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(54) **GAMING MACHINE**

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A63F 9/24 (2006.01)

(52) **U.S. Cl.** **463/27**; 463/17; 463/43

(57) **ABSTRACT**

A gaming machine includes a display device, a memory, and a controller. The controller is configured with logic to: (a) determine a combination of symbols to be displayed on the display device by performing a lottery; (b) cause the display device to perform a variable display of symbols; (c) cause the display device to perform a statical display of the symbols in accordance with a result of the lottery; (d) when the statical display of the symbols matches a specific combination of symbols, control the memory to cumulatively store a predetermined number of points. When a summation of the points stored in the memory has reached a threshold as a result of completion of a particular game, the controller allows the player to be continuously in an advantageous situation during games subsequent to the particular game until a predetermined condition is satisfied.

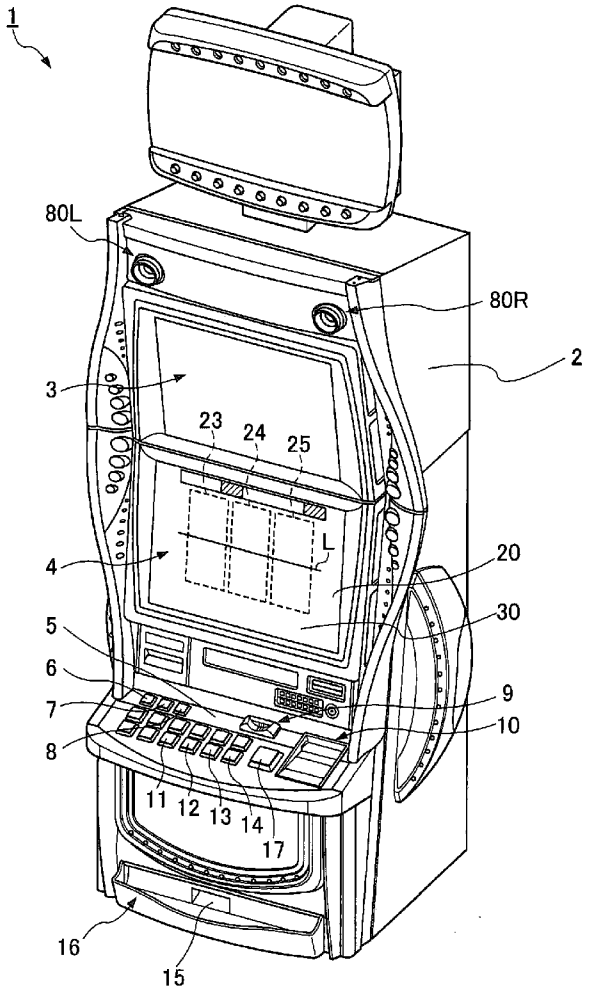


FIG. 1A

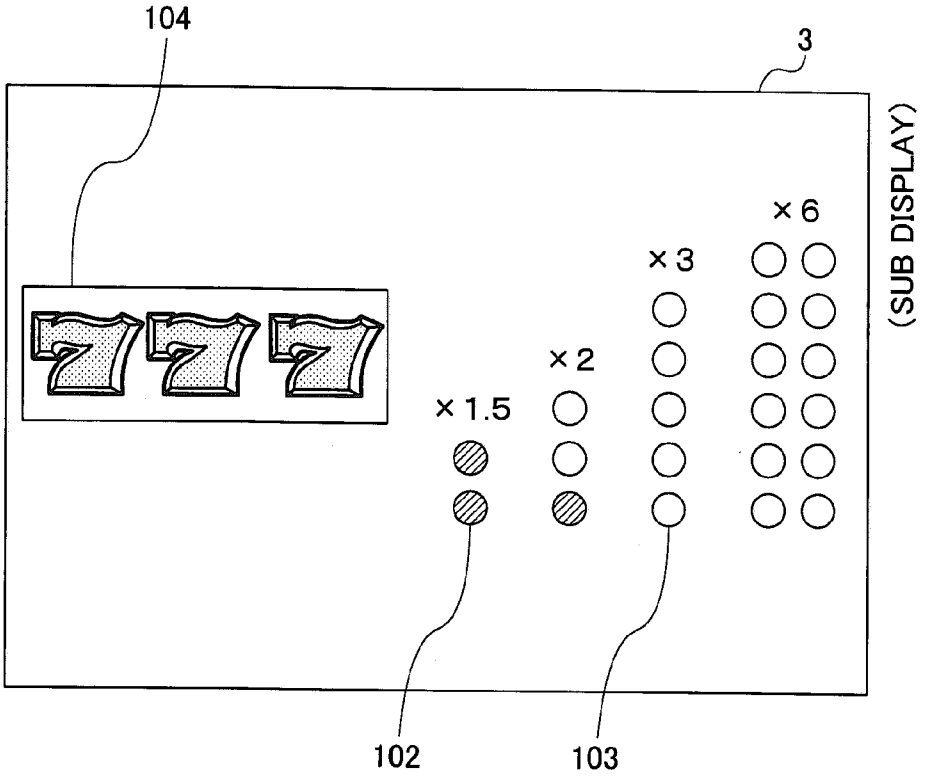

104
3
(SUB DISPLAY)
× 6
× 3
× 2
× 1.5
102
103

FIG. 1B

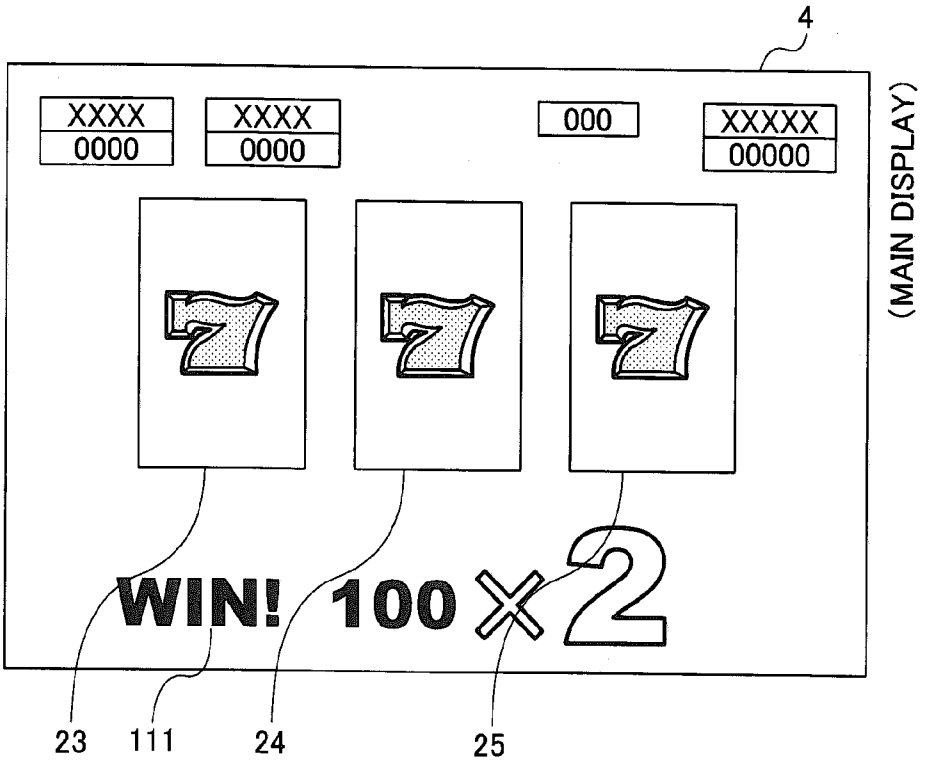

4
(MAIN DISPLAY)
XXXX
0000
XXXX
0000
000
XXXXX
00000
WIN! 100 × 2
23
111
24
25

FIG. 2

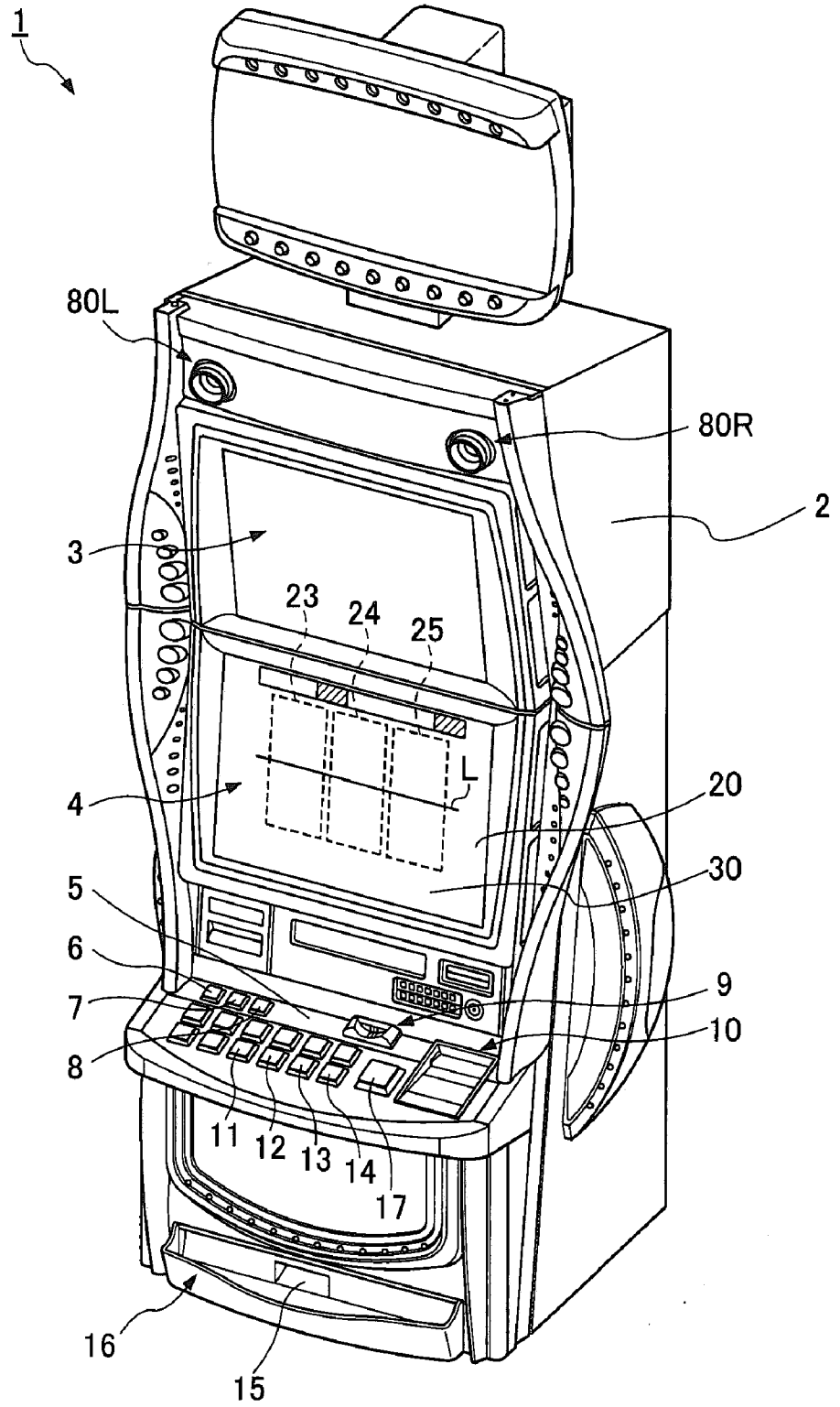


FIG. 3

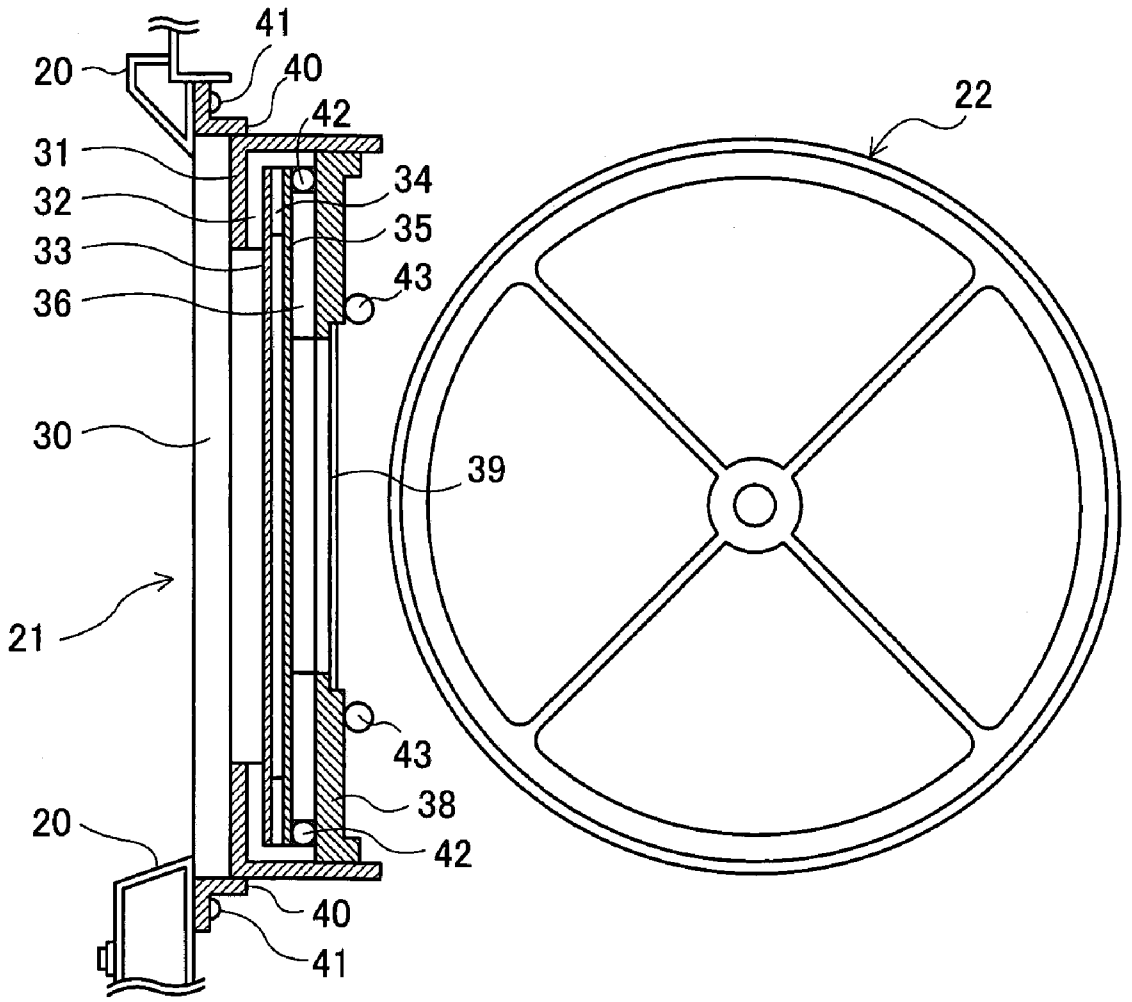


FIG. 4

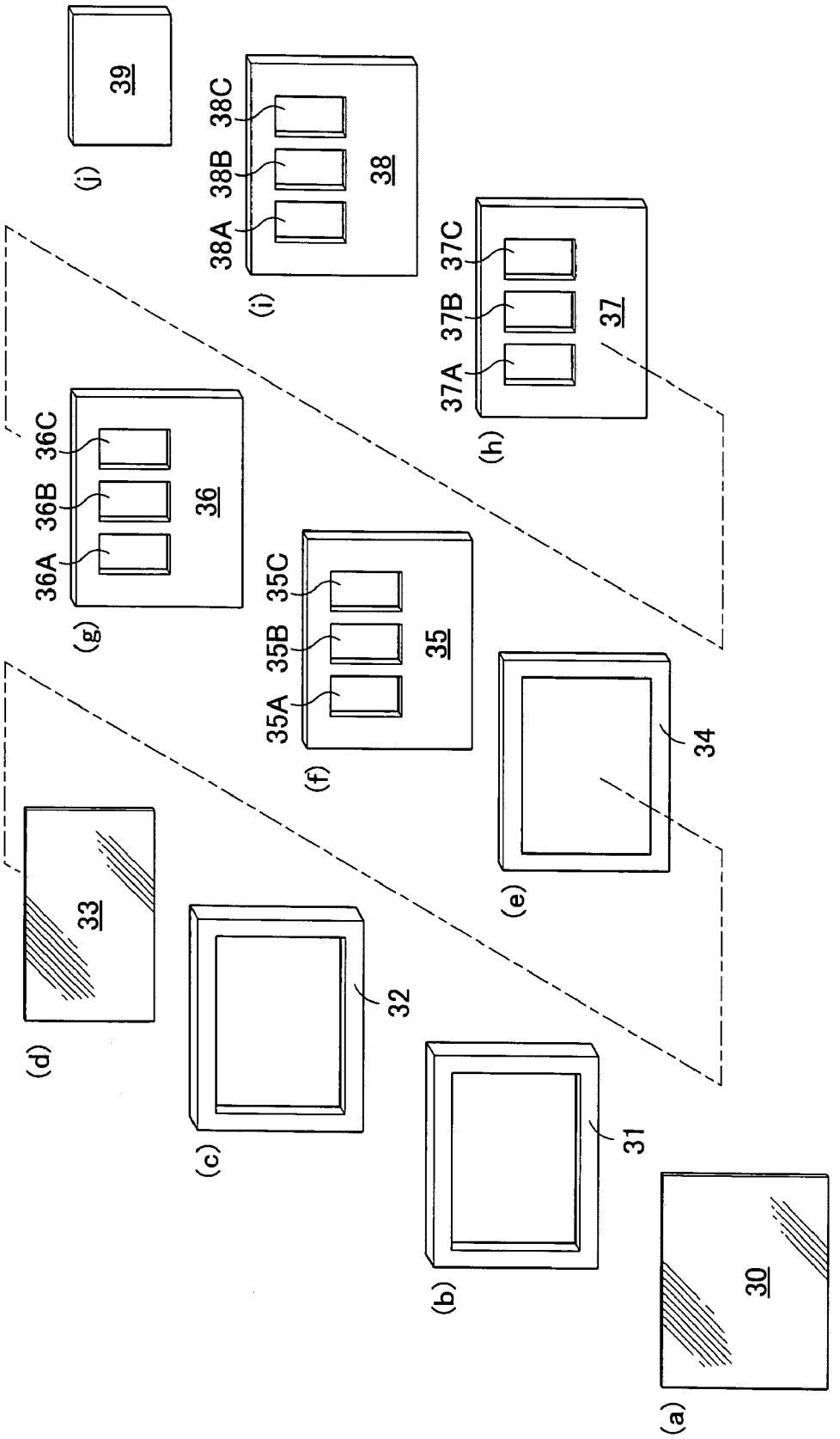

(a)
30
(b)
31
(c)
32
(d)
33
(e)
34
(f)
35
35A
35B
35C
(g)
36
36A
36B
36C
(h)
37
37A
37B
37C
(i)
38
38A
38B
38C
(j)
39

FIG. 5

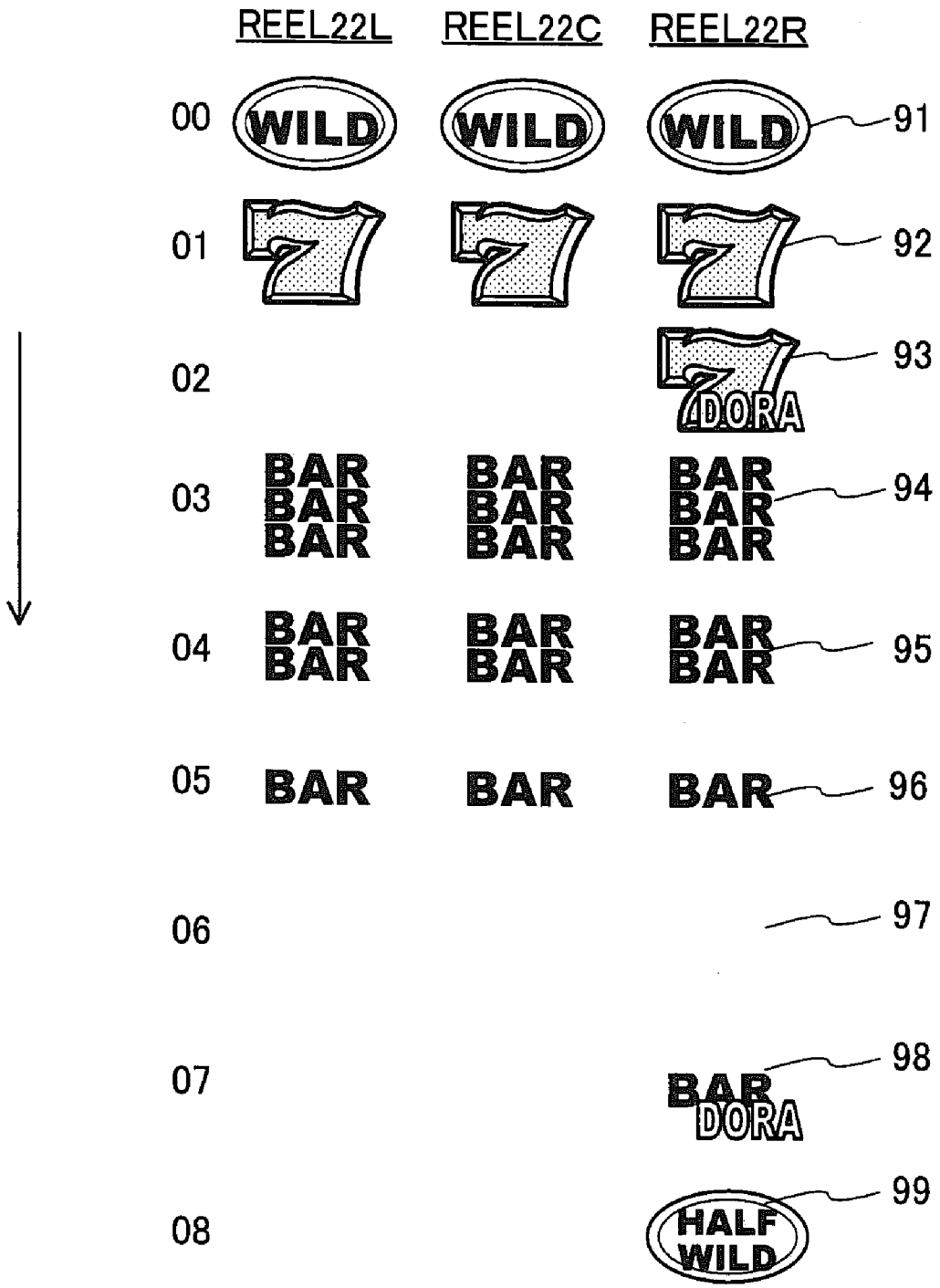

REEL22L
REEL22C
REEL22R
00
01
02
03
04
05
06
07
08
WILD
WILD
WILD
91
7
7
7
92
7 DORA
93
BAR BAR BAR
BAR BAR BAR
BAR BAR BAR
94
BAR BAR
BAR BAR
BAR BAR
95
BAR
BAR
BAR
96
97
BAR DORA
98
HALF WILD
99

FIG. 6

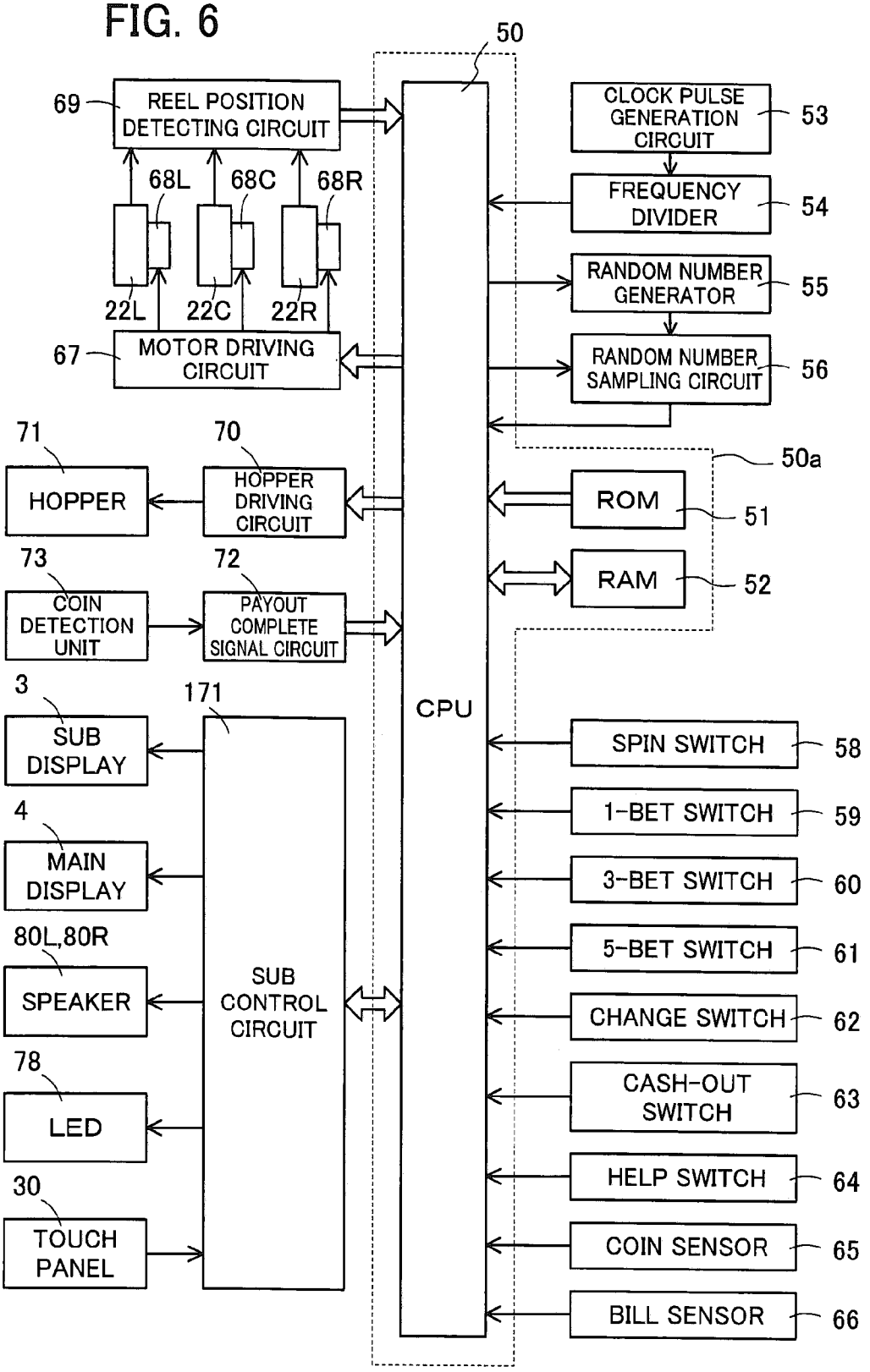

50
69
REEL POSITION DETECTING CIRCUIT
68L
68C
68R
22L
22C
22R
67
MOTOR DRIVING CIRCUIT
CLOCK PULSE GENERATION CIRCUIT
53
FREQUENCY DIVIDER
54
RANDOM NUMBER GENERATOR
55
RANDOM NUMBER SAMPLING CIRCUIT
56
50a
71
HOPPER
70
HOPPER DRIVING CIRCUIT
ROM
51
RAM
52
73
COIN DETECTION UNIT
72
PAYOUT COMPLETE SIGNAL CIRCUIT
3
SUB DISPLAY
171
CPU
4
MAIN DISPLAY
80L,80R
SPEAKER
SUB CONTROL CIRCUIT
78
LED
30
TOUCH PANEL
SPIN SWITCH
58
1-BET SWITCH
59
3-BET SWITCH
60
5-BET SWITCH
61
CHANGE SWITCH
62
CASH-OUT SWITCH
63
HELP SWITCH
64
COIN SENSOR
65
BILL SENSOR
66

FIG. 7

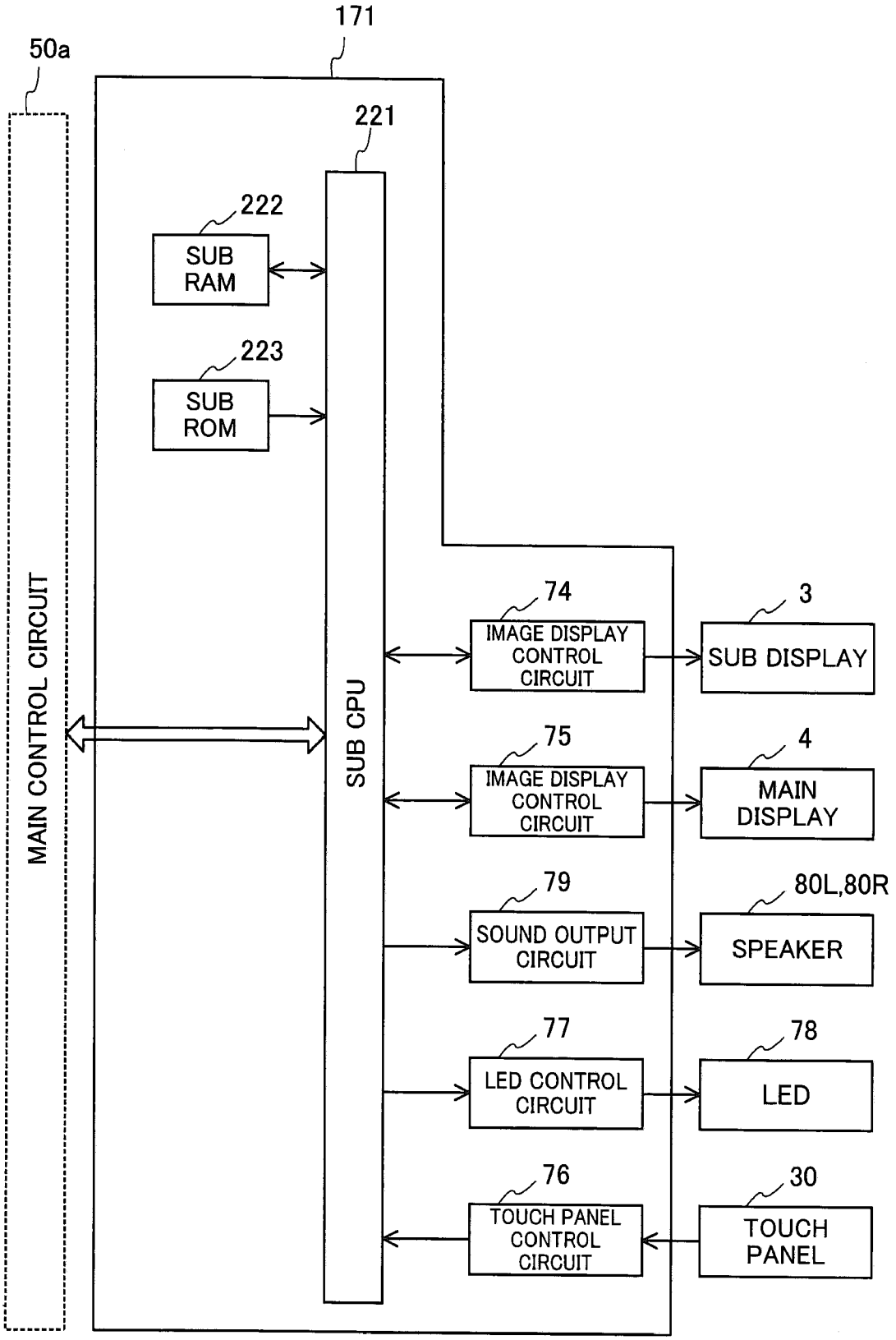

171
50a
221
222
SUB RAM
223
SUB ROM
MAIN CONTROL CIRCUIT
SUB CPU
74
IMAGE DISPLAY CONTROL CIRCUIT
3
SUB DISPLAY
75
IMAGE DISPLAY CONTROL CIRCUIT
4
MAIN DISPLAY
79
SOUND OUTPUT CIRCUIT
80L,80R
SPEAKER
77
LED CONTROL CIRCUIT
78
LED
76
TOUCH PANEL CONTROL CIRCUIT
30
TOUCH PANEL

FIG. 8

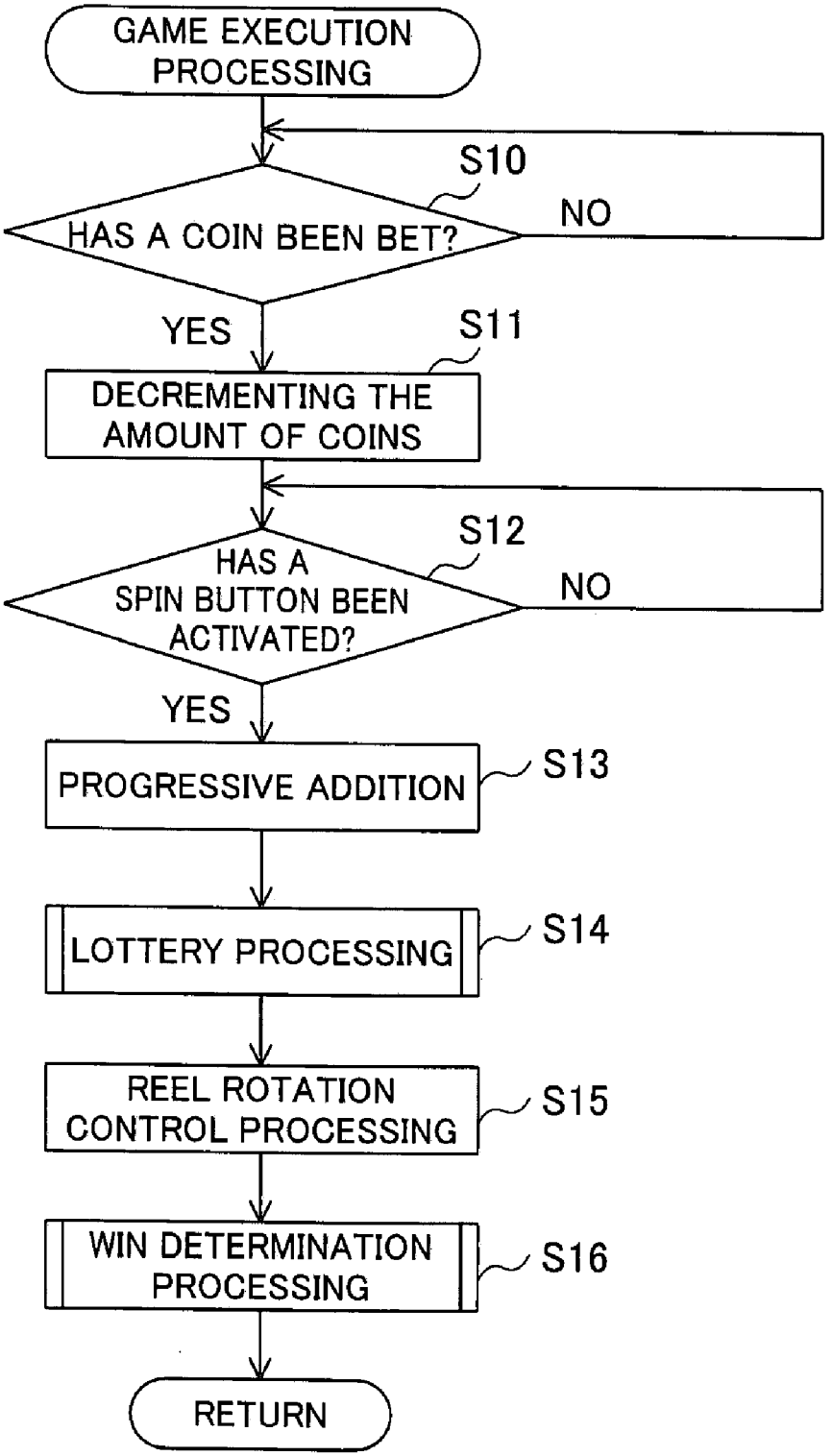

GAME EXECUTION PROCESSING
S10
HAS A COIN BEEN BET?
NO
YES
S11
DECREMENTING THE AMOUNT OF COINS
S12
HAS A SPIN BUTTON BEEN ACTIVATED?
NO
YES
PROGRESSIVE ADDITION
S13
LOTTERY PROCESSING
S14
REEL ROTATION CONTROL PROCESSING
S15
WIN DETERMINATION PROCESSING
S16
RETURN

