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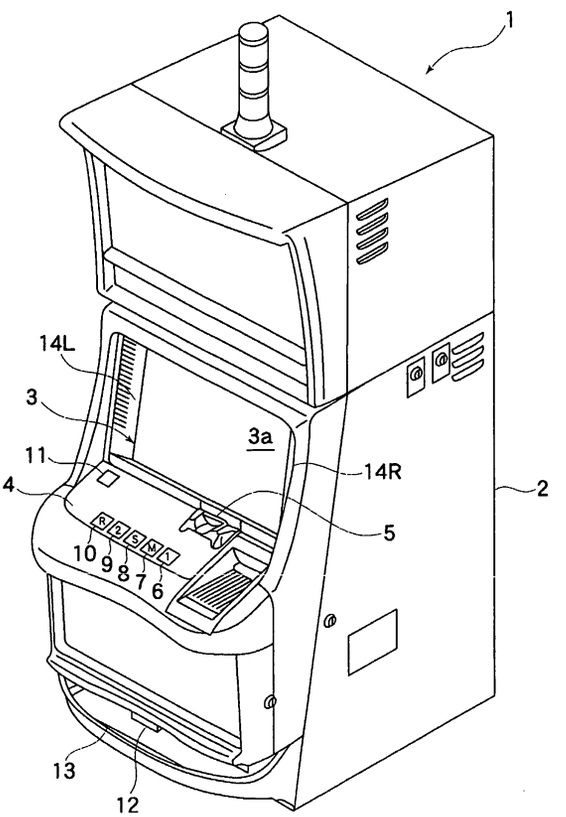
(54) Gaming machine and method for controlling a gaming machine

(57) The preset invention provides a gaming machine which allows a player to enjoy himself/herself with a new game in accordance with effects and rules which have neither been used nor known heretofore. The game machine includes a display which is capable of displaying a predetermined game mode using plural kinds of blocks on a screen; a display controller which allows the display to display the game mode in which when the plural kinds of blocks are displayed in a stacked manner within a predetermined region of the screen and the blocks which are arranged next to each other turn out to be the same kind, the blocks which are arranged next to each other are eliminated; and payout means which awards the predetermined number of game mediums to a player in accordance with the number of blocks which are eliminated on the display.

Fig. 1



EP 1 600 905 A1

Description

BACKGROUND OF THE INVENTION

1. FIELD OF THE INVENTION:

[0001] The present invention relates to a gaming machine and a method for controlling a gaming machine in which a game is advanced in accordance with images.

2. DESCRIPTION OF THE RELATED ART:

[0002] Conventionally, a gamingmachine such as a slotmachine, a slot machine which includes a stopper unit, a so-called pachi-slo(a Japanese slot machine) gaming machine and the like is provided with a plurality of rotatable reels each of which describes a plurality of patterns thereon as identification information along the rotating direction, and the rotatable reels are partially exposed to the outside through a display window formed in a front surface of a gaming machine. Due to such a constitution, when the rotatable reels are rotated, a state in which the identification information is displayed in a variable mode is observed from the display window. Further, when the rotatable reels are stopped, a state in which the identification information is displayed in a stopped state is observed from the display window.

[0003] Further, in starting the game, players bet game mediums such as coins. When the game is started, the above-mentioned identificationinformation assumes the variable displaymode or the stopped display state. The winning or losing of the game is determined due to the combination of identification information in the stopped display state and the game medium is paid out as a prize (see Japanese Patent Laid-open Hei11(1999)-290505, for example).

[0004] Further, nowadays, there has been proposed a gaming machine in which a display device formed of liquid crystal or the like is mounted on a front surface of the gamingmachine, a rotatable real is displayed as an image on the display device, and the identification information is subjected to variable display or the stopped display as an image.

[0005] In the gaming machine using this display device, a game effect is changed depending on an image which is displayed on the display device. Accordingly, different from the gaming machine which mechanically performs the variable display or the stop display of the identification information using the rotatable reels, the gaming machine using such a display device receives no physical restriction with respect to the game effect.

SUMMARY OF THE INVENTION

[0006] However, in the gaming machine using the above-mentioned display device, in an actual practice, the game effect which is obtained by the gaming machine using the conventional rotatable reels is utilized as it is. Accordingly, although there exists some difference in the game effect, the gaming machine using the above-mentioned display device and the gaming machine using the conventional rotatable reels are equal with respect to the flow of the game in which the identification information is subjected to variable display or the stop display, the winning or losing of the game is determined depending on the combination of the identification informations when the display assumes the stop display mode, and the payout number of game mediums is determined based on a result of the game. Therefore, irrespective of the high degree of freedom of the game effect, the gaming machine using the display device can merely change the display manner of the identification information from the conventional real rotatable reels to the virtual rotatable reels as an image and hence, the gaming machine using the display device fails to provide any novel feeling or impression to players.

[0007] Accordingly, it is an object of the present invention to provide a gaming machine and a method for controlling a gaming machine which can overcome the above-mentioned drawbacks.

[0008] According to a first aspect of the present invention, there is provided a gaming machine which includes:

a display which is capable of displaying a predetermined game mode using plural kinds of blocks on a screen;
a display controller which allows the display to display the game mode in which when the plural kinds of blocks are displayed in a stacked manner within a predetermined region of the screen and the blocks which are arranged next to each other turn out to be the same kind, the blocks which are arranged next to each other are eliminated; and
payout means which awards the predetermined number of game mediums to a player in accordance with the number of blocks which are eliminated on the display.

[0009] According to a second aspect of the present invention, there is provided a method for controlling a gaming machine which includes the steps of:

allowing a display to display a game mode in which, when plural kinds of blocks are displayed in a stacked manner within a predetermined region of a screen of the display and the blocks which are arranged next to each other turn out to be the same kind, the blocks which are arranged next to each other are eliminated; and
awarding the predetermined number of game mediums to a player in accordance with the number of blocks which are eliminated on the display.

[0010] According to a third aspect of the present in-

vention, there is provided a gaming machine which includes:

a display which is capable of displaying a predetermined game mode on a screen;
a display controller which allows the display to display a first game mode in which plural kinds of identification information images are variably displayed and stopped on the screen of the display, and a second game mode in which, if a special identification information image is stopped on the screen of the display in the first game mode, plural kinds of blocks are displayed in a stackedmanner within a predetermined region of the screen and the blocks which are arranged next to each other turn out to be the same kind, the blocks which are arranged next to each other are eliminated; and
payout means which awards the predetermined number of game mediums to a player in accordance with the number of blocks which are eliminated on the display.

[0011] According to a fourth aspect of the present invention, there is provided A method for controlling a gaming machine which includes the steps of:

allowing a display to display a first game mode in which plural kinds of identification information images are variably displayed and stopped on the screen of the display, and
allowing the display to display a second game mode in which, if a special identification information image is stopped on the screen of the display in the first game mode, the plural kinds of blocks are displayed within a predetermined region of the screen in a stacked manner and the blocks which are arranged next to each other turn out to be the same kind, the blocks which are arranged next to each other are eliminated; and
awarding the predetermined number of game mediums to a player in accordance with the number of blocks which are eliminated on the display.

[0012] According to the invention, it is possible to allow a player to enjoy himself/herself with a new game in accordance with effects and rules which have neither been used nor known heretofore. Specially, the number of game mediums predetermined to the player differs depending on the number of eliminated blocks and hence, the player can play the game while looking for a block whose kind is as same as the kind of the neighboring block among the stacked blocks whereby it is possible to attract the attention of the player to the game.

BRIEF EXPLANATION OF DRAWINGS

[0013]

Fig. 1 is a perspective view showing an appearance of a gaming machine of the first embodiment of the present invention;
Fig. 2 is a block diagram showing the constitution of an electric circuit of the gaming machine;
Fig. 3 is a flow chart showing a sub routine of a main processing;
Fig. 4 is a flow chart showing a sub routine of a game processing;
Fig. 5A to Fig. 5B are explanatory views which specifically show display modes on a liquid crystal display device in a main game;
Fig. 6 is an explanatory view which specifically shows a display mode on the liquid crystal display device in the main game;
Fig. 7 is an explanatory view which specifically shows a display mode on the liquid crystal display device in the main game;
Fig. 8 is an explanatory view which specifically shows a display mode on the liquid crystal display device in the main game;
Fig. 9 is an explanatory view which specifically shows a display mode on the liquid crystal display device in the main game;
Fig. 10 is an explanatory view which specifically shows a display mode on the liquid crystal display device in the main game;
Fig. 11 is an explanatory view which specifically shows a display mode on the liquid crystal display device in the main game;
Fig. 12 is an explanatory view which specifically shows a display mode on the liquid crystal display device in the main game;
Fig. 13 is an explanatory view which specifically shows a display mode on the liquid crystal display device in the main game;
Fig. 14 is an explanatory view which specifically shows a display mode on the liquid crystal display device in the main game;
Fig. 15 is an explanatory view which specifically shows a display mode on the liquid crystal display device in the main game;
Fig. 16 is an explanatory view which specifically shows a display mode on the liquid crystal display device in the main game;
Fig. 17 is an explanatory view which specifically shows a display mode on the liquid crystal display device in the main game;
Fig. 18 is an explanatory view which specifically shows a display mode on the liquid crystal display device in the main game;
Fig. 19A to Fig. 19B are explanatory views which specifically show display modes on a liquid crystal display device in a sub game;

Fig. 20A to Fig. 20B are explanatory views which specifically show display modes on a liquid crystal display device in a sub game;
Fig. 21 is an explanatory view which specifically shows a display mode on the liquid crystal display device in the sub game;
Fig. 22 is an explanatory view which specifically shows a display mode on the liquid crystal display device in the sub game;
Fig. 23 is an explanatory view which specifically shows a display mode on the liquid crystal display device in the sub game;
Fig. 24 is an explanatory view which specifically shows a display mode on the liquid crystal display device in the sub game;
Fig. 25 is an explanatory view which specifically shows a display mode on the liquid crystal display device in the sub game;
Fig. 26 is a perspective view showing a gaming machine of the second embodiment of the present invention;
Fig. 27 is a block diagram showing the constitution of an electric circuit of the gaming machine;
Fig. 28 is a flow chart showing the main processing;
Fig. 29 is a flow chart showing the game processing;
Fig. 30 is a flow chart showing usual game processing;
Fig. 31 is a flow chart showing bonus game processing;
Fig. 32A to Fig. 32C are explanatory views which specifically show display modes on a liquid crystal display device in a usual game;
Fig. 33A and Fig. 33B are explanatory views which specifically show display modes on a liquid crystal display device in a bonus game;
Fig. 34 is an explanatory view which specifically shows a display mode on the liquid crystal display device on the bonus game;
Fig. 35 is an explanatory view which specifically shows a display mode on the liquid crystal display device on the bonus game;
Fig. 36 is an explanatory view which specifically shows a display mode on the liquid crystal display device on the bonus game;
Fig. 37 is an explanatory view which specifically shows a display mode on the liquid crystal display device on the bonus game;
Fig. 38 is an explanatory view which specifically shows a display mode on the liquid crystal display device on the bonus game;
Fig. 39 is an explanatory viewwhich specifically shows a display mode on the liquid crystal display device on the bonus game;
Fig. 40 is an explanatory view which specifically shows a display mode on the liquid crystal display device on the bonus game;
Fig. 41 is an explanatory view which specifically shows a display mode on the liquid crystal display device on the bonus game;
Fig. 42 is an explanatory view which specifically shows a display mode on the liquid crystal display device on the bonus game;
Fig. 43 is an explanatory view which specifically shows a display mode on the liquid crystal display device on the bonus game;
Fig. 44 is an explanatory view which specifically shows a display mode on the liquid crystal display device on the bonus game;
Fig. 45 is an explanatory view which specifically shows a display mode on the liquid crystal display device on the bonus game;
Fig. 46 is an explanatory view which specifically shows a display mode on the liquid crystal display device on the bonus game;
Fig. 47 is an explanatory view which specifically shows a display mode on the liquid crystal display device on the bonus game;
Fig. 48 is an explanatory view which specifically shows a display mode on the liquid crystal display device on the bonus game;
Fig. 49 is an explanatory view which specifically shows a display mode on the liquid crystal display device on the bonus game;
Fig. 50 is an explanatory view which specifically shows a display mode on the liquid crystal display device on the bonus game;
Fig. 51 is an explanatory view which specifically shows a display mode on the liquid crystal display device on the bonus game; and
Fig. 52 is an explanatory view which specifically shows a display mode on the liquid crystal display device on the bonus game.

PREFERRED EMBODIMENTS OF THE PRESENT INVENTION

[0014] Preferred embodiments of a gaming machine according to the present invention are explained in conjunction with attached drawings.

[First embodiment]

[0015] A gaming machine according to the first embodiment of the present invention includes display means which is capable of displaying a predetermined game mode using plural kinds of blocks on a screen; display controller which allows the display means to display, as the predetermined game mode, a game mode in which when the plural kinds of blocks are displayed in a stacked manner in a predetermined region of a screen and the blocks which are arranged next to each other turn out to be the same kind among the stacked blocks, the blocks which are arranged next to each other are eliminated; and payout means which gives the predetermined number of game mediums in accordance with the number of blocks which are eliminated on the

display means.

[0016] That is, in the gaming machine of this embodiment, a control part in the inside of the gaming machine functions as the display controller and allows the display means such as a liquid crystal display device (LCD), a cathode ray tube (CRT), a plasma display or the like to display a series of modes consisting of the falling of the blocks, stacking of the fallen blocks and the elimination of neighboring blocks of the same kind among the stacked blocks thereon. Further, the control part in the inside of the gamingmachine functions as the payout means subsequently and gives the predetermined number of game mediums to the player corresponding to the number of blocks which are eliminated on the display means.

[0017] As the above-mentioned game mediums, in addition to coins, medals or tokens, it is possible to use cards in which the information on game values which are predetermined to the player or are expected to be predetermined to the player is stored. The function which is to be performed by the payout means is substantially commonly performed, that is, not only by the control part in the inside of the gaming machine but also by a payout device of the game mediums and the like which are driven in accordance with commands from the control part. Here, when the game mediums are used in a form of electronic information by displaying images which imitate coins or medals on the display means without using the above-mentioned actual game mediums, only the control part of the gaming machine performs the function as the payout means.

[0018] In this manner, according to the gaming machine of this embodiment, since the game mediums are given to the player corresponding to the number of the blocks eliminated on the display means, it is possible to amuse the player with a new game mode which has not been known and, at the same time, it is possible to give a fresh impact to the player. Specially, since the number of game mediums given to the player is changed corresponding to the number of the eliminated blocks and hence, the player performs the game while looking for a block which has the same kind of identification information as the neighboring block among the stacked blocks whereby it is possible to attract the attention of the player to the game.

[0019] Further, in this gaming machine, the gaming machine may include a betting means for betting the game medium. Here, on condition that the player bets the game medium using the betting means, the display controller allows the display means to display the above-mentioned game mode, and the payout means changes an amount of the game medium which is given to the player in response to the number of game mediums which are bet (hereinafter referred to as the number of betting) . In this case, with a will of the player, it is possible to increase or decrease the amount of game mediums which is given after the game and is determined based on the number of blocks eliminated on the display means in which the player cannot be involved whereby the player can positively take part in the game. Here, as the betting means, a bet switch or the like which the player can manipulate is mounted on the gaming machine and the control part may receive an input from the bet switch.

[0020] As the timing for eliminating the blocks in the display means, it is desirable that the whole inside of the predetermined region is filled with the stacked blocks. By eliminating the blocks at such timing, a space where the blocks are not present is partially formed in the inside of the predetermined region where the blocks are filled and hence, it is possible to exhibit the mode in which the blocks are eliminated in a more explicit manner to the player whereby it is possible to allow the player to clearly recognize that each time the blocks are eliminated, the number of the game mediums to be given after the game is added. Accordingly, the player's interest in the game can be enhanced. Here, it is also possible that the in a stage that whole inside of the predetermined region is not filled with the stacked blocks, the blocks arranged next to each other which turn out to be the same kind can be eliminated.

[0021] Further, as the game mode which the display controller allows the display means to display, following the above-mentioned mode in which the blocks are made to fall, are stacked and ere eliminated, in the space where the blocks are eliminated, the blocks which are stacked above the space are made to fall and are filled in the space, and new blocks are made to fall in the space which is formed by the fall of the blocks whereby the whole predetermined region is filled with the blocks thus updating the block arrangement. Accordingly, it is possible to sequentially display the mode in which when the neighboring blocks turn out to be the same kind in the block arrangement after such updating, the neighboring blocks are further eliminated.

[0022] In this manner, by sequentially updating the block arrangement, the player cannot understand the number of blocks which are eliminated until the game is finished. Accordingly, the player continuously focuses his/he attention to the display means and hence, the player is continuously attracted by the game.

[0023] Here, the game may be finished when, in the above-mentioned display means, the neighboring blocks in all stacked blocks become different from each other with respect to the kinds. By setting the point of time at which there exists no possibility that the blocks are eliminated as the finishing time of the game, the player can easily understand the finishing of the game thus allowing the player to clearly recognize the finishing of the game.

[0024] Here, with respect to the above-mentioned blocks, the plurality of blocks are provided by marking different identification information constituted of characters including numerals, symbols, patterns and the like to the blocks or by applying different colors or shapes to the blocks. Specially, according to the blocks of this

embodiment, it is sufficient to ensure the recognition of the difference in kind between the neighboring blocks, the shape of the blocks is not limited to a rectangular shape which is generally expected as a shape of the blocks and may be a circular shape, a triangular shape or any other shape. Further, the above-mentioned identification information per se may be directly adopted as the shape of the blocks.

[0025] Further, it is possible to designate one of the above-mentioned plural kinds of blocks as a special block which has a function of eliminating all blocks which are arranged next to the special block. That is, it is possible to provide the special block which is considered as a block which is the same kind as the neighboring blocks. Here, such a function of eliminating the neighboring blocks may be provided not only with respect to one kind of blocks but also with respect to the plural kinds of blocks thus providing the special blocks in the plural kinds of blocks respectively.

[0026] With the provision of the special block which is capable of eliminating all blocks which are arranged next to the special block in this manner, when the special block falls on the display means, a large number of blocks are eliminated and hence, the player can acquire a large number of game mediums. Accordingly, the player expects the falling of this special block and hence, the game can attract the player's attention to the falling blocks and, at the same time, when the special block actually falls, the expectation of the player to the result of the game is enhanced thus allowing the player to enjoy the game.

[0027] Further, also in the conventional gaming machine such as a slot machine or a pachi-slo(a Japanese slot machine) machine which affords the winning when a predetermined number of identification information of the same kind are arranged in parallel, there exists a special identification information which is considered as the identification information equal to the neighboring identification information different from the identification information of the gaming machine per se. Since the above-mentioned special block performs a function similar to the function of the special identification information. Accordingly, while the game mode developed on the display means is novel, it is possible to allow the player to easily understand the function of the above-mentioned special block and allows the player to feel familiarity with the game.

[0028] Further, the special block per se can be eliminated together with the blocks which are arranged next to the special block. By eliminating the special block with the blocks which are eliminated by the special block, the special block is eliminated after performing the function only once and hence, the number of blocks which can be eliminated at a time by the special block can be limited to some extent. Accordingly, while providing a gaming state which is advantageous for the player using the special block, it is possible to prevent the game from becoming easy due to the elimination of the excessively large number of blocks at a time.

[0029] On the other hand, it is possible to provide a mode in which when the above-mentioned special block is arranged next to a second special block which is capable of eliminating the special block, the special block can be eliminated together with the second special block. In this case, unless the second special block falls on the display means, the special block continues to eliminate the large number of blocks which fall after the falling of the special block and hence, the number of the game mediums which the player can obtain can be increased thus providing the gaming state which is extremely advantageous for the player. Accordingly, the expectation of the player on a result of the game is further enhanced whereby the gaming machine can attract the player to the game.

[0030] Here, a control part in the inside of the gamingmachine which functions as the above-mentioned respective means includes a CPU, a memory which stores a gaming program for the whole game and a program which allows the above-mentioned respective means to function and the like and controls the whole game in the gaming machine.

[0031] Further, in the above-mentioned embodiment, the explanation has been made with respect to the game which is played using a gaming machine actually installed in a gaming arcade or the like. However, this embodiment also provides a method for controlling gaming machine for allowing a computer to realize a display control function of allowing the display means to display a game mode in which, when the plural kinds of blocks fall and are sequentially stacked within a predetermined region of a screen of the display means and the blocks which are arranged next to each other among the stacked blocks turn out to be the same kind, the blocks which are arranged next to each other are eliminated, and a game medium giving function of giving the player the predetermined number of game mediums in accordance with the number of blocks which are eliminated on the display means.

[0032] Further, by executing this program using suitable means, anyone can enjoy the pachinko game which gives an interest which has been not known without attending to a gaming arcade.

[0033] Further, such a program can be provided in a form that the program is stored in a recording medium which a computer can read or in a form that the program is stored in a predetermined server and the server is made communicable with terminals which is connected with the server via the Internet whereby users can enjoy the game having the interest at the terminals.

[0034] Hereinafter, the first embodiment is specifically explained in conjunction with the drawings. Here, the gaming machine explained hereinafter uses coins as the game mediums. Further, in the gaming machine explained hereinafter, the explanation is made in a state that a series of game modes from the falling of the blocks to the elimination of the blocks are executed as a main

game and the special effect and the sub games are executed in addition to the main game.

[Constitution of Gaming Machine]

[0035] Fig. 1 is a perspective view showing an appearance of the gaming machine 1 which constitutes one embodiment of the gaming machine according to the present invention.

[0036] On a front surface of a cabinet 2 which constitutes an overall profile of the gaming machine 1, a liquid crystal display device 3 which constitutes a display unit is mounted. It is possible to perform various types of displays using the whole display region 3a of the liquid crystal display device 3.

[0037] A base portion 4 which projects horizontally is formed below the above-mentioned liquid crystal display device 3, wherein a coin insertion slot 5 is formed in a right side of an upper surface portion of the base portion 4. Further, on a left side of the above-mentioned coil insertion opening 5, a 1 bet switch 6, a maximum bet switch 7, a start switch 8, a second bet start switch 9 and a repeat bet start switch 10 are provided.

[0038] The 1 bet switch 6 is a switch which is used when coins stored in the gaming machine 1 are betted to a main game. Each time the 1 bet switch 6 is manipulated by pushing once, 1 coin is betted. Here, the number of coins which are betted in one main game is referred to as "first betting number". Further, an operation to bet the coins (the playing mediums) to the main game is referred to as "first bet switch".

[0039] The maximum bet switch 7 is a switch which allows the betting of the maximum number (for example, 3) of coins which can be bet to the main game once to the game with one pushing operation.

[0040] The start switch 8 is a switch which starts the display of the main game on the liquid crystal display device 3 with the pushing manipulation.

[0041] The second bet start switch 9 is a switch which allows the betting of a preliminarily determined predetermined number of (for example, 1) coins to the sub game once and, at the same time, to start the display of the main game or the sub game on the liquid crystal display device 3. Here, when the sub game is executed before the main game, the display of the sub game is started with the pushing manipulation of the second bet start switch 9, while when the sub game is executed after the main game, the display of the main game is started with the pushing manipulation of the second bet start switch 9. Further, in this embodiment, although the number of coins which can be bet for one sub game is preliminarily determined. However, in the same manner as the main game, the number of coins which can be bet also in the sub game can be arbitrarily selected by the player. Further, the number of coins which are bet in one sub game is referred to as "the second betting number" and the betting of coins (game mediums) to the sub game is referred to as "second betting".

[0042] The repeat bet start switch 10 is a switch which allows the betting of the coins the number of which is equal to the number of coins betted to the main game in the preceding time with the pushing manipulation and, at the same time, allows the betting of the coins to the sub game in the same manner when the coins are betted to the sub game besides the main game, and allows the liquid crystal display device to start the display of the main game or the sub game.

[0043] In this embodiment, the above-mentioned 1 bet switch 6, the maximum bet switch 7, the second bet start switch 9 and the repeat bet start switch 10 perform functions as betting units.

[0044] On a left side of the front portion of the base portion 4, a stored coin adjustment switch 11 which changes over the credit/payout of the coin which the player acquires in the game with the pushing manipulation is provided. Due to the changeover of this stored coin adjustment switch 11, the coins are paid out from a coin payout opening 12 formed in a lower portion of the front surface of the cabinet 2 and, thereafter, the paid-out coins are reserved in a coin receiving portion 13.

[0045] Further, on left and right side of an upper portion of the front face of the cabinet 2, speakers 14L, 14R are mounted.

[Electrical Constitution of Gaming Machine]

[0046] Fig. 2 shows the circuit constitution which includes a main control circuit 20 which constitutes a control part for controlling game processing operations in the gaming machine 1 and a peripheral device which is electrically connected with the main control circuit 20.

[0047] As shown in the drawing, the main control circuit 20 includes a central processing unit (hereinafter referred to as CPU) 21, a ROM (read only memory) 22, a RAM (random access memory) 23, a random number generating part 24, a group of interface circuits 25, 26, and an input/output bus 27 which is connected with these parts and allows inputting and outputting of data signals or address signals to and from the CPU 21.

[0048] To the above-mentioned group of interface circuits 25, the 1 bet switch 6, the maximum bet switch 7, the start switch 8, the second bet start switch 9, the repeat bet start switch 10 and the stored coin adjustment switch 11 described previously are connected. Upon manipulating the respective switches by pushing, detection signals are supplied to the group of interface circuits 25.

[0049] Further, to the above-mentioned group of interface circuits 25, a coin insertion sensor 28 which detects the coins inserted into the coin insertion slot 5 and a payout coin sensor 30 which detects the coins paid out from the payout device 29 are also connected. When the coins pass the respective sensors 28, 30, the detection signals are supplied to the group of interface circuits 25.

[0050] In this manner, the detection signals which are supplied to the group of interface circuits 25 are converted into predetermined signals and, thereafter, are supplied to the CPU 21 through the input/output bus 27.

[0051] The above-mentioned ROM 22 stores following tables and control commands in the main game and the sub game besides programs and data necessary for controlling the game executed by the gaming machine 1 in the main game and the sub game. That is, the ROM 22 stores "a probability lottery table" which is used by reference in determining the number of blocks a1 to be eliminated in the main game or the sub game, "image tables" which are provided corresponding to the number of eliminated blocks a1 determined using "the probability lottery table" by reference and is used by reference in determining the image to be displayed on the display region 3a of the liquid crystal display device 3 in the main game, the sub game or a special effect, "a second betting table" which is used by reference in determining which one of the special effect and the sub game is to be executed with respect to the second betting, and various control commands to be transmitted to respective peripheral devices and the like.

[0052] Here, data which is stored in the ROM 22 includes various image data such as the blocks a1 which fall and are stacked in the display region 3a of the above-mentioned liquid crystal display device 3 when the main game or the sub game is executed, background image data which constitutes a background in the display region 3a of the liquid crystal display device 3 such as a container a2 and a mixer a3 described later, character image data which indicate characters such as a bug a4 described later, image data of a demonstration screen which is displayed on the display region 3a of the liquid crystal display device 3 when the game is not performed in the gamingmachine 1 and the like. Specially, with respect to the image data of the blocks a1, a plural kinds of data which differ in patterns such as positions on which the respective blocks a1 fall, positions on which the respective blocks a1 are stacked, a positions at which the respective blocks a1 are eliminated and the like are stored corresponding to the number of blocks a1 to be eliminated. Further, the above-mentioned data also includes sound data used in the game, the initial data for executing a program and the like.

[0053] By executing the above-mentioned program, the plural kinds of blocks a1 fall in the inside of the predetermined region and are sequentially stacked. Simultaneously, when the neighboring blocks a1 become the same kind among the stacked blocks a1, it is possible to allow the main control circuit 20 to realize a display control function which displays a mode in which the neighboring blocks a1 are eliminated on the display region 3a of the liquid crystal display device 3 and a game medium giving function which gives a predetermined number of coins to the player corresponding to the number of blocks a1 to be eliminated on the display region 3a of the liquid crystal display device.

[0054] On the other hand, the RAM 23 is used as a working area on which the respective programs stored in the above-mentioned ROM 22 are executed.

[0055] The random number generating part 24 generates random numbers within a predetermined range upon receiving a command for generating random numbers from the CPU 21 and supplies signals which indicate the random-number values to the input/output bus.

[0056] The CPU 21 performs the arithmetic processing by calling and executing the predetermined programs from the ROM 22 and performs controls such as a control to transmit various image data, and the sound data as electronic data based on a result of the arithmetic processing and other controls. In this manner, the CPU 21 functions not only as the display control unit but also as a various units such as the game medium giving unit and the like.

[0057] To the group of interface circuits 26, the image data processor (hereinafter referred to as VDP) 31, the speakers 14L, 14R and the payout device 29 are connected. Further, to the group of interface circuits 26, drive signals and drive powers are supplied for controlling the above-mentioned respective devices in response to a result of the arithmetic processing in the CPU 21.

[0058] The above-mentioned VDP 31 is also connected to a D/A converter 32 which supplies the image data to the liquid crystal display device 3 after converting the image data to image signals. The VDP 31 is a device which includes so-called sprite circuit, screen circuit, a pallet circuit and the like and can perform various processing for displaying images on the liquid crystal display device 3. That is, the VDP 31 performs a display control with respect to the liquid crystal display device 3. Further, the VDP 31 is provided with a storage medium (for example, a video RAM) which functions as a buffer for displaying an image on the liquid crystal display device 3. By allowing a predetermined memory region of the storage medium to store the image data, the image is displayed on the display region 3a of the liquid crystal display device 3 at predetermined timing.

[0059] That is, the VDP 31 receives the various image data supplied from the CPU 21 and generates the image data to be displayed on the liquid crystal display device 3. Further, the VDP 31 stores the generated image data in the buffer sequentially in an overlapped manner from the image data positioned behind and supplies the image data to the D/A converter 32 at predetermined timing. The D/A converter 32 supplies the video data to the liquid crystal display device 3 after converting the image data into the image signal and hence, the image is displayed on the liquid crystal display device 3.

[0060] The payout device 29 includes an accommodating part which accommodates coins constituting game mediums and a drive part which pays out the coins. In response to a payout command supplied from CPU 21, the payout device 29 pays out a predetermined number of coins into a coin receiving part 13. In this

manner, the payout device 29 functions as a main game executing unit in cooperation with the above-mentioned CPU 21 and the like.

[0061] Here, although one arithmetic processing device which is constituted of the CPU 21 or the like is used in this embodiment, the number of the arithmetic processing devices is not limited to one. The arithmetic processing device may include a main control circuit (a main control part) which constitutes a main arithmetic processing device and a sub control circuit (a sub control part) which constitutes the sub arithmetic processing unit in charge of the image display. Further, the above-mentioned ROM 22 and RAM 23 may be provided in plural numbers respectively.

(Manner of operation of gaming machine)

[0062] The manner of the operation of the gaming machine 1 according to this embodiment which has the above-mentioned constitution is explained hereinafter.

[0063] In the gaming machine 1 of this embodiment, before the game starts, a chance to execute the first bet or the second bet is given to the player. When the first bet is performed by the player, the main game can be executed, while when the second bet is performed, a special effect can be executed before the main game starts or a sub game can be executed following the main game.

[0064] The main game starts when the player bets coins by manipulating the 1 bet switch 6 or the maximum bet switch 7 by pushing and, thereafter, manipulates the start switch 8 or the second bet start switch 9 by pushing. The main game also starts when the player manipulates the repeat bet start switch 10 by pushing.

[0065] When the main game starts, the container a2 is displayed in the display region 3a of the liquid crystal display device 3, and a mode in which the blocks a1 fall in the inside of the container a2 and are sequentially stacked is displayed. The blocks a1, assuming the inside of the container a2 as a predetermined region, fall until the whole predetermined region is filled with the blocks a1. To surfaces of the blocks a1, the identification information constituted of the characters which include numerals, symbols and patterns are marked. When the inside of the container a2 is filled with the blocks a1, among the blocks a1 stacked in the inside of the container a2, the blocks a1 which have the same identification information as the neighboring blocks a1 are eliminated each other, while in a space from which the blocks a1 are eliminated each other, the blocks a1 which are stacked above the space falls in the space and hence, the space is filled with the blocks a1. Further, in a space which is newly formed in the inside of the container a2, the blocks a1 again fall and hence, the inside of the container a2 is again filled with the blocks a1.

[0066] In this manner, the arrangement of the blocks a1 in the inside of the container a2 is updated and in the arrangement of the block a1 after updating, the blocks a1 which has the same identification information as the neighboring blocks a1 are again eliminated. In the main game, a cycle consisting of falling, stacking and elimination of the blocks a1 is repeated, and when none of the blocks a1 which fill the container a2 has the same identification information as the neighboring block a1, the main game is finished. Further, corresponding to the number of eliminated blocks a1 in the main game and the number of first betting a predetermined number of coins are paid out.

[0067] The special effect starts when the player, for playing the main game, bets the coins by pushing the 1 bet switch 6 or the maximum bet switch 7 by pushing and, thereafter, manipulates the second bet start switch 9 by pushing or when the repeat bet start switch 10 is manipulated by pushing when the second betting is performed in the preceding game. Then, the main game starts following this special effect.

