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(54) GAME MACHINE WITH PHYSICAL LOTTERY MECHANISM

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(57) **ABSTRACT**

A game machine of the present invention is a medal game machine where a lottery is performed at a satellite unit as a physical lottery system and when obtained numbers form a line on a bingo card, which is realized as an establishment of bingo. Medals are paid out directly or indirectly to a player. Wherein one privilege to be given to a player at the moment of establishment of bingo is selected in accordance with a control state of a payout rate of medals from a plurality of privileges each of which is connected with the payout of medals to a player and by which the affections given to the payout rate of medals are different from each other.

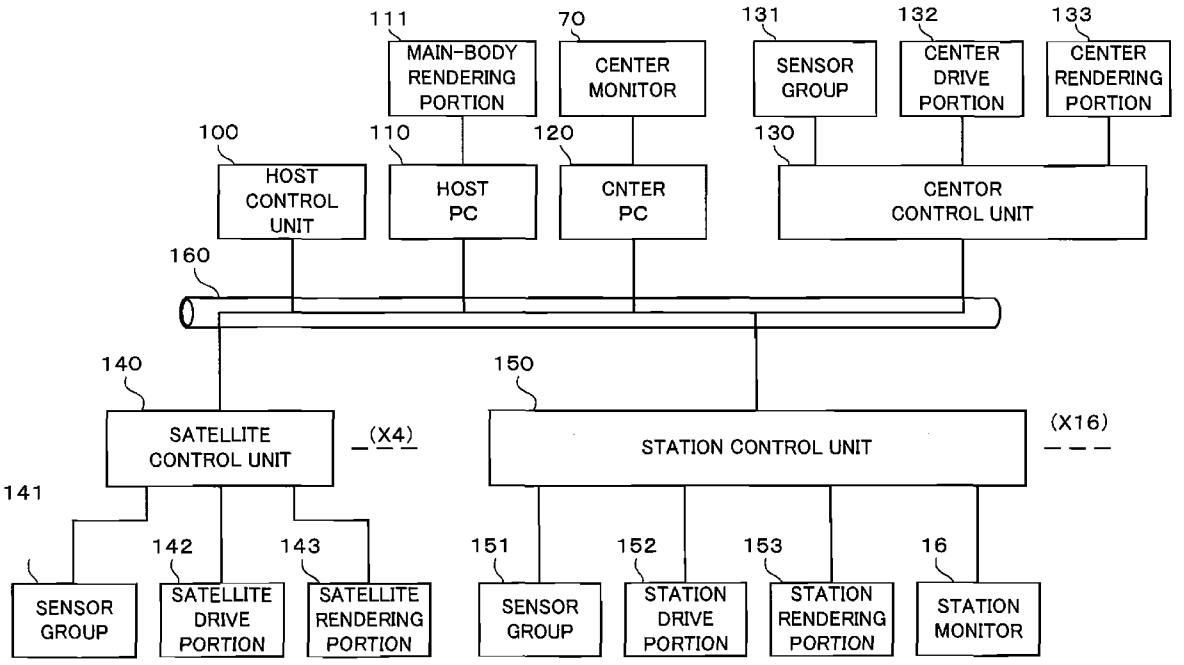


FIG. 1

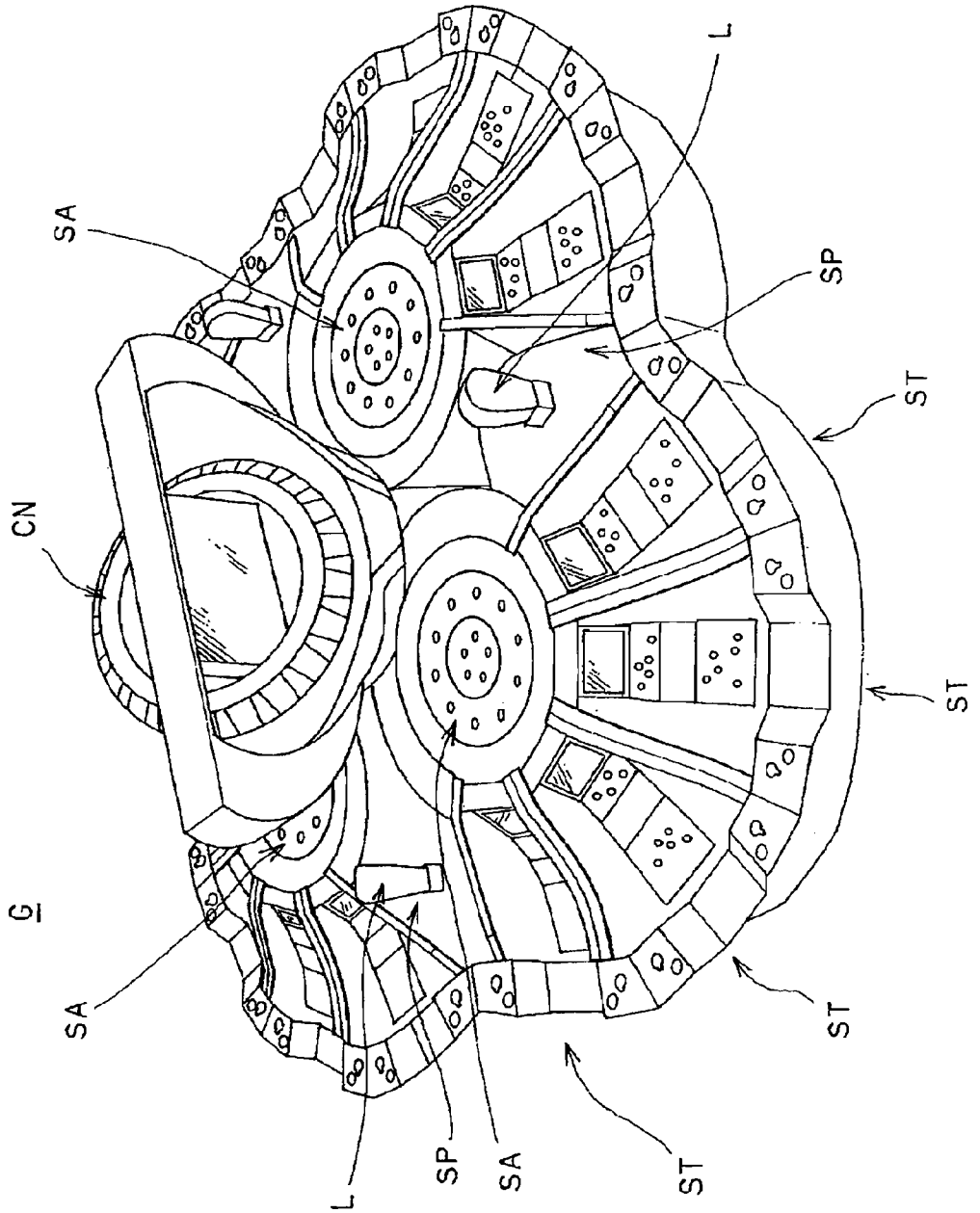


FIG. 2

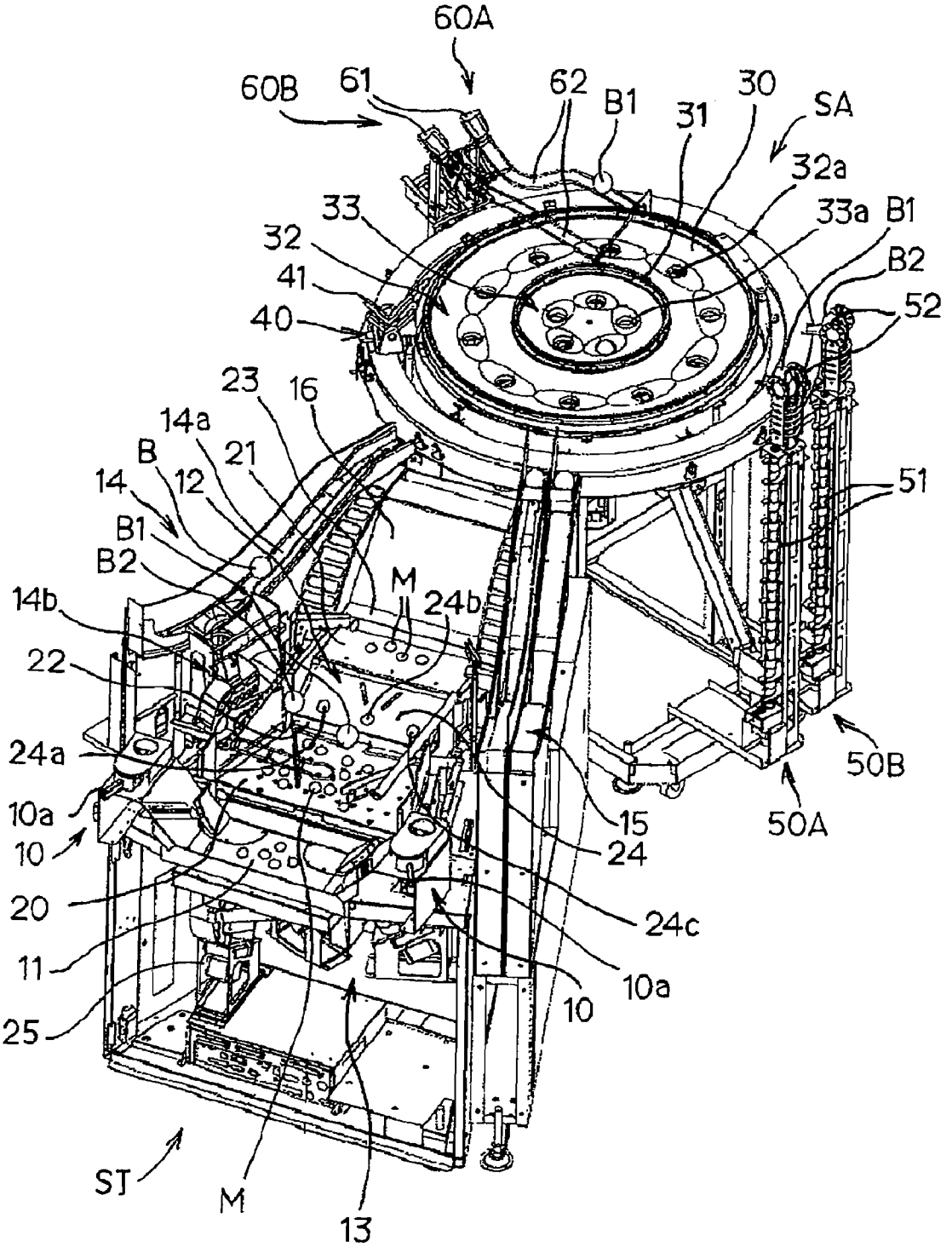

60A
60B
61
62
B1
31
30
SA
32a
33
33a B1
32
B2
41
52
40
23
16
14a
B
21
14
12
51
B1
B2
M
24b
14b
22
24a
50B
10a
15
50A
10
24
20
24c
11
10a
10
25
ST
M
13

