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(54) SERVER AND GAME SYSTEM

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A63F 9/24 (2006.01)

(52) **U.S. Cl.** **463/42**

(57) **ABSTRACT**

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 unit that images a player and an input unit through which the player inputs his/her identification data item. The server has a storage and a rewriting unit rewriting the contents of the storage. When a specifying data item stored in the storage and associated with a player image data item resulting from an imaging by the imaging unit 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 is rewritten by the rewriting unit.

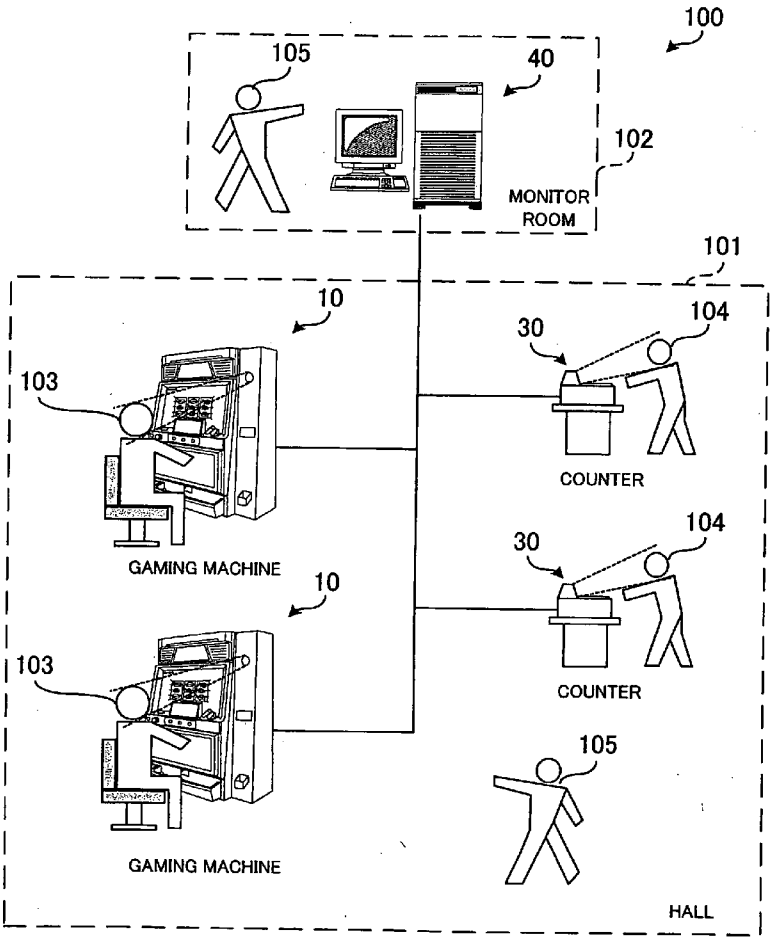


FIG. 1

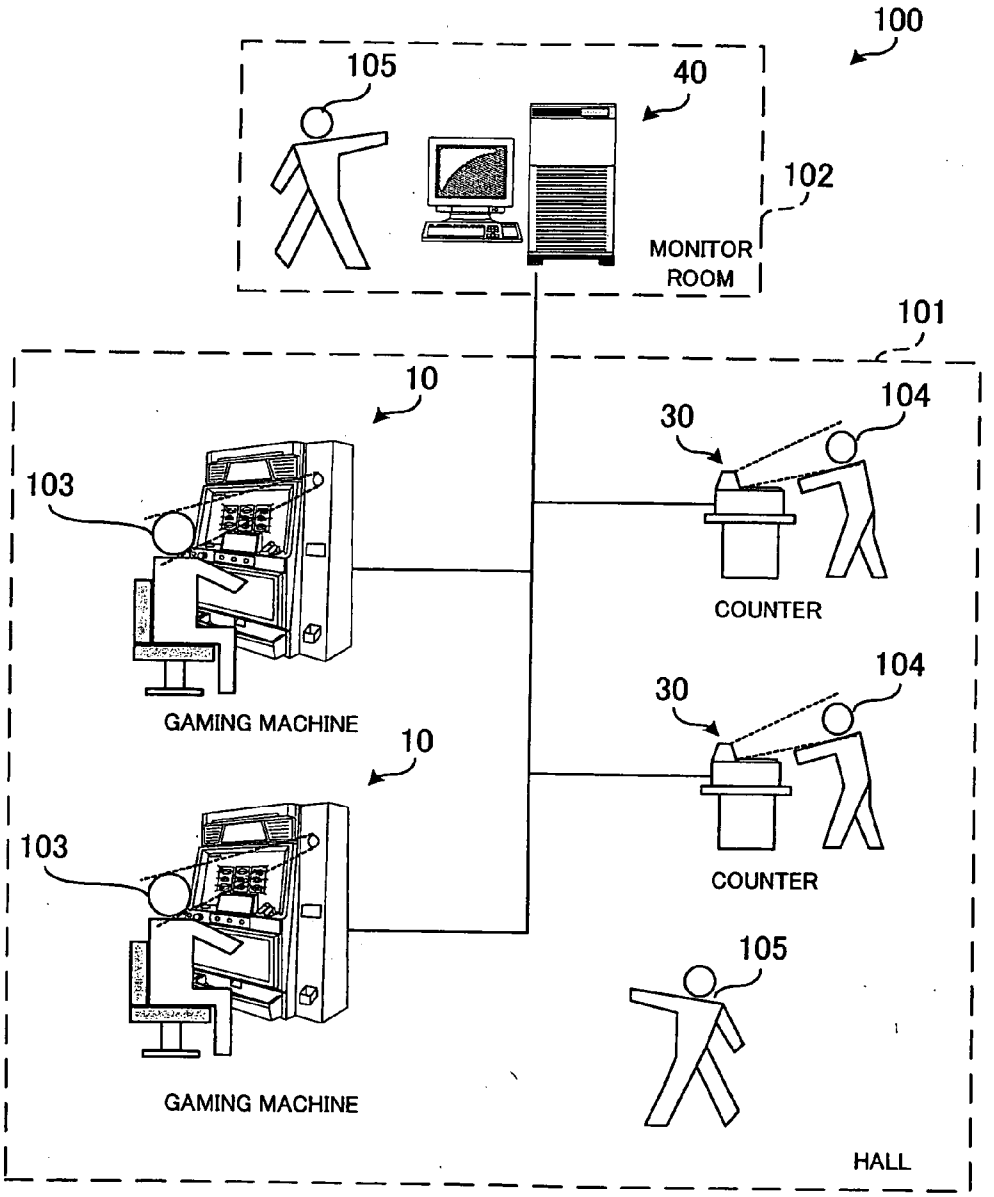

100
105
40
102
MONITOR ROOM
101
10
104
30
103
COUNTER
GAMING MACHINE
10
104
30
103
COUNTER
105
GAMING MACHINE
HALL

FIG.2

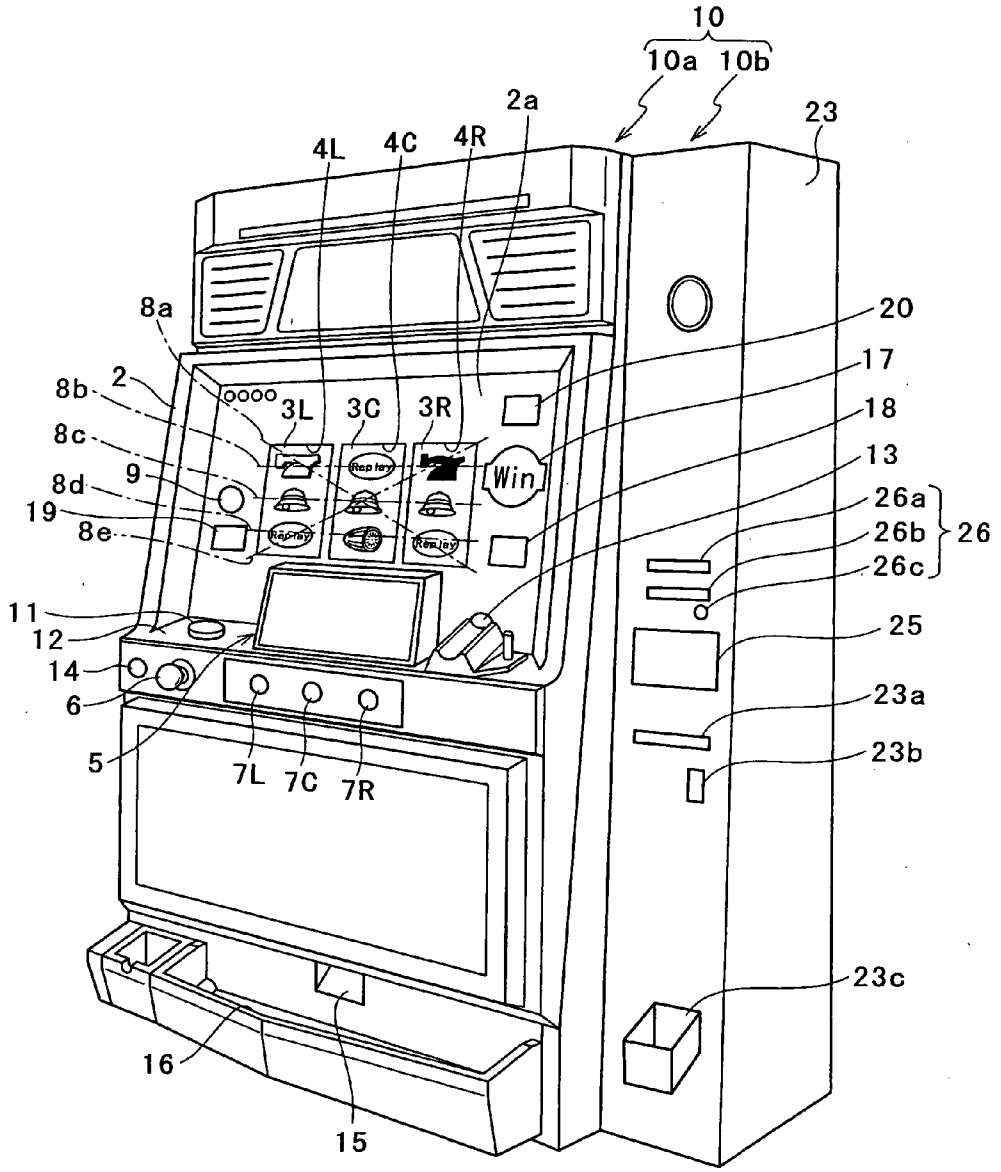

10
10a
10b
2a
23
4L
4C
4R
8a
20
17
8b
2
3L
3C
3R
18
8c
13
9
8d
26a
19
26b
26
8e
26c
11
25
12
14
23a
6
23b
5
7L
7C
7R
23c
16
15

FIG.3

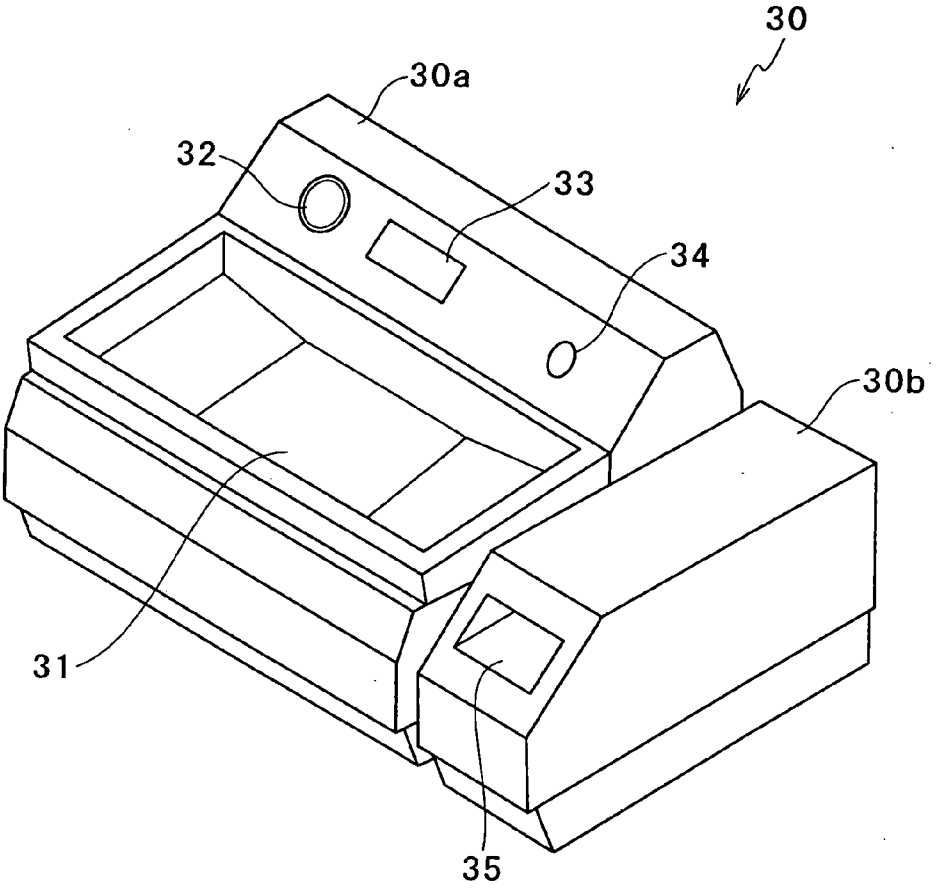


FIG. 4

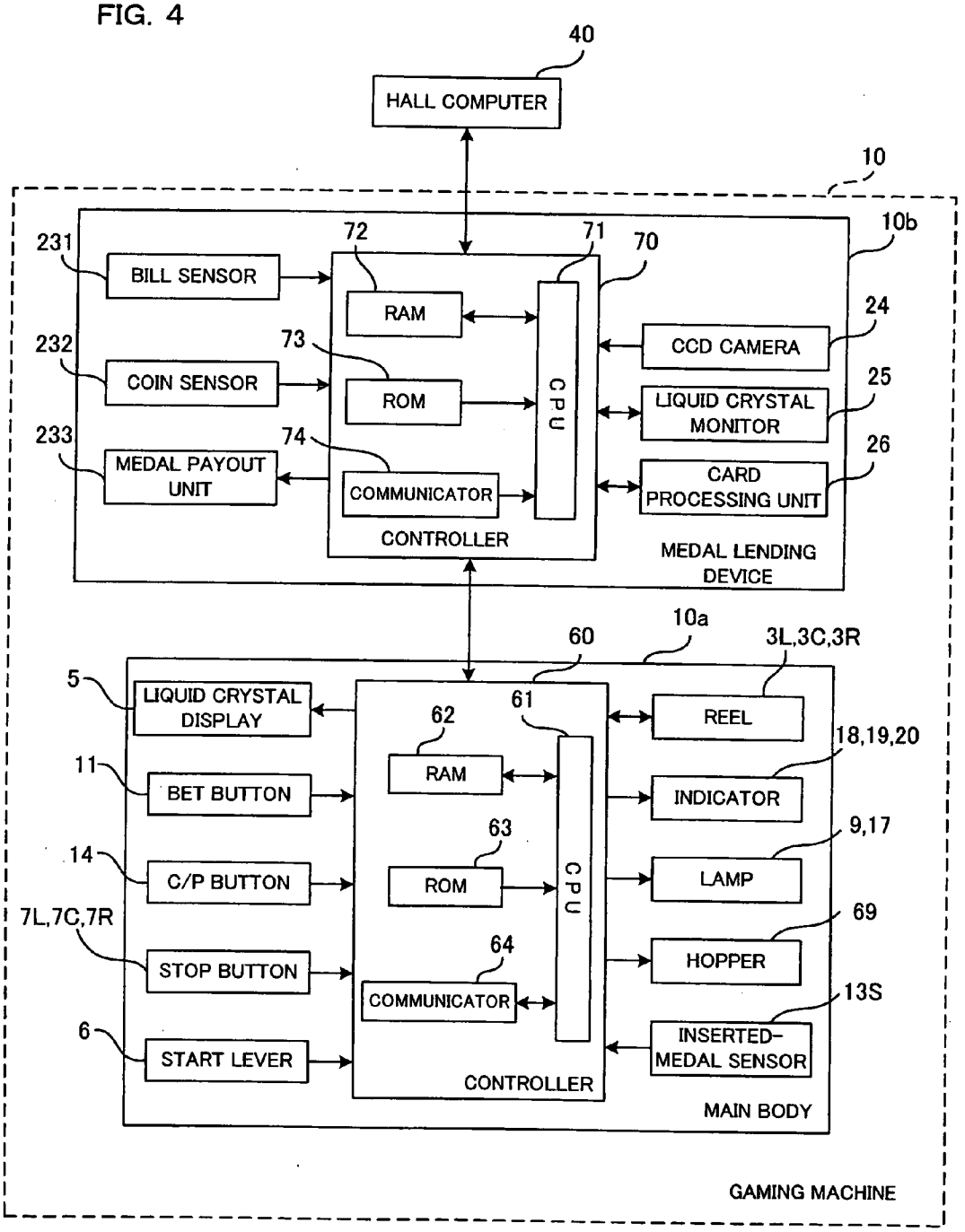

40
HALL COMPUTER
10
10b
231
BILL SENSOR
72
71
70
RAM
232
COIN SENSOR
73
ROM
233
MEDAL PAYOUT UNIT
74
COMMUNICATOR
CPU
CONTROLLER
24
CCD CAMERA
25
LIQUID CRYSTAL MONITOR
26
CARD PROCESSING UNIT
MEDAL LENDING DEVICE
10a
60
3L,3C,3R
5
LIQUID CRYSTAL DISPLAY
61
62
REEL
18,19,20
11
BET BUTTON
RAM
INDICATOR
63
9,17
14
C/P BUTTON
ROM
LAMP
7L,7C,7R
69
STOP BUTTON
64
HOPPER
COMMUNICATOR
13S
6
START LEVER
INSERTED-MEDAL SENSOR
CONTROLLER
MAIN BODY
GAMING MACHINE

