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(19) **United States**(12) **Patent Application Publication**
Mogami et al.(10) **Pub. No.: US 2011/0177858 A1**(43) **Pub. Date: Jul. 21, 2011**(54) **GAME DEVICE AND GAME DEVICE
CONTROL METHOD****Publication Classification**(51) **Int. Cl.***A63F 9/24* (2006.01)(52) **U.S. Cl.** **463/20**(57) **ABSTRACT**(76) Inventors: **Nao Mogami**, Tokyo (JP); **Ryoji Ohki**, Tokyo (JP); **Yoshinori Kurahashi**, Tokyo (JP)(21) Appl. No.: **12/997,227**(22) PCT Filed: **Jun. 12, 2009**(86) PCT No.: **PCT/JP2009/060755**§ 371 (c)(1),
(2), (4) Date: **Mar. 2, 2011**(30) **Foreign Application Priority Data**

Jun. 12, 2008 (JP) 2008-154690

A matrix with n-rows and m-columns squares is displayed on a display unit. Patterns of the respective ones of the matrix with n-rows and m-columns squares displayed in the display unit are changed based on operations of the operation unit by a player, and then the changes of the patterns of the respective squares are stopped. It is judged whether or not the n-rows and m-columns squares in the matrix in stop are linked with the adjacent squares, based on patterns of the respective squares, and a win is judged based on a number of linked squares. A play value is paid out based on the number of the linked squares when the n-row and m-columns squares of the matrix in stop are judged as the win.

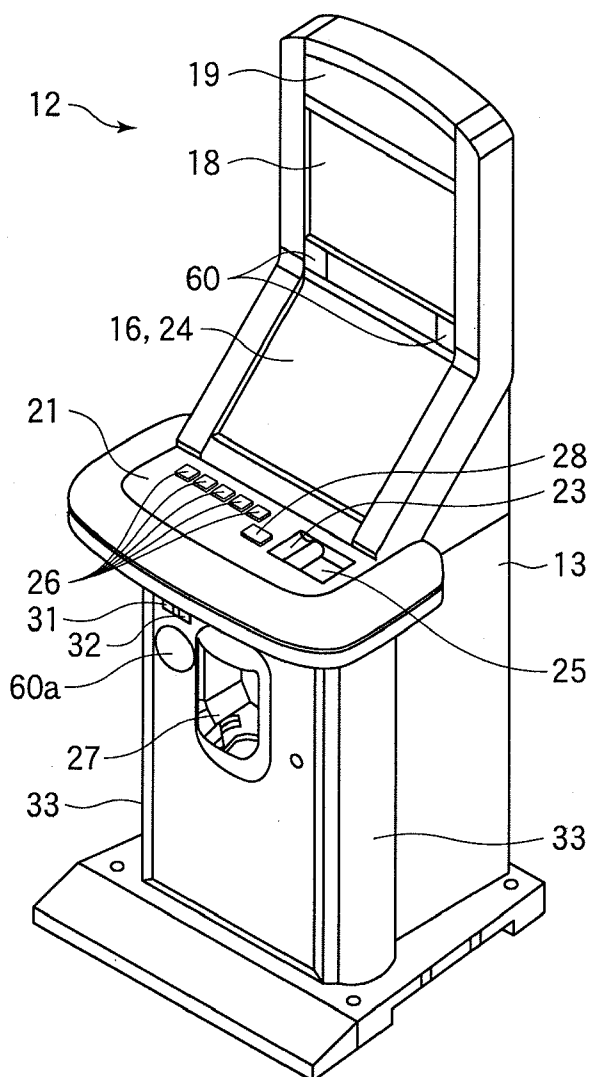


FIG. 1

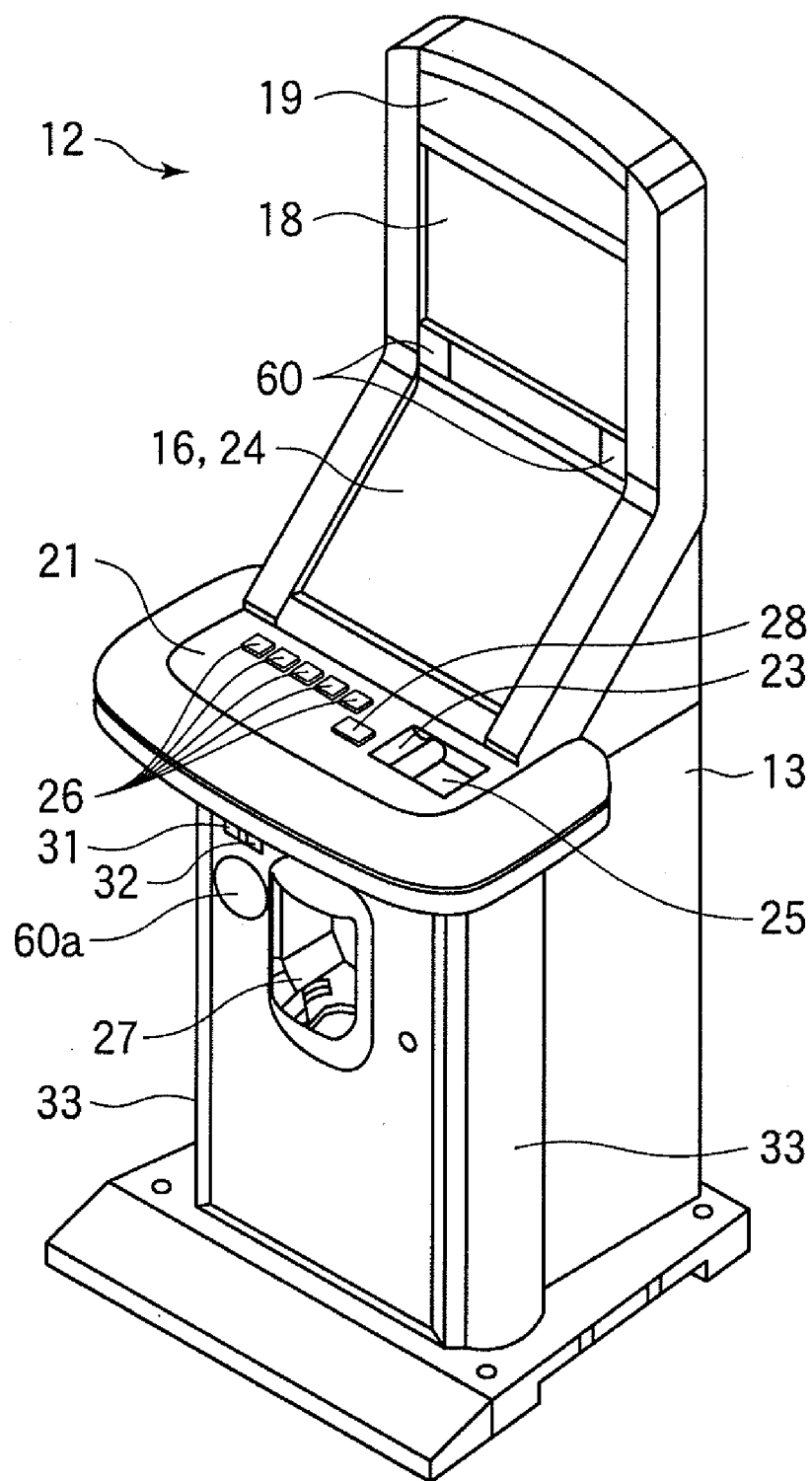


FIG. 2

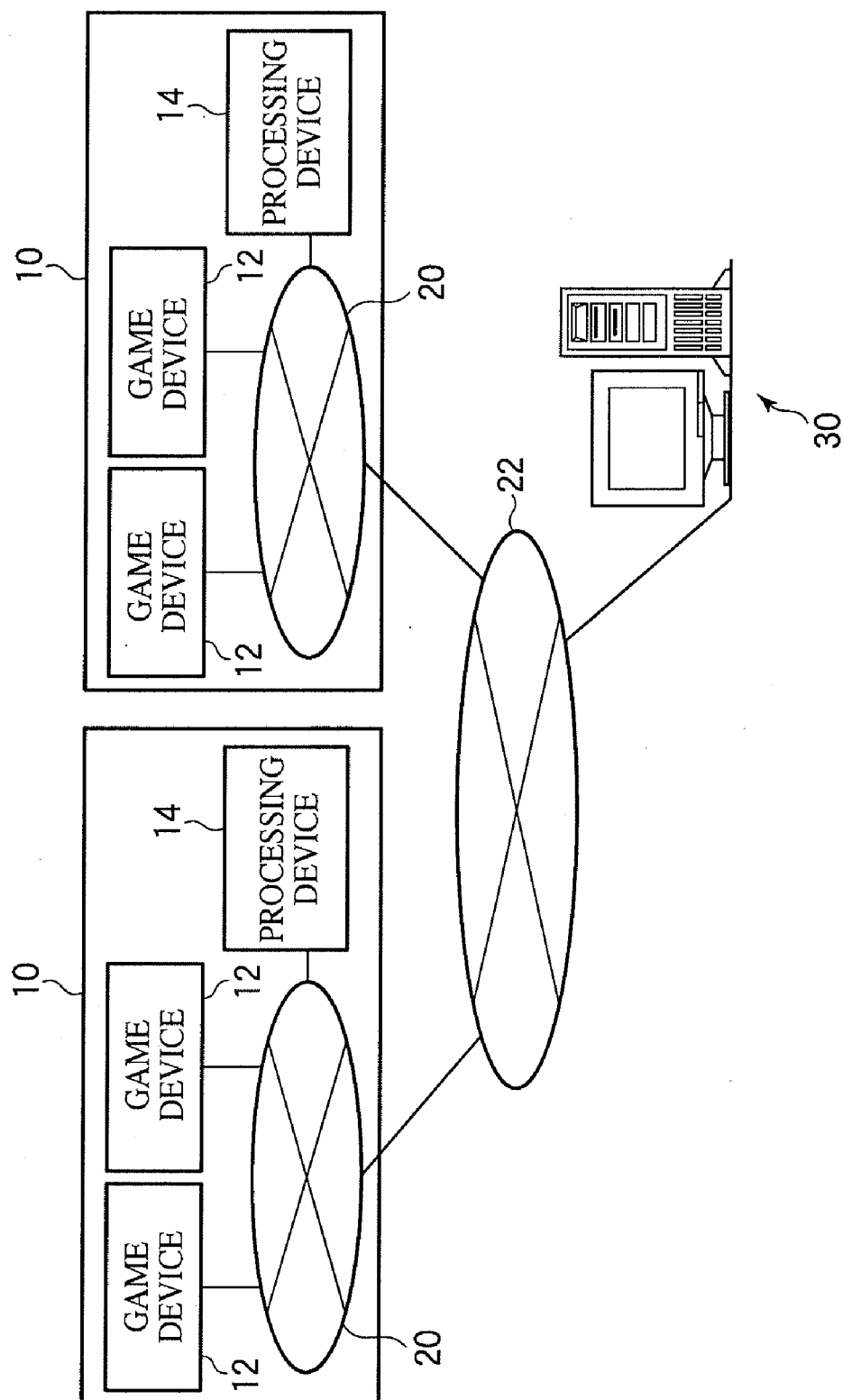


FIG. 3

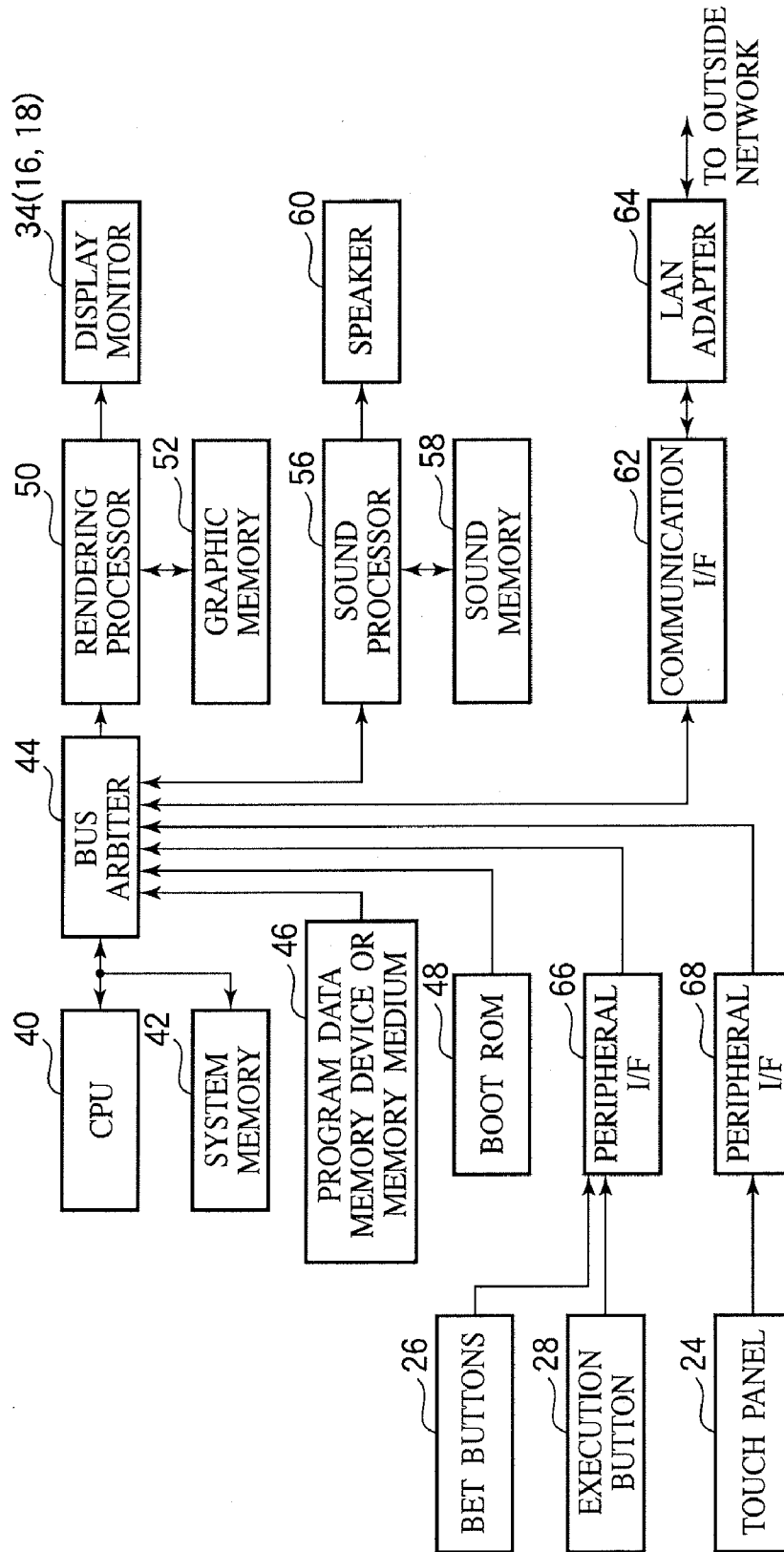


FIG. 4

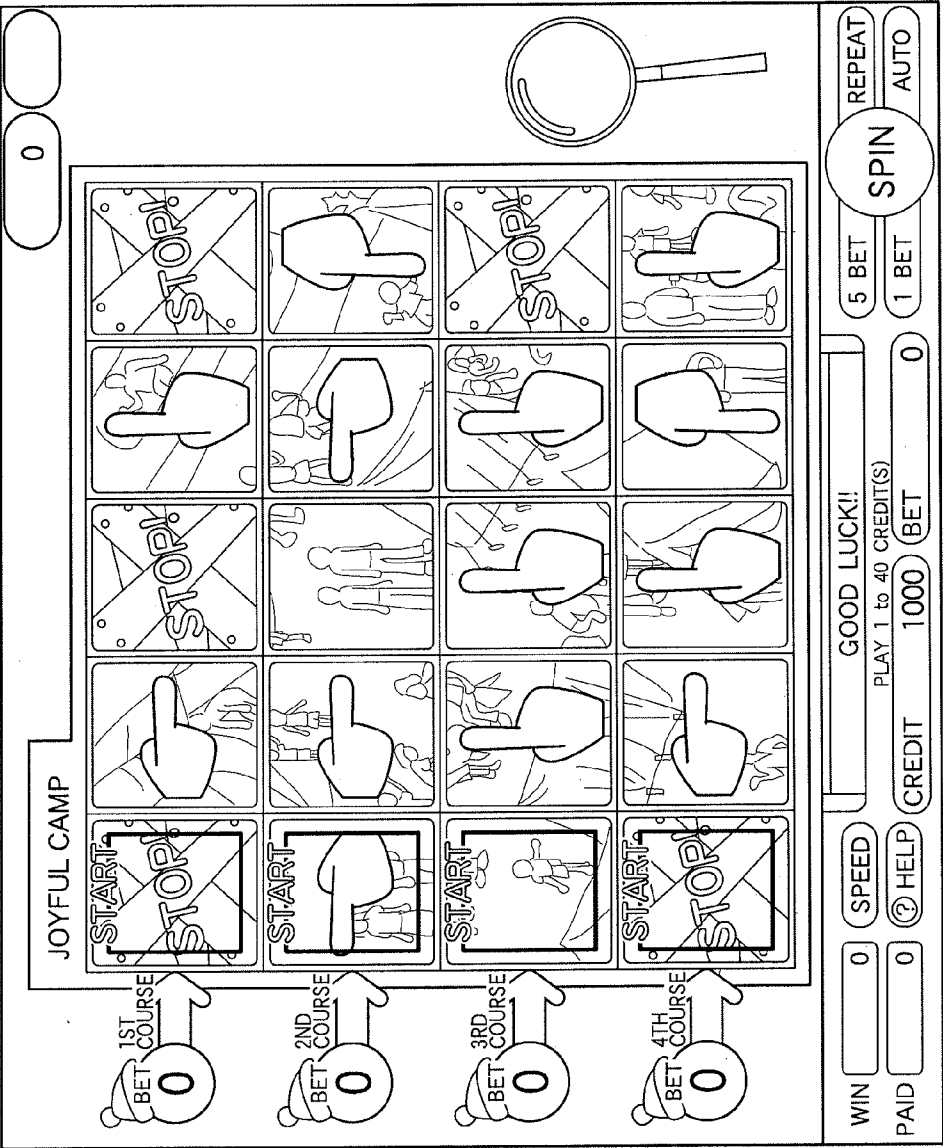


FIG. 5

[4 ROWS AND 5 COLUMNS PATTERN MEMORY]