FIG. 3

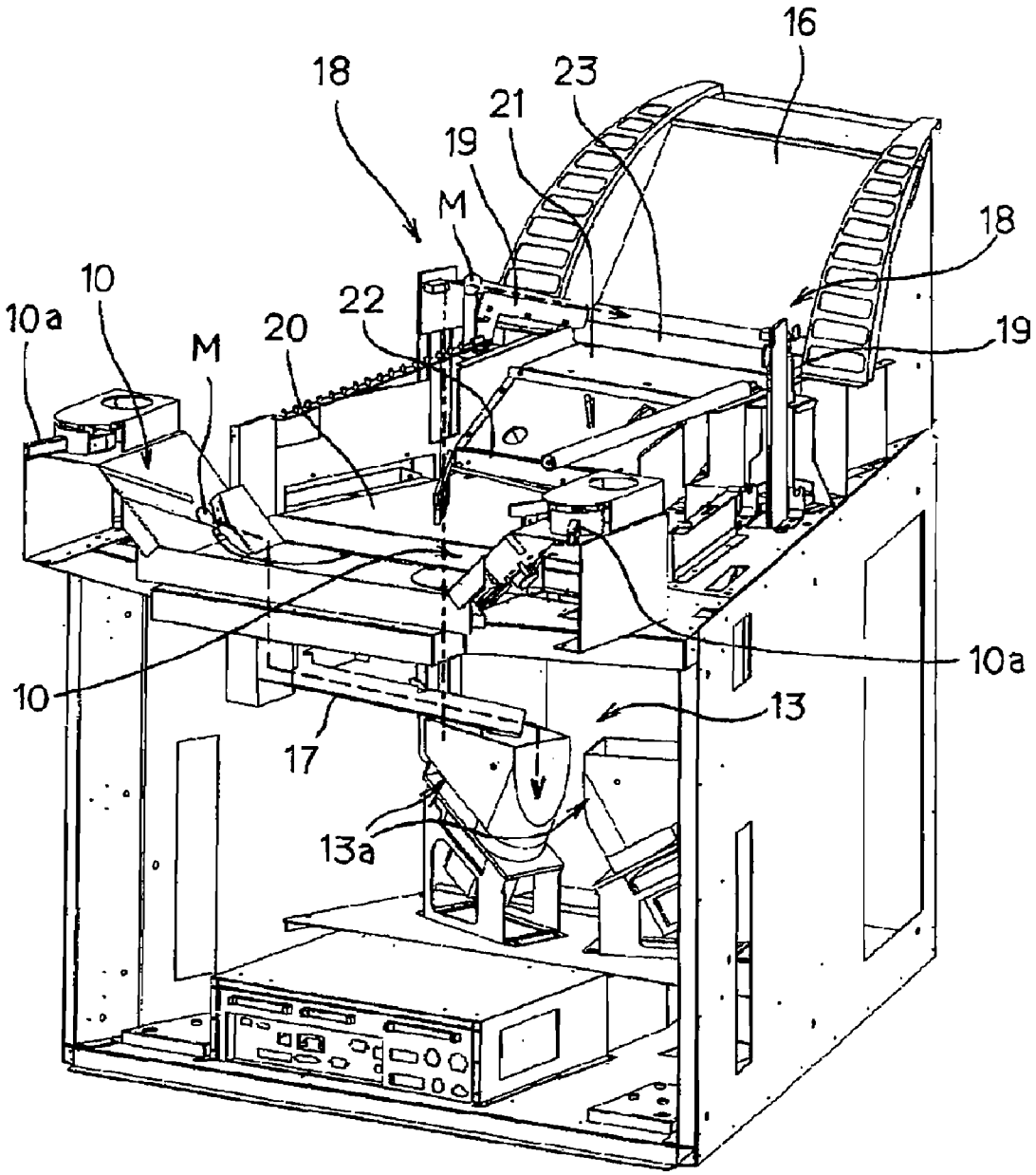


FIG. 4

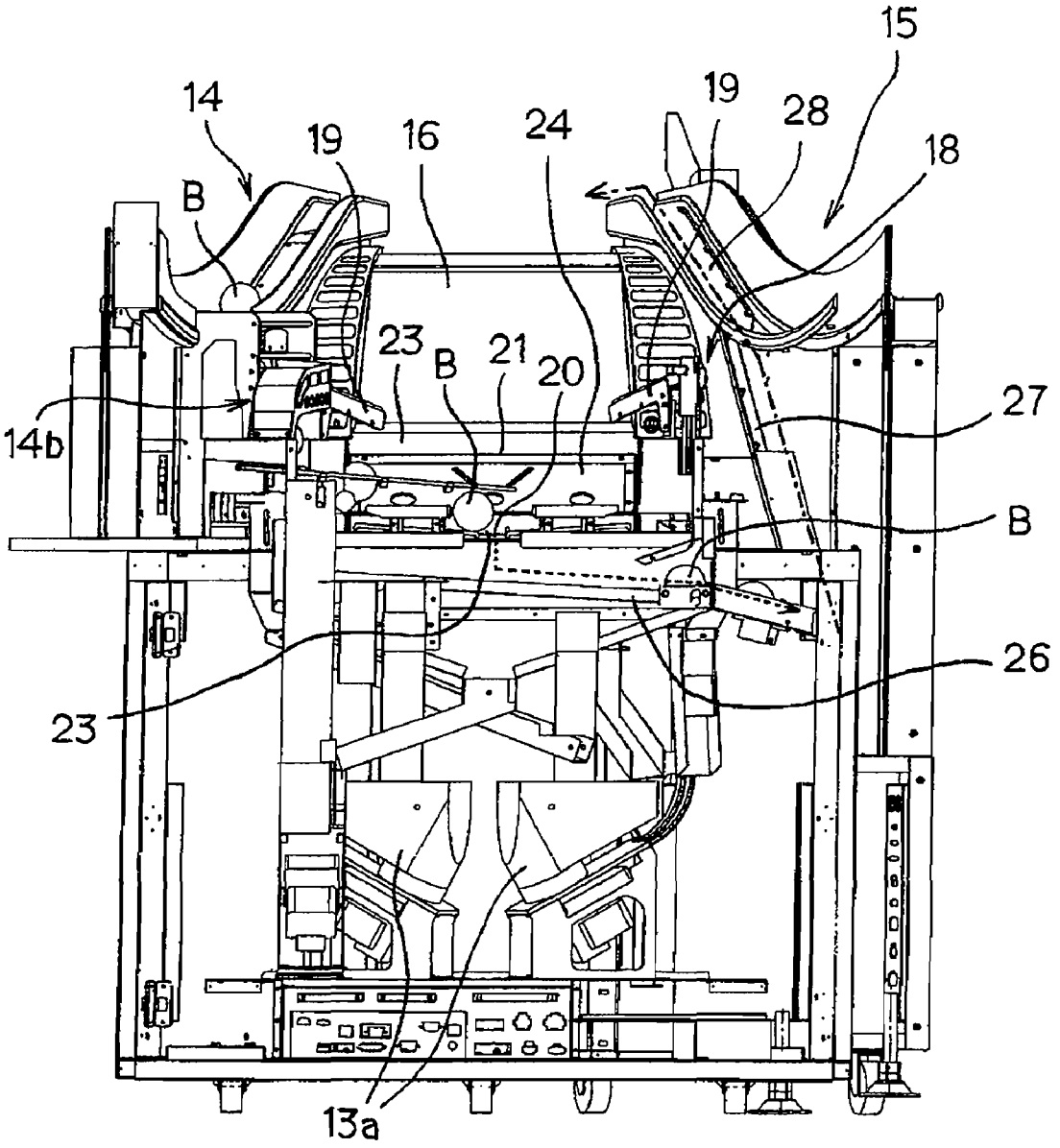


FIG. 5

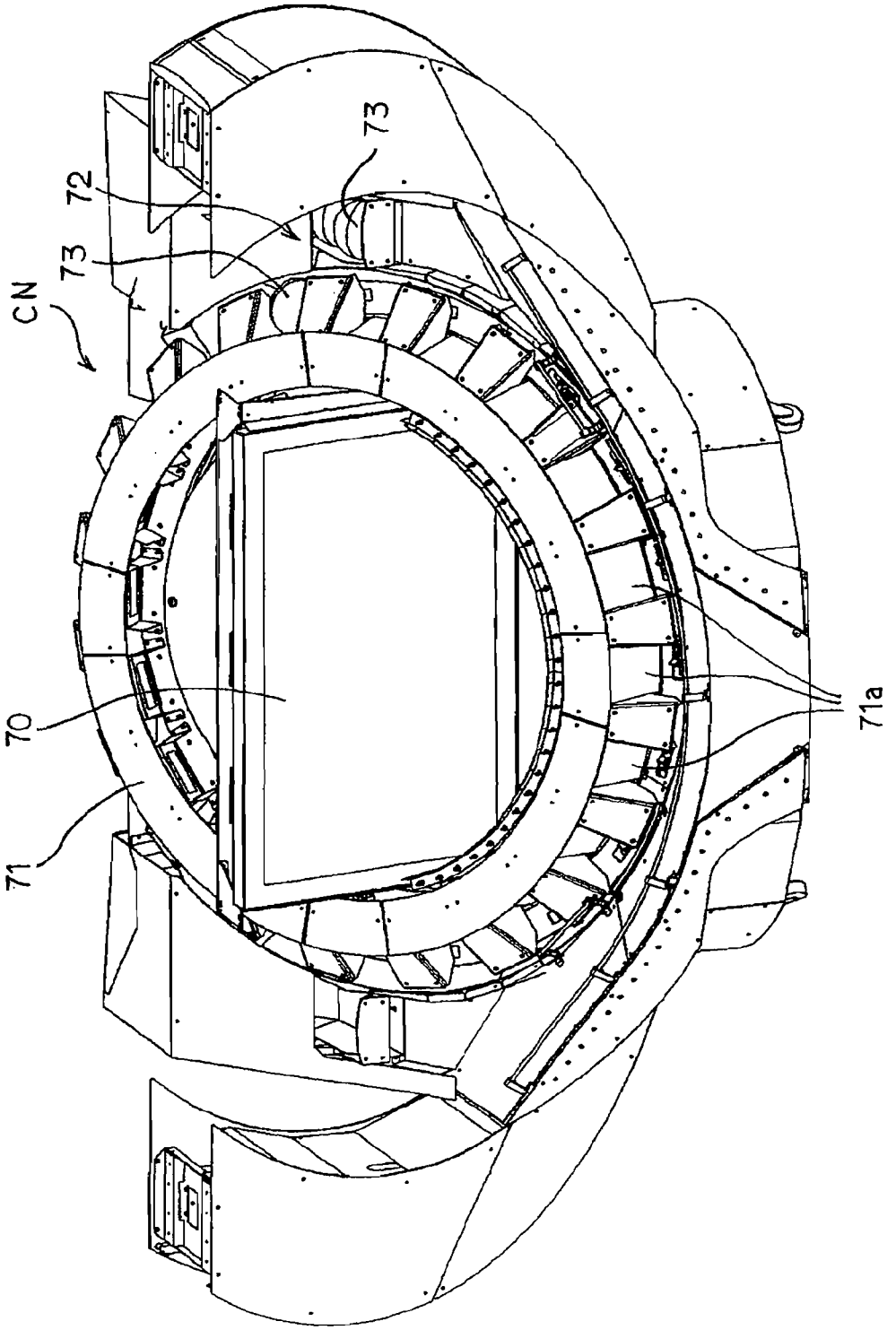


FIG. 6

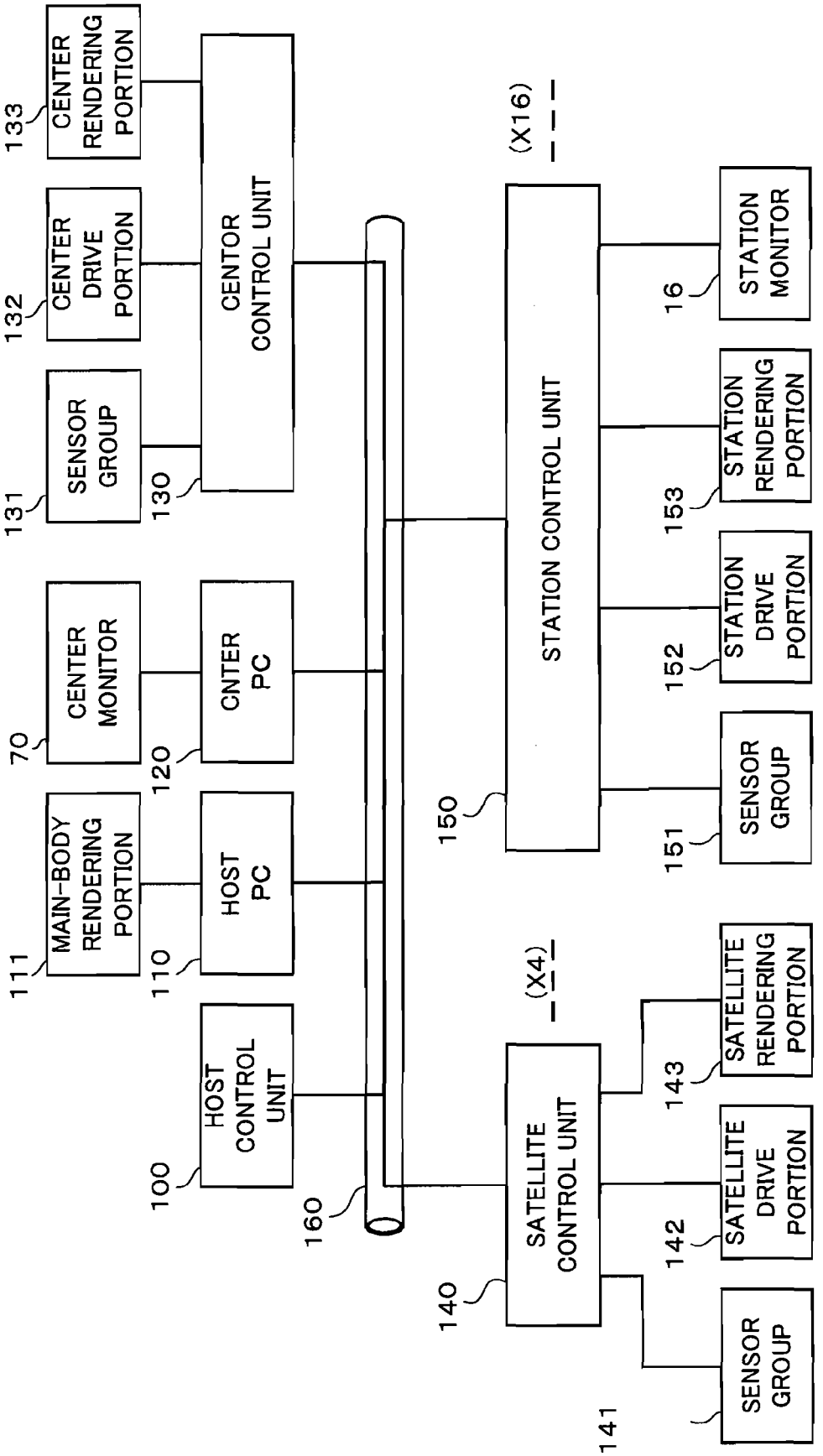

CENTER RENDERING PORTION
133
CENTER DRIVE PORTION
132
SENSOR GROUP
131
CENTOR CONTROL UNIT
130
CENTER MONITOR
70
CNTER PC
120
MAIN-BODY RENDERING PORTION
111
HOST PC
110
HOST CONTROL UNIT
100
160
(X16)
STATION CONTROL UNIT
150
STATION MONITOR
16
STATION RENDERING PORTION
153
STATION DRIVE PORTION
152
SENSOR GROUP
151
(X4)
SATELLITE CONTROL UNIT
140
SATELLITE RENDERING PORTION
143
SATELLITE DRIVE PORTION
142
SENSOR GROUP
141

FIG. 7

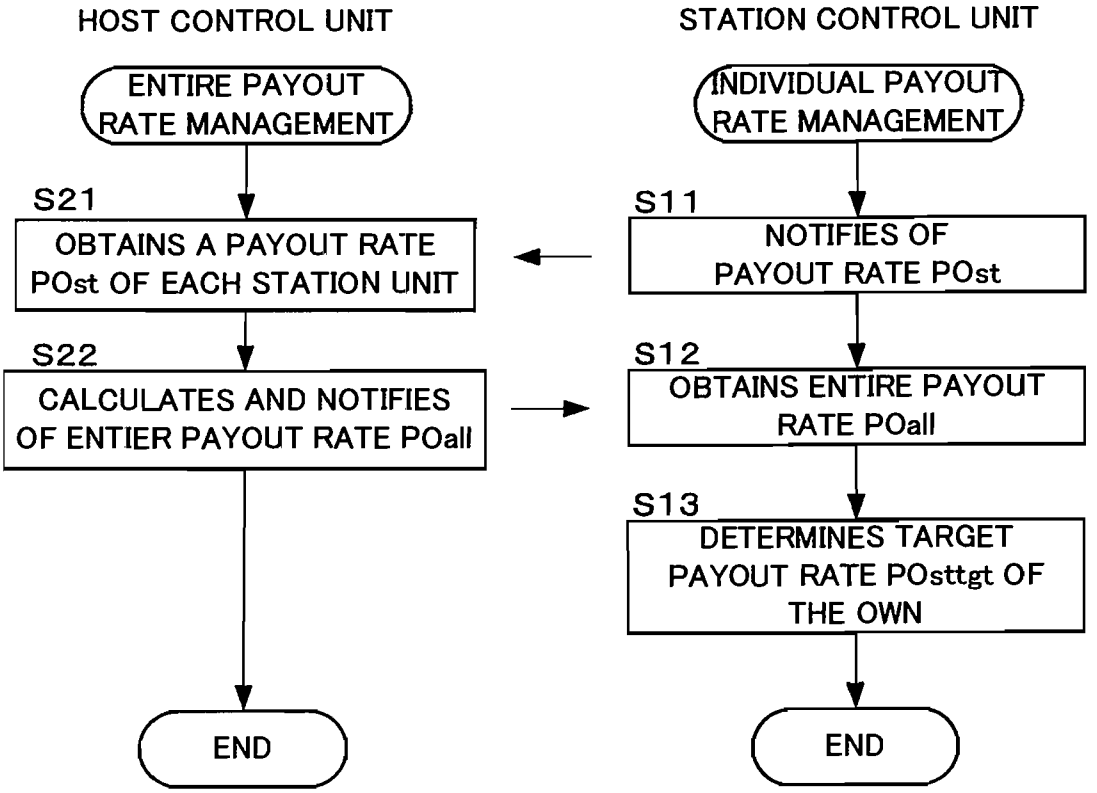

HOST CONTROL UNIT
STATION CONTROL UNIT
ENTIRE PAYOUT RATE MANAGEMENT
INDIVIDUAL PAYOUT RATE MANAGEMENT
S21
OBTAINS A PAYOUT RATE POst OF EACH STATION UNIT
S11
NOTIFIES OF PAYOUT RATE POst
S22
CALCULATES AND NOTIFIES OF ENTIER PAYOUT RATE POall
S12
OBTAINS ENTIRE PAYOUT RATE POall
S13
DETERMINES TARGET PAYOUT RATE POsttgt OF THE OWN
END
END

FIG. 8

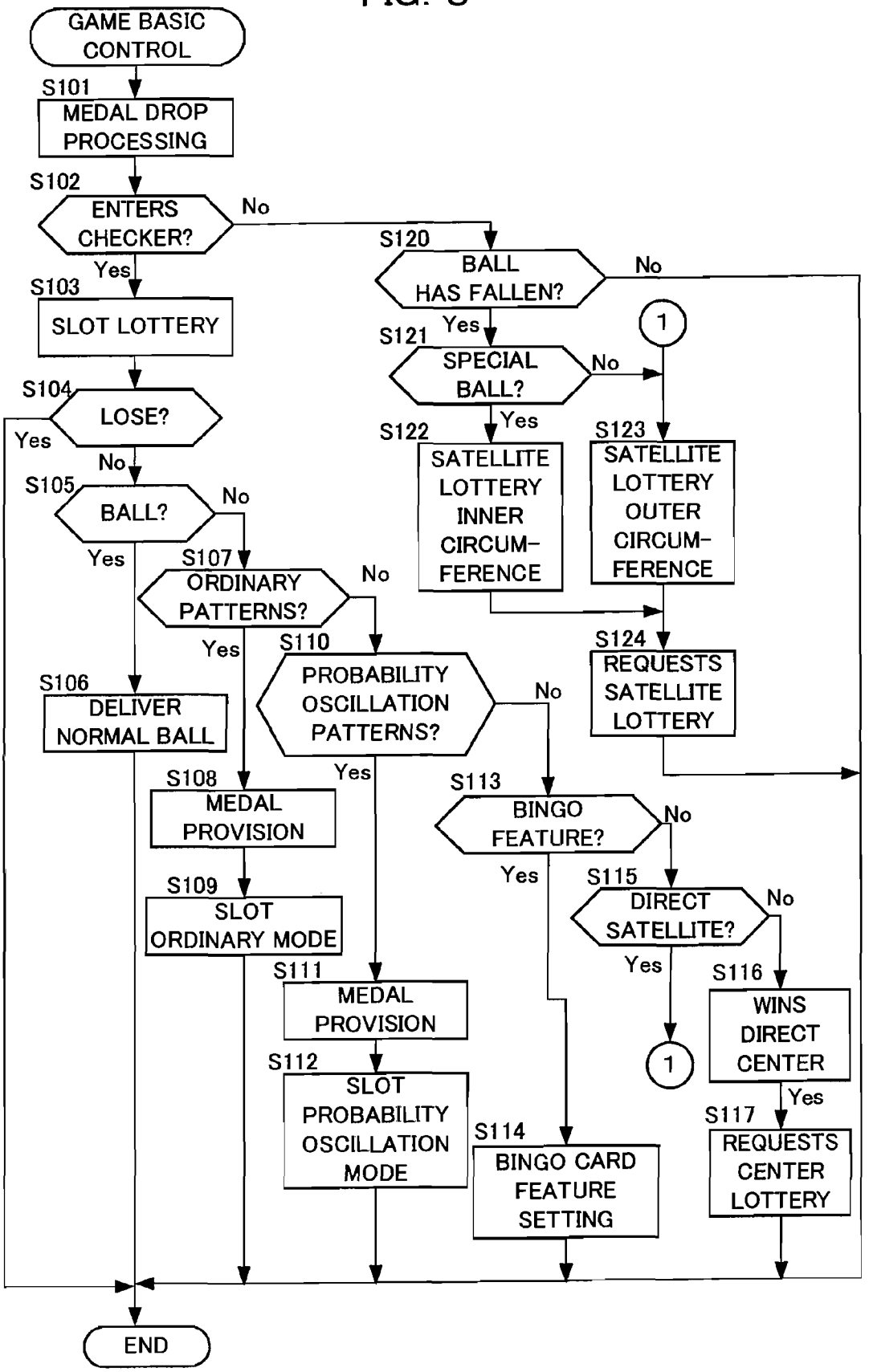

GAME BASIC CONTROL
S101
MEDAL DROP PROCESSING
S102
ENTERS CHECKER?
No
Yes
S103
SLOT LOTTERY
S104
LOSE?
Yes
No
S105
BALL?
No
Yes
S107
ORDINARY PATTERNS?
No
Yes
S106
DELIVER NORMAL BALL
S108
MEDAL PROVISION
S109
SLOT ORDINARY MODE
S110
PROBABILITY OSCILLATION PATTERNS?
No
Yes
S111
MEDAL PROVISION
S112
SLOT PROBABILITY OSCILLATION MODE
S120
BALL HAS FALLEN?
No
Yes
S121
SPECIAL BALL?
No
Yes
S122
SATELLITE LOTTERY INNER CIRCUM-FERENCE
S123
SATELLITE LOTTERY OUTER CIRCUM-FERENCE
1
S124
REQUESTS SATELLITE LOTTERY
S113
BINGO FEATURE?
No
Yes
S114
BINGO CARD FEATURE SETTING
S115
DIRECT SATELLITE?
No
Yes
1
S116
WINS DIRECT CENTER
Yes
S117
REQUESTS CENTER LOTTERY
END

FIG. 9

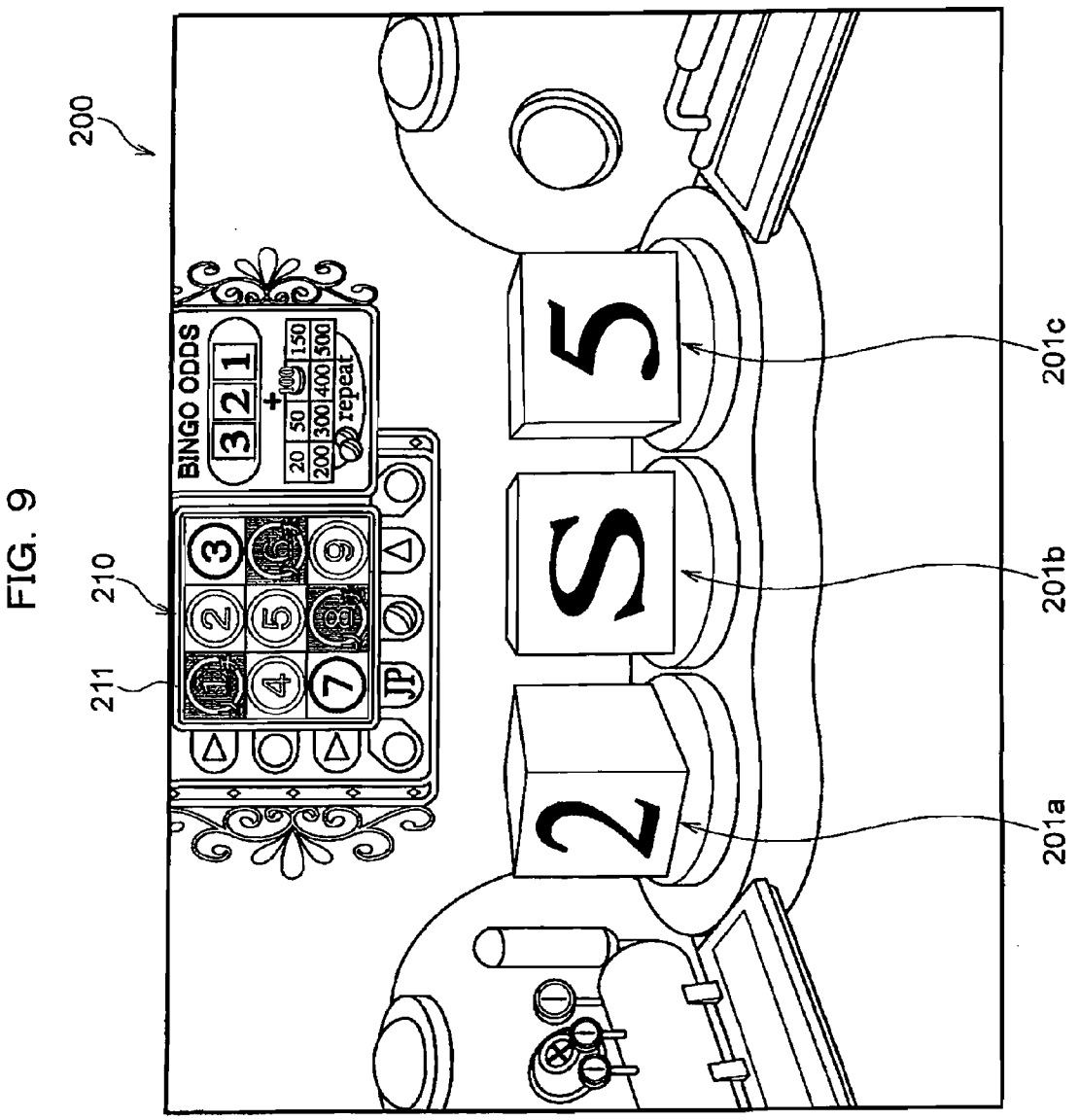

200
210
211
BINGO ODDS
3 2 1
20 50 100 150
200 300 400 500
repeat
JP
201a
201b
201c

