US010133967B2

(12) **United States Patent**
Kukita

(10) **Patent No.: US 10,133,967 B2**
(45) **Date of Patent: Nov. 20, 2018**

(54) **CARD AND CARD PRINTING CONTROL DEVICE**

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(73) Assignee: **Universal Entertainment Corporation**, Tokyo (JP)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(22) Filed: **Mar. 28, 2017**

(65) **Prior Publication Data**

US 2017/0286812 A1 Oct. 5, 2017

(30) **Foreign Application Priority Data**

Mar. 30, 2016 (JP) 2016-069427

(51) **Int. Cl.**

G06K 15/02	(2006.01)
H04N 1/60	(2006.01)
B42D 25/23	(2014.01)
B42D 25/41	(2014.01)
B42D 25/328	(2014.01)

(52) **U.S. Cl.**

CPC ***G06K 15/023*** (2013.01); ***B42D 25/23*** (2014.10); ***B42D 25/328*** (2014.10); ***B42D 25/41*** (2014.10); ***H04N 1/6094*** (2013.01)

(58) **Field of Classification Search**

CPC G06K 15/023
USPC 358/1.6
See application file for complete search history.

(56) **References Cited**

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* cited by examiner

Primary Examiner — Jacky X Zheng
(74) *Attorney, Agent, or Firm* — Simpson & Simpson, PLLC; S. Peter Konzel, Esq.

(57) **ABSTRACT**

The present invention provides a card which may be issued smoothly. The member card **2** comprises the base material layer **21** having the light transmittable base material and the printing layer **22**, and wherein the first information **2201** to be confirmed from the first surface **21***a* of the base material layer **21** and the second information **2202** to be confirmed from the second surface **21***b* of the base material layer **21** are only printed on one surface of the base material layer **21**. In the base material layer **21**, the region which is printed with the second information **2202** is light transmittable region, and the second information **2202** may be visually recognized from the second surface **21***b* of the base material layer **21**.

6 Claims, 24 Drawing Sheets

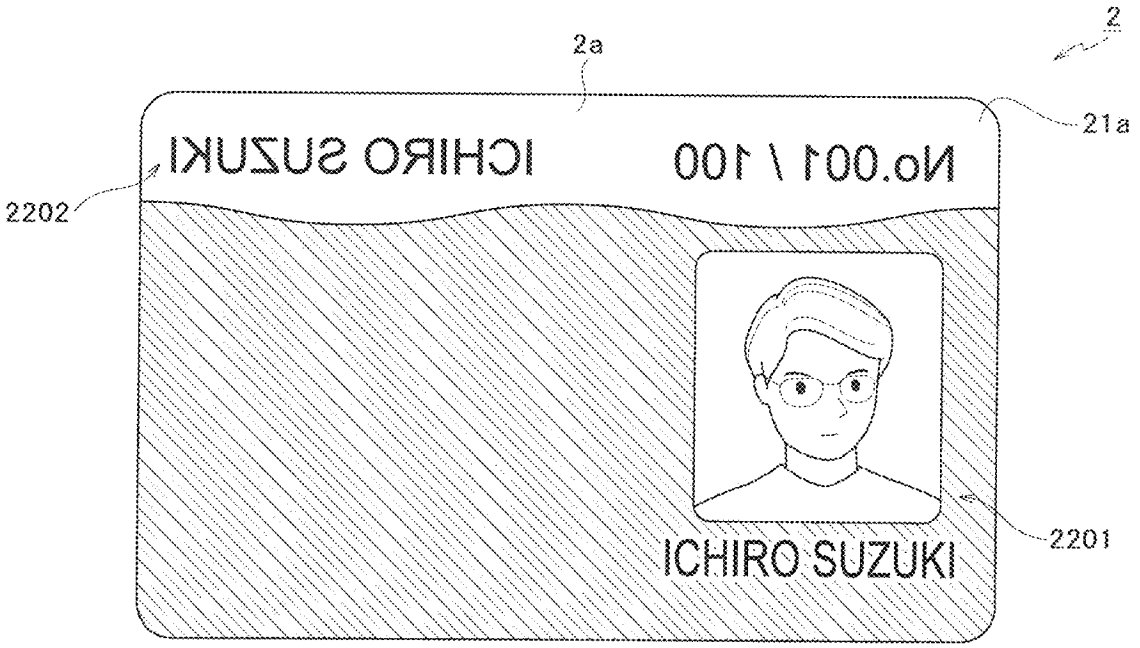
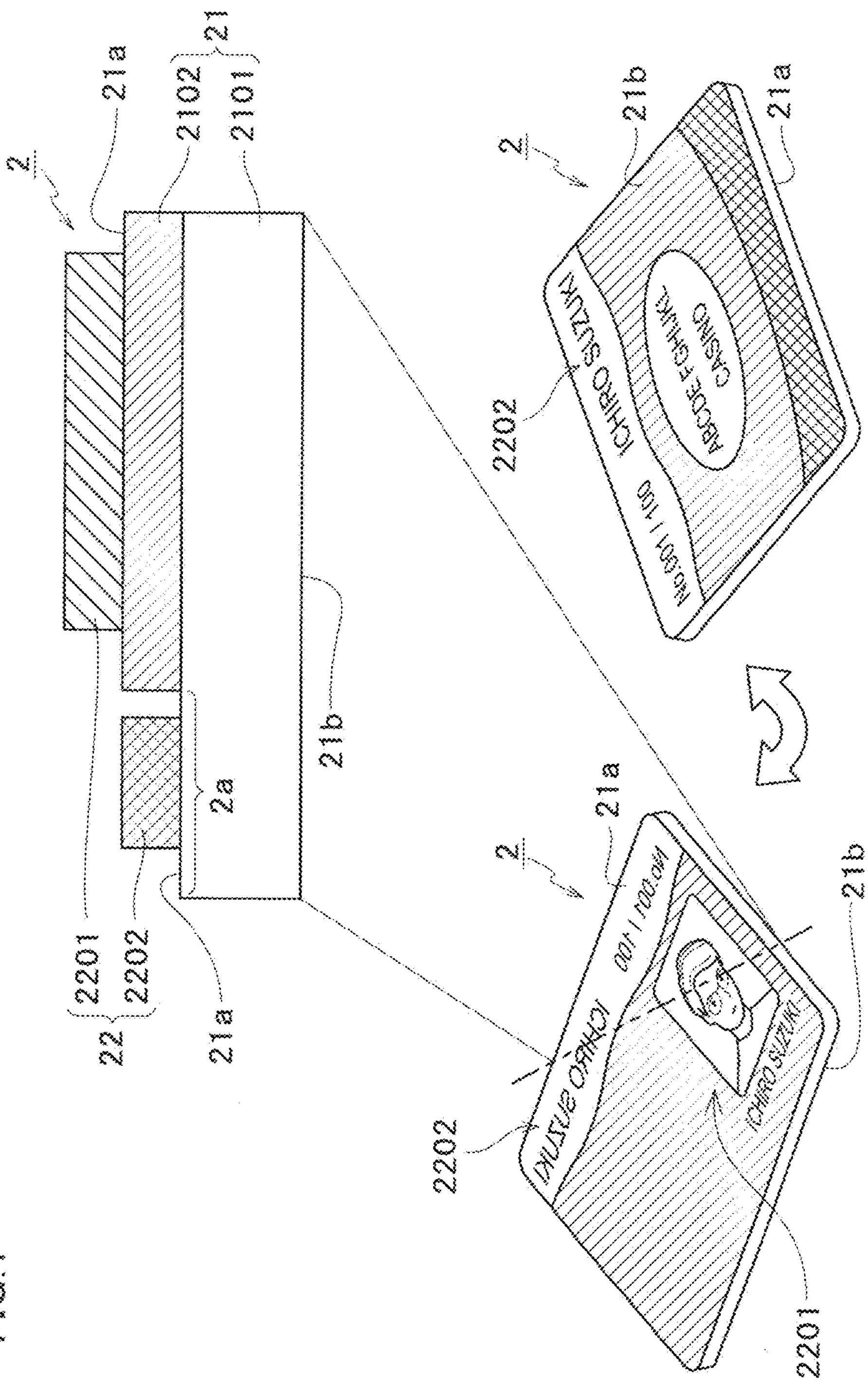


FIG.1


2
21
21a
2101
2102
21b
2a
22
2201
2202
ICHIRO SUZUKI
ABCDE FGHIJK CASINO
No.001 / 100

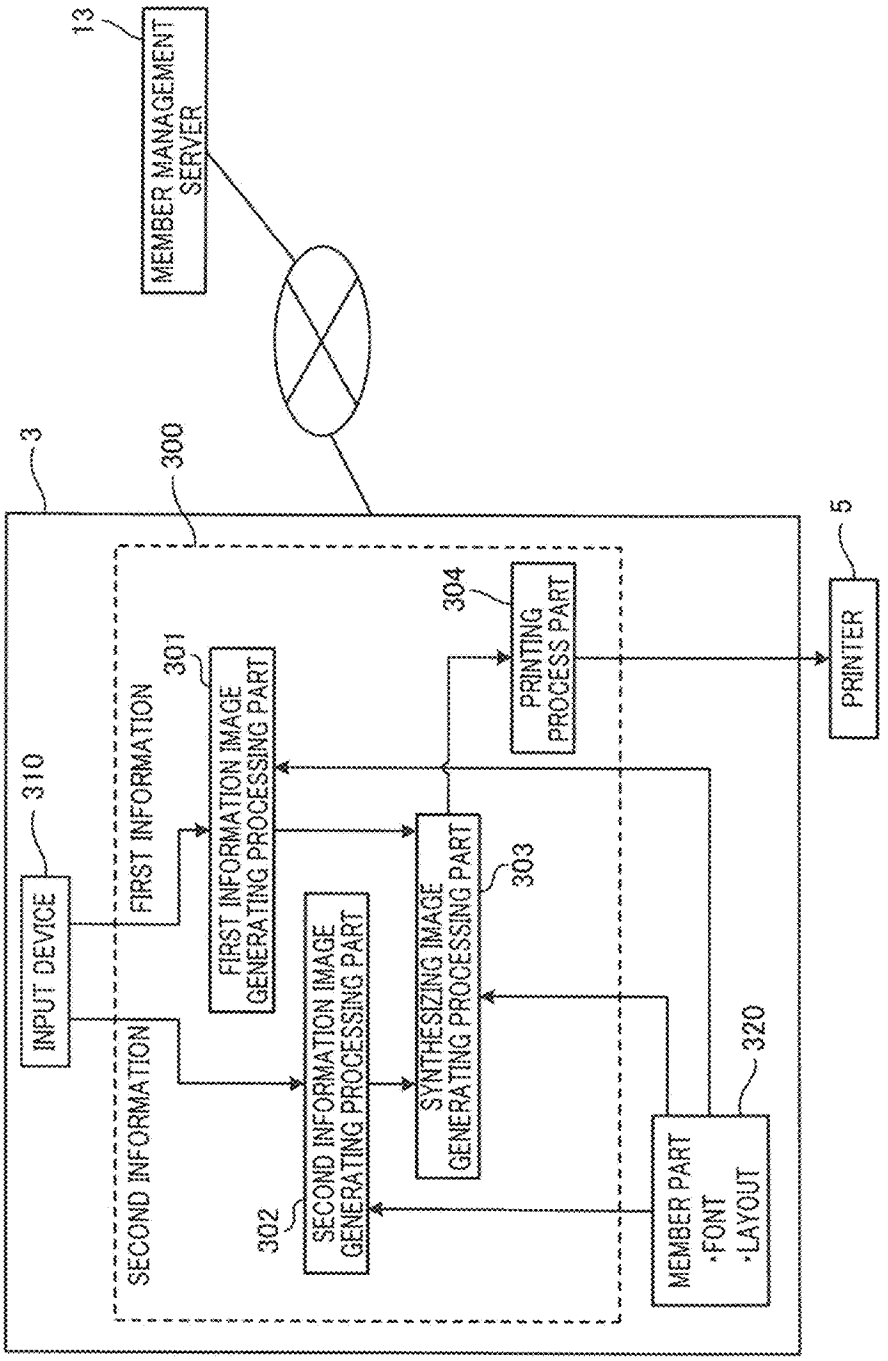

13
MEMBER MANAGEMENT SERVER
3
300
5
304
PRINTING PROCESS PART
PRINTER
301
FIRST INFORMATION IMAGE GENERATING PROCESSING PART
310
INPUT DEVICE
FIRST INFORMATION
SECOND INFORMATION
303
SYNTHESIZING IMAGE GENERATING PROCESSING PART
320
MEMBER PART
・FONT
・LAYOUT
302
SECOND INFORMATION IMAGE GENERATING PROCESSING PART

FIG.2

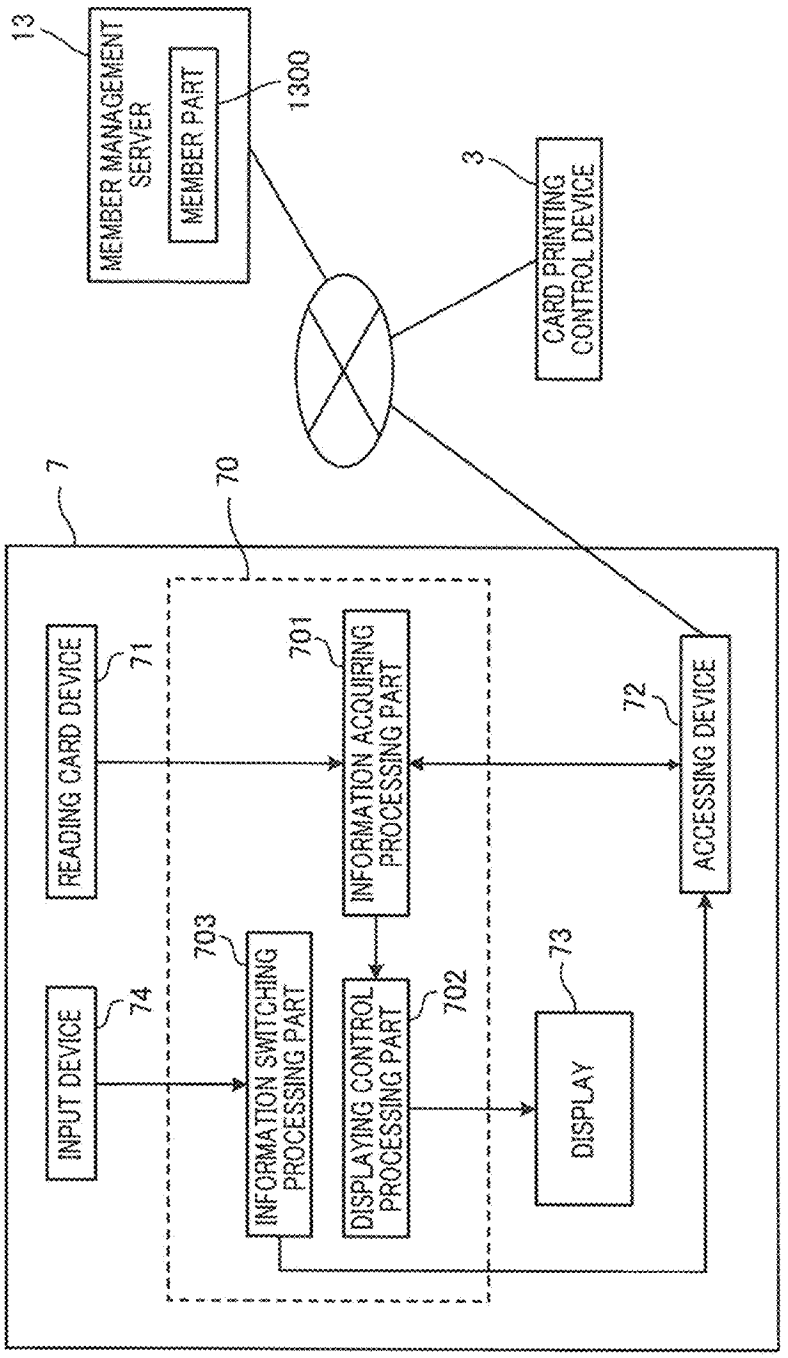

13
MEMBER MANAGEMENT SERVER
MEMBER PART
1300
3
CARD PRINTING CONTROL DEVICE
7
70
READING CARD DEVICE
71
701
INFORMATION ACQUIRING PROCESSING PART
72
ACCESSING DEVICE
INPUT DEVICE
74
703
INFORMATION SWITCHING PROCESSING PART
DISPLAYING CONTROL PROCESSING PART
702
73
DISPLAY

FIG.3

FIG.4

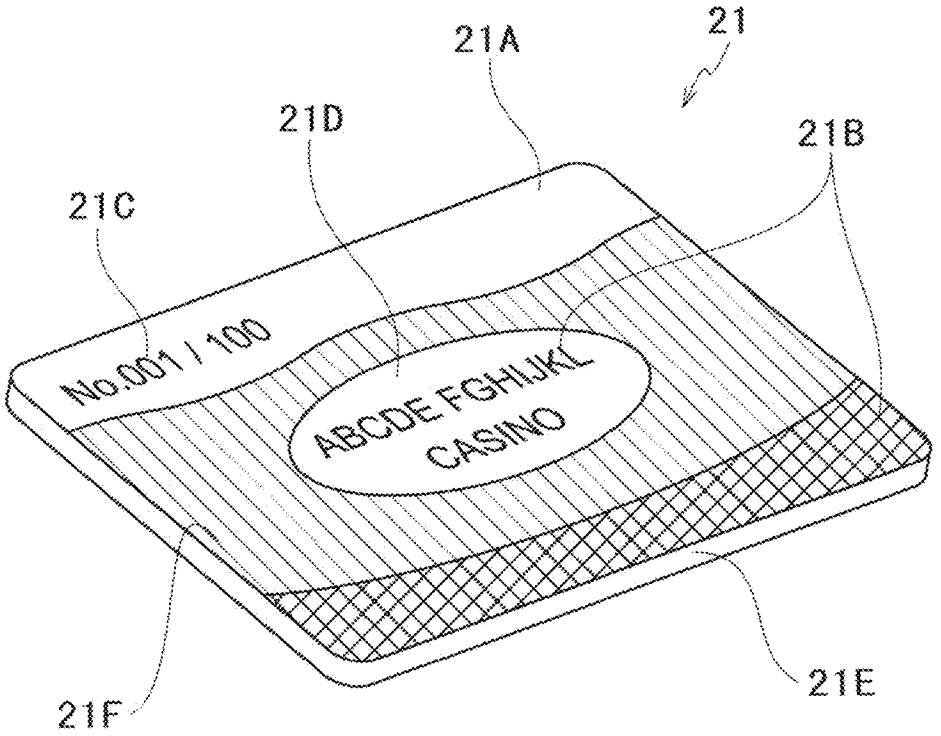


FIG.5

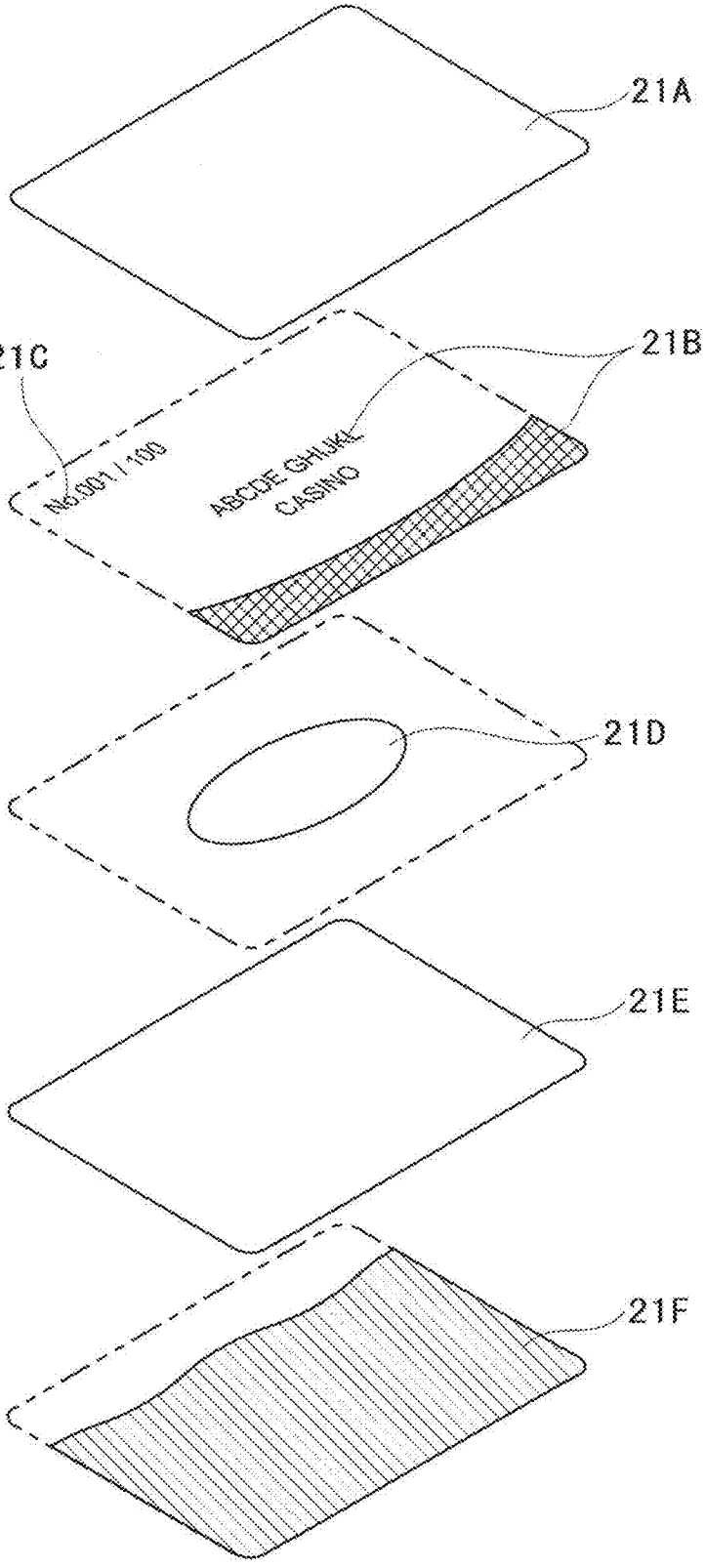
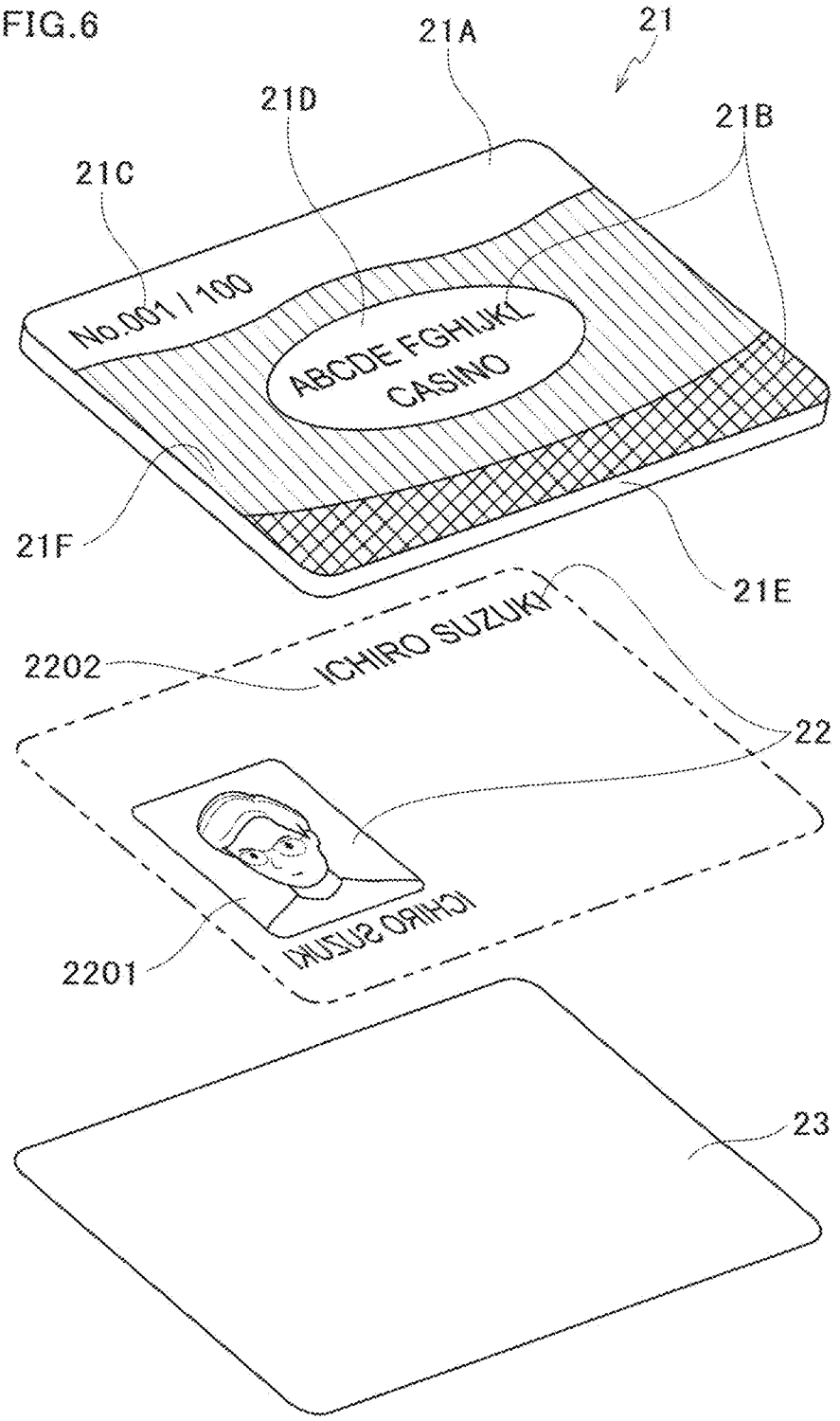