[0068] When the special effect starts, the container a2 displayed also in the above-mentioned main game is displayed in the display region 3a of the liquid crystal display device 3 in an empty state. Thereafter, an upper side of the container a2 which is disposed outside a frame of the display region 3a at the beginning and can not be observed is displayed, a mixer a3 which is contiguously formed above the container a2 is displayed, and a mode in which a large number of blocks a1 are accommodated in the inside of the mixer a3 is displayed. In this manner, the blocks a1 which fall in the inside of the container a2 in the main game are displayed in the mode in which a backstage that the blocks a1 are supplied from the mixer a3 above the container a2 is displayed and, thereafter, one or a plurality of new blocks a1 are charged in the mixer a3 or in the mode in which one or a plurality of blocks a1 are taken out from the mixer a3.

[0069] Here, there exists a large possibility that the blocks a1 charged in the mixer a3 fall in the inside of the container a2 in the main game, while there exists a small possibility that the blocks a1 which are removed from the mixer a3 fall in the inside of the container a2 in the main game. That is, in this special effect, the player is informed of a fact that the probability that the predetermined block a1 fall in the inside of the container a2 is changed. Here, it is also possible to display the mode in which the predetermined block a1 is charged or removed as an effect without changing the falling probability of the predetermined block a1.

[0070] The sub game starts following the main game in the same manner as the special effect. That is, the sub game starts when the player bets the coins by pushing the 1 bet switch 6 or the maximum bet switch 7 by pushing and, thereafter, manipulates the second bet start switch 9 by pushing or when the repeat bet start switch 10 is manipulated by pushing when the second betting is performed in the preceding game.

[0071] When the sub game starts, from the inside of the container a2 which is filled with the blocks a1 and is

displayed on the display region 3a of the liquid crystal display device 3 when the main game is finished, one or the plurality of blocks a1 are eliminated and, thereafter, the cycle of falling, stacking and elimination of the blocks a1 which is executed in the main game is again started. Then, in the same manner as the main game, the sub game is finished when none of blocks a1 which fill the inside of the container a2 in the predetermined region has the same identification information as the neighboring blocks a1. Further, corresponding to the number of eliminated blocks a1 in the sub game and the number of second betting, a predetermined number of coins are paid out.

[0072] Here, in this embodiment, in executing the sub game, the number of first betting and the number of second betting are summed and, at the same time, the number of eliminated blocks a1 in the main game and the number of eliminated blocks a1 in the sub game are summed up so as to collectively perform the payout of the coins with respect to the main game and the sub game after the finishing of the sub game.

[0073] Next, the summary of a control operation of the CPU21 of the main control circuit 20 is explained in conjunction with flowcharts shown in Fig. 3 and Fig. 4.

(Main processing)

[0074] Fig. 3 shows a main processing routine of the gaming machine 1, wherein when a power source is supplied to the gaming machine 1, the main processing routine is called out and the main processing is executed by the CPU 21, first of all, in this main processing, the CPU 21 executes the initial setting such as the admission of RAM access, the back up restoring processing and the initialization of a working area (step S1). Next, the CPU 21 displays a demonstration screen on the display region 3a of the liquid crystal display device 3 (step S2), and determines whether the game is to be started or not (step S3). Here, the CPU 21 determines that the game is started when the 1 bet switch 6, the maximum bet switch 7 or the repeat bet start switch 10 is manipulated by pushing in the case that the coins are inserted in the gaming machine 1 or the coins are credited to the inside of the gaming machine 1.

[0075] When the CPU 21 does not determines that the game is started in the processing of the above-mentioned step S3, the flow again returns to the processing of step S2, while when the CPU 21 determines that the game is started, the game processing which performs the special effect, the main game or the sub game is executed (step S4). This gaming processing is explained in detail later.

[0076] Next, the CPU 21 determines whether the manipulation to cut the supply of power source to the gaming machine 1 from the outside is performed or not (step S5), when the CPU 21 determines that the power-source-cutting manipulation is performed, the CPU 21 cuts the supply of the power source to the gaming machine 1 (step S6) and this sub routine is finished.

(Game processing)

[0077] Fig. 4 shows a game processing routine which is called out and executed in the game processing in step S4 in Fig. 3. When the game processing routine is called out and executed, the CPU 21 determines whether the first betting is performed or not by the pushing manipulation of the 1 bet switch 6, the maximum bet switch 7 or the repeat bet start switch 10 by the player (step S11).

[0078] The CPU 21 repeats the processing of the step S11 until the CPU 21 determines that the first betting is performed. When the CPU 21 determines that the first betting is performed, the CPU 21 stores the number of first betting in a predetermined region of the RAM 23 (step S12). Then, the CPU 21 determines whether the second betting is performed or not by the pushing manipulation of the second bet start switch 9 or the repeat bet start switch 10 (step S13) . When the CPU 21 determines that the second betting is performed, the number of second betting is added to the number of the first betting which is set in the predetermined region of the RAM 23 and sets the total number of bets and, at the same time, sets a second betting execution flag in a predetermined region of the RAM 23 (step S14). Here, when the second betting is not performed, the above-mentioned number of the first betting directly becomes the total number of bets.

[0079] When the processing in step S14 is finished and the CPU 21 determines that the second betting is not performed in the processing of the step S13, the CPU 21 determines whether the game is started or not by the pushing manipulation of the start switch 8, the second bet start switch 9 or the repeat bet start switch 10 (step S15).

[0080] The CPU 21 repeats the processing of the step S15 until the CPU 21 determines that the game is started. When the CPU 21 determines that the game is started, the CPU 21 executes the internal lottery processing (step S16). Inthisinternal lottery processing, the CPU 21 determines whether the second betting execution flag is set in the predetermined region of the RAM 23 due to the processing of the step S14. When the CPU 21 determines that the second betting execution flag is set, the CPU 21 allows the random number generating part 24 to generate the random number and samples an added-value-determining randomnumber value for determining which is to be executed between the special effect and the sub game. Further, by collating the added-vale-determining random value with a second betting table, the CPU 21 determines to execute either one of the special effect and the sub game with respect to the second betting.

[0081] Further, in this internal lottery processing, the CPU 21 allows the random number generating part 24 to generate the random numbers and samples an elim-

ination-number-determining random number value which determines the number of the eliminated blocks a1 in the main game and the sub game and an image-determining random number value for determining an image of the blocks a1 displayed in the display region 3a of the liquid crystal display device 3 in the main game the sub game and the special effect. Here, although the elimination-number-determining random number value and the image-determining random number value for the main game are always sampled, the elimination-number-determining random number value and the image-determining random number value for the sub game are sampled only when the execution of the sub game is determined, while the image determining random number value for the specific effect is sampled only when the execution of the special effect is determined.

[0082] Further, the CPU 21 determines the number of blocks a1 to be eliminated in the main game or the sub game by collating the elimination-number-determining randomnumber value with a probability lottery table, selects an image table corresponding to the determined elimination number of blocks a1, and determines the image of the blocks a1 to be displayed by collating the image-determining random number value with the selected image table. Here, in the image table, a background image or a character image is made to correspond to the image of the block a1 and hence, when the image of the blocks a1 is determined, the background image or the character image which is displayed simultaneously with the image of the blocks a1 is also determined.

[0083] Next, the CPU 21 executes the game execution processing (step S17). In this game execution processing, the CPU 21 supplies the data of the image of the blocks a1 determined in the processing of the step S16 and the data of the image displayed on the display region 3a of the liquid crystal display device 3 in the main game, the sub game or the special effect, and the data of sound outputted from the speakers 14L, 14R in conformity with the image display to the group of the interface circuits 26, and operates the liquid crystal display device 3 and the speakers 14L, 14R so as to execute the main game, the sub game or the special effect.

[0084] Then, when a predetermined game execution time elapses, the CPU 21 executes the prize awarding processing (step S18). In this prize awarding processing, the CPU 21 reads out the elimination number determined in the internal lottery processing of the step S16 and the total betting number which is decided by the processing of the step S12 or the step S14 from the predetermined region of the RAM 23, multiplies the elimination number and the total betting number, and sets the multiplied number in a predetermined region of the RAM 23 as the number of coins to be paid out from the payout device 29. Further, the CPU 21 outputs a payout start command signal to the payout device 29 so as to drive the payout device 29 and the payout device 29 pays out the coins. Thereafter, when the payout number of coins detected by the payout coin sensor 30 agrees with the payout number set in the predetermined region of the RAM 23, the CPU 21 outputs a payout completion command signal to the payout device 29 and hence, the payout device 29 finishes the payout of the coins. Here, when the elimination number is "0", the payout number from the payout device 29 also becomes "0". When this processing is finished, the sub routine is finished.

[Explanation of display screen]

[0085] Here, assuming an actual gaming situation using the gaming machine 1 of this embodiment, display modes on the display region 3a of the liquid crystal display device 3 in the main game, the special effect and the sub game are explained using Fig. 5A to Fig. 25.

(Main game)

[0086] As shown in Fig. 5A and Fig. 5B, in the main game, when the game is started, the container a2 which is capable of accommodating the blocks a1 is displayed on the center of the display region 3a, and the blocks a1 fall into the inside of the container a2 from above. The falling pattern of the blocks a1 may be a pattern shown in Fig. 5A in which a plurality of blocks a1 which are arranged in an array fall in the inside of the container a2 or a pattern shown in Fig. 5B in which one or a plurality of blocks a1 fall in a scattered manner.

[0087] Further, finally the inside of the container a2 is filled with the blocks a1 with no gap as shown in Fig. 6. Here, assuming the inside of the container a2 as a predetermined region, when the blocks a1 are accommodated in the inside of the predetermined region without any gap, 35 pieces of blocks a1 in total which are arranged in five columns vertically and seven rows laterally are housed in the predetermined region in an arranged manner. Further, in such a state that the inside of the container a2 which constitutes the predetermined region is filled with the blocks a1, when the blocks a1 which are marked with the same identification information are arranged next to each other in the upper and lower direction or in the left and right direction, the blocks a1 are displayed in an emphasized manner and, thereafter, the blocks a1 are eliminated as shown in Fig. 7.

[0088] Here, on respective blocks a1, any one of seven kinds of identification information consisting of "7", "A", "B", "C", "BAR", "triangle symbol", "star symbol" is marked. Further, when the arrangement of the blocks a1 in the inside of the container a2 is set such that the rows are referred to as first to seven rows in order from the bottom and the columns are referred to as first to fifth columns in order from the left, in Fig. 6 and Fig. 7, three blocks a1 marked with "7" are arranged in the third row, two blocks a1 marked with "7" are arranged in the third column, and two blocks a1 marked with the "BAR" are arranged in the fifth row. These blocks a1 are eliminated after the emphasized display.

[0089] When the blocks a1 are eliminated in this manner, in the space which becomes empty due to the elimination of the block a1, the blocks a1 arranged above the empty space fall into the empty space so as to fill the empty space and a space is formed on an upper portion side of the container a2. Then, the blocks a1 again fall into the newly formed space from above the container a2 and, thereafter, as shown in Fig. 9, the inside of the container a2 is filled with the blocks a1 without any gap.

[0090] In Fig. 9, two blocks a1 marked with "B" which are arranged in parallel in the second row and two blocks a1 marked with "star shape" which are arranged in parallel in the fourth row are displayed in an emphasized manner. Further, in Fig. 9, the blocks a1 marked with "WILD" are displayed in an emphasized manner on the second column and the seventh row as well as on the fifth column and the sixth row, wherein these blocks a1 marked with "WILD" and the blocks a1 which are arranged in parallel on the left and right sides as well as on the upper and lower sides of the these blocks a1 marked with "WILD" are also displayed in an emphasized manner. This is because that the block a1 marked with the identification information "WILD" constitutes a special block which is considered to have the same identification information as the blocks a1 which are arranged next to the special block a1 in the left and right direction as well as in the upper and lower direction.

[0091] The blocks a1 which are displayed in an emphasized manner as described above are, thereafter, eliminated as shown in Fig. 10. Then, as shown in Fig. 11, in an empty space defined due to the elimination of the blocks a1, the blocks a1 above the empty space fall whereby a space is formed above an upper side of the container a2. The blocks a1 again fall into the newly formed space from above the container a2 and hence, the inside of the container a2 is again filled with the blocks a1 without gaps as shown in Fig.12. In Fig. 12, in all blocks a1, there exists no block a1 which has the same identification information on a surface thereof with the blocks a1 which are arranged next to the former block a1 in the left and right direction as well as in the upper and lower direction. In this manner, with respect to any block a1, when the identification information on the surface of the block a1 becomes different from the identification information on the surfaces of the neighboring blocks a1, the main game is finished.

[0092] The above-mentioned main game uses eight kinds in total of blocks a1 which are constituted of usual blocks a1 marked with seven kinds of identification information consisting of "7", "A", "B", "C", "BAR", "triangle symbol", "star symbol" and the special block a1 which marks the identification information "WILD". Further, with the use of the blocks a1 which are marked with identification information "DLIW" as the second special block, it is possible to execute a main game which differs from the above-mentioned main game with respect to the elimination pattern of the blocks a1.

[0093] That is, in the above-mentioned main game, the block a1 which is marked with "WILD" is eliminated simultaneously with the neighboring blocks a1 which are arranged next to the block 1a in the left and right direction as well as in the upper and lower direction. In place of such an elimination pattern, the block a1 which is marked with "WILD" is not eliminated and only the neighboring blocks a1 which are arranged next to the block 1a in the left and right direction as well as in the upper and lower direction are eliminated. Further, when the block a1 which is marked with "DLIW" is arranged next to the block a1 which is marked with "WILD" in any one of the left and right direction as well as in the upper and lower direction, the block a1 which is marked with "WILD" is eliminated together with the block a1 which is marked with "DLIW".

[0094] For example, Fig. 13 shows a state in which the game advances from the above-mentioned state shown in Fig. 10 and the blocks a1 marked with "WILD" and "DLIW" fall in the inside of the container a2. Here, the block a1 marked with "WILD" is arranged on the fifth column, the fourth row and the neighboring blocks a1 which are marked with "WILD" and are arranged next to the blocks 1a in the left and right direction as well as in the upper and lower direction are displayed in an emphasized manner. Then, as shown in Fig. 14, the blocks a1 which are displayed in an emphasized manner are eliminated. Then, in an empty space formed by the elimination of the blocks 1a, the block a1 above the empty space fall and a space is formed on an upper portion side of the container a2. In this newly formed space, as shown in Fig. 15, the blocks 1a again fall from above the container a2, the inside of the container a2 is again filled with the blocks 1a without any gap, and the blocks a1 which are newly arranged next to the block 1a on which the "WILD" is marked in the left direction as well as in the upper and lower direction are displayed in an emphasized manner and, thereafter, the emphasized blocks a1 are eliminated.

[0095] In this manner, the block a1 marked with "WILD" eliminates the neighboring blocks a1 which are arranged next to the block a1 marked with "WILD" each time the block a1 falls and moves to the first row which constitutes the lowermost row. Then, after moving to the first row, the block a1 marked with "WILD" continues to eliminate the blocks a1 which fall to the left side and above the block a1 marked with "WILD". Further, as shown in Fig. 16, when the block a1 marked with "DLIW" falls to the left side of the block a1 marked with "WILD", not only the block a1 marked with "DLIW" which is arranged on the left side of the block a1 marked with "WILD" and the block a1 marked with "DLIW" which is arranged above the block a1 marked with "WILD" are displayed in an emphasized manner but also the block a1 marked with "WILD" per se is displayed in an emphasized manner and, thereafter, as shown in Fig. 17, all three blocks a1 which are displayed in the emphasized manner are eliminated.

[0096] Then, the blocks a1 fall again and hence, the inside of the container a2 is filled with the blocks a1 without gaps and, as shown in Fig. 18, when the identification information expressed on the surface of any block a1 does not become equal to the identification information expressed on the blocks a1 which are arranged close the block, the main game is finished.

[0097] In this manner, by performing the main game using the block a1 marked with "WILD" which eliminates the neighboring blocks a1 in four directions while preventing the elimination thereof and the block a1 marked with "DLIW" which eliminates not only the block a1 itself when the block a1 is arranged next to the block a1 marked with "WILD" in any one direction but also the block a1 marked with "WILD", chances that the blocks a1 are eliminated in the main game are increased and hence, the possibility that the player enjoys the advantageous playing state is increased whereby the expectation that the player holds with respect to a result of the game of the player can be enhanced.

(Special effect)

[0098] In the special effect shown in Fig. 19A, when the effect is started, a container 2a which is capable of accommodating the blocks a1 which are also displayed in the main game is displayed at the center of the display region 3a in an empty state. Then, as shown in Fig. 19B, a portion of the container a2 which is displayed in the display region 3a is gradually moved to an upper side of the container a2 thus showing a state in which a mixer a3 is contiguously formed on an upper end of the container a2. Then, as shown in Fig.20A, finally, a state in which the plurality of blocks a1 marked with identification information on surfaces thereof are accommodated in the inside of the mixer a3 and are agitated is displayed. In this manner, the player is informed of the fact that the blocks a1 are supplied to the container 2a from the mixer 3a. Then, a state in which the blocks a1 marked with "WILD" which constitute the special blocks are charged in the inside of the mixer a3 is displayed thus informing the player of the fact that the possibility that the blocks a1 marked with "WILD" which are advantageous for the player fall in the container 2a is increased.

[0099] Next, as shown in Fig. 20B, a portion displayed in the display region 3a is moved downwardly to the container a2 from the mixer a3 and, finally, the empty container a2 shown in Fig. 19A is displayed thus finishing the special effect. After such a special effect, the game is shifted to the above-mentioned main game and the blocks a1 fall from above in the inside of the container a2 which is empty at a point of time that the special effect is finished (see Fig. 5).

[0100] In this manner, by displaying that the given kinds of blocks a1 are newly added to the blocks a1 which fall in the inside of the container a2 as the special effect before executing the main game, it is possible to inform the player of the fact that the possibility that the newly-added given kinds of blocks a1 fall in the main game is increased. That is, it is possible to give the new information which the player cannot obtain when the player performs only the first betting for simply executing the main game to the player who performs also the second betting as "a value". Specially, as exemplified in Fig. 20A, by adding the special blocks a1 advantageous for the player, it is possible to provide the gaming state which is apparently advantageous for the player who performs the second betting and hence, it is possible to surely recognize the player that the second betting is not used wastefully. Accordingly, the special effect gives an impetus to the player to positively perform the second betting.

(Sub game)

[0101] The sub game is, as mentioned previously, executed after the finishing of the main game. In the sub game, some of the blocks a1 which are left in the inside of the container a2 without being eliminated in the main game are eliminated so as to change the arrangement of the blocks a1 which are packed inside the container a2 and, at the same time, new blocks a1 are allowed to fall in the container a2 thus reproducing the possibility that the neighboring blocks a1 turn out to have the same identification information marked on the surface of the block a1 among the neighboring blocks a1.

[0102] Fig. 21 shows a state in which the main game is completely finished and there is no falling of the blocks a1 in the inside of the container a2. When the game assumes such a state, on the display region 3a of the liquid crystal display device 3, beside the container a2 which is already displayed, a bug a4 which eats and eliminates the special block a1 is displayed. Here, the sub game is executed such that the blocks a1 marked with "A" are specifically eliminated by the bug a4. Also in Fig. 21, the identification information "A" which constitutes the identification information of the blocks a1 to be eliminated is displayed on a surface of the bug a4.

[0103] Then, the above-mentioned bug a4 invades and freely moves in the inside the container a2 and, as shown in Fig. 22, eats and eliminates the blocks a1 marked with "A" among the blocks a1 which are positioned on a moving locus of the bug a4. Here, the sub game may be executed such that the bug a4 moves every corner of the container a2 so that all of the blocks a1 marked with "A" which are accommodated in the inside of the container a2 are eliminated.

[0104] When the blocks a1 are eliminated in this manner, as shown in Fig. 23, in empty spaces formed by the elimination of the blocks a1, the blocks a1 above the space fall in the empty space and fill the space, and a space is formed on the upper side of the container a2. Then, toward the newly formed space, the blocks a1 fall again from above the container a2 and hence, the inside of the container a2 is again filled with the blocks a1 with-

out gaps as shown in Fig. 24.

[0105] Here, two blocks a1 marked with "7" are arranged in parallel in the third row and, at the same time, two blocks a1 marked with "A" are arranged in parallel in the seventh row, and these blocks a1 are displayed in an emphasized manner. In this manner, by allowing the bug a4 to eat and eliminate the blocks a1, it is possible to form the space in the upper side of the container a2 and to allow the new blocks a1 to fall in the inside of the container a2. Further, the arrangement of the blocks a1 accommodated in the inside of the container a2 is changed thus giving rise to the possibility that the neighboring blocks a1 have the same identification information.

[0106] In this manner, the blocks a1 which have the same identification information with the neighboring blocks a1 and are displayed in an emphasized manner are eliminated thereafter. Then, the above-mentioned falling, stacking and elimination of the blocks a1 are repeated and, when none of the blocks a1 which are accommodated in the inside of the container a2 has the same identification information marked on the surface thereof as the neighboring block a1, the sub game is finished.

[0107] In this manner, according to the above-mentioned sub game, the blocks a1 which are not eliminated in the main game are again eliminated using the bug a4 and hence, the number of blocks a1 which are eventually eliminated can be increased thus providing the gaming situation advantageous for the player. Accordingly, it is possible to allow the player to strongly recognize that the second betting is not performed wastefully thus allowing the player to positively perform the second betting. Further, there arises the possibility that the chain constituted of falling, stacking and elimination of the blocks 1a which is once finished in the main game is again generated in the sub game and hence, it is possible to further encourage the player to perform the second betting.

[0108] Here, in the above-mentioned example shown in Fig. 21 to Fig. 24, as the blocks a1 to be eliminated firstly at the beginning of the sub game, only the blocks a1 of the specified kind (blocks a1 marked with "A") are eliminated. However, the present invention is not limited to such an example and all blocks a1 can be eliminated in a randommanner.

[0109] For example, as shown in Fig. 25, when the sub game is started, the bug a4 which eats and eliminates any blocks a1 marked with any identification information is displayed on the display region 3a of the liquid crystal display device 3, the bug a4 invades and freely moves in the inside of the container a2 which is already displayed in the display region 3a, and the bug a4 eats and eliminates all blocks a1 positioned on the moving locus thereof and hence, the blocks a1 accommodated in the inside of the container a2 can be eliminated in a random manner.

[0110] Although the first embodiment of the present invention has been explained heretofore, only the specific example is illustrated and the embodiment does not limit the present invention. That is, although this embodiment is mainly characterized by the gaming machine which includes: display means which is capable of displaying a predetermined game mode using plural kinds of blocks on a screen; display controller which allows the display means to display, as the predetermined game mode, a game mode in which when the plural kinds of blocks are displayed in a stacked manner within a predetermined region of the screen and the blocks which are arranged next to each other turn out to be the same kind, the blocks which are arranged next to each other are eliminated; and payout means which gives a player the predetermined number of game mediums in accordance with the number of blocks which are eliminated on the display means, the designing of the specific constitution and the control of the display means, the display controller and the payout means can be suitably changed.

[0111] Further, the first embodiment of the present invention is also directed to the method for controlling gaming machine for allowing a computer to realize the display control function of allowing the display means to display the game mode in which, when the plural kinds of blocks are fallen in a stacked manner within a given range of the screen of the display means and the blocks which are arranged next to each other turn out to be the same kind among the stacked blocks, the blocks which are arranged next to each other are eliminated, and the game medium giving function of giving a player the predetermined number of game mediums in accordance with the number of blocks which are eliminated on the display means. However, this program can be provided in a form that the program is recorded in a recording medium which the computer can read the program from the recording medium. Alternatively, the program may be stored in a predetermined server and is made communicable with a terminal via the Internet thus allowing the terminal to realize the above-mentioned functions.

[0112] Further, the advantageous effects obtained by the first embodiment of the present invention are merely listed as the most preferable advantageous effects obtained by the present invention and the advantageous effects of the present invention are not limited by the first embodiment of the present invention.

[Second Embodiment]

[0113] The gaming machine according to this embodiment includes: display means which is capable of displaying a predetermined game mode on a screen; display controller which allows the display means to display, as the predetermined game mode, a first game mode in which plural kinds of identification information images are changeably displayed on the screen of the display means and, thereafter, the identification information images are stopped and displayed on the screen

of the display means, and a second game mode in which, provided that special identification information image among the identification information images is displayed in a stopped state on the screen of the display means, when the plural kinds of blocks are displayed in a stacked manner within a predetermined region of the screen and when the blocks which are arranged next to each other turn out to be the same kind, the blocks which are arranged next to each other are eliminated; and payout means which gives a player the predetermined number of game mediums in accordance with the number of blocks which are eliminated on the display means to a player.

[0114] Further, the gaming machine may be configured such that a control part in the inside of the gaming machine functions as the display controller and allows the display means which is constituted of a liquid crystal display device (LCD), a CRT, a plasma display device or the like to changeably display the plural kinds of identification information image with the manipulation of manipulation means. Further, the gaming machine is also configure to perform a control to stop and display the plural kinds of identification information image which are changeably displayed based on the control performed by the display controller.

[0115] Further, the display controller is configured to perform a control such that in the case that the special identification information image is displayed in a stopped state on the display means or in the case that the special identification information image is displayed in a stopped state in a specified combination on the display means, when the neighboring blocks become the same kind among the plural kinds of stacked blocks which are displayed on the display region of the display means, a special game mode in which the neighboring blocks are eliminated is displayed.

[0116] That is, the gaming machine, in a usual gaming state before allowing the display means to perform the display of the special identification information image in a stopped state, performs the game in a gaming state which is performed using a conventional slot machine or a conventional slot machine which includes stop means for stopping the changeable display of the identification information.

[0117] Then, when the special identification information image is displayed in a stopped state on the display means or when the special identification information image is displayed in a special combination in a stopped state on the display means, the gaming state is shifted to a special gaming state which is advantageous for the player.

[0118] Further, in this special gaming state, the game is performed in a gaming state which is completely different from the gaming state which is performed using the conventional slot machine or the conventional slot machine which includes stop means. That is, in this special gaming state, the blocks which are displayed on the display means are eliminated and the number of game mediums corresponding to the number of the eliminated blocks are given to the player.

[0119] Further, the control part in the inside of the gaming machine also functions as the payout means and, in the usual gaming state, when the given identification information image is displayed in a stopped state on the display means in a given combination, performs a control such that the number of game mediums corresponding to the identification information image displayed in a stop state are given to the player. Further, the control part performs a control which gives the predetermined number of game mediums corresponding to the number of eliminatedblock on the display means.

[0120] As the above-mentioned game mediums, in addition to coins, medals or tokens, it is possible to use cards in which the information on game values which are given to the player or are expected to be given to the player is stored. The function which is to be performed by the payout means is substantially commonly performed, that is, not only by the control part in the inside of the gaming machine but also by a payout device of the game mediums and the like which are driven in accordance with commands from the control part. Here, when the game mediums are used in a form of electronic information by displaying images which imitate coins or medals on the display means without using the above-mentioned actual game mediums, only the control part of the gaming machine performs the function as the payout means.

[0121] In this manner, according to the gaming machine of this embodiment, the rules to be observed in playing the game completely differ between the usual gaming state and the special gaming state and hence, the game can allow the player to enjoy the game with the novel gaming mode which has not been known heretofore and, at the same time, the game can imparts the freshness thus enhancing the desire of the player to play the game.

[0122] Further, the gaming mode displayed on the displaymeans also differs between the usual gaming state and the special gaming state and hence, the player never gets bored with the game using the gaming machine and involves himself/herself in the game for a long time.

[0123] Further, in a special gaming state, since the number of game mediums given to the player is changed corresponding to the number of the eliminated blocks and hence, the player performs the game while looking for a block which has the same kind of identification information as the neighboring block among the stacked blocks whereby it is possible to attract the attention of the player to the game.

[0124] Further, in the above-mentioned gaming machine, the gaming machine may include a betting means for betting the gaming medium. Here, an amount of the gaming mediums which is given to the player by the payout means can be changed in response to the number of game mediums which the player bets (hereinafter referred to as the number of betting) using the payout

means.

[0125] In this case, with a will of the player, it is possible to increase or decrease the number of game mediums which is given to the player after the game and is determined based on the number of blocks eliminated on the display means in which the player cannot be involved whereby the player can positively take part in the game. Here, as the betting means, a bet switch or the like which the player can manipulate is mounted on the gaming machine and the control part may receive an input from a bet switch .

[0126] As the timing for eliminating the blocks in the display means, it is possible to adopt a point of time at which the whole inside of the predetermined region is filled with the stacked blocks or a point of time that the block to be eliminated first is selected by the block selection means described later after the whole inside of the predetermined region is filled with the stacked blocks.

[0127] By eliminating the blocks at such timing, a space where the blocks are not present is partially formed in the inside of the predetermined region where the blocks are filled and hence, it is possible to exhibit the mode in which the blocks are eliminated in a more explicit manner to the player.

[0128] Further, it is possible to allow the player to clearly recognize that each time the blocks are eliminated, the number of the game mediums to be given after the game is added. Accordingly, the player's interest in the game can be enhanced. Here, it is also possible that the in a stage that whole inside of the predetermined region is not filled with the stacked blocks, the blocks arranged next to each other which turn out to be the same kind are eliminated.

[0129] Further, in the special gaming state, as the game mode which the display controller allows the display means to display, following the above-mentioned mode in which the blocks are made to fall, are stacked and are eliminated, in the space where the blocks are eliminated, the blocks which are stacked above the space are made to fall and are filled in the space, and new blocks are made to fall in the space which is formed by the fall of the blocks whereby the whole predetermined region is filled with the blocks thus updating the block arrangement. Accordingly, it is possible to sequentially display the mode in which when the neighboring blocks turn out to be the same kind in the block arrangement after such updating, the neighboring blocks are again eliminated.

[0130] In this manner, by sequentially updating the block arrangement, the player cannot understand the number of blocks which are eliminated until the game is finished. Accordingly, the player continuously focuses his/her attention to the display means and hence, the player is continuously attracted by the game.

[0131] Further, the gaming machine is provided with block selection means which, in the special gaming state, selects given kinds of the blocks among the plural kinds of stacked blocks when the whole inside of the predetermined region is filled with the stacked blocks and eliminates the selected blocks. Here, as the block selection means, a block selection switch which can be manipulated by the player or the like may be mounted on the gaming machine and an input from the block selection switch may be received by the control part.

[0132] Here, the block selection means is not limited to the above-mentioned block selection switch. For example, the display means may be provided with a touch panel function and the kind of the block to be eliminated first maybe selected when the player touches the display means.

[0133] When the block selectionmeans has such a configuration, the fact that the player touches the display means is detected by the control part.

[0134] Due to such a constitution, in starting the special gaming state, the player can freely select the kind of the block to be eliminated first and hence, the player can strongly perceive the sense of participation to the game.

[0135] Further, depending on the kind of the blocks selected here, the number of blocks to be eliminated in series thereafter differs. Accordingly, the player selects the kind of the block to be eliminated first while taking the elimination of the blocks to be eliminated in series hereinafter into consideration and hence, the player is attracted to the game in the special gaming state.

[0136] The finishing of the game is set to a point of time that, in the display means, when each one of all stacked blocks becomes different from the neighboring blocks in kind. In this manner, by setting the finishing of the game to the point of time that there exists no possibility that the blocks are eliminated, the player can also easily understand the finishing of the game and hence, the gaming machine can allow the player to clearly recognize the finishing of the game.

[0137] In this embodiment, with respect to the above-mentioned blocks, the plural kinds of blocks are provided by marking different identification information constituted of characters including numerals, symbols, patterns and the like to the blocks or by applying different colors or shapes to the blocks.

[0138] Specially, according to the blocks of this embodiment, it is sufficient to ensure the recognition of the difference between the neighboring blocks, the shape of the blocks is not limited a rectangular shape which is generally expected as a shape of the blocks and may be a circular shape, a triangular shape or any other shape. Further, the above-mentioned identification information per se may be directly adopted as the shape of the blocks.

[0139] As the identification information marked on the blocks, it is preferable to use plural kinds of characters or patterns which are equal to the identification information images which are displayed changeably or in a stopped state on the display means in the usual gaming state.

[0140] Due to such a constitution, it is possible to provide the relevancy between the gaming mode in the usual gaming state and the gaming mode in the special gaming state and hence, it is possible to allow the player to enjoy the game without feeling discomfort in playing the game.

[0141] Further, it is possible to adopt one of the above-mentioned plural kinds of blocks as a special block which has a function of eliminating all blocks which are arranged next to the special block. That is, it is possible to provide the special block which is considered as a block which is the same kind as the neighboring blocks. Here, such a function of eliminating all the neighboring blocks may be provided not only with respect to one kind of blocks but also with respect to the plural kinds of blocks thus providing the special blocks in the plural kinds of blocks respectively.

[0142] With the provision of the special block which is capable of eliminating all blocks which are arranged next to the special block in this manner, when the special block falls on the display means, a large number of blocks are eliminated and hence, the player can acquire a large number of game mediums. Accordingly, the player expects the falling of this special block and hence, the game can attract the player's attention to the falling blocks and, at the same time, when the special block actually falls, the expectation of the player to the result of the game is enhanced thus allowing the player to enjoy the game.