FIG. 5

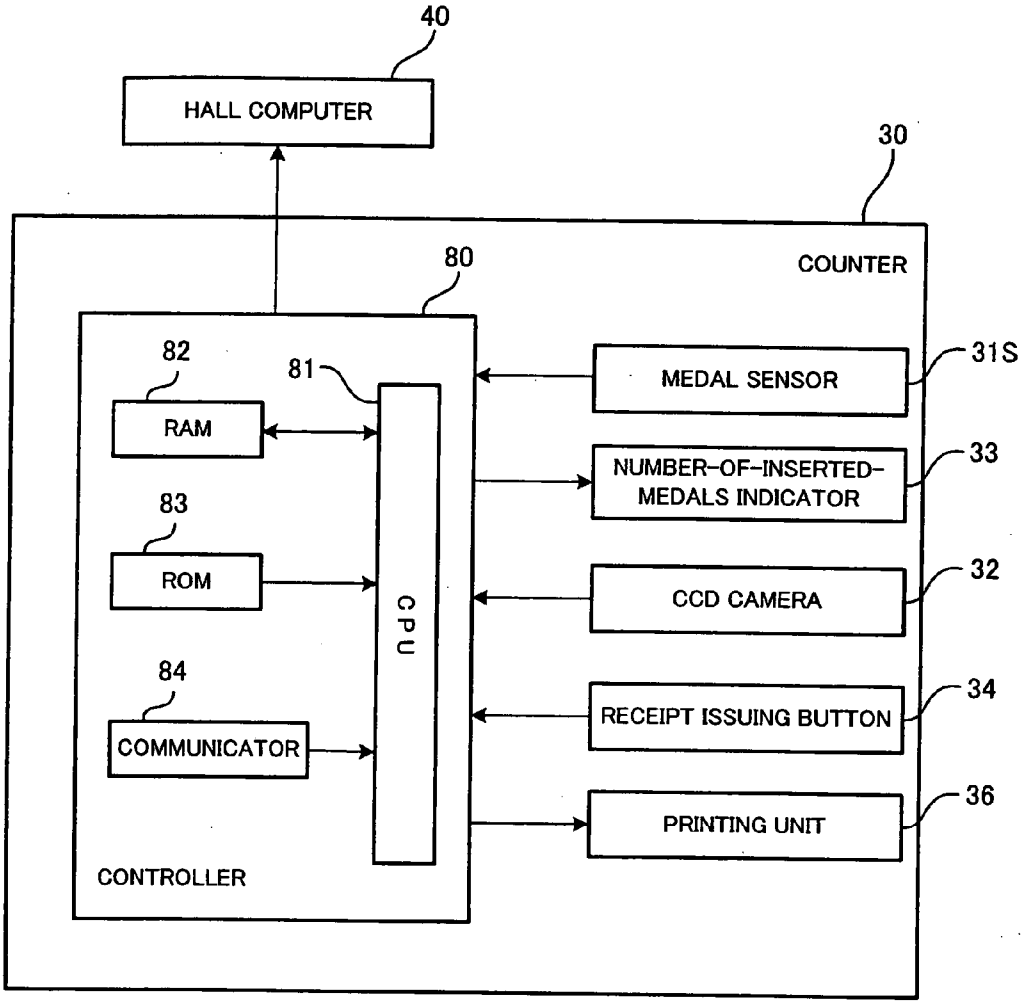

40
HALL COMPUTER
30
COUNTER
80
82
81
RAM
83
ROM
84
COMMUNICATOR
CPU
CONTROLLER
MEDAL SENSOR
31S
NUMBER-OF-INSERTED-MEDALS INDICATOR
33
CCD CAMERA
32
RECEIPT ISSUING BUTTON
34
PRINTING UNIT
36

FIG. 6

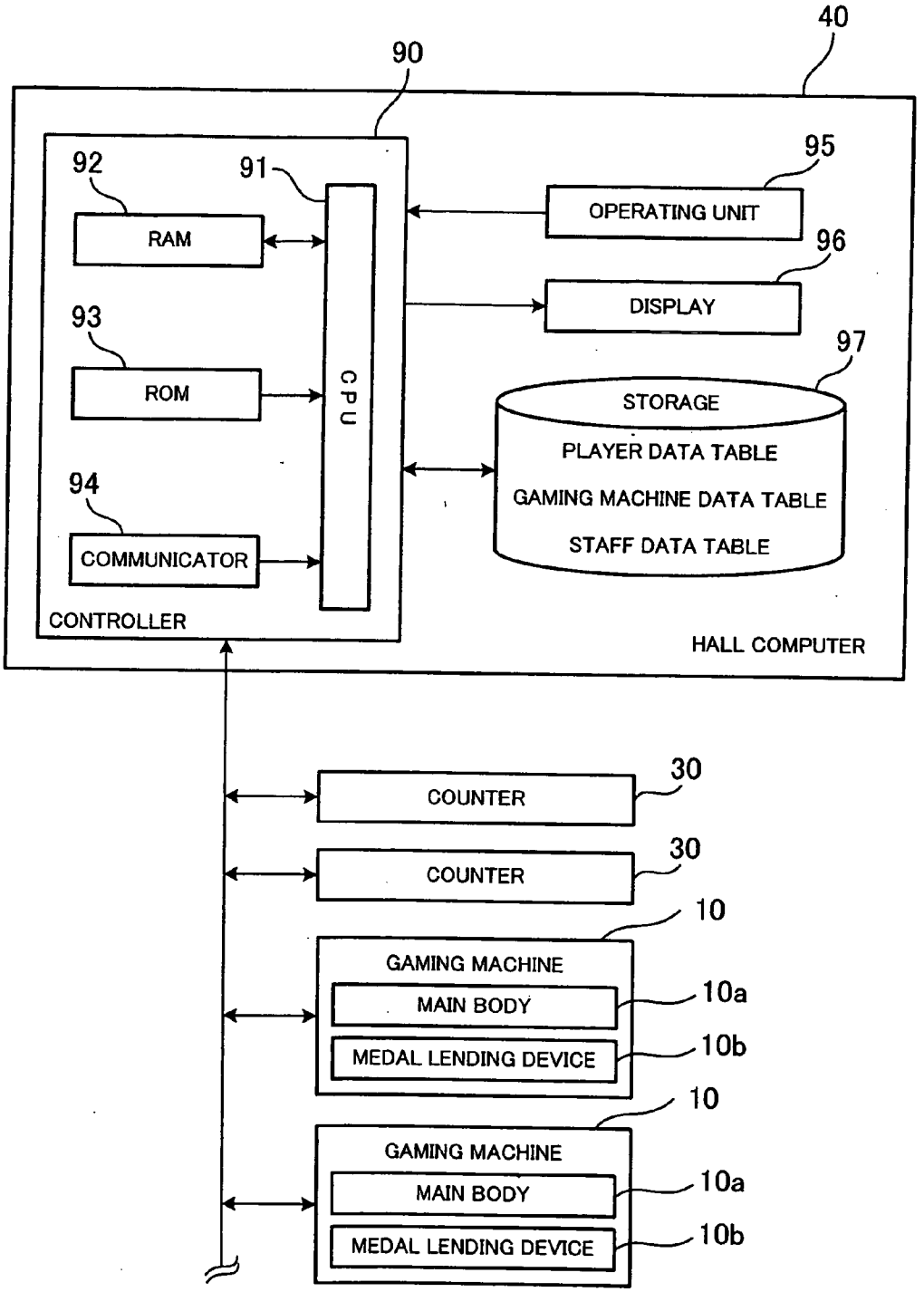

40
90
92
91
95
RAM
OPERATING UNIT
96
DISPLAY
93
97
ROM
CPU
STORAGE
PLAYER DATA TABLE
GAMING MACHINE DATA TABLE
STAFF DATA TABLE
94
COMMUNICATOR
CONTROLLER
HALL COMPUTER
30
COUNTER
30
COUNTER
10
GAMING MACHINE
MAIN BODY
10a
MEDAL LENDING DEVICE
10b
10
GAMING MACHINE
MAIN BODY
10a
MEDAL LENDING DEVICE
10b

FIG. 7

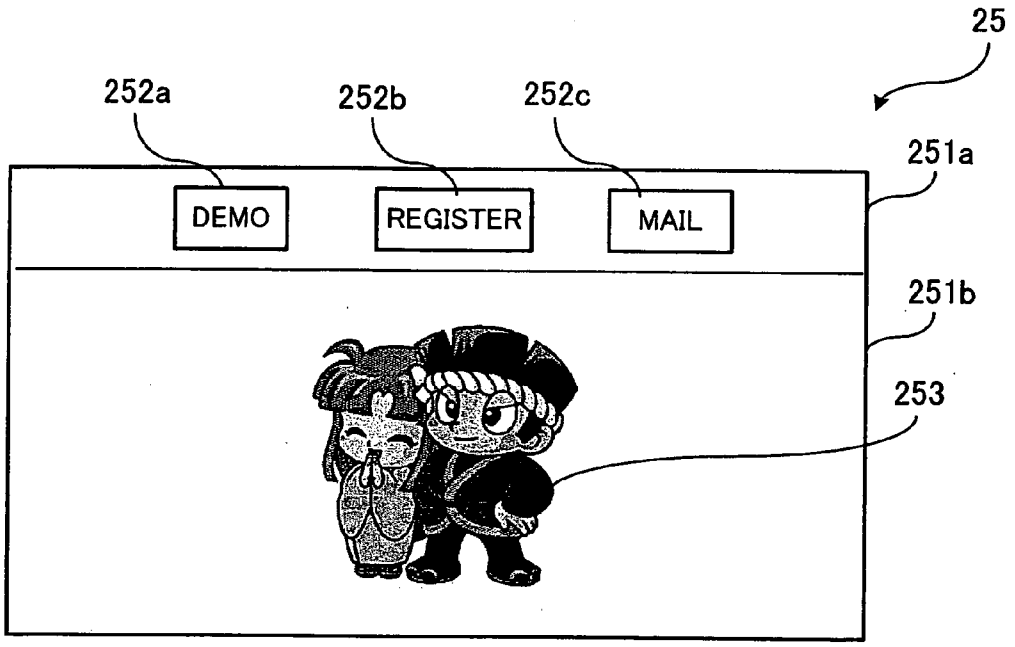


FIG. 8

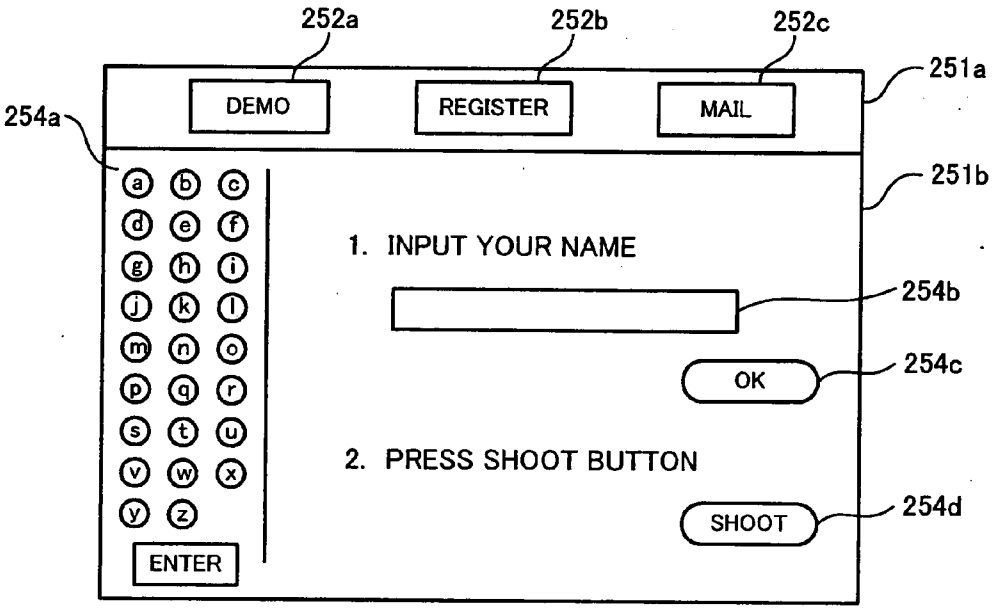

252a
252b
252c
251a
DEMO
REGISTER
MAIL
254a
251b
a b c
d e f
g h i
j k l
m n o
p q r
s t u
v w x
y z
ENTER
1. INPUT YOUR NAME
254b
OK
254c
2. PRESS SHOOT BUTTON
SHOOT
254d

