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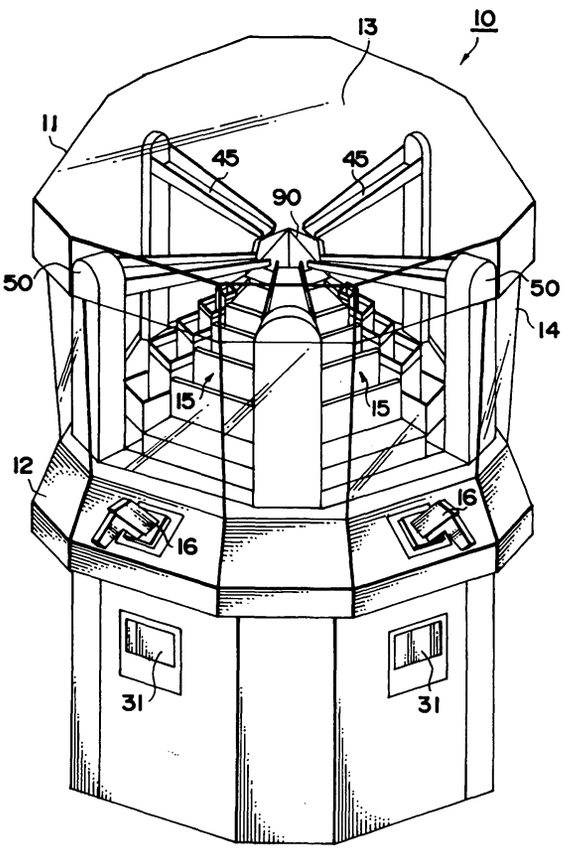
(54) Gaming machine

(57) The present invention is a gaming machine in which a plurality of medal accumulating parts 20a through 20d are disposed so that these parts are sequentially disposed and ranged along the medal discharge opening 17, the medals that are paid out from the respective medal accumulating parts 20a through 20c are moved sequentially and accumulated in the medal accumulating parts 20b through 20d that are adjacent on the side of the medal discharge opening 17, and the medals that are paid out from the medal accumulating part 20d located closely to the medal discharge opening 17 can be given to the player, wherein this gaming machine comprises drawing means which perform a drawing used to determine the presence or absence of a jackpot when medals are detected, notification means 23a through 23d which make a notification of the drawing results of the drawing means, and pay-out means 21a through 21d which pay out medals from the medal accumulating parts 20a through 20d.

FIG.1



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Description

BACKGROUND OF THE INVENTION

Field of the Invention

[0001] The present invention relates to a gaming machine that is installed in a so-called game arcade or the like.

Description of the Prior Art

[0002] Gaming machines which are equipped with staircase form medal accumulating parts comprising a plurality of step parts, and which are constructed so that medals are paid out from a step part (among the abovementioned plurality of step parts) in accordance with the results of a drawing that is performed when it is acknowledged that a medal has entered a medal receiving opening, have been known in the past (for example, see Japanese Unexamined Patent Publication No. 2001-310077). In such a gaming machine, the paying out of medals from the medal accumulating parts can be diversified so that medals are paid out from the step part at the lower end and given to the player, so that medals that are paid out from the step parts on the upper side are accumulated in the step parts on the lower side, or so that medals are paid out from all of the step parts and large quantities of medals are given to the player, in accordance with the drawing results.

[0003] However, in gaming machines of the type described above, the following problem has been encountered: namely, when it is notified that a player has won the abovementioned drawing so that a jackpot has been activated, there is merely a pay-out of medals, so that the player cannot enjoy a sufficient feeling of achievement at having won the drawing. Furthermore, in spite of that a plurality of medal accumulating parts are provided, there is only a pay-out of medals when it is notified that the drawing has been won; accordingly, there is a danger that the scenario of the medal pay-out will be overlooked. When such events occur, the interest of the game is conspicuously reduced, so that it may be predicted that the player will no longer play the game.

SUMMARY OF THE INVENTION

[0004] The present invention is devised in light of the abovementioned problems; it is an object of the present invention to provide a gaming machine which allows the player to experience a sufficient feeling of achievement at having won a jackpot, and which can prevent the medal pay-out scenario from being overlooked, so that the player can sufficiently enjoy the game.