FIG. 10

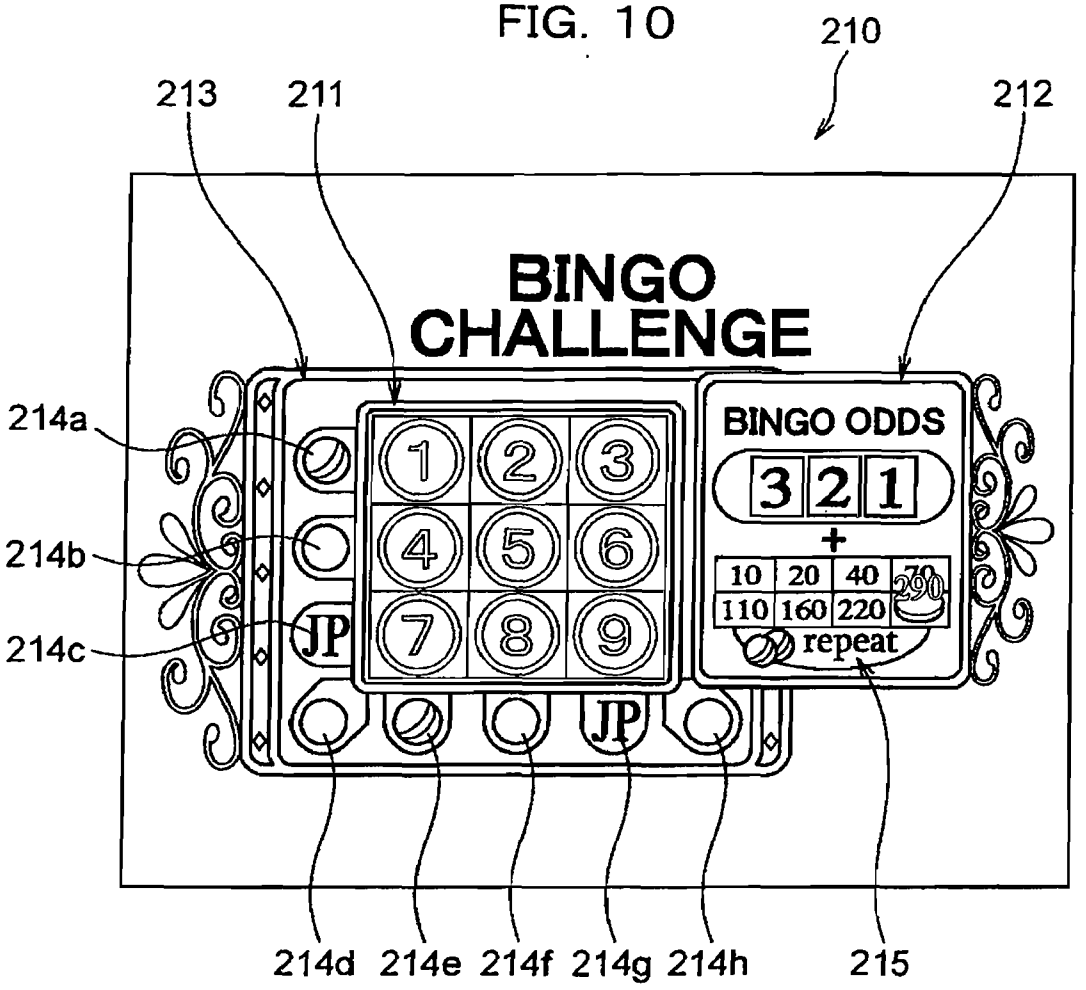

210
213
211
212
BINGO
CHALLENGE
BINGO ODDS
3 2 1
+
10 20 40 70
110 160 220 290
repeat
1 2 3
4 5 6
7 8 9
JP
JP
214a
214b
214c
214d 214e 214f 214g 214h
215

FIG. 11

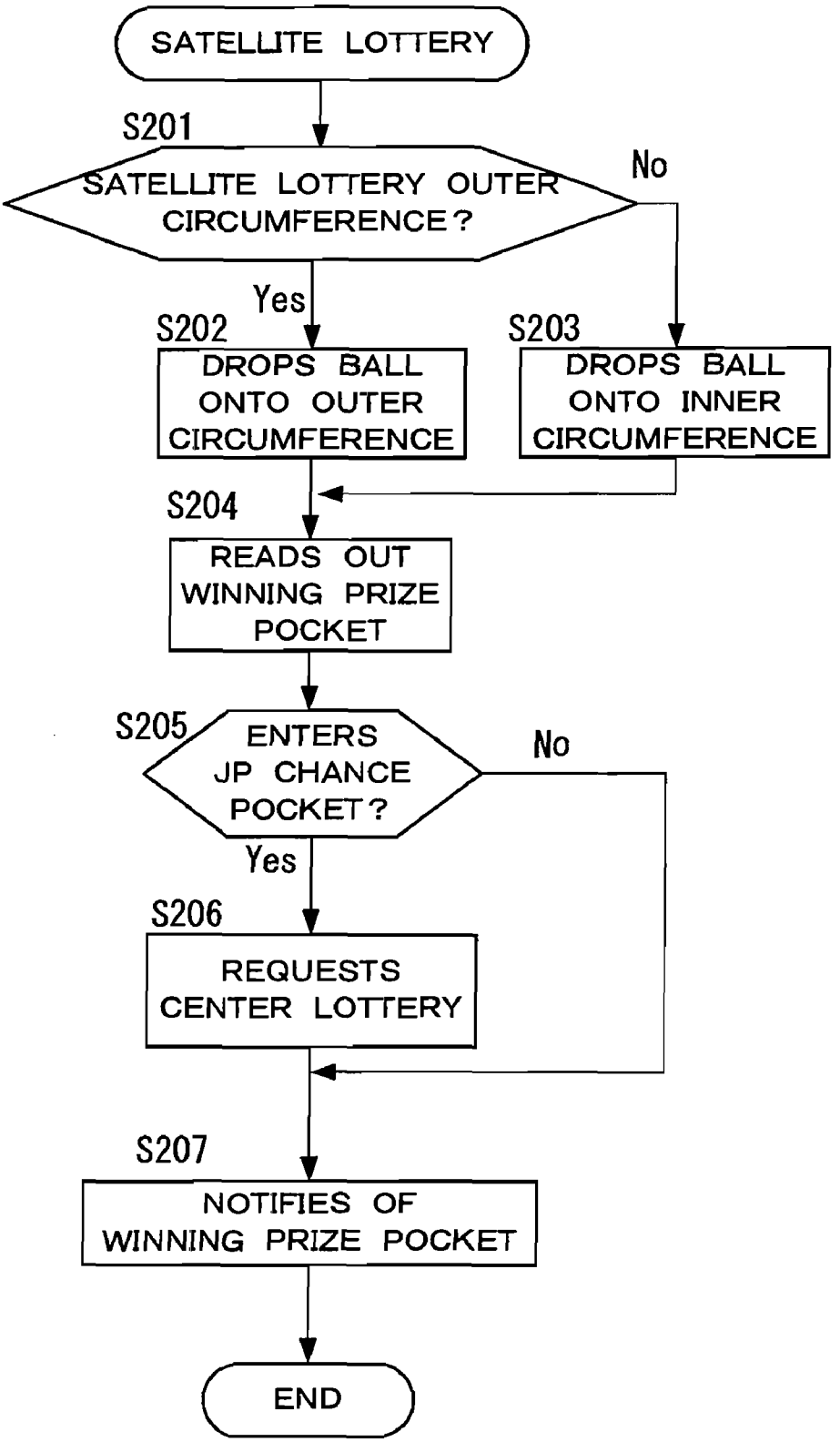

SATELLITE LOTTERY
S201
SATELLITE LOTTERY OUTER CIRCUMFERENCE?
No
Yes
S202
DROPS BALL ONTO OUTER CIRCUMFERENCE
S203
DROPS BALL ONTO INNER CIRCUMFERENCE
S204
READS OUT WINNING PRIZE POCKET
S205
ENTERS JP CHANCE POCKET?
No
Yes
S206
REQUESTS CENTER LOTTERY
S207
NOTIFIES OF WINNING PRIZE POCKET
END

FIG. 12

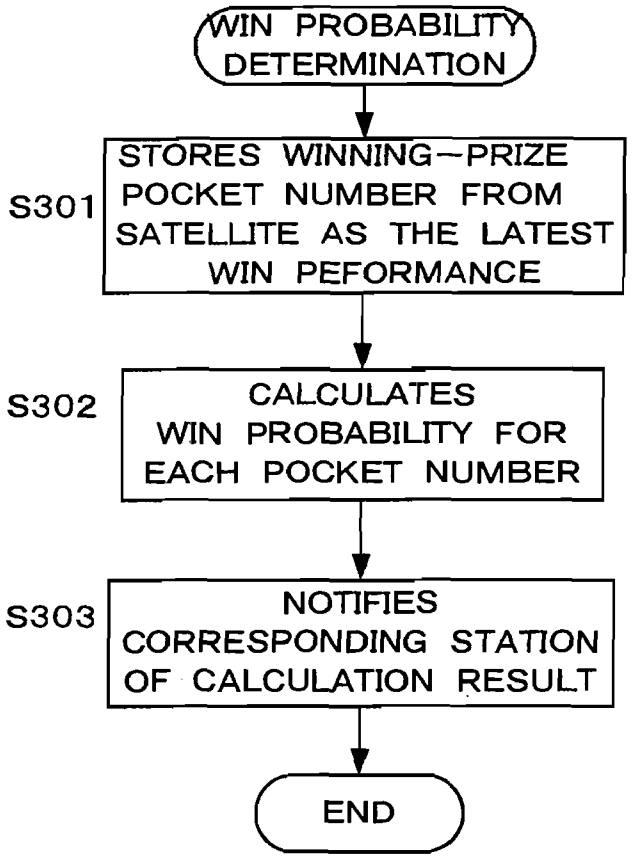


FIG. 13

POCKET NUMBER 1	THE NUMBER OF WINS N1
POKCET NUMBER 2	THE NUMBER OF WINS N2
POCKET NUMBER 3	THE NUMBER OF WINS N3
POCKET NUMBER 4	THE NUMBER OF WINS N4
POCKET NUMBER 5	THE NUMBER OF WINS N5
POCKET NUMBER 6	THE NUMBER OF WINS N6
POCKET NUMBER 7	THE NUMBER OF WINS N7
POCKET NUMBER 8	THE NUMBER OF WINS N8
POCKET NUMBER 9	THE NUMBER OF WINS N9
POCKET NUMBER JP	THE NUMBER OF WINS Njp

FIG. 14

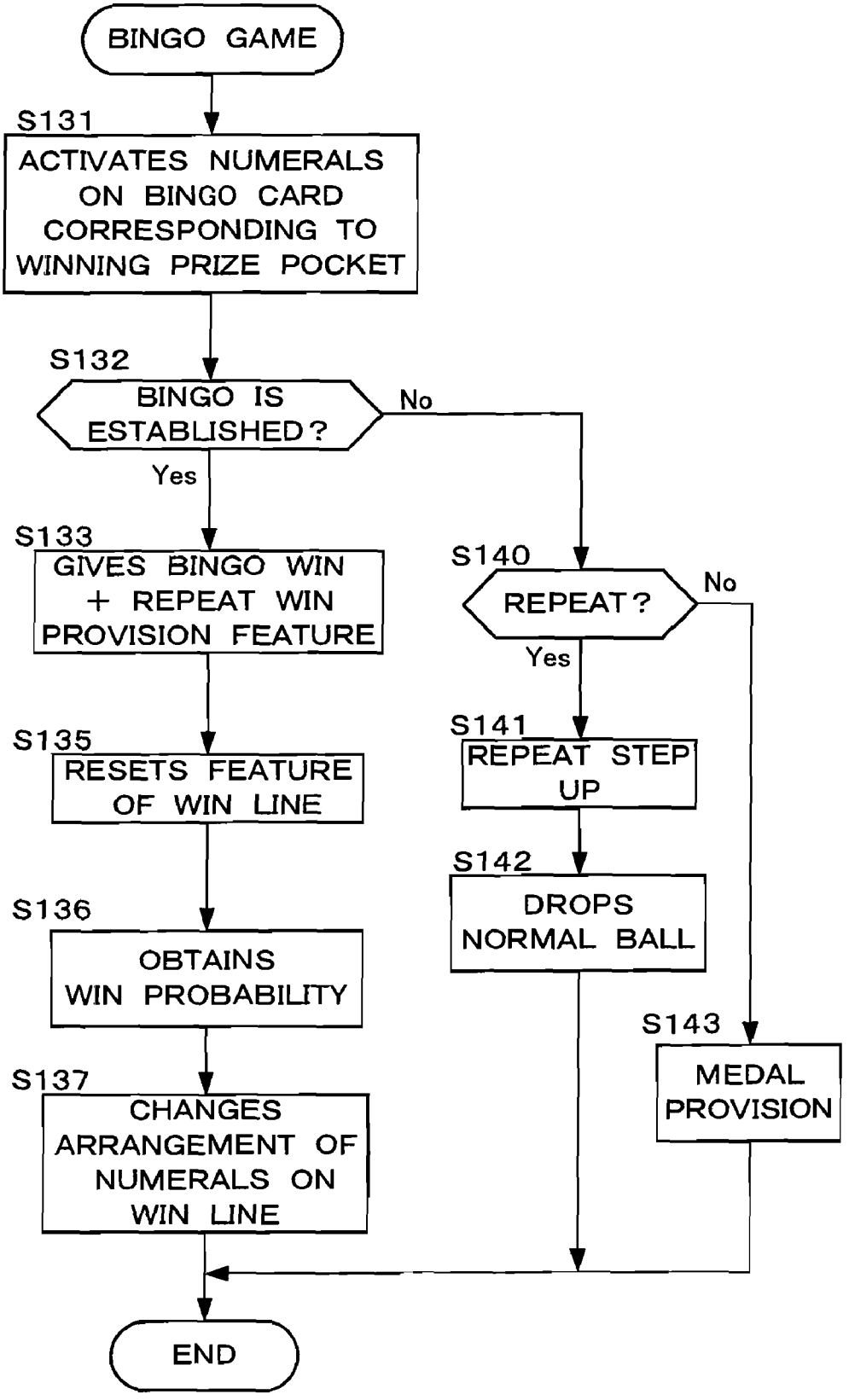

BINGO GAME
S131
ACTIVATES NUMERALS ON BINGO CARD CORRESPONDING TO WINNING PRIZE POCKET
S132
BINGO IS ESTABLISHED?
No
Yes
S133
GIVES BINGO WIN + REPEAT WIN PROVISION FEATURE
S135
RESETS FEATURE OF WIN LINE
S136
OBTAINS WIN PROBABILITY
S137
CHANGES ARRANGEMENT OF NUMERALS ON WIN LINE
S140
REPEAT?
No
Yes
S141
REPEAT STEP UP
S142
DROPS NORMAL BALL
S143
MEDAL PROVISION
END

FIG. 15

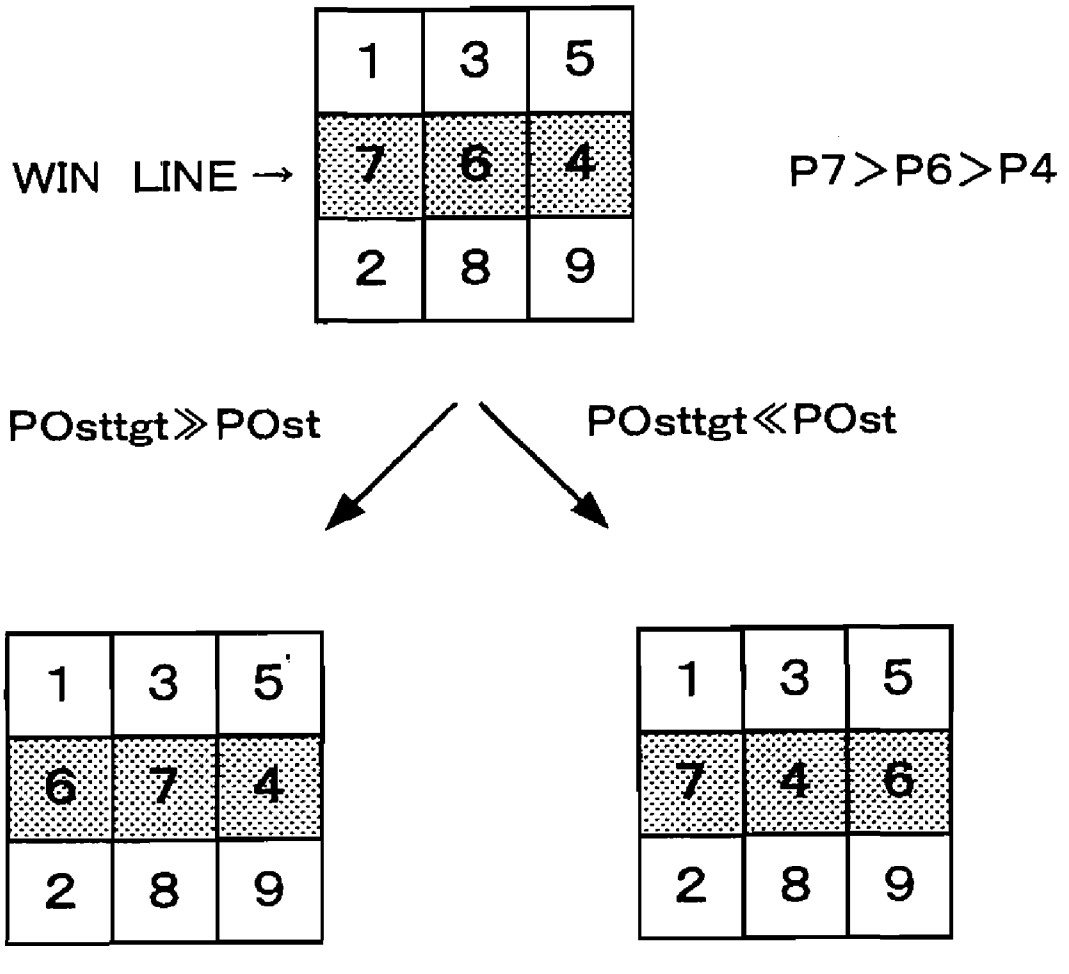

WIN LINE →
1 3 5
7 6 4
2 8 9
P7>P6>P4
POsttgt≫POst
POsttgt≪POst
1 3 5
6 7 4
2 8 9
1 3 5
7 4 6
2 8 9