FIG. 9

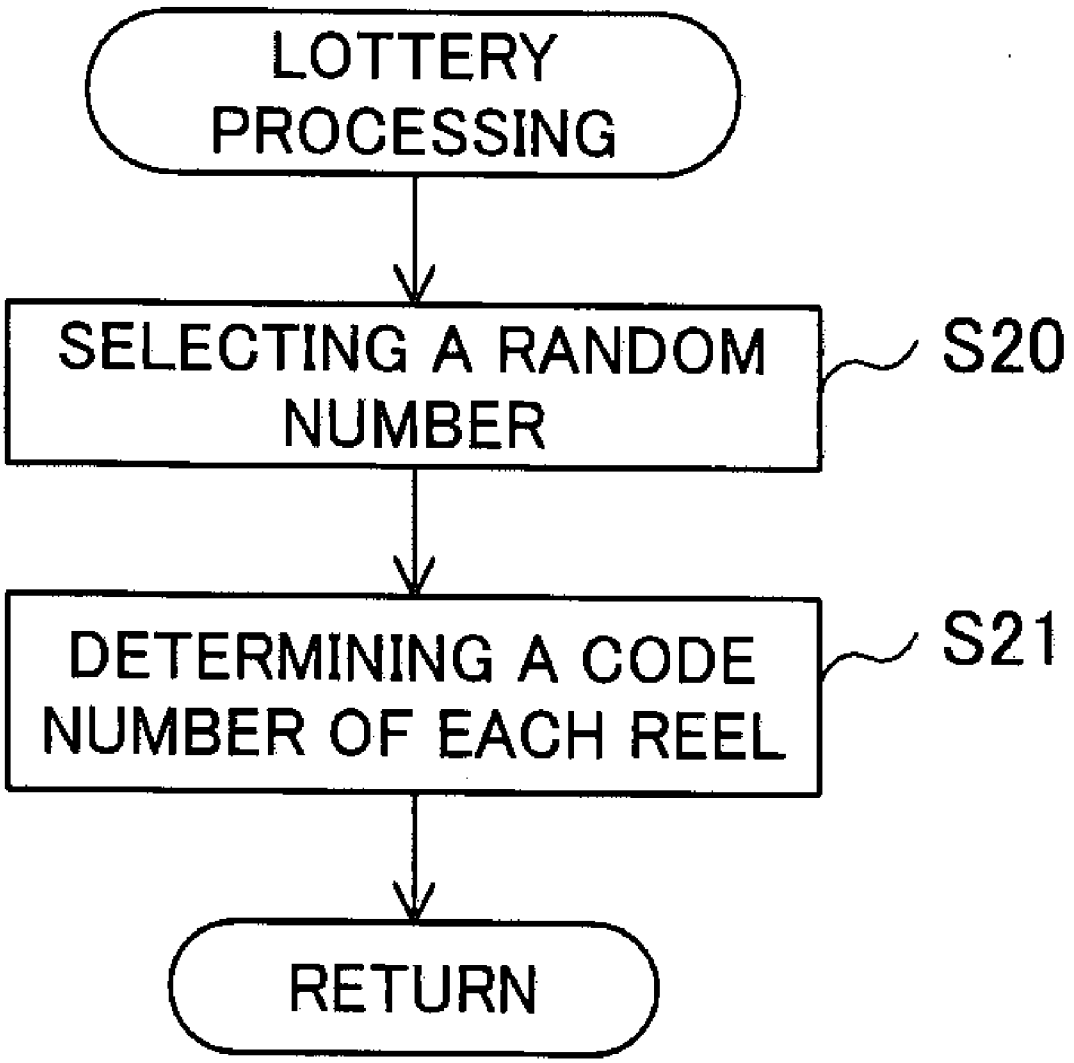

LOTTERY PROCESSING
SELECTING A RANDOM NUMBER
S20
DETERMINING A CODE NUMBER OF EACH REEL
S21
RETURN

FIG. 10

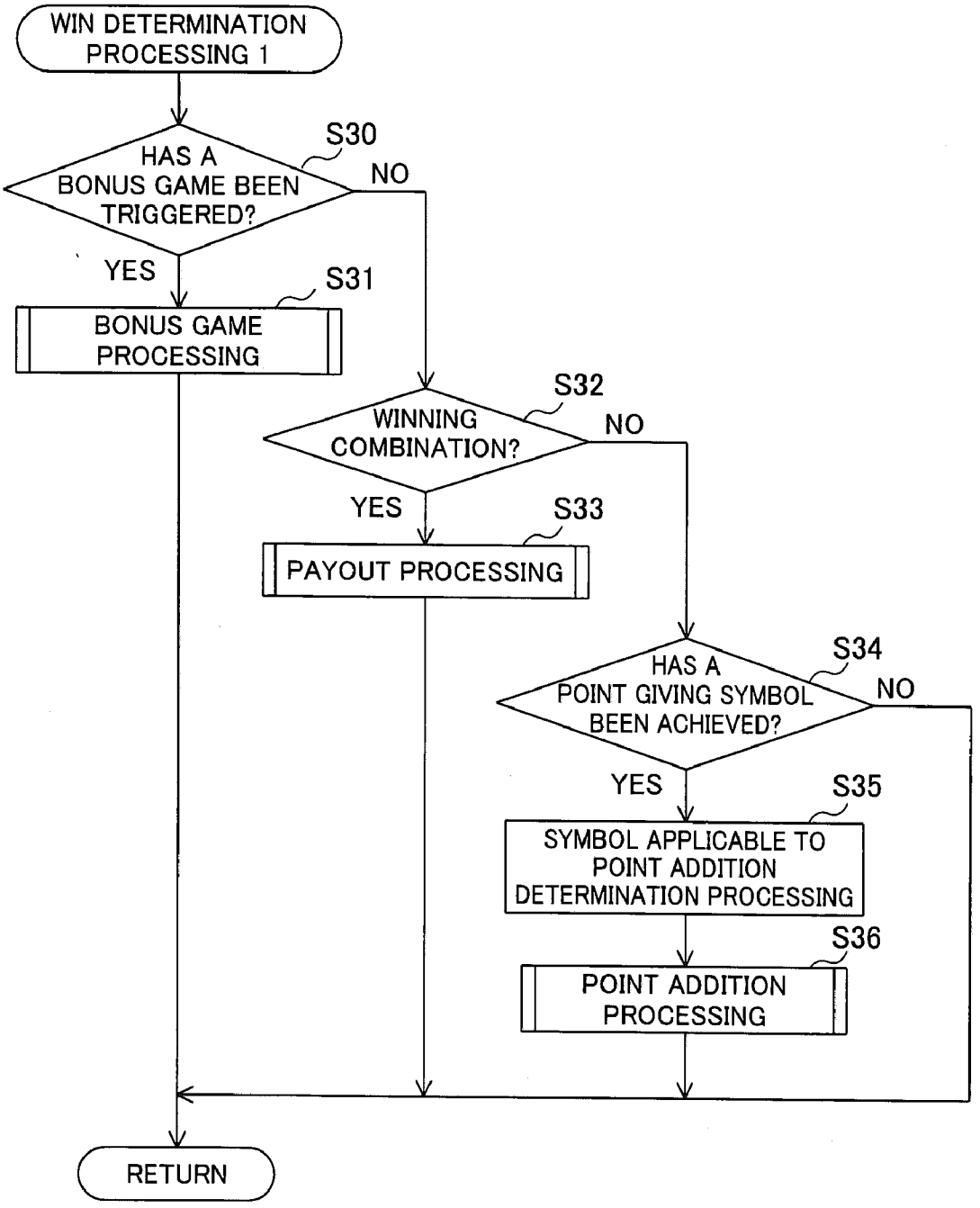

WIN DETERMINATION PROCESSING 1
S30
HAS A BONUS GAME BEEN TRIGGERED?
NO
YES
S31
BONUS GAME PROCESSING
S32
WINNING COMBINATION?
NO
YES
S33
PAYOUT PROCESSING
S34
HAS A POINT GIVING SYMBOL BEEN ACHIEVED?
NO
YES
S35
SYMBOL APPLICABLE TO POINT ADDITION DETERMINATION PROCESSING
S36
POINT ADDITION PROCESSING
RETURN

FIG. 11

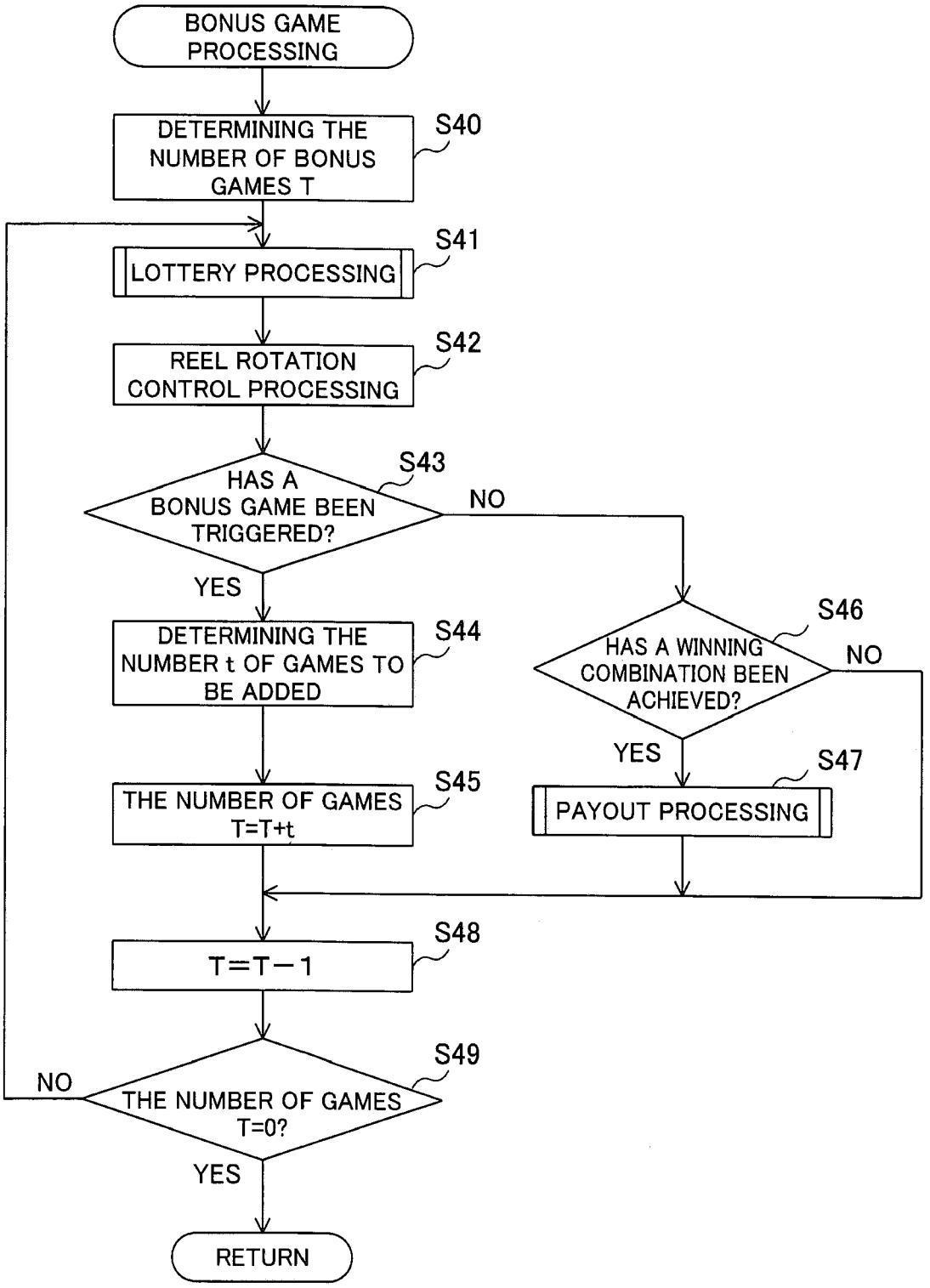

BONUS GAME PROCESSING
DETERMINING THE NUMBER OF BONUS GAMES T
S40
LOTTERY PROCESSING
S41
REEL ROTATION CONTROL PROCESSING
S42
HAS A BONUS GAME BEEN TRIGGERED?
S43
NO
YES
DETERMINING THE NUMBER t OF GAMES TO BE ADDED
S44
THE NUMBER OF GAMES T=T+t
S45
HAS A WINNING COMBINATION BEEN ACHIEVED?
S46
NO
YES
PAYOUT PROCESSING
S47
T=T−1
S48
THE NUMBER OF GAMES T=0?
S49
NO
YES
RETURN

FIG. 12

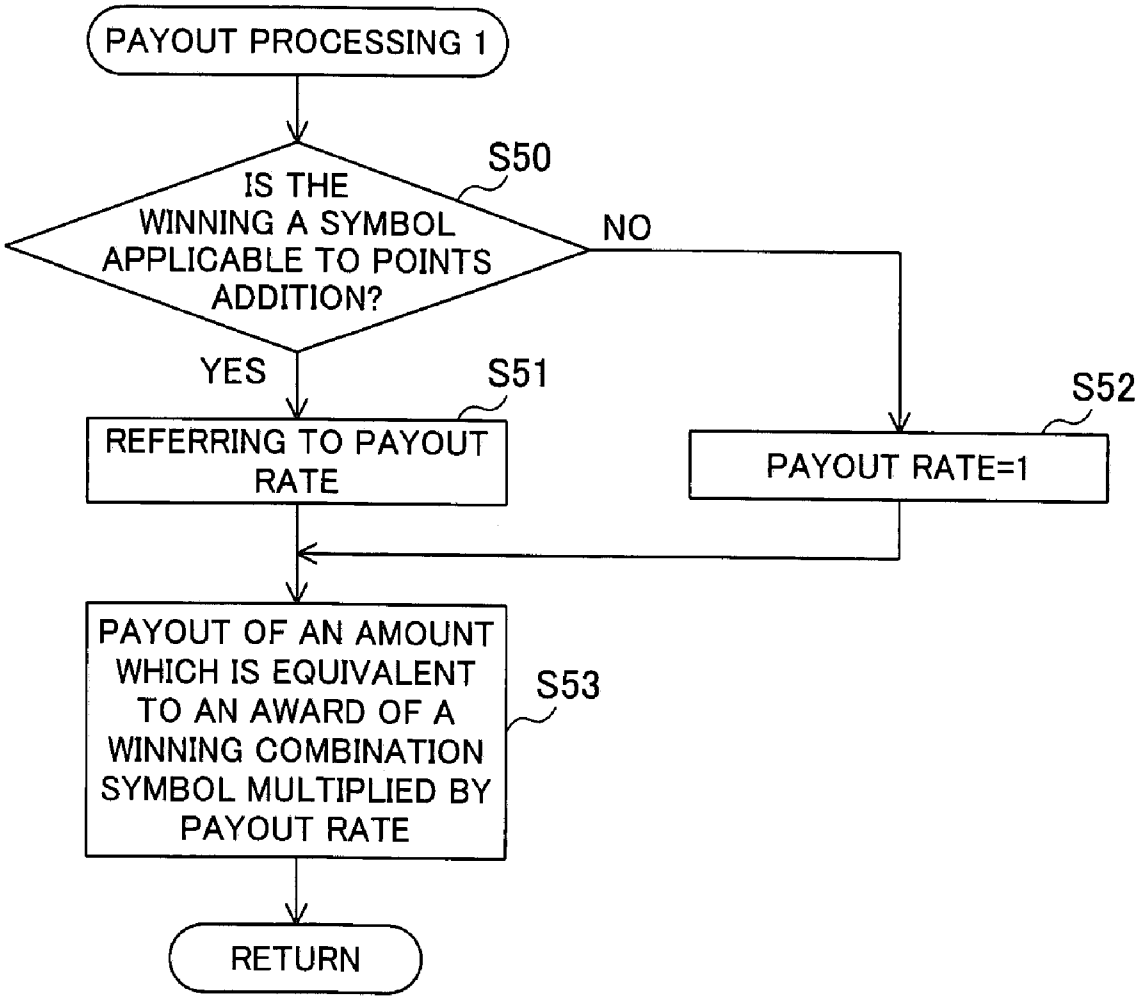

PAYOUT PROCESSING 1
S50
IS THE WINNING A SYMBOL APPLICABLE TO POINTS ADDITION?
NO
YES
S51
REFERRING TO PAYOUT RATE
S52
PAYOUT RATE=1
PAYOUT OF AN AMOUNT WHICH IS EQUIVALENT TO AN AWARD OF A WINNING COMBINATION SYMBOL MULTIPLIED BY PAYOUT RATE
S53
RETURN

FIG. 13

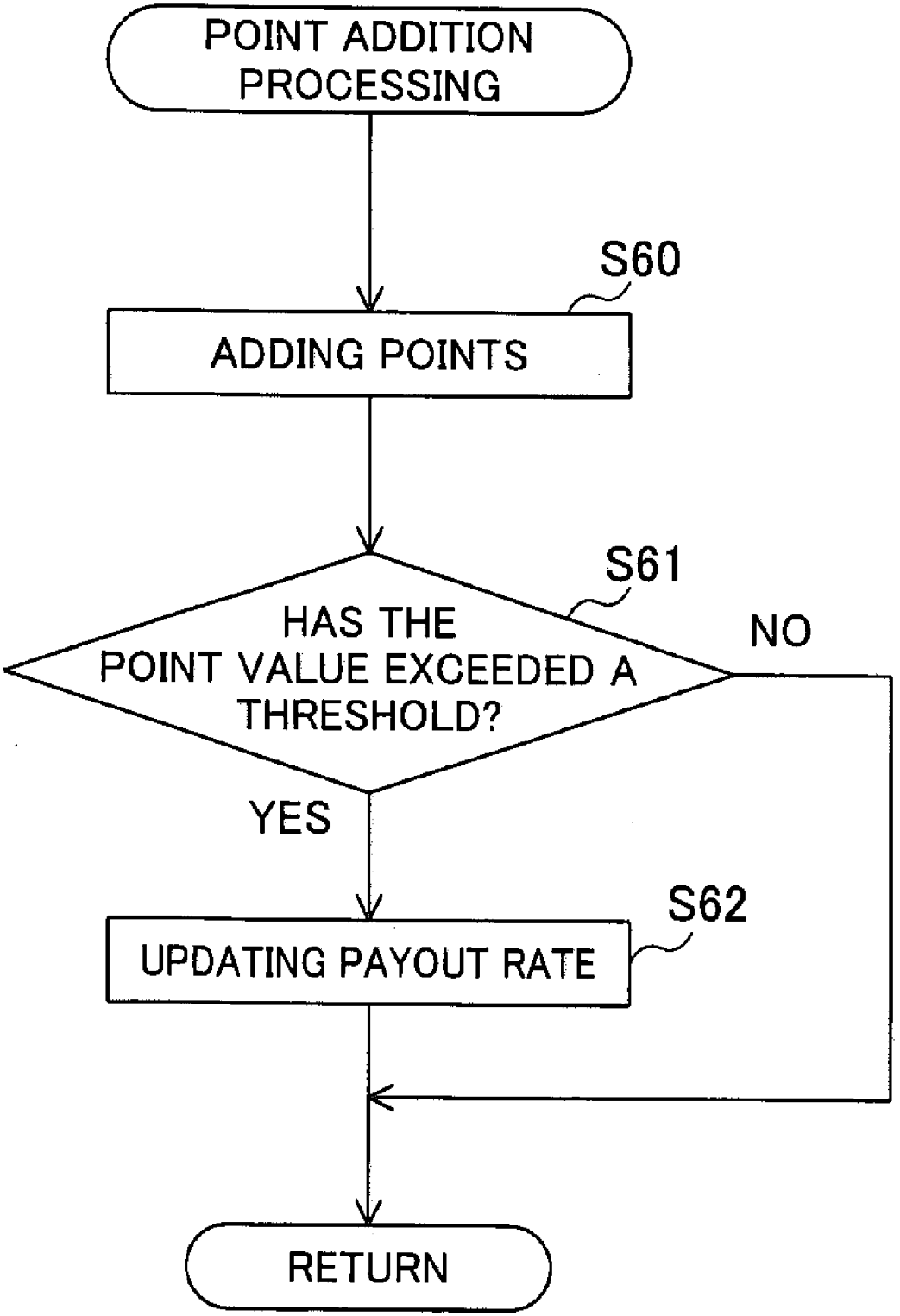

POINT ADDITION PROCESSING
S60
ADDING POINTS
S61
HAS THE POINT VALUE EXCEEDED A THRESHOLD?
NO
YES
S62
UPDATING PAYOUT RATE
RETURN

FIG. 14A

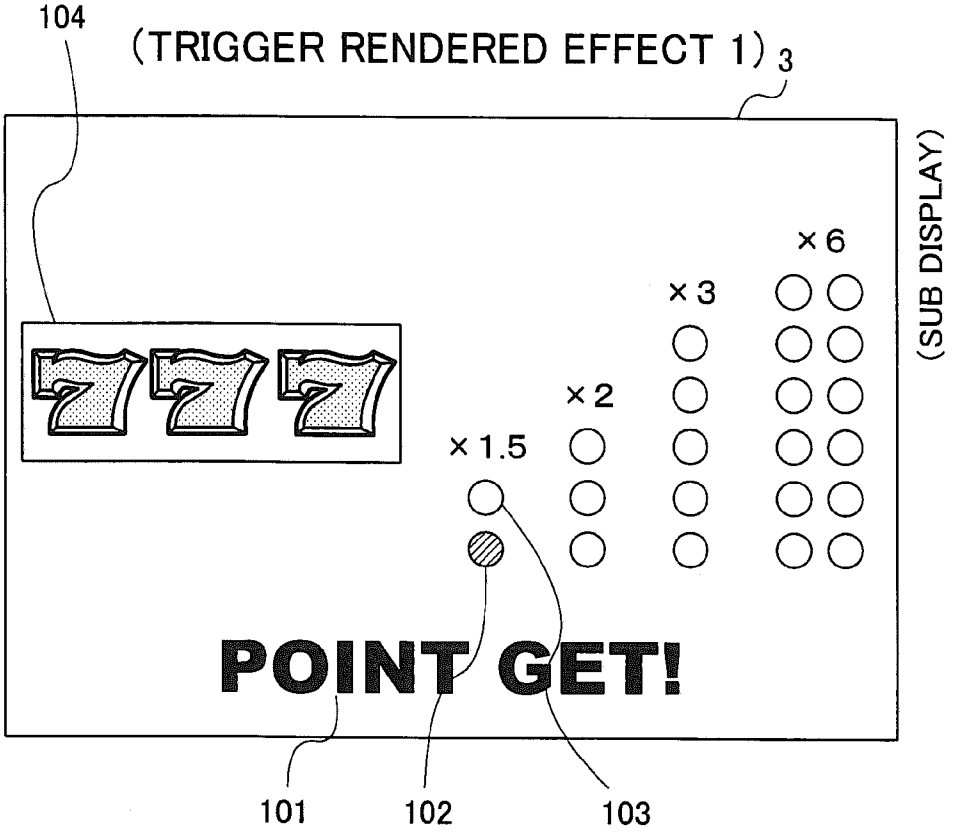


FIG. 14B

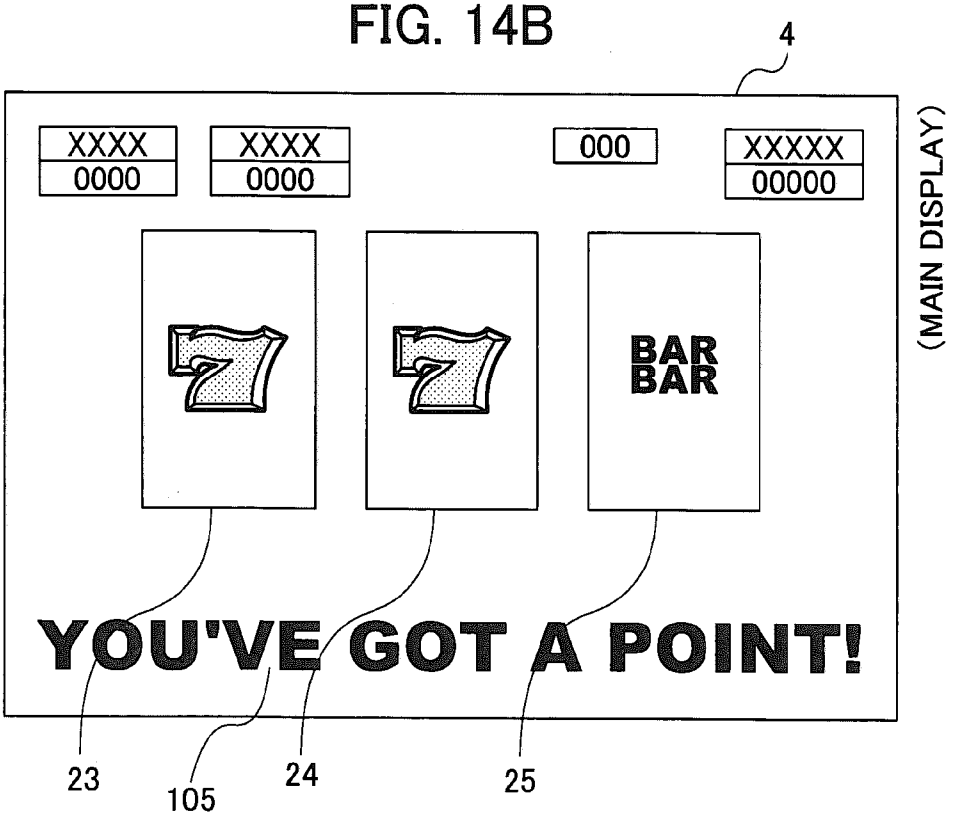


FIG. 15A

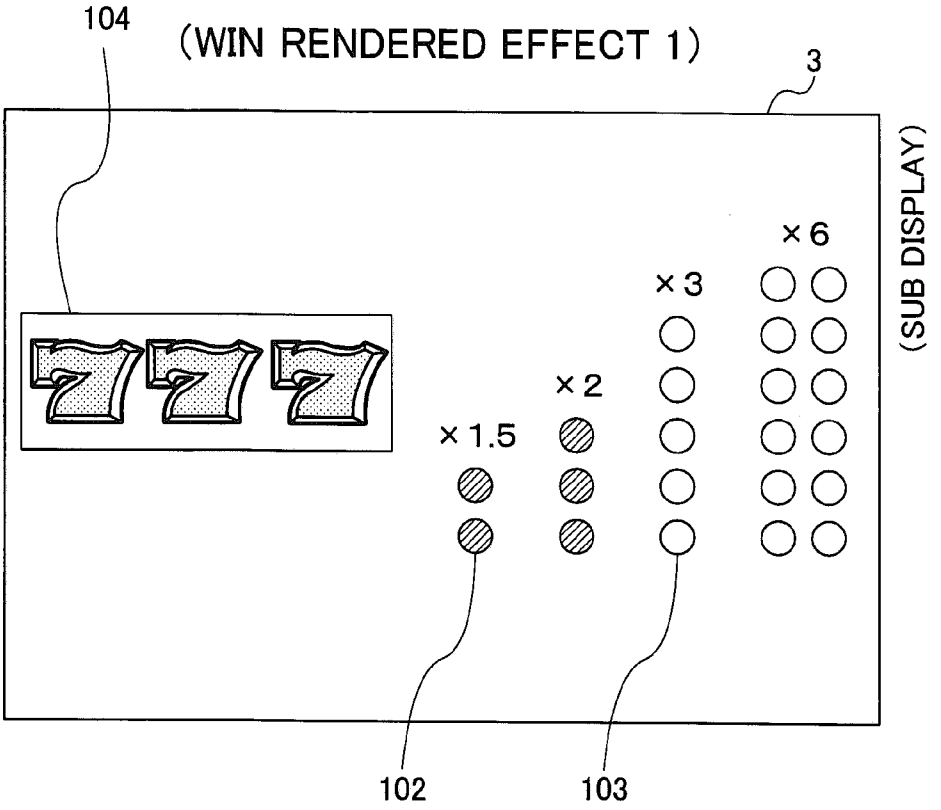


FIG. 15B

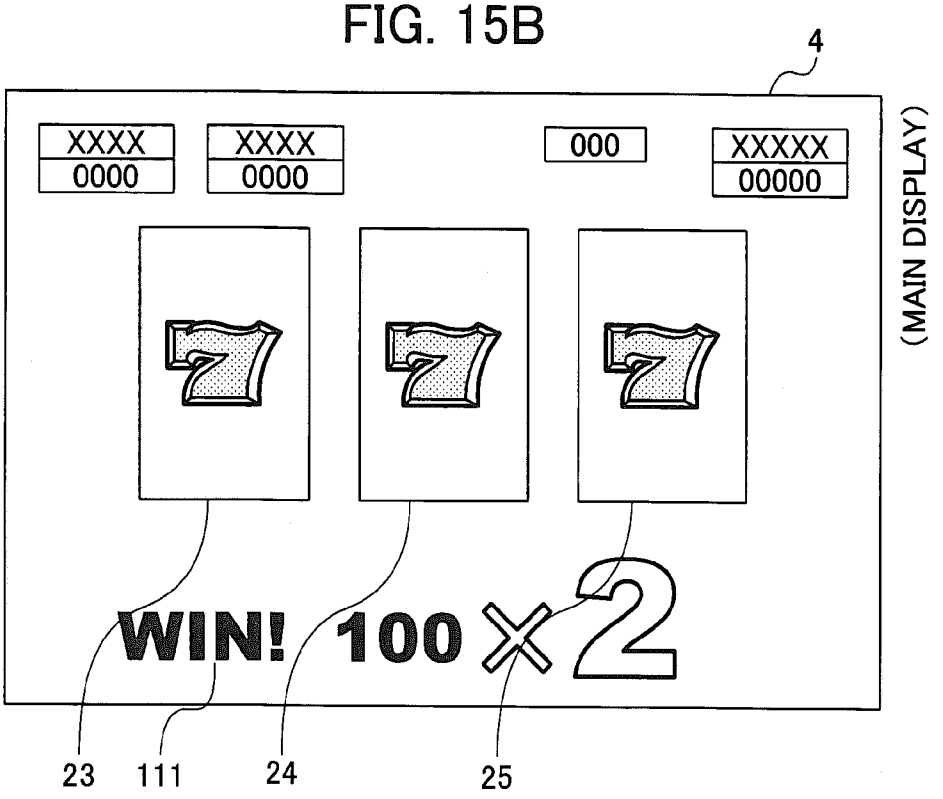


FIG. 16A

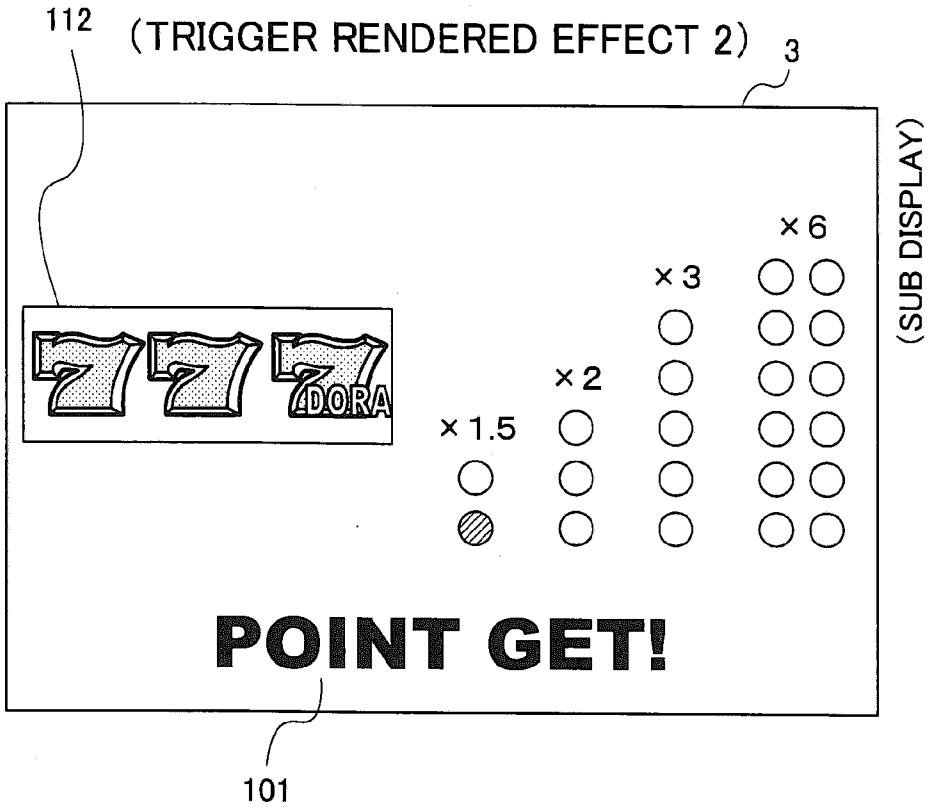


FIG. 16B

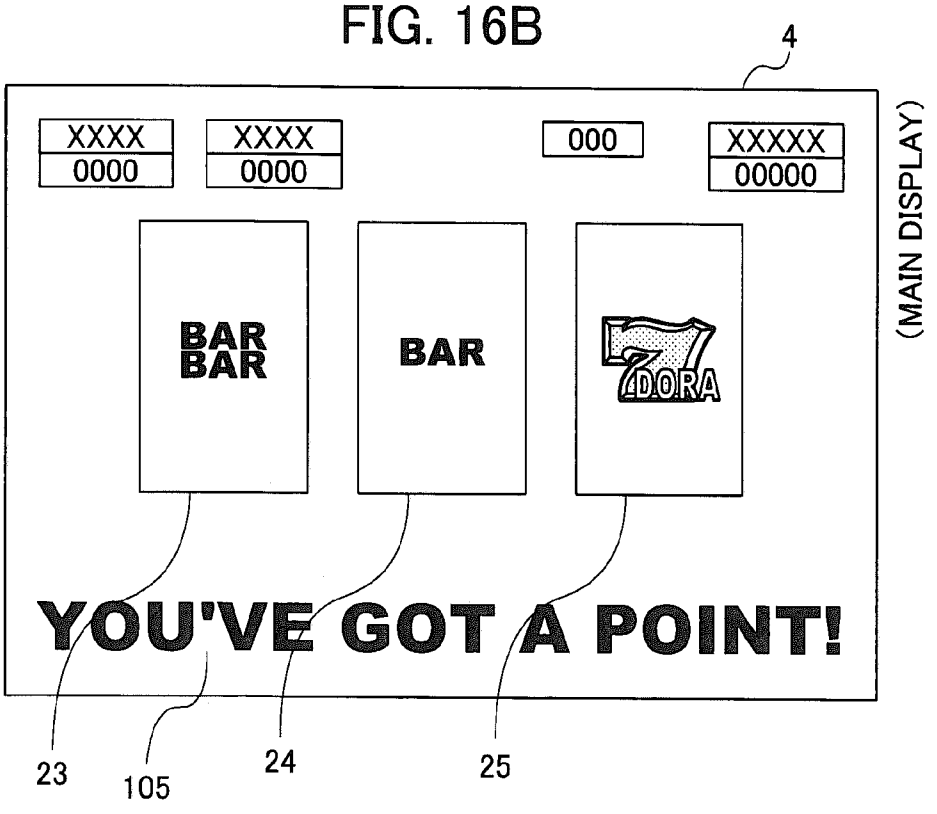


FIG. 17

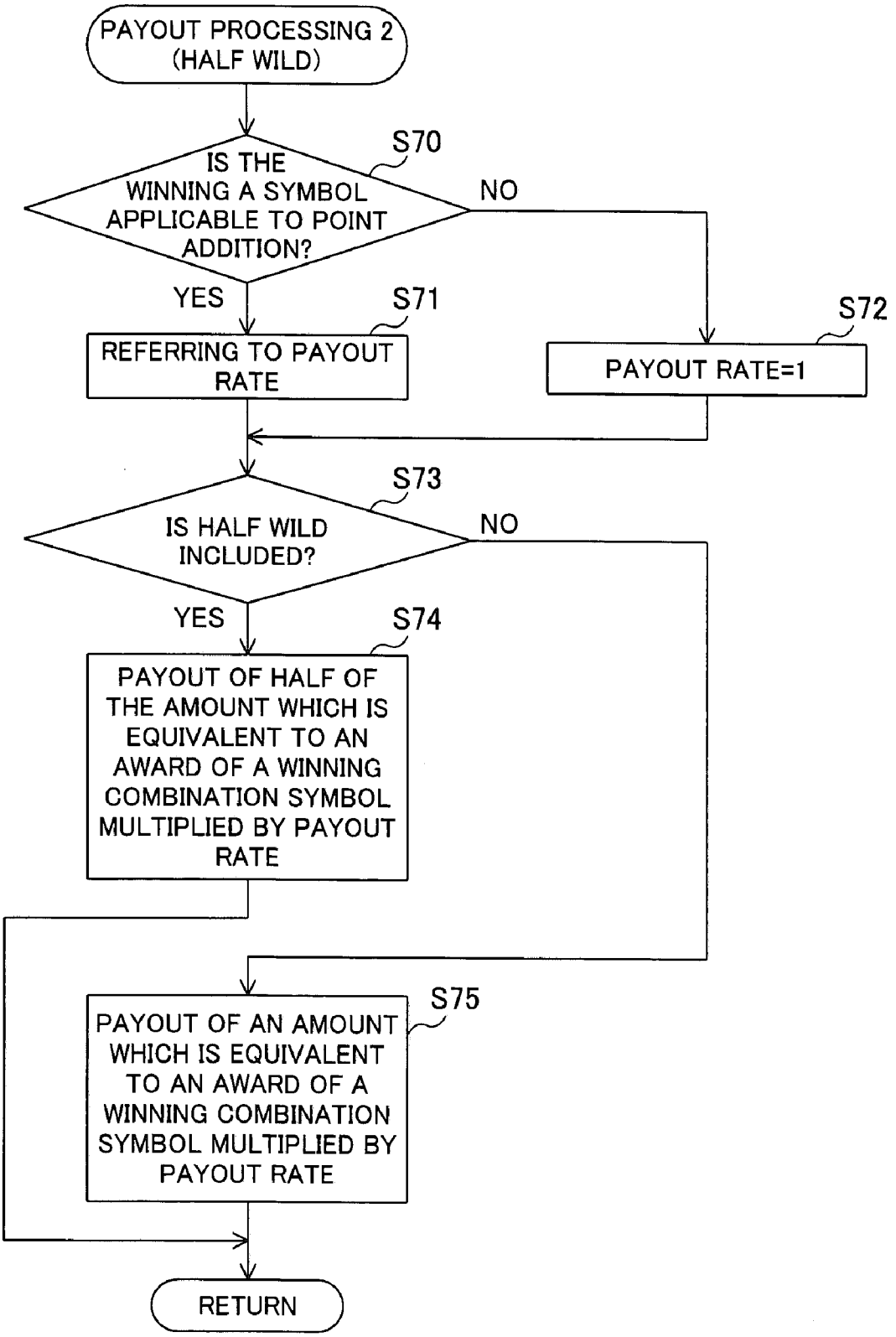

PAYOUT PROCESSING 2 (HALF WILD)
S70
IS THE WINNING A SYMBOL APPLICABLE TO POINT ADDITION?
NO
YES
S71
REFERRING TO PAYOUT RATE
S72
PAYOUT RATE=1
S73
IS HALF WILD INCLUDED?
NO
YES
S74
PAYOUT OF HALF OF THE AMOUNT WHICH IS EQUIVALENT TO AN AWARD OF A WINNING COMBINATION SYMBOL MULTIPLIED BY PAYOUT RATE
S75
PAYOUT OF AN AMOUNT WHICH IS EQUIVALENT TO AN AWARD OF A WINNING COMBINATION SYMBOL MULTIPLIED BY PAYOUT RATE
RETURN

FIG. 18
(TRIGGER RENDERED EFFECT 3)