	1ST COLUMN	2ND COLUMN	3RD COLUMN	4TH COLUMN	5TH COLUMN
1ST COURSE	M11	M12	M13	M14	M15
2ND COURSE	M21	M22	M23	M24	M25
3RD COURSE	M31	M32	M33	M34	M35
4TH COURSE	M41	M42	M43	M44	M45

FIG. 6A

[PATTERN KIND TABLE]

"TRANSPARENT" PATTERN
"RIGHT POINTING-OUT(→)" PATTERN
"DOWNWARD POINTING-OUT(↓)" PATTERN
"LEFT POINTING-OUT(←)" PATTERN
"UPWARD POINTING-OUT(↑)" PATTERN
"STOP" PATTERN
"WHERE'S WALLY?" PATTERN

FIG. 6E

["LEFT POINTING-OUT (←)"
PATTERN]

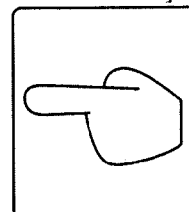


FIG. 6B

["TRANSPARENT" PATTERN]

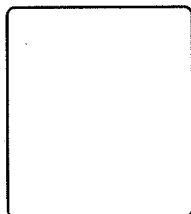


FIG. 6F

["UPWARD POINTING-OUT(↑)"
PATTERN]

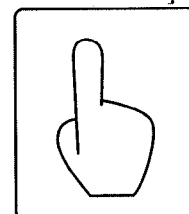


FIG. 6C

["RIGHT POINTING-OUT(→)" PATTERN]

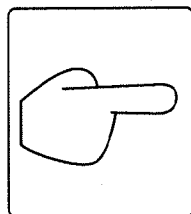


FIG. 6G

["STOP" PATTERN]

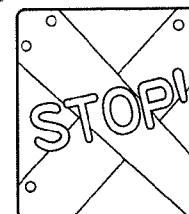


FIG. 6D

["DOWNWARD POINTING-OUT(↓)"
PATTERN]

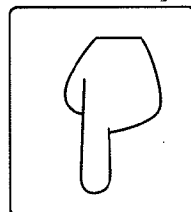


FIG. 6H

["WHERE'S WALLY?" PATTERN]

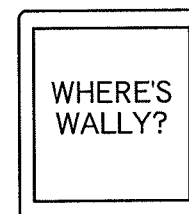


FIG. 7A

[CHARACTER KIND TABLE]

WALLY
WENDA
WOOF
ODLAW
WIZARD WHITEBEARD

FIG. 7D

[WOOF]

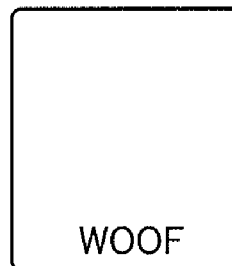


FIG. 7B

[WALLY]

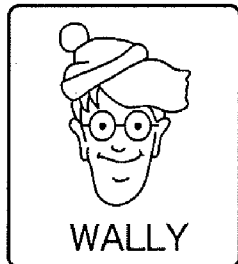


FIG. 7E

[ODLAW]

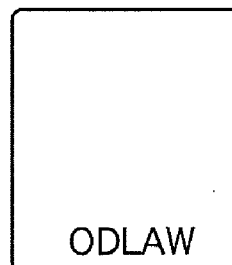


FIG. 7C

[WENDA]

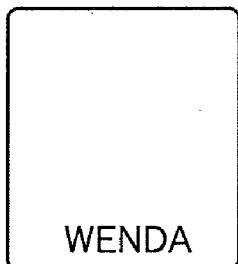


FIG. 7F

[WIZARD WHITEBEARD]

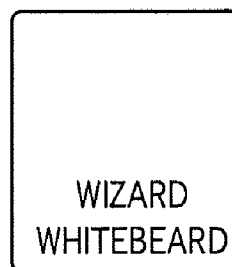


FIG. 8A

[COURSE COUNTER]	
COURSE COUNTER(N)	1~4

FIG. 8B

[LINKAGE COUNTER]	
LINKAGE COUNTER(W)	1~20

FIG. 8C

[CURRENT SQUARE ADDRESS]	
CURRENT SQUARE ADDRESS(Mnn)	M11~M45

FIG. 8D

[LAST SQUARE AND CURRENT SQUARE PATTERS MEMORY]	
SQUARE	KIND OF PATTERN
LAST SQUARE	RANSPARENT, RIGHT POINTING-OUT, ... WHERE'S WALLY?
CURRENT SQUARE	RANSPARENT, RIGHT POINTING-OUT, ... WHERE'S WALLY?

FIG. 9A

[LINKAGE NUMBER MULTIPLYING FACTOR TABLE]

LINKAGE NUMBER	MULTIPLYING FACTOR
20 LINKAGES	400
19 LINKAGES	300
18 LINKAGES	200
17 LINKAGES	100
16 LINKAGES	80
15 LINKAGES	50
14 LINKAGES	40
13 LINKAGES	30
12 LINKAGES	20
11 LINKAGES	10
10 LINKAGES	8
9 LINKAGES	6
8 LINKAGES	4
7 LINKAGES	3
6 LINKAGES	2
5 LINKAGES	2
4 LINKAGES	1
3 LINKAGES	1

FIG. 9B

[CHARACTER BONUS MULTIPLYING FACTOR TABLE]

CHARACTER	MULTIPLYING FACTOR
WALLY	10
WENDA	5
WOOF	2
ODLAW	1
WIZARD WHITEBEARD	1

FIG. 9C

[BETTING MEDAL NUMBER MEMORY]

	MEDAL NUMBER
1ST COURSE	0~n
2ND COURSE	0~n
3RD COURSE	0~n
4TH COURSE	0~n

FIG. 9D

[PAYOUT MEDAL NUMBER MEMORY]

	MEDAL NUMBER
1ST COURSE	0~m
2ND COURSE	0~m
3RD COURSE	0~m
4TH COURSE	0~m
TOTAL	0~m

FIG. 10

[GENERAL FLOW CHART]