FIG. 16

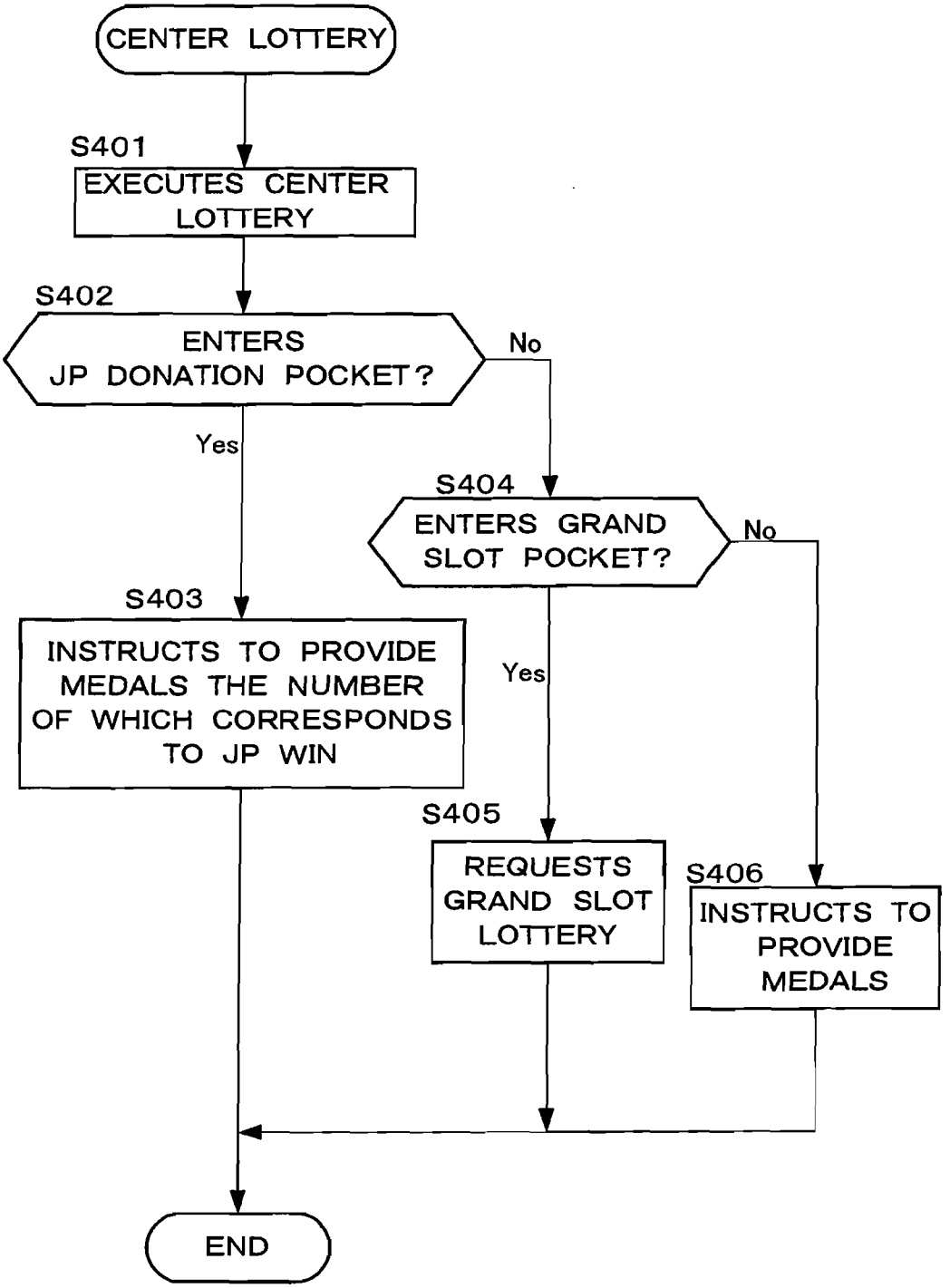

CENTER LOTTERY
S401
EXECUTES CENTER LOTTERY
S402
ENTERS JP DONATION POCKET?
No
Yes
S404
ENTERS GRAND SLOT POCKET?
No
S403
INSTRUCTS TO PROVIDE MEDALS THE NUMBER OF WHICH CORRESPONDS TO JP WIN
Yes
S405
REQUESTS GRAND SLOT LOTTERY
S406
INSTRUCTS TO PROVIDE MEDALS
END

FIG. 17

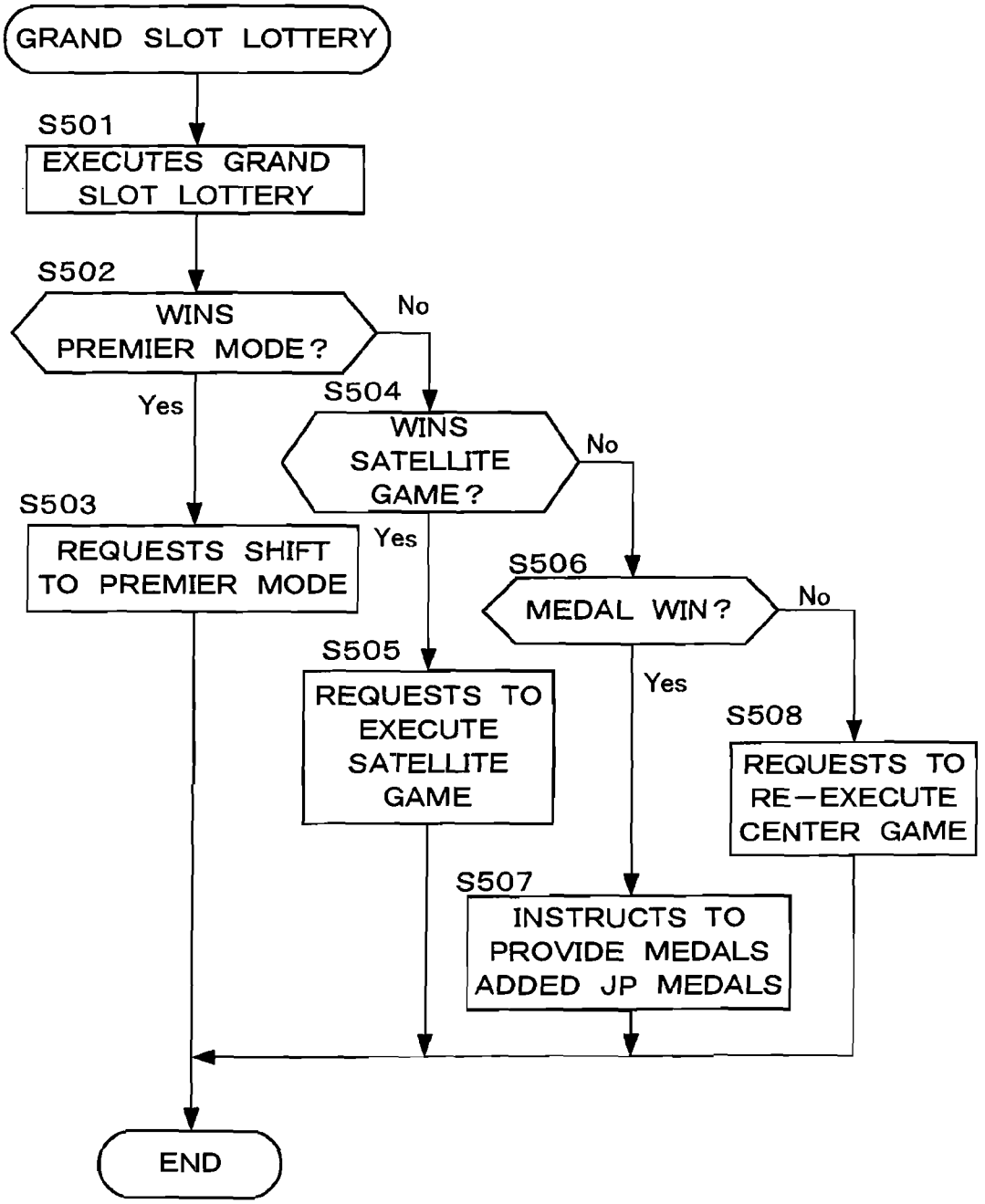

GRAND SLOT LOTTERY
S501
EXECUTES GRAND SLOT LOTTERY
S502
WINS PREMIER MODE?
No
Yes
S504
WINS SATELLITE GAME?
No
S503
REQUESTS SHIFT TO PREMIER MODE
Yes
S506
MEDAL WIN?
No
S505
REQUESTS TO EXECUTE SATELLITE GAME
Yes
S508
REQUESTS TO RE-EXECUTE CENTER GAME
S507
INSTRUCTS TO PROVIDE MEDALS ADDED JP MEDALS
END

FIG. 18

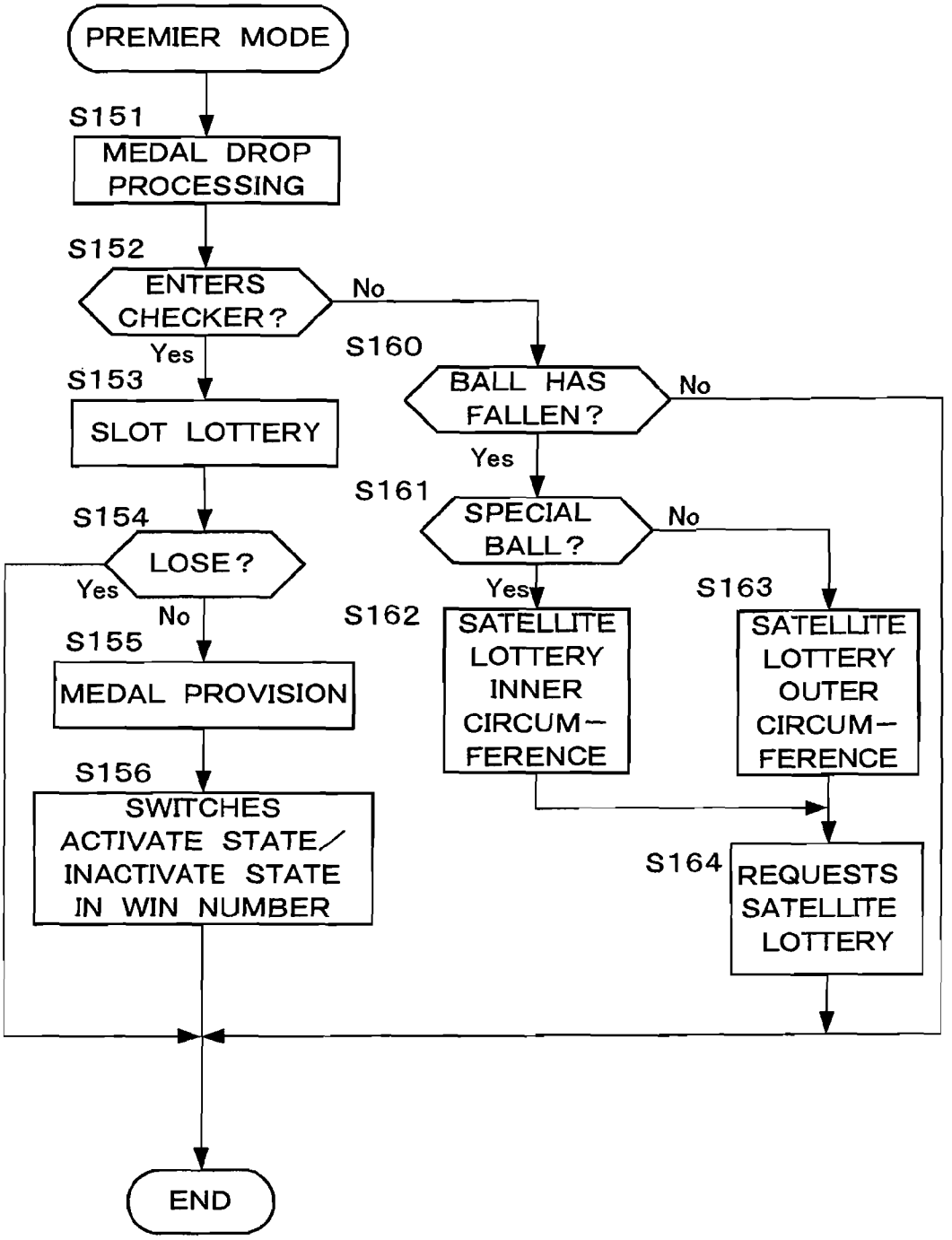

PREMIER MODE
S151
MEDAL DROP PROCESSING
S152
ENTERS CHECKER?
No
Yes
S153
SLOT LOTTERY
S154
LOSE?
Yes
No
S155
MEDAL PROVISION
S156
SWITCHES ACTIVATE STATE/ INACTIVATE STATE IN WIN NUMBER
S160
BALL HAS FALLEN?
No
Yes
S161
SPECIAL BALL?
No
Yes
S162
SATELLITE LOTTERY INNER CIRCUM-FERENCE
S163
SATELLITE LOTTERY OUTER CIRCUM-FERENCE
S164
REQUESTS SATELLITE LOTTERY
END

FIG. 19

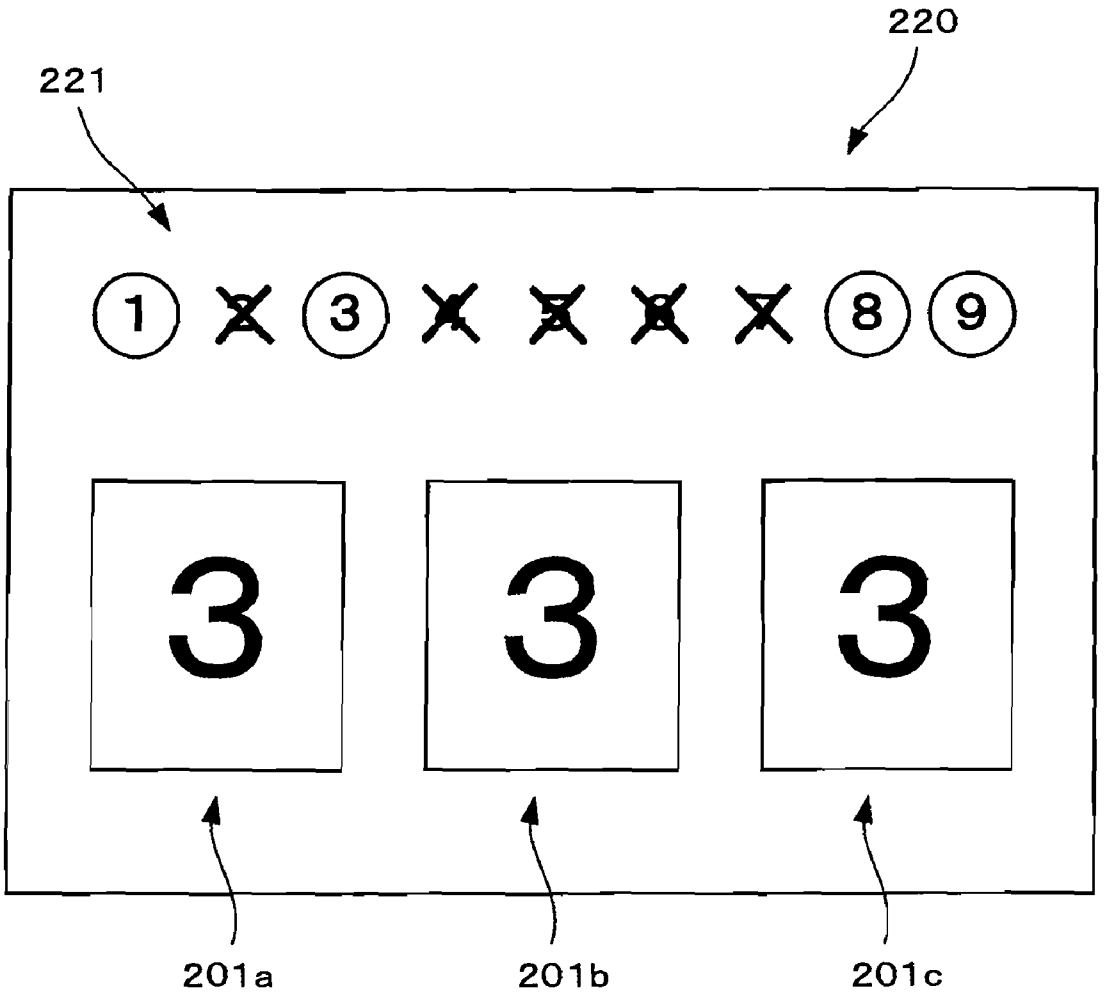
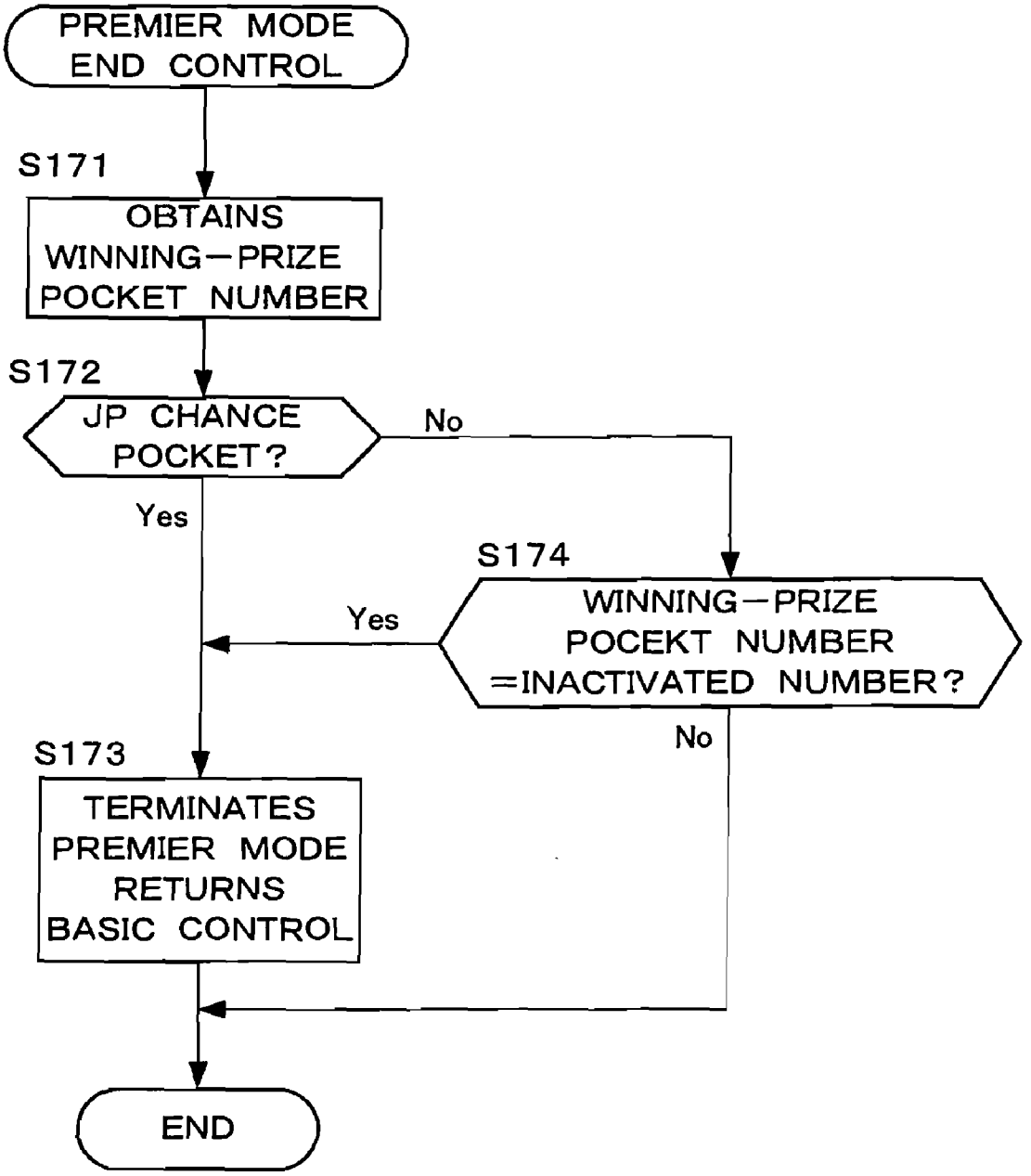


FIG. 20


PREMIER MODE END CONTROL
S171
OBTAINS WINNING-PRIZE POCKET NUMBER
S172
JP CHANCE POCKET?
No
Yes
S174
WINNING-PRIZE POCEKT NUMBER =INACTIVATED NUMBER?
Yes
No
S173
TERMINATES PREMIER MODE RETURNS BASIC CONTROL
END

GAME MACHINE WITH PHYSICAL LOTTERY MECHANISM

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This is the U.S. national phase application under 35 U.S.C. §371 of International Patent Application No. PCT/JP2007/052692, filed Feb. 15, 2007, and claims the benefit of Japanese Application No. 2006-040033, filed Feb. 16, 2006, both of which are incorporated by reference herein. The International Application was published in Japanese on Aug. 23, 2007 as International Publication No. WO 2007/094392 A1 under PCT Article 21(2).