FIG. 9A

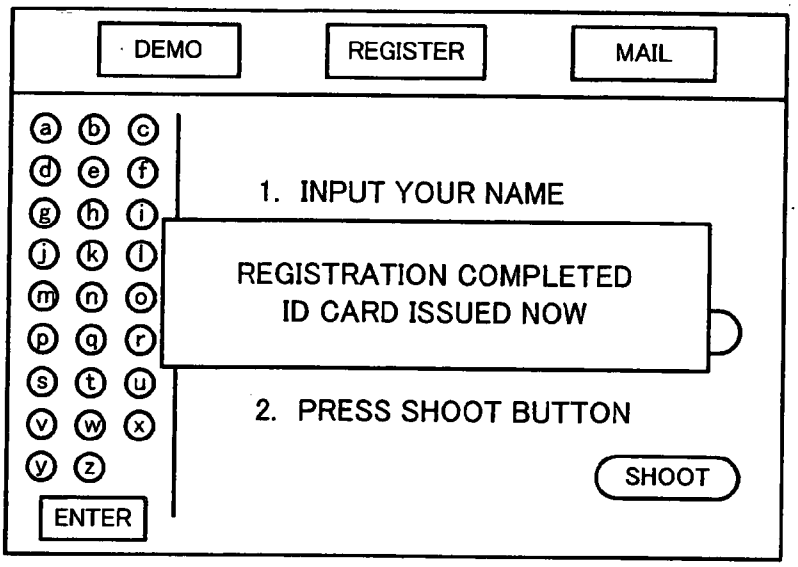


FIG. 9B

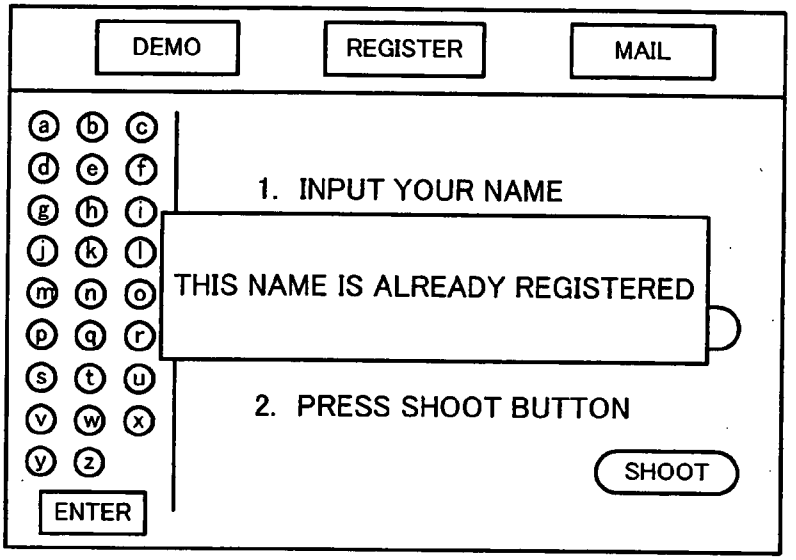


FIG. 9C

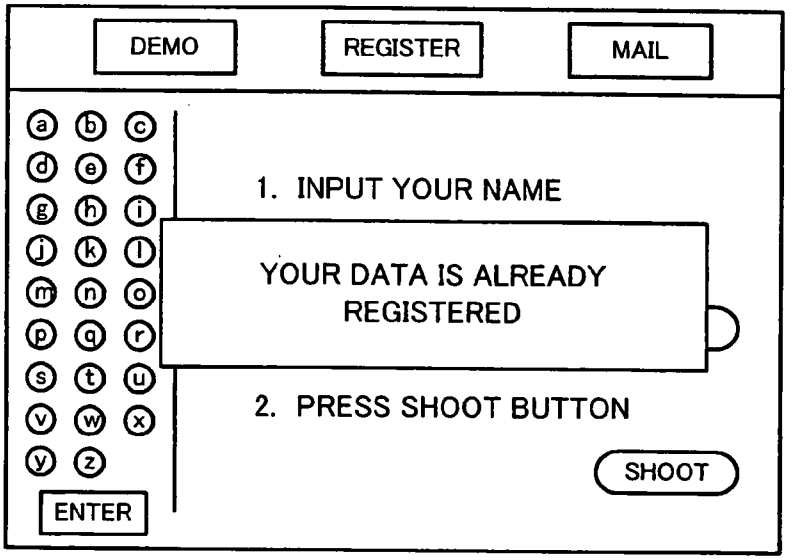


FIG. 10A

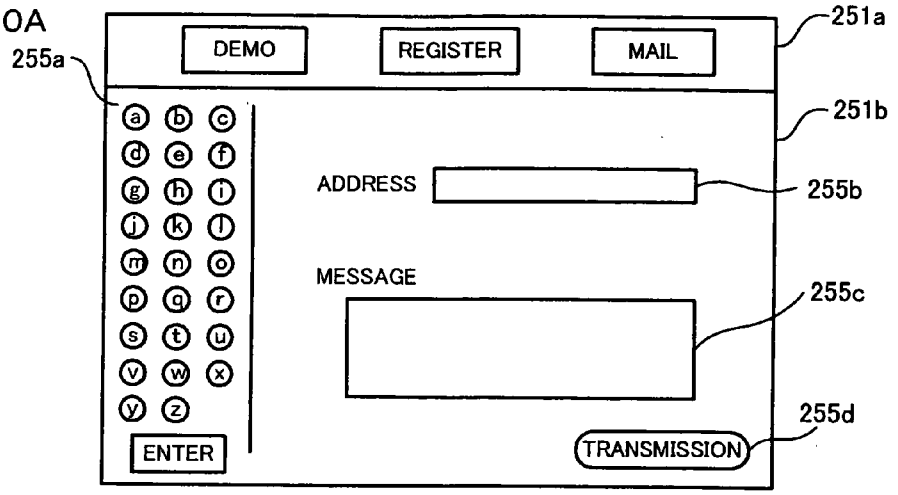


FIG. 10B

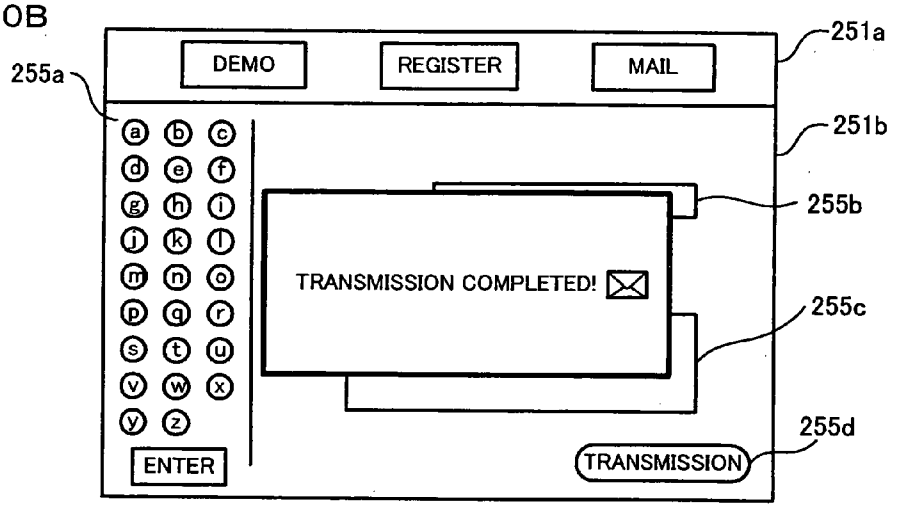


FIG. 10C

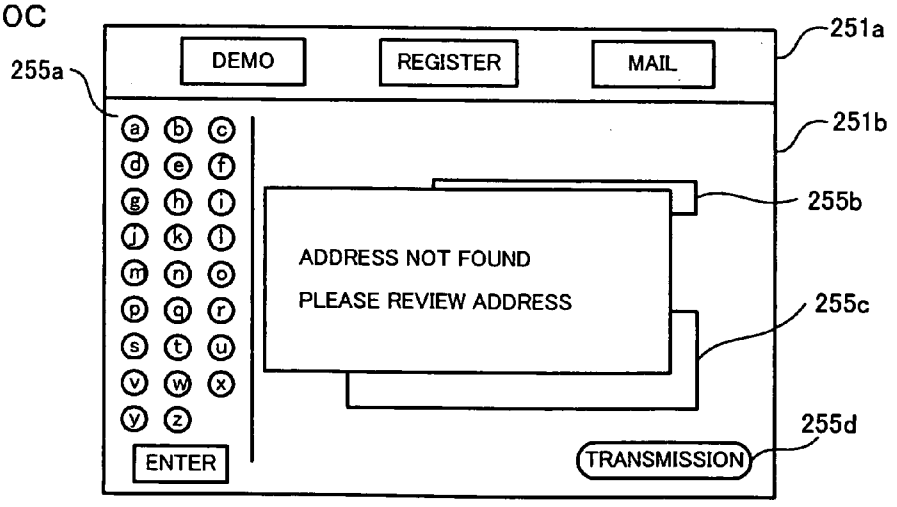


FIG. 11

PLAYER DATA TABLE

FACE IMAGE OF PLAYER	NAME	MACHINE NUMBER	GAME STATUS	
			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 NUMBER	FACE IMAGE OF PLAYER	GAME STATUS	
		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
⋮	

FIG. 14

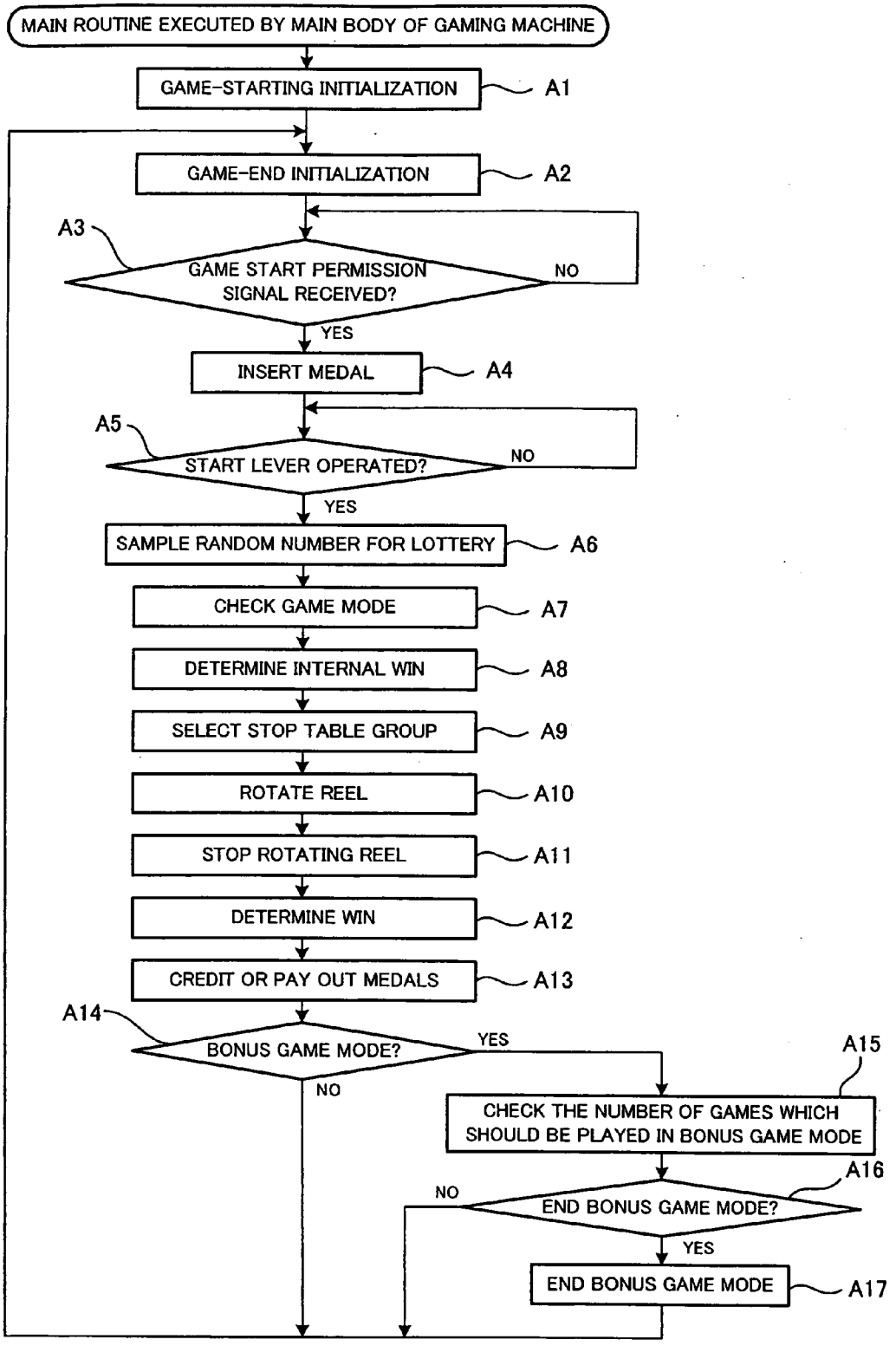

MAIN ROUTINE EXECUTED BY MAIN BODY OF GAMING MACHINE
GAME-STARTING INITIALIZATION
A1
GAME-END INITIALIZATION
A2
A3
GAME START PERMISSION SIGNAL RECEIVED?
NO
YES
INSERT MEDAL
A4
A5
START LEVER OPERATED?
NO
YES
SAMPLE RANDOM NUMBER FOR LOTTERY
A6
CHECK GAME MODE
A7
DETERMINE INTERNAL WIN
A8
SELECT STOP TABLE GROUP
A9
ROTATE REEL
A10
STOP ROTATING REEL
A11
DETERMINE WIN
A12
CREDIT OR PAY OUT MEDALS
A13
A14
BONUS GAME MODE?
YES
NO
A15
CHECK THE NUMBER OF GAMES WHICH SHOULD BE PLAYED IN BONUS GAME MODE
A16
NO
END BONUS GAME MODE?
YES
END BONUS GAME MODE
A17

FIG. 15

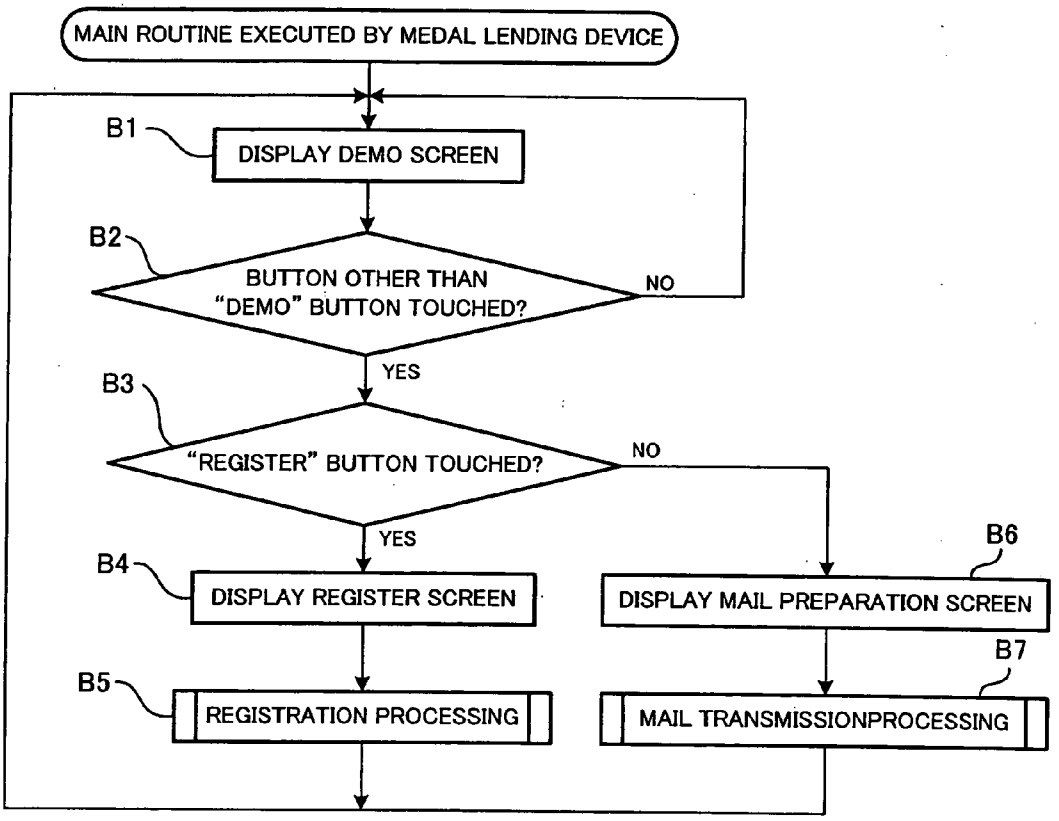

MAIN ROUTINE EXECUTED BY MEDAL LENDING DEVICE
B1
DISPLAY DEMO SCREEN
B2
BUTTON OTHER THAN "DEMO" BUTTON TOUCHED?
NO
YES
B3
"REGISTER" BUTTON TOUCHED?
NO
YES
B4
DISPLAY REGISTER SCREEN
B5
REGISTRATION PROCESSING
B6
DISPLAY MAIL PREPARATION SCREEN
B7
MAIL TRANSMISSIONPROCESSING

