(11) **EP 1 736 941 A1** 

(12)

# **EUROPEAN PATENT APPLICATION**

(43) Date of publication:

27.12.2006 Bulletin 2006/52

(51) Int Cl.:

G07F 17/32 (2006.01)

(21) Application number: 06011083.0

(22) Date of filing: 30.05.2006

(84) Designated Contracting States:

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

**Designated Extension States:** 

AL BA HR MK YU

(30) Priority: 31.05.2005 JP 2005158415

31.05.2005 JP 2005158416

(71) Applicant: Aruze Corporation Tokyo 135-0063 (JP)

(72) Inventor: Okada, Kazuo Tokyo 135-0063 (JP)

(74) Representative: HOFFMANN EITLE

Patent- und Rechtsanwälte

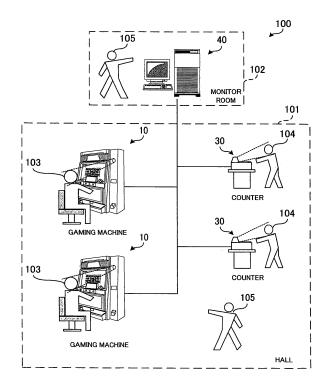
Arabellastrasse 4 81925 München (DE)

### (54) Server and game system

(57) A server is data-communicably connected to respective gaming machines and enables a mail transmission and reception among the gaming machines. Each of the gaming machines has an imaging means that images a player and an input means through which the player inputs his/her identification data item. The server has a storage means and a rewriting means rewriting the

contents of the storage means. When a specifying data item stored in the storage means and associated with a player image data item resulting from an imaging by the imaging means of any of the gaming machines is not identical to a specifying data item received from the gaming machine, the specifying data item stored in the storage means is rewritten by the rewriting means.

FIG. 1



40

50

55

#### Description

#### BACKGROUND OF THE INVENTION

#### 1. Field of the Invention

**[0001]** The present invention relates to a server that is data-communicably connected to respective gaming machines such as a pachi-slot machine, a pinball machine, and the like in which variably-displayed symbols can be stopped by a player's operation, and also relates to a game system that includes the server and the gaming machines.

#### 2. Description of Related Art

**[0002]** Some gaming machines such as a pachi-slot machine, a pinball machine, and the like have various functions in order to prevent a player from getting tired during a game. For example, Japanese Patent Unexamined Publication No. 9-290068 discloses a gaming machine that has a liquid crystal television so that a player can watch a TV program or collect various information while sitting in a chair during a game or during a break time.

[0003] In general, a player who has played a game in a gaming machine uses a counter to count a game value of medals or the like he/she has acquired from the gaming machine, and a ticket on which a result of counting is recorded is issued. The player brings the ticket to a prizeexchanging booth, where he/she can get a prize in accordance with the number of medals acquired. However, some people dishonestly bring medals in from outside and counts the medals with the counter, for the purpose of obtaining a prize. In order to prevent such fraud, a fraud prevention system is proposed for example in Japanese Patent Unexamined Publication 2001-224830. This system utilizes a member's card owned by each player, for comparing the number of medals paid out from a gaming machine with the number of medals counted by a counter, thereby determining whether any fraud is occurring or not.

### SUMMARY OF THE INVENTION

**[0004]** Sometimes, a group of players come to a game arcade and play games. When these players use gaming machines that include the above-mentioned liquid crystal television, each individual player can watch a TV program or collect various information by himself/herself, but he/she cannot communicate with the other players, for example, for the purpose of sharing information about games. This gives a player a sense of coming to the game arcade and playing a game alone, although he/she has come to the game arcade with other persons. For this reason, it is desired that players can communicate with each other. It may be possible to give a gaming machine a function to communicate with other gaming ma-

chines so that players can communicate with each other. In this case, however, a player has to know which gaming machine his/her communicatee is using in order to designate the gaming machine. However, a player does not stay at one gaming machine but often moves to a different gaming machine in accordance with game results, and therefore it is difficult that a player always knows which gaming machine his/her communicatee is using. In addition, a player cannot concentrate on a game while exerting an effort to always know which gaming machine his/her player is using now.

**[0005]** The above-mentioned fraud prevention system forces all players to carry their own member's cards. Therefore, the players must always carry their member's cards while moving from one gaming machine to another. In addition, this system causes inconvenience to a player, because it requires an operation of a player, such as inserting his/her member's card into a gaming machine. Moreover, a manager of a game arcade must keep monitoring whether each member's card is carried by an appropriate person or not. This is burdensome to the manager.

**[0006]** An object of the present invention is to provide a server and a game system that enable a player to transmit and receive a mail to and from another player even though the player does not know a place of another player.

**[0007]** Another object of the present invention is to provide a server and a game system that can, without requiring a monitoring by a manager of a game arcade, prevent fraud in a counter for counting a game value.

[0008] According to a first aspect of the present invention, there is provided a server that is data-communicably connected to respective gaming machines and enables a mail transmission and reception among the gaming machines. Each of the gaming machines has an imaging means that images a player and an input means through which the player inputs his/her identification data item. The server comprises a storage means, a first determination means, a second determination means, a rewriting means, a mail reception means, and a mail transmission means. The storage means rewritably stores therein a player image data item resulting from an imaging by the imaging means, a specifying data item that specifies each of the gaming machines, and the identification data item, in such a manner that these data items are associated with one another. The first determination means determines, upon every imaging by the imaging means, whether a player image data item resulting from the imaging has been stored in the storage means or not. When the first determination means determines that the player image data item resulting from the imaging has been stored in the storage means, the second determination means determines whether or not a specifying data item associated with the player image data item in the storage means is identical to a specifying data item received, upon every imaging by the imaging means, from a gaming machine that has the imaging means. When the sec-

20

25

40

ond determination means determines that the specifying data items are not identical, the rewriting means rewrites the specifying data item associated with the player image data item in the storage means into the specifying data item received from the gaming machine. The mail reception means receives from any of the gaming machines a mail addressed to the identification data item. The mail transmission means transmits the mail based on a specifying data item stored in the storage means and associated with the identification data item to which the mail is addressed.

[0009] According to a second aspect of the present invention, there is provided a game system that includes gaming machines and a server data-communicably connected to the respective gaming machines, and enables a mail transmission and reception among the gaming machines. Each of the gaming machines comprises a specifying data item storage means, an imaging means, a player image data item generation means, an output means, an input means, a mail preparation means, a mail transmission means. The specifying data item storage means stores therein a specifying data item for specifying the gaming machine itself. The imaging means images a player. The player image data item generation means generates a player image data item based on a result of an imaging by the imaging means. The output means outputs the player image data item generated by the player image data item generation means together with the specifying data item. Through the input means, a player inputs his/her identification data item. The mail preparation means prepares a mail addressed to an identification data item of another player. The mail transmission means transmits the mail prepared by the mail preparation means. The server comprises a first reception means, a second reception means, a storage means, a first determination means, a second determination means, a rewriting means, a mail reception means, and a mail transmission means. The first reception means receives the player image data item and the specifying data item outputted from the output means. The second reception means receives the identification data item inputted through the input means. The storage means rewritably stores therein the player image data item, the specifying data item, and the identification data item, in such a manner that these data items are associated with one another. The first determination means determines whether the player image data item received by the first reception means has been stored in the storage means or not. When the first determination means determines that the player image data item has been stored in the storage means, the second determination means determines whether or not a specifying data item associated with the player image data item in the storage means is identical to the specifying data item received by the first reception means together with the player image data item. When the second determination means determines that the specifying data items are not identical, the rewriting means rewrites the specifying data item associated with

the player image data item in the storage means into the specifying data item received from the gaming machine. The mail reception means receives from any of the gaming machines a mail addressed to the identification data item. The mail transmission means transmits the mail based on a specifying data item stored in the storage means and associated with the identification data item to which the mail is addressed.

[0010] In the first and second aspects, in a case where the player image data item resulting from the imaging by the imaging means has already been stored in the storage means and in addition the specifying data item associated with the player image data item in the storage means is not identical to the specifying data item received from a gaming machine that has the, imaging means, the specifying data item stored in the storage means is rewritten. That is, each time the player changes the gaming machine, contents of the storage means are accordingly rewritten. Then, when a mail which is addressed to an identification data item is transmitted to the server, the server transmits the mail based on a specifying data item stored in the storage means and associated with the identification data item. Accordingly, when a player wants to communicate with another player, he/she does not have to know which gaming machine another player is using now, but has only to transmit a mail addressed to an identification data item, so as to transmit the mail to another player thus communicating with another player. In addition, a player can concentrate on a game because he/she does not have to exert an effort to always know which gaming machine his/her communicatee is using

[0011] According to a third aspect of the present invention, there is provided a server that is data-communicably connected to a plurality of gaming machines each having a player imaging means that images a player and a payout means that pays out a game value based on a game result, and also data-communicably connected to a counter having a counting means that counts the game value and a counting-person imaging means that images a counting person. The server comprises a storage means, a retrieval means, and a first notification means. The storage means stores therein a player image data item resulting from an imaging by the player imaging means. The retrieval means retrieves from the storage means a player image data item that is identical to a counting-person image data item resulting from an imaging by the counting-person imaging means. The first notification means notifies a result of retrieval made by the retrieval means.

[0012] According to a fourth aspect of the present invention, there is provided a game system that includes a plurality of gaming machines each paying out a game value based on a game result, a counter counting the game value, and a server data-communicably connected to the respective gaming machines and the counter. Each of the gaming machines comprises a player imaging means, a player image data item generation means, and

15

20

25

30

35

40

45

50

55

a player image data item transmission means. The player imaging means images a player. The player image data item generation means generates a player image data item based on a result of an imaging by the player imaging means. The player image data item transmission means transmits, to the server, the player image data item generated by the player image data item generation means. The counter comprises a counting-person imaging means, a counting-person image data item generation means, and a counting-person image data item transmission means. The counting-person imaging means images a counting person. The counting-person image data item generation means generates a counting-person image data item based on a result of an imaging by the counting-person imaging means. The counting-person image data item transmission means transmits, to the server, the counting-person image data item generated by the counting-person image data item generation means. The server comprises a player image data item reception means, a storage means, a counting-person image data item reception means, a retrieval means, and a notification means. The player image data item reception means receives the player image data item transmitted by the player image data item transmission means. The storage means stores therein the player image data item received by the player image data item reception means. The counting-person image data item reception means receives the counting-person image data item transmitted by the counting-person image data item transmission means. The retrieval means retrieves from the storage means a player image data item that is identical to the counting-person image data item received by the counting-person image data item reception means. The notification means notifies a result of retrieval made by the retrieval means.

[0013] In the third and fourth aspects, a player who is playing a game is imaged, and a player image data item is stored in the storage means. Determined is whether a player image data item identical to a counting-person image data item obtained by imaging a counting person is stored in the storage means or not. Thereby, whether a counting person who is counting game values on the counter has actually played a game in a gaming machine or not can be determined. Accordingly, even though, for example, a game value acquired by a player is brought out by a dishonest stranger who then attempts counting the game value on the counter, whether this person is counting a game value he/she has acquired by himself/ herself as a result of actually playing a game or not can be determined. This can prevent fraud in a counter, without requiring a monitoring by a manager of a game arcade.

### BRIEF DESCRIPTION OF THE DRAWINGS

**[0014]** Other and further objects, features and advantages of the invention will appear more fully from the following description taken in connection with the accom-

panying drawings in which:

FIG. 1 schematically illustrates a game system according to an embodiment of the present invention; FIG. 2 is a perspective view of a gaming machine that is included in the game system of FIG. 1;

FIG. 3 is a perspective view of a counter that is included in the game system of FIG. 1;

FIG. 4 is a block diagram showing an electrical construction of the gaming machine of FIG. 2;

FIG. 5 is a block diagram showing an electrical construction of the counter of FIG. 3;

FIG. 6 is a block diagram showing an electrical construction of a hall computer that is included in the game system of FIG. 1;

FIG. 7 schematically illustrates a demo screen that is displayed on a liquid crystal monitor which is mounted on a medal lending device included in the gaming machine;

FIG. 8 schematically illustrates a register screen that is displayed on the liquid crystal monitor;

FIG. 9A is a schematic view in which completion of registration is being notified;

FIGS. 9B and 9C are schematic views in which non-registerability is being notified;

FIG. 10A schematically illustrates a mail preparation screen that is displayed on the liquid crystal monitor; FIG. 10B is a schematic view in which completion of transmission of a mail is being notified;

FIG. 10C is a schematic view in which non-transmittability of a mail is being notified;

FIG. 11 schematically illustrates a player data table that is stored in the hall computer;

FIG. 12 schematically illustrates a gaming-machine data table that is stored in the hall computer;

FIG. 13 schematically illustrates a staff data table that is stored in the hall computer;

FIG. 14 is a flowchart showing a main routine executed by a main body of the gaming machine;

FIG. 15 is a flowchart showing a main routine executed by the medal lending device;

FIG. 16 is a flowchart showing a registration processing that is executed in the main routine of the medal lending device;

FIG. 17 is a flowchart showing a mail transmission processing that is executed in the main routine of the medal lending device;

FIG. 18 is a flowchart showing a player authentication processing that is executed by the medal lending device;

FIG. 19 is a flowchart showing a main routine executed by the counter;

FIG. 20 is a flowchart showing a main routine executed by the hall computer;

FIG. 21 is a flowchart showing a registration processing that is executed in the main routine of the hall computer;

FIG. 22 is a flowchart showing a player data table

updating processing that is executed in the main routine of the hall computer;

FIG. 23 is a flowchart showing a gaming-machine data table updating processing that is executed in the main routine of the hall computer;

FIG. 24 is a flowchart showing a counting person monitoring processing that is executed in the main routine of the hall computer;

FIG. 25 is a flowchart showing a mail transmission/ reception processing that is executed in the main routine of the hall computer; and

FIG. 26 is a perspective view of an exemplified gaming machine that has a CCD camera provided on its main body.