TECHNICAL FIELD

[0002] The present invention relates to a game machine with physical lottery system which executes a lottery by imparting a physical motion to a medium for lottery.

BACKGROUND OF THE INVENTION

[0003] As one kind of game machines in which amusement media are utilized, there is well-known a so-called medal pusher game machine, in which medals dropped by a player drop down onto a play field portion where plural medals as amusement media are placed, the medals dropped onto the play field portion are pushed by a pusher table to change the arrangement thereof, and by the change, the medals which have fallen down from a predetermined area of the play field portion are delivered to the player. Moreover, in such pusher games, there is a game machine with a function of lottery game for giving a chance of obtaining a large number of medals, in which electronic lottery processing like a slot game is performed on condition that the medals pass through a predetermined checker, and when a win hand is established a large number of medals according to the win hand are delivered to the play field portion.

[0004] In the pusher game mentioned above, a part of medals having fallen down from the play filed is not delivered to the player but collected in the game machine. Thereby, a payout rate of medals is managed to be kept within an appropriate range (for instance, around 90%). Moreover, a win probability in the lottery game is also controlled so that the payout rate is kept within the appropriate range.

[0005] To the above mentioned medal game machine, it is made an attempt to further add a game function or a lottery function besides the lottery game, to enhance an enjoyableness of game by generating a probability of delivering much more medals. As one of the attempts, there is concerned a game machine which is configured so that a physical lottery system imparting a physical motion to a medium for lottery to select at least one option from plural options, is installed, an additional game combined with the lottery caused by the physical lottery system is executed, and the amusement media are delivered to the player in a case where the player wins the additional game. As the additional game combined with the physical lottery system, there is concerned a game in which a pattern arrangement area where patterns (for instance, numerals) corresponding to the options are arranged in a predetermined manner, is generated virtually, and when a predetermined win arrangement is formed by the plural patterns in the pattern arrangement area, each of which corresponds to each of the plural options selected in the plural lotteries in the lottery system, it is assumed that the player wins the game, and predetermined number of medals are delivered to the play field portion. A bingo game can be a typical example of such game. In this case, a bingo card corresponds to the pattern arrangement area, and each of lines in a longitudinal direction, a lateral direction and an oblique direction correspond to a win arrangement.

[0006] However, in the game in which the physical lottery system above mentioned is utilized, it is impossible for the game machine to control the lottery by the physical lottery system. Moreover, after the arrangement of patterns in the pattern arrangement area is once determined, the win probability of the game, in other words, the probability of forming the win arrangement depends on only the lottery result by the physical lottery system. Therefore, it is impossible for the game machine to control the win probability. Then, if a large number of medals are delivered for the win in such game, the affection given to the payout rate by the deliver is big. If it is tried to reduce the affection in the original game, the payout rate is controlled unnaturally, which might cause a reduction of the enjoyableness of game. For example, if the win rate in the lottery game is made lower to lower the payout rate, the chances of win are apparently reduced and the enjoyableness of the player is likely to be reduced.

[0007] Then, there is an object of the present invention that there is provided a game machine capable of reducing the affection of the delivery on the payout rate by a not-conventional method, while delivering the amusement media by utilizing the lottery by the physical lottery system.

SUMMARY OF THE INVENTION

[0008] The game machine of the present invention solves the above mentioned problem by the following configuration: A game machine having a first game device for providing a chance for playing a predetermining game in exchange for drop of amusement media, and managing delivery of the amusement media to a player so that payout rate of the amusement media to the player is controlled to approach a target value; a physical lottery system for selecting at least one option from a plurality of options by imparting a physical motion to a medium for lottery, in a case that a predetermined lottery condition is satisfied in the game; a second game device for virtually generating a pattern arrangement area where a plurality of patterns are arranged in accordance with a predetermined alignment, each of the plurality of patterns corresponding to each of the plurality of options in the lottery system, and delivering directly or indirectly the amusement media to the player in a case that the patterns in the pattern arrangement area forms a predetermined win arrangement, each of the patterns corresponding to each of the options selected by plural selections in the lottery system; and a privilege selection device for, in a case that a predetermined privilege selection condition is satisfied, selecting depending on a control state of the payout rate from a plurality of privileges, a privilege to be given to the player in response to a formulation of the win arrangement, each of the plurality of privileges having a link with a delivery of the amusement media to the player and affections of which are different from each other, wherein the second game device, in a case that the win arrangement is formed, gives to the player, the privilege selected by the privilege selection device in association with the win arrangement, in addition to the delivery of the amusement media.

[0009] According to the game machine of the present invention, in the case that the predetermined condition is

established in the game executed by the first game device, the lottery is performed by the physical lottery system. In the case the lottery is performed plural times by the physical lottery system, the patterns, each of which corresponds to each option selected at each lottery, forms the predetermined win arrangement, while the amusement media are delivered directly and indirectly to the player by the second game device, the privilege selected in association with the formation of the win arrangement by the privilege selection device is also given to the player. As the privilege selected by the privilege selection device is selected from the plurality of privileges each of which has the affection on the payout rate of amusement media is different from each other, by the change of the selection, the affection that the formation of the win arrangement gives to the payout rate changes. Namely, it is possible to absorb by the selection of the privilege by the privilege selection device, the affection given to the payout rate by the delivery of amusement media utilizing the physical lottery system. Thereby, it becomes not necessary to execute the operation (for example, the operation for changing the win probability or the like) for changing the payout rate in the game executed by the first game device, or if it is necessary, the degree of operation can be small.

[0010] In an embodiment of the present invention, the physical lottery system may comprise a lottery board having a plurality of medium take portions each of which corresponds to each of the plurality of options and a drop system for dropping the medium for lottery onto the lottery board, while making the medium for lottery dropped onto the lottery board from the drop system act irregularly, may bring the medium for lottery in any one of the medium take portions, and may determine the option corresponding to the medium take portion in which the medium for lottery has been taken as the option selected by the lottery. Moreover, the physical lottery system may include a rotation body having a plurality of medium take portion, each of which corresponds to each of the plurality of options, and a drop system for dropping the medium for lottery onto a rotation route of the rotation body, while rotating the rotation body at a predetermined velocity, may drop the medium for lottery from the drop system onto the rotation route of the rotation body, and may determine the option corresponding to the medium take portion in which the medium for lottery has been taken as the option selected by the lottery. Moreover, the privilege selection device may select the privilege in a case that the predetermined privilege selection condition is satisfied in the game by the first game device. It is possible to appropriately determine the privilege selection condition depending on the kind of game executed by the first game device. Additionally, the privilege selection condition is associated with the game executed by the first game device, thereby it is possible to function the privilege selection device as a compensation device for a payout-rate control. For example, in the case that the payout rate goes off the target value significantly, or there is a probability to get into this state in the first game device, the payout rate is controlled to approach the target value by utilizing the privilege selection device.

[0011] In another embodiment of the game machine of the present invention, the first game device may be configured to implement a pusher game and a lottery game, the pusher game where while medals as the amusement media accumulated on the play field portion are pushed out by a pusher table performing a reciprocal motion in the play field portion, the medals ejected from a predetermined range of the play field portion are delivered to the player, the lottery game where in a case that the medals has passed through a predetermined position of the play field portion, lottery processing is executed for making a win hand appear while controlling a win probability in accordance with a predetermined control law, and in a case that the win hand is established, the privilege according to the established win hand may be given to the player, and the physical lottery system may recognize that the predetermined lottery condition is satisfied in a case that a predetermined win hand is established in the lottery game, and may select the option. According to this embodiment, in addition to the delivery of amusement media in the pusher game, by executing the delivery of amusement media depending on the result of the lottery game, it is possible to give to the player a probability to obtain much mount of medals compared with the case that only the pusher game is executed. Accordingly, it is possible to enhance the enjoyableness of game. Additionally, the lottery by the physical lottery system is executed in the case the predetermined win hand in the lottery game has been established. Thereby, it is possible for the delivery of amusement media via the lottery of the physical lottery system to absorb by the selection by the privilege selection device, the affection given to the payout rate, while the enjoyableness of game is further enhanced by adding the probability of a further delivery. Accordingly, it is not necessary to perform unnatural operations for the management of payout rate in the pusher game or the lottery game executed by the first game device.

[0012] In the above mentioned embodiment, the privilege selection device may select the privilege in a case that a predetermined privilege selection hand is established in the lottery processing executed by the first game device. According to this embodiment, by associating the lottery processing by the first game device with the selection of the privilege by the privilege selection device, it is possible to position the privilege selection itself as one chance which can appear depending on the result of the lottery processing of the first game device.

[0013] In the above mentioned embodiment, the privilege selected by the privilege selection device may include a provision of the medals to the play field portion. In this case, the medals provided to the play field portion are used in the pusher game of the first game device, and thereby the indirect delivery of amusement media to the player is realized. However, in the present invention, the delivery of amusement media by the second game device is not limited to the delivery that the amusement media are provided to the play field portion, and it can be applied that the amusement media such as medals are directly delivered to the player.

[0014] In one embodiment on the present invention, the second game device may virtually generate a bingo card in a matrix shape in which same number of the patterns are arranged in each of a longitudinal direction and a lateral direction, and may deliver the amusement media by recognizing that the win arrangement has been formed at the moment when all of the patterns aligned on any one of a longitudinal line, a lateral line, or a diagonal line of the bingo card are the patterns corresponding to the options selected by the lottery system.

[0015] As mentioned above, according to the present invention, in the game machine providing a chance for playing a game in exchange for drop of amusement media, and managing delivery of the amusement media so that the payout rate of the amusement media to the player is controlled to

approach the target value, not only the physical lottery system and the second game device executing the delivery of amusement media depending on the lottery result of the lottery system, also the privilege selection device are provided. The privilege selection device selects the privilege corresponded to the formulation of win arrangement which is a condition for the delivery of amusement media by the second game device. Thereby, it is possible to absorb by a change of selection of privilege of the privilege selection device, the affection given to the payout rate by the delivery of amusement media utilizing the physical lottery system. Because of this, it is possible to reduce the necessity of operation for payout rate in the game executed by the first game device, and it is possible to avoid the unnatural operations of payout rate causes the decrease of the enjoyableness of game.

BRIEF DESCRIPTION OF DRAWINGS

[0016] FIG. **1**

[0017] A diagram showing a schematic configuration of a game machine according to one embodiment of the present invention.

[0018] FIG. **2**

[0019] A perspective view showing a satellite unit and a station unit combined therewith.

[0020] FIG. **3**

[0021] A diagram showing a flow of medals in the station unit.

[0022] FIG. **4**

[0023] A diagram showing a flow of a ball in the station unit.

[0024] FIG. **5**

[0025] A perspective view showing a center unit.

[0026] FIG. **6**

[0027] A block diagram showing a schematic configuration of a control system in the game machine.

[0028] FIG. **7**

[0029] A flow chart of processing that the host control unit and the station control unit execute for managing the payout rate.

[0030] FIG. **8**

[0031] A flow chart of a game basic control routine that the station control unit executes in response to the drop of medals.

[0032] FIG. **9**

[0033] A diagram showing a game picture displayed on the monitor of the station unit.

[0034] FIG. **10**

[0035] A diagram showing a details of a bingo game portion provided in the game picture shown in FIG. **9**.

[0036] FIG. **11**

[0037] A flow chart of a satellite lottery routine that the satellite control unit executes.

[0038] FIG. **12**

[0039] A flow chart of a win probability determination routine that the host control unit executes.

[0040] FIG. **13**

[0041] A diagram showing number of wins data that the host control unit holes.

[0042] FIG. **14**

[0043] A flow chart of a bingo routine that the station control unit executes in response to the notification of the result of a satellite lottery.

[0044] FIG. **15**

[0045] A diagram for explaining a way of changing arrangement of numerals on a win line in the bingo game.

[0046] FIG. **16**

[0047] A flow chart of a center lottery control routine that the center control unit executes.

[0048] FIG. **17**

[0049] A flow chart of a grand slot lottery control routine that the host control unit executes.

[0050] FIG. **18**

[0051] A flow chart of a premier mode routine that the station control unit executes instead of the game basic control routine.

[0052] FIG. **19**

[0053] A diagram showing a schematic game picture displayed on a monitor of the station.

[0054] FIG. **20**

[0055] A flow chart of a premier mode termination control that the station control unit executes for determining the termination of the premier mode.

DETAILED DESCRIPTION OF THE INVENTION

[0056] Using FIG. **1** to FIG. **5**, the outline of configuration of the game machine G according to the present invention will be described. The game machine G has a center unit CN, four satellite units SA, and 16 station units ST. Each of the satellite units SA is disposed below the center unit CN so as to surround the center unit CN. At the surround of each satellite unit SA, 4 of the station units ST are disposed. Namely, the game machine G is configured so that the center unit CN is disposed at the center, 4 of the satellite units SA are disposed around the center unit CN, and additionally, 4 of the station units ST are disposed around each of the satellite units SA. In the station unit ST, a so-called pusher game utilizing medals as the amusement media, and a digital lottery game associated with the pusher game are performed respectively. In the satellite unit SA, a satellite lottery is performed in association with the game result of the digital lottery game in the station unit ST. In the center unit CN, a center lottery or a grand slot lottery is performed as a center game, in association with the game result of the digital lottery game at the station unit ST or the lottery result of the satellite lottery at the satellite unite SA.

[0057] FIG. **2** shows one satellite unit SA and one station unit AT which is combined with the satellite unit SA. The station unit ST comprises a pair of right and left operation portions **10** where operations relating to the game are performed by the player, a play field portion **12** where the pusher game is performed, a medal delivery portion **13** where to deliver medals M as a first game medium to the play filed portion **12**, a ball drop portion **14** where to drop a ball as a second game medium into the play field portion **12**, a ball transfer portion **15** where to transfer the ball B to the satellite unit SA, and a station monitor **16** where to display a game picture or the like. The play field portion **12** has a main table **20** and a sub table **32** where to store the medals M, and further has pusher tables **22**, **23** sliding forwardly and backwardly on the tables **20**, **21** respectively. The medals M are stored so that the main table **20** and the sub table **21** are paved by the medals M. The play field portion **12** is shielded to the outside by being surrounded with a partition wall such as a transparent board.

[0058] With reference to FIG. **3**, the outline of flow of medals M at the station unit ST will be described. When the medals M is dropped by the player from a medal slot (not figured) mounted in the operation portion **10**, and the medals M fall down to any one of medal hoppers **13***a* of the medal deliver portion **13** via a medal shoot **17**. Prior to the medal drop by the player, medals M have been delivered to both

medal ejection portions **18** disposed at right and left sides of the station unit ST, and the medals M have been held in both of the medal ejection portions **18** for dropping to the play field portion **12**. The medals M held in the medal ejection portion **18** are transferred to a medal shoot **19** at the timing simultaneously with the timing when the medals M are dropped by the player, and the medals M are dropped onto the sub table **21** from the medal shoot **19**. Additionally, the direction of the shoot **19** can be changed in a right-left direction by operating levers **10***a* mounted on right and left sides of the operation portion **10**.

[0059] The medals M which are dropped in the play field portion **12** falls down on the sub table **21**. Then, the medals M accumulate on the sub table **21** or roll down to the main table **20** from the sub table **21**. The medals M accumulated on the sub table **21** are pushed forward (i.e. the side of player) by a reciprocal motion of the pusher table **23**. Thereby, the medals M are pushed out of the front edge of the sub table **21**, and the pushed out medals M slide off on a slope portion **24** to move to the main table **20**, and are accumulated there. The medals M accumulated on the main table **20** are pushed forward by a reciprocal motion of the pusher table **22**. Thereby, the medals M fall down to the surround of the main table **20**. The medals M which has fallen down are collected in a lift up hopper **25** shown in FIG. **2**. Then, the medals M, the number of which is the same as the number of medals M having fallen down from the front edge of the main table **20** are delivered to the medal deliver portion **11** disposed between the operation portions **10** from the lift up hopper **25** as the medals the player obtains. As the medals M which are delivered to a place disposed at the outside of the partition wall covering the play field portion **12**, it is possible for the player to accept the medals M.

[0060] Returning to FIG. **2**, in the slope portion **24**, a plurality of openings **24***a*, **24***b*, and **24***c* are provided as a checker where the medals M pass through (fall down). When the medals M on the way to slide down on the slope portion **24** fall down to any one of the opening **24***a*, **24***b* and **24***c*, a not figured sensor detects that the medals M have passed through, and the detection signal is used as a trigger that the digital lottery game starts at the station monitor **16**. The digital lottery game is one of slot games competing whether a combination of three patterns (pictures, signs, numerals or the like) displayed in a row on the station monitor **16** is equal to the predetermined win hands or not. "Ball" is prepared as one of the win hands in the digital lottery game. For example, if 3 of pictures of ball are aligned, the player wins the win hand of "ball". If the player wins this hand, the ball B is dropped onto the main table **20** from the ball drop portion **14**. It will be described later that the ball B is provided to the ball drop portion **14**. Additionally, in the present embodiment, different kinds of balls, one is a normal ball B**1** and another one is a special ball B**2**, are prepared as the ball B. However, in a case that it is not needed to discriminate them, both of them are referred to as the ball B.