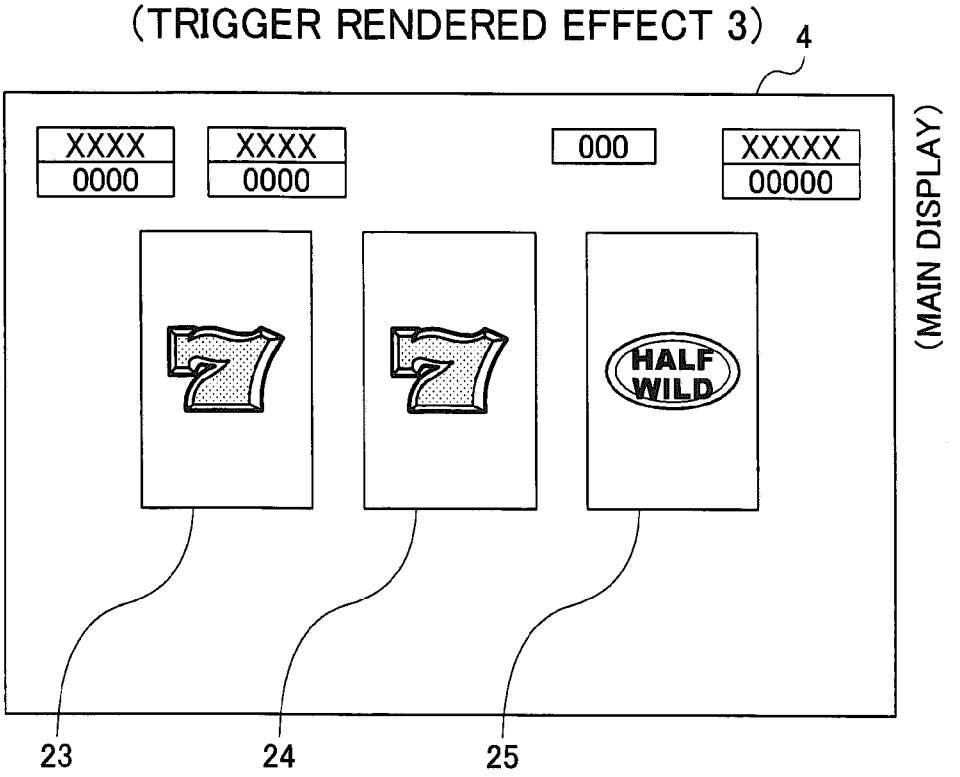


FIG. 19
(WIN RENDERED EFFECT 2)

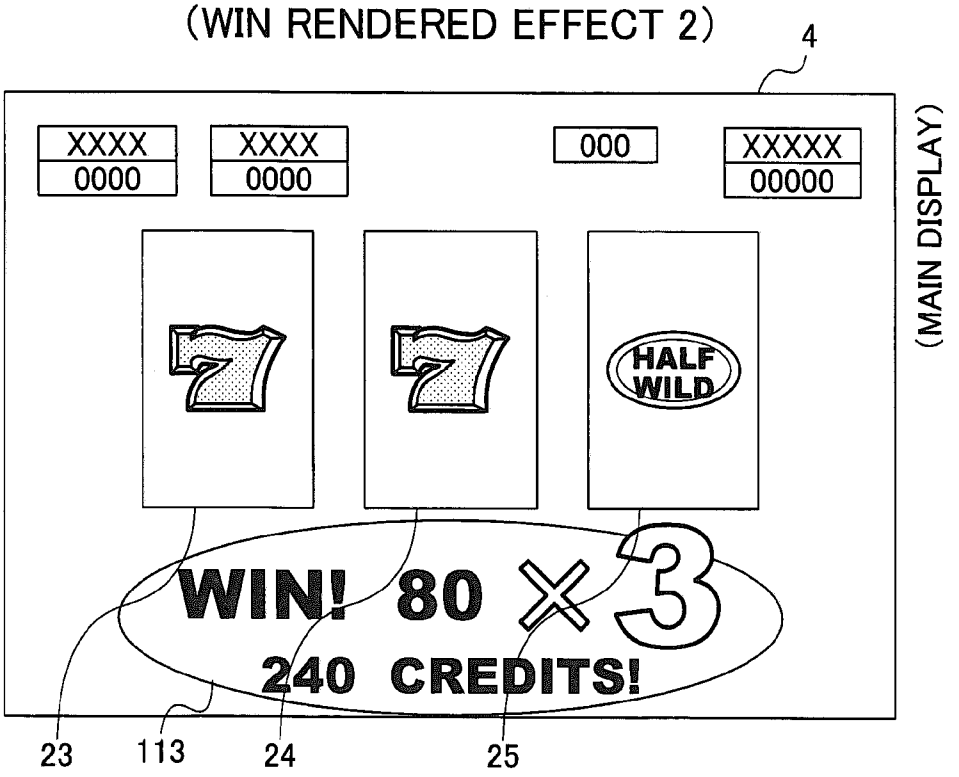


FIG. 20

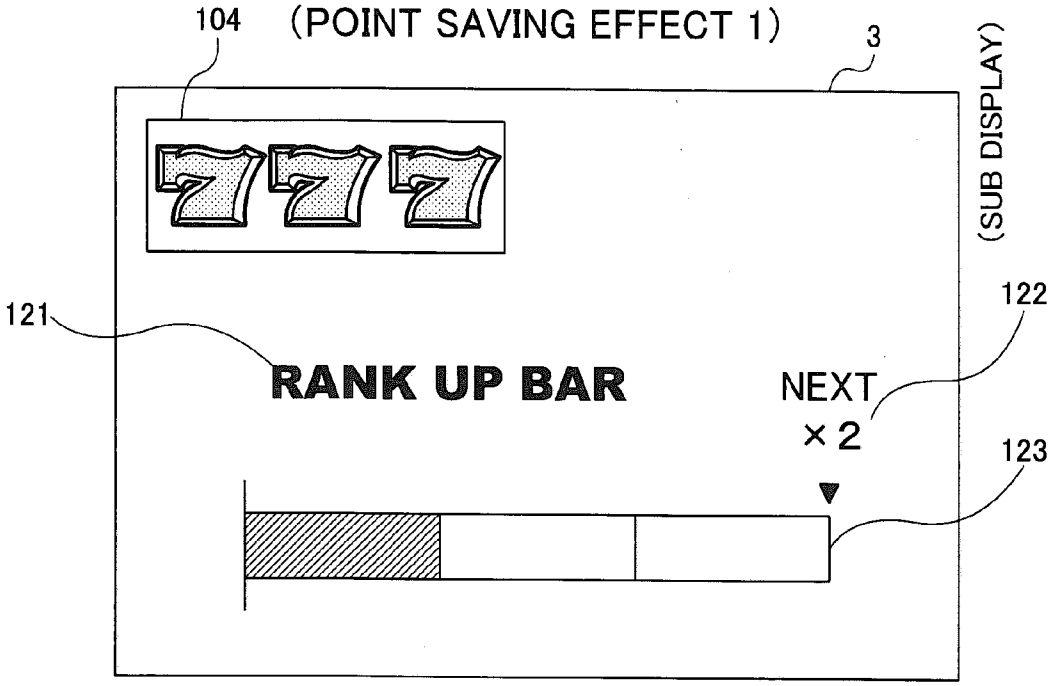

104
(POINT SAVING EFFECT 1)
3
(SUB DISPLAY)
121
RANK UP BAR
122
NEXT
×2
123

FIG. 21

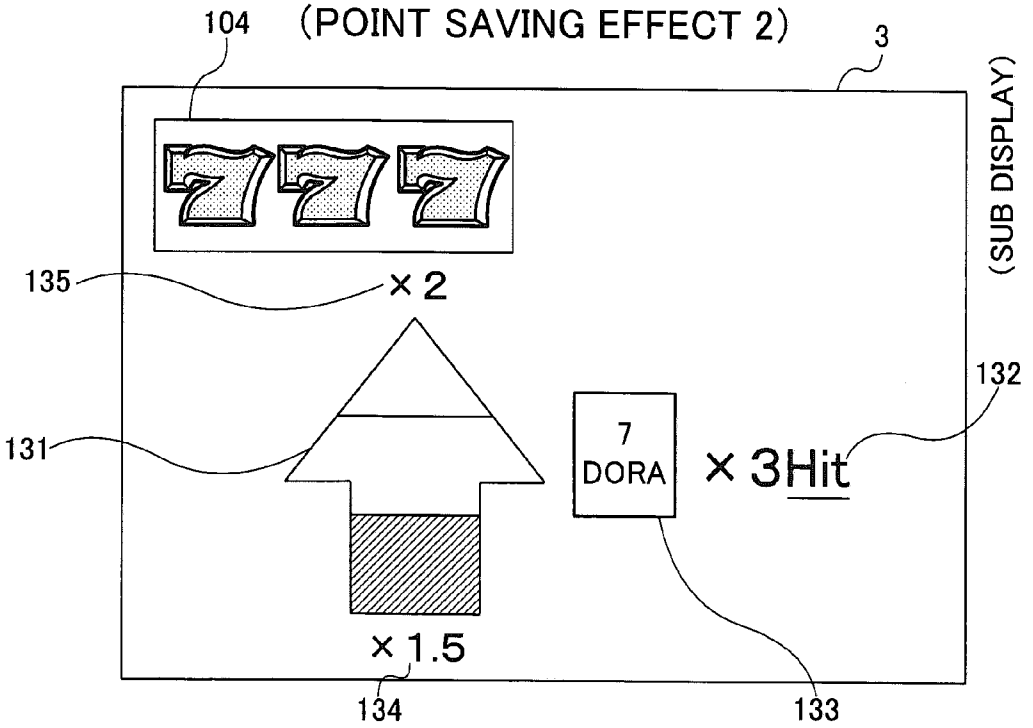

104
(POINT SAVING EFFECT 2)
3
(SUB DISPLAY)
135
×2
131
7
DORA
×3Hit
132
×1.5
134
133

FIG. 22

(POINT SAVING EFFECT 3)

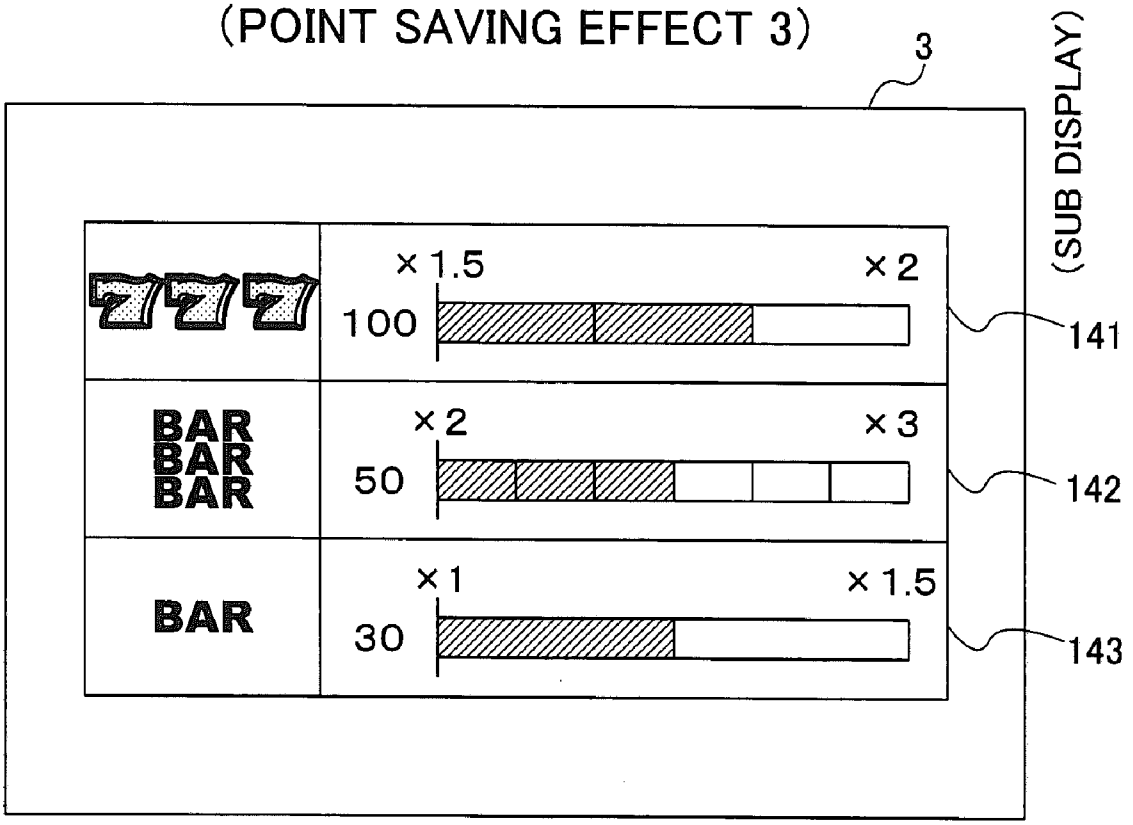


FIG. 23

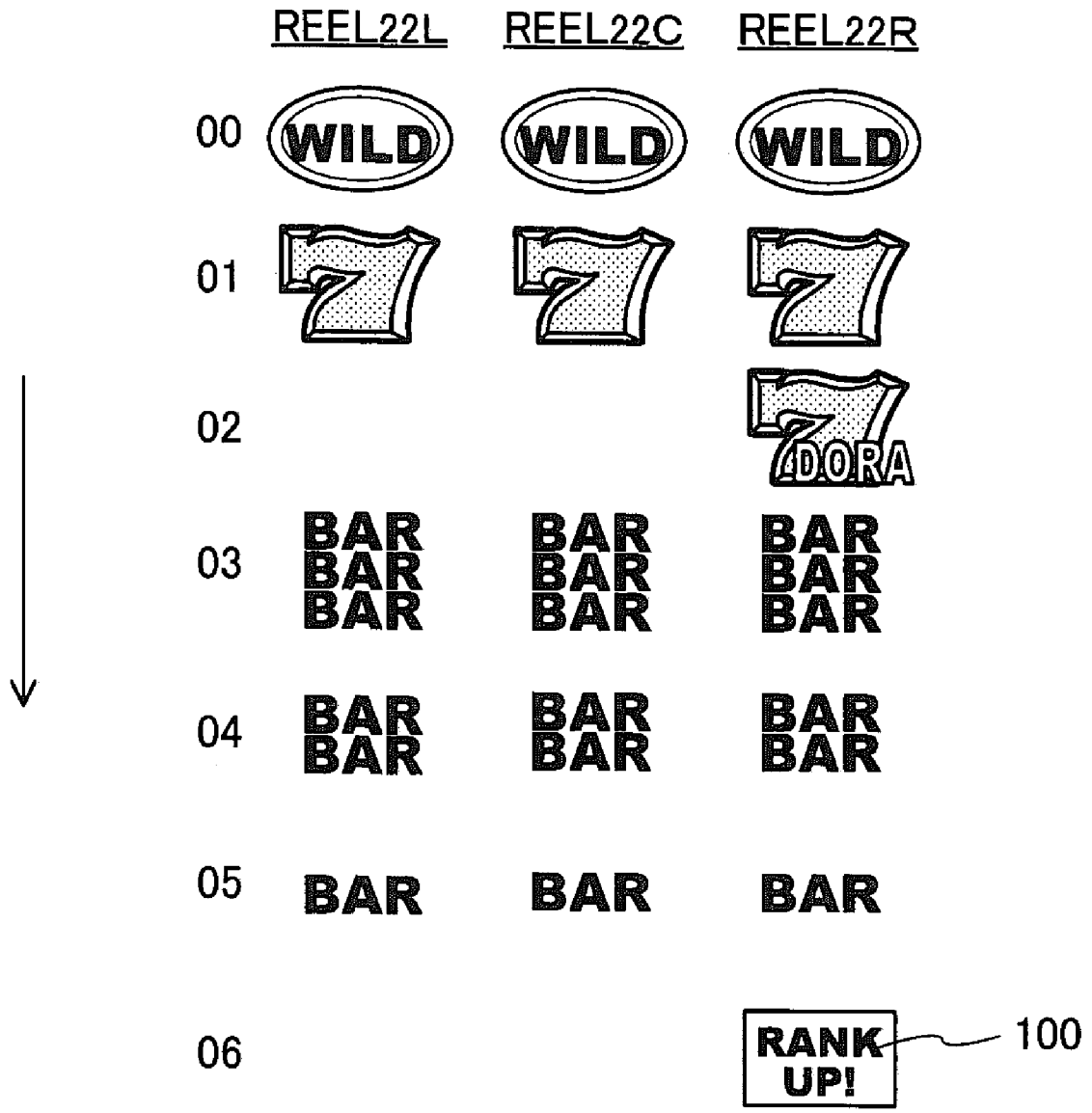

REEL22L
REEL22C
REEL22R
00
WILD
WILD
WILD
01
02
7DORA
03
BAR
BAR
BAR
04
BAR
BAR
05
BAR
06
RANK UP!
100

FIG. 24

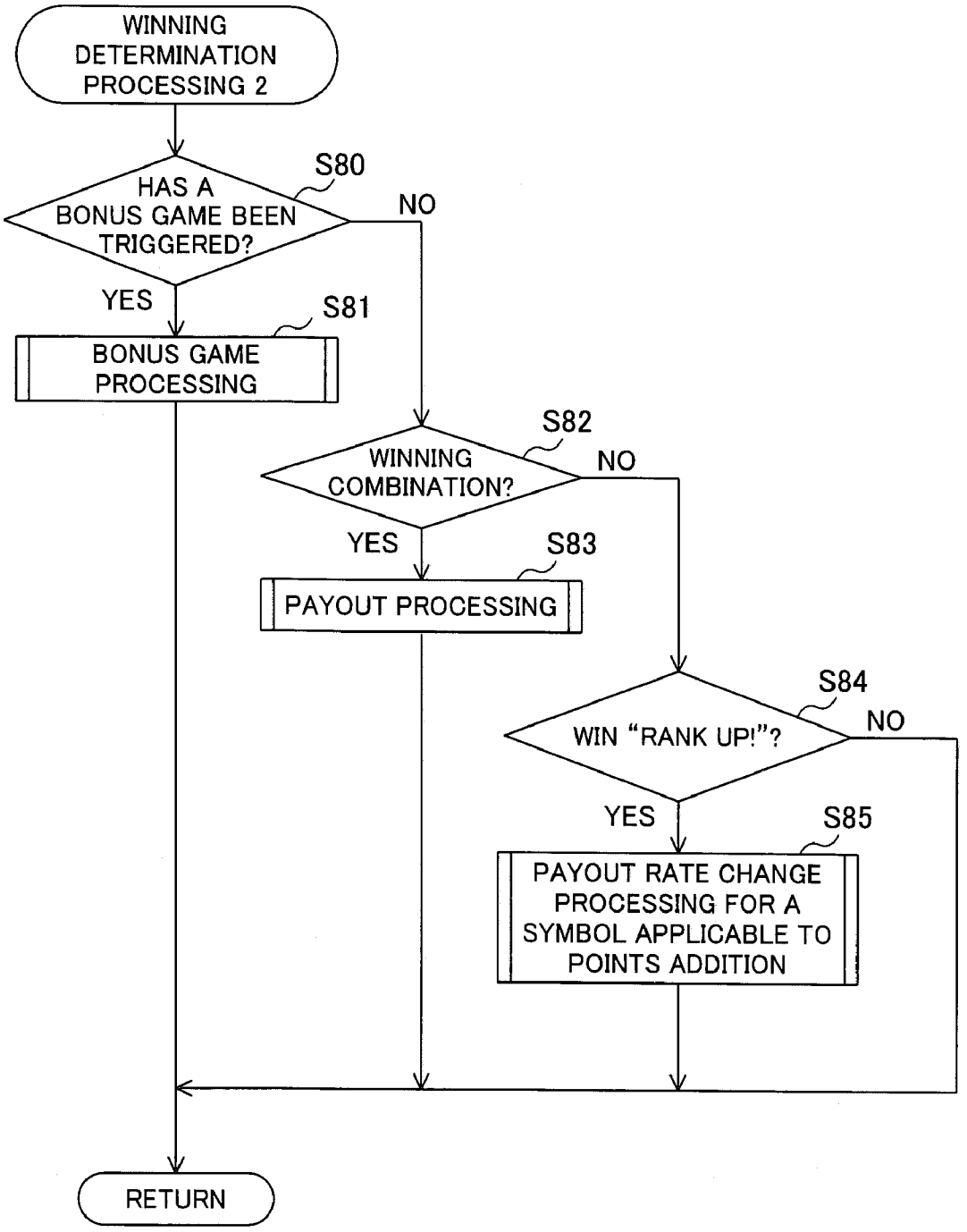

WINNING DETERMINATION PROCESSING 2
S80
HAS A BONUS GAME BEEN TRIGGERED?
NO
YES
S81
BONUS GAME PROCESSING
S82
WINNING COMBINATION?
NO
YES
S83
PAYOUT PROCESSING
S84
WIN "RANK UP!"?
NO
YES
S85
PAYOUT RATE CHANGE PROCESSING FOR A SYMBOL APPLICABLE TO POINTS ADDITION
RETURN

FIG. 25

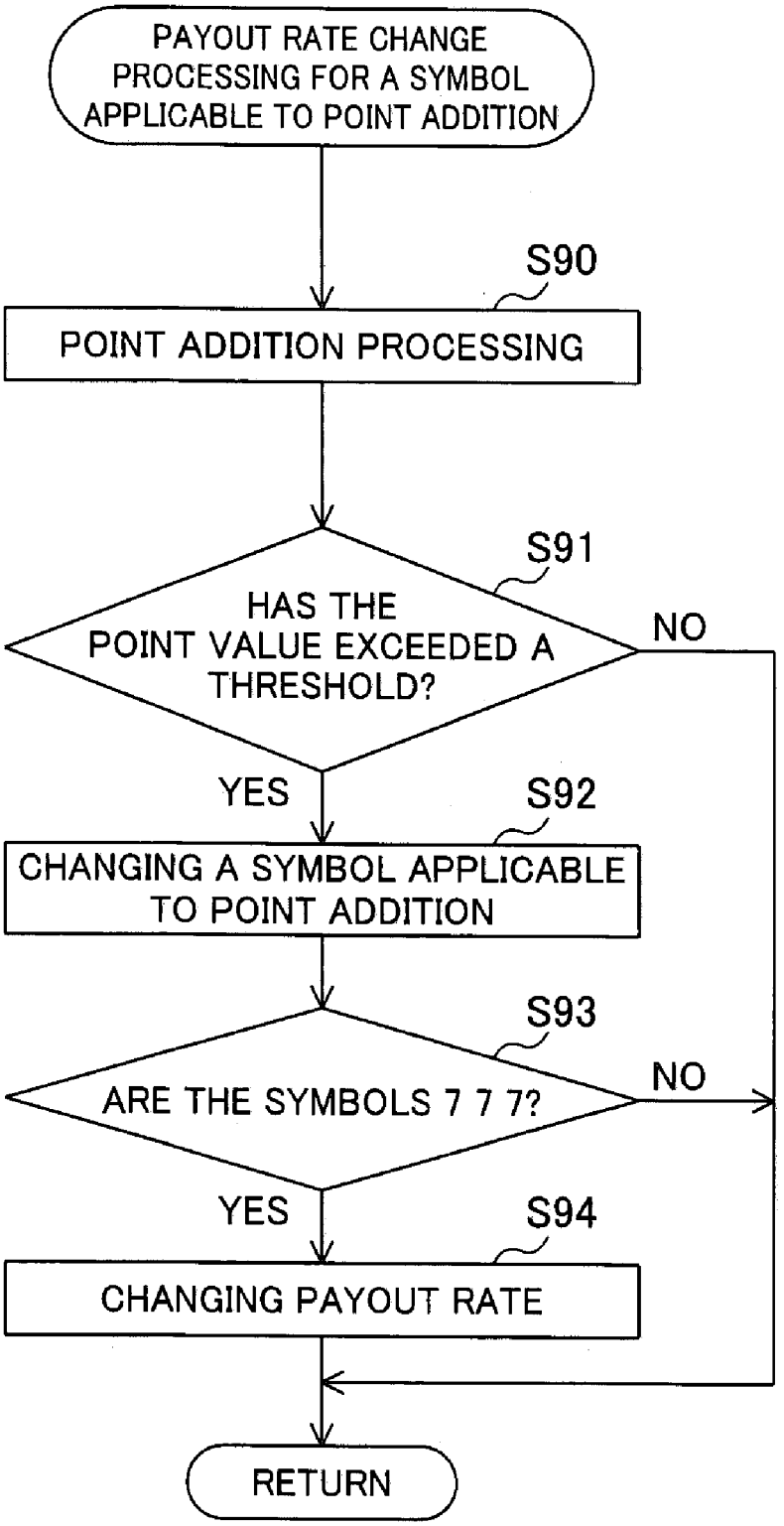

PAYOUT RATE CHANGE PROCESSING FOR A SYMBOL APPLICABLE TO POINT ADDITION
S90
POINT ADDITION PROCESSING
S91
HAS THE POINT VALUE EXCEEDED A THRESHOLD?
NO
YES
S92
CHANGING A SYMBOL APPLICABLE TO POINT ADDITION
S93
ARE THE SYMBOLS 7 7 7?
NO
YES
S94
CHANGING PAYOUT RATE
RETURN

FIG. 26A

(RANK UP EFFECT 1)

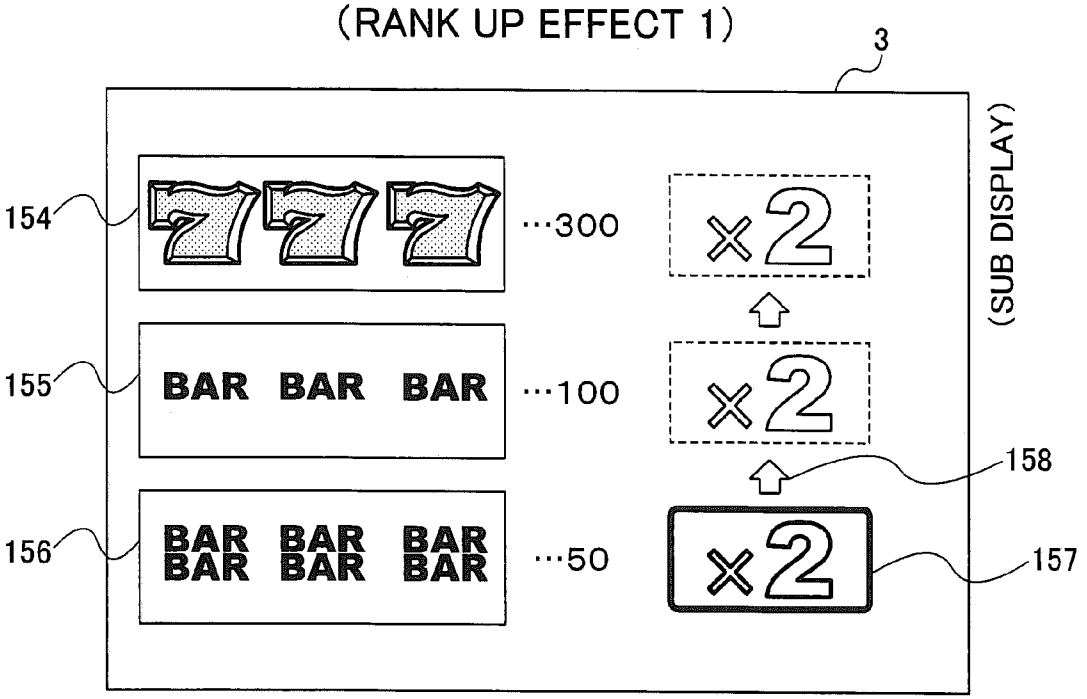


FIG. 26B

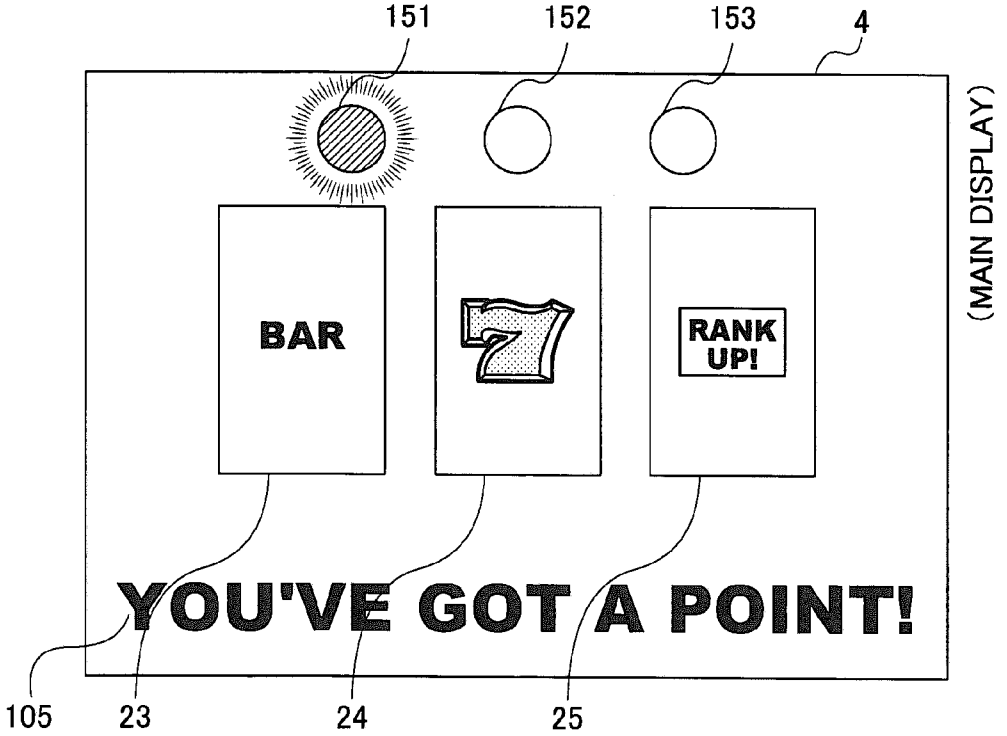


FIG. 27A

(RANK UP EFFECT 2-1)

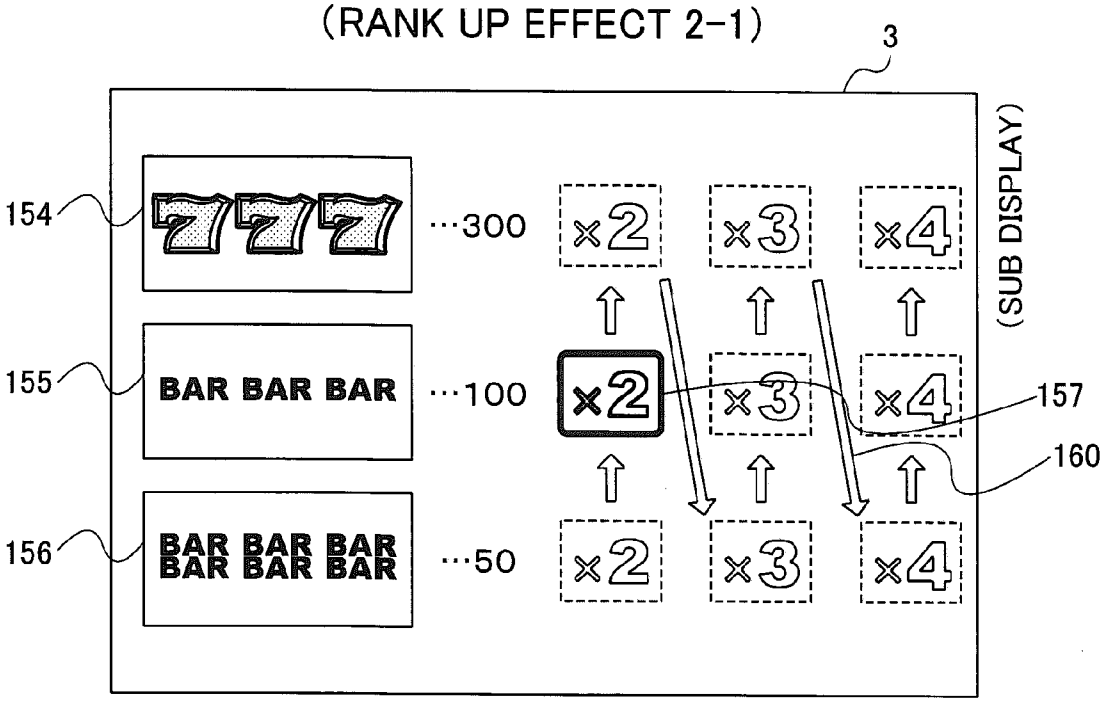


FIG. 27B

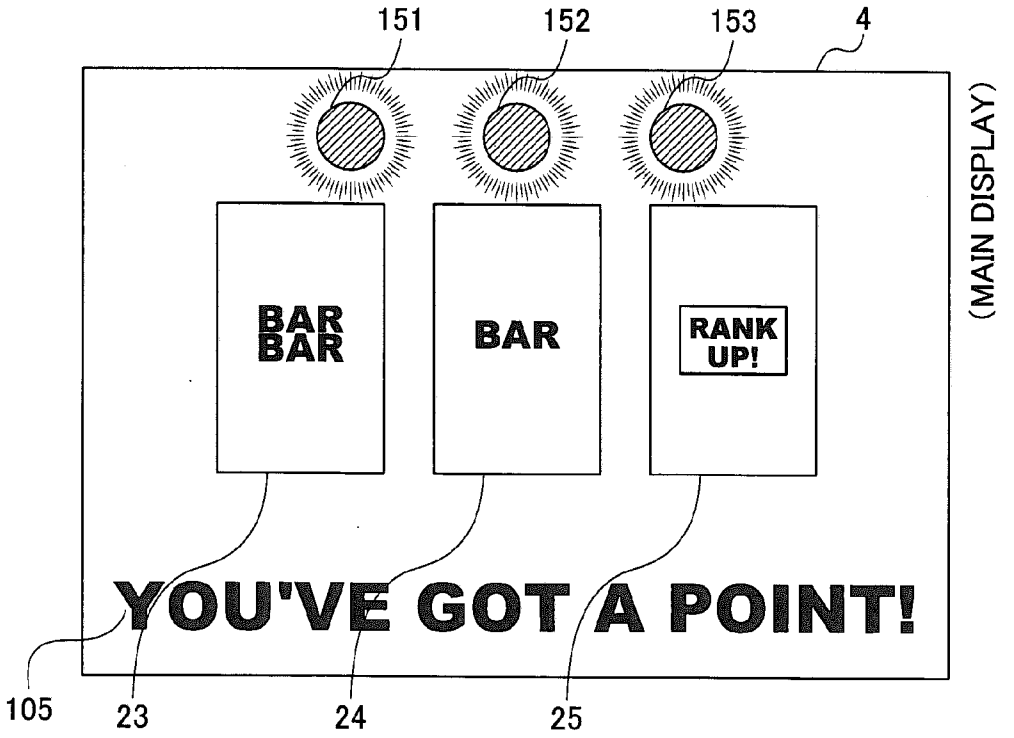


FIG. 28A

(RANK UP EFFECT 2-2)

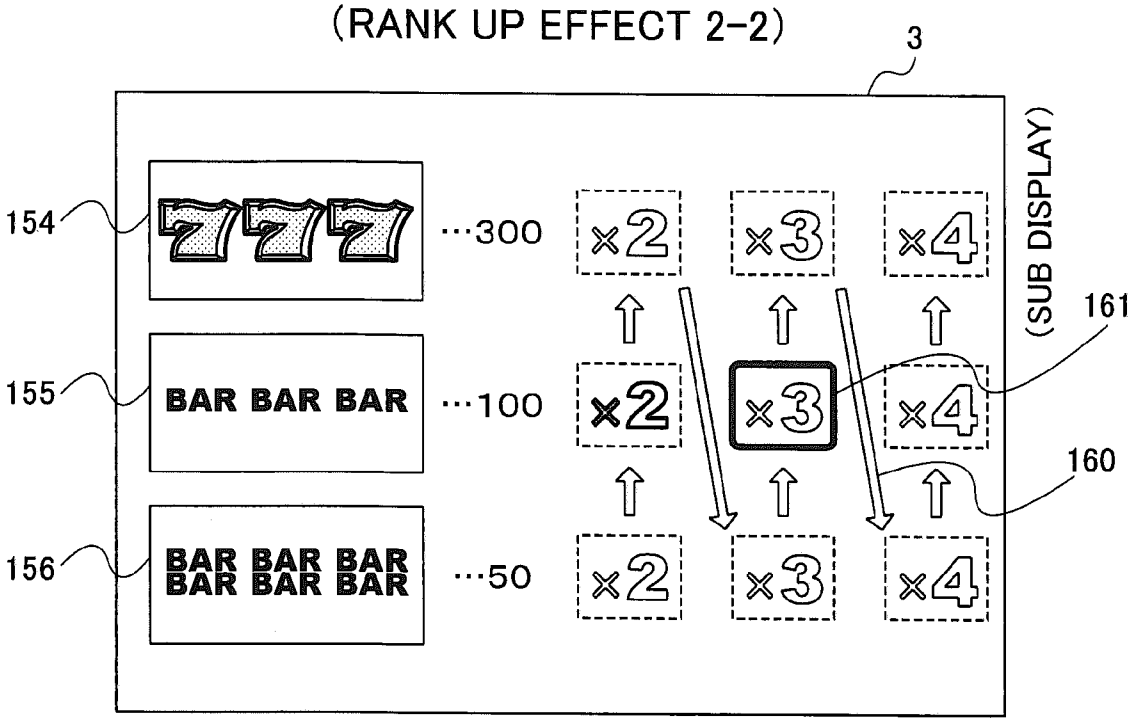


FIG. 28B

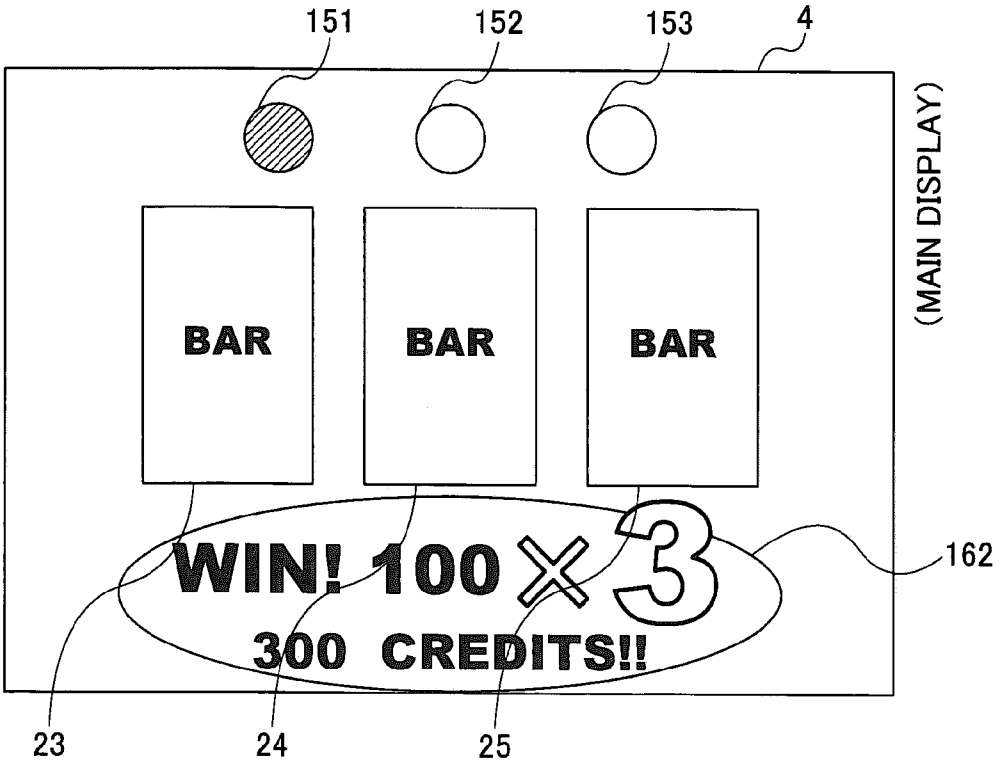


FIG. 29A

(WHEEL EFFECT 1-1)

