

DESCRIPTION

GAME MACHINE

Technical Field

[0001] The present invention relates to a game machine capable of performing plural games within a single case.

Background Art

[0002] Game machines such as slot machines and video poker are installed in recreation venues such as casinos. Also installed are video game machines provided with a display on which plural types of game can be performed, as described in Japanese Patent Application Laid-Open (JP-A) No. 2008-142548. The video game machine described in JP-A No. 2008-142548 allows a player to select a preferred game freely from out of plural games.

Pachinko machines and slot machines are frequently installed in Japanese recreation venues. A pachinko machine is played by launching gameplay balls, and in order to incorporate this into a video game machine such as that described above, it is necessary to graphically reproduce gameplay balls in a moving state, and pins that act as obstacles for the gameplay balls, for example. For example, JP-A No. 2008-237398 describes a pachinko game employing a simulation program in which a pachinko machine is graphically reproduced. A slot machine is played by stopping rotating reels, and in order to incorporate this into a video game machine such as that described above, it is necessary to graphically reproduce the movement of the reels. For example, JP-A No. 2008-245828 describes a slot game employing a simulation program in which a slot machine is graphically reproduced.

[0003] Simulation programs such as those described above enable a player to play a simulated pachinko machine or slot machine on a video game machine.

SUMMARY OF INVENTION

Technical Problem

[0004] In the case of a pachinko machine, the player plays by turning a handle disposed at the front right of a case. Namely, turning a handle is important to the experience of operating a pachinko machine. In the case of a slot machine, the player operates a lever disposed at the front left of a case to start rotation of plural reels, and operates stop switches below the reels and disposed in an equal number to the reels in order to stop the respective reels. Namely, the operation of the reels and stop switches is important to the experience of operating a slot machine.

[0005] However, video game machines have common operation switches due to accommodating plural types of game. Accordingly, a player is unable to experience an

authentic sense of operation when playing a pachinko game or a slot game on a video game machine such as that described in JP-A No. 2008-245828.

[0006] Moreover, in pachinko machines, gameplay balls are used as a gameplay medium, and in a slot machine, tokens are used as a gameplay medium. To perform a pachinko game or a slot game in a video game machine, it is necessary to convert betting money into a gameplay medium (for example gameplay points) for each game.

Embodiments of the present invention provide a game machine in which plural games with different gameplay points used in gameplay can be performed on a single machine, and in which the experience of operating a real game machine can be obtained.

Solution to Problem

[0007]

According to an aspect of the present invention, there is provided a game machine including a display device in which one game of a plural games can be performed, gameplay switches that are provided for each of the respective games in order to perform one game of the plural games, and that are provided separately to the display device, a selection switch that is capable of selecting one game of the plural games, a storage medium (for example, an IC card) that stores value information required to perform the games, a read/write device (for example, a card reader/writer) that is capable of reading the value information from the storage medium or writing the value information to the storage medium, and a control apparatus for performing the game displayed on the display device according to operation of the gameplay switches. The gameplay switches include a switch that can be employed in the plural games, and a switch that can only be employed in one of the games. In the control apparatus, the value to a player of gameplay points, which are gameplay points used in the respective games and acquired from the value information, being set for each of the games. The control apparatus including a game selection means that selects one of the games by operation of the selection switch by the player, and a point processing means that acquires the gameplay points from the value information read by the read/write device. The game machine performs the games using the gameplay points for the selected game, and employing the gameplay switch corresponding to the selected game.

[0008] In embodiments of the present invention, the "value information" is information required in order to perform the games, and includes monetary information, this being information relating to money, and the gameplay points used in gameplay. The monetary information includes monetary data indicating the value of the money itself, and monetary points, these being points converted from the money at a specific conversion rate. The gameplay points are points used when gameplay is started, and are also points that can be won as a result of gameplay.

Examples of the "storage medium" include media such as IC cards, magnetic cards, and contactless cards (such as RFID).

[0009] In embodiments of the present invention, the value of the gameplay points can be set for each respective type of game. For example, in a first game, one gameplay point can be set with a value of 5 yen, and in a second game, one gameplay point can be set with a value of 20 yen.

In an embodiment, the gameplay points that are for the sole use of one of the games, and are not capable of being used with the other games, are included in the value information separately for the respective games.

In an embodiment, the value information includes monetary information, and at a start of the selected game, the point processing means converts the monetary information included in the value information into the gameplay points for the selected game and acquires the gameplay points.

[0010]

In an embodiment, the gameplay points that are for the sole use of one of the games, and are not capable of being used with the other games, are included in the value information separately for the respective games, and at an end of the selected game, the read/write device includes the gameplay points of the selected game in the value information and stores the value information in the storage medium.

In an embodiment, the value information includes monetary information, at an end of the selected game, the point processing means converts the gameplay points of the selected game into the monetary information, and the read/write device includes the converted monetary information in the value information and stores the value information in the storage medium.

[0011]

In an embodiment, a conversion rate between the monetary information and the gameplay points used in the games is set for each of the games.

In an embodiment, one or more of the gameplay switches double as the selection switch.

[0012]

In an embodiment, the gameplay points of the selected game are displayed on the display device for each of the games.

Advantageous Effects of Invention

[0013] Embodiments of the present invention are capable of providing a gameplay machine in which plural games with different gameplay points used in gameplay can be performed on a single

machine, and in which the experience of operating a real game machine can be obtained.

BRIEF DESCRIPTION OF DRAWINGS

[0014] Fig. 1A is a perspective view of a game machine.

Fig. 1B is a front view of a game machine.

Fig. 2 is a block diagram illustrating inputs, control, and outputs in a game machine.

Fig. 3 is a block diagram illustrating a main body control board of a game machine.

Fig. 4 is a diagram illustrating a connected state of jackpot units.

Fig. 5A is a diagram illustrating a system settings screen of a game machine.

Fig. 5B is a diagram illustrating a system settings screen of a game machine.

Fig. 5C is a diagram illustrating a system settings screen of a game machine.

Fig. 6A is a diagram illustrating a system settings screen of a game machine.

Fig. 6B is a diagram illustrating a system settings screen of a game machine.

Fig. 6C is a diagram illustrating a system settings screen of a game machine.

Fig. 6D is a diagram illustrating a system settings screen of a game machine.

Fig. 7A is a diagram illustrating a system settings screen of a game machine.

Fig. 7B is a diagram illustrating a system settings screen of a game machine.

Fig. 7C is a diagram illustrating a system settings screen of a game machine.

Fig. 8A is a diagram illustrating a selection screen and a game start screen of a game machine.

Fig. 8B is a diagram illustrating a selection screen and a game start screen of a game machine.

Fig. 8C is a diagram illustrating a selection screen and a game start screen of a game machine.

Fig. 8D is a diagram illustrating a selection screen and a game start screen of a game machine.

Fig. 9 is a diagram illustrating a game screen of a pachinko game.

Fig. 10 is a close-up illustrating a gameplay screen during normal gameplay in a pachinko game.

Fig. 11 is a diagram illustrating images displayed on a simulated liquid crystal display section during normal gameplay in a pachinko game.

Fig. 12 is a diagram illustrating an arrangement of character designs illustrated in Fig. 11.

Fig. 13 is a close-up illustrating a gameplay screen in a bonus challenge of a pachinko game.

Fig. 14 is a flowchart to explain a flow of gameplay in a pachinko game.

Fig. 15A is a diagram illustrating a screen during reach dramatic effects during normal gameplay in a pachinko game.

Fig. 15B is a diagram illustrating a screen during reach dramatic effects during normal gameplay in a pachinko game.

Fig. 15C is a diagram illustrating a screen during reach dramatic effects during normal

gameplay in a pachinko game.

Fig. 15D is a diagram illustrating a screen during reach dramatic effects during normal gameplay in a pachinko game.

Fig. 15E is a diagram illustrating a screen during reach dramatic effects during normal gameplay in a pachinko game.

Fig. 16A is a diagram illustrating a screen during reach dramatic effects during normal gameplay in a pachinko game.

Fig. 16B is a diagram illustrating a screen during reach dramatic effects during normal gameplay in a pachinko game.

Fig. 16C is a diagram illustrating a screen during reach dramatic effects during normal gameplay in a pachinko game.

Fig. 16D is a diagram illustrating a screen during reach dramatic effects during normal gameplay in a pachinko game.

Fig. 16E is a diagram illustrating a screen during reach dramatic effects during normal gameplay in a pachinko game.

Fig. 16F is a diagram illustrating a screen during reach dramatic effects during normal gameplay in a pachinko game.

Fig. 16G is a diagram illustrating a screen during reach dramatic effects during normal gameplay in a pachinko game.

Fig. 16H is a diagram illustrating a screen during reach dramatic effects during normal gameplay in a pachinko game.

Fig. 16I is a diagram illustrating a screen during reach dramatic effects during normal gameplay in a pachinko game.

Fig. 17 is a diagram illustrating a screen during reach dramatic effects during normal gameplay in a pachinko game.

Fig. 18A is a diagram illustrating a screen on hitting a jackpot during normal gameplay in a pachinko game.

Fig. 18B is a diagram illustrating a screen on hitting a jackpot during normal gameplay in a pachinko game.

Fig. 18C is a diagram illustrating a screen on hitting a jackpot during normal gameplay in a pachinko game.

Fig. 18D is a diagram illustrating a screen on hitting a jackpot during normal gameplay in a pachinko game.

Fig. 19A is a diagram illustrating display of a game screen in a bonus challenge of a pachinko game.

Fig. 19B is a diagram illustrating display of a game screen in a bonus challenge of a pachinko game.

Fig. 19C is a diagram illustrating display of a game screen in a bonus challenge of a pachinko game.

Fig. 19D is a diagram illustrating display of a game screen in a bonus challenge of a pachinko game.

Fig. 20 is a diagram illustrating a game screen in a slot game.

Fig. 21 is a diagram illustrating valid lines in a slot game.

Fig. 22 is a diagram illustrating a placement of designs on simulated reels in a normal game and in a precursor game of a slot game.

Fig. 23 is a diagram illustrating winnings for different combinations in a normal game and a precursor game of a slot game.

Fig. 24 is a diagram illustrating placement of designs on simulated reels in a bonus game of a slot game.

Fig. 25 is a diagram illustrating winnings for different combinations in a bonus game of a slot game.

Fig. 26 is a flowchart to explain a flow of gameplay in a slot game.

Fig. 27A is a diagram illustrating an example of a permutation of designs suggestive of a prize win in a slot game.

Fig. 27B is a diagram illustrating an example of a permutation of designs suggestive of a prize win in a slot game.

Fig. 27C is a diagram illustrating an example of a permutation of designs suggestive of a prize win in a slot game.

Fig. 27D is a diagram illustrating an example of a permutation of designs suggestive of a prize win in a slot game.

Fig. 27E is a diagram illustrating an example of a permutation of designs suggestive of a prize win in a slot game.

Fig. 28A is a diagram illustrating a dramatic effects screen on winning a prize in a normal game and a precursor game of a slot game.

Fig. 28B is a diagram illustrating a dramatic effects screen on winning a prize in a normal game and a precursor game of a slot game.

Fig. 28C is a diagram illustrating a dramatic effects screen on winning a prize in a normal game and a precursor game of a slot game.

Fig. 29A is a diagram illustrating ongoing precursor dramatic effects in a precursor game of a slot game.

Fig. 29B is a diagram illustrating ongoing precursor dramatic effects in a precursor game of a slot game.

Fig. 29C is a diagram illustrating ongoing precursor dramatic effects in a precursor game of a slot game.

Fig. 29D is a diagram illustrating ongoing precursor dramatic effects in a precursor game of a slot game.

Fig. 30A is a diagram illustrating conclusive dramatic effects in a precursor game of a slot game.

Fig. 30B is a diagram illustrating conclusive dramatic effects in a precursor game of a slot game.

Fig. 30C is a diagram illustrating conclusive dramatic effects in a precursor game of a slot game.

Fig. 31A is a diagram illustrating conclusive dramatic effects in a precursor game of a slot game.

Fig. 31B is a diagram illustrating conclusive dramatic effects in a precursor game of a slot game.

Fig. 31C is a diagram illustrating conclusive dramatic effects in a precursor game of a slot game.

Fig. 32A is a diagram illustrating display of a game screen in a bonus game of a slot game.

Fig. 32B is a diagram illustrating display of a game screen in a bonus game of a slot game.

Fig. 32C is a diagram illustrating display of a game screen in a bonus game of a slot game.

Fig. 32D is a diagram illustrating display of a game screen in a bonus game of a slot game.

Fig. 32E is a diagram illustrating display of a game screen in a bonus game of a slot game.

Fig. 32F is a diagram illustrating display of a game screen in a bonus game of a slot game.

Fig. 33A is a diagram illustrating dramatic effects on winning a prize in a bonus game of a slot game.

Fig. 33B is a diagram illustrating dramatic effects on winning a prize in a bonus game of a slot game.

Fig. 33C is a diagram illustrating dramatic effects on winning a prize in a bonus game of a slot game.

Fig. 33D is a diagram illustrating dramatic effects on winning a prize in a bonus game of a slot game.

Fig. 34 is a diagram illustrating a game screen in a bingo game.

Fig. 35 is a close-up illustrating a gameplay screen in a bingo game.

Fig. 36 is a diagram illustrating images displayed on a simulated liquid crystal display section

of a bingo game.

Fig. 37 is a diagram illustrating a bingo card and array tables displayed on a gameplay screen of a bingo game.

Fig. 38A is a diagram illustrating a completion pattern in a bingo game.

Fig. 38B is a diagram illustrating a completion pattern in a bingo game.

Fig. 38C is a diagram illustrating a completion pattern in a bingo game.

Fig. 38D is a diagram illustrating a completion pattern in a bingo game.

Fig. 38E is a diagram illustrating a completion pattern in a bingo game.

Fig. 38F is a diagram illustrating a completion pattern in a bingo game.

Fig. 38G is a diagram illustrating a completion pattern in a bingo game.

Fig. 38H is a diagram illustrating a completion pattern in a bingo game.

Fig. 38I is a diagram illustrating a completion pattern in a bingo game.

Fig. 38J is a diagram illustrating a completion pattern in a bingo game.

Fig. 39 is a flowchart to explain a flow of gameplay in a bingo game.

Fig. 40A is a diagram illustrating a bingo card on completion of a bingo in a bingo game.

Fig. 40B is a diagram illustrating array tables on completion of a bingo in a bingo game.

Fig. 40C is a diagram illustrating a bingo card on completion of a bingo in a bingo game.

Fig. 41A is a diagram illustrating a screen during dramatic effects on completion of a bingo in a bingo game.

Fig. 41B is a diagram illustrating a screen during dramatic effects on completion of a bingo in a bingo game.

Fig. 41C is a diagram illustrating a screen during dramatic effects on completion of a bingo in a bingo game.

Fig. 41D is a diagram illustrating a screen during dramatic effects on completion of a bingo in a bingo game.

Fig. 41E is a diagram illustrating a screen during dramatic effects on completion of a bingo in a bingo game.

Fig. 42A is a diagram illustrating a game screen and a simulated liquid crystal display section at the end of a bingo game.

Fig. 42B is a diagram illustrating a game screen and a simulated liquid crystal display section at the end of a bingo game.

Fig. 42C is a diagram illustrating a game screen and a simulated liquid crystal display section at the end of a bingo game.

Fig. 43A is a diagram illustrating a game screen and a simulated liquid crystal display section at the end of a bingo game.

Fig. 43B is a diagram illustrating a game screen and a simulated liquid crystal display section at the end of a bingo game.

Fig. 43C is a diagram illustrating a game screen and a simulated liquid crystal display section at the end of a bingo game.

Fig. 44A is a diagram illustrating display of a game screen in a last challenge of a bingo game.

Fig. 44B is a diagram illustrating display of a game screen in a last challenge of a bingo game.

Fig. 45A is a diagram illustrating an array of numbers on a bingo card of a bingo game.

Fig. 45B is a diagram illustrating an array of numbers on a bingo card of a bingo game.

Fig. 46A is a front view of a modified example in which placement of gameplay switches in an operation section has been modified.

Fig. 46B is a side view from the right of a modified example in which placement of gameplay switches in an operation section has been modified.

DESCRIPTION OF EMBODIMENTS

[0015] *Game Machine 10*

A game machine 10 according to a first exemplary embodiment of the present invention is capable of performing three types of game on a display device 20. A player is able to choose one game from out of the three types of game. A recreation venue manager is able to individually set gameplay points necessary for performing each of the three types of game. In the game machine 10 of the present exemplary embodiment, the gameplay points are converted into a virtual gameplay medium for use in the games. Here, the "virtual gameplay medium" is a gameplay medium virtually expressed as information on the game machine 10. The performable games on the game machine 10 of the present exemplary embodiment are a pachinko game, serving as a first game, a slot game, serving as a second game, and a bingo game, serving as a third game. Each of the games will be described in detail later.

[0016] *Case 11*

As illustrated in Fig. 1A and Fig. 1B, the game machine 10 of the present exemplary embodiment is configured by a case 11, this being a rectangular box body in which left frame, right frame, and upper frame portions, and an up-down central portion, jut out toward the front.

The case 11 is configured from a game unit 14 making up the majority of the case 11, and a balance adjustment unit 16 provided in the right frame of the case 11, this being on the right side of the game unit 14.

Although not illustrated in the drawings, a front shutter that is capable of opening and closing is formed at a front face portion of the case 11.

Game Unit 14

The game unit 14 progresses the gameplay of the respective games of the game machine 10, and is formed with gameplay switches 30 employed during gameplay, and a control apparatus 100 employed in controlling gameplay.

[0017] Display Device 20

As illustrated in Fig. 1A and Fig. 1B, the display device 20 is provided at substantially the upper half of the front face of the case 11. The display device 20 is a 32-inch liquid crystal monitor. The display device 20 displays gameplay screens of the respective games. The display device 20 also displays selection screens for selecting the respective games, and settings screens for performing system settings of the game machine 10.

Operation Section 25

An operation section 25 is provided projecting out toward the front, at the up-down central portion of the case 11 below the display device 20. An upper face and a front face of the projecting operation section 25 are provided with plural of the gameplay switches 30 that are employed in the respective games.