[0061] The ball B dropped onto the main table **20** is gradually pushed out toward the front side of the main table **20** together with the medals M by the reciprocal motion of the pusher table **22**. When the ball B falls down from the front edge of the main table **20**, the ball B which has fallen down is transferred to the satellite unit SA by the ball transfer portion **15**. FIG. **4** shows a transfer route of the ball B provided by the ball transfer portion **15**. The ball B which has fallen down from the main table **20** is taken in a ball lifter **27** via a ball duct **26**. The ball lifter **27** transfers the taken ball B up to the end (the top) of slope **28** while lifting the ball B along with the slope **28**. At the satellite unit SA, the satellite lottery is performed with the ball B transferred up to the end of the slope **28**.

[0062] As shown in FIG. **2**, the satellite unit SA comprises a bingo stage **30**, a ball carrier **40** mounted to the outer circumference of the bingo stage **30**, a pair of ball provision systems **50**A, **50**B disposed to the periphery of the bingo stage **30**, and a pair of ball drop system **60**A, **60**B disposed across the bingo stage **30** from the ball provision system **50**A, **50**B. The bingo stage **30** is rotated in one direction around a vertical direction axis as a center by a not-figured drive system. The upper surface of the bingo stage **30** is divided into an outer circumference portion **32**A and an inner circumference portion **32**B by a fence **31** in the shape of ring. In each of the portions **32**A, **32**B, a winning prize pocket **32***a*, **33***a* in the shape of round having a diameter to the extent that the ball B can pass through, is mounted so that the winning prize pocket **32***a*, **33***a* penetrates the bingo stage **30**. In the outer circumference portion **32**A, **10** of the winning prize pockets **32***a* are provided, and in the inner circumference portion **32**B, **5** of the winning prize pockets **33***a* are provided. To the winning prize pockets **32***a*, **33***a*, the numbers or the patterns to be the options in the satellite lottery are assigned respectively. To the winning prize pockets **32***a* in the outer circumference portion **32**A, the numerals 1 to 9 and the letters of "JP chance" are assigned respectively. Additionally, "JP" in this description is used as abbreviation for a jack pot, that is, a big win. On the other hand, to each of the three winning prize pockets **33***a* in the inner circumference portion **32**B, each 3 numerals of 1 to 9, appropriately combined, are assigned. To each of the remains of 2 winning prize pockets **33***a*, the letters "JP chance" are assigned.

[0063] The ball carrier **40** is capable of moving along with the outer circumference of the bingo stage **30**. The ball carrier **40** transfers the ball B from the ball provision system **50**A, **50**B to the ball drop portion **14** of each station unit ST, and transfers the ball B from the ball transfer portion **15** of each station unit ST to the ball provision system **60**A, **60**B. To each lower portion of the ball provision systems **50**A, **50**B, the ball B has passed through the winning prize pockets **32***a*, **33***a* is selectively guided depending on the kind of the ball B. For example, the normal ball B**1** is guided to the ball provision system **50**A, and the special ball B**2** is guided to the ball provision system **50**B. The ball provision system **50**A, **50**B takes the guided ball B in a screw feeder **51** to transfer the ball B upward, and delivers the ball B reaching the top of the screw feeder **51** from the ejection portion **52** one by one. The ball carrier **40** moves to just below the ejection portion **52** in liaison with the delivery of the ball B from the ejection portion **52**, thereby the ball B to be ejected from the ball ejection portion **52** are passed to a fork **41** of the ball carrier **40**. The ball carrier **40** which has received the ball B from the ball provision system **50**A, **50**B moves along with the outer circumference of the bingo stage **30** up to the ball drop portion **14** of the station unit ST where the ball B should be transferred. After that, the carrier **40**, by inclining the fork **41** outward, delivers the ball B to the top of the slope **14***a* of the ball drop portion **14**. The delivered ball B slopes down through the slope **14***a*, and, via a drop position selection system **14***b*, is dropped at a arbitrary position on the main table **20**.

[0064] On the other hand, in a case that the ball B is transferred to the ball transfer portion **15** of the station unit ST, the

ball carrier **40** moves to the inner side of the slope **28** of the ball transfer portion **15** where the ball B has been transferred and receives the ball B from the slope **28**. And then, the ball carrier **40** transfers the ball B to the position of the ball drop system **60**A or **60**B. It is associated with the kind of ball B which one of the ball drop systems **60**A or **60**B the ball carrier **40** transfers the ball B to. For example, in a case of the normal ball B**1**, the ball carrier **40** transfers the ball B**1** to the ball drop system **60**A, while in a case of the special ball B**2**, the ball carrier **40** transfers the ball B**2** to the ball drop system **60**B.

[0065] Each of the ball drop systems **60**A, **60**B has a ball lifter **61** and a ball guide **62**. The ball lifter **61** is capable of performing a reciprocal motion in an up and down direction. In a case that the normal ball B**1** is transferred to a ball drop system **60**A from the ball carrier **40**, the ball lifter **61** of the ball drop system **60**A gets lower. After that, the fork **41** of the ball carrier **40** is inclined to the side of ball lifter **61**, and the ball B**1** is passed from the ball carrier **40** to the ball lifter **61**. The ball lifter **61** having received the ball B**1** gets up to the top of the ball guide **62**. After that, the ball lifter **61** is inclined so that a down slope is formed to the ball guide **62**. Thereby, the normal ball B**1** is passed to the ball guide **62**. The normal ball passed to the ball guide **62** is dropped in the outer circumference **32** of the bingo stage **30** from the top of the ball guide **62**. In a case that the special ball B**2** is transferred to the ball drop system **60**B from the ball carrier **40**, the ball lifter **61** of the ball drop system **60**B gets lower, and the ball B**2** is passed from the ball carrier **40** to the ball lifter **61**. After that, the ball lifter **61** operates in a similar way to the ball drop system **60**A to pass the special ball B**2** to the ball guide **62** of the ball drop system **60**B. The special ball B**2** passed to the ball guide **62** is dropped to the inner circumference portion **33** of the bingo stage **30** from the top of the ball guide **62**.

[0066] As shown in FIG. **5**, the center unit CN comprises a center monitor **70**, a big roulette **71**, and a big-ball drop system **72**. The big roulette **71** is rotated in one direction at a predetermined speed by a not-figured driving system. A plurality of winning prize pockets **71***a* are provided to the periphery of the big roulette **71**. To the winning prize pockets **71***a*, number (or number of times) of medals M and various kinds of game mode are assigned as the win hands respectively. When the center game starts, the big ball **73** for the big roulette is dropped from the ball drop system **72** to the periphery of the big roulette **71**. The big ball **73** while oscillating along with the periphery of the big roulette **71** according to the rotation of the big roulette **71**, enters in any one of the winning prize pockets **71***a*. A privilege depending on the winning prize pocket **71***a* which the big ball **73** has entered, is given to the player.

[0067] Additionally, to each of the station unit ST, the satellite unit SA, and the center unit CN, illumination devices and sound devices are mounted as rendering devices for warming up game mood. As the electric light devices, for example, for the station unit a plurality of LEDs (light-emitting diodes) are arranged along with a moving route from the drop of the medals M to the ejection of medals M to the play field portion **12**. In the satellite unit SA, lamps are mounted to provide from the lower bingo stage **30**, an illumination in the shape of ring around the rotation axis of the bingo stage **30** as the center. The winning prize pocket **71***a* of the big roulette **71** in the center unit CN is fringed with a plurality of LEDs. As the sound devices, speakers are provided, effect sounds and BGM (back ground music) are appropriately outputted from the speakers. As shown in FIG. **1**, spacers SP are provided between each of the satellite units SA of the game machine G. Below each of the spacers SP, a moving light L and a speaker for a show time are disposed.

[0068] Next, the configuration of a control system of the game machine G will be described. As shown in FIG. **6**, in the game machine G, as a computer unit to control operations in the game machine G, there are provided a host control unit **100**, a host PC ("PC" is an abbreviation of "personal computer) **110**, a center PC **120**, a center control unit **130**, satellite control unit **140** and station control unit **150**. The satellite control unit **140** is provided to the satellite unit SA one by one as a configuration element of the satellite unit SA. The station control unit **150** is provided to the station unit ST one by one as a configuration element of the station unit ST. Namely, in the whole of the game machine G, there are 4 of the satellite control units **140** and **16** of the station control units **150**. These units **110** to **150** are connected with each other via LAN cables **160** to communicate information necessary for controlling various games or lotteries with each other. Additionally, the LAN cables **160** can be connected in a manner of so-called a star connection in which some hubs intervene at appropriate points.

[0069] The host control unit **100** executes an entire management, a coordinate control and the like of the game machine G. The host PC **110** controls operations of a main-body rendering portion **111** of the game machine G Rendering devices not included in any one of the center unit CN, the satellite unit SA, or the station unit ST, such as the above mentioned moving lights L and the speakers on the spacers SP, are included in the main-body rendering portion **111**. The center PC **120** controls a display on the center monitor **70**.

[0070] The center control unit **130**, by operating based on the state of the center unit CN detected by a sensor group **131**, a center drive portion **132** and a center rendering portion **133**, controls execution of the center game and rendering in the game utilizing the center unit CN. In the sensor group **131**, a win sensor is included, which detects whether the big ball **73** enters or not in each winning prize pocket **71***a* of the big roulette **71**. For example, a no-contact switch, or a reflection-type or transmission-type optical sensor can be employed as the win sensor. In the center drive portion **132**, drive devices such as a motor for rotating the big roulette **71**, actuators for driving the big ball drop system **72** and the like are included. In the center rendering portion **133**, rendering devices such as lamps and speakers uniquely provided to the center unit CN.

[0071] The satellite control unit **40** controls the execution of the satellite lottery, the transfer of the ball B, and the rendering of game utilizing the satellite unit SA, by operating a satellite drive portion **142** and a satellite rendering portion **143** based on the state of the satellite unit SA, which is detected by a sensor group **141**. In the sensor group **141**, a win sensor for detecting whether the ball B passes or not through each of the winning prize pockets **32***a*, **33***a* of the bingo stage **30**, and a carrier position sensor for detecting the position of the ball carrier **40** in the circumferential direction. A non-contact switch or a transmission-type or reflection-type optical sensor can be employed as the win sensor. In the satellite drive portion **142**, drive devices are included, such as a motor for rotating the bingo stage **30**, an actuator for driving the ball carrier **40** along with the outer circumference of the bingo stage **30**, an actuator for operating the fork **41** of the ball carrier **40**, an actuator for driving the screw feeder **51** and the ball ejection portion **52** or the ball provision system **50**A, **50**B respectively, an actuator for driving upward and downward

the ball lifter **61** of the ball drop system **60**A, **60**B. In the satellite rendering portion **143**, rendering devices such as lamps and speakers uniquely mounted to the satellite unit SA.

[0072] The station control unit **150** controls the pusher game and the digital lottery game to be executed at the station unit ST and the rendering of the games utilizing the station unit ST, by operating a station drive portion **152** and a station rendering portion **153** based on the state of the station unit ST detected by a sensor group **151**. Additionally, the station control unit **150** controls display of the station monitor **16**. In the sensor group **151**, a medal sensor group with respect to detection of the medals M, a ball sensor group with respect to detection of a ball B, and a position sensor group for detecting position of movable parts such as the lever **10***a*, and the pusher tables **22**, **23**.

[0073] In the medal sensor group, there are included a medal drop sensor for detecting the drop of medals M from the medal slot, a medal ejection sensor for detecting the ejection of medals M from the medal ejection portion **18**, a checker sensor for the fall of medals M to the openings **24***a* to **24***c* as the checker, fall medal sensor for detecting the fall of medal M from the front edge of the main table **20**, a medal delivery sensor for detecting the medal M to be delivered to the medal deliver portion **11** from the lift up hopper **25**, and the like. Non-contact switches, optical sensors, micro switches and the like can be employed as the above sensors, like the medal sensors employed to an already-known the medal game machine. Additionally, in the ball sensor group, there are included such as a ball drop sensor for detecting the drop of ball B from the ball drop portion **14**, a ball fall sensor for detecting the ball B falling down from the main table **20** and being transferred to the ball transfer portion **15**. The ball fall sensor further functions as a sensor for discriminating the kind of ball B, that is, whether or not the ball which has fallen is the normal ball B**1** of the special ball B**2**. The discrimination of the ball B can be realized by using a sensor as the ball fall sensor, which outputs different signal depending on the kind of ball B**1**, B**2**. For example, in a case that one of the balls B**1** and B**2** is a resin ball and another one of the balls B**1** and B**2** is a metal ball, it is possible to discriminate the kind of balls B**1**, B**2** with a metal sensor. When the reflectance rate of the balls B**1** and B**2** are different from each other, the reflectance-type optical sensor is employed as the ball fall sensor. It is possible to discriminate the kind of ball B according to the strength of output signal from the sensor. By discriminating the kind of ball B with the ball fall sensor, it is possible to specify the ball drop system **60**A, **60**B to which the ball carrier **40** should transfer the ball B.

[0074] In the station drive portion **152**, there are included such as a drive device for each of the medal hopper **13***a* and the lift up hopper **25**, an actuator for realizing the operation of ejecting the medals of the medal ejection portion **18**, drive devices for reciprocating the pusher tables **22**, **23** such as motors, an actuator for operating the drop position selection system **14***b* of the ball drop portion **14**, a drive derive for driving the ball lifter **27** of the ball transfer portion **15** and the like. In the station rendering portion **153**, rendering devices are included such as lamps and speakers uniquely mounted to the station unit ST.

[0075] Next will be described various kinds of processing executed by the game machine G with reference to FIG. **7** to FIG. **20**. First, the management of payout rate in the game machine G will be described. In the game machine G of the present embodiment, in each station unit ST, by the station control unit **150**, the number of dropped medals M and the number of delivered medals M are counted and the payout rate is calculated with an appropriate period for each station unit ST. When the number of dropped medals M detected by the medal drop sensor within a predetermined period for calculation is referred to as NSTin, and the number of ejected medals M detected by the medal ejection sensor within the same period is referred to as NSTout, the percentage of the value NSTout/NSTin obtained by dividing the later by the former is calculated. Thereby, it is possible to determine the payout rate POst in the present state of the station unit ST within the predetermined period for calculation. However, in a case that the game machine G has functions for holding the number of medals M charged by the player as the number of credits, and dropping medals M, the number of which is withdrawn from the number of credits, to the play field portion **12** from the medal ejection portion **18**, and executing the addition to the number of credits for realizing the delivery of medals M, it is necessary to calculate the payout rate POst by adding the number of medals M to be reduced from the number of credits to the number of dropped medals NSTin and adding the number of medals M to be added to the number of credits to the number of delivery medals NSTout.

[0076] In the game machine G of the present embodiment, so that the payout rate POst of each of the station units ST is appropriately equal to each other, the processing shown in FIG. **7** is executed by the linkage of the host control unit **100** and each of the station control units **150**. Namely, the host control unit **100** executes a routine for managing an entire payout rate in an appropriate cycle, and in synchronism with that, each station control unit **150** executes a routine for managing individual payout rate. When these routines start, firstly the station control unit **150** notifies the host control unit **100** of the payout rate POst calculated in itself at step S**11**. In response to this, the host control unit **100** obtains the payout rate POst of each station unit ST at step S**21**, and subsequently at step S**22**, calculates an entire payout rate POall and notifies each station control unit **150** of the calculation result. The entire payout rate POall, for example, can be a simple average of the payout rates POst of the station units ST.

[0077] The station control unit **150** obtains the payout rate POall from the host control unit **100** at step S**12**, and subsequently at step S**13**, determines a target payout rate POsttgt of its own station unit ST based on the difference between the own payout rate Post and the entire payout rate POall. In each station control unit **150**, a standard target payout rate is set as a initial value in advance. Then, each station control unit **150** appropriately adjusts a win probability (a probability of establishing the win hands) of the digital lottery game so that the payout rate POst calculated in itself is controlled to approach the initial value of a target payout rate POsttgt. Moreover, at step S**13**, in a case that a difference between the own payout rate POst and the entire payout rate POall increases beyond an permissible range, so as to reduce the difference, the station control unit **150** adjusts the target payout rate POsttgt. For example, in a case that the own payout rate POst is higher than the entire payout rate POall, the target payout rate POsttgt is set to be lower than the initial value. In this manner, by changing the target payout rate POsttgt, it is possible to reduce the dispersion of payout rates POst.

[0078] Next, in reference to FIG. **8**, the control of the game at the station unit ST will be described. At each station unit ST, while the pusher tables **22**, **23** repeat the reciprocal motion at a predetermined frequency, medals M are dropped

into the play field portion **12** according to the drop of medals M from the medal slot, and thereby a medal pusher game is performed. FIG. **8** shows a flow chart of a game basic control routine executed by the station control unit **150** in response to the detection of drop of medals M from the medal slot. In the game basic control routine shown in FIG. **8**, the station control unit **150** firstly executes at step S**101**, a processing required to drop the medals M into the play field portion **12**. The flow of medals M at this moment is above mentioned in reference to FIG. **3**.

[0079] At next step S**102**, the station control unit **150** determines whether or not the medals M have entered any one of the openings portions **24***a* to **24***c* as the checker. When the medals M have entered the checker, the station control unit **150** goes to step S**103** to start the slot lottery of the digital lottery game. Namely, the station control unit **150** displays the game picture **200** shown in FIG. **9** on the station monitor **16**, and selects by using random numbers or the like, patterns to be displayed in each of changeable display portions **201***a*, **201***b*, **201***c* disposed on a line in the game picture **200**. The process for determining the patterns may be executed based on a control law of a conventional slot machine. Then, the selected patterns are displayed, while each of the changeable display portion **201***a*, **201***b*, **201***c* is given a predetermined rendering effects (animation and the like). Note that, the game picture **200** has also a bingo game portion **210**, but this will be described later.

[0080] After the slot lottery ends, the station control unit **150** goes to step S**104** to determine whether or not the combination of the three patterns determined in the slot lottery is a losing hand or not. In a case of the losing hand, the station control unit **150** terminates this routine. On the other hand, at step S**140**, in a case of the combination is not the losing hand, namely, in a case of establishing the win hand in the slot lottery, the station control unit **150** goes to step S**105** and after step S**105** to execute processing appropriate to the kind of win hand. Namely, the station control unit **150**, firstly at step S**107**, whether or not a win hand of "ball" is established. In a case of establishing the win hand of "ball", the station control unit **150** goes to step S**106** to deliver (drop) the normal ball B**1** to the play field portion **12**. Namely, the station control unit **150** requires the delivery of the normal ball B**1** to the satellite control unit **140**. In response to the require, the satellite control unit **140** requires the ball provision system **50**A to eject the normal ball B**1** therefrom, and delivers the ejected ball to the slope **14***a* of the ball drop portion **14** by the ball carrier **40**. In sync with the delivery of the normal ball B**1**, the station control unit **150** operates the drop position selection system **14***b* of the ball drop portion **14** to drop the normal ball B**1** to an appropriate position in the play field portion **12**. When the drop of the normal ball B**1** is accomplished, the station control unit **150** terminates this routine.