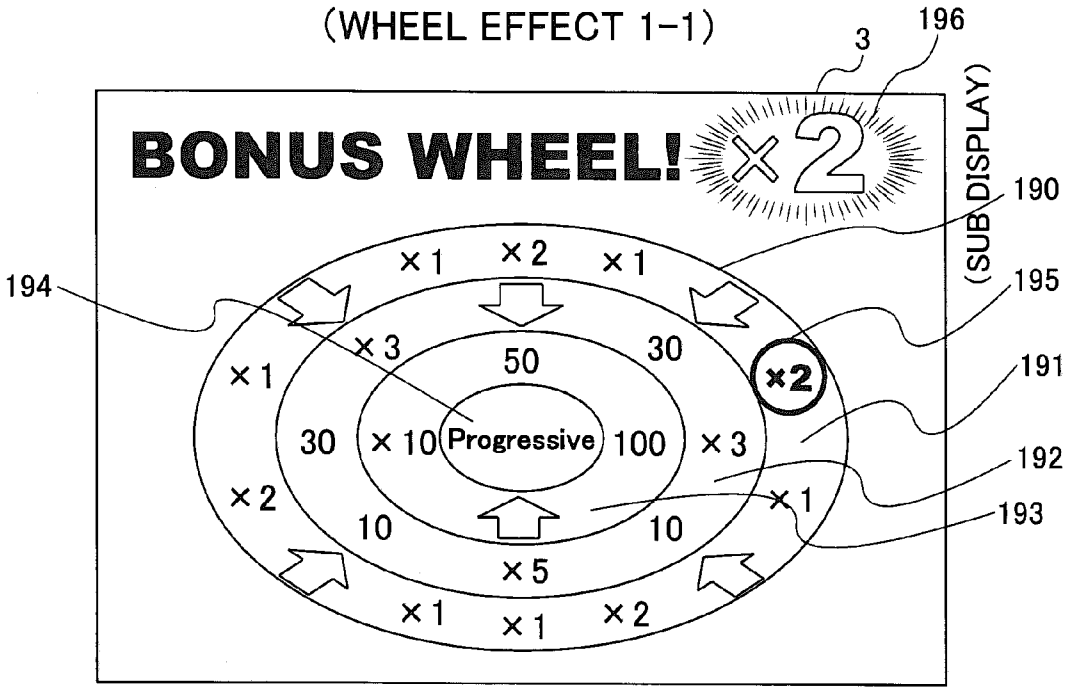


FIG. 29B

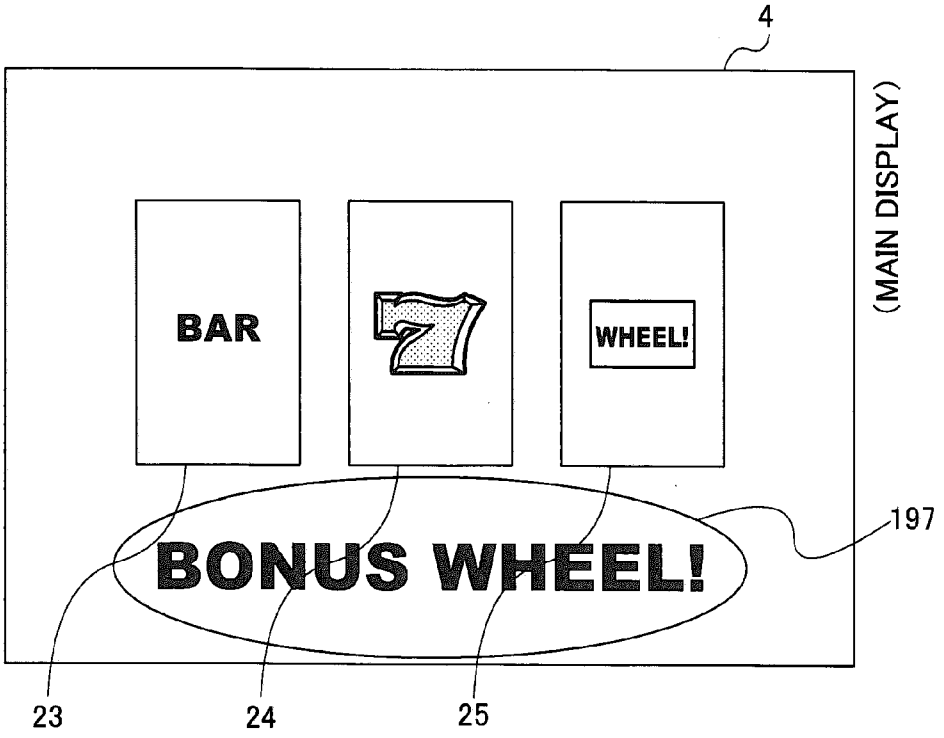


FIG. 30A

(WHEEL EFFECT 1-2)

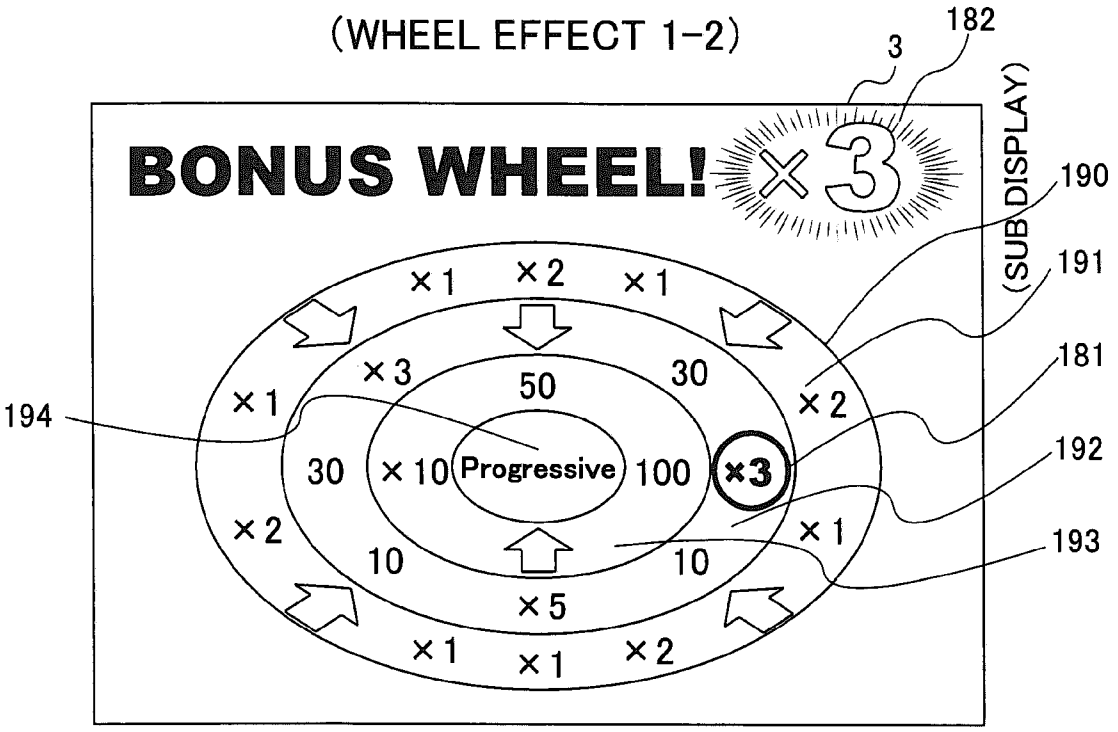


FIG. 30B

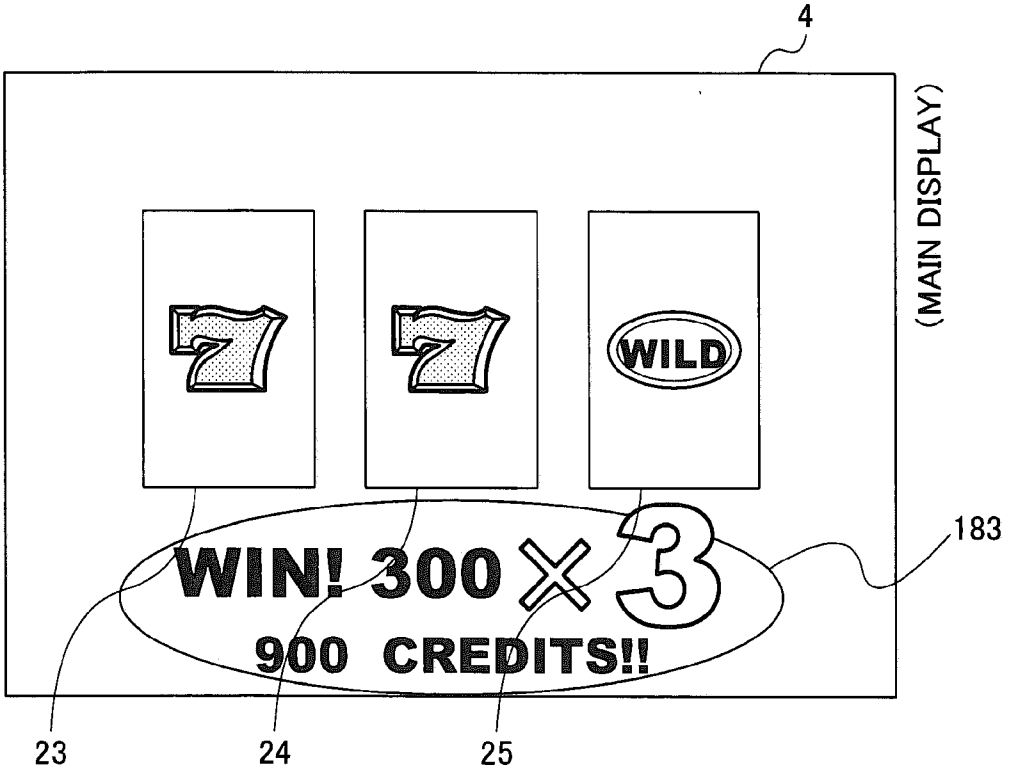


FIG. 31A

(WHEEL EFFECT 2)

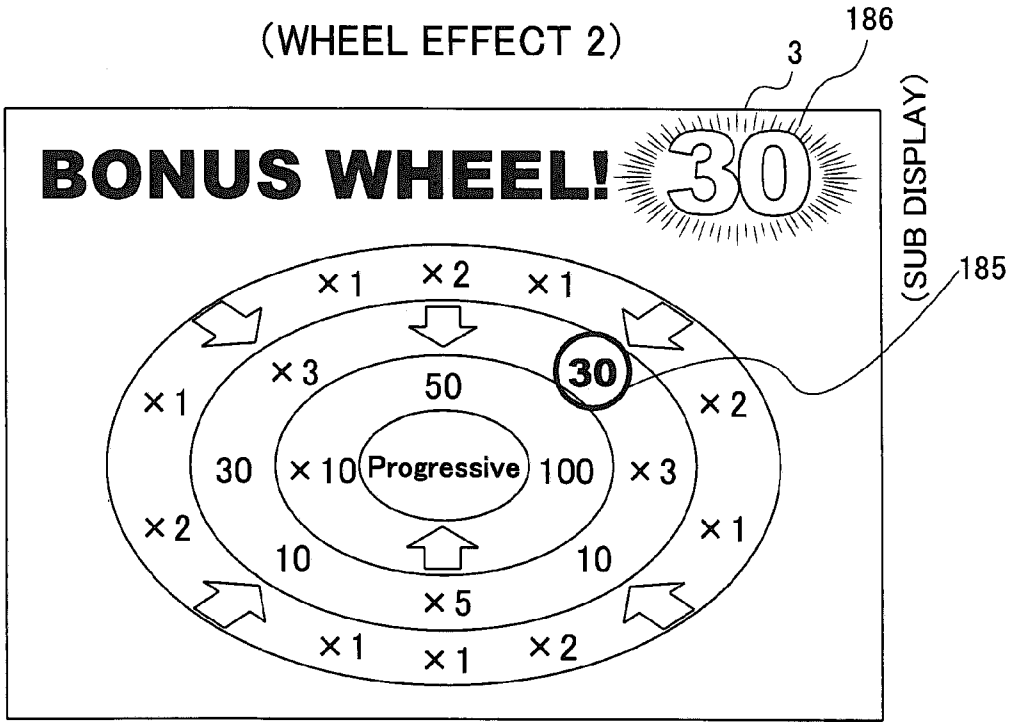


FIG. 31B

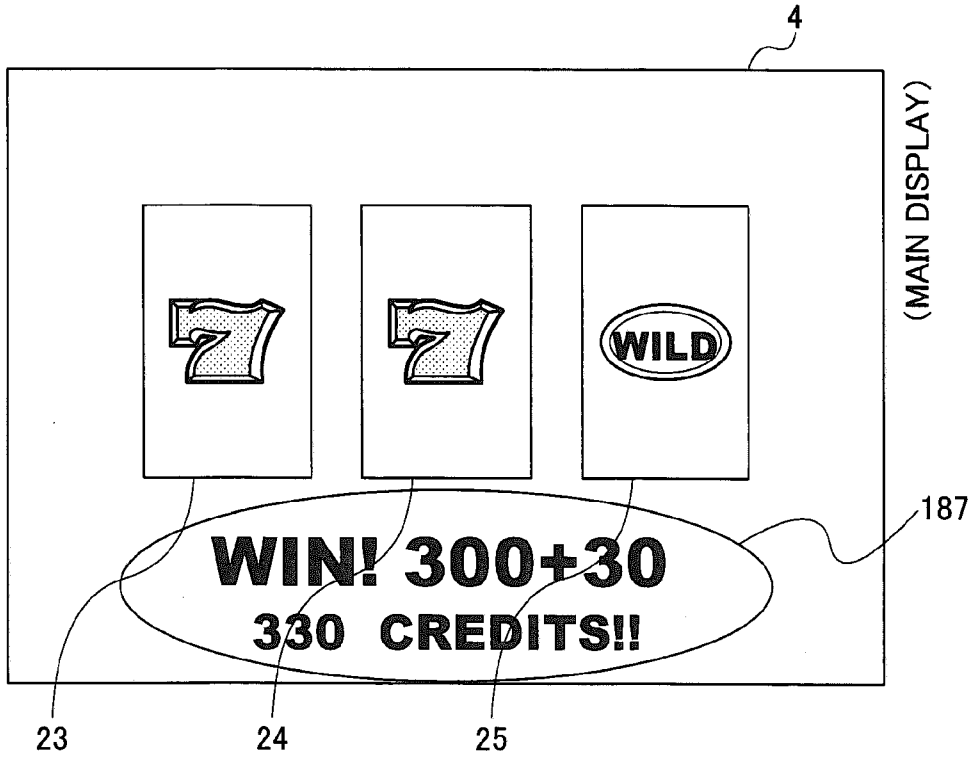


FIG. 32

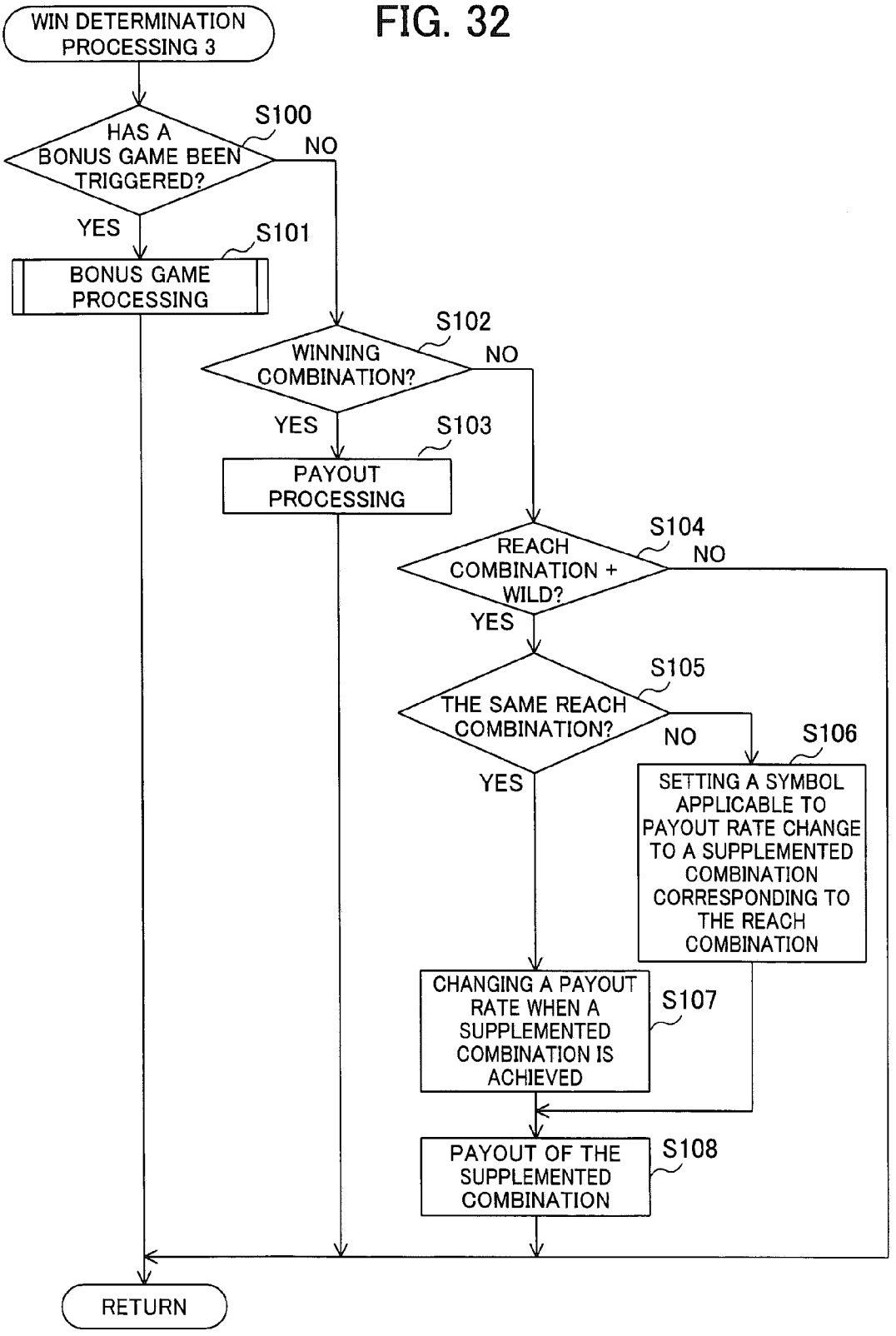

WIN DETERMINATION PROCESSING 3
S100
HAS A BONUS GAME BEEN TRIGGERED?
NO
YES
S101
BONUS GAME PROCESSING
S102
WINNING COMBINATION?
NO
YES
S103
PAYOUT PROCESSING
S104
REACH COMBINATION + WILD?
NO
YES
S105
THE SAME REACH COMBINATION?
NO
YES
S106
SETTING A SYMBOL APPLICABLE TO PAYOUT RATE CHANGE TO A SUPPLEMENTED COMBINATION CORRESPONDING TO THE REACH COMBINATION
CHANGING A PAYOUT RATE WHEN A SUPPLEMENTED COMBINATION IS ACHIEVED
S107
PAYOUT OF THE SUPPLEMENTED COMBINATION
S108
RETURN

FIG. 33

(WILD EFFECT)

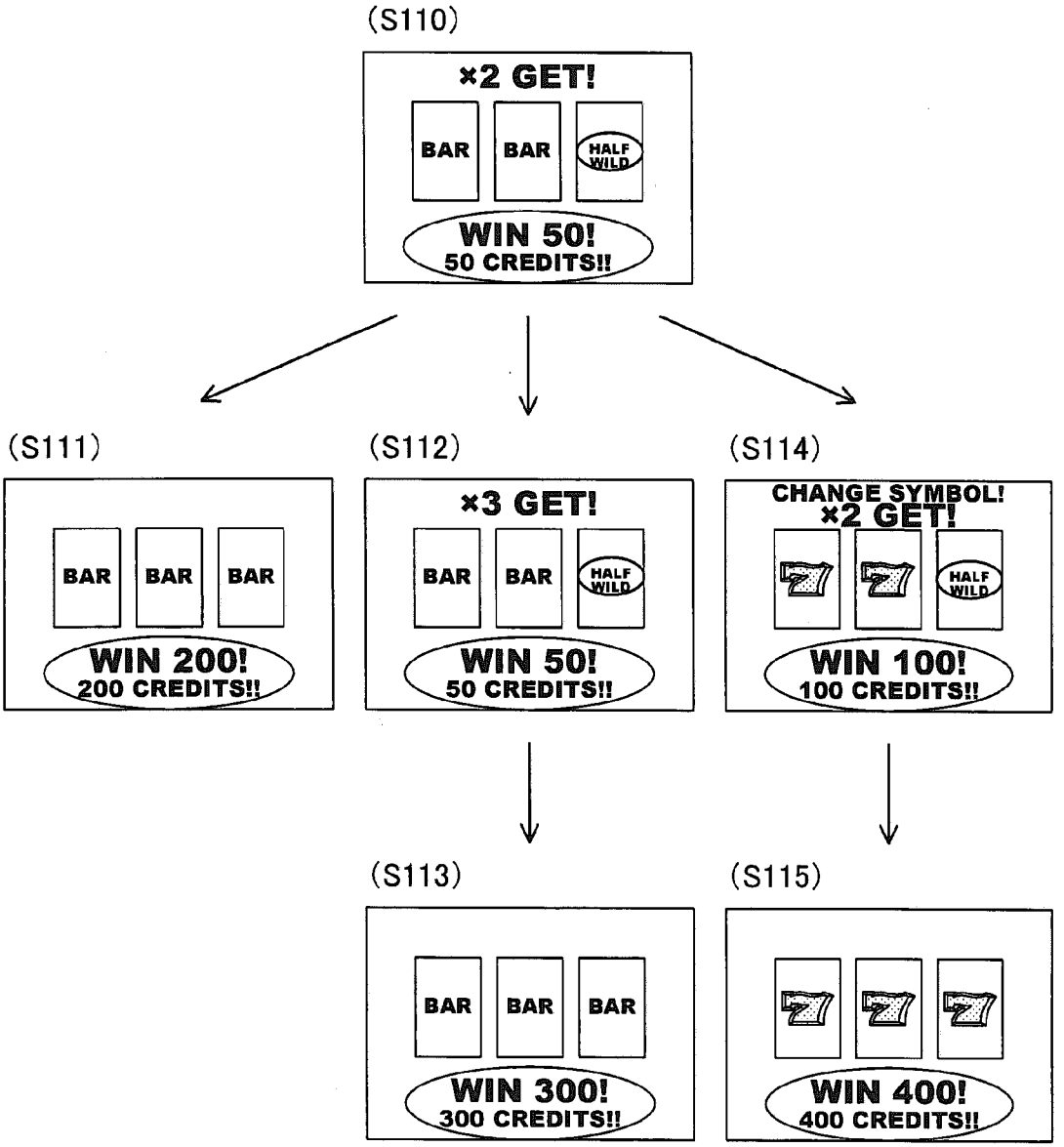


FIG. 34

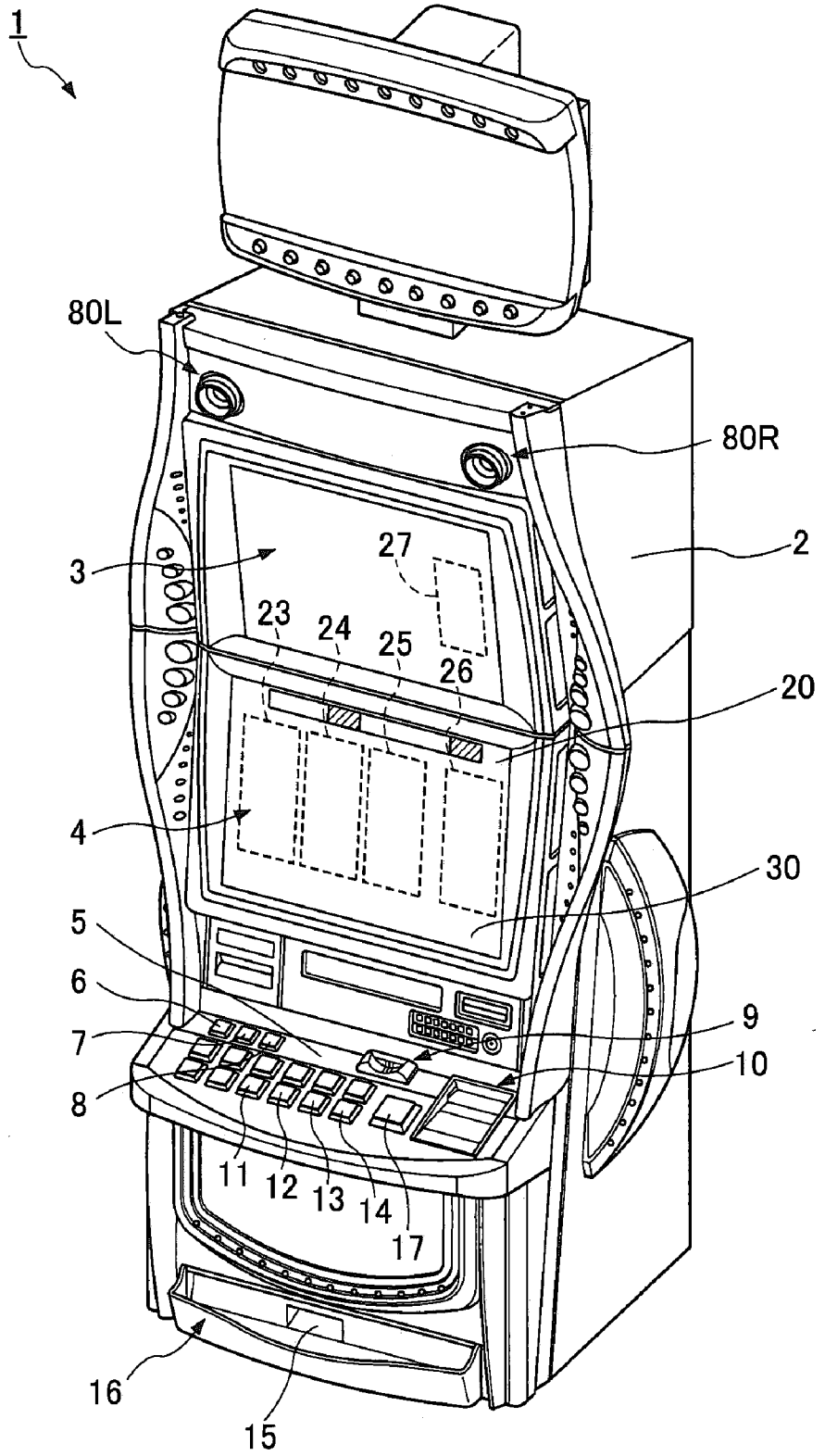


FIG. 35

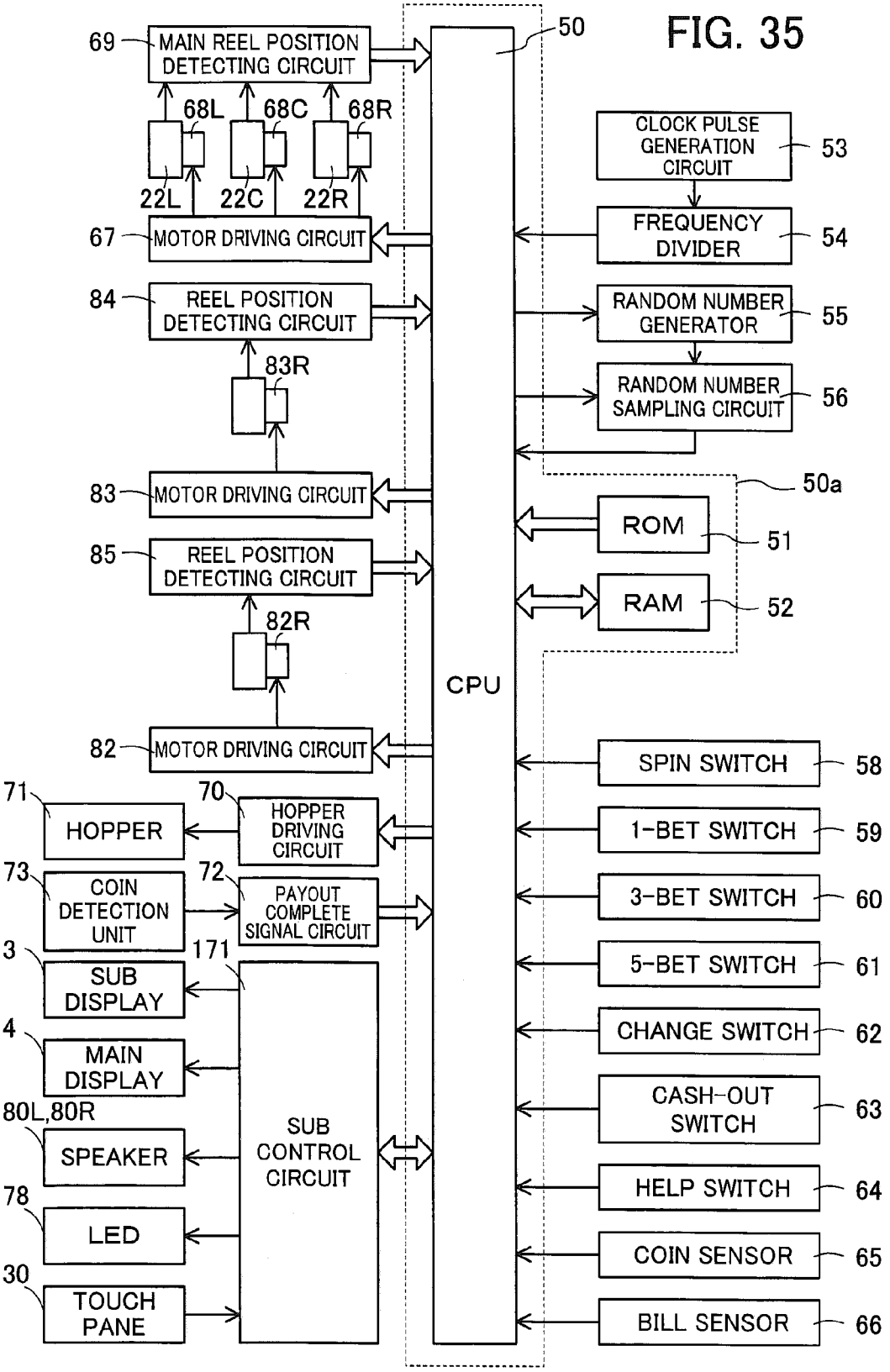

69
MAIN REEL POSITION DETECTING CIRCUIT
50
68L
68C
68R
22L
22C
22R
67
MOTOR DRIVING CIRCUIT
84
REEL POSITION DETECTING CIRCUIT
83R
83
MOTOR DRIVING CIRCUIT
85
REEL POSITION DETECTING CIRCUIT
82R
82
MOTOR DRIVING CIRCUIT
CPU
CLOCK PULSE GENERATION CIRCUIT
53
FREQUENCY DIVIDER
54
RANDOM NUMBER GENERATOR
55
RANDOM NUMBER SAMPLING CIRCUIT
56
50a
ROM
51
RAM
52
SPIN SWITCH
58
1-BET SWITCH
59
3-BET SWITCH
60
5-BET SWITCH
61
CHANGE SWITCH
62
CASH-OUT SWITCH
63
HELP SWITCH
64
COIN SENSOR
65
BILL SENSOR
66
71
HOPPER
70
HOPPER DRIVING CIRCUIT
73
COIN DETECTION UNIT
72
PAYOUT COMPLETE SIGNAL CIRCUIT
3
SUB DISPLAY
171
4
MAIN DISPLAY
80L,80R
SPEAKER
SUB CONTROL CIRCUIT
78
LED
30
TOUCH PANE

FIG. 36

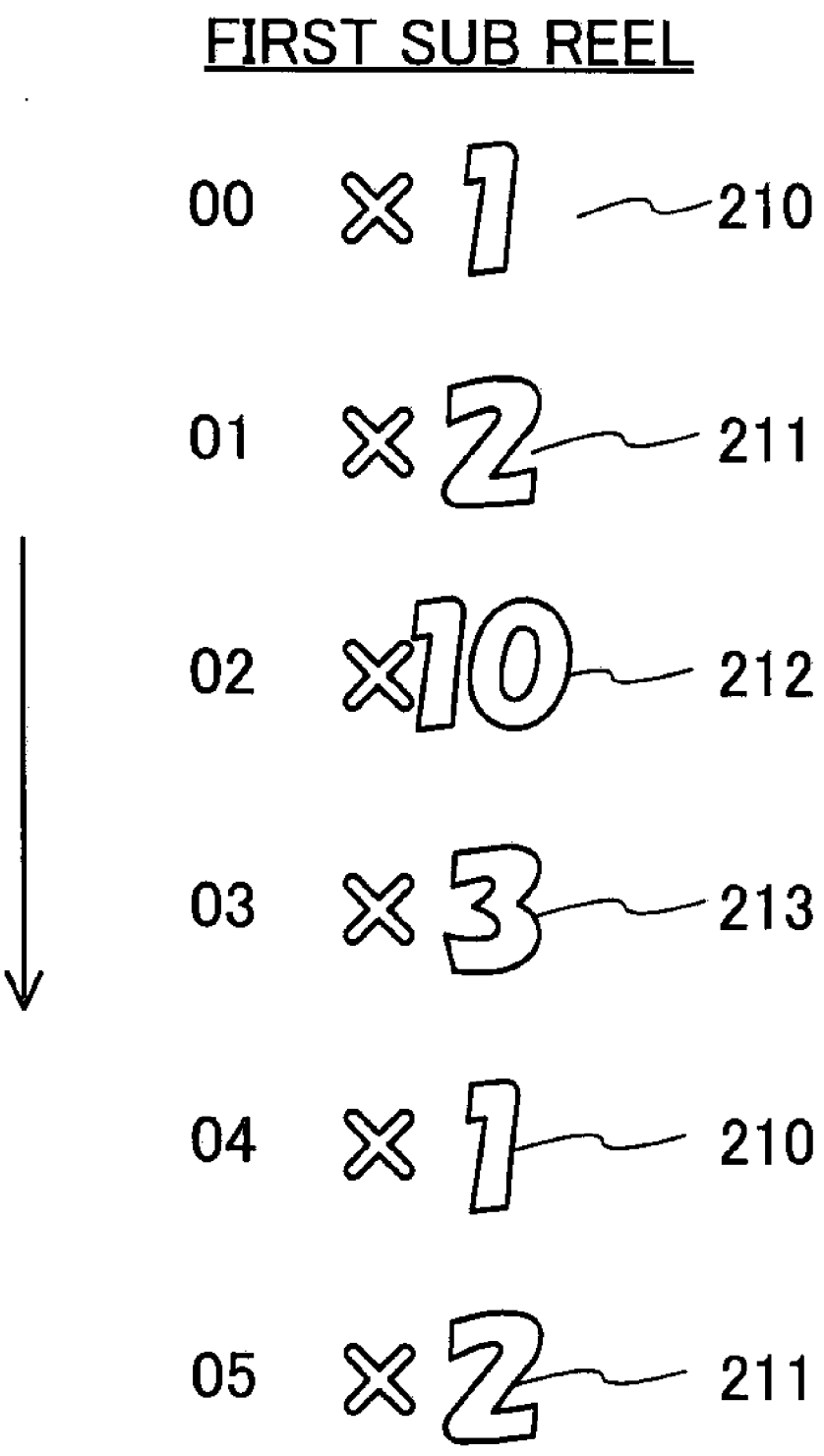


FIG. 37

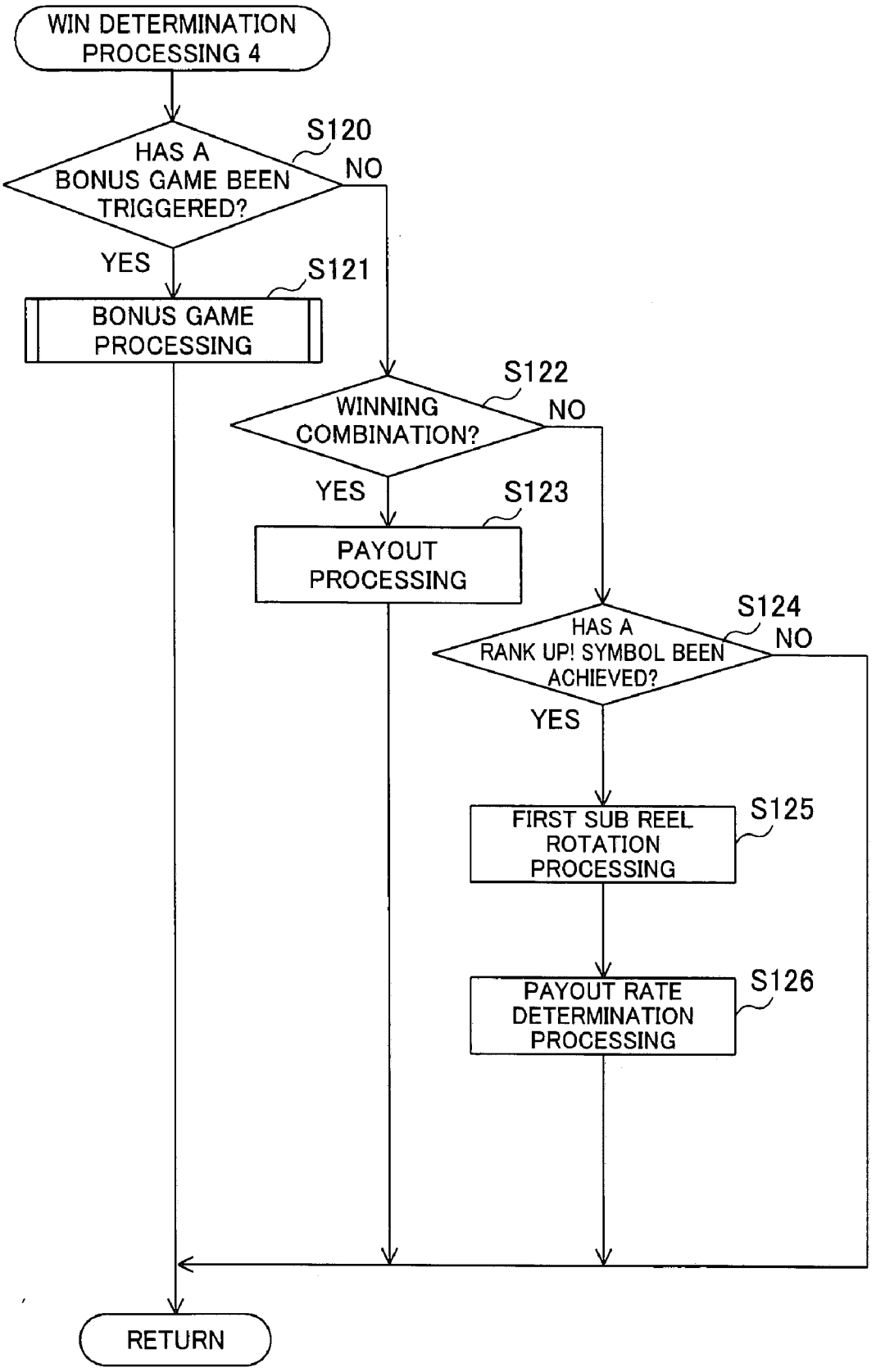

WIN DETERMINATION PROCESSING 4
S120
HAS A BONUS GAME BEEN TRIGGERED?
NO
YES
S121
BONUS GAME PROCESSING
S122
WINNING COMBINATION?
NO
YES
S123
PAYOUT PROCESSING
S124
HAS A RANK UP! SYMBOL BEEN ACHIEVED?
NO
YES
S125
FIRST SUB REEL ROTATION PROCESSING
S126
PAYOUT RATE DETERMINATION PROCESSING
RETURN