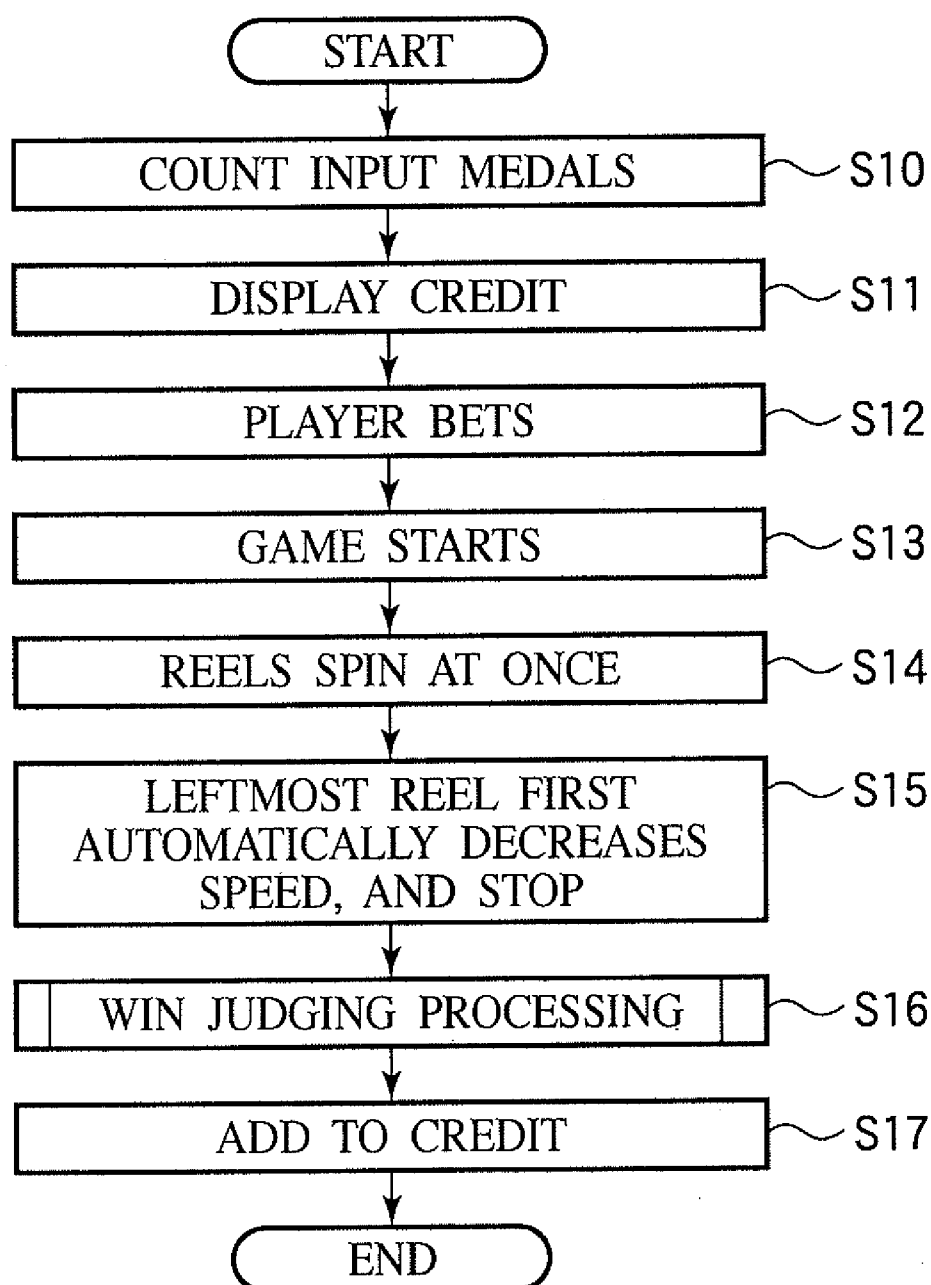


FIG. 11

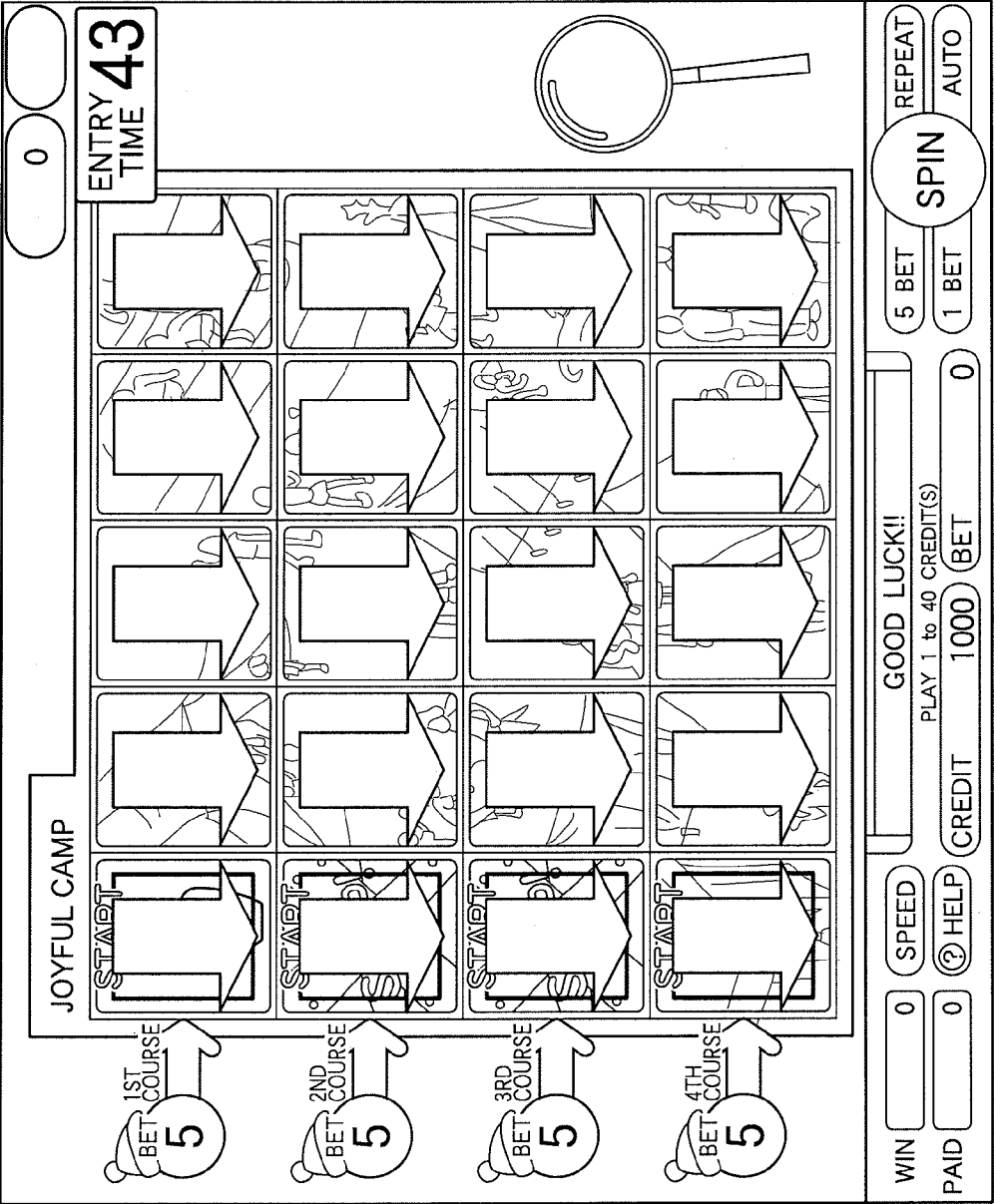


FIG. 12

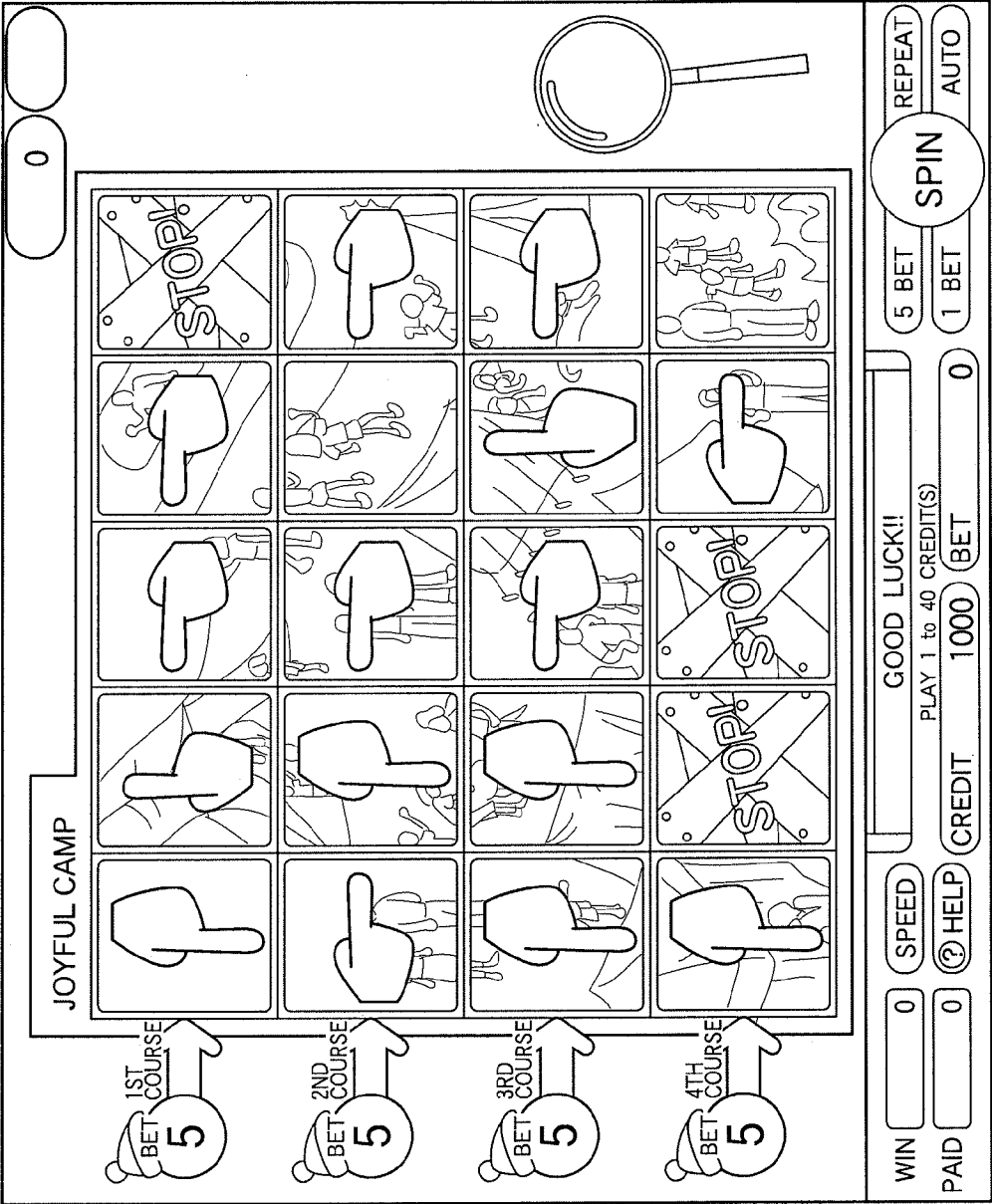


FIG. 13A

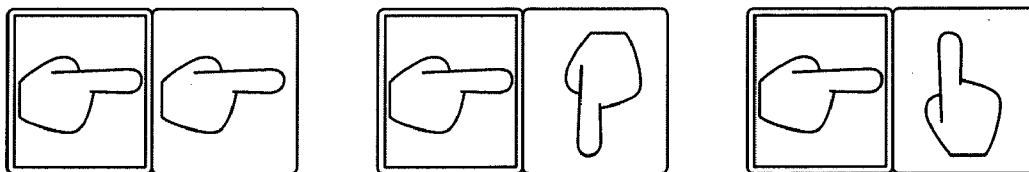


FIG. 13B

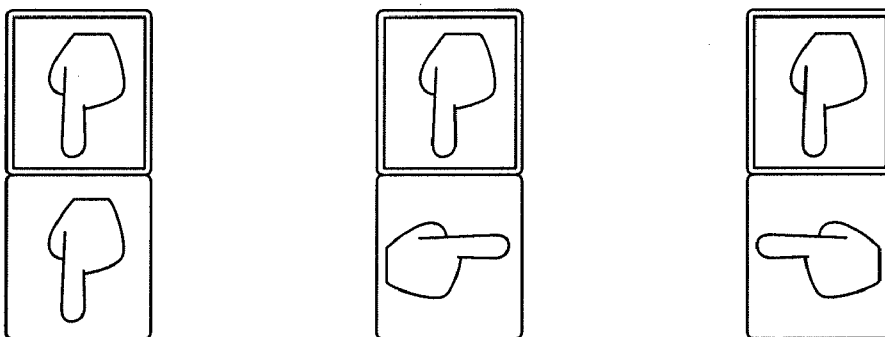


FIG. 13C

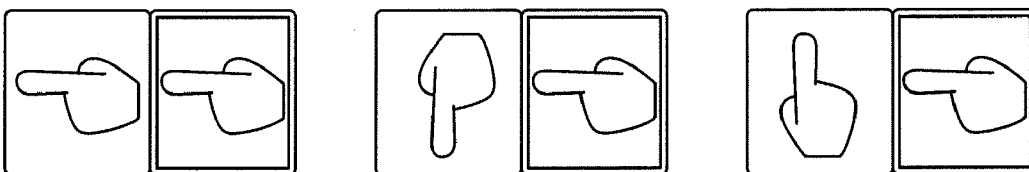


FIG. 13D

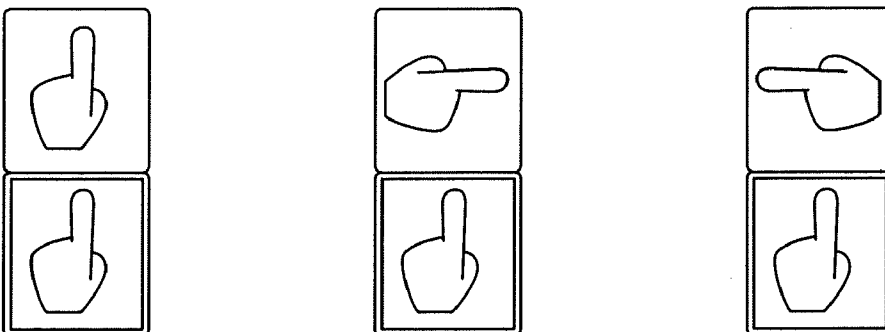


FIG. 14A

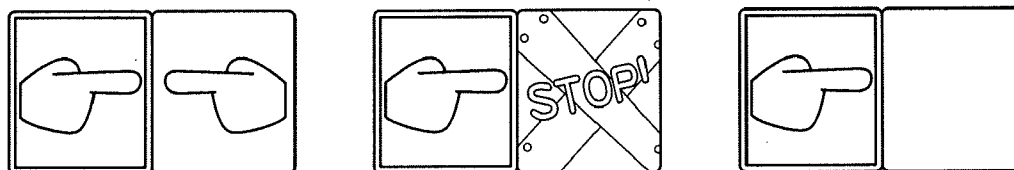


FIG. 14B

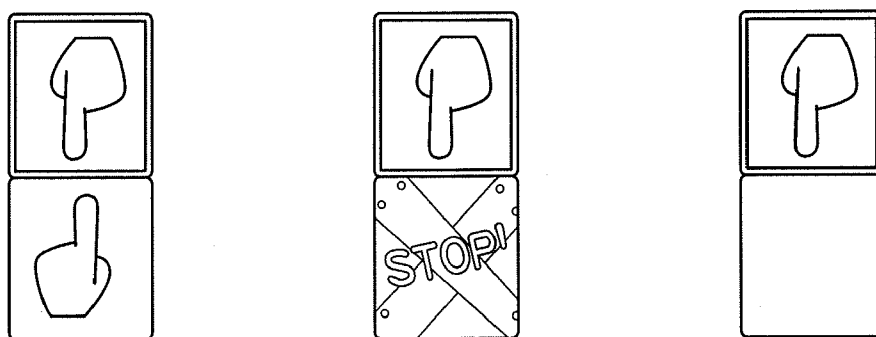


FIG. 14C

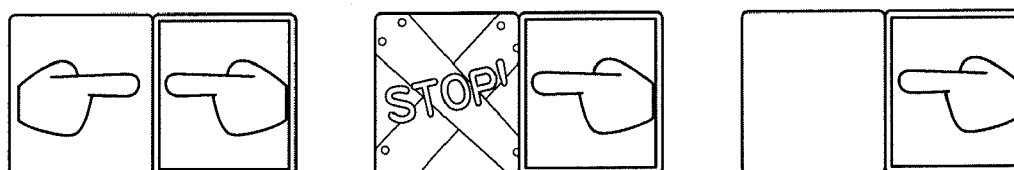


FIG. 14D

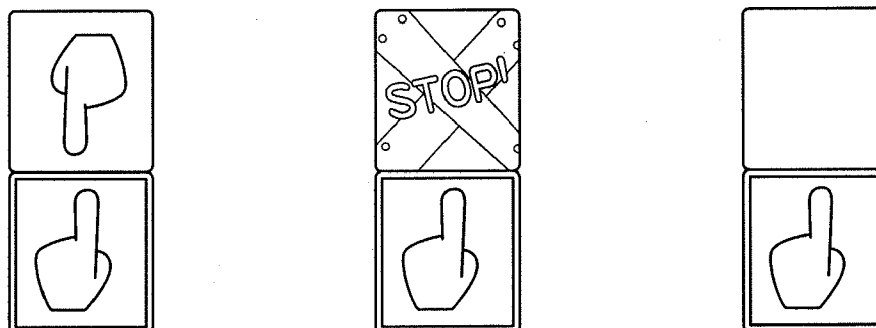


FIG. 15

[DETAILED FLOW CHART (WIN JUDGING PROCESSING)]

