-10-01	2008-05-08	Phil Gelber	System and Method for 3D Reel Effects
AU2005292062B2 *	2004-10-01	2010-04-01	Wms Gaming Inc.	System and method for interactive 3D gaming
WO2006039371A2 *	2004-10-01	2006-04-13	Wms Gaming Inc.	Displaying 3d characters in gaming machines
US7731580B2	2004-10-04	2010-06-08	Igt	Gaming device with multiple orbit award indicator
US8628405B2	2004-10-15	2014-01-14	Wms Gaming Inc.	Gaming system having exchangeable bonus token accumulation-redemption feature
US7674174B2	2004-10-18	2010-03-09	Igt	Gaming device having one or more payline awards calculated as a function of the total wager
US8043155B2 *	2004-10-18	2011-10-25	Igt	Gaming device having a plurality of wildcard symbol patterns
US20060084495A1 *	2004-10-19	2006-04-20	Wms Gaming Inc.	Wagering game with feature for recording records and statistics
US9478102B2 *	2004-10-20	2016-10-25	Bally Gaming, Inc.	Wagering game with alterable-math feature
US8033906B2 *	2004-10-21	2011-10-11	Wms Gaming Inc.	Wagering game with invitation for playing a wagering game at a subsequent gaming session
US8616969B2 *	2004-11-02	2013-12-31	Wms Gaming Inc.	Gaming machine with LED display that is an integral part of game play
US8821240B2 *	2004-11-16	2014-09-02	Wms Gaming Inc.	Wagering game with collection of objects to influence game outcome
US20060111164A1 *	2004-11-23	2006-05-25	Hornik Jeremy M	Wagering game with bonus game
US7713119B2 *	2004-12-01	2010-05-11	Wms Gaming Inc.	Wagering game having rule set modification
US7862421B2	2004-12-06	2011-01-04	Igt	Gaming device and method having increasing payline wager amounts
WO2006066091A2	2004-12-17	2006-06-22	Igt	Gaming system for playing blackjack and poker
US8556708B2 *	2005-01-14	2013-10-15	Wms Gaming Inc.	Wagering game with player-determined symbol function
US20060166728A1 *	2005-01-24	2006-07-27	Wms Gaming Inc.	Gaming machine with button panel features
US20060178205A1 *	2005-02-07	2006-08-10	Wms Gaming, Inc.	Gaming machine with button panel features
JPWO2006087987A1 *	2005-02-17	2008-07-03	株式会社セガ	Game device
US7713122B2 *	2005-02-23	2010-05-11	Wms Gaming Inc.	Wagering game with bonus game elements dictated by basic game
US20060211466A1 *	2005-03-16	2006-09-21	Wms Gaming Inc.	Wagering game with temporally independent outcomes
US7753770B2 *	2005-03-29	2010-07-13	Igt	Methods and apparatus for determining hybrid wagering game sessions
WO2006116771A2 *	2005-04-28	2006-11-02	Wms Gaming Inc.	Push-button with integrated or adjacent moveable outcome indicator
US20060258426A1 *	2005-05-13	2006-11-16	Atlantic City Coin & Slot Service Company, Inc.	Gaming device and method of use
US20060277805A1 *	2005-06-13	2006-12-14	Wms Gaming, Inc.	Gaming machine with common alterable signage display
US8128480B2	2005-07-29	2012-03-06	Igt	Gaming device having dynamic paylines
US20070032289A1 *	2005-08-03	2007-02-08	Sims Samuel W	Bingo-opoly
US20070060243A1 *	2005-08-10	2007-03-15	Gomez Benjamin T	Wagering game having bonus payout based on similarity of objects
US7874904B2	2005-08-17	2011-01-25	Igt	Gaming device having a composite game with potential award-generating game or event and guaranteed award-generating game or event
US7753773B2	2005-08-26	2010-07-13	Igt	Gaming device having physical concentric symbol generators which are operable to provide a plurality of different games to a player
US20070045958A1	2005-08-30	2007-03-01	Rader Richard M	System and method for providing poker player tracking and bonus events
US9640017B2 *	2005-08-31	2017-05-02	Igt	Gaming system and method employing rankings of outcomes from multiple gaming machines to determine awards