FIG. 38

(FIRST SUB REEL EFFECT 1)

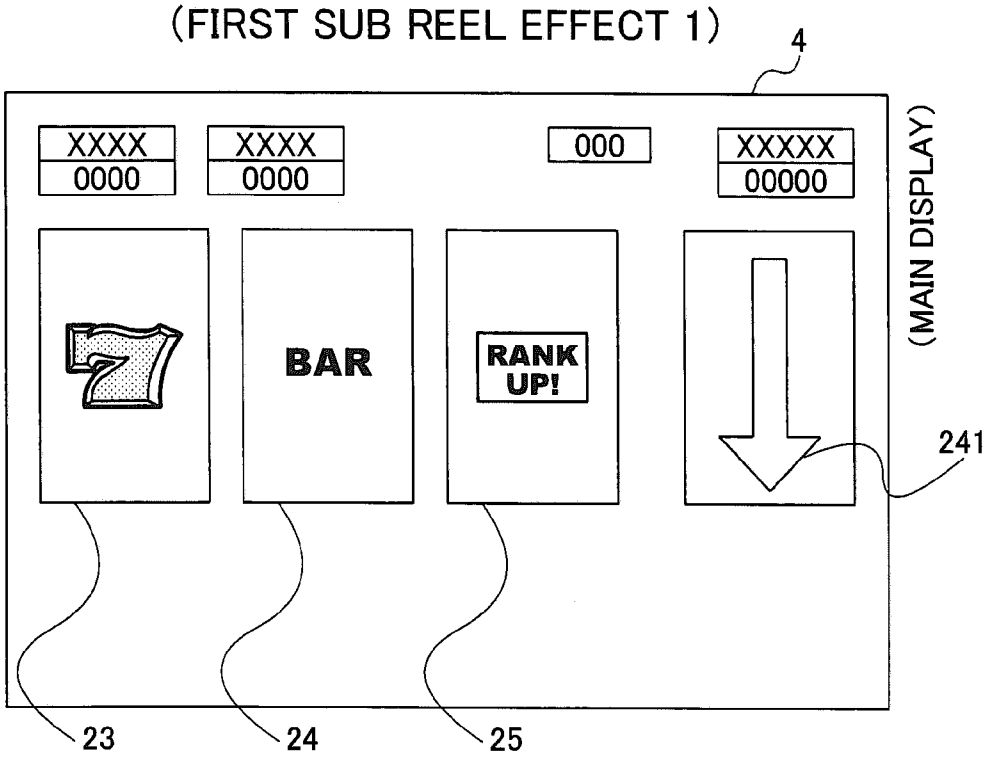


FIG. 39

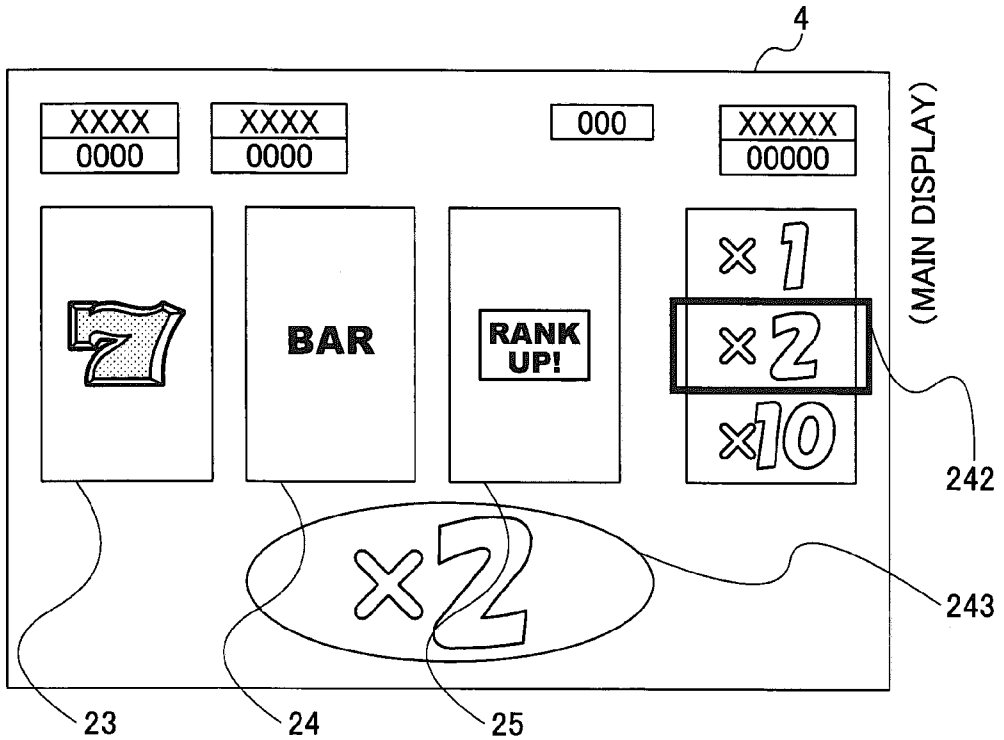


FIG. 40

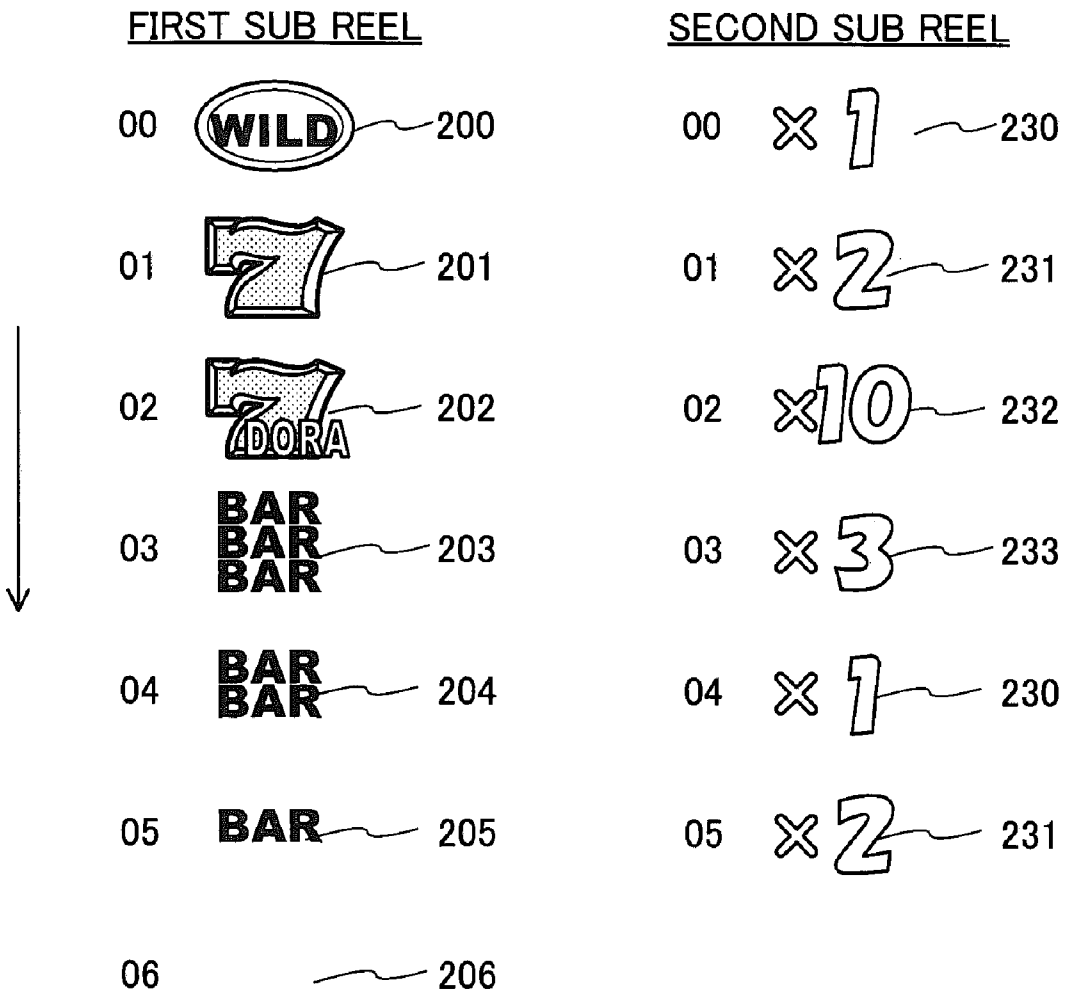

FIRST SUB REEL
SECOND SUB REEL
00
WILD
200
00
×1
230
01
201
01
×2
231
02
DORA
202
02
×10
232
03
BAR
BAR
BAR
203
03
×3
233
04
BAR
BAR
204
04
×1
230
05
BAR
205
05
×2
231
06
206

FIG. 41

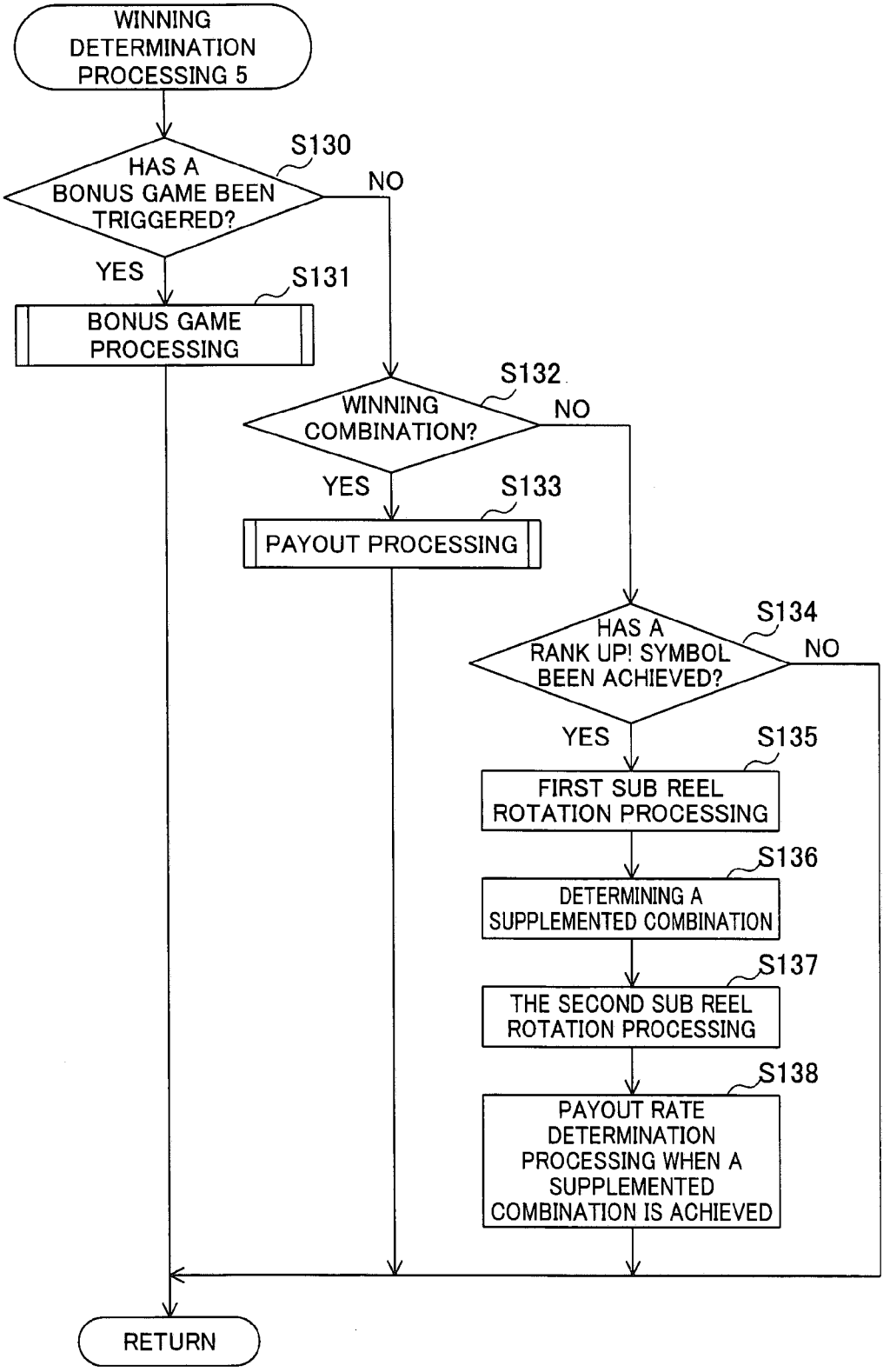

WINNING DETERMINATION PROCESSING 5
S130
HAS A BONUS GAME BEEN TRIGGERED?
NO
YES
S131
BONUS GAME PROCESSING
S132
WINNING COMBINATION?
NO
YES
S133
PAYOUT PROCESSING
S134
HAS A RANK UP! SYMBOL BEEN ACHIEVED?
NO
YES
S135
FIRST SUB REEL ROTATION PROCESSING
S136
DETERMINING A SUPPLEMENTED COMBINATION
S137
THE SECOND SUB REEL ROTATION PROCESSING
S138
PAYOUT RATE DETERMINATION PROCESSING WHEN A SUPPLEMENTED COMBINATION IS ACHIEVED
RETURN

FIG. 42

(FIRST AND SECOND SUB REEL EFFECT 1-1)

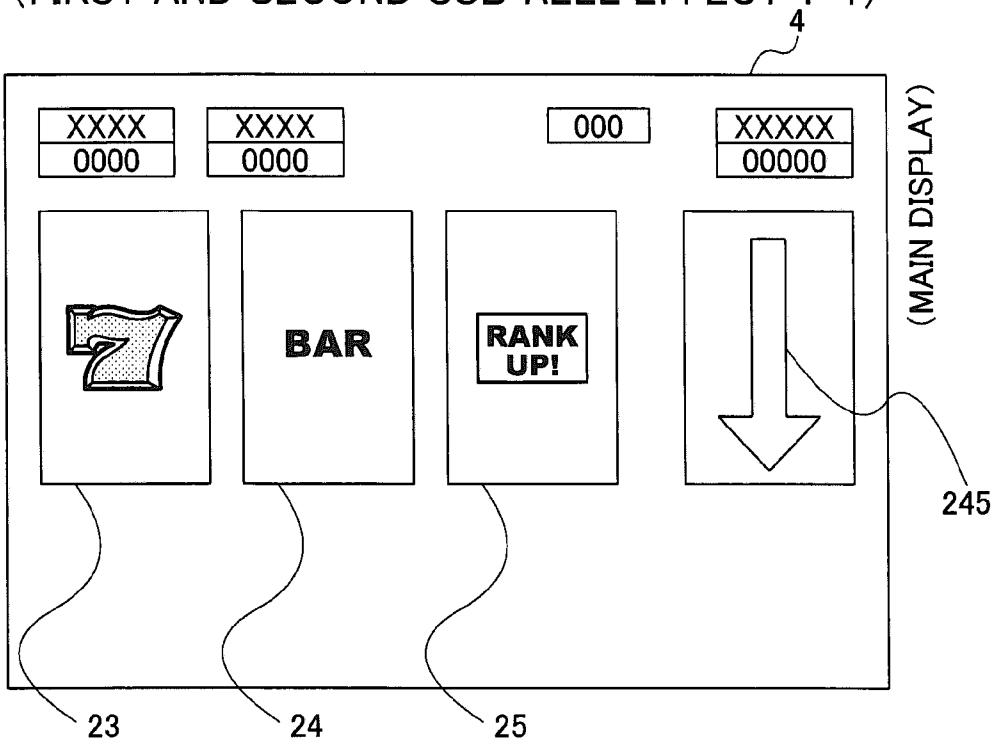


FIG. 43

(FIRST AND SECOND SUB REEL EFFECT 1-2)

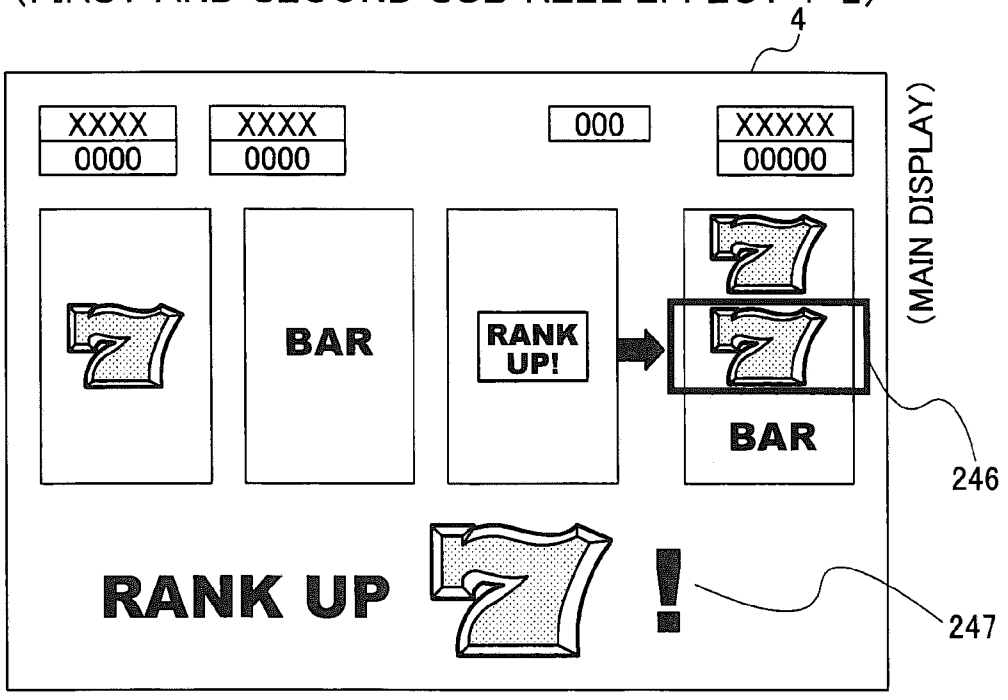


FIG. 44

(FIRST AND SECOND SUB REEL EFFECT 1-3)

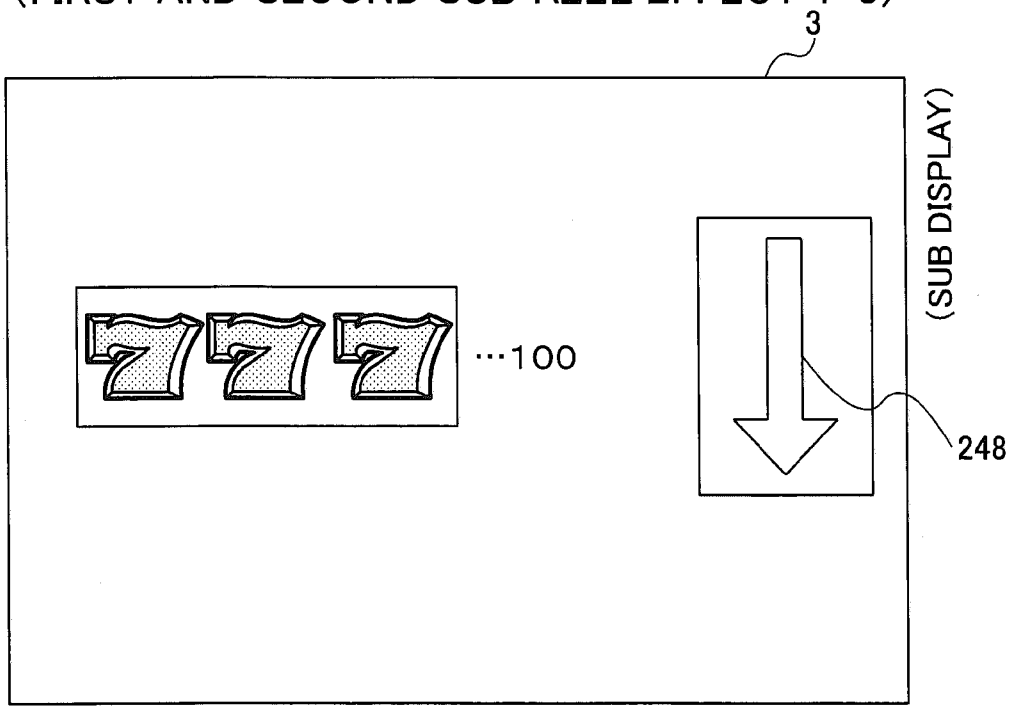


FIG. 45

(FIRST AND SECOND SUB REEL EFFECT 1-4)

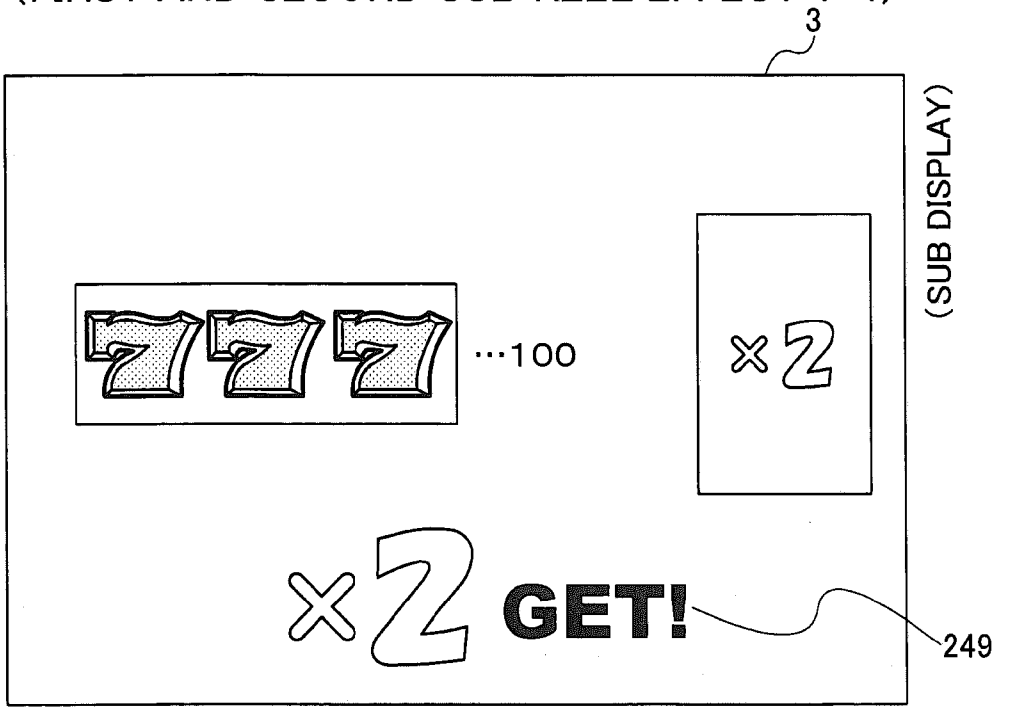


FIG. 46A

(FIRST AND SECOND SUB REEL EFFECT 2)

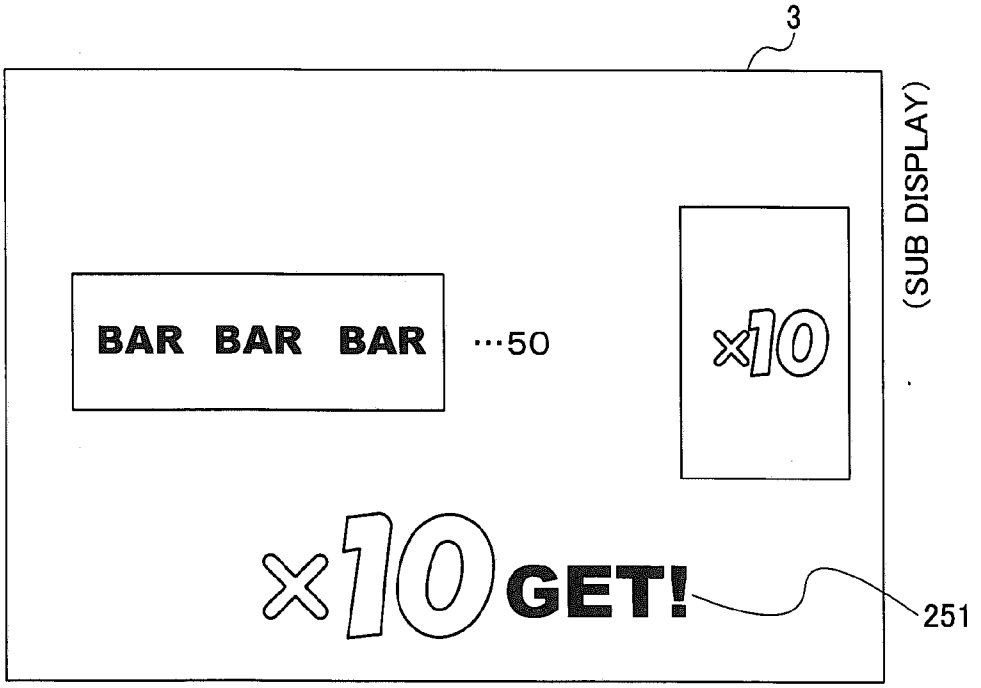


FIG. 46B

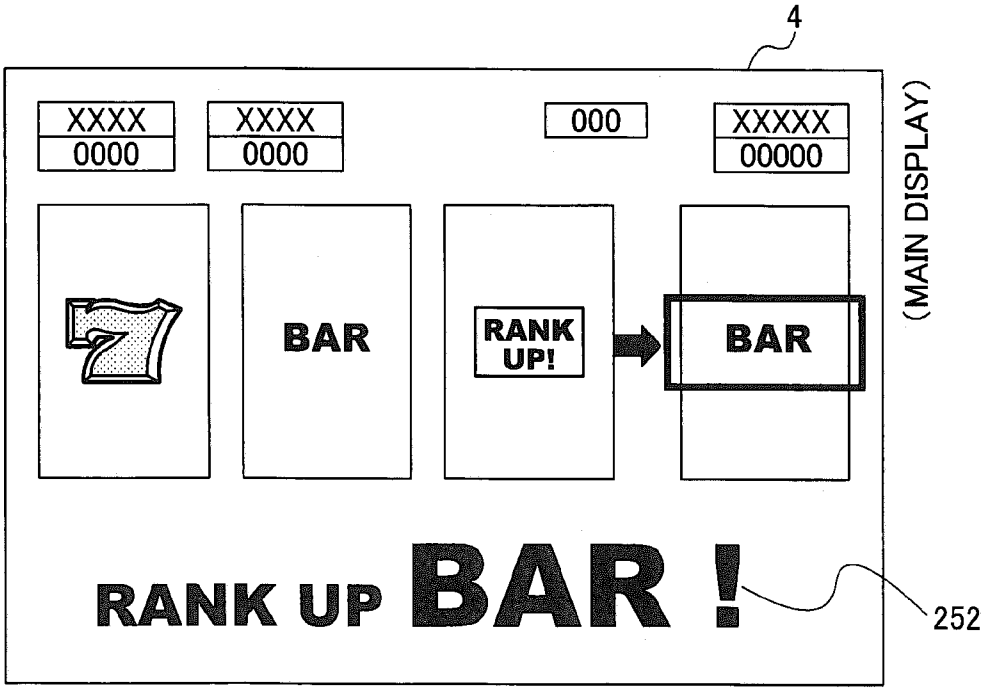


FIG. 47

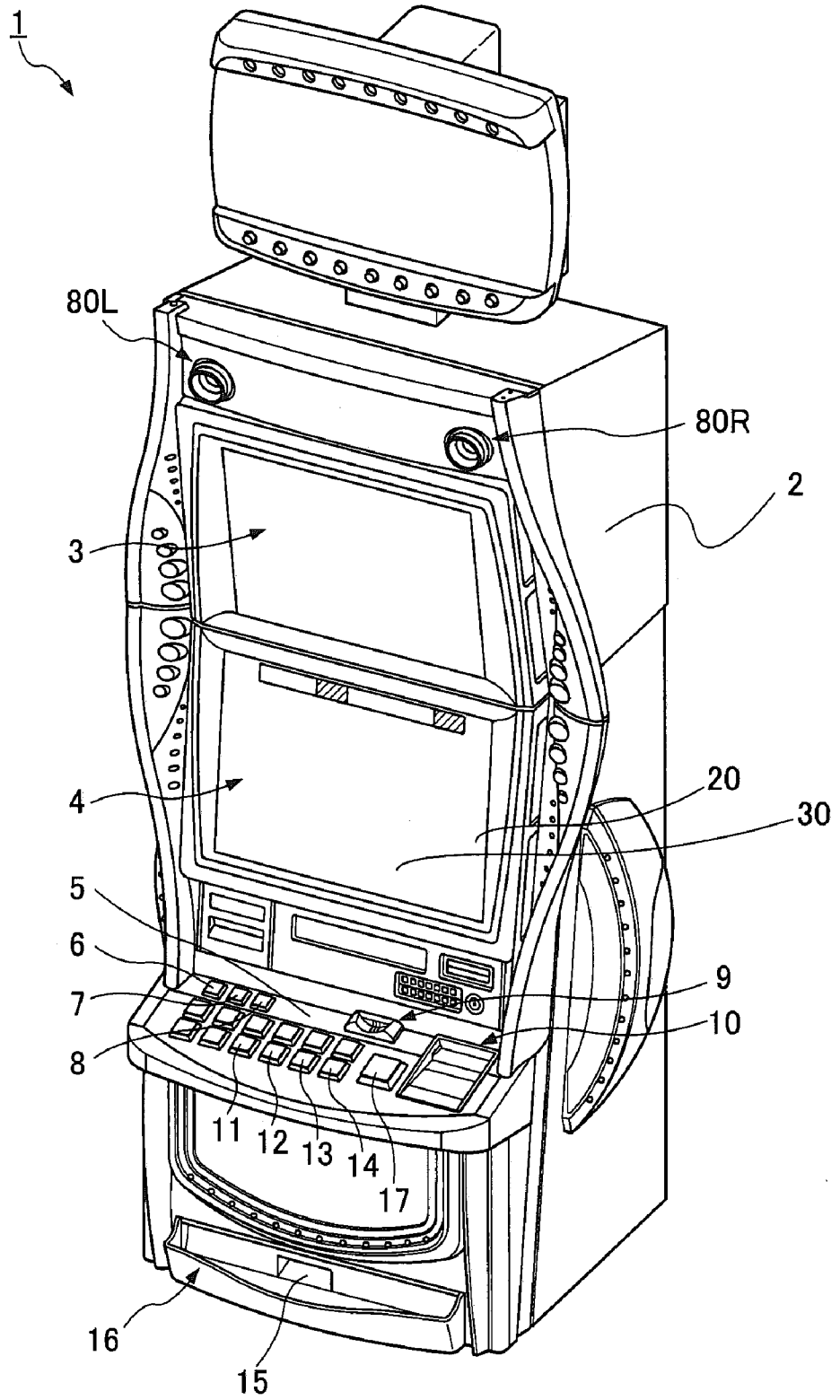


FIG. 48

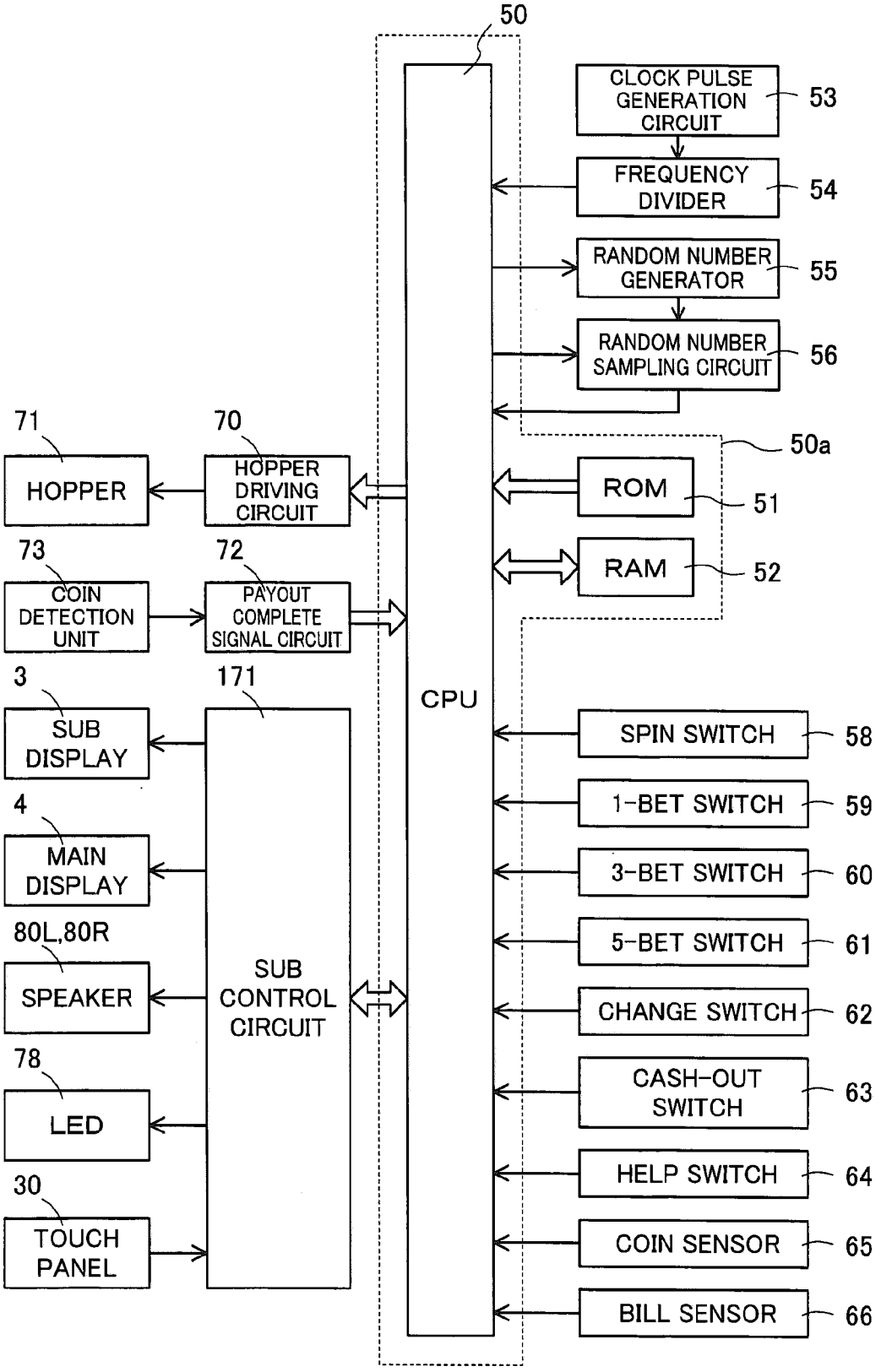

50
CLOCK PULSE GENERATION CIRCUIT
53
FREQUENCY DIVIDER
54
RANDOM NUMBER GENERATOR
55
RANDOM NUMBER SAMPLING CIRCUIT
56
50a
ROM
51
RAM
52
CPU
71
HOPPER
70
HOPPER DRIVING CIRCUIT
73
COIN DETECTION UNIT
72
PAYOUT COMPLETE SIGNAL CIRCUIT
3
SUB DISPLAY
171
4
MAIN DISPLAY
80L,80R
SPEAKER
SUB CONTROL CIRCUIT
78
LED
30
TOUCH PANEL
SPIN SWITCH
58
1-BET SWITCH
59
3-BET SWITCH
60
5-BET SWITCH
61
CHANGE SWITCH
62
CASH-OUT SWITCH
63
HELP SWITCH
64
COIN SENSOR
65
BILL SENSOR
66