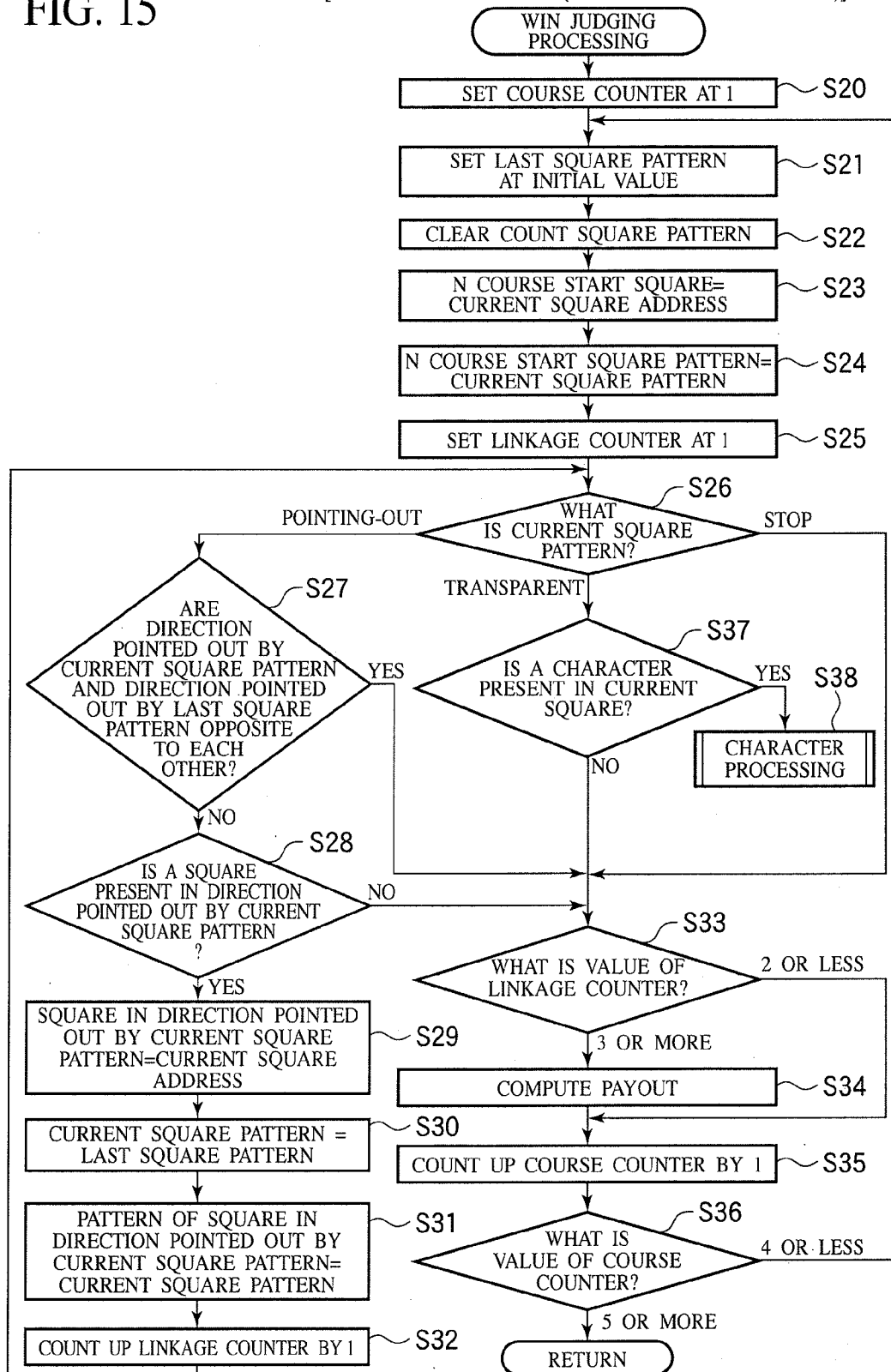


FIG. 16

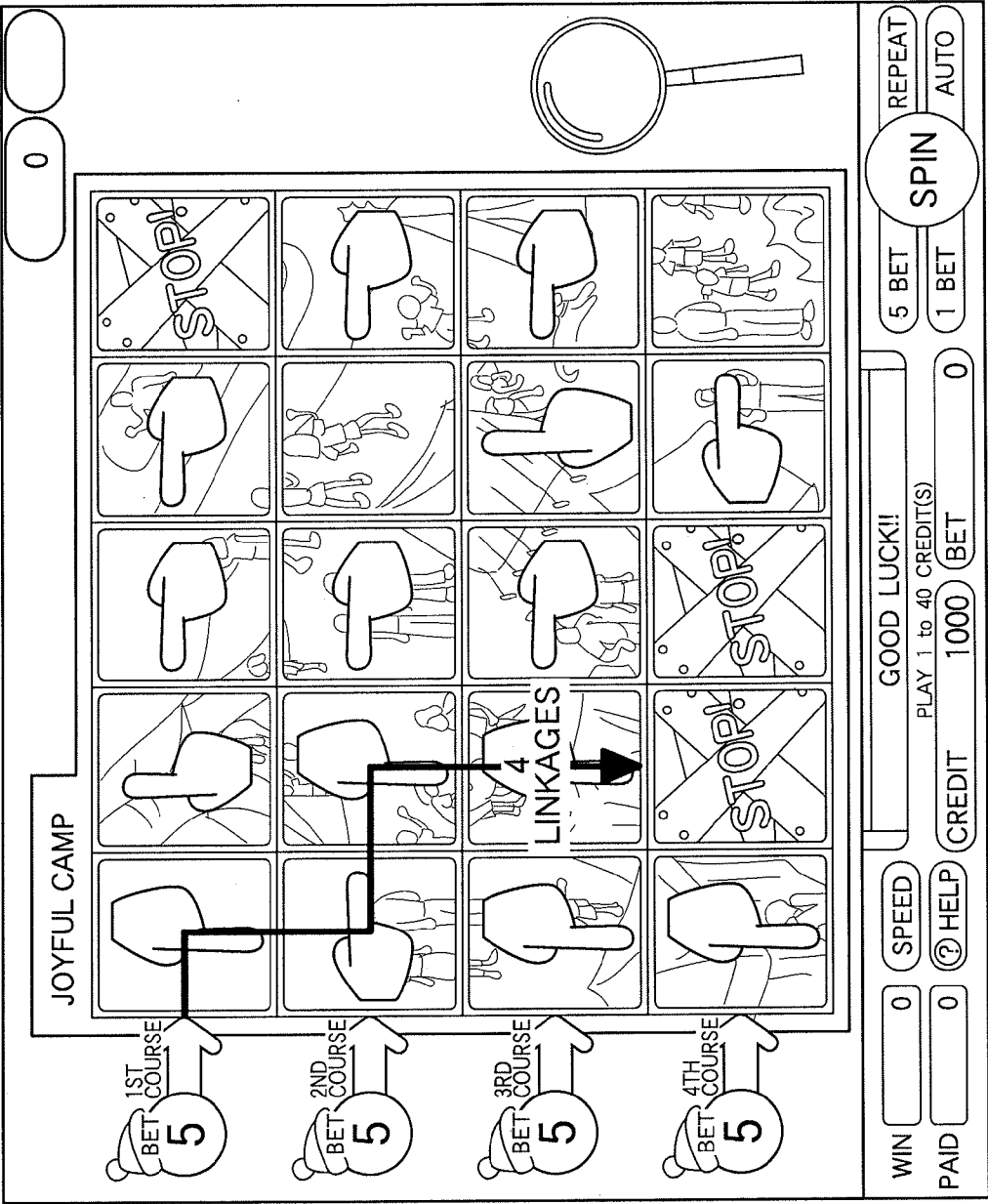


FIG. 18

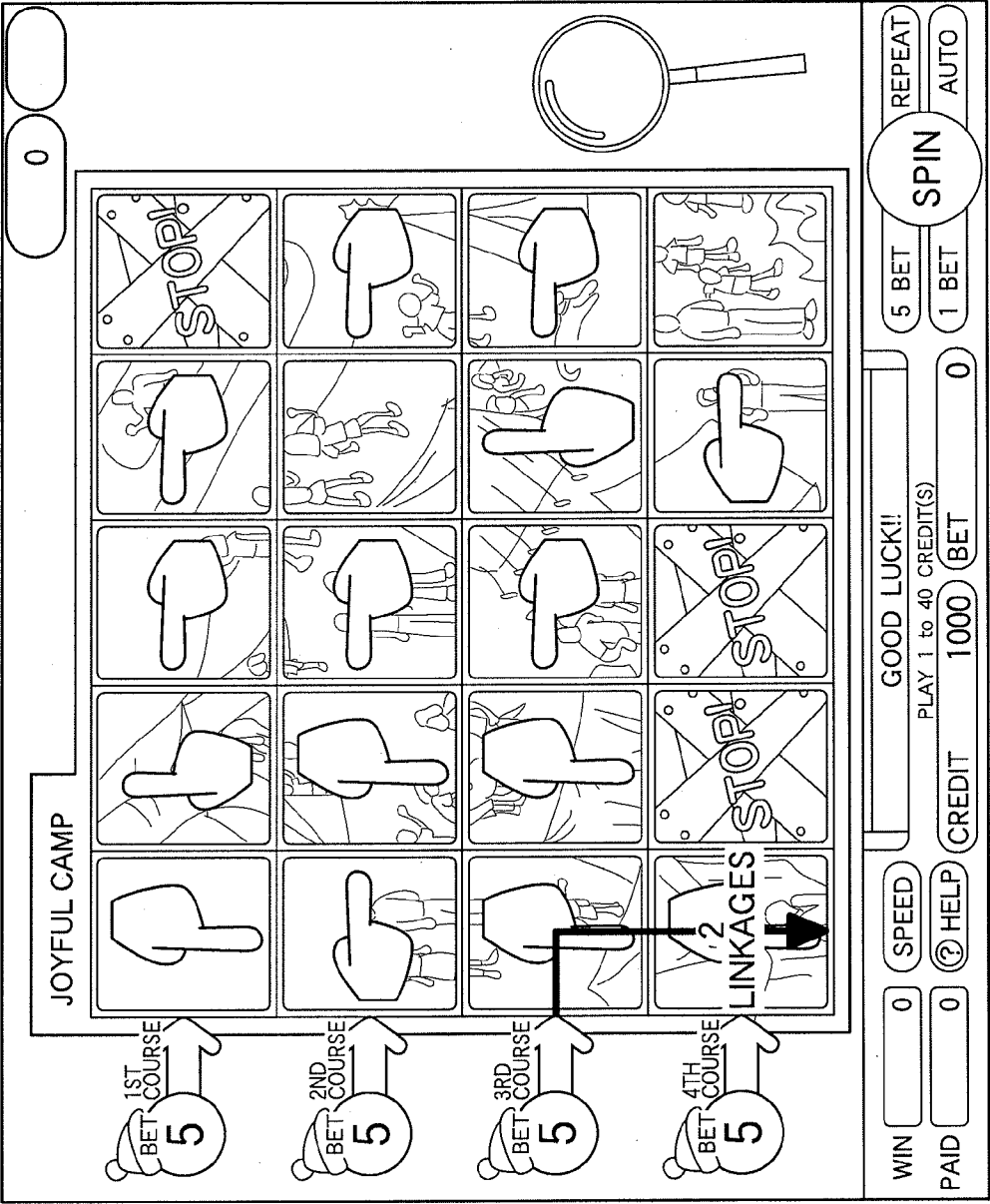


FIG. 19

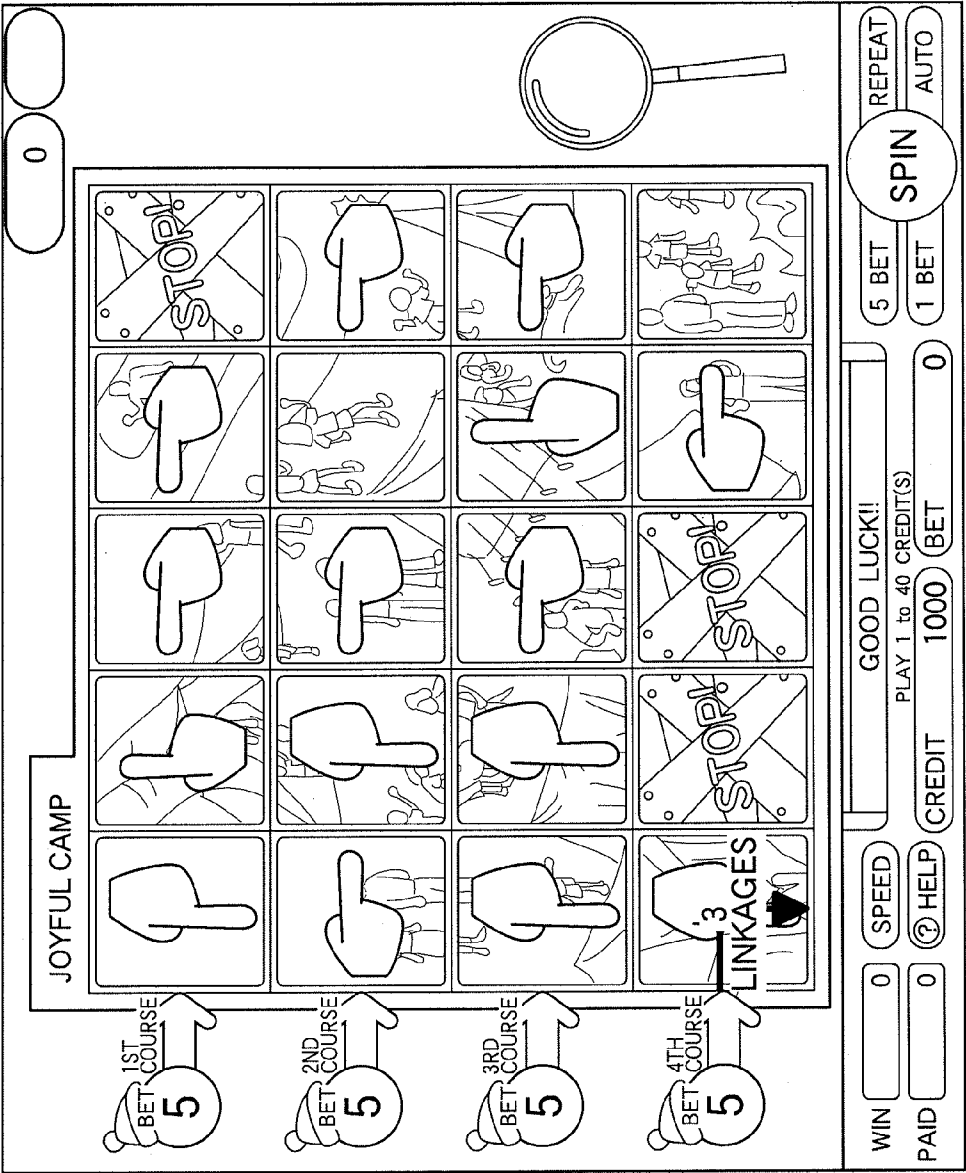


FIG. 20A

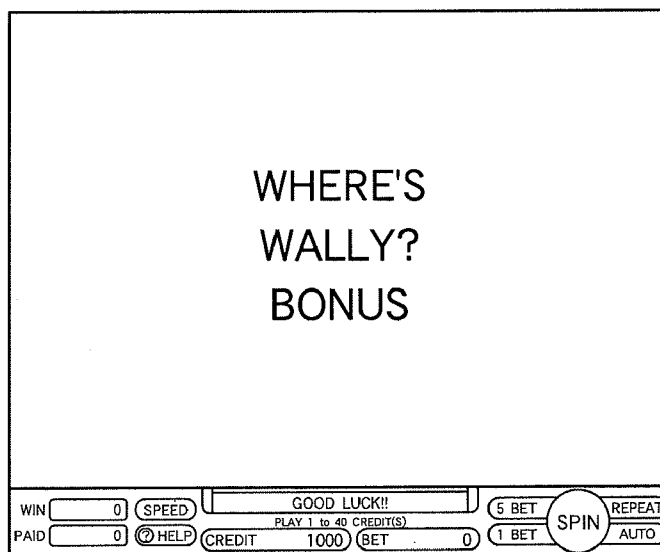


FIG. 20B

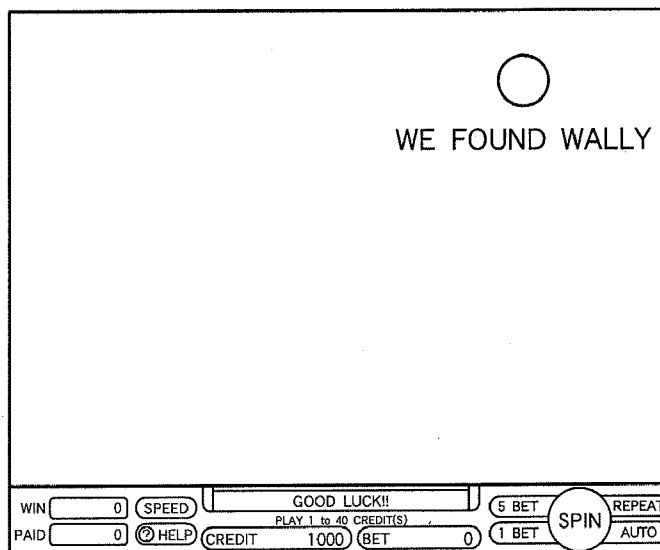


FIG. 20C

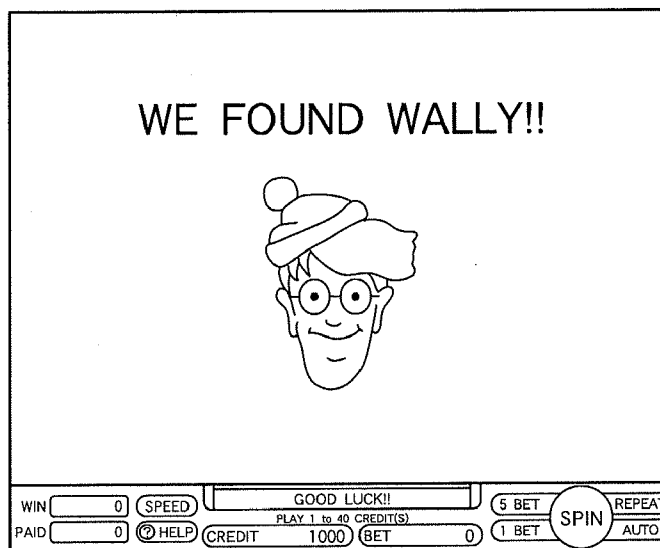


FIG. 21

[DETAIL FLOW CHART (CHARACTER PROCESSING)]