US9552686B2	2005-09-02	2017-01-24	Igt	Video and mechanical spinning bonus wheel
US7862422B2 *	2005-09-07	2011-01-04	Igt	Gaming device having a display device having multiple rotatable members
US8083578B2	2005-09-07	2011-12-27	Igt	Multiplay poker wagering game with payout differentiating display of probabilities
US8628407B2 *	2005-09-09	2014-01-14	Wms Gaming Inc.	Community gaming system outcome indicators
WO2007062405A2	2005-11-22	2007-05-31	Cyberscan Technology, Inc.	Regulated gaming-staging multi-act games
US7967670B2 *	2005-11-30	2011-06-28	Felix Andrew Burbidge	Special video-game system for learning, entertainment and advertising
US8814669B2	2005-12-08	2014-08-26	Igt	Systems and methods for post-play gaming benefits
US7708630B2	2005-12-09	2010-05-04	Igt	Rotor-based gaming device having a system for changing the quantity of potential game outcomes for subsequent plays
CA2628974A1	2005-12-09	2007-06-28	Igt	Rotor-based gaming device having a secondary award system
JP2007167225A *	2005-12-20	2007-07-05	Aruze Corp	Game machine
AU2007222028B2 *	2006-03-07	2012-07-05	Bally Gaming, Inc.	Wagering game with persistent state of game assets affecting other players
AU2007202146B2 *	2006-05-15	2009-08-27	Aristocrat Technologies Australia Pty Ltd	Multiple pay combination gaming apparatus
AU2007202125B2 *	2006-05-16	2009-11-12	Aristocrat Technologies Australia Pty Ltd	Gaming apparatus and method with a dependent game feature
WO2007146264A2 *	2006-06-12	2007-12-21	Wms Gaming Inc.	Wagering machines having three dimensional game segments
WO2007146347A2	2006-06-14	2007-12-21	Wms Gaming Inc.	Wagering game with multiple viewpoint display feature
US20070293292A1 *	2006-06-16	2007-12-20	Igt	Display of game win information on a secondary display
US20080026821A1 *	2006-07-26	2008-01-31	Aruze Gaming America, Inc.	Slot machine and playing method thereof
WO2008016565A2 *	2006-07-31	2008-02-07	Wms Gaming Inc.	Cash-out methods and systems yielding enhanced time-deferred value
US20080032767A1 *	2006-08-02	2008-02-07	Aruze Gaming America, Inc.	Slot machine and playing method thereof
US8182333B2	2006-08-11	2012-05-22	WMS Gaming LLP	Wagering game with auto-triggered player device
US7758416B2	2006-09-08	2010-07-20	Igt	Gaming system having a plurality of simultaneously played wagering games that may trigger a plurality of free games which may be played simultaneously with the wagering games
US8371919B2	2006-10-18	2013-02-12	Wms Gaming Inc.	Wagering game with community game having a persistent-state feature
US9630104B2 *	2006-10-23	2017-04-25	Konrad V. Sherinian	Systems, methods, and apparatus for transmitting virtual world content from a server system to a client
WO2008057323A2	2006-11-02	2008-05-15	Wms Gaming Inc.	Wagering game with episodic feature determined by player
US8241104B2	2006-11-06	2012-08-14	Igt	Gaming device and method having designated rules for determining ways to win
US8137179B2	2006-11-08	2012-03-20	Igt	Gaming device having expanding and rolling wild symbols
US8449375B2 *	2006-11-08	2013-05-28	Igt	Gaming machine and method providing a multi-play high-low game
US7931531B2	2006-11-08	2011-04-26	Igt	Gaming system and method providing an interactive game with automatic wagers
US7950993B2	2006-11-08	2011-05-31	Igt	Gaming system and method providing an interactive game with automatic wagers
US8328636B2	2006-11-09	2012-12-11	Wms Gaming Inc.	Wagering game with triggering feature for special event
US8430739B2	2006-11-10	2013-04-30	Igt	Gaming system and method having wager dependent different symbol evaluations
US8033903B2	2006-11-10	2011-10-11	Igt	Gaming system and method having progressive free games
US8267773B2 *	2006-11-10	2012-09-18	Wms Gaming Inc.	Wagering system with improved expected value during a special event