[0081] At step S**104**, in a case that the win hand of "ball" is not established, the station control unit **150** goes to step S**107** to determine whether or not the win hand of "ordinary patterns" in the slot lottery has been established. In a case of the win hand of "ordinary patterns", the station control unit **150** goes to step S**108** to execute processing for providing medals M, the number of which corresponds to the win hand of "ordinary patterns", to the play field portion **12** from the medal provision portion **13**. Hereinafter, the delivery of medals M means the delivery of medals M from the lift up hopper **25** to the medal delivery portion **11**, and the provision of medals M means the delivery of medals M from the medal provision portion **13** to the play field portion **12**. The provision of medals M from the medal provision portion **13** may be only a route through the medal ejection portion **18** and the medal shoot **19**. However, in a case of delivering a big amount of medals M to the play field portion **12** at one time, the medals M may be provided through other routes.

[0082] Subsequently at step S**109**, the station control unit **150** sets the mode of slot lottery to an ordinary mode, and after that terminates this routine. The mode of slot lottery will be described. At step S**107**, in a case that the win hand of "ordinary patterns" is not established, the station control unit **150** goes to step S**110** to determine whether or not the win hand of "probability oscillation patterns" has been established. In a case that the win hand of "probability oscillation patterns" has been established, the station control unit **150** goes to step S**111** to provide the medals M, the number of which corresponds to the "probability oscillation patterns", to the play field portion **12**. Subsequently at step S**112**, the station control unit **150** sets the mode of slot lottery to the probability oscillation mode, and after that terminates this routine. The probability oscillation mode is a mode where the probability of establishing the win hand in the slot lottery is heightened compared with a normal mode. That is to say, in a case that the win hand of "probability oscillation patterns" is established, at step S**112**, the probability oscillation mode is started or the same mode is maintained. Then, in a case that the win hand of "ordinary patterns" has been established in the probability oscillation mode, the probability oscillation mode is terminated by the processing of step S**109**.

[0083] At step S**110**, in the case that the win hand of "probability oscillation patterns" is not established, the station control unit **150** goes to step S**113** to determine whether or not the win hand of "bingo feature" has been established. In the case that the win hand of "bingo feature" has been established, the station control unit **150** goes to step S**114** to execute a bingo card feature setting processing. The bingo card feature setting processing is a processing for changing an expected value of player with respect to the number of delivering medals M by changing player's privilege in a bingo game executed in combination with the bingo cards **211** displayed on the bingo game portion **210** shown in FIG. **9**. Hereinafter this point will be described.

[0084] FIG. **10** shows the magnified bingo game portion **210**. In the bingo game portion **210**, the bingo card **211** is displayed. The bingo card **211** is made up of such **9** boxes as arranged in a matrix shape having 3 lines and 3 rows, and the boxes are assigned to the numerals **1** to **9** respectively. Each of the numerals corresponds to the numeral assigned to the winning prize pocket **32***a*, **33***a* in the bingo stage **30** of the satellite unit SA. When the ball B drops in any one of the winning prize pockets **32***a*, **33***a* in the satellite lottery, the numeral assigned to the winning prize pocket **32***a*, **33***a* becomes active. When three active numerals are aligned in a longitudinal direction, in a lateral direction or in a diagonal direction of the bingo cards **211**, the bingo is established. And then, the medals M the number of which is displayed on an odds display area **212** are provided to the play field portion **12**. A bingo feature display area **213** is provided at the left side and the bottom side of the bingo card **211**. In the bingo feature display area **213**, feature display portions **214***a* to **214***h* are provided, each of which corresponds to a lateral line, a longitudinal line, or a diagonal line of the bingo card **211**. In each of the feature display portions **214***a* to **214***h*, a pattern is displayed which corresponds to the privilege to be provided

to the player in addition to the provision of medals M the number of which is displayed in the odds display area **212**, when the bingo is established, that is, three active numerals are aligned on the corresponding line. These privileges affect directly or indirectly the provision of medals to the player, and the affections of the privileges given to the payout rate are different from each other. In this embodiment, there are prepared as the privilege such that the addition of the bonus number of medals to the number of medals displayed in the odds display area **212**, the drop of the normal ball B**1** or the special ball B**2** to the play field portion **120**, the donation of "JP chance", and the like. In the example shown in FIG. **10**, the pattern indicating the drop of the special ball B**2** is appearing in each of the feature display portions **214***a*, **214***e*, the pattern indicating the drop of the normal ball B**1** is appearing in each of the feature display portions **214***b*, **214***d*, **214***f*, **214***h*, and the pattern indicating the donation of "JP chance" is appearing in the feature display portion **214***c*. Accordingly, for example, in a case that three active numerals are aligned in the lateral direction on the upmost line of the bingo cart **211**, in response to establishing the bingo, the special ball B**2** is dropped in the play field portion **120**.

[0085] In the bingo card feature setting processing at step S**114** in FIG. **8**, by adding newly or changing the pattern (the privilege) to be allowed to appear in any one of the feature display portions **214***a* to **214***h*, the privilege the player obtains at the moment of establishing the bingo is changed. Thereby, it is possible to control the payout rate of medals. For example, when the actual payout rate POst is lower than the target payout rate POsttgt, it is possible to converge the payout rate POst to the target payout rate POsttgt more quickly, by selecting among plural privileges prepared in advance, a privilege having a bigger affection to increase the payout rate, in other words, selecting preferentially a privilege connected with the delivery of bigger amount of medals compared with the other privileges. On the contrary, when the actual payout rate POst is higher than the target payout rate POsttgt, it is possible to converge the payout rate POst to the target payout rate POsttgt more quickly, by selecting among plural privileges prepared in advance, a privilege having a smaller affection to increase the payout rate, in other words, selecting preferentially a privilege connected with the delivery of smaller amount of medals compared with the other privileges. The selection of these privileges can be realized, for example, by the following: the amount of the affection each privilege gives to the payout rate is quantified in advance, depending on the quantified value, the probability of selecting each privilege is set basically. In a case of controlling to heighten the payout rate, the selection probability of privileges having a bigger affection to the payout rate (the affection only for heightening the payout rate) may be made higher than the basic set, and on the contrary in a case of controlling for lowing the payout rate, the selection probability of privileges having a smaller affection to the payout rate may be made higher than the basic set. When the feature setting processing is accomplished at step S**114**, the station control unit **150** terminates this routine.

[0086] In a case that the win hand of "the bingo feature" is not established at step S**113** of FIG. **8**, the station control unit **150** goes to step S**115** to determine whether or not the win hand of "direct satellite" has been established. In a case that the win hand of "direct satellite" has been established, the station control unit **150** goes to step S**123**. On the other hand, the win hand of "direct supply" is not established, the station control unit **150** goes to step S**116** to recognize that the win hand of "direct center" has been established. Subsequently at step S**123**, the station control unit **150** requires the center control unit **130** to execute the center lottery and after that terminates this routine. Note that, in this case, as the ball B is not transferred to the ball transfer portion **15**, the satellite lottery is performed by delivering the ball B**1** to the ball carrier **40** from the ball provision system **50**A, and transferring the ball B**1** to the ball drop system **60**A.

[0087] In a case that the medals M do not enter the checker at step S**102** in FIG. **8**, the station control unit **150** goes to step S**120** to determine whether or not the ball B has fallen down from the main table **20**. In a case that the ball B does not fall, the station control unit **150** terminates this routine. On the other hand, in a case that the ball B has fallen, the station control unit **150** goes to step S**121** to discriminate whether or not the ball which has fallen is the special ball B**2**. The discrimination of the kinds of ball B is aforementioned with respect to the sensor group **151** in FIG. **6**. In a case that the ball B which has fallen is the special ball B**2**, the station control unit **120** goes to step S**122** to determine that the satellite lottery should be performed at the inner circumference portion **33** of the bingo stage **30**. On the other hand, in a case that the ball which have fallen is not the special ball B**2**, the station control unit **150** goes to step S**123** to determine that the satellite lottery should be performed at the outer circumference portion **32** of the bingo stage **30**. After determining the area where the satellite lottery should be performed, the station control unit **150** goes to step S**124** to require the satellite lottery to the satellite control unit **140**. In this case, the station control unit **150** also provides to the satellite control unit **140**, the information of specifying whether the satellite lottery should be performed in the outer circumference portion **32** or in the inner circumference portion **33**. After requiring the satellite lottery, the station control unit **150** terminates this routine. Additionally, in harmony with the requirement of the satellite lottery, the station control unit **150** controls operations of the ball transfer portion **15** so that the ball B which has fallen is transferred to the end of slope **28**.

[0088] FIG. **11** shows a flow chart of a satellite lottery routine which the satellite control unit **140** executes in response to the requirement of the satellite lottery from the station control unit **150**. In the satellite lottery routine, the satellite control unit **140**, firstly at step S**201**, determines whether the satellite lottery should be performed in the outer circumference portion **32** or the inner circumference portion **33** by the information provided from the station control unit **150**. In a case that the satellite lottery should be performed in the outer circumference portion **32**, the satellite control unit **140** goes to step S**202** to control operations of the ball carrier **40** and the ball drop system **60**A, so that the ball B (in this case, the normal ball B**1**) transferred by the ball transfer portion **15** of the station unit ST is dropped onto the outer circumference portion **32** from the ball drop system **60**A. On the other hand, In a case that the satellite lottery should be performed in the inner circumference portion **33**, the satellite control unit **140** goes to step S**203** to control operations of the ball carrier **40** and the ball drop system **60**B, so that the ball B (in this case, the special ball B**2**) transferred by the ball transfer portion **15** of the station unit ST is dropped onto the inner circumference portion **33** from the ball drop system **60**B.

[0089] After dropping the ball B, the satellite control unit **140** goes to step S**204**, reads out which one of the winning

prize pockets **32***a* (or **33***a*) the dropped ball B has fallen into, based on the detection signal of the win sensor included in the sensor group **140**. Subsequently, at step S**205**, the satellite control unit **140** determines whether or not the winning prize pocket **32***a* (or **33***a*) into which the ball B has fallen is a JP chance pocket, that is, a winning prize pocket having the letters of "JP chance". Then, in a case that the winning prize pocket **32***a* (or **33***a*) is the JP chance pocket, the satellite control unit **140** goes to step S**206** to require the center lottery to the center control unit **130**. In a case that the winning prize pocket **32***a* (or **33***a*) is not the JP chance pocket, step S**206** is skipped.

[0090] In the next step S**207**, the satellite control unit **140** notifies the host control unit **100** and the station control unit **150** (which has required the satellite lottery) of the number or letter of the winning prize pocket **32***a* (or **33***a*) which the ball B has fallen into. After notifying of that, the satellite control unit **140** terminates the satellite lottery routine.

[0091] FIG. **12** shows a flow chart of a win probability determination routine which the host control unit **100** executes in response to the notification of the number or letter (hereinafter, referred to as the number) of winning prize pocket from the satellite control unit **140**. As the probabilities (ease in entering of the ball) that the ball B falls into the winning prize pockets **32***a*, **33***a* of the bingo stage **30** are not equal to each other because of mechanical error and the like, this routine is executed to recognize the dispersion of the probabilities and reflect it to the control of game. In this routine, the host control unit **100**, firstly at step S**301**, updates the number of wins data in response to the notification of the winning-prize pocket number from the satellite control unit **140**. The number of wins data is, for example as shown in FIG. **13**, data storing each number of winning prize pocket (the numerals of 1 to 9 or "JP") assigned to each winning prize pocket **32***a*, **33***a*, and each number of wins N**1** to N**9**, Njp which is corresponded to each number of the winning prize pocket. The number of wins is obtained within an appropriate sampling period (for instance, the past 1000 times of lotteries). For example, in a case that the notification that in the satellite lottery the ball B**1** has fallen into the winning prize pocket **32***a*, to which the number of 1 is assigned, is accepted, 1 is added to the number of wins N**1** for the pocket number 1, and 1 is subtracted from the number of wins Nx for the pocket number x (x is any one of 1 to 9, or "JP") corresponding to the oldest lottery chance within the sampling period.

[0092] Next, the host control unit **100**, at step S**302**, calculates the win probability for each pocket number. The calculation obtains the value by dividing the number of wins N**1** to N**9**, Njp for each pocket number by the number of times of lottery within the sampling period. Note that the calculation with respect to the probability of win for the pocket number JP corresponding to "JP chance" can be omitted. Subsequently, at step S**302**, the host control unit **100** notifies the station control unit **150** of the probability of win for each calculated pocket number, and after that terminates this routine. Note that the station control unit **150** which becomes a notified destination at step S**303** is the control unit **150** of each of the 4 station units ST combined with the satellite unit SA including the satellite control unit **140** which has notified of the result of the satellite lottery. Namely, the win probability determination routine is executed for each unit independently. The each unit comprises the satellite unit SA and 4 station units SA combined therewith.

[0093] FIG. **14** shows a flow chart of a bingo game routine to be executed by the station control unit **150** which has been notified of the number of winning prize pocket from the satellite control unit **140**. In the bingo game routine, the station control unit **150**, firstly at step S**131**, activates on the bingo card **211**, the numerals which are the same as the number of winning prize pocket **32***a* or **33***a* of which has been notified from the satellite control unit **140**. However, in a case that the winning prize pocket is "JP chance", the activation is not executed.

[0094] Subsequently at step S**132**, the station control unit **150** determines whether the bingo has been established on the bingo card **211**, that is, three active numerals has been aligned on a line. In a case that the bingo has been established, the station control unit **150** goes to step S**133** to provide to the play field **12**, the medals M the number of which is obtained by totalizing the bingo WIN medals and the repeat WIN medals. The bingo WIN medals is the number displayed in the odds display area **212** shown in FIG. **10**. The repeat WIN medals is the number displayed in the repeat medals display portion **215** shown in FIG. **10**. The repeat WIN medals will be described later. Moreover, at step S**133**, the station control unit **150** gives to the player, the privilege corresponding to the pattern appearing in the display portion of the line or row where the bingo has been established (hereinafter, referred to as the win line.) within the feature display portions **214***a* to **214***h* of the bingo game portion **210** shown in FIG. **10**. In this embodiment, as the privilege, for example, the number of medals to be delivered is added, the ball B is dropped, or "JP chance" is donated. The donation of "JP chance" is a requirement of the center lottery like the case that the processing advances from step S**205** to step S**206** in FIG. **12**.

[0095] In the next step S**135**, the station control unit **150** resets the feature on the win line, that is eliminates the privilege corresponds to the win line. After that, the station control unit **150** goes to step S**136** to obtain the win probability of each pocket number of which has been notified by the host control unit **100**. Subsequently at step S**137**, the station control unit **150** change the arrangement of the numerals on the win line in reference to the win probabilities of the pocket numbers and the difference between the payout rate POst and the target payout rate POsttgt. For example, the case shown in FIG. **15** will be explained. In the case, the center line of the bingo card is a win line, the numerals on the win line are 7, 6, and 4, and the win probabilities P**7**, P**6** and P**4** of the winning-prize pocket numbers corresponding to the above these numerals have a relationship such as P**7**>P**6**>P**4**. In the processing for changing arrangement at step S**137**, the order of the three numerals arranged on this win line is reset. The center box of the bingo card is a box included in all of the directions which are longitudinal, lateral and diagonal. In a case that high value of the win probability is set to the center box, the probability of establishing the bingo is heightened comparatively compared with the case that low value of the win probability is set there. Then, in the change of arrangement at step S**137**, in a case that the target payout rate POsstgt is enough higher than the actual payout rate POst, the highest value 7 in the win probabilities is set to the center box, and the other values are assigned to the right box and the left box respectively. Thereby, the probability of establishing the bingo gets higher. On the other hand, in the case that the target payout rate POsttgt is enough lower than the actual payout rate POst, the lowest value 4 in the win probabilities is set to the center box, and the other values are assigned to the right

box and the left box respectively. Thereby, the probability of establishing the bingo gets lower. As mentioned above, by changing the arrangement of numerals depending on the win probabilities to change the probability of establishing the bingo, it is possible to change the payout POst toward the target payout rate POsttgt more quickly.

[0096] Returning to FIG. **14**, the explanation is continued. After changing the arrangement of numerals on the win line, the station control unit **150** terminates this routine. After the change of arrangement, each of the numerals on the win line becomes inactivated to be in an initial state. On the other hand, at step S**132** in a case that the bingo is not established, the station control unit **150** goes to step S**140** to determine whether the winning-prize pocket number is a repeat or not. In a case that the numeral of which has been notified in the satellite lottery is already activated on the bingo card **211**, the pocket number is determined as a repeat. In a case of determining the pocket number as a repeat, the station control unit **150** goes to step S**141** to add one step to a repeat step. Namely, the repeat WIN medals displayed in the repeat medals display portion **215** shown in FIG. **10** are changed to a one-step bigger value. In the example shown in FIG. **10**, the repeat WIN medals increases gradually, such that 10 repeat medals to 1 of repeat count, 20 repeat medals to 2 of repeat count, and 40 repeat medals to 3 Of repeat count. At the moment of establishing the bingo, the medals the number of which is the same as the repeat WIN medals depending on the repeat count are provided to the play field portion **12** (refer to step S**133**).

[0097] Subsequently at step S**142**, the station control unit **150** delivers the normal ball B**1** to the play field portion **12**. This processing may be the same as the processing of step S**106** in FIG. **8**. After delivering the normal ball B**1**, the station control unit **150** terminates this routine. In a case that it is determined that the winning-prize pocket number is not a repeat at step S**140**, the station control unit **150** goes to step S**143** to provide a predetermined medals M and terminate this routine.

[0098] FIG. **16** shows a flow chart of a center lottery routine which the center control unit **130** executes in response to the requirement of the center lottery. The center lottery is required in a case that the bingo feature given at step S**133** in FIG. **14** is "JP chance", besides at step S**117** in FIG. **8** and at step S**206** in FIG. **11**. In the center control routine, the center control unit **130** firstly at step S**401**, executes the center lottery. Namely, while rotating the big roulette **71**, the center control unit **130** makes the big ball drop system **72** drop the big ball **73**. Subsequently at step S**402**, the center control unit **130** determines whether the big ball **73** has entered the winning prize pocket **71***a* defined as JP donation pocket. In a case that it takes rather long time for the big ball **73** to enter after the drop of the big ball **73**, the processing may be stopped when the big ball **73** is dropped, and the processing in FIG. **16** may be restarted by a detection as a trigger that the big ball **73** enters any one of the winning prize pockets **71***a* in the big roulette **71**.

[0099] In a case that it is determined that the big ball **73** has entered the JP donation pocket at step S**402**, the center control unit **130** goes to step S**403** to instruct the station control unit **150**, which has required the center lottery, to provide to the play filed portion **12**, the medals the number of which corresponds to the JP win. After instructing the provision of medals, the center control unit **130** terminates this routine. Additionally, in a case that the center lottery is required from the satellite control unit **140**, the station control unit **150** which has required the satellite lottery to the satellite control unit **140** is a notified destination of the instruction to provide medals. On the other hand, in a case that the big ball **73** does not enter the JP donation pocket at step S**402**, the center control unit **130** goes to step S**404** to determine whether or not the big ball **73** has entered the winning prize pocket **71***a* defined as a grand slot pocket. In a case that the big ball **73** has entered the ground slot pocket, the center control unit **130** goes to step S**405** to require the host control unit **100** to execute the grand slot lottery, and after that terminates this routine.