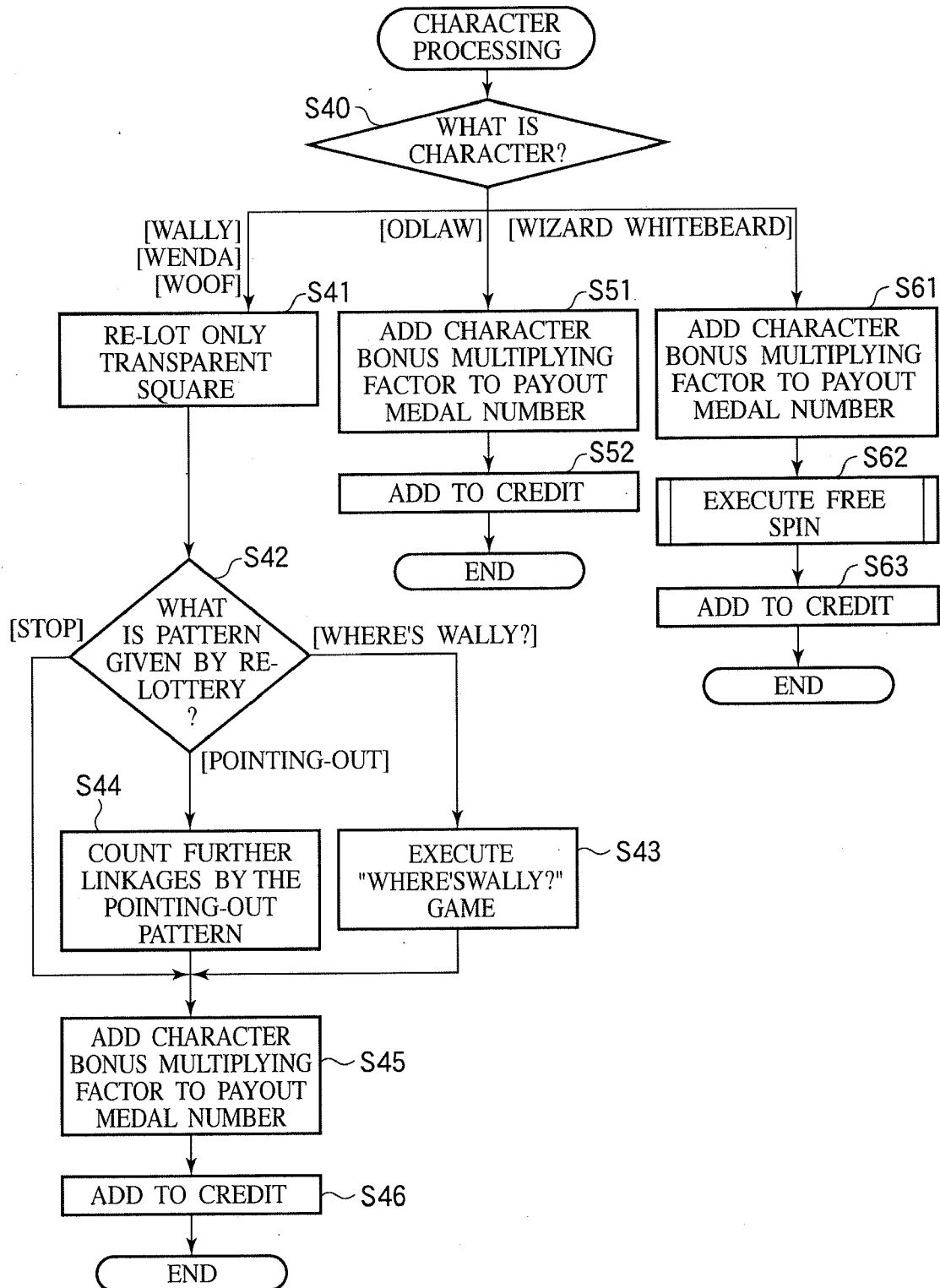


FIG. 22

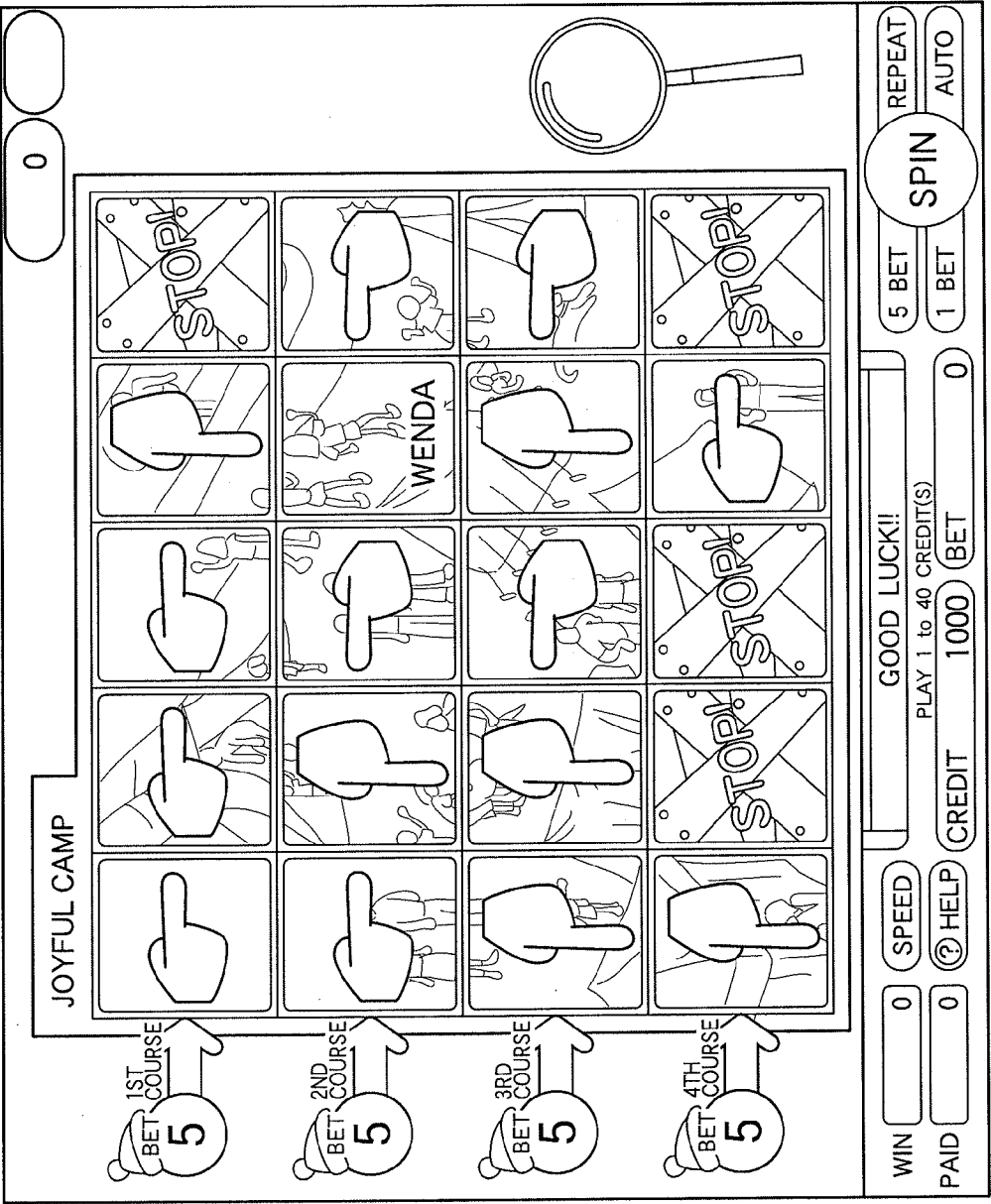


FIG. 23

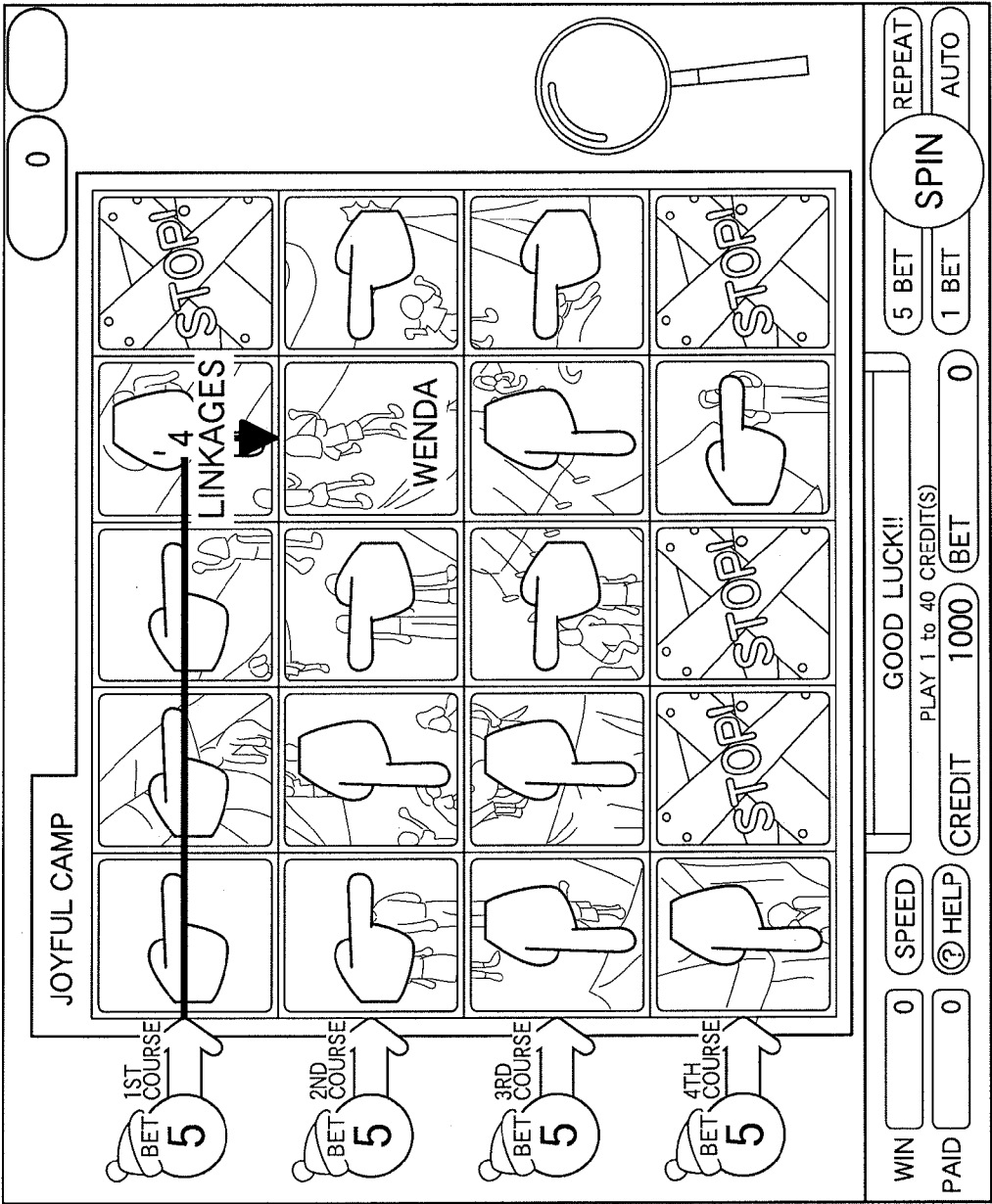


FIG. 25

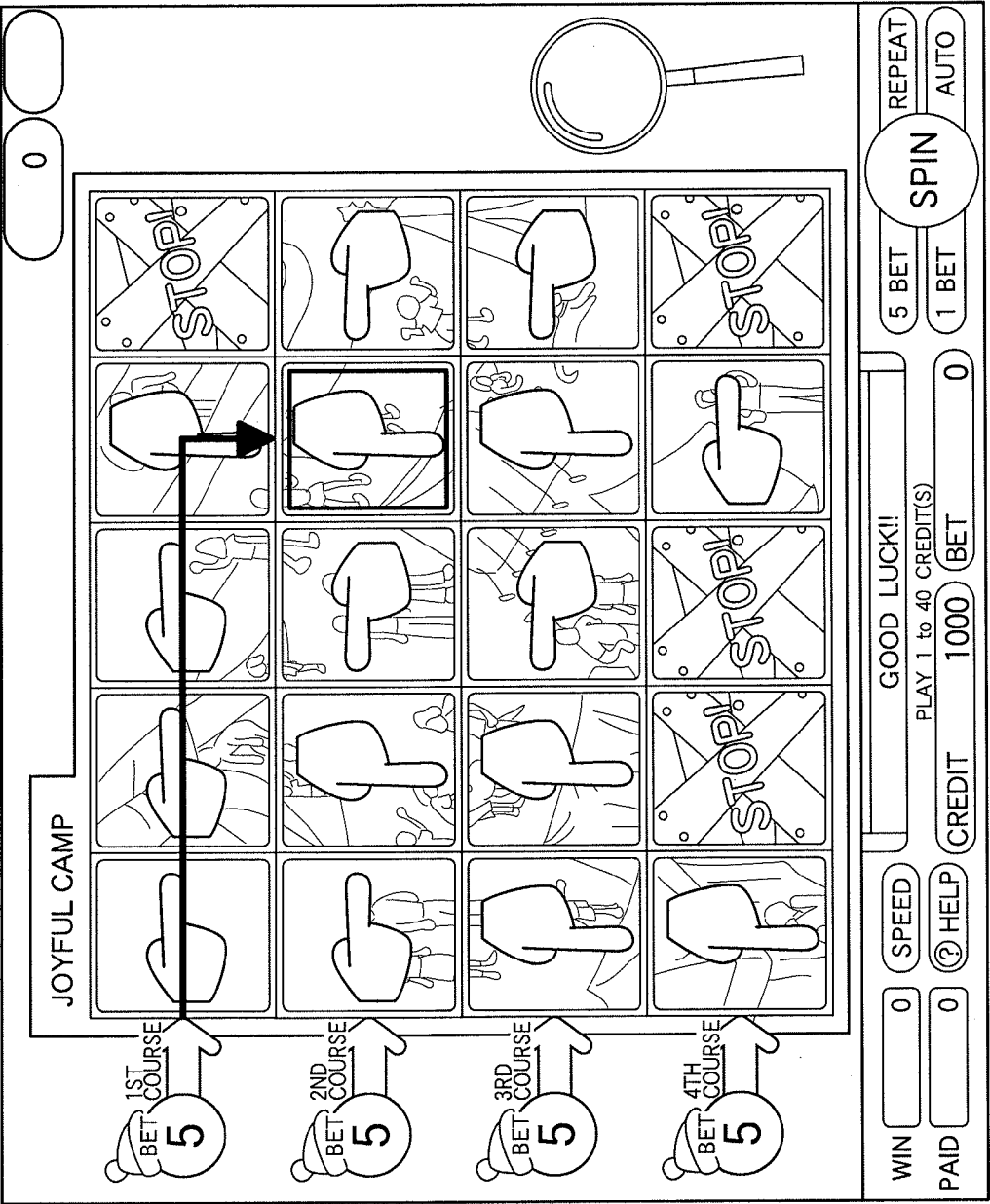
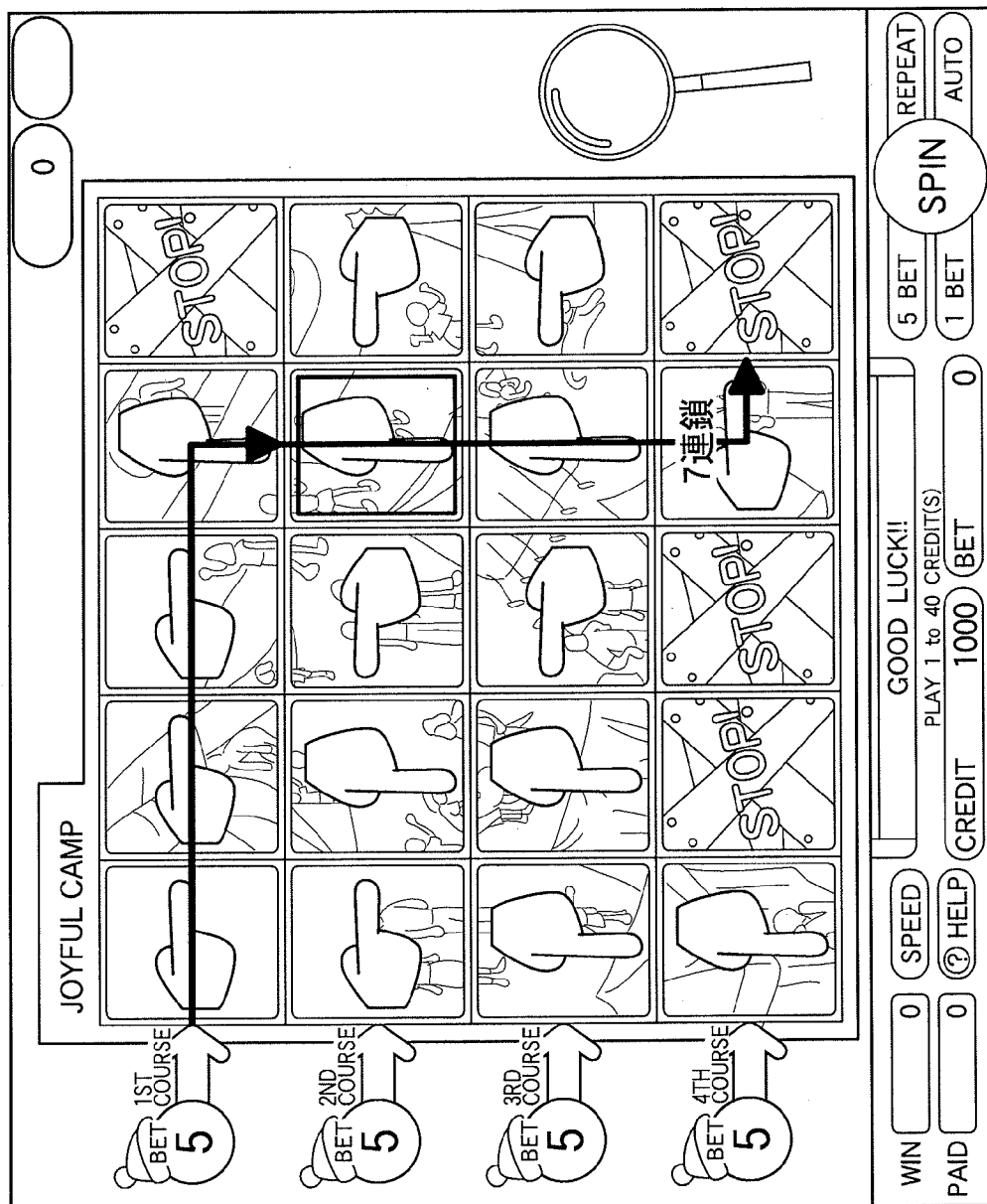


FIG. 26



GAME DEVICE AND GAME DEVICE CONTROL METHOD

TECHNICAL FIELD

[0001] The present invention relates to a game device and a control method for the game device, more specifically, a game device for executing a slot game and a control method for the game device.

BACKGROUND ART

[0002] As a game device for executing a slot game has been long known a reel machine, which spins 3 drums with patterns drawn on when coins are inserted and the lever is tilted, and then, when the drums are stopped, pays off coins when 3 patterns agree with one another.

[0003] Recently, such mechanical reel machine is being taken the place by a video slot machine. The video slot machine pictures a matrix of simulated reels on the display and scrolls on the respective simulated reels a plurality of character images allocated on the respective simulated reel and stops the simulated reels (refer to Patent Reference 1, Patent Reference 2 and Patent Reference 3).

REFERENCE ART REFERENCES

Patent References

[0004] Patent Reference 1: Japanese Patent Application Unexamined Publication No. 1995-313659

[0005] Patent Reference 2: Japanese Patent Application Unexamined Publication No. 1995-313660

[0006] Patent Reference 3: Japanese Patent Application Unexamined Publication No. 1995-313661

DISCLOSURE OF THE INVENTION

Problems To Be Solved By the Invention

[0007] In comparison with the mechanical reel machine, the video slot machine can freely form the reels and pictures, and various win lines to be paid out can be set, which can amuse the game players.

[0008] However, the recent video slot machine makes the setting of win lines to be paid out increasingly complicated, which, for beginners, makes it difficult to understand the game and makes the game inaccessible.

[0009] An object of the invention is to provide a game device which permits even beginners to enjoy the slot game, and a control method for the game device.

Means For Solving the Problems

[0010] The game device according to one aspect of the present invention is characterized by a game device comprising an operation unit, a display unit and a control unit, the control unit including: means for displaying a matrix with n-rows and m-columns squares in the display unit; means for changing patterns of the respective ones of the matrix with n-rows and m-columns squares displayed in the display unit based on operations of the operation unit by a player, and then stopping changes of the patterns of the respective squares; means for judging whether or not the n-rows and m-columns squares in the matrix in stop are linked with the adjacent squares, based on patterns of the respective squares, and judging a win, based on a number of linked squares; and means for paying out a play value based on the number of the

linked squares when the n-row and m-columns squares of the matrix in stop are judged as the win.