FIG. 16

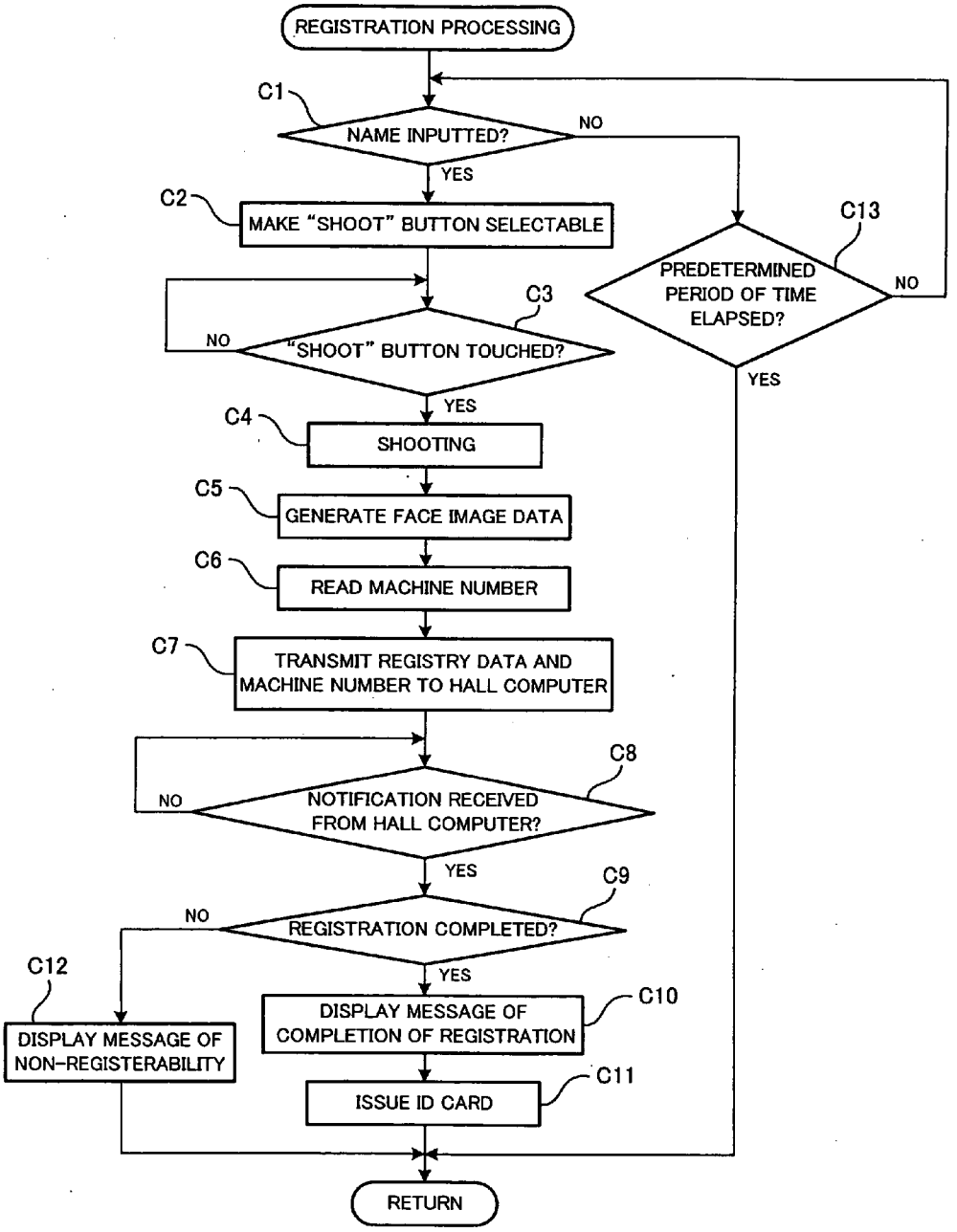

REGISTRATION PROCESSING
C1
NAME INPUTTED?
NO
YES
C2
MAKE "SHOOT" BUTTON SELECTABLE
C13
PREDETERMINED PERIOD OF TIME ELAPSED?
NO
YES
C3
NO
"SHOOT" BUTTON TOUCHED?
YES
C4
SHOOTING
C5
GENERATE FACE IMAGE DATA
C6
READ MACHINE NUMBER
C7
TRANSMIT REGISTRY DATA AND MACHINE NUMBER TO HALL COMPUTER
C8
NO
NOTIFICATION RECEIVED FROM HALL COMPUTER?
YES
C9
NO
REGISTRATION COMPLETED?
YES
C12
DISPLAY MESSAGE OF NON-REGISTERABILITY
C10
DISPLAY MESSAGE OF COMPLETION OF REGISTRATION
C11
ISSUE ID CARD
RETURN

FIG. 17

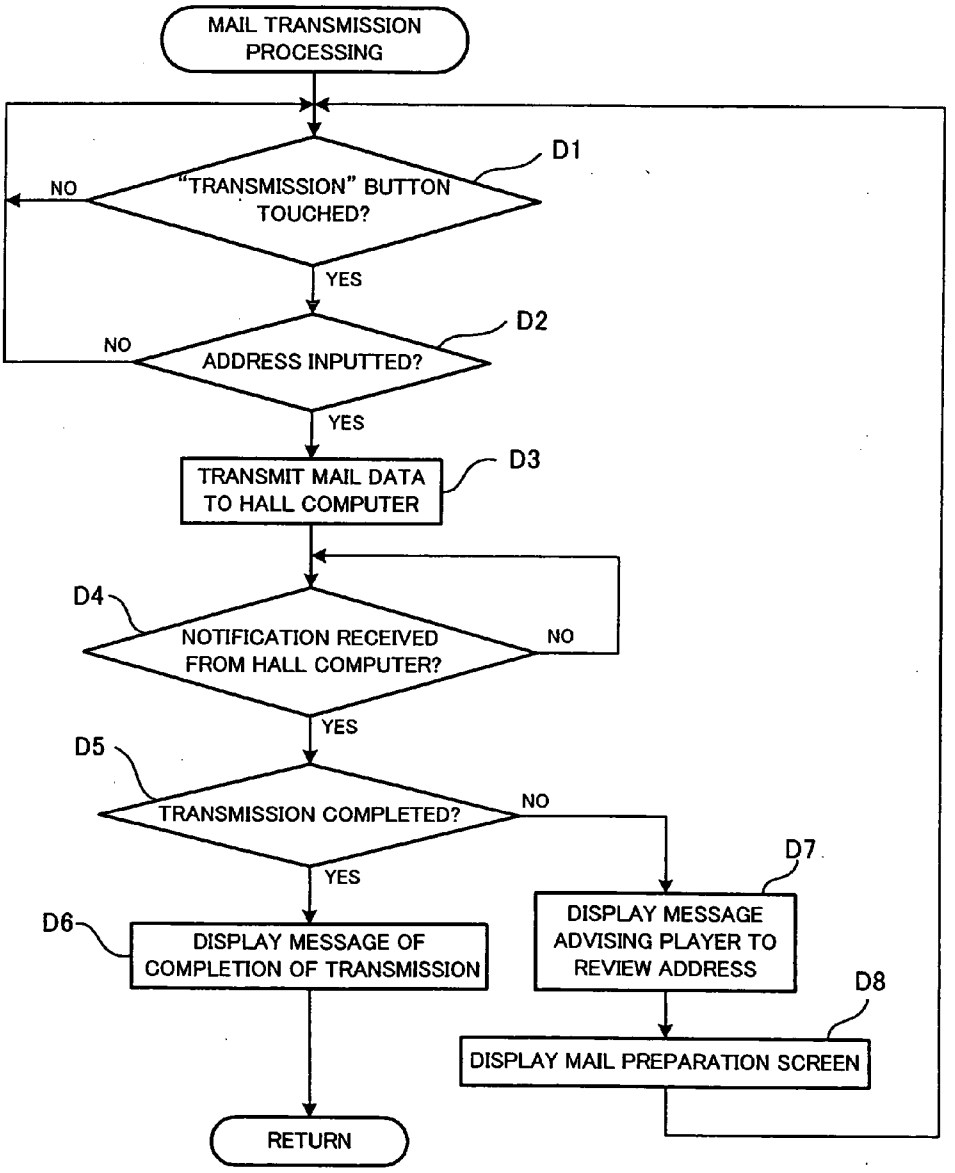

MAIL TRANSMISSION PROCESSING
D1
"TRANSMISSION" BUTTON TOUCHED?
NO
YES
D2
ADDRESS INPUTTED?
NO
YES
D3
TRANSMIT MAIL DATA TO HALL COMPUTER
D4
NOTIFICATION RECEIVED FROM HALL COMPUTER?
NO
YES
D5
TRANSMISSION COMPLETED?
NO
YES
D6
DISPLAY MESSAGE OF COMPLETION OF TRANSMISSION
D7
DISPLAY MESSAGE ADVISING PLAYER TO REVIEW ADDRESS
D8
DISPLAY MAIL PREPARATION SCREEN
RETURN

FIG. 18

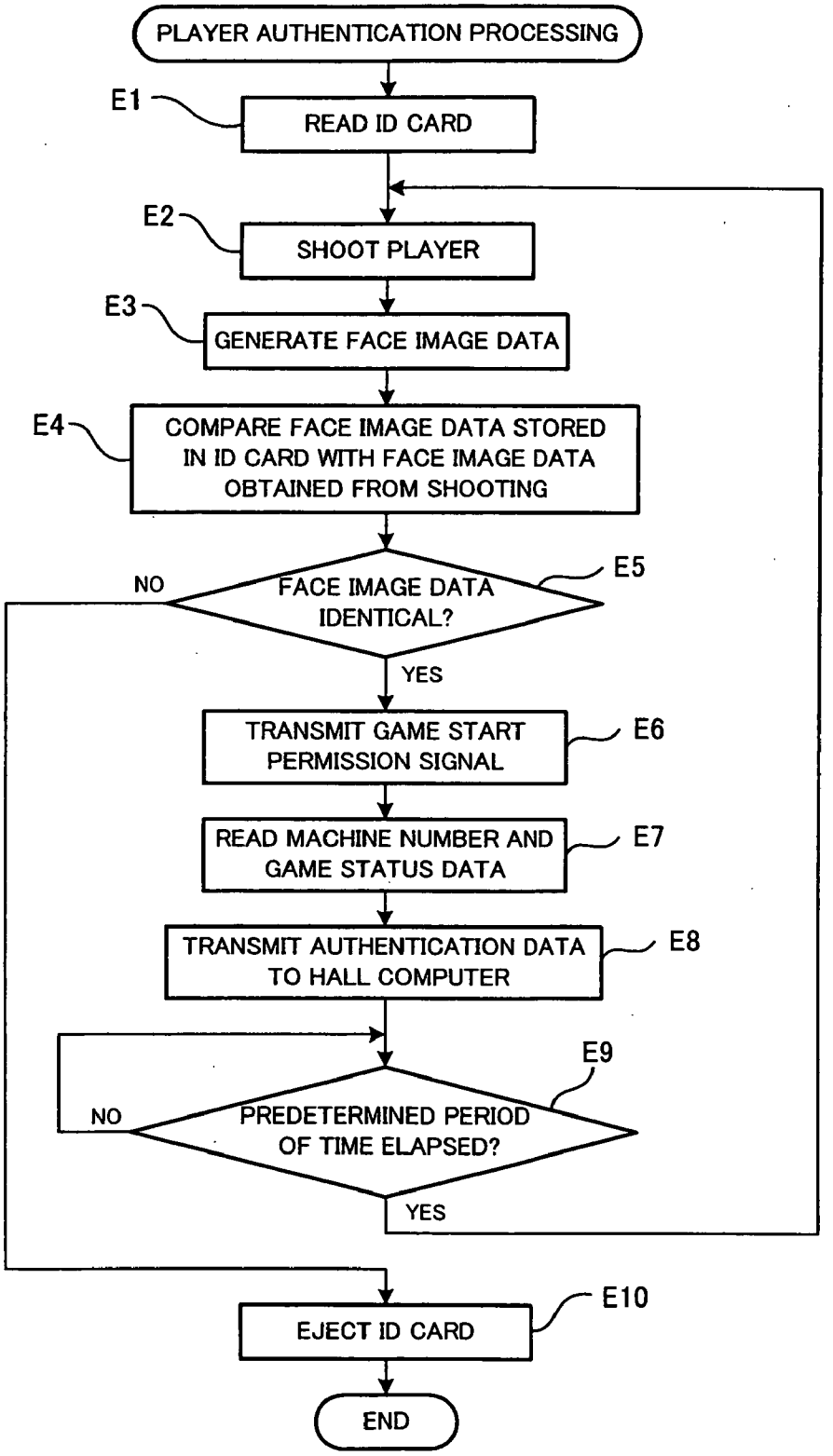

PLAYER AUTHENTICATION PROCESSING
E1
READ ID CARD
E2
SHOOT PLAYER
E3
GENERATE FACE IMAGE DATA
E4
COMPARE FACE IMAGE DATA STORED IN ID CARD WITH FACE IMAGE DATA OBTAINED FROM SHOOTING
E5
NO
FACE IMAGE DATA IDENTICAL?
YES
E6
TRANSMIT GAME START PERMISSION SIGNAL
E7
READ MACHINE NUMBER AND GAME STATUS DATA
E8
TRANSMIT AUTHENTICATION DATA TO HALL COMPUTER
E9
NO
PREDETERMINED PERIOD OF TIME ELAPSED?
YES
E10
EJECT ID CARD
END