JP2008167863A *	2007-01-10	2008-07-24	Aruze Corp	Gaming machine determining symbols to be relocated in each game
US8814647B2	2007-03-19	2014-08-26	Igt	Gaming device and method of operating a gaming device including player controlled targeting
US8353751B2	2007-04-10	2013-01-15	Igt	Gaming device and method for providing multiple-hand poker game
US8147322B2	2007-06-12	2012-04-03	Walker Digital, Llc	Multiplayer gaming device and methods
AU2008271189C1 *	2007-06-28	2011-11-17	Bally Gaming, Inc.	Wagering game with multiple episode-based bonus games
JP2009017975A *	2007-07-10	2009-01-29	Aruze Corp	Game machine
JP2009017976A *	2007-07-10	2009-01-29	Aruze Corp	Game machine
JP2009017979A *	2007-07-10	2009-01-29	Aruze Corp	Game machine
US7985133B2	2007-07-30	2011-07-26	Igt	Gaming system and method for providing an additional gaming currency
WO2009029271A1 *	2007-08-31	2009-03-05	Wms Gaming Inc.	Gaming system having outcomes interactive with playing fields
US8231456B2	2007-10-17	2012-07-31	Igt	Gaming device and method providing side bet for winning free activations
US8137174B2	2007-10-17	2012-03-20	Igt	Gaming system, gaming device, and method providing multiple hand card game
US8070587B2 *	2007-10-26	2011-12-06	Igt	Gaming system and method providing a multiplayer bonus game having a plurality of award opportunities
US8257164B2	2007-10-30	2012-09-04	Igt	Gaming system, gaming device and method for providing an outcome enhancing feature
US8651947B2	2007-11-09	2014-02-18	Igt	Gaming system and method providing a multiple-player bonus redemption game
US8444473B2	2007-11-09	2013-05-21	Igt	Gaming system, gaming device, and gaming method for shifting symbols from a staging area to a symbol matrix
US8231448B2 *	2007-11-09	2012-07-31	Igt	Gaming system and method for providing purchasable bonus opportunities
US8545321B2	2007-11-09	2013-10-01	Igt	Gaming system having user interface with uploading and downloading capability
US8277305B2	2007-11-09	2012-10-02	Igt	Gaming device and method for providing a free spin game with payline multipliers
US8128483B2	2007-11-09	2012-03-06	Wms Gaming Inc.	Gaming machine with synchronized bezel lights
JP2009136659A *	2007-12-04	2009-06-25	Aruze Corp	Slot machine and control method thereof
AU2009200933A1 *	2008-03-11	2009-10-01	Aristocrat Technologies Australia Pty Limited	A method of gaming, a game controller and a gaming system
US8702495B2 *	2008-06-24	2014-04-22	Wms Gaming Inc.	Wagering game with bonus game having enhanced player-selection features
US8105151B2	2008-07-02	2012-01-31	Igt	Gaming system, gaming device and method for providing cascading symbols with wild features
US8118666B2	2008-07-15	2012-02-21	Igt	Gaming system, gaming devices, and method for providing an enhanced multiple-player bonus redemption game
US8790169B2	2008-07-23	2014-07-29	Igt	Gaming system, gaming device, and method for providing a cascading symbols game with wild symbols usable for a designated quantity of symbol generations
US8496519B2	2008-07-30	2013-07-30	Igt	Gaming system and method for providing a bonus event triggered by a continuous communal game
US8079903B2	2008-08-22	2011-12-20	Igt	Gaming system, gaming device and method of providing selection game with interdependent award distribution
US20100062831A1 *	2008-09-08	2010-03-11	Melvin Palmer	Game of chance and fortune
US8113942B2	2008-11-11	2012-02-14	Igt	Gaming system and method having a bonus sequence with available symbols determined in a base game
US8210935B2 *	2008-11-12	2012-07-03	Igt	Gaming system, gaming device and method of providing collectors and tokens associated with collectors
US8172665B2	2008-11-12	2012-05-08	Igt	Gaming system enabling a symbol driven win evaluation method
US8662986B2	2008-11-13	2014-03-04	Igt	Gaming system, gaming device, and method for providing a cascading symbols game having magnetic symbols and target symbols
US8287364B2	2008-11-13	2012-10-16	Igt	Gaming system, gaming device, and method for providing a game in which a player collects emblems by positioning accumulators in a field