[0011] In the above-described game device, it is possible that the means for judging the win judges initially whether the squares of one ends of the respective rows of the matrix with n-rows and m-columns squares in stop are linked with squares, sequentially judging linkages of the squares with squares, and judges the win based on a number of continuous linkages of the squares.

[0012] In the above-described game device, it is possible that the patterns of the respective squares include at least a right pointing-out pattern, a downward pointing-out pattern, a left pointing-out pattern, and an upward pointing-out pattern, and the means for judging the win judges that, when a pointing-out direction of a pattern of one square and a pointing-out direction of a pattern of another square which positions in the direction pointed out by the pattern of said one square are opposite to each other, said one square and said another square are not linked, and that, when they are not opposite to each other, said one square and said another square are linked.

[0013] In the above-described game device, it is possible that the patterns of the respective squares further include a stop pattern, and when the pattern of said another square which positions in the direction pointed out by the pattern of said one square is the stop pattern, the means for judging the win judges that said one square and said another square are not linked.

[0014] In the above-described game device, it is possible that the patterns of the respective squares further include a transparent pattern through which a background image can be seen, and when the pattern of said another square which positions in the direction pointed out by the pattern of said one square is the transparent pattern, the means for judging the win gives a bonus based on a background image seen through the transparent pattern of said another square.

Effect of the Invention

[0015] According to the present invention, a matrix with n-rows and m-columns squares is displayed on a display unit, patterns of the respective ones of the matrix with n-rows and m-columns squares displayed in the display unit are changed based on operations of the operation unit by a player, and then the changes of the patterns of the respective squares are stopped, it is judged whether or not the n-rows and m-columns squares in the matrix in stop are linked with the adjacent squares, based on patterns of the respective squares, and a win is judged based on a number of linked squares, and a play value is paid out based on the number of the linked squares when the n-row and m-columns squares of the matrix in stop are judged as the win. Such slot game can amuse even beginners.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] FIG. 1 is a view showing the game device according to one embodiment of the present invention.

[0017] FIG. 2 is a block diagram summarizing the system including the game device according to the one embodiment of the present invention.

[0018] FIG. 3 is a block diagram showing the constitution of the game device according to the one embodiment of the present invention.

[0019] FIG. 4 is a view showing the basic game screen of the slot game of the game device according to the one embodiment of the present invention.

[0020] FIG. 5 is a view showing the reel pattern memory used in the slot game of the game device according to the one embodiment of the present invention.

[0021] FIG. 6 is views showing kinds of the patterns used in the slot game of the game device according to the one embodiment of the present invention.

[0022] FIG. 7 is a view showing kinds of the characters used in the slot game of the game device according to the one embodiment of the present invention.

[0023] FIG. 8 is views showing counters and memories for judging a win used in the slot game of the game device according to the one embodiment of the present invention.

[0024] FIG. 9 is views showing tables and memories for computing payouts used in the slot game of the game device according to the one embodiment of the present invention.

[0025] FIG. 10 is a flow chart summarizing the slot game of the game device according to the one embodiment of the present invention.

[0026] FIG. 11 is a view showing a game screen of the slot game of the game device according to the one embodiment of the present invention (Part 1).

[0027] FIG. 12 is a view showing a game screen of the slot game of the game device according to the one embodiment of the present invention (Part 2).

[0028] FIG. 13 is views showing continuous linkage patterns of the slot game of the game device according to the one embodiment of the present invention.

[0029] FIG. 14 is views showing linkage stopped patterns of the slot game of the game device according to the one embodiment of the present invention.

[0030] FIG. 15 is a detail flow chart of the win processing of the slot game of the game device according to the one embodiment of the present invention.

[0031] FIG. 16 is a view explaining an example of the win judging processing of the slot game of the game device according to the one embodiment of the present invention (Part 1).

[0032] FIG. 17 is a view explaining an example of the win judging processing of the slot game of the game device according to the one embodiment of the present invention (Part 2).

[0033] FIG. 18 is a view explaining an example of the win judging processing of the slot game of the game device according to the one embodiment of the present invention (Part 3).

[0034] FIG. 19 is a view explaining an example of the win judging processing of the slot game of the game device according to the one embodiment of the present invention (Part 4).

[0035] FIG. 20 is views explaining the special game "Where's Wally?" of the slot game of the game device according to the one embodiment of the present invention.

[0036] FIG. 21 is a detail flow chart of the character processing of the slot game of the game device according to the one embodiment of the present invention.

[0037] FIG. 22 is a view explaining an example of the character processing (re-lottery) of the slot game of the game device according to the one embodiment of the present invention (Part 1).

[0038] FIG. 23 is a view explaining an example of the character processing (re-lottery) of the slot game of the game device according to the one embodiment of the present invention (Part 2).

[0039] FIG. 24 is a view explaining an example of the character processing (re-lottery) of the slot game of the game device according to the one embodiment of the present invention (Part 3).

[0040] FIG. 25 is a view explaining an example of the character processing (re-lottery) of the slot game of the game device according to the one embodiment of the present invention (Part 4).

[0041] FIG. 26 is a view explaining an example of the character processing (re-lottery) of the slot game of the game device according to the one embodiment of the present invention (Part 5).

BEST MODE FOR CARRYING OUT THE INVENTION

One Embodiment

[0042] The game device according to one embodiment of the present invention will be described with reference to the drawings.

[0043] The game device according to the present embodiment is installed in, e.g., an amusement facility. The game device is connected to, e.g., an internet.

Summary of the Game Device

[0044] The system including the game device according to the present embodiment will be explained with reference to FIGS. 1 and 2. FIG. 1 is a perspective view showing the game device according to the present embodiment. FIG. 2 is a block diagram summarizing the system including the game device according to the present embodiment.

[0045] The amusement facilities 10 are present in, e.g., various areas. In each amusement facility 10, a plurality of the game devices 12 are installed for playing games. In each amusement facility 10, as shown in FIG. 2, a processing device 14 for displaying game contents, advertising games, etc. may be installed in addition to the game devices 12.

[0046] The respective game devices 12 in the amusement facility 10 are connected to a LAN 20 of the amusement facility 10. One of the plural game devices 12 functions as a sever. The game device 12 as the server controls the plural game devices 12, and collects, stores and administers play data of games, such as slot games, etc., executed by the respective game devices 12.

[0047] A player inserts medals into the game device 12 to start a slot game. Players visiting the amusement facility 10 sit at the game device 12, insert medals and play slot games by operating the touch panels, operation buttons, etc.

[0048] As shown in FIG. 2, the LANs 20 of the amusement facilities 10 are connected to an internet 22 so that the respective game devices 12 can mutually communicate as required with the game devices 12 of the other amusement facility 10.

[0049] As shown in FIG. 2, a server 30 connected to the internet 22 may be provided.

[0050] The server 30 includes control means (not shown) and memory means (not shown) and controls the game devices 12 by the control means and collects play data of games, such as slot games, etc. executed by the game devices 12 via the internet, and stores and administers the play data.

[0051] It is also possible that each game device 12 includes an IC card I/F (interface) for reading membership cards, such as IC cards, etc., and play data, etc. of players are administered by the membership cards.

Constitution of the Game Device

[0052] The constitution of the game device according to the present embodiment will be described with reference to FIG. 3. FIG. 3 is the block diagram of the game device according to the present embodiment.

[0053] As shown in FIG. 1, at the upper part of the casing 13 of the game device 12, a main LCD 16 and sub LCD 18 are provided. The main LCD 16 and the sub LCD 18 form a display monitor 34. On the main LCD 16, a touch panel 24 which players touch to make command inputs is provided.

[0054] On the sub LCD 18, a billboard 19 is provided. Speakers 60 are provided between the main LCD 16 and the sub LCD 18. At the lower part of the casing 13, a woofer speaker 60a is additionally provided.

[0055] At the central part of the casing 13 below the main LCD 16, a control panel 21 is provided. The periphery of the control panel 21 functions as the armrest for a player to put the arms to rest.

[0056] On the control panel 21, a plurality of bet buttons 26 for player to operate for bet, and an execution button for player to operate for execution are provided.

[0057] On the control panel 21, a medal slot 23 for inserting medals, and a medal stock 25 for storing medals to be inserted are further provided.

[0058] At a lower part of the casing 13 of the game device 12, a medal payout opening 27 for medals to be paid out is provided. At lower parts of the casing 13 of the game device 12, a meter key 31 and a reset key 32 are further provided. On the left and the right sides of the lower part of the casing 13 of the game device 12, side lamps 33 are provided.

[0059] As shown in FIG. 3, a CPU 40 which executes a game program, generally controls the system, and makes coordinate computation for image display, etc., and a system memory (RAM) 42 are connected to the game device 12 commonly by a bus line and connected to a bus arbiter 44. The bus arbiter controls flows of programs and data to the respective blocks of the game device 12 and devices connected outsides.

[0060] A program data memory or a memory medium (including optical discs, optical disc drive, etc.) for driving CD-ROM, etc. which are game memory mediums) which stores game programs and data (including image data and music data) 46, and a BOOT ROM 48 which stores programs and data for starting the game device are connected to the bus arbiter 44.

[0061] A rendering processor 50 which reproduces image (MOVIE) data read from the program data memory or memory medium 46 and generates images for image display in accordance with operations of a player and game proceedings, and a graphic memory 52 which stores graphic data, etc. necessary for the rendering processor 50 to generate image are connected via the bus arbiter 44. The image signals outputted from the rendering processor 50 are converted from digital signals to analog signals by a video DAC (not shown) to be displayed on a display monitor 34.

[0062] A sound processor 56 which reproduces music data read from the program data memory or a memory medium 46 and generates effect sounds and sounds in accordance with operations of a player and game proceedings, and a sound

memory 58 which stores sound data, etc. necessary for the sound processor 56 to generate effect sounds and sounds are connected via the bus arbiter 44. Sound signals outputted from the sound processor 56 are converted from digital signals to analog signals by the audio DAC (not shown) to be outputted from the speaker 60.

[0063] A communication interface 62 is connected to the bus arbiter 44. The communication interface 62 is connected to outside networks, such as telephone circuits, etc. via the LAN adapter 64. The game device 12 is connected to an internet by the LAN adapter 64 via telephone circuits and can communicate with the other game devices 12, the network server 30, etc. The communication interface 62 and the LAN adapter 64 use telephone circuits but may use terminal adapters (TA) and routers which use telephone circuits, cable modems which use cable television circuits, wireless communication means using portable telephones and PHS, optical fiber communication means using optical fibers and other communication means.

[0064] The bet buttons 26 and the execution button 28 are connected to the bus arbiter 44 via a peripheral I/F (interface) 66. The bet buttons 26 are for inputting bet commands, and the execution button 28 is for inputting commands of execution of various operations.

[0065] The peripheral I/F 66 outputs signals for controlling the devices connected to the game device 12 and the devices connected to the game device 12 outsides.

[0066] The touch panel 24 is connected to the bus arbiter 44 via the peripheral I/F 68. The touch panel 24 is for inputting various operations with finger touches of a player.

[0067] The peripheral I/F 68 outputs signals for controlling the devices connected to the game devices and the devices connected to the game device outsides in accordance with operations of a player. The touch panel 24 functions as position coordinates obtaining means which obtains coordinates values commanded by a finger and generates position coordinates information.

[0068] The IC card I/F 18 for reading a membership card 16 is connected to the bus arbiter 44.

[0069] A backup memory (not shown) is connected to the bus arbiter 44 and records achievements, etc. of a game. The system memory (RAM) may be used as the backup memory.

[0070] The game device 12 is not essentially game devices installed in amusement facilities and stores, such as game cafes, etc., and may be domestic game devices, personal computers, portable electronic game machines, electronic devices, such as portable telephone, PDA, etc., and game information processing devices.

Summary of the Slot Game

[0071] The slot game of the game device according to the present embodiment will be summarized.

[0072] In the slot game of the present embodiment, as in the conventional video slot machine, simulated reels are displayed in a matrix on the display, a plurality of patterns allocated to the respective simulated reels are scrolled on the respective reel images and then are stopped.

[0073] In the conventional video slot machine, as in the mechanical reel machine, basically, when the simulated reels are stopped, it is judged whether or not a win line is formed in, e.g., a 3 rows×3 columns layout of patterns, and medals corresponding to the formed win line are paid out.

[0074] In the slot game of the present embodiment, the pattern itself of the respective square of the simulated reels

indicates “where to be linked”, and medals corresponding to a number of linked patterns are paid out. This allows a player to intuitively judge wins and losses, based on linked states of the patterns displayed on the display without considering conventional complicated win lines.

[0075] Furthermore, in the slot game of the present embodiment, when characters are displayed in squares, a privilege that bonuses corresponding to the characters are added, a privilege that bonus games can be executed or others can be given. Thus, the bonuses can more amuse the players.

Basic Image of the Slot Game

[0076] The basic display of the slot game of the game device according to the present embodiment will be described. FIG. 4 illustrates the basic display of the slot game of the game device according to the present embodiment.

[0077] As shown in FIG. 4, at an upper part of the game screen, a matrix of simulated reels of 4 rows×5 columns squares is displayed. Behind the matrix of simulated reels, a picture based on a specific theme is drawn on the entire surface. Before the background picture, the patterns of the simulated reels are displayed, overlapped.

[0078] In FIG. 4, a picture named “Joyful Camp” is drawn on the background. During the game, the background picture may be continuously stationary or always moving.

[0079] Medals are bet on the respective rows of the matrix of 4 rows×5 columns squares. The respective rows are named from above 1st course, 2nd course, 3rd course and 4th course. The square of the first leftmost column of the respective rows is a start square which is the start point when linkages of the squares of the respective courses are judged.

[0080] Patterns of the simulated reels are a transparent pattern through which the background can be seen, pointing-out patterns which point out linkage directions, and a stop pattern which stops linkages. There is a “Where’s Wally?” pattern which is for starting a “Where’s Wally?” game as a specific pattern.

[0081] The pointing-out patterns are point-out patterns pointing out 4 directions, namely a right pointing-out pattern, a downward pointing-out pattern, a left point-out pattern and an upward pointing-out pattern.

[0082] In FIG. 4, the 2nd row and the 3rd column square, and the 3rd row and the 1st column square are the transparent patterns. The 1st row and the 2nd column square, the 1st row and the 4th column square; the 2nd row and the 1st column square, the 2nd row and the 2nd column square, the 2nd row and the 4th column square, the 2nd row and the 5th column square; the 3rd row and the 2nd column square, the 3rd row and the 3rd column square; the 4th row and the 2nd column square, the 4th row and the 3rd column square, the 4th row and the 4th column square, and the 4th row and the 5th column square are the pointing-out patterns. The 1st row and the 1st column square, the 1st row and the 3rd column square; the 3rd row and the 5th column square are the stop patterns.

[0083] As the pointing-out patterns, pointing-out patterns pointing out other directions, e.g., an obliquely right downward pointing-out pattern, an obliquely left downward pointing-out pattern, an obliquely left upward pointing-out pattern, an obliquely right upward pointing-out patterns, etc. may be further provided. With these patterns, oblique linkages of the squares can be made in addition to the up-to-down and left-to-right linkages of the squares.

[0084] As shown in FIG. 4, at a lower part of the game screen, proceedings of the game by the player, namely a

medal number credited (CREDIT), a medal number betted (BET), a medal number won, etc. are indicated.

Memory, Table, Counter, etc.

[0085] Various memories, tables, counters, etc. used in the slot game of the game device according to the present embodiment will be described with reference to FIGS. 5 to 9.

[0086] FIG. 5 is a view showing a reel pattern memory used in the slot game of the game device according to the present embodiment. FIG. 6 is views showing a classification of patterns used in the slot game of the game device according to the present embodiment. FIG. 7 is views showing kinds of characters used in the slot game of the game device according to the present embodiment. FIG. 8 is views showing a win judging counter and a memory used in the slot game of the present embodiment. FIG. 9 is views showing a payout computation table and a memory used in the slot game according to the present embodiment.

[0087] FIG. 5 is the reel pattern memory. In the reel pattern memory, patterns displayed in the 4 rows×5 columns squares M11, M12, . . . , M44, M45 are stored. While the simulated reels are spinning, the patterns rapidly change, and based on patterns given when the simulated reels stop, the win judging processing which will be described later is made.

[0088] FIG. 6A is the pattern classification table. The kinds of the patterns to be stored in the reel pattern memory are stored in the pattern classification table. In the pattern classification table, the transparent pattern through which the background is seen as shown in FIG. 6B, the pointing-out patterns which indicate linkage directions as shown in FIGS. 6C to 6G, the stop pattern which stops linkages as shown in FIG. 6G, and the “Where’s Wally?” pattern as shown FIG. 6H are prepared.