FIG. 49A

(FREE GAME EFFECT 1)

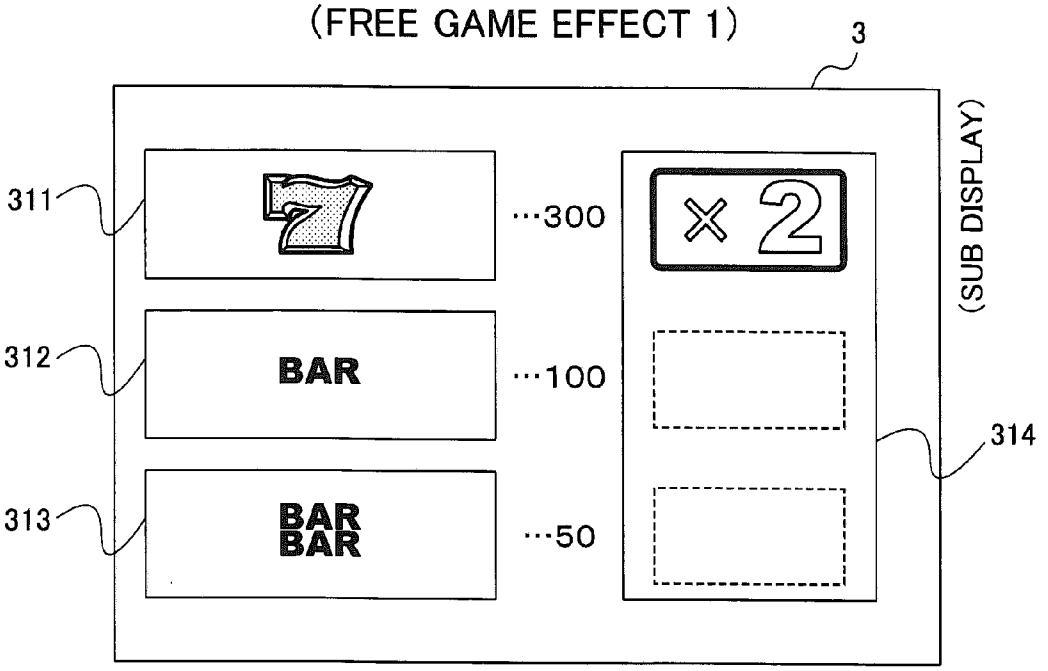


FIG. 49B

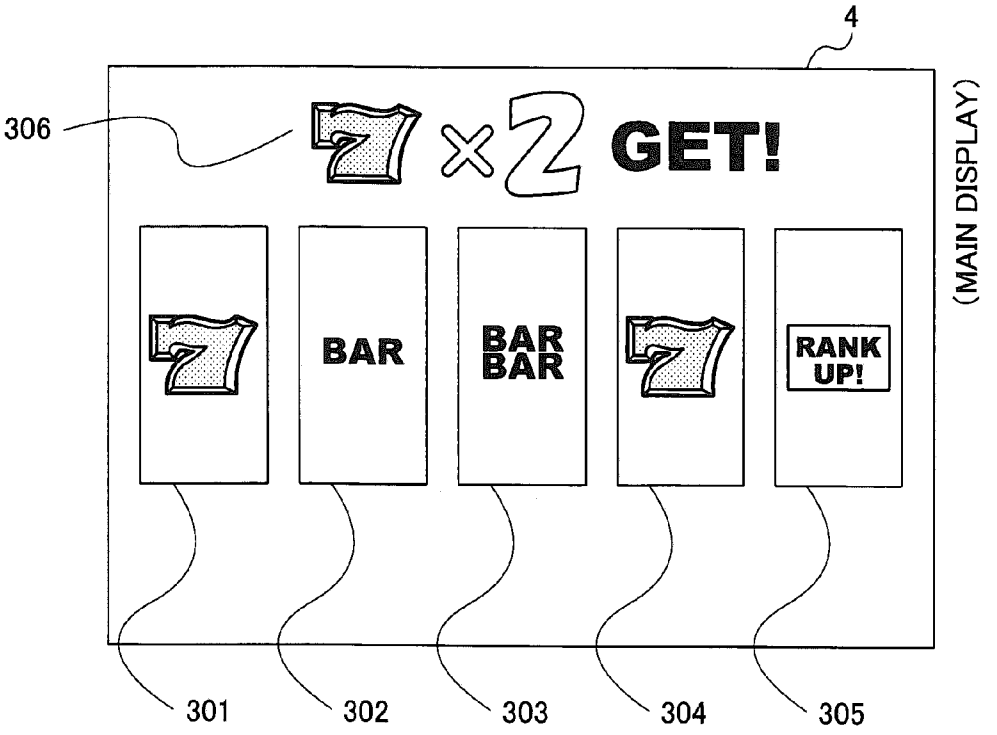


FIG. 50

(FREE GAME EFFECT 2-1)

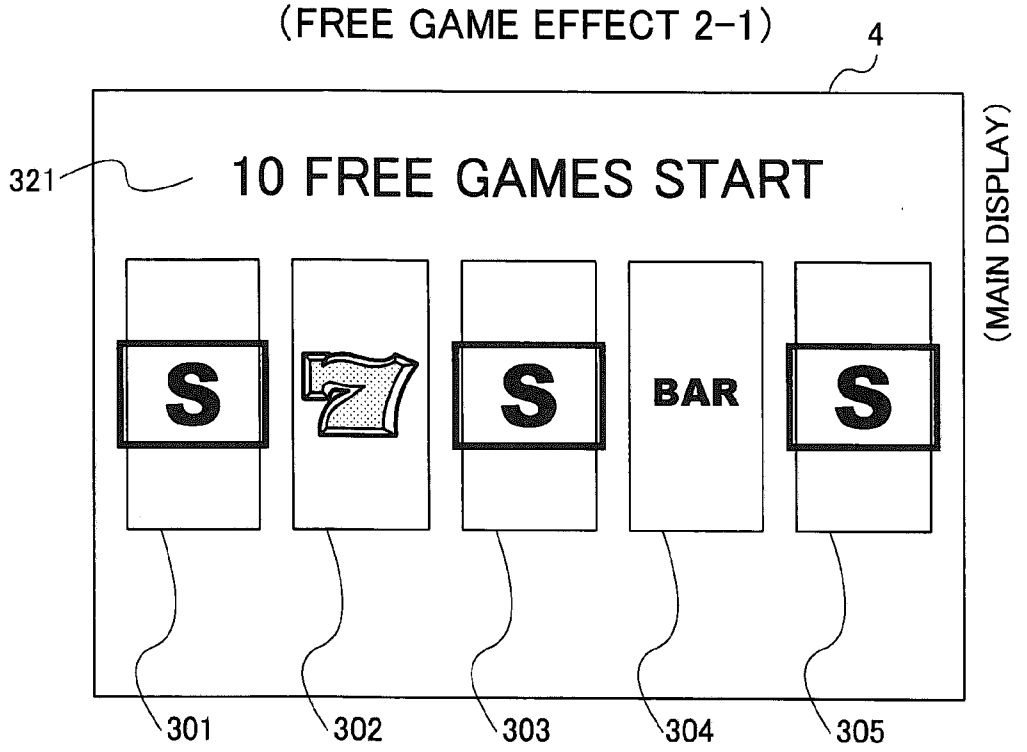


FIG. 51

(FREE GAME EFFECT 2-2)

FIG. 52

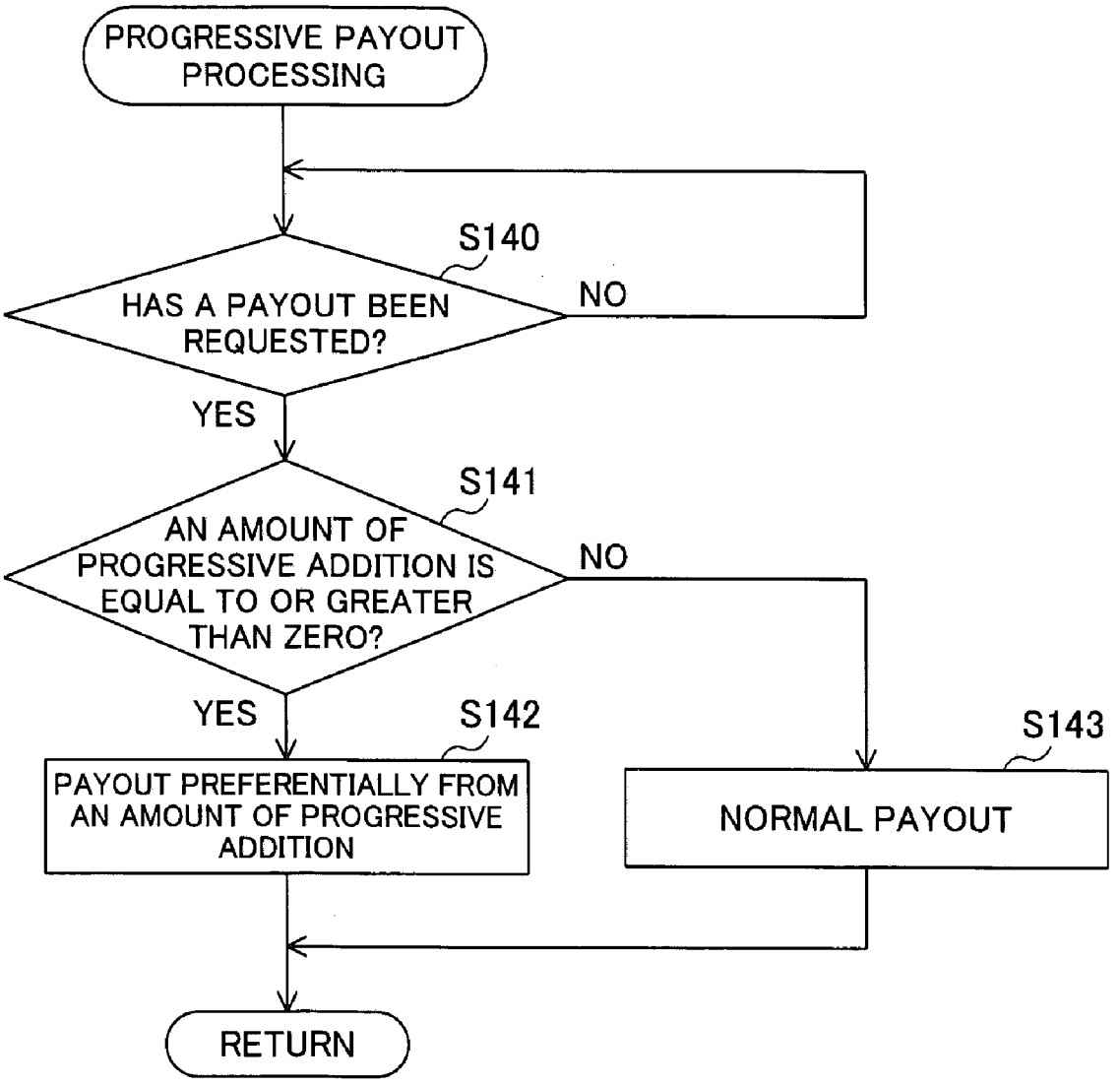

PROGRESSIVE PAYOUT PROCESSING
S140
HAS A PAYOUT BEEN REQUESTED?
NO
YES
S141
AN AMOUNT OF PROGRESSIVE ADDITION IS EQUAL TO OR GREATER THAN ZERO?
NO
YES
S142
PAYOUT PREFERENTIALLY FROM AN AMOUNT OF PROGRESSIVE ADDITION
S143
NORMAL PAYOUT
RETURN

FIG. 53A

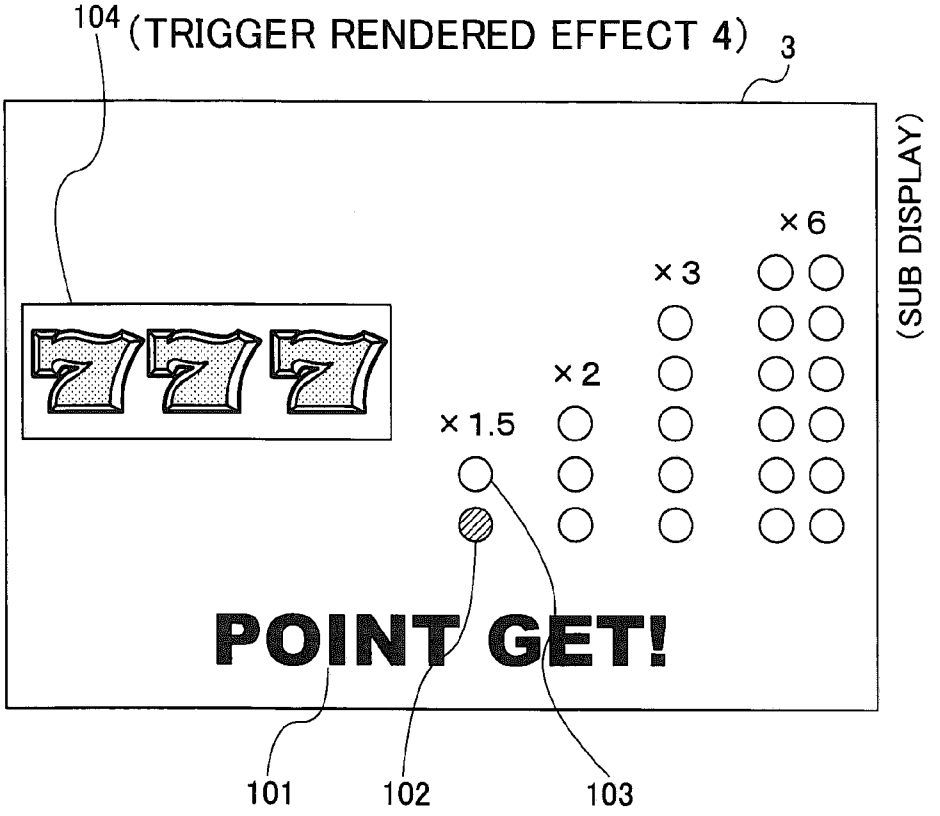
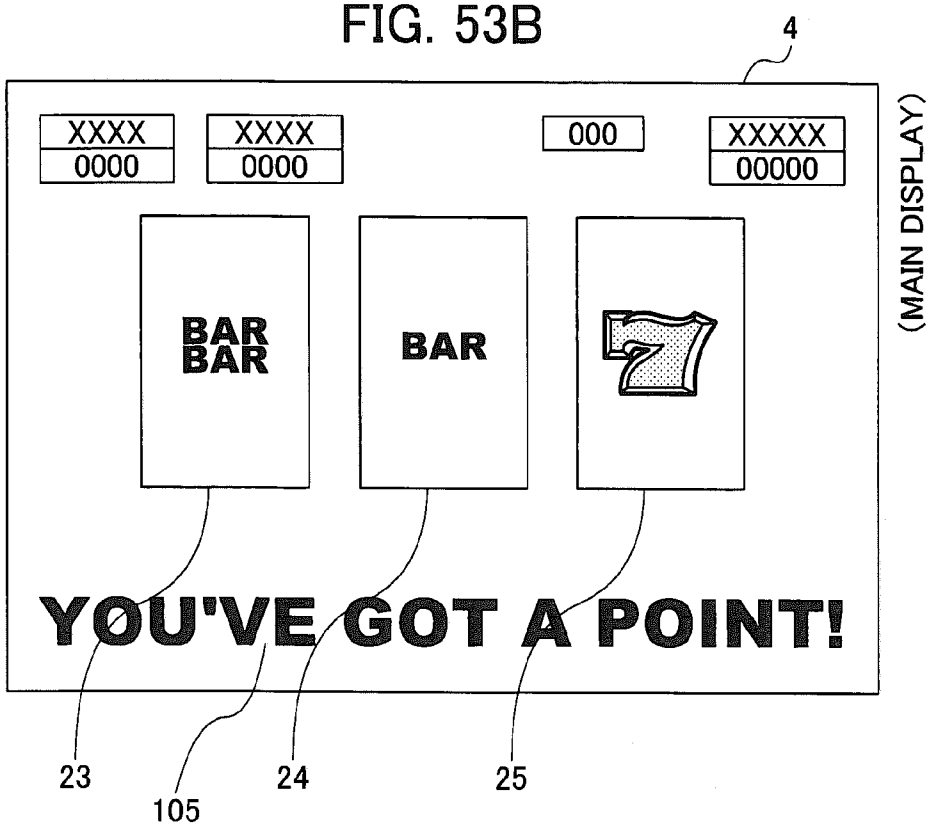


FIG. 53B



GAMING MACHINE

[0001] This application is based on and claims the benefit of priority from Japanese Patent Application No. 2007-123960, filed on 8 May 2007, the content of which is incorporated herein by reference.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] The present invention relates to a gaming machine such as a slot machine that provides a game using a gaming medium (gaming value) such as coins or the like, the gaming machine paying out the gaming value such as credits to a player.

[0004] 2. Related Art

[0005] In conventional slot machines, a game is started when a player bets a certain amount of credits. Then, a plurality of reels on which a plurality of symbols are arranged start to rotate, and are stopped after a predetermined lapse of time. As a result, a certain award is provided to the player based on a symbol combination which is displayed statically.

[0006] However, the slot machine described in U.S. Pat. No. 6,599,193 performs a lottery in a single game, provides an award based on the result of the lottery, and terminates the single game. That is, the game provided by the slot machine is conclusive in each game. Therefore, a player feels less excited while playing each game in similar game conditions with poor expectations.

SUMMARY OF THE INVENTION

[0007] The present invention has been made in view of the abovementioned problem. Accordingly, it is an object thereof to provide a gaming machine with much amusement that a player can engage in each game with novel expectations.

[0008] In order to solve the abovementioned problem, the present invention provides the following features.

[0009] In an aspect of the present invention, a gaming machine is provided, which pays an amount of game media for an occurrence of a predetermined combination of symbols as a result of a game. The gaming machine includes a display device, a memory, and a controller. The display device performs a variable display and a statical display of a plurality of symbols. The controller is configured with logic to (a) determine a combination of symbols to be displayed on the display device as a result of a game by performing a lottery in response to acceptance of manipulation to start the game by a player; (b) cause the display device to perform a variable display of the plurality of symbols; (c) cause the display device to perform a statical display of the plurality of symbols in accordance with a result of the lottery; (d) when the statical display of the plurality of symbols matches a specific combination of symbols, control the memory to cumulatively store a predetermined number of points. When a summation of points stored in the memory has reached a threshold as a result of completion of a particular game, the controller allows the player to be continuously in an advantageous situation during games subsequent to the particular game until a predetermined condition is satisfied.

[0010] Since the gaming machine described above can continuously produce the advantageous situation for the player in the games subsequent to the particular game, it can provide a game with much amusement that allows the player to play each game with novel expectations.

[0011] In another aspect of the present invention, a method for playing a game is provided, which pays an amount of game media for an occurrence of a predetermined combination of symbols as a result of the game. The method includes (a) accepting manipulation to start a game by a player; (b) starting the game in response to step (a); (c) determining a combination of symbols to be displayed on a display device that performs a variable display and a statical display of a plurality of symbols as a result of a game by performing a lottery; (d) causing the display device to perform a variable display of the plurality of symbols; (e) causing the display device to perform a statical display of the plurality of symbols in accordance with a result of the lottery; (f) when the statical display of the plurality of symbols matches a specific combination of symbols, controlling a memory to cumulatively store a predetermined number of points; and (g) when a summation of points stored in the memory has reached a threshold as a result of completion of a particular game, allowing the player to be continuously in an advantageous situation during games subsequent to the particular game until a predetermined condition is satisfied.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] FIGS. **1**A and **1**B show examples of images displayed on a main display **4** and a sub display **3**, an image displayed when a predetermined condition is satisfied, and an image illustrating an advantageous situation continuously produced for a player;

[0013] FIG. **2** is a perspective view of a slot machine **1** of the first embodiment;

[0014] FIG. **3** is a longitudinally-sectional view of the main display **4** and reels **22**;

[0015] FIG. **4** is an exploded perspective view of the main display **4**;

[0016] FIG. **5** is a view showing symbols drawn on the reels **22**L, **22**C, and **22**R, and code numbers;

[0017] FIG. **6** is a view showing an electric configuration of the slot machine **1** of the first embodiment;

[0018] FIG. **7** is a view showing an electrical configuration of a sub control circuit **171** of the slot machine **1** of the first embodiment;

[0019] FIG. **8** is a flowchart showing a routine of game execution processing of the slot machine **1**;

[0020] FIG. **9** is a flowchart showing a subroutine of lottery processing which is called to execute in the game execution processing shown in FIG. **8**;

[0021] FIG. **10** is a flowchart showing a subroutine of the win determination processing **1**, which is called to execute in the game execution processing shown in FIG. **8**;

[0022] FIG. **11** is a flowchart showing a subroutine of bonus game processing, which is called in win determination processing **1** as shown in FIG. **10**;

[0023] FIG. **12** is a flowchart showing a subroutine of payout processing, which is called in win determination processing **1** as shown in FIG. **10**;

[0024] FIG. **13** is a flowchart showing a subroutine of point addition processing which is called to execute in win determination processing as shown in FIG. **10**;

[0025] FIGS. **14**A and **14**B are examples of images representing a trigger rendered effect **1** displayed on the main display **4** and the sub display **3**;

[0026] FIGS. **15**A and **15**B show examples of images of the WIN rendered effect **1** displayed on the main display **4** and the sub display **3**;

[0027] FIGS. **16**A and **16**B are examples of images representing a trigger rendered effect **2** displayed on the main display **4** and the sub display **3**;

[0028] FIG. **17** is a flowchart showing a subroutine of payout processing **2** (processing regarding HALF WILD) as an example of payout processing, which is called in win determination processing as shown in FIG. **10**;

[0029] FIG. **18** is an example of an image representing a trigger rendered effect **3** displayed on the main display **4**;

[0030] FIG. **19** is an example of an image representing a WIN rendered effect **2** displayed on the main display **4**;

[0031] FIG. **20** is an example of an image (a gauge type) displaying the obtained point on the sub display **3**;

[0032] FIG. **21** is an example of an image (numeral value display type) displaying the obtained point on the sub display **3**;

[0033] FIG. **22** is an example of an image (appearance of a gauge for each winning combination) displaying the obtained point on the sub display **3**;

[0034] FIG. **23** shows symbols arranged on reels **22**L, **22**C, and **22**R (including a "FANKUP!" symbol), and code numbers;

[0035] FIG. **24** is a flowchart showing a subroutine of win determination processing **2** with regard to "RANK UP!";

[0036] FIG. **25** is a flowchart showing a subroutine of payout rate change processing for a symbol applicable to point addition which is called to execute in win determination processing **2** as shown in FIG. **24**;

[0037] FIGS. **26**A and **26**B are examples of images showing the RANK UP effect **1** displayed on the main display **4** and the sub display **3**;

[0038] FIGS. **27**A and **27**B are examples of images showing the RANK UP effect **2-1** displayed on the main display **4** and the sub display **3**;

[0039] FIGS. **28**A and **28**B are examples of images of the RANK UP effect **2-2** displayed on the main display **4** and the sub display **3**;

[0040] FIGS. **29**A and **29**B are examples of images of the WHEEL effect **1-1** displayed on the main display **4** and the sub display **3**;

[0041] FIGS. **30**A and **30**B are examples of images of the WHEEL effect **1-2** displayed on the main display **4** and the sub display **3** in a case where a game has been executed and advanced from FIG. **29**;

[0042] FIGS. **31**A and **31**B are examples of images showing the WHEEL effect **2** displayed on the main display **4** and the sub display **3** in a case where a rearranged combination matches a WHEEL winning combination;

[0043] FIG. **32** is a flowchart showing a subroutine of the win determination processing (WILD Effect processing), which is called to execute in game execution processing shown in FIG. **8**;

[0044] FIG. **33** shows a transition of images displaying the HALF WILD effect displayed on the main display **4**;

[0045] FIG. **34** is a perspective view of a slot machine **1** of the second embodiment;

[0046] FIG. **35** is a block diagram schematically showing the control system of the slot machine **1** of the second embodiment;

[0047] FIG. **36** is a diagram showing a symbol and a code number displayed on the first sub reel **26**;

[0048] FIG. **37** is a flowchart showing a subroutine of win determination processing **4**, which is called to execute in game execution processing shown in FIG. **8**;

[0049] FIG. **38** is an example of an image of the first sub reel effect **1** displayed on the main display **4**;

[0050] FIG. **39** is an example of an image of the first sub reel effect **1** displayed on the main display **4** in a case where a game has been executed and advanced from FIG. **38**;

[0051] FIG. **40** shows symbols and code numbers displayed on the first sub reel **26** and the second sub reel **27**;

[0052] FIG. **41** is a flowchart showing a subroutine of win determination processing **5** which is called to execute in game execution processing shown in FIG. **8**;

[0053] FIG. **42** is an example of an image of the first and second sub reels effect **1-1** displayed on the main display **4**;

[0054] FIG. **43** is an example of an image of the first and second sub reels effect **1-2** displayed on the main display **4** in a case where a game has been executed and advanced from FIG. **42**;

[0055] FIG. **44** is an example of an image of the first and second sub reels effect **1-3** displayed on the sub display **3** in a case where a game has been executed and advanced from FIG. **43**;

[0056] FIG. **45** is an example of an image of the first and second sub reels effect **1-4** displayed on the sub display **3** in a case where a game has been executed and advanced from FIG. **44**;

[0057] FIGS. **46**A and **46**B are examples of images of the first and second sub reels effect **2** displayed on the main display **4** and the sub display **3**;

[0058] FIG. **47** is a perspective view of the video slot **1**;

[0059] FIG. **48** is a block diagram schematically showing the control system of the video slot **1**;

[0060] FIGS. **49**A and **49**B are examples of images showing a free game effect **1** displayed on the main display **4** and the sub display **3**;

[0061] FIG. **50** is an example of an image of a free game effect **2-1** displayed on the main display **4**;

[0062] FIG. **51** is an example of an image of the free game effect **2-2** displayed on the main display **4** in a case where a game has been executed and advanced from FIG. **50**;

[0063] FIG. **52** is a flowchart showing a subroutine of progressive payout processing; and

[0064] FIGS. **53**A and **53**B are examples of images showing the trigger rendered effect **4** displayed on the main display **4** and the sub display **3**.

DETAILED DESCRIPTION OF THE INVENTION

[0065] In the present embodiment, a slot machine **1** as a gaming machine is provided with a main display **4** for displaying variably and statically a plurality of symbols (which is referred to as "rearrange", hereinafter), display windows **23**, **24**, and **25**, a plurality of reels **22**L, **22**C, and **22**R having a plurality of symbols on each surface thereof, and a motor **68** for rotating and stopping the plurality of reels in response to reception of a signal, a 1-bet button **11**, a 3-bet button **13**, and a 5-bet button **14** for accepting bets of credits, and RAM **52** for cumulatively storing a portion of the bet of credits thus accepted (FIGS. **2** and **6** which are described later). The slot machine **1** processes a lottery of random numbers in response to an input to a spin/repeat-bet button **17** (hereinafter, abbreviated to "spin button") by a player in lottery processing (Step S**14** in FIG. **8**, which is described later), starts a game, causes rotation of the plurality of reels to stop in reel rotation control

processing (Step S15 in FIG. 8, which is described later), and rearranges the plurality of symbols. Then, a controller (CPU 50 in FIG. 6, which is described later) of the slot machine 1 causes a memory (RAM 52) to cumulatively store a predetermined amount of point values when a specific symbol combination is displayed statically on the main display 4. When the amount of point values cumulatively stored in the memory reaches a predetermined point value, the controller continuously provides an advantageous situation to a player in subsequent games after a game played by the player until a predetermined condition is satisfied. Accordingly, since the slot machine 1 can produce an advantageous situation for the player in subsequent games after a game played by the player and can maintain the situation, it can provide a game with much amusement that allows the player to play each game with novel expectations.

[0066] FIG. 1A shows an example of an image displayed on the sub display 3 illustrating an advantageous situation continuously produced for the player. In the image shown in FIG. 1A, a circle with oblique lines 102 indicates that, as a result of displaying variably and statically a plurality of symbols displayed on the main display 4 in a single game, a player obtains 3 points when a specific symbol combination is displayed statically on the main display 4 after a predetermined amount of point values are cumulatively stored in a memory. Since the amount of point values reaches a predetermined amount to pay out a double amount of the normal payout (for example, 3 points to 5 points), the image shown in FIG. 1A indicates that the situation entitled to the double amount of the normal payout is maintained until a predetermined condition is satisfied (for example, a symbol combination "7, 7, 7") in games subsequent to a game played by the player. Here, "7, 7, 7" 104 and "×2" indicate that the player obtains the double amount of the normal payout in a case where a symbol combination is "7, 7, 7".

[0067] FIG. 1B shows an example of an image displayed on the main display 4 illustrating a predetermined condition satisfied under the condition of an advantageous situation continuously provided for a player. The image represents a rearrangement of symbols and the resulting combination "7, 7, 7" displayed in the left display window 23, the center display window 24, and the right display window 25 as a predetermined condition. Since the combination "7, 7, 7" is arranged in the advantageous situation of the double payout, a message "WIN! 100×2" 111 is displayed, which indicates that the player obtains double the payout of 100 credits when a normal payout for the combination "7, 7, 7" is 100 credits.

[0068] Although the present embodiment describes a case in which reels (display windows 23, 24, and 25) in FIG. 2 (described later) are included, the present embodiment can be implemented similarly in a slot machine provided with sub reels 26 and 27 in FIG. 34 (described later) and a video slot in FIG. 47 (described later).

First Embodiment

[0069] A slot machine 1 according to the present embodiment is described below in reference to FIGS. 2 to 33. Firstly, an outline of the configuration of the slot machine 1 according to the embodiment is described on the basis of FIGS. 2 and 6.

Exterior Appearance of Slot Machine 1

[0070] FIG. 2 is a perspective view of the slot machine 1. In FIG. 2, the slot machine 1 has a cabinet 2 which forms the whole body thereof, and a sub display 3 disposed front on an upper portion of the cabinet 2. In addition, a main display 4 is disposed front on a center portion of the cabinet 2. Here, the sub display 3 is configured by a liquid crystal display, which is generally used. In addition, the main display 4 is configured by a transparent liquid crystal display, which is described later. Meanwhile, a detailed structure of the main display 4 is described later. A payout table, which is described later, is displayed on the sub display 3, in a case of a normal gaming state and a waiting state.

[0071] On a lower side of the main display 4, an operation table 5 projecting toward a front side is disposed. On the operation table 5, a CHANGE button 6, a CASH-OUT button 7, and a HELP button 8 are disposed from a leftmost side. In addition, on the right side of the HELP button 8, a coin insertion slot 9 and a bill insertion slot 10 are disposed. In addition, on the front side of the operation table 5, a 1-BET button 11, a SPIN/REPEAT-BET button (hereinafter referred to as "SPIN button") 12, a 3-BET button 13, and a 5-BET button 14 are disposed from a left side.

[0072] Here, the CHANGE button 6 is pressed when exchanging the bill inserted into the bill (or paper money) insertion slot 10, and the exchanged coins are paid out to a coin tray 16 through a coin payout opening 15, which is disposed at a lower portion of the cabinet 2. A CHANGE switch 62 (described later) is attached to the CHANGE button 6, and a switch signal is output to a CPU 50 from the CHANGE switch 62 in response to pressing of the CHANGE button 6.

[0073] The CASH-OUT button 7 is usually pressed when a normal game is terminated. When the CASH-OUT button 7 is pressed, coins obtained in a game are paid out from the coin payout opening 15 to the coin tray 16. Meanwhile, a payout (CASH-OUT) switch 63 (described later) is attached to the CASH-OUT button 7, and a switch signal is output to the CPU 50 in response to pressing of the CASH-OUT button 7.

[0074] The HELP button 8 is pressed when it is unclear to the player how to play the game. When the HELP button 8 is pressed, various help information is displayed on the sub display 3 and the main display 4. A HELP switch 64, which is described later, is attached to the HELP button B. A switch signal is output to the CPU 50 from the HELP switch 64 in response to pressing of the HELP button B.

[0075] Meanwhile, when a payout table, which is described later, is not displayed on the sub display 3 in the game, the payout table is displayed on the sub display 3 through pressing of the HELP button 8.

[0076] A coin sensor 65, which is described later, is disposed in the coin insertion slot 9. When a coin is inserted in the coin insertion slot 9, a coin detection signal is output to the CPU 50 from the coin sensor 65. In addition, a bill sensor 66 is disposed in the bill insertion slot 10. When a bill is inserted into the bill insertion slot 10, a bill detection signal is output to the CPU 50 from the bill sensor 66.

[0077] As for the 1-BET button 11, every time the 1-BET button 11 is pressed one credit is bet, and betting can be done by pressing the 1-BET button 11 up to three times as the maximum pressing time. A 1-BET switch 59 is attached to this 1-BET button 11. When the 1-BET button 11 is pressed, a switch signal is output from the 1-BET switch 59 to the CPU 50 in response to pressing of the 1-BET button 11.

[0078] The SPIN button 17 initiates rotation of the reels 22L, 22C, 22R (described later) so as to start a game with a current bet amount or a previous bet amount in response to

pressing of the SPIN button **17**. A SPIN switch **58** (described later) is attached to the SPIN button **17**. When the SPIN button **17** is pressed, a switch signal is output from the SPIN switch **58** to the CPU **50** in response to pressing of the SPIN switch **58**. Here, as the bet amount, which can be bet by press of the SPIN button **17**, there may exist 1 bet, 2 bets, 3 bets, and 5 bets.

[0079] The 3-BET button **13** is a button to start a game with 3 bets. A 3-BET switch **60** (described later) is attached to the 3-BET button **13**. When the 3-BET button **13** is pressed, a switch signal is output from the 3-BET switch **60** to the CPU **50**. In addition, the 5-BET button **14** is a button to be pressed when starting a game with 5 bets, and when starting a bonus game, which is described later. A 5-BET switch **61** (described later) is attached to the 5-BET button **14**. A switch signal is output from the 5-BET switch **61** to the CPU **50** in response to pressing of the 5-BET button **14**.

[0080] In addition, the cabinet **2** has the coin payout opening **15** and a coin tray **16** at the lower part thereof. The coin tray **16** receives a coin paid out from the coin payout opening **15**. A coin detection unit **73**, which is configured with a sensor and the like, is disposed inside of the coin payout opening **15**, and detects the number of coins paid out from the coin payout opening **15**.

Reel and Main Display

[0081] Subsequently, a detailed structure of the main display **4** and the three reels **22**L, **22**C, and **22**R, which are disposed rotatably inside of the cabinet **2** on a back surface side of the main display **4**, is described according to FIGS. **3** and **4**. FIG. **3** is a longitudinal-sectional view of the main display **4** and the reels **22**L, **22**C, and **22**R. FIG. **4** is an exploded perspective view of the main display **4**.

[0082] In FIGS. **3** and **4**, the main display **4**, together with a transparent touch panel **30** (hereinafter, referred to as "touch panel 30") that is arranged on a front side (left side in FIG. **3**) of the main display **4**, is disposed within a display window section **21** of a device front panel **20** disposed front at a center portion of the cabinet **2** of the slot machine **1**. In addition, on a back side (right side in FIG. **3**) of the main display **4**, the three reels **22**L, **22**C, and **22**R (FIG. **3** shows only one reel among the three reels **22**L, **22**C, and **22**R) are supported in parallel, each of which is supported so as to rotate independently.

[0083] Here, each of the reels **22**L, **22**C, and **22**R is described. Among the three reels **22**L, **22**C, and **22**R, the reel **22**L of the slot machine **1** faces a left display window **23** (see, FIG. **2**), which is formed in the main display **4**. The reel **22**C faces a center display window **24** (see, FIG. **2**), which is formed in the main display **4**. Similarly, the reel **22**R faces a right display window **25** (see, FIG. **2**), which is formed in the main display **4**. Structure of respective display windows **23**, **24**, and **25** is described later in Structure of Main Display.

Symbol Lines of Reels

[0084] FIG. **5** shows one example of symbol lines in which nine pieces of plural types of symbols arranged on the respective reels **22**L, **22**C, and **22**R. This arrangement is converted into a table as data and stored in ROM **51** (see, FIG. **6**), which is described later. That is, code numbers of "00" to "08" are given to each symbol as shown in FIG. **5**, and stored in the ROM **51** as a data table (see, FIG. **6**), which is described later. In other words, it is possible to specify a symbol uniquely, by identification of the reels **22**L, **22**C, and **22**R, and the code numbers.

[0085] On a peripheral surface of each of the reels **22**L, **22**C, and **22**R, nine types of symbols including a blank symbol are depicted as shown in FIG. **4**. More specifically, the symbols, which are formed on a peripheral surface of each of the reels **22**L, **22**C, and **22**R, are a WILD symbol **91**, a RED **7** symbol **92**, a 7 DORA symbol **93**, a 3 BAR symbol **94**, a 2 BAR symbol **95**, a BAR symbol **96**, a blank symbol **97**, a BARDORA symbol **98**, and HALF WILD symbol **99**. Then, on a peripheral surface of each of the reels **22**L, **22**C, and **22**R, these nine types of symbols are arranged in the order shown in FIG. **5**. Each of the reels **22**L, **22**C, and **22**R is driven to rotate in such a manner that a symbol line moves in the direction of an arrow in FIG. **5**.

[0086] In addition, various winning combinations have been set up in advance based on a plurality of types of combinations of each symbol. When a symbol combination corresponding to a winning combination comes to rest along a pay line L (see FIG. **2**), coins are paid out from the coin payout opening **15** according to the winning combination. These points are the same as those in a conventional slot machine, and therefore an explanation thereof is omitted. In addition, regarding the various symbols formed on a peripheral surface of each of the reels **22**, it is a typical way that a long seal printed with nine pieces of symbols, which has a width and a peripheral length fit for each of the reels **22**, is bonded to the peripheral surface of each of the reels **22**. However, it may be alternatively possible to form the symbols in different manners.