#### DESCRIPTION OF THE PREFERRED EMBODIMENTS

**[0015]** In the following, a certain preferred embodiment of the present invention will be described with reference to the accompanying drawings.

[0016] First, a game system 100 according to an embodiment of the present invention will be described with reference to FIG. 1. The game system 100 includes gaming machines 10, counters 30, and a hall computer 40. The gaming machines 10 and the counters 30 are placed in a hall 101 which is a game arcade. Each of the gaming machines 10 gives a player 103 a game value based on a game result. The counter 30 counts medals which serve as game values. The hall computer 40 corresponds to a "server" of the present invention, and is placed in a monitor room 102 which only a staff 105, as a manager of the hall 101, is allowed to enter. The hall computer 40 is, by cables and hubs (not shown), connected to each of the gaming machines 10 and the counters 30 so that data communication can be done therebetween.

**[0017]** The gaming machine 10 is a pachi-slot machine in which variably-displayed symbols can be stopped due to an operation made by the player 103. A medal serves as the game value in this embodiment.

[0018] Each of the gaming machines 10 has a main body 10a and a medal lending device 10b which are formed as a unit and placed adjacent to each other as shown in FIG. 2. The player 103 (see FIG. 1) buys medals from the medal lending device 10b, and plays a game on the main body 10a using the medals. The medal lending device 10b corresponds to a "game media lending device" of the present invention.

**[0019]** The main body 10a of the gaming machine 10 will be described with reference to FIGS. 2 and 4.

**[0020]** As shown in FIG. 2, the main body 10a has a cabinet 2 that constitutes a whole of the main body 10a. On the front face of the cabinet 2, a main display 2a that substantially extends in a vertical direction is provided. At the center of the main display 2a, display windows 4L, 4C, and 4R each having a rectangular shape elongated in the vertical direction are provided. Each of the display windows 4L, 4C, and 4R shows, among symbols arranged on each of reels 3L, 3C, and 3R, three symbols

lined in the vertical direction, so that a total of nine symbols are displayed. Pay lines are defined in the display windows 4L, 4C, and 4R. The pay lines include a top line 8b, a center line 8c, and a bottom line 8d which are extending in a horizontal direction, and a cross-down line 8a and a cross-up line 8e which are extending in an oblique direction.

[0021] The top line 8b is defined through top sections of the respective display windows 4L, 4C, and 4R. The center line 8c is defined through center sections of the respective display windows 4L, 4C, and 4R. The bottom line 8d is defined through bottom sections of the respective display windows 4L, 4C, and 4R. The cross-down line 8a is defined through the top section of the display window 4L, the center section of the display window 4C, and the bottom section of the display window 4R. The cross-up line 8e is defined through the bottom section of the display window 4L, the center section of the display window 4C, and the top section of the display window 4R. These five pay lines are activated, when a BET button 11 which will be described later is pressed or when three medals are inserted into a medal insertion slot 13. In the following, a pay line that is activated will be referred to as an activated line.

**[0022]** The pay lines 8a to 8e are related to a win. To be more specific, a win is made when a certain symbol, for example an "Upper Chili" symbol for a "small win of Upper Chili", is stopped at a predetermined position on any activated line or when a predetermined combination of symbols are stopped at predetermined positions on any activated line.

[0023] Within the cabinet 2, three rotatable reels 3L, 3C, and 3R are provided side by side in a widthwise direction. A column of symbols are arranged on an outer surface of each of the reels 3L, 3C, and 3R. The column includes symbols that are assigned code numbers of "00" to "20", respectively. More specifically, the column includes symbols of "Red 7", "Blue 7", "Lower Chili", "Bell", "Watermelon", "Replay", and "Upper Chili". As described above, symbols arranged on the respective reels 3L, 3C, and 3R are visible through the display windows 4L, 4C, and 4R. The reels 3L, 3C, and 3R are rotated at a constant speed, for example at 80 rpm. The "Red 7" symbol and the "Blue 7" symbol included in the column form a bonus win. Here, the bonus win includes a BB (Big Bonus) and an RB (Regular Bonus) which will be detailed later. Hereinafter, the BB and the RB will generally be called a "bonus".

**[0024]** A BET lamp 9 and a credit value indicator 19 are provided on the left side of the display windows 4L, 4C, and 4R. When medals are bet for one game, the BET lamp 9 is lighted up. The one game gets over when all the reels stop rotating. The credit value indicator 19 having a 7-segment LED indicates the number of medals credited in the main body 10a.

**[0025]** A WIN lamp 17 and a number-of-acquired-medals indicator 18 are provided on the right side of the display windows 4L, 4C, and 4R. After it is determined that

20

35

40

45

a bonus can be made, and before the bonus is actually made, the WIN lamp 17 stays lighted up. The number-of-acquired-medals indicator 18 having a 7-segment LED indicates the number of medals acquired in accordance with a win.

[0026] A number-of-bonus-game indicator 20 is provided on the upper side of the WIN lamp 17. The number-of-bonus-games indicator 20 having a 7-segment LED indicates the number of games that are played in a BB base game mode or an RB game mode which will be described later. The BB base game mode and RB game mode will generally be called a "bonus game mode".

[0027] A control panel 12 in the form of a horizontal plane is provided on the lower side of the display windows 4L, 4C, and 4R. At the center of the control panel 12, there is provided a liquid crystal display 5 that displays a presentation image or the like. The medal insertion slot 13 is provided on the right side of the liquid crystal display 5. An inserted-medal sensor 13S is provided in the medal insertion slot 13 (see FIG. 4). The inserted-medal sensor 13S senses an inserted medal. The BET button 11 is provided on the left side of the liquid crystal display 5. When the BET button 11 is pressed once, the five pay lines 8a to 8e are activated and at the same time three of the credited medals are bet for a next game.

[0028] In a left-side part of the front face of the cabinet 2 and below the control panel 12, there is provided a C/P button 14 that switchingly commands crediting and payout of medals acquired in a game. When the C/P button 14 commands payout of medals, the medals are paid out through a medal payout opening 15 which is provided in a lower part of the front face of the cabinet 2. The medals thus paid out are received in a medal tray 16.

**[0029]** On the right side of the C/P button 14, a start lever 6 which can rotate within a predetermined range of angles is provided. In accordance with an operation made by the player 103, the start lever 6 outputs to a controller 60 of the main body 10a (see FIG. 4) a command signal for starting a game. The controller 60, which has thus received the command signal for starting a game, starts rotating the reels 3L, 3C, and 3R so that symbols are variably displayed within the display windows 4L, 4C, and 4R.

**[0030]** On the right side of the start lever 6 and below the liquid crystal display 5, there is provided three stop buttons 7L, 7C, and 7R that stop rotation of the reels 3L, 3C, and 3R, respectively.

[0031] The controller 60 (see FIG. 4) controlling the main body 10a is formed of a microcomputer, and includes a CPU (Central Processing Unit) 61, a RAM (Random Access Memory) 62, a ROM (Read Only Memory) 63, and a communicator 64. The ROM 63 stores therein a program shown in FIG. 14, data, and the like. The RAM 62 temporarily stores therein data to be used while the program is being executed, and the like. The CPU 61 enables execution of the program stored in the ROM 63. The communicator 64 enables data communication with a controller 70 of the medal lending device 10b.

[0032] The controller 60 is connected to and receives input signals, which reflect various operations made by the player 103, from components including the start lever 6, the stop buttons 7L, 7C, 7R, the BET button 11, the C/P button 14, and the inserted-medal sensor 13S, and then generates control commands to the components. The controller 60 is connected also to the reels 3L, 3C, 3R and a hopper 69 that functions as a payout means, and controls them in accordance with input signals from them or game modes.

[0033] To be more specific, when the start lever 6 is operated the controller 60 rotates the reels 3L, 3C, and 3R, and when the stop buttons 7L, 7C, and 7R are pressed the controller 60 correspondingly stops the reels 3L, 3C, and 3R, respectively. When receiving from the C/P button 14 a command to pay out medals, the controller 60 drives the hopper 69 so as to pay out medals through the medal payout opening 15. When the number of medals that have been paid out by the hopper 69 reaches a predetermined number, the controller 60 receives a medal payout completion signal from the hopper 69 and then stops the hopper 69. Here, the predetermined number means a value indicated by the credit value indicator 19. When the BET button 11 is pressed, the controller 60 activates the pay lines 8a to 8e and at the same time bets three of the credited medals for a next game. Also, when receiving from the inserted-medal sensor 13S a detection signal for the three medals inserted into the medal insertion slot 13, the controller 60 activates the pay lines 8a to 8e and at the same time bets the inserted three medals for a next game. When receiving from the reels 3L, 3C, and 3R positional signals, the controller 60 detects symbols placed on the activated lines in accordance with the signals, and then determines whether a win is made or not based on the combination of the sym-

[0034] The controller 60 is further connected to the BET lamp 9, the WIN lamp 17, the number-of-acquired-medals indicator 18, the credit value indicator 19, the number-of-bonus-games indicator 20, and the liquid crystal display 5. Depending on game modes and the like, the controller 60 supplies these components with drive signals so as to light up the lamps 9 and 17, change what are indicated by the indicators 18, 19, and 20, display presentation images on the liquid crystal display 5, and so on.

**[0035]** A clock-pulse generating circuit, a frequency divider, a random number generator, and a sampling circuit are connected to the CPU 61 of the controller 60. The clock-pulse generating circuit generates a reference clock pulse. The random number generator generates random numbers within a predetermined range of values. At a good timing after the start lever 6 is operated, the sampling circuit samples one out of the random numbers generated by the random number generator. The CPU 61 determines an internal win based on the random number thus sampled by the sampling circuit and on a probability lottery table which is stored in the ROM 63.

40

45

50

Here, the internal win means a win which can be made at the end of a game.

[0036] The controller 60 transmits game status data via the communicator 64 to the controller 70 of the medal lending device 10b and further transmitted to the hall computer 40. The game status data includes data concerning the present game mode and the number of medals that have been paid out by the hopper 69 of the gaming machine 10. When receiving a game start permission signal from the controller 70 of the medal lending device, 10b via the communicator 64, the controller 60 controls the main body 10a so as to enable a game to start.

[0037] The gaming machine 10 presents three modes of a "base game mode", an "RB game mode", and a "BB base game mode". These three game modes differ in types of the internal win, probabilities of an internally win of a replay, types of bonuses which can be made, relationship between the internal win and determination of a win, and the like. A game mode shifts from one mode to another when, for example, a predetermined combination of symbols stops on the pay line.

[0038] A player wins the BB, under a condition that a combination of "Blue 7 - Blue 7 - Blue 7" or "Red 7 - Red 7 - Red 7" appears on the activated line in the base game mode. When the BB is won, the game mode shifts from the base game mode to the BB base game mode. A player wins the RB, under a condition that a combination of "Red 7 - Red 7 - Blue 7" appears on the activated line in the base game mode or under a condition that a combination of "Replay - Replay - Replay" appears on the activated line in the BB base game mode. Winning the RB in the BB base game mode is generally called "JACIN". When the RB is won, the game mode shifts to the RB game mode.

[0039] A player wins a replay, under a condition that a combination of "Replay - Replay - Replay" appears on the activated line in the base game mode. When a replay is won, medals, the number of which is the same as the number of inserted medals, are automatically bet, so that the player 103 can play a next game without using his/her medals. In the base game mode and the BB base game mode, a "small win of Upper Chili", a "small win of Lower Chili", a "small win of Bell", and a "small win of Watermelon" can be made. That is, wins which can be made in the base game mode is the BB, the RB, the replay, the small win of Bell, the small win of Watermelon, the small win of Upper Chili, and the small win of Lower Chili. When the replay is won in the base game mode, no medal is acquired. However, when the BB, the RB, the small win of Bell, the small win of Watermelon, the small win of Upper Chili, and the small win of Lower Chili are made in the base game mode, the player acquires 15 medals, 15 medals, 10 medals, 3 medals, 1 medal, and 7 medals, respectively.

**[0040]** In the RB game mode, a win is made under a condition that a combination of "Replay - Replay - Replay", "Red 7 - Replay - Replay", or "Blue 7 - Replay - Replay" appears on the activated line in the base game

mode. A game played in the RB game mode is generally called a "JAC game".

**[0041]** Next, the medal lending device 10b which is included in the gaming machine 10 will be described with reference to FIGS. 2 and 4.

[0042] As shown in FIG. 2, the medal lending device 10b is placed adjacent to and formed as a unit with the main body 10a of the gaming machine. The medal lending device 10b has a cabinet 23 whose shape is substantially rectangular parallelepiped and whose width is smaller than that of the cabinet 2 of the main body 10a. The medal lending device 10b is controlled by a controller 70 (see FIG. 4) placed within the cabinet 23.

[0043] On a front face of the cabinet 23, there are provided a bill insertion slot 23a substantially at the center, a coin insertion slot 23b on the lower side of the bill insertion slot 23a, and a medal tray 23c in a lower part. A bill sensor 231 and a coin sensor 232 are provided in the bill insertion slot 23a and in the coin insertion slot 23b, respectively. The bill sensor 231 detects an inserted bill and the coin sensor detects an inserted coin. The bill sensor 231 and the coin sensor 232 are connected to and transmit inserted-amount detection signal to the controller 70 when detecting a bill and a coin, respectively. A medal payout unit 233, which is provided inside the cabinet 23, is also connected to the controller 70. The controller 70 drives the medal payout unit 233 based on the inserted-amount detection signal received from the bill sensor 231 and/or coin sensor 232, so as to pay out a predetermined number of medals into the medal tray 23c.

**[0044]** A CCD camera .24, which is provided in an upper front part of the cabinet 23, functions as an "imaging means" of the present invention, and images the playing player 103 who is sitting in front of the main body 10a of the gaming machine 10 as shown in FIG. 1. The CCD camera 24 is connected to and constantly transmits captured image data to the controller 70.