[0005] In order to solve the abovementioned problems, the present invention is constructed as follows:

[0006] Specifically, the gaming machine of the present invention is a gaming machine comprising: the gaming machine has a projection device for projection of medals into a gaming space; the gaming machine has a medal discharge opening for discharging medals to an outside of the abovementioned gaming space; and the gaming machine has a plurality of medal accumulating parts, and is constructed so that the plurality of medal accumulating parts are sequentially disposed and ranged along the medal discharge opening, the medals that are paid out from the respective medal accumulating parts are sequentially moved and accumulated in the medal accumulating parts that are adjacent on the side of the medal discharge opening, and the medals that are paid out from the medal accumulating parts that are located closely to the medal discharge opening are discharged from the medal discharge opening and given to the player, this gaming machine further comprising:

detection means for detecting medals that are projected from the projection device;
drawing means for conducting a drawing in order to determine the presence or absence of a jackpot when medals are detected by the detection means;
notification means for making a notification of the drawing results of the drawing means; and
pay-out means for paying out medals from the medal accumulating parts when notification of a jackpot is made by the notification means.

[0007] Furthermore, it is desirable that the notification means comprise an LED lamp.

[0008] Furthermore, it is desirable that the notification means comprise an LED pattern display device.

[0009] Furthermore, the present invention is the gaming machine, wherein a plurality of the detection means are disposed corresponding to the respective medal accumulating parts, the drawing means perform a drawing in order to determine a presence or absence of a jackpot separately for each of a plurality of detection means when medals are detected by the detection means, the notification means are disposed corresponding to each of the detection means, and the pay-out means pay out medals from the medal accumulating parts when notification is made of a jackpot by a combination of notification contents of a plurality of notification means disposed corresponding to the medal accumulating parts.

[0010] Furthermore, in this case as well, the notification means can be constructed as an LED lamp or LED pattern display device.

[0011] Furthermore, in the gaming machine of the present invention, the machine may also be constructed so that the LED lamps are respectively disposed corresponding to a plurality of the detection means, and so that the LED lamps are lit or caused to blink with a same color when the jackpot is activated.

[0012] Furthermore, the notification means can be constructed as an LED pattern display device.

[0013] Furthermore, in the gaming machine of the

present invention, the machine may also be constructed so that the abovementioned LED pattern display devices are respectively disposed corresponding to a plurality of the detection means, and so that the LED pattern display devices are caused to display a same pattern when the jackpot is activated.

[0014] Furthermore, in the gaming machine of the present invention, the machine may also be constructed so that the respective medal accumulating parts are disposed above the medal accumulating parts that are adjacent on the side of the medal discharge opening, and so that medals in the respective medal accumulating parts are caused to move by their own weight from these respective medal accumulating parts, and are accumulated in the medal accumulating parts that are adjacent on the side of the medal discharge opening.

[0015] Furthermore, the medals used in the gaming machine in accordance with the present invention may also include other medium, such as a coin or a token, as well.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016]

Fig. 1 is a perspective view which schematically shows a gaming machine constituting an embodiment of the present invention;

Fig. 2 is a perspective view which schematically shows the game field that is disposed inside the game space of the gaming machine shown in Fig. 1;

Fig. 3 is a positional relationship which schematically shows one of the transporting devices with which the gaming machine shown in Fig. 1 is equipped;

Fig. 4A is a plan view which schematically shows the medal accommodating part with which the gaming machine shown in Fig. 1 is equipped;

Fig. 4B is a sectional view along line A-A in Fig. 4A;

Fig. 5 is a sectional view which schematically shows the area in the vicinity of the launching device with which the gaming machine shown in Fig. 1 is equipped;

Fig. 6 is a block diagram which schematically shows the internal construction of the gaming machine shown in Fig. 1;

Fig. 7 is a flow chart which shows the game execution processing routine that is executed in the gaming machine shown in Fig. 1;

Fig. 8 is a flow chart which shows the medal supply processing routine that is executed in the gaming machine shown in Fig. 1;

Figs. 9A through 9C are diagrams which show how the game is played in the gaming machine shown in Fig. 1; and

Figs 10A through 10C are diagrams which show how the game is played in the gaming machine shown in Fig. 1.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0017] Embodiments of the present invention will be described below with reference to the attached figures.

[0018] Fig. 1 is a perspective view which schematically shows an example of a gaming machine constituting an embodiment of the present invention. The gaming machine 10 comprises a housing 12 which has substantially the shape of a hexagonal column. The interior of the game space 13 can be viewed via window parts 14 consisting of a transparent material that constitute parts of the housing 12. Furthermore, the ceiling body 11 that forms a part of the housing 12 also consists of a transparent material, so that the interior of the game space 13 can be viewed from above. Six game fields 15 constituting targets at which medals are launched from a medal launching device 16 (described later) are respectively disposed inside the game space 13 so that the hexagonal shape is divided into six parts from the center. Furthermore, in the figures, only two of the six game fields 15 are shown. (All the parts are not necessarily shown in the figures with respect to other parts.)