FIG. 19

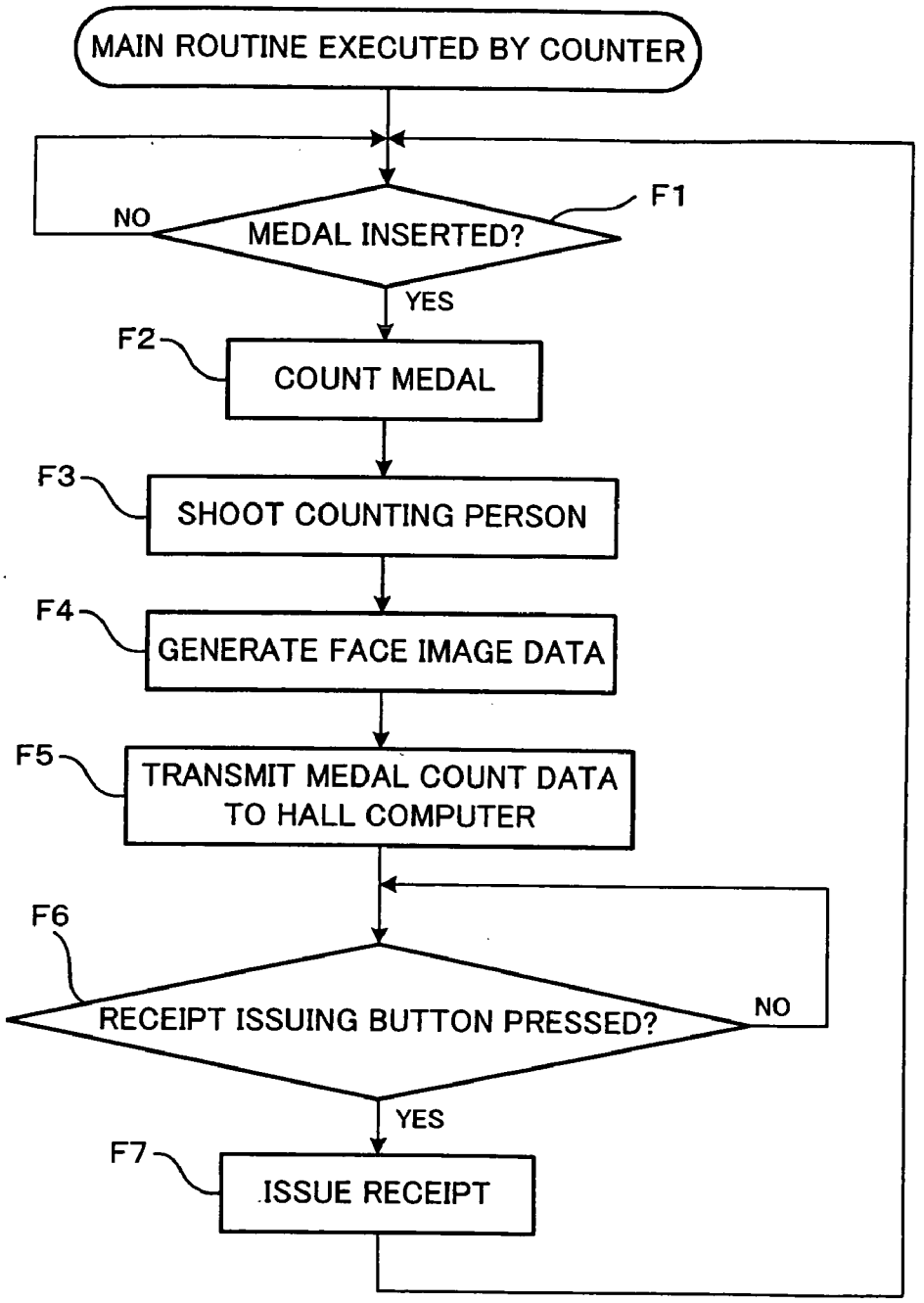

MAIN ROUTINE EXECUTED BY COUNTER
F1
NO
MEDAL INSERTED?
YES
F2
COUNT MEDAL
F3
SHOOT COUNTING PERSON
F4
GENERATE FACE IMAGE DATA
F5
TRANSMIT MEDAL COUNT DATA TO HALL COMPUTER
F6
RECEIPT ISSUING BUTTON PRESSED?
NO
YES
F7
ISSUE RECEIPT

FIG. 20

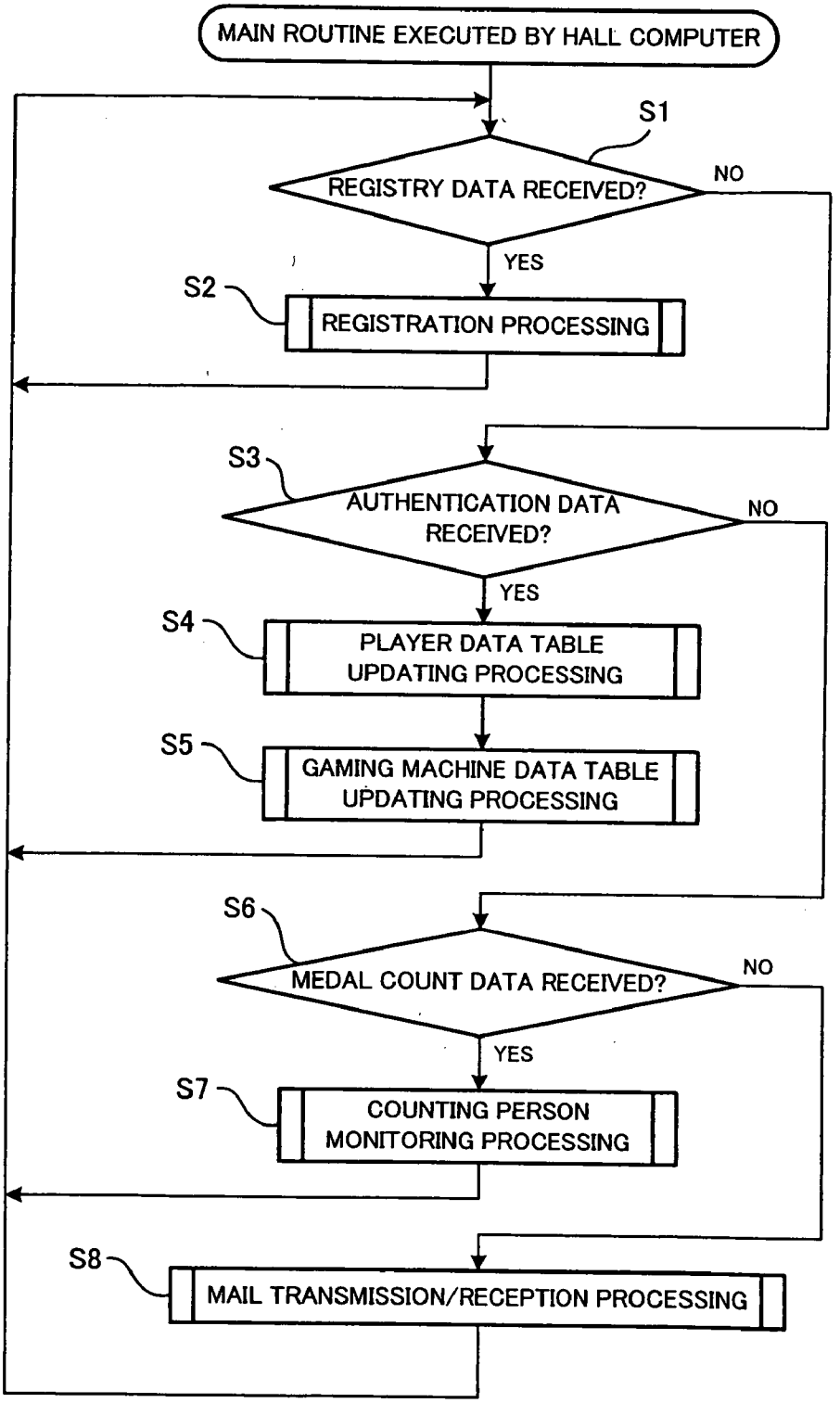

MAIN ROUTINE EXECUTED BY HALL COMPUTER
S1
REGISTRY DATA RECEIVED?
NO
YES
S2
REGISTRATION PROCESSING
S3
AUTHENTICATION DATA RECEIVED?
NO
YES
S4
PLAYER DATA TABLE UPDATING PROCESSING
S5
GAMING MACHINE DATA TABLE UPDATING PROCESSING
S6
MEDAL COUNT DATA RECEIVED?
NO
YES
S7
COUNTING PERSON MONITORING PROCESSING
S8
MAIL TRANSMISSION/RECEPTION PROCESSING

FIG. 21

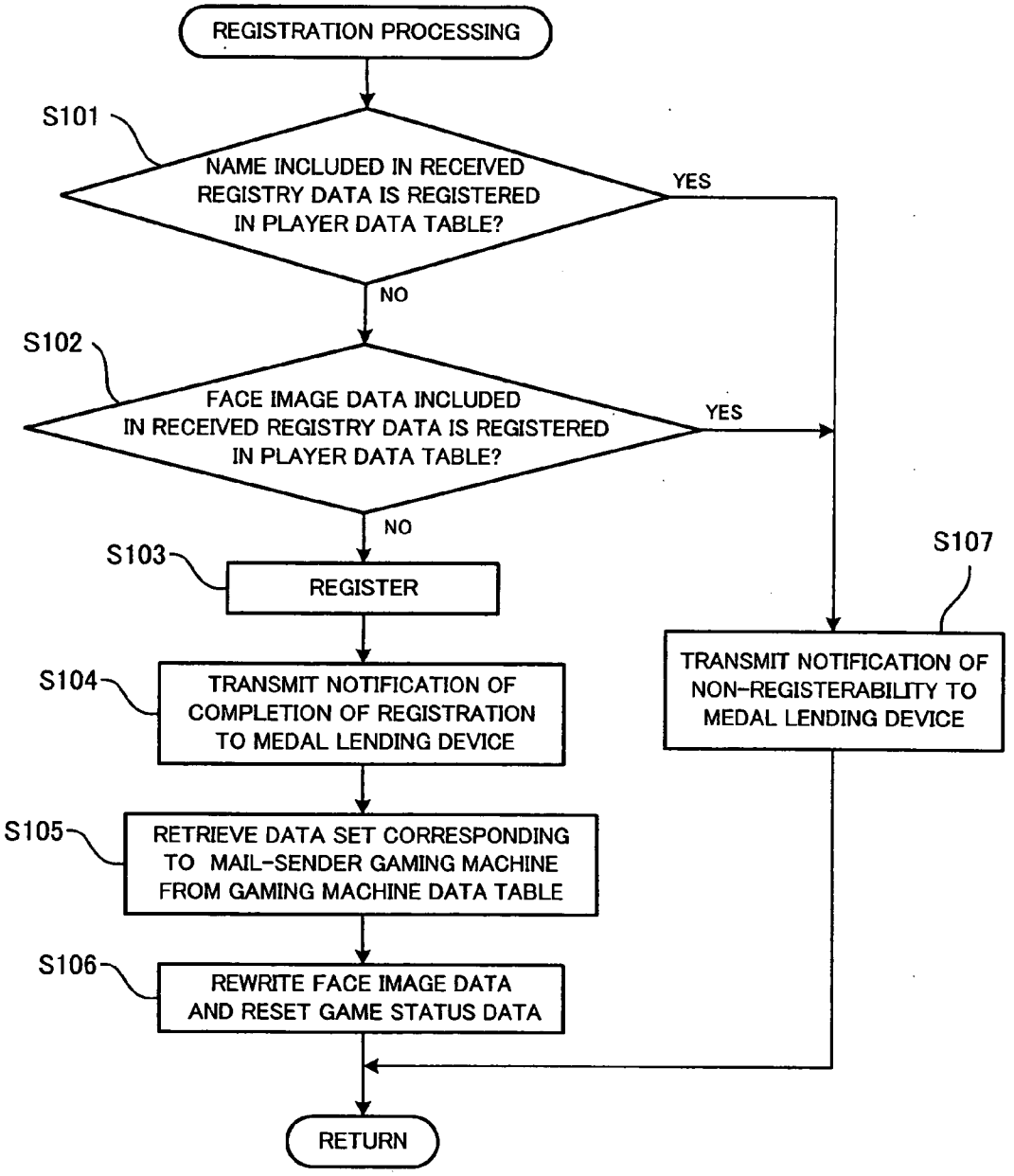

REGISTRATION PROCESSING
S101
NAME INCLUDED IN RECEIVED REGISTRY DATA IS REGISTERED IN PLAYER DATA TABLE?
YES
NO
S102
FACE IMAGE DATA INCLUDED IN RECEIVED REGISTRY DATA IS REGISTERED IN PLAYER DATA TABLE?
YES
NO
S103
REGISTER
S104
TRANSMIT NOTIFICATION OF COMPLETION OF REGISTRATION TO MEDAL LENDING DEVICE
S105
RETRIEVE DATA SET CORRESPONDING TO MAIL-SENDER GAMING MACHINE FROM GAMING MACHINE DATA TABLE
S106
REWRITE FACE IMAGE DATA AND RESET GAME STATUS DATA
S107
TRANSMIT NOTIFICATION OF NON-REGISTERABILITY TO MEDAL LENDING DEVICE
RETURN

FIG. 22

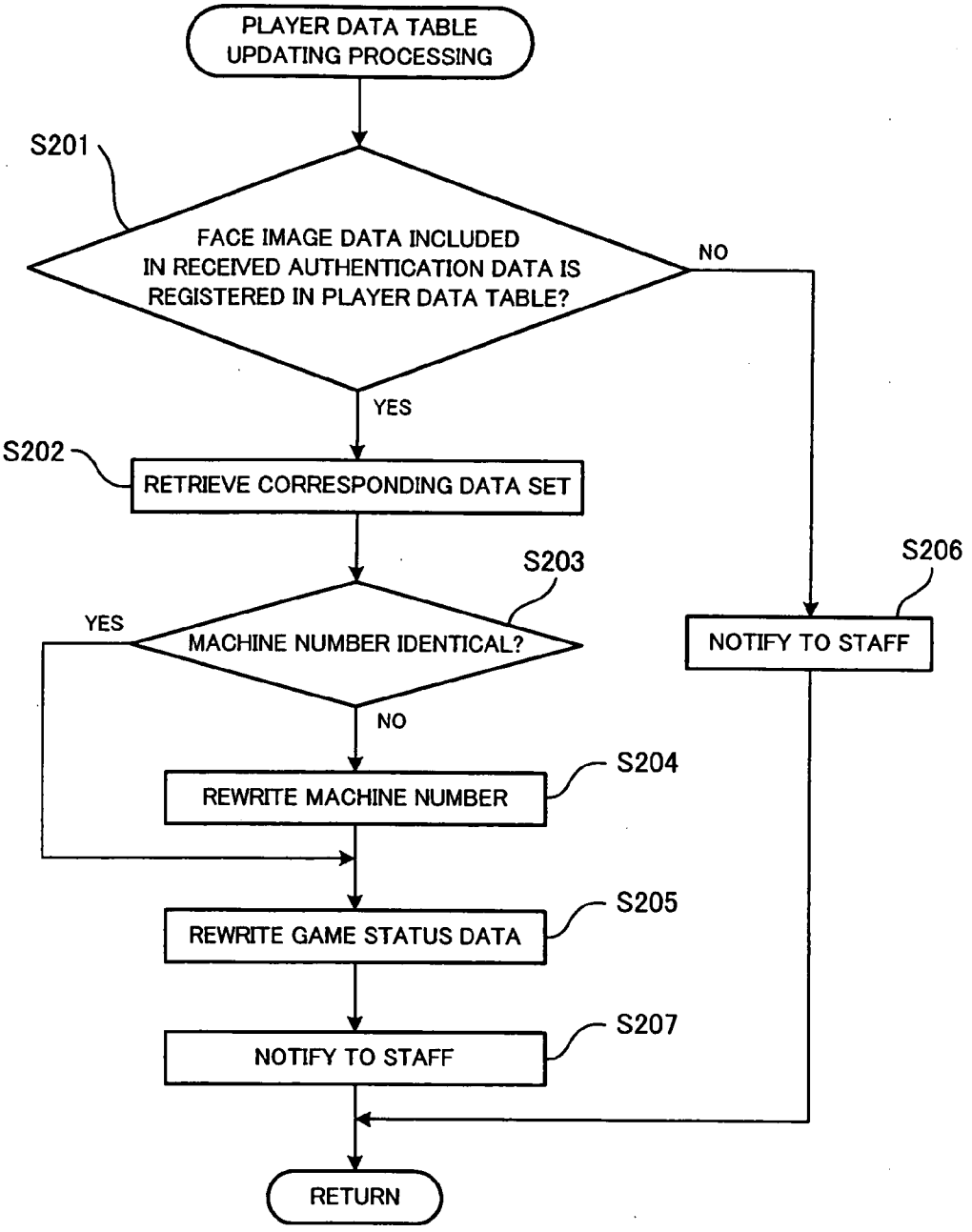

PLAYER DATA TABLE UPDATING PROCESSING
S201
FACE IMAGE DATA INCLUDED IN RECEIVED AUTHENTICATION DATA IS REGISTERED IN PLAYER DATA TABLE?
NO
YES
S202
RETRIEVE CORRESPONDING DATA SET
S203
YES
MACHINE NUMBER IDENTICAL?
NO
S204
REWRITE MACHINE NUMBER
S205
REWRITE GAME STATUS DATA
S207
NOTIFY TO STAFF
S206
NOTIFY TO STAFF
RETURN