**[0045]** A liquid crystal monitor 25, which is provided substantially at the center of the front face of the cabinet 23, displays screens shown in FIGS. 7, 8, 9A to 9C, and 10A to 10C. Through the liquid crystal monitor 25, the player 103 can register his/her name and face image, and transmit/receive a mail to/from another player 103 who is playing a game in another gaming machine 10, the details of which will be described later. A touch panel is provided over a surface of the liquid crystal monitor 25. The player 103 can input his/her name and prepare a mail by touching the surface of the liquid crystal monitor 25.

**[0046]** On the front face of the cabinet 23, a card processing unit 26 is provided above the liquid crystal monitor 25. The card processing unit 26 includes a card issuing slot 26a that issues an ID card (not shown), a card insertion slot 26b into which the ID card can be inserted, and a card eject button 26c that ejects the ID card inserted into the card insertion slot 26b. The ID card has an IC chip storing data therein. When the player 103 has

completed a later-described registration processing, the ID card having registry data stored in its IC chip is issued out through the card issuing slot 26a. The registry data includes a name and face image data of the player 103. [0047] The CCD camera 24, the liquid crystal monitor 25, and the card processing unit 26 are connected to and controlled by the controller 70.

[0048] The controller 70 controlling the medal lending device 10b is formed of a microcomputer, and includes a CPU 71, a RAM 72, a ROM 73, and a communicator 74. The ROM 73 stores therein programs shown in FIGS. 15 to 18, machine numbers that specify the respective gaming machine 10, and the like. The machine number corresponds to a "specifying data item" of the present invention. The RAM 72 temporarily stores therein data to be used while the programs are being executed, game status data transmitted from the main body 10a of the gaming machine, registry data read out of the ID card, and the like. The CPU 71 enables execution of the programs stored in the ROM 73. The communicator 74 enables data communication with the controller 60 of the main body 10a of the gaming machine and data communication with the hall computer 40.

[0049] Here, a description will be given to a screen displayed on the liquid crystal monitor 25. As shown in FIGS. 7 and 8, a screen displayed on the liquid crystal monitor 25 is divided into a function select area 251a and a main area 251b. In the function select area 251a, a "DEMO" button 252a, a "REGISTER" button 252b, and a "MAIL" button 252c are displayed so that a player can select them. As described above, the touch panel is provided over the surface of the liquid crystal monitor 25. Therefore, when a player touches the buttons 252a to 252c, signals corresponding to the respective buttons are outputted.

[0050] When the player 103 touches the "DEMO" button 252a or when the other buttons 252b and 252c are kept un-operated for a predetermined period of time, a demo screen shown in FIG. 7, which, for example, gives a presentation using a character 253 or shows information about the hall 101, is displayed in the main area 251b. [0051] When the player 103 touches the "REGISTER" button 252b, a register screen shown in FIG. 8 is displayed in the main area 251b. Before the player 103 plays a first game in the hall 101, he/she registers his/her name as an "identification data item" and face image data as a "player image data item" via the register screen.

[0052] In the register screen, a character input screen 254a is displayed in a left part of the main area 251b. The character input screen 254a shows selectable keys including alphabet keys and an "ENTER" key.

[0053] An instruction screen, which shows a name field 254b, an "OK" button 254c, and a "SHOOT" button 254d, is displayed in a right part of the main area 251b. The name field 254b indicates a name of the player 103 which has been inputted through the keys in the character input screen 254a. The "SHOOT" button 254d is displayed in an unselectable mode until the "OK" button 254c is

touched. That is, the "SHOOT" button 254d becomes selectable, only after the player 103 inputs his/her name through the keys of the character input screen 254a, checks the name field 254b for the inputted name, and then touches the "OK" button 254c. When the player 103 touches the "SHOOT" button 254d, the CCD camera 24 is driven to shoot the player 103.

[0054] After a shooting, the name of the player 103 thus inputted, and his/her face image data obtained from the shooting are, together with the machine number which is stored in the ROM 73 of the controller 70, transmitted to the hall computer 40. Then, a screen of FIG. 9A, 9B, or 9C is displayed depending on a notification transmitted from the hall computer 40.

15 [0055] More specifically, when a registration has properly been completed, a message that the registration has been completed and an ID card has been issued appears as shown in FIG. 9A. When the inputted name has already been registered by another player 103, a message that the name has already been registered appears as shown in FIG. 9B. When the face image data obtained from the shooting has already been registered, it is determined that the player 103 who is attending to the current registration has already been registered, and therefore a message that the player 103 has already been registered appears as shown in FIG. 9C. After any of the screens of FIGS. 9A to 9C is displayed, the demo screen of FIG. 7 is automatically displayed.

[0056] Thus, no identical name can be registered. If a player 103 tries registering a name which has already been registered by another player, an error message (see FIG. 9B) appears so that he/she can input another name. This enables a mail to be transmitted to a desired player without fail.

[0057] In addition, one player 103 is not allowed double registrations. If an already-registered player 103 tries registering himself/herself again, an error message (see FIG. 9C) appears so that a reliable authentication of the player 103 can be performed.

[0058] When a player 103 touches the "MAIL" button 252c, a mail preparation screen of FIG. 10A is displayed in the main area 251b. Using the mail preparation screen, the player 103 prepares a mail addressed to another player 103 who is playing a game in another gaming machine 10. In the mail preparation screen, a character input screen 255a, which is similar to the character input screen 254a of the register screen is displayed in a left part of the main area 251b. An address field 255b, a message field 255c, and a "TRANSMISSION" button 255d are displayed in a right part of the main area 251b. A destination address is inputted in the address field 255b. Contents of the mail are inputted in the message field 255c. Here, what is inputted in the address field 255b is a name the destination player 103 inputted at the time of registering himself/herself. When the "TRANSMIS-SION" button 255d is touched, mail data, which includes a machine number of the gaming machine 10 and what have been inputted in the address field 255b and the

40

45

50

message field 255c, are transmitted to the hall computer 40.

[0059] The hall computer 40 receives the mail data, and then refers to a later-described player data table, so as to transmit the mail to a gaming machine 10 that corresponds to the name inputted in the address field 255b. When the mail has been transmitted properly, a message that transmission has been completed appears as shown in FIG. 10B, and then the demo screen of FIG. 7 is displayed. In a case where, for example, the name inputted in the address field 255b is not registered in the hall computer 40, the mail is not transmitted. Instead, a message urging the player 103 to review the destination address appears as shown in FIG. 10C. Then, the mail preparation screen of FIG. 10A is displayed again.

**[0060]** The gaming machine 10 that has received a mail from the hall computer 40 displays on its liquid crystal monitor 25 contents of the mail and a name of a player 103 who transmitted the mail.

[0061] Next, a counter 30 will be described.

[0062] As shown in FIG. 3, the counter 30 has a main body 30a and a ticket issuer 30b which are formed as a unit and placed adjacent to each other. A controller 80 (see FIG. 5) which is provided inside the main body 30a controls the counter 30. The main body 30a has a caselike shape and includes therein a medal receiver 31 and a counting passage (not shown). The medal receiver 31 opens in a top face of the main body 30a. The counting passage aligns medals in the medal receiver 31. A medal sensor 31S is provided in the medal receiver 31 and connected to the controller 80. The medal sensor 31S detects a medal which is passing through the counting passage, and transmits a detection signal to the controller 80. Based on the detection signal thus fed from the medal sensor 31S, the controller 80 counts medals inserted into the medal receiver 31.

[0063] The main body 30a also has, in its upper part, a CCD camera 32, a number-of-inserted-medals indicator 33, and a receipt issuing button 34. The CCD camera 32 shoots a counting person 104 who is using the counter 30. The number-of-inserted-medals indicator 33 indicates the number of all medals inserted. No description will be given to the CCD camera 32, because it has the same construction as that of the above-described CCD camera 24. The CCD camera 32, the number-of-inserted-medals indicator 33, and the receipt issuing button 34 are respectively connected to the controller 80 (see FIG. 5).

**[0064]** As shown in FIG. 3, the ticket issuer 30b is placed adjacent to and formed as a unit with the main body 30a. The ticket issuer 30b has a case-like shape and a receipt discharge opening 35,provided on a front face thereof. A printing unit 36 (see FIG. 5) that is connected to the controller 80 is provided inside the ticket issuer 30b. The printing unit 36 includes a printing section that performs a printing on a receipt (not shown), and a discharging section that discharges the printed receipt out through the receipt discharge opening 35. Upon a

pressing of the receipt issuing button 34, a receipt on which a result of counting is printed is discharged through the receipt discharge opening 35.

[0065] The controller 80 is formed of a microcomputer, and includes a CPU 81, a RAM 82, a ROM 83, and a communicator 84. The ROM 83 stores therein a program shown in FIG. 19, data, and the like. The RAM 82 temporarily stores therein data to be used while the program is being executed, and the like. The CPU 81 enables execution of the program stored in the ROM 83. The communicator 84 enables data communication with the hall computer 40.

**[0066]** Next, with reference to FIG. 6, a description will be given to an electrical construction of the hall computer 40 which is data-communicably connected to each of the gaming machines 10 and the counters 30.

[0067] A controller 90 of the hall computer 40 is formed of a microcomputer, and includes a CPU 91 that can execute programs shown in FIGS. 20 to 25, a RAM 92, a ROM 93, and a communicator 94. The ROM 93 stores therein programs shown in FIGS. 20 to 25, data, and the like. The RAM 92 temporarily stores therein data to be used while the programs are being executed, and the like. The CPU 91 enables execution of the programs stored in the ROM 93. The communicator 94 enables data communication with the gaming machines 10 and the counters 30.

[0068] An operating unit 95, a display 96, and a mass storage 97 are connected to the controller 90. The operating unit 95 includes a keyboard and a mouse for example, and used for inputting a processing instruction, a name of a staff 105, and the like. The display 96 such as a CRT monitor displays states of the players 103 and states of the gaming machines 10, and notifies the staff 105 of fraud in accordance with results of processings which will be described later. The storage 97 stores therein a player data table (see FIG. 11), a gaming machine data table (see FIG. 12), and a staff data table (see FIG. 13). The controller 90 retrieves data from the data tables, creates new data, rewrites data, and so on.

**[0069]** As shown in FIG. 11, the player data table stores therein data sets respectively corresponding to the players 103 each having completed the registration. Each data set is made up of face image data of a corresponding player 103, a name of the player 103, a machine number of a gaming machine 10 the player 103 is using, and game status data. In the player data table, the machine number and the game status data are rewritten in accordance with data received from the gaming machines 10.

[0070] As shown in FIG. 12, the gaming machine data table stores therein data sets respectively corresponding to the gaming machines 10. Each data set is made up of a machine number of a corresponding gaming machine 10, face image data of a player 103 who is using the gaming machine 10, and game status data. In the gaming machine data table, the player's face image data and the game status data are rewritten in accordance with data

40

50

received from the gaming machines 10.

**[0071]** As shown in FIG. 13, the staff data table stores therein data sets respectively corresponding to the staffs 105 who are present in the hall 101. Each data set is made up of face image data of a corresponding staff 105 and a name of the staff 105.

**[0072]** Next, operations of the main body 10a of the gaming machine 10 will be described with reference to FIG. 14.

**[0073]** First, the controller 60 of the main body 10a performs a game-starting initialization (A1) to initialize memory contents of the RAM 62, communication data, and the like. Then, the controller 60 erases predetermined memory contents of the RAM 62 which were stored at the end of a game (A2). More specifically, the controller 60 erases data from a "writable area" of the RAM 62 which was used in the previous game, writes a parameter necessary for a next game into the writable area of the RAM 62, designates a start address for a sequence program of the next game, and the like.

[0074] Then, the controller 60 determines whether a game start permission signal is received from the medal lending device 10b (A3). As will be detailed later with reference to FIG. 18, the medal lending device 10b transmits the game start permission signal under a condition that an ID card is inserted into the card insertion slot 26b and also that face image data stored in the ID card is identical to face image data obtained from a shooting by the CCD camera 24. When the game start permission signal has not been received (A3: NO), the controller 60 waits until it receives the signal. When the game start permission signal has been received (A3: YES), the processing proceeds to A4.

[0075] In A4, the controller 60 waits until it receives a signal from the inserted-medal sensor 13S or the BET button 11. Then, the controller 60 determines whether the start lever 6 is operated, that is, whether it receives a command signal for starting a game (A5). The controller 60 waits until the start lever 6 is operated. When the start lever 6 is operated (A5: YES), the controller 60 samples a random number for lottery (A6). Then, the controller 60 checks a game mode for the current game (A7). More specifically, the controller 60 sets a game mode for the current game to any of the BB base game mode, the RB game mode, and the base game mode, and transmits the set game mode to the medal lending device 10b.

**[0076]** Subsequently, an internal win is determined by executing a probability lottery processing (A8). Then, a stop table group that corresponds to the determined internal win is selected (A9). Then, the reels 3L, 3C, and 3R are rotated using the stop table group thus selected (A10).

**[0077]** Then, rotations of the reels 3L, 3C, and 3R are stopped (A11). More specifically, at a timing when the stop buttons 7L, 7C, and 7R are pressed or at a timing when an automatic stop timer indicates "0", the number of sliding frames is determined based on the stop table selected in A9 and on a reel position at the stop operation.

The number of sliding frames means the number of symbols that moves within the display windows 4L, 4C, and 4R after the stop buttons 7L, 7C, 7R are pressed and before the reels 3L, 3C, 3R are actually stopped. Thereby, the reel 3L, 3C, 3R that corresponds to the pressed stop button 7L, 7C, 7R is rotated so as to slide the determined number of frames, and then stopped.

[0078] Next, a win is determined (A12). More specifically, a win type is determined based on a combination of symbols of the reels 3L, 3C, and 3R that are stopped on the center line 8c. Then, medals depending on the determined win are credited or paid out (A13). Here, the number of medals to be acquired depending on the determined win is indicated by the number-of-acquiredmedals indicator 18. Depending on an operation of the C/P button made by the player, the acquired medals are credited or all medals that have already been acquired are paid out through the medal payout opening 15. When paying out medals, controller 60 transmits the number of medals paid out to the medal lending device 10b. When the medals are credited, the credited medals can be bet for a next game by pressing the BET button 11 in the next game. In A13, under a condition that the win determined in A12 was the BB or RB, the game mode shifts to the BB base game mode or the RB game mode.