[0143] Further, also in the conventional gaming machine such as a conventional slot machine or a conventional slot machine which includes the above-mentioned stop means which affords the winning when a predetermined number of identification information of the same kind are arranged in parallel, there exists the special identification information which is considered as the identification information equal to the neighboring identification information different from the identification information of the gaming machine per se. Since the above-mentioned special block performs a function similar to the function of the special identification information. Accordingly, while the game mode developed on the display means is novel, it is possible to allow the player to easily understand the function of the above-mentioned special block and allows the player to feel familiarity with the game.

[0144] Further, the special block per se can be eliminated together with the blocks which are arranged next to the special block. By eliminating the special block with the blocks which are eliminated by the special block, the special block is eliminated after performing the function only once and hence, the number of blocks which can be eliminated at a time can be limited to some extent using the special block. Accordingly, while providing a gaming state which is advantageous for the player using the special block, it is possible to prevent the game from becoming easy due to the elimination of the excessively large number of blocks at a time.

[0145] On the other hand, it is possible to provide a mode in which when the above-mentioned special block is arranged next to a second special block which is capable of eliminating the special block, the special block can be eliminated together with the second special block. [0141]

[0146] In this case, unless the second special block falls on the displaymeans, the special block continues to eliminate the large number of blocks which fall thereafter and hence, the number of the game mediums which the player can obtain can be increased thus providing the gaming state which is extremely advantageous for the player.

[0147] Accordingly, the expectation of the player on a result of the game is further enhanced whereby the gaming machine can attract the player to the game.

[0148] Here, a control part in the inside of the gamingmachine which functions as the above-mentioned respective means includes a CPU, a memory which stores a gaming program for the whole game and a program which allows the above-mentioned respective means to function and the like and controls the whole game in the gaming machine.

[0149] Further, in the above-mentioned embodiment, the explanation has been made with respect to the game which is played using a gaming machine actually installed in a gaming arcade or the like. However, the present invention may be directed to a method for controlling gaming machine for allowing a computer to realize a display control function inwhichdisplaymeans is allowed to changeably display plural kinds of identification information images and, and in the case that a special identification information image is displayed in a stopped state, when the neighboring blocks become the same kind among the plural kinds of stacked blocks displayed on a display region of the display means, the display means is allowed to display a special game mode which eliminates the neighboring blocks, a block selection function in which upon receiving a manipulation of a player, given kinds of blocks are selected among the stacked blocks and the selected blocks are eliminated, and a gaming medium giving function which gives a predetermined number of game mediums to the player corresponding to the number of blocks which are eliminated on the display screen.

[0150] Further, by executing this program using suitable means, anyone can enjoy the game which gives an interest which has been not known without attending to a gaming arcade.

[0151] Further, such a program can be provided in a form that the program is stored in a recording medium which a computer can read or in a form that the program is stored in a given server and the server is made communicable with terminals via the Internet whereby users can enjoy the game having the interest at the terminals.

[0152] Hereinafter, the second embodiment is specifically explained in conjunction with the drawings. Here, thegaming machine explained hereinafter uses coins as

the game mediums.

[0153] Further, in the gaming machine explained hereinafter, the explanation is made on the understanding that the game which is played in the usual gaming state is referred to as a usual game, a series of gaming modes from the falling of blocks to the elimination of blocks in the special gaming state is referred to as a bonus game, and games which are played in the special gaming state besides the bonus game are referred to as sub games.

[Constitution of Gaming Machine]

[0154] Fig. 26 is a perspective view showing an appearance of the gaming machine 101 which constitutes the second embodiment of the gaming machine according to the present invention.

[0155] On a front surface of a cabinet 102 which constitutes an overall profile of the gaming machine 101, a liquid crystal display device 103 which constitutes a display unit is mounted. It is possible to perform various types of displays using the whole display region 103a of the liquid crystal display device 103.

[0156] A pedestal portion 104 which projects horizontally is formed below the above-mentioned liquid crystal display device 103, wherein a coin insertion opening 105 is formed in a right side of an upper surface portion of the pedestal portion 104. Further, on a left side of the above-mentioned coin insertion opening 105, a 1 bet switch 106, a maximum bet switch 107, a start switch 108, a second bet start switch 109 and a repeat bet start switch 110, a block selection switch 115 are provided.

[0157] The 1 bet switch 106 is a switch which is used for betting the coins when the player plays the usual game or the bonus game.

[0158] Each time the 1 bet switch 106 is manipulated when the player pushes once, 1 coin is betted. Here, the number of coins which are betted in one game is referred to as "first betting number". Further, an operation to bet the coins (the playing mediums) to the game is referred to as "first betting".

[0159] The maximum bet switch 107 is a switch which allows the betting of the maximum number (for example, 3) of coins which can be bet to the game once to the game with one pushing operation.

[0160] The start switch 108 is a switch which starts the changeable display of the gaming mode on the liquid crystal display device 103 with the pushing manipulation.

[0161] That is, with the manipulation of the start switch 108 by pushing, in the usual gaming state, the display of the gamingmode of the usual game is started, while the display of the gaming mode of the bonus game is started in the special gaming mode.

[0162] The second bet start switch 109 is a switch which allows the betting of a predetermined number of (for example, 1) coins to the sub game once with the pushing manipulation and, at the same time, to start the display of the usual game, the bonus game or the sub game on the liquid crystal display device 103. Here, when the sub game is executed before the bonus game, the display of the sub game is started with the pushing manipulation of the second bet start switch 109, while when the sub game is executed after the bonus game, the display of the bonus game is started with the pushing manipulation of the second bet start switch 109.

[0163] Further, in this embodiment, although the number of coins which can be bet for one sub game is preliminarily determined. However, in the same manner as the usual game or the bonus game, the number of coins which can be bet also in the sub game can be arbitrarily selected by the player.

[0164] Further, the number of coins which are bet in one sub game is referred to as "the second betting number" and the betting of coins (game mediums) to the sub game is referred to as "second betting".

[0165] The repeat bet start switch 110 is a switch which allows the betting of the coins the number of which is equal to the number of coins betted to the usual game or the bonus game in the preceding time to the following game with the pushing manipulation and, at the same time, allows the betting of the coins to the sub game in the same manner when the coins are betted to the sub game besides the usual game or the bonus game, and to allow the liquid crystal display device to start the display of the usual game, the bonus game or the sub game.

[0166] The block selection switch 115 is a cruciform switch which functions as block selection means for selecting the block to be eliminated first among the plural kinds of blocks displayed on the liquid crystal display device 103 when the bonus game is started in the special gaming state.

[0167] Then, in selecting the block which the player wants to eliminate first in the bonus game, when the stacked blocks fill the whole inside of the predetermined region of the liquid crystal display device 103, the player manipulates the block selection switch 115 so as to align a block selection cursor 103c in the inside of the liquid crystal display device 103 with the desired kind of block.

[0168] Further, in this embodiment, the 1 bet switch 106, the maximum bet switch 107, the second bet start switch 109 and the repeat bet start switch 110 perform functions as betting units, while the start switch 108, the second bet start switch 109, the repeat bet start switch 110 perform functions as manipulation means which is manipulated for starting the game.

[0169] On a left side of the front portion of the pedestal portion 104, a stored coin adjustment switch 111 which changes over the credit/payout of the coin which the player acquires in the game is provided. Due to the changeover of this stored coin adjustment switch 111, the coins are paid out from a coin payout opening 112 formed in a lower portion of the front surface of the cabinet 102 and, thereafter, the paid-out coins are reserved in a coin receiving portion 113.

[0170] Further, on the left and right side of an upper portion of the front face of the cabinet 102, speakers 114L, 114R are mounted.

[Electrical Constitution of Gaming Machine]

[0171] Fig. 27 is a block diagram showing the circuit constitution which includes a main control circuit 120 which functions as a control part for controlling game processing operations in the gaming machine 101 and a peripheral device which is electrically connected with the main control circuit 120.

[0172] As shown in the drawing, the main control circuit 120 includes a central processing unit (hereinafter referred to as CPU) 121, a ROM (read only memory) 122, a RAM (random access memory) 123, a random number generating part 124, groups of interface circuits 125, 126, and an input/output bus 127 which allows inputting and outputting of data signals or address signals to and from the CPU 121.

[0173] To the above-mentioned group of interface circuits 125, the 1 bet switch 106, the maximum bet switch 107, the start switch 108, the second bet start switch 109, the repeat bet start switch 110, the stored coin adjustment switch 111 and the block selection switch 115 described previously are connected. Upon manipulating the respective switches by pushing, detection signals are supplied to the group of interface circuits 125.

[0174] Further, to the above-mentioned group of interface circuits 125, a coin insertion sensor 128 which detects the number of coins inserted into the coin insertion opening 105 and a payout coin sensor 130 which detects the_number of the coins paid out from the payout device 129 are also connected. When the coins pass the respective sensors 128, 130, the detection signals are supplied to the group of interface circuits 125.

[0175] In this manner, the detection signals which are supplied to the group of interface circuits 125 are converted into given signals and, thereafter, are supplied to the CPU 121 through the input/output bus 127.

[0176] The above-mentioned ROM 122 stores following tables and control commands in the usual game, the bonus game and the sub game besides programs and data necessary for controlling the game executed by the gaming machine 1 in the usual game, the bonus game and the sub game. That is, the ROM 122 stores a usual game probability lottery table which is used by reference at drawing a lottery of win/lose of the game in he usual game, "a probability lottery table" which is used by reference in determining the number of blocks a1 to be eliminated in the bonus game or the sub game, "image tables" which are provided corresponding to the number of eliminated blocks a1 determined using "the probability lottery table" by reference and is used by reference in determining the image to be displayed on the display region 103a of the liquid crystal display device 103 in the bonus game, the sub game or a special effect, "a second betting table" which is used by reference in determining which one of the special effect and the sub game is to be executed with respect to the second betting, and various control commands to be transmitted to respective peripheral devices and the like.

[0177] Here, data which is stored in the ROM 122 includes various image data such as the data of the symbol image which shows a plural kinds of identification information which are changeably displayed and are displayed in a stopped state on the display region 103a of the above-mentioned liquid crystal display device 103 when the usual game is executed, when the bonus game or the sub game is executed, the image data of the blocks a1 which fall and are stacked in the display region 103a of the above-mentioned liquid crystal display device 103 when the bonus game or the sub game is executed, the background image data which constitutes a background in the display region 103a of the liquid crystal display device 103 such as a container a2 and a mixer a3 described later, the character image data which indicate characters such as a worm a4 described later, the image data of a demonstration screen which is displayed on the display region 103a of the liquid crystal display device 103 when the game is not performed in the gaming machine 101 and the like.

[0178] Specially, with respect to the image data of the blocks a1, a plural kinds of data which differ in patterns such as positions on which the respective blocks a1 fall, positions on which the respective blocks a1 are stacked, a positions at which the respective blocks a1 are eliminated and the like are stored corresponding to the number of blocks a1 to be eliminated.

[0179] Further, the above-mentioned data also includes sound data used in the game, the command data for executing a program and the like.

[0180] By executing the above-mentioned program, when the plurality of kinds of identification information are changeably displayed on the display region 103a of the liquid crystal display device 103 and the special identification information is displayed in a stopped state, the plural kinds of blocks a1 fall in the inside of the display region 103a and are sequentially stacked. Simultaneously, when the neighboring blocks a1 become the same kind among the stacked blocks a1, it is possible to allow the main control circuit 120 to realize a display control function which displays a mode in which the neighboring blocks a1 are eliminated on the display region 103a of the liquid crystal display device 103 and a gaming medium giving function which supplies a predetermined number of coins to the player corresponding to the number of blocks a1 to be eliminated on the display region 103a of the liquid crystal display device 103.

[0181] On the other hand, the RAM 123 is used as a working area on which the respective programs stored in the above-mentioned ROM 122 are executed.

[0182] The random number generating part 124 generates random numbers within a given range upon receiving a command for generating random numbers from the CPU 121 and supplies signals which indicate

the random-number values to the input/output bus.

[0183] The CPU 121 performs the arithmetic processing by calling and executing the given programs from the ROM 122 and performs controls such as a control to transmit various image data, and the sound data as electronic data based on a result of the arithmetic processing and other controls.

[0184] In this manner, the CPU 121 functions not only as the display control unit but also as a various units such as the payout means and the like.

[0185] To the group of interface circuits 126, the image data processor (hereinafter referred to as VDP) 131, the speakers 114L, 114R and the payout device 129 are connected.

[0186] Further, to the group of interface circuits 126, drive signals and drive powers are supplied for controlling the above-mentioned respective devices in response to a result of the arithmetic processing in the CPU 21.

[0187] The above-mentioned VDP 131 is also connected to a D/A converter 132 which supplies the image data to the liquid crystal display device 103 after converting the image data to image signals. The VDP 131 is a device which includes so-called sprite circuit, screen circuit, a pallet circuit and the like and can perform various processing for displaying images on the liquid crystal display device 103. That is, the VDP 131 performs a display control with respect to the liquid crystal display device 103.

[0188] Further, the VDP 131 is provided with a storage medium (for example, a video RAM) which functions as a buffer for displaying an image on the liquid crystal display device 103.

[0189] Here, by allowing a given memory region of the storage medium to store the image data, the image is displayed on the display region 103a of the liquid crystal display device 103 at given timing.

[0190] That is, when the VDP 131 receives the various image data supplied from the ROM 122, based on this image data, the VDP 131 generates the digital image signal for allowing the liquid crystal display device 103 to display the image.

[0191] Further, the VDP 131 stores the generated digital image signal in the buffer sequentially and supplies the image signal to the D/A converter 132 at given timing.

[0192] The D/A converter 132 supplies the digital image signal to the liquid crystal display device 103 after converting the image data into the analogue image signal and hence, the image is displayed on the liquid crystal display device 103.

[0193] The payout device 129 includes an accommodating part which accommodates coins constituting game mediums and a drive part which pays out the coins. In response to a payout command supplied from the CPU 121, the payout device 129 pays out a predetermined number of coins into a coin receiving part 113. In this manner, the payout device 129 functions as the payout means in cooperation with the above-mentioned CPU 121 and the like.

[0194] Here, although one arithmetic processing device which is constituted of the CPU 121 or the like is used in this embodiment, the number of the arithmetic processing devices is not limited to one. The arithmetic processing device may include a main control circuit (a main control part) which constitutes a main arithmetic processing device and a sub control circuit (a sub control part) which constitutes the sub arithmetic processing unit in charge of the display image. Further, the above-mentioned ROM 122 and RAM 123 may be provided in plural numbers respectively.

(Manner of operation of gaming machine)

[0195] The manner of the operation of the gaming machine 101 according to the second embodiment which has the above-mentioned constitution is explained hereinafter.

[0196] In the gaming machine 101 of this embodiment, first of all, in the usual gaming state, the player bets the coins by manipulating the 1 bet switch 106 or the maximum bet switch 107 by pushing and hence, the usual game becomes ready for execution.

[0197] Here, when the player manipulates the start switch 108 by pushing, the usual game is started. Alternatively, when the player manipulates the repeat bet start switch 110 by pushing, the usual game is started.

[0198] When the usual game is started, based on the control performed by the CPU 121, an image having nine display windows 103b which are arranged in a 3-row x 3-column matrix array is displayed on the display region 103a of the liquid crystal display device 103 and the plural kinds of identification information are respectively changeably displayed in these respective display windows 103b.

[0199] Then, when a given time elapses, based on the control performed by the CPU121, the identification information which are changeably displayed in the respective display windows 103b are displayed in a stopped state.

[0200] Here, when the identification information are displayed in a stopped state that three same identification information are arranged in parallel on any one line out of eight lines which extend in the longitudinal, lateral and oblique directions and are displayed in the display region 103a of the liquid crystal display device 103, the player receives "winning", while when three same identification information are not displayed in a stopped state in which the identification information are arranged in parallel on any one line, the player receives "losing" and one usual game is finished.

[0201] Then, when the player receives "winning" in this usual game, the number of coins corresponding to the kinds of three identification information arranged in parallel in a stopped state are paid out.

[0202] Further, when three identification information

which are displayed in a stopped state where the identification information are arranged in parallel turn out to be the special identification information or when at least one special identification information is displayed in a stopped state among the identification information displayed in a stopped state, the gaming state is shifted from the usual gaming state to the special gaming state which is a gaming state advantageous for the player.

[0203] In the special gaming state, a chance to perform the first betting and the second betting before starting the game is given to the player and when the player performs the first betting, the bonus game becomes ready for execution. Then, when the player performs the secondbetting, the special effect is executed before the bonus game is started or the sub game becomes ready for execution following the above-mentioned bonus game.

[0204] In the bonus game, first of all, the container a2 is displayed on the display region 103a of the liquid crystal display device 103 and the mode in which the blocks a1 fall in the inside of the container a2 and are sequentially stacked is displayed.

[0205] The blocks a1, assuming the inside of the container a2 as the predetermined region, fall until the whole predetermined region is filled with the blocks a1.

[0206] Here, although the image in which the blocks a1 fall sequentially in the inside of the container a2 and fully fill the container a2 is displayed, in place of such a display, it is possible to display an image of the container a2 which is already fully filled with plural kinds of blocks a can be also displayed.

[0207] On surfaces the blocks a1, identification information constituted of characters, symbols or patterns which respectively include numerals are marked and the inside of the container a2 is fully filled with the blocks a1.

[0208] As an initial state, the block selection cursor 103c is displayed in a state that the block selection cursor 103c surrounds only one block a1 out of the blocks a1 which fully fill the inside of the container a2.

[0209] Then, with the manipulation of the block selection switch 115, the player can move the block selection cursor 103c on the kind of block a1 which the player desires thus selecting one block a1.

[0210] Thereafter, the bonus game is started when the player manipulates the start switch 108 or the second bet start switch 109 by pushing or, alternatively, the bonus game is also started when the player manipulates the repeat bet start switch 110 by pushing.

[0211] When the bonus game is started, first of all, all blocks a1 which are same kind as the block a1 selected by the manipulation of the block selection switch 115 are simultaneously eliminated.

[0212] Further, in the bonus game, as another initial state when the inside of the container a2 is fully filled with the blocks a1, it is possible to display selectable frames 103d which respectively surround seven blocks a1 which are arbitrarily determined among the blocks a1 which fully fill the inside of the container a2. In this case, the block selection cursor 103c is also displayed.

[0213] When the selectable frames 103d and the block selection cursors 103c are displayed, the player can move the block selection cursor 103c to the desired selectable frame 103d by manipulating the block selection switch 115 and, thereafter, the player can select one block a1 surrounded by the selectable frame 103d by manipulating the start switch 108.

[0214] Then, the player can move the block selection cursor 103c to another desired selectable frame 103dbymanipulating the block selection switch 115 and, thereafter, the player can select the second block a1 by manipulating the start switch 108 again.

[0215] Thereafter, the player continuously moves the block selection cursor 103c and manipulates any one of the start switch 108, the second bet start switch 109, the repeat bet start switch 110 by pushing so as to select the third block a1.

[0216] Then, the bonus game is started with such a switching operation.

[0217] In this manner, the player is entitled to freely select three desired blocks a1 among the blocks a1 surrounded by seven arbitrarily determined selectable frames 103d and, when the third block a1 is selected, three selected blocks a1 are simultaneously eliminated.

[0218] Here, in the space from which the blocks a1 are eliminated, the blocks a1 stacked above the space fall and hence, the space is filled with the fallen blocks a1. Thereafter, in a space which is newly formed in the inside of the container a2, the blocks a1 fall again thus allowing the inside of the container a2 to be fully filled with the blocks a1 again.

[0219] In this manner, among the blocks a1 which fully fill the inside of the container a2, the blocks a1 which have the same identification information as the neighboring blocks a1 are eliminated and, in the space formed by the elimination of the blocks a1, the blocks a1 which are stacked above the space again fall and fill the container a2.

[0220] Thereafter, in a space which is newly formed in the inside of the container a2, the blocks a1 fall again and the inside of the container a2 is again fully filled with the blocks a1.

[0221] In this manner, the arrangement of the blocks a1 in the inside of the container a2 is updated successively. With respect to the arrangement of the blocks a1 after updating, when the identification information of the block a1 becomes equal to the identification information of the neighboring blocks a1, the block a1 is eliminated each time.

[0222] In the bonus game, a cycle consisting of falling, stacking and elimination of the blocks a1 is repeated, and when none of the blocks a1 which fill the container a2 has the same identification information as the neighboring block a1, the bonus game is finished.

[0223] Further, corresponding to the number of eliminated blocks a1 in the bonus game and the number of first betting a predetermined number of coins are paid

out.

[0224] The special effect starts when the player, for playing the bonus game, bets the coins by pushing the 1 bet switch 106 or themaximumbet switch 107 by pushing and, thereafter, manipulates the second bet start switch 109 by pushing or when the repeat bet start switch 110 is manipulated by pushing when the second betting is performed in the preceding game. Then, the bonus game starts following this special effect.

[0225] When the special effect starts, the container a2 which is displayed also in the above-mentioned bonus game is displayed in an empty state on the display region 103a of the liquid crystal display device 103. Thereafter, an upper side of the container a2 which is disposed outside a frame of the display region 103a at the beginning and can not be observed is displayed, a mixer a3 which is contiguously formed above the container a2 is displayed, and a mode in which a large number of blocks a1 is accommodated in the inside of the mixer a3 is displayed.

[0226] In this manner, the blocks a1 which fall in the inside of the container a2 in the bonus game are displayed in the mode in which a backstage that the blocks a1 are supplied from the mixer a3 above the container a2 is displayed and, thereafter, one or a plurality of new blocks a1 are charged in the mixer a3 or the mode in which one or a plurality of blocks a1 are taken out from the mixer a3.

[0227] Here, there exists a large possibility that the blocks a1 charged in the mixer a3 fall in the inside of the container a2 in the bonus game, while there exists a small possibility that the blocks a1 which are removed from the mixer a3 fall in the inside of the container a2 in the bonus game.

[0228] That is, in this special effect, the player is informed of a fact that the probability that the given blocks a1 fall in the inside of the container a2 is changed. Here, it is also possible to display the mode in which the given block a1 is charged or removed as an effect without changing the falling probability of the given block a1.

[0229] The sub game starts, in the same manner as the special effect, when the player bets the coins by pushing the 1 bet switch 6 or the maximum bet switch 107 by pushing and, thereafter, manipulates the second bet start switch 109 by pushing or when the repeat bet start switch 110 is manipulated by pushing when the second betting is performed in the preceding game. The sub game starts following the main game.

[0230] When the sub game starts, from the inside of the container a2 which is filled with the blocks a1 and is displayed on the display region 103a of the liquid crystal display device 103 when the bonus game is finished, one or the plurality of blocks a1 are eliminated and, thereafter, the cycle of falling, stacking and elimination of the blocks a1 which is executed in the bonus game is again started.

[0231] Then, in the same manner as the bonus game, the sub game is finished when none of blocks a1 which fill the inside of the container a2 in the predetermined region has the same identification information as the neighboring blocks a1.

[0232] Thereafter, corresponding to the number of eliminated blocks a1 in the sub game and the number of second betting, a predetermined number of coins are paid out.

[0233] Here, in this embodiment, in executing the sub game, the number of first betting and the number of second betting are summed and, at the same time, the number of eliminated blocks a1 in the bonus game and the number of eliminated blocks a1 in the sub game are summed up so as to collectively perform the payout of the coins with respect to the bonus game and the sub game after the finishing of the sub game.

[0234] Next, the summary of a control operation of the CPU 121 of the main control circuit 120 is explained in conjunction with flowcharts shown in Fig. 28 and Fig. 31.

(Main processing)

[0235] Fig. 28 shows a main processing routine of the gaming machine 101, wherein when a power source is supplied to the gaming machine 101, the main processing routine is called out and the main processing is executed by the CPU 121.

[0236] First of all, in this main processing, the CPU 121 executes the initial setting such as the admission of RAM access, the back up restoring processing and the initialization of a working area (step S101).

[0237] Next, the CPU 121 executes processing which allows the display region 103a of the liquid crystal display device 103 to display a demonstration screen thereon (step S102).

[0238] Next, the CPU 121 determines whether the game is to be started or not (step S103).

[0239] Here, in this step S103, the CPU 121 determines that the game is started when the 1 bet switch 106, the maximum bet switch 107 or the repeat bet switch 110 is manipulated by pushing in the case that the coins are inserted in the gaming machine 101 or the coins are credited to the inside of the gaming machine 101 and advances the processing to step S104 and, when the CPU 121 determines that the game is not to be started, the processing returns to the step S102 and the display processing of the demonstration screen is continued.

[0240] In step S104, the CPU 121 performs the following game processing.

[0241] After the game processing is executed, the CPU 121 determines whether the manipulation to cut the supply of power source to the gaming machine 101 from the outside is performed or not (step S105), when the CPU 121 determines that the power-source-cutting manipulation is performed, the CPU 121 cuts the supply of the power source to the gaming machine 101 (step S106) and this main routine is finished.

[0242] On the other hand, when the CPU 121 deter-

mines that the power-source-cutting manipulation is not performed, the processing returns to step S102 and the processing for the demonstration screen display is performed.

[Game processing]

[0243] Fig. 29 is a flow chart showing a sub routine of the game processing (step S104) in the main processing.

[0244] In this game processing, the CPU 121 determines whether the start switch 108 is manipulated or not (step S107).

[0245] Here, when the CPU 121 determines that the start switch 108 is manipulated, the CPU 121 performs the usual game processing described later (S108), while when the CPU 121 determines that the start switch 108 is not manipulated, the CPU 121 repeats the processing in step S107 until the start switch 108 is manipulated so as to maintain the standby state.

[0246] Next, the CPU 121 determines whether the player receives the winning or not as a result of the usual game processing.

[0247] Here, when the CPU 121 determines that the player receives the winning as the result of the usual game processing, the CPU 121 advances the processing to step S110, while when the CPU 121 determines that the player does not receive the winning, the CPU 121 finishes this sub routine and returns the processing to step S105 in the main processing flow.

[0248] In step S110, the CPU 121 determines whether the winning in step S109 is the winning of the bonus game or not.

[0249] Here, when the CPU 121 determines that the winning in step S109 is the winning of the bonus game, that is, when the CPU 121 determines that the special identification information is displayed in a stopped state in a specified combination in the display region 103a of the liquid crystal display device 103, the CPU 121 performs the bonus game processing described later.

[0250] On the other hand, when the CPU 121 determines that the winning in step S109 is not the winning of the bonus game, that is, when the CPU 121 determines that the identification information other than the special identification information is displayed in a stopped state in a specified combination in the display region 103a of the liquid crystal display device 103, the CPU 121 performs the award giving processing which pays out the number of coins corresponding to the winning (step S112).

[0251] Further, in the award giving processing which is performed after the bonus game processing is finished, the CPU 121 performs the processing to pay out the number of coins corresponding to the number of the blocks a1 eliminated in the bonus game.

[0252] Further, after the award giving processing is finished, the CPU 121 finishes the sub routine and advances the processing to step S105 in the main processing flow.

[Usual game processing]

[0253] Fig. 30 is a flow chart showing the sub routine of the usual game processing (S108) in the game processing.

[0254] In this usual game processing, the CPU 121, first of all, performs the lottery processing (S113).

[0255] Here, the CPU 121 transmits an instruction command which allows the random number generating device 124 to generate an arbitrary random number.

[0256] The random number generating device 124 generates the arbitrary random number in accordance with the instruction command and stores the random number in the RAM 123.

[0257] Thereafter, the CPU 121 refers to a usual game probability lottery table stored in the ROM 122 and collates the random number value stored in the RAM 123 and numerical values in the usual game probability lottery table thus determining the winning or losing of the usual game and identification information image data which is displayed on the liquid crystal display device 103 in this game.

[0258] Next, the CPU 121 changeably displays the plural kinds of identification information on the display region 103a of the liquid crystal display device 103 based on the identification information image data determined in step S113 (step S114).

[0259] After performing this valuable display processing for a given time, the CPU 121 performs the processing for displaying the identification information corresponding to the random number value generated in step S113 on the display region 103a of the liquid crystal display device 103 in a stopped state (step S115). Then, the sub routine is finished and the processing returns to step S109 in the game processing flow.

[Bonus game processing]

[0260] Fig. 31 is a flow chart showing the sub routine of the bonus game processing in the game processing.

[0261] In this bonus game processing, the CPU 121 determines whether the first betting is performed due to the pushing manipulation of the 1 bet switch 106, the maximum bet switch 107 or the repeat bet start switch 110 by the player (step S116).

[0262] The CPU 121 repeats the processing of the step S111 until the CPU 121 determines that the first betting is performed. When the CPU 121 determines that the first betting is performed, the CPU 121 stores the number of first betting in a predetermined region of the RAM 123 (step S117) .

[0263] Then, the CPU 121 determines whether the second betting is performed or not, by the pushing manipulation of the second bet start switch 109 or the repeat bet start switch 109 (step S118).

[0264] When the CPU 121 determines that the sec-

ond betting is performed, the number of second betting is added to the number of the first betting which is set in the predetermined region of the RAM 123 and the CPU 121 sets the total number of bets and, at the same time, sets a second betting execution flag in a predetermined region of the RAM 123 (step S119). Here, when the second betting is not performed, the above-mentioned number of the first betting directly becomes the total number of bets.

[0265] When the processing in step S119 is finished or the CPU 121 determines that the second betting is not performed in the processing of step S118, the CPU 121 executes the internal lottery processing (step S120).

[0266] Further, in this internal lottery processing, the CPU 121 allows the random number generating part 124 to generate the random numbers and samples an elimination-number-determining random number value which determines the number of the eliminated blocks a1 in the bonus game and the sub game and an image-determining random number value for determining an image of the blocks a1 displayed in the display region 103a of the liquid crystal display device 103 in the bonus game and the sub game. Here, although the elimination-number-determining random number value and the image determining random number value for the main game are always sampled, the elimination-number-determining random number value and the image determining random number value for the sub game are sampled only when the execution of the sub game is determined, while the image determining random number value for the specific effect is sampled only when the execution of the special effect is determined.

[0267] Further, the CPU 121 determines the number of blocks a1 to be eliminated in the bonus game or the sub game by collating the elimination-number-determining random number value with a probability lottery table, selects an image table corresponding to the determined elimination number of blocks a1, and determines the image of the blocks a1 to be displayed by collating the image-determining random number value with the selected image table.

[0268] Further, in the image table which is selected at this point of time, a background image or a character image is made to correspond to the image of the block a1 and hence, when the image of the blocks a1 is determined, the background image or the character image which is displayed simultaneously with the image of the blocks a1 is also determined.

[0269] Here, the number of eliminated blocks a1 determined at this point of time is changed depending on the kind of the blocks a1 selected in the block selection receiving processing described later and hence, the numbers of elimination are determined respectively with respect to all kinds of blocks a1 which can be selected, and image tables corresponding to all numbers of elimination are selected.

[0270] Next, the CPU 121 performs the block selection receiving processing (step S122).

[0271] In this block selection receiving processing, the CPU 121 displays the cursor which surrounds one block a1 on the liquid crystal display device 103 and, when the player manipulates the block selection switch 15 within a given period (for example, five seconds), the CPU 121 performs the processing to move the cursor to other block a1 corresponding to the manipulation and, thereafter, the CPU 121 advances the processing to step S123.

[0272] On the other hand, when the block selection switch 115 is not manipulated within the given period, the CPU 121 advances the processing to step S123 without performing the processing to move the cursor.

[0273] In step S123, the CPU 121 determines whether the game is started or not by determining whether the start switch 108, the second bet start switch 109 or the repeat bet start switch 110 is manipulated by pushing or not.

[0274] The CPU 121 repeats the processing in the above-mentioned step S123 until the CPU 121 determines that the game is started. When the CPU 121 determines that the game is started, the CPU 121 determines whether a second betting execution flag is set in a predetermined region of the RAM 123 by the processing in the above-mentioned step S119 or not. When the CPU 121 determines that the second betting execution flag is set, the CPU 121 allows the random number generating part 124 to generate the random number and samples an added-value-determining random number value for determining which game is to be executed between the special effect and the sub game. Further, the CPU 121 collates the added-value-determining random number value with the second betting table and determines which one is to be executed between the special effect and the sub game with respect to the second betting.

[0275] Next, the CPU 121 executes the game execution processing (step S124). In this game execution processing, the CPU 121 supplies the data of the image of the blocks a1 determined in the processing of the step S120 as well as the data of the image displayed on the display region 103a of the liquid crystal display device 103 in the bonus game, the sub game or the special effect, and the data of sound outputted from the speakers 114L, 114R in conformity with the image display to the group of the interface circuits 126 sequentially, and operates the liquid crystal display device 103 and the speakers 114L, 114R so as to execute the bonus game, the sub game or the special effect.

[0276] Then, when a predetermined game execution time elapses, the CPU 121 finishes the sub routine and advances the processing to the step S112 in the game processing flow.

[0277] In the award giving processing which is performed after the bonus game processing is finished, the CPU 121 reads out the number of eliminated blocks in the bonus game and the total betting number which is

determined in the above-mentioned step S116 or step S118 from the predetermined region of the RAM 123, and multiplies the number of eliminated blocks and the total betting number, and sets the multiplied number to a predetermined region of the RAM 123 as the number of coins which can be paid out from the payout device 129.