FIG. 23

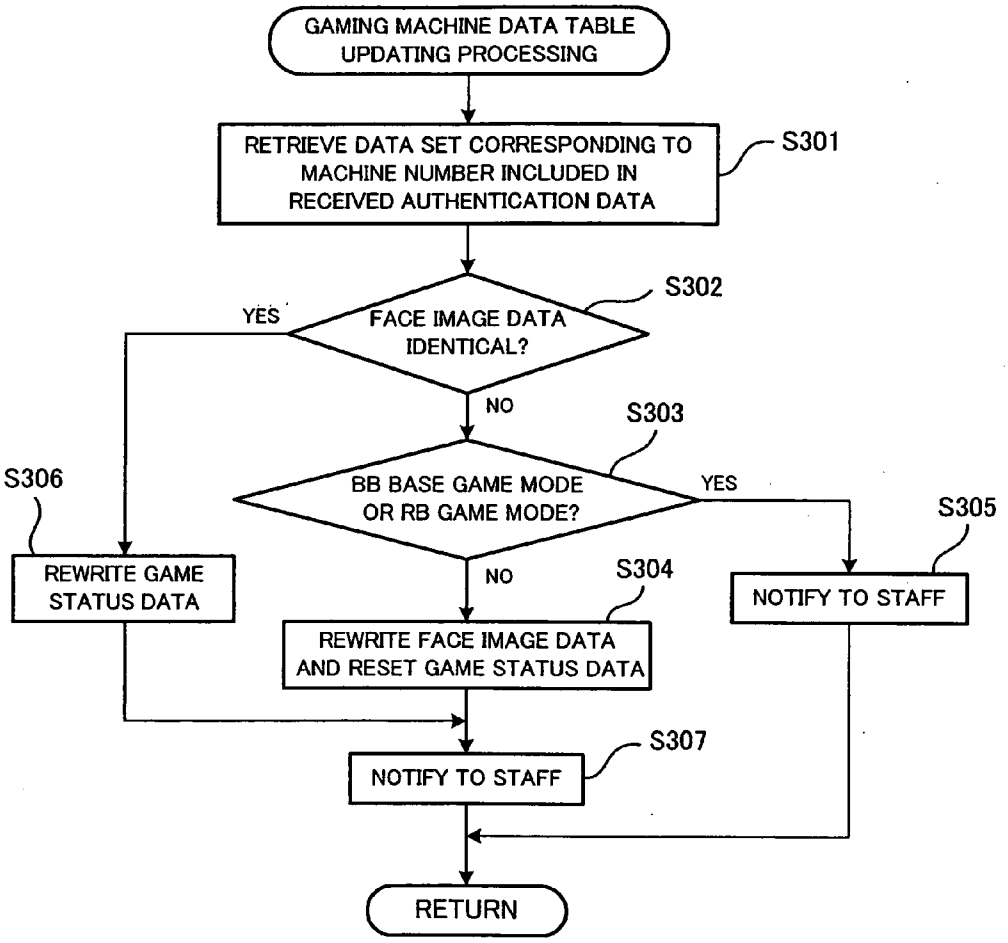

GAMING MACHINE DATA TABLE UPDATING PROCESSING
RETRIEVE DATA SET CORRESPONDING TO MACHINE NUMBER INCLUDED IN RECEIVED AUTHENTICATION DATA
S301
FACE IMAGE DATA IDENTICAL?
S302
YES
NO
BB BASE GAME MODE OR RB GAME MODE?
S303
YES
NO
S304
S305
S306
REWRITE GAME STATUS DATA
REWRITE FACE IMAGE DATA AND RESET GAME STATUS DATA
NOTIFY TO STAFF
S307
NOTIFY TO STAFF
RETURN

FIG. 24

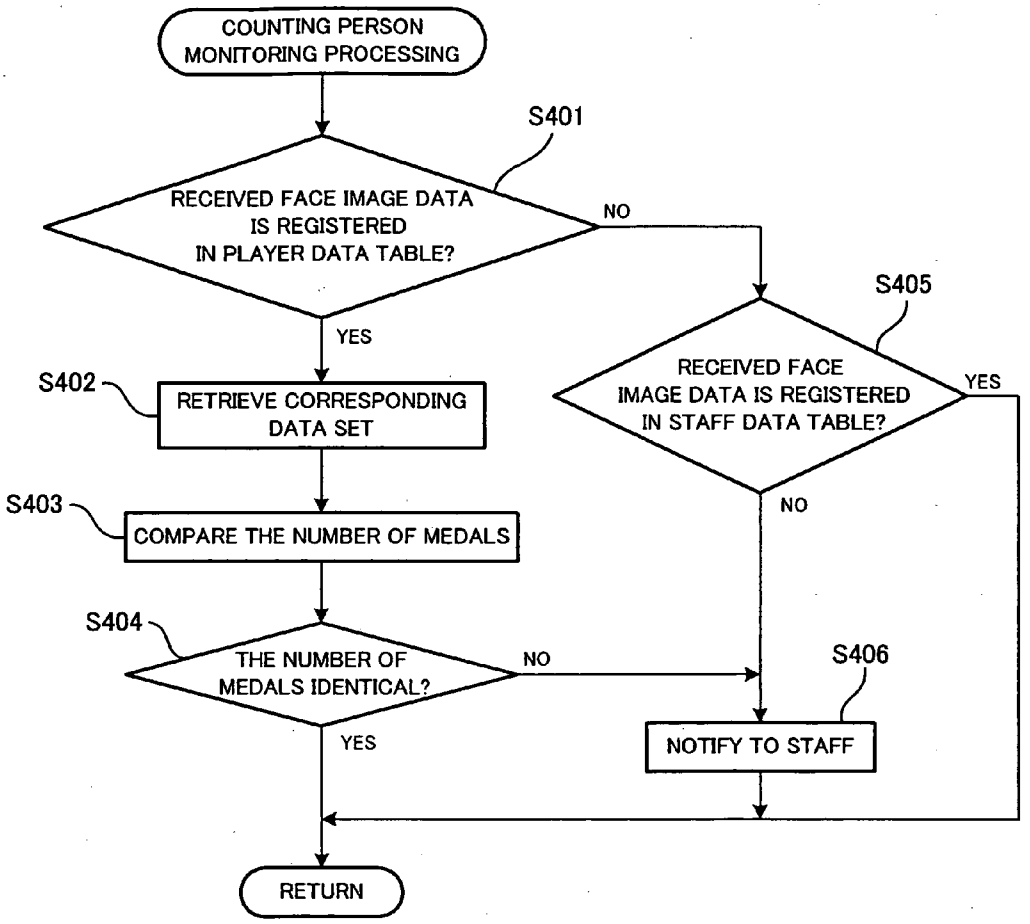

COUNTING PERSON MONITORING PROCESSING
S401
RECEIVED FACE IMAGE DATA IS REGISTERED IN PLAYER DATA TABLE?
NO
YES
S405
RECEIVED FACE IMAGE DATA IS REGISTERED IN STAFF DATA TABLE?
YES
NO
S402
RETRIEVE CORRESPONDING DATA SET
S403
COMPARE THE NUMBER OF MEDALS
S404
THE NUMBER OF MEDALS IDENTICAL?
NO
YES
S406
NOTIFY TO STAFF
RETURN

FIG. 25

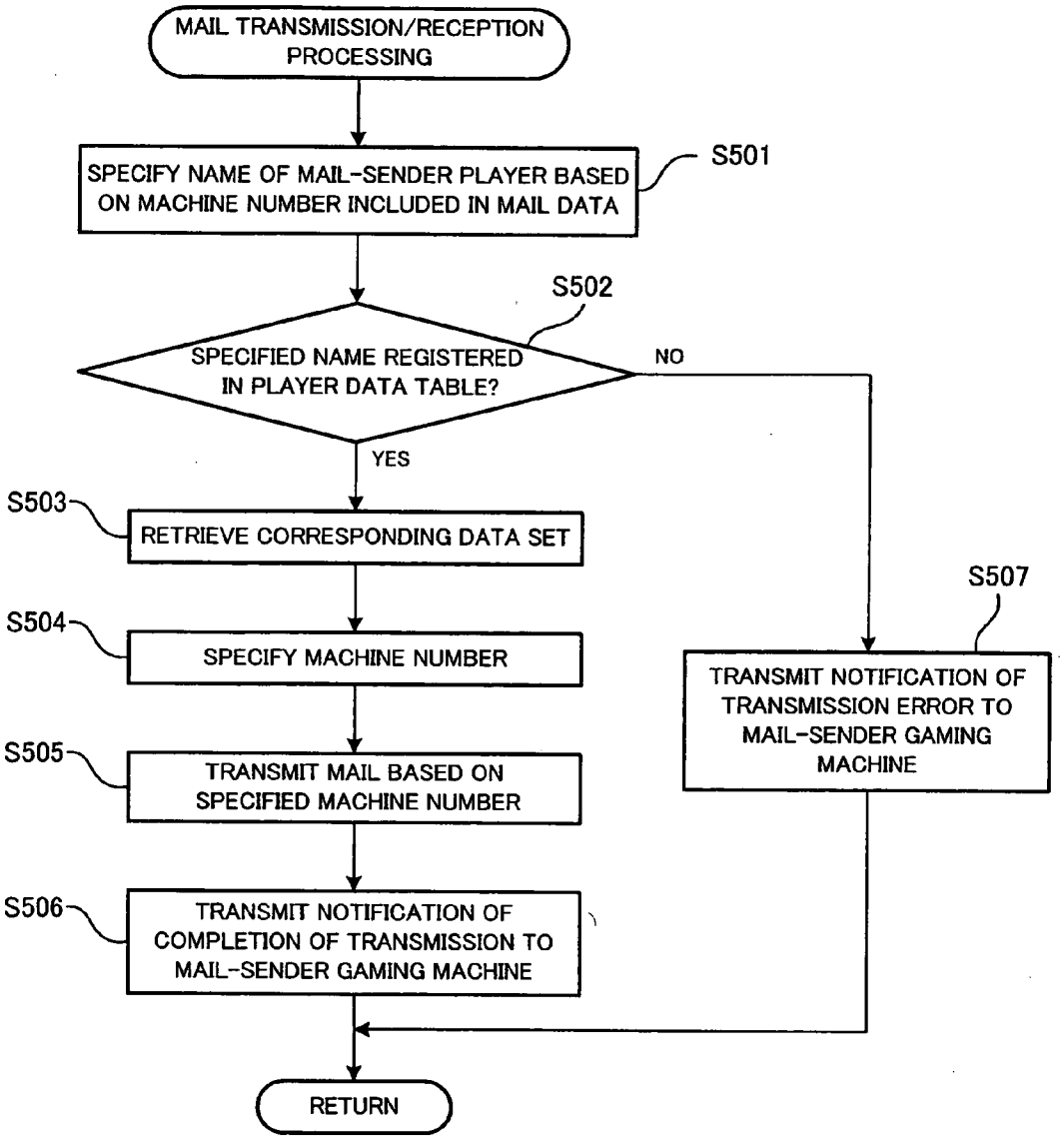
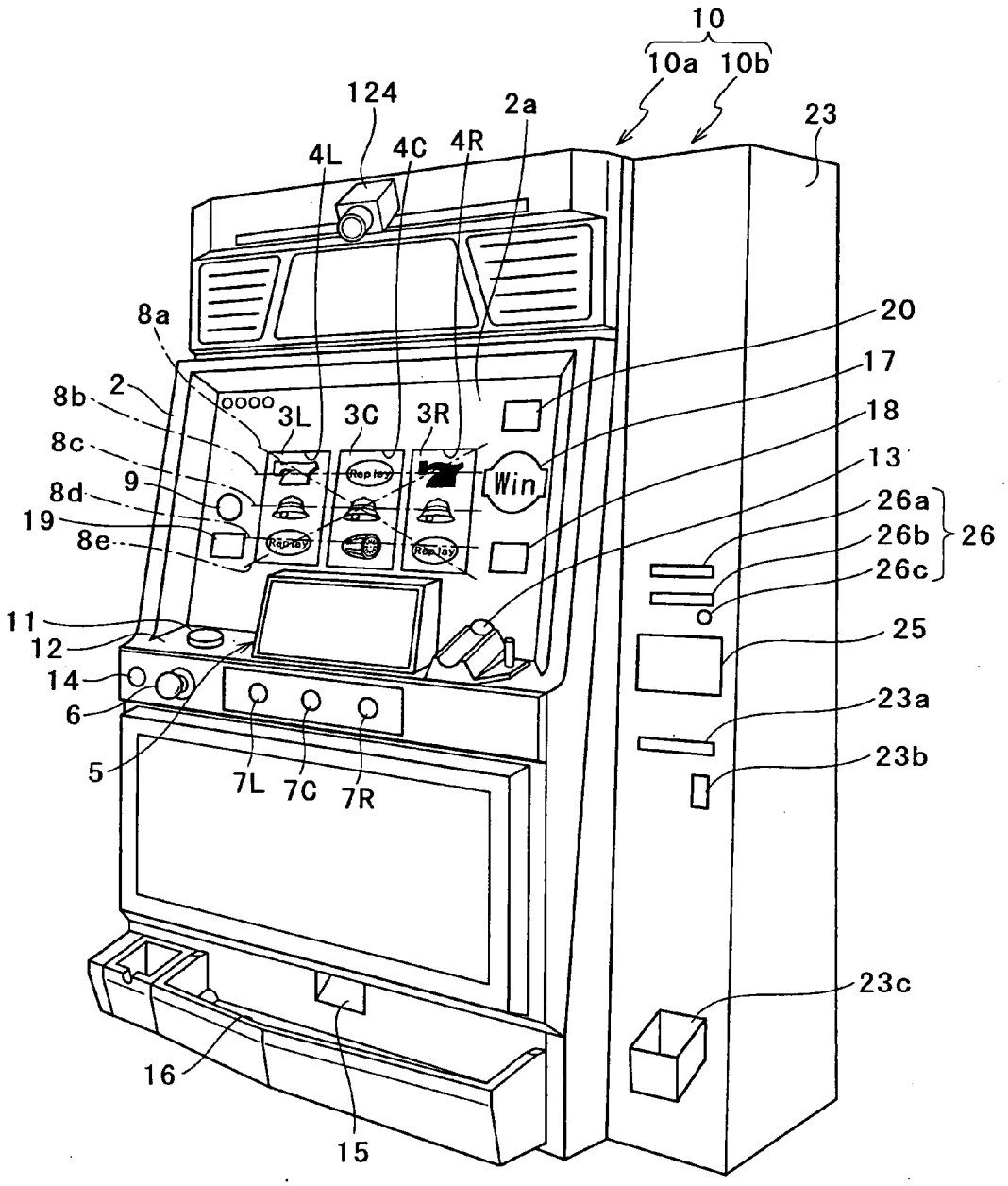

MAIL TRANSMISSION/RECEPTION PROCESSING
SPECIFY NAME OF MAIL-SENDER PLAYER BASED ON MACHINE NUMBER INCLUDED IN MAIL DATA
S501
S502
SPECIFIED NAME REGISTERED IN PLAYER DATA TABLE?
NO
YES
S503
RETRIEVE CORRESPONDING DATA SET
S504
SPECIFY MACHINE NUMBER
S505
TRANSMIT MAIL BASED ON SPECIFIED MACHINE NUMBER
S506
TRANSMIT NOTIFICATION OF COMPLETION OF TRANSMISSION TO MAIL-SENDER GAMING MACHINE
S507
TRANSMIT NOTIFICATION OF TRANSMISSION ERROR TO MAIL-SENDER GAMING MACHINE
RETURN

FIG.26


10
10a
10b
124
2a
23
4L
4C
4R
8a
20
17
8b
2
3L
3C
3R
18
8c
13
9
Win
8d
26a
19
26b
26
8e
26c
11
25
12
14
23a
6
23b
5
7L
7C
7R
23c
16
15

SERVER AND GAME SYSTEM

CROSS REFERENCE TO RELATED APPLICATION

[0001] This application is based upon and claims the benefit of priority from the prior Japanese Patent Applications No. 2005-158415, filed on May 31, 2005 and No. 2005-158416, filed on May 31, 2005, the entire contents of which are incorporated herein by reference.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] 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.