[0079] Next, determined is whether the current game mode is the bonus game mode, that is, whether the current game mode is the BB base game mode or the RB game mode (A14). When the current game mode is neither the BB base game mode nor the RB game mode (A14: NO), the processing returns to A2. When the current game mode is the BB base game mode or the RB game mode (A14: YES), the controller 60 checks the number of games which should be played in the BB base game mode or the RB game mode (A15). More specifically, the controller 60 checks how many times a shifting to the RB game mode was made, how many games are set in the BB base game mode, and how many games are set in the RB game mode.

[0080] Next, determined is whether the bonus game mode should be ended (A16). More specifically, when, in the third RB game mode after the BB was won, 8 wins are made or 12 games are played, or when, in the BB base game mode, 30 games are played, it is determined that the bonus game mode should be ended. When, in the RB game mode after the RB was won as a result of a combination of "Red 7 - Red 7 - Blue 7" appearing on the activated line, 8 wins are made or 12 games are played, it is determined that the bonus game mode' should be ended. When it is determined that the bonus game mode should not be ended (A16: NO), the processing returns to A2. When it is determined that the bonus game mode should be ended (A16: YES), the bonus game mode is ended (A17), and the game mode shifts to the base game mode. Then, the processing returns to A2.

[0081] Next, operations of the medal lending device

10b of the gaming machine 10 will be described with reference to FIG. 15.

**[0082]** First, the controller 70 of the medal lending device 10b displays the demo screen of FIG. 7 on the liquid crystal monitor 25 (B1). Then, the controller 70 determines whether, in the demo screen, any button other than the "DEMO" button 252a shown in the function select area 251a is touched or not (B2). When the player 103 touches the "DEMO" button 252a or does not touch any button, it is determined that a button other than the "DEMO" button 252a is not touched (B2: NO), and the processing returns to B1 so that the demo screen remains displayed on the liquid crystal display 25.

[0083] When the player 103 touches a button other than the "DEMO" button 252a (B2: YES), then the controller 70 determines whether the "REGISTER" button 252b is touched or not (B3). When it is determined that the "REGISTER" button 252b is touched (B3: YES), the register screen of FIG. 8 is displayed on the liquid crystal monitor 25 and then a registration processing of FIG. 16 is executed (B5).

[0084] In the registration processing, first, whether in the register screen a name has been inputted or not is determined (C1). More specifically, determined are whether a name of the player 103 has been inputted in the field 254b shown in FIG. 8 and then the "OK" button 254c shown in FIG. 8 has been touched or not. When a name has not been inputted (C1: NO), whether a predetermined period of time has elapsed since the register screen was displayed or not is determined (C13). When the predetermined period of time has not yet elapsed (C13: NO), the processing returns to C1. When the predetermined period of time has elapsed (C13: YES), the processing exits from this routine and returns to B1 of FIG. 15 so that the demo screen is displayed.

[0085] When a name has been inputted (C1: YES), the "SHOOT" button 254d in the register screen becomes selectable (C2). Then, whether the "SHOOT" button 254d has been touched or not is determined (C3). When the "SHOOT" button 254d has not been touched (C3: NO), the controller 70 waits until the "SHOOT" button 254d is touched. When the "SHOOT" button 254d has been touched (C3: YES), the CCD camera 24 shoots the player 103 (C4). More specifically, the CCD camera is constantly transmitting image data of the player 103 to the controller 70, and the image data is temporarily stored in an image RAM (not shown) of the controller 70. At a timing when the "SHOOT" button 254d is touched, the controller 70 reads the image data out of the image RAM. [0086] Subsequently, the controller 70 extracts a face region of the player 103 from the read image data by a known method, and generates face image data of the player 103 (C5). More specifically, in an example, the controller 70 firstly determines whether a color tone and a gradation of each pixel are within a predetermined skincolor range, and extracts a skin-color region. Then, the controller 70 extracts a face region from the skin-color region by removing from the skin-color region parts different from a face region based on their sizes and shapes. Data on the face region extracted in this manner is the face image data.

[0087] Then, the controller 70 reads a machine number out of the ROM 73 (C6). In C7, the controller 70 transmits to the hall computer 40 the machine number read out in C6 and registry data which includes the inputted name and the face image data generated in C5. The controller 70 then determines whether it has received from the hall computer 40 a notification about the registration or not (C8). When the notification has not been received (C8: NO), the controller 70 waits until it receives the notification.

[0088] When the notification has been received (C8: YES), the controller 70 determines whether a registration has been completed or not based on the notification received (C9). In a case where a name inputted in the name field 254b has already been registered in the hall computer 40 or in a case where the face image data obtained from the shooting has already been registered in the hall computer 40, a notification of non-registerability is received (C9: NO), and a message that the name has already been registered or a message that the player 103 has already been registered appears as shown in FIG. 9B or 9C (C12). Then, the processing exits from this routine, and returns to B1. of FIG. 15 in which the demo screen is displayed. Alternatively, it is also possible that the register screen of FIG. 8 is displayed.

**[0089]** When the controller 70 receives a notification that the registration has been completed (C9: YES), a message that the registration has been completed appears as shown in FIG. 9A (C10). Then, a new ID card with an IC chip which stores therein the registry data including the name and the face image data is issued out through the card issuing slot 26a (C11). Then, the processing exits from this routine, and returns to B1 of FIG. 15 in which the demo screen is displayed.

**[0090]** In a case where the controller 70 has failed to generate face image data in C5, a message advising the player 103 to shoot himself/herself again may appear on the liquid crystal monitor 25. This can ensure that face image data of the player 103 is generated.

[0091] Referring to FIG. 15 again, when it is determined that the "REGISTER" button 252b is not touched (B3: NO), the controller 70 determines that the "MAIL" button 252c is touched, and displays the mail preparation screen of FIG. 10A on the liquid crystal monitor 25 (B6). Then, a mail transmission processing of FIG. 17 is executed (B7).

[0092] In the mail transmission processing, first, the controller 70 determines whether in the mail transmission screen the "TRANSMISSION" button 255d has been touched or not (D1). When the "TRANSMISSION" button 255d has not been touched (D1: NO), the controller 70 waits until the "TRANSMISSION" button 255d is touched. When the "TRANSMISSION" button 255d has been touched (D1: YES), the controller 70 then determines whether a destination address has been inputted in the

address field 255b or not (D2). When a destination address has not been inputted (D2: NO), the processing returns to D1. In this case, a massage advising the player 103 to input a destination address may appear on the liquid crystal monitor 25. When a destination address is has been inputted (D2: YES), the controller 70 transmits mail data to the hall computer 40 (D3). The mail data includes a machine number of the gaming machine 10 and contents inputted in the address field 255b and the message field 255c.

[0093] The controller 70 determines whether it has received from the hall computer 40 a notification about the transmission of mail or not (D4). When the notification has not been received (D4: NO), the controller 70 waits until it receives the notification. When the notification has been received (D4: YES), the controller 70 determines whether a main transmission has been completed or not based on the notification received from the hall computer 40 (D5). In a case where, for example, the name inputted in the address field 255b has not been registered in the hall computer 40, a mail transmission is uncompleted (D5: NO). In this case, a message advising the player 103 to review the destination address appears as shown in FIG. 10C (D7), and the mail preparation screen of FIG. 10A is displayed again (D8). Then, the processing returns to D1. When a mail transmission is completed (D5: YES), a message that a mail has been transmitted appears as shown in FIG. 10B (D6), and the processing exits from this routine. The processing then returns to B1 of FIG. 15 in which the demo screen is displayed.

[0094] The controller 70 of the medal lending device 10b executes the main routine of FIG. 15, while it also executes a player authentication processing of FIG. 18 under the condition where an ID card is inserted into the card insertion slot 26b. The authentication processing is being continuously executed while an ID card is being inserted into the card insertion slot 26b.

[0095] In the player authentication processing, first, the controller 70 reads face image data out of an IC chip of an inserted ID card (E1). The data thus read out is temporarily stored in the RAM 72. Then, the CCD camera 24 shoots a player (E2), and face image data is generated in the same manner as described above (E3). In E4, the controller 70 compares the face image data read out of the ID card in E1 with the face image data generated in E3. Then, the controller 70 determines whether these two pieces of face image data are identical or not (E5). More specifically, in E4, the controller 70 calculates a similarity between the two pieces of face image data by a known method. In E5, when the similarity calculated in E4 is equal to or more than a threshold value it is determined that the two pieces of face image data are identical, and when the similarity is less than the threshold value it is determined that the two pieces of face image data are not identical.

**[0096]** When the pieces of face image data are not identical (E5: NO), the controller 70 determines that the player 103 who is currently trying to play a game in the

gaming machine 10 is not identical to a player who is registered in the ID card. Thus, the controller 70 forces the ID card out from the card insertion slot 26b (E10), and the processing exits from this routine. That is, in this case the player 103 cannot start a game.

[0097] When the pieces of face image data are identical (E5: YES), the controller 70 transmits a game start permission signal to the main body 10a of the gaming machine 10 (E6). Then, the controller 70 reads a machine number and game status data out of the RAM 72 (E7). In E8, the controller 70 transmits to the hall computer 40 authentication data, which includes the face image data generated in E3 and the machine number and the game status data read out in E7.

[0098] In E9, the controller 70 determines whether a predetermined period of time has elapsed or not since the CCD camera 24 previously shot the player 103. When the predetermined period of time has not yet elapsed (E9: NO), the controller 70 waits until the predetermined period of time elapses. When the predetermined period of time has elapsed (E9: YES), the processing returns to E2 and the above-described operations are repeated.

**[0099]** When the card eject button 26c is pressed, the ID card is ejected from the card insertion slot 26b (E10), and the processing exits from this routine.

**[0100]** It may also be possible to, when the ID card is ejected from the card insertion slot 26b (E10), force the game mode into the base game mode even during the bonus game mode. As a result, even when the player 103 quits a game in the bonus game mode, another player 103 cannot take over the game and thus cannot dishonestly acquire medals.

**[0101]** Next, operations of the counter 30 will be described with reference to FIG. 19.

[0102] The controller 80 of the counter 30 firstly determines, based on a detection signal transmitted from the medal sensor 31S, whether a medal or medals is/are inserted into the medal receiver 31 or not (F1). When no medal is inserted (F1: NO), the controller 80 waits until a medal is inserted. When a medal or medals is/are inserted (F1: YES), the controller 80 counts the medal(s) that have been inserted into the medal receiver 31, based on the detection signal transmitted from the medal sensor 31S. Then, the controller 80 displays a result of the counting on the number-of-inserted-medals indicator 33 (F2). [0103] Then, the CCD camera 32 shoots a counting person 104 (F3), and generates face image data in the same manner as described above (F4). In F5, the controller 80 transmits to the hall computer 40 a medal count data, which corresponds to the result of the counting performed in F2, and the face image data of the counting person 104 which was generated in F4. Then, the controller 80 determines whether the receipt issuing button  $34\,\text{is}$  pressed or not (F6). When the receipt issuing button 34 is not pressed (F6: NO), the controller 80 waits until the receipt issuing button 34 is pressed. When the receipt issuing button 34 is pressed (F6: YES), the controller 80 drives the printing section and the discharging section of

40

35

40

the printing unit 36, so that the result of counting the medals is printed on a receipt which is then discharged through the receipt discharge opening 35 (F7). Then, the processing returns to F1, and the above-described operations are repeated.

**[0104]** Next, operations of the hall computer 40 will be described with reference to FIG. 20.

**[0105]** The controller 90 of the hall computer 40 firstly determines whether registry data is received from any one of the medal lending devices 10b or not (S1). When registry data is received (S1: YES), the controller 90 executes a registration processing of FIG. 21 (S2).

**[0106]** In the registration processing, first, the controller 90 determines whether a name included in the received registry data is registered in the player data table stored in the storage 97 or not (S101). When the name is registered (S101: YES), the controller 90 transmits a notification of non-registerability to the medal lending device 10b that has transmitted the registry data (S109). In this case, the message shown in FIG. 9B appears on the liquid crystal monitor 25 of the medal lending device 10b. Then, the processing exits from this routine, and returns to S1 of FIG. 20.

**[0107]** When the name included in the received registry data is not registered (S101: NO), the controller 90 then determines whether face image data included in the registry data is registered in the player data table stored in the storage 97 or not (S102). More specifically, the controller 90 compares a local image of the face image data included in the received registry data with a local image of face image data included in each data set stored in the player data table. When the controller 90 finds identical face image data, it determines that the face image data is registered.

**[0108]** When the face image data is registered (S102: YES), the controller 90 determines that a player 103 who is attending to the current registration has already been registered, and transmits a notification of non-registerability to the medal lending device 10b that has transmitted the registry data (S107). In this case, the message shown in FIG. 9C appears on the liquid crystal monitor 25 of the medal lending device 10b. Then, the processing exits from this routine, and returns to S1 of FIG. 20.

**[0109]** When the face image data is not registered (S102: NO), the controller 90 registers a player 103 based on the received registry data and the machine number received together with the registry data (S103). More specifically, the controller 90 creates a new data set in the player data table stored in the storage 97. Then, the controller 90 transmits a notification that the registration has been completed to the gaming machine 10 that is a sender of the registry data (S104). In this case, the message shown in FIG. 9A appears on the liquid crystal monitor 25 of the medal lending device 10b, and an ID card is issued.

**[0110]** Then, based on the received machine number, the controller 90 retrieves, from the gaming machine data table stored in the storage 97, a data set corresponding

to the gaming machine 10 that is a sender of the registry data (S105). Face image data included in the retrieved data set is rewritten into the face image data included in the received registry data, and game status data included in the data set is reset (S106). Here, resetting the game status data means setting the number of payout medals to zero. Then, the processing exits from this routine, and returns to S1 of FIG. 20.