[0018] Gameplay Switches 30

The gameplay switches 30 are used to progress gameplay, select the respective games, and perform system settings of the game machine 10. The gameplay switches 30 are configured by a bet switch 42, a lever 45, a handle 46, and stop switches 50. Note that the gameplay switches 30 also include a balance adjustment switch 75 provided to the balance adjustment unit 16.

The bet switch 42 for placing a bet of the virtual gameplay medium required for a single play during gameplay of the respective games or at the start of gameplay of the respective games is provided on the left side of the upper face of the operation section 25. The bet switch 42 is also employed in selection screens for selecting the respective games, and in settings screens for performing system settings.

[0019] Three of the stop switches 50 employed in the slot game, this being the second game, are provided spanning from a central portion to the right side of the upper face of the operation section 25. In the slot game, a slot machine with three simulated reels 620 (a left simulated reel 621, a center simulated reel 622, and a right simulated reel 623) is displayed on the display device 20. The three stop switches 50 correspond to the three simulated reels 620. Namely, the stop switches 50 include a left stop switch 51 for stopping the left simulated reel 621, a center stop switch 52 for stopping the center simulated reel 622, and a right stop switch 53 for stopping the right simulated reel 623. Note that "stopping the

simulated reels 620" refers to causing the simulated reels 620 that are being displayed on the display device 20 so as to appear to rotate to be displayed so as to appear to have stopped. Note that the stop switches 50 are also employed in the settings screens to perform system settings of the game machine 10.

[0020] The lever 45 employed in the slot game is provided on the left side of the front face of the operation section 25. The lever 45 is formed capable of being moved up, down, left, and right. In the slot game, the three simulated reels 620 can be rotated by the player operating the lever 45. Note that "rotating the simulated reels 620" refers to causing the simulated reels 620 that are being displayed on the display device 20 so as to appear to be stationary to be displayed so as to appear to rotate. Note that the lever 45 is also employed in selection screens for selecting the respective games, and in settings screens to perform system settings of the game machine 10.

[0021] The handle 46 employed in the pachinko game, this being the first game, and in the bingo game, this being the third game, is provided on the right side of the front face of the operation section 25. The handle 46 is formed capable of rotating from a stationary position toward the right. In the pachinko game and the bingo game, the player can launch simulated gameplay balls (540, 740) by operating the handle 46. Note that "launching simulated gameplay balls (540, 740)" refers to causing images of the simulated gameplay balls (540, 740) being launched to be displayed on the display device 20. The handle 46 is formed such that the strength (speed) with which the simulated gameplay balls (540, 740) are launched becomes stronger (faster) the further the handle 46 is rotated toward the right.

[0022] *Speakers 60*

The case 11 is provided with speakers 60 that use sound to notify the player of various information. The speakers 60 include upper speakers 61 disposed on the left and right above the display device 20, and a lower speaker 62 disposed at the front face center of the operation section 25.

As illustrated in Fig. 2, a sound amplifier 64 is formed inside the game unit 14 to amplify audio data. Audio data generated by a main body control board 110 is amplified by the sound amplifier 64 before being input to the speakers 60.

[0023] *Dramatic Effect Lamps 65*

As illustrated in Fig. 1A and 1B, dramatic effect lamps 65 that use light to notify the player of various information are provided on the case 11. The dramatic effect lamps 65 include side lamps 66 disposed at the left and right of the display device 20, and an upper lamp 67 disposed at an uppermost portion of the case 11.

Credit Display Section 22

A credit display section 22 for displaying remaining monetary information stored on an IC card 78 is provided at a portion above the display device 20 and between the two upper speakers 61. The credit display section 22 is a dot matrix display device; however, a seven-segment LED or a liquid crystal monitor may also be employed.

[0024] *Control Apparatus 100*

As illustrated in Fig. 2, the control apparatus 100 for controlling the game machine 10 is formed inside the game unit 14. The control apparatus 100 is configured by the main body control board 110 for controlling the progress of gameplay, and a sub-board 150 for processing operation signals from the gameplay switches 30 and controlling the dramatic effect lamps 65. An internal storage device 120 is formed inside the main body control board 110.

The main body control board 110 and the sub-board 150 are configured by a CPU, ROM, RAM, I/O, and the like. The CPU has an interrupt function such as a timer interrupt, executes programs stored in the ROM and the internal storage device 120, and performs various processing. The ROM is stored with fixed data such as programs executed by the CPU. The RAM is a temporary storage region used during program execution by the CPU, and is employed as, for example, a storage region for storing states of the game machine 10, and a storage region for storing lottery results relating to individual plays.

[0025] *Main Body Control Board 110*

The main body control board 110 performs control relating to gameplay progress, selection of the respective games, and system settings of the game machine 10. As illustrated in Fig. 2, the main body control board 110 is formed capable of transmitting and receiving with respect to the sub-board 150 and the display device 20 of the game unit 14, and is formed capable of transmitting to the sound amplifier 64 and the credit display section 22 of the game unit 14. The main body control board 110 is also formed capable of transmitting and receiving with respect to a balance adjustment unit control board 300 of the balance adjustment unit 16. The main body control board 110 is also formed capable of transmitting and receiving with respect to a jackpot control board 400 of a jackpot unit 80 via a hub 85 and a router 86.

[0026] The main body control board 110 is capable of performing setting processing of the game machine 10, game selection processing, gameplay progression processing, and point processing by the respective programs stored in the internal storage device 120 being executed on the CPU.

In order to execute the above processing, as illustrated in Fig. 3, the main body control board 110 includes the respective means of a system setting means 111, a game

selection means 112, a game control means 113, a dramatic effect control means 114, and a point processing means 115.

System Setting Means 111

The system setting means 111 performs system setting processing of the game machine 10. When system setting processing is started by a specific operation, the system setting means 111 displays a system settings screen on the display device 20. The system setting means 111 then performs modification processing and confirmation processing for various settings, based on operation of the gameplay switches 30 by the player. The system setting processing of the system setting means 111 will be described in detail later.

[0027] *Game Selection Means 112*

The game selection means 112 performs game selection processing to select one game from the three types of game of the game machine 10. When the IC card 78 is inserted into an insertion port 71, the game selection means 112 displays a selection screen on the display device 20. The game selection means 112 then performs game selection processing based on operation of the bet switch 42 and the lever 45 by the player. The game selection processing of the game selection means 112 will be described in detail later.

Game Control Means 113

The game control means 113 performs game control processing to progress the gameplay of the game machine 10. When one game has been selected by the game selection means 112, the game control means 113 controls the gameplay of the selected game. The game control processing of the respective games by the game control means 113 will be described in detail later.

[0028] *Dramatic Effect Control Means 114*

The dramatic effect control means 114 controls images displayed on the display device 20, audio output from the speakers 60, and illumination of the dramatic effect lamps 65. Note that images controlled by the dramatic effect control means 114 and displayed on the display device 20 include gameplay screens of the games, selection screens for selecting the respective games, and settings screens for performing system settings of the game machine 10. The dramatic effect control means 114 generates and outputs image data to the display device 20 based on operation of the gameplay switches 30 by the player and information from the respective means.

[0029] *Point Processing Means 115*

The point processing means 115 processes gameplay points employed in the game machine 10. Specifically, the point processing means 115 converts monetary data stored on the IC card 78 into gameplay points based on a conversion rate, described later. The point

processing means 115 also performs gameplay point deduction processing when a bet is placed, and gameplay point addition processing when gameplay points are won during gameplay. The point processing means 115 is capable of managing gameplay points for each game type respectively. Note that in the game machine 10 of the present exemplary embodiment, the gameplay points during gameplay are converted into the virtual gameplay medium.

[0030] *Internal Storage Device 120*

The internal storage device 120 is formed to the main body control board 110. The internal storage device 120 is a Solid State Drive (SDD). The internal storage device 120 includes at least a system program 121, this being a program used by the game machine 10, a game one program 122 that is used by the first game, a game two program 123 that is used by the second game, and a game three program 124 that is used by the third game.

Note that the internal storage device 120 of the present exemplary embodiment is a Solid State Drive (SDD). However, there is no limitation thereto. For example, a hard disk or EEPROM, this being rewritable non-volatile memory, may be employed. The internal storage device 120 may also be an externally connectible storage device that is not within the main body control board 110. For example, the internal storage device 120 may be an external storage device employing a storage medium such as a DVD-ROM, USB memory, or an SD-card. However, from the perspective of preventing illicit behavior such as tampering with the programs, the internal storage device 120 preferably employs a storage device installed within the main body control board 110.

[0031] *Sub-Board 150*

The sub-board 150 processes operation signals from the gameplay switches 30 and controls the dramatic effect lamps 65. As illustrated in Fig. 2, the sub-board 150 is formed capable of transmitting and receiving with respect to the main body control board 110 of the game unit 14. The sub-board 150 is also connected to each of the gameplay switches 30.

The sub-board 150 receives operation signals from the respective gameplay switches 30, and transmits to the main body control board 110. The sub-board 150 also receives drive signals for the lamps from the main body control board 110, and causes the dramatic effect lamps 65 and lamps installed in the gameplay switches 30 to emit light. Moreover, the sub-board 150 receives data relating to the respective games from the main body control board 110, and transmits to a hall PC 96 via a relay board 90, described later.

[0032] *Balance Adjustment Unit 16*

The balance adjustment unit 16 exchanges value information necessary in order to perform a game with the IC card 78 serving as a recording medium. The value information

exchanged with the IC card 78 includes monetary information relating to the available funds for gameplay, and information relating to the gameplay points employed during gameplay. As illustrated in Fig. 2, the balance adjustment unit 16 is connected to the game unit 14, and exchanges monetary information and gameplay points with the game unit 14. As illustrated in Fig. 1A and Fig. 1B, the balance adjustment switch 75 that is operated during balance adjustment is provided at a central portion of a front face of the balance adjustment unit 16. A card reader/writer 70 and the balance adjustment unit control board 300 are formed inside the balance adjustment unit 16.

[0033] *Balance Adjustment Switch 75*

The balance adjustment switch 75 is provided at the central portion of the front face of the balance adjustment unit 16 for, at the end of a game, adjusting the virtual gameplay medium, namely the gameplay points, won in a game. Note that the balance adjustment switch 75 may also be provided to the operation section 25 of the game unit 14.

Card Reader/Writer 70

The card reader/writer 70 is formed above the balance adjustment switch 75 inside the balance adjustment unit 16. The insertion port 71 is provided at a front face of the card reader/writer 70. The insertion port 71 is exposed from the front face of the balance adjustment unit 16.

[0034] The IC card 78 is inserted into the card reader/writer 70 through the insertion port 71. The card reader/writer 70 is capable of reading information from the IC card 78 and writing information to the IC card 78.

Balance adjustment Unit Control Board 300

The balance adjustment unit control board 300 that controls the balance adjustment unit 16 is formed inside the balance adjustment unit 16. As illustrated in Fig. 2, the balance adjustment unit control board 300 is formed capable of transmitting and receiving with respect to the main body control board 110 of the game unit 14.

[0035] The balance adjustment unit control board 300 transmits monetary information and gameplay points received from the card reader/writer 70 to the main body control board 110, and transmits monetary information and gameplay points received from the main body control board 110 to the card reader/writer 70. The balance adjustment unit control board 300 outputs an information read command to the card reader/writer 70 when triggered by insertion of the IC card 78 into the insertion port 71, and outputs an information write command to the card reader/writer 70 when triggered by operation of the balance adjustment switch 75.

IC Card 78

The IC card 78 is a storage medium stored with value information, including

monetary information and gameplay points. The IC card 78 provides the monetary information and the gameplay points to the game machine 10. The IC card 78 is stored with monetary data as the monetary information, and stored with the respective gameplay points employed in the respective games for each game type that can be performed on the game machine 10, as the information relating the gameplay points. In the present exemplary embodiment, the gameplay points are respectively stored for each of the three types of game.

[0036] At the recreation venue, when the player purchases an IC card 78, the player is presented with an IC card 78 stored with monetary data corresponding to the purchase amount. The gameplay points for each of the respective games are at 0 at the time of purchase of the IC card 78. The player is then able to play by inserting the IC card 78 into the insertion port 71 of the game machine 10. In order to perform the respective games, the gameplay points are converted into the virtual gameplay medium of the corresponding game. At the start of a game, the player operates the bet switch 42 to deduct from the monetary data an amount corresponding to a number of bets required to start the game. Then, if the player wins the virtual gameplay medium in a game, gameplay points are added to the gameplay points corresponding to that game according to the virtual gameplay medium that has been won. Note that when gameplay points won as a result of gameplay have already been stored on the IC card 78, these gameplay points can be used to perform gameplay.

[0037] In the present exemplary embodiment, an IC card with an embedded IC chip is employed as the storage medium that stores the monetary information and the gameplay points. However, there is no limitation thereto, and a magnetic card or contactless card (for example, RFID) may be employed. Note that when employing RFID, a transmission and reception section that communicates in order to read and write information is provided in place of the insertion port 71.

Jackpot Unit 80

The jackpot unit 80 manages plural game machines 10. As illustrated in Fig. 2 and Fig. 4, the jackpot unit 80 is connected to the plural game machines 10 via the hub 85.

[0038] The jackpot unit 80 is provided with the router 86 capable of connecting to the plural game machines 10 or the hub 85, and the jackpot control board 400 that manages the game machines 10 connected to the jackpot unit 80. The jackpot control board 400 performs acquisition processing for gameplay information of the respective game machines 10, and special payout processing for specific game machines 10.

"Special payout processing" refers to processing to pay out a large quantity of the virtual gameplay medium to a player, triggered by special conditions having been met. Specifically, the jackpot unit 80 accumulates a portion of the gameplay points, monetary data,

or monetary points, described later, input to the respective game machines 10. When special conditions are met in one of the game machines 10 connected to the jackpot unit 80, processing is performed to pay out a large quantity of the virtual gameplay medium to the player. An example of "meeting special conditions" would be hitting a jackpot by forming a line of sevens in the pachinko game. Another example of "meeting special conditions" would be completing a perfect bingo by eliminating all the squares in a bingo game. Another example of "meeting special conditions" would be a very unusual win or combination in the respective games of the game machine 10. Another example of "meeting special conditions" would be fulfilling conditions managed by the jackpot unit 80, such as reaching a specific time, or the number of players in the recreation venue reaching a specific number. In addition to winning the gameplay points according to the virtual gameplay medium in the respective games, the player may win a large quantity of additional gameplay points from the jackpot unit 80.

[0039] Note that in the jackpot unit 80, it is possible to set the proportion of the gameplay points, monetary data, or monetary points, described later, input to the respective game machines 10 that is accumulated (the rate at which money or points are accumulated) for special payout.

Owner PC 95

An owner PC 95 manages all of the game machines 10 in the recreation venue, as well as the jackpot unit 80. As illustrated in Fig. 2 and Fig. 4, the owner PC 95 is connected to plural jackpot units 80 via a router 86. The owner PC 95 is connected to all of the game machines 10 in the recreation venue via the jackpot units 80. The owner PC 95 is thereby formed capable of transmitting and receiving with respect to the main body control boards 110 of all of the game machines 10.

[0040] The owner PC 95 is capable of referring to gameplay information of the respective game machines 10. The owner PC 95 is also capable of changing payout settings for each of the jackpot units 80.

Hall PC 96

The hall PC 96 manages gameplay statuses of each of the game machines 10 in the recreation venue. As illustrated in Fig. 2, the hall PC 96 is formed capable of receiving from the sub-boards 150 of the game units 14 via the relay board 90.

Information acquired by the hall PC 96 includes the following.

[0041] For example, information relating to the case 11 includes information that the shutter is open, and information that lamps such as the dramatic effect lamps 65 are broken.

Information relating to the pachinko game, serving as the first game, and the bingo

game, serving as the third game, including the number times the simulated gameplay balls (540, 740) have passed through start chuckers (510, 710), and details of jackpots and the number of jackpots.

Information relating to the slot game, serving as the second game, including the total number of held coins bet, the total number of held coins paid out when prizes have been won, and information relating to the prize-winning combinations.

[0042] The hall PC 96 is capable of referring to the information acquired from the respective game machines 10 and notifying a recreation venue manager if abnormalities are present in the acquired information. When this is performed, a warning screen can be displayed on a screen of the hall PC 96.

System Setting Processing

Explanation follows regarding the system setting processing of the game machine 10 by the system setting means 111.

First, at a demo screen when the IC card 78 has not been inserted into the insertion port 71 and gameplay is not being performed, an operator performs a specific operation, for example, operating a setting switch, not illustrated in the drawings, provided inside the case 11. When this is performed, as illustrated in Fig. 5A, transition is made to a system settings screen for performing system settings of the game machine 10. At the system settings screen, IP address settings and communications tests, game select method selection, audio volume settings, and activation or deactivation of auto mode gameplay can be performed. Payout settings and conversion rate settings can also be performed. Note that in order to prevent the payout settings and conversion rate settings from being changed easily, settings and changes thereto can be performed only after entering a password. Password changes can also be performed at the system settings screen.

[0043] At the system settings screen, a triangular cursor appears on the screen, and the operator moves the cursor by operating the lever 45. When this is performed, the cursor moves down by one item each time the lever 45 is operated downward, and the cursor moves up by one item each time the lever 45 is operated upward. The operator operates any one of the stop switches 50 to choose the item selected by the cursor as a setting target. Note that operating a stop switch 50 when the cursor has selected "END" closes the system settings screen and returns to the demo screen.

[0044] (1) *IP Address Setting and Communications Test*

When a stop switch 50 is operated when the cursor has selected "IP ADDRESS" on the system settings screen, the system settings screen closes, and transitions to an IP address settings screen, illustrated in Fig. 5B. At the IP address settings screen, the operator can

change the IP address by operating the lever 45. Specifically, the lever 45 can be used to change the number of a digit selected by the cursor. When this is performed, starting from 0, the displayed value is incremented by one each time the lever 45 is operated downward. Note that a repeat of 0 is displayed after 9. Moreover, starting from 9, the displayed value is decreased by one each time the lever 45 is operated upward. Note that a repeat of 9 is displayed after 0. It is possible to move to other digits of the IP address by operating the lever 45 to the left or right.

[0045] A communication test can be performed at the IP address settings screen. Specifically, the communication test is performed when the bet switch 42 is pressed down in a state in which the IP address is displayed on the IP address settings screen. Performing the communication test enables confirmation to be made as to whether or not communication with the jackpot unit 80 and the owner PC 95 is being performed correctly.