[0004] 2. Description of Related Art

[0005] 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.

[0006] 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 prize-exchanging 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 No. 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

[0007] 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 machines so that players can communicate with each other. In this case, however, a player has to know which gaming machine his/her communicates 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.

[0008] 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.

[0009] 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.

[0010] 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.

[0011] 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 unit that images a player and an input unit through which the player inputs his/her identification data item. The server comprises a storage, a first determination unit, a second determination unit, a rewriting unit, a mail reception unit, and a mail transmission unit. The storage rewritably stores therein a player image data item resulting from an imaging by the imaging unit, 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 unit determines, upon every imaging by the imaging unit, whether a player image data item resulting from the imaging has been stored in the storage or not. When the first determination unit determines that the player image data item resulting from the imaging has been stored in the storage, the second determination unit determines whether or not a specifying data item associated with the player image data item in the storage is identical to a specifying data item received, upon every imaging by the imaging unit, from a gaming machine that has the imaging unit. When the second determination unit determines that the specifying data items are not identical, the rewriting unit rewrites the specifying data item associated with the player image data item in the storage into the specifying data item received from the gaming machine. The mail reception unit receives from any of the gaming machines a mail addressed to the identification data item. The mail transmission unit transmits the mail based on a specifying data item stored in the storage and associated with the identification data item to which the mail is addressed.

[0012] 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, an imaging unit, a player image data item generation unit, an output unit, an input unit, a mail preparation unit, a mail transmission unit. The specifying data item storage stores therein a specifying data item for specifying the gaming machine itself. The imaging unit images a player. The player image data item generation unit generates a player image data item based on a result of an imaging by the imaging unit. The output unit outputs the player image data item generated by the player image data item generation unit together with the specifying data item. Through the input unit, a player inputs his/her identification data item. The mail preparation unit prepares a mail addressed to an identification data item of another player. The mail transmission unit transmits the mail prepared by the mail preparation unit. The server comprises a first reception unit, a second reception unit, a storage, a first determination unit, a second determination unit, a rewriting unit, a mail reception unit, and a mail transmission unit. The first reception unit receives the player image data item and the specifying data item outputted from the output unit. The second reception unit receives the identification data item inputted through the input unit. The storage 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 unit determines whether the player image data item received by the first reception unit has been stored in the storage or not. When the first determination unit determines that the player image data item has been stored in the storage, the second determination unit determines whether or not a specifying data item associated with the player image data item in the storage is identical to the specifying data item received by the first reception unit together with the player image data item. When the second determination unit determines that the specifying data items are not identical, the rewriting unit rewrites the specifying data item associated with the player image data item in the storage into the specifying data item received from the gaming machine. The mail reception unit receives from any of the gaming machines a mail addressed to the identification data item. The mail transmission unit transmits the mail based on a specifying data item stored in the storage and associated with the identification data item to which the mail is addressed.

[0013] In the first and second aspects, in a case where the player image data item resulting from the imaging by the imaging unit has already been stored in the storage and in addition the specifying data item associated with the player image data item in the storage is not identical to the specifying data item received from a gaming machine that has the imaging unit, the specifying data item stored in the storage is rewritten. That is, each time the player changes the gaming machine, contents of the storage 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 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 now.

[0014] 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 unit that images a player and a payout unit that pays out a game value based on a game result, and also data-communicably connected to a counter having a counting unit that counts the game value and a counting-person imaging unit that images a counting person. The server comprises a storage, a retrieval unit, and a first notification unit. The storage stores therein a player image data item resulting from an imaging by the player imaging unit. The retrieval unit retrieves from the storage a player image data item that is identical to a counting-person image data item resulting from an imaging by the counting-person imaging unit. The first notification unit notifies a result of retrieval made by the retrieval unit.

[0015] 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 unit, a player image data item generation unit, and a player image data item transmission unit. The player imaging unit images a player. The player image data item generation unit generates a player image data item based on a result of an imaging by the player imaging unit. The player image data item transmission unit transmits, to the server, the player image data item generated by the player image data item generation unit. The counter comprises a counting-person imaging unit, a counting-person image data item generation unit, and a counting-person image data item transmission unit. The counting-person imaging unit images a counting person. The counting-person image data item generation unit generates a counting-person image data item based on a result of an imaging by the counting-person imaging unit. The counting-person image data item transmission unit transmits, to the server, the counting-person image data item generated by the counting-person image data item generation unit. The server comprises a player image data item reception unit, a storage, a counting-person image data item reception unit, a retrieval unit, and a notification unit. The player image data item reception unit receives the player image data item transmitted by the player image data item transmission unit. The storage stores therein the player image data item received by the player image data item reception unit. The counting-person image data item reception unit receives the counting-person image data item transmitted by the counting-person image data item transmission unit. The retrieval unit retrieves from the storage a player image data item that is identical to the counting-person image data item received by the counting-person image data item reception unit. The notification unit notifies a result of retrieval made by the retrieval unit.

[0016] 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. 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 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

[0017] Other and further objects, features and advantages of the invention will appear more fully from the following description taken in connection with the accompanying drawings in which:

[0018] **FIG. 1** schematically illustrates a game system according to an embodiment of the present invention;

[0019] **FIG. 2** is a perspective view of a gaming machine that is included in the game system of **FIG. 1**;

[0020] **FIG. 3** is a perspective view of a counter that is included in the game system of **FIG. 1**;

[0021] **FIG. 4** is a block diagram showing an electrical construction of the gaming machine of **FIG. 2**;

[0022] **FIG. 5** is a block diagram showing an electrical construction of the counter of **FIG. 3**;

[0023] **FIG. 6** is a block diagram showing an electrical construction of a hall computer that is included in the game system of **FIG. 1**;

[0024] **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;

[0025] **FIG. 8** schematically illustrates a register screen that is displayed on the liquid crystal monitor;

[0026] **FIG. 9A** is a schematic view in which completion of registration is being notified;

[0027] **FIGS. 9B and 9C** are schematic views in which non-registerability is being notified;

[0028] **FIG. 10A** schematically illustrates a mail preparation screen that is displayed on the liquid crystal monitor;

[0029] **FIG. 10B** is a schematic view in which completion of transmission of a mail is being notified;

[0030] **FIG. 10C** is a schematic view in which non-transmittability of a mail is being notified;

[0031] **FIG. 11** schematically illustrates a player data table that is stored in the hall computer;

[0032] **FIG. 12** schematically illustrates a gaming-machine data table that is stored in the hall computer;

[0033] **FIG. 13** schematically illustrates a staff data table that is stored in the hall computer;

[0034] **FIG. 14** is a flowchart showing a main routine executed by a main body of the gaming machine;

[0035] **FIG. 15** is a flowchart showing a main routine executed by the medal lending device;

[0036] **FIG. 16** is a flowchart showing a registration processing that is executed in the main routine of the medal lending device;

[0037] **FIG. 17** is a flowchart showing a mail transmission processing that is executed in the main routine of the medal lending device;

[0038] **FIG. 18** is a flowchart showing a player authentication processing that is executed by the medal lending device;

[0039] **FIG. 19** is a flowchart showing a main routine executed by the counter;

[0040] **FIG. 20** is a flowchart showing a main routine executed by the hall computer;

[0041] **FIG. 21** is a flowchart showing a registration processing that is executed in the main routine of the hall computer;

[0042] **FIG. 22** is a flowchart showing a player data table updating processing that is executed in the main routine of the hall computer;

[0043] **FIG. 23** is a flowchart showing a gaming-machine data table updating processing that is executed in the main routine of the hall computer;

[0044] **FIG. 24** is a flowchart showing a counting person monitoring processing that is executed in the main routine of the hall computer;

[0045] **FIG. 25** is a flowchart showing a mail transmission/reception processing that is executed in the main routine of the hall computer; and

[0046] **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

[0047] In the following, a certain preferred embodiment of the present invention will be described with reference to the accompanying drawings.

[0048] 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.

[0049] 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.

[**0050**] Each of the gaming machines **10** has a main body **10***a* and a medal lending device **10***b* 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 **10***b*, and plays a game on the main body **10***a* using the medals. The medal lending device **10***b* corresponds to a "game media lending device" of the present invention.

[**0051**] The main body **10***a* of the gaming machine **10** will be described with reference to **FIGS. 2 and 4**.

[**0052**] As shown in **FIG. 2**, the main body **10***a* has a cabinet **2** that constitutes a whole of the main body **10***a*. On the front face of the cabinet **2**, a main display **2***a* that substantially extends in a vertical direction is provided. At the center of the main display **2***a*, display windows **4**L, **4**C, and **4**R each having a rectangular shape elongated in the vertical direction are provided. Each of the display windows **4**L, **4**C, and **4**R shows, among symbols arranged on each of reels **3**L, **3**C, and **3**R, three symbols lined in the vertical direction, so that a total of nine symbols are displayed. Pay lines are defined in the display windows **4**L, **4**C, and **4**R. The pay lines include a top line **8***b*, a center line **8***c*, and a bottom line **8***d* which are extending in a horizontal direction, and a cross-down line **8***a* and a cross-up line **8***e* which are extending in an oblique direction.

[**0053**] The top line **8***b* is defined through top sections of the respective display windows **4**L, **4**C, and **4**R. The center line **8***c* is defined through center sections of the respective display windows **4**L, **4**C, and **4**R. The bottom line **8***d* is defined through bottom sections of the respective display windows **4**L, **4**C, and **4**R. The cross-down line **8***a* is defined through the top section of the display window **4**L, the center section of the display window **4**C, and the bottom section of the display window **4**R. The cross-up line **8***e* is defined through the bottom section of the display window **4**L, the center section of the display window **4**C, and the top section of the display window **4**R. 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.

[**0054**] The pay lines **8***a* to **8***e* 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.

[**0055**] Within the cabinet **2**, three rotatable reels **3**L, **3**C, and **3**R are provided side by side in a widthwise direction. A column of symbols are arranged on an outer surface of each of the reels **3**L, **3**C, and **3**R. 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 **3**L, **3**C, and **3**R are visible through the display windows **4**L, **4**C, and **4**R. The reels **3**L, **3**C, and **3**R 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".

[**0056**] A BET lamp **9** and a credit value indicator **19** are provided on the left side of the display windows **4**L, **4**C, and **4**R. 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 **10***a*.

[**0057**] A WIN lamp **17** and a number-of-acquired-medals indicator **18** are provided on the right side of the display windows **4**L, **4**C, and **4**R. After it is determined that 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.

[**0058**] 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".

[**0059**] A control panel **12** in the form of a horizontal plane is provided on the lower side of the display windows **4**L, **4**C, and **4**R. 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 **13**S is provided in the medal insertion slot **13** (see **FIG. 4**). The inserted-medal sensor **13**S 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 **8***a* to **8***e* are activated and at the same time three of the credited medals are bet for a next game.

[**0060**] 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**.

[**0061**] 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 **10***a* (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 **3**L, **3**C, and **3**R so that symbols are variably displayed within the display windows **4**L, **4**C, and **4**R.

[**0062**] On the right side of the start lever **6** and below the liquid crystal display **5**, there is provided three stop buttons **7**L, **7**C, and **7**R that stop rotation of the reels **3**L, **3**C, and **3**R, respectively.

[**0063**] The controller **60** (see **FIG. 4**) controlling the main body **10***a* 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 **10***b*.

[**0064**] 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 **7**L, **7**C, **7**R, the BET button **11**, the C/P button **14**, and the inserted-medal sensor **13**S, and then generates control commands to the components. The controller **60** is connected also to the reels **3**L, **3**C, **3**R and a hopper **69** that functions as a payout unit, and controls them in accordance with input signals from them or game modes.

[**0065**] To be more specific, when the start lever **6** is operated the controller **60** rotates the reels **3**L, **3**C, and **3**R, and when the stop buttons **7**L, **7**C, and **7**R are pressed the controller **60** correspondingly stops the reels **3**L, **3**C, and **3**R, 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 **8***a* to **8***e* and at the same time bets three of the credited medals for a next game. Also, when receiving from the inserted-medal sensor **13**S a detection signal for the three medals inserted into the medal insertion slot **13**, the controller **60** activates the pay lines **8***a* to **8***e* and at the same time bets the inserted three medals for a next game. When receiving from the reels **3**L, **3**C, and **3**R 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 symbols.

[**0066**] 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.

[**0067**] 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**. Here, the internal win means a win which can be made at the end of a game.

[**0068**] The controller **60** transmits game status data via the communicator **64** to the controller **70** of the medal lending device **10***b* 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 **10***b* via the communicator **64**, the controller **60** controls the main body **10***a* so as to enable a game to start.

[**0069**] 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.

[**0070**] 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.

[**0071**] 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.

[**0072**] 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".

[**0073**] Next, the medal lending device **10***b* which is included in the gaming machine **10** will be described with reference to **FIGS. 2 and 4**.

[0074] As shown in **FIG. 2**, the medal lending device **10***b* is placed adjacent to and formed as a unit with the main body **10***a* of the gaming machine. The medal lending device **10***b* 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 **10***a*. The medal lending device **10***b* is controlled by a controller **70** (see **FIG. 4**) placed within the cabinet **23**.

[0075] On a front face of the cabinet **23**, there are provided a bill insertion slot **23***a* substantially at the center, a coin insertion slot **23***b* on the lower side of the bill insertion slot **23***a*, and a medal tray **23***c* in a lower part. A bill sensor **231** and a coin sensor **232** are provided in the bill insertion slot **23***a* and in the coin insertion slot **23***b*, 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 **23***c*.

[0076] A CCD camera **24**, which is provided in an upper front part of the cabinet **23**, functions as an "imaging unit" of the present invention, and images the playing player **103** who is sitting in front of the main body **10***a* 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**.

[0077] 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**, **9**A to **9**C, and **10**A to **10**C. 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**.

[0078] 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 **26***a* that issues an ID card (not shown), a card insertion slot **26***b* into which the ID card can be inserted, and a card eject button **26***c* that ejects the ID card inserted into the card insertion slot **26***b*. 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 **26***a*. The registry data includes a name and face image data of the player **103**.

[0079] The CCD camera **24**, the liquid crystal monitor **25**, and the card processing unit **26** are connected to and controlled by the controller **70**.

[0080] The controller **70** controlling the medal lending device **10***b* 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 **10***a* 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 **10***a* of the gaming machine and data communication with the hall computer **40**.

[0081] 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 **251***a* and a main area **251***b*. In the function select area **251***a*, a "DEMO" button **252***a*, a "REGISTER" button **252***b*, and a "MAIL" button **252***c* 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 **252***a* to **252***c*, signals corresponding to the respective buttons are outputted.

[0082] When the player **103** touches the "DEMO" button **252***a* or when the other buttons **252***b* and **252***c* 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 **251***b*.

[0083] When the player **103** touches the "REGISTER" button **252***b*, a register screen shown in **FIG. 8** is displayed in the main area **251***b*. 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.

[0084] In the register screen, a character input screen **254***a* is displayed in a left part of the main area **251***b*. The character input screen **254***a* shows selectable keys including alphabet keys and an "ENTER" key.

[0085] An instruction screen, which shows a name field **254***b*, an "OK" button **254***c*, and a "SHOOT" button **254***d*, is displayed in a right part of the main area **251***b*. The name field **254***b* indicates a name of the player **103** which has been inputted through the keys in the character input screen **254***a*. The "SHOOT" button **254***d* is displayed in an unselectable mode until the "OK" button **254***c* is touched. That is, the "SHOOT" button **254***d* becomes selectable, only after the player **103** inputs his/her name through the keys of the character input screen **254***a*, checks the name field **254***b* for the inputted name, and then touches the "OK" button **254***c*. When the player **103** touches the "SHOOT" button **254***d*, the CCD camera **24** is driven to shoot the player **103**.