[0278] Thereafter, the CPU 121 performs a control to payout the number of coins set by the RAM 123 by outputting a payout start command signal thus driving the payout device 129.

[0279] Thereafter, the CPU 121, when the payout number of the coins detected by a payout coin sensor 130 agrees with the payout number of coins set in the predetermined region of the RAM 123, outputs a payout finishing command signal thus finishing the payout of the coins from the payout device 129.

[Explanation of display screen]

[0280] Here, assuming an actual gaming situation using the gaming machine 1 of this embodiment, display modes on the display region 103a of the liquid crystal display device 103 in the bonus game, the special effect and the sub game are explained using Fig. 32A to Fig. 52.

(Usual game)

[0281] As shown in Fig. 32A, in the usual game, images of nine display windows 103b which are arranged in a 3-rowx3-column matrix are displayed on the display region 103a and the plural kinds of identification information are respectively changeably displayed in the respective display windows 103b.

[0282] Then, when a predetermined time elapses, the identification information which are changeably displayed in the respective display windows 103b are displayed in a stopped state in accordance with the control performed by the CPU 121.

[0283] Here, as shown in Fig. 32B, when the identification information are not displayed in a stopped state in a state that three identification information having the same kind are arranged on any one of eight lines which are displayed in the inside of the display regions 103a and extend in the vertical, lateral and oblique directions, the player loses "loosing" and one usual game is finished.

[0284] On the other hand, when the identification information are displayed in a stepped manner in a state that three identification information having the same kind are arranged on at least one line out of the above-mentioned eight lines, the player receives "winning" and the number of coins corresponding to the kind of three arranged identification information in a stopped state.

[0285] Here, as shown in Fig. 32C, when three identification information which are displayed in parallel in a stopped state are special identification information (WILD), the player receives "big winning" and the gaming state is shifted from the usual gaming state to the special gaming state which is advantageous for the player.

[0286] In this special gaming state, the bonus game which is completely different from the usual game with respect to the gaming mode is executed.

(Bonus Game)

[0287] As shown in Fig. 33A and Fig. 33B, in the bonus game, when the game is started, the container a2 which is capable of accommodating the blocks a1 is displayed on the center of the display region 103a, and the blocks a1 fall into the inside of the container a2 from above. The falling pattern of the blocks a1 may be a pattern shown in Fig. 33A in which the blocks a1 which can be accommodated in the inside of the container a2 fall in a collective manner at a time in the inside of the container a2 or a pattern shown in Fig. 33B in which one or a plurality of blocks a1 fall in a scattered manner.

[0288] Further, finally, the inside of the container a2 is filled with the blocks a1 with no gap as shown in Fig. 34. Here, assuming the inside of the container a2 as a predetermined region, when the blocks a1 are accommodated in the inside of the predetermined region without any gap, 35 pieces of blocks a1 in total which are arranged in five columns vertically and seven rows laterally are housed in the predetermined region in an arranged manner.

[0289] Here, the image in which the blocks a1 which can be accommodated in the inside of the container a2 collectively fall and the container a2 is fully filled with the blocks a1 as shown in Fig. 33A or the image in which the blocks a1 sequentially fall in the inside of the container a2 and the container a2 is fully filled with the blocks a1 shown in Fig. 33B are displayed. However, in place of such displays, it is possible to display an image of the container a2 which is already filled with the plural kinds of blocks a as shown in Fig. 34 at the time of starting the bonus game.

[0290] Here, on respective blocks a1, any one of seven kinds of identification information consisting of "7", "A", "B", "C", "BAR", "triangle symbol", "star symbol" is marked.

[0291] Further, in the explanation made hereinafter, when the arrangement of the blocks a1 in the inside of the container a2 is set such that the rows are referred to as first to seven rows in order from the bottom and the columns are referred to as first to fifth columns in order from the left to the right.

[0292] Further, the block selection cursor 103c is displayed simultaneously.

[0293] Here, the block selection cursor 103c is displayed in a state that the block selection cursor 103c selects the block a1 marked with "A" which is positioned in the third column and the seventh row of the container a2 as an initial state.

[0294] Next, when the player manipulates the block selection switch 115, as shown in Fig. 35, the block selection cursor 103c is moved in response to such a manipulation.

[0295] Thereafter, when the player manipulates the start switch 108, the second bet start switch 109 or the repeat bet start switch 110 by pushing, the bonus game is started.

[0296] Here, all blocks a1 marked with "B" which are the same kind as the block a1 marked with "B" selected by the block selection cursor 103c are displayed in an emphasized manner and, thereafter, as shown in Fig. 36, all blocks a1 marked with "B" in the inside of the container a2 are simultaneously eliminated.

[0297] Further, in the bonus game, as another initial state in which the inside of the container a2 is fully filled with the blocks a1, as shown in Fig. 37, among the blocks a1 which fully fill the inside of the container a2, the selectable frames 103dwhich respectively surround seven blocks a1 which are arbitrary determined can be displayed.

[0298] Here, seven blocks a1 consisting of the block a1 marked with "C" which is arranged at the first column and the first row of the container a2, the block a1 marked with "B" which is arranged at the first column and the fourth row of the container a2, the block a1 marked with "C" which is arranged at the second column and the second row of the container a2, the block a1 marked with "BAR" which is arranged at the third column and the fifth row of the container a2, the block a1 marked with "B" which is arranged at the fourth column and the first row of the container a2, the block a1 marked with "star symbol" which is arranged at the fourth column and the third row of the container a2 and the block a1 marked with "star symbol" which is arranged at the fifth column and the sixth row of the container a2 are displayed, in the initial state, such that these seven blocks are respectively surrounded by the selectable frames 103d.

[0299] Here, the block selection cursor 103c is also displayed in a state that the block selection cursor 103c selects the block a1 marked with "A" arranged at the third column and the seventh row of the container a2.

[0300] Next, when the player manipulates the block selection switch 115, as shown in Fig. 38, the block selection cursor 103c is moved corresponding to the manipulation thereof.

[0301] Here, first of all, the block selection cursor 103c moves to the block a1 marked with "star symbol" arranged at the fourth column and the third row.

[0302] Here, when the player manipulates the start switch 108, the block a1 marked with "star symbol" at the fourth column and the third row which is surrounded by the selectable frame 103d is selected and displayed in an emphasized manner.

[0303] Thereafter, when the player manipulates the block selection switch 115 so as to allow block selection cursor 103c to move to the block a1 marked with "C" at the second column and the second row and, thereafter, the player again manipulates the start switch 108, the block a1 marked with "C" arranged at the second column and the second row is selected and displayed in an emphasized manner.

[0304] Further, when the player manipulates the block selection switch 115 again so as to allow block selection cursor 103c to move to the block a1 marked with "B" at the fourth column and the first row and, thereafter, the player manipulates any one of the start switch 108, the second bet start switch 109 and the repeat bet start switch 110 by pushing, the block a1 marked with "B" at the fourth column and the first row is selected and displayed in an emphasized manner.

[0305] Then, the bonus game is started due to such a switching manipulation and, at the same time, three blocks a1 which are displayed in an emphasized manner are simultaneously eliminated as shown in Fig. 39.

[0306] In this manner, when the blocks a1 are eliminated, in the empty space which is formed by eliminating the blocks a1, the blocks a1 arranged above the space fall in the empty space to fill the space, while a space is formed on the upper-side of the container a2. Then, the blocks a1 again fall toward the newly formed space from above the container a2 and the inside of the container a2 is again filled with the blocks a1 without any gaps.

[0307] Further, in a state that, the inside of the container a2 which constitutes a predetermined region is filled with the blocks a1, when the blocks a1 marked with the same identification information are arranged in parallel in the upper and lower direction or in the left and right direction, these blocks a1 are displayed in an emphasized manner and, thereafter, are eliminated.

[0308] For example, when the inside of the container a2 is fully filled with the blocks a1 in a display mode shown in Fig. 40, three blocks a1 marked with "7" are arranged in parallel in the third row, two blocks a1 marked with "7" are arranged in parallel in the third column, and two blocks a1 marked with "BAR" are arranged in parallel in the fifth column and hence, as shown in Fig. 41, these blocks a1 are eliminated after being displayed in an emphasized manner.

[0309] When the blocks a1 are eliminated in this manner, as shown in Fig. 42, in the space which becomes empty due to the elimination of the block a1, the blocks a1 arranged above the empty space fall into the empty space so as to fill the empty space and a space is formed on an upper portion side of the container a2. Then, the blocks a1 again fall into the newly formed space from above the container a2 and, thereafter, as shown in Fig. 43, the inside of the container a2 is filled with the blocks a1 without any gap.

[0310] Further, in Fig. 43, two blocks a1 marked with "B" which are arranged in parallel in the second row and two blocks a1 marked with "star shape" which are arranged in parallel in the fourth row are displayed in an emphasized manner. Further, in Fig. 43, the blocks a1 marked with "WILD" are arranged on the second column and the seventh row as well as on the fifth column and

the sixth row, wherein these blocks a1 marked with "WILD" and the blocks a1 which are arranged in parallel on the left and right sides as well as on the upper and lower sides of the block a1 are also displayed in an emphasized manner.

[0311] This is because that the block a1 marked with the identification information "WILD" constitutes a special block which is considered to have the same identification information as the blocks a1 which are arranged next to the special block a1 in the left and right direction as well as in the upper and left direction.

[0312] The blocks a1 which are displayed in an emphasized manner as described above are, thereafter, eliminated as shown in Fig. 44. Then, as shown in Fig. 45, in an empty space defined due to the elimination of the blocks a1, the blocks a1 above the empty space fall in the empty space whereby a space is formed above an upper side of the container a2. The blocks a1 again fall into the newly formed space from above the container a2 and hence, as shown in Fig. 46, the inside of the container a2 is again filled with the blocks a1 without gaps.

[0313] In Fig. 46, in all blocks a1, there exists no block a1 which has the same identification information on a surface thereof with the blocks a1 which are arranged next to the former block a1 in the left and right direction as well as in the upper and lower direction. In this manner, with respect to any block a1, when the identification information on the surface of the block a1 becomes different from the identification information on the surfaces of the neighboring blocks, the bonus game is finished.

[0314] The above-mentioned bonus game uses eight kinds in total of blocks a1 which are constituted of usual blocks a1 which are marked with any one of seven kinds of identification information consisting of "7", "A", "B", "C", "BAR", "triangle symbol", "star symbol" and the special block a1 which marks the identification information "WILD". Further, with the use of the block a1 which is marked with identification information "DLIW" as the second special block, it is possible to execute a bonus game which differs from the above-mentioned bonus game with respect to the elimination pattern of the blocks a1.

[0315] That is, in the above-mentioned bonus game, the block a1 which is marked with "WILD" is eliminated simultaneously with the neighboring blocks a1 which are arranged next to the block 1a in the left and right direction as well as in the upper and lower direction. In place of such an elimination pattern, the block a1 which is marked with "WILD" is not eliminated and only the neighboring blocks a1 which are arranged next to the block 1a in the left and right direction as well as in the upper and lower direction are eliminated. Further, when the block a1 which is marked with "DLIW" is arranged next to the block a1 which is marked with "WILD" in any one of the left and right direction as well as in the upper and lower direction, the block a1 which is marked with "WILD" is eliminated together with the block a1 which is marked with "DLIW".

[0316] For example, Fig. 47 shows a state in which the game advances from the above-mentioned state shown in Fig. 44 and the blocks a1 marked with "WILD" and "DLIW" fall in the inside of the container a2.

[0317] Here, the block a1 marked with "WILD" is arranged on the fifth column, the fourth row and the neighboring blocks a1 which are arranged next to the blocks 1a marked with "WILD" in the left and right direction as well as in the upper and lower direction are displayed in an emphasized manner.

[0318] Then, as shown in Fig. 48, the blocks a1 which are displayed in an emphasized manner are eliminated. Then, in an empty space formed by the elimination of the blocks 1a, the block a1 above the empty space fall and a space is formed on an upper portion side of the container a2. In this newly formed space, as shown in Fig. 49, the blocks 1a again fall from above the container a2, the inside of the container a2 is again filled with the blocks 1a without any gap, and the blocks a1 which are newly arranged next to the block 1a on which the "WILD" is marked in the left direction as well as in the upper and lower direction are displayed in an emphasized manner and, thereafter, the emphasized blocks are eliminated.

[0319] In this manner, the block a1 marked with "WILD" eliminates the neighboring blocks a1 which are arranged next to the block a1 marked with "WILD" each time the block a1 falls and moves to the first row which constitutes the lowermost row. Then, after moving to the first row, the block a1 marked with "WILD" continues to eliminate the blocks a1 which fall to the left side and above the block a1 marked with "WILD".

[0320] Further, as shown in Fig. 50, when the block a1 marked with "DLIW" falls to the left side of the block a1 marked with "WILD", not only the block a1 marked with "DLIW" which is arranged on the left side of the block a1 marked with "WILD" and the block a1 marked with "DLIW" which is arranged above the block a1 marked with "WILD" are displayed in an emphasized manner but also the block a1 marked with "WILD" per se is displayed in an emphasized manner and, thereafter, as shown in Fig. 51, all three blocks a1 which are displayed in the emphasized manner are eliminated.

[0321] Then, the blocks a1 fall again and hence, the inside of the container a2 is filled with the blocks a1 without gaps and, as shown in Fig. 52, when the identification information expressed on the surface of any block a1 does not becomes equal to the identification information expressed on the blocks a1 which are arranged around the block, the bonus game is finished.

[0322] In this manner, by performing the bonus game using the block a1 marked with "WILD" which eliminates the neighboring blocks a1 in four directions while preventing the elimination thereof and the block a1 marked with "DLIW" which eliminates not only the block a1 itself but also the block a1 marked with "WILD" when the block a1 is arranged next to the block a1 marked with "WILD" in any one direction, chances that the blocks a1

are eliminated are increased in the bonus game and hence, the possibility that the player enjoys the advantageous playing state is increased whereby the expectation that the player holds with respect to a result of the game of the player can be enhanced.

[0323] Further, although not shown in the drawing, also in this embodiment, it is possible to perform the special effect and the sub effect which are explained in detail in the first embodiment in conjunction with Fig. 20A to Fig. 25B.

[0324] Although the second embodiment of the present invention has been explained heretofore, only the specific example is illustrated here and the embodiment does not limit the present invention. That is, although the present invention is mainly characterized by the gaming machine which includes: display means which is capable of displaying the predetermined game mode; display controller which allows the display means to display, as the predetermined game mode, the first game mode in which plural kinds of identification information images are changeably displayed on the screen of the display means and, thereafter, the identification information images are stopped and displayed on the screen of the display means, and the second game mode in which, provided that special identification information image among the identification information images is displayed in a stopped state on the screen of the display means, when the plural kinds of blocks are displayed in the stacked manner within the predetermined region of the screen and the blocks which are arranged next to each other turn out to be the same kind, the blocks which are arranged next to each other are eliminated; and the payout means which gives the predetermined number of game mediums in accordance with the number of blocks which are eliminated on the display means, the designing of the specific constitution and the control of the display means, the display controller and payout means can be suitably changed.

[0325] Further, the second embodiment of the present invention is also directed to the method for controlling gaming machine for allowing the computer to realize: a display control function of allowing the display means to display a first game mode in which plural kinds of identification information images are changeably displayed on the screen of the display means and, thereafter, the identification information images are displayed in a stopped state on the screen of the display means, and a second game mode in which, provided that special identification information image among the identification information images is displayed in a stopped state on the screen of the display means, when the plural kinds of blocks are displayed within a predetermined region of the screen in a stacked manner and the blocks which are arranged next to each other turn out to be the same kind, the blocks which are arranged next to each other are eliminated; and a game medium giving function of giving a player the predetermined number of game mediums in accordance with the number of blocks which are eliminated on the display means. However, this program can be provided in a form that the program is recorded in a recording medium which the computer can read the program. Alternatively, the program may be stored in a predetermined server and is made communicable with a terminal via the Internet thus allowing the terminal to realize the above-mentioned functions.

[0326] Further, the advantageous effects obtained by the second embodiment of the present invention are merely listed as the most preferable advantageous effects obtained by the present invention and the advantageous effects of the present invention are not limited by the first embodiment of the present invention.

Claims

1. A gaming machine comprising:

a display which is capable of displaying a predetermined game mode using plural kinds of blocks on a screen;
a display controller which allows the display to display the game mode in which when the plural kinds of blocks are displayed in a stacked manner within a predetermined region of the screen and the blocks which are arranged next to each other turn out to be the same kind, the blocks which are arranged next to each other are eliminated; and
payout means which awards the predetermined number of game mediums to a player in accordance with the number of blocks which are eliminated on the display.

2. A gaming machine according to claim 1, further comprising, betting means for betting the game mediums, wherein the payout means changes an amount of the game mediums awarded to the player in response to the number of bets.

3. A gaming machine according to claim 1, wherein the display controller sets the timing that the blocks are eliminated in the display to a point of time that the stacked blocks fill the whole inside of the predetermined region.

4. A gaming machine according to claim 1, wherein the display controller allows the display to sequentially display:

(a) forming a space by eliminating the blocks;
(b) moving blocks next to the space toward the space;
(c) forming a new space by the movement of the blocks;
(d) updating the block arrangement of the whole predetermined region by arranging new

blocks in the new space;
(e) further eliminating the blocks which are arranged next to each other when the blocks which are arranged next to each other turn out to be the same kind in the updated block arrangement; and
(f) repeating the operations described from (a) to (e).

5. A gaming machine according to claim 4, wherein the display controller finishes the game mode in the display when each block in all stacked blocks differs in kind from another blocks which are arranged next to the block.

6. A gaming machine according to claim 1, wherein the display controller sets a special block among the plural kinds of blocks, and all blocks which are arranged next to the special block are eliminated.

7. A gaming machine according to claim 6, wherein the display controller eliminates the special block together with the blocks which are arranged next to the special block.

8. A gaming machine according to claim 6, wherein the display controller sets a second special block among the plural kinds of blocks, and when the second special block is arranged next to the special block, the special block is eliminated together with the second special block.

9. A gaming machine according to claim 1, further comprising, a block selection means which allows the player to select at least one of the blocks from among the stacked blocks, wherein the display controller eliminates the block which is selected by the block selection means.

10. A method for controlling a gaming machine comprising the steps of:

allowing a display to display a game mode in which, when plural kinds of blocks are displayed in a stacked manner within a predetermined region of a screen of the display and the blocks which are arranged next to each other turn out to be the same kind, the blocks which are arranged next to each other are eliminated; and
awarding the predetermined number of game mediums to a player in accordance with the number of blocks which are eliminated on the display.

11. A gaming machine comprising:

a display which is capable of displaying a predetermined game mode on a screen;
a display controller which allows the display to display a first game mode in which plural kinds of identification information images are variably displayed and stopped on the screen of the display, and
a second game mode in which, if a special identification information image is stopped on the screen of the display in the first game mode, plural kinds of blocks are displayed in a stacked manner within a predetermined region of the screen and the blocks which are arranged next to each other turn out to be the same kind, the blocks which are arranged next to each other are eliminated; and
payout means which awards the predetermined number of game mediums to a player in accordance with the number of blocks which are eliminated on the display.

12. A gaming machine according to claim 11, further comprising, betting means for betting the game mediums, wherein the payout means changes an amount of the game mediums awarded to the player in response to the number of bets.

13. A gaming machine according to claim 11, wherein the display controller sets the timing that the blocks are eliminated in the display to a point of time that the stacked blocks fill the whole inside of the predetermined region.

14. A gaming machine according to claim 11, wherein the display controller allows the display to sequentially display:

(a) forming a space by eliminating the blocks;
(b) moving blocks next to the space toward the space;
(c) forming a new space by the movement of the blocks;
(d) updating the block arrangement of the whole predetermined region by arranging new blocks in the new space;
(e) further eliminating the blocks which are arranged next to each other when the blocks which are arranged next to each other turn out to be the same kind in the updated block arrangement; and
(f) repeating the operations described from (a) to (e).

15. A gaming machine according to claim 14, wherein the display controller finishes the game mode in the display when each block in all stacked blocks differs in kind from another blocks which are arranged next to the block.

16. A gaming machine according to claim 11, wherein the display controller sets a special block among the plural kinds of blocks, and all blocks which are arranged next to the special block are eliminated.

17. A gaming machine according to claim 16, wherein the display controller eliminates the special block together with the blocks which are arranged next to the special block.

18. A gaming machine according to claim 16, wherein the display controller sets a second special block among the plural kinds of blocks, and when the second special block is arranged next to the special block, the special block is eliminated together with the second special block.

19. A gaming machine according to claim 1, further comprising, a block selection means which allows the player to select at least one of the blocks from among the stacked blocks, wherein the display controller eliminates the block which is selected by the block selection means.

20. A method for controlling a gaming machine comprising the steps of:

allowing a display to display a first game mode in which plural kinds of identification information images are variably displayed and stopped on the screen of the display, and
allowing the display to display a second game mode in which, if a special identification information image is stopped on the screen of the display in the first game mode, the plural kinds of blocks are displayed within a predetermined region of the screen in a stacked manner and the blocks which are arranged next to each other turn out to be the same kind, the blocks which are arranged next to each other are eliminated; and
awarding the predetermined number of game mediums to a player in accordance with the number of blocks which are eliminated on the display.

Fig. 1

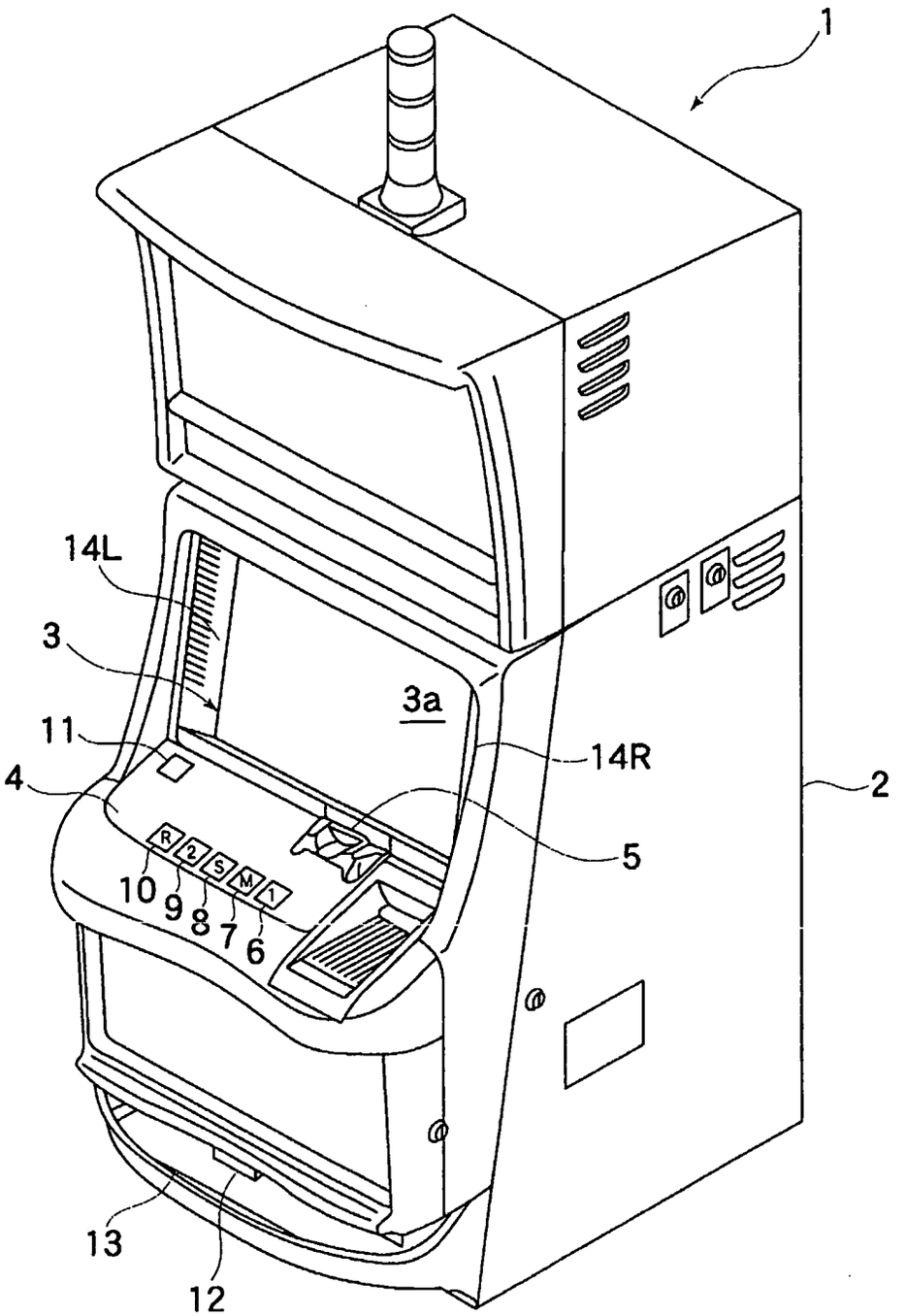


Fig. 2

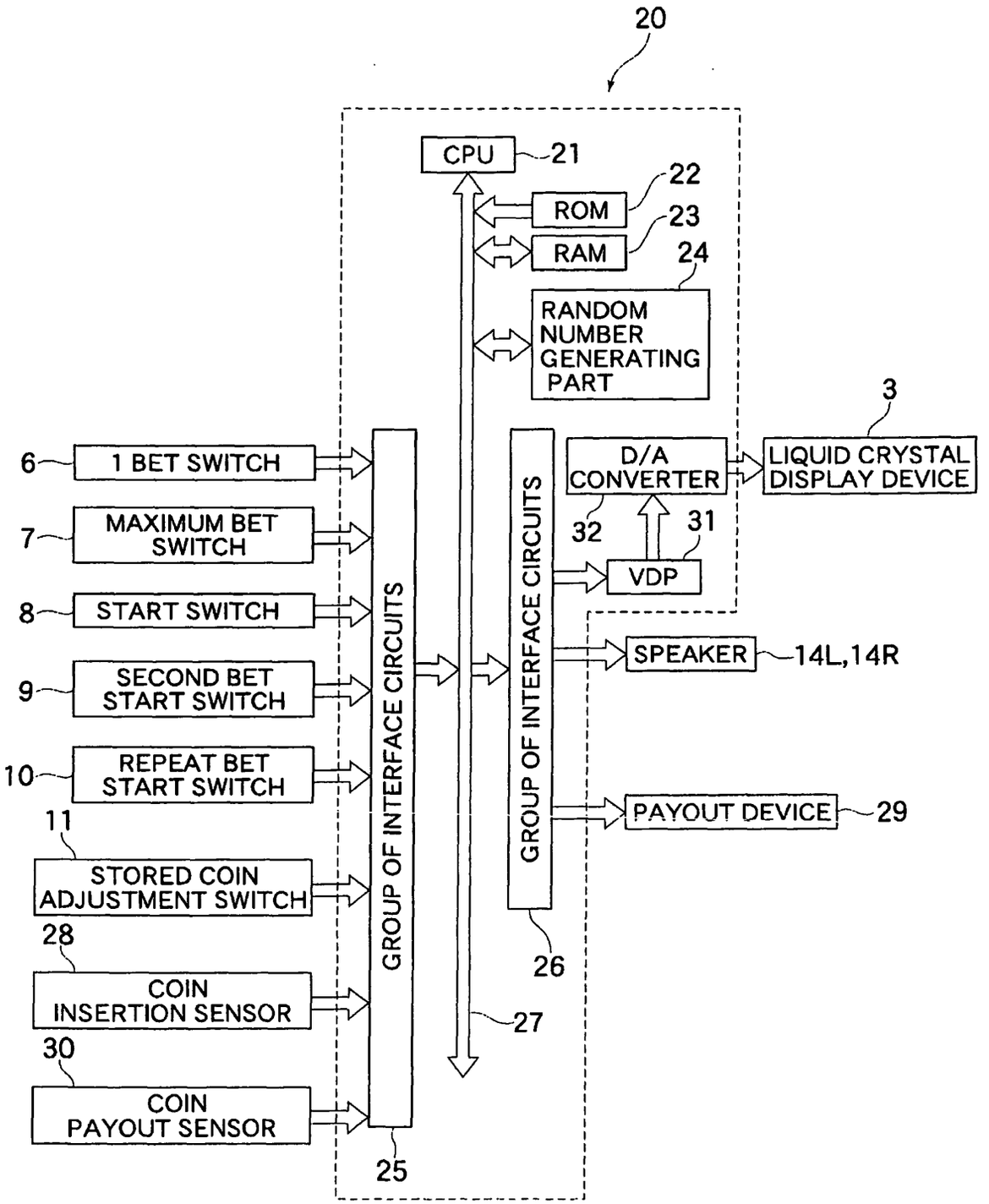

20
CPU
21
22
ROM
23
RAM
24
RANDOM NUMBER GENERATING PART
3
D/A CONVERTER
LIQUID CRYSTAL DISPLAY DEVICE
32
31
VDP
6
1 BET SWITCH
7
MAXIMUM BET SWITCH
8
START SWITCH
9
SECOND BET START SWITCH
10
REPEAT BET START SWITCH
11
STORED COIN ADJUSTMENT SWITCH
28
COIN INSERTION SENSOR
30
COIN PAYOUT SENSOR
GROUP OF INTERFACE CIRCUITS
25
GROUP OF INTERFACE CIRCUITS
26
27
SPEAKER
14L,14R
PAYOUT DEVICE
29

Fig. 3

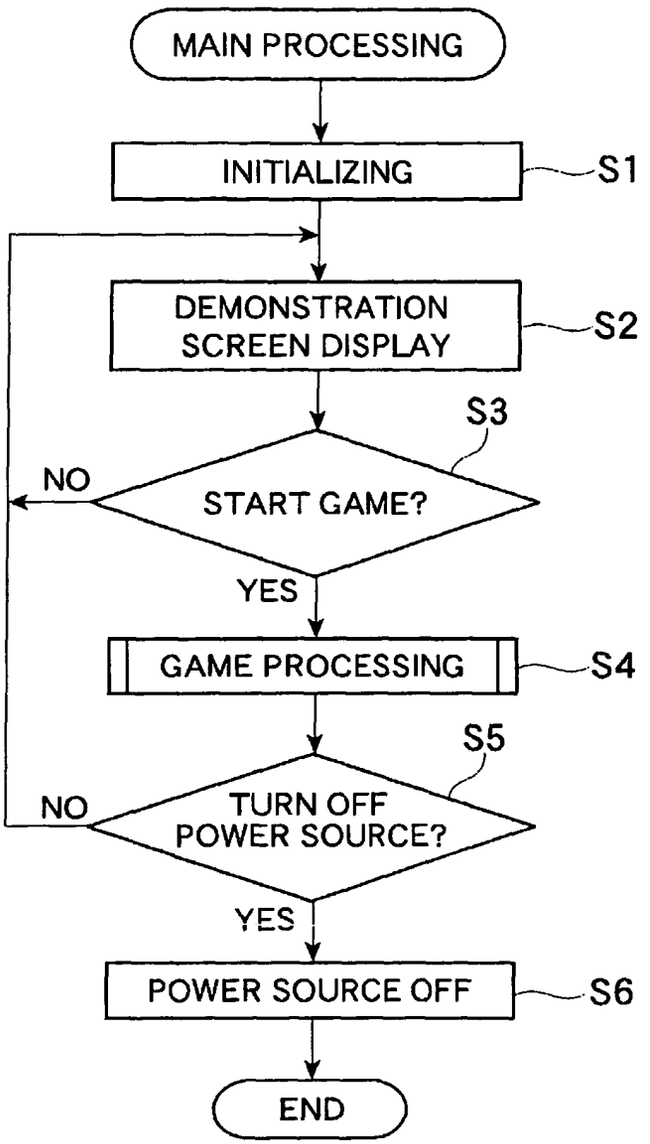

MAIN PROCESSING
INITIALIZING
S1
DEMONSTRATION SCREEN DISPLAY
S2
S3
START GAME?
NO
YES
GAME PROCESSING
S4
S5
TURN OFF POWER SOURCE?
NO
YES
POWER SOURCE OFF
S6
END