US8408990B2	2008-11-14	2013-04-02	Igt	Gaming system, gaming device, and method for providing benefit in a future play of a wagering game
US8574059B2	2008-11-14	2013-11-05	Igt	Gaming system and method for providing a cascading symbol game including a plurality of independent reels which provide a stacked symbol functionality
US8506380B2	2008-11-14	2013-08-13	Igt	Gaming system, gaming device, and method for enabling a player to select volatility using game symbols
US20100130277A1 *	2008-11-25	2010-05-27	Microsoft Corporation	Game of chance
US8702496B2 *	2009-03-16	2014-04-22	Igt	Gaming device and method providing slot game having virtual map driven reel stop position determinations
US8911288B2	2009-03-16	2014-12-16	Igt	Gaming device and method providing slot game having virtual map driven reel stop position determinations
US20100240437A1 *	2009-03-20	2010-09-23	Incredible Technologies	Gaming machine with universe of preselected outcomes with method for determining preselected outcomes
US8292720B2	2009-05-29	2012-10-23	Igt	Gaming system, gaming device and method providing competitive wagering games
US20100317422A1 *	2009-06-12	2010-12-16	Konami Gaming, Inc.	Gaming machine
US8419546B2	2009-08-31	2013-04-16	Igt	Gaming system and method for selectively providing an elimination tournament that funds an award through expected values of unplayed tournament games of eliminated players
US20110098100A1 *	2009-10-22	2011-04-28	Aristocrat Technologies Australia Pty Limited	Slot machine with mechanical reels and video display
US9165433B2	2009-11-10	2015-10-20	Igt	Gaming system, gaming device, and method for providing a cascading symbol game including shifting symbols according to directional indicators
US9495826B2	2009-11-11	2016-11-15	Igt	Gaming system, gaming device, and method for providing a game in which players position selectors within a field of selections based on values masked by the selections
JP2011104025A *	2009-11-13	2011-06-02	Aruze Gaming America Inc	Gaming machine and method of controlling the gaming machine
US20110151968A1 *	2009-12-23	2011-06-23	Matthew Chan	Method of gaming, a game controller and a gaming system
US8303420B2	2010-02-25	2012-11-06	Wms Gaming Inc.	Wagering game machines with universal mounting base for light and marquee assemblies
US8398475B2	2010-04-27	2013-03-19	Igt	Gaming system, gaming device and method providing a first game and a plurality second wagering games each associated with a separate activatable component of the first game
US8323091B2	2010-08-09	2012-12-04	Igt	Gaming system, gaming device, and method for providing a cascading symbol game including shifting different determined symbols
US8888580B2	2010-10-28	2014-11-18	Igt	Gaming system, gaming device and method including a community trail game
JP2012095867A *	2010-11-02	2012-05-24	Aruze Gaming America Inc	Gaming machine
US20120115581A1	2010-11-05	2012-05-10	Wms Gaming Inc.	Wagering games, methods and systems including skill-based components
JP2012100781A *	2010-11-08	2012-05-31	Aruze Gaming America Inc	Gaming machine
JP2012100891A *	2010-11-10	2012-05-31	Aruze Gaming America Inc	Gaming machine
US9070254B2	2010-11-12	2015-06-30	Wms Gaming Inc.	Wagering game with incremental unlocking of content
US20120150759A1 *	2010-12-09	2012-06-14	Yahoo! Inc.	Non-gaming on-line achievement awards
JP2012205712A *	2011-03-29	2012-10-25	Universal Entertainment Corp	Gaming machine running competing game between game terminals
US8876592B2 *	2011-04-07	2014-11-04	Wms Gaming Inc.	Enhancements offering perceived value for community wagering game
US8562419B2	2011-06-30	2013-10-22	Igt	Gaming system, device, and method providing a multiple streak game
US8414380B2	2011-07-21	2013-04-09	Igt	Gaming system, gaming device and method for providing a multiple dimension cascading symbols game with three dimensional symbols
US8357041B1	2011-07-21	2013-01-22	Igt	Gaming system and method for providing a multi-dimensional cascading symbols game with player selection of symbols