When any of the stop switches 50 is operated by the operator, the IP address setting is ended, and the IP address settings screen transitions to the system settings screen.

(2) *Game Select Method Selection*

When a stop switch 50 is operated when the cursor has selected "GAME SELECT" on the system settings screen, the system settings screen closes, and transitions to a game select method selection screen, illustrated in Fig. 5C. At the game select method selection screen, the operator can select a game select method by operating the lever 45. When this is performed, the cursor moves in sequence through "ON", "Title 1", "Title 2", "Title 3", and "ON" each time the lever 45 is operated downward. The cursor moves in sequence through "ON", "Title 3", "Title 2", "Title 1", and "ON" each time the lever 45 is operated upward.

[0046] "ON" is a state in which the player can freely selected their desired game. Namely, "ON" is a state in which game selection processing by the game selection means 112 is activated. "Title 1" is a state in which selection of the game by the player is not possible, and is always fixed at the first game. "Title 2" is a state in which selection of the game by the player is not possible, and is always fixed at the second game. "Title 3" is a state in which selection of the game by the player is not possible, and is always fixed at the third game. Namely, "Title 1", "Title 2", and "Title 3" are states in which game selection processing by the game selection means 112 is deactivated.

[0047] When any of the stop switches 50 is operated by the operator, the game select method selection is ended, and the game select method selection screen transitions to the system settings screen.

(3) *Audio Volume Setting*

When a stop switch 50 is operated when the cursor has selected "VOLUME" on the

system settings screen, the system settings screen closes, and transitions to an audio volume settings screen, illustrated in Fig. 6A. At the audio volume settings screen, one setting value can be selected from ten setting value levels, ranging from "1" to "10". The operator can set the audio volume by the operating the lever 45. When this is performed, the current setting value is incremented by a value of 1 each time the lever 45 is operated downward. Moreover, the current setting value is decreased by a value of 1 each time the lever 45 is operated upward. Note that each time the lever 45 is operated, a beep sound is output from the speakers 60 at a volume corresponding to the setting value on the screen, thereby enabling the operator to perform settings while confirming the actual audio volume.

[0048] When any of the stop switches 50 is operated by the operator, the audio volume setting is ended, and the audio volume settings screen transitions to the system settings screen.

(4) Auto Mode Gameplay Activation and Deactivation

At the system settings screen, when a stop switch 50 is operated when the cursor has selected "AUTO MODE", the system settings screen closes, and transitions to an auto mode settings screen, illustrated in Fig. 6B. At the auto mode settings screen, the operator can change between activating and deactivating auto mode gameplay by operating the lever 45. When this is performed, the cursor moves in sequence through "Title 1", "Title 2", "Title 3", and "Title 1" each time the lever 45 is operated downward. Moreover, the cursor moves in sequence through "Title 3", "Title 2", "Title 1", and "Title 3" each time the lever 45 is operated upward. Operating the lever 45 to the left and right enables change between "ON" and "OFF" for the game selected by the cursor.

[0049] When any of the stop switches 50 is operated by the operator, the change to either activate or deactivate auto mode gameplay is completed, and the auto mode settings screen transitions to the system settings screen.

Explanation follows regarding the auto mode in each game.

In the pachinko game serving as the first game (Title 1) and the bingo game serving as the third game (Title 3) that employ the handle 46, the handle 46 can be operated automatically. Specifically, when "OFF" is selected, the player can launch the simulated gameplay balls (540, 740) by turning the handle 46 toward the right. When the player lets go of the handle 46 in a state turned toward the right, the handle 46 turns to the left and returns to its original position, and launching of the simulated gameplay balls (540, 740) is ended. However, when "ON" is selected, the player can launch the simulated gameplay balls (540, 740) by turning the handle 46 toward the right. When the player lets go of the handle 46 in a state turned toward the right, the handle 46 is fixed at the position where the player let go, and continues launching the simulated gameplay balls (540, 740). Note that launching of

the simulated gameplay balls (540, 740) can be ended by the player turning the handle 46 toward the left to return it to its original position.

[0050] Turning the auto mode of the handle 46 to "ON" enables gameplay to be progressed easily by a player who is unfamiliar with the operation of a pachinko machine. In particular, fixing the handle 46 position while looking at a power gauge (506, 706), described later, enables the simulated gameplay balls (540, 740) to be launched at a constant uniform strength. However, switching the auto mode of the handle 46 to "OFF" enables a player familiar with the operation of a pachinko machine to progress gameplay without experiencing a sense of awkwardness.

In the slot game of the second game (Title 2) that employs the lever 45 and the stop switches 50, it is possible to perform a stop operation of the simulated reels 620 without employing the stop switches 50. Specifically, when "OFF" is selected, after the simulated reels 620 start to rotate, the player has to operate the stop switches 50 in order to stop the simulated reels 620. However, when "ON" is selected, after the simulated reels 620 start to rotate, the simulated reels 620 are automatically operated if the player does not operate the stop switches 50 within a specific amount of time. Namely, the player is able to progress gameplay by operating the lever 45 alone. When striking lucky in a combination lottery, described later, it is always possible to win a prize with the combination that came up.

[0051] (5) *Password Entry Screen*

At the system settings screen, when a stop switch 50 is operated when the cursor has selected "PASSWORD", the system settings screen closes, and transitions to a password entry screen, illustrated in Fig. 6C. At the password entry screen, the operator can enter a four digit password by operating the lever 45. Specifically, the number of a digit selected by the cursor can be changed using the lever 45. When this is performed, starting from 0, the displayed value is incremented by one each time the lever 45 is operated downward. Note that a repeat of 0 is displayed after 9. Moreover, starting from 9, the displayed value is decreased by one each time the lever 45 is operated upward. Note that a repeat of 9 is displayed after 0. Moving to other digits of the password is possible by operating the lever 45 to the left and right. The password entry is ended when any of the stop switches 50 is operated by the operator. The screen advances to a security settings screen when this is performed and the password matches that registered in the game machine 10. However, when the password does not match that registered in the game machine 10, a warning screen is displayed, and password re-entry is prompted.

[0052] As illustrated in Fig. 6D, at the security settings screen, a triangular cursor appears on the screen, and the operator moves the cursor by operating the lever 45. When this is

performed, the cursor moves down by one item each time the lever 45 is operated downward, and the cursor moves up by one item each time the lever 45 is operated upward. The operator operates any one of the stop switches 50 to choose an item selected by the cursor as a setting target. Note that when a stop switch 50 is operated when the cursor has selected "END", the security settings screen closes and returns to the system settings screen.

[0053] (6) *Payout Settings*

At the security settings screen, when a stop switch 50 is operated when the cursor has selected "PAYOUT", the security settings screen closes, and transitions to a payout settings screen, illustrated in Fig. 7A. At the payout settings screen, one setting value from "1" to "4" can be selected as a payout rate, this being a ratio of gameplay points to be paid out against input gameplay points. The payout rate is made so as to be greater the higher the setting value. Namely, for the same number of input gameplay points, a greater number of gameplay points can be won when the setting value is "4" than when the setting value is "1". For example, in the pachinko game, the probability of striking lucky in an internal lottery, described later, and hitting a jackpot increases. In the slot game, the probability of striking lucky in a combination lottery, described later, and winning a prize increases. In the bingo game, the probability of striking lucky in a bingo lottery, described later, and completing a bingo increases.

[0054] At the payout settings screen, the operator can change the payout rate by operating the lever 45. When this is performed, the cursor moves in sequence through "Title 1", "Title 2", "Title 3", and "Title 1" each time the lever 45 is operated downward. Moreover, the cursor moves in sequence through "Title 3", "Title 2", "Title 1", and "Title 3" each time the lever 45 is operated upward. The current setting value is incremented by a value of 1 each time the lever 45 is operated to the right. Note that a repeat of 1 is displayed after 4. The current setting value is decreased by a value of 1 each time the lever 45 is operated to the left. Note that a repeat of 4 is displayed after 1.

[0055] When any of the stop switches 50 is operated by the operator, payout rate modification is ended, and the payout settings screen transitions to the security settings screen.

(7) *Conversion Rate Setting*

At the security settings screen, when a stop switch 50 is operated when the cursor has selected "PAYOUT", the security settings screen closes and transitions to a rate settings screen, illustrated in Fig. 7B. At the rate settings screen, a conversion rate of gameplay points against monetary units can be set in a range between "1" and "999". For example, if the monetary unit is 100 yen, and the conversion rate is set to "25", the point processing means

115 converts 100 yen into 25 gameplay points. However, if the conversion rate is set to "100", the point processing means 115 converts 100 yen into 100 gameplay points.

[0056] At the rate settings screen, the operator can set the conversion rate by operating the lever 45. When this is performed, the cursor moves in sequence through "Title 1", "Title 2", "Title 3", and "Title 1" each time the lever 45 is operated downward. Moreover, the cursor moves in sequence through "Title 3", "Title 2", "Title 1", and "Title 3" each time the lever 45 is operated upward. The current setting value is incremented by a value of 1 each time the lever 45 is operated to the right. Note that the increase speed gets faster when the lever 45 is held to the right. The current setting value is decreased by a value of 1 each time the lever 45 is operated to the left. Note that the decrease speed gets faster when the lever 45 is held to the left.

[0057] When any of the stop switches 50 is operated by the operator, conversion rate setting is ended, and the rate settings screen transitions to the security settings screen.

(8) *Password Change*

At the security settings screen, when a stop switch 50 is operated when the cursor has selected "CHANGE", the security settings screen closes and transitions to a password change screen, illustrated in Fig. 7C. At the password change screen, the operator can change the four digit password by operating the lever 45. Specifically, the number of a digit selected by the cursor can be changed using the lever 45. When this is performed, starting from 0, the displayed value is incremented by one each time the lever 45 is operated downward. Note that a repeat of 0 is displayed after 9. Moreover, starting from 9, the displayed value is decreased by one each time the lever 45 is operated upward. Note that a repeat of 9 is displayed after 0. Moving to other digits of the password is possible by operating the lever 45 to the left and right. The password change is ended when any of the stop switches 50 is operated by the operator. The password change screen closes and returns to the security settings screen.

[0058] Note that settings that require password entry are the payout settings and the conversion rate settings. However, there is no limitation thereto. For example, settings may be performed for the rate at which gameplay points, monetary data, and monetary points are accumulated by the jackpot unit 80.

Flow of a game from start to finish

Next, explanation follows regarding the flow of a game from start to finish. An example of a flow series is (1) processing when an IC card is inserted, (2) game selection processing, (3) game control processing, and (4) balance adjustment processing.

[0059] (1) *Processing when an IC card is inserted*

When an IC card is inserted, the following processing is performed in the game machine 10. First, in order to start a game, the player inserts the IC card 78 purchased within the recreation venue into the insertion port 71 on the right side of the game machine 10. Note that the IC card 78 employed in the game machine 10 of the present exemplary embodiment is stored with monetary data corresponding to the purchase amount of the IC card 78 as the monetary information, and gameplay points for the respective games, stored separately for the respective games. Note that the gameplay points for the respective games stored inside a newly purchased IC card 78 will be 0.

The gameplay points stored on the IC card 78 can be used even when moved to another game machine 10. However, the gameplay points won in the respective games can only be used with the same type of game, and cannot be used with other types of game.

[0060] When the IC card 78 is inserted into the insertion port 71, the point processing means 115 acquires the monetary information and the gameplay points from the IC card 78, and displays the value of the monetary data of the monetary information of the IC card 78 on the credit display section 22.

Then, in cases in which "ON" has been selected as the game select method described above, the demo screen transitions to the selection screen illustrated in Fig. 8A. However, in cases in which one of the games has been selected in the game select method selection, transition is made to a game start screen of the selected game.

(2) *Game Selection Processing*

In the game machine 10, at the selection screen for selecting the respective games, the game selection means 112 executes game selection processing based on operation of the gameplay switches 30 by the player.

[0061] First, miniaturized game demo screens for the respective games are displayed at the front of a demo screen on the selection screen. Specifically, as illustrated in Fig. 8B, two game demo screens are displayed in the background, and one game demo screen is displayed in the foreground. The frontmost game demo screen changes each time the player operates the lever 45.

Then, when the player operates the bet switch 42, the game of the game demo screen currently in front is chosen as the game that the player will play. When this is performed, as illustrated in Fig. 8C, the game demo screen is expanded over the entire area of the display device 20, and transitions to a game start screen, as illustrated in Fig. 8D.

[0062] (3) *Game Control Processing*

The game control processing executed by the game machine 10 is as follows. When the player operates the bet switch 42 at the game start screen, a state is entered in which

gameplay of the game selected in the game selection processing can begin. Gameplay of the respective games is executed by the game control processing of the game control means 113. The game control processing of the respective games by the game control means 113 will be described in detail later.

(4) *Balance Adjustment Processing*

Balance adjustment processing is executed in the game machine 10 accompanying operation of the balance adjustment switch 75 by the player. First, when the player finishes playing and ends the game, the player operates the balance adjustment switch 75. When this is performed, the point processing means 115 converts the virtual gameplay medium of the game that has ended into gameplay points, and the balance thereof is written to the IC card 78. The IC card 78 is then ejected from the insertion port 71 of the game machine 10, and the demo screen is displayed on the display device 20.

[0063] As described above, the IC card 78 stores gameplay points separately by game type. The gameplay points won in the respective games can be used on other game machines 10 only if the game is of the same type. Namely, gameplay points won on the first game can only be used with the first game, gameplay points won in the second game can only be used with the second game, and gameplay points won in the third game can only be used with the third game.

When a game is ended, in cases in which the monetary data is 0 yen, and the gameplay points for the selected game have reached 0 points, the words "Game Over" are displayed on the display device 20, and the display device 20 returns to the demo screen. When this occurs, in cases in which the gameplay points for all the other games are also 0 points, the IC card 78 is not ejected from the insertion port 71, and is retained inside the game machine 10.

[0064] If the balance adjustment switch 75 is operated during gameplay, namely in cases in which the simulated gameplay balls (540, 740) are being displayed in a gameplay screen (503, 703), cases in which the simulated reels 620 are being displayed as rotating, and the like, a balance adjustment waiting state is adopted, and the balance adjustment processing is executed after the gameplay has ended.

Game Control Processing of the First Game

The first game is a pachinko game performed on the display device 20.

A pachinko machine employs gameplay balls as a gameplay medium. The gameplay balls are launched in a gameplay region between a gameplay backboard and a front glass, and the objective is to win as many of the gameplay balls as possible by making the gameplay balls falling from an upper portion of the gameplay region enter start chuckers. In

the pachinko game of the present exemplary embodiment, a pachinko machine is reproduced on the display device 20. In the pachinko game, instead of real moving gameplay balls, the simulated gameplay balls 540 are displayed so as to appear to be moving. Note that in the pachinko game, the simulated gameplay balls 540 serving as the virtual gameplay medium are referred to as "held balls".

[0065] *Gameplay Screen*

Fig. 9 illustrates a game screen 500 displayed on the display device 20 in the pachinko game. The game screen 500 is a real pachinko machine reproduced in 3D on the display device 20. The gameplay screen 503 is displayed slightly below the center of the game screen 500. Decorative lights 502 are displayed surrounding the gameplay screen 503. A title logo 501 of the pachinko game is displayed at an upper portion of the decorative lights 502. The decorative lights 502 and the title logo 501 are displayed on the display device 20 so as to appear 3D. The decorative lights 502 are displayed so as to light up and flash accompanying the progress of gameplay. The title logo 501 is also displayed so as to light up and flash accompanying the progress of gameplay. The title logo 501 is sometimes displayed so as to appear to move up, down, left, and right in the upper portion of the game screen 500, or so as to appear to tilt and rock toward the left and right.

[0066] A held ball display section 504 indicating the number of playable simulated gameplay balls 540, and a power gauge 506 indicating the launch strength of the simulated gameplay balls 540 are respectively displayed at a bottom end of the left side and a bottom end of the right side of the game screen 500.

Fig. 10 and Fig. 13 illustrate the gameplay screen 503 in close-up. In the present exemplary embodiment, gameplay of the pachinko game includes normal gameplay and a bonus challenge.

Explanation follows regarding the gameplay screen 503 for normal gameplay, with reference to Fig. 10. Various components mounted on a pachinko machine are displayed in 3D on the gameplay screen 503. First, a simulated liquid crystal display section 560, corresponding to a liquid crystal monitor mounted to a pachinko machine, is displayed at a central portion of the gameplay screen 503. The simulated liquid crystal display section 560 performs dramatic effects accompanying the progress of gameplay or the like. A decoration B572 displayed at an upper portion of the simulated liquid crystal display section 560, a decoration A571 displayed further toward the top than the decoration B572, and decorations C573 displayed at the left and right of the simulated liquid crystal display section 560 are respectively displayed in 3D. The decoration A571 is normally displayed in white, but sometimes changes color to any out of blue, yellow, green, or red according to the progress of

gameplay. The decoration B572 and the decorations C573 are displayed so as to light up or flash according to the progress of gameplay. They are sometimes displayed such that light appears to run across toward the left or right.

[0067] Retained ball display sections 550 that retain up to four retained simulated gameplay balls 540 that have entered start chuckers 510, described later, are formed at a lower portion of the simulated liquid crystal display section 560. The retained ball display section 550 includes four display sections of a first retained ball display section 551, a second retained ball display section 552, a third retained ball display section 553, and a fourth retained ball display section 554, on progression from left to right. The four retained ball display sections 550 are displayed in any color out of white, blue, yellow, green, or red, and the degree to which a jackpot may be anticipated increases incrementally through white, blue, yellow, green, and red.

Four windmills 525, and a large number of pins 520, used to make movement of the simulated gameplay balls 540 irregular, are displayed in a region of the gameplay screen 503 other than the simulated liquid crystal display section 560, the decoration A571, the decoration B572, and the decorations C573. Four of the start chuckers 510, into which the simulated gameplay balls 540 can enter, and, at a lowermost edge of the gameplay screen 503, an out-hole 515 into which the simulated gameplay balls 540 can enter, are also displayed in the same region.