Fig. 4

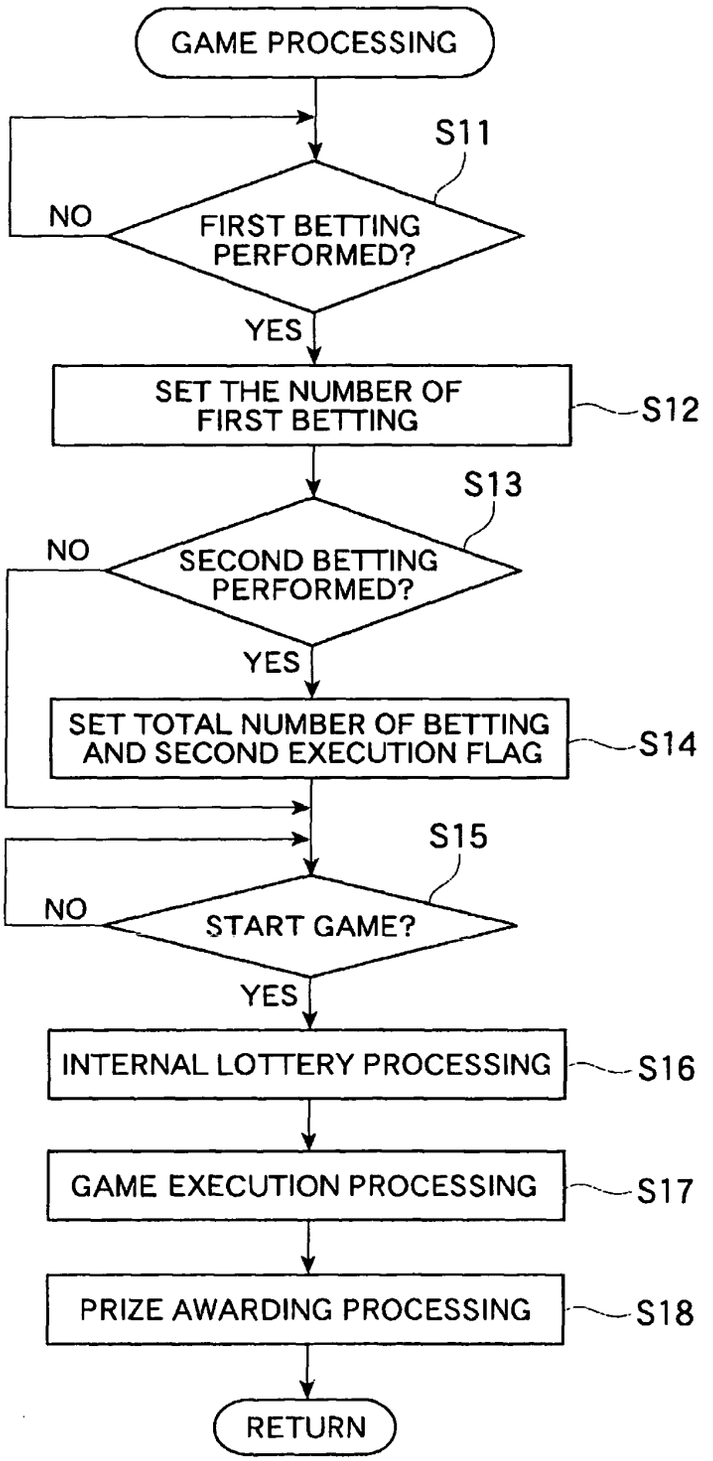

GAME PROCESSING
S11
NO
FIRST BETTING PERFORMED?
YES
SET THE NUMBER OF FIRST BETTING
S12
S13
NO
SECOND BETTING PERFORMED?
YES
SET TOTAL NUMBER OF BETTING AND SECOND EXECUTION FLAG
S14
S15
NO
START GAME?
YES
INTERNAL LOTTERY PROCESSING
S16
GAME EXECUTION PROCESSING
S17
PRIZE AWARDING PROCESSING
S18
RETURN