FIG.6


21
21A
21D
21B
21C
No.001 / 100
ABCDE FGHIJKL
CASINO
21F
21E
ICHIRO SUZUKI
2202
22
ICHIRO SUZUKI
2201
23

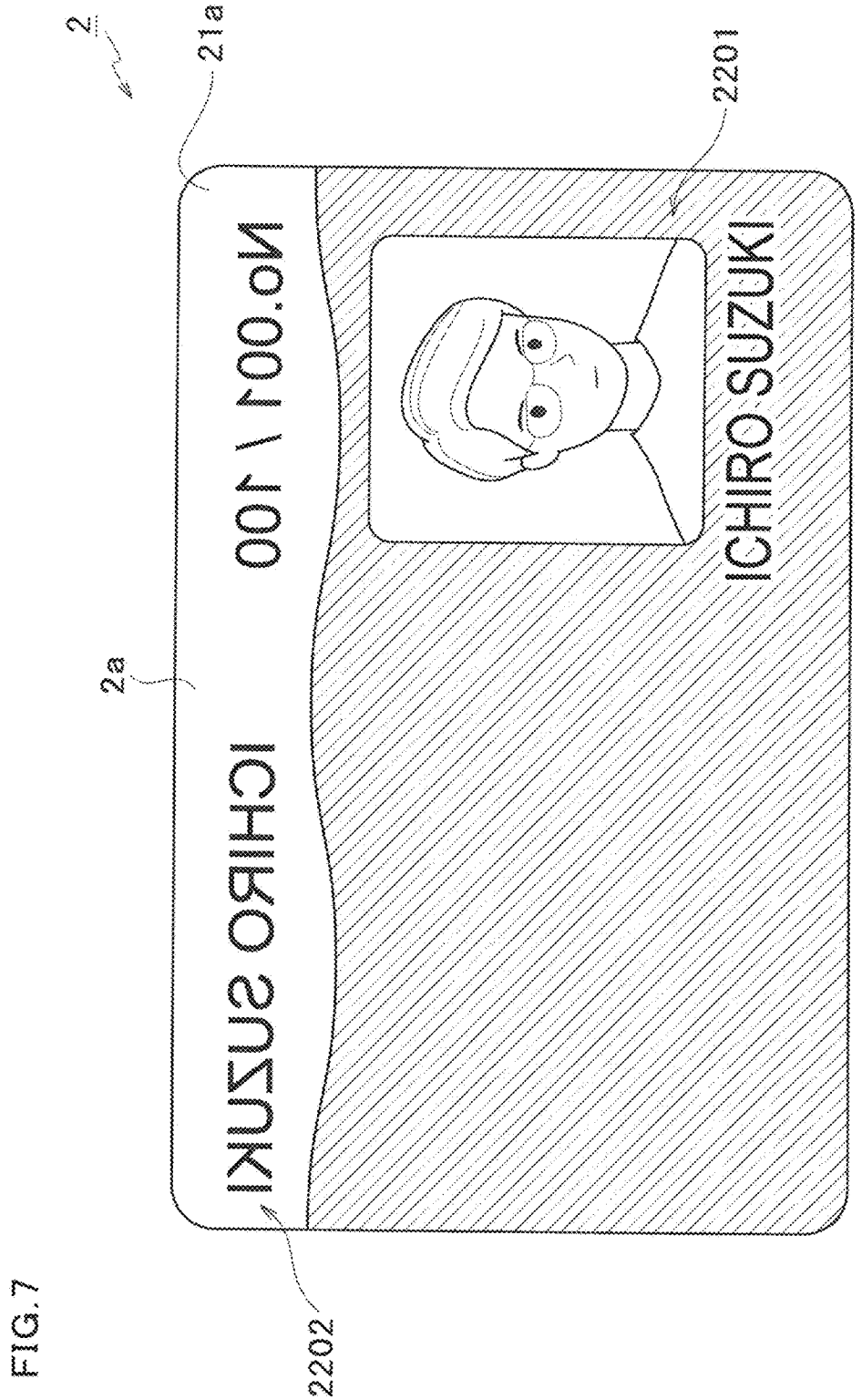


FIG.7

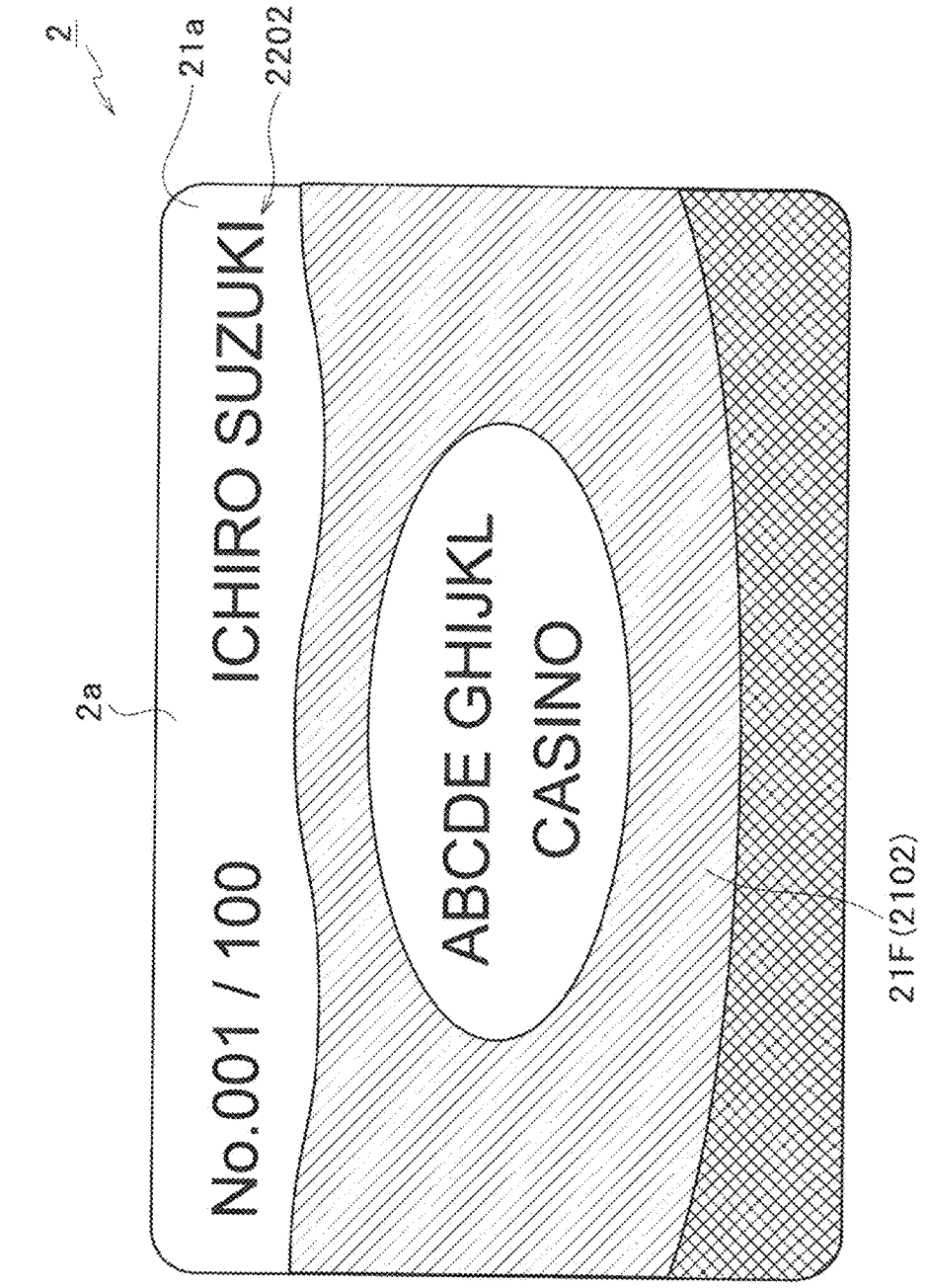

2
21a
2202
2a
No.001 / 100
ICHIRO SUZUKI
ABCDE GHIJKL
CASINO
21F (2102)

FIG.8

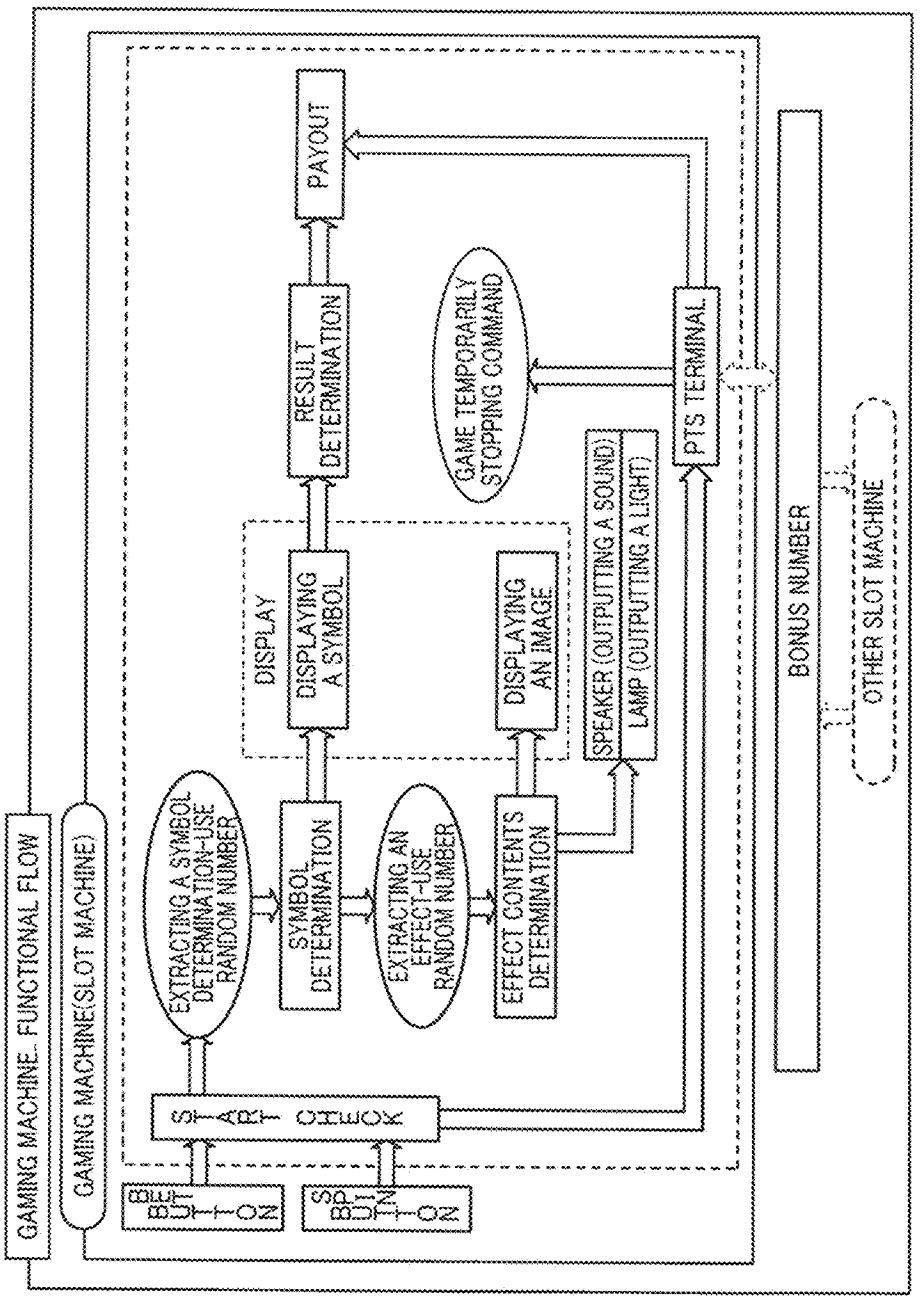

GAMING MACHINE_FUNCTIONAL FLOW
GAMING MACHINE(SLOT MACHINE)
BET BUTTON
STOP BUTTON
START CHECK
EXTRACTING A SYMBOL DETERMINATION-USE RANDOM NUMBER
SYMBOL DETERMINATION
EXTRACTING AN EFFECT-USE RANDOM NUMBER
EFFECT CONTENTS DETERMINATION
DISPLAY
DISPLAYING A SYMBOL
DISPLAYING AN IMAGE
SPEAKER (OUTPUTTING A SOUND)
LAMP (OUTPUTTING A LIGHT)
RESULT DETERMINATION
PAYOUT
GAME TEMPORARILY STOPPING COMMAND
PTS TERMINAL
BONUS NUMBER
OTHER SLOT MACHINE

FIG.9

FIG.10

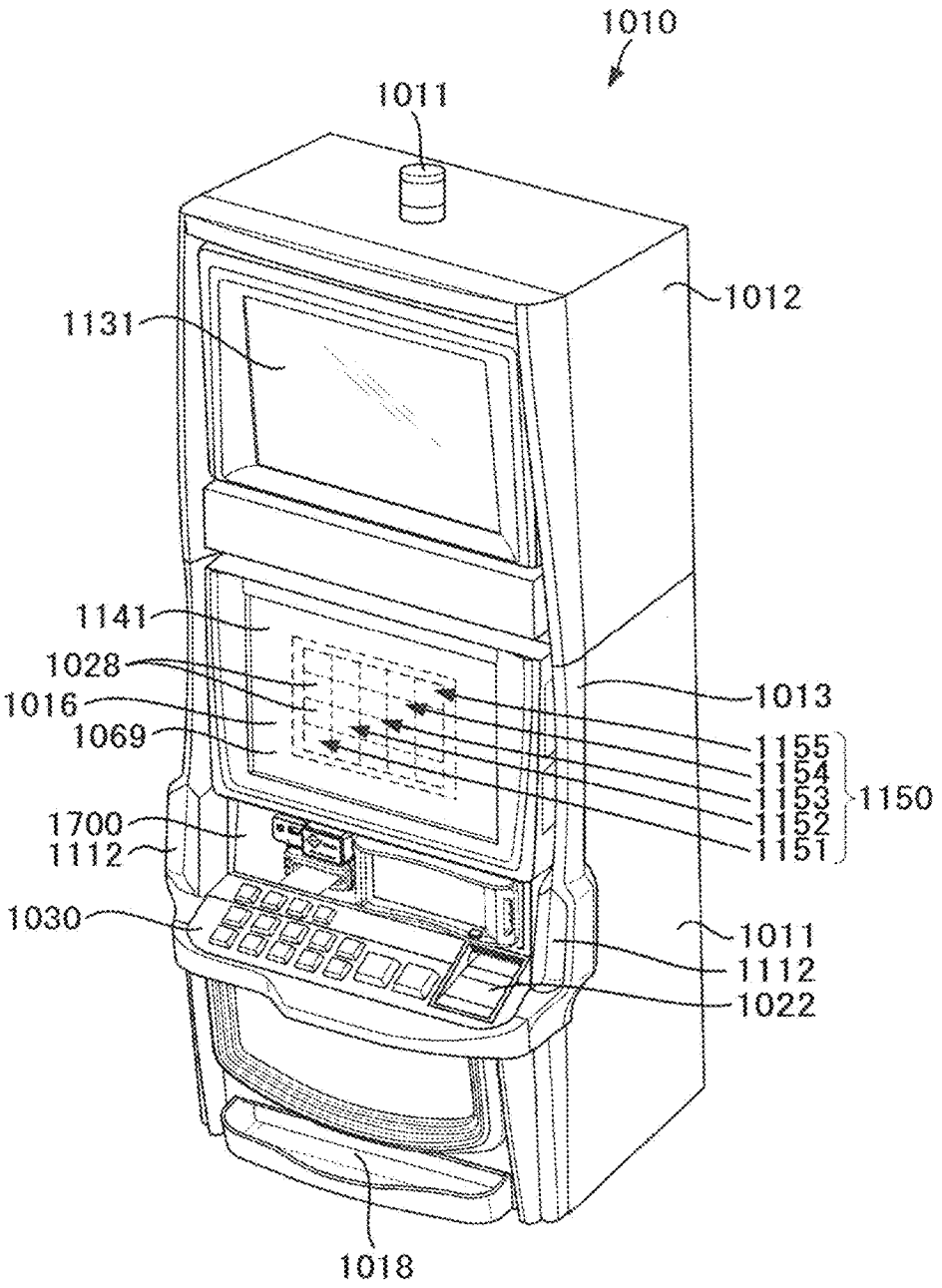

1010
1011
1012
1131
1141
1028
1016
1069
1013
1155
1154
1153
1152
1151
1150
1700
1112
1030
1011
1112
1022
1018

FIG.11

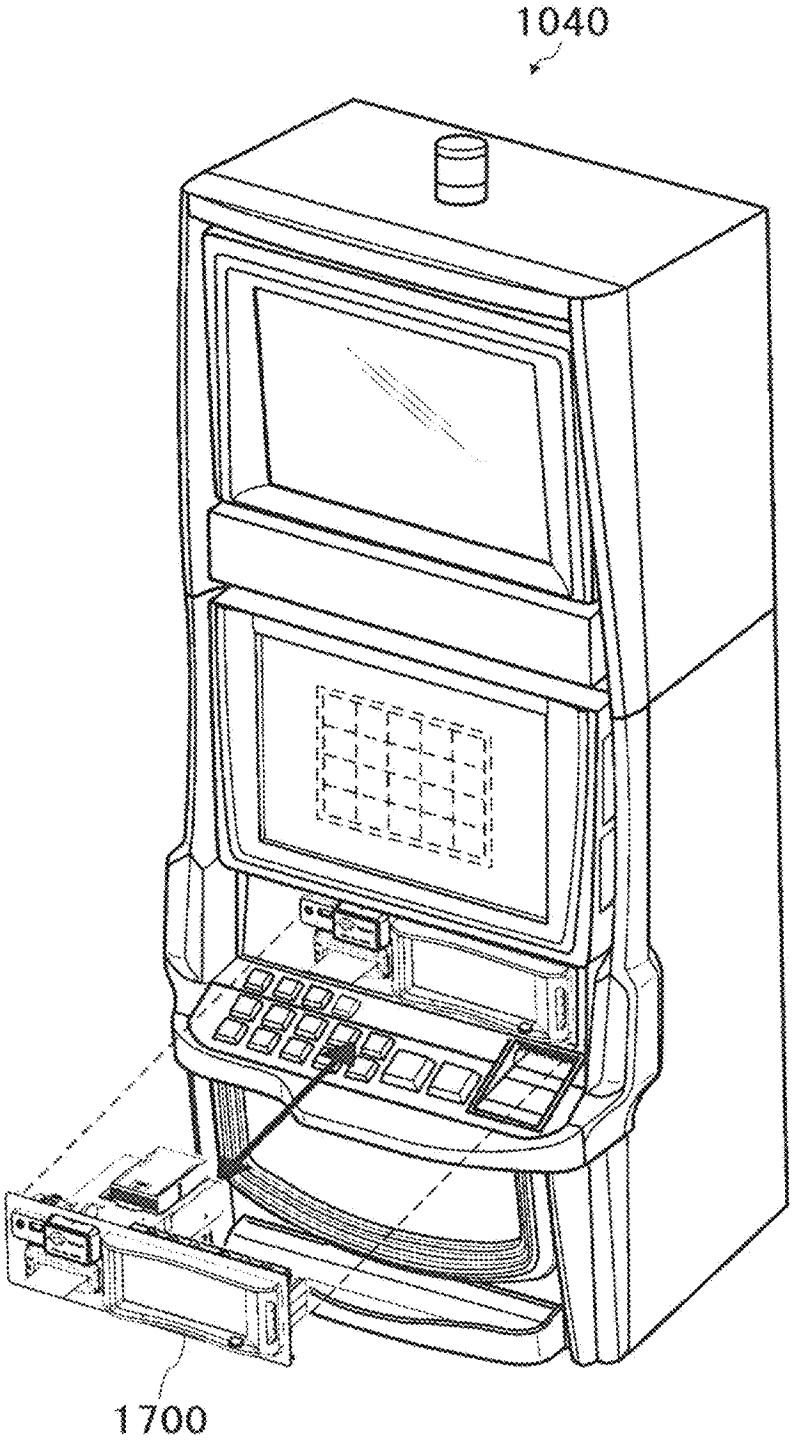


FIG.12

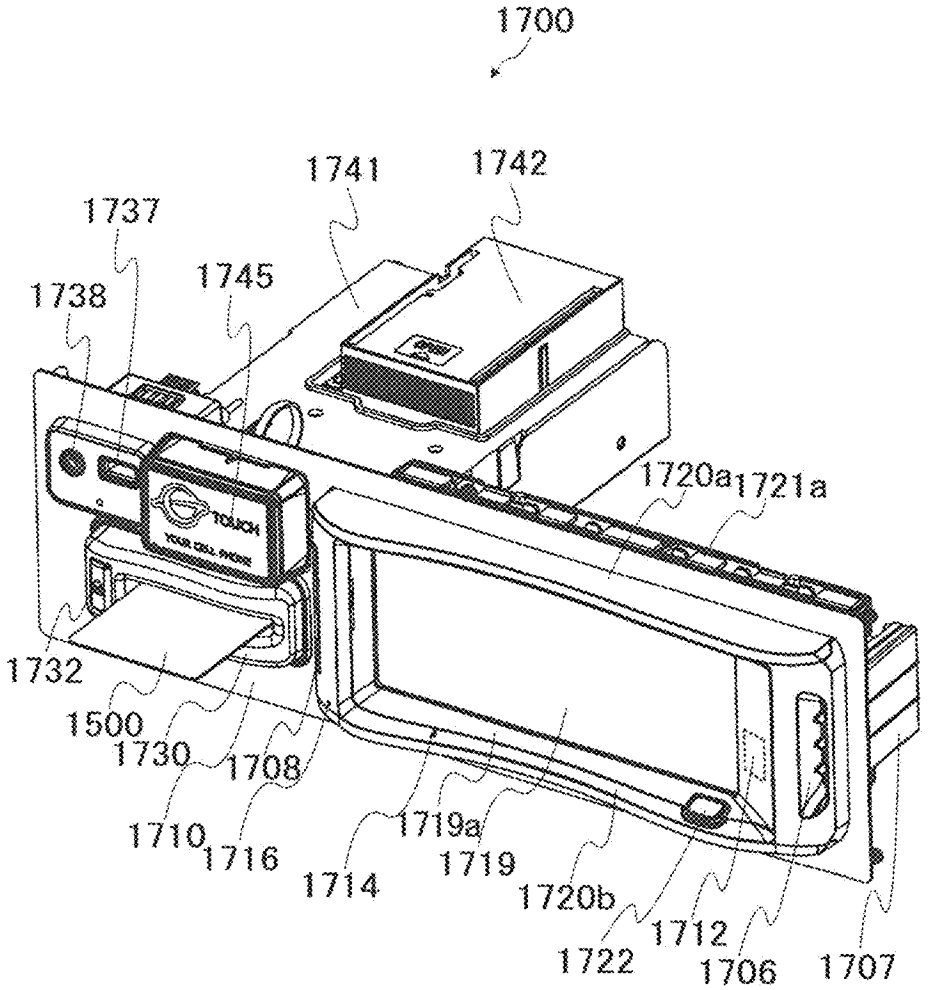

1700
1741
1742
1737
1745
1738
1720a
1721a
1732
1500
1730
1708
1710
1716
1714
1719a
1719
1720b
1722
1712
1706
1707