[0100] In a case that the big ball **73** does not enter the ground slot pocket at step S**404**, the center control unit **130** goes to step S**406** to instruct the station control unit **150** to provide medals M the number of which corresponds to the center lottery to the play field portion **12**. The number of medals in this case is enough smaller than the number of medals instructed at step S**403**. Different number can be instructed depending on the kind of the winning prize pocket **71***a* which the big ball **73** has been taken in. The notified destination of the instruction to provide medals is the same as the one in the case of step S**403**. After instructing the provision of medals, the center control unit **130** terminates this routine.

[0101] FIG. **17** shows a flow chart of a ground slot lottery routine which the host control unit **100** executes in response to the requirement of the ground slot lottery (step S**405** in FIG. **16**) from the center control unit **130**. In the ground slot lottery routine, the host control unit **100** firstly at step S**501**, executes the ground slot lottery. The ground slot lottery is a slot lottery to compete for establishing the win hand based on the combination of three patterns, similar to the digital lottery game performed on the station monitor **16** of the station unit ST. However, the game picture of the ground slot lottery is displayed on the center monitor **70** via the center PC **120**. At the moment of determination of the combination of patterns in the ground slot lottery, in other words, determination of the win probability in the ground slot lottery, the entire payout rate POall calculated in the processing in FIG. **7** may be referred.

[0102] After executing the ground slot lottery, the host control unit **100** goes to step S**502** to determine whether or not a win hand of "premier mode" has been established in the ground slot lottery. In a case that the win hand of "premier mode" has been established, the host control unit **100** goes to step S**503** to require the station control unit **150** to shift to the premier mode. The required destination in this case is the station control unit **150** which has required the center control unit **130** to execute the center lottery caused the requirement of the ground slot lottery at step S**405** in FIG. **16**. After requiring the shift to the premier mode, the host control unit **100** terminates this routine.

[0103] In a case that the win hand of "premier mode" is not established at step S**502**, the host control unit **100** goes to step S**504** to determine whether or not a win hand of "satellite game" has been established. In a case that the win hand of "satellite game" has been established, the host control goes to step S**505** to require the satellite control unit **140** which has required the center lottery to execute a predetermined center game. After requiring that, the host control unit **100** terminates this routine. the satellite control unit **140** required to execute the satellite game, executes the satellite game in accordance with a predetermined process, and instructs the

station control unit **150** (same as the required destination at step S**503**) to provide medals M depending on the game result.

[0104] In a case that the win hand of "satellite game" is not established at step S**504**, the host control unit **100** goes to step S**506** to determine whether or not a win hand of "medal WIN" has been established. In a case that the win hand of "medal WIN" has been established, the host control unit **100** goes to step S**507** to instruct the station control unit **150** to provide medals the number of which is obtained by adding the medals corresponding to the win hand of "medal WIN" to the JP medals (the provision medals instructed at step S**403** in FIG. **16**). The instructed destination is the same as the one at step S**503**. After requiring the provision of medals, the host control unit **100** terminates this routine.

[0105] In a case that the win hand of "medal WIN" is not established at step S**506**, the host control computer **100** goes to step S**508** to require the center control unit **130** to re-execute the center lottery. In response to this, the center control unit **130** re-executes the center lottery in FIG. **16**. After requiring to re-execute the center lottery, the host control unit **100** terminates this routine.

[0106] FIG. **18** shows a flow chart of a premier mode routine which the station control unit **150** executes in a case that the shift to the premier mode is required from the host control unit **100** (step S**503** in FIG. **17**). This routine is executed instead of the game basic control routine in FIG. **8** when the drop of medals to the play field portion **12** is detected. Namely, At the moment of executing the premier mode, the game control based on the game basic control routine is not executed. Moreover, in a case that the premier mode is executed, the game picture **220** shown in FIG. **19** instead of the game picture **200** shown in FIG. **9** is displayed on the station monitor **16**. The game picture **220** resembles the game picture **200** in FIG. **9** in that three changeable display portions **201***a*, **201***b*, **201***c* are provided in a lateral direction, but different form the game picture **200** in that a continuation condition display portion **221** instead of the bingo game portion **210** is provided on the upper side of screen. In the continuation condition display portion **221**, the numerals **1** to **9** are arranged on a line, and each of the numerals are represented in a different state depending on whether the numeral is active or inactive as a value to continue the premier mode. In FIG. **19**, a circle is put to each of the active numerals and a cross is put to each of the inactive numerals.

[0107] In the premier mode routine, the station control unit **150** firstly step S**151**, executes a medal drop processing, and subsequently at step S**151** determines whether or not the medals M has entered the checker. In a case that the medals M have entered the checker, the station control unit **150** goes to step S**153** to execute the slot lottery as the digital lottery game performed on the station monitor **16**. The win hand at this moment is limited to the case that three same numerals has appeared. Additionally, the win probability is set to be higher than the one at step S**103** in FIG. **8**. Subsequently at step S**154**, the station control unit **150** determines whether or not the combination of patterns obtained in the slot lottery is a losing hand, and in a case of the losing hand, terminates this routine.

[0108] On the other hand, in a case of not the losing hand at step S**154**, the station control unit **150** goes to step S**155** to provide to the play filed portion **12**, the medals M the number of which is dependent on the win hand in the slot lottery. Subsequently at step S**156**, the station control unit **150** switches between an active state and an inactive state with respect to the win number, that is, the numeral, three of which have appeared. For example, as shown in FIG. **19**, in a case that the win hand made up of three of numerals **3** has been established, the state of numeral **3** is switched between the active state and the inactive state. For example, in FIG. **19**, the circle is put to numeral **3** in the continuation condition display portion **221**, which means that the numeral **3** is active. However, when three of numerals **3** have appeared, the state of numeral **3** is switched from the active state to the inactive state, and in accordance with this, the state of numeral **3** displayed in the continuation condition display portion **221** is switched from the state that the circle is put to the state that the cross is put. After switching between the state of active and the state of inactive, the station control unit **150** terminates this routine.

[0109] On the other hand, in a case that the medals M do not enter the checker at step S**152**, the station control unit **150** goes to step S**160** to determine whether or not the ball B has fallen from the main table **20**. In a case that the ball B hasn't fallen, this routine is terminated. On the other hand, in a case that the ball B has fallen, the station control unit **150** goes to step S**161** to determine whether or not the ball B which has fallen is the special ball B**2**. The discrimination of the kind of ball B is above mentioned with respect to the sensor group **151** in FIG. **6**. In a case that the ball which has fallen is the special ball B**2**, the station control unit **150** goes to step S**162** to determine that the satellite lottery should be performed at the inner circumference portion **33** of the bingo stage **30**. On the other hand, in a case that the ball B which has fallen is not the special ball B**2**, the station control unit **150** goes to step S**163** to determine that the satellite lottery should be performed at the outer circumference portion **32** of the bingo stage **30**. After determining the area where the satellite game should be performed, the station control unit **150** goes to step S**164** to require the satellite lottery to the satellite control unit **140**. In this case, the station control unit **150** also provides to the satellite control unit **140**, the information of specifying whether the satellite lottery should be performed at the outer circumference portion **32** or the inner circumference portion **33**. After requiring the satellite lottery, the station control unit **150** terminates this routine. Additionally, in addition to the require of the satellite lottery, the station control unit **150** controls the operations of the ball transfer portion **150** so that the ball B which has fallen is transferred to the end of the slope **28**.

[0110] The satellite control unit **140** to which the satellite lottery is required in the processing at step S**164** in FIG. **18** executes the satellite lottery in accordance with the process in FIG. **11**. In response to the result of the satellite lottery, the station control unit **150** executes a premier mode termination control routine shown in FIG. **20**. This routine is a routine for controlling to continue or terminate the premier mode. At the first step **5171**, the station control unit **150** obtains the number of winning prize pocket of which has been notified by the satellite control unit **140**. At the next step S**172**, the station control unit **150** determines whether or not the winning-prize pocket number obtained at step S**171** is "JP" or not, that is the ball B has entered the JP chance pocket. In a case that the winning-prize pocket number is "JP", the station control unit **150** goes to step S**173** to terminate the premier mode and get back the processing to the game basic control shown in FIG. **8**. After that, the station control unit **150** terminates this routine. In FIG. **20**, the premier mode is only terminated, and in

a case that "JP chance" appears in the satellite lottery, the process advances to the processing of and after the center lottery in FIG. **16**.

[0111] In a case that the winning-prize pocket number is not "JP" at step S**172** in FIG. **20**, the station control unit **150** goes to step S**174** to determine whether or not the winning-prize pocket number is the inactive numeral. This inactive numeral is a numeral to which the cross is put in the continuation condition display portion **221** of the game picture **220** in FIG. **19**. In a case that the winning-prize pocket number is equal to one of the inactive numerals, the station control unit **150** goes to step S**173**. In a case that the winning-prize pocket number is not any of the inactive numerals, the station control unit **150** skips step S**173** and terminates this routine. According to the above mentioned routine, in a case that the ball B has fallen into the winning prize pocket the number of which is equal to one of the inactive numerals, and in a case that JP chance has appeared in the satellite lottery and the process advances to the center lottery, the premier mode is terminated. Accordingly, in a case that the number of the winning prize pocket which the ball B has fallen into in the satellite lottery is equal to one of the active numerals, the premier mode is continued.

[0112] In the above embodiment, the configuration for executing the pusher game and the digital bingo game in the station unit ST corresponds to the first game device. The configuration for executing the bingo game in the station unit ST corresponds to the second game device. The satellite unit SA corresponds to the physical lottery system. The station control unit **150** corresponds to the privilege selection device. The bingo stage **30** in the satellite unit SA corresponds to the lottery board and the rotation body. The ball B corresponds to the medium for lottery. In addition, the fall of ball B in the pusher game (refer to step S**120** in FIG. **8**), or the establishment of the win hand of "direct satellite" in the digital lottery game (refer to step S**115** in FIG. **8**) corresponds to the satisfaction of lottery condition for performing the lottery of the physical lottery system. The establishment of the win hand of "bingo feature" in the digital lottery game (refer to step S**114** in FIG. **8**) corresponds to the satisfaction of the privilege selection condition.

[0113] The preset invention is not limited to the above embodiment, but can be realized by various embodiments. For example, although the above embodiment the ball B as the medium for lottery is dropped via the play field portion **12**, the satellite lottery can be performed not via the play field portion **12**. The physical lottery system is not limited to the configuration such as satellite SA, but can be appropriately changed to something able to select randomly at least one option by imparting a physical motion to a medium for lottery. For example, the lottery system where plural balls each of which the number to be used in a bingo game is put on are shuffled and one of the balls is selected can be employed. In the above embodiment, while the bingo stage **30** as the lottery board and the rotation body is rotated, physical and irregular motion is imparted to the ball B by dropping the ball B from the drop system **60**A, **60**B onto the bingo stage **30**, the ball B is brought in one of the winning prize pockets **32***a* (or **33***a*) as the medium take portion, and the number of the letter put on the winning prize pocket **32***a* (or **33***a*) in which the ball B has been taken is determined as the option obtained by the lottery. However, the physical motion by the physical lottery system is not limited to the one imparted by such as this configuration. For example, it is not necessary to rotate the bingo stage **30**. For example, even if a medium take portion is mounted on a fixed lottery board, it is possible to impart an irregular motion to the medium for lottery on the lottery board and select an option randomly, by an addition of incline to the lottery board, or an arbitrary disposition of obstacles and the like.

[0114] The second game device is not limited to a device for performing a bingo game. The second game device can be appropriately changed to something which virtually generates a pattern arrangement area where patterns, each of which corresponds to the option selected by the physical lottery system, are arranged in accordance with a predetermined alignment, and delivers some amusement media in a case that, in the pattern arrangement area, a predetermined win arrangement is formed by the patterns corresponding to the selected options. For example, it can be changed to such as the following case: in a case that the patterns arrangement area is generated by arranging the patterns in a matrix shape, it can be determined that the win arrangement has been formed, when the patterns each of which corresponds to the selected option are arranged on the four corners of the pattern arrangement area. The selection of privilege by the privilege selection device can be something executed depending on the control state of payout rate, and is not limited to the selection for controlling the payout rate toward to the target value. For example, for generating fluctuation in the control state of the payout rate, the control can be adopted that the privilege which the amount of delivery becomes comparatively bigger is selected purposely, even if the payout rate is higher than the target value.

[0115] In the game machine of the present invention, the first game device is not limited to the combination of the pusher game and the digital lottery game, but can be configured so that various games are performed as long as the delivery of amusement media is managed so that the payout rate is controlled to approach the target value. The delivery of amusement media by the second game device is not limited to the configuration that the amusement media are delivered indirectly to the player via the delivery of amusement media to the play field portion, but can be the configuration that a part or all of amusement media to be delivered as a reward for win are delivered directly to the player.

1. A game machine comprising:

a first game device for providing a chance for playing a predetermining game in exchange for drop of amusement media, and managing delivery of the amusement media to a player so that payout rate of the amusement media to the player is controlled to approach a target value;

a physical lottery system for selecting at least one option from a plurality of options by imparting a physical motion to a medium for lottery, in a case that a predetermined lottery condition is satisfied in the game;

a second game device for virtually generating a pattern arrangement area where a plurality of patterns are arranged in accordance with a predetermined alignment, each of the plurality of patterns corresponding to each of the plurality of options in the lottery system, and delivering directly or indirectly the amusement media to the player in a case that the patterns in the pattern arrangement area forms a predetermined win arrangement, each of the patterns corresponding to each of the options selected by plural selections in the lottery system; and

a privilege selection device for, in a case that a predetermined privilege selection condition is satisfied, selecting

depending on a control state of the payout rate from a plurality of privileges, a privilege to be given to the player in response to a formulation of the win arrangement, each of the plurality of privileges having a link with a delivery of the amusement media to the player and affections of which are different from each other,

wherein the second game device, in a case that the win arrangement is formed, gives to the player, the privilege selected by the privilege selection device in association with the win arrangement, in addition to the delivery of the amusement media.

2. The game machine according to claim **1**, wherein

the physical lottery system comprises:

a lottery board having a plurality of medium take portions each of which corresponds to each of the plurality of options; and

a drop system for dropping the medium for lottery onto the lottery board, while making the medium for lottery dropped onto the lottery board from the drop system act irregularly, brings the medium for lottery in any one of the medium take portions, and determines the option corresponding to the medium take portion in which the medium for lottery has been taken as the option selected by the lottery.

3. The game machine according to claim **1**, wherein

the physical lottery system comprises:

a rotation body having a plurality of medium take portion, each of which corresponds to each of the plurality of options, and

a drop system for dropping the medium for lottery onto a rotation route of the rotation body, while rotating the rotation body at a predetermined velocity, drops the medium for lottery from the drop system onto the rotation route of the rotation body, and determines the option corresponding to the medium take portion in which the medium for lottery has been taken as the option selected by the lottery.

4. The game machine according to claim **1**, wherein

the privilege selection device selects the privilege in a case that the predetermined privilege selection condition is satisfied in the game by the first game device.

5. The game machine according to claim **1**, wherein

the first game device is configured to implement a pusher game and a lottery game,

wherein the pusher game where while medals as the amusement media accumulated on the play field portion are pushed out by a pusher table performing a reciprocal motion in the play field portion, the medals ejected from a predetermined range of the play field portion are delivered to the player,

wherein the lottery game where in a case that the medals has passed through a predetermined position of the play field portion, lottery processing is executed for making a win hand appear while controlling a win probability in accordance with a predetermined control law, and in a case that the win hand is established, the privilege according to the established win hand is given to the player, and

the physical lottery system recognizes that the predetermined lottery condition is satisfied in a case that a predetermined win hand is established in the lottery game, and selects the option.

6. The game machine according to claim **5**, wherein

the privilege selection device selects the privilege in a case that a predetermined privilege selection hand is established in the lottery processing executed by the first game device.

7. The game machine according to claim **5**, wherein

the privilege selected by the privilege selection device includes a provision of the medals to the play field portion.

8. The game machine according to claim **1**, wherein

the second game device virtually generates a bingo card in a matrix shape in which same number of the patterns are arranged in each of a longitudinal direction and a lateral direction, and delivers the amusement media by recognizing that the win arrangement has been formed at the moment when all of the patterns aligned on any one of a longitudinal line, a lateral line, or a diagonal line of the bingo card are the patterns corresponding to the options selected by the lottery system.

9. The game machine according to claim **2**, wherein

the second game device virtually generates a bingo card in a matrix shape in which same number of the patterns are arranged in each of a longitudinal direction and a lateral direction, and delivers the amusement media by recognizing that the win arrangement has been formed at the moment when all of the patterns aligned on any one of a longitudinal line, a lateral line, or a diagonal line of the bingo card are the patterns corresponding to the options selected by the lottery system.

10. The game machine according to claim **3**, wherein

the second game device virtually generates a bingo card in a matrix shape in which same number of the patterns are arranged in each of a longitudinal direction and a lateral direction, and delivers the amusement media by recognizing that the win arrangement has been formed at the moment when all of the patterns aligned on any one of a longitudinal line, a lateral line, or a diagonal line of the bingo card are the patterns corresponding to the options selected by the lottery system.

11. The game machine according to claim **4**, wherein

the second game device virtually generates a bingo card in a matrix shape in which same number of the patterns are arranged in each of a longitudinal direction and a lateral direction, and delivers the amusement media by recognizing that the win arrangement has been formed at the moment when all of the patterns aligned on any one of a longitudinal line, a lateral line, or a diagonal line of the bingo card are the patterns corresponding to the options selected by the lottery system.

12. The game machine according to claim **5**, wherein

the second game device virtually generates a bingo card in a matrix shape in which same number of the patterns are arranged in each of a longitudinal direction and a lateral direction, and delivers the amusement media by recognizing that the win arrangement has been formed at the moment when all of the patterns aligned on any one of a longitudinal line, a lateral line, or a diagonal line of the bingo card are the patterns corresponding to the options selected by the lottery system.

13. The game machine according to claim **6**, wherein

the second game device virtually generates a bingo card in a matrix shape in which same number of the patterns are arranged in each of a longitudinal direction and a lateral direction, and delivers the amusement media by recog-

nizing that the win arrangement has been formed at the moment when all of the patterns aligned on any one of a longitudinal line, a lateral line, or a diagonal line of the bingo card are the patterns corresponding to the options selected by the lottery system.

14. The game machine according to claim **7**, wherein

the second game device virtually generates a bingo card in a matrix shape in which same number of the patterns are arranged in each of a longitudinal direction and a lateral direction, and delivers the amusement media by recognizing that the win arrangement has been formed at the moment when all of the patterns aligned on any one of a longitudinal line, a lateral line, or a diagonal line of the bingo card are the patterns corresponding to the options selected by the lottery system.

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