[0089] As the pointing-out patterns, the right pointing-out pattern as shown in FIG. 6C, the downward pointing-out pattern as shown in FIG. 6D, the left pointing-out pattern as shown in FIG. 6E, and the upward pointing-out pattern as shown in FIG. 6F are prepared.

[0090] FIG. 7A is the character classification table. The kinds of the characters displayed in the background of the simulated reels are stored in the character classification table. In the present embodiment, 5 characters, namely a character “Wally” as shown in FIG. 7b, a character “Wenda” as shown in FIG. 7C, a character “Woof” as shown in FIG. 7D, a character “Odlow” as shown in FIG. 7E and a character “Wizard Whitebeard” as shown in FIG. 7F are prepared. In FIGS. 7C to 7F, the patterns of the characters are omitted. The game controls to be particularly made when the respective characters are displayed will be described later.

[0091] FIG. 8 is the various counters and memories used in the win judgment.

[0092] FIG. 8A is the course counter. In the present embodiment, 4 courses (the 1st course, the 2nd course, the 3rd course and 4th course) as shown in FIG. 4 are judged one by one about the square linkages. The linkage counter counts numbers of the square linkages in this judgment.

[0093] FIG. 8B is the linkage counter. In the present embodiment, linkages of the squares are judged, based on patterns of the 4 rows and the 5 columns. The linkage counter counts a number of linkages of the squares in the judgment.

[0094] FIG. 8C is the current square address. In the present embodiment, a linkage of the squares is judged one by one first from the leftmost square of the respective courses. The

current square address stores addresses (Mnn=M11, M12, . . . , M44, M45) of a square (current square) being judged in this judgment.

[0095] FIG. 8D is the current square and the last square patterns memory. This memory stores the kind of the pattern displayed in the current square and the kind of the pattern displayed in the square (last square) which has been immediately before the current square. The kinds of the patterns are used in judging whether or not the squares are linked.

[0096] FIG. 9 is the various tables and memories used in the payout computation.

[0097] FIG. 9A is the linkage number multiplying factor table. In the linkage number multiplying factor table, times for numbers of squares linked by patterns in the matrix with the rows and the 5 columns are set. Medals given by multiplying inserted medals by the multiplying factors are paid out (added to credits). No multiplying factors are set for 1 linkage and 2 linkages which are below 3 linkages.

[0098] FIG. 9B is the character bonus multiplying factor table. When a special character is displayed in the current square, a special bonus is given. For the special bonus, a bonus multiplying factor for the character is set in the character bonus multiplying table. When a special character is displayed, a medal number given by multiplying a bet medal number with a multiplying factor given by adding a bonus multiplying factor of the character to so far obtained multiplying factor is paid out.

[0099] It is possible to pay out a medal number given by multiplying a medal number given by multiplying a bet medal number with a so far obtained multiplying factor further with a bonus multiplying factor of a character.

[0100] FIG. 9C is the betting medal number memory. The betting medal number memory stores medal numbers bet by a player on the respective courses.

[0101] FIG. 9D is the payout medal number memory. The payout medal number memory stores a number of medals to be paid out to a player and stores medal numbers of the respective courses and a total medal number of their medal numbers.

[0102] In this specification, "medals are paid out" means not only that medals are paid out from the payout opening 27 at the time but also that a number of medals to be paid out is added to a credit. Credited medals can be paid out from the medal payout opening 27 by a separate operation of a player.

General Flow Chart of the Slot Game

[0103] The slot game of the game device according to the present embodiment will be described with drawings. FIG. 10 is the general flow chart of the slot game by the game device according to the present embodiment.

[0104] First, a player inserts medals through the medal slot 23 of the game device 12 (Step S10). When the medals are inserted, an inserted medal number is added to a credit display (CREDIT) at the lower part of the game screen as shown in FIGS. 4 and 11 (Step S11).

[0105] Next, the player touches the bet buttons 26 below the game screen shown in FIG. 4 or pushes the bet buttons 26 of the operation panel of the game device 12 to bet credited medals (Step S12). When the medals are bet, as shown in FIG. 11, the number of the bet medals is indicated on the bet display at the lower part of the game screen and the bet medal number (5 medals) are indicated in the respective ones of the 1st to the 4th courses of a matrix with the 4 rows and the 5 columns squares.

[0106] In one way of betting medals on the respective courses, for example, when 5 medals are betted, 5 medals are betted at once on the respective courses. In another way of betting medals, medals of numbers commanded for the respective courses may be bet.

[0107] Then, the player touches the spin button at the lower part of the game screen shown in FIG. 11 or pushes the execution button 28 of the operation panel of the game device 12 to start the game (Step S12).

[0108] When the game starts, as shown in FIG. 11, the reels of the 4 rows and 5 columns squares in the matrix begin to spin at once (Step S14). At this time, as the patterns of the reels, within the patterns shown in FIG. 6, the patterns (FIGS. 6B to 6G) except the "Where's Wally?" pattern (FIG. 6H) are displayed at random.

[0109] Then, the reels of the matrix of the 4 rows and the 5 columns squares automatically slow down and stop sequentially first from the left end (Step S15). One example of the game screen given when the reels have stopped the spin is shown in FIG. 12.

[0110] Then, based on the game screen given when the reels have stopped spin, the win judging processing is executed (Step S16). The win judging processing will be detailed later.

[0111] When the win judging processing is finished, a number of medals which the player has obtained is indicated on the win display at the lower part of the game screen shown in FIG. 12. When the player pushes the execution button 28 of the operation panel of the game device 12, the medals of the number indicated on the win display are added to the credit (Step S17).

[0112] The player can cause a credited number of medals to be paid out at an arbitrary timing. For example, when the player pushes the execution button 28, the medals are paid out from the medal payout opening 27.

Win Judging Processing

[0113] Next, the win judging processing (step S16) of the general flow chart shown in FIG. 10 will be explained in detail with reference to FIGS. 13 to 19.

[0114] The win judging processing is for judging whether or not a player has won (WIN), based on patterns of the matrix with 4 rows and 5 columns squares at the time the spin of the reels has stopped and computes a number of medals to be paid out (added to the credit) when the player wins.

[0115] In the win judging processing of the present embodiment, whether or not the player has won is judged by judging linkages of the squares and judging whether or not a number of the square linkages is above a prescribed number.

[0116] In each square at the time the spin of the reels has stopped, one of the transparent pattern, the right pointing-out pattern, the downward pointing-out pattern, the left pointing-out pattern, the upward pointing-out pattern and the stop pattern shown in FIGS. 6B to 6G is displayed.

[0117] The win judging processing is made for the respective rows of the matrix of the 4 rows and 5 columns squares shown in the basic display of the game shown in FIG. 4. The respective courses are named sequentially from above the 1st course, the 2nd course, the third course and the fourth course. The square of the 1st column of each row is the start square which is the starting point of judging linkages of the squares of each course.

[0118] When the judgment of linkages of the squares of each course is started, the square of each row in the 1st left

column is a current square. In the game basic display shown in FIG. 4, the current square is the square enclosed with the double frames.

[0119] When the judgment of the linkages of the squares of each course is started, i.e., when the square of each row in the 1st left column is a current square, the last square, which is a square which has been immediately before a current square, is absent, and thus for the judgment of linkages which will be described later, the pattern of the last square at this time is set at the right pointing-out pattern.

[0120] The continuous linkage patterns and the stopped linkage patterns for sequentially judging linkages of the squares are shown respectively in FIG. 13 and FIG. 14. In FIGS. 13 and 14, in order to distinguish the current square from the last square, the last square is shown in the double frames.

[0121] When both the current square and the last square indicate pointing-out patterns and these pointing-out directions are not right opposite (by 180 degrees), the current square and the last square are judged to be a continuous linkage.

[0122] As shown in FIG. 13A, when the last square is the right pointing-out pattern, the current square and the last square are judged to be a continuous linkage if the current square is the right pointing-out pattern, the downward pointing-out pattern or the upward pointing-out pattern.

[0123] Similarly, as shown in FIG. 13B, when the last square is the downward pointing-out pattern, the current square and the last pattern are judged to be a continuous linkage if the current square is the downward pointing-out pattern, the right pointing-out pattern or the left pointing-out pattern.

[0124] Similarly, as shown in FIG. 13C, when the last square is the left pointing-out pattern, the current square and the last pattern are judged to be a continuous linkage if the current square is the left pointing-out pattern, the downward pointing-out pattern or the upward pointing-out pattern.

[0125] Similarly, as shown in FIG. 13D, when the last square is the upward pointing-out pattern, the current square and the last square are judged to be a continuous linkage if the current square is the upward pointing-out pattern, the right pointing-out pattern or the left pointing-out pattern.

[0126] When the last square is a pointing-out pattern, and the current square is the following pattern, the current square and the last square are judged to be a stopped linkage.

[0127] As shown in FIG. 14A, when the last square is the right pointing-out pattern, the current square and the last square are judged to be a stopped linkage if the current square is the leftward pointing-out pattern which is exactly opposite, the stop pattern or the transparent pattern.

[0128] Similarly, as shown in FIG. 14B, when the last square is the downward pointing-out pattern, the current square and the last square are judged to be a stopped linkage if the current square is the upward pointing-out pattern which is exactly opposite, the stop pattern or the transparent pattern.

[0129] Similarly, as shown in FIG. 14C, when the last square is the left pointing-out pattern, the current square and the last square are judged to be a stopped linkage if the current square is the right pointing-out pattern which is exactly opposite, the stop pattern or the transparent pattern.

[0130] Similarly, as shown in FIG. 14D, when the last square is the upward pointing-out pattern, the current square and the last square are judged to be a stopped linkage if the

current square is the downward pointing-out pattern which is exactly opposite, the stop pattern or the transparent pattern.

[0131] The square linkage is stopped also when the current square is the pointing-out pattern which points out the outside of the matrix of the 4 rows and 5 columns squares, i.e., where no square is present.

Detail Flow Chart of the Win Judgment Processing

[0132] The win judging processing of the slot game of the game device according to the present embodiment will be explained in detail with reference to drawing. FIG. 15 is the detail flow chart of the win judgment processing of the slot game by the game device according to the present embodiment.

[0133] First, the value of the course counter is set at the initial value, "1" (Step S20).

[0134] Next, the pattern of the last square is set at the right pointing-out pattern which is the initial value (Step S21). Subsequently, the pattern of the current square is cleared (Step S22).

[0135] Next, the address of the starting square of the course of the value set in the course counter is stored in the current square address (Step S23). Subsequently, the pattern of the starting square of the course of the value set in the course counter is stored as the pattern of the current square (Step S24).

[0136] For example, when "1" is set in the course counter, the address "M11" of the start square of "the 1st course" is stored in the current square address. In the case of FIG. 12, the downward pointing-out pattern is stored as the pattern of the current square.

[0137] Then, the initial value "1" is set in the linkage counter (Step S25).

[0138] Then, the kind of the pattern of the current square commanded by the current square address is judged (Step S26).

[0139] In Step S26, when the pattern of the current square is judged to be "the pointing-out pattern", it is judged whether or not the pointed-out direction of the pattern of the current square and the pointing-out direction of the pattern of the last square are opposite to each other (Step S27). That is, it is judged whether or not the pattern of the current square and the pattern of the last square are judged to be any of the continuous linkages as shown in FIG. 13.

[0140] When it is judged that the pointing-out direction of the current square and the pointing-out direction of the pattern of the last square are not opposite to each other, it is judged whether or not a square is present in the pointing-out direction of the pattern of the current square (Step S28). That is, it is judged whether or not the pointing-out pattern points out the direction to the outside of the matrix of the 4 rows and 5 columns squares.

[0141] When the pointing-out direction of the pattern of the current square and the pointing-out direction of the pattern of the last square are judged not to be opposite to each other, and besides a square is judged to be present in the pointing-out direction of the pattern of the current square, the pattern linkage of the squares is continuing, and the next processing is made.

[0142] The address of the square in the pointing-out direction of the pattern of the current square is stored as the current square address (Step S29), and the pattern of the current square is stored as the pattern of the last square (Step S30), the pattern of the square in the pointing-out direction of the

pattern of the current square is stored as the pattern of the last square (Step S31), and the linkage counter is increased by “1” count (Step S32). The processing returns to Step S26.

[0143] In Step S27, when the pointing-out direction of the pattern of the current square and the pointing-out direction of the pattern of the last square are opposite to each other, the pattern linkage of the squares has been stopped, and the processing is shifted to Step S33.

[0144] Similarly, in Step S28, it is judged that no square is present in the pointing-out direction of the pattern of the current square, it is judged that the pattern linkage of the squares has been stopped, and the processing is shifted to Step S33.

[0145] In Step S26, when the pattern of the current square is judged to be “the stop pattern”, it is judged that the linkage of the squares has been stopped, and the processing is shifted to Step S33.

[0146] In Step S26, when the pattern of the current square is judged to be “the transparent pattern”, subsequently it is judged whether or not a character is preset in the background of the current square which is seen through the transparent pattern (Step S37).

[0147] In Step S37, when it is judged that a character is present in the current square, the processing (Step S37) of a special character corresponding to a kind of the character is executed. The character processing will be explained in detail later.

[0148] In Step S37, when it is judged that no character is present in the current square, it is judged that the pattern linkage of the squares has been stopped, and the processing is shifted to Step S33.

[0149] When it is judged that the pattern linkage of the squares has been stopped, a number of the linkage counter is judged (Step S33).

[0150] In the present embodiment, when the number of the linkages of the squares is “3” and more, medals are paid out as a win of the player. Accordingly, in Step S33, when a value of the linkage counter is judged to be “2” and less, no payout is made, and the processing is shifted to Step S35.

[0151] In Step S33, when it is judged that a value of the linkage counter is “3” or more, subsequently, the payout is computed (Step S34). A medal number of the payout is given by multiplying a bet medal number stored in the bet medal number memory for the course shown in FIG. 9C by a multiplication factor of the linkage number multiplication factor table shown in FIG. 9A. The computed payout medal number is stored in the payout medal number memory shown in FIG. 9D.

[0152] Then, the course counter is increased by “1” count (Step S35). Subsequently, the value of the course counter is judged (Step S36).

[0153] In Step S36, when it is judged that the value of the course counter is “4” or less, all the courses (the 1st course, the 2nd course, the 3rd course and the 4th course) have not been processed, and the processing returns to Step S21, and the same win judging processing is executed for the next course.

[0154] In Step S36, when it is judged that the value of the course counter is judged to be “5” or more, all the courses (the 1st course, the 2nd course, the 3rd course and the 4th course) have been processed, and the win judging processing is finished.

Examples of the Win Judging Processing

[0155] Examples of the win judging processing will be described.

[0156] It is assumed that the above-described win judging processing has been executed on the game display shown in FIG. 12.

[0157] For “the 1st course”, as shown in FIG. 16, 4 linkage of “Square M11”-“Square M21”-“Square M32”-“Square 32” is made, and a win is judged. The bet medal number “5” is multiplied by the multiplication factor “1” for 4 linkage, the medal number “ $5 \times 1 = 5$ ” is stored in “the 1st course” of the payout medal number memory.

[0158] For “the 2nd course”, as shown in FIG. 17, 3 linkage of “Square M21”-“Square M22”-“Square 32” is made, a win is judged. The bet medal number “5” is multiplied by the multiplication factor “1” for 3 linkage, “ $5 \times 1 = 5$ ” is stored in “the 2nd course” of the payout medal number memory.

[0159] For the 3rd course, as shown in FIG. 18, 2 linkage of “Square M31”-“Square M41” is made, and a win is not judged. “0” is stored in the “the 3rd course” of the payout medal number memory.

[0160] For “the 4th course”, as shown in FIG. 19, 1 linkage of “Square M41” is made, and a win is not judged. “0” is stored in “the 4th course” of the payout medal number memory.

[0161] Thus, “the total” of the payout medal number memory is “ $5 + 5 + 0 + 0 = 10$ ”, and 10 medals are paid out.

Character Processing

[0162] Next, the character processing of the flow chart shown in FIG. 15 will be detailed with reference to drawings.

[0163] The character processing is a special bonus processing which, when it is judged that a character is present in a current square, a bonus corresponding to the kind of the character is given to a player.

[0164] In the present embodiment, as shown in the character classification table shown in FIG. 7A, 5 kinds of characters are prepared: “Wally” shown in FIG. 7B, “Wenda” shown in FIG. 7C, “Woof” shown in FIG. 7D, “Odlaw” shown in FIG. 7E and “Wizard Whitebeard” shown in FIG. 7F.