[0068] The simulated gameplay balls 540 can be displayed on the gameplay screen 503 at locations other than the simulated liquid crystal display section 560, the decoration A571, the decoration B572, and the decorations C573. More specifically, simulated gameplay balls 540 launched toward an upper portion from the left have their fall directions changed by the pins 520 and the windmills 525 and enter either one out of five start chuckers 510, or the out-hole 515. Note that in the present exemplary embodiment, "enter" refers to display of a simulated gameplay ball 540 disappearing when the simulated gameplay ball 540 reaches one of the start chuckers 510 or the out-hole 515. When a simulated gameplay ball 540 enters a start chucker 510, dramatic effects relating to whether or not a jackpot has been hit are performed on the simulated liquid crystal display section 560.

[0069] Note that a stage 528 for guiding simulated gameplay balls 540 that have fallen across the front face of the retained ball display section 550 into a lower start chucker 510 is displayed below the retained ball display section 550. The stage 528 is formed so as to guide the simulated gameplay balls 540 in a similar manner to a stage that guides gameplay balls that have fallen down a front face of a liquid crystal display section in a real pachinko machine.

Next, explanation follows regarding images displayed on the simulated liquid crystal display section 560, with reference to Fig. 11. The images displayed on the simulated liquid crystal display section 560 include a background 564 for displaying across the entire simulated liquid crystal display section 560, and character designs 565, these being images of cockerels, and blank designs 566, these being images of cockerel feathers, that are displayed in front of the background 564. The character designs 565 and the blank designs 566 are displayed in an upper tier 561, middle tier 562, and lower tier 563 of the simulated liquid crystal display section 560. There are nine varieties of the character designs 565, and each of the character designs 565 is allocated a number from one to nine. Note that character designs 565 with an odd number are displayed with the number colored red, and character designs 565 with an even number are displayed with the number colored blue. As illustrated in Fig. 12, the character designs 565 and the blank designs 566 alternate in rows in the upper tier 561, the middle tier 562, and the lower tier 563. The character designs 565 in the upper tier 561 and the lower tier 563 are displayed in sequence from one to nine on progression from the left, and a character design 565 numbered one repeats after the character design 565 numbered nine. The character designs 565 in the middle tier 562 are displayed in sequence from nine to one on progression from the left, and a character design 565 numbered nine repeats after the character design 565 numbered one.

[0070] Next, explanation follows regarding the gameplay screen 503 for the bonus challenge, with reference to Fig. 13. A character 530 of a cockerel is displayed at the center of the gameplay screen 503, and an image of a giant egg, this being a challenge image 535, is displayed in front of and below the character 530. Collision portions 536, with which the simulated gameplay balls 540 collide, are provided at four peripheral locations of the giant egg image, this being the challenge image 535. Moreover, pins 520 and windmills 525 are disposed following the shape of the character 530. A won ball number display section 567 displaying the number of held balls that have been won during the bonus challenge is displayed over the giant egg image, this being the challenge image 535, and a time display section 508 indicating the remaining time in the bonus challenge is displayed below the giant egg image. Although not illustrated in the drawings, the out-hole 515 into which the simulated gameplay balls 540 can enter is displayed at the lowermost edge of the gameplay screen 503.

[0071] The simulated gameplay balls 540 can be displayed on the gameplay screen 503 at locations other than the challenge image 535. The simulated gameplay balls 540 launched toward an upper portion from the left either collide with the four respective collision portions 536 and enter the out-hole 515, or enter the out-hole 515 without colliding with the four

collision portions 536, while their fall directions are changed by the pins 520 and the windmills 525.

Note that the simulated gameplay balls 540 displayed on the gameplay screen 503 simulate the movement of gameplay balls in a real pachinko machine. Specifically, the simulated gameplay balls 540 are imparted with the same gravitational acceleration as in reality, and the movement of the simulated gameplay balls 540 is reproduced based on the mass and elastic coefficient of real gameplay balls. When the simulated gameplay balls 540 collide with the pins 520, a rebound direction is determined by computation, and the movement speed is recalculated when the simulated gameplay balls 540 are rotated by the windmills 525.

[0072] *Flow up to Gameplay Start*

In the pachinko game, gameplay can be progressed when "held balls" are held. Note that there are 0 held balls when the player begins playing. In cases in which there are no gameplay points for the pachinko game on the IC card 78 when the IC card 78 is inserted into the insertion port 71, at the start of gameplay, 200 held balls are set, corresponding to 200 gameplay points. An amount corresponding to the 200 gameplay points is deducted from the monetary data on the IC card 78, based on the conversion rate set by the conversion rate settings. Note that in cases in which there is less than an amount corresponding to 200 gameplay points in the monetary data of the IC card 78, the maximum amount that can be converted into gameplay points is converted into gameplay points, and held balls are set corresponding to the converted gameplay points.

[0073] In cases in which gameplay points for the pachinko game are present on the IC card 78 as a result of playing the pachinko game on another game machine 10, when the IC card 78 is inserted into the insertion port 71, held balls are set corresponding to all of the gameplay points for the pachinko game. When this is performed, no money is deducted from the monetary data of the IC card 78.

When there are 0 held balls, operating the handle 46 automatically sets 200 held balls. Note that when there is less than an amount corresponding to 200 gameplay points in the monetary data of the IC card 78, the maximum amount that can be converted into gameplay points is converted into gameplay points, and held balls are set corresponding to the converted gameplay points.

[0074] In the pachinko game, one held ball corresponds to one gameplay point. Moreover, one gameplay point is set so as to correspond to 5 yen. Namely, gameplay can be performed for 5 yen per held ball. It can therefore be understood that since 200 gameplay points are required at the start of gameplay, 1000 yen's worth of monetary data is required. Note that

the gameplay point conversion rate can be modified using the conversion rate settings described above.

Flow of Gameplay

The pachinko game of the present exemplary embodiment is split broadly between normal gameplay and the bonus challenge. In normal gameplay, the number of held balls is increased by lining up the character designs displayed on the simulated liquid crystal display section 560. The bonus challenge is gameplay employing a different gameplay screen 503 (see Fig. 13) to normal gameplay, and the objective is to complete a specific task using the simulated gameplay balls 540.

[0075] Fig. 14 illustrates a flowchart of a flow of gameplay in the pachinko game of the present exemplary embodiment.

At step 100, the game control means 113 determines whether or not to end a game. Here, "ending a game" includes cases in which the player presses the balance adjustment switch 75 themselves to end the game. "Ending a game" also includes cases in which there are 0 held balls, in other words, when the gameplay points for the pachinko game have reached 0 points and gameplay cannot be continued, and cases in which the monetary data of the IC card 78 has reached 0 yen and gameplay cannot be continued. The game is ended after performing balance adjustment processing when the game control means 113 makes determination to end the game. Processing proceeds to the next step 101 when the game control means 113 makes determination not to end the game.

[0076] At step 101, the game control means 113 determines whether or not the gameplay being executed is normal gameplay. Processing proceeds to the next step 102 when the game control means 113 determines that the gameplay being executed is normal gameplay. Processing proceeds to step 105 when the game control means 113 does not determine the gameplay being executed to be normal gameplay, namely, when the gameplay being performed by the game control means 113 is the bonus challenge.

At step 102, normal gameplay processing is executed by the game control means 113. In normal gameplay processing, gameplay is executed using the gameplay screen 503 for normal gameplay. Processing then proceeds to the next step 103.

At step 103, the game control means 113 determines whether or not the result of normal gameplay processing is a jackpot. Here, a jackpot is a state in which the character designs 565 of the same number line up on the simulated liquid crystal display section 560. This will be described in detail later. Processing proceeds to the next step 104 when the game control means 113 determines the result of normal gameplay processing to be a jackpot. Processing returns to step 100 when the game control means 113 does not determine the result

of normal gameplay processing to be a jackpot.

[0077] At step 104, the game control means 113 executes jackpot dramatic effects, as illustrated in Fig. 18A to Fig. 18D. Processing then proceeds to step 105.

At step 105, the game control means 113 executes bonus challenge processing. In the bonus challenge processing, gameplay employing the gameplay screen 503 for the bonus challenge is executed. Processing then proceeds to the next step 106.

At step 106, the game control means 113 determines whether or not the remaining time for the bonus challenge has reached 0, namely, whether or not the time displayed on the time display section 508 has reached 0. Processing proceeds to the next step 107 when the game control means 113 determines the remaining time to have reached 0. Processing returns to step 100 when the game control means 113 determines that the remaining time has not reached 0.

[0078] At step 107, the game control means 113 determines whether or not a challenge game of the bonus challenge was successful. Processing proceeds to the next step 108 when the game control means 113 determines that the challenge was successful. The game control means 113 proceeds to step 110 when the challenge game was determined to have been unsuccessful, namely, when the challenge game ended in failure.

At step 108, the game control means 113 executes challenge success dramatic effects indicating that the challenge game was successful. Processing then proceeds to the next step 109.

At step 109, the game control means 113 executes addition processing to add the held balls won by successfully completing the challenge game. Note that in the addition processing, 2000 held balls are added if the challenge was successfully completed within 30 seconds. 1000 held balls are added if the challenge was successfully completed in more than 30 seconds but within 60 seconds. Processing then returns to step 100.

[0079] When the challenge game ended in failure at step 107, challenge failure dramatic effects are executed at step 110. Processing then returns to step 100.

Gameplay and Dramatic Effects During Normal Gameplay

Explanation follows regarding gameplay and dramatic effects during the normal gameplay executed by the normal gameplay processing.

During normal gameplay, the simulated gameplay balls 540 are launched into the gameplay screen 503 by turning the handle 46 toward the right. When this is performed, the strength with which the simulated gameplay balls 540 are launched increases the further the handle 46 is turned toward the right. Moreover, the speed with which the simulated gameplay balls 540 are launched increases the further the handle 46 is turned toward the right.

The color of the power gauge 506 changes the further the handle 46 is turned toward the right. This thereby enables the player to visually confirm the strength (speed) with which the simulated gameplay balls 540 will be launched. When a simulated gameplay ball 540 enters any of the start chuckers 510, the number of held balls increases by five, and the internal lottery is executed to determine whether or not to hit a jackpot. Moreover, the character designs 565 and the blank designs 566 being displayed on the upper tier 561, the middle tier 562, and the lower tier 563 of the simulated liquid crystal display section 560 start to scroll toward the left in sequence, as illustrated in Fig. 15A. When a specific duration has elapsed, scrolling is stopped in the sequence of the upper tier 561, the lower tier 563, and the middle tier 562. Note that when scrolling is being stopped, the scroll speed slows down from two designs, including blank designs 566, ahead before coming to a stop.

[0080] The internal lottery is managed according to the number of plays. Specifically, the number of plays before the jackpot can be hit is set in advance, and when the set number of plays has been reached, there is a high probability of striking lucky in the internal lottery. Note that on striking lucky in the internal lottery, the number of plays before the next time of striking lucky in the internal lottery and hitting a jackpot is determined. Note that the "number of plays" in the pachinko game is the number of launches of the simulated gameplay balls 540, in other words, the number of held balls that are used.

A stopping mode of the character designs 565 and the blank designs 566 on the upper tier 561, the middle tier 562, and the lower tier 563 of the simulated liquid crystal display section 560 is decided by the result of the internal lottery. Namely, on striking lucky in the internal lottery, character designs 565 of the same number form a row in any line out of the lines (1) to (5) below to give a jackpot state.

(1) A line through the left side of the upper tier 561, the left side of the middle tier 562, and the left side of the lower tier 563.

(2) A line through the center of the upper tier 561, the center of the middle tier 562, and the center of the lower tier 563.

(3) A line through the right side of the upper tier 561, the right side of the middle tier 562, and the right side of the lower tier 563.

(4) A line through the left side of the upper tier 561, the center of the middle tier 562, and the right side of the lower tier 563.

(5) A line through the right side of the upper tier 561, the center of the middle tier 562, and the left side of the lower tier 563.

Note that when a jackpot has become definite in the internal lottery, if the character designs 565 of the same number do not line up when the upper tier 561, the lower tier 563,

and the middle tier 562 have all stopped scrolling, the middle tier 562 starts to scroll again, before stopping such that the character designs 565 of the same number line up. Adopting a different stopping mode from normal in this manner enables the player to be imparted with a sense of the unusual.

[0081] When the internal lottery has struck lucky and a jackpot has become definite, reach dramatic effects are performed when lining up the character designs 565 of the same number in the lines (1) to (5). Sometimes the reach dramatic effects are also performed even when the internal lottery has not struck lucky. In such cases, the character designs 565 of the same number will not line up in the lines (1) to (5) after the reach dramatic effects end. Namely, the reach dramatic effects are dramatic effects to make the player anticipate a jackpot. The reach dramatic effects start when triggered by achieving a reach state, this being a state in which the upper tier 561 and the lower tier 563 have stopped, and character designs 565 of the same number have stopped in a vertical or diagonal line. As the reach dramatic effects, plural reach dramatic effects are performed according to the result of the internal lottery, or the placement of the character designs 565 when the reach state was achieved. The reach dramatic effects will be described in detail later.

[0082] The character designs 565 change according to the state of gameplay. Specifically, when a simulated gameplay ball 540 enters any one of the start chuckers 510, and the upper tier 561, the middle tier 562, and the lower tier 563 start to scroll, a cockerel in a cockerel image, this being a character design 565, spreads its wings or turns its head. Moreover, when the upper tier 561 and the lower tier 563 have stopped scrolling and a reach state has been achieved, as illustrated in Fig. 15B and Fig. 15C, a cockerel in a character design 565 turns its head to face the side of the player to make the player realize that a reach state has been achieved. Moreover, when a jackpot is hit, images are displayed in which a cockerel of a character design 565 appears startled and then celebrates. Note that in a full-rotation reach state, described later, images are displayed in which a cockerel of character design 565 rocks rhythmically.

[0083] Normally, slowly scrolling images of "grassland", "seaside", or "forest" are displayed on the background 564. When the images of "grassland", "seaside", or "forest" are being displayed on the background 564, sometimes extra dramatic effects, such as "falling rain" or "blowing wind" are added to the images of "grassland", "seaside", or "forest". Moreover, the images in the background 564 change according to the level of anticipation of striking lucky in the internal lottery. Specifically, when there is a high level of anticipation of striking lucky in the internal lottery, images suggestive of the high level of anticipation are displayed. For example, when images of a "grassland at dusk", "seaside at dusk", "forest at dusk", or

"battle arena" are displayed, the degree of anticipation of striking lucky in a reach is raised. Note that the "grassland at dusk" image is a variation on the "grassland" image when approaching the number of plays for hitting a jackpot, and the "grassland at dusk" image continues to be displayed on the background 564 for a maximum of 32 plays. The "seaside at dusk" image is a variation on the "seaside" image when approaching the number of plays for hitting a jackpot, and the "seaside at dusk" image continues to be displayed on the background 564 for a maximum of 32 plays. The "forest at dusk" image is a variation on the "forest" image when approaching the number of plays for hitting a jackpot, and the "forest at dusk" image continues to be displayed on the background 564 for a maximum of 32 plays. The "battle arena" image, however, is the background 564 when there is a definite promise to achieve a reach state, and the other backgrounds 564 change to the "battle arena" image in a state in which the lamps of the retained ball display section 550 are illuminated. The "battle arena" image appears when the lamps of the retained ball display section 550 are illuminated, and the "battle arena" image continues to be displayed on the background 564 for a maximum of 5 plays.

[0084] Detailed explanation follows regarding the reach dramatic effects.

Fig. 15B and Fig. 15C illustrate normal reach dramatic effects, these being one variety of reach dramatic effects. The normal reach dramatic effects are reach dramatic effects that are performed frequently, even when the internal lottery has not struck lucky, and have the lowest anticipation of a jackpot out of the reach dramatic effects. Note that Fig. 15B illustrates an example of a single reach state in which a jackpot will be hit if the character design 565 numbered "2" stops at the center of the middle tier 562. Fig. 15C illustrates an example of a double reach state in which a jackpot will be hit if the character designs 565 numbered "2" or "3" stop at the center of the middle tier 562. In the normal reach dramatic effects, there is a cry of "Reach!" from the speakers 60, and then dedicated background music plays. In the single reach state, sometimes there is a transition to super reach dramatic effects or special reach dramatic effects, these being reach dramatic effects that further raise the anticipation of hitting a jackpot. In a double reach state, sometimes transition is made to the super reach dramatic effects.

[0085] Fig. 15D and Fig. 15E illustrate the super reach dramatic effects. Transition to the super reach dramatic effects is made from the single reach state or the double reach state. Transition to the super reach dramatic effects is made after the character designs 565 of the middle tier 562 have scrolled several times in the single reach state or the double reach state, and after the background music has changed. In the super reach dramatic effects, a character design 565 on the middle tier 562 scrolls in from the right side (see Fig. 15D), but then moves

swiftly upward from the vicinity of the center of the middle tier 562 and vanishes (see Fig. 15E) without scrolling as far as the left side. The next dramatic effects are performed once the character design 565 has moved swiftly and vanished. Namely, in the super reach dramatic effects, a cockerel character of a character design 565 is displayed as if running with a desperate expression and then swooping off the screen. Note that the character design 565 that moves swiftly and vanishes is a character design 565 of a losing number that would not result in a jackpot. Moreover, when the character designs 565 vanish, a number of blank designs 566 equal to the number of character designs 565 that have vanished also vanish. By reducing the character designs 565 on the middle tier 562, the degree of anticipation of hitting a jackpot increases. Namely, out of the nine types of character design 565, there is a decrease in the character designs 565 of losing numbers, thereby raising the probability that the character design 565 with the jackpot-winning number will stop at the center of the middle tier 562.