Fig. 5A

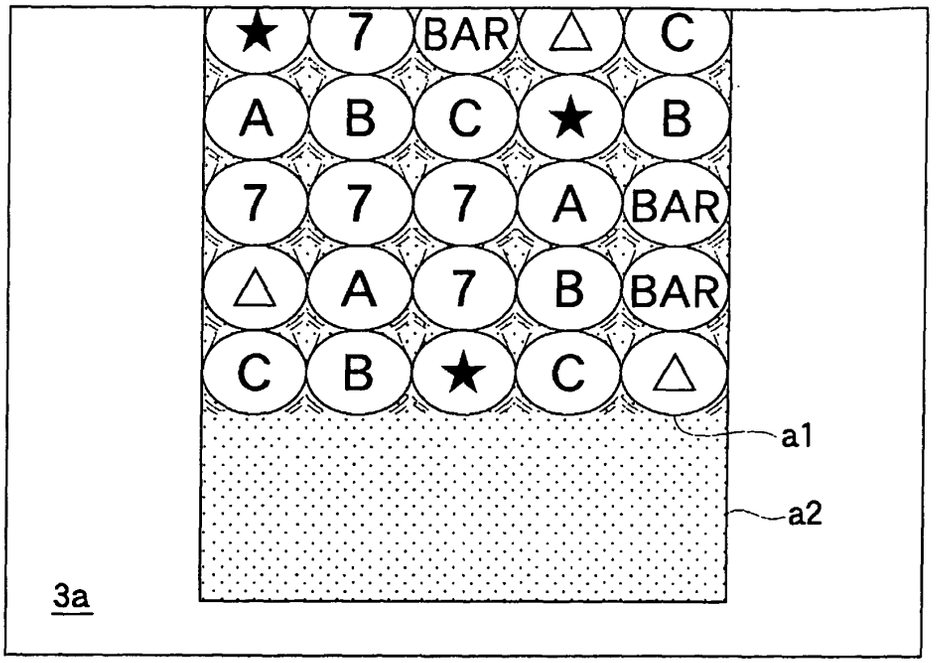

★ 7 BAR △ C
A B C ★ B
7 7 7 A BAR
△ A 7 B BAR
C B ★ C △
a1
a2
3a

Fig. 5B

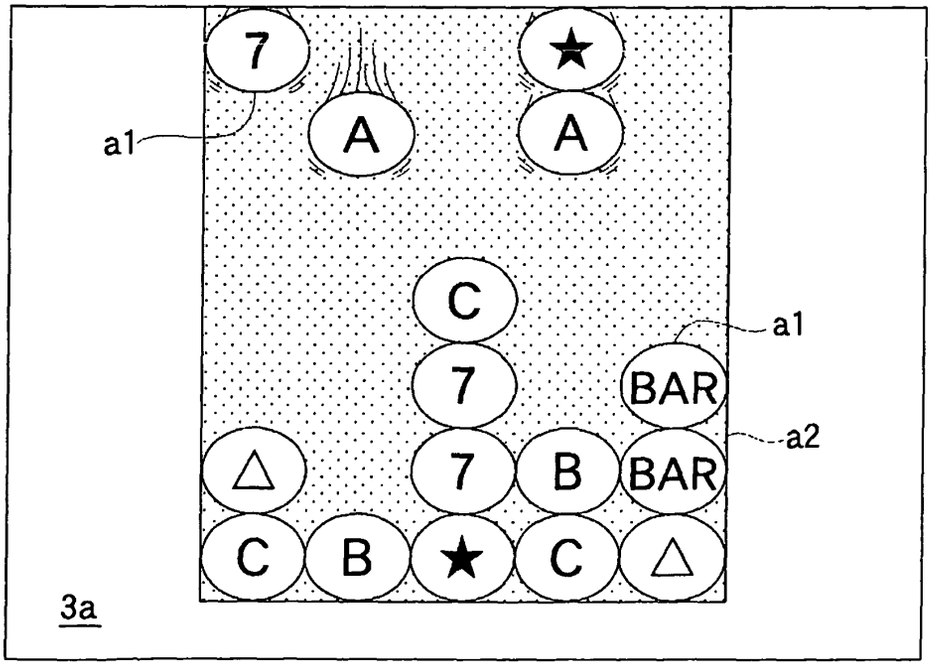

7 ★
a1
A A
C
a1
7
BAR
a2
△ 7 B BAR
C B ★ C △
3a

Fig. 6

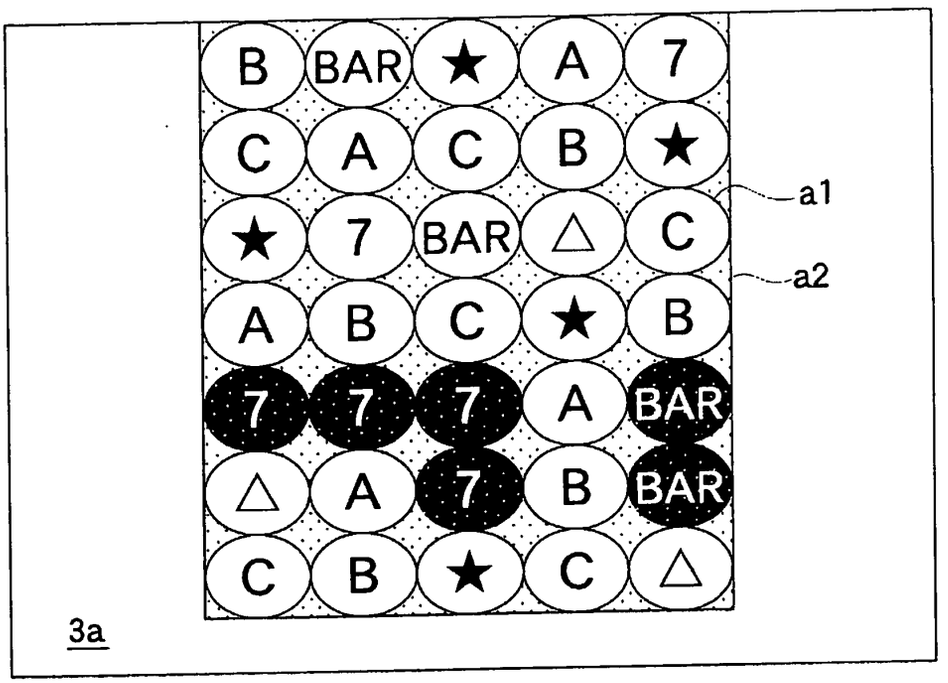

B BAR ★ A 7
C A C B ★
★ 7 BAR △ C
A B C ★ B
7 7 7 A BAR
△ A 7 B BAR
C B ★ C △
a1
a2
3a

Fig. 7

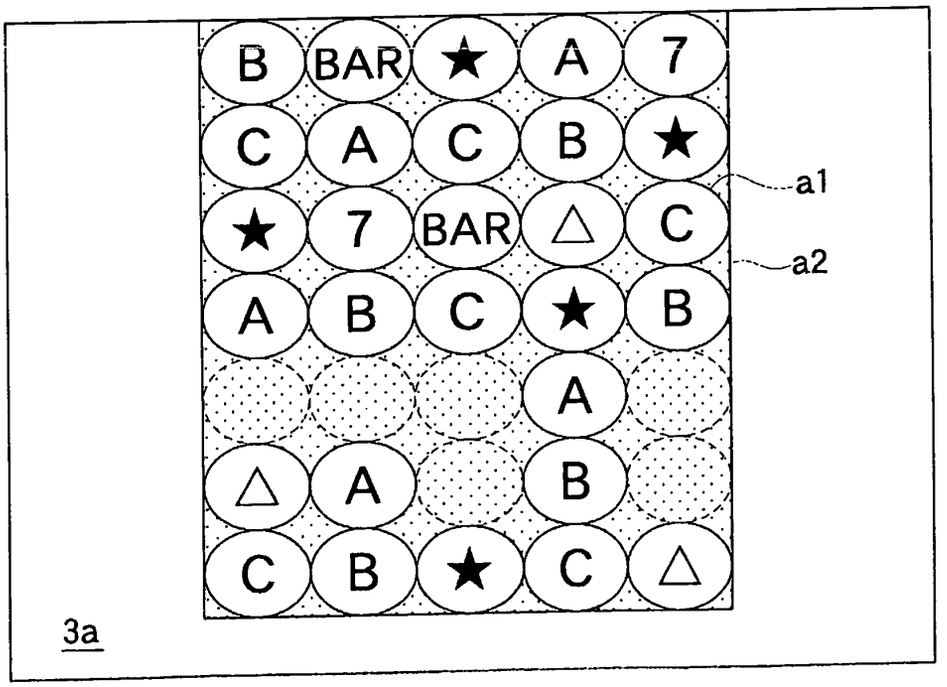

B BAR ★ A 7
C A C B ★
★ 7 BAR △ C
A B C ★ B
A
△ A B
C B ★ C △
a1
a2
3a

Fig. 8

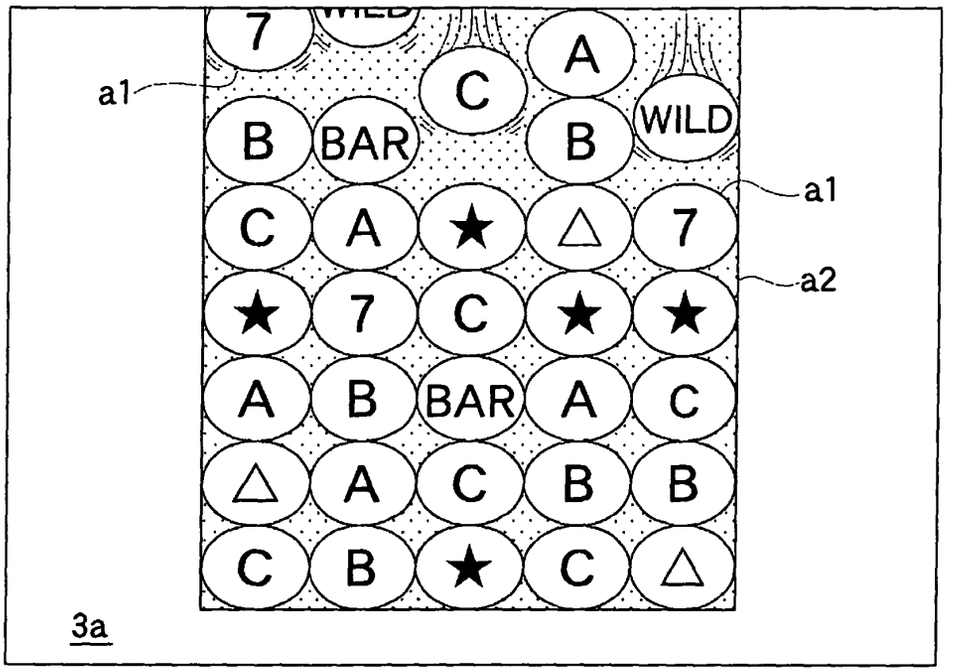

7
A
C
a1
B
BAR
B
WILD
a1
C
A
★
△
7
a2
★
7
C
★
★
A
B
BAR
A
C
△
A
C
B
B
C
B
★
C
△
3a

Fig. 9

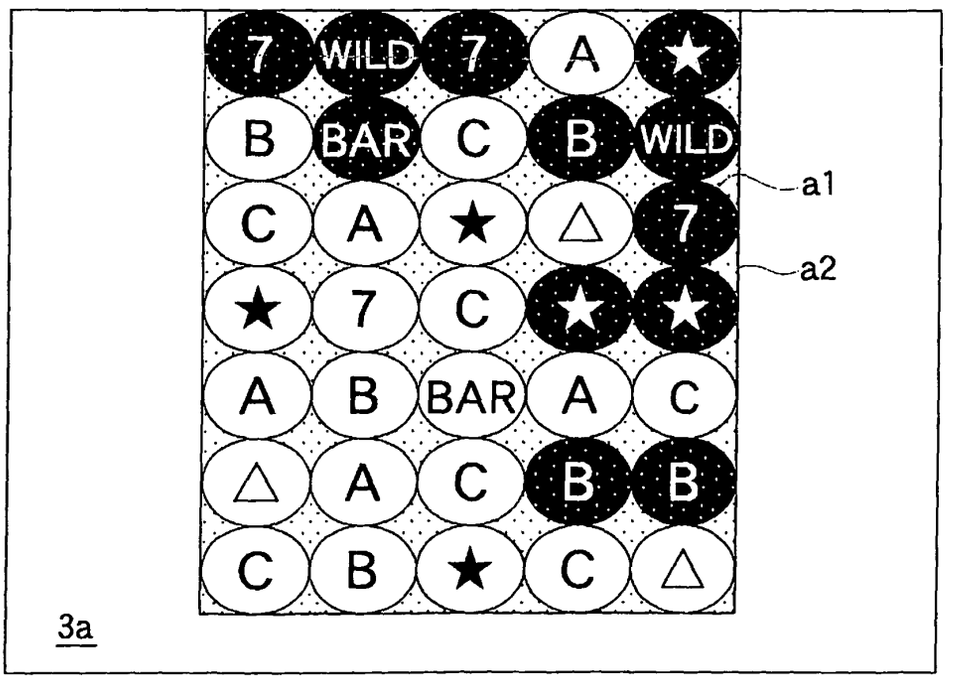

7
WILD
7
A
★
B
BAR
C
B
WILD
a1
C
A
★
△
7
a2
★
7
C
★
★
A
B
BAR
A
C
△
A
C
B
B
C
B
★
C
△
3a

Fig. 10

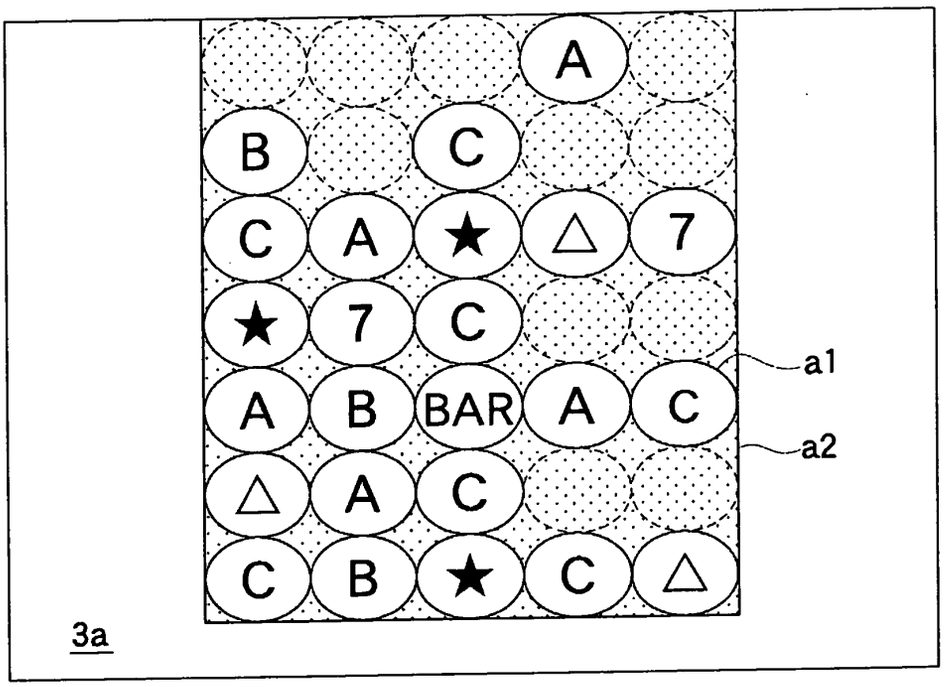

A
B
C
C
A
★
△
7
★
7
C
A
B
BAR
A
C
△
A
C
C
B
★
C
△
a1
a2
3a

Fig. 11

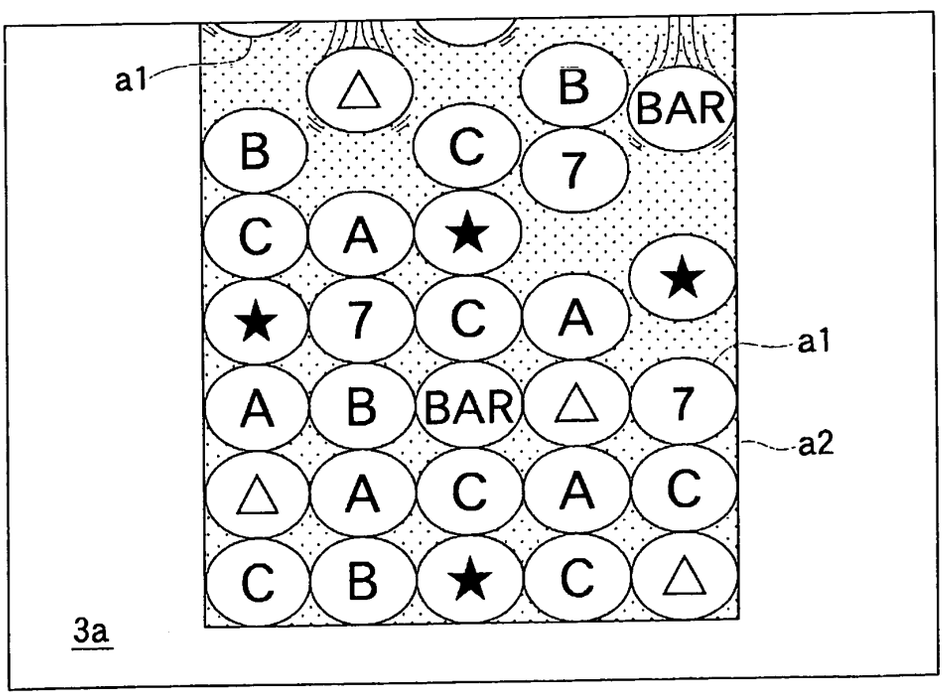

a1
△
B
BAR
B
C
7
C
A
★
★
★
7
C
A
A
B
BAR
△
7
△
A
C
A
C
C
B
★
C
△
a1
a2
3a

Fig. 12

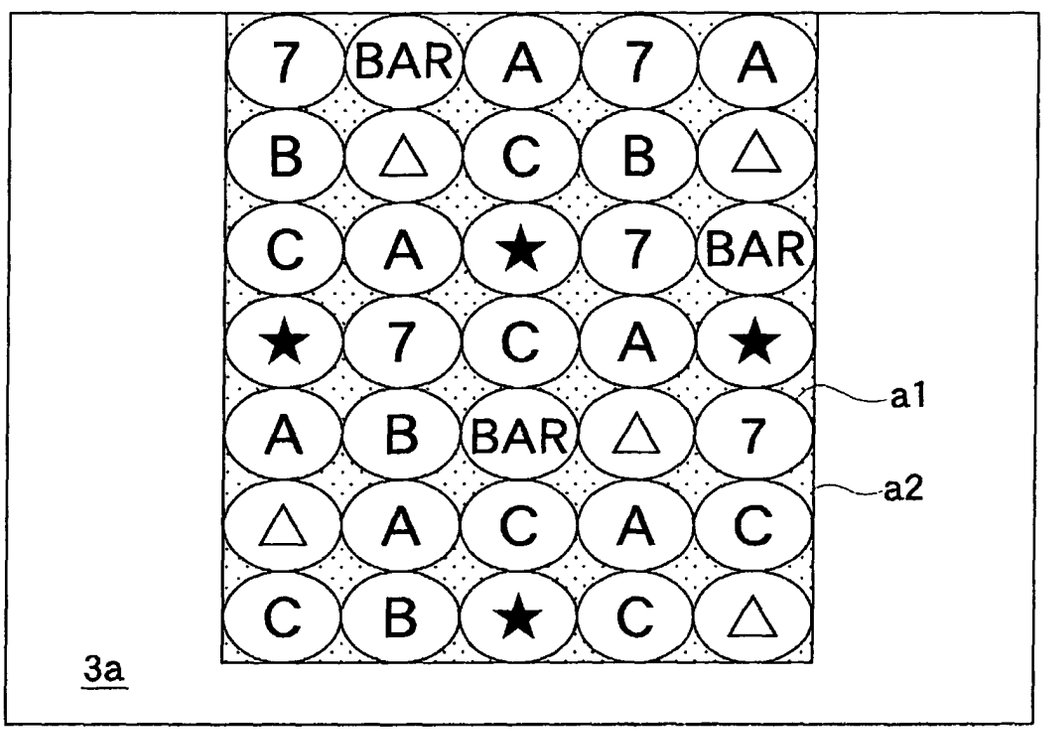


Fig. 13

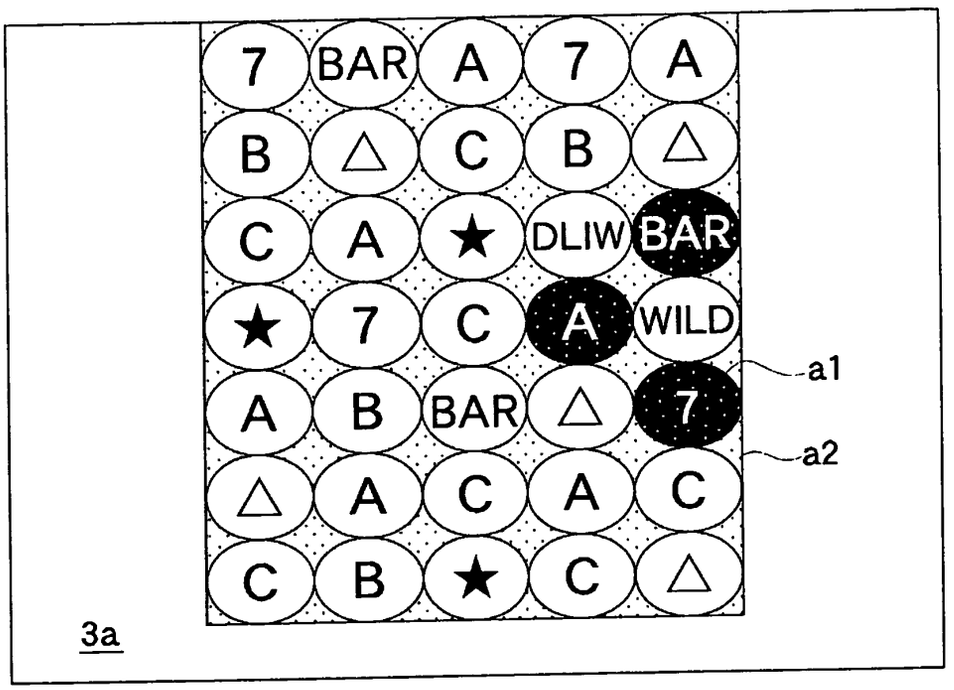

7 BAR A 7 A
B △ C B △
C A ★ DLIW BAR
★ 7 C A WILD
A B BAR △ 7
△ A C A C
C B ★ C △
a1
a2
3a

Fig. 14

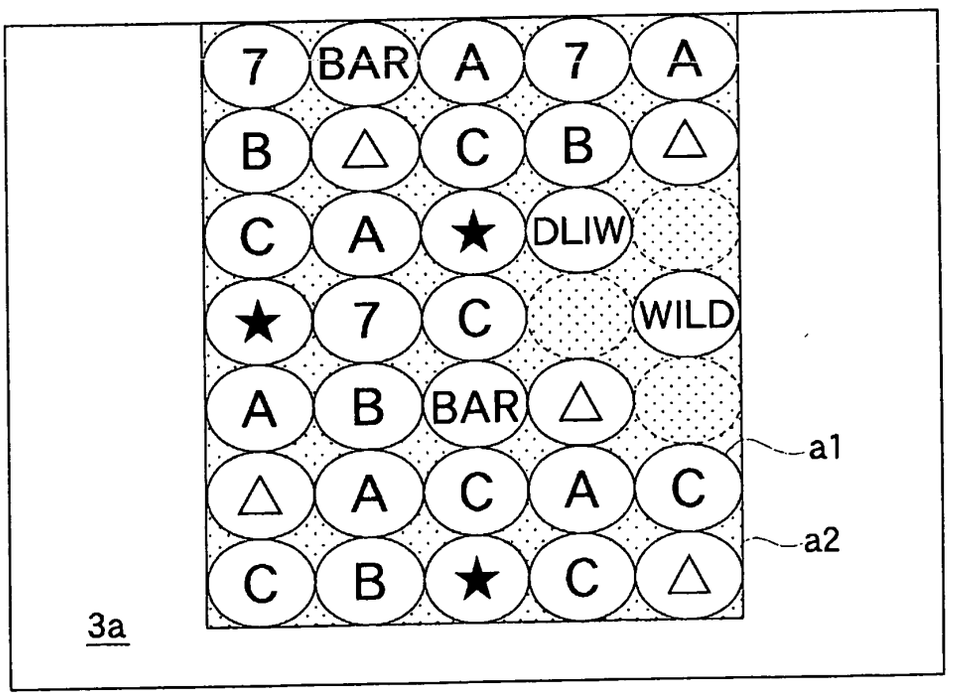

7 BAR A 7 A
B △ C B △
C A ★ DLIW
★ 7 C WILD
A B BAR △
△ A C A C
C B ★ C △
a1
a2
3a

Fig. 15

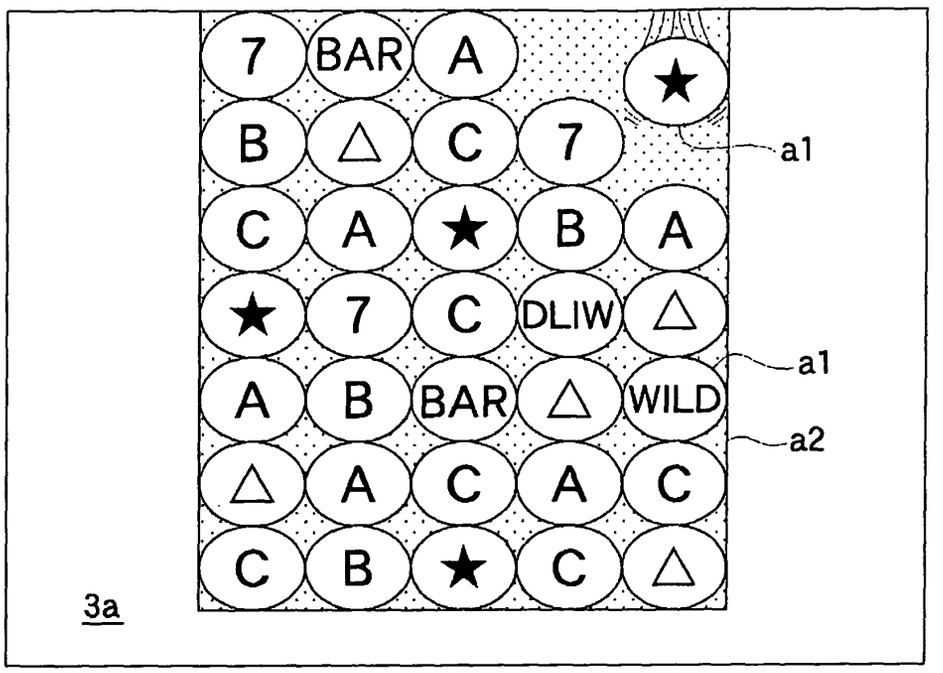

7 BAR A ★
B △ C 7
C A ★ B A
★ 7 C DLIW △
A B BAR △ WILD
△ A C A C
C B ★ C △
a1
a1
a2
3a

Fig. 16

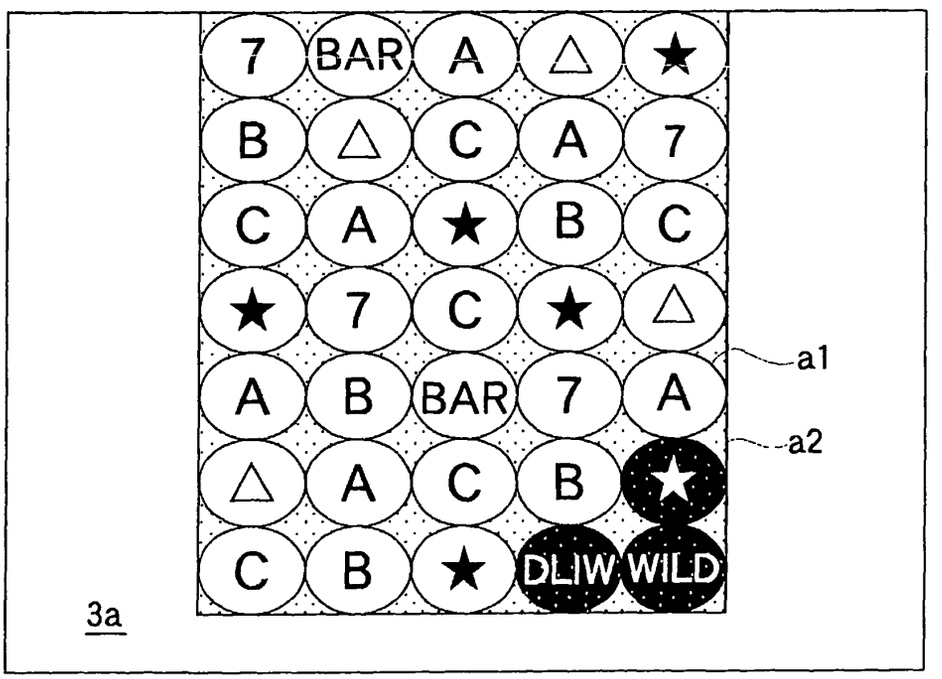

7 BAR A △ ★
B △ C A 7
C A ★ B C
★ 7 C ★ △
A B BAR 7 A
△ A C B ★
C B ★ DLIW WILD
a1
a2
3a

Fig. 17

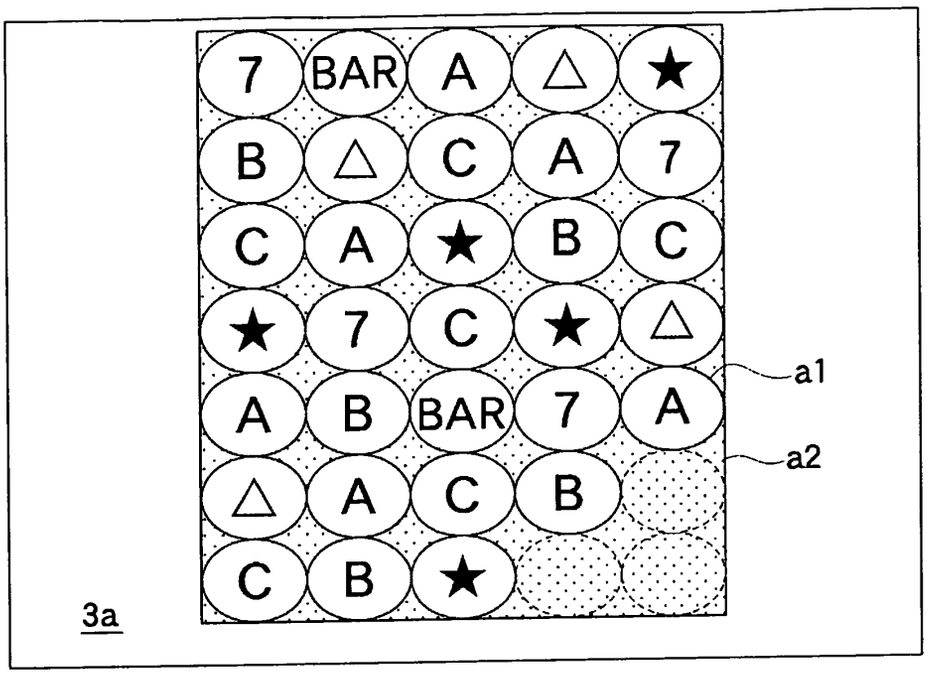

7 BAR A △ ★
B △ C A 7
C A ★ B C
★ 7 C ★ △
A B BAR 7 A
△ A C B
C B ★
a1
a2
3a

Fig. 18

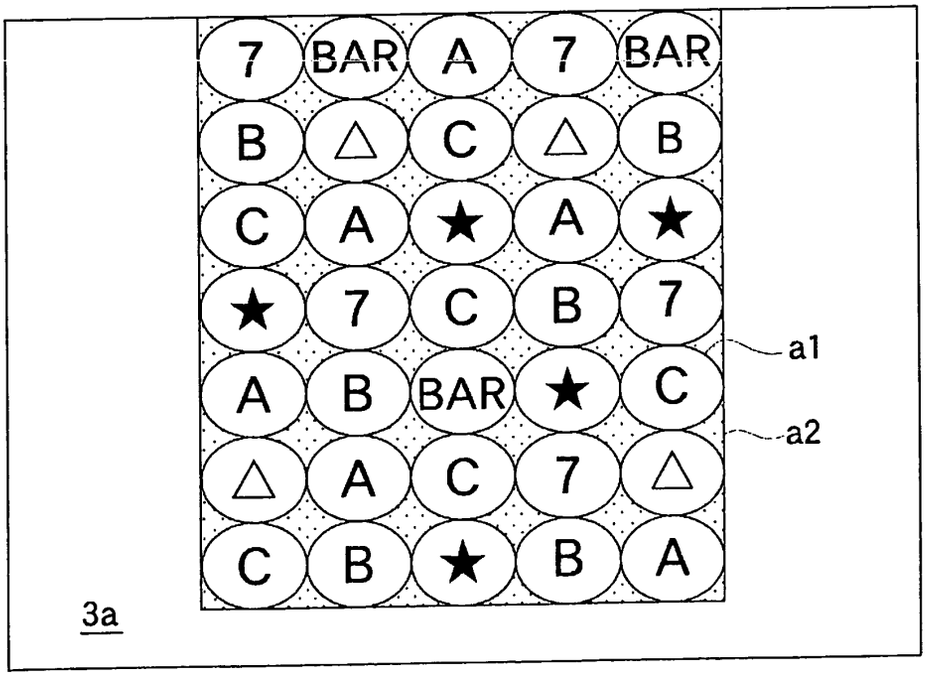

7 BAR A 7 BAR
B △ C △ B
C A ★ A ★
★ 7 C B 7
A B BAR ★ C
△ A C 7 △
C B ★ B A
a1
a2
3a

Fig. 19A

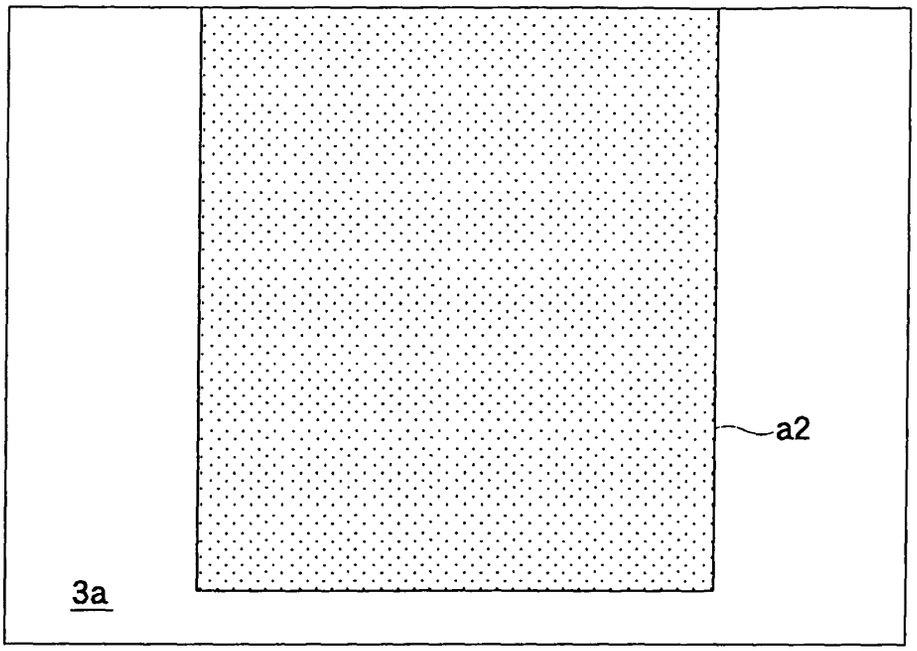


Fig. 19B

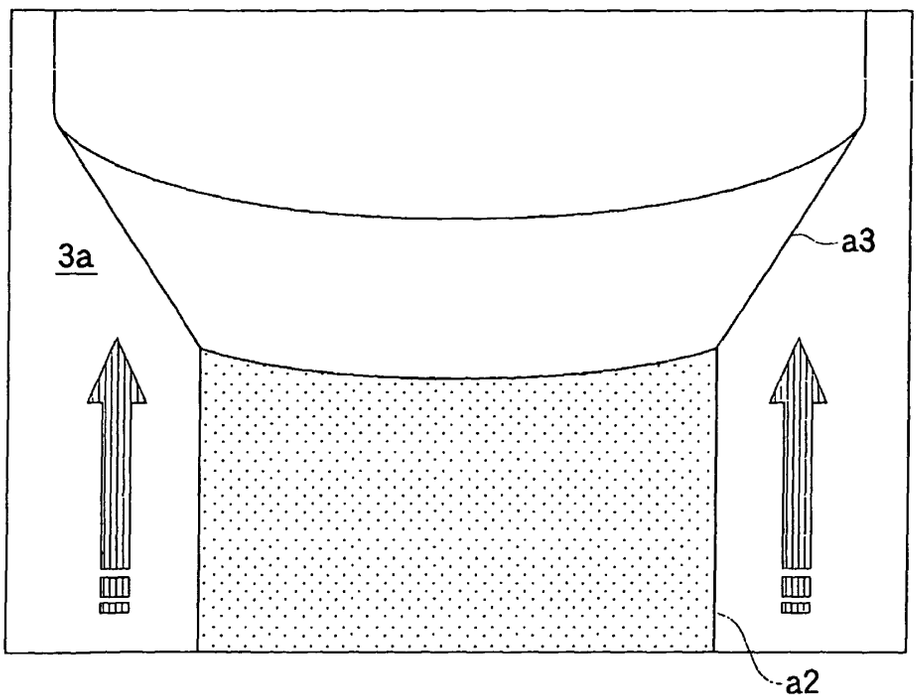


Fig. 20A

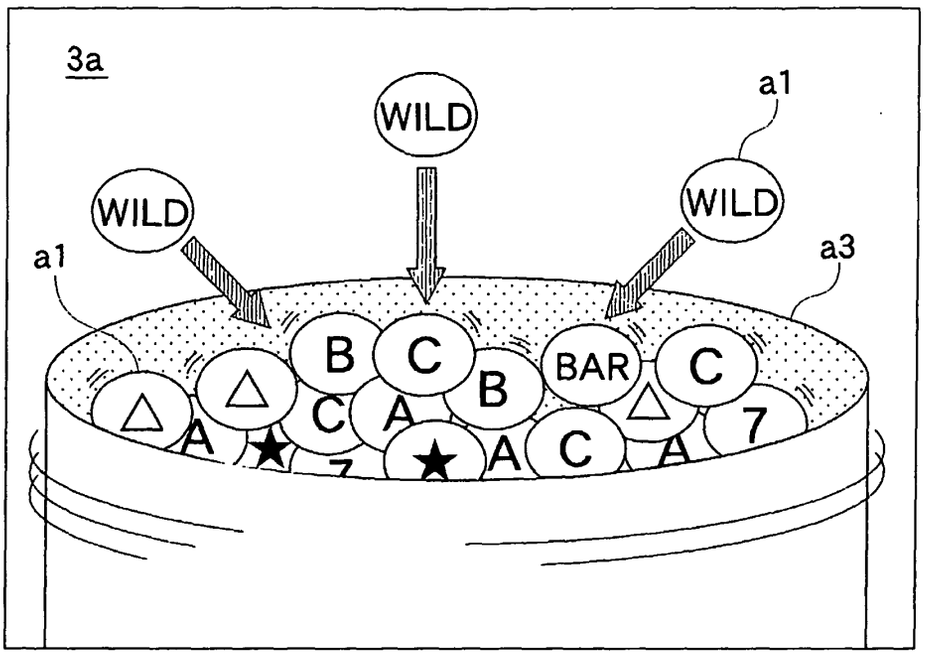


Fig. 20B

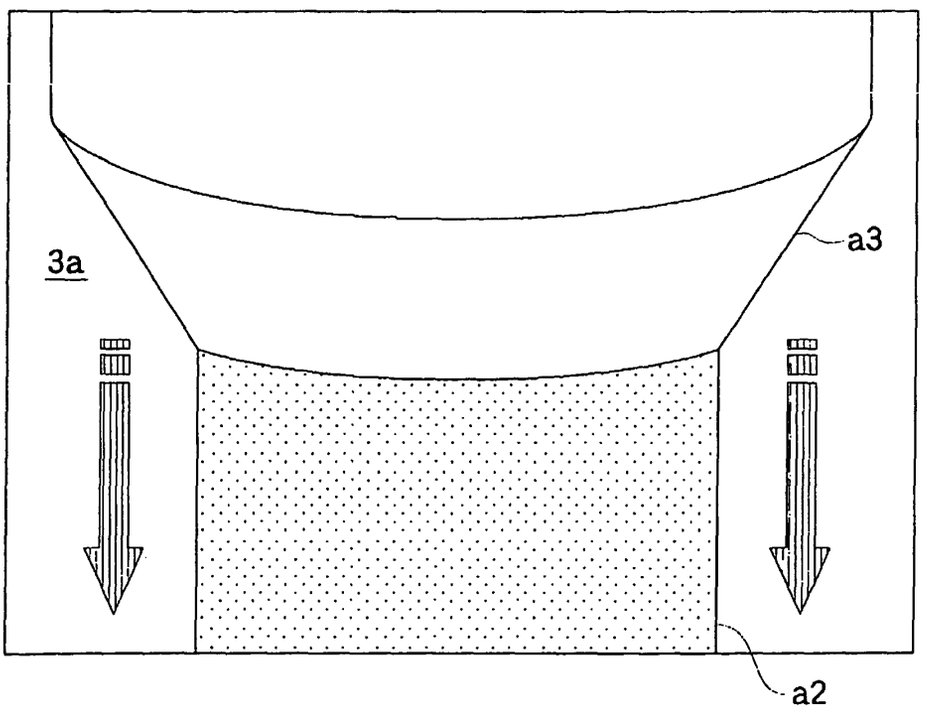


Fig. 21

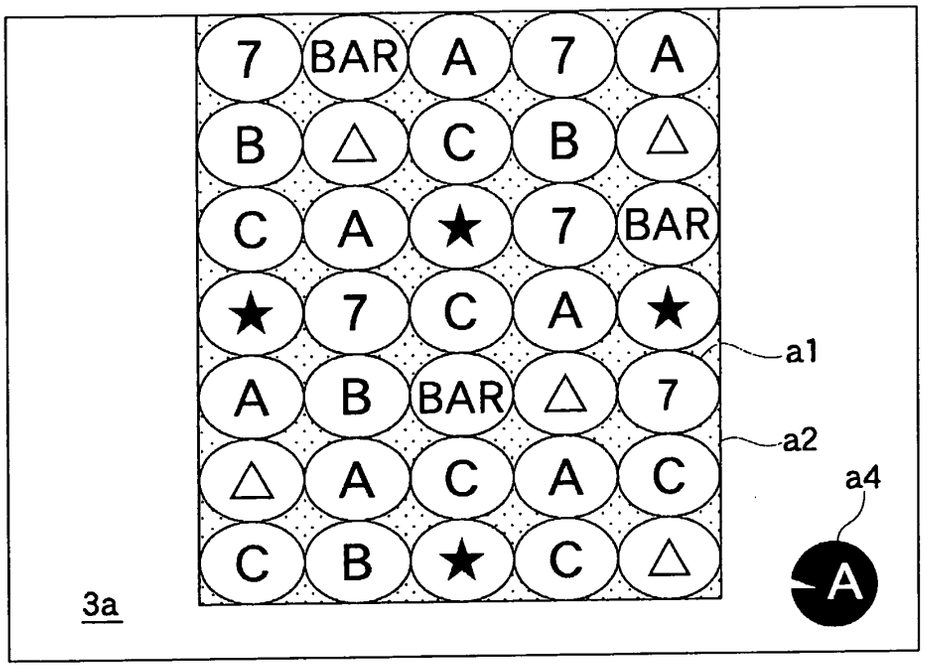

7 BAR A 7 A
B △ C B △
C A ★ 7 BAR
★ 7 C A ★
A B BAR △ 7
△ A C A C
C B ★ C △
a1
a2
a4
A
3a

Fig. 22

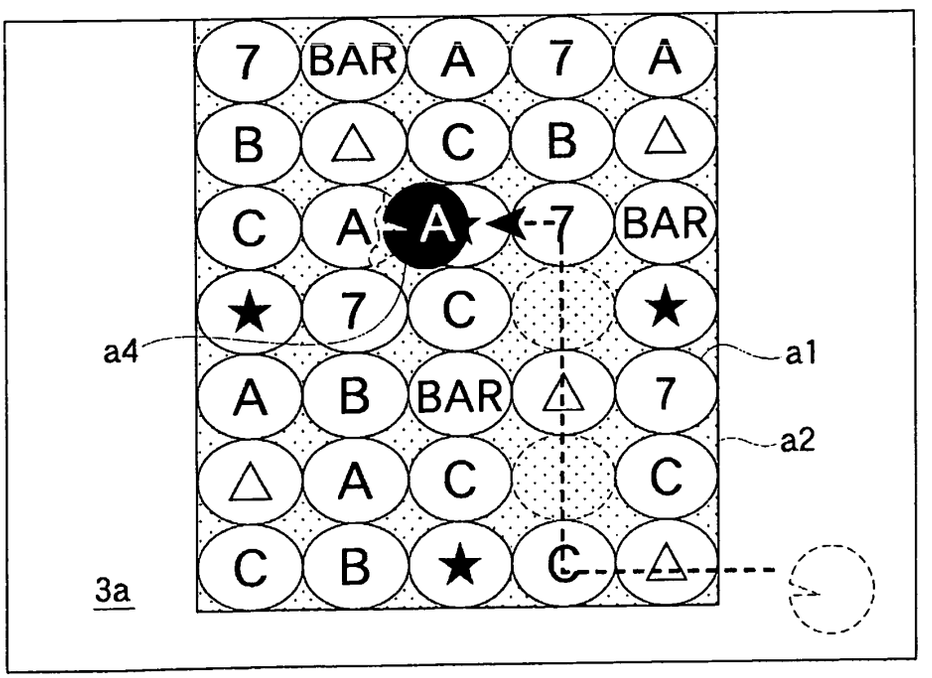

7 BAR A 7 A
B △ C B △
C A A 7 BAR
★ 7 C ★
A B BAR △ 7
△ A C C
C B ★ C △
a4
a1
a2
3a

Fig. 23

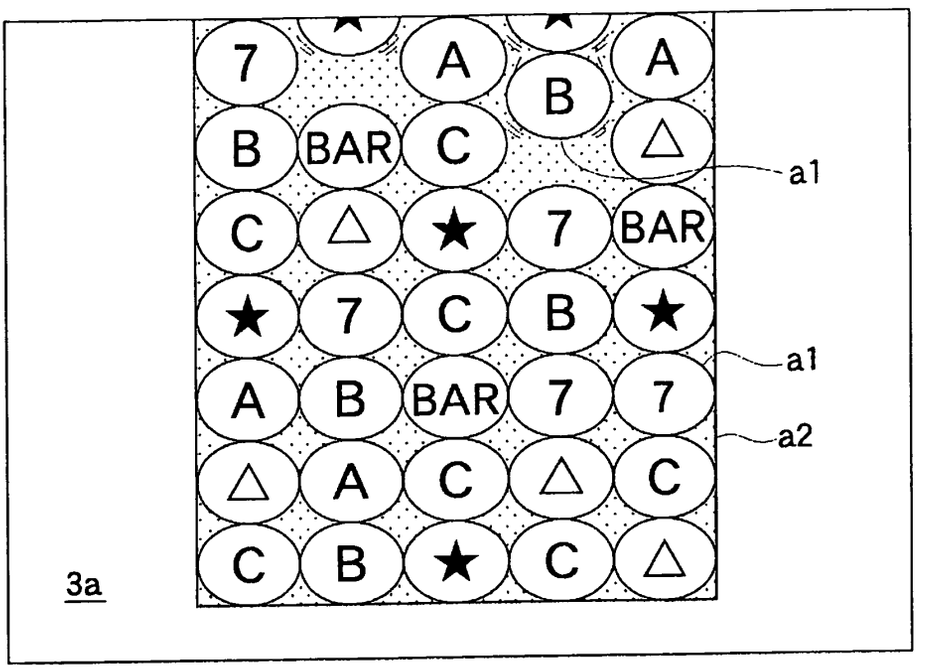

7 A A
B
B BAR C
C △ ★ 7 BAR
★ 7 C B ★
A B BAR 7 7
△ A C △ C
C B ★ C △
a1
a1
a2
3a

Fig. 24

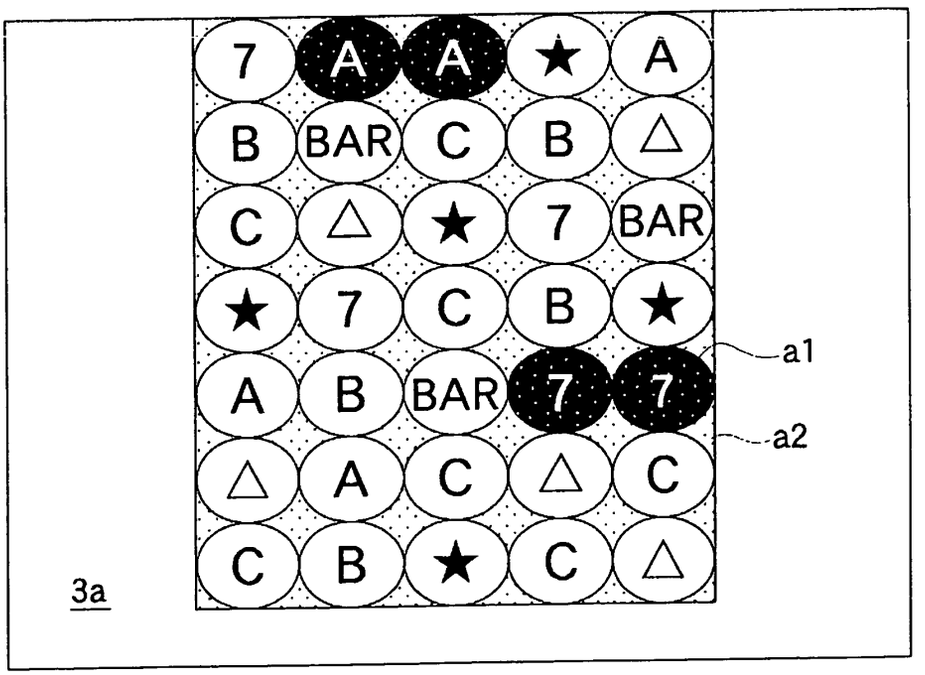

7 A A ★ A
B BAR C B △
C △ ★ 7 BAR
★ 7 C B ★
A B BAR 7 7
△ A C △ C
C B ★ C △
a1
a2
3a

Fig. 25

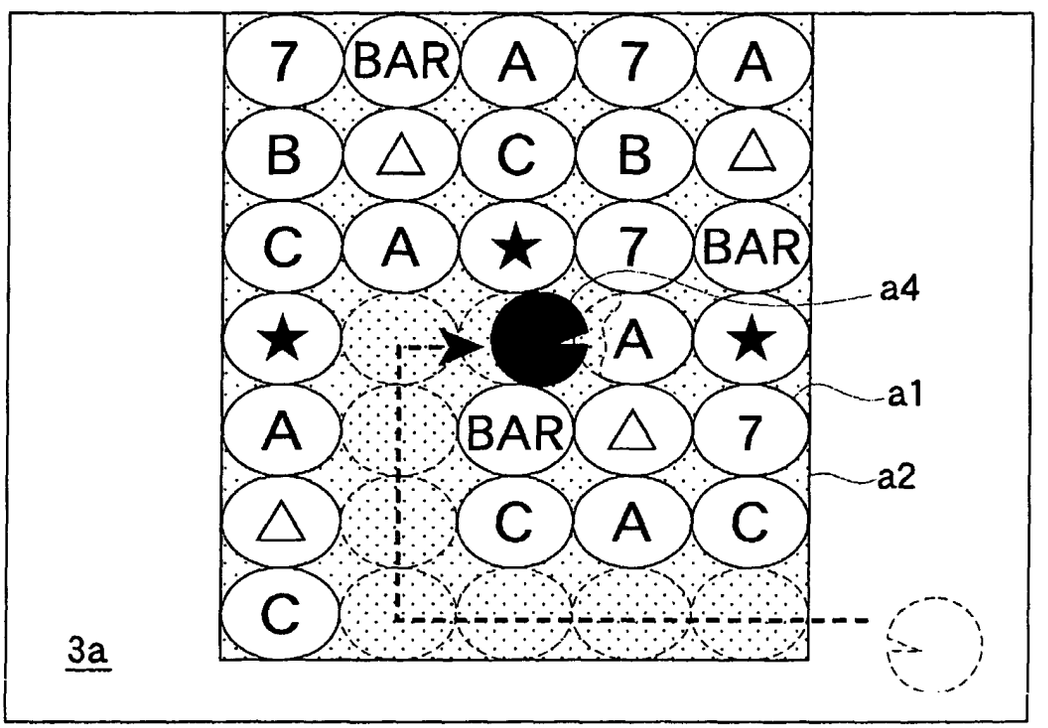


Fig. 26

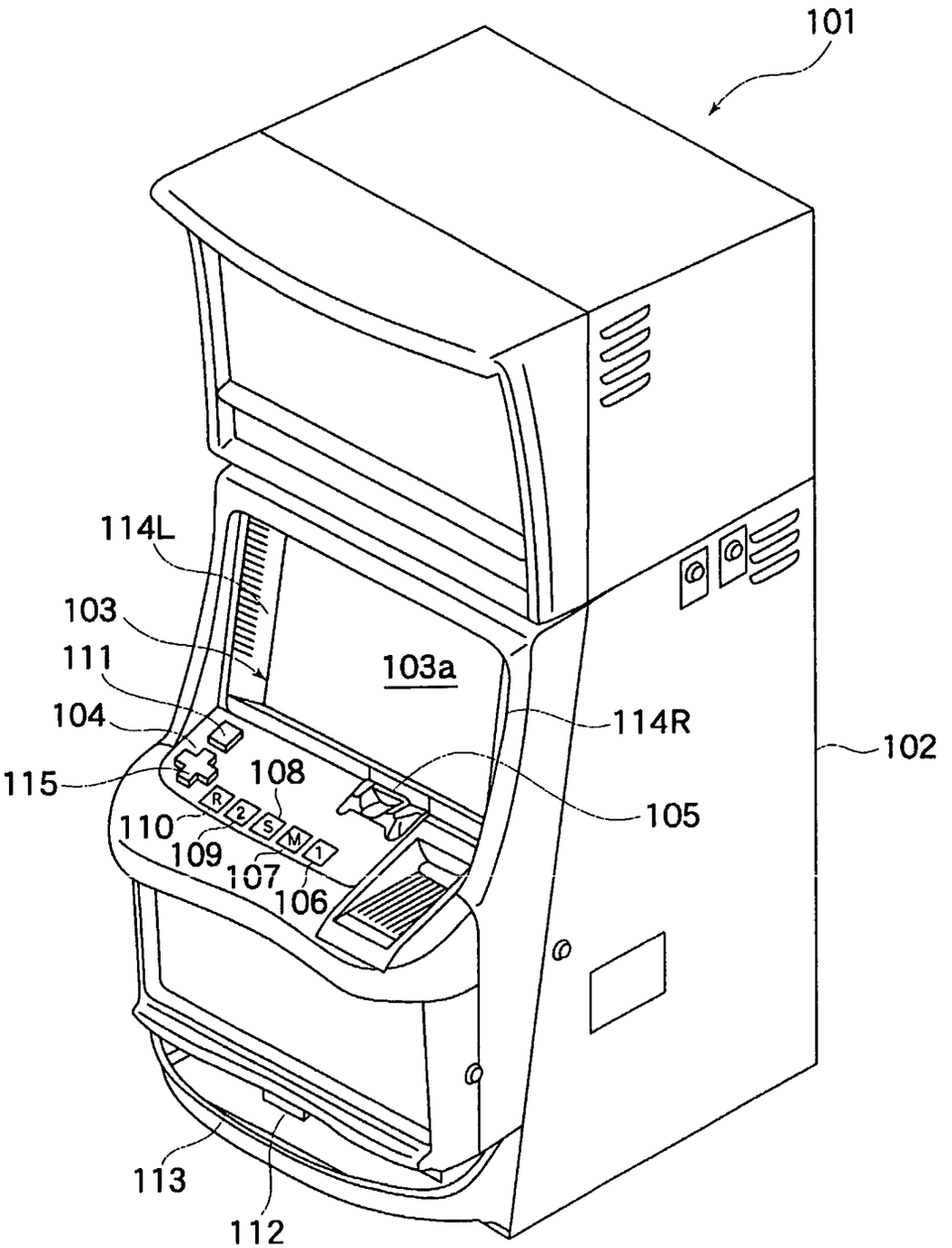

101
114L
103
111
104
115
108
110
109
107
106
103a
114R
102
105
113
112

Fig. 27

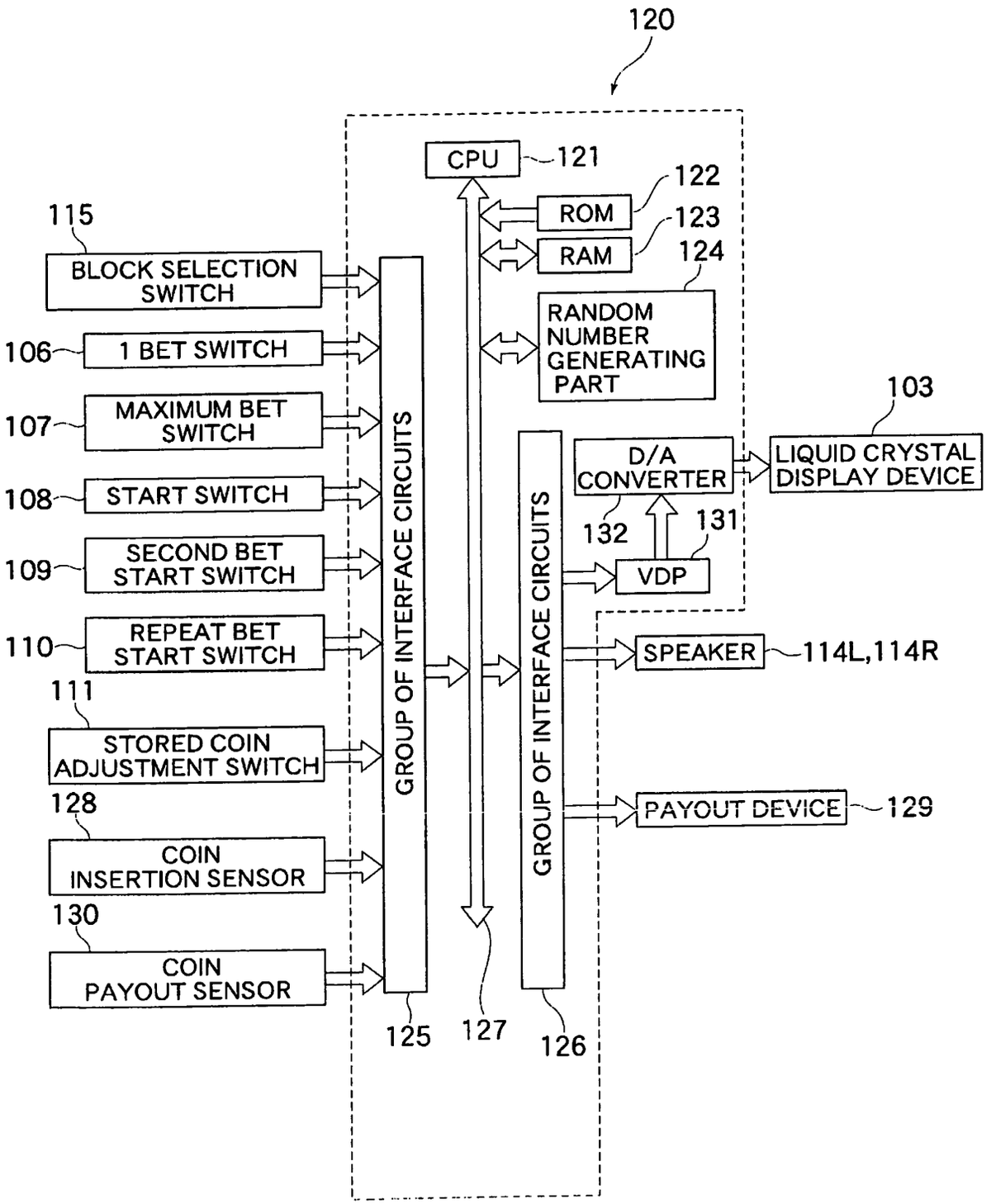

120
CPU
121
122
ROM
123
RAM
124
RANDOM NUMBER GENERATING PART
115
BLOCK SELECTION SWITCH
106
1 BET SWITCH
107
MAXIMUM BET SWITCH
108
START SWITCH
109
SECOND BET START SWITCH
110
REPEAT BET START SWITCH
111
STORED COIN ADJUSTMENT SWITCH
128
COIN INSERTION SENSOR
130
COIN PAYOUT SENSOR
GROUP OF INTERFACE CIRCUITS
125
127
GROUP OF INTERFACE CIRCUITS
126
103
D/A CONVERTER
LIQUID CRYSTAL DISPLAY DEVICE
132
131
VDP
SPEAKER
114L,114R
PAYOUT DEVICE
129

Fig. 28

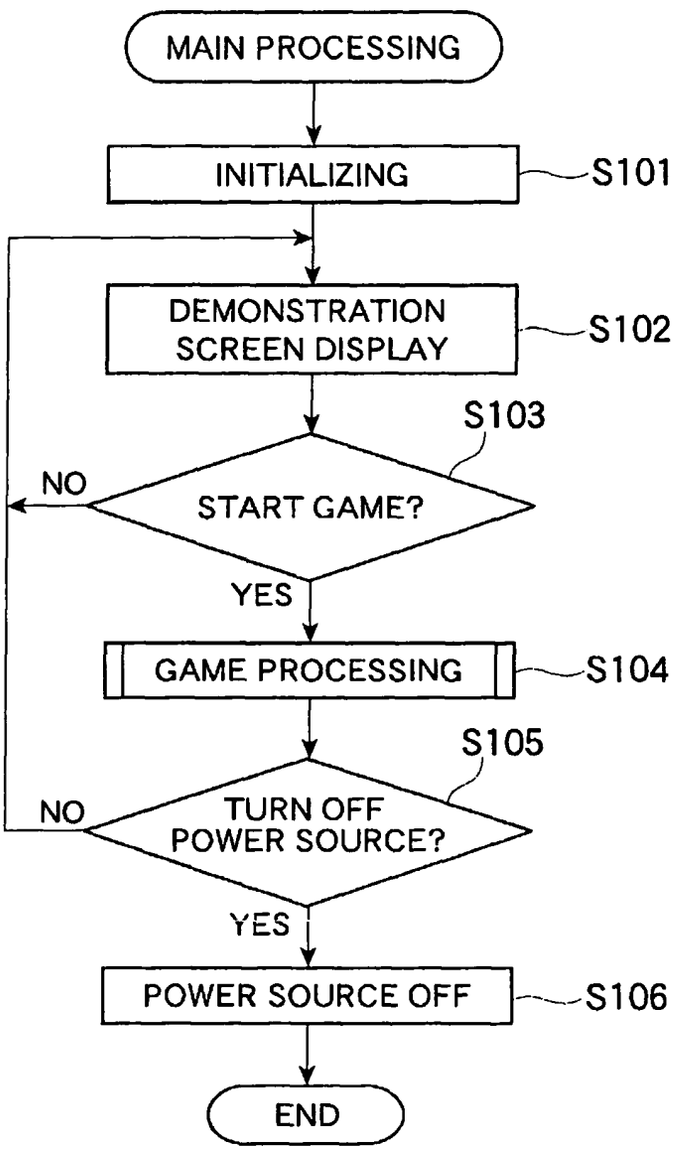

MAIN PROCESSING
INITIALIZING
S101
DEMONSTRATION SCREEN DISPLAY
S102
S103
START GAME?
NO
YES
GAME PROCESSING
S104
S105
TURN OFF POWER SOURCE?
NO
YES
POWER SOURCE OFF
S106
END