[0019] Five transporting devices 50 which are used for the upward conveying of medals that have dropped into medal dropping openings 37 (described later), and rails 45 that are respectively connected to the upper parts of the five transporting device 50, are disposed in the vicinity of the window parts 14 inside the game space 13. The rails 45 are disposed so that these rails are inclined downward from the upper parts of the transporting devices 50 toward a medal accommodating part 90 disposed in the central part of the gam space 13. The medals that are transported upward by the transporting devices 50 slide down the rails 45 and are accommodated in the medal accommodating part 90. Furthermore, the rails 45 consist of a transparent material such as an acrylic resin or the like, and are arranged so that the medals that slide down the rails 45 can be seen from the outside. Whenever a specified time (e. g., 5 minutes) has elapsed, the medals accommodated in the medal accommodating part 90 are supplied to one of a number of medal carrying locations 27 (not shown in the figures) that are respectively provided for the six game fields 15. In this case, a drawing (hereafter referred to as the "supply drawing") that is used to select the medal carrying location 27 that is the object of medal supply among the six medal carrying locations 27 is conducted, and medals are supplied to the medal carrying locations 27 in accordance with the results of this drawing.

[0020] Furthermore, the abovementioned transporting devices 50 and medal accommodating part 90 will be described in detail later with reference to the attached figures.

[0021] Launching devices 16 that are used to launch medals are respectively disposed corresponding to the six game fields 15 in the lower part of the housing 12, so that a maximum of six players can simultaneously

play the game. These launching devices 16 are installed so that the devices can pivot in the vertical (up-down) direction and left-right direction within a specified range. The players determine the launching direction of the medals by pivoting the launching devices 16 within the specified range in the vertical and left-right directions, and launch medals by pressing a launch button 122 (not shown in the figures), so that the medals are launched inside the game space 13.

[0022] Furthermore, the permissible pivoting range and the like of the launching devices 16 are set so that the launching devices 16 can project medals only onto the corresponding game fields 15.

[0023] Moreover, a medal removal opening 31 is disposed beneath each launching device 16, and medals that are discharged to the outside of the game space 13 via the medal discharge opening 17 (not shown in the figures) described later are supplied to the medal removal openings 31, and given to the players.

[0024] Next, the game fields 15 disposed inside the game space 13 will be described.

[0025] Fig. 2 is a perspective view which schematically shows one of the game fields 15 disposed inside the game space 13 of the gaming machine 10 shown in Fig. 1. Furthermore, in the following description, one of the six game fields 15 provided in the gaming machine 10 will be described.

[0026] This game field 15 comprises a medal carrying location 27 and four medal accumulating parts 20 (20a through 20d). The accumulating parts 20 (20a through 20d) are constructed from the inclined surface of the medal carrying location 27, opening-and-closing doors 21 (21a through 21d) that will be described later, medal receiving openings 22 (22a through 22d) that will be described later, and side plates (not shown in the figures). The side plates are disposed on both side parts of the inclined surface of the medal carrying location 27 so as to contact the medal receiving openings 22. Each of the medal accumulating parts 20a through 20d can accumulate medals that are projected by the corresponding launching device 16. Furthermore, the medal accumulating part 20a can accumulate medals that are supplied from the medal accommodating part 90 (see Fig. 1). The four medal accumulating parts 20a through 20d are sequentially disposed and ranged along the inclined surface of the medal carrying location 27 toward the player who is playing the game in front.

[0027] Opening-and-closing doors 21a through 21d consisting of a transparent material such as an acrylic resin or the like are respectively disposed before the respective medal accumulating parts 20a through 20d. The players playing the game in front of the medal accumulating parts 20a through 20d can visually observe the medals that have accumulated in the medal accumulating parts 20a through 20d via these opening-and-closing doors 21a through 21d.

[0028] The opening-and-closing doors 21 (21a through 21d) are respectively connected to a stepping motor 32 (not shown in the figures) via a transmission member or the like (not shown in the figures) that can convert the rotational motion of the stepping motor 32 into a rectilinear reciprocating motion, so that the opening-and-closing doors can be moved upward