[0165] The bonus processing for these 5 characters will be described.

(1) Re-lottery Processing

[0166] When the character in a transparent square is “Wally”, “Wenda” or “Woof”, the re-lottery processing is executed.

[0167] For the transparent square where the character is displayed, the simulated reel is spun for the re-lottery. In the re-lottery, out of the patterns shown in FIG. 6, the patterns (FIGS. 6C to 6H) except the transparent pattern (FIG. 6B) are displayed at random. As the result of the re-lottery, based on the kind of the patterns displayed in the transparent square, the following bonus processing is executed.

[0168] As a result of the re-lottery, when the pointing-out pattern is displayed in the transparent square and points out a direction which links the squares before and after the square, a square linkage number is increased.

[0169] As a result of the re-lottery, when the stop pattern is displayed in the transparent square, a square linkage is stopped there, and a square linkage number is not increased.

[0170] As a result of the re-lottery, when the pattern “Where’s Wally?” is displayed in the transparent square, the special game “Where’s Wally?” which will be described later is executed.

(2) Bonus Multiplying Factor Adding Processing

[0171] As bonus processing which is common among the 5 characters, bonus multiplying factor adding processing is executed.

[0172] The multiplying factors stored in the character bonus multiplying table shown in FIG. 9 is added to the multiplying factors to be multiplied on a bet medal number, for example, a multiplying factor obtained by a square linkage number. When the character is “Wally”, “10” is added to the multiplying factor, when the character is “Wenda”, “5” is added to the multiplying factor. When the character is “Woof”, “2” is added to the multiplying factor. When the character is “Odlaw”, “1” is added to the multiplying factor. When the character is “Wizard Whitebeard”, “1” is added to the multiplying factor.

(3) “Where’s Wally?”

[0173] As a result of the re-lottery, the pattern “Where’s Wally?” is displayed in the transparent square, the special game “Where’s Wally?” is executed.

[0174] In the special game “Where’s Wally?”, as shown in FIG. 20A, the entire upper part of the game screen is replaced by the image “Where’s Wally?” which is just like a picture of the actual picture books (details omitted).

[0175] The player visually searches for “Wally” in the picture book-like image. When the player has found “Wally”, as shown in FIG. 20B, the player touches the part. In a limit time, the player can repeatedly touch the image.

[0176] When the player has correctly found “Wally”, a bonus obtaining image as shown in FIG. 20C is displayed, and the player gets a special bonus, e.g., 10 medals, and the special game “Where’s Wally?” is finished.

(4) Free Spin

[0177] When the character of the transparent square is “Wizard Whitebeard”, the right of making free spin is given. Without using medals, the slot game can be made 5 times.

[0178] The above-described win judging processing is made on a result of the free spin, and medal can be further given.

Detail Flow Chart of the Character Processing

[0179] The character processing of the slot game of the game device according to the present embodiment will be detailed with reference to a drawing. FIG. 21 is the detail flow chart of the character processing of the slot game of the game device according to the present embodiment.

[0180] In the character processing, firstly a kind of the character is judged (Step S40).

[0181] (1) When the character is “Wally”, “Wenda” or “Woof”, first the re-lottery is made on the transparent square alone (Step S41).

[0182] Next, it is judged what the pattern displayed as the result of the re-lottery is (Step S42).

[0183] As the result of the re-lottery, when a picture “Where’s Wally?” is displayed, the special game “Where’s Wally?” is executed (Step S43). In the special game “Where’s

Wally?”, when “Wally” has been correctly found, the special bonus, e.g., 10 medals are obtained. The processing is shifted to Step S45.

[0184] As the result of the re-lottery, when the “pointing-out pattern” has been displayed, it is judged whether or not a square can be further linked in the direction pointed out by the pointing-out pattern. If possible, the number of square linkages until the linkage is stopped is counted (Step S44). The processing is shifted to Step S45.

[0185] As a result of the re-lottery, when the “Stop” pattern is displayed, the processing is immediately shifted to Step S45.

[0186] In Step S45, a payout medal number is computed by multiplying a payout medal number by a multiplying factor obtained as the character bonus.

[0187] A final payout medal number is given by multiplying a multiplying factor obtained by the player (e.g., “a multiplying factor by the square linkage number”+“a bonus multiplying factor by the character”) to a medal number obtained by the player (e.g., “a bet medal number”+“a medal number obtained by the special game “Where’s Wally?””). “The bonus multiplying factor by the character” is computed by adding to a multiplying factor (“1” to “400”), the multiplying factor “10” when the character is “Wally”, the multiplying factor “5” when the character is “Wenda”, or the multiplying factor “2” when the character is “Woof”.

[0188] Then, medals of a payout medal number computed by such bonus processing are added to a credit (Step S46).

[0189] (2) When the character is “Odlaw” When the character is “Odlaw”, a payout medal number is computed by adding a multiplying factor obtained as the character bonus to a payout medal number already computed (Step S51).

[0190] A final payout medal number is given by multiplying a multiplying factor obtained by the player (e.g., “a multiplying factor by the square linkage number”+“1” (=a bonus multiplying factor by “Odlaw”)) to a medal number obtained by the player (e.g., “a bet medal number”).

[0191] Next, the medals of a payout medal number computed by such bonus processing added to a credit (Step S52).

[0192] (3) When the character is “Wizard Whitebeard” When the character is “Wizard Whitebeard”, a payout medal number is computed by adding a multiplying factor obtained as a character bonus to a payout medal number already computed (Step S61).

[0193] A final payout medal number is given by multiplying a multiplying factor obtained by the player (e.g., “a multiplying factor by the square linkage number”+“1” (=a bonus multiplying factor by “Wizard Whitebeard”)) to a medal number obtained by the player (e.g., “a bet medal number”).

[0194] Next, the free spin is made prescribed times, e.g., the slot game can be made 5 times without using medals (Step S62).

[0195] Next, the medals of a payout medal number increased by such bonus processing including a result of the free spin are added to a credit (Step S63).

Examples of the Character Processing (Re-Lottery)

[0196] The character processing (re-lottery) will be described by means of examples.

[0197] On the assumption that the game display at the time of stop of the spin of the reels is as shown in FIG. 22, the character processing (re-lottery) for this game display will be described.

[0198] First, the win judging processing is executed on the game display shown in FIG. 22.

[0199] In “the 1st course”, as shown in FIG. 23, the pointing-out patterns of “Square M11”-“Square M12”-“Square M13”-“Square M14” form a linkage, and the linkage is stopped by the transparent square “Square M24”. The result is 4 linkages.

[0200] When the character of the transparent square “Square M24” is “Wally”, “Wenda” or “Woof”, the re-lottery processing is executed. As shown in FIG. 24, the reel only in “Square M24” spins for the re-lottery.

[0201] As the result of the re-lottery, it is assumed that “Square M24” is the downward pointing-out pattern.

[0202] When the same processing as the win judging processing is executed for a game display (FIG. 25) as the result of the re-lottery as to whether a further linkage can be made from “Square M14”, which is the terminal of the 4 linkage, as shown in FIG. 26, the square linkage continues from the pointing-out pattern of “Square M14” to the downward pointing-out pattern of “Square M24” to the downward pointing-out pattern of “Square M34” and to the right pointing-out pattern of “Square M44”, and the linkage is stopped by the stop pattern of “Square M45”.

[0203] Thus, as shown in FIG. 26, in “the 1st course”, the pointing-out patterns of “Square M11”-“Square M12”-“Square M13”-“Square M14”-“Square M24”-“Square M34”-“Square M44” form a linkage, and the linkage is stopped by the square “Square M45” of the stop pattern. As the result, 7 linkages are formed. Before the re-lottery, 4 linkages have been formed, and as the result of the re-lottery, the linkages are increased to 7 linkages. A payout medal number is increased.

Modified Embodiments

[0204] The present invention is not limited to the above-described embodiment and can cover other various modifications.

[0205] For example, in the above-described embodiment, the example of using the present invention as game devices installed in amusement facilities. However, the principle of the present invention can be used, in place of the game device, in domestic devices, portable game machines, personal computers, portable telephones, portable telephones, such as PHS, PDA, etc. and others.

[0206] In the above-described embodiment, to distinguish players, IC cards are used, but magnetic cards, commutation tickets, Suica cards, Edy cards, portable telephones, etc. can be used. Furthermore, means which distinguish individuals, such as fingerprints, irises, etc. may be used as long as they distinguish players.

[0207] The slot game of the present invention may be installed as game machines for casinos to be played as one kind of casino games.

[0208] The slot game of the present invention may be used one kind of bonus games for pachinko machines, slot machines installed in pachinko parlors, etc.

INDUSTRIAL APPLICABILITY

[0209] The game device and the control method for the game device according to the present invention are useful to provide slot games which can amuse even beginners.

REFERENCE NUMBERS

[0210] 10 . . . amusement facility

[0211] 12 . . . game device

[0212] 13 . . . casing

[0213] 14 . . . processing device

[0214] 16 . . . main LCD

[0215] 18 . . . sub LCD

[0216] 20 . . . LAN

[0217] 21 . . . control panel

[0218] 22 . . . internet

[0219] 23 . . . medal slot

[0220] 24 . . . touch panel

[0221] 25 . . . medal stock

[0222] 26 . . . bet buttons

[0223] 27 . . . medal payout opening

[0224] 28 . . . execution button

[0225] 30 . . . server

[0226] 31 . . . meter key

[0227] 32 . . . reset key

[0228] 33 . . . side lamps

[0229] 34 . . . display monitor

[0230] 40 . . . CPU

[0231] 42 . . . system memory

[0232] 44 . . . bus arbiter

[0233] 46 . . . program data memory or memory medium

[0234] 48 . . . BOOT ROM

[0235] 50 . . . rendering processor

[0236] 52 . . . graphic memory

[0237] 56 . . . sound processor

[0238] 58 . . . sound memory

[0239] 60 . . . speakers

[0240] 60a . . . woofer speaker

[0241] 62 . . . communication interface

[0242] 64 . . . LAND adapter

[0243] 66 . . . peripheral I/F

[0244] 68 . . . peripheral I/F

1.-11. (canceled)

12. A game device comprising an operation unit, a display unit and a control unit,

the control unit including:

means for displaying a matrix with n-rows and m-columns squares in the display unit;

means for changing patterns of the respective ones of the matrix with n-rows and m-columns squares displayed in the display unit based on operations of the operation unit by a player, and then stopping changes of the patterns of the respective squares;

means for judging whether or not the n-rows and m-columns squares in the matrix in stop are linked with the adjacent squares, based on patterns of the respective squares, and judging a win, based on a number of linked squares; and

means for paying out a play value based on the number of the linked squares when the n-row and m-columns squares of the matrix in stop are judged as the win.

13. A game device according to claim 12, wherein

the means for judging the win judges initially whether the squares of one ends of the respective rows of the matrix with n-rows and m-columns squares in stop are linked with squares, sequentially judging linkages of the squares with squares, and judges the win based on a number of continuous linkages of the squares.

14. A game device according to claim 12, wherein

the patterns of the respective squares include at least a right pointing-out pattern, a downward pointing-out pattern, a left pointing-out pattern, and an upward pointing-out pattern, and

the means for judging the win judges that, when a pointing-out direction of a pattern of one square and a pointing-out direction of a pattern of another square which positions in the direction pointed out by the pattern of said one square are opposite to each other, said one square and said another square are not linked, and that, when they are not opposite to each other, said one square and said another square are liked.

15. A game device according to claim **13**, wherein the patterns of the respective squares include at least a right pointing-out pattern, a downward pointing-out pattern, a left pointing-out pattern, and an upward pointing-out pattern, and

the means for judging the win judges that, when a pointing-out direction of a pattern of one square and a pointing-out direction of a pattern of another square which positions in the direction pointed out by the pattern of said one square are opposite to each other, said one square and said another square are not linked, and that, when they are not opposite to each other, said one square and said another square are liked.

16. A game device according to claim **14**, wherein the patterns of the respective squares further include a stop pattern, and

when the pattern of said another square which positions in the direction pointed out by the pattern of said one square is the stop pattern, the means for judging the win judges that said one square and said another square are not linked.

17. A game device according to claim **15**, wherein the patterns of the respective squares further include a stop pattern, and

when the pattern of said another square which positions in the direction pointed out by the pattern of said one square is the stop pattern, the means for judging the win judges that said one square and said another square are not linked.

18. A game device according to claim **14**, wherein the patterns of the respective squares further include a transparent pattern through which a background image can be seen, and

when the pattern of said another square which positions in the direction pointed out by the pattern of said one square is the transparent pattern, the means for judging the win gives a bonus based on a background image seen through the transparent pattern of said another square.

19. A game device according to claim **15**, wherein the patterns of the respective squares further include a transparent pattern through which a background image can be seen, and

when the pattern of said another square which positions in the direction pointed out by the pattern of said one square is the transparent pattern, the means for judging the win gives a bonus based on a background image seen through the transparent pattern of said another square.

20. A control method for a game device comprising an operation unit, a display unit and a control unit,

the control method comprising the steps of:

the control unit displaying a matrix with n-rows and m-columns squares in the display unit;

the control unit changing patterns of the respective ones of the matrix with n-rows and m-columns squares displayed in the display unit based on operations of the

operation unit by a player, and then stopping changes of the patterns of the respective squares;

the control unit judging whether or not the n-rows and m-columns squares in the matrix in stop are linked with the adjacent squares, based on patterns of the respective squares, and judging a win, based on a number of linked squares; and

the control unit paying out a play value based on the number of the linked squares when the n-row and m-columns squares of the matrix in stop are judged as the win.

21. A control method of the game device according to claim **20**, wherein

the step of judging the win judges initially whether the squares of one ends of the respective rows of the matrix with n-rows and m-columns squares in stop are linked with squares, sequentially judging linkages of the squares with squares, and judges the win based on a number of continuous linkages of the squares.

22. A control method of a game device according to claim **20**, wherein

the patterns of the respective squares include at least a right pointing-out pattern, a downward pointing-out pattern, a left pointing-out pattern, and an upward pointing-out pattern, and

the step of judging the win judges that, when a pointing-out direction of a pattern of one square and a pointing-out direction of a pattern of another square which positions in the direction pointed out by the pattern of said one square are opposite to each other, said one square and said another square are not linked, and that, when they are not opposite to each other, said one square and said another square are liked.

23. A control method of a game device according to claim **21**, wherein

the patterns of the respective squares include at least a right pointing-out pattern, a downward pointing-out pattern, a left pointing-out pattern, and an upward pointing-out pattern, and

the step of judging the win judges that, when a pointing-out direction of a pattern of one square and a pointing-out direction of a pattern of another square which positions in the direction pointed out by the pattern of said one square are opposite to each other, said one square and said another square are not linked, and that, when they are not opposite to each other, said one square and said another square are liked.

24. A control method of a game device according to claim **22**, wherein

the patterns of the respective squares further include a stop pattern, and

when the pattern of said another square which positions in the direction pointed out by the pattern of said one square is the stop pattern, the step of judging the win judges that said one square and said another square are not linked.

25. A control method of a game device according to claim **23**, wherein

the patterns of the respective squares further include a stop pattern, and

when the pattern of said another square which positions in the direction pointed out by the pattern of said one square is the stop pattern, the step of judging the win judges that said one square and said another square are not linked.

26. A control method of a game device according to claim 22, wherein

the patterns of the respective squares further include a transparent pattern through which a background image can be seen, and

when the pattern of said another square which positions in the direction pointed out by the pattern of said one square is the transparent pattern, the step of judging the win gives a bonus based on a background image seen through the transparent pattern of said another square.

27. A control method of a game device according to claim 23, wherein

the patterns of the respective squares further include a transparent pattern through which a background image can be seen, and

when the pattern of said another square which positions in the direction pointed out by the pattern of said one square is the transparent pattern, the step of judging the

win gives a bonus based on a background image seen through the transparent pattern of said another square.

28. A program for making a computer execute the steps of: displaying a matrix with n-rows and m-columns squares in the display unit;

changing patterns of the respective ones of the matrix with n-rows and m-columns squares displayed in the display unit based on operations of the operation unit by a player, and then stopping changes of the patterns of the respective squares;

judging whether or not the n-rows and m-columns squares in the matrix in stop are linked with the adjacent squares, based on patterns of the respective squares, and judging a win, based on a number of linked squares; and

paying out a play value based on the number of the linked squares when the n-row and m-columns squares of the matrix in stop are judged as the win.

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