[0086] Fig. 16A to Fig. 16I illustrate the special reach dramatic effects. Transition to the special reach dramatic effects is made from the single reach state. Transition to the special reach dramatic effects is made after the character designs 565 of the middle tier 562 have scrolled several times in the single reach state, and after the background music has changed. Specifically, during the dramatic effects in the single reach state (see Fig. 16A), the screen darkens accompanied by a change in the background music (see Fig. 16B), and a new dramatic effects screen appears on the simulated liquid crystal display section 560. First, a screen is displayed to announce a battle between a character design 565 for a losing number and the character design 565 for the jackpot-winning number (see Fig. 16C). Next, the screen transitions to a battle screen (see Fig. 16D). On the battle screen, images are displayed of a moonlit cockfight between the cockerel characters of the character designs 565. A cut-in image of the character design 565 for the losing number and a cut-in image of the character design 565 for the jackpot-winning number are displayed (see Fig. 16E). When this is performed, the size of the character designs 565 in the cut-in images indicates the level of anticipation of hitting a jackpot. Specifically, the degree of anticipation of victory increases if the cockerel image of the character design 565 of the jackpot-winning number is larger than the cockerel image of the character design 565 of the losing number. Dramatic effects confirming the outcome are performed after transitioning back to the battle screen (see Fig. 16F). Note that "victory" is when the cockerel of the character design 565 of the jackpot-winning number is victorious, and the number on the middle tier 562 in the reach state is confirmed as the jackpot-winning number. The word "WIN" is displayed (see Fig. 16G), and the numbers of the character designs 565 on the upper tier 561, the middle tier 562,

and the lower tier 563 are displayed (see Fig. 16H). However, "defeat" is when the cockerel of the character design 565 of the losing number is victorious, and the number on the middle tier 562 in the reach state is confirmed as the losing number. Moreover, the numbers of the character designs 565 on the upper tier 561, the middle tier 562, and the lower tier 563 are displayed (see Fig. 16I).

[0087] Fig. 17 illustrates full-rotation reach dramatic effects. The full-rotation reach dramatic effects are reach dramatic effects that are different reach dramatic effects to the normal reach dramatic effects, the super reach dramatic effects, and the special reach dramatic effects described above, and are dramatic effects that are performed when a jackpot has become definite. Transition to the full-rotation reach dramatic effects when the internal lottery has struck lucky is rare. In the full-rotation reach dramatic effects, after the upper tier 561, the middle tier 562, and the lower tier 563 start scrolling, scrolling is performed in a state in which the character designs 565 of the upper tier 561, the middle tier 562, and the lower tier 563 are all in line. The scroll speed then gradually decreases, before stopping in the center to display a state in which the jackpot-winning character designs 565 form a line through the center of the upper tier 561, the center of the middle tier 562, and the center of the lower tier 563.

[0088] As a reach dramatic effect when hitting a jackpot is highly anticipated, there is also a dramatic effect in which a flock of "baby chicks" cross in front of the background 564 in the reach state. There is also a reach dramatic effect in which the scroll sequence in which the upper tier 561, the lower tier 563, and the middle tier 562 are stopped is changed such that the lower tier 563, the upper tier 561, and the middle tier 562 are stopped in that sequence.

Fig. 18B to Fig. 18D illustrate screens for jackpot dramatic effects performed when a jackpot has been confirmed. When a jackpot is hit during the special reach dramatic effects, the screen initially returns to that of Fig. 18A. On hitting a jackpot in the other reach dramatic effects, transition is made directly to the jackpot dramatic effects. Note that immediately after a jackpot has been confirmed as illustrated in Fig. 18A, dramatic effects are performed in which the cockerel of the character design 565 of the jackpot-winning number momentarily adopts a startled expression, after which it adopts an elated expression. Next, a spinning plate 568 appears displaying a message of congratulations and the number of held balls won, the plate 568 growing in size as it rotates from the back of the screen, as illustrated in Fig. 18B. Next, the plate 568 displaying the message of congratulations and the number of held balls that have been won is displayed as illustrated in Fig. 18C. Then, held ball addition processing is performed, and the number of held balls added is displayed on the held ball display section 504. Note that the number of held balls added when a jackpot is hit

differs depending on the number of the character designs 565 that hit the jackpot. Specifically, for "1", "3", "5", "7", "9", the number of held balls added is at least 3000. For "2", "4", "6", "8", the number of held balls added is at least 2000. As illustrated in Fig. 18D, the display of the plate 568 then switches to a display indicating transition to the bonus challenge, and the dramatic effects for the jackpot are ended.

[0089] The probability of striking lucky in the internal lottery during normal gameplay is managed according to "modes", as well according to the as the number of plays. For example, three modes of a "low mode", a "medium mode", and a "high mode" with different probabilities of striking lucky may be provided, and the gameplay experience can be varied by switching between these modes depending on the time of day. Moreover, setting may be made such to adopt the high-probability "high mode" after changing the payout rate in the payout settings.

The "high mode" may be set to be more advantageous than the "low mode" and the "medium mode", for example by guaranteeing striking lucky in the internal lottery within 100 plays, or by raising the likelihood of striking lucky in consecutive internal lotteries. Moreover, setting may be made such that on transitioning to the "high mode", the likelihood of staying in the "high mode" again is increased.

[0090] The likelihood of striking lucky in consecutive internal lotteries after a low number of plays within 100 plays may be increased when the full-rotation reach dramatic effects described above have taken place.

As described above, the reach dramatic effects may be performed such that the player plays the game with a sense of anticipation of hitting a jackpot. Moreover, a rich and varied gameplay experience can be imparted by varying the reach dramatic effects according to the degree of anticipation of a jackpot.

Gameplay and Dramatic Effects in the Bonus Challenge

Explanation follows regarding gameplay and dramatic effects in the bonus challenge executed by bonus challenge processing.

[0091] In the bonus challenge, the player launches the simulated gameplay balls 540 into the gameplay screen 503 by turning the handle 46 toward the right. When a simulated gameplay ball 540 collides with any of the four collision portions 536, the egg image, this being the challenge image 535, is displayed such that cracks appear to form about the collision portion 536. The cracks progress, and the challenge is successful when the egg image, this being the challenge image 535, adopts a cracked open state.

First, in normal gameplay, when a jackpot has been hit and the addition processing for the held balls has been completed, the gameplay screen 503 for normal gameplay (see Fig.

10) switches to the gameplay screen 503 for the bonus challenge (see Fig. 13). Transition to the bonus challenge is guaranteed after hitting a jackpot. After switching to the gameplay screen 503 for the bonus challenge, signs are given to indicate the start of the bonus challenge, as illustrated in Fig. 19A and Fig. 19B, and a 60 second countdown is started. When this is performed, the remaining time is displayed on the time display section 508. Here, the player attempts to smash the egg image, this being the challenge image 535, within a time limit of 60 seconds. Specifically, the simulated gameplay balls 540 are made to collide with the collision portions 536 provided at the four corners of the egg image, this being the challenge image 535, so as to smash the egg. As illustrated in Fig. 19C, the egg gradually cracks when the simulated gameplay balls 540 collide with the collision portions 536. If the egg can be cracked open within the time limit, a success image 569 of a baby chick holding a placard, as illustrated in Fig. 19D, is displayed and the challenge is successful.

[0092] The size of the cracks come in five stages, and after the cracks have become large, or when cracks develop at several of the collision portions 536, an image of a cracked open egg is displayed. Note that the manner of crack development and manner of smashing are not limited thereto. Namely, simulation may be performed in which the strength of the shell is set such as that of a real egg, and the simulated gameplay balls 540 are set with a virtual mass, such that the faster the collision speed of the simulated gameplay balls 540, the more readily the cracks develop, and the more readily the egg is cracked open.

Note that the held balls do not decrease in number during the bonus challenge. Moreover, five held balls are added when a simulated gameplay ball 540 collides with the image of the egg, this being the challenge image 535, within the time limit. When this is performed, "+5" is displayed on the won ball number display section 567 at the same time as the simulated gameplay ball 540 collides with the egg. Moreover, if the challenge is successfully completed within 30 seconds, 2000 held balls are awarded. If the challenge is successfully completed in more than 30 seconds but within 60 seconds, 1000 held balls are awarded. As illustrated in Fig. 19D, the number of held balls won when the challenge is successfully completed is displayed on the success image 569. The held ball display section 504 displays the number of held balls added.

[0093] *Game Control Processing of the Second Game*

The second game is a slot game performed on the display device 20.

In slot machines, a gameplay token is inserted, plural rotating reels displaying plural designs are rotated, and the rotating reels are stopped by operating stop switches. The objective is to win as many gameplay tokens as possible by achieving specific combinations of designs. In the slot game of the present exemplary embodiment, a slot machine is

reproduced on the display device 20. In the slot game, the simulated reels 620 are displayed so as to appear to rotate in place of the rotating reels that rotate in reality. Note that in the slot game, "held coins" are employed as the virtual gameplay medium.

[0094] *Gameplay Screen*

Fig. 20 illustrates a gameplay screen 600 displayed on the display device 20 in the slot game. The gameplay screen 600 is a real slot machine reproduced in 3D on the display device 20. The three simulated reels 620 are displayed slightly below the center of the gameplay screen 600. The respective simulated reels 620 are configured by the left side simulated reel 621, the center simulated reel 622, and the right side simulated reel 623. A reel frame 625 is disposed surrounding the simulated reels 620. The reel frame 625 changes color between yellow, green, and red according to a bonus status. Three bet lamps 610 are displayed at the left side of the simulated reels 620. The bet lamps 610 include a single bet lamp 611 that lights up when the bet switch 42 is operated once to bet a single held coin. There is also a middle bet lamp 612 that lights up when the bet switch 42 is operated twice in a row to bet two held coins. There is also a max bet lamp 613 that lights up when the bet switch 42 is operated three times in a row to bet three held coins. A victory lamp 603 is displayed at the right side of the simulated reels 620. The victory lamp 603 lights up when held coins are paid out. A held coin display section 604 is displayed below the simulated reels 620. The held coin display section 604 is capable of displaying the number of held coins, from "0" up to "999999".

[0095] A title logo 601 is displayed above the simulated reels 620, and at the top of the gameplay screen 600. The title logo 601 is displayed on the display device 20 so as to appear three dimensional, and lights up and flashes according to dramatic effects in the game.

Fig. 21 illustrates valid lines 630 employed to determine whether or not designs have lined up corresponding to specific combinations when rotation of the simulated reels 620 has come to a stop. Here, "winning a prize" refers to a permutation of designs corresponding to a winning combination lining up along one of the valid lines 630. As illustrated in Fig. 21, inside the reel frame 625, the designs of the respective simulated reels 620 can be seen across three tiers of an upper tier, a middle tier, and a lower tier. The valid lines 630 are configured by the following lines (1) to (5).

(1) A first valid line 631 through the middle tier of the left simulated reel 621, the middle tier of the center simulated reel 622, and the middle tier of the right simulated reel 623.

(2) A second valid line 632 through the upper tier of the left simulated reel 621, the upper tier of the center simulated reel 622, and the upper tier of the right simulated reel 623.

(3) A third valid line 633 through the lower tier of the left simulated reel 621, the lower tier of the center simulated reel 622, and the lower tier of the right simulated reel 623.

(4) A fourth valid line 634 through the upper tier of the left simulated reel 621, the middle tier of the center simulated reel 622, and the lower tier of the right simulated reel 623.

(5) A fifth valid line 635 through the lower tier of the left simulated reel 621, the middle tier of the center simulated reel 622, and the upper tier of the right simulated reel 623.

[0096] *Placement of Designs on the Simulated Reels 620*

Fig. 22 illustrates placement of the designs on the simulated reels 620 for a normal game. Plural types of design, such as "red 7" and "blue 7" are defined on the left simulated reel 621, the center simulated reel 622, and the right simulated reel 623. Specifically, on the simulated reels 620, a red 7 design (a picture of the number 7 in red) and a blue 7 design (a picture of the number 7 in blue) are defined. A bar design (a picture with BAR written inside rectangles) and bell design (a picture resembling a bell) are also defined. A cherry design (a picture resembling a cherry) and a blank design (a picture of a star shape, smaller than the other designs), are also defined. In Fig. 22, the red 7 design is labelled "R7", the blue 7 design is labelled "B7", the bar design is labelled "BAR", the bell design is labelled "BEL", and the cherry design is labelled "CH". Note that the numbers along the left edge in Fig. 22 are design numbers identifying the respective designs. Each of the simulated reels 620 for a normal game includes 21 design regions. Note that when the simulated reels 620 are displayed so as to appear to rotate, and a design with the design number 0 repeats following the design with the design number 20.

[0097] In the slot game of the present exemplary embodiment, unlike in a real slot machine, a large number of the blank designs are provided so as to make it easier to see designs that influence winnings, such that it becomes easier to stop a specific design by sight. Basically, a combination is rarely missed if the stop switches 50 are operated aiming for the red 7 designs.

Fig. 23 illustrates the winnings for prizes won in the normal game. Combinations with winnings include a "red 7 combination" in which the red 7 designs line up, this being a combination with winnings of up to a maximum of 100, and a "blue 7 combination" in which the blue 7 designs line up, this being a combination with winnings of up to a maximum of 100. There is also a "bar combination" in which the bar designs line up, this being a combination with winnings of up to a maximum of 30, and a "bell combination" in which the bell designs line up, this being a combination with winnings of up to a maximum of 20. There is also a "mixed 7 line-up combination" in which the red 7 designs and blue 7 designs are mixed, this being a combination with winnings of up to a maximum of 10, and a "cherry combination" in

which the cherry designs line up, this being a combination with winnings of up to a maximum of 10.

[0098] Note that there are six permutations of the "mixed 7 line-up combination", namely "red 7, red 7, blue 7", "red 7, blue 7, blue 7", "red 7, blue 7, red 7", "blue 7, blue 7, red 7", "blue 7, red 7, red 7", and "blue 7, red 7, blue 7".

Fig. 24 illustrates the placement of the simulated reels 620 for a bonus game. Pink 7 designs (a picture of the number 7 in pink), and the red 7 designs (a picture of the number 7 in red) are defined on the left simulated reel 621, the center simulated reel 622, and the right simulated reel 623. The blue 7 designs (a picture of the number 7 in blue) and the blank designs (a picture of a star shape, smaller than the other designs), are also defined. In Fig. 24, the pink 7 design is labelled "P7", the red 7 design is labelled "R7", and the blue 7 design is labelled "B7". Note that the numbers along the left edge in Fig. 24 are design numbers identifying the respective designs. Each of the simulated reels 620 for the bonus game includes 10 design regions. Note that when the simulated reels 620 are displayed so as to appear to rotate, a design with the design number 0 repeats following the design with the design number 9.

[0099] Fig. 25 illustrates the winnings for prizes won in the bonus game. The combinations with winnings include a "pink 7 combination" in which the pink 7 designs line up, this being a combination with winnings of 200, and a "red 7 combination" in which the red 7 designs line up, this being a combination with winnings of 100. There is also a "blue 7 combination" in which the blue 7 designs line up, this being a combination with winnings of 100, and a "mixed 7 line-up combination" in which the red 7 designs and blue 7 designs are mixed, this being a combination with winnings of 10. Note that the permutations of the "mixed 7 line-up combination" are as described above.

The design numbers attached to the left edges in Fig. 22 and Fig. 24 are not displayed on the respective simulated reels 620, and are virtual numbers that indicate the specific designs in a program for controlling display of the respective designs as they stop.

[0100] *Flow up to Gameplay Start*

In the slot game, gameplay can be progressed when "held coins" are held. Note that there are 0 held coins when the player begins playing. In cases in which there are no gameplay points for the slot game on the IC card 78 when the IC card 78 is inserted into the insertion port 71, 50 held coins are set corresponding to 50 gameplay points. An amount corresponding to the 50 gameplay points is deducted from the monetary data on the IC card 78, based on the conversion rate set by the conversion rate settings. Note that in cases in which there is less than an amount corresponding to 50 gameplay points in the monetary data

of the IC card 78, the maximum amount that can be converted into gameplay points is converted into gameplay points, and held coins are set corresponding to the converted gameplay points.

[0101] In cases in which gameplay points for the slot game are present on the IC card 78 as a result of playing the slot game on another game machine 10, when the IC card 78 is inserted into the insertion port 71, held coins are set corresponding to all of the gameplay points for the slot game. When this is performed, no money is deducted from the monetary data of the IC card 78.

When the bet switch 42 is operated, the number of the bet lamps 610 increases, and gameplay becomes possible. Operating the bet switch 42 once gives a one bet state in which one held coin has been bet, and the single bet lamp 611 lights up. Operating the bet switch 42 twice gives a two bet state in which two held coins have been bet, and the single bet lamp 611 and the middle bet lamp 612 light up. Operating the bet switch 42 three times gives a three bet state in which three held coins have been bet, and the single bet lamp 611, the middle bet lamp 612, and the max bet lamp 613 light up.

[0102] Note that from the second play onward, the lever 45 can be operated to perform gameplay with the same number of bets as at the previous time of betting, even if the bet switch 42 is not operated.

When only one held coin remains, 50 held coins are added automatically when the lever 45 is operated, and an amount corresponding to the 50 gameplay points is deducted from the monetary data on the IC card 78. Gameplay can then be performed with the same number of bets as in the previous play. Note that in cases in which there is less than an amount corresponding to 50 gameplay points in the monetary data of the IC card 78, the maximum amount that can be converted into gameplay points is converted into gameplay points, and held coins are set corresponding to the converted gameplay points.

[0103] In the slot game, one held coin corresponds to one gameplay point. One gameplay point is set so as to correspond to 20 yen. Namely, gameplay can be performed for 20 yen per held coin. It can therefore be understood that since 50 gameplay points are required at the start of gameplay, a monetary data amount corresponding to 1000 yen is required. Note that the gameplay point conversion rate can be modified using the conversion rate settings described above.

Flow of Gameplay

The slot game of the present exemplary embodiment is split broadly between the normal game, a precursor game, and the bonus game. The normal game is gameplay in which the held coins are increased by forming any of the valid lines 630 with the normal

game designs displayed on the simulated reels 620. The precursor game is gameplay in which the held coins are increased by lining up the designs displayed on the simulated reels 620, similarly to in the normal game, and is also gameplay in which precursor dramatic effects are performed in order to raise anticipation of transitioning to the bonus game. The bonus game is gameplay in which the held coins are increased by lining up any of the valid lines 630 with the bonus game designs displayed on the simulated reels 620.

[0104] Fig. 26 is a flowchart of a flow of gameplay in the slot game of the present exemplary embodiment.

At step 200, the game control means 113 determines whether or not to end a game. Here, "ending a game" includes cases in which the player presses the balance adjustment switch 75 themselves to end the game. "Ending a game" also includes cases in which there are 0 held coins, in other words, when the gameplay points for the slot game have reached 0 points and gameplay cannot be continued, and cases in which the monetary data of the IC card 78 has reached 0 yen and gameplay cannot be continued. The game is ended after performing balance adjustment processing when the game control means 113 makes determination to end the game. Processing proceeds to the next step 201 when the game control means 113 makes determination not to end the game.