[0087] In this embodiment, only a center line is selected for the pay line L. The pay line L is displayed on the main display **4** when games are carried out by rotating and stopping the reels **22** in response to pressing of the 1-BET button **11**, the 3-BET button **13**, and the 5-BET button **14** or the SPIN button **17**. On the other hand, the pay line L is eliminated from the main display **4** for a bonus game which is performed in response to pressing of the 5-BET button **14** when a player is entitled to various bonus games.

[0088] In addition, the BONUS trigger symbol **93** (7 DORA symbol) is the one which serves as a trigger for the purpose of achieving various bonus games. In this embodiment, one BONUS trigger symbol **93** is arranged only on a peripheral surface of the reel **22**R. When the BONUS trigger symbol **93**, which exists on the peripheral surface of the reel **22**R, comes to rest on the pay line L, a player is entitled to various bonus games.

Structure of Main Display **4**

[0089] Subsequently, a structure of the main display **4** is described according to FIGS. **3** and **4**. In FIGS. **3** and **4**, the main display **4** is configured with the following components arranged from the front side of the slot machine **1**: a touch panel **30**, a reel glass base **31**, a bezel metal frame **32**, a liquid crystal panel **33**, a liquid crystal holder **34**, a diffusion sheet **35**, a light guiding plate **36**, a white reflector **37**, a rear holder **38**, and an anti-static sheet **39**. In the diffusion sheet **35**, openings **35**A, **35**B, and **35**C are formed. Similarly, in the light guiding plate **36**, the reflector **37** and the rear holder **38**, three openings **36**A to **36**C, three openings **37**A to **37**C, and three openings **38**A to **38**C are formed, respectively, so as to be aligned with the openings **35**A, **35**B, and **35**C. Here, the openings **35**A to **38**A configure the left display window **23**

(see FIG. **2**. Similarly, the openings **35**B to **38**B and the openings **35**C to **38**C configure the center display window **24** and the right display window **25** (see FIG. **2**), respectively.

[0090] Here, the openings **35**A to **35**C in the diffusion sheet **35** and the openings **36**A to **36**C in the light guiding plate **36** configure the light transmitting areas to retain visibility while variable display is being conducted by each rotating reel **22**.

[0091] In order to install the main display **4** to the display window **21** of the device front panel **20**, as shown in FIG. **3**, brackets **40** extending in upward and downward directions of the reel glass base **31** are screwed to the rear side of the device front panel **20** by screws **41**.

[0092] In addition, a pair of cold cathode ray tubes **42** is disposed as a light source of the liquid crystal panel **33**, at upper and lower ends of the light guiding plate **36**. In addition, a pair of cold cathode ray tubes **43**, which illuminates symbols formed on an outer peripheral surface of each reel **22**, is disposed at upper and lower positions on the rear side of each of the openings **38**A to **38**C in the rear holder **38**.

[0093] The liquid crystal panel **33** is a transparent electric display panel on which transparent electrodes such as ITO are formed, and arranged in front of each of the reels **22** which can be seen therethrough. The circumference of the rear side of the display part of the liquid crystal panel **33** is held by the liquid crystal holder **34**. In the light guiding plate **36**, which is made of a light transmitting resin panel, lens cut portions are formed. The lens cut portions lead light emitted from the cold cathode ray tubes **43** positioned at end positions of the light guiding plate **36** to the rear side of the liquid crystal panel **33**. The diffusion sheet **35**, which is made of a light transmitting resin sheet, scatters light led by the light guiding plate **36** and levels light irradiated to the liquid crystal panel **33**. The liquid crystal holder **34** for holding the liquid crystal panel **33**, the diffusion sheet **35**, and the light guiding plate **36** are assembled into a one-piece construction, with the circumference thereof inserted in a bezel metal frame **32**. Thereby, the front side of the display part in the liquid crystal panel **33** is retained by the bezel metal frame **32**.

[0094] The circumference of the liquid crystal holder **34**, the light diffusion sheet **35**, and the light guiding plate **36** is further inserted into the reel glass base **31**. In this way, the reel glass base **31** holds these components in a state in which the front display plane of the liquid crystal panel **33** is open. The touch panel **30** is attached in pressure contact to the front side of the reel glass base **31**, which is attached to the device front panel **20** by way of the screws **41**.

[0095] The rear holder **38** made of a white resin plate retains the bezel metal frame **32** supported by the reel glass base **31**, the liquid crystal holder **34** holding the liquid crystal panel **33**, the light diffusion sheet **35**, and the light guiding plate **36** to the reel glass base **31** from the rear side thereof. The rear holder **38** also functions as a reflecting plate for reflecting light emitted from the cold cathode ray tubes **42** to the light guiding plate **36** toward the liquid crystal panel **33**. The anti-static sheet **39**, which is transparent and adhered to the rear plane of the rear holder **38** by way of double-sided adhesive tape, covers the rear plane of each of the openings **38**A to **38**C formed in the rear holder **38**.

Electric Configuration of Slot Machine **1**

[0096] Next, the configuration of the control system in the slot machine **1** is described with reference to FIG. **6**. FIG. **6** is a block diagram schematically showing the control system in the slot machine **1**.

[0097] In FIG. **6**, the control system of the slot machine **1** is basically configured from the CPU **50**. ROM **51** and RAM **52** are connected to the CPU **50**. A main control circuit **50**a of the slot machine **1** is configured with the CPU **50**, the ROM **51**, and the RAM **52**. The ROM **51** stores a game control program (described later), various effect programs and effect data for executing various effects on the sub display **3** and the main display **4** according to progress in games, a probability table (not shown) for conducting a lottery of various winning combinations, various programs necessary for controlling the slot machine **1**, and various data tables and the like. In addition, the RAM **52** is a memory for temporarily storing various data computed by the CPU **50**.

[0098] In addition, a clock pulse generation circuit **53** for generating standard clock pulses and a frequency divider **54** are connected to the CPU **50**, and a random number generator **55** and a random number sampling circuit **56** are also connected to the CPU **50**. A random number sampled by the random number sampling circuit **56** is utilized in various lotteries of the winning combinations, the effects, and the like. Furthermore, the spin switch **58** attached to the SPIN button **17**, the 1-BET switch **59** attached to the 1-BET button **11**, the 3-BET switch **60** attached to the 3-BET button **13**, the 5-BET switch **61** attached to the 5 BET-button **14**, the change switch **62** attached to the change button **6**, the cashout switch **63** attached to the CASH-OUT button **7**, and the help switch **64** attached to the help button **8** are connected to the CPU **50**, respectively. The CPU **50** controls the slot machine **1** to execute various operations corresponding to each button, based on a switch signal output from each switch when each button is pressed.

[0099] Furthermore, the coin sensor **65**, which is disposed in the coin insertion slot **9**, and the bill sensor **66**, which is disposed in the bill insertion slot **10**, are connected to the CPU **50**, respectively. The coin sensor **65** detects a coin inserted from the coin insertion slot **9**, and the CPU **50** computes the amount of coins inserted based on a coin detection signal output from the coin sensor **65**. The bill sensor **66** detects a type and an amount of a bill inserted from the bill insertion slot **10**, and the CPU **50** computes an amount of coins which is equivalent to the amount of a bill based on a bill detection signal output from the bill sensor **66**.

[0100] Three stepping motors **68**L, **68**C, and **68**R, which are driven through a motor driving circuit **67** to rotate the reels **22**L, **22**C, and **22**R, respectively, are connected to the CPU **50**. In addition, a reel position detection circuit **69** is connected to the CPU **50**. When a motor driving signal is output from the CPU **50** to the motor driving circuit **67**, each of the stepping motors **68** is driven so as to rotate by the motor drive circuit **67**. Thereby, each of the reels **22**L, **22**C, and **22**R is rotated.

[0101] At this time, after each of the reels **22**L, **22**C, and **22**R starts to rotate, the number of driving pulses supplied to each of the stepping motors **68** is calculated, and the calculated value is written in a predetermined area of the RAM **52**. In addition, a reset pulse is output from each of the reels **22**L, **22**C, and **22**R with respect to each one spin, and the reset pulse is input to the CPU **50** through the reel position detection circuit **69**. When the reset pulse is input to the CPU **50**, the calculated value written in the RAM **52** is cleared to "0", and the CPU **50** recognizes a rotation position of symbols on each of the reels **22**L, **22**C, and **22**R, based on the calculated value corresponding to the rotational position of each of the reels **22**L, **22**C, and **22**R within one rotation, and a symbol

table in which the rotational position of each of the reels **22**L, **22**C, and **22**R stored in the ROM **51** and the symbols formed on a peripheral surface of each of the reels **22**L, **22**C, and **22**R correspond with each other.

[0102] A hopper **71** is connected to the CPU **50** through a hopper driving circuit **70**. When the CPU **50** outputs a driving signal to the hopper driving circuit **70**, the hopper **71** pays out a predetermined amount of coins through the coin payout opening **15**.

[0103] In addition, a coin detection unit **73** is connected to the CPU **50** through a payout complete signal circuit **72**. The coin detection unit **73** is disposed inside of the coin payout opening **15**. When the coin detection unit **73** detects a predetermined amount of coins paid out from the coin payout opening **15**, a coin payout detection signal is output from the coin detection unit **73** to the payout complete signal circuit **72**. Based on this signal, the payout complete signal circuit **72** outputs a payout complete signal to the CPU **50**.

[0104] In addition, a sub control circuit **171** is connected to the CPU **50**. The sub display **3**, the main display **4**, speakers **80**L and **80**R, an LED **78**, and the touch panel **30** are connected to the sub-control circuit. In addition, two-way communication is carried out between the CPU **50** and the sub-control circuit **171**.

Electric Structure of Sub-Control Circuit

[0105] Next, the sub-control circuit **171** shown in FIG. **7** is described. The sub-control circuit **171** is configured by a sub CPU **221**, sub ROM **223**, sub RAM **222**, image display control circuits **74** and **75**, a sound output circuit **79**, an LED control circuit **77**, and a touch panel control circuit **76**. In addition, an IN port and an OUT port, etc. are disposed arbitrarily between the main control circuit **50**a and the sub-control circuit **171**, and between the sub CPU **221** and each actuator.

[0106] The sub CPU **221** determines what is displayed on the sub display **3** and the main display **4** based on a gaming information command transmitted from the main control circuit **50**a, and transmits content to be displayed to the image display control circuits **74** and **75**.

[0107] The sub ROM **223** stores a communication sequence program for communicating with the main control circuit **50***a*, and a program and data necessary for a slot game and a bonus game.

[0108] The sub RAM **222** is used as a working area for executing these control programs.

[0109] The image display control circuit **74** that includes video ROM (not shown) and video RAM (not shown) controls content to be displayed on the sub display **3**. The image display control circuit **75** that also includes video ROM (not shown) and video RAM (not shown) controls content to be displayed on the main display **4**. The image display control circuits **74** and **75** cause the sub display **3** and the main display **4** respectively to display predetermined rendered effects based on various effect commands transmitted from the main control circuit **50***a*.

[0110] The sound output circuit **79** that includes a sound source ROM (not shown) and work RAM (not shown) controls sound output to the speakers **80**L and **80**R. The sound output circuit **79** makes the speakers **80**L and **80**R generate predetermined audio based on various audio effect commands transmitted from the main control circuit **50***a*.

[0111] The LED control circuit **77** controls light emitted from various LEDs **78** which decorate a game of the slot machine **1**. The LED control circuit **77** makes the LED **78** emit light with predetermined timing, based on various LED effect commands transmitted from the main control circuit **50***a*.

[0112] The touch panel control circuit **76** controls the touch panel **30** and detects that a player has touched a predetermined touch area image, and then conveys the detection to the sub CPU **221**. Then, the sub CPU **221** performs predetermined control of images to allow various games to be performed and continued on the sub display **3** and the main display **4**.

[0113] In addition, in this embodiment, the sub control circuit **171**, which is independent from the main control circuit **50***a*, controls the sub display **3**, the main display **4**, the speakers **80**L and **80**R, etc. However, the present invention is not limited to the abovementioned configuration, and may be of such a configuration in which the main control circuit **50***a* directly controls the sub display **3**, the main display **4**, the speakers **80**L and **80**R, etc.

Control Operation of Slot Machine **1**

[0114] Various control operations executed in the main control circuit **50**a and the sub-control circuit **171** of the slot machine **1** are described. In the description, a point awarding symbol refers to a symbol or a combination of symbols entitled to a point. For example, it refers to a REACH state, 7 DORA, RANKUP!, and the like. Symbol applicable to points addition refers to a symbol combination for which a multiplication of a payout rate determined based on a point value or another method is to be performed at payout. For example, it refers to the combination "7, 7, 7".

[0115] FIG. **8** is a flowchart showing a routine of game execution processing of the slot machine **1**.

[0116] In the game execution processing, the CPU **50** first determines whether or not the player has bet any coins (Step S**10**). In this processing, the CPU **50** determines whether or not the CPU **50** has received an input signal output from the 1-BET switch **59** when a player operates the 1-BET button **11**, an input signal output from the 3-BET switch **60** when a player operates the 3-BET button **13**, or an input signal output from the 5-BET switch **61** when a player operates the 5-BET button **14**. In a case where the CPU **50** determines that the player has not bet any coins, the CPU **50** returns the processing to Step S**10**.

[0117] On the other hand, in a case where the CPU **50** determined in Step S**10** that a coin has been bet, the CPU **50** performs processing for decrementing the credit amount stored in the RAM **52**, depending on the amount of coins bet (Step S**11**).

[0118] Next, the CPU **50** determines whether the SPIN button **17** is activated (Step S**12**). In this processing, the CPU **50** determines whether or not the CPU **50** has received an input signal output from the spin switch **58** when the SPIN button **17** has been pressed. In a case where the CPU **50** determines that the SPIN button **17** is not activated, the CPU **50** returns the flow to Step S**12**. It should be noted that in a case where the SPIN button **17** is not activated (for example, when an indication is input that a game is terminated without the SPIN button **17** being activated), the CPU **50** cancels the decrementing results obtained in Step S**11**.

[0119] Next, the CPU **50** performs progressive addition (Step S**13**). More specifically, the CPU **50** performs addition of a certain percentage of coins bet. The amount of credits thus added may be undisplayed (hidden progressive), and is

preferentially paid out when a player wins a symbol applicable to point addition or awarding rate change, which is described later.

[0120] Next, the CPU **50** performs lottery processing (Step S**14**). In the lottery processing, the CPU **50** (computation processing device) executes a lottery program stored in the RAM **52** (storage device) so as to determine the code number for each of the reels **22** when it is stationary. Thus, the symbol combination to be rearranged is determined. It should be noted that the description is made in the present embodiment regarding an arrangement in which the symbol combination to be rearranged is determined, thereby selecting one winning combination from among multiple types of winning combinations. However, an arrangement may be made according to the present invention in which one winning combination is first selected from among the multiple types of winning combinations by lottery, followed by determining the symbol combination to be rearranged based on the winning combination thus selected.

[0121] Next, the CPU **50** performs reel rotation control processing (Step S**15**). In this processing, after all the reels **22** start to rotate, the CPU **50** stops the rotation of each reel such that the symbol combination rearranged along the pay line matches the symbol combination that corresponds to the winning combination determined in Step S**14**. Next, the CPU **50** performs win determination processing (Step S**16**). A detailed description is provided later regarding this processing with reference to FIGS. **10**, **24**, **32**, **37**, and **41**. Thereafter, the CPU **50** terminates the present processing.

[0122] FIG. **9** is a flowchart showing a subroutine of lottery processing which is called in Step S**14** of the game execution processing shown in FIG. **8**, thereby executing the subroutine of lottery processing. The CPU **50** executes a lottery program stored in the RAM **52**, thereby executing the lottery processing.

[0123] First, the CPU **50** selects a random number in a range of values from 0 to 255 for each of the three reels **22** by executing a random number generating program included in the lottery program (Step S**20**). The present embodiment describes the case of generating random numbers by way of a program (the case of using so-called software-based random numbers). In the present invention, a random number generator **55** may alternatively be provided to extract random numbers from the random number generator **55** (using so-called hardware random numbers).

[0124] Next, based on the selected three random numbers, the CPU **50** determines the code number of each reel **22** (see FIG. **5**) (Step S**21**). Thereafter, the CPU terminates the processing.

[0125] The code number selected for each reel **22** corresponds to the symbol code number of the symbol which is to be rearranged along the pay line. The CPU **50** determines the code number for each reel **22**, thereby determining a winning combination. For example, in a case where the CPU **50** determines that the code numbers for the reels **22** are "00", "00", and "00", it indicates that the CPU **50** has determined that a player wins the "WILD" winning combination. It should be noted that the reel rotation control processing is performed based on the reel code numbers.

[0126] FIG. **10** is a flowchart showing a subroutine of the win determination processing **1**, which is called in Step S**16** of the game execution processing shown in FIG. **8**, whereby the subroutine of the win determination processing **1** is executed.

[0127] In the win determination processing **1**, the CPU **50** first determines whether a bonus game has been triggered or not (Step S**30**). In this processing, the CPU **50** determines whether the rearranged symbol combination matches a winning combination for triggering a bonus game. In a case where the CPU determines that a bonus game has been triggered, the CPU calls bonus game processing (see FIG. **11** described later) (Step S**31**). Thereafter, the CPU **50** terminates the present processing.

[0128] On the other hand, in a case where the CPU **50** determines that a bonus game has not been triggered in Step S**30**, the CPU **50** determines whether a winning combination occurs or not (Step S**32**). In this processing, the CPU **50** determines whether the rearranged symbol combination matches a winning combination. In a case where the combination matches a winning combination, the CPU **50** calls payout processing (see FIGS. **12** or **17** described later) (Step S**33**). Thereafter, the CPU **50** terminates the present processing.

[0129] On the other hand, in a case where the CPU **50** determines that the rearranged symbol combination does not match a winning combination in Step S**32**, the CPU **50** then determines whether the rearranged symbol combination matches a point awarding symbol or not (Step S**34**). With reference to FIG. **14**, for example, the point awarding symbol may be a symbol combination such as "7, 7, BAR BAR". The CPU **50** may determine the point awarding symbol beforehand. In a case where the CPU determines that the rearranged symbol combination matches a point awarding symbol, the CPU **50** performs processing for determining symbols applicable to point addition (Step S**35**). In this processing, the CPU **50** determines a symbol combination (for example, "7, 7, 7" in FIG. **14**) for which a multiplication of a payout rate is to be performed at payout. Next, the CPU performs point addition processing (see FIG. **13** described later) (Step S**36**). Thereafter, the CPU **50** terminates the present processing.

[0130] On the other hand, in a case where the CPU determines that the rearranged symbol combination does not match a point awarding symbol in Step S**34**, the CPU **50** then terminates the present processing.

[0131] FIG. **11** is a flowchart showing a subroutine of a bonus game processing, which is called in Step S**31**, for win determination processing **1** shown in FIG. **10**, Step S**81** of win determination processing **2**, Step S**101** of win determination processing **3**, Step S**121** of win determination processing **4**, or Step S**131** of win determination processing **5**, thereby executing the subroutine of bonus game processing **1**. In the bonus game processing, firstly, the CPU **50** determines a number of bonus games T based upon the random number thus obtained which is obtained by executing a random number generating program included in a lottery program stored in the RAM **52** (Step S**40**). The CPU **50** stores the number of bonus games T thus determined in the RAM **52**.

[0132] Subsequently, the CPU **50** performs the lottery processing (Step S**41**) and the reel rotation control processing (Step S**42**). The processing in Step S**41** is substantially the same as that described with reference to FIG. **9**. In addition, the processing in Step S**42** is substantially the same as that described with reference to FIG. **8**. Since these processing steps have been described above, no description thereof follows hereafter.

[0133] Next, the CPU **50** determines whether a bonus game has been triggered or not, i.e., whether a bonus game has been triggered in display windows **23**, **24**, and **25** (Step S**43**). In a

case where the CPU **50** determines that a bonus game has been triggered, it determines a repetition number t for the bonus game by lottery (Step S**44**). The repetition number t thus determined is added to the number of currently remaining bonus games T (Step S**45**). With such an arrangement, in a case where the player has won another bonus game award in a bonus game, the remaining number of the bonus games is incremented. More specifically, in a case where the player wins another bonus game award that provides **17** rounds of games during the twelfth game of an initial bonus game of 20 rounds of games, the player wins 25 (=20−12+17) rounds of bonus games.

[0134] In a case where the bonus game has not been triggered in Step S**43**, the CPU **50** determines whether or not the player has won a winning combination (Step S**46**). In a case where the CPU **50** determines that the player has won a winning combination, the CPU **50** performs payout processing (see FIG. **12** or **17** described later) (Step S**47**).

[0135] After the execution of the processing in Step S**45** or S**47**, or in a case where the CPU **50** determines in Step S**46** that the player has not won any winning combination (i.e., in a case where the player has lost the game), the CPU **50** reads the number of bonus games T stored in the RAM **52**, and subtracts 1 from the number of bonus games T thus read. Then, the CPU **50** again stores the number of bonus games T after subtraction in the RAM **52** (Step S**48**).

[0136] Next, the CPU **50** determines whether or not the number of bonus games T has reached the number determined in Step S**40** (Step S**49**). More specifically, the CPU **50** determines whether or not the number of bonus games T stored in the RAM **52** is equal to zero. When the number of bonus games is not equal to zero, i.e., in a case where the CPU **50** determines that the number of bonus games executed has not reached the number determined in Step S**40**, the CPU **50** returns the processing to Step S**41**, and repeats the aforementioned processing. On the other hand, in a case where the CPU **50** determines that the number of bonus games T is equal to zero, i.e., in a case where the CPU **50** determines that the number of bonus games executed has reached the number determined in Step S**40**, the CPU terminates the present subroutine.

[0137] FIG. **12** is a flowchart showing a subroutine of payout processing which is called in Step S**33** of win determination processing **1** shown in FIG. **10**, Step S**83** of win determination processing **2**, Step S**103** of win determination processing **3**, Step S**123** of win determination processing **4**, Step S**133** of win determination processing **5**, or a subroutine of payout processing **1**, which is one example of payout processing called and carried out in Step S**47**.

[0138] In payout processing **1**, the CPU **50** first determines whether the winning is a symbol applicable to point addition or not (Step S**50**). In a case where the CPU **50** determines that the winning is a symbol applicable to point addition, the CPU **50** refers to the payout rate (Step S**51**). Next, the PCU **50** advances the processing to Step S**53**.

[0139] On the other hand, in Step S**50**, in a case where the CPU **50** determines that the winning is not a symbol applicable to point addition, the CPU **50** set the payout rate to 1 (Step S**52**). Next, in Step S**53**, the CPU **50** pays out the amount which is equivalent to an award of the winning combination symbol multiplied by the payout rate.

[0140] FIG. **13** is a flowchart showing a subroutine of point addition processing which is called to execute in Step S**36** of win determination processing shown in FIG. **10**.

[0141] In the point addition processing, the CPU **50** first performs a summation of points (Step S**60**). Next, the CPU **50** determines whether the points have exceeded a threshold or not (Step S**61**). In a case where the CPU **50** determines that the points have not exceeded the threshold, the CPU **50** terminates the present processing. On the other hand, in a case where the CPU **50** determines that the points have exceeded the threshold, the CPU **50** performs processing for updating the payout rate (Step S**62**). Thereafter, the CPU **50** terminates the present processing.

Trigger Rendered Effect and WIN Rendered Effect

[0142] A trigger rendered effect refers to a rendered effect of point addition processing by a point awarding symbol and a WIN rendered effect refers to a rendered effect of payout processing by a symbol applicable to point addition, which are described in the abovementioned flowchart (Steps S**33** and S**34** to S**36** in FIG. **10**). Regarding the abovementioned rendered effects, an example of images displayed for a trigger rendered effect **1** and its variations, trigger rendered effects **2** and **3** is described with the drawings. In addition, an example of images displayed for a WIN rendered effect **1** in the trigger rendered effects **1** and **2** and a WIN rendered effect **2** in the trigger rendered effect **3** is described with reference to the drawings.

Trigger Rendered Effect **1**

[0143] FIGS. **14**A and **14**B are an example of images representing a trigger rendered effect **1** displayed on the main display **14** and the sub display **3**. In the trigger rendered effect **1**, a payout rate is determined based on points which are added when a rearranged symbol combination is in the REACH state. An image of the trigger rendered effect **1** shown in FIGS. **14**A and **14**B show that the rearranged symbol combination is in the REACH state in relation to a "7" combination, which is a situation indicating that the point is equivalent to 1 and the payout rate is 1.5. Even in a case where a player loses a game, the point is accumulated, thereby preventing a situation in which a player loses interest in the amusement service.

[0144] FIG. **14**A shows an example of an image of the trigger rendered effect **1** displayed on the sub display **3**. The image shown in FIG. **14**A indicates an obtained point, a payout rate, and a symbol combination of payout. The obtained point is represented with a circle with oblique lines **102** in the trigger rendered effect **1** (a display type for showing a required number). The payout rate is represented with "×1.5", "×2", "×3", and "×6". The symbol combination of payout is represented as "7, 7, 7" as indicated by a numeral **104**. In addition, a point is represented with an open circle **103**. For example, the image shown in FIG. **14**A indicates that the rate is 1.5 if the point is not more than 2, the rate is 2 if the point is 3 to 5, the rate is 3 if the point is 6 to 10, and the rate is 6 if the point is equal to or greater than 11. In other words, the image of the trigger rendered effect **1** shown in FIG. **14**A indicates that the amount of normal payout multiplied by the rate 1.5 is paid out in a case where a symbol combination is "7, 7, 7". Also in this image, the message "POINT GET!" **101** represents that a player obtains a point.

[0145] FIG. **14**B shows an example of an image of the trigger rendered effect **1** displayed on the main display **4**. The image shown in FIG. **14**B illustrates symbols rearranged, and then the combination "7, 7, BARBAR", which is in the

REACH state in relation to the combination "7, 7, 7", is displayed in the left display window **23**, the center display window **24**, and the right display window **25**. A message "YOU'VE GOT A POINT!" **105** represents that a player has obtained a point.

WIN Rendered Effect **1**

[0146] FIGS. **15**A and **15**B show an example of images of the WIN rendered effect **1** displayed on the main display **4** and the sub display **3**. In the WIN rendered effect, a certain amount is paid out based on a rate according to point addition in a case where a rearranged symbol combination is equivalent to symbols applicable to point addition. The images of the WIN rendered effect **1** shown in FIGS. **15**A and **15**B indicate that since the rearranged symbol combination is "7, 7, 7", a certain amount is paid out based on a rate according to point addition.

[0147] FIG. **15**A shows an example of an image of the WIN rendered effect **1** displayed on the sub display **3**. The image represents 5 points obtained by a player, as indicated by circles with oblique lines **102**. In addition, "7, 7, 7" 104 and "×2" indicate that a player obtains double amount of normal payout in a case where a symbol combination is "7, 7, 7".

[0148] FIG. **15**B shows an example of an image of the WIN rendered effect **1** displayed on the main display **4**. The image represents a rearrangement of symbols and the resulting combination "7, 7, 7" displayed in the left display window **23**, the center display window **24**, and the right display window **25**. A message "WIN! 100×2" 111 indicates that a player obtains double the normal payout of 100 credits when the combination is "7, 7, 7".

Trigger Rendered Effect **2**

[0149] In the trigger rendered effect **1**, a payout rate is determined based on points which are added when a rearranged symbol combination is in the REACH state. On the other hand, in the trigger rendered effect **2**, a payout rate is determined based on points added when one of the rearranged symbols has a DORA symbol. An embodiment regarding the foregoing is described with reference to FIG. **16**.

[0150] FIGS. **16**A and **16**B are an example of images representing a trigger rendered effect **2** displayed on the main display **14** and the sub display **3**. The images of the trigger rendered effect **2** shown in FIGS. **16**A and **16**B show that points are added in a case where one of the rearranged symbols is "7 DORA".

[0151] FIG. **16**A is an example of an image representing the trigger rendered effect **2** displayed on the sub display **3**. An image shown in FIG. **16** indicates that the amount of a normal payout multiplied by the rate **1.5** is paid out in a case where a symbol combination is "7, 7, 7 DORA".

[0152] FIG. **16**B shows an example of an image of the trigger rendered effect **2** displayed on the main display **4**. The image represents a rearrangement of symbols and the resulting combination "BAR BAR, BAR, 7 DORA", which includes a DORA symbol, displayed in the left display window **23**, the center display window **24**, and the right display window **25**.

[0153] In addition, as a variation for awarding points, such an arrangement may alternatively be made in which when a symbol with a DORA symbol is displayed, a lottery is performed to determine whether points are given or not, as well as an arrangement in which points are added, whenever a symbol with a DORA symbol is displayed.

Trigger Rendered Effect **3** (HALF WILD)

[0154] In the trigger rendered effect **1**, a payout rate is determined based on points which are added when a rearranged symbol combination is in the REACH state. On the other hand, in the trigger rendered effect **3**, a payout rate is determined based on points which are added when one of the rearranged symbols is a specified symbol ("HALF WILD"). An embodiment regarding the foregoing is described with reference to FIGS. **17** to **19**.

Flowchart of Payout Processing **2** (HALF WILD)

[0155] FIG. **17** is a flowchart showing a subroutine of payout processing **2** as an example of payout processing which is called to execute in Step S**33** of win determination processing shown in FIG. **10**, Step S**83** of win determination processing **2**, Step S**103** of win determination processing **3**, Step S**123** of win determination processing **4**, Step S**131** of win determination processing **5** or Step S**47** of bonus game processing.

[0156] In payout processing **2**, the CPU **50** first determines whether the winning includes a symbol applicable to point addition or not (Step S**70**). In a case where the CPU **50** determines that the winning includes a symbol applicable to point addition, the CPU **50** refers to a payout rate (Step S**71**). Next, the CPU **50** advances the processing to Step S**73**.

[0157] On the other hand, in Step S**70**, in a case where the CPU **50** determines that the winning does not include a symbol applicable to point addition, the CPU **50** sets the payout rate to 1 (Step S**72**).

[0158] Next, in Step S**73**, the CPU **50** determines whether the rearranged symbol combination includes a HALF WILD symbol or not. In a case where the CPU **50** determines that the rearranged symbol combination includes a HALF WILD symbol, the CPU **50** pays out half of the amount of an award for a winning symbol multiplied by a payout rate (Step S**74**). Thereafter, the CPU **50** terminates the present processing.

[0159] On the other hand, in Step S**73**, in a case where the CPU **50** determines that a HALF WILD symbol is not included, the CPU **50** pays out an amount which is equivalent to the award for the winning symbol multiplied by the payout rate (Step S**75**). Thereafter, the CPU **50** terminates the present processing.

[0160] FIG. **18** is an example of an image representing a trigger rendered effect **3** displayed on the main display **14**. The image represents a rearrangement of symbols and the resulting combination "7, 7, HALF WILD" displayed in the left display window **23**, the center display window **24**, and the right display window **25**. Since one of the rearranged symbols is "HALF WILD", it shows that points are added.

WIN Rendered Effect **2**

[0161] FIG. **19** is an example of an image representing a WIN rendered effect **2** displayed on the main display **14**. The image represents a rearrangement of symbols and the resulting combination "7, 7, HALF WILD" displayed in the left display window **23**, the center display window **24**, and the right display window **25**. Since a winning of HALF WILD occurs, the image represents that a certain amount multiplied by the payout rate based on points is paid out. A message "WIN! 80×3 240 CREDITS!" **113** indicates the payout of 240 credits that are equivalent to half the amount (160 credits)

multiplied by 3 for a case where the payout rate is 3 based on the currently obtained points and normal payout of the combination "7, 7, 7" is 160 credits.

Regarding Variations of Points Display

[0162] An image of the trigger rendered effect indicates obtained points, a payout rate, and a symbol combination of a payout. As an example of an image, a display type for showing required points to upgrade the payout rate is shown in FIG. **14**. Here, other display types are described. Examples for the other display types are as follows: a point saving effect **1**, which does not show at which points a payout rate is upgraded (see FIG. **20** described later); a point saving effect **2**, which does not show information as to current points that a player has obtained (see FIG. **21** described later); and a point saving effect **3**, which accumulates points for each winning combination (see FIG. **22** described later). Each of these types can be displayed in combination with a trigger rendered effect. Details of each display type are described below with reference to the drawings.

Points Saving Effect **1**

[0163] FIG. **20** is an example of an image displaying the obtained points on the sub display **3**. This display type (gauge type) does not show any specific information such as current points that a player has obtained, points by which a payout rate is upgraded, and the like. In the image shown in FIG. **20**, a message "RANK UP BAR" **121** indicates that a gauge **123** represents progress of upgrading to the next level, and "NEXT ×2" **122** indicates that a payout rate becomes double by an upgrade to the next level through incrementing of points. More specifically, this example shows that a certain amount is paid out based on a rate according to point addition, and a payout rate becomes double as a result of upgrading for a case where the rearranged symbol combination is "7, 7, 7".

Points Saving Effect **2**

[0164] FIG. **21** is an example of an image displaying the obtained point on the sub display **3**. This display type (a numeral value display type) does not show any information as to what points a player possesses. An arrow **131** divided into three pieces represents a current payout rate and a probability that the current payout rate is upgraded to the next level of payout rate if a predetermined condition is fulfilled. 117 DORA" **133** represents a symbol applicable to point addition. "×3 Hit" **132** represents that the current payout rate is upgraded to the next level of payout rate if the number of appearances of a symbol applicable to point giving reaches three times. That is, the present example represents that the current payout rate is 1.5 and the payout rate becomes double if the number of appearances of "7 DORA" reaches three times. In a case where a payout rate is changed, for example, the displayed "×1.5" **134** changes to "×2" and the displayed "×2" **135** changes to "×3".

Points Saving Effect **3**

[0165] FIG. **22** is an example of an image displaying the obtained points on the sub display **3**. This display includes a gauge that is divided to show the points required for each winning combination. When points are accumulated, a gauge applicable to the next upgrading appears on the display. In the rendered image shown in FIG. **22**, an image **141** indicates that the payout is 100 credits in a case where a rearranged symbol combination is "7, 7, 7". This example shows that the current payout rate is 1.5, three points are required for upgrading, and the current points obtained a player is two. Similarly, an image **142** indicates that the payout is 50 credits in a case where a rearranged symbol combination is "3 BAR, 3 BAR, 3 BAR". This example shows that the current payout rate is 2, six points are required for upgrading, and the current points obtained by a player is three. Furthermore, an image **143** indicates that the payout is 30 credits in a case where a rearranged symbol combination is "BAR, BAR, BAR". This example shows that the current payout rate is 1, two points are required for upgrading, and the current points obtained by a player is one.

[0166] In an aspect of the point saving effect **3**, for example, the CPU **50** may add points for the combination "7-7-7" (the image **141**) in a case where a rearranged symbol combination is "7, 7, BAR", and may add points for the combination "3BAR-3BAR-3BAR" in a case where a rearranged symbol combination is "3BAR-3BAR-7". That is, a symbol combination entitled to receiving points may be different depending on each winning combination.

Variation **2**: RANK UP!

[0167] A variation that provides a symbol "RANKUP!" is described here. In a case where the symbol "RANK UP!" appears in a rearrangement, points are added. When the accumulated points exceed a threshold, a symbol applicable to point addition is updated. This example is described with reference to FIGS. **23** to **28**.

[0168] FIG. **23** shows symbols arranged on the reels **22**L, **22**C, and **22**R, and code numbers. FIG. **23** shows one example of a symbol line that includes seven pieces of symbols, a plurality types of symbols, which are shown on each reel **22**L, **22**C, and **22**R have been arranged. Symbol lines with a plurality of types of symbols in FIG. **23** are similar to those of FIG. **5** except for the "RANK UP!" symbol **100**.

[0169] FIG. **24** is a flowchart showing a subroutine of win determination processing **2** with regards to "RANK UP!". Win determination processing **2** is called and executed in Step S**16** of game execution processing shown in FIG. **8** in a case where the "RANK UP!" symbol **100** occurs among the plurality of types of symbols shown on the reels **22**L, **22**C, and **22**R.

[0170] In win determination processing **2**, the CPU **50** first determines whether a bonus game has been triggered or not (Step S**8**). In the processing, the CPU **50** determines whether the rearranged symbol combination matches a winning combination for triggering a bonus game. In a case where the CPU determines that a bonus game has been triggered, the CPU calls bonus game processing (see FIG. **11**) (Step S**81**), and then terminates the present processing.

[0171] On the other hand, in a case where the CPU determines that the bonus game has not been triggered, the CPU **50** determines whether or not a player has won any award (Step S**82**). In this processing, the CPU **50** determines whether the rearranged symbol combination matches a winning combination. In a case where the rearranged symbol combination matches a winning combination, the CPU calls payout processing (see FIG. **12** or **17**) (Step S**83**) and terminates the present processing.

[0172] On the other hand, in a case where the CPU determines that the rearranged symbol combination does not match a winning combination, the CPU then determines whether the rearranged symbol combination achieves

"RANK UP!" or not (Step S**84**). In this processing, the CPU **50** determines whether the rearranged symbols include a "RANK UP!" symbol or not. In a case where the CPU **50** determines that the rearranged symbol includes a "RANK UP!", the CPU **50** performs payout rate change processing for a symbol applicable to point addition (see FIG. **25** described later) (Step S**85**). Thereafter, the CPU **50** terminates the present processing.

[0173] On the other hand, in a case where the CPU determines that the rearranged symbol combination does not achieve "RANK UP!" in Step S**84**, the CPU then terminates the present processing.

[0174] FIG. **25** is a flowchart showing a subroutine of payout rate change processing for a symbol applicable to point addition, which is called to execute in Step S**85** of win determination processing **2** as shown in FIG. **24**.

[0175] In payout rate change processing for a symbol applicable to point addition, the CPU **50** first performs point addition processing (Step S**90**). Next, the CPU **50** determines whether point value has exceeded a threshold or not (Step S**91**). In a case where the CPU determines that the point value has not exceeded the threshold, the CPU terminates the present processing.