**[0111]** Referring to FIG. 20 again, when the controller 90 does not receive registry data (S1: NO), then the controller 90 determines whether authentication data is received from any of the medal lending devices 10b (S3). When authentication data is received (S3: YES), the controller 90 executes a player data table updating processing of FIG. 22 (S4).

**[0112]** In the player data table updating processing, first, the controller 90 determines whether face image data included in the received authentication data is registered in the player data table stored in the storage 97 or not (S201). When the face image data included in the received authentication data is registered (S201: YES), the controller 90 retrieves a corresponding data set from the player data table (S202). The controller 90 determines whether a machine number included in the retrieved data set is identical to a machine number included in the received authentication data (5203).

**[0113]** When they are not identical (S203: NO), the controller 90 determines that the player 103 has moved to another gaming machine 10, and rewrites the machine number included in the retrieved data set into the machine number included in the received authentication data (S204). Subsequently, the controller 90 rewrites game status data included in the retrieved data set into game status data included in the received authentication data (S205).

[0114] When they are identical (S203: YES), the controller 90 determines that the player 103 has not moved to any other gaming machine 10, i.e., has been staying at the same gaming machine 10, and rewrites game status data alone included in the retrieved data set (S205). [0115] After S205, the controller 90 notifies a staff 105 that data stored in the storage 97 have been updated, by means of the display 96 (S207). Then, the processing exits from this routine.

[0116] When the face image data included in the received authentication data is not registered in the player data table (S201: NO), the controller 90 determines that there is high possibility of occurrence of an error or fraud by the player 103. This is because face image data of the player 103 is not registered in the player data table of the hall computer 40 although the medal lending device 10b determines that face image data registered in the ID card and face image data obtained from a shooting are identical (see E5 of FIG. 18). Therefore, through the display 96, the controller 90 notifies the staff 105 that fraud or an error has occurred (S206), and the processing exits from this routine.

[0117] Like this, face image data of the player 103 is

35

40

45

checked twice. Specifically, the medal lending device 10b compares face image data obtained from a shooting by the CCD camera 24 with face image data registered in an ID card, and in addition the hall computer 40 subsequently examines whether the face image data is registered in the player data table or not. As a result, authentication accuracy is improved to more easily prevent occurrence of an error or fraud by a player.

**[0118]** After S4, the controller 90 executes a gaming machine data table updating processing of FIG. 23 (S5). In the gaming machine data table updating processing, first, the controller 90 retrieves from the gaming machine data table a data set that corresponds to a machine number included in the received authentication data (S301). The controller 90 determines whether face image data included in the retrieved data set is identical to face image data included in the received authentication data (S302). When they are not identical (S302: NO), the controller 90 determines based on game status data included in the retrieved data set whether a game mode currently adopted in the gaming machine 10 is any of the BB base game mode and the RB game mode (S303).

**[0119]** When the current game mode is neither the BB base game mode nor the RB game mode (S303: NO), the controller 90 rewrites face image data included in the retrieved data set into face image data included in the received authentication data and at the same time resets the game status data included in the data set (S304).

**[0120]** When face image data included in the retrieved data set and face image data included in the received authentication data are identical (S302: YES), the controller determines that the same player 103 continues playing a game in the gaming machine 10, and rewrites the game status data alone into game status data included in the received authentication data (S306).

**[0121]** After S304 or S306, the controller 90 notifies a staff 105 that data stored in the storage 97 have been updated, by means of the display 96 (S307). Then, the processing exits from this routine, and returns to S1 of FIG. 20.

**[0122]** When the current game mode is the BB base game mode or the RB game mode (S303: YES), the controller determines that a player 103 playing in the gaming machine 10 has been replaced in a bonus game mode, and notifies a staff 105 of replacement by means of the display 96 (S305). As a result, while a player 103 who plays a game in the bonus game mode is temporarily leaving a gaming machine 10, another player cannot resume the game in the gaming machine 10. Then, the processing exits from this routine, and returns to S1 of FIG. 20.

**[0123]** Referring to FIG. 20 again, when authentication data is not received from any of the medal lending devices 10b (S3: NO), the controller 90 determines whether medal count data is received from any of the counters 30 or not (S6). When medal count data is received (S6: YES), the controller 90 executes a counting person monitoring processing of FIG. 24 (S7).

[0124] In the counting person monitoring processing, first, the controller 90 determines whether face image data, which has been received together with the medal count data from the counter 30, is registered or not in the player data table stored in the storage 97 (S401). When the face image data is registered (S401: YES), a data set corresponding to the face image data is retrieved from the player data table (S402). Then, the controller 90 compares the number of payout medals that is included in the retrieved data set with the received medal count data (S403), and then determines whether they are identical or not (S404). When they are identical (S404: YES), it is deemed to be normal and thus the processing exits from this routine. When they are not identical (S404: NO), the controller 90 determines that, for example, there is high possibility that the counting person 104 who is using the counter 30 has dishonestly brought medals in from the outside. Therefore, through the display 96, the controller 90 notifies the staff 105 of occurrence of fraud (S406). Then, the processing exits from this routine.

[0125] In a case where, in S403, the number of medals counted by the counter 30, which is expressed by the received medal count data, is smaller than the number of medals paid out of the gaming machine 10, which means the number of payout medals included in the retrieved data set, it may be considered that, for example, the player 103 after finishing a game has dropped some of his/her medals while he/she was carrying the medals from the gaming machine 10 to the counter 30. This is not fraud. In this case, therefore, in S404 the controller 30 may determine that the number of payout medals and the result of counting medals are identical.

[0126] When the face image data received from the counter 30 is not registered in the player data table (S401: NO), then the controller 90 determines whether the face image data is registered in the staff data.table stored in the storage 97 or not (S405). When the face image data is registered in the staff data table (S405: YES), the controller 90 determines that a staff 105 counts medals in the counter 30 on behalf of the player 103, and the processing exits from this routine. When the face image data is not registered in the staff data table (S405: NO), the controller 90 determines that someone other than the player 103 nor the staff 105 is using the counter 30, which is therefore notified to the staff 105 through the display 96 (S406). Then, the processing exits from this routine, and returns to S1 of FIG. 20.

**[0127]** Like this, by determining whether face image data obtained by shooting a counting person 104 who is using the counter 30 is registered in the storage 97 of the hall computer 40 or not in S401, the controller 90 can check whether the counting person 104 has actually played a game and acquired the medals by himself/herself or not. This can prevent a counting person 104 from practicing fraud with the counter 30. In addition, the number of medals counted by the counter 30, which is expressed by the received medal count data, is compared with the number of medals paid out of the gaming

machine 10, which means the number of medals included in the retrieved data set (S403). Thereby, the controller 90 can check whether a counting person 104 has dishonestly brought medals in or not.

[0128] Referring to FIG. 20 again, when medal count data is not received from any of the counters 30 (S6: NO), the controller 90 determines that a mail data is received from any of the medal lending devices 10b and executes a mail transmission/reception processing of FIG. 25 (S8). [0129] In the mail transmission/reception processing, first, the controller 90 specifies a name of a player 103 who has transmitted a mail, based on a machine number included in the received mail data (S501). More specifically, the controller 90 retrieves, from the gaming machine data table stored in the storage 97, a data set corresponding to the machine number included in the received mail data, and specifies a name based on the data set.

**[0130]** Then, the controller 90 determines whether the name specified in S501 is registered in the player data table or not (S502). When the name is not registered (S502: NO), the controller 90 determines that a sender of the mail does not exist, and transmits a notification of transmission error to a gaming machine 10 that is a sender of the mail (S507). In this case, the screen shown in FIG. 10C is displayed on the liquid crystal monitor 25 of a medal lending device 10b included in the gaming machine 10. Thus, the processing exits from this routine.

[0131] When the name specified in S501 is registered in the player data table (S502: YES), the controller 90 retrieves a data set corresponding to the name from the player data table (S503), and specifies a machine number included in the data set (S504). Then, the controller 90 transmits the mail data to a gaming machine 10 that is assigned to the specified machine number, i.e., that is a destination of the mail (S505). Then, the controller 90 transmits a notification that a mail transmission has been completed to the gaming machine 10 that is a sender of the mail (S506). In this case, the screen shown in FIG. 10B is displayed on the liquid crystal monitor 25 of the medal lending device 10b included in the gaming machine 10. Thus, the processing exits from this routine, and returns to S1 of FIG. 20.

[0132] In this embodiment, as thus far described above, in a case where face image data formed based on a shooting by the CCD camera 24 of the medal lending device 10b has already been registered in the hall computer 40 (S201: YES) and in addition a machine number corresponding to the face image data is not identical to a machine number included in authentication data received from the medal lending device 10b (S203: NO), the controller 90 rewrites a machine number (S204). That is, each time a player 103 changes a gaming machine 10, contents of the storage 97 of the hall computer 40 are accordingly rewritten. Then, when a mail which is addressed to a name is transmitted from a medal lending device 10b to the hall computer 40, the hall computer 40 transmits the mail based on a machine number that is

associated with the name with reference to the storage 97. Accordingly, when a player 103 wants to communicate with another player 103, he/she does not have to know which gaming machine 10 another player 103 is using now, but has only to transmit a mail addressed to a name of another player 103, so as to transmit the mail to another player 103 thus communicating with another player 103. In addition, a player 103 can concentrate on a game because he/she does not have to exert an effort to always know which gaming machine 10 his/her communicatee is using now.

[0133] In S401, whether a face image data of a counting person 104 resulting from an imaging by the CCD camera 32 of the counter 30 is registered in the player data table within the storage 97 or not is determined. Thereby, whether the counting person 104 who is counting a game value on the counter 30 has actually played a game in a gaming machine 10 or not can be determined. Accordingly, even though, for example, medals acquired by a player is brought out by a dishonest stranger who then attempts counting the medals on the counter 30, whether the counting person 104 is counting medals he/she has acquired by himself/herself as a result of actually playing a game or not can be determined. This can prevent fraud in the counter 30, without requiring a monitoring by a staff 105.

**[0134]** Moreover, in S403, the number of medals counted by the counter 30 is compared with the number of medals paid out by the hopper 69 of a gaming machine 10. When they are not identical (S404: NO), a staff 105 is notified of occurrence of fraud through the display 96 (S406). Even when a face image data of a counting person 104 is stored in the storage 97, the above-described comparison is made, to determine whether the counting person 104 dishonestly acquired medals or not. This can more effectively prevent fraud in the counter 30.

**[0135]** Further, the storage 97 of the hall computer 40 stores therein the staff data table (see FIG. 13) including a face image data of each staff 105. In S405, whether a face image data of a counting person 104 received from the counter 30 is registered in the staff data table or not is determined. This tells whether a person who is counting medals on the counter 30 is a staff 105 or not.

**[0136]** As long as an ID card is kept inserted in the card insertion slot 26b, a player 103 is shot at predetermined intervals (E9 and E2), and face image data thus generated is outputted to the hall computer 40. Accordingly, even when a player 103 has changed during a game, it can immediately be detected. For example, if, while a player 103 who plays a game in the bonus game mode is temporarily leaving a gaming machine 10, another player 103 resumes the game in the gaming machine 10 without permission, this fraud can immediately be detected.

**[0137]** If the player authentication processing (see FIG. 18) utilizes face image data of a player 103 which is registered in the hall computer 40, the authentication processing' cannot be executed when a trouble occurs

40

in a network that connects the respective gaming machines 10 to the hall computer 40 or when a data table, etc., stored in the hall computer 40 is erased. In this embodiment, on the other hand, face image data formed based on a shooting by the CCD camera 24 are not transmitted from the medal lending device 10b to the hall computer 40. Instead, each medal lending device 10b itself authenticates a player 103 by comparing face image data stored in an ID card with face image data obtained from a shooting by the CCD camera 24 (E4). Thus, in this embodiment, the authentication processing is reliably executed even when the above-mentioned troubles occur. [0138] The more players 103 are registered, the more volume of data must be recorded in the hall computer 40, which may cause a lot of trouble with data management. In this embodiment, on the other hand, registry

data is stored in an ID card which is owned by each player

103, so that data management can easily be done.

[0139] In the above-described embodiment, the CCD camera 24 is mounted on the medal lending device 10b, so that the CCD camera 24 shoots, in an oblique direction, a player 103 who is sitting in front of the main body 10a. However, it may be possible that the main body 10a is provided with a CCD camera 124 as shown in FIG. 26. In this case, an image obtained is a front image of a player 103 resulting from a shooting by the CCD camera 124. This gives improved reliability to a shooting result by the CCD camera 124, and therefore an authentication error does not easily occur, so as to improve authentication accuracy. Alternatively, it may also be possible that the CCD camera 24 is mounted on a device that is separate from both of the main body 10a and the medal lending device 10b.

**[0140]** A device that images a player 103 is not limited to the CCD camera 24, but may for example be a CMOS camera or any other cameras.

**[0141]** The main body 10a and the medal lending device 10b of the gaming machine 10 may be controlled by a single controller.

**[0142]** In the counting person monitoring processing executed by the hall computer 40 (see FIG. 24), it may be possible that the hall computer 40 transmits a signal to the counter 30 so as to prevent the ticket issuer 30b from issuing a receipt in a case where face image data obtained from a shooting by the CCD camera 32 is not registered in the player data table (S401: NO) or in a case where the received medal count data is not identical to the number of payout medals included in the retrieved data set (S404: NO). This can prevent fraud in the counter 30.