FIG.13

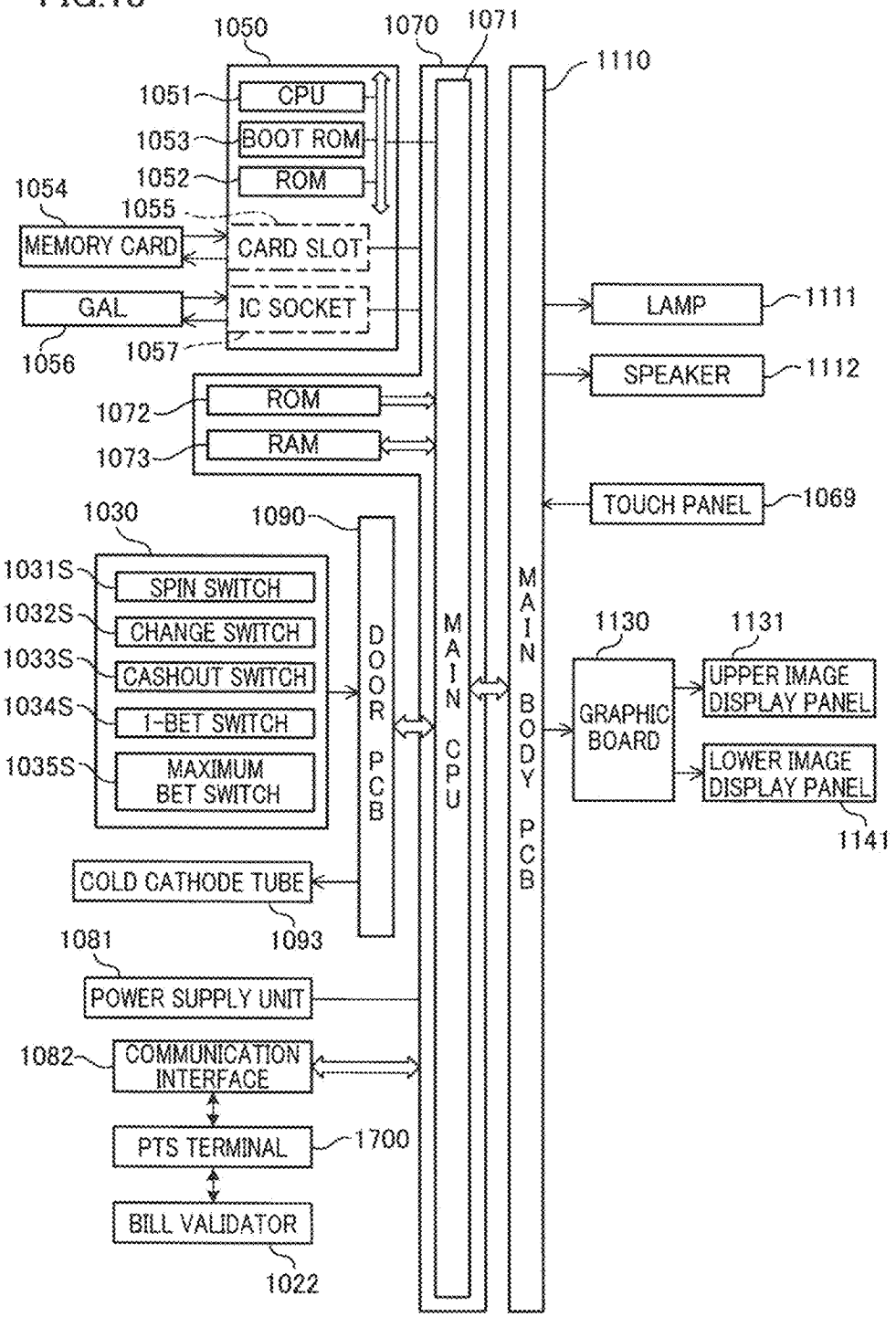

1050
1070
1071
1110
1051
CPU
1053
BOOT ROM
1052
ROM
1054
1055
MEMORY CARD
CARD SLOT
GAL
IC SOCKET
1056
1057
LAMP
1111
SPEAKER
1112
1072
ROM
1073
RAM
TOUCH PANEL
1069
1030
1090
1031S
SPIN SWITCH
1032S
CHANGE SWITCH
1033S
CASHOUT SWITCH
1034S
1-BET SWITCH
1035S
MAXIMUM BET SWITCH
DOOR PCB
MAIN CPU
MAIN BODY PCB
1130
1131
GRAPHIC BOARD
UPPER IMAGE DISPLAY PANEL
LOWER IMAGE DISPLAY PANEL
1141
COLD CATHODE TUBE
1093
1081
POWER SUPPLY UNIT
1082
COMMUNICATION INTERFACE
PTS TERMINAL
1700
BILL VALIDATOR
1022

FIG.14

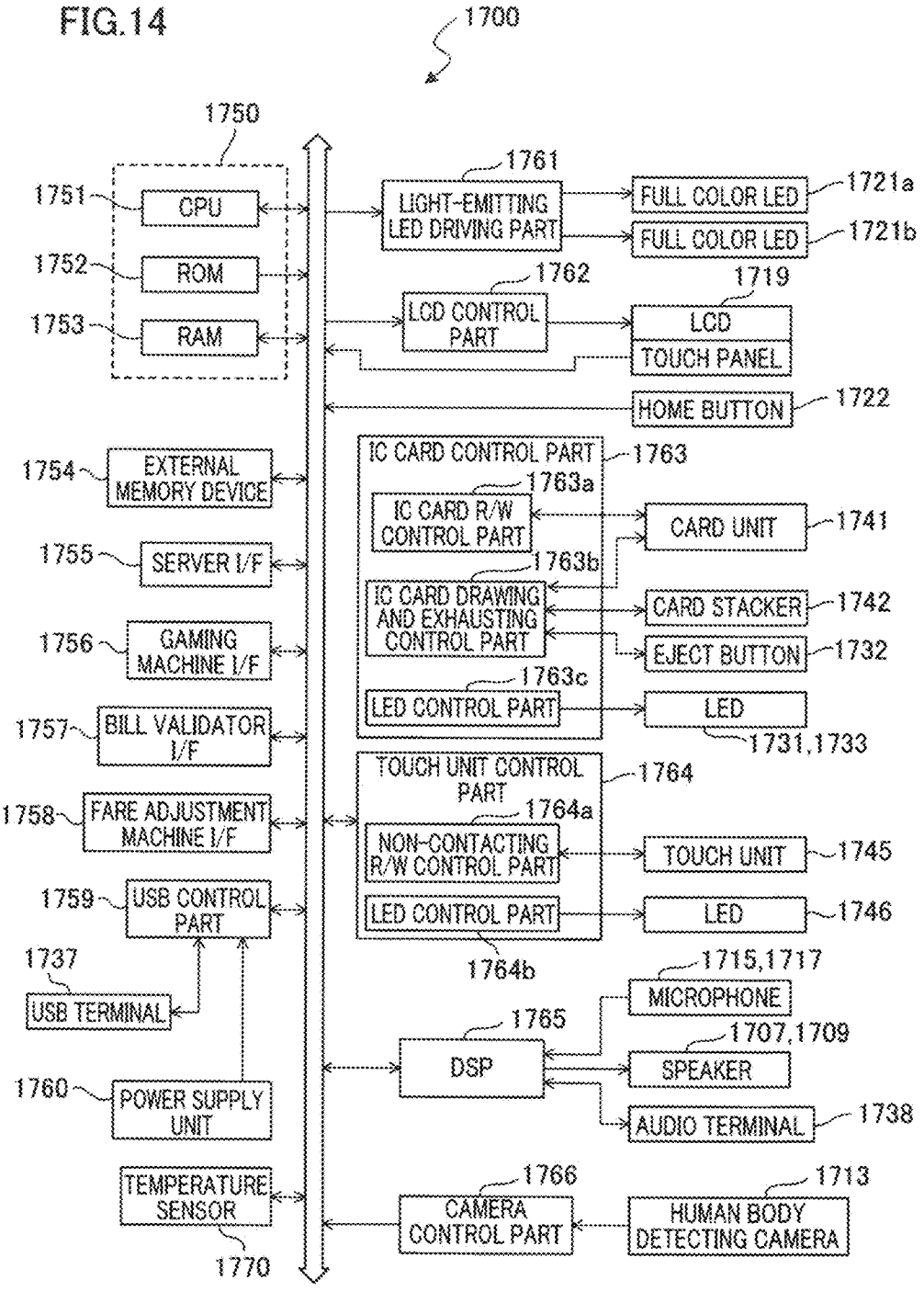

1700
1750
1751
CPU
1752
ROM
1753
RAM
1754
EXTERNAL MEMORY DEVICE
1755
SERVER I/F
1756
GAMING MACHINE I/F
1757
BILL VALIDATOR I/F
1758
FARE ADJUSTMENT MACHINE I/F
1759
USB CONTROL PART
1737
USB TERMINAL
1760
POWER SUPPLY UNIT
TEMPERATURE SENSOR
1770
1761
LIGHT-EMITTING LED DRIVING PART
FULL COLOR LED
1721a
FULL COLOR LED
1721b
1762
LCD CONTROL PART
1719
LCD
TOUCH PANEL
HOME BUTTON
1722
IC CARD CONTROL PART
1763
1763a
IC CARD R/W CONTROL PART
CARD UNIT
1741
1763b
IC CARD DRAWING AND EXHAUSTING CONTROL PART
CARD STACKER
1742
EJECT BUTTON
1732
1763c
LED CONTROL PART
LED
1731,1733
TOUCH UNIT CONTROL PART
1764
1764a
NON-CONTACTING R/W CONTROL PART
TOUCH UNIT
1745
LED CONTROL PART
LED
1746
1764b
1715,1717
MICROPHONE
1765
DSP
1707,1709
SPEAKER
AUDIO TERMINAL
1738
1766
CAMERA CONTROL PART
1713
HUMAN BODY DETECTING CAMERA

FIG.15

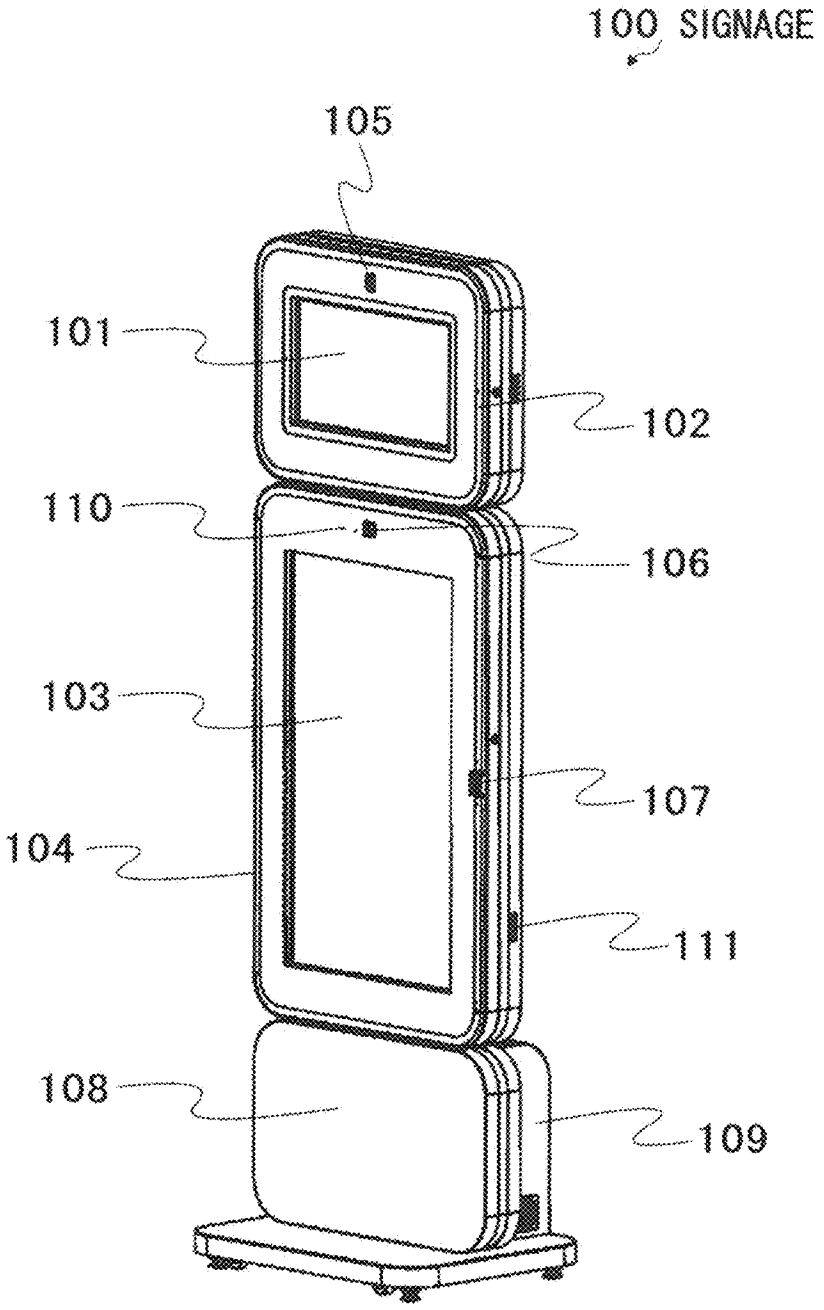


FIG.16

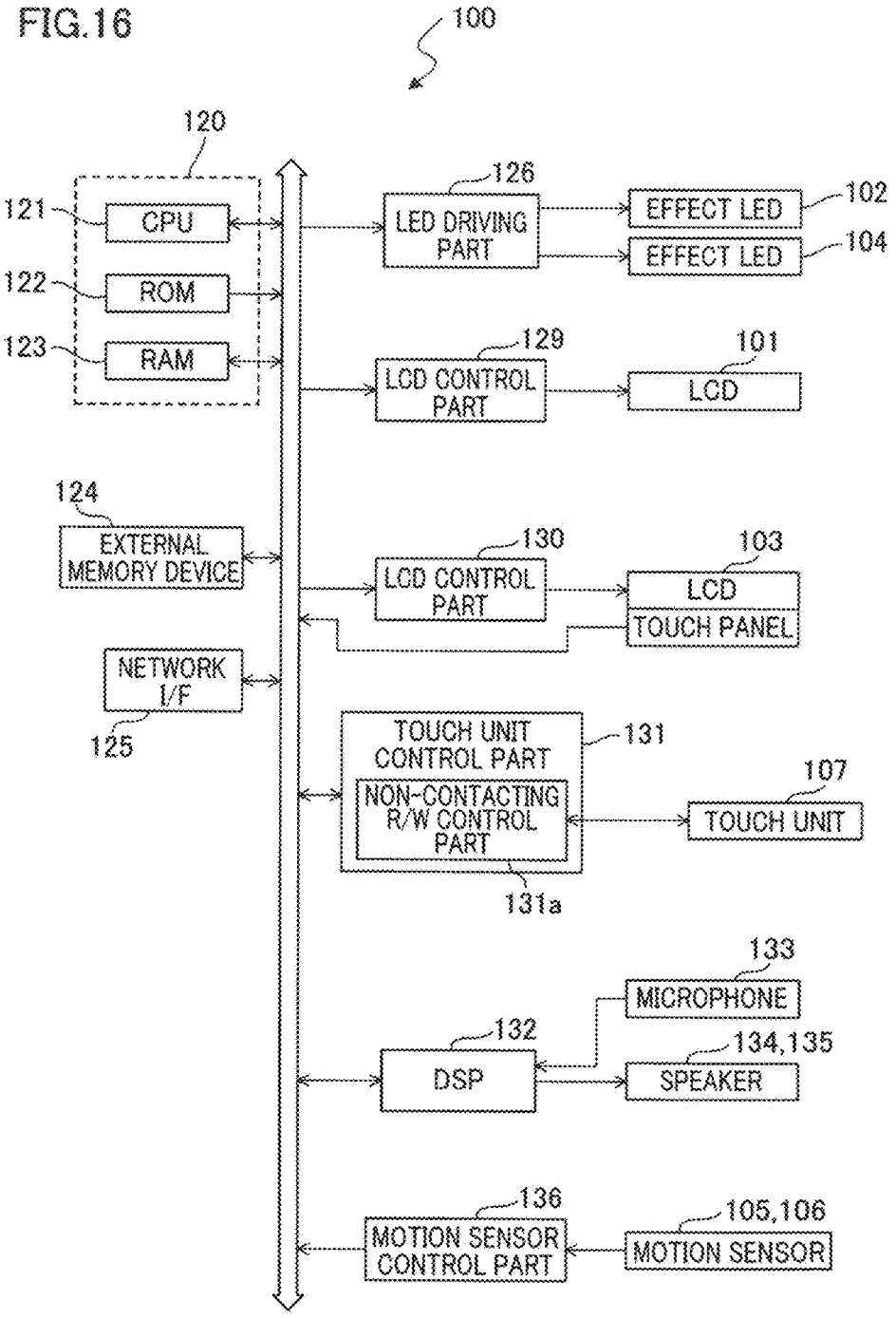

100
120
121
CPU
122
ROM
123
RAM
126
LED DRIVING PART
EFFECT LED
102
EFFECT LED
104
129
LCD CONTROL PART
101
LCD
124
EXTERNAL MEMORY DEVICE
130
LCD CONTROL PART
103
LCD
TOUCH PANEL
NETWORK I/F
125
TOUCH UNIT CONTROL PART
131
NON-CONTACTING R/W CONTROL PART
131a
107
TOUCH UNIT
133
MICROPHONE
132
DSP
134,135
SPEAKER
136
MOTION SENSOR CONTROL PART
105,106
MOTION SENSOR

FIG.17

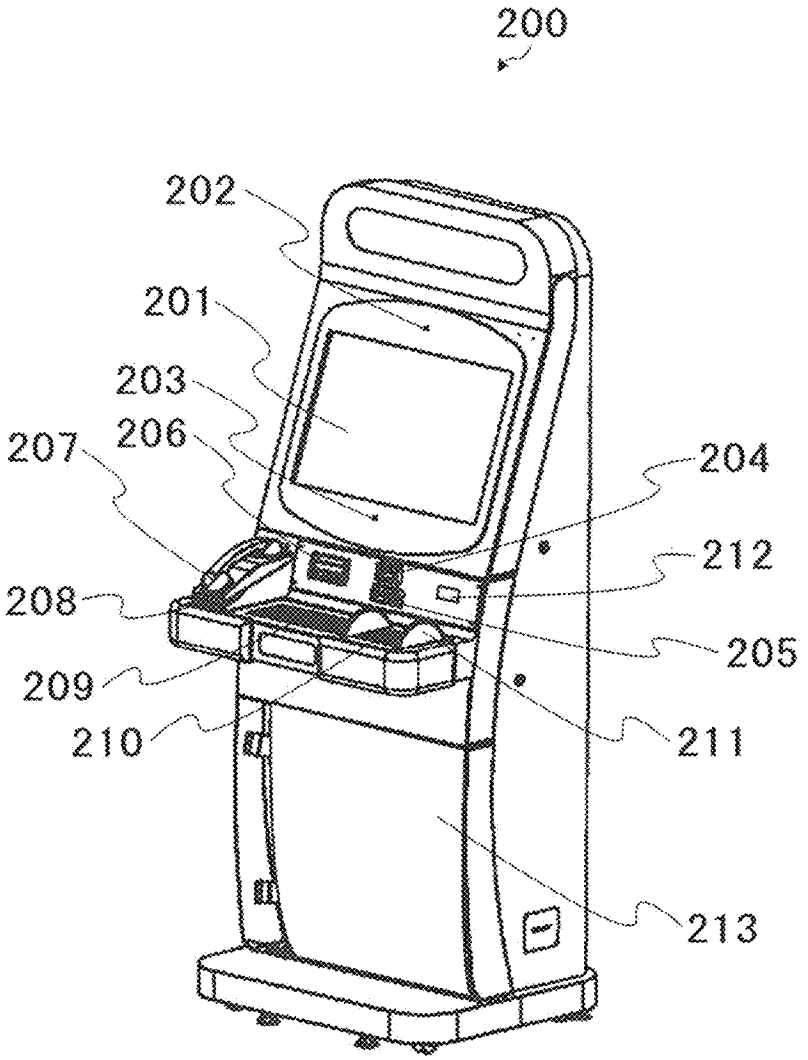
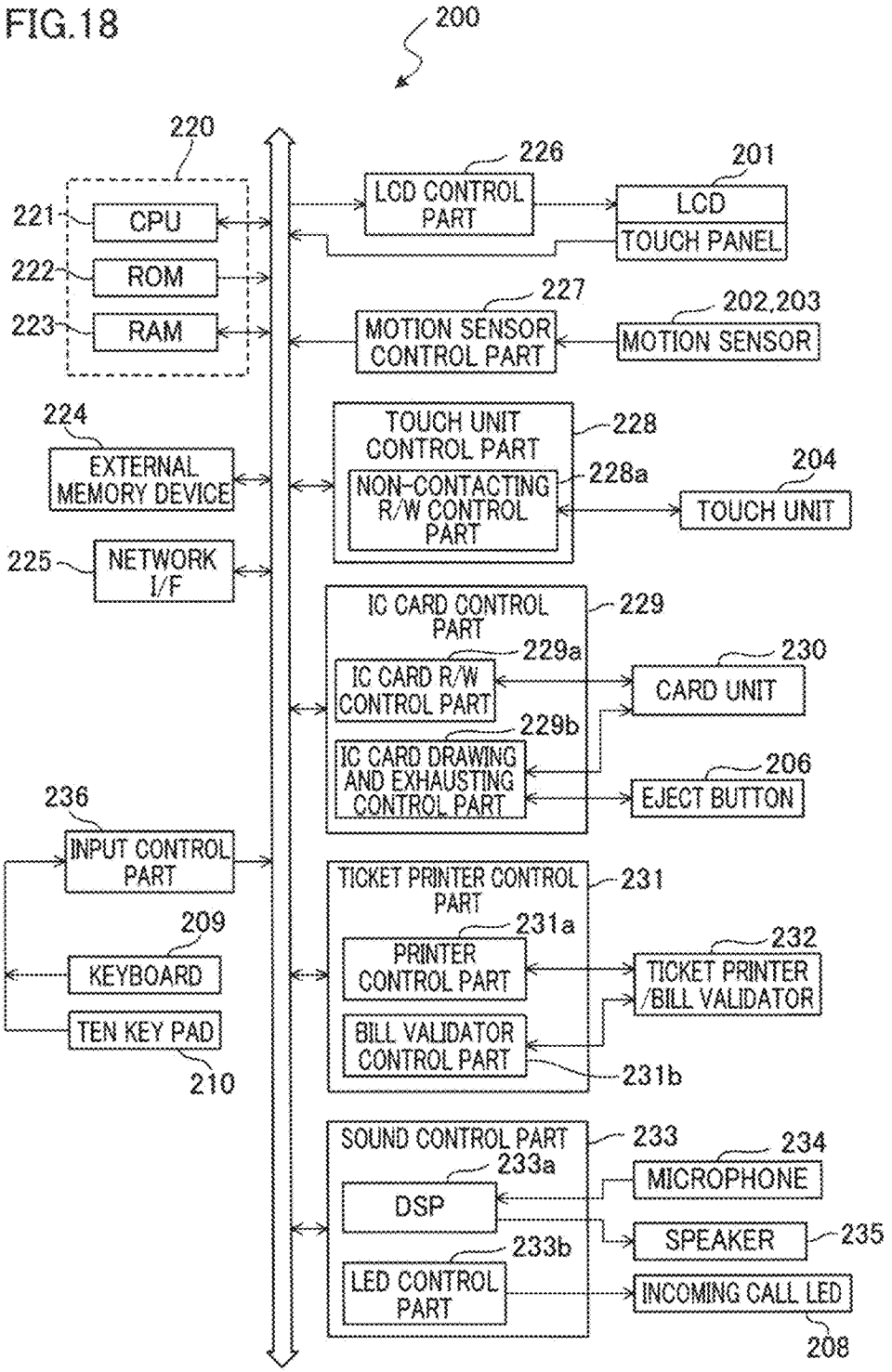