Fig. 29

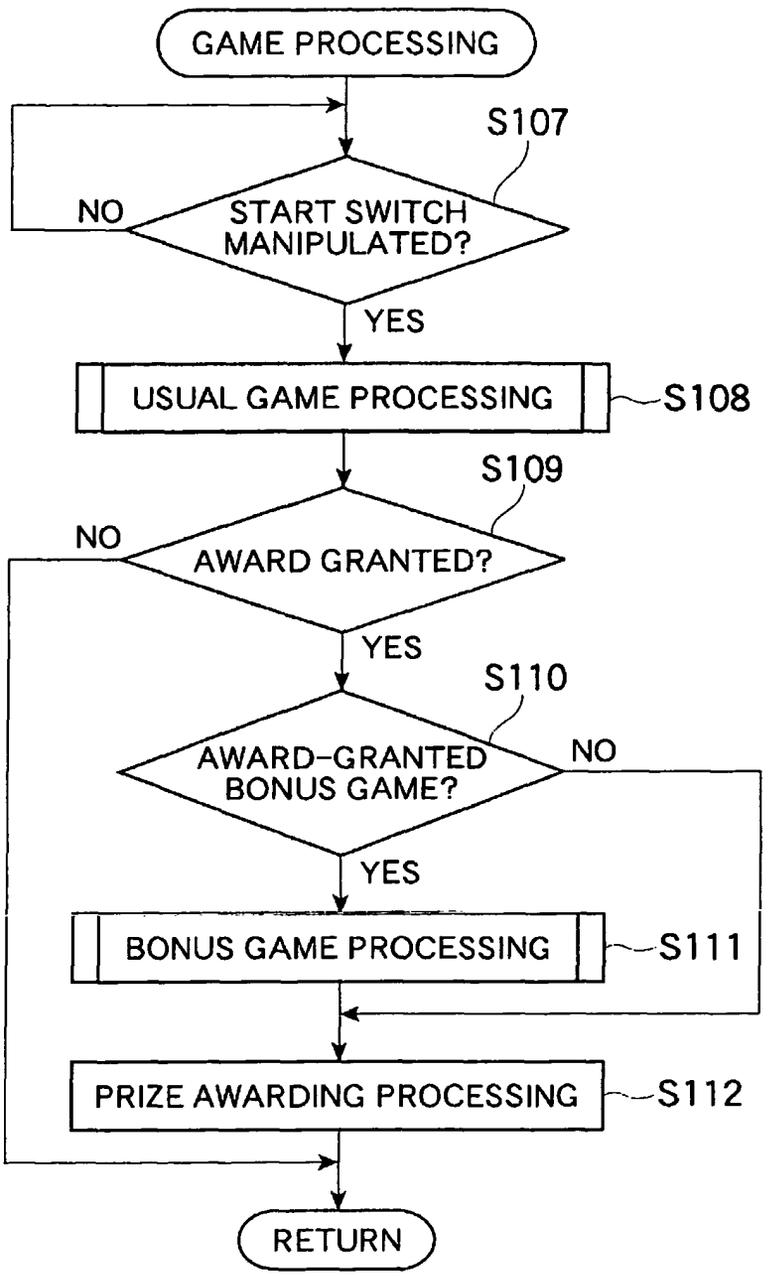

GAME PROCESSING
S107
START SWITCH MANIPULATED?
NO
YES
USUAL GAME PROCESSING
S108
S109
AWARD GRANTED?
NO
YES
S110
AWARD-GRANTED BONUS GAME?
NO
YES
BONUS GAME PROCESSING
S111
PRIZE AWARDING PROCESSING
S112
RETURN

Fig. 30

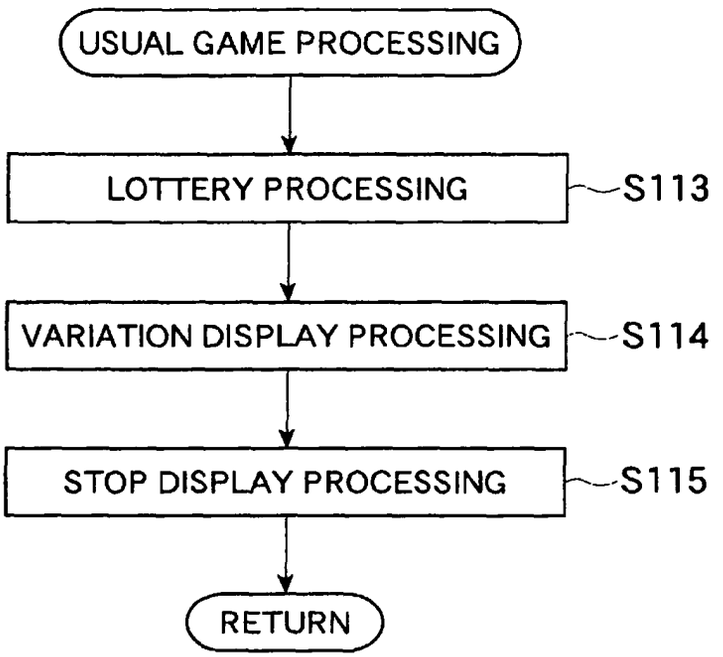

USUAL GAME PROCESSING
LOTTERY PROCESSING
S113
VARIATION DISPLAY PROCESSING
S114
STOP DISPLAY PROCESSING
S115
RETURN

Fig. 31

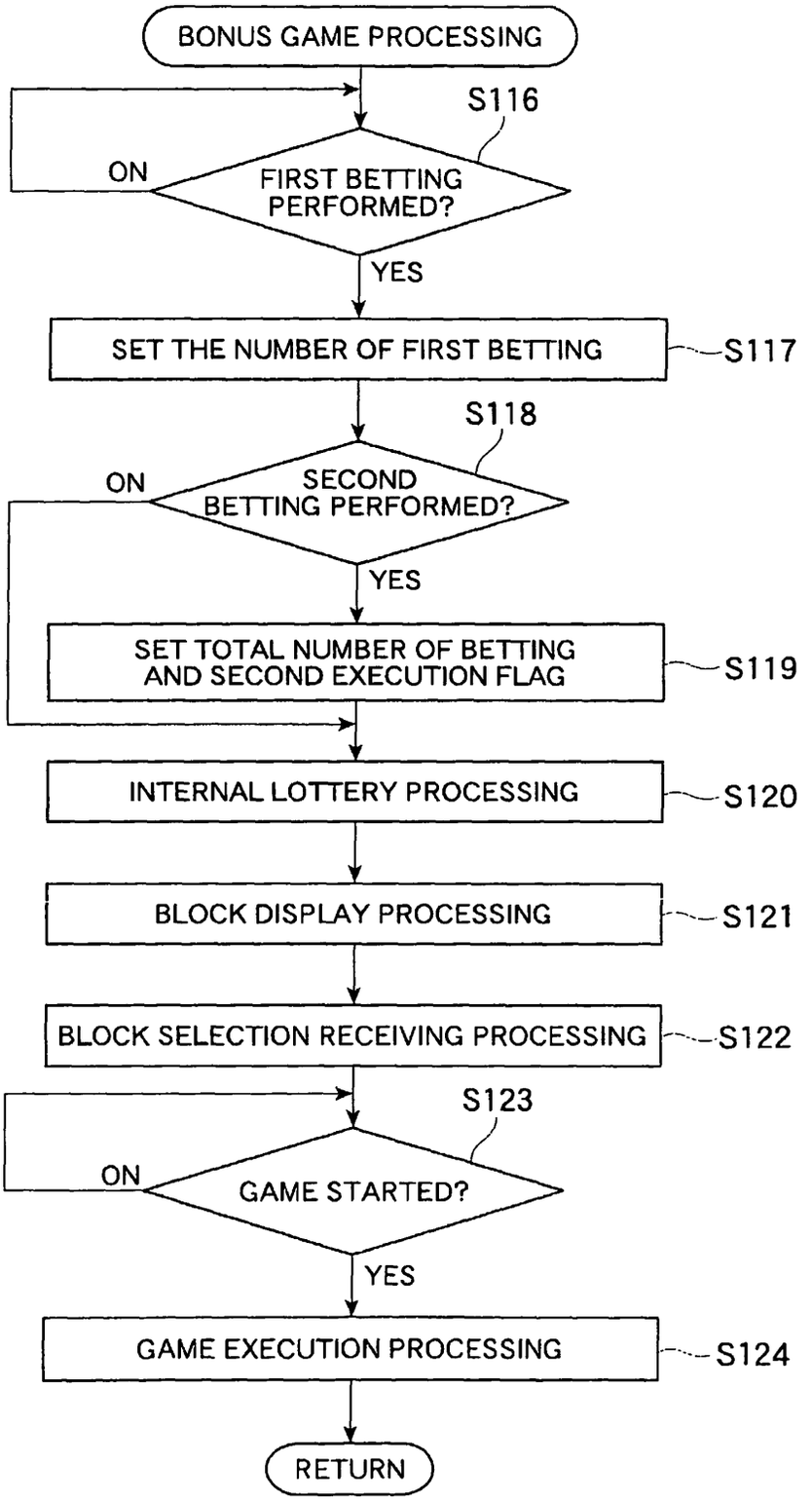

BONUS GAME PROCESSING
S116
ON
FIRST BETTING PERFORMED?
YES
SET THE NUMBER OF FIRST BETTING
S117
S118
ON
SECOND BETTING PERFORMED?
YES
SET TOTAL NUMBER OF BETTING AND SECOND EXECUTION FLAG
S119
INTERNAL LOTTERY PROCESSING
S120
BLOCK DISPLAY PROCESSING
S121
BLOCK SELECTION RECEIVING PROCESSING
S122
S123
ON
GAME STARTED?
YES
GAME EXECUTION PROCESSING
S124
RETURN

Fig. 32A

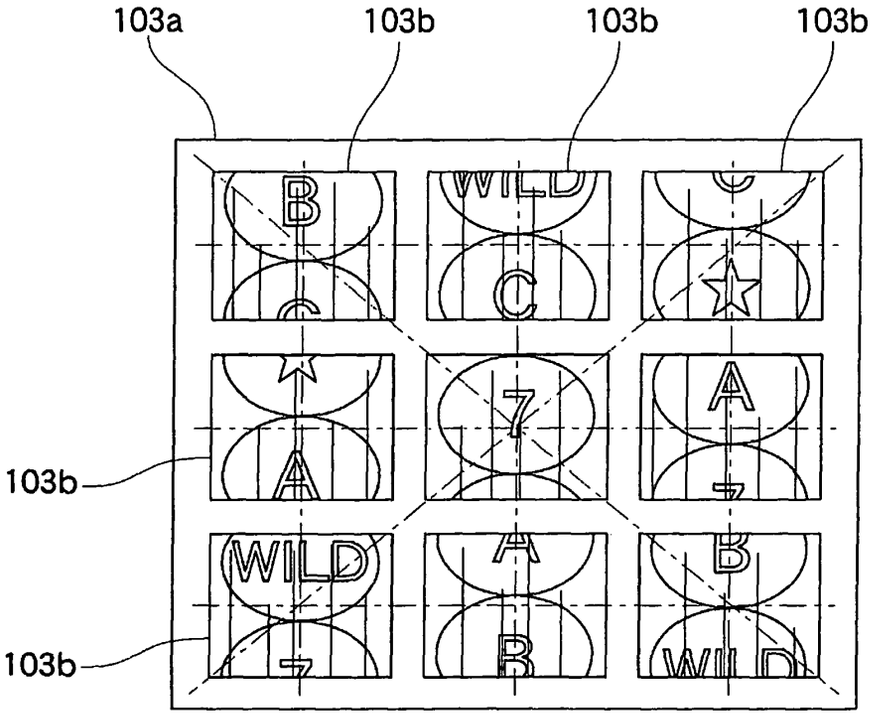


Fig. 32B

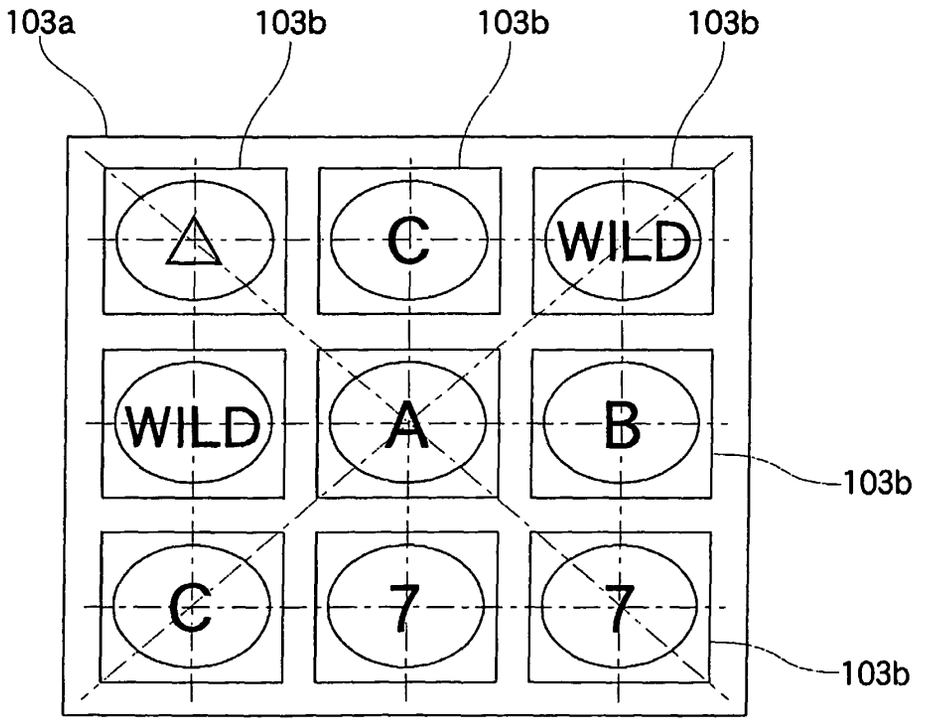


Fig. 32C

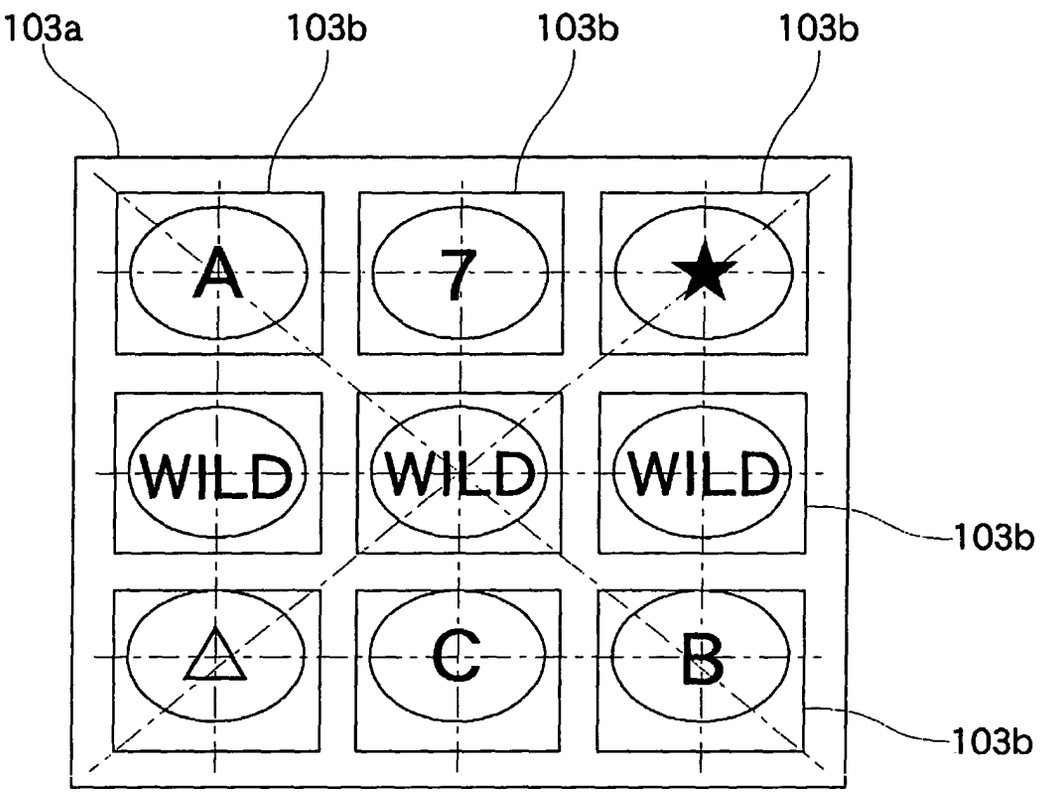


Fig. 33A

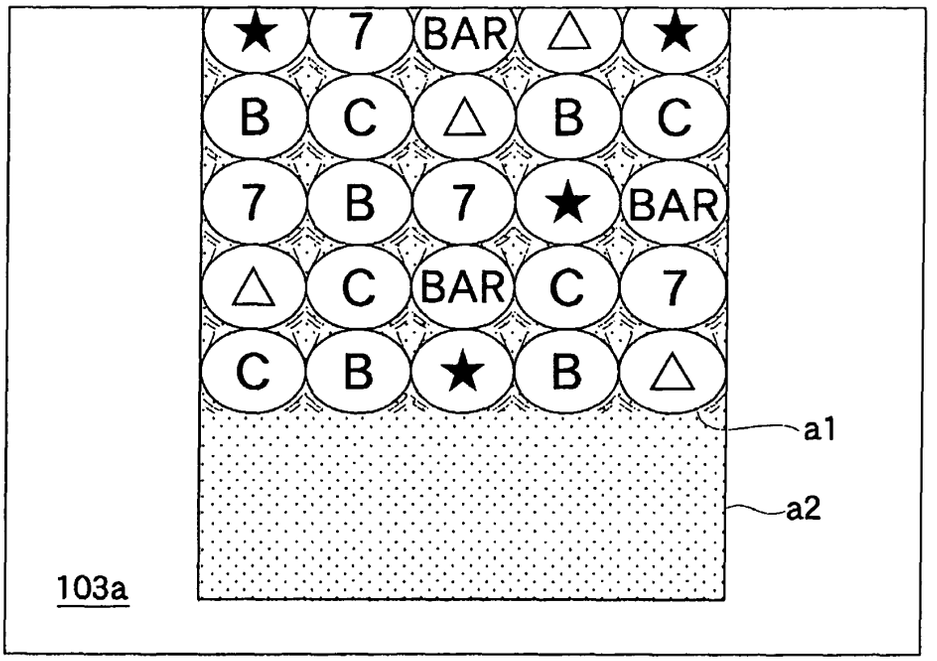


Fig. 33B

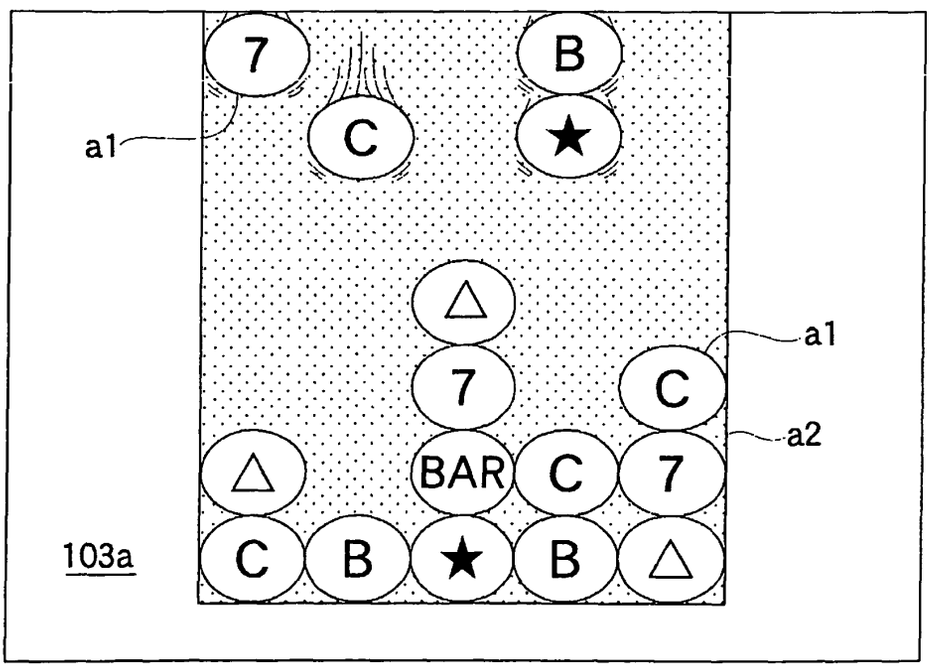


Fig. 34

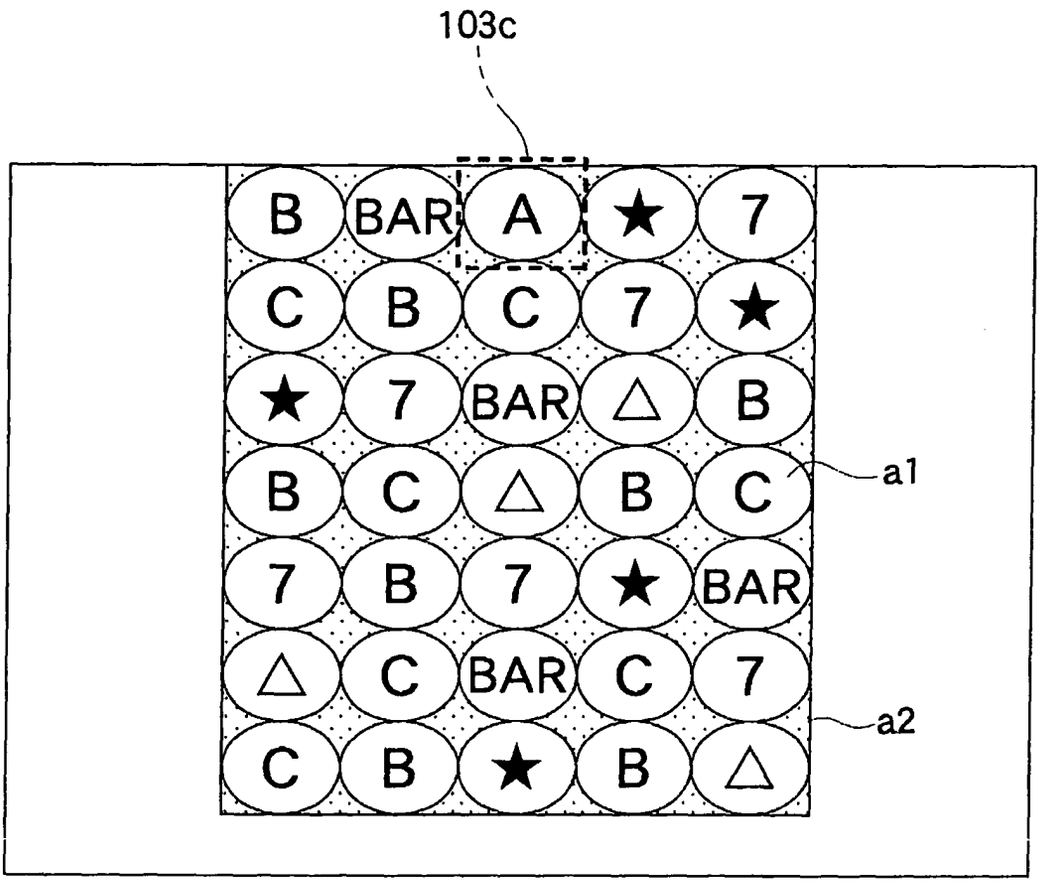


Fig. 35

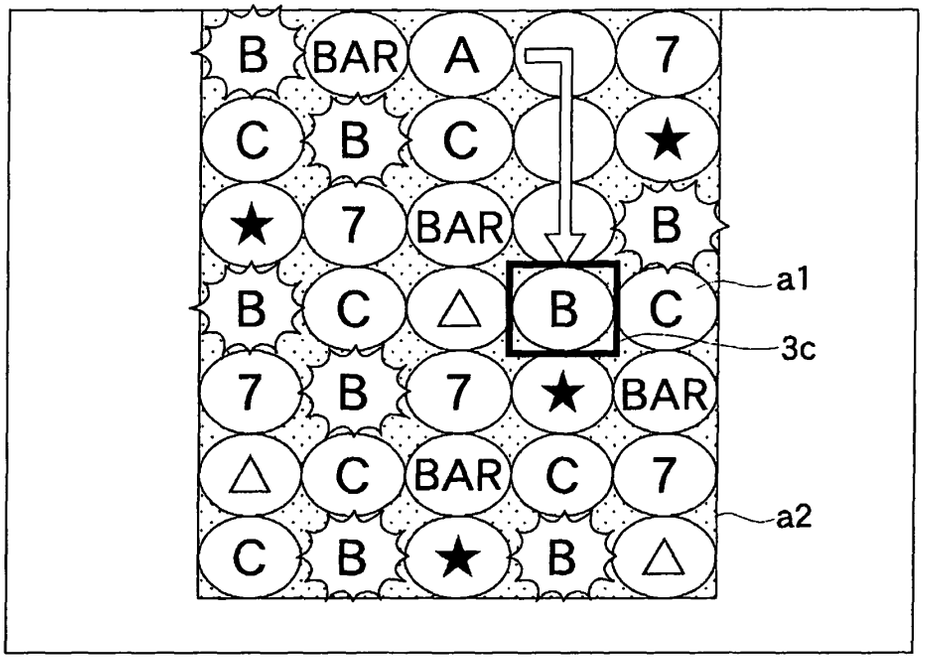

B BAR A 7
C B C ★
★ 7 BAR B
B C △ B C
7 B 7 ★ BAR
△ C BAR C 7
C B ★ B △
a1
3c
a2

Fig. 36

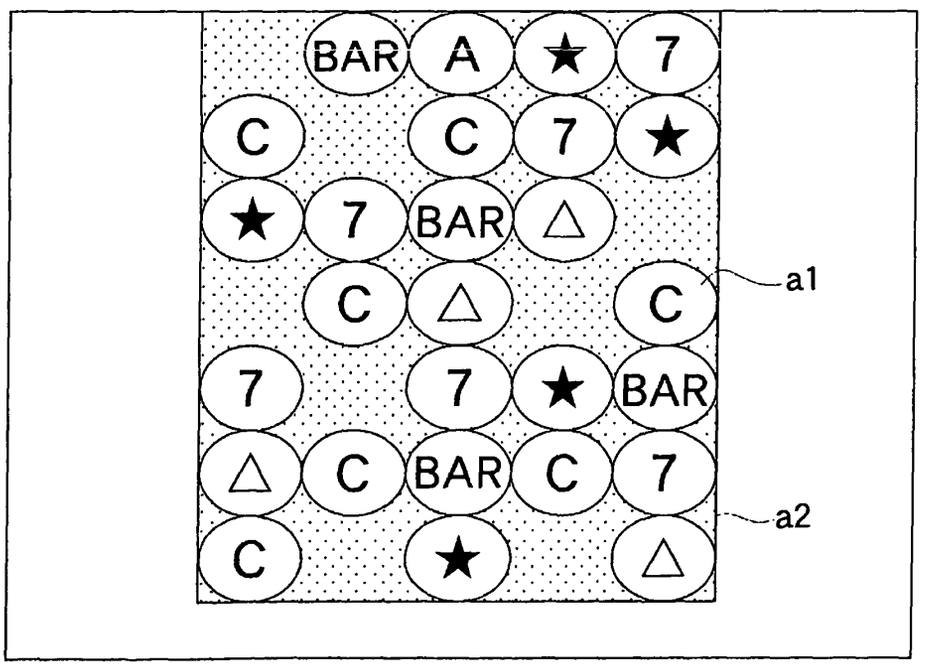

BAR A ★ 7
C C 7 ★
★ 7 BAR △
C △ C
7 7 ★ BAR
△ C BAR C 7
C ★ △
a1
a2

Fig. 37

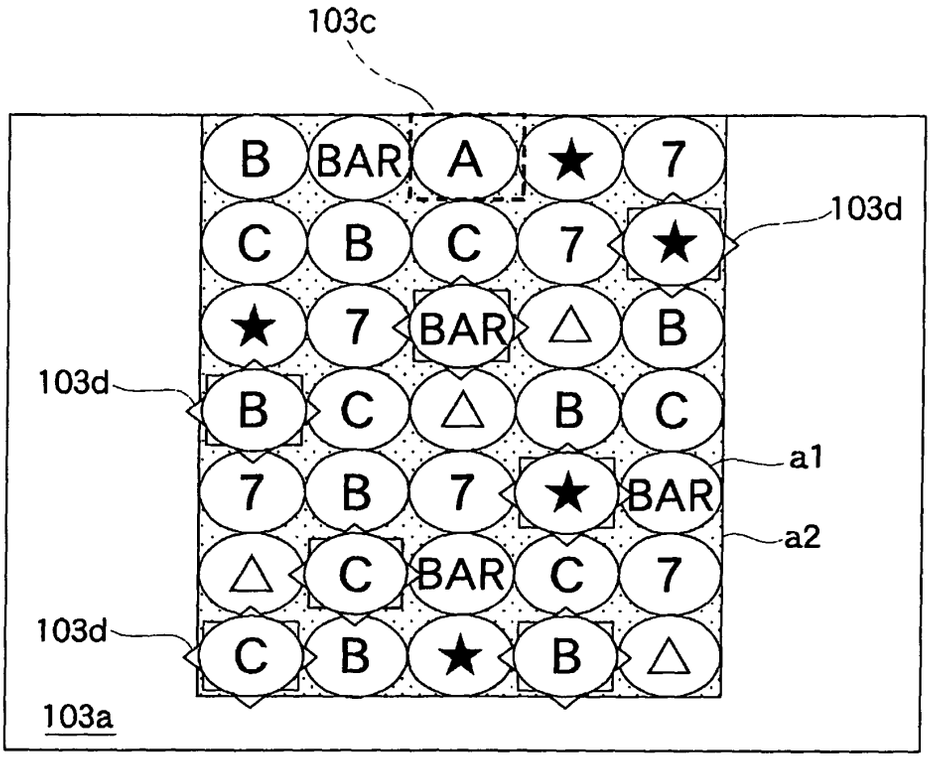

103c
B BAR A ★ 7
C B C 7 ★
★ 7 BAR △ B
B C △ B C
7 B 7 ★ BAR
△ C BAR C 7
C B ★ B △
103d
103d
103d
a1
a2
103a

Fig. 38

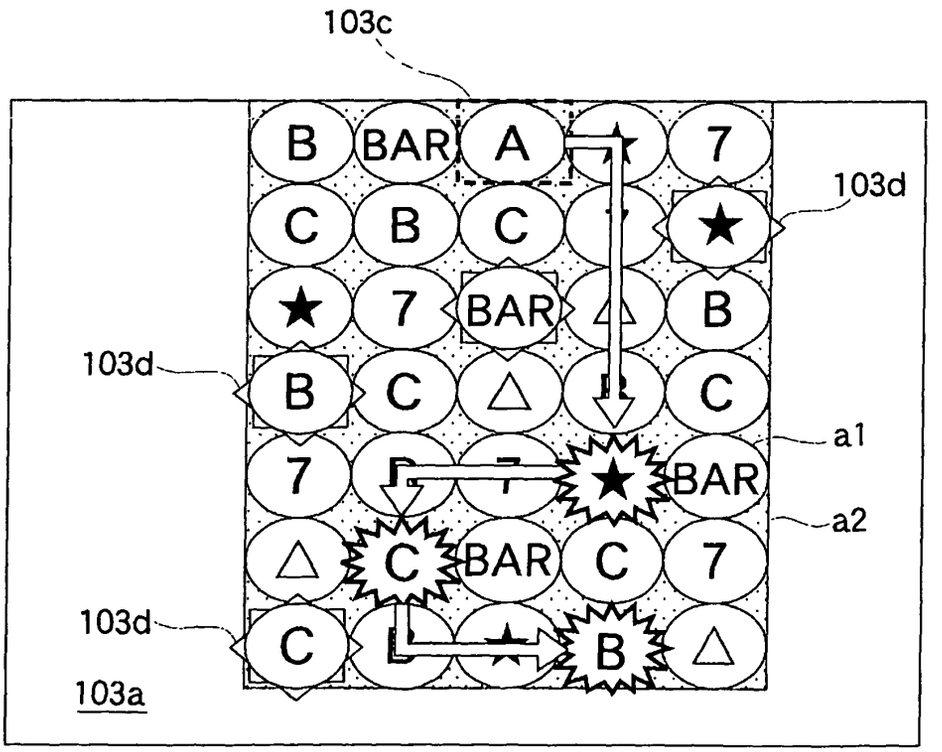

103c
B BAR A ★ 7
C B C 7 ★
★ 7 BAR △ B
B C △ C
7 ★ BAR
△ C BAR C 7
C B ★ △
103d
103d
103d
a1
a2
103a