[0086] 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 **9**C is displayed depending on a notification transmitted from the hall computer **40**.

[0087] 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.

[**0088**] 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.

[**0089**] 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.

[**0090**] When a player **103** touches the "MAIL" button **252***c*, a mail preparation screen of **FIG. 10A** is displayed in the main area **251***b*. 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 **255***a*, which is similar to the character input screen **254***a* of the register screen is displayed in a left part of the main area **251***b*. An address field **255***b*, a message field **255***c*, and a "TRANSMISSION" button **255***d* are displayed in a right part of the main area **251***b*. A destination address is inputted in the address field **255***b*. Contents of the mail are inputted in the message field **255***c*. Here, what is inputted in the address field **255***b* is a name the destination player **103** inputted at the time of registering himself/herself. When the "TRANSMISSION" button **255***d* is touched, mail data, which includes a machine number of the gaming machine **10** and what have been inputted in the address field **255***b* and the message field **255***c*, are transmitted to the hall computer **40**.

[**0091**] 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 **255***b*. 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 **255***b* 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.

[**0092**] 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.

[**0093**] Next, a counter **30** will be described.

[**0094**] As shown in **FIG. 3**, the counter **30** has a main body **30***a* and a ticket issuer **30***b* 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 **30***a* controls the counter **30**. The main body **30***a* has a case-like 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 **30***a*. The counting passage aligns medals in the medal receiver **31**. A medal sensor **31**S is provided in the medal receiver **31** and connected to the controller **80**. The medal sensor **31**S 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 **31**S, the controller **80** counts medals inserted into the medal receiver **31**.

[**0095**] The main body **30***a* 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**).

[**0096**] As shown in **FIG. 3**, the ticket issuer **30***b* is placed adjacent to and formed as a unit with the main body **30***a*. The ticket issuer **30***b* 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 **30***b*. 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**.

[**0097**] 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**.

[**0098**] 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**.

[**0099**] 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**.

[**0100**] 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.

[**0101**] 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**.

[**0102**] 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 received from the gaming machines **10**.

[**0103**] 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**.

[**0104**] Next, operations of the main body **10***a* of the gaming machine **10** will be described with reference to **FIG. 14**.

[**0105**] First, the controller **60** of the main body **10***a* performs a game-starting initialization (A**1**) 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 (A**2**). 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.

[**0106**] Then, the controller **60** determines whether a game start permission signal is received from the medal lending device **10***b* (A**3**). As will be detailed later with reference to **FIG. 18**, the medal lending device **10***b* transmits the game start permission signal under a condition that an ID card is inserted into the card insertion slot **26***b* 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 (A**3**: NO), the controller **60** waits until it receives the signal. When the game start permission signal has been received (A**3**: YES), the processing proceeds to A**4**.

[**0107**] In A**4**, the controller **60** waits until it receives a signal from the inserted-medal sensor **13**S 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 (A**5**). The controller **60** waits until the start lever **6** is operated. When the start lever **6** is operated (A**5**: YES), the controller **60** samples a random number for lottery (A**6**). Then, the controller **60** checks a game mode for the current game (A**7**). 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 **10***b*.

[**0108**] Subsequently, an internal win is determined by executing a probability lottery processing (A**8**). Then, a stop table group that corresponds to the determined internal win is selected (A**9**). Then, the reels **3**L, **3**C, and **3**R are rotated using the stop table group thus selected (A**10**).

[**0109**] Then, rotations of the reels **3**L, **3**C, and **3**R are stopped (A**11**). More specifically, at a timing when the stop buttons **7**L, **7**C, and **7**R are pressed or at a timing when an automatic stop timer indicates "00", the number of sliding frames is determined based on the stop table selected in A**9** 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 **4**L, **4**C, and **4**R after the stop buttons **7**L, **7**C, **7**R are pressed and before the reels **3**L, **3**C, **3**R are actually stopped. Thereby, the reel **3**L, **3**C, **3**R that corresponds to the pressed stop button **7**L, **7**C, **7**R is rotated so as to slide the determined number of frames, and then stopped.

[**0110**] Next, a win is determined (A**12**). More specifically, a win type is determined based on a combination of symbols of the reels **3**L, **3**C, and **3**R that are stopped on the center line **8***c*. Then, medals depending on the determined win are credited or paid out (A**13**). Here, the number of medals to be acquired depending on the determined win is indicated by the number-of-acquired-medals 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 **10***b*. 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 A**13**, under a condition that the win determined in A**12** was the BB or RB, the game mode shifts to the BB base game mode or the RB game mode.

[**0111**] 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 (A**14**). When the current game mode is neither the BB base game mode nor the RB game mode (A**14**: NO), the processing returns to A**2**. When the current game mode is the BB base game mode or the RB game mode (A**14**: YES), the controller **60** checks the number of games which should be played in the BB base game mode or the RB game mode (A**15**). 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, how many times a win was made in the RB game mode, and how many games are set in the RB game mode.

[**0112**] Next, determined is whether the bonus game mode should be ended (A**16**). 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 (A**16**: NO), the processing returns to A**2**. When it is determined that the bonus game mode should be ended (A**16**: YES), the bonus game mode is ended (A**17**), and the game mode shifts to the base game mode. Then, the processing returns to A**2**.

[**0113**] Next, operations of the medal lending device **10***b* of the gaming machine **10** will be described with reference to **FIG. 15**.

[**0114**] First, the controller **70** of the medal lending device **10***b* displays the demo screen of **FIG. 7** on the liquid crystal monitor **25** (B**1**). Then, the controller **70** determines whether, in the demo screen, any button other than the "DEMO" button **252***a* shown in the function select area **251***a* is touched or not (B**2**). When the player **103** touches the "DEMO" button **252***a* or does not touch any button, it is determined that a button other than the "DEMO" button **252***a* is not touched (B**2**: NO), and the processing returns to B**1** so that the demo screen remains displayed on the liquid crystal display **25**.

[**0115**] When the player **103** touches a button other than the "DEMO" button **252***a* (B**2**: YES), then the controller **70** determines whether the "REGISTER" button **252***b* is touched or not (B**3**). When it is determined that the "REGISTER" button **252***b* is touched (B**3**: 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 (B**5**).

[**0116**] In the registration processing, first, whether in the register screen a name has been inputted or not is determined (C**1**). More specifically, determined are whether a name of the player **103** has been inputted in the field **254***b* shown in **FIG. 8** and then the "OK" button **254***c* shown in **FIG. 8** has been touched or not. When a name has not been inputted (C**1**: NO), whether a predetermined period of time has elapsed since the register screen was displayed or not is determined (C**13**). When the predetermined period of time has not yet elapsed (C**13**: NO), the processing returns to C**1**. When the predetermined period of time has elapsed (C**13**: YES), the processing exits from this routine and returns to B**1** of **FIG. 15** so that the demo screen is displayed.

[**0117**] When a name has been inputted (C**1**: YES), the "SHOOT" button **254***d* in the register screen becomes selectable (C**2**). Then, whether the "SHOOT" button **254***d* has been touched or not is determined (C**3**). When the "SHOOT" button **254***d* has not been touched (C**3**: NO), the controller **70** waits until the "SHOOT" button **254***d* is touched. When the "SHOOT" button **254***d* has been touched (C**3**: YES), the CCD camera **24** shoots the player **103** (C**4**). 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 **254***d* is touched, the controller **70** reads the image data out of the image RAM.

[**0118**] 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** (C**5**). More specifically, in an example, the controller **70** firstly determines whether a color tone and a gradation of each pixel are within a predetermined skin-color 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.

[**0119**] Then, the controller **70** reads a machine number out of the ROM **73** (C**6**). In C**7**, the controller **70** transmits to the hall computer **40** the machine number read out in C**6** and registry data which includes the inputted name and the face image data generated in C**5**. The controller **70** then determines whether it has received from the hall computer **40** a notification about the registration or not (C**8**). When the notification has not been received (C**8**: NO), the controller **70** waits until it receives the notification.

[**0120**] When the notification has been received (C**8**: YES), the controller **70** determines whether a registration has been completed or not based on the notification received (C**9**). In a case where a name inputted in the name field **254***b* 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 (C**9**: 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 **9**C (C**12**). Then, the processing exits from this routine, and returns to B**1** of **FIG. 15** in which the demo screen is displayed. Alternatively, it is also possible that the register screen of **FIG. 8** is displayed.

[**0121**] When the controller **70** receives a notification that the registration has been completed (C**9**: YES), a message that the registration has been completed appears as shown in **FIG. 9A** (C**10**). 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 **26***a* (C**11**). Then, the processing exits from this routine, and returns to B**1** of **FIG. 15** in which the demo screen is displayed.

[**0122**] In a case where the controller **70** has failed to generate face image data in C**5**, 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.

[**0123**] Referring to **FIG. 15** again, when it is determined that the "REGISTER" button **252***b* is not touched (B**3**: NO), the controller **70** determines that the "MAIL" button **252***c* is touched, and displays the mail preparation screen of **FIG. 10A** on the liquid crystal monitor **25** (B**6**). Then, a mail transmission processing of **FIG. 17** is executed (B**7**).

[**0124**] In the mail transmission processing, first, the controller **70** determines whether in the mail transmission screen the "TRANSMISSION" button **255***d* has been touched or not (D**1**). When the "TRANSMISSION" button **255***d* has not been touched (D**1**: NO), the controller **70** waits until the "TRANSMISSION" button **255***d* is touched. When the "TRANSMISSION" button **255***d* has been touched (D**1**: YES), the controller **70** then determines whether a destination address has been inputted in the address field **255***b* 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 **255***b* and the message field **255***c*.

[0125] 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 **255***b* 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.

[0126] The controller **70** of the medal lending device **10***b* 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 **26***b*. The authentication processing is being continuously executed while an ID card is being inserted into the card insertion slot **26***b*.

[0127] 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.

[0128] 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 **26***b* (E10), and the processing exits from this routine. That is, in this case the player **103** cannot start a game.

[0129] When the pieces of face image data are identical (E5: YES), the controller **70** transmits a game start permission signal to the main body **10***a* 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.

[0130] 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.

[0131] When the card eject button **26***c* is pressed, the ID card is ejected from the card insertion slot **26***b* (E10), and the processing exits from this routine.

[0132] It may also be possible to, when the ID card is ejected from the card insertion slot **26***b* (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.

[0133] Next, operations of the counter **30** will be described with reference to **FIG. 19**.

[0134] The controller **80** of the counter **30** firstly determines, based on a detection signal transmitted from the medal sensor **31**S, whether a medal or medals is/are inserted into the medal receiver **31** or not (F1). When no medal is inserted (F1: N6), 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 **31**S. Then, the controller **80** displays a result of the counting on the number-of-inserted-medals indicator **33** (F2).

[0135] 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** 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 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.

[0136] Next, operations of the hall computer **40** will be described with reference to **FIG. 20**.

[0137] The controller **90** of the hall computer **40** firstly determines whether registry data is received from any one of the medal lending devices **10***b* or not (S1). When registry

data is received (S1: YES), the controller **90** executes a registration processing of **FIG. 21** (S2).

[0138] 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 **10***b* 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 **10***b*. Then, the processing exits from this routine, and returns to S1 of **FIG. 20**.

[0139] 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.

[0140] 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 **10***b* 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 **10***b*. Then, the processing exits from this routine, and returns to S1 of **FIG. 20**.

[0141] 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 **10***b*, and an ID card is issued.

[0142] 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**.

[0143] 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 **10***b* (S3). When authentication data is received (S3: YES), the controller **90** executes a player data table updating processing of **FIG. 22** (S4).

[0144] 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 (S203).

[0145] 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).

[0146] 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).

[0147] 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.

[0148] 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 **10***b* 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.

[0149] Like this, face image data of the player **103** is checked twice. Specifically, the medal lending device **10***b* 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.

[0150] 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).

[0151] 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).

[0152] 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).

[0153] 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**.

[0154] 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**.

[0155] Referring to **FIG. 20** again, when authentication data is not received from any of the medal lending devices **10***b* (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).

[0156] 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.

[0157] 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.

[0158] 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**.

[0159] 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.

[0160] 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 **10***b* and executes a mail transmission/reception processing of **FIG. 25** (S8).

[0161] 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.

[0162] 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 **10***b* included in the gaming machine **10**. Thus, the processing exits from this routine.

[0163] 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 **10***b* included in the gaming machine **10**. Thus, the processing exits from this routine, and returns to S1 of **FIG. 20**.

[0164] 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 **10***b* 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 **10***b* (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 **10***b* 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.

[0165] 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**.

[0166] 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**.

[0167] 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.

[0168] As long as an ID card is kept inserted in the card insertion slot **26***b*, 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.

[0169] 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 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 **10***b* to the hall computer **40**. Instead, each medal lending device **10***b* 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.

[0170] 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.

[0171] In the above-described embodiment, the CCD camera **24** is mounted on the medal lending device **10***b*, so that the CCD camera **24** shoots, in an oblique direction, a player **103** who is sitting in front of the main body **10***a*. However, it may be possible that the main body **10***a* 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 **10***a* and the medal lending device **10***b*.

[0172] 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.

[0173] The main body **10***a* and the medal lending device **10***b* of the gaming machine **10** may be controlled by a single controller.

[0174] 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 **30***b* 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**.

[0175] 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 **31**S. 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.

[0176] 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.

[0177] In the above-described embodiment, a mail is transmitted and received through the liquid crystal monitor **25** mounted on the medal lending device **10***b*. However, this is not limitative. For example, the liquid crystal display of the main body **10***a* of the gaming machine may serve to transmit and receive a mail.

[0178] 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.

[0179] A notification unit 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.

[0180] In the above-described embodiment, the controller **60** of the main body **10***a* is connected to the hall computer **40** through the controller **70** of the medal lending device **10***b*. 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 **10***a* transmits data received from the controller **70** of the medal lending device **10***b* to the hall computer **40**.

[0181] The gaming machines **10**, the counters **30**, and the hall computer **40** may be connected wirelessly.

[0182] 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.

[0183] 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. Accordingly, 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.

What is claimed is:

1. 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 unit that images a player and an input unit through which the player inputs his/her identification data item,

wherein the server comprises:

a storage that rewritably stores therein a player image data item resulting from an imaging by the imaging unit, 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 unit that determines, upon every imaging by the imaging unit, whether a player image data item resulting from the imaging has been stored in the storage or not;

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

a rewriting unit that, when the second determination unit determines that the specifying data items are not identical, rewrites the specifying data item associated with the player image data item in the storage into the specifying data item received from the gaming machine;

a mail reception unit that receives from any of the gaming machines a mail addressed to an identification data item; and

a mail transmission unit that transmits the mail based on a specifying data item stored in the storage 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,

wherein each of the gaming machines comprises:

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

an imaging unit that images a player;

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

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

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

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

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

wherein the server comprises:

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

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

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

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

a rewriting unit that, when the second determination unit determines that the specifying data items are not identical, rewrites the specifying data item associated with the player image data item in the storage into the specifying data item received from the gaming machine;

a mail reception unit that receives from any of the gaming machines a mail addressed to an identification data item; and

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

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

wherein the server comprises:

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

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

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

4. The server according to claim 3, further comprising:

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

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

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

a comparison unit that compares the payout amount data item associated with the player image data item retrieved by the retrieval unit with the counted amount data item received by the counted amount data reception unit; and

a second notification unit that notifies a result of comparison made by the comparison unit.

5. The server according to claim 3, wherein:

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

the retrieval unit retrieves from the storage a manager image data item that is identical to a counting-person image data item resulting from an imaging by the counting-person imaging unit.

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,

wherein each of the gaming machines comprises:

a player imaging unit that images a player;

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

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

wherein the counter comprises:

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

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

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

wherein the server comprises:

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

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

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

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

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

7. The game system according to claim 6, wherein the player imaging unit images a player at predetermined intervals.

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