[0105] At step 201, the game control means 113 determines whether or not the gameplay being executed is normal gameplay. Processing proceeds to the next step 202 when the game control means 113 determines that the gameplay being executed is normal gameplay. Processing proceeds to step 205 when the game control means 113 does not determine the gameplay being executed to be normal gameplay.

At step 202, normal gameplay processing is executed by the game control means 113. This will be described in detail later. Processing then proceeds to the next step 203.

At step 203, the game control means 113 determines whether or not a specific number of plays that triggers the start of the precursor game has been reached. Here, the "number of plays" of the slot game refers to the number of times that a bet operation has been performed and gameplay has been executed. The specific number of plays that triggers the start of the precursor game may be set to 20 plays before the start of the bonus game, or may be set to 10 plays before the start of the bonus game. Processing proceeds to the next step 204 when the game control means 113 determines that the specific number of plays that triggers the start of the precursor game has been reached. However, processing returns to step 200 when the game control means 113 determines that the specific number of plays that triggers the start of the precursor game has not been reached.

[0106] At step 204, transition processing to transition from the normal game the precursor

game is executed by the game control means 113. Processing then returns to step 200.

In cases in which the game control means 113 determines that the gameplay being executed is not the normal game at step 201, at step 205, the game control means 113 determines whether or not the gameplay being executed is the precursor game. Processing proceeds to step 206 when the game control means 113 determines that the gameplay being executed is the precursor game. Processing proceeds to step 209 when the game control means 113 does not determine the gameplay being executed to be the precursor game.

At step 206, precursor game processing is executed by the game control means 113. This will be described in detail later. Processing then proceeds to the next step 207.

[0107] At step 207, the game control means 113 determines whether or not a specific number of plays that triggers the start of the bonus game has been reached. The slot game is configured so as to transition to the bonus game when a predetermined number of plays has been reached. For example, setting may be made such that the bonus game starts when the number of plays of the normal game has reached 500 plays. This enables the bonus game to take place without depending entirely on probability. Processing proceeds to the next step 208 when the game control means 113 determines that the specific number of plays that triggers the start of the bonus game has been reached. Processing returns to step 200 when the game control means 113 determines that the specific number of plays that triggers the start of the bonus game has not been reached.

[0108] At step 208, transition processing from the precursor game to the bonus game is executed by the game control means 113. Processing then returns to step 200.

At step 209, bonus game processing is executed by the game control means 113 in cases in which the game control means 113 determined that the gameplay being executed is not the precursor game at step 205, namely when the gameplay being executed is the bonus game. This will be described in detail later. Processing then proceeds to the next step 210.

At step 210, the game control means 113 determines whether or not to end the bonus game, and more specifically, whether or not to end the bonus game at junctures of the fifth play, the tenth play, or the twentieth play after starting the bonus game. Note that the bonus game is guaranteed to end once 20 plays have been used up. Processing proceeds to the next step 211 when the game control means 113 makes determination to end the bonus game. Processing returns to step 200 when the game control means 113 makes determination not to end the bonus game.

[0109] At step 211, reset processing is executed by the game control means 113. Specifically, the number of plays until starting the next bonus game is reset. Processing then proceeds to the next step 212.

At step 212, transition processing from the bonus game to the normal game is executed by the game control means 113. Processing then returns to step 200.

Gameplay and Dramatic Effects in the Normal Game

Explanation follows regarding gameplay and dramatic effects in the normal game executed by normal game processing.

[0110] In the normal game, the player operates the bet switch 42 to bet the required held coins for the normal game. As described above, one bet is placed by operating the bet switch 42 once and betting one held coin. Two bets are placed by operating the bet switch 42 twice in a row and betting two held coins. Moreover, three bets are placed by operating the bet switch 42 three times in a row and betting three held coins. Betting the held coins activates the five valid lines 630 of the first valid line 631 to the fifth valid line 635, regardless of the number of bets. Note that setting is made such that, as illustrated in Fig. 23, the winnings when a prize is won become higher the greater the number of bets. For example, in Fig. 23, in the case of the "red 7 combination" in which the red 7 designs line up, the winnings from one bet are 25, the winnings from two bets are 50, and the winnings from three bets are 100.

[0111] Next, when the lever 45 is operated, the images of the simulated reels 620 are displayed so as to appear to scroll from top to bottom. Accordingly, the respective simulated reels 620 are displayed so as to appear to rotate. Moreover, when the lever 45 is operated, a combination lottery is executed to decide whether or not any of the combinations will strike lucky. When any of the combinations strikes lucky, a strike lucky flag corresponding to the combination that has struck lucky is turned ON. For example, when the "red 7 combination" or the "blue 7 combination" strikes lucky, a "single color 7 flag" is turned ON. When the "bell combination" strikes lucky, a "bell flag" is turned ON. When the "mixed 7 line-up combination" strikes lucky, a "mixed 7 flag" is turned ON. When the "cherry combination" strikes lucky, a "cherry flag" is turned ON. Note that the "red 7 combination" and the "blue 7 combination" are both associated with the same "single color 7 flag". The "mixed 7 line-up combination" is associated with the same "mixed 7 flag" regardless of the permutation of the mixed red 7 designs and blue 7 designs. The "single color 7 flag" remains ON until a prize is won for the "red 7 combination" or the "blue 7 combination". Namely, the strike lucky flag can be carried over to the next play. However, the strike lucky flags other than the "single color 7 flag" are turned OFF at the point that individual play ends, and these strike lucky flags therefore cannot be carried over to the next play.

[0112] Then, when the respective stop switches 50 are operated, stopping control is executed to stop the simulated reels 620 that correspond to the respective stop switches 50. In the

stopping control, when a stop switch 50 is operated, control is performed so as to display the simulated reel 620 corresponding to that stop switch 50 coming to a stop at the design corresponding to the strike lucky flag. However, since control is, in principle, performed such that the display comes to a stop within four designs, including the design on the simulated reel 620 at the point that the stop switch 50 is operated, sometimes it is not possible to win a prize for the combination corresponding to the strike lucky flag as a result of the timing of the operation of the stop switches 50.

[0113] When a prize is won for the combination that has struck lucky, the victory lamp 603 of the gameplay screen 600 is displayed so as to light up or displayed so as to flash, and the dramatic effect lamps 65 of the case 11 light up or flash. Specifically, the dramatic effects become more extravagant the greater the winnings of the prize that has been won, enabling excitement at winning the prize to be generated.

Fig. 27A to Fig. 27E illustrate an examples of permutations of designs displayed in cases in which a prize is not won, despite have struck lucky for the "red 7 combination" or the "blue 7 combination". As described above, the "red 7 combination" and the "blue 7 combination" are combinations with winnings of up to a maximum of 100. The "red 7 combination" and the "blue 7 combination" are different combinations. However, both are associated with the same strike lucky flag (the single color 7 flag). This is in order to make it easier for the player to perform stopping operations by sight. Namely, when either the "red 7 combination" or the "blue 7 combination" strikes lucky, a prize will be won as long as the display can be stopped at the designs for one combination out of either the "red 7 combination" or the "blue 7 combination". Moreover, the "single color 7 flag" remains ON until a prize is won with either the "red 7 combination" or the "blue 7 combination". When the strike lucky flag is carried over, sometimes the designs illustrated in Fig. 27A to Fig. 27E will be displayed. For example, as illustrated in Fig. 27A, sometimes the red 7 design will be displayed in the upper tier and the lower tier of the left simulated reel 621 while the center simulated reel 622 and the right simulated reel 623 are rotating. As illustrated in Fig. 27B, sometimes the blank design will be displayed in each of the upper tier, the middle tier, and the lower tier of the center simulated reel 622. Note that "ANY" in the left simulated reel 621 and the right simulated reel 623 means that any design is possible. As illustrated in Fig. 27C, sometimes the center simulated reel 622 turns out to be a loss, the upper tier of the left simulated reel 621 will display the red 7 design, and the upper tier of the right simulated reel 623 will display the blue 7 design. As illustrated in Fig. 27D, sometimes the left simulated reel 621 and the right simulated reel 623 will turn out to be a loss, and the upper tier and the middle tier of the center simulated reel 622 will display the red 7 design. As illustrated in

Fig. 27E, sometimes the left simulated reel 621 and the center simulated reel 622 will turn out to be a loss, and the lower tier of the right simulated reel 623 will display the red 7 design.

[0114] Although the design permutations illustrated in Fig. 27A to Fig. 27E do not win a prize for the "red 7 combination" or the "blue 7 combination", they are permutations of designs suggest that a prize could be won. Accordingly, when these permutations of designs are displayed, the player is able to know that the "red 7 combination" or the "blue 7 combination" has struck lucky.

Note that the slot game is provided with measures to assist players who are not skilled at performing the design stopping operation by sight. Specifically, in cases in which either the "red 7 combination" or the "blue 7 combination" has struck lucky, but the player has failed to win a prize for three consecutive plays, in the fourth play, the game control means 113 forces the designs to stop in a permutation giving the "red 7 combination" or the "blue 7 combination". The stopping control on the fourth play ignores the control to stop within four designs after the stop switches 50 are operated.

[0115] Fig. 28A to Fig. 28C illustrate examples of dramatic effects when a combination has won a prize. Here, since the simulated reels 620 are images displayed on the display device 20, display features of the designs can be changed freely. First, as illustrated in Fig. 28A, when a prize has been won with the red 7 combination or the blue 7 combination, the combination of designs is displayed so as to appear to grow very large and sparkle. Moreover, as illustrated in Fig. 28B, when a prize has been won with the bar combination, the bar designs are displayed so as to appear to stretch and contract along the horizontal direction. Moreover, as illustrated in Fig. 28C, when a prize has been won with the bell combination, the bell designs are displayed so as to appear to grow larger and swing to the left and right. Although not illustrated in the drawings, when a prize has been won with the mixed 7 line-up combination, the red 7 designs and blue 7 designs are displayed so as to appear to grow slightly larger and sparkle. When a prize has been won with the cherry combination, the cherry designs are displayed so as to appear to grow slightly larger, with the two cherries on the cherry design moving toward and away from each other.

[0116] Note that the dramatic effects when a prize is won are executed while increasing the number on the held coin display section 604 after the win has been confirmed.

Gameplay and Dramatic Effects in the Precursor Game

Explanation follows regarding gameplay and dramatic effects in the precursor game executed by the precursor game processing.

The gameplay method of the precursor game is similar to that of the normal game. However, the precursor game is a state in which transition to the bonus game has become

definite, and various precursor dramatic effects are executed to build anticipation for the transition to the bonus game. The precursor dramatic effects include ongoing precursor dramatic effects and one-off precursor dramatic effects.

[0117] In the present exemplary embodiment, there are four types of ongoing precursor dramatic effects, as illustrated in Fig. 29A and Fig. 29D. Each of the ongoing precursor dramatic effects includes plural stages of dramatic effects, and transition to the bonus game is made after the final stage dramatic effects.

For example, as illustrated in Fig. 29A, sometimes an image of an "eagle" will be displayed flying past the front of the simulated reels 620 during gameplay. Specifically, initially a single eagle is displayed flying past. On the next occasion, two eagles are displayed flying past, and on the next occasion, three eagles are displayed flying past. Finally, a whole flock of eagles are displayed flying past. Transition to the bonus game is made once the above dramatic effects have ended.

[0118] As illustrated in Fig. 29B, sometimes the display of any one of the simulated reels 620 will disappear, making it appear as if a light in the simulated reel 620 has been extinguished. More specifically, initially the left simulated reel 621 is extinguished. On the next occasion, the center simulated reel 622 is extinguished, and on the next occasion the right simulated reel 623 is extinguished. Finally, the entire display device 20 is extinguished. Transition to the bonus game is made once the above dramatic effects have ended.

As illustrated in Fig. 29C, sometimes images of plural "bullet holes" are displayed in front of the simulated reels 620 during gameplay. Specifically, initially an image of one line of bullet holes is displayed. On the next occasion, an image of two lines of bullet holes is displayed, and on the next occasion, an image of three lines of bullet holes is displayed. Finally the entire display device 20 is displayed so as to appear cracked. Transition to the bonus game is made once the above dramatic effects have ended.

[0119] As illustrated in Fig. 29D, sometimes "shooting star" images are displayed in front of the simulated reels 620 during gameplay. Specifically, initially one shooting star is displayed. On the next occasion, two shooting stars are displayed, and on the next occasion, three shooting stars are displayed. Finally, an image of a huge meteor falling is displayed on the display device 20. Transition to the bonus game is made once the above dramatic effects have ended.

Note that the ongoing precursor dramatic effects need not necessarily be executed on consecutive plays, and may occur intermittently. For example, the one eagle may be displayed flying past during the first play of the precursor game, and the two eagles may be displayed flying past during the second play of the precursor game. The three eagles may

then be displayed flying past during the fourth play, with no ongoing precursor dramatic effects during the third play. The flock of eagles may then be displayed flying past during the fifth play. Note that when the flock of eagles flying past is displayed, transition to the bonus game becomes definite, and transition to the bonus game is made from the next play.

[0120] The one-off precursor dramatic effects are precursor dramatic effects that may appear according to the gameplay. In the present exemplary embodiment, there are eight types of ongoing precursor dramatic effects.

The first is a case in which an aura or flames are displayed so as to appear to surround the periphery of the simulated reels 620 when the simulated reels 620 are stopped. This one-off precursor dramatic effect can occur in conjunction with any of the combinations striking lucky. This one-off precursor dramatic effect includes three levels, appearing at the left simulated reel 621, appearing at the left simulated reel 621 and the center simulated reel 622, or appearing at all of the simulated reels 620. The auras surrounding the simulated reels 620 come in three colors, namely white, yellow, and red. An aura that is colored white and that appears frequently suggests that there is a high probability of transitioning to the bonus game. Yellow and red colored auras suggest that one of the combinations has struck lucky. Sometimes flames are displayed instead of displaying the auras at the periphery of the simulated reels 620.

[0121] The second is a case in which lines of light run across the front of the simulated reels 620 while the simulated reels 620 are rotating. This one-off precursor dramatic effect can occur even when no combination has struck lucky. This one-off precursor dramatic effect includes three levels with one to three lines of light. The transition to the bonus game feels more imminent when a combination wins a prize after this one-off precursor dramatic effect occurs. The transition to the bonus game also feels more imminent when this one-off precursor dramatic effect appears frequently.

The third is a case in which an image of a small "eagle" appears in the vicinity of the front of the simulated reels 620. In this one-off precursor dramatic effect, the image of the small eagle moves rapidly from right to left across the front of the simulated reels 620. This one-off precursor dramatic effect is associated with striking lucky with the red 7 combination or the blue 7 combination, and transition to the bonus game feels more imminent after failing to win a prize with the red 7 combination or the blue 7 combination.

[0122] The fourth is a case in which the word "Chance" appears in front of the simulated reels 620. This one-off precursor dramatic effect can occur in conjunction with any of the combinations striking lucky. In this one-off precursor dramatic effect, the word "Chance" is displayed so as to appear to appear faintly in front of the simulated reels 620 in white, yellow,

or red. Transition to the bonus game feels more imminent after failing to win a prize for the combination that has struck lucky when this one-off precursor dramatic effect occurs.

The first to fourth one-off precursor dramatic effects sometimes appear even when transition to the bonus game has not become definite.

[0123] The fifth is a case in which the eyes of an eagle displayed above the simulated reels 620 light up (see Fig. 20). When this one-off precursor dramatic effect occurs, transition to the bonus game will occur within five plays.

The sixth is a case in which the designs on the simulated reels 620 light up in the shape of a "V" when the simulated reels 620 have stopped. Specifically, the upper tier and the middle tier of the left simulated reel 621, the lower tier of the center simulated reel 622, and the upper tier and the middle tier of the right simulated reel 623 light up. When this one-off precursor dramatic effect occurs, transition to the bonus game will occur within five plays.

The seventh is a case in which the title logo 601 flashes. When this one-off precursor dramatic effect occurs, transition to the bonus game will occur within five plays.

[0124] The eighth is a case in which the simulated reels 620 rotate backward. When the lever 45 is operated, the simulated reels 620 are displayed so as to appear to scroll from the bottom to the top. This one-off precursor dramatic effect enables the player to see the simulated reels 620 appearing to rotate backward. After a specific duration has elapsed, the simulated reels 620 are displayed so as to appear to scroll from top to bottom. Namely, there is a return to normal rotation. Note that operation of the stop switches 50 is disabled when the simulated reels 620 are rotating backward, and the stopping operation of the simulated reels 620 cannot be performed. When this one-off precursor dramatic effect occurs, transition to the bonus game will occur within five plays.

[0125] Fig. 30A to Fig. 30C, and Fig. 31A to Fig. 31C illustrate conclusive dramatic effects executed during transition to the bonus game.

In the conclusive dramatic effects illustrated in Fig. 30A to Fig. 30C, a flock of eagles and a large eagle are displayed flying past the front of the simulated reels 620 (see Fig. 30A and Fig. 30B). Next, a plate 668 bearing the words "Bonus Game" and "Start" is displayed (see Fig. 30C). Note that a degree of anticipation regarding the number of plays of the bonus game varies according to the color of the reel frame 625 in the conclusive dramatic effects. For example, a yellow colored reel frame 625 suggests a high likelihood of five plays of the bonus game. A green colored reel frame 625 suggests a high likelihood of ten plays of the bonus game. A red colored reel frame 625 suggests a high likelihood of 20 plays of the bonus game.

[0126] In the conclusive dramatic effects illustrated in Fig. 31A to Fig. 31C, the display of all of the simulated reels 620 disappears (see Fig. 31A), and then the display of the entire display device 20 disappears, before the plate 668 bearing the words "Bonus Game" and "Start" is displayed (see Fig. 31C).

As described above, the player can be imparted with a sense of anticipation of the bonus game, and can be made aware that transition to the bonus game is a certainty by performing different dramatic effects to normal during the conclusive dramatic effects.

Gameplay and Dramatic Effects in the Bonus Game

Explanation follows regarding gameplay and dramatic effects in the bonus game executed by bonus game processing.