**[0143]** It may be possible that an ID card insertion slot is formed in the counter 30, in order that the controller 80 of the counter 30 can compare face image data read out of the ID card with face image data obtained from a shooting by the CCD camera. Further, it may be possible that not only the registry data but also the number of medals paid out of the gaming machine 10 is stored in an ID card, in order that the controller 80 of the counter

30 can compare the number of payout medals read out of the ID card with a result of counting based on a detection signal from the medal sensor 31S. That is, although in the above-described embodiment the hall computer 40 performs the counting person monitoring processing (see FIG. 24) to detect a counting person 104 practicing fraud, each counter 30 itself may detect a counting person 104 practicing fraud by executing the above-mentioned comparison. This makes it possible for each counter 30 to detect a counting person 104 practicing fraud even when communication with the hall computer 40 is broken by a network trouble, etc.

**[0144]** Face image data of a player 103 is used as the player image data item in the above-described embodiment, but alternatively image data of a certain part, e.g., a nose or an eye, of the player 103 other than a face may be used. For example, it may be possible to extract, as the player image data item, a nose or an eye part from image data obtained by the CCD camera 24. A method of generating a player image data item and a method of checking image data are not limited to the ones employed in the above-described embodiment.

**[0145]** In the above-described embodiment, a mail is transmitted and received through the liquid crystal monitor 25 mounted on the medal lending device 10b. However, this is not limitative. For example, the liquid crystal display 5 of the main body 10a of the gaming machine may serve to transmit and receive a mail.

**[0146]** The identification data item to which a mail is addressed may either be a real name and a handle name, and alternatively may be anything other than the name, as long as it enables identification of each individual player.

[0147] A notification means is not limited to the display 96 of the hall computer 40 but may be, for example, a portable device which is carried by a staff 105 and through which the staff 105 is notified of fraud and the like. [0148] In the above-described embodiment, the controller 60 of the main body 10a is connected to the hall computer 40 through the controller 70 of the medal lending device 10b. However, the controller 60 may be directly connected to the hall computer 40. In this case, it may be possible that the controller 60 of the main body 10a transmits data received from the controller 70 of the medal lending device 10b to the hall computer 40.

**[0149]** The gaming machines 10, the counters 30, and the hall computer 40 may be connected wirelessly.

**[0150]** The gaming machine 10 is not limited to a pachislot machine, but may be a so-called pinball machine using pinballs. In addition, in the gaming machine 10, a card that stores therein game values given to a player may be used as a game medium. The game value may not only be a medal but also be a coin, a pinball, and the like.

**[0151]** While this invention has been described in conjunction with the specific embodiments outlined above, it is evident that many alternatives, modifications and variations will be apparent to those skilled in the art. Accord-

40

45

50

15

20

25

30

35

40

45

50

55

ingly, the preferred embodiments of the invention as set forth above are intended to be illustrative, not limiting. Various changes may be made without departing from the spirit and scope of the invention as defined in the following claims.

#### Claims

A server that is data-communicably connected to respective gaming machines and enables a mail transmission and reception among the gaming machines, each of the gaming machines having an imaging means that images a player and an input means through which the player inputs his/her identification data item.

**characterized in that** the server comprises:

a storage means that rewritably stores therein a player image data item resulting from an imaging by the imaging means, a specifying data item that specifies each of the gaming machines, and the identification data item, in such a manner that these data items are associated with one another;

a first determination means that determines, upon every imaging by the imaging means, whether a player image data item resulting from the imaging has been stored in the storage means or not;

a second determination means that determines, when the first determination means determines that the player image data item resulting from the imaging has been stored in the storage means, whether or not a specifying data item associated with the player image data item in the storage means is identical to a specifying data item received, upon every imaging by the imaging means, from a gaming machine that has the imaging means;

a rewriting means that, when the second determination means determines that the specifying data items are not identical, rewrites the specifying data item associated with the player image data item in the storage means into the specifying data item received from the gaming machine; a mail reception means that receives from any of the gaming machines a mail addressed to an identification data item; and

a mail transmission means that transmits the mail based on a specifying data item stored in the storage means and associated with the identification data item to which the mail is addressed.

2. A game system that includes gaming machines and a server data-communicably connected to the respective gaming machines, and enables a mail transmission and reception among the gaming machines

**characterized in that** each of the gaming machines comprises:

a specifying data item storage means that stores therein a specifying data item for specifying the gaming machine itself;

an imaging means that images a player;

a player image data item generation means that generates a player image data item based on a result of an imaging by the imaging means;

an output means that outputs the player image data item generated by the player image data item generation means together with the specifying data item;

an input means through which a player inputs his/her identification data item;

a mail preparation means that prepares a mail addressed to an identification data item of another player; and

a mail transmission means that transmits the mail prepared by the mail preparation means,

#### characterized in that the server comprises:

a first reception means that receives the player image data item and the specifying data item outputted from the output means;

a second reception means that receives the identification data item inputted through the input means;

a storage means that rewritably stores therein the player image data item, the specifying data item, and the identification data item, in such a manner that these data items are associated with one another:

a first determination means that determines whether the player image data item received by the first reception means has been stored in the storage means or not;

a second determination means that determines, when the first determination means determines that the player image data item has been stored in the storage means, whether or not a specifying data item associated with the player image data item in the storage means is identical to the specifying data item received by the first reception means together with the player image data item;

a rewriting means that, when the second determination means determines that the specifying data items are not identical, rewrites the specifying data item associated with the player image data item in the storage means into the specifying data item received from the gaming machine; a mail reception means that receives from any of the gaming machines a mail addressed to an

15

20

25

30

35

40

45

50

identification data item; and a mail transmission means that transmits the mail based on a specifying data item stored in the storage means and associated with the identification data item to which the mail is ad-

3. A server that is data-communicably connected to a plurality of gaming machines each having a player imaging means that images a player and a payout means that pays out a game value based on a game result, and also data-communicably connected to a counter having a counting means that counts the game value and a counting-person imaging means that images a counting person.

dressed

characterized in that the server comprises:

a storage means that stores therein a player image data item resulting from an imaging by the player imaging means;

a retrieval means that retrieves from the storage means a player image data item that is identical to a counting-person image data item resulting from an imaging by the counting-person imaging means; and

a first notification means that notifies a result of retrieval made by the retrieval means.

**4.** The server according to claim 3, **characterized in that** the server further comprises:

a payout amount data reception means that receives an amount data item of the game value paid out by the payout means;

a payout amount data storing means that stores, into the storage means, the payout amount data item received by the payout amount data reception means, in such a manner that the payout amount data item is associated with a player image data item;

a counted amount data reception means that receives an amount data item of the game value counted by the counting means;

a comparison means that compares the payout amount data item associated with the player image data item retrieved by the retrieval means with the counted amount data item received by the counted amount data reception means; and a second notification means that notifies a result of comparison made by the comparison means.

5. The server according to claim 3 or 4, characterized in that:

the storage means stores therein a manager image data item regarding a manager of the gaming machines; and

the retrieval means retrieves from the storage

means a manager image data item that is identical to a counting-person image data item resulting from an imaging by the counting-person imaging means.

6. A game system that includes a plurality of gaming machines each paying out a game value based on a game result, a counter counting the game value, and a server data-communicably connected to the respective gaming machines and the counter, characterized in that each of the gaming machines comprises:

> a player imaging means that images a player; a player image data item generation means that generates a player image data item based on a result of an imaging by the player imaging means; and

> a player image data item transmission means that transmits, to the server, the player image data item generated by the player image data item generation means,

#### characterized in that the counter comprises:

a counting-person imaging means that images a counting person;

a counting-person image data item generation means that generates a counting-person image data item based on a result of an imaging by the counting-person imaging means; and

a counting-person image data item transmission means that transmits, to the server, the counting-person image data item generated by the counting-person image data item generation means,

#### characterized in that the server comprises:

a player image data item reception means that receives the player image data item transmitted by the player image data item transmission means;

a storage means that stores therein the player image data item received by the player image data item reception means;

a counting-person image data item reception means that receives the counting-person image data item transmitted by the counting-person image data item transmission means;

a retrieval means that retrieves from the storage means a player image data item that is identical to the counting-person image data item received by the counting-person image data item reception means; and

a notification means that notifies a result of retrieval made by the retrieval means.

7. The game system according to claim 6, **characterized in that** the player imaging means images a player at predetermined intervals.

FIG. 1

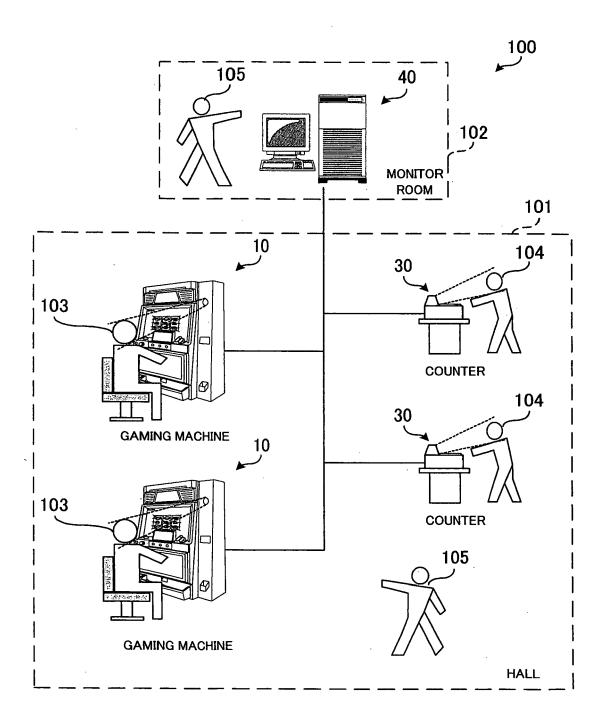


FIG.2

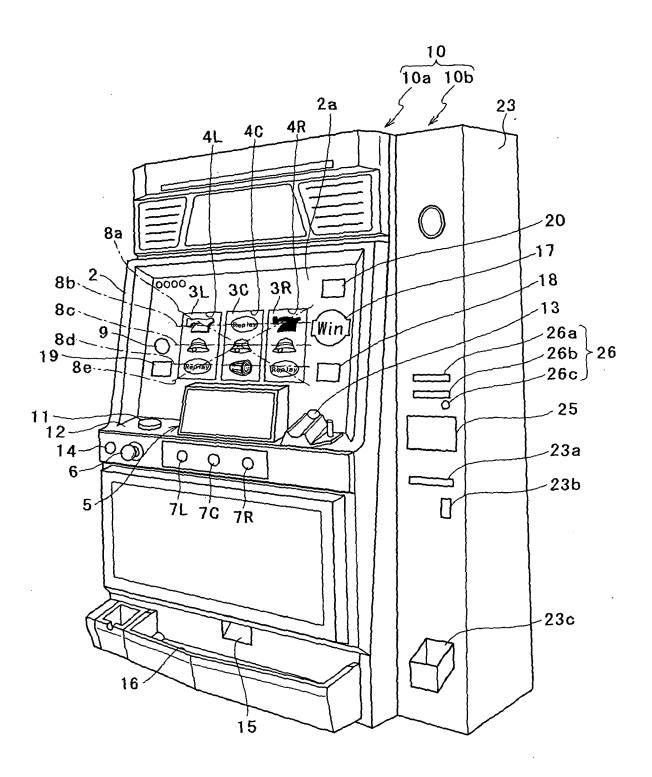
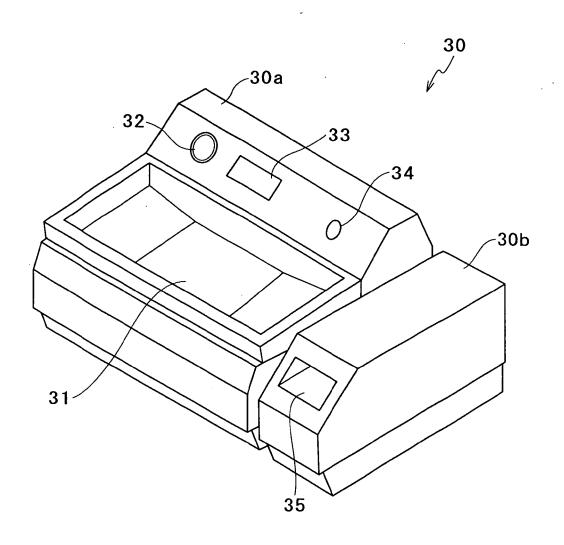