FIG.18


200
220
221
CPU
222
ROM
223
RAM
226
LCD CONTROL PART
201
LCD
TOUCH PANEL
227
MOTION SENSOR CONTROL PART
202,203
MOTION SENSOR
224
EXTERNAL MEMORY DEVICE
TOUCH UNIT CONTROL PART
228
228a
NON-CONTACTING R/W CONTROL PART
204
TOUCH UNIT
225
NETWORK I/F
IC CARD CONTROL PART
229
229a
IC CARD R/W CONTROL PART
230
CARD UNIT
229b
IC CARD DRAWING AND EXHAUSTING CONTROL PART
206
EJECT BUTTON
236
INPUT CONTROL PART
TICKET PRINTER CONTROL PART
231
231a
PRINTER CONTROL PART
232
TICKET PRINTER /BILL VALIDATOR
209
KEYBOARD
BILL VALIDATOR CONTROL PART
TEN KEY PAD
231b
210
SOUND CONTROL PART
233
234
233a
MICROPHONE
DSP
SPEAKER
235
233b
LED CONTROL PART
INCOMING CALL LED
208

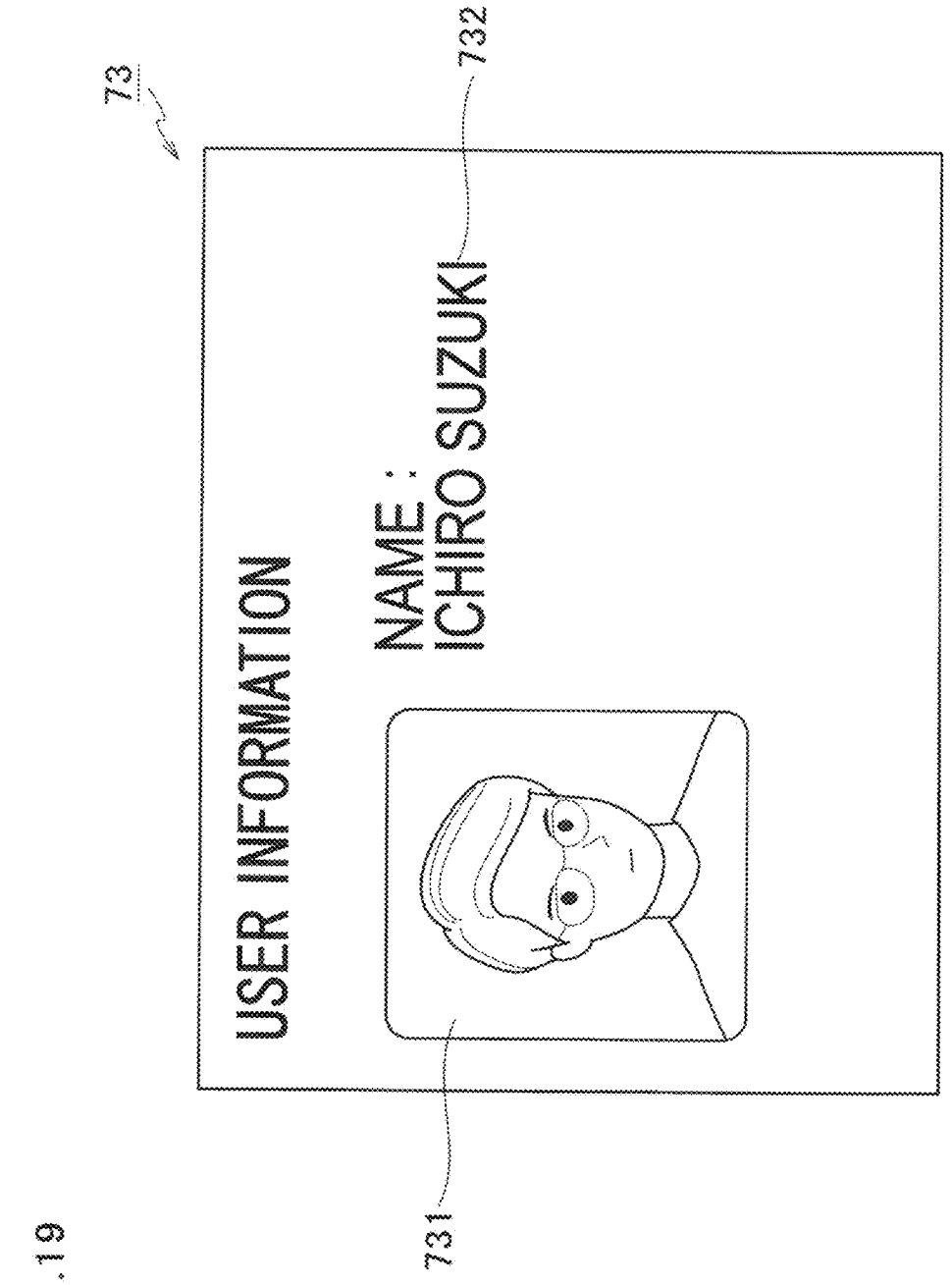


FIG.19

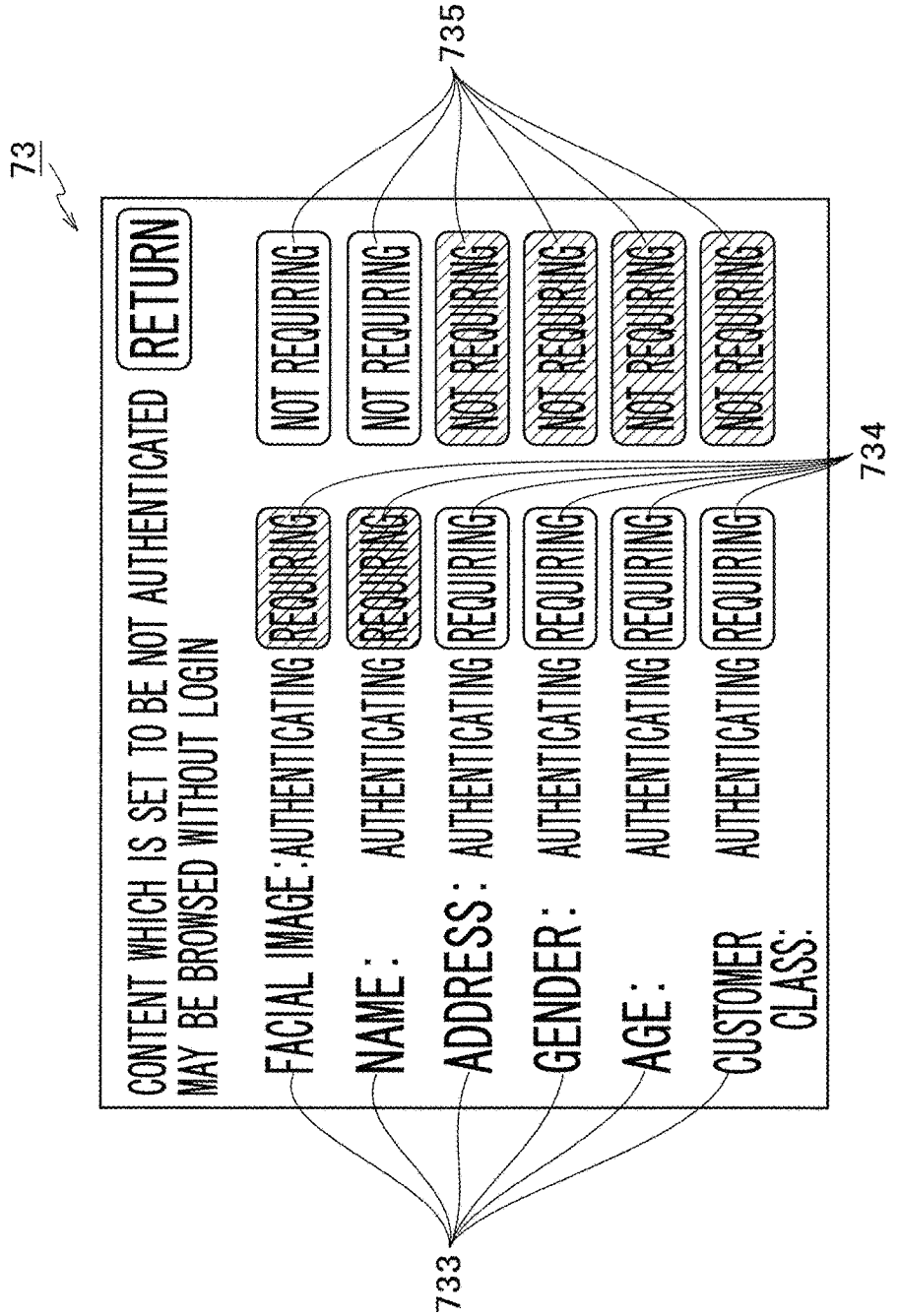

73
735
734
733
CONTENT WHICH IS SET TO BE NOT AUTHENTICATED MAY BE BROWSED WITHOUT LOGIN
RETURN
FACIAL IMAGE:
NAME:
ADDRESS:
GENDER:
AGE:
CUSTOMER CLASS:
AUTHENTICATING
REQUIRING
NOT REQUIRING

FIG.20

FIG.21

MEMBER MANAGEMENT TABLE

MEMBER IDENTIFICATION CODE	MEMBER NAME	MEMBER NAME AUTHENTICATING	FACIAL IMAGE	FACIAL IMAGE AUTHENTICATING	...	CUSTOMER CLASS	CUSTOMER CLASS AUTHENTICATING
0001	○○○○	NOT REQUIRING	...¥image0001.jpg	NOT REQUIRING	...	VIP	REQUIRING
0002	△△△△	NOT REQUIRING	...¥image0002.jpg	NOT REQUIRING	...	MEMBER	REQUIRING
0003	▽▽▽▽	NOT REQUIRING	...¥image0003.jpg	NOT REQUIRING	...	MEMBER	NOT REQUIRING
0004	□□□□	NOT REQUIRING	...¥image0004.jpg	REQUIRING	...	VISITOR	REQUIRING
0005	× × × ×	NOT REQUIRING	...¥image0005.jpg	REQUIRING	...	MEMBER	NOT REQUIRING
0006	◎◎◎◎	NOT REQUIRING	...¥image0006.jpg	NOT REQUIRING	...	MEMBER	REQUIRING
0007	◇◇◇◇	REQUIRING	...¥image0007.jpg	REQUIRING	...	MEMBER	REQUIRING
0008	▲▲▲▲	NOT REQUIRING	...¥image0008.jpg	NOT REQUIRING	...	VIP	NOT REQUIRING
0009	☆☆☆☆	REQUIRING	...¥image0009.jpg	REQUIRING	...	VISITOR	NOT REQUIRING
...	...	...	...	...	...	...	...

FIG.22

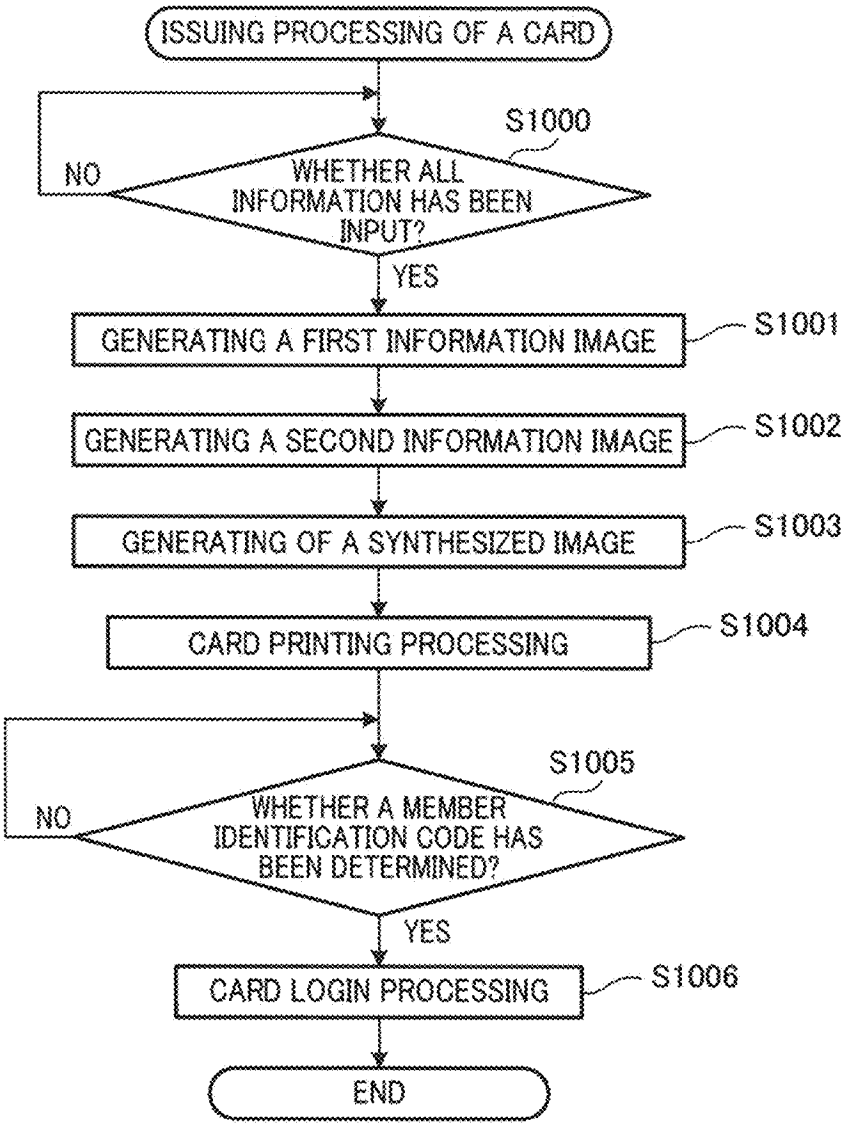

ISSUING PROCESSING OF A CARD
S1000
NO
WHETHER ALL INFORMATION HAS BEEN INPUT?
YES
GENERATING A FIRST INFORMATION IMAGE
S1001
GENERATING A SECOND INFORMATION IMAGE
S1002
GENERATING OF A SYNTHESIZED IMAGE
S1003
CARD PRINTING PROCESSING
S1004
S1005
NO
WHETHER A MEMBER IDENTIFICATION CODE HAS BEEN DETERMINED?
YES
CARD LOGIN PROCESSING
S1006
END

FIG.23

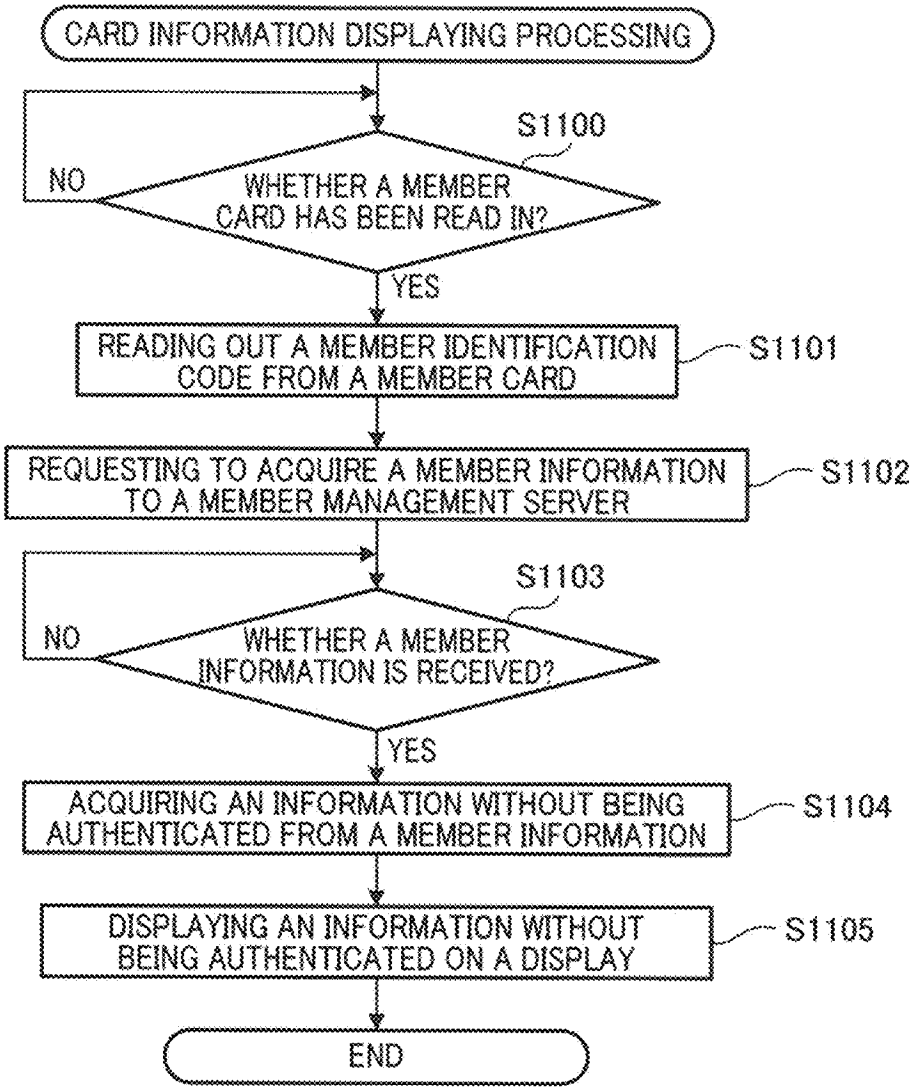
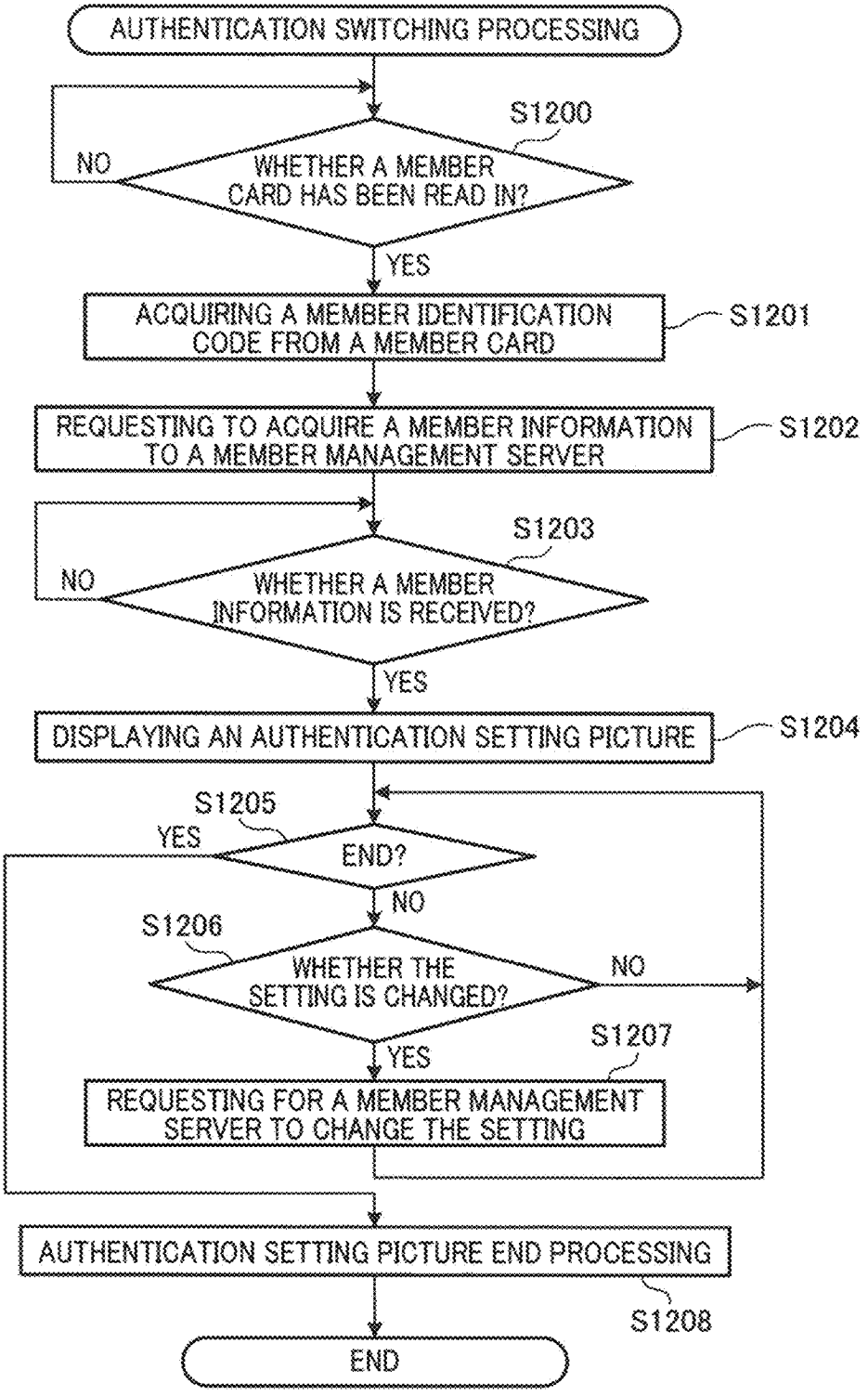

CARD INFORMATION DISPLAYING PROCESSING
S1100
NO
WHETHER A MEMBER CARD HAS BEEN READ IN?
YES
READING OUT A MEMBER IDENTIFICATION CODE FROM A MEMBER CARD
S1101
REQUESTING TO ACQUIRE A MEMBER INFORMATION TO A MEMBER MANAGEMENT SERVER
S1102
S1103
NO
WHETHER A MEMBER INFORMATION IS RECEIVED?
YES
ACQUIRING AN INFORMATION WITHOUT BEING AUTHENTICATED FROM A MEMBER INFORMATION
S1104
DISPLAYING AN INFORMATION WITHOUT BEING AUTHENTICATED ON A DISPLAY
S1105
END

FIG.24


AUTHENTICATION SWITCHING PROCESSING
S1200
NO
WHETHER A MEMBER CARD HAS BEEN READ IN?
YES
ACQUIRING A MEMBER IDENTIFICATION CODE FROM A MEMBER CARD
S1201
REQUESTING TO ACQUIRE A MEMBER INFORMATION TO A MEMBER MANAGEMENT SERVER
S1202
S1203
NO
WHETHER A MEMBER INFORMATION IS RECEIVED?
YES
DISPLAYING AN AUTHENTICATION SETTING PICTURE
S1204
S1205
YES
END?
NO
S1206
WHETHER THE SETTING IS CHANGED?
NO
S1207
YES
REQUESTING FOR A MEMBER MANAGEMENT SERVER TO CHANGE THE SETTING
AUTHENTICATION SETTING PICTURE END PROCESSING
S1208
END

CARD AND CARD PRINTING CONTROL DEVICE

CROSS-REFERENCE TO RELATED APPLICATION

The present application claims priority from Japanese Patent Application No. 2016-069427, which was filed on Mar. 30, 2016, the disclosure of which is herein incorporated by reference in its entirety.