[0127] Unlike the normal game, the bonus game is gameplay performed employing the bonus game designs, as illustrated in Fig. 24. In the bonus game, the player can perform the game by operating the lever 45 alone, without betting held coins. Specifically, the simulated reels 620 rotate when the player operates a start switch 40 without operating the bet switch 42. The game control means 113 stops rotating the simulated reels 620 automatically when the stop switches 50 have not been operated within a specific amount of time. In the bonus game, held coins can be won by winning a prize on the "pink 7 combination", the "red 7 combination", the "blue 7 combination", or the "mixed 7 line-up combination". Since it is not necessary to bet in the bonus game, only one class of winnings is set for each combination, and the number of bets is irrelevant (see Fig. 25). In the bonus game, the number of plays comes in three categories, of five plays, ten plays, and twenty plays.

[0128] Next, explanation follows regarding the flow of gameplay in the bonus game.

First, the precursor game ends, and as illustrated in Fig. 32A, the plate 668 bearing the words "Bonus Game" and "Start" is displayed during transition to the bonus game. If, for example, as a result of gameplay a prize is won for a red 7 combination in which the red 7 designs line up in the lower tier of the left simulated reel 621, the lower tier of the center simulated reel 622, and the lower tier of the right simulated reel 623, a winnings amount image 664 is displayed in front of the simulated reels 620 as illustrated in Fig. 32B to indicate that 100 held coins, these being the winnings for to the red 7 combination, have been won. Moreover, the 100 held coins that have been won are added to a total amount image 665 below the simulated reels 620. Note that the winnings amount image 664 displays the number of held coins won in a single play of the bonus game. The total amount image 665 displays the total number of held coins won in the bonus game.

[0129] In the next play, if, a prize is won for a mixed 7 line-up combination in which a blue 7 design in the upper tier of the left simulated reel 621, a red 7 design in the middle tier of the

center simulated reel 622, and a blue 7 design in the lower tier of the right simulated reel 623 line up, a winnings amount image 664 is displayed in front of the simulated reels 620 as illustrated in Fig. 32C to indicate that 10 held coins, these being the winnings for the mixed 7 line-up combination, have been won. Moreover, the 10 held coins that have been won are added to the total amount image 665 below the simulated reels 620.

As described above, in the bonus game, the number of plays comes in the three categories of five plays, ten plays, and twenty plays. The bonus game always starts from five plays, this being extended to ten plays if the combination lottery does not strike lucky on the fifth play, and this being extended to twenty plays if the combination lottery does not strike lucky on the tenth play. When the number of plays is extended, extension dramatic effects occur to notify the number of additional plays, as illustrated in Fig. 32D. In the extension dramatic effects, an image of a giant "eagle" is displayed flying past the display device 20 when the bonus game is extended.

[0130] When the five plays, ten plays, or twenty plays of the bonus game come to an end, the words "The END" are displayed in front of the gameplay screen 600 as an ending screen, as illustrated in Fig. 32E. Then as illustrated in Fig. 32F, the total number of held coins won in the bonus game is displayed, and the bonus game ends.

Next, explanation follows regarding dramatic effects when a prize is won in the bonus game.

When the combination lottery strikes lucky and a prize is won for a combination, as illustrated in Fig. 33A, the designs relating to the combination that has struck lucky are displayed so as to appear to grow very large as illustrated in Fig. 33B, and are displayed so as to appear to sparkle while rotating. Note that the pink 7 designs, the red 7 designs and the blue 7 designs are images have a sense of 3D, as illustrated in Fig. 33D, and the 3D images are displayed so as to appear to rotate sideways. Next, when the display operation of Fig. 33B ends, as illustrated in Fig. 33C, the winnings amount image 664 indicating the number of held coins won as a result of winning the prize is displayed above the respective simulated reels 620. The winnings amount image 664 is displayed until the start of the next play, namely, until the lever 45 is operated.

[0131] *Game Control Processing of the Third Game*

The third game is the bingo game performed on the display device 20.

In the bingo game of the present exemplary embodiment, a pachinko game decides individual numbers from out of plural numbers. The object is to win points by eliminating squares with the decided numbers so as to form lines in specific rows.

Similarly to the first game, the movement of gameplay balls is reproduced on the

display device 20. In the bingo game, simulated gameplay balls 740 are displayed so as to appear to be moving, in place of the movement of real gameplay balls. Note that the simulated gameplay balls 740, serving as the virtual gameplay medium in the bingo game, are referred to as "held balls" or "launch balls". Specifically, the simulated gameplay balls 740 that can be used in the bingo game are referred to as "held balls", and the simulated gameplay balls 740 used in a single round of the bingo game are referred to as "launch balls".

[0132] *Gameplay Screen*

Fig. 34 illustrates a game screen 700 displayed on the display device 20 in the bingo game. The game screen 700 is a real pachinko machine reproduced in 3D on the display device 20, and also displays an image such as a bingo card. A gameplay screen 703 is displayed slightly below the center of the game screen 700. A bingo card 707 made up of five horizontal and five vertical rows of squares, and a title logo 701 disposed above the bingo card 707, are displayed above the gameplay screen. Array tables 702 indicating the correspondence between bingo formations and the number of held balls that can be won are displayed at both left and right sides of the title logo 701 and the bingo card 707.

[0133] A launch ball display section 705 displaying the number of remaining simulated gameplay balls 740 that can be used in a single round of the bingo game is displayed below the gameplay screen 703, in the vicinity of a lower edge on the left side of the game screen 700. A held ball display section 704 indicating the total number of simulated gameplay balls 740 that can be used in the bingo game is displayed above the launch ball display section 705. A power gauge 706 indicating the launch strength of the simulated gameplay balls 740 is displayed at the right side of the lower edge of the game screen 700.

Fig. 35 illustrates the gameplay screen 703 in close-up.

Various components mounted to a pachinko machine are displayed on the gameplay screen 703 so as to appear 3D. A simulated liquid crystal display section 760 corresponding to a liquid crystal monitor installed to a pachinko machine is displayed at a central portion of the gameplay screen 703. The simulated liquid crystal display section 760 performs dramatic effects accompanying the progress of gameplay or the like. A decoration 771 is displayed above the simulated liquid crystal display section 760.

[0134] Two windmills 725, and a large number of pins 720, used to make the downward direction of the simulated gameplay balls 540 irregular, and three start chuckers 710 into which the simulated gameplay balls 740 can enter, are displayed in a region of the gameplay screen 703 other than the simulated liquid crystal display section 760 and the decoration 771. In the same region, an out-hole 715 into which the simulated gameplay balls 740 can enter is displayed at a lowermost edge of the gameplay screen 703. The start chuckers 710 include

first start chuckers 711 that cause a bingo ball image 761, described later, to be displayed once when a simulated gameplay ball 740 enters, and a second start chucker 712 that causes the bingo ball image 761, described later, to be displayed twice when a simulated gameplay ball 740 enters.

[0135] The simulated gameplay balls 740 can be displayed on the gameplay screen 703 at locations other than the simulated liquid crystal display section 760 and the decoration 771. The simulated gameplay balls 740 launched toward an upper portion from the left enter any of the three start chuckers 710, or the out-hole 715, while their fall directions are changed by the pins 720 and the windmills 725. Note that in the present exemplary embodiment, "enter" refers to display of a simulated gameplay ball 740 disappearing when the simulated gameplay ball 740 reaches one of the start chuckers 710 or the out-hole 715. When a simulated gameplay ball 740 enters a start chucker 710, the bingo ball image 761 is displayed on the simulated liquid crystal display section 760.

[0136] Explanation follows regarding images displayed on the simulated liquid crystal display section 760, with reference to Fig. 36. In the images displayed on the simulated liquid crystal display section 760, the bingo ball image 761 allocated with a number to be eliminated on the bingo card 707 is displayed substantially at the center of the simulated liquid crystal display section 760. A bingo ball history image 762 indicating the history of the bingo ball images 761 displayed up to that point is displayed below the bingo ball image 761. The bingo ball history image 762 displays the history of up to ten bingo ball images 761. When there have been more than ten bingo balls, the oldest bingo ball is removed. Note that out of the bingo ball images 761 displayed in the bingo ball history image 762, any bingo ball images 761 that correspond to numbers in the squares of the bingo card 707 are displayed so as to appear to sparkle. A retained count display section 763 indicating a number of bingo ball images 761 that are in a display standby state due to a succession of simulated gameplay balls 740 entering the start chuckers 710 is present in the vicinity of an upper left edge of the simulated liquid crystal display section 760. A character A image 764 that performs dramatic effects corresponding to the progress of the bingo game is present below the retained count display section 763.

[0137] Note that the simulated gameplay balls 740 displayed on the gameplay screen 703 simulate the movement of gameplay balls in a real pachinko machine. Specifically, the simulated gameplay balls 740 are imparted with the same gravitational acceleration as in reality, and the movement of the simulated gameplay balls 740 is reproduced based on the mass and elastic coefficient of real gameplay balls. When the simulated gameplay balls 740 collide with the pins 720, a rebound direction is determined by computation, and the

movement speed is recalculated when the simulated gameplay balls 740 are rotated by the windmills 725.

Fig. 37 illustrates the bingo card 707 in close-up.

The numbers disposed in the squares of the bingo card 707 are chosen at the start of the bingo game. When the number displayed on a bingo ball image 761 matches a number disposed in one of the squares of the bingo card 707, the square of the matching number is eliminated. Here, "elimination" refers to displaying the square of the corresponding number such that it appears dark. "Free" is displayed at a central portion of the bingo card 707, and is in an eliminated state from the outset. When the numbers eliminated accompanying the progress of the bingo game complete one of the specific rows in the array tables 702, a "bingo" is achieved and the pattern of the completed row is displayed so as to appear to sparkle. Note that character B images 709 that perform dramatic effects corresponding to the progress of the bingo game are displayed at portions between the bingo card 707 and the array tables 702.

[0138] Fig. 38A to Fig. 38J illustrate a list of completion patterns in the array tables 702. The numbers below the completion patterns show the winnings from completing a bingo with the corresponding completion pattern. 5000 launches can be won by completing a bingo with the completion patterns of Fig. 38B and Fig. 38C. 3000 launches can be won by completing a bingo with the completion patterns of Fig. 38D, Fig. 38E, and Fig. 38F. 2000 launches can be won by completing a bingo with the completion patterns of Fig. 38G and Fig. 38H. 1000 launches can be won by completing a bingo with the completion patterns of Fig. 38I and Fig. 38J. Note that when all of the squares have been eliminated as in Fig. 38A, in addition to winning 25000 launches, the winnings for the patterns of Fig. 38B to Fig. 38J can also be won, such that in effect 50000 launches can be won.

[0139] *Flow up to Gameplay Start*

In the bingo game, gameplay can be progressed when "held balls" are held. Note that there are 0 held balls when the player begins playing. In cases in which there are no gameplay points for the bingo game on the IC card 78 when the IC card 78 is inserted into the insertion port 71 and the bet switch 42 is operated, at the start of gameplay, 100 held balls are set, corresponding to 100 gameplay points. An amount corresponding to the 100 gameplay points is deducted from the monetary data on the IC card 78, based on the conversion rate set by the conversion rate settings. The 100 launches' worth of held balls that are set is transformed into launch balls for use in a single round of the bingo game. Note that in cases in which there is less than an amount corresponding to 100 gameplay points in the monetary data of the IC card 78, the maximum amount that can be converted into gameplay points is

converted into gameplay points, and held balls are set corresponding to the converted gameplay points and then transformed into launch balls.

[0140] In cases in which gameplay points for the bingo game are present on the IC card 78 as a result of playing the bingo game on another game machine 10, when the IC card 78 is inserted into the insertion port 71, held balls are set corresponding to all of the gameplay points for the bingo game. When this is performed, no money is deducted from the monetary data of the IC card 78. When the bet switch 42 is operated, 100 launches' worth of the held balls are transformed into launch balls.

In the bingo game, a bingo payout is added to the held balls. In the bingo game, one held ball corresponds to one gameplay point. One gameplay point is set so as to correspond to 10 yen. Namely, gameplay can be performed for 10 yen per held ball. It can therefore be understood that since 100 gameplay points are required at the start of gameplay, 1000 yen's worth of monetary data is required. Note that the gameplay point conversion rate can be modified using the conversion rate settings described above.

[0141] *Flow of Gameplay*

The bingo game of the present exemplary embodiment is split broadly between a normal challenge and a last challenge. In the normal challenge, the objective is a "bingo" in which the numbers eliminated on the bingo card 707 match the completion pattern of one of the array tables 702. The last challenge is gameplay in which the normal challenge has ended in a state in which eliminating one more location would complete a bingo.

Fig. 39 is a flowchart of a flow of gameplay in the bingo game of the present exemplary embodiment.

[0142] When the 100 launch balls have been set, at step 300 the game control means 113 executes a bingo lottery to decide whether or not a bingo will be completed in the game using the 100 launch balls. In the bingo game, whether or not a bingo will be completed, and the formation thereof, are decided before the start of the game. Processing then proceeds to the next step 301.

At step 301, the game control means 113 determines from the result of the bingo lottery whether or not a bingo will be completed in the current game. Processing proceeds to the next step 302 when the game control means 113 determines that a bingo will be completed. Processing proceeds to step 303 when the game control means 113 determines that a bingo will not be completed.

[0143] At step 302, a bingo formation lottery is executed by the game control means 113 to decide the formation of the bingo. Specifically, one formation is decided from the formations in the completion patterns illustrated in Fig. 38A to Fig. 38J. For example, as

illustrated in Fig. 40A and Fig. 40B, a "T" shaped formation may be decided by the bingo formation lottery. Processing then proceeds to the next step 303.

At step 303, a lottery to decide the location of a square to be eliminated is executed by the game control means 113. Here, the location of the square that is decided is the location of a square other than a square that completes the bingo. For example, in the example illustrated in Fig. 40A, the location of one out of "21", "25", "28", "48", "51", these being squares other than squares that complete the bingo, is decided. At this point, the numbers of the squares have not yet been decided. Processing then proceeds to the next step 304.

[0144] At step 304, a prize winning ball lottery is executed by the game control means 113. Here, the "prize winning ball lottery" is a lottery to decide the sequence in which to eliminate the squares in the bingo formation that has already been decided. For example, in the example illustrated in Fig. 40A, the sequence in which to eliminate the squares in the "T" shaped formation is decided. Specifically, the game control means 113 decides the sequence in which to eliminate the squares "1", "18", "32", "36", "42", "44", "45", and "62". Note that at this point, the numbers of the squares have not yet been decided. Processing then proceeds to the next step 305.

At step 305, the numbers on the bingo card 707 are decided by the game control means 113. Namely, the numbers to be disposed in the respective squares of the bingo card 707 are decided. The numbers disposed in the squares of the bingo card 707 obey the following principle. As illustrated in Fig. 40A, five numbers randomly selected from the numbers 1 to 15 are disposed in the column (B column) displayed below the "B" of "BINGO". Five numbers randomly selected from the numbers 16 to 30 are disposed in the column (I column) displayed below the "I". Four numbers randomly selected from the numbers 31 to 45 are disposed in the column (N column) displayed below the "N", with the exception of at the central "FREE". Five numbers randomly selected from the numbers 46 to 60 are disposed in the column (G column) displayed below the "G". Five numbers randomly selected from the numbers 61 to 75 are disposed in the column (O column) displayed below the "O". When the numbers of the bingo card 707 have been decided, processing proceeds to the next step 306.

[0145] At step 306, an other-ball prize winning ball lottery is executed by the game control means 113. Here, the "other-ball prize winning ball lottery" is a lottery to decide the sequence in which to eliminate the squares, for the squares other than the squares that complete the bingo decided at step 303. For example, in the example illustrated in Fig. 40A, the sequence in which to eliminate the squares is decided for the numbers of the squares "21",

"25", "28", "48", and "51". Processing then proceeds to the next step 307.

At step 307, normal challenge processing is executed by the game control means 113. Namely, gameplay is executed using the 100 launches' worth of the simulated gameplay balls 740. The normal challenge processing will be described in detail later. Processing then proceeds to the next step 308.

[0146] At step 308, the game control means 113 determines whether or not the 100 launch balls that were set initially have been used up. Processing proceeds to the next step 309 when the game control means 113 determines that the 100 launch balls have been used up. Processing returns to step 307 when the game control means 113 determines that the 100 launch balls have not been used up.

When the 100 launch balls are determined to have been used up, at step 309, end display processing is executed by the game control means 113. Namely, the number of held balls won during the game are displayed. Processing then proceeds to the next step 310.

At step 310, the game control means 113 determines whether or not it is possible to move on to the last challenge. Here, conditions in which it is possible to move on to the last challenge are cases in which a bingo will be completed if one more square is eliminated. Processing proceeds to the next step 311 when it is possible to move on to the last challenge. Processing proceeds to step 313 when it is not possible to move on to the last challenge.

[0147] At step 311, the game control means 113 determines whether or not to execute the last challenge. Here, the player elects whether or not to execute the last challenge. Processing proceeds to the next step 312 when the player goes ahead with the last challenge. Processing proceeds to step 313 when the player does not go ahead with the last challenge.

At step 312, last challenge processing is executed by the game control means 113. The last challenge processing will be described in detail later. Processing then proceeds to the next step 313.

At step 313, the end display processing is executed by the game control means 113. Namely, the words "Game Over" or the like are displayed in cases in which only the normal challenge has been performed. The words "Game Over" or the like are displayed after displaying the results of the last challenge in cases in which the last challenge has been executed in addition to the normal challenge. The bingo game then ends.

[0148] *Gameplay and Dramatic Effects in the Normal Challenge*

Explanation follows regarding gameplay and dramatic effects in the normal challenge executed by the normal challenge processing.

In the bingo game, gameplay is progressed according to the completion or otherwise of a bingo and the formation thereof, and the sequence for eliminating the squares, these

having been decided in the pre-gameplay processing performed when setting the 100 launch balls (the processing from step 300 to step 306).

The simulated gameplay balls 740 are launched when the player turns the handle 46 toward the right. When a simulated gameplay ball 740 enters a start chucker 710, an image of a rotating bingo machine is displayed on the simulated liquid crystal display section 760, and a video is displayed in which the bingo ball image 761 appears to come out from the bingo machine. The bingo ball image 761 that has come out from the bingo machine is initially displayed so as to appear to grow in size, before moving onto the bingo ball history image 762. As illustrated in Fig. 36, a number is displayed on the bingo ball image 761. The sequence in which the numbers displayed on the bingo ball image 761 come up matches the sequence in which the squares are eliminated. For example, in Fig. 40A, if it has been decided that the squares will be eliminated in the sequence of "18", "42", "32", and so on, then the bingo ball images 761 allocated with the numbers "18", "42", "32", and so on are displayed in sequence. In cases in which a number corresponding to the number allocated to the bingo ball image 761 is present on the bingo card 707, the square with this number is eliminated.