Fig. 39

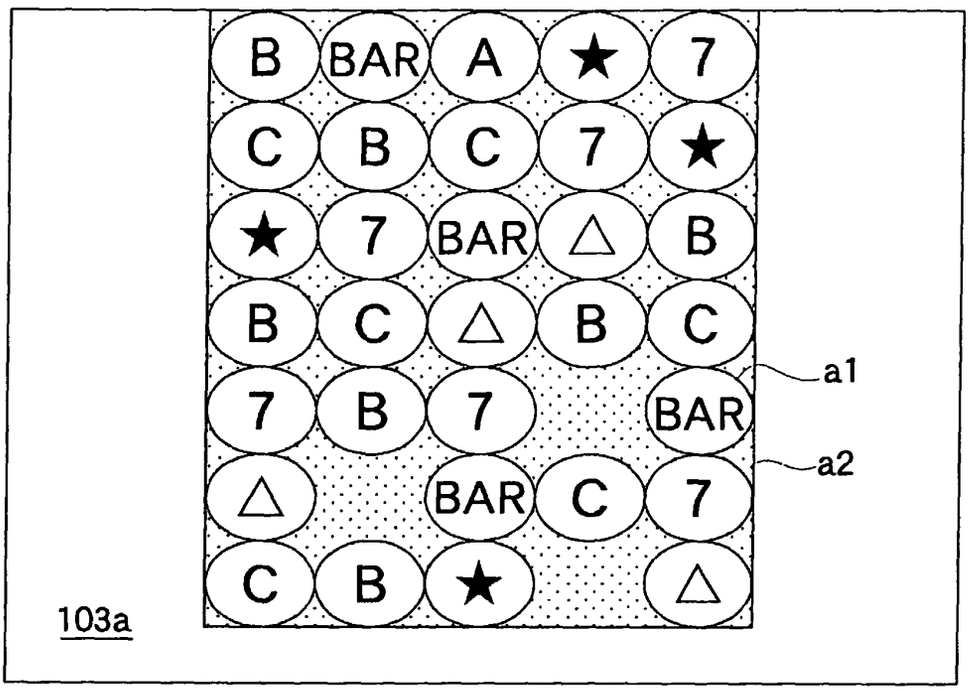

B BAR A ★ 7
C B C 7 ★
★ 7 BAR △ B
B C △ B C
7 B 7 BAR
△ BAR C 7
C B ★ △
a1
a2
103a

Fig. 40

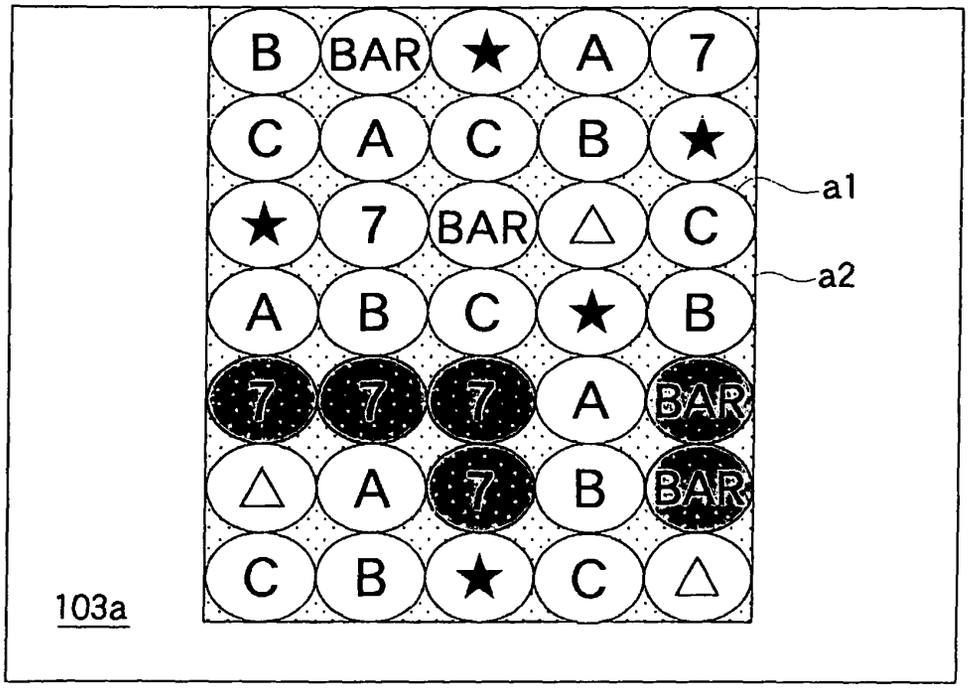

B BAR ★ A 7
C A C B ★
★ 7 BAR △ C
A B C ★ B
7 7 7 A BAR
△ A 7 B BAR
C B ★ C △
a1
a2
103a

Fig. 41

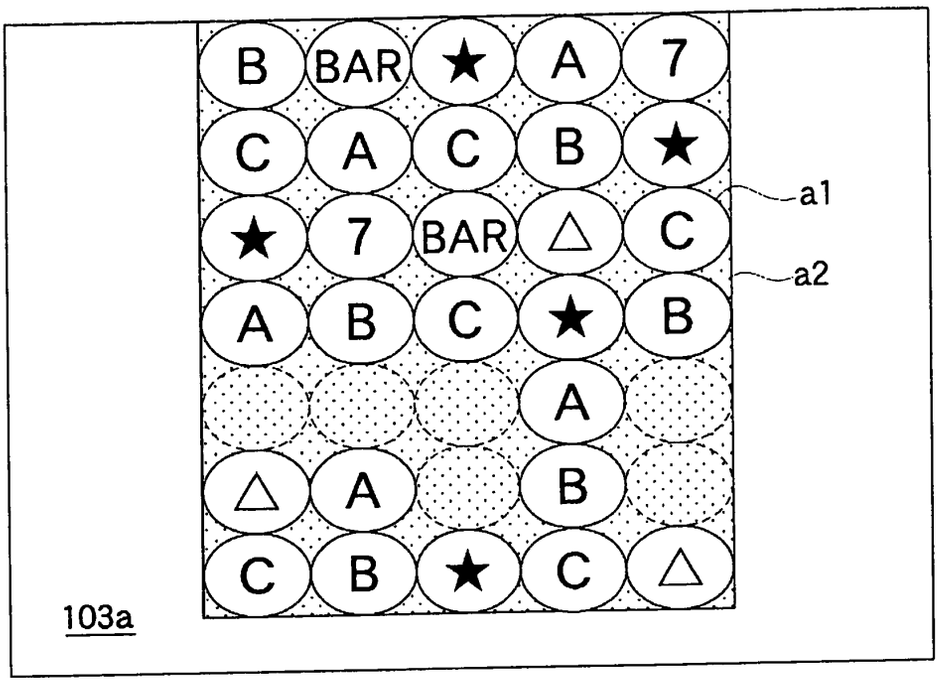

B BAR ★ A 7
C A C B ★
★ 7 BAR △ C
A B C ★ B
A
△ A B
C B ★ C △
a1
a2
103a

Fig. 42

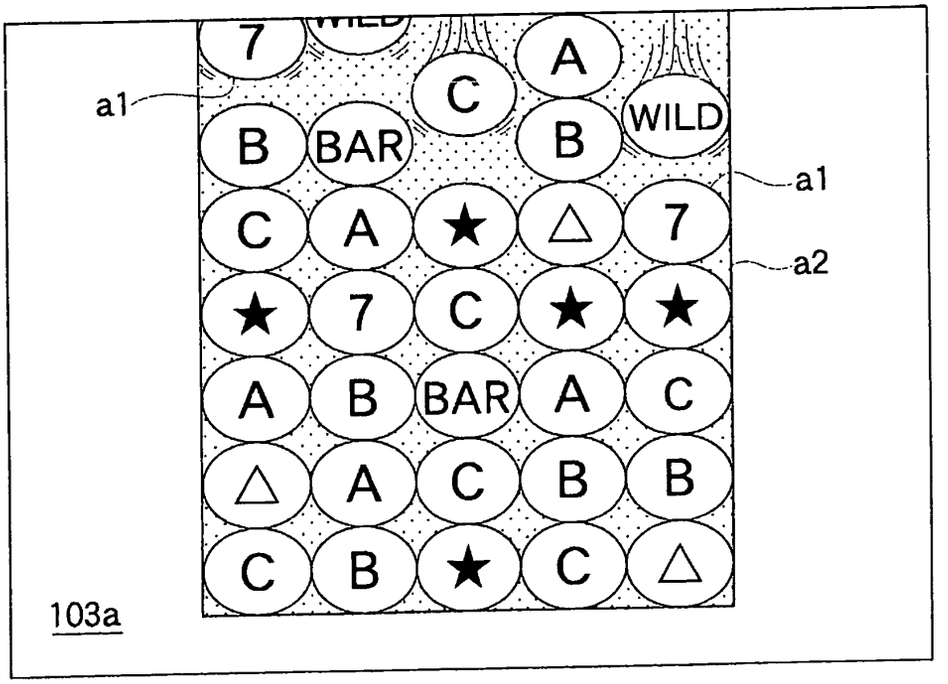

7 WILD
A
C
a1
B BAR B WILD
C A ★ △ 7
★ 7 C ★ ★
A B BAR A C
△ A C B B
C B ★ C △
a1
a2
103a

Fig. 43

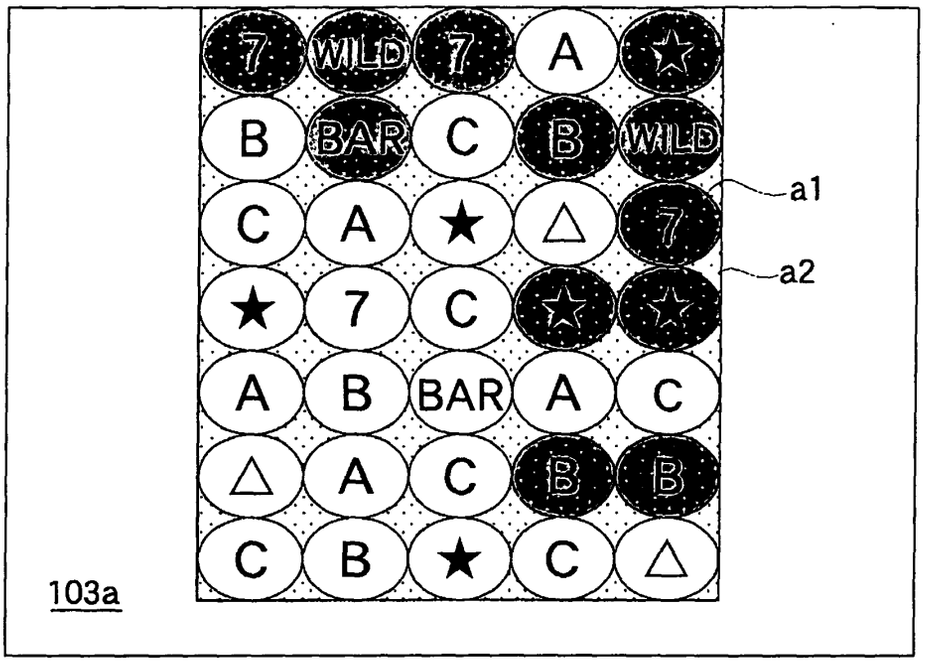

7 WILD 7 A
B BAR C B WILD
C A ★ △ 7
★ 7 C
A B BAR A C
△ A C B B
C B ★ C △
a1
a2
103a

Fig. 44

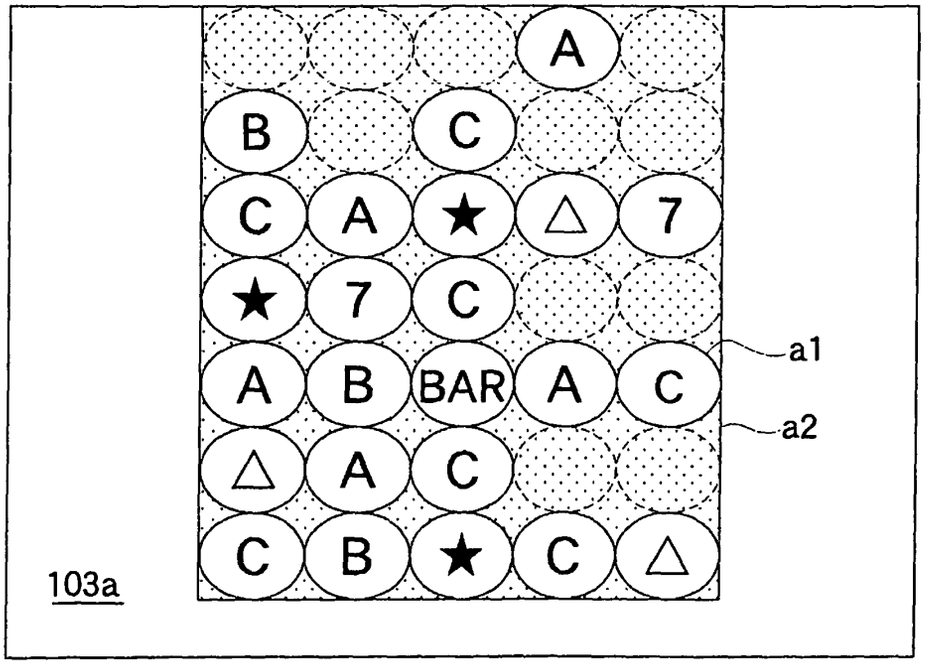

A
B C
C A ★ △ 7
★ 7 C
A B BAR A C
△ A C
C B ★ C △
a1
a2
103a

Fig. 45

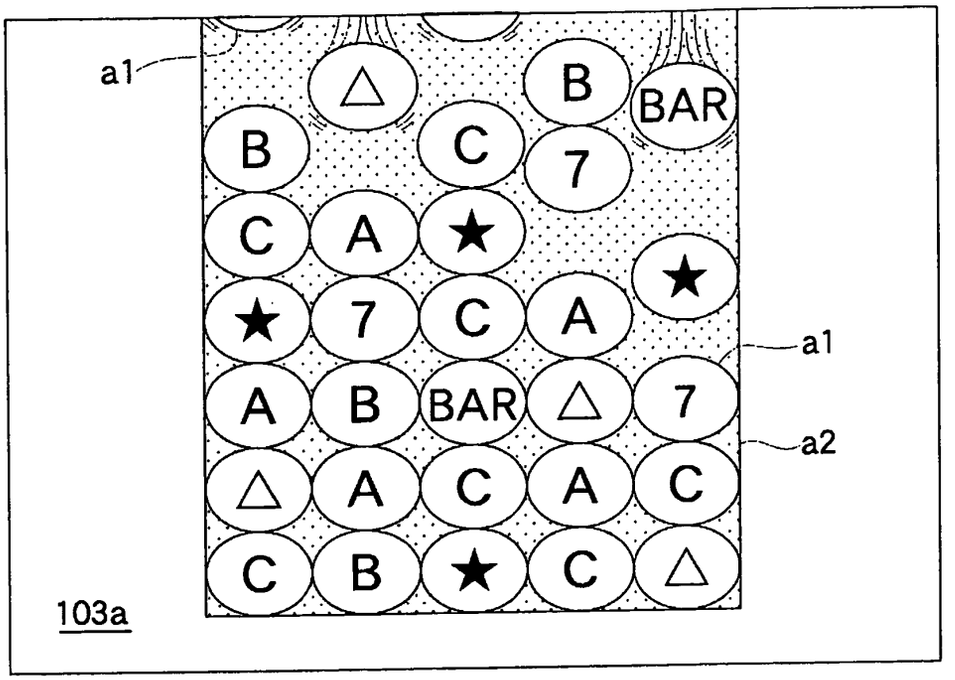

a1
△ B BAR
B C 7
C A ★
★ ★
★ 7 C A
a1
A B BAR △ 7
a2
△ A C A C
C B ★ C △
103a

Fig. 46

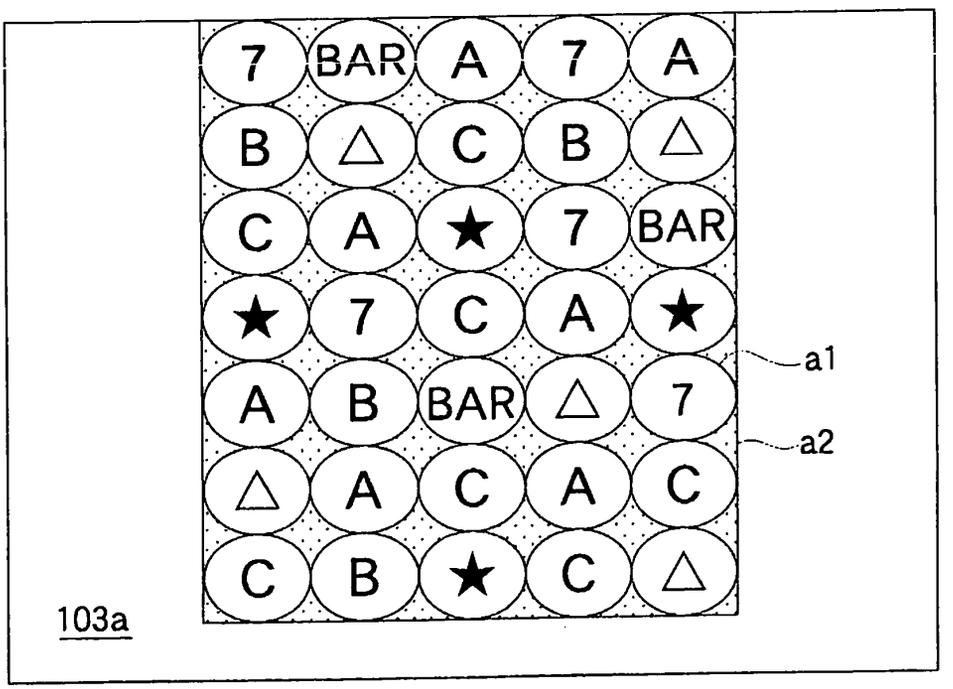

7 BAR A 7 A
B △ C B △
C A ★ 7 BAR
★ 7 C A ★
a1
A B BAR △ 7
a2
△ A C A C
C B ★ C △
103a

Fig. 47

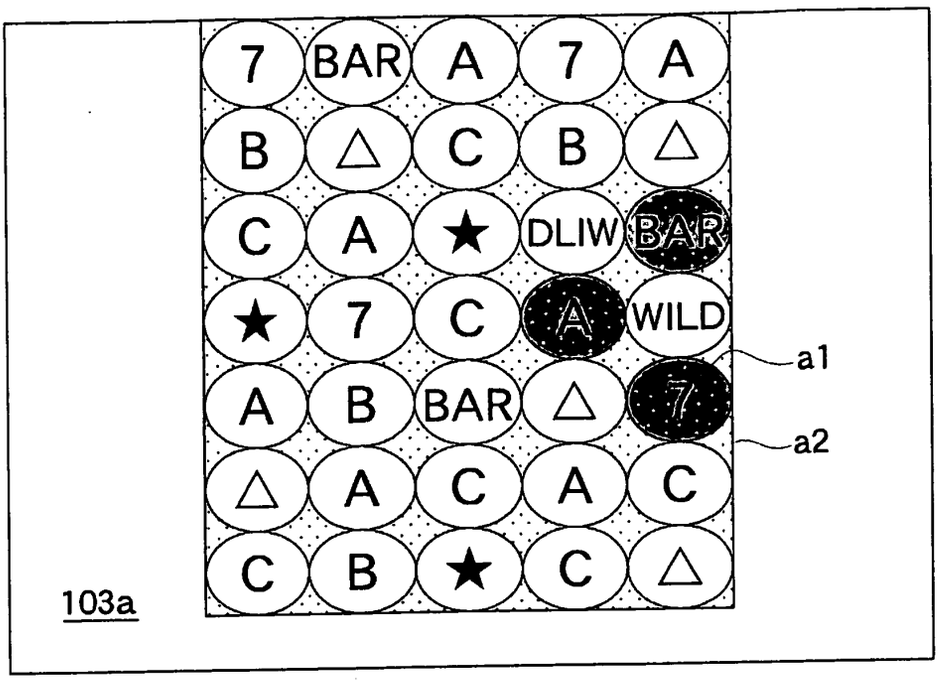

7 BAR A 7 A
B △ C B △
C A ★ DLIW BAR
★ 7 C A WILD
A B BAR △ 7
△ A C A C
C B ★ C △
a1
a2
103a

Fig. 48

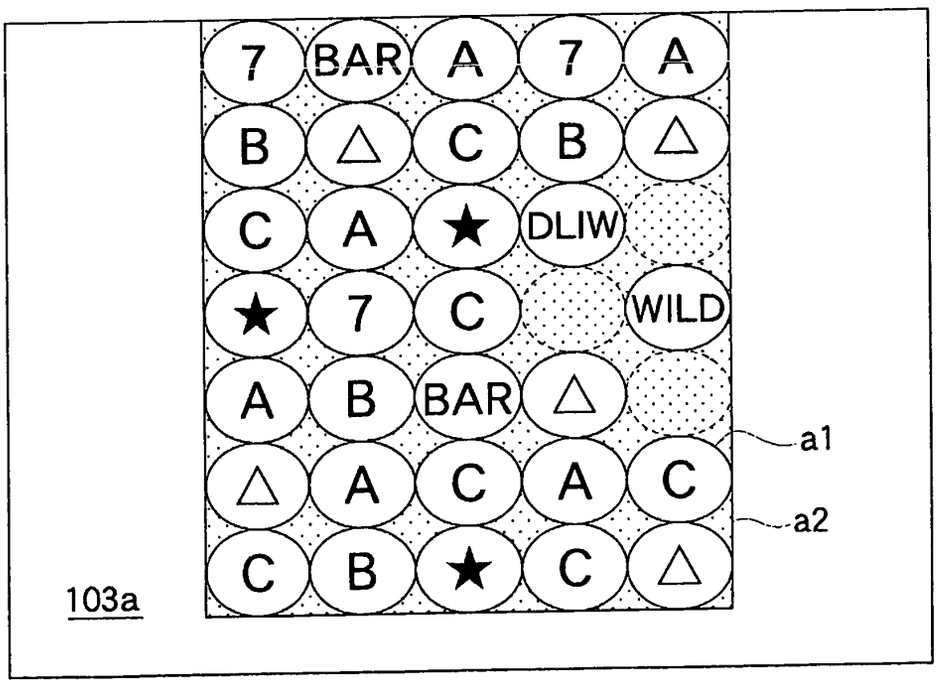

7 BAR A 7 A
B △ C B △
C A ★ DLIW
★ 7 C WILD
A B BAR △
△ A C A C
C B ★ C △
a1
a2
103a

Fig. 49

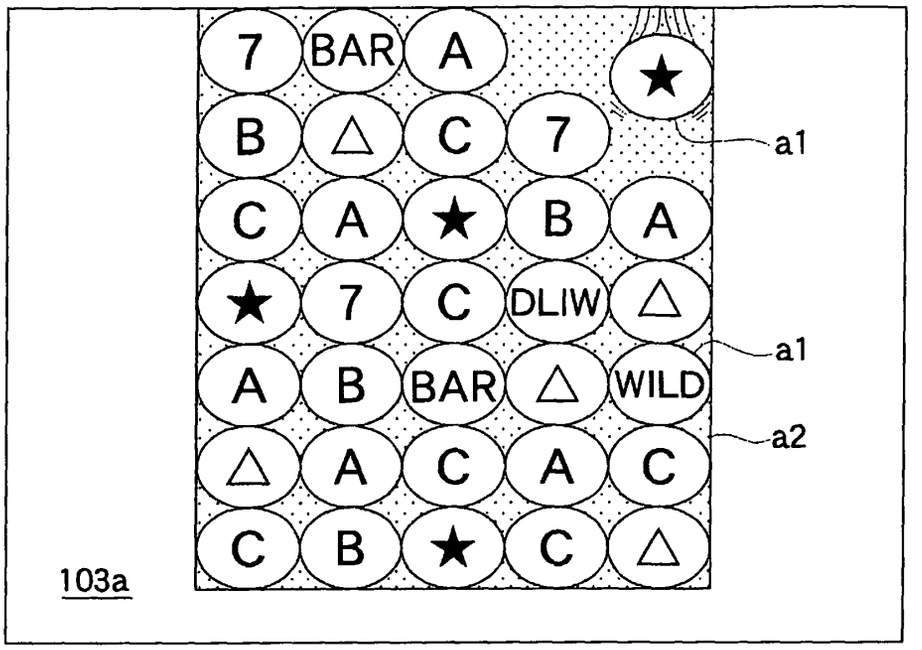

7 BAR A ★
B △ C 7
C A ★ B A
★ 7 C DLIW △
A B BAR △ WILD
△ A C A C
C B ★ C △
a1
a1
a2
103a

Fig. 50

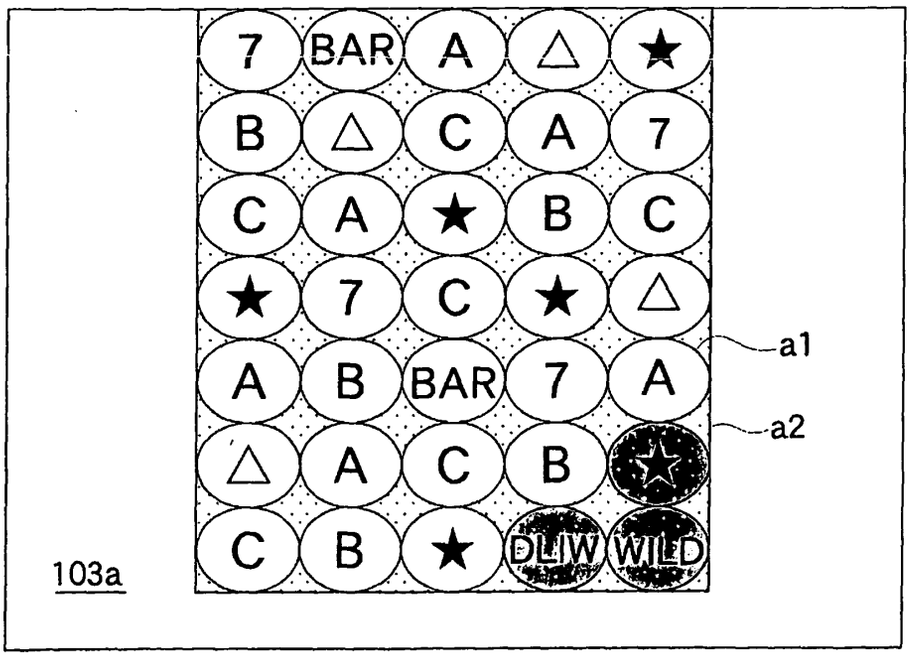

7 BAR A △ ★
B △ C A 7
C A ★ B C
★ 7 C ★ △
A B BAR 7 A
△ A C B ★
C B ★ DLIW WILD
a1
a2
103a

Fig. 51

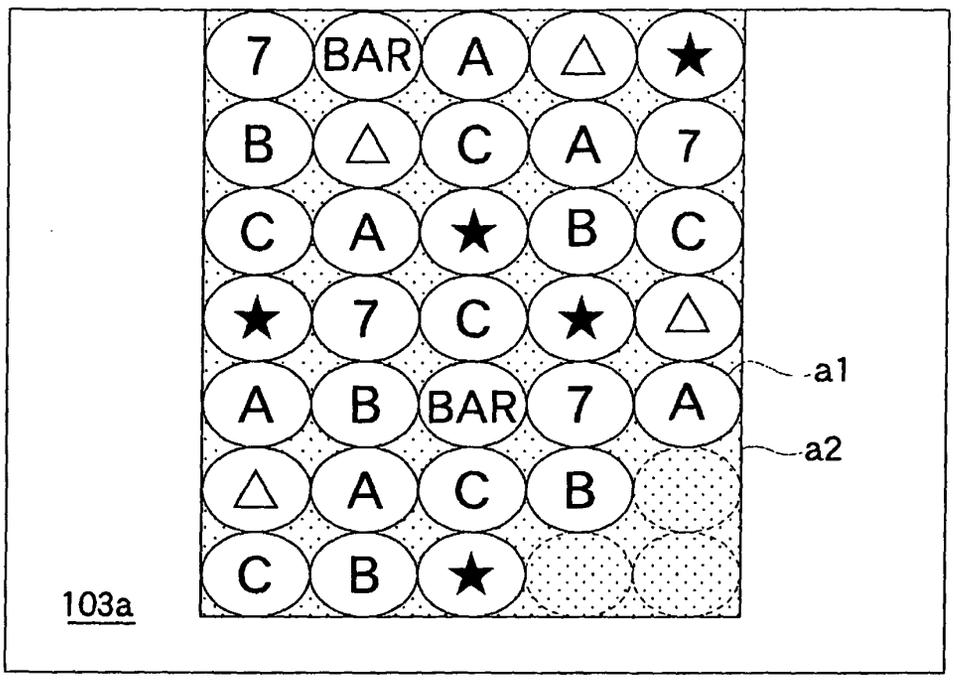
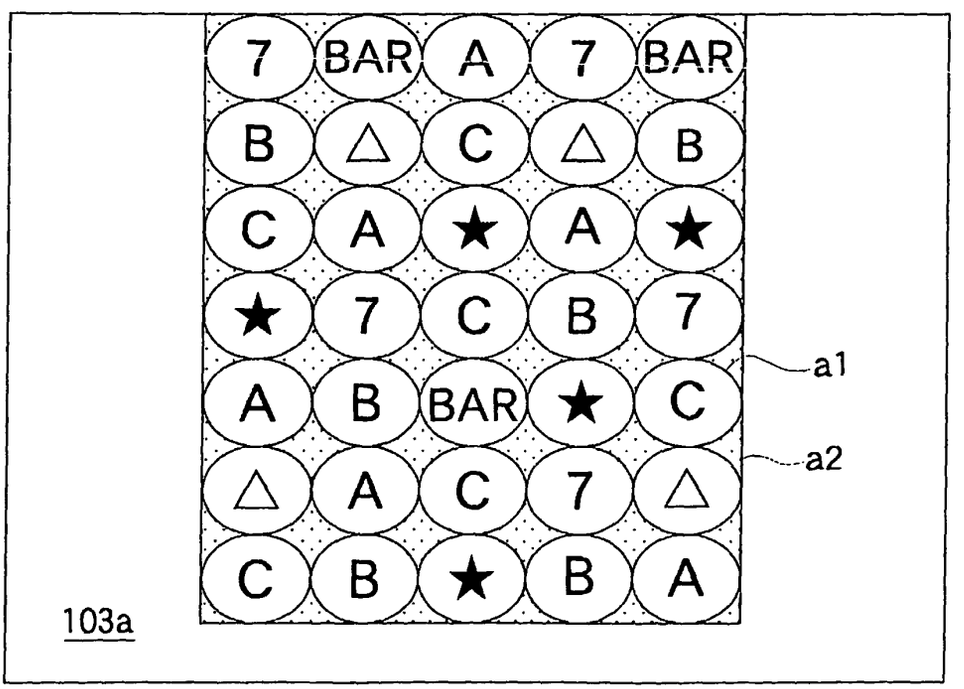

7 BAR A △ ★
B △ C A 7
C A ★ B C
★ 7 C ★ △
A B BAR 7 A
△ A C B
C B ★
a1
a2
103a

Fig. 52


7 BAR A 7 BAR
B △ C △ B
C A ★ A ★
★ 7 C B 7
A B BAR ★ C
△ A C 7 △
C B ★ B A
a1
a2
103a

European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 05 01 1639

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	EP 1 378 873 A (ARUZE CO., LTD) 7 January 2004 (2004-01-07) Gaming machine with a display, display controller, payout means and betting means (i.e. buttons).* figure 16 *	1-20	G07F17/32
X	EP 0 936 587 A (ARUZE CORPORATION) 18 August 1999 (1999-08-18) Gaming machine with a display, display controller, payout means and betting means (i.e. buttons). One more document showing all the claimed technicla features.* figures 1,3 *	1-20	

TECHNICAL FIELDS SEARCHED (Int.Cl.7)

G07F

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	20 September 2005	Kemény, M

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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A : technological background
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20-09-2005

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EP 1378873 A	07-01-2004	AU 2003208136 A1	22-01-2004
		JP 2004033615 A	05-02-2004
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		ZA 9901145 A	12-08-1999

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