FIELD OF THE INVENTION

The present invention relates to a card and a card printing control device.

BACKGROUND OF THE INVENTION

A plurality of gaming machines are disposed in a game hall such as a casino, and if it is a large game hall, the area of such game hall will be greater than 50,000 square meter, wherein the number of the gaming machines disposed will be more than 3000.

In recent years, one proposed a game system: a player tracking device which may read in an information of an IC card is disposed in the gaming machine disposed in the game hall, and the IC card may be used to conduct a game (referring to the specification of the US Patent Application No. 2012/0135799).

According to the game system recorded in the patent document 1, for example, when a player inserts an IC card into a player tracking device, a balance information of the player managed by the IC card will be displayed in a displayer device of the player tracking device, and a credit data managed by the IC card may be used to conduct a game in the gaming machine. In order to produce the card, an identity document such as a passport may be provided so that the card is produced in a dedicated counter of the casino. The casino operators may manage the player who has the card with an identification information associated with the player card (for example, a RFID associated with a chin in the card).

If the above member card is used, the player is required to provide a used information to the casino operators to deal with an admission procedure. In general, the casino operators may input various information about the player into the chip in the member card, and print various information such as a name, a member number, a facial picture of the player onto the member card which is issued on the spot.

BRIEF SUMMARY OF THE INVENTION

Technical Problem

However, in general, since the user information of the player is required to be printed on both sides of the member card, after one side is printed the it is also required to turn over to be printed again, as such if there are many member card to be processed for one time, it may take up too much time and a print error may occur when printing the card.

In particular, when a color printing is performed with a thermal transfer printing manner, it is required to transfer inked ribbons of yellow, magenta, and cyan onto a surface of the card through a separated procedure with a thermal transfer head for each printing respectively, and thus the printing time thereof may be a long time. Of course, if a golden and a silver printings are further implemented, it will take a longer time.

Besides, in recent years, a chance that issuing the card to the customer of a large scale tourist party visiting the casino for the first time with a means of transportation such as a sight seeing bus increases, and there are specific subject matters in the casino operating that coloring the card to match the atmosphere of the casino and decreasing the waiting time of a new customer to avoid service quality reducing.

Hereto, a goal of the present invention is to provide a card which may be issued smoothly.

Technical Solution

The card of the present invention comprising:

a base material layer containing a light transmittable base material; and

a printing layer configured to print a first information to be confirmed from one surface of the base material layer and a second information to be confirmed from the other surface of the base material only on one surface of the base material layer,

the base material layer is configured to be that a region which is printed with the second information is light transmittable, and furthermore, the second information may be visually recognized from the other surface of the base material.

According to the above structure, one surface of the base material layer of the card is printed with the first information to be confirmed from one surface of the base material layer and the second information to be confirmed from the other surface of the base material. The base material layer is configured to be that a region which is printed with the second information is light transmittable, and furthermore, the second information may be visually recognized from the other surface of the base material. Thereby, when the card is issued on the spot, only one surface of the card is required to be printed, and thus the card is not required to turn over to be printed again such that the card is issued smoothly.

In addition, the card of the present invention may also be configured to be that the base material layer has an opaque layer, and the opaque layer stacks up to cover the first information.

According to the above structure, the base material layer has an opaque layer such that the first information is covered, and thus the first information is only visually recognized from the other surface of the base material layer.

In addition, the present invention provides a card printing control device connected to a printer which may print the card, the card printing control device comprising:

an input device capable of inputting the first information to be confirmed from one surface of the card and the second information to be confirmed from the other surface of the card, and

a controller,

the controller

generating a first information image containing the first information from the input device,

generating a second information image containing the second information from the input device, and in the second information image, the second information is formed to be a horizontal flipping mirror image,

printing a synthetic image only on one surface of the card, and a region of the one surface to be printed with the second information image is formed to be a light trans-

mittable region, and the synthetic image is an image obtained by synthesizing through arranging the first information image and the second information image in different regions of the card.

According to the above structure, only the first information and the second information are needed to input, and a first image to be confirmed from one surface of the card and a second image to be confirmed from the other surface of the card are generated and printed onto the card after being synthesized. The second image is printed after forming a horizontal flipping mirror image, and thus the second image may be visually recognized normally when visually recognizing the layer printed from the other surface through the light transmittable base material layer. Thereby, when the card is issued on the spot, only one surface of the card is required to be printed, that is, the information to be confirmed from the front surface and the information to be confirmed from the back surface may be printed just one time without turning over the card such that the card may be issued smoothly.

According to the present invention, a card which may be issued smoothly is provided.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a schematic diagram representing a member card of an embodiment of the present invention.

FIG. **2** is a schematic diagram representing a card printing control device of an embodiment of the present invention.

FIG. **3** is a schematic diagram representing an information display device of an embodiment of the present invention.

FIG. **4** is a diagram representing a base card of an embodiment of the present invention.

FIG. **5** is a diagram representing a laminate structure of a base material layer of an embodiment of the present invention.

FIG. **6** is a diagram representing a laminate structure of a printing layer in a member card of an embodiment of the present invention.

FIG. **7** is a diagram representing a member card of an embodiment of the present invention which is observed from a first surface.

FIG. **8** is a diagram representing a member card of an embodiment of the present invention which is observed from a second surface.

FIG. **9** is a diagram representing the fundamental function of a slot machine of an embodiment of the present invention.

FIG. **10** is a diagram representing an overall structure of a slot machine of an embodiment of the present invention.

FIG. **11** is a diagram representing a PTS terminal arranged into a slot machine of an embodiment of the present invention.

FIG. **12** is an enlarged diagram representing a PTS terminal of an embodiment of the present invention.

FIG. **13** is a diagram representing a circuit structure of a slot machine of an embodiment of the present invention.

FIG. **14** is a diagram representing a circuit structure of a PTS terminal of an embodiment of the present invention.

FIG. **15** is a diagram representing an overall structure of a signage of an embodiment of the present invention.

FIG. **16** is a diagram representing a circuit structure of a signage of an embodiment of the present invention.

FIG. **17** is a diagram representing an overall structure of a kiosk terminal of an embodiment of the present invention.

FIG. **18** is a diagram representing a circuit structure of a kiosk terminal of an embodiment of the present invention.

FIG. **19** is a diagram representing an example of a display screen without a confirming information of an embodiment of the present invention.

FIG. **20** is a diagram representing an example of a confirmation setting picture of an embodiment of the present invention.

FIG. **21** is a diagram representing a member management table of an embodiment of the present invention.

FIG. **22** is a flowchart of an issuing processing of a card performed by a card printing control device of an embodiment of the present invention.

FIG. **23** is a flowchart of an information displaying processing performed by an information display device of another embodiment of the present invention.

FIG. **24** is a flowchart of an authentication switching processing performed by an information display device of another embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

The present invention is illustrated according to the drawings.

[Summary of the Card (Member Card)]

The card of the present invention is a card in which an information of an owner of the card is printed. In the present embodiment, the card is a member card which is printed with a player information of a casino in a dedicated counter which is used to perform an admission procedure (hereinafter, referred as an admission counter) and is issued on the spot, and wherein the admission procedure is disposed in the casino. However, the present invention is not limited to such card. A card which is printed with an owner information and for recognizing the owner is feasible. In addition, the card is not limited to a card which is issued to the owner on the spot, and may be delivered in the future. In the following illustration, a player owning the member card **2** is referred as a member.

To be more specific, as shown in FIG. **1**, the member card **2** of the present embodiment comprises: a base material layer **21** having a light transmittable base material **2101**; and a printing layer **22**. The printing layer **22** is configured to only print a first information **2201** to be confirmed from one surface of the base material **21** (hereinafter, referred as a first surface **21***a*) and a second information **2202** to be confirmed from the other surface of the base material (hereinafter, referred as a second surface **21***b*) on a first surface **21***a* of the base material layer, The base material layer **21** is configured to be that a region which is printed with the second information **2202** is light transmittable (a light transmittable region **2***a*), and furthermore, the second information **2202** may be visually recognized from the second surface of the base material layer **21**. In addition, the first information **2201** and the second information **2202** represent a text information contained respectively or a display state under a printed state.

Thereby, when the member card **2** is issued on the spot, only the first surface **21***a* of the base material layer **21** is required to be printed, and thus the member card **2** is not required to turn over to be printed again such that the card is issued smoothly.

"The first information **2201** to be confirmed from the first surface **21***a*" means that the first information **2201** is not a horizontal flipping mirror image when the first information **2201** is visually recognized from the first surface **21***a*, and it is visually recognized as a normal image. That is to say, "the first information **2201** to be confirmed from the first

surface **21***a*" means that if the first information **2201** is capable of being visually recognized from the second surface **21***b*, the first information **2201** is visually recognized to be a horizontal flipping mirror image. In addition, in the present embodiment, the first information **2201** is only visually recognized from the first surface **21***a* of the member card **2**.

Likewise, "the second information **2202** to be confirmed from the second surface **21***b*" means that the second information **2202** is not a horizontal flipping mirror image when the second information **2202** is visually recognized from the second surface **21***b*, and it is visually recognized as a normal image. That is to say, "the second information **2202** to be confirmed from the second surface **21***b*" means that if the second information **2202** is visually recognized from the first surface **21***a*, the second information **2202** is visually recognized to be a horizontal flipping mirror image. In the present embodiment, the second information **2202** is able to be visually recognized from both surfaces of the member card **2**.

In the present embodiment, the first information **2201** is a facial image of a player and a name image of a player. On the first surface **21***a*, the first information **2201** is printed to be a normal image but not a horizontal flipping mirror image. In addition, the second information **2202** is a name image of a player. On the first surface **21***a*, the second information **2202** is printed to be a horizontal flipping mirror image. In addition, a player information contained in the first information **2201** and the second information **2202** is not limited thereto. For example, under the condition that the second information **2202** contains a facial image of a player, the second information **2202** is printed to be a mirror image of a facial image of a player horizontal flipping.

In addition, the light transmittable region **2***a* does not include all regions in which the second information **2202** is printed. For example, the light transmittable region **2***a* may also include a portion of a region in which the second information **2202** is printed. That is, it may be configured to be that only a portion of the second information **2202** is visually recognized from the second surface **21***b*. In addition, the light transmittable region **2***a* may also be arranged onto the whole surface of the member card **2**.

In the present embodiment, the base material layer **21** has an opaque layer **2102**, and the opaque layer **2102** stacks up to cover the first information **2201**. Thereby, the first information **2201** may be only visually recognized from the first surface **21***a* of the base material layer **21**. That is, the first information **2201** is prevent being visually recognized to be a mirror image from the second surface **21***b*. In addition, in the present embodiment, the light transmittable region **2***a* is consistent with a region which is not stacked with the opaque layer **2102** in the member card **2**.

[The Summary of the Card Printing Control Device]

The card printing control device of the present invention is a device which is used to print the above owner information onto a base card to produce the member card **2**. In the present embodiment, the card printing control device is disposed in an admission counter. A professional clerk of a casino operation resides permanently in the admission counter. The above clerk issues the member card according to the requirements of a player who wants to play a game in the casino. When the above clerk deals with the issuing of the card, accepting a personal information of a user and inputting the personal information into the card printing control device. The card printing control device prints the personal information onto a pre-produced base card by controlling a card printed disposed such that a member card of the user is produced. In addition, the card printing control device is not limited to the above. For example, it may also be configured to automatically produce the member card according to the personal information input by the user who wants to produce a card without the help of the clerk. In addition, the card printing control device may also comprise a card printer. In addition, in the present embodiment, the user is a player who is playing a game in the casino, but it is not limited thereto. For example, the user may also be a clerk who works in the casino.

The card printing control device **3** accepts an information about a player input by the clerk and prints the information about the player onto the base card (base material layer **21**) by controlling the printer such that the above member card **2** is produced. That is, the card printing control device **3** stacks the printing layer **22** onto the base material layer **21** such that is member card **2** is produced.

To be more specific, as shown in FIG. **2**, the card printing control device **3** is connected to a printer **5** which may print the base card. In other word, a card printing system comprising the card printing control device **3** and the printer **5** therein is formed.

The card printing control device **3** comprises a controller **300**, an input device **310** and a memory part **320**. The input device **310** is capable of inputting the first information **2201** to be confirmed from the first surface **21***a* of the member card **2** and the second information **2202** to be confirmed from the second surface **21***b* of the member card **2**.

The controller **300** comprises a first information image generation processing part **301**, a second information image generation processing part **302**, a synthetic image generation processing part **303** and a printing processing part **304**. The first information image generation processing part **301** generates the first information image which contains the first information **2201** from the input device **310**. The second information image contains the second information **2202** from the input device **310**, and in the second information image, the second information **2202** is formed to be a horizontal flipping mirror image. The synthetic image generation processing part **303** performs a synthetic processing such that the first information image and the second information image are configured into different regions of the member card. The printing processing part **304** only prints the synthetic image synthesized by the synthetic image generation processing part **303** onto the first surface **21***a* of the base card (base material layer **21**). In addition, the synthetic image generation processing part **303** generates a synthetic image such that the second information image is configured into the light transmittable region **2***a* of the base card. Thereby, the second information image which is printed to be a horizontal flipping mirror image on the first surface **21***a* may be visually recognized as a normal image when observed from the second surface **21***b*.

The memory part **320** stores an information input, a font data which is used to form the information input to be an image, and a layout data which is used to synthesize an image. For example, the first information image generation processing part **301** and the second information image generation processing part **302** changes the information input to be a character width which may be contained in a predetermined region with a predetermined font referring to the memory part **320**, and forms it to be an image. In addition, the synthetic image generation processing part **303** synthesizes the first information image and the second information image referring to the memory part **320** to make it to be a predetermined layout.

As mentioned above, the firs information image to be confirmed from the first surface **21***a* of the member card **2** and the second information image to be confirmed from the second surface **21***b* of the member card **2** are generated only through inputting the first information and the second information and they are printed onto the card after being synthesized. The second information image is printed after being formed to be a horizontal flipping mirror image, and thus the second image may be visually recognized normally when the layer printed is visually recognized from the second surface **21***b* through the light transmittable region **2***a* of the light transmittable base material layer **21**. Thereby, the printing layer **22** is only printed on the first surface **21***a* of the base card when the member card **2** is issued on the spot, and the information to be confirmed from the front surface and the information to be confirmed from the back surface are printed just one time without turning over the base card such that the member card **2** is able to be issued smoothly.

In addition, in the present embodiment, the card printing control device **3** comprises a CPU (Central Processing Unit), an EEPROM (Electrically Erasable and Programmable Read Only Memory) alterably storing a program executed by the CPU and a data for the program, and a RAM (Random Access Memory) temporarily storing the data when executing the program. The above controller **300** (respective processing parts **301-304**) and the memory part **320** comprised in the card printing control device **3** are configured to cooperate with the hardware and the software in the EEPROM. In addition, the card printing control device **3** is not limited to one computer and may be set to disperse the functions into a plurality of processing devices. The input device **310** is a photographic device such as a camera, a keyboard, a mouse, and a touch panel disposed in the display, etc.

In addition, as shown in FIG. **2**, the card printing control device **3** may also be data communicatively connected with a member management server **13** through a network. The member management server **13** is a server which is used to store and manage the personal information of the member, the information of the member card (IC card), and a game result of the member in the past. The personal information of the member input and the identification code of the member card are stored into the member management server **13** together when performing a login with members. In addition, a member card issuance terminal comprises a camera, and may also take pictures of a surface of the player receiving the IC card issued when issuing the member card. The image which is taken and the identification code are correspondingly stored into the member management server **13**. As mentioned above, the member management server **13** is a server which is used to store and manage the personal information of the member and the information of the member card **2**. In the present embodiment, in the card printing control device **3**, the above login processing of the information is performed for the member management server **13** when the member card **2** is issued by the card printing control device **3**.

[The Summary of the Information Display Device]

The information display device of the present invention displays the information of the owner (user) owning the card by reading the above card. In the present embodiment, the information display device is a PTS terminal disposed within the gaming machine arranged in the casino, a signage and a kiosk terminal disposed in the casino, and it is not limited thereto. For example, it may also be an information display device which is disposed at a security gate between an entrance of the casino and the floor.

To be more specific, as shown in FIG. **3**, the information display device **7** comprises a reading card device **71**, an accessing device **72**, a display **73**, an input device **74**, and a controller **72**. The reading card device **71** is a device which is able to read the member card **2** owned by the user, and the member card **2** contains a user identification information which is used to identify the user. The accessing device **72** is a device which may perform an access on the upper level device (the member management server **13**), and a plurality of information associated with the user is stored in the upper level device (the member management server **13**). The display **73** is a device which is able to display the plurality of information associated with the user. The input device **74** is a device which receives the input from the user.

The member management server **13** of the upper level device on which the information display device **7** performs the access comprises a memory part **1300** storing a plurality of information associated with the user. The memory part **1300** stores the plurality of information associated with the user respectively for each user. Besides, in the memory part **1300**, the plurality of information associated with the user is distinguished to be information not requiring to be authenticated and information requiring to be authenticated respectively and then stored.

In addition, in the present embodiment, the upper level device is set in the member management server **13**. That is, a member information display system is configured to comprise the member management server **13** and the information display device **7**. In addition, it is not limited thereto, for example, the upper level device may also be the member card **2** which is read in by the information display device **7**. In this case, the member card **2** stores the user identification information and the plurality of information associated with the user represented by the user identification information. That is, the reading card device **71** has the function of the accessing device **72** at the same time.

The controller **70** comprises an information acquiring processing part **701**, a displaying control processing part **702**, and an information switching processing part **703**. The information acquiring processing part **701** acquires the information not requiring to be authenticated from the upper level device (the member management server **13**) according to the user identification information stored by the member card **2** after the reading card device **71** reads the member card **2**. The displaying control processing part **702** displays the acquired information not requiring to be authenticated in the display **73** without being authenticated by the user.

In addition, "displaying in the display **73** without being authenticated by the user" means to display automatically. That is, "information not requiring to be authenticated" is information which is automatically displayed in the information display device **7** after the user uses the information display device **7** to read in the member card **2**.

As mentioned above, in the upper level device storing the plurality of information associated with the user, the plurality of information associated with the user is respectively distinguished to be information not requiring to be authenticated and information requiring to be authenticated and then is stored. After the user uses the information display device **7** to read the member card **2**, for the information acquired from the upper level device, it is displayed without being authenticated such as login by the user. Thereby, the user only uses the information display device **7** to read the card, and regarding the information which is set to be information not requiring to be authenticated, it is automatically displayed by the information display device without being authenticated such as login, and thus it may increase

the convenience for the user who wants to confirm the information not requiring to be authenticated.

In addition, the information switching processing part **703** dependently switches the plurality of information associated with the user stored in the upper level device (the member management server **13**) to be information not requiring to be authenticated or information requiring to be authenticated according to the input to the input device by the user.

As mentioned above, the user may select which information is taken as the information displayed in the information display device without being authenticated from the plurality of information associated with the user stored in the upper level device such that the information which is automatically displayed in the information display device without being authenticated is defined to be the information desired by the user.

In addition, in the present embodiment, as shown in FIG. **2** and FIG. **3**, the card printing control device **3** data communicatively connected with the member management server **13** through the network. Besides, the member information is logged into the member management server **13** by the card printing control device **3**. In addition, the member information logged into the member management server **13** is displayed by the information display device **7**. That is, a member management system is configured to comprise the member management server **13**, the card printing control device **3** and the information display device **7**.

[The Game Hall System]

In addition, although not shown, a plurality of gaming machines, the above card printing control device **3**, information display device **7** disposed in the game hall may also be data communicatively connected with a hall management server, a bonus server, a setting management server, a monitor ring server, etc., in addition to being data communicatively connected with the member management server **13**. That is, the game hall system is constituted of the gaming machines, the card printing control device **3**, the information display device **7**, the member management server **13**, the hall management server, the bonus server, the setting management server, the monitor ring server and so on.

The hall management server gathers all of the flow of money in the hall (the game hall), generates a balance sheet, etc., and manages other servers. In addition, an accounting information is acquired from various gaming machines and is accumulated, and the accounting information contains a timing when the gaming machine starts a unit game, a timing when the gaming machine terminates the unit game, a random determination result in the unit game and so on.

The bonus server controls the bonus random determination in the bonus game and an association effect performed in association with the bonus random determination. In addition, it is used to manage the accumulated value performing a bonus awarding (for example, an accumulated credit for a progressive bonus), etc.

The setting management server stores and manages the setting regarding the gaming machine as an object of the bonus random determination and the setting regarding the association effect. In addition, in the present embodiment, the bonus game is illustrated as an example, however, it may be other type of game, such as a slot tournament and so on.

The monitor ring server is a server which is used to monitor and store the state of the hall. To be more specific, the monitor ring server acquires an environment information such as a temperature, a humidity, surrounding image and so on by the gaming machine disposed in the hall in time and displays the environment information acquired in the display matching the floor map. In addition, the monitor ring server acquires a camera information by a monitor camera disposed in the hall in time (for example, in real time, at fixed periods, response to the operation of the user) and displays the camera information acquired into the display.

[The Structure of the Member Card **2**]

The member card **2** is formed by printing the information of the user onto the base card (base material layer **21**) produced in advance. That is, the member card **2** is formed by stacking the printing layer **22** onto the base material layer **21**.

[The Structure of the Member Card **2**: The Base Material Layer **21**]

As shown in FIG. **4** and FIG. **5**, the base material layer **21** produced in advance comprises: a first front surface protecting stack layer **21**A, a first design printing layer **21**B, a numbering printing layer **21**C, a hologram printing layer **21**D, a transparent IC card **21**E, and a second design printing layer **21**F.

The transparent IC card **21**E is formed by disposing an antenna, an IC chip, and a memory, etc., into a transparent resin of a card size. The hologram printing layer **21**D is formed by performing a hologram printing onto a central portion of one surface of the transparent IC card **21**E. The hologram printing may be directly performed to the transparent IC card **21**E, and a sheet to which the hologram printing has been performed may also be stacked onto the transparent IC card **21**E. As a type of the hologram, a planar stack layer hologram, a stereomodel hologram, a color and gradation hologram, and a security hologram, etc., may be listed.

The member printing layer **21**C is printed and stacked onto a region of the upper left of the transparent IC card **21**E different from a region stacked with the hologram printing layer **21**D. The numbering printing layer **21**C displays definition copies and a definition serial number. For example, the base card is produced as the number provided for each design (definition copies). Besides, different serial numbers are allocated for various base cards respectively.

The first design printing layer **21**B is printed and formed on the transparent IC card **21**E. In addition, a portion of the first design printing layer **21**B is stacked on the hologram printing layer **21**D. The first design printing layer **21**B is formed by a hot stamp printing, a mirror printing and so on.

The transparent sheet made of the resin is stacked on one surface of the transparent IC card **21**E to cover the whole transparent IC card **21**E such that the first front surface protecting stack layer **21**A is formed. Thereby, a protection is provided to one surface of the transparent IC card **21**E and the first design printing layer **21**B, the numbering printing layer **21**C, the hologram printing layer **21**D stacked on the transparent IC card **21**E. In addition, one surface of the transparent IC card **21**E on which the first front surface protecting stack layer **21**A is stacked corresponds to the second surface **21***b* of the member card **2**.