[0149] Next, determination is made as to whether or not a bingo has been completed as a result of eliminating the squares on the bingo card 707. The bingo completed here is the formation of the completion pattern decided in the bingo formation lottery prior to playing (see step 302). When a bingo has been completed, the squares of the bingo card 707 and the completion pattern are both displayed so as to flash. For example, in Fig. 40A, a "T-shaped" bingo has been completed with "1", "18", "32", "36", "FREE", "42", "44", "45", and "62", and the completion pattern is displayed so as to flash. The "T-shaped" completion pattern in the array tables 702 illustrated in Fig. 40B is also displayed so as to flash.

[0150] Next, when there is a bingo waiting state in which a bingo will be completed when one more number is eliminated, as illustrated in Fig. 40C, the word "Chance" is displayed in front of the bingo card 707 for a specific duration. Moreover, the square responsible for the bingo waiting state on the bingo card 707 lights up or flashes. The completion pattern that will be completed when the number of the bingo waiting state is eliminated also lights up or flashes. For example, the square "58" in Fig. 40A flashes, and when "58" is eliminated, the bottommost completion pattern in Fig. 40B flashes.

Further explanation follows regarding dramatic effects on completion of a bingo, with reference to Fig. 41A to Fig. 41E.

[0151] When the "T-shaped" bingo is completed as illustrated in Fig. 41A, the word "Bingo!!" is displayed so as to appear to grow progressively larger, as illustrated in Fig. 41B

and Fig. 41C. Next, as illustrated in Fig. 41D, the squares at portions of the bingo card 707 where the bingo was determined flash, and the completion pattern showing the matching bingo formation in the array tables 702 flashes. Then, as illustrated in Fig. 41E, the bingo card 707 stops flashing and only the completion pattern in the array tables 702 remains lit.

The normal challenge ends when launching of the 100 held balls has been completed.

In cases in which at least one bingo has been completed when the normal challenge ends, as illustrated in Fig. 42A, the squares at portions of the bingo card 707 where the bingo was determined flash violently. Next, as illustrated in Fig. 42B, the completion pattern for the bingo that was completed and the winnings for the corresponding completion pattern are displayed. Note that in cases in which plural bingos are completed, all of the completion patterns and winnings are displayed. Note that when not all of the completion pattern and winnings can be displayed on a single screen, they are displayed split between plural occasions at specific intervals. Next, as illustrated in Fig. 42C, the total number of held balls won is displayed. Held ball addition processing is then performed, and the totaled number of held balls is displayed on the held ball display section 704.

[0152] After adding the held balls, or in cases in which no bingos were completed at the end of the normal challenge, the entire game screen 700 becomes dark, as illustrated in Fig. 43A. Note that when in the bingo waiting state, it is possible to proceed to the last challenge. This will be described in detail later.

When the held ball display section 704 shows 100 or more held balls, the words "BET to Next Game" are displayed in front of the simulated liquid crystal display section 760, as illustrated in Fig. 43B. When the bet switch 42 is operated, 100 launches' worth of held balls are moved from the held ball display section 704 to the launch ball display section 705, enabling the player to begin the next play.

[0153] When the held ball display section 704 shows 100 or fewer held balls, and the credit display section 22 shows insufficient balance on the IC card 78, the words "Game Over" are displayed as illustrated in Fig. 43C, and the normal challenge ends.

Gameplay and Dramatic Effects in the Last Challenge

Explanation follows regarding gameplay and dramatic effects in the last challenge executed by the last challenge processing.

The player can move on to the last challenge when there is a bingo waiting state at the point that the normal challenge ends. In the last challenge, the player can play a game until a single bingo ball image 761 is displayed. The last challenge requires 50 held balls, participation in the last challenge can be freely selected by the player. Note that participation in the last challenge is possible even if a bingo has already been completed.

Even if the last challenge results in failure to obtain the number of the bingo waiting state and the bingo is not completed, any bingos already completed in the normal challenge remain valid.

[0154] When proceeding to the last challenge, first, the entire game screen 700 becomes dark, as illustrated in Fig. 43A, after which a last challenge selection screen is displayed. Specifically, as illustrated in Fig. 44A, display of the game screen 700 becomes dark, with the bingo card 707, the held ball display section 704, and the launch ball display section 705 remaining. The words "Last Challenge?", and below them the words "Yes" and "No" to select whether or not to participate, are then displayed on the game screen 700. Moreover, an image prompting operation of the lever 45 is displayed below the words "Yes" and "No". In a state in which the last challenge selection screen is being displayed, the player operates the lever 45 to the left or right to select whether or not to participate in the last challenge. When the bet switch 42 is operated the selected contents are confirmed.

[0155] Note that when "No" is selected and confirmed on the last challenge selection screen, in cases in which a bingo has been completed in the normal challenge, display processing such as that illustrated in Fig. 42A to Fig. 42C is performed. Moreover, when "No" is selected and confirmed on the last challenge selection screen, in cases in which a bingo was not achieved in the normal challenge, display processing such as that illustrated in Fig. 43A to Fig. 43C is performed.

When "Yes" is selected and confirmed on the last challenge selection screen, 50 of the simulated gameplay balls 740 are moved to the launch ball display section 705, and the last challenge starts, as illustrated in Fig. 44B.

In the last challenge, similarly to in the normal challenge, the player operates the handle 46 in an attempt to make the simulated gameplay balls 740 enter the start chuckers 710. When a simulated gameplay ball 740 enters one of the start chuckers 710, the bingo ball image 761 is displayed on the simulated liquid crystal display section 760.

[0156] The last challenge is successful when the number on the bingo ball image 761 displayed on the simulated liquid crystal display section 760 matches the number of the square of the bingo waiting state. Bingo completion screens are then displayed as illustrated in Fig. 41A to Fig. 41E, after which winnings screens are displayed as illustrated in Fig. 42A to Fig. 42C.

The last challenge is failed when the number on the bingo ball image 761 displayed on the simulated liquid crystal display section 760 does not match the number of the square of the bingo waiting state. The end screen is then displayed as illustrated in Fig. 43C.

[0157] *Bingo Lottery*

The bingo lottery to decide whether or not a bingo will be completed is managed according to the number of plays. Accordingly, configuration is made such that the probability of completing a bingo becomes higher when a preset number of plays has been reached. Precursor dramatic effects may be performed to raise anticipation of completing a bingo at a point close to the preset number of plays. Note that the "number of plays" in the bingo game refers to a number of rounds completed, in units of games of 100 launch balls each.

In the bingo game, precursor dramatic effects can be performed by rearranging the bingo card 707. As described above, in the "B column" of "BINGO", five numbers are randomly selected from the numbers 1 to 15, and in the "I column", five numbers are randomly selected from the numbers 16 to 30. In the "N column", with the exception of at the central "FREE", four numbers are randomly selected from the numbers 31 to 45, and in the "G column", five numbers are randomly selected from the numbers 46 to 60. In the "O column", five numbers are randomly selected from the numbers 61 to 75.

[0158] In normal dramatic effects, as illustrated in Fig. 45A, the randomly selected numbers in each of the columns are disposed in no particular order.

In the precursor dramatic effects, the game control means 113 can dispose the numbers so as to increase in size on progression from the top row to the bottom row in some of the columns. For example, as illustrated in Fig. 45B, the numbers may be disposed so as to increase in size on progression from the top row to the bottom row in the "B column" and the "G column". When this is performed, the player can be imparted with a greater degree of anticipation of completing a bingo by increasing the number of columns in which the numbers are disposed so as to increase in size on progression from the top row to the bottom row.

[0159] Accompanying the precursor dramatic effects, the game control means 113 can eliminate more of the number squares than during normal dramatic effects, or conversely, eliminate fewer of the number squares than during normal dramatic effects.

When the bingo lottery strikes lucky and a bingo is completed before reaching the preset number of plays, the game control means 113 may be configured to enter an advantage mode such that the bingo lottery will strike lucky again after a comparatively low number of plays. For example, the game control means 113 may be configured so as to complete a bingo within 10 plays.

[0160] Note that the probability of striking lucky in the bingo lottery is also managed according to "modes" as well as according to the number of plays. For example, three modes of a "low mode", a "medium mode", and a "high mode" with different probabilities of striking lucky may be provided, and the game control means 113 may vary the gameplay

experience by switching between these modes depending on the time of day. Moreover, setting may be made such to adopt the high-probability "high mode" after changing the payout rate in the payout settings.

The "high mode" may be set to be more advantageous than the "low mode" and the "medium mode", for example by guaranteeing striking lucky in the bingo lottery within 10 plays, or by raising the likelihood of striking lucky in consecutive bingo lotteries. Moreover, the game control means 113 may be set such that on transitioning to the "high mode", the likelihood of staying in the "high mode" again is increased.

[0161] As described above, in the bingo game of the present exemplary embodiment, a rich and varied gameplay experience can be imparted by varying the probability of striking lucky in the bingo lottery according to the number of plays and the mode. Moreover, by performing the precursor dramatic effects, the bingo game of the present exemplary embodiment enables the player to be imparted with a sense of anticipation of completing a bingo.

Overview

The game machine 10 of the present exemplary embodiment is formed so as to be capable of performing games by displaying screens for the various games on the display device 20. For example, the game machine 10 of the present exemplary embodiment is capable of performing the pachinko game that reproduces a real pachinko machine, and the slot game that reproduces a real slot machine.

[0162] The case 11 of the game machine 10 is provided with the plural gameplay switches 30 to operate the various games. The respective gameplay switches 30 are provided so as to be appropriate for the gameplay of the respective games. For example, the handle 46 with a similar mechanism to that of a real pachinko machine is provided for the pachinko game. Moreover, the lever 45 and the stop switches 50 with similar mechanisms to those of a real slot machine are provided for the slot game.

In the above manner, the pachinko game is capable of performing a game with a similar operation feel to that of a real pachinko machine by using the handle 46. The slot game is capable of performing a game with a similar operation feel to that of a real slot machine by using the lever 45 and the stop switches 50.

[0163] The present exemplary embodiment enables the games to be selected using the gameplay switches 30. Specifically, as described above, the bet switch 42 can be operated to select a game, and the lever 45 can be operated to confirm. In the present exemplary embodiment, system settings can be made using the gameplay switches 30. Specifically, as described above, settings can be made using the lever 45 and the stop switches 50. In this

manner, the gameplay switches 30 are not only employed with specific game types, but can also be employed in game selection and system settings. Note that in the present exemplary embodiment, independent selection switches may be provided to select the game, and independent settings switches may be provided to make system settings. Such selection switches and settings switches are not limited to switches similar to the gameplay switches 30, and may be touch panels employing the display device 20, this being a liquid crystal monitor.

[0164] The respective games of the present exemplary embodiment are set so as to require different gameplay points at the start of gameplay. As described above, the pachinko game requires 200 gameplay points, the slot game requires 50 gameplay points, and the bingo game requires 100 gameplay points. The present exemplary embodiment enables the games to be performed on the single case 11 even though the gameplay points required at the start of gameplay differ for each game.

Moreover, in the game machine 10 of the present exemplary embodiment, the value of gameplay points for the respective games to the player is set for each game. Specifically, the respective games are set with different conversion rates between the gameplay points used in gameplay, and money. As described above, setting is made such that one gameplay point corresponds to 5 yen in the pachinko game, one gameplay point corresponds to 20 yen in the slot game, and one gameplay points corresponds to 10 yen in the bingo game. In the present exemplary embodiment, plural games that use different gameplay points in gameplay can be performed on a single machine. Moreover, the present exemplary embodiment enables the advantage of each game to be varied by varying the conversion rate for each game. For example, 1 gameplay point may be set with a conversion rate of 8 yen for the pachinko game, a conversion rate of 30 yen for the slot game, and a conversion rate of 8 yen for the bingo game. By so doing, the balance required to start the pachinko game works out at 1600 yen, the balance required to start the slot game works out at 1500 yen, and the balance required to start the bingo game works out at 800 yen. Namely, the bingo game can be set as the game that can be enjoyed at lowest cost.

[0165] In the present exemplary embodiment, the IC card 78 stored with the gameplay points is formed so as to be stored with the gameplay points separately for each game type. Accordingly, gameplay points won on a particular game cannot be used with another game. Even if the player changes game machines 10 at the recreation venue, gameplay points won on the game machine 10 played on previously are carried over separately for the respective games. Namely, continuity of gameplay in a particular game can be imparted regardless of changes of game machine 10.

Note that the IC card 78 may be formed such that gameplay points are not stored

separately for each game type, but are all stored together after converting the gameplay points for the respective games into monetary data. Such a configuration enables the gameplay points won on a particular game to be used with another game.

[0166] In the present exemplary embodiment, the gameplay points for the selected game are configured so as to be displayed on the display device 20 as the number of held balls or held coins, serving as the virtual gameplay media of the respective games. Specifically, the quantity of the virtual gameplay medium is displayed on the game screens (500, 600, 700) of the respective games according to the gameplay points for that game. Note that in the present exemplary embodiment, the selection screen for selecting the respective games and the demo screens may be displayed together with the gameplay points or the virtual gameplay media all at once for the respective games. Moreover, in the present exemplary embodiment, the monetary data of the IC card 78 may also be displayed.

Modified Example 1

In the present exemplary embodiment, the monetary data is converted into gameplay points based on a specific conversion rate. However, in a Modified Example 1 of the present exemplary embodiment, the monetary data is initially converted into monetary points, and then converted into gameplay points.

[0167] Modified Example 1 enables a desired conversion rate to be set for converting the monetary data into monetary points. For example, in cases in which different conversion rates are set at each recreation venue, a conversion rate of 100 yen to 100 monetary points may be set at a recreation venue A, and a conversion rate of 100 yen to 50 monetary points may be set at a recreation venue B. As another example, in cases in which the conversion rate is set according to currency exchange rates, a conversion rate of 100 yen to 100 monetary points may be set for the Japanese yen, a conversion rate of 1 Singapore dollar to 100 monetary points may be set for the Singapore dollar, and a conversion rate of 40 Philippine pesos to 100 monetary points may be set for the Philippine peso.

[0168] In this manner, in Modified Example 1, initially converting the monetary data into monetary points enables settings for the balance required to play to be changed in a single operation, without changing each of the gameplay point conversion rates for the respective games.

Note that during balance adjustment, the gameplay points may be converted into monetary points for the respective games and stored on the IC card 78 as monetary information. Note that in cases in which monetary points for the respective games are stored separately on the IC card 78, gameplay points won on a particular game cannot be used in another game. Moreover, in cases in which monetary points for the respective games are all

stored together on the IC card 78, gameplay points won on a particular game can be used in another game. Note that in cases in which monetary points for the respective games are all stored together, the monetary points may be further converted into monetary data and then stored on the IC card 78.

[0169] *Modified Example 2*

In a Modified Example 2, the placement of the gameplay switches 30 on the operation section 25 of the present exemplary embodiment is modified.

As illustrated in Fig. 46A and Fig. 46B, the operation section 25 is provided projecting out toward the front at an up-down direction central portion of the case 11 below the display device 20. The upper face of the operation section 25 formed projecting out is formed as an inclined face descending on progression from the display device 20 toward the side of the player. The inclined face is provided with the plural gameplay switches 30 used in the respective games.

[0170] The handle 46 is provided at a front right side of the inclined face. The three stop switches 50 (the left stop switch 51, the center stop switch 52, and the right stop switch 53) are provided at a substantially central portion of the inclined face, adjacent to the left of the handle 46. The bet switch 42 is provided at the left side of the stop switches 50, and the lever 45 is provided behind the bet switch 42.

In Modified Example 2, similarly to in the present exemplary embodiment, the pachinko game is capable of performing a game with a similar operation feel to that of a real pachinko machine by using the handle 46. The slot game is capable of performing a game with a similar operation feel to that of a real slot machine by using the lever 45 and the stop switches 50.

CLAIMS

1. A game machine comprising:
 - a display device in which one game of a plurality of games can be performed;
 - gameplay switches that are provided for each of the respective games in order to perform one game of the plurality of games, and that are provided separately to the display device;
 - a selection switch that is capable of selecting one game of the plurality of games;
 - a storage medium that stores value information required to perform the games;
 - a read/write device that is capable of reading the value information from the storage medium or writing the value information to the storage medium; and
 - a control apparatus for performing the game displayed on the display device according to operation of the gameplay switches;
 - the gameplay switches including a switch that can be employed in the plurality of games, and a switch that can only be employed in one of the games;
 - in the control apparatus, the value to a player of gameplay points, which are gameplay points used in the respective games and acquired from the value information, being set for each of the games;
 - the control apparatus including
 - a game selection means that selects one of the games by operation of the selection switch by the player, and
 - a point processing means that acquires the gameplay points from the value information read by the read/write device; and
 - the game machine performing the games using the gameplay points for the selected game, and employing the gameplay switch corresponding to the selected game.
2. The game machine of claim 1, wherein the gameplay points that are for the sole use of one of the games, and are not capable of being used with the other games, are included in the value information separately for the respective games.
3. The game machine of either claim 1 or claim 2, wherein:
 - the value information includes monetary information; and
 - at a start of the selected game, the point processing means converts the monetary information included in the value information into the gameplay points for the selected game and acquires the gameplay points.

4. The game machine of either claim 1 or claim 3, wherein:
 - the gameplay points that are for the sole use of one of the games, and are not capable of being used with the other games, are included in the value information separately for the respective games; and
 - at an end of the selected game, the read/write device includes the gameplay points of the selected game in the value information and stores the value information in the storage medium.
5. The game machine of claim 1, 2, or 3, wherein:
 - the value information includes monetary information;
 - at an end of the selected game, the point processing means converts the gameplay points of the selected game into the monetary information; and
 - the read/write device includes the converted monetary information in the value information and stores the value information in the storage medium.
6. The game machine of either claim 3 or claim 5, wherein a conversion rate between the monetary information and the gameplay points used in the games is set for each of the games.
7. The game machine of claim 1, 2, 3, 4, 5, or 6, wherein one or more of the gameplay switches doubles as the selection switch.
8. The game machine of claim 1, 2, 3, 4, 5, 6, or 7, wherein the gameplay points of the selected game are displayed on the display device for each of the games.