FIG.3



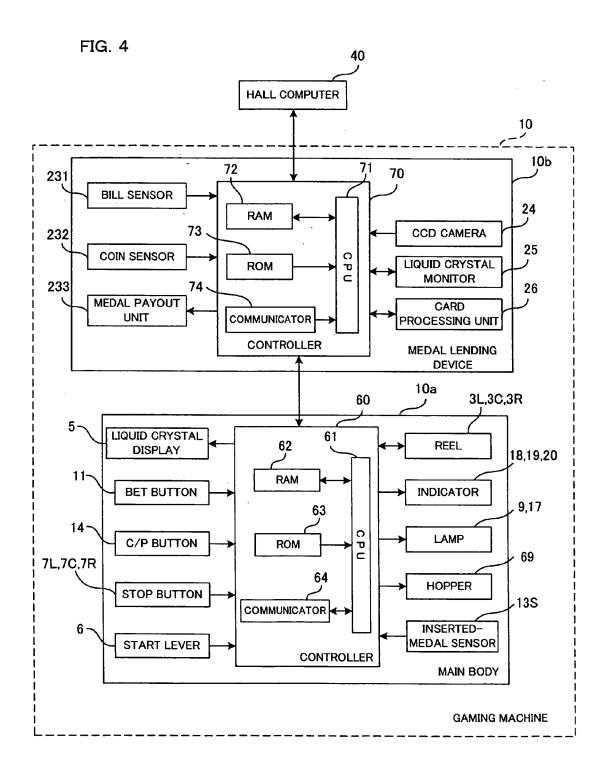


FIG. 5

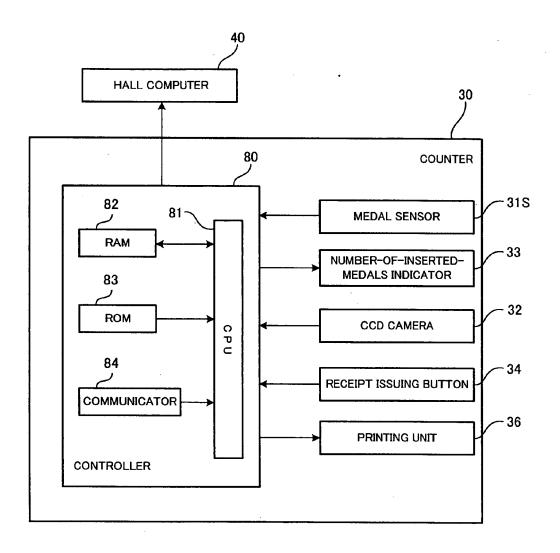


FIG. 6

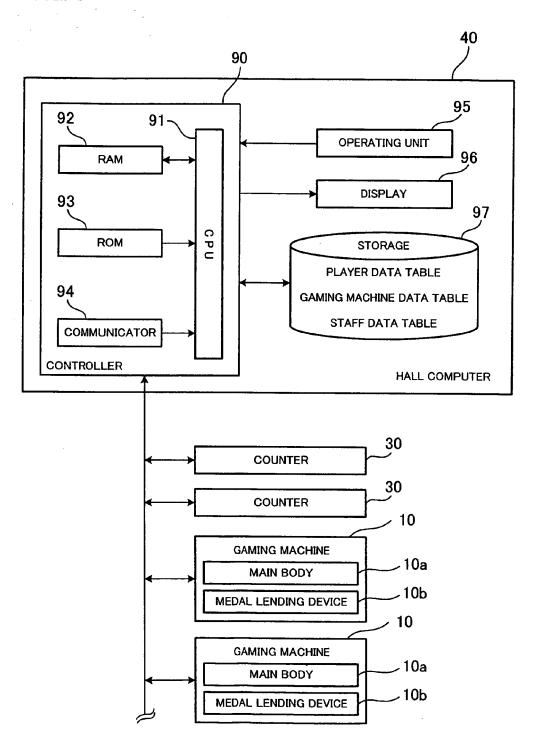


FIG. 7

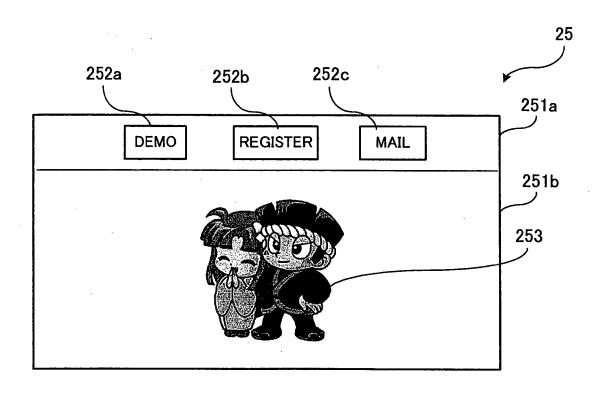


FIG. 8

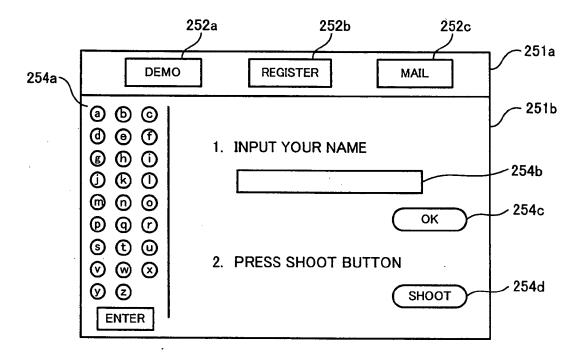


FIG. 9A

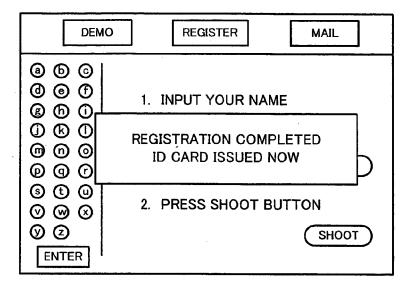


FIG. 9B

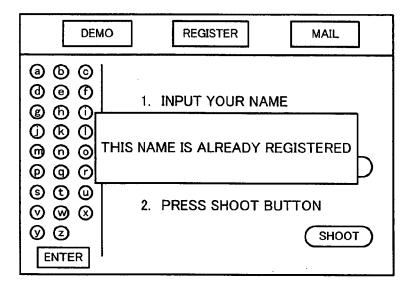
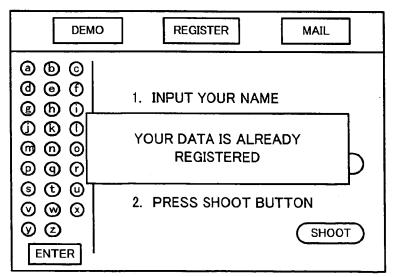


FIG. 9C



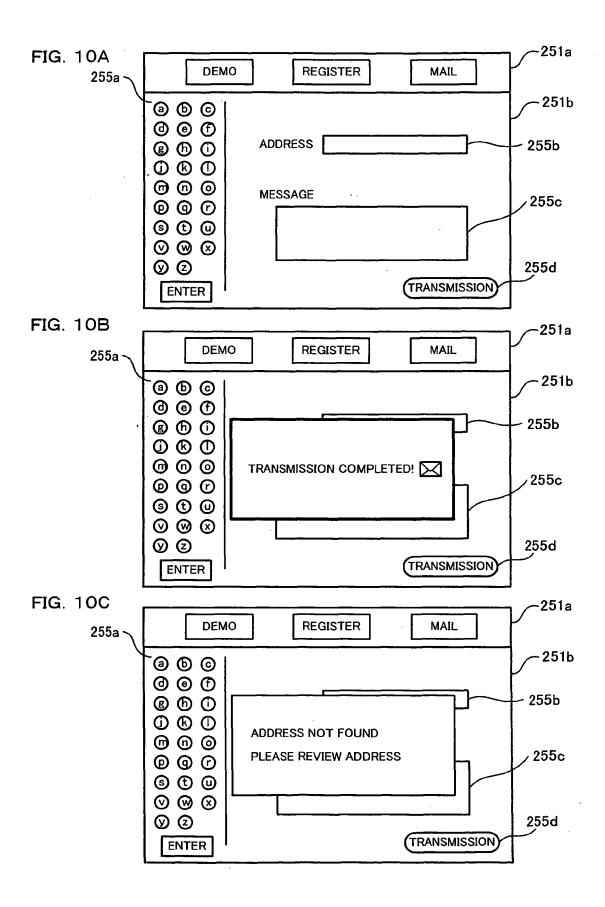


FIG. 11

# PLAYER DATA TABLE

FACE IMAGE	NANAT	MACHINE	GAME STATUS		
OF PLAYER	NAME	NUMBER	GAME MODE	NUMBER OF PAYOUTS	
	AAA	0001	BB BASE GAME MODE	50	
	ccc	0002	BASE GAME MODE	3 .	
	FFF	0022	RB GAME MODE	140	

# FIG. 12

# GAMING MACHINE DATA TABLE

MACHINE	FACE IMAGE	GAME	STATUS
NUMBER	OF PLAYER	GAME MODE	NUMBER OF PAYOUTS
0001		BB BASE GAME MODE	50
0002		BASE GAME MODE	3
:		:	:
0022		RB GAME MODE	140