The second design printing layer **21**F is printed and formed on a region of the other surface of the transparent IC card **21**E in addition to an upper region. In the present embodiment, the second design printing layer **21**F is the opaque layer **2102**, and a region beyond that is the light transmittable region **2***a*. The second design printing layer **21**F is formed by a hot stamp printing, a mirror printing, a wrinkle printing (a decoration printing: an irregular ripple shape occurs when ultraviolet rays of different wave lengths are irradiated on a dedicated UV ink) and so on.

[The Structure of the Member Card **2**: The Printing Layer **22**]

As shown in FIG. **6**, the above base material layer **21** is printed with the printer **5** such that the printing layer **22** is formed. In the present embodiment, the printer **5** stacks the printing layer **22** and the second front surface protecting layer **23** onto the base material layer **21**. To be more specific, the printer **5** firstly transfers a print image as a reverse image onto a base film which is not shown. That is, the print image is displayed to be the following state that the first information **2201** is transferred to be a mirror image and the second information **2202** is transferred to be a normal image, when observed from one side of the base film on which the transfer is performed.

Then, the printer **5** transfers the print image of the reverse image retransferred onto the base material layer **21** such that the printing layer **22** is stacked. That is, the printing layer **22** is displayed to be the following state that the first information **2201** is transferred to be a normal image and the second information **2202** is transferred to be a mirror image, when observed from one side of the base material layer on which the retransfer is performed. Then, the printer **5** stacks the transparent sheet made of the resin onto the other surface of the transparent IC card **21**E to cover the whole transparent IC card **21**E such that the second front surface protecting layer **23** is formed. Thereby, a protection is provided to the other surface of the transparent IC card **21**E and the second design printing layer **21**F, the printing layer **22** stacked on the transparent IC card **21**E. In addition, the other surface of the transparent IC card **21**E on which the second front surface protecting stack layer **23** is stacked corresponds to the first surface **21***a* of the member card **2**.

[The Member Card **2**: The Display States of the First Surface and the Second Surface]

As shown in FIG. **7**, the first information **2201** and the second information **2202** of the printing layer **22** are both visually recognized when the member card **2** is observed from the first surface **21***a* of one side on which the printing layer **22** is stacked. In addition, the first information **2201** to be confirmed from the first surface **21***a* is printed to be visually recognized as a normal image.

In addition, as shown in FIG. **8**, in the printing layer **22**, only the second information **2202** is visually recognized as a normal image when the member card **2** is observed from the first surface **21***a* of one side opposite from the side on which the printing layer **22** is stacked. That is, the first information **2201** is shadowed by the second design printing layer **21**F (the opaque layer **2102**), and the first information is not able to be visually recognized from the second surface **21***b*.

As mentioned above, in the present embodiment, the first information **2201** is a facial image of an owner and a name of the owner, and the second information **2202** is a name of an owner. The facial image as the first information **2201** is only visually recognized from the first surface **21***a*. In addition, it is not limited thereto, and a region which is printed with a facial image may be set to be the light transmittable region **2***a* such that the facial image may be visually recognized from the both surfaces. That is, since it may not be judged whether the facial image is horizontal flipped, it may be configured to be that the normal image and the mirror image thereof are visually recognized.

[The Structure of the Information Display Device **7**]

To be more specific, the information display device **7** is illustrated by taking the PTS (Player Tracking System) terminal, the signage, the kiosk terminal as examples. The PTS terminal is carried onto the various gaming machines disposed in the casino hall. First of all, as an example of the gaming machine, a slot machine carrying the PTS as the information display device **7** therein is illustrated.

[The Structure of the Information Display Device **7**: Illustration of the Function Flow Chart of the Slot Machine]

Refer to FIG. **9**, fundamental function of the slot machine is illustrated. As shown in FIG. **9**, the slot machine **1010** may be data communicatively connected with an external controller, and the external controller may be data communicatively connected with other various slot machines **1010** disposed in the hall.

[Start Check]

First, the slot machine **1010** checks whether a BET button is pressed by a player, and then checks whether a spin button is pressed by a player.

[Symbol Determination]

Next, when the spin button is pressed, the slot machine **1010** extracts a symbol determination random number, and the symbol to be displayed to the player when a symbol array stops scrolling is determined according to each video reels of a plurality of video reels displayed on the display.

[Symbol Display]

Next, the slot machine **1010** causes the symbol array of various video reels to start to scroll, and stop scrolling when the symbol determined is displayed to the player.

[Result Determination]

Next, when the symbol array of various video reels stops scrolling, the slot machine **1010** judges whether a combination of the symbols displayed to the player is winning.

[Payout]

Next, when the combination of the symbols which are displayed to the player is winning, the slot machine **1010** gives a benefit corresponding to the kind of the above combination of symbols to the player. For example, when a combination of symbols related to a payout is displayed, the slot machine **1010** gives a payout corresponding to the above combination of symbols to the player.

[Effect Determination]

The slot machine **1010** performs an effect by an image display based on the display, a light output based on a lamp and a sound output based on a speaker. The slot machine **1010** extracts an effect-use random number and determines contents of the effect according to symbols determined by drawing lots.

In addition, when the drawing lots for the bonus game is performed, an association effect among a plurality of gaming machines is carried out by a display device, a light emitting portion and a speaker of the PTS terminal **1700**.

[The Structure of the Information Display Device **7**: The Overall Structure of the Slot Machine]

Next, refer to the FIG. **10**, the overall structure of the slot machine **1010** is illustrated.

In the slot machine **1010**, as a gaming medium, an IC card, a bill, or an electronic information having a price corresponding to it may be adopted. In particular, in the present embodiment, a data associated with the credit such as a cash data which is stored in an IC card **1500** is adopted. In addition, the above member card **2** may also has the function of the IC card **1500**.

The slot machine **101** comprises a cabinet **1011**, a top box **1012** disposed at an upper side of the cabinet **1011**, and a main door **1013** disposed at a front surface of the cabinet **1011**.

A symbol display device **1016** is disposed in the main door **1013**, which is termed as a lower image display panel **1141**. The symbol display device **1016** is formed of a transparent liquid crystal panel. In the picture displayed in the symbol display device **1016**, a display window **1150** is

comprised in the center thereof. The display window **1150** is constituted of 20 display blocks **1028** of 5 columns and 4 rows. Each column of 4 display blocks **1028** forms simulated reels **1151-1155**, which rotate according to the operation of the player. Various simulated reels **1151-1155** are able to perform a rearrangement that 4 display blocks **1028** change a speed while move downward and display as a whole, and thereby symbols **1501** displayed in various display blocks **1028** rotate along a length wise direction and then stop.

Wherein, the "rearrangement" means a state that the symbols **1501** is rearranged after the arrangement of the symbols **1501** is dismissed. The "arrangement" means a state the symbols **1501** may be confirmed by a visual contact with respect to the player outside. A so-called slot game is conducted by the slot machine **1010** according to the state of the arrangement of the symbols **1501** when the simulated reels **1151-1155** rotated stop, and a payout corresponding to a predetermined combination is paid to the player in the slot game.

In addition, in the present embodiment, a so-called video slot machine for the slot machine **1010** is illustrated, and however in the slot machine **1010** of the present invention, a portion of the simulated reels **1151-1155** may be replaced with a so-called mechanical driven type reel.

Besides, a touch panel **1069** is disposed on the front surface of the symbol display device **1016**, and the player may input various instructions by operating the touch panel **1069**. An input signal is sent from the touch panel **1069** to a main CPU **1071**.

An upper image display panel **1131** is disposed on the front surface of the top box **1012**. The upper image display panel **1131** is constituted of a liquid crystal panel, which forms a display. The upper image display panel **1131** displays an image related to the effect, an image used to represent the introduction of game contents, and an image used to represent the illustration of a rule. In addition, a speaker **1112** and a lamp **1111** are disposed in the top box **1012**. In the slot machine **1010**, the effect of the unit game is performed through the display of an image, the output of a voice, and the output of a light.

In addition, a credit amount display unit (not shown) is displayed at the upper of the display window **1150**, which displays the present credit amount. Wherein, the "credit" refers to a virtual gaming medium used in a game when betting. In addition, the credit amount display unit displays a total number of the credit owned by the player at present.

In addition, a broken number cash display unit (not shown) is displayed at the lower of the credit amount display unit. The broken number cash display unit displays broken number cash. The "broken number cash" means to cash which fails to be converted into the credit due to the sum of money input is not enough.

The IC card **1500** is inserted into the PTS terminal **1700**, the credit amount display unit displays a credit amount stored by the IC card, and the broken number cash display unit displays broken number cash stored by the IC card. In addition, these numerical values are stored into the member management server **13** correspondingly to the identification code of the member card.

Wherein, the IC card is a non-contacting IC card in which an IC (Integrated Circuit) used to record and calculate various data such as a credit, which is able to perform a short distance wireless communication such as an NFC (Near Field Communication) based on a RFID (Radio Frequency Identification) technology. The player is able to own a data associated with the credit by using the IC card **1500** and carry the above IC card **1500** freely among different slot machines. Besides, the player is able to use the data associated with the credit (the data of sum of money) stored in the IC card **1500** to conduct a game such as a unit game in the slot machine **1010** through inserting the IC card **1500** into the PTS terminal **1700** of the slot machine **1010**.

In addition, the player may also store the cash such a coin and a bill from the machinery disposed in the hall into the IC card **1500** by converting it into a cash data.

In addition, at the lower of the lower image display panel **1141**, the PTS terminal **1700** is disposed in the cabinet **1011**. Besides, speakers **1112** are disposed at the right and the left of the PTS terminal **1700** respectively, and a lamp **1111** is disposed at the upper of the top box **1012**. In the slot machine **1010**, an effect of the unit game is performed by an image display based on the upper image display panel **1131**, a voice output based on the speaker **1112** and a light output based on the lamp **1111**.

[The Structure of the Information Display Device **7**: The Structure of PTS Terminal]

FIG. **11** is a diagram representing the PTS terminal **1700** disposed in the slot machine **1010**. The PTS terminal **1700** exchanges a data with the gaming machine through a universal data interface such that the PTS terminal **1700** is able to be disposed in different types of gaming machine of different manufacturers.

FIG. **12** is an enlarged diagram of the PTS terminal **1700** shown in FIG. **11**. As shown in FIG. **12**, the PTS terminal **1700** comprises a panel **1710**, and various parts arranged on the front surface of the panel **1710** are able to be visually recognized by the player, while the parts arranged on the back surface of the panel **1710** are contained inside of the slot machine **1010**, which are not be able to be visually recognized by the player.

An LCD **1719** comprising a touch panel function is disposed on the right of the front surface of the panel **1710**. That is, the LCD **1719** functions as the display **73** which is able to display a plurality of information associated with the user and functions as the input device **74** which receives the input from the user. The LCD **1719** displays a member information and information provided to the member, and the picture size is 6.2 inch (about 15.7 cm). (about 15.7 cm). In addition, an LCD cover **1719***a* is disposed around the LCD **1719**. In addition, in the above example, the LCD **1719** is configured to have the touch panel function and may also be configured to input the instruction of the player through a keyboard, a mouse, and other input device.

In addition, a luminous panel **1720***a* which is connected with an LED for emitting a light is disposed at the upper of the LCD **1719** and the LCD cover **1719***a*. The luminous panel **1720***a* is, for example, formed of a polycarbonate, which is connected with a plurality of (for example, seven) full color LEDs **1721***a* arranged at the inside of the panel **1710** and emits a light according to the full color LEDs **1721***a* shining.

Likewise, a luminous panel **1720***b* which is connected with an LED for emitting a light is disposed at the lower of the LCD **1719** and the LCD cover **1719***a*. The luminous panel **1720***b* is, for example, formed of the polycarbonate, which is connected with a plurality of (for example, seven) full color LEDs **1721***b* (not shown) arranged at the inside of the panel **1710** and emits a light according to the full color LEDs **1721***b* shining.

In addition, a camera window **1712** is disposed at the right of the LCD **1719**, and a human body detecting camera **1713** (not shown) arranged at the inside of the LCD cover **1719***a* or the inside of the panel **1710** takes pictures of the player

through the camera window **1712**. For example, the camera window **1712** may be a half mirrorhalf mirror material which is applied with a shield processing such a smoke.

In addition, a home button **1722** is disposed on the LCD cover **1719***a* at the lower right of the LCD **1719**. The home button **1722** is a button which is used to change a picture displayed by the LCD **1719** to be a predetermined upper level picture.

Besides, a speaker duct **1706** is disposed on the LCD cover **1719***a* at the right of the LCD **1719**, and a bass reflex type (bass reflex type) of speaker **1707** is disposed at a position of the inside of the panel **1710** correspondingly. Likewise, a speaker duct **1708** is disposed at the left of the LCD **1719**, and a bass reflex type (bass reflex type) of speaker **1709** (not shown) is disposed at a position of the inside of the panel **1710** correspondingly. These speakers are dedicated speakers for the PTS terminal **1700**, which are disposed separately from the speaker disposed in the slot machine **1010** for the slot machine game independently. These speakers may achieve an association effect and a voice communication, and may output a notification sound when forgetting to draw the IC card **1500**. In addition, a sound from the speaker may be heard by the front (the player side) as a stereo after passing the above speaker ducts **1706** and **1708**, and with such structure, a speaker may be disposed at the inside of the panel **1710** such that a space of the PTS terminal **1700** (of the panel surface) may be saved.

In addition, an opening part for microphone **1714** and an opening part for microphone **1716** are disposed in the LCD cover **1719***a* at the lower left of the LCD **1719**, and microphones **1715** and **1717** (not shown) are respectively disposed at the inside of the LCD cover **1719***a* correspondingly.

A card insertion slot **1730** is disposed at the lower left of the front surface of the panel **1710** for inserting or drawing the IC card **1500**. A full color LED **1731** (not shown) is disposed at a card insertion portion of the card insertion slot **1730**, which may inform remaining sum of the IC card **1500** persisting in a card stacker **1742** described below through lightning various colors. An eject button **1732** is disposed in the card insertion slot **1730**, and the position of the eject button **1732** and a step of the eject operation are clear through lightning a red LED **1733** (not shown) disposed near the eject button **1732**.

In addition, a card unit **1741** and a card stacker **1742** are disposed at the position of the inside of the panel **1710** corresponding to the card insertion slot **1730**, and the card insertion slot **1730** is configured to be a part of the card unit **1741**. The card stacker **1742** reserve about 30 pieces of IC cards **1500** in advance, and if a new player performs a settlement after conducting a unit game, the IC cards **1500** reserved in the card stacker are taken out and arranged to the card insertion slot **1730**.

When the IC card **1500** which is taken out from the card insertion slot **1730** and held in the card unit **1741** performs a settlement of the credit, the credit information is updated through the NFC, and then the IC card **1500** is exhausted from the card insertion slot **1730**. During the player conducts a unit game, the IC card **1500** is fully accepted inside of the card unit **1741**.

In addition, it may be further configured to be when the credit settlement is performed, even if the IC card **1500** exists, the IC card **1500** is put in the card stacker **1742** and reserved if the player is detected to be absent by a device such as a human detection camera. Thereby, for example, the IC card **1500** may not be held in the card unit **1741** for a long time, even if the play leaves with throwing the IC card **1500** due to clearly knowing that the remaining credit is not enough, or leaves with throwing the IC card **1500** due to forgetting to pick up the IC card **1500**.

A USB terminal **1737** and an AUDIO terminal **1738** are disposed at the upper left of the front surface of the panel **1710**. The USB terminal **1737** is configured to charge a device which is connected with the USB. In addition, the audio terminal **1738** is, for example, a terminal of four poles, and with a headset inserting therein, a conversation with the other party may be made through a headphone and a microphone. In addition, the AUDIO terminal **1738** is formed to be a terminal of two poles or three poles, and a voice may be listened through a headphone.

At the front surface of the panel **1710**, a touch unit **1745** is disposed at the left of the LCD **1719**. The touch unit **1745** includes a RFID module functioning as a writer and a reader, and wherein the writer writes a data into an IC device comprising an IC chip therein (for example, a non-contacting IC card, a portable phone having a communication function based on the NFC, a smart phone and the like) through a data communication, and the reader reads the data from the IC device through the data communication. That is, the touch unit **1745** functions as a reading card device **71** which may read the member card **2** owned by a user, and the member card **2** contains the user identification information for identifying the user. In addition, at four corners of the front surface of the touch unit **1745**, LEDs **1746** (not shown) are arranged respectively. In addition, it may be configured to comprise an information record medium read device in addition to the touch unit **1745** or replacing the touch unit **1745**, which is used to read information stored by an information record medium as a magnetic card. In this case, the magnetic card is regarded as the member card to replace the IC card **1500**.

As mentioned above, various having a microphone function, a camera function, a speaker function, a display function and the like integrally form one unit, and thus the PTS terminal **1700** is able to achieve a purpose of saving space. According to the above structure, the following inconveniences may not occur that, for example, in the situation that various functions are arranged with separately devices, the speaker may not face the player if the LCD faces the player.

In addition, the PTS terminal **1700** is configured to read in the contents of the IC card **1500** through the card unit **1741** and take in the IC card **1500** as a whole and hold it inside of the PTS terminal **1700** when the IC card **1500** is inserted into the card insertion slot **1730**. Besides, the touch unit **1745** is disposed, and with the structure, a data communication with the other IC card, a portable phone and a smart phone is made.

According to the above structure of the PTS terminal **1700**, for example, during a player as a member conducts a game in the gaming machine (at this time, the member card is held in the card unit **1741**), if a certain maintenance is required, the staff may cause the IC card for the maintenance to touch the above touch unit **1745** such that the LCD **1719** of the PTS terminal **1700** displays a picture for the maintenance, or the maintenance contents and history are sent to the server and accumulated.

In addition, for example, if a plurality of machines perform the maintenance at the same time, or a plurality of machines continuously perform the maintenance, and the following operations may be quickly performed that displaying a picture for the maintenance and logging the contents of the maintenance by causing the card for the maintenance to touch the above touch unit **1745** successively.

On the other hand, in the PTS terminal **1700**, if a structure in which only the touch unit **1745** can access the IC card is adopted, it is difficult for the gaming machine to recognize the fact that the player is changed even if the other player uses the gaming machine, after the player who conducts a game with touching the IC card **1500** initially leaves the gaming machine. In order to eliminate the above inconveniences, the card unit **1741** which is used to hold the IC card **1500** during a game is also required. For example, after the player who conducts a game with touching the IC card **1500** initially leaves the gaming machine, the data associated with the credit may be stored in the IC card **1500** of the initial player when the other player (without using the IC card) puts into a bill, conducts a game in the gaming machine and performs a settlement.

[The Structure of the Information Display Device **7**: The Circuit Structure of the Slot Machine]

Next, referring to FIG. **13**, the structure of the circuit comprised in the slot machine **1010** is illustrated.

A gaming board **1050** comprises a CPU **1051**, a ROM **1052**, and a boot ROM **1053** connected with each other through an internal bus, a card slot **1055** corresponding to the memory card **1054**, and an IC socket **1057** corresponding to a GAL (Generic Array Logic) **1056**.

The memory card **1054** is constituted of a nonvolatile memory which stores a game program and a game system program. The game program contains a program related to an executing game progress and a program which is used to perform an effect based on an image and a sound. In addition, the above game program contains a symbol determination program. The symbol determination program is a program which is used to determine the symbols to be rearranged to a display block **1028**.

In addition, the card slot **1055** is configured to insert and pull out the memory card **1054**, which is connected onto the motherboard **1070** through an IDE bus. Therefore, the memory card **1054** is pulled out from the card slot **1055**, and the other game program is written in the memory card **1054** and the memory card **1054** is inserted into the card slot **1055** such that the type and the contents of the game conducted in the slot machine **1010** may be changed.

The GAL **1056** is a PLD (Programmable Logic Device) which has an OR fixed array structure. The GAL **1056** comprises a plurality of input ports and output ports, and outputs a corresponding data from the output ports when a predetermined input is presented at the input ports.

In addition, the IC socket **1057** is configured to allow the GAL **1056** to be removable, which is connected onto the motherboard **1070** by a PCI bus. The contents of the game which is conducted in the slot machine **1010** may be changed by replacing the memory card **1054** with a memory card in which the other program is written, or rewriting the program written in the memory card **1054** to be other program.

The CPU **1051**, the ROM **1052** and the boot ROM **1053** connected with each other through the internal bus are connected onto the motherboard **1070** through the PCI bus. The PCI bus is used to transmit a signal between the motherboard **1070** and the gaming board **1050**, and supply a power to the gaming board **1050** from the motherboard **1070**.

The ROM **1052** stores an authentication program. The boot ROM **1053** stores a preliminary authentication program, program used to start the preliminary program by the CPU **1051** (boot code) and the like.

The authentication program is a program which is used to authenticate the game program and the game system program (a falsification check program). The preliminary authentication program is a program which is used to authenticate the above authentication program. The authentication program and the preliminary authentication program describe a step (an authentication step) authenticating the fact that the program as an object is not tampered.

The motherboard **1070** is constituted of a commonly used motherboard in the market (a printed wiring board equipped with fundamental features of a personal computer), comprising a main CPU **1071**, a ROM (Read Only Memory) **1072**, a RAM (Random Access Memory) **1073**, and a communication interface **1082**. In addition, the motherboard **1070** corresponds to the controller **1100** in the present embodiment.

The ROM **1072** is constituted of a memory device such as a flash memory, in which a program such as a BIOS (Basic Input/Output System) performed by the main CPU **1071** and a permanent data. When the BIOS is performed by the main CPU **1071**, an initialization processing is implemented to the predetermined peripheral device. In addition, a get-in processing starts to be performed to the game program and the game system program stored by the memory card **1054** through the gaming board **1050**. In addition, in the present invention, the contents of the ROM **1072** may be rewritten and may also be forbidden to be rewritten.

The RAM **1073** stores a program such as a data used when the main CPU **1071** performs an operation and a symbol determination program. For example, the above program is stored when the get-in processing is performed to the aforementioned game program, game system program, and authentication program. In addition, the RAM **1073** is disposed with a working area used to work when the above program is executed. For example, the following areas are disposed: an area which is used to store a counted managing the number of times of execution of games, the BET amount, the payout amount, the credit amount and the like, and an area which is used to store a symbol (a code number) determined by drawing lots.

The communication interface **1082** is used to control a data transceiving between itself and the PTS terminal **1700**. In addition, a door PCB (Printed Circuit Board) **1090** and a main body PCB **1110** described later are connected onto the motherboard **1070** through the USB respectively. In addition, a power supply unit **1081** is connected onto the motherboard **1070**.

When a power is supplied to the motherboard **1070** by the power supply unit **1081**, the main CPU **1071** of the motherboard **1070** starts, and a power is supplied to the gaming board **1050** through the PCI bus, and the CPU **1051** starts.

A door PCB **1090** and a main body PCB **1110** are connected with a peripheral device and control the operation of the peripheral device through an input device such as a switch, a sensor and the like, and the main CPU **1071**.

The door PCB **1090** are connected with a control panel **1030** and a cold cathode tube **1093**.

On the control panel **1030**, a spin switch **10315**, a change switch **1032**S, a CASHOUT switch **1033**S, a 1-BET switch **1034**S, and a maximum BET switch **1035** are disposed correspondingly to the aforementioned various buttons. A signal is output to the main CPU **1071** when the respective switch detects that the corresponding button is pressed by the player.

The cold cathode tube **1093** functions as a back light disposed at the back side of an upper image display panel **1131** and a lower image display panel **1141**, and lights the cold cathode tube **1093** according to a control signal output from the main CPU **1071**.

The main body PCB **1110** is connected with a lamp **1111**, a speaker **1112**, a touch panel **1069**, and a graphic board **1130**. In addition, in the above example, a bill validator **1022** is connected on the PTS terminal **1700**, but may also a structure which is connected with the slot machine **1010**.