US8485901B2	2011-07-21	2013-07-16	Igt	Gaming system and method for providing a multi-dimensional symbol wagering game with rotating symbols
US8366538B1	2011-07-21	2013-02-05	Igt	Gaming system, gaming device and method for providing a multiple dimension cascading symbols game
US8371930B1	2011-07-21	2013-02-12	Igt	Gaming system, gaming device and method for providing a multiple dimension cascading symbols game with a time element
US8430737B2	2011-07-21	2013-04-30	Igt	Gaming system and method providing multi-dimensional symbol wagering game
US8974288B2	2011-08-10	2015-03-10	Igt	Gaming device having a designated activator symbol therein and methods thereof
US9005006B2	2011-08-10	2015-04-14	Igt	Gaming device having wild symbol generation within a play matrix
US8986101B2	2011-08-10	2015-03-24	Igt	Gaming device having positional symbol awards
US8979633B2	2011-08-10	2015-03-17	Igt	Gaming device having positional symbol awards
US8641505B2	2011-08-22	2014-02-04	Igt	Gaming system, gaming device, and method for providing a directional symbol evaluation game
US8764548B2	2011-08-22	2014-07-01	Igt	Gaming system, gaming device, and method for providing a directional symbol evaluation game
US9449464B2	2011-08-26	2016-09-20	Igt	Gaming system, gaming device, and method providing a game having an obstacle board with falling symbols
US9005004B2	2011-09-02	2015-04-14	Igt	Gaming system, gaming device, and method providing selectable different roulette wheels for play of roulette game
US8986106B2	2011-09-02	2015-03-24	Igt	Gaming system, gaming device, and method providing selectable different roulette wheels for play of roulette game
AU2011221364B1 *	2011-09-07	2012-01-19	Konami Gaming, Incorporated	Game machine, control method for use in the game machine, and computer program
US8366532B1	2011-09-21	2013-02-05	Igt	Gaming system, gaming device, and method providing an obstacle board slot game
US8366533B1	2011-09-21	2013-02-05	Igt	Gaming system, gaming device, and method providing an obstacle board slot game
US8992331B2	2011-09-27	2015-03-31	Wms Gaming Inc.	Varying thickness armrest with integrated multi-level button panel
US8905831B2	2011-09-28	2014-12-09	Igt	Gaming system, gaming device, and method for providing a multiple player persistent game
US8475265B2	2011-09-28	2013-07-02	Igt	Gaming system, gaming device, and method for providing a multiple player persistent game
US8662980B2	2011-09-28	2014-03-04	Igt	Gaming system, gaming device, and method for providing a multiple player persistent game
US20130090158A1	2011-09-30	2013-04-11	Wms Gaming Inc.	System and Method for Assessing and Providing Location-Based Benefits
US9076283B2	2011-09-30	2015-07-07	Wms Gaming Inc.	Systems, methods, and devices for playing wagering games with symbol-driven expected value enhancements and eliminations
US8608545B2	2011-12-06	2013-12-17	Igt	Gaming system, gaming device, and method providing a game including a cascading symbols feature causing one or more repositioned symbols to be wild symbols
US8414385B1	2011-12-13	2013-04-09	Igt	Gaming system, gaming device, and method for providing a selection game with offer and acceptance features
US8512138B2	2012-01-19	2013-08-20	Igt	Gaming system, gaming device, and method for providing a cascading symbols game which reuses discarded symbols
US9005022B2	2012-01-19	2015-04-14	Igt	Gaming system, gaming device, and method for providing a cascading symbols game which builds layers of multiple dimension symbols
US8882578B2	2012-01-19	2014-11-11	Igt	Gaming system, gaming device, and method for providing a cascading symbols game which reuses discarded symbols
US8684818B2	2012-02-14	2014-04-01	Igt	Gaming system, gaming device, and method for providing a replay of previously played games
US8858315B2 *	2012-02-23	2014-10-14	Universal Entertainment Corporation	Gaming machine, gaming system, and gaming method
US9208636B2 *	2012-02-23	2015-12-08	Universal Entertainment Corporation	Gaming machine, gaming system, and gaming method
US9135783B2 *	2012-02-23	2015-09-15	Universal Entertainment Corporation	Gaming machine, gaming system, and gaming method