# FIG. 13

# STAFF DATA TABLE

FACE IMAGE OF STAFF	NAME
	xxx
	YYY
i	



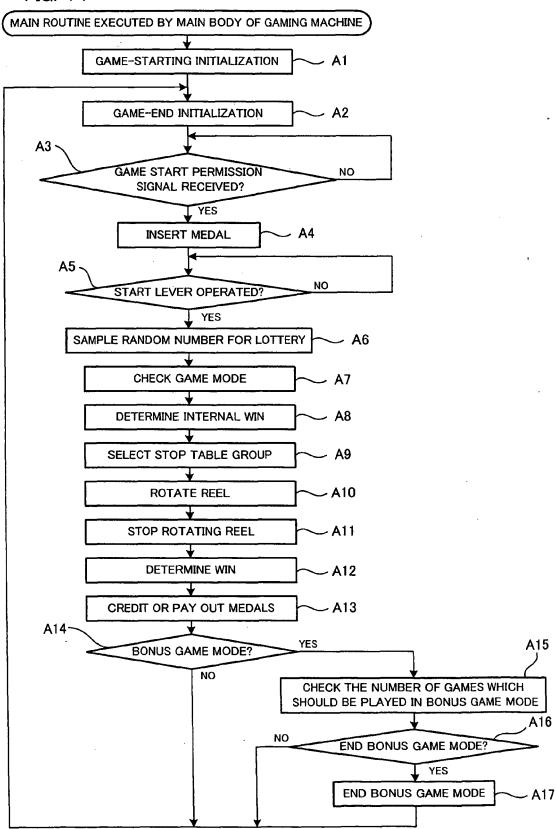


FIG. 15

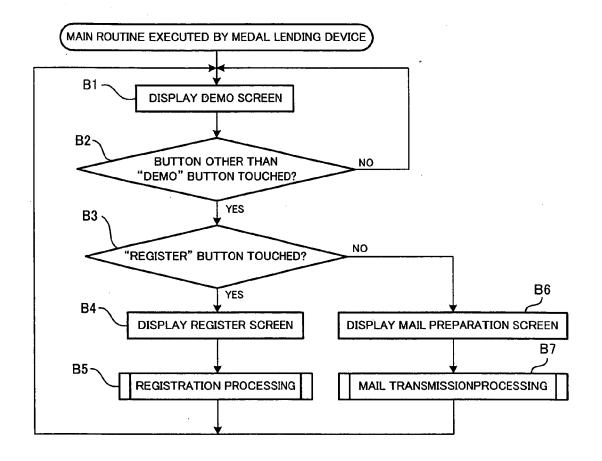


FIG. 16

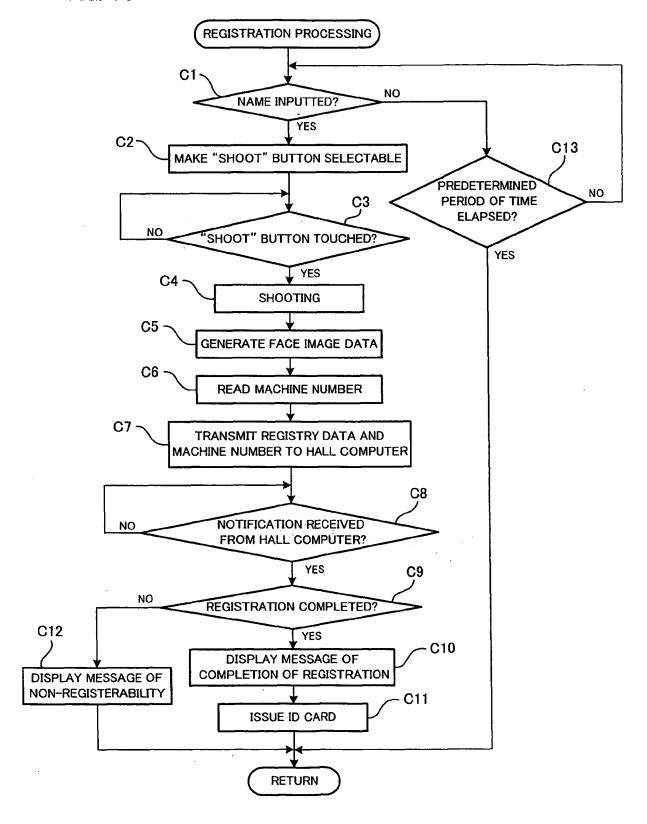


FIG. 17

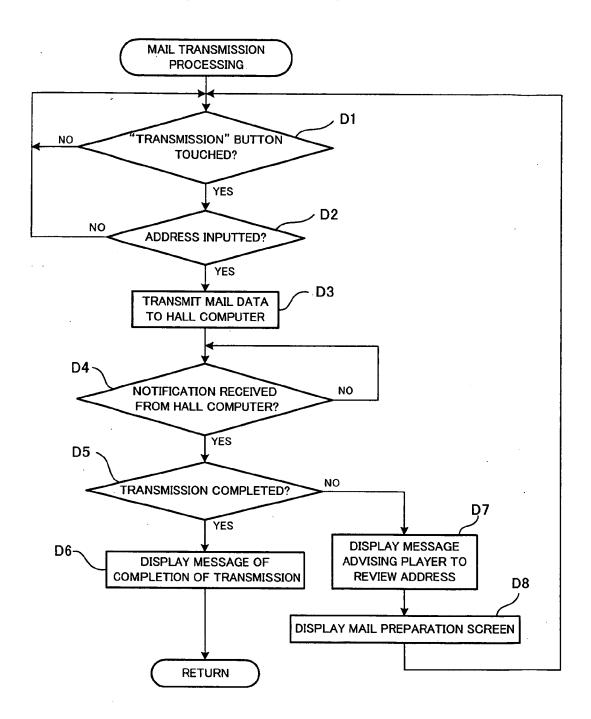


FIG. 18

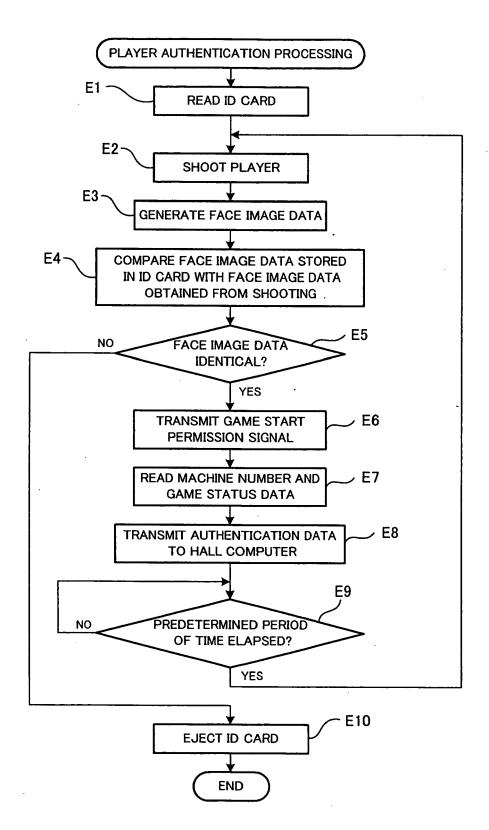


FIG. 19

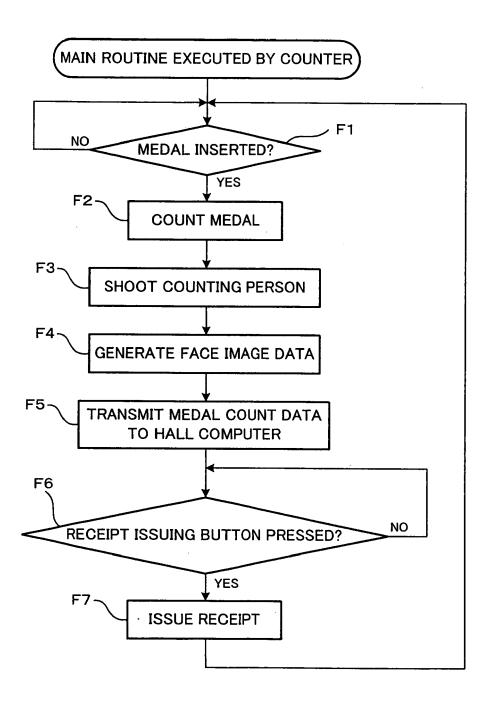


FIG. 20

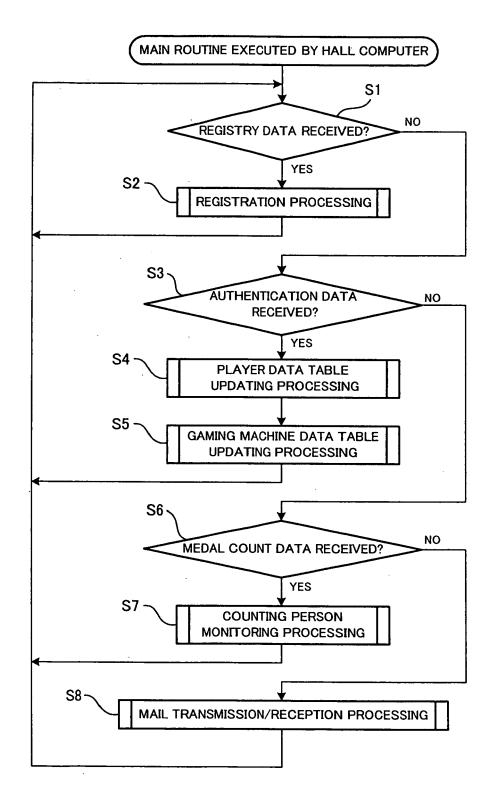


FIG. 21

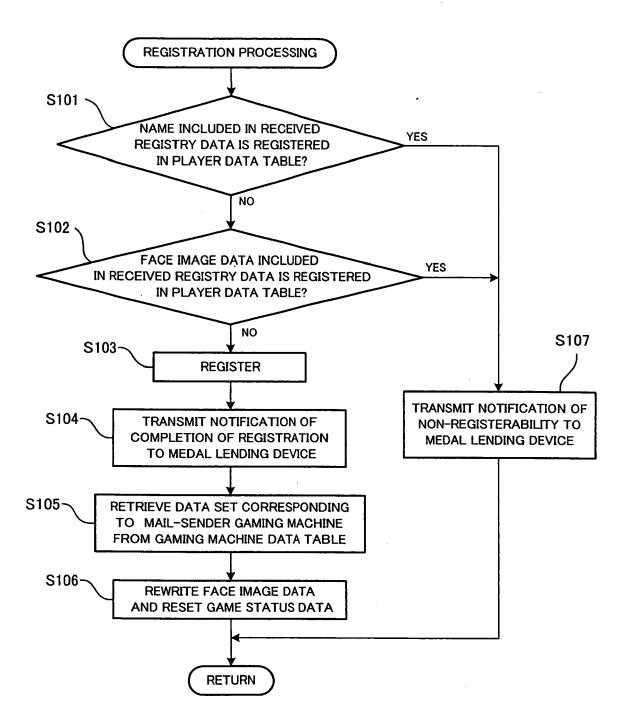


FIG. 22

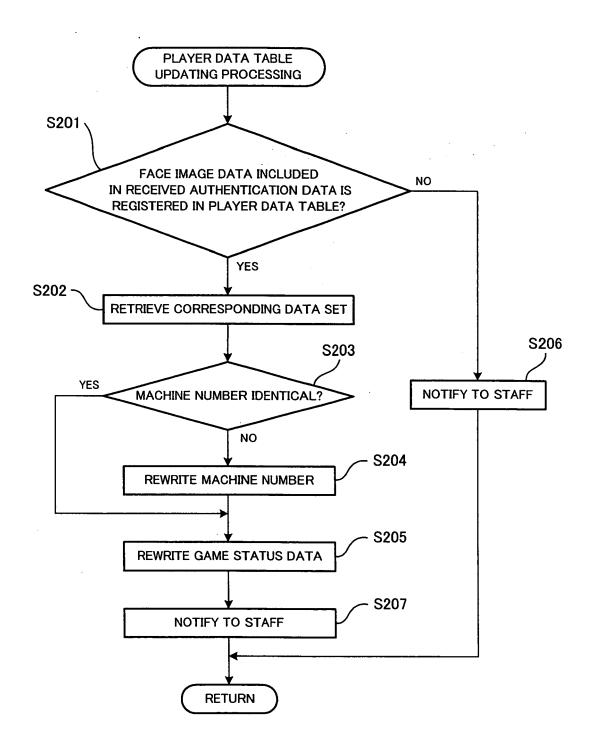


FIG. 23

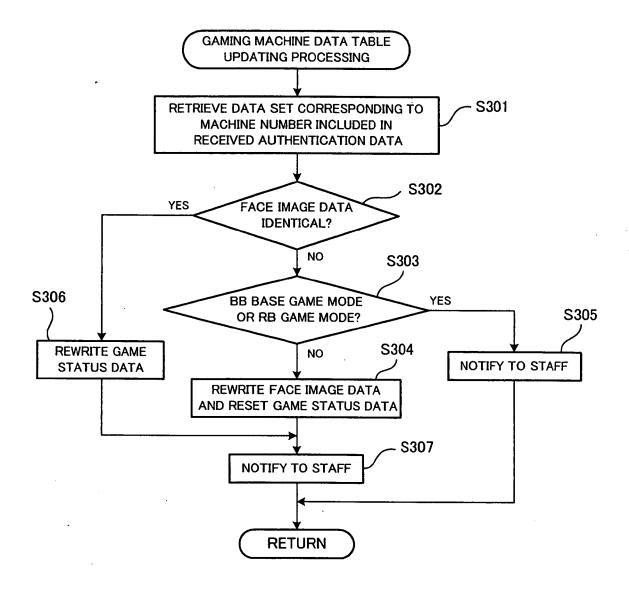


FIG. 24

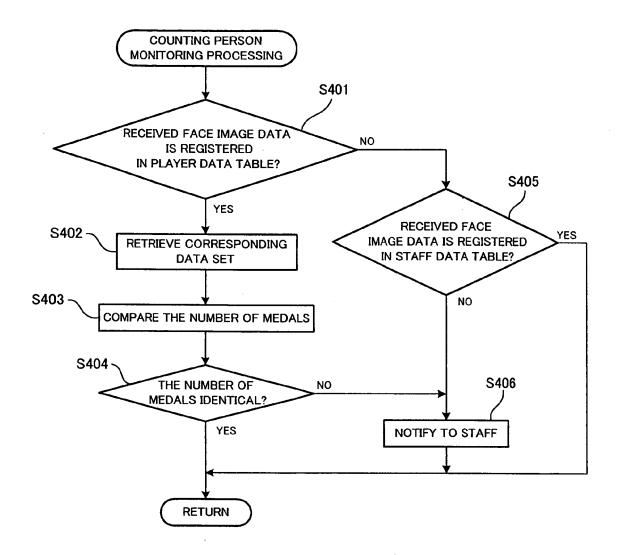
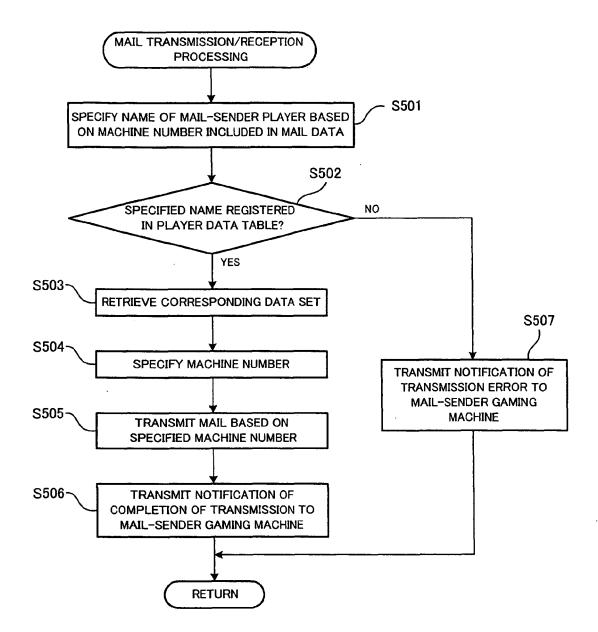
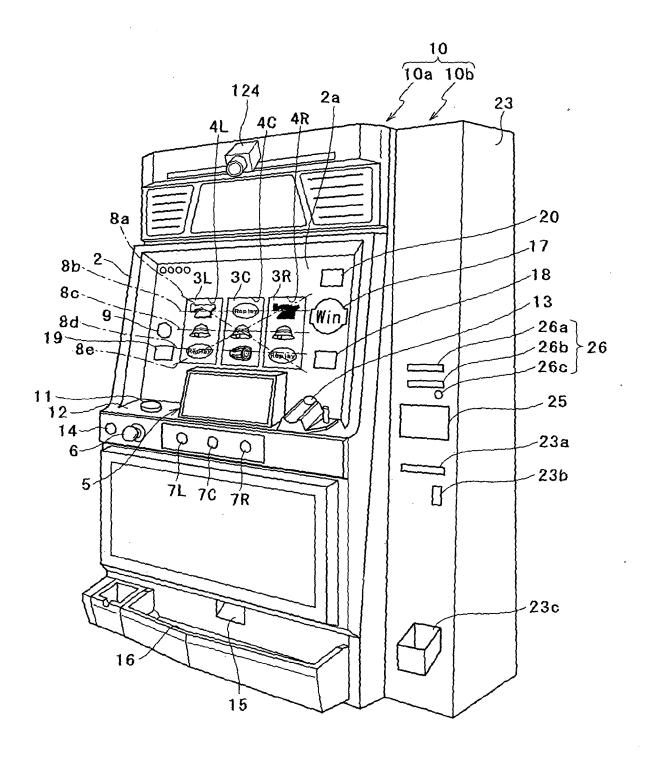


FIG. 25



F1G.26





# **EUROPEAN SEARCH REPORT**

Application Number EP 06 01 1083

O-4	Citation of document with in	dication, where appropriate,	Relevant	CLASSIFICATION OF THE
Category	of relevant passa		to claim	APPLICATION (IPC)
Υ	US 6 142 876 A (CUM 7 November 2000 (20 * abstract * * column 2, line 54		1-7	INV. G07F17/32
Υ	4 December 2003 (20	 WALKER JAY S ET AL) 03-12-04) - paragraph [0135] *	1-7	
A	US 2002/128057 A1 ( 12 September 2002 ( * paragraph [0054] * paragraph [0118]	WALKER JAY S ET AL) 2002-09-12) - paragraph [0071] * - paragraph [0126] *	1-7	
A	US 2003/176213 A1 ( 18 September 2003 ( * the whole documen		1-7	
A	WO 2004/103499 A (W MOSHAL, MARTIN) 2 December 2004 (20 * abstract * * page 3 * * page 7 *		1-7	TECHNICAL FIELDS SEARCHED (IPC)
А	WO 03/088161 A (YAH WALKER, CHAD, LEE; 23 October 2003 (20 * paragraph [0023]	03-10-23)	1-7	
	The present search report has I	peen drawn up for all claims  Date of completion of the search		Examiner
	The Hague	27 September 20	006   Va	n Dop, Erik
X : parti Y : parti docu A : tech O : non	ATEGORY OF CITED DOCUMENTS ioularly relevant if taken alone cularly relevant if combined with another ment of the same category nological background written disclosure mediate document	T: theory or princ E: earlier patent after the filing of D: document cite L: document cite	liple underlying the document, but pub date d in the application d for other reasons	invention lished on, or

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

EP 06 01 1083

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

27-09-2006

	142876				member(s)		date
JS 20		Α	07-11-2000	AU WO US	8830998 9910061 6234900	A1	16-03-1999 04-03-1999 22-05-200
	903224852	A1	04-12-2003	NONE			
JS 20	902128057	A1	12-09-2002	NONE			
JS 20	903176213	A1	18-09-2003	AU CA US US	2003200934 2421541 2003186734 2006073869	A1 A1	18-12-2003 12-09-2003 02-10-2003 06-04-2006
√O 20	004103499	Α	02-12-2004	AU CA EP	2004241798 2526355 1626786	A1	02-12-2004 02-12-2004 22-02-2006
√O 03	3088161	Α	23-10-2003	AU CN EP JP	2003230813 1662941 1493133 2005521541	A A1	27-10-2003 31-08-2009 05-01-2009 21-07-2009

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

## EP 1 736 941 A1

#### REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

## Patent documents cited in the description

JP 9290068 A [0002]

• JP 2001224830 A [0003]