The lamp **1111** is lighted according to the control signal output from the main CPU **1071**. The speaker **1112** outputs a sound such as a BGM according to the control signal output from the main CPU **1071**.

The touch panel **1069** detects a position on the lower image display panel **1141** which is touched by a finger of the player and the like, outputs a signal corresponding to the position detected to the main CPU **1071**.

The bill validator **1022** recognizes the bill and puts a genuine bill into the cabinet **1011**. Then, the bill which is put into the cabinet **1011** is converted to be the credit, and an addition is performed to the credit converted as the credit owned by the player.

The graphic board **1130** controls the image display performed by the upper image display panel **1131** and the lower image display **1141** respectively according to the control signal output from the main CPU **1071**. The graphic board **1130** comprises a video RAM and the like, which is used to store an image data generated by a VDP (Video Display Processor) which is used to generate the image data. In addition, the image data used when the VDP generates the image data is contained in the game program read out from the memory card **1054** and stored in the RAM **1073**.

In addition, the graphic board **1130** comprises a video RAM and the like, which is used to temporarily store an image data generated by a VDP (Video Display Processor) which is used to generate the image data according to the control signal output from the main CPU **1071**. In addition, the image data used when the VDP generates the image data is contained in the game program read out from the memory card **1054** and stored in the RAM **1073**.

[The Structure of the Information Display Device **7**: The Circuit Structure of the PTS Terminal]

Next, referring to FIG. **14**, the structure of the circuit comprised in the PTS terminal **1700** is illustrated.

A PTS controller **1750** controlling the PTS terminal **1700** comprises a CPU **1751**, a ROM **1752**, and a RAM **1753**. The PTS controller **1750** as the controller **70** has the function of an information acquiring processing part **701**, a displaying control processing part **702**, and an information switching processing part **703**.

The CPU **1751** controls various components of the PTS terminal **1700**, and executes or computes various programs stored in the ROM **1752**. For example, the CPU **1751** updates the data associated with the credit stored by the IC card **1500** by performing a credit update program.

The ROM **1752** is constituted of a memory device such as a flash memory, storing a permanent data performed by the CPU **1751** therein. For example, the ROM **1752** may store a cooperation effect control program performed according to a request such as the credit update program therein, and the credit update program rewrites the data associated with the credit stored in the IC card **1500**.

The RAM **1753** temporarily stores a data required when various programs stored in the ROM **1752** are executed.

An external memory device **1754** is, for example, a memory device such as a hard disk device, which is used to store the program executed by the CPU **1751** and the data used in the program executed by the CPU **1751**.

A server I/F (interface) **1755** functions as an accessing device **72** which is used to achieve the data communication between a server such as the member management server **13** and the PTS terminal **1700**. A gaming machine I/F (interface) **1756** is used to achieve the data communication between the controller **1100** of the slot machine **1010** and the PTS terminal **1700**, and the data communication uses a specified protocol.

In addition, the PTS terminal **1700** connects the bill validator **1022** through a bill validator I/F (interface) **1757**, connects a settlement machine **1868** through a fare adjustment machine I/F (interface) **1758**, and performs a transceiving of data according to requirements.

A USB control part **1759** judges whether a power from a power supply part **1760** is provided in a USB terminal **1737**, and the USB terminal **1737** may be charged when a predetermined condition is satisfied. When the predetermined condition is satisfied, the player may connect an electronic device to the USB terminal **1737** and charge the electronic device.

A light-emitting LED driving part **1761** starts a request according to a cooperation effect from a bonus server **11**, controls a full color LED **1721** to light itself at a predetermined timing so as to cause a luminous panel **1720***a* at the upper of the LCD **1719** to gives out light, and control the full color LED **1721** to light itself at a predetermined timing so as to cause a luminous panel **1720***b* at the lower of the LCD **1719** to gives out light.

An LCD control unit **1762** controls the LCD **1719** to display the information of the member, the information provided to the member and the like, or display the data read from the IC card **1500** and the data input by the player. In addition, the LCD **1719** has a touch panel function, and sends a predetermined signal to the CPU **1751** when the player operates the touch panel.

A home button **1722** is disposed near the LCD **1719**, which is used to change the picture displayed by the LCD **1719** into a predetermined upper level picture. When the player presses the home button **1722**, the operation of the player is sent to the CPU **1751**, and the CPU **1751** sends an instruction to the LCD control unit **1762** according to the operation to update the display of the LCD **1719**.

An IC card control unit **1763** controls the insertion and exhausting of the IC card **1500**, the writing in of the credit data and the like. The IC card control unit **1763** comprises an IC card (read writer) control part **1763***a*, an IC card drawing and exhausting control part **1763***b*, and an LED control part **1763***c*.

The IC card R/W control part **1763***a* controls the card unit **1741** to update the data associated with the credit stored in the IC card **1500**. In addition, when the IC card **1500** is reissued, the data associated with the credit corresponding to the sum after performing the settlement is stored. The card unit **1741** has an antenna member which is used to read a data from the IC card **1500** or write a data into the IC card **1500** through the NFC and the like.

The card unit **1741** comprises a function as an IC card reader which is used to read the information stored in the IC card **1500** and a function as an IC card writer which is used to write the information into the IC card **1500**, and may also comprise one of the above functions according to requirements.

The IC card drawing and exhausting control part **1763***b* controls the drawing and exhausting of the IC card **1500**. When the player inserts the IC card **1500** into the card insertion slot **1730**, a control is performed such that the IC card is held in the card unit **1741** during the player conducts a game. In addition, after the data associated with the credit when performing the settlement, a control is performed such

that the IC card **1500** is exhausted. Besides, after the eject button **1732** is pressed, the IC card **1500** is exhausted.

In addition, when the IC card **1500** is reissued, the IC card **1500** is retaken out from the card stacker **1742**, and the IC card **1500** is provided to the card unit **1741** so as to store the data associated with the credit.

The LED control part **1763***c* performs a control to light the LED (the full color LED **1731**) disposed near the card insertion slot **1730** of the card unit **1741**, and performs a control to light the LED (the red LED **1733**) disposed near the eject button **1732**.

The touch unit control part **1764** controls the data transceiving which is performed when touching the IC card **1500**, a portable phone, a smart phone and the like. The touch unit control part **1764** comprises the non-contacting R/W (reader writer) control part **1764***a* and the LED control part **1764***b*.

The non-contacting R/W control part **1764***a* judges whether the IC card **1500** or the portable phone approaches to a predetermined distance (for example, performing a touch control operation) on the touch unit **1745**, and if approaching to the predetermined distance, a result or the like is obtained from the touch unit **1745**. The touch unit **1745** has an antenna member which is used to perform the data transceiving between the touch unit **1745** and the IC card **1500**, the portable phone through the NFC and the like.

The touch unit **1745** comprises a function as the IC card reader which is used to read the information stored in the IC card **1500** and the portable phone and a function as the IC card writer which is used to write the information into the IC card **1500** and the portable phone, and may also comprise one of the above functions according to requirements.

The LED control part **1764***b* controls the LEDs **1746** which are arranged at the four corners of the front surface of the touch unit **1745** to light themselves at a predetermined timing.

A DSP **1765** receives a voice data from the microphones **1715** and **1717**, and sends the data to the CPU **1751** after performing a predetermined voice processing on it. In addition, the DSP **1765** sends the voice data received to the speakers **1707** and **1709**. Besides, the DSP **1765** outputs the voice received to the headphone for the AUDIO terminal connected with the headset, and sends the voice received from the microphone after being processed. In addition, a summary structure thereof is illustrated in the present embodiment, in which an A/D converter, a D/A converter, an amplifier and the like are omitted.

The camera control part **1766** acquires the image of the player or the like taken by the human body detecting camera **1713**, and performs a predetermined image processing according to requirements and sends the data after being processed to the CPU **1751**. The data is sent to the member management server **13** or the like through the server I/F **1755**, for example.

The temperature sensor **1770** measures the temperature data of the CPU **1751**, the motherboard (not shown), the external memory device **1754**, the LDC control part **1762** and the like in real time. In addition, the temperature sensor **1770** may adopt the temperature sensor disposed on the motherboard, and may also adopt a dedicated thermometer which is used to acquire a temperature.

[The Structure of the Information Display Device **7**: The Structure of the Signage]

FIG. **15** represents the signage **100**. The signage **100** is mainly an information display device which is used to display an advertisement (advertising board) of a shop, a floor guide of a hall and the like, which connects a server such as the member management server **13** through the network.

The signage **100** comprises an LCD **101** and an LCD **103** having a touch panel function. The LCD **103** functions as the display **73** which may display a plurality of information associated with the user. In addition, the LCD **103** functions as the input device **74** receiving the input from the user. In addition, the LCD **101** may also comprise the function of the display **73**. The LCD **101**, for example, is a liquid crystal display device of 24 inches (about 60.96 cm), and the LCD **103**, for example, is a liquid crystal display device of 46 inches (about 116.84 cm), and as mentioned above, theses LCDs display an advertisement information, a guide information and the like. In addition, the touch panel function comprised in the LCD **103**, for example, is a touch panel which uses an infrared ray. In addition, in the above example, the LCD **103** is configured to comprise the touch panel function, and may also be configured to input an instruction through a keyboard, a mouse and the other input devices.

The LCD **101** and LCD **103** are accepted in the cabinet respectively, and effect LEDs **102** and **104** used to perform an effect are disposed around the front surface of the cabinet respectively. The effect LEDs **102** and **104** are, for example, the LED lights on a tape.

Besides, in the signage **100**, the cabinets of the LCD **101** and LCD **103** respectively comprise motion sensors **105** and **106**. The motion sensors **105** and **106**, for example, are cameras, and the action of the user of the signage **100** and the customer going through the passageway is analyzed with the video taken by the motion sensors **105** and **106**.

The signage **100** further comprises the touch unit **107**, and further comprises a RFID module which may performs a data communication with the portable phone and the smart phone, and the above portable phone comprises a communication function based on the non-contacting IC card or the NFC. That is, the touch unit **107** functions as the reading card device **71** which may read the member card **2** owned by the user, and the member card **2** contains the user identification information for identifying the user. The member places the member card (IC card) associated therewith onto the above touch unit **107**, and logs in by inputting a PIN code and the like, and thus it may cause the LCD **101** or the LCD **103** to display a menu screen for the member and the information related to the member. The information of the member, for example, may be acquired from the member management server **13**.

In addition, the staff of the hall may place the IC card of the staff thereon, logging in by inputting the PIN code and the like, and causing the LCD **101** or the LCD **103** to display the menu screen and the like for the staff.

Comparing with the PTS terminal **1700**, the signage **100** does not comprise a card unit which is used to hold the IC card **1500**, but only comprises the touch unit **107**. However, the signage **100** is configured to be that the user does not log off but directly leaves after touching the IC card, even in this case, the information of the member displayed on the LCD **103** and the like due to touching the IC card may not be displayed and longer after a predetermined time, logging off automatically.

Besides, the signage **100** comprises a microphone **133** which is used to acquire a voice in the cabinet of the LCD. An opening for microphone **110** is disposed in the cabinet of the LCD **103**, and the opening for microphone **110** corresponds to the position at which the microphone is disposed.

In FIG. **15**, a lateral side of the motion sensor **106** shows the above opening for microphone **110**.

In addition, the signage **100** comprises speakers **134** and **135** which are used to output voice in the cabinet of the LCD **103**. Speaker ducts are disposed in the cabinet of the LCD **103**, and the speaker ducts correspond to the positions at which the speakers are disposed respectively. In FIG. **15**, it shows a speaker duct **111** corresponding to one speaker.

In addition, the signage **100** comprises a base unit **108**, a cabinet supporting the LCD **101** and LCD **103**, and a control part **109** accepting the control part which is used to control various LCD, LED and the like.

[The Structure of the Information Display Device **7**: The Circuit Structure of the Signage]

Next, referring to FIG. **16**, the structure of the circuit comprised in the signage **100** is illustrated.

A signage controller **120** controlling the signage **100** comprises a CPU **121**, a ROM **122** and a RAM **123**. The signage controller **120** as the controller **70** comprises functions of an information acquiring processing part **701**, a displaying control processing part **702**, and an information switching processing part **703**.

The CPU **121** controls various components of the signage and executes or computes various programs stored in the ROM **122**.

The ROM **122** is constituted of a memory device such as a flash memory, storing a permanent data executed by the CPU **121** therein. For example, the cooperation effect control program or the like which is performed according to a request from the bonus server **11** is stored.

The RAM **123** temporarily stores the data required when the various programs stored in the ROM **122** are performed.

An external memory device **124**, for example, is a memory device such as a hard disk device, which is used to store the program executed by the CPU **121** and the data used in the program which is executed by the CPU **121**.

A network I/F (interface) **125** functions as the accessing device **72** which is used to achieve the data communication between the server such as the member management server **13** and the PTS terminal **1700**.

An LED driving part **126** controls the effect LEDs **102** and **104** to be lighted at a predetermined timing according to the cooperation effect start request from external. In addition, the effect LEDs **102** and **104** give out light synchronously with the display of the advertisement information, the display of the guide information, the display of the member information based on the operation of the member and the like.

The LCD control part **129** controls the LCD **101** to display the information such as the above advertisement information. In addition, the LCD control part **129** may control the LCD **101** to display a floor map.

The LCD control part **130** controls the LCD **103** to display the information such as the above advertisement information. In addition, the LCD **103** comprises a touch panel function, and the operation from the user is sent to CPU **121**.

The touch unit control part **131** controls the data transceiving performed based on the touch control operation of the IC card or the portable phone in the touch unit **107**. The touch unit control part **131** comprises a non-contacting R/W (reader writer) control part **131***a*.

The non-contacting R/W control part **131***a* judges whether the touch control operation is performed by the IC card or the portable phone on the touch unit **107**, and if the touch control operation is performed, a read result or the like is acquired from the touch unit **107**. The touch unit **107** has an antenna member which is used to perform the data transveiving between the touch unit **1745** and the IC card, the portable phone through the NFC and the like.

When the CPU **121** acquires the identification code of the member card (IC card) from the touch unit **107**, the information of the member corresponding to the identification code is acquired from the member management server **13** and displayed onto the LCD **101** or the LCD **103**. In addition, the operating menu used by the above member may be further displayed onto the LCD **103**, or the advertisement information adapted to the above member is displayed onto the LCD **101** or the LCD **103**.

The DSP **132** receives a voice data from the microphone **133**, and sends the data to the CPU **121** after a predetermined processing on it. In addition, the DSP **132** sends the voice data received to the speakers **134** and **135** so as to output it.

A motion sensor control part **136** acquires the image of the user and the like received by the motion sensors (for example, camera) **105** and **106**, performs a predetermined image processing according to requirements, and sends the data after being processed to the CPU **121**.

[The Structure of the Information Display Device **7**: The Structure of the Kiosk Terminal]

FIG. **17** shows the KIOSK terminal **200**. The kiosk terminal **200** is mainly an information display device which is used to display the information related to the game conducted in the hall, and for example, is connected with a server such as the member management server **13** through the network, and wherein the information related to the above game is, for example, the start of the bonus game, the countdown when the bonus game starts, the winning ranking today, the popularity machine ranking, and so on.

The kiosk terminal **200** comprises an LCD **201** which comprises the touch panel function. That is, the LCD **201** functions as the display **73** which may display a plurality of information associated with the user, and functions as the input device **74** which receives the input from the user. The LCD **201** is, for example, a liquid crystal display device of 24 inches (about 60.96 cm), and as mentioned above the LCD displays the information related to the game conducted in the hall and the like. In addition, in the above example, the LCD **201** is configured to comprise the touch panel function, and may be further configured to input an instruction through a keyboard, a mouse, and other input devices.

Besides, the kiosk terminal **200** comprises a motion sensors **202** and **203** at the upper and the lower of the LCD **201** respectively. The motion sensors **202** and **203** are, for example, cameras, and analyzes the action of the user of the kiosk terminal **200** and the customer going through the passageway with the video taken by the motion sensors **202** and **203**.

The kiosk terminal **200** further comprises a touch unit **204** and also comprises a RFID module which may perform a data communication with the portable phone and the smart phone, and the above portable phone comprises a communication function based on the non-contacting IC card or the NFC. That is, the touch unit **204** functions as the reading card device **71** which may read the member card **2** owned by the used, and the member card **2** contains a user identification information for identifying the user. The member places the member card (IC card) associated therewith onto the touch unit **204**, and logs in by inputting the PIN code, and thus the LCD **202** may display a menu screen for the member and the information related to the member. The information of the member, for example, may be acquired from the member management server **13**. In addition, it may be configured to comprise an information record medium

read device which is used to read the information stored in the information record medium such as a magnetic card, in addition to the touch unit **204**, or replacing the touch unit **204**. In this case, the magnetic card may be regarded as the member card to replace the IC card **1500**.

In addition, the staff of the hall may place the IC card of the staff thereon, logging in by inputting the PIN code, and causing the LCD **201** to display the menu screen for the staff and the like.

Besides, the kiosk terminal **200** is disposed with a card insertion slot **205**, which may insert or exhaust the IC card **1500**. The card insertion slot **205** is disposed with an eject button. In addition, a card unit **230** is disposed inside of the KIOSK cabinet corresponding to the card insertion slot **205**, which constitutes a part of the card unit **230**.

When the member card is inserted from the card insertion slot **205**, it may cause the LCD **201** to display the menu screen for the member and the information related to the member. In addition, the card unit **230** is able to issue and recover a limited card and a reward card.

In addition, the kiosk terminal **200** comprises a ticket printer **206**. The ticket printer **206** is able to issue and recover a ticket and a coupon, and may be configured to comprise the function of the bill validator.

Besides, the kiosk terminal **200** comprises a telephone receiver **207** which is used when performing a VoIP conversation. The user of the kiosk terminal **200** may make a conversation with other user of the kiosk terminal **200** or the player of the gaming machine through the telephone receiver **207**. In addition, if there is an incoming call of the VoIP conversation, an incoming call display LED **208** is controlled to give out light.

The kiosk terminal **200** further comprises a keyboard **209** and a numeric keypad **210** used when the user input the data (when the member logs in or text chats), and LED panels **211** preventing prying are disposed at both sides of the numeric keypad **210**.

Besides, the kiosk terminal **200** is disposed with a QR code (registered trademark) scanner **212** which is used to read a QR code, which may read the QR code attached in the mail which is sent to the portable phone and the like.

In addition to this, the kiosk terminal **200** comprises a accepting part **213** which is used to accept the control part used to control the LCD, the LED and the like.

[The Structure of the Information Display Device **7**: The Circuit Structure of the Kiosk Terminal]

Next, referring to FIG. **18**, the structure of the circuit comprised in the kiosk terminal **200** is illustrated.

The kiosk terminal controller **220** controlling the kiosk terminal **200** comprises a CPU **221**, a ROM **222** and a RAM **223**. The kiosk terminal controller **220** as the controller **70** comprises functions of the information acquiring processing part **701**, the displaying control processing part **702**, and the information switching processing part **703**.

The CPU **221** controls various components of the kiosk terminal and executes or computes various programs stored in the ROM **222**.

The ROM **222** is constituted of a memory device such as a flash memory, storing a permanent data executed by the CPU **221** therein. For example, a VoIP conversation control program or the like may be stored.

The RAM **223** temporarily stores the data required when the various programs stored in the ROM **222** are performed.

An external memory device **224**, for example, is a memory device such as a hard disk device, which is used to store the program executed by the CPU **221** and the data used in the program which is executed by the CPU **221**.

A network I/F (interface) **225** functions as the accessing device **72** which is used to achieve the data communication between the server such as the member management server **13** and the PTS terminal **1700**.

The LCD control part **226** controls the LCD **201** to display the information such as the above game information. In addition, the LCD **201** comprises a touch panel function, and the operation from the user is sent to CPU **221**.

In addition, the LCD control part **226** may control the LCD **201** to display a floor map.

A motion sensor control part **227** acquires the image of the user and the like received by the motion sensors (for example, camera) **202** and **203**, performs a predetermined image processing according to requirements, and sends the data after being processed to the CPU **221**.

The touch unit control part **228** controls the data transceiving performed based on the touch control operation of the IC card or the portable phone in the touch unit **204**. The touch unit control part **228** comprises a non-contacting R/W (reader writer) control part **228***a*.

The non-contacting R/W control part **228***a* judges whether the touch control operation is performed by the IC card or the portable phone on the touch unit **204**, and if the touch control operation is performed, a read result or the like is acquired from the touch unit **204**. The touch unit **204** has an antenna member which is used to perform the data transveiving between itself and the IC card, the portable phone through the NFC and the like.

In addition, an IC card control part **229** controls the insertion and exhausting of the IC card **1500**, the reading of the data and the like. The IC card control part **229** comprises an IC card R/W (read writer) control part **229***a* and an IC card drawing and exhausting control part **229***b*.

The IC card R/W control part **229***a* controls the card unit **230** to read the identification code and the like stored in the IC card **1500**. The card unit **230** has an antenna member which is used to write a data into the IC card **1500** through the NFC and the like.

The IC card drawing and exhausting control part **229***b* controls the drawing and exhausting of the IC card **1500**. When the user inserts the IC card **1500** into the card insertion slot **205**, a control is performed such that the IC card is held in the card unit **230** before the user logs off. Besides, after the eject button is pressed, the IC card **1500** is exhausted.

The ticket printer control part **231** controls the ticket printer/bill validator **232** to issue and recover the ticket and the coupon and recognize the bill or the like. The ticket printer control part **231** comprises a printer control part **231***a* and a bill validator control part **231***b*.

A sound control part **233** uses the microphone **234** and the speaker **235** comprised in the telephone receiver **207** to output the sound. The sound control part **233** comprises a DSP **233***a* and an LED control part **233***b*. Regarding to the sound input from the microphone **234** and the sound output from the speaker **235**, the DSP **233***a* performs a predetermined audio signal processing and a control. The LED control part **233***b* controls the incoming call display LED **208** to give out light according to an incoming call signal such as the VoIP conversation.

An input control part **236** converts the input performed by the user through the keyboard **209** and the input performed by the user through the numeric keypad **210** into a signal and then sends to the CPU **221**.

[The Structure of the Information Display Device **7**: The Display State of the Display **73**]

As mentioned above, as the information display device **7**, the PTS terminal **1700**, the signage **100** and the kiosk terminal **200** comprises an LCD **1719**, an LCD **103**, and an LCD **201** as the display **73** respectively. In addition, the above information display device **7** comprises the touch unit **1745**, the touch unit **107** and the touch unit **204** as the reading card device **71**. When the reading card device **71** of the above information display device **7** reads in the member card **2**, the information which is set to not require to be authenticated (the information not requiring to be authenticated) is displayed on the display **73** without being logged in.

[The Structure of the Information Display Device **7**: The Display State of the Display **73**: The Information not Requiring to be Authenticated Display Screen]

FIG. **19** represents an example of the information not requiring to be authenticated display screen which is used to display the information which is set to not require to be authenticated. In this example, in a plurality of information associated with the user, the facial image of the user and the name image of the user are set to not require to be authenticated. As shown in FIG. **19**, a user image **731** which is used to represent the facial image of the user and a user name image **732** which is used to represent the name of the user are displayed in the information not requiring to be authenticated display screen.

[The Structure of the Information Display Device **7**: The Display State of the Display **73**: The Authentication Setting Picture]

The information display device **7** is configured to set some of the plurality information associated with the user to be the information not requiring to be authenticated. The authentication setting picture which is used to perform the above setting is displayed through logging in the information display device **7**.

As shown in FIG. **20**, in the authentication setting picture, the plurality of information associated with the user is displayed with a recognizable manner and it is displayed that whether an authentication is needed for the various information. To be more specific, in the authentication setting picture, a user information item **733** is displayed for each of the plurality of information associated with the user. Besides, a button of requiring an authentication **734** and a button of not requiring an authentication **735** are displayed for each user information item **733**. If the button of requiring an authentication **734** is displayed with a form of gray out, the information of the item corresponding to the button of requiring an authentication **734** represents that it is not required to be authenticated. That is, the information of this item may be directly displayed without being logged in. In addition, if the button of not requiring an authentication **735** is displayed with the form of gray out, the information of the item corresponding to the button of not requiring an authentication **735** represents that it is required to be authenticated. That is, the information of this item may not be displayed if without being logged in.