US20130225264A1 *	2012-02-23	2013-08-29	Aruze Gaming America, Inc.	Gaming machine, gaming system, and gaming method
US9293014B2	2012-03-12	2016-03-22	Igt	Gaming device having persistently extending wild symbols
US8795063B2	2012-03-27	2014-08-05	Igt	Gaming system, gaming device, and method for providing a multiple player game
US8454434B1	2012-06-15	2013-06-04	Igt	Gaming system and method for providing an offer and acceptance game with progressive awards associated with a quantity of progressive tokens
US8708804B2	2012-06-22	2014-04-29	Igt	Gaming system and method providing a collection game including at least one customizable award collector
US9245407B2	2012-07-06	2016-01-26	Igt	Gaming system and method that determines awards based on quantities of symbols included in one or more strings of related symbols displayed along one or more paylines
US8740689B2	2012-07-06	2014-06-03	Igt	Gaming system and method configured to operate a game associated with a reflector symbol
US9805553B2	2012-07-16	2017-10-31	Igt	Gaming system and method providing additional award opportunity based on a plurality of accumulated designated symbols
US9224265B2	2012-08-02	2015-12-29	Igt	Gaming system and method for providing an offer and acceptance game
KR101397764B1	2012-08-21	2014-05-22	엔투플레이 주식회사	System and method for providing marble game
US8894481B2	2012-08-28	2014-11-25	Igt	Gaming system and method providing multiway evaluation for a game associated with multi-component symbols configured to affect a base count
US8979639B2	2012-08-28	2015-03-17	Igt	Gaming system and method providing multiway evaluation for a game associated with multi-component symbols configured to affect a base count and/or a value of one or more modifiers
US8905836B2	2012-08-28	2014-12-09	Igt	Gaming system and method providing multiway evaluation for a game associated with multi-component symbols configured to affect a value of one or more modifiers
US9214067B2	2012-09-06	2015-12-15	Igt	Gaming system and method for providing a streaming symbols game
US8795053B2	2012-09-24	2014-08-05	Igt	Gaming system and method providing one or more indications associated with a player-selected symbol combination for a play of a pachisuro-style slot game
US9533214B2	2012-09-25	2017-01-03	Igt	Gaming system and method for providing plays of multiple games
US8672762B1	2012-09-25	2014-03-18	Igt	Gaming system and method providing a selection game associated with selectable visually unblocked objects and unselectable visually blocked objects
US8784174B2	2012-09-25	2014-07-22	Igt	Gaming system and method for providing an offer and acceptance game
US9177447B2	2012-09-25	2015-11-03	Igt	Gaming system and method for providing a symbol matrix with a moveable symbol display window
US8840456B2	2012-09-25	2014-09-23	Igt	Gaming system and method for providing an offer and acceptance game
US8622809B1	2012-09-25	2014-01-07	Igt	Gaming system and method providing a multiplay game with resultant symbols
US9039512B2	2012-09-27	2015-05-26	Igt	Gaming system and method for providing a game which populates symbols along a path
US8992301B2	2012-09-27	2015-03-31	Igt	Gaming system and method for providing a game which populates symbols along a path
US9028318B2	2012-09-27	2015-05-12	Igt	Gaming system and method for providing a game which populates symbols along a path
US8662982B1	2012-09-28	2014-03-04	Igt	Method and apparatus for attractive bonusing
US20140106846A1 *	2012-10-15	2014-04-17	Avcom, Inc.	Slot Machine Style Game with Randomly Generated Wild Multiplier Symbol
US20140228089A1 *	2013-02-14	2014-08-14	Fleetwood Gaming, Inc.	System And Method For Conducting A Wagering Game And Associated Bonus Element
US8840457B1	2013-03-04	2014-09-23	Igt	Gaming system and method providing a slot game employing a randomly selected set of reels
US8905833B2	2013-03-06	2014-12-09	Igt	Gaming system and method for providing a matching symbols game
US9514611B2	2013-03-06	2016-12-06	Igt	Gaming system and method for providing a game with unlockable features
US8740687B1	2013-03-07	2014-06-03	Igt	Gaming system and method providing a keno game providing an additional award if a predicted quantity of symbols matches an actual quantity of symbols associated with one of a plurality of different characteristics
US8851979B2	2013-03-07	2014-10-07	Igt	Gaming system and method for providing a symbol elimination game
US8784191B1	2013-03-07	2014-07-22	Igt	Gaming system and method for providing a symbol elimination game
US9098847B2	2013-03-08	2015-08-04	Igt	Gaming system and method for providing a game including roaming wild symbols
US9098973B2	2013-03-08	2015-08-04	Igt	Gaming system and method for providing a game including roaming wild symbols

US8870642B2	2013-03-14	2014-10-28	Igt	Gaming system and method providing a multiplay slot game including a cascading symbols feature in which symbols are removed from corresponding symbol display areas of different sets of symbol display areas
US9022865B2	2013-03-15	2015-05-05	Gamesys, Ltd.	Methods and systems for a bonus round of a game which provides for player influence of volatility
US9978221B2	2013-03-22	2018-05-22	Igt	Gaming system and method for providing a multiple dimension symbol game with expanding wild symbols
US9011225B2	2013-05-22	2015-04-21	Igt	Gaming system and method providing a video poker game with community cards
AU2013206253A1	2013-06-11	2015-01-15	Aristocrat Technologies Australia Pty Limited	A gaming system and a method of gaming
US20160206953A1 *	2013-08-28	2016-07-21	Landviti Llc	Game and method of playing a game
US9501898B1	2013-09-12	2016-11-22	Igt	Gaming system and method providing a game having a sub-symbol award evaluation
US9275523B1	2013-09-12	2016-03-01	Igt	Gaming system and method for displaying a plurality of individual symbols at a single symbol display position
US9418518B2	2013-09-17	2016-08-16	Igt	Gaming system and method for providing a cascading symbol game with interacting symbols
US9460587B2	2013-09-17	2016-10-04	Igt	Gaming system and method for providing a cascading symbol game with shifting symbols in different directions between multiple symbol display position matrices
US9355528B2	2013-09-17	2016-05-31	Igt	Gaming system and method for providing a cascading symbol game with shifting symbols between multiple symbol display position matrices
US9390587B2	2013-09-17	2016-07-12	Igt	Gaming system and method for providing a cascading symbol game with multiple symbol display position symbols
US9449465B2	2013-09-17	2016-09-20	Igt	Gaming system and method for providing a cascading symbol game with upgrade events
US9472065B2	2013-09-17	2016-10-18	Igt	Gaming system and method for providing a cascading symbol game with interacting symbols
US9600974B2 *	2013-09-20	2017-03-21	Bally Gaming, Inc.	Methods of administering roulette bonus wagers and related apparatuses and systems
US10169957B2	2014-02-13	2019-01-01	Igt	Multiple player gaming station interaction systems and methods
US10068415B2	2014-04-08	2018-09-04	Igt	Gaming system and method providing a multiplayer secondary game having an outcome determined based on play of a primary game of at least one, but not all, of the multiplayer secondary game players
US10147281B2	2014-07-24	2018-12-04	Igt	Gaming system and method having matching symbol stacks and additional award opportunities
US9633527B2	2014-08-18	2017-04-25	King Show Games, Inc.	Allocation of variable award in gaming devices
AU2014227500A1 *	2014-09-18	2016-04-07	Konami Gaming, Incorporated	Gaming device and methods of allowing a player to play a game having persistent player positions
US10157520B2	2014-09-29	2018-12-18	Igt	Gaming system and method for providing a multiple level selection game
US10055930B2	2015-08-11	2018-08-21	Igt	Gaming system and method for placing and redeeming sports bets
US10186106B2	2016-09-21	2019-01-22	Igt	Gaming system and method for determining awards based on interacting symbols

* Cited by examiner, † Cited by third party, ‡ Family to family citation

Similar Documents



Publication	Publication Date	Title
US6416406B1	2002-07-09	Method for playing an auxiliary game with prize rewarding system
RU2359730C2	2009-06-27	Roulette game with set of wheels
US6605001B1	2003-08-12	Dice game in which categories are filled and scores awarded
US6939228B2	2005-09-06	Gaming machine having dynamic bonus feature
AU770161B2	2004-02-12	Gaming machine with interlinked arrangements of puzzle elements
US6506114B1	2003-01-14	Object drop feature for a gaming machine
US6364314B1	2002-04-02	Multi-player gaming platform allowing independent play on common visual display
AU2001100033B4	2001-11-29	Slot machine game with improved jackpot feature (Hyperlink trigger)

US8684808B2	2014-04-01	Wagering game with overlaying transmissive display for providing enhanced game features
US8419519B2	2013-04-16	Wagering game with symbols forming an altered array or secondary array
AU761779B2	2003-06-12	Method of playing a multi-stage video wagering game
US6726562B2	2004-04-27	Methods and apparatus for a casino game
AU2007231660B2	2008-05-01	Gaming console and system having dynamic feature game
US7137886B2	2006-11-21	Matching game for a gaming machine
US6988947B2	2006-01-24	Gaming device with bonus scheme having multiple symbol movement and associated awards
US8485888B2	2013-07-16	Gaming device having odds of winning which increase as a player's wager increases
AU2001210787B2	2005-06-30	Gaming device and method of playing a game
AU2007200982B2	2009-01-08	Methods and Apparatus for Three-Dimensional Gaming
US7604538B2	2009-10-20	Slot machine with a regenerating bonus array
US6358146B1	2002-03-19	Method of playing game and gaming device comprising a primary gaming unit and a pinball-type game
AU2001255294B2	2007-08-16	Parallel games on a gaming device
US7011581B2	2006-03-14	Gaming device having main game activating a bonus event
AU733599B2	2001-05-17	Method of playing game and gaming device with an additional payout indicator
US20050059472A1	2005-03-17	Gaming machine with multi-level progressive jackpot
US6659461B2	2003-12-09	Method of playing a table card game with an electronic multiplier bonus feature and apparatus for playing the game

Priority And Related Applications

Parent Applications (1) ▲

Application	Priority date	Filing date	Relation	Title
US09/274,793	1998-03-24	1999-03-23	Division	Gaming machines with board game theme

Child Applications (3) ▲

Application	Priority date	Filing date	Relation	Title
US10/093,122	1998-03-24	2002-03-07	Division	Gaming machines with board game theme
US10/092,817	1998-03-24	2002-03-07	Division	Gaming machines with board game theme
US10/092,861	1998-03-24	2002-03-07	Division	Gaming machines with board game theme

Priority Applications (3) ▲

Application	Priority date	Filing date	Title
US7914398P	1998-03-24	1998-03-24	<i>US Provisional Application</i>
US09/274,793	1998-03-24	1999-03-23	Gaming machines with board game theme
US09/940,813	1998-03-24	2001-08-27	Gaming machines with board game theme, apparatus and method

Applications Claiming Priority (7) ▲

Application	Filing date	Title
US09/940,813	2001-08-27	Gaming machines with board game theme, apparatus and method
US10/093,122	2002-03-07	Gaming machines with board game theme
US10/092,817	2002-03-07	Gaming machines with board game theme
US10/092,861	2002-03-07	Gaming machines with board game theme
US10/350,606	2003-01-24	Gaming machines with board game theme
US10/378,205	2003-03-03	Gaming machines with board game theme

Legal Events



Date	Code	Title	Description
2003-07-29	CC	Certificate of correction	
2006-06-23	FPAY	Fee payment	Year of fee payment: 4
2010-06-28	FPAY	Fee payment	Year of fee payment: 8
2013-05-30	AS	Assignment	Owner name: WMS GAMING INC., ILLINOIS Free format text: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:WILSON, ROBERT J., JR.;REEL/FRAME:030516/0847 Effective date: 20000727
2013-12-18	AS	Assignment	Owner name: BANK OF AMERICA, N.A., AS COLLATERAL AGENT, TEXAS Free format text: SECURITY AGREEMENT;ASSIGNORS:SCIENTIFIC GAMES INTERNATIONAL, INC.;WMS GAMING INC.;REEL/FRAME:031847/0110 Effective date: 20131018
2014-06-25	FPAY	Fee payment	Year of fee payment: 12
2014-12-04	AS	Assignment	Owner name: DEUTSCHE BANK TRUST COMPANY AMERICAS, AS COLLATERA Free format text: SECURITY AGREEMENT;ASSIGNORS:BALLY GAMING, INC.;SCIENTIFIC GAMES INTERNATIONAL, INC.;WMS GAMING INC.;REEL/FRAME:034530/0318 Effective date: 20141121
2015-07-29	AS	Assignment	Owner name: BALLY GAMING, INC., NEVADA Free format text: MERGER;ASSIGNOR:WMS GAMING INC.;REEL/FRAME:036225/0048 Effective date: 20150629
2017-12-15	AS	Assignment	Owner name: DEUTSCHE BANK TRUST COMPANY AMERICAS, AS COLLATERA Free format text: SECURITY AGREEMENT;ASSIGNORS:SCIENTIFIC GAMES INTERNATIONAL, INC.;BALLY GAMING, INC.;REEL/FRAME:044889/0662 Effective date: 20171214
2018-04-11	AS	Assignment	Owner name: DEUTSCHE BANK TRUST COMPANY AMERICAS, AS COLLATERA Free format text: SECURITY AGREEMENT;ASSIGNORS:SCIENTIFIC GAMES INTERNATIONAL, INC.;BALLY GAMING, INC.;REEL/FRAME:045909/0513 Effective date: 20180409
2018-11-05	AS	Assignment	Owner name: WMS GAMING INC., NEW YORK Free format text: RELEASE OF SECURITY INTEREST IN PATENTS (RELEASES REEL/FRAME 034530/0318);ASSIGNOR:DEUTSCHE BANK TRUST COMPANY AMERICAS;REEL/FRAME:047924/0701 Effective date: 20180302 Owner name: BALLY GAMING, INC., NEVADA Free format text: RELEASE OF SECURITY INTEREST IN PATENTS (RELEASES REEL/FRAME 034530/0318);ASSIGNOR:DEUTSCHE BANK TRUST COMPANY AMERICAS;REEL/FRAME:047924/0701 Effective date: 20180302 Owner name: SCIENTIFIC GAMES INTERNATIONAL, INC., NEW YORK Free format text: RELEASE OF SECURITY INTEREST IN PATENTS (RELEASES REEL/FRAME 034530/0318);ASSIGNOR:DEUTSCHE BANK TRUST COMPANY AMERICAS;REEL/FRAME:047924/0701 Effective date: 20180302

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