[0176] On the other hand, in a case where the CPU determines that the point value has exceeded the threshold in Step S**91**, the CPU **50** changes a symbol applicable to point addition (Step S**92**) (see FIG. **27** described later). Next, the CPU **50** determines whether the symbol combination is "7, 7, 7" or not (Step S**93**). In a case where the CPU determines that the symbol combination is not "7, 7, 7", the CPU terminates the present processing. On the other hand, in a case where the CPU **50** determines that the symbol combination is "7, 7, 7", the CPU **50** changes the payout rate (Step S**94**) (see FIG. **28** described later). Thereafter, the CPU **50** terminates the present processing.

RANK UP Effect **1**

[0177] FIGS. **26**A and **26**B are one example of images showing the RANK UP effect **1** displayed on the main display **4** and the sub display **3**. An image of the RANK UP effect **1** shown in FIGS. **26**A and **26**B indicate that points are added in a case where a rearranged symbol includes a "RANK UP!" symbol and that a symbol applicable to point addition is updated in a case where the point value thus added exceeds a threshold.

[0178] FIG. **26**A is an example of an image of the RANK UP effect **1** displayed on the sub display **3**. In the image shown in FIG. **26**A, "BARBAR BARBAR BARBAR - - - 50", as indicated by a numeral **156**, represents that an amount of payout is 50 credits in a case where a rearranged symbol combination is "BARBAR". Similarly, "BAR BAR BAR - - - 100", as indicated by a numeral **155**, represents that an amount of payout is 100 credits in a case where a rearranged symbol combination is "BAR". In addition, "7 7 7 - - - 300", as indicated by a numeral **154**, represents that an amount of payout is 300 credits in a case where a rearranged symbol combination is "7, 7, 7". Furthermore, "×2" represents that a payout rate is double. In addition, an arrow **158** indicates that a symbol applicable to point addition is updated in a case where a game is executed, a "RANK UP!" symbol appears following a rearrangement of symbols, and the point value thus added exceeds a predetermined threshold. In the present example identified by a bold line **157** enclosing "×2", a symbol applicable to point addition is 2BAR (BARBAR), and the payout rate is double.

[0179] FIG. **26**B is an example of an image of the RANK UP effect **1** displayed on the main display **4**. In the image shown in FIG. **26**B, symbols are rearranged and the combination "BAR, 7, RANK UP!" is displayed on the left display window **23**, the center display window **24**, and the right display window **25**, respectively. Marks **151**, **152**, and **153** represent that a "RANK UP!" symbol has appeared and points have been added. The present example represents that the mark **151** is turned on when the "RANK UP!" symbol appears once. In a case where the "RANK UP!" symbol appears three times, the point value thus added exceeds a threshold. Then, a symbol applicable to point addition is changed from 2BAR (BARBAR) to "BAR BAR BAR - - - 100".

RANK UP Effect **2**

[0180] FIGS. **27**A and **27**B are an example of images showing the RANK UP effect **2** displayed on the main display **4** and the sub display **3**. FIGS. **27**A and **27**B illustrates updating of a payout rate for a case where points accumulated based on the number of appearances of the "RANK UP!" symbol exceeds a threshold, and one round of updating of symbols applicable to point addition is completed.

[0181] FIG. **27**A is an example of an image of the RANK UP effect **2** displayed on the sub display **3**. In the image shown in FIG. **27**A, "BARBAR BARBAR BARBAR - - - 50" 156, "×2", and the like are similar to those of FIG. **26**A. An arrow **160** indicates that the payout rate is upgraded to triple for a case when the following conditions are met: a game is executed, the "RANK UP!" symbol appears following a rearrangement of symbols, the point value added exceeds a predetermined threshold, and a symbol applicable to point addition is updated from "7, 7, 7 - - - 300×2" to the next one. Similarly, the arrow **160** indicates the payout rate is further upgraded to quadruple when another round of updating of the symbol applicable to point addition occurs.

[0182] FIG. **27**B is an example of an image of the RANK UP effect **2** displayed on the main display **4**. The image shows a rearrangement of symbols and the resulting combination "BARBAR, BAR, RANK UP!" displayed in the left display window **23**, the center display window **24**, and the right display window **25**, respectively. Since the points thus added are three, all the marks **151**, **152**, and **153** are turned on. The sub display **3** shows that the symbol applicable to point addition is changed to "BAR BAR BAR - - - 100".

[0183] FIGS. **28**A and **28**B are an example of images of the RANK UP effect **2** displayed on the main display **4** and the sub display **3** after a transition of game state shown in FIGS. **27**A and **28**B.

[0184] FIG. **28**A is an example of an image of the RANK UP effect **2** displayed on the sub display **3**. In the image shown in FIG. **28**A, "×3" with a bold line **161** indicates that an award is 100 credits and its payout rate is triple in a case where a rearranged symbol combination forms "BAR BAR BAR".

[0185] FIG. **28**B is an example of an image of the RANK UP effect **2** displayed on the main display **4**. In the image shown in FIG. **28**B, symbols are rearranged and the combination "BAR, BAR, BAR" is displayed in the left display window **23**, the center display window **24**, and the right display window **25**, respectively. Since the combination

"BAR, BAR, BAR" is achieved, the message "WIN! 100×3 300 CREDTIS!!" **162** is displayed, which indicates that the payout is 300 credits.

Variation **3**: WHEEL

[0186] A variation that provides a symbol "WHEEL" is described here. In a case where a "WHEEL" symbol is arranged, a payout rate or an award is determined by lottery. A WHEEL winning combination is determined here. WHEEL winning combination refers to a symbol combination to which an award determined by lottery is provided along with a payout rate, which is also determined by lottery. This example is described with reference to FIGS. **29** to **31**.

WHEEL Effect **1**

[0187] FIGS. **29**A and **29**B are an example of images of the WHEEL effect **1** displayed on the main display **4** and the sub display **3**. As shown in FIGS. **29**A and **29**B, a payout rate or an award is selected for a case where a "WHEEL!" symbol is rearranged.

[0188] FIG. **29**A is an example of an image of the WHEEL effect **1** displayed on the sub display **3**. The image shown in FIG. **29**A shows that a payout rate or an award on four elliptical sections **190** (hereinafter referred to as "layers 190") is selected based on a result of a lottery. When a "WHEEL" symbol appears, a payout rate or an award on a first layer **191** is to be selected by a lottery. Based on the result of the lottery, a payout rate such as "×2" or an arrow oriented to a second layer is selected. In this example, "×2" is selected, and a circle with a bold line **195** and the message "BONUS WHEEL! ×2" **196** indicate that the payout rate is double. The WHEEL winning combination may be determined by lottery when a "WHEEL!" symbol has appeared or may alternatively be determined in advance.

[0189] For example, the CPU **50** determines any one of a payout rate and an arrow on the first layer by lottery of random numbers. In a case where an arrow is selected based on the result of the lottery, a game shifts to the second layer. Subsequently, the CPU **50** determines any one of a payout rate, an award, and an arrow on the second layer. In a case where the CPU **50** selects "30" indicating an award, the CPU **50** provides a normal award plus 30 credits every time a WHEEL winning combination (7-7-WILD) is formed in a subsequent game. In addition, for example, in a case where the CPU **50** selects "2", the CPU **50** provides double the amount of a normal payout every time a WHEEL winning combination (7-7-WILD) is formed in a subsequent game. In addition, every time a "WHEEL!" symbol appears and the WHEEL effect is performed, the CPU **50** changes a status of payout rate such as "×2", "×3", and "30". Furthermore, in a case where a game reaches a fourth layer by the WHEEL effect, the CPU **50** provides a progressive award. In addition, regarding a way of lottery on the WHEEL effect, a symbol may be determined for each layer or may be determined for all the layers (the first layer to the fourth layer) based on a result of a single lottery.

[0190] FIG. **29**B is an example of an image of the WHEEL effect **1** displayed on the main display **4**. The image indicates a rearrangement of symbols and the resulting combination "BAR, 7, WHEEL!" displayed in the left display window **23**, the central display window, and the right display window, respectively. The message "BONUS WHEEL!" **197** indicates that a rendered effect starts as a result of an appearance of "WHEEL!".

[0191] FIGS. **30**A and **30**B are an example of images of the WHEEL effect **1** displayed on the main display **4** and the sub display **3** in a case where a game has been executed and advanced from FIG. **29**.

[0192] FIG. **30**A is an example of an image of the WHEEL effect **1** displayed on the sub display **3** in a case where a rearranged combination matches a WHEEL winning combination. In the image shown in FIG. **30**A, a circle with a bold line **181** and the message "BONUS WHEEL! ×3" indicate that a payout rate is triple selected by a lottery on the second layer **192**.

[0193] FIG. **30**B is an example of an image of the WHEEL effect **1** displayed on the main display **4**. The image indicates a rearrangement of symbols and the resulting combination "7, 7, WILD" forming a WHEEL winning combination displayed in the left display window **23**, the center display window **24**, and the right display window **25**. The message "WIN! 300×3 900 CREDITS!!" **183** indicates that 900 credits are paid out for the rearranged symbol forming a WHEEL winning combination.

WHEEL Effect **2**

[0194] FIGS. **31**A and **31**B are an example of images showing the WHEEL effect **2** displayed on the main display **4** and the sub display **3** in a case where a rearranged combination matches a WHEEL winning combination. The image of the WHEEL effect **2** shown in FIG. **31**A indicates that an arrow orienting to the second layer and "30" on the second layer are selected by a lottery of random numbers.

[0195] FIG. **31**A is an example of an image showing the WHEEL effect **2** displayed on the sub display **3**. In the image shown in FIG. **31**A, a circle with a bold line **185** and the message "BONUS WHEEL! 30" **186** indicate that a payout as a fixed award is 30 credits based on a lottery on the second layer **192**. Suppose that although "×2" has been selected as a payout rate as described above, a player wins an arrow orienting to the second layer and an award "30" by a lottery of random numbers. When the player achieves a WHEEL winning combination, she earns a total of 330 credits, which includes a normal award of 300 and an additional award of 30. That is, the payout rate "×2" is cancelled and a predetermined award "30" is paid out instead. Then the CPU terminates the WHEEL effect.

[0196] FIG. **31**B is an example of an image of WHEEL effect **2** displayed on the main display **4**. The image indicates a rearrangement of symbols and the resulting symbol combination "7, 7, WILD", which matches a WHEEL winning combination, displayed in the left display window **23**, the center display window **24**, and the right display window **25**, respectively. The message "WIN! 300+30 330 CREDITS!!" indicates that 330 credits are paid out for the rearranged symbols matching a WHEEL winning combination.

WILD

[0197] Here, a case is described in which a "WILD" symbol is rearranged. The "WILD" symbol can represent any symbol in a rearranged combination. For example, in a case where a rearranged symbol combination is "BAR BAR WILD", this combination is equivalent to a combination "BAR BAR BAR". The equivalent symbol combination in this case

("BAR BAR BAR"), in which one "BAR" symbol is represented by a "WILD" symbol, is called a "supplemented combination". The wild effect is described with reference to FIGS. **32** and **33**. In addition, since the payout rate is not determined based on added points in the following embodiments, explanations are made using the term "a symbol applicable to payout rate change" instead of using "a symbol applicable to point addition".

[0198] FIG. **32** is a flowchart showing a subroutine of the win determination processing **3** (WILD Effect), which is called to execute in Step S**16** of game execution processing shown in FIG. **8**.

[0199] In the win determination processing **3**, the CPU **50** first determines whether a bonus game has been triggered or not (Step S**100**). In the processing, the CPU **50** determines whether the rearranged symbol combination matches a winning combination for triggering a bonus game. In a case where the CPU determines that a bonus game has been triggered, the CPU calls bonus game processing (see FIG. **11** described later) (Step S**101**). Thereafter, the CPU **50** terminates the present processing.

[0200] On the other hand, in a case where the CPU **50** determines that a bonus game has not been triggered in Step S**100**, the CPU **50** determines whether the combination of symbols is a winning combination or not (Step S**102**). In this processing, the CPU **50** determines whether the rearranged symbol combination matches a winning combination. In a case where the combination matches a winning combination, the CPU **50** calls payout processing (see FIGS. **12** or **17** described later) (Step S**103**). Thereafter, the CPU **50** terminates the present processing. In the payout processing, the CPU **50** also performs payout processing for occurrence of a "supplemented combination", as described later.

[0201] In a case where the CPU determines that the rearranged symbol combination does not match a winning combination in Step S**102**, the CPU **50** determines whether the rearranged symbol combination matches "a REACH combination and WILD" or not (Step S**104**). Here, "REACH combination" refers to a winning combination including symbols displayed on the first reel **22**L and the second reel **22**C together with WILD. For example, a REACH combination in S**110** of FIG. **33** is "BAR BAR". In addition, an "supplemented combination", as described later, refers to a symbol combination in which symbols included in a REACH combination are displayed on the first reel **22**L, the second reel **22**C, and the third reel **22**R. For example, in a case where a "REACH combination" is "BAR BAR", the "supplemented combination" is "BAR BAR BAR".

[0202] Next, in Step S**105**, the CPU **50** determines whether a REACH combination stored in the RAM **52** previously is the same as the current rearranged REACH combination or not. In a case where the CPU determines that those combinations are different from each other, the CPU **50** advances the processing to Step S**106**. That is, in a case where a "REACH combination and WILD" is achieved after the rearrangement, the CPU **50** consistently stores the REACH combination as a symbol applicable to payout rate change. Then, the REACH combination is stored in the RAM **52** and retained even in subsequent games. Here, the symbol applicable to payout rate change refers to a symbol combination for which a payout rate is changed as shown in FIG. **33**.

[0203] In a case where the CPU **50** determines that those combinations are different from each other, the CPU **50** sets a symbol applicable to payout rate change to a supplemented combination corresponding to the current REACH combination in Step S**106**. Thereafter, the CPU **50** advances the processing to Step S**108**.

[0204] On the other hand, in a case where the CPU **50** determines that those combinations are identical with each other, the CPU **50** changes a payout rate to be used when a supplemented combination is achieved. In other words, the CPU **50** changes a payout rate for credits which are paid out when a player wins a supplemented combination (Step S**107**).

[0205] Next, after the processing of Step S**106** or Step S**107**, the CPU **50** provides credits to be paid out when the supplemented combination is achieved in Step S**108**. Thereafter, the CPU **50** terminates the present processing.

HALF WILD Effect

[0206] FIG. **33** shows a transition of images depicting the HALF WILD effect displayed on the main display **4**. Here, a HALF WILD symbol differs from a WILD symbol in that an amount of payout for a HALF WILD combination is half the amount of payout for a WILD combination. However, a symbol on the third reel **22**R serves as a wild card in the HALF WILD combination, which is the same as that in the WILD combination. Therefore, although a description is made regarding HALF WILD in the following embodiments, the description is also applicable to a description regarding WILD.

[0207] If a REACH combination and a "HALF WILD" symbol are arranged and the same REACH combination and a "HALF WILD" symbol are rearranged while performing a HALF WILD effect, the payout rate is increased. On the other hand, in a case where a different REACH combination and a "HALF WILD" symbol are rearranged, a symbol applicable to payout rate change is updated. In FIG. **33**, it is assumed that the payout is 100 credits for the rearranged symbol combination of "BAR BAR BAR", and the payout is 200 credits for the rearranged symbol combination of "7, 7, 7".

[0208] FIG. **33** (S**110**) shows that a symbol applicable to payout rate change is "BAR" and a payout rate of double is set for an occurrence of the combination "BAR, BAR, HALF WILD". In addition, FIG. **33** shows that since the combination thus achieved includes a "HALF WILD" symbol, 50 credits, which is half of 100, is obtained.

[0209] FIG. **33** (S**111**) shows that 200 credits, which is double of 100 credits, has been obtained for an occurrence of the combination "BAR, BAR, BAR".

[0210] FIG. **33** (S**112**) shows that as a result of a recurrence of the combination "BAR, BAR, HALF WILD" following Step S**110**, which is the same REACH combination, a payout rate to be paid when a winning combination is achieved is changed from double to triple.

[0211] FIG. **33** (S**113**) shows that 300 credits, which is triple of 100 credits, is obtained for the combination "BAR, BAR, BAR" occurred following Step S**112**.

[0212] FIG. **33** (S**114**) shows that as a result of an occurrence of the combination "7, 7, HALF WILD" following Step S**110**, whose REACH combination is "7, 7", a symbol applicable to payout rate change is updated from "BAR, BAR, BAR" to "7, 7, 7", and the payout rate is double. FIG. **33** (S**114**) also shows that since the combination thus achieved includes a "HALF WILD" symbol, 100 credits, which is half of 200, is obtained. In this case, a payout rate of the previous REACH combination "BAR, BAR, BAR" is reset, and its payout rate "×2" is not maintained for the subsequent occurrence of "BAR, BAR" REACH combination.

[0213] FIG. **33** (S**115**) shows that 400 credits, which is double of 200 credits, is obtained for an occurrence of the combination "7, 7, 7" following Step S**114**.

Second Embodiment

[0214] In the following, a slot machine **1** with a sub reel according to a second embodiment is described with reference to FIGS. **34** to **46**. Firstly, the portions different from the first embodiment are described based on FIGS. **34** and **35** regarding the outline configuration of the slot machine **1** according to the present embodiment.

[0215] FIG. **34** is a perspective view of slot machine **1**. The slot machine **1** has a configuration in which a first sub reel **26** and a second sub reel **27** are added to the slot machine **1** of the first embodiment. The first sub reel **26** is provided on a main display **4**. A symbol on the first sub reel **26** is rotated and rearranged upon a rearrangement of three reels **23**, **24**, and **25**. The second sub reel **27** is provided on a sub display **3**. A symbol on the second sub reel **27** is rotated and rearranged upon a rearrangement of the first sub reel **26**.

[0216] FIG. **35** is a block diagram schematically showing a control system of the slot machine **1**. With such a configuration in which the first sub reel **26** and the second sub reel **27** are added to the slot machine **1** of the first embodiment, the following are additional components: a motor driving circuit **82**, a stepping motor **82**R, and a reel position detecting circuit **85** for the first sub reel **26**; and a motor driving circuit **83**, a stepping motor **83**R, and a reel position detecting circuit **84** for the second sub reel **27**.

Example of First Sub Reel

[0217] Examples using the first sub reel **26** are described with reference to FIGS. **36** to **39**.

Symbol Arrangement of First Sub Reel

[0218] FIG. **36** is a diagram showing a symbol and a code number displayed on the first sub reel **26**. FIG. **36** shows one example of a symbol line in which six pieces, a plurality of types of symbols, are arranged on the first sub reel **26**. This arrangement is converted into a table as data, and stored in the ROM **51** (see, FIG. **35**). Code numbers of "00" to "05" are given to each symbol, as shown in FIG. **36**, and stored in the ROM **51** as a data table (see FIG. **35**). That is, it is possible to specify a symbol uniquely by identification of the first sub reel **26** and the code number.

[0219] On a peripheral surface of the first sub reel **26**, four types of symbols are arranged as shown in FIG. **36**. More specifically, symbols arranged on the peripheral surface of the first sub reel **26** are a "×1" symbol **210**, "×2" symbol **211**, "×10" symbol **212**, and "×3" symbol **213**. On a peripheral surface of the first sub reel **26**, these four types of symbols are arranged in the order shown in FIG. **36**. The first sub reel **26** is driven to rotate in such a manner that the symbol line moves in an arrow direction of FIG. **36**.

[0220] FIG. **37** is a flowchart showing a subroutine of win determination processing **4**, which is called to execute in Step S**16** of game execution processing shown in FIG. **8**.

[0221] In win determination processing **4**, CPU **50** first determines whether a bonus game has been triggered or not (Step S**120**). In the processing, the CPU **50** determines whether the rearranged symbol combination matches a winning combination for triggering a bonus game. In a case where the CPU **50** determines that a bonus game has been triggered, the CPU **50** calls bonus game processing (see FIG. **11**) (Step S**121**). Thereafter, the CPU **50** terminates the present processing.

[0222] On the other hand, in a case where the CPU determines that the bonus game has not been triggered in Step S**120**, the CPU **50** determines whether or not a player has won any award (Step S**122**). In this processing, the CPU **50** determines whether the rearranged symbol combination matches a winning combination. In a case where the rearranged symbol combination matches a winning combination, the CPU calls payout processing (see FIG. **12** or **17**) (Step S**123**). Thereafter, the CPU **50** terminates the present processing.

[0223] On the other hand, in Step S**122**, in a case where the CPU determines that the rearranged symbol combination does not match a winning combination, the CPU then determines whether the rearranged symbol combination achieves "RANK UP" or not (Step S**124**). In a case where the CPU determines that a symbol is "RANK UP!" , the CPU **50** performs the first sub reel rotation processing (Step S**125**). Next, the CPU **50** performs payout rate determination processing when a supplemented combination is achieved (Step S**126**). The "supplemented combination" here may be the same as that described in WILD of the first embodiment 1. Alternatively, the CPU **50** may determine in advance a predetermined combination as a supplemented combination. Thereafter, the CPU **50** terminates the present processing.

[0224] In a case where the first sub reel **26** is rotated again after the rearrangement, the payout rate determined previously based on the payout rate determination processing (S**126**) is reset. A new payout rate is determined based on the result of a rearrangement of the first sub reel **26**, which is newly driven to rotate.

[0225] FIG. **38** is an example of an image of the first sub reel effect **1** displayed on the main display **4**. The image shown in FIG. **48** indicates a rearrangement of symbols and the resulting combination "7, BAR, RANKUP!" displayed in the left display window **23**, the center display window **24**, and right display window **25**, respectively. An arrow **241** of the first sub reel **26** indicates that the first sub reel **26** is rotating, following an occurrence of a "RANK UP!" symbol.

[0226] FIG. **39** is an example of an image of the first sub reel effect **1** displayed on the main display **4** in a case where a game has been executed and advanced from FIG. **38**. The image shown in FIG. **39** indicates the rotation of the first sub reel **26**, a rearrangement of symbols, and the resulting appearance of a "×1" symbol, a "×2" symbol, and a "×10" symbol. A frame **242** on the first sub reel **26** and a "×2" symbol **243** indicate that the determined payout rate is "×2".

Examples of First and Second Sub Reels

[0227] Examples using the first and second sub reels are described with reference to FIGS. **40** to **46**.

Symbol Arrangement of the First and Second Sub Reels

[0228] FIG. **40** shows symbols and code numbers displayed on the first sub reel **26** and the second sub reel **27**. FIG. **40** shows one example of a symbol line in which seven pieces, a plurality of types of symbols, are arranged on the first sub reel **26**. This arrangement is converted into a table as data, and stored in the ROM **51** (see, FIG. **35**). More specifically, code numbers of "00" to "06" are given to each symbol, as shown in FIG. **40**, and stored in the ROM **51** as a data table (see FIG.

35). That is, it is possible to specify a symbol uniquely by identification of the first sub reel **26** and the code number.

[0229] On a peripheral surface of the first sub reel **26**, seven types of symbols including a blank symbol are formed, as shown in FIG. **40**. More specifically, symbols formed on the peripheral surface of the first sub reel **26** are a WILD symbol **200**, a RED 7 symbol **201**, a 7 DORA symbol **202**, a 3 BAR symbol **203**, a 2 BAR symbol **204**, a BAR symbol **205**, and a blank symbol **206**. These seven types of symbols are arranged in the order shown in FIG. **40**. The first sub reel **26** is driven to rotate in such a manner that the symbol line moves in the arrow direction of FIG. **40**.

[0230] FIG. **40** shows one example of a symbol line in which six pieces, a plurality of types of symbols, are arranged on the second sub reel **27**, respectively. This arrangement is converted into a table as data, and stored in the ROM **51** (see, FIG. **35**). Code numbers of "00" to "06" are given to each symbol, as shown in FIG. **40**, and stored in the ROM **51** as a data table (see, FIG. **35**). That is, it is possible to specify a symbol uniquely by identification of the second sub reel **27** and the code number.

[0231] On a peripheral surface of the second sub reel **27**, four types of symbols are formed, as shown in FIG. **40**. More specifically, symbols arranged on the peripheral surface of the second sub reel **27** are a "×1" symbol **230**, "×2" symbol **231**, "×10" symbol **232**, and "×3" symbol **233**. These four types of symbols are arranged in the order shown in FIG. **40**. The second sub reel **27** is driven to rotate in such a manner that the symbol line moves in the arrow direction of FIG. **40**.

[0232] FIG. **41** is a flowchart showing a subroutine of win determination processing **5**, which is called to execute in Step S**16** of game execution processing shown in FIG. **8**.

[0233] In win determination processing **5**, the CPU **50** first determines whether a bonus game has been triggered or not (Step S**130**). In the processing, the CPU **50** determines whether the rearranged symbol combination matches a winning combination for triggering a bonus game. In a case where the CPU **50** determines that a bonus game has been triggered, the CPU **50** calls bonus game processing (see FIG. **11**) (Step S**131**). Thereafter, the CPU **50** terminates the present processing.

[0234] On the other hand, in a case where the CPU **50** determines that the bonus game has not been triggered in Step S**130**, the CPU **50** determines whether or not a player has won any award (Step S**132**). In this processing, the CPU **50** determines whether the rearranged symbol combination matches a winning combination. In a case where the rearranged symbol combination matches a winning combination, the CPU **50** calls payout processing (see FIG. **12** or **17**) (Step S**133**). Thereafter, the CPU **50** terminates the present processing.

[0235] On the other hand, in Step S**132**, in a case where the CPU **50** determines that the rearranged symbol combination does not match a winning combination, the CPU **50** then determines whether the rearranged symbol combination achieves "RANK UP" or not (Step S**134**). In a case where the CPU determines that a "RANK UP!" symbol is achieved, the CPU **50** performs the first sub reel rotation processing (Step S**135**). Then, the CPU **50** determines a supplemented combination (Step S**136**). Next, the CPU **50** performs the second sub reel rotation processing (Step S**137**). Then, the CPU **50** performs processing for determining a payout rate to be used when a supplemented combination is achieved. Thereafter, the CPU **50** terminates the present processing.

[0236] On the other hand, in Step S**134**, in a case where the CPU determines that a "RANK UP!" symbol has not been achieved, the CPU terminates the present processing.

[0237] FIG. **42** is an example of an image of the first and second sub reels effect **1** displayed on the main display **4**. The image of the first and second sub reels effect **1-1** indicates a rearrangement of symbols and the resulting combination "7, BAR, RANK UP!" displayed in the left display window **23**, the center display window **24**, and the right display window **25**, respectively. An arrow **245** of the first sub reel **26** indicates that the first sub reel **26** is rotating as a result of an appearance of a "RANK UP!" symbol.

[0238] FIG. **43** is an example of an image of the first and second sub reels effect **1** displayed on the main display **4** in a case where a game has been executed and advanced from FIG. **42**. The image of the first and second sub reels effect **1-2** shown in FIG. **43** indicates the rotation of the first sub reel **26**, a rearrangement of symbols, and the resulting appearance of a "7" symbol, a "7" symbol, and a "BAR" symbol. Then, a frame **246** on the first sub reel **26** and a message "RANK UP7!" **247** indicate that a "7" symbol is selected. Consequently, a supplemented combination is determined to be "7, 7, 7".

[0239] FIG. **44** is an example of an image of the first and second sub reels effect **1** displayed on the sub display **3** in a case where a game has been executed and advanced from FIG. **43**. The image of the first and second sub reels effect **1-3** shown in FIG. **44** depicts an arrow **248** of the second sub reel indicating that the second sub reel **27** is rotating.

[0240] FIG. **45** is an example of an image of the first and second sub reels effect **1** displayed on the sub display **3** in a case where a game has been executed and advanced from FIG. **44**. The image of the first and second sub reels effect **1-4** shown in FIG. **45** indicates a rearrangement of a symbol on the second sub reel **27** and the determination of the resulting symbol "×2". A message "×2 GET!" **249** indicates that a payout rate of double is used when the supplemented combination "7, 7, 7" is achieved.

[0241] FIGS. **46**A and **46**B are an example of images of the first and second sub reels effect **2** displayed on the main display **4** and the sub display **3**. The image shown in FIG. **46**B indicates that a "RANK UP!" symbol appears while performing the first and second sub reels effect **2**. In order to explain operations, a main display of FIG. **46**B is described first.

[0242] FIG. **46**B is an example of an image of the first and second sub reels effect **2** displayed on the main display **4**. The image shown in FIG. **48** indicates a rearrangement of symbols and the resulting combination "7, BAR, RANKUP!" displayed in the left display window **23**, the center display window **24**, and right display window **25**, respectively. FIG. **46**B also indicates that symbols are rearranged and a "BAR" symbol is achieved. Consequently, a message "RANK UP BAR!" indicates that a supplemented combination is determined to be "BAR, BAR, BAR". After the supplemented combination is determined on the first sub reel **26**, the second sub reel **27** starts rotation.

[0243] FIG. **46**A is an example of an image of the first and second sub reels effect **2** displayed on the sub display **3**. The image shown in FIG. **46**A indicates a rearrangement of a symbol on the second sub reel **27** and the resulting symbol "×10". A message "×10 GET!" **251** indicates that when the supplemented combination "BAR, BAR, BAR" is achieved, a player wins a payout rate of tenfold. Although the abovementioned first and second sub reels **26** and **27** are described as

mechanical reels, those may alternatively be virtual reels displayed on the main display **4**.

Third Embodiment

[0244] A video slot **1** according to a third embodiment is described with reference to FIGS. **47** to **51**. Firstly, the different portions from the first embodiment are described based on FIGS. **47** and **48** regarding the outline configuration of the video slot **1** according to the present embodiment.

[0245] FIG. **47** is a perspective view of the video slot **1**. The video slot **1** is different from the slot machine **1** of the first embodiment in that the video slot **1** does not have display windows **23**, **24**, and **25** since the video slot **1** does not have reels **22**L, **22**C, and **22**R. Symbols are arranged in a symbol display frame provided on a display. In the case of the present embodiment, five symbol display frames **301**, **302**, **303**, **304**, and **305** are provided on the display (see FIG. **49** described later).

[0246] FIG. **48** is a block diagram schematically showing a control system of the video slot **1**. The video slot **1** does not include a reel, a stepping motor, or a reel position detecting circuit, which is different from the slot machine **1** of the first embodiment.

[0247] FIGS. **49**A and **49**B are an example of images showing a free game effect **1** displayed on the main display **4** and the sub display **3**. Similar to the bonus game shown in the flowchart of FIG. **11**, a free game is performed in such a manner that a predetermined number of free games are performed, and when a winning combination with a symbol applicable to payout rate change is achieved, a payout is performed based on a payout rate thus determined. These winning combination and payout rate are determined by lottery in the free game effect **1**. Then, a free game is started and a payout is performed in a free game effect **2**. The images of the free game effect **1** shown in FIGS. **49**A and **49**B indicate that the winning combination with a symbol applicable to payout rate change is "7", and the payout rate is "×2". These results are determined through a rearrangement of symbols, an appearance of "RANK UP!" symbol, and a lottery performed as a result of the appearance of "RANK UP!" symbol, which is intended to determine a winning combination with a symbol applicable to payout rate change and a predetermined payout rate.

[0248] FIG. **49**A is an example of an image of the free game effect **1** displayed on the sub display **3**. The image shown in FIG. **49**A indicates that a symbol "7" **311** with the payout rate "×2" is selected among a symbol "7" **311**, a symbol "BAR" **312**, and a symbol "BAR" **313**. This selection is performed through a rearrangement of symbols in a symbol display frame **314** of the sub display **3** following an appearance of "RANK UP!" symbol on the main display **4**.

[0249] FIG. **49**B is an example of an image of the free game effect **1** displayed on the main display **4**. The image shown in FIG. **49**B indicates a rearrangement of symbols in the symbol display frames **301**, **302**, **303**, **304**, and **305** and the resulting combination of symbols "7, BAR, BAR-BAR, 7, RANK UP!" , each symbol displayed in each frame. The image also shows a message "7×2 GET!" **306** indicating that a player obtains the payout rate of double for an amount of payout for a symbol combination "7, 7, 7, 7, 7".

[0250] FIG. **50** is an example of an image of a free game effect **2** displayed on the main display **4**. In the free game effect **2**, symbols are rearranged, and when scatter symbols "S" appear in three windows, a free game starts. When a winning combination with a symbol applicable to payout rate change is achieved, a payout is conducted based on a determined payout rate. The image of the free game effect **2-1** shown in FIG. **50**A shows an rearrangement of symbols and the resulting combination "S, 7, S, BAR, S" displayed in the symbol display windows **301**, **302**, **303**, **304**, and **305** respectively. The image also shows an appearance of scatter symbols "S" in the three windows and a message "10 FREE GAMES START" **321** indicating that the number of free games determined is ten.

[0251] FIG. **51** is an example of an image of the free game effect **2** displayed on the main display **4** in a case where a game was executed and progressed from FIG. **50**. The image shows a rearrangement of symbols and the resulting combination "7, 7, 7, 7, 7" displayed in the symbol display windows **301**, **302**, **303**, **304**, and **305** respectively. The image also shows a message "FREE GAME 3 GAMES TO GO" **322** indicating that the remaining number of free games is three. In addition, the image shows a message "WIN! 300×2 600 CREDITS!!" **323** indicating that 600 credits are paid out, which is double the payout of a "7, 7, 7, 7, 7" combination having a payout of 300 credits, based on the free game effect **1**, which determines a symbol "7" applicable to payout rate change and the payout rate "×2".

Another Variation: Progressive Payout

[0252] FIG. **52** is a flowchart showing a subroutine of progressive payout processing. FIG. **52** shows an example of payout processing which is called and executed in progressive payout processing.

[0253] In progressive payout processing, the CPU **50** first determines whether a payout is requested or not (Step S**140**). In a case where the CPU **50** determines that a payout is not requested, the CPU **50** returns the processing to Step S**140**.

[0254] On the other hand, in Step S**140**, in a case where the CPU **50** determines that a payout is requested, the CPU **50** then determines whether or not an amount of progressive addition is equal to or greater than zero (Step S**141**).

[0255] In Step S**141**, in a case where the CPU **50** determines that the amount of progressive addition is equal to or greater than zero, the CPU **50** performs a payout preferentially from the amount of progressive addition (Step S**142**). Thereafter, the CPU **50** terminates the present processing.

[0256] On the other hand, in Step S**141**, in a case where the CPU **50** determines that the amount of progressive addition is not equal to or greater than zero, the CPU **50** performs a normal payout (Step S**143**). Thereafter, the CPU **50** terminates the present processing.

Another Variation: Trigger Rendered Effect **4**

[0257] FIGS. **53**A and **53**B are an example of images showing the trigger rendered effect **4** displayed on the main display **4** and the sub display **3**. The images show an addition of points for a case where a combination falls into a predetermined lose symbol combination. Since points are added even if a combination falls into a predetermined lose symbol combination, a situation in which a player loses interest in the amusement service is prevented. A predetermined lose symbol combination may be determined in advance or may alternatively be determined at predetermined timing by lottery.

[0258] FIG. **53**A is an example of an image of the trigger rendered effect **4** displayed on the sub display **3**. The image

indicates that 1.5 times as the amount of a normal payout is paid out for a symbol combination "7, 7, 7", and the obtained point is one.

[0259] FIG. **53**B is an example of an image of the trigger effect **4** displayed on the main display **4**. The image shows a rearrangement of symbols and the resulting predetermined lose symbol combination "BAR BAR, BAR, 7", which does not fall into any predetermined winning combination, displayed on the left display window **23**, the center display window **24**, and the right display window **25**. FIG. **53**B indicates that since the rearranged symbol combination matches the predetermined lose symbol combination, a player is allowed to earn points.

[0260] The present example does not explicitly describe the case in which point value added by a "RANK UP!" symbol exceeds the threshold with the state of "777 300 ×2" in the RANK UP effect **1**. In this case, an amount of payout credits of BARBAR may be upgraded to "BARBAR BARBAR BARBAR - - - 100". Accordingly, since an amount of payout credits may possibly be updated when a "RANK UP!" symbol is rearranged, a situation in which a player loses interest in the amusement service is prevented.

[0261] Although the embodiments are described above for the purpose of exemplification, they are not intended to limit the present invention. For example, the present invention is not limited to a symbol combination displayed on the reels **22**L, **22**C, and **22**R of a slot machine and the like, and can be applied to a symbol combination of a table game (such as a card game and a mahjong game). Designs of various elements thereof also can be modified appropriately. In addition, the advantages, which are shown in the embodiments, are simply listed as most preferable advantages generated from the embodiments, and the advantages according to this invention are not limited to what have been described. In addition, a payout rate and other numerical values may be changed arbitrarily for the purpose of heightening and modifying the gaming nature of the slot machine **1** or video slot **1**.

What is claimed is:

1. A gaming machine that pays an amount of game media for an occurrence of a predetermined combination of symbols as a result of a game, comprising:

a display device for performing a variable display and a statical display of a plurality of symbols;

a memory; and

a controller configured with logic to:

(a) determine a combination of symbols to be displayed on the display device as a result of a game by performing a lottery in response to acceptance of manipulation to start the game by a player;

(b) cause the display device to perform a variable display of the plurality of symbols;

(c) cause the display device to perform a statical display of the plurality of symbols in accordance with a result of the lottery;

(d) when the statical display of the plurality of symbols matches a specific combination of symbols, control the memory to cumulatively store a predetermined number of points,

wherein

when a summation of the points stored in the memory has reached a threshold as a result of completion of a particular game, the controller allows the player to be continuously in an advantageous situation during games subsequent to the particular game until a predetermined condition is satisfied.

2. A method for playing a game that pays an amount of game media for an occurrence of a predetermined combination of symbols as a result of the game, comprising:

(a) accepting manipulation to start a game by a player;

(b) starting the game in response to step (a);

(c) determining a combination of symbols to be displayed on a display device that performs a variable display and a statical display of a plurality of symbols as a result of a game by performing a lottery;

(d) causing the display device to perform a variable display of the plurality of symbols;

(e) causing the display device to perform a statical display of the plurality of symbols in accordance with a result of the lottery;

(f) when the statical display of the plurality of symbols matches a specific combination of symbols, controlling a memory to cumulatively store a predetermined number of points; and

(g) when a summation of the points stored in the memory has reached a threshold as a result of completion of a particular game, allowing the player to be continuously in an advantageous situation during games subsequent to the particular game until a predetermined condition is satisfied.

* * * * *