When the button of requiring an authentication **734** which is displayed with the form of gray out is touched, the gray out display state of the button of requiring an authentication **734** is relieved, and the button of not requiring an authentication **735** of the corresponding item changes to be the gray out display state. For example, regarding to the item of the "facial image", when the button of requiring an authentication **734** is touched, the gray out display state of the button of requiring an authentication **734** is relieved, and the button of not requiring an authentication **735** of the corresponding item changes to be the gray out display state, and the user image **731** is not displayed in the information not requiring to be authenticated display screen. In addition, when the button of not requiring an authentication **735** which is displayed with the form of gray out is touched, the gray out display state of the button of not requiring an authentication **735** is relieved, and the button of requiring an authentication **734** of the corresponding item changes to be the gray out display state. For example, regarding to the item of "gender", when the button of not requiring an authentication **735** is touched, the gray out display state of the button of not requiring an authentication **735** is relieved, and the button of requiring an authentication **734** of the corresponding item changes to be the gray out display state. Thereby, the gender information of the user is displayed in the information not requiring to be authenticated display screen.

In addition, there is no limitation to that all of the plurality of the information associated with the user are able to be set whether an authentication is needed. For example, it may be configured that it may not be set to not require an authentication for an important user information such as a domicile and a credit number. In addition, it is also allowed that a user information which may not be set to require an authentication exists. For example, it may be configured that the information of the name and the facial image must be displayed in the information not requiring to be authenticated display screen.

In addition, for example, public levels are set for the plurality of information associated with the user respectively. That is, it may be configured that the information not requiring to be authenticated may be selected easily through the user specifying the public level thereof. To be more specific, the user information not requiring an authentication which may not be set by the user is preset to be the level of a first predetermined value (for example, the public level is 0), the user information requiring an authentication which may not be set by the user is preset to be the level of a second predetermined value greater than the above predetermined value (for example, the public level is 10), and the other user information is preset to be the level of a value greater than the first predetermined value and smaller than the second predetermined value (for example, 1-9 as the degree of importance from small to large). Then, the user selects the public level from the values greater than the first predetermined value and smaller than the second predetermined value. The public level selected is stored in the member management server **13** and the like. Besides, the information display device **7** may be configured to acquire the plurality of information associated with the user and the public level corresponding to the user of the member card **2** at the same time when the member card **2** is read in, and the user information with a public level no more than this public level may be directly displayed in the display **73** without the authentication such as logging in.

[Member Management Table]

FIG. **21** is a diagram representing an example of the member management table. The member management table is stored in the member management server **13** and the like. In the member management table, a plurality of information associated with the user is stored correspondingly to the member identification code which may identify the member, for example, a member name representing the name of the member, an image data representing the face of the member, a domicile of the member, a gender of the member, a customer class representing the class that the member pertains, and so on. In addition, for each of the plurality of the information associated with the user, a situation representing that whether it is required to be authenticated is stored.

For example, for the data of "member name", a "requiring" or a "not requiring" is stored in the column of "member name authentication". If the "requiring" is stored in the column of the "member name authentication", the "member name" may not be displayed only by causing the reading card device **71** (the touch unit **1745** and the like) of the information display device **7** to read in the member **2**. That is, in order to display the "member name", a logging in is needed. If the "not requiring" is stored in the column of the "member name authentication", the "member name" may be displayed in the display **73** (the LCD **1719** and the like) only by causing the information acquiring processing part **701** of the information display device **7** to read in the member **2**. That is, displaying the "member name" needs not a logging in. As mentioned above, when the information display device **7** reads in the member card **2**, the information of the member management table is acquired by accessing the member management server **13**, and the information nor requiring to be authenticated of the plurality of information associated with the user is displayed in the display **73**.

As mentioned above, in the member management table, the plurality of information associated with the user is distinguished to be information not requiring to be authenticated and information requiring to be authenticated respectively and then is stored.

Basically, the member management table is updated when a dedicated counter uses the member card **2** issued by the card printing control device **3** to perform a member logging in. However, the customer class needs to be updated by the shop. For example, it may be updated according to a frequency to the shop, an action pattern and the like, and it may also be updated by the manager of the shop and the like. In addition, a range which may decide whether an authentication is required may be determined according to the information stored in the member management table. For example, it may be configured to be that a customer class pertains a member of VIP, the all user information of which may perform an authentication setting, a customer class pertains a member of MEMBER, only a part of the user information of which may perform the authentication setting, and a customer class pertains a member of VISITOR, the user information of which may not perform the authentication setting.

[The Contents of the Program Executed by the Card Printing Control Device]

Next, a processing (program) executed by the card printing control device **3** (the CPU of the controller **300** and the like) is illustrated.

[The Issuing Processing of a Card]

FIG. **22** is a diagram representing an example of the flowchart of the issuing processing of a card.

In **S1000**, firstly, the card printing control device **3** judges whether the information which is necessary in the plurality of information associated with the user has been input or not. The necessary information is at least the first information **2201** and the second information **2202** printed onto the member card **2**. In addition, in the present embodiment, the necessary information contains the information which is required when the member logs in. The text information such as a member name and a domicile is input by the clerk who resides permanently in the admission counter and the like through the keyboard connected with the card printing control device **3** and the like. The data such as a facial image which needs to be taken may be taken by a camera device such as the camera connected with the card printing control device **3**, and the passport of the user may also be scanned by a scanner connected with the card printing control device **3** and the like.

If the necessary information is not input (**S1000**: NO), the card printing control device **3** performs the **S1000** again. At this time, the card printing control device **3** may display a message which is used to represent that the necessary information is not input. That is, the card printing control device **3** may comprise a display not shown which is used to display the message.

On the other hand, if the necessary information has been input (**S1000**: YES), in the **S1001**, the card printing control device **3** generates the first information image containing the first information **2201** therein. To be more specific, the card printing control device **3** generates a print image which is used to print the first information **2201** on the member card **2** according to the font and the layout stored in the memory part **320** and the like.

Thereafter, in the **S1002**, the card printing control device **3** generates the second information image containing the second information **2202** therein. To be more specific, the card printing control device **3** generates a print image which is used to print the second information **2202** on the member card **2** according to the font and the layout stored in the memory part **320** and the like. Besides, the print image is converted into a horizontal flipping print image.

Thereafter, in **S1003**, the card printing control device **3** generates a synthetic image in which the first information image and the second information image are arranged in different regions. To be more specific, the synthetic image is a print image which represents the position relationship between the first information image and the second information image, and wherein a portion which is not printed in addition to the regions of the first information image and the second information image is included. In the above synthetic image, the second information image is arranged in the light transmittable region **2***a* of the member card **2** which is light transmittable.

Thereafter, in **S1004**, the card printing control device **3** performs a card printing processing. In the card printing processing, the card printing control device **3** sends the synthetic image generated in the **S1003** to the printer **5** and request for printing. The printer **5** performs the printing of the synthetic print image for the base card (the base material layer **21**) prearranged in the printer **5** according to the request for printing from the card printing control device **3**.

Thereafter, in **S1005**, the card printing control device **3** judges whether the member identification code is determined. The member identification code may be a number which is assigned to each member card **2** automatically, and may also be the RFID of the IC chip comprised in the transparent IC card **21**E of the member card **2**. If the member identification code is not determined (**S1005**: NO), the card printing control device **3** performs the **S1005** again.

If the member identification code is the number assigned to each member card **2** automatically, the card printing control device **3** accesses the member management server **13** to confirm the number which is not used and assign the number. In addition, it may also be configured to be that the member management server **13** issues the number of the member identification code according to the request of the carding printing control device **3**.

In the condition that the member identification code adopts the RFID of the IC chip comprised in the transparent IC card **21**E of the member card **2**, the card printing control device **3** uses a card unit not shown connected therewith as

the card unit **1741** to acquire the RFID, and the member card **2** is the member card printed in the S**1004**.

If the member identification code has been determined (S**1005**: YES), in S**1006**, the card printing control device **3** performs a card logging in processing. In the card logging in processing, the card printing control device **3** sends the member identification code and a plurality of information associated with the user to the member management server **13** and requests to perform the member logging in. The member management server **13** supplements the data of a new member into the member management table according to request for the member logging in from the card printing control device **3**. In addition, if the member identification code is the number assigned to each member card **2** automatically, a processing of logging in the member identification code is performed for the member card **2** printed in the S**1004**. That is, the card printing control device **3** performs that following processing in which the IC chip of the member card **2** is accessed by using a card unit which is not shown and the member identification code is stored in the member card **2**. Thereafter, the card printing control device **3** terminates the present routine.

[The Contents of the Program Executed by the Information Display Device]

Next, the processing (program) executed by the information display device **7** (the controller **70**: the CPU **1751** of the PTS terminal **1700**, the CPU **121** of the signage **100**, the CPU **221** of the kiosk terminal **200** and the like) is illustrated.

[The Information Displaying Processing]

FIG. **23** is a diagram representing an example of the flowchart of the information displaying process.

In S**1100**, firstly, the information display device **7** judges whether the reading card device **71** has read in the member card **2** or not. If the reading card device **71** does not read in the member card **2** (S**1100**: NO), the S**1100** is performed again, waiting for the user to cause the reading card device **71** to read in the member card **2**.

If the reading card device **71** has read in the member card **2** (S**1100**: YES), in S**1101**, the information display device **7** acquires the member identification code from the member card.

Thereafter, in S**1102**, the information display device **7** requests to acquire the member identification code and the member information for the member management server **13**. Although not shown, the member management server **13** sends the member information corresponding to the member identification code sent to the information display device **7** according to the acquiring request from the information display device **7**. The above member information is the plurality of information associated with the member (the user) and the information representing whether an authentication is required which is set for each of the plurality of information.

Thereafter, in S**1103**, the information display device **7** judges whether the member information is received from the member management server **13**. If the member information is not received (S**1103**: NO), the information display device **7** performs the S**1103** again, waiting for receiving the member information.

If the member information has been received (S**1103**: YES), in S**1104**, the information display device **7** acquires the information without being authenticated from the member information. That is, the information display device **7** judges whether an authentication is required or not for the plurality of information in the member information respectively. Then, the information display device **7** preserves the information not requiring to be authenticated in a temporary storage region for display. In addition, in the present embodiment, when the information displaying process is performed, the information associated with the user and the information representing whether an authentication is needed are fully acquired from the member management server **13**, but it is not limited thereto. For example, the information display device **7** may only acquire the information not requiring to be authenticated from the plurality of information associated with the user.

Then, in S**1105**, the information display device **7** display the information not requiring to be authenticated display screen (referring to FIG. **19**) into the display **73** and terminates the present routine, and the information not requiring to be authenticated display screen contains the information not requiring to be authenticated which is stored in the temporary storage region for display in the S**1104**.

As mentioned above, the information display device **7** may display the information associated with the user which is set to not require an authentication only by reading in the member card **2** without the member logging in authentication.

In addition, although not shown, the information display device **7** may also be configured to display the logging in picture for the member logging in after the information not requiring to be authenticated display screen is displayed. The logging in may be performed by inputting a password such as a PIN code, and may also be performed by a biometrics authentication which is achieved by inputting a fingerprint, a Iris, a vein, a voiceprint, a face, a handwriting and the like.

[The Authentication Switching Process]

FIG. **24** is a diagram representing an example of the flowchart of the authentication switching process. The authentication switching process is performed through touching a button displayed by a menu screen not shown which is used to switch the information not requiring to be authenticated, for example, by the member after logging in.

In S**1200**, firstly, the information display device **7** judges whether the reading card device **71** has read in the member card **2** or not. If the reading card device **71** does not read in the member card **2** (S**1200**: NO), the S**1200** is performed again, waiting for the user to cause the reading card device **71** to read in the member card **2**.

If the reading card device **71** has read in the member card **2** (S**1200**: YES), in S**1201**, the information display device **7** acquires the member identification code from the member card. In addition, after the member logging in, if it is within a predetermined time, the processing at the S**1200** and S**1201** may be omitted.

Thereafter, in S**1202**, the information display device **7** requests to acquire the member identification code and the member information for the member management server **13**. Although not shown, the member management server **13** sends the member information corresponding to the member identification code sent to the information display device **7** according to the acquiring request from the information display device **7**. The above member information is the plurality of information associated with the member (the user) and the information representing whether an authentication is required which is set for each of the plurality of information.

Thereafter, in S**1203**, the information display device **7** judges whether the member information is received from the member management server **13**. If the member information

is not received (S1203: NO), the information display device 7 performs the S1203 again, waiting for receiving the member information.

If the member information has been received (S1203: YES), in S1204, the authentication setting picture is displayed in the information display device 7 (referring to FIG. 20). To be more specific, the information display device 7 displays the plurality of information associated with the user as the plurality of the user information items 733. In addition, the information display device 7 judges whether it is required to be authenticated for each of the plurality of information associated with the user, performs a gray out display for the button of not requiring an authentication 735 corresponding to the user information item 733, for the information which is set to require an authentication, and performs the gray out display for the button of requiring an authentication 734 corresponding to the user information item 733, for the information which is set to require an authentication.

In S1205, the information display device 7 judges whether it ends or not. That is, the information display device 7 judges whether a return button is touched or not in the authentication setting picture. If it is judged to be end (S1205: YES), in S1208, the information display device 7 terminates the authentication setting picture, and converts the picture into the menu screen for the member and the like, and thus terminates the present routine.

If it is judged to be not end (S1205: NO), in S1206, the information display device 7 judges whether the setting is switched. That is, the information display device 7 judges a certain button of requiring an authentication 734 or button of not requiring an authentication 735 is touched. If the setting is not switched (S1206: NO), the information display device 7 returns the processing to the S1205.

If the setting is switched (S1206: YES), in S1207, the information display device 7 requests for the member management server 13 to switch the setting. That is, the information display device 7 judges a certain button of requiring an authentication 734 or button of not requiring an authentication 735 corresponding to the user information item 733 is touched. Then, the information display device 7 determines it is which information of the plurality information associated with the user and whether the information is set to be the information requiring to be authenticated or the information not requiring to be authenticated. Then, the information display device 7 sends the member identification code, the information associated with the user, and the information representing whether the information requires an authentication (requires or not requires) to the member management server 13, and requests to switch the setting.

Although not shown, the member management server 13 switches the setting information representing whether the information associated with the user requires an authentication which is sent from the information display device 7 in the member management table (referring to FIG. 21) such that the information representing whether an authentication is required which is sent from the information display device 7 is displayed, according to the setting switching request from the information display device 7.

For example, in the information display device 7, when the button of requiring an authentication 734 of the user information item 733 of the member name is touched, the information display device 7 sends the member identification code and "member name" as the information associated with the user to the member management server 13, and sends "requiring an authentication" as the information representing whether an authentication is required. The member management server 13 switches the data of the column of "member name authentication" of the data corresponding to the member identification code to be "requiring an authentication".

Then, the information display device 7 requests for the member management server 13 to switch the setting in the S1207 and then enters the processing of the S1205.

[The Summary of the Invention]

The member card 2 of the present embodiment comprises the base material layer 21 having the light transmittable base material and the printing layer 22, and wherein the first information 2201 to be confirmed from the first surface 21*a* of the base material layer 21 and the second information 2202 to be confirmed from the second surface 21*b* of the base material layer 21 are only printed on one surface of the base material layer 21. In the base material layer 21, the region which is printed with the second information 2202 is light transmittable region, and the second information 2202 may be visually recognized from the second surface 21*b* of the base material layer 21.

According to the above structure, the first surface 21*a* of the base material layer 21 of the member card 2 is printed with the first information 2201 to be confirmed from the first surface 21*a* of the base material 21 and the second information 2202 to be confirmed from the second surface 21*b* of the base material 21. The base material layer 21 is configured to be that the region which is printed with the second information 2202 is light transmittable region, and in addition, the second information 2202 may be visually recognized from the second surface 21*b* of the base material layer 21. Thereby, when the member card is issued on the spot, only the first surface 21*a* of the member card 2 is required to be printed, and thus the member card 2 is not required to turn over to be printed again such that the member card 2 is issued smoothly.

In addition, the base material layer 21 of the member card 2 of the present embodiment has the opaque layer 2102 (the second design printing layer 21F), and the opaque layer 2102 stacks up to cover the first information 2201. According to the above structure, the base material layer 21 has the opaque layer such that the first information 2201 is covered, and thus the first information 2201 is only visually recognized from the second surface 21*b* of the base material layer 21.

In addition, the card printing control device 3 of the present embodiment is connected with the printer 5 which may print the member card 2, comprising the input device 310 which is capable of inputting the first information 2201 to be confirmed from the first surface 21*a* of the member card 2 and the second information 2202 to be confirmed from the second surface 21*b* of the member card 2. The controller 300 generates the first information image containing the first information 2201 from the input device 310 therein, and generates the second information image containing the second information 2202 from the input device 310 therein, and in the second information image, the second information 2202 is formed to be a horizontal flipping mirror image. The first information image and the second information image are synthesized to be arranged in different regions of the member card 2 such that the obtained synthetic image is only printed on the first surface 21*a* of the member card 2, and the region on which the second information image is printed is formed to be a light transmittable region.

As mentioned above, the first image to be confirmed from the first surface 21*a* of the member card 2 and the second image to be confirmed from the second surface 21*b* of the card are generated only through inputting the first informa-

tion **2201** and the second information **2202** and they are printed onto the member card **2** after being synthesized. The second image is printed after being formed to be a horizontal flipping mirror image, and thus the second image may be visually recognized normally when the layer printed is visually recognized from the second surface **21***b* through the light transmittable base material layer **21**. Thereby, only the first surface **21***a* of the member card **2** is printed when the member card **2** is issued on the spot, and the information to be confirmed from the first surface **21***a* and the information to be confirmed from the second surface **21***b* are printed just one time without turning over the member card **2** such that the member card **2** is able to be issued smoothly.

The information display device **7** of the present embodiment comprises the reading card device **71** which may read the member card **2** owned by the user and having the member identification code used to identify the user, the accessing device **72** which may access the member management server **13** storing the plurality of information associated with the user therein, the display **73** which may display the plurality of information associated with the user, and the controller **70**. In the member management server **13**, the plurality of information associated with the user is respectively distinguished to be the information requiring to be authenticated and the information not requiring to be authenticated respectively and then stored, and the controller **70** acquires the information not requiring to be authenticated from the member management server **13** according to the member identification code after the reading card device **71** reads the member card **2**, and directly displays the information not requiring to be authenticated acquired on the display **73** without being authenticated by the user.

According to the above structure, in the member management server **13** storing the plurality of information associated with the user, the plurality of information associated with the user is respectively distinguished to be information not requiring to be authenticated and information requiring to be authenticated and then stored. After the user uses the information display device **7** to read the member card **2**, the information not requiring to be authenticated acquired from the member management server **13** is displayed without being authenticated such as login by the user. Thereby, the user only uses the information display device **7** to read the member card **2**, and regarding the information which is set to be information not requiring to be authenticated, it is automatically displayed by the information display device **7** without being authenticated such as login, and thus it may increase the convenience for the user who wants to confirm the information not requiring to be authenticated.

The information display device **7** of the present embodiment further comprises the input device **74** receiving the input from the user. The controller **70** may dependently switch the plurality of information associated with the user stored in the member management server **13** to be the information not requiring to be authenticated or the information requiring to be authenticated according to the input from the user.

According to the above structure, the user may select which information is taken as the information displayed in the information display device **7** without being authenticated from the plurality of information associated with the user stored in the member management server **13** such that the information which is automatically displayed in the information display device without being authenticated is defined to be the information desired by the user.

The above embodiments thus described solely serves as specific examples of the present invention, and the present invention is not limited to such examples. Specific configurations of various means may be suitably designed or modified. Further, the effects of the present invention described in the above embodiments are not more than examples of most preferable effects achievable by the present invention. The effects of the present invention are not limited to those described in the embodiments described above.

Further, the detailed description above is mainly focused on characteristics of the present invention to fore the sake of easier understanding. The present invention is not limited to the above embodiments, and is applicable to diversity of other embodiments. Further, the terms and phraseology used in the present specification are adopted solely to provide specific illustration of the present invention, and in no case should the scope of the present invention be limited by such terms and phraseology. Further, it will be obvious for those skilled in the art that the other structures, systems, methods or the like are possible, within the spirit of the present invention described in this specification. The description of claims therefore shall encompass structures equivalent to the present invention, unless otherwise such structures are regarded as to depart from the spirit and scope of the present invention. Further, the abstract is provided to allow, through a simple investigation, quick analysis of the technical features and essences of the present invention by an intellectual property office, a general public institution, or one skilled in the art who is not fully familiarized with patent and legal or professional terminology. It is therefore not an intention of the abstract to limit the scope of the present invention which shall be construed on the basis of the description of the claims. To fully understand the object and effects of the present invention, it is strongly encouraged to sufficiently refer to disclosures of documents already made available.

The detailed description of the present invention provided hereinabove includes a process executed on a computer. The above descriptions and expressions are provided to allow the one skilled in the art to most efficiently understand the present invention. A process performed in or by respective steps yielding one result or blocks with a predetermined processing function described in the present specification shall be understood as a process with no self-contradiction. Further, the electrical or magnetic signal is transmitted/received and written in the respective steps or blocks. It should be noted that such a signal is expressed in the form of bit, value, symbol, text, terms, number, or the like solely for the sake of convenience. Although the present specification occasionally personifies the processes carried out in the steps or blocks, these processes are essentially executed by various devices. Further, the other structures necessary for the steps or blocks are obvious from the above descriptions.

What is claimed is:

1. A card, comprising:

a light transmittable base material layer having a first side and an opposite second side,

a printed layer, and,

a partial opaque layer disposed between the light transmittable base material layer and the printed layer, wherein

a first information and a second information are both formed on the first surface of the base material layer, and wherein,

the first information and the second information are viewable from the first side of the light transmittable base material layer, the second information is viewable from the second side of the light transmittable base

material layer, and the first information is not viewable from the second side of the light transmittable base material layer.

2. The card of the claim 1, wherein the partial opaque layer is provided between the first information and the base material layer.

3. A card printing control device, connected to a printer which is able to print a card formed of:

a light transmittable base material layer;

a printed layer, and,

a partial opaque layer disposed between the light transmittable base material layer and the printed layer, the card printing control device comprising:

an input device capable of inputting a first information to be confirmed from a first side of the card and a second information to be confirmed from a second side of the card through the light transmittable base material layer, the second side of the light transmittable base material layer being opposite the first side of the light transmittable base material layer, and

a controller,

the controller

generating a first information image containing the first information from the input device, generating a second information image containing the second information from the input device, and in the second information image, the second information is formed to be a horizontal flipped mirror image,

printing the first information which is viewable from the first side of the light transmittable base material layer and the second information which is viewable from the second side of the light transmittable base material layer of the card on the first side of the light transmittable base material layer, the first information not viewable from the second side of the light transmittable base material layer.

4. A card, comprising:

a light transmittable base material layer having a first side and an opposite second side;

a printed layer including first information and second information; and,

an opaque layer; wherein,

the printed layer and the opaque layer are disposed on the first side of the light transmittable base material such that the opaque layer is disposed between the light transmittable base material and the first information of the printed layer;

the first information and second information are visually perceptible from the first side of the light transmittable base material;

the second information is visually perceptible from the second side of the light transmittable base material; and,

the first information is not visually perceptible from the second side of the light transmittable base material.

5. The card of claim 4, wherein when the second information is visually perceptible from the second side of the light transmittable base material, an image formed by the second information is a normalized image.

6. The card of claim 5, wherein when the second information is visually perceptible from the first side of the light transmittable base material, the image formed by the second information is a horizontally flipped mirror image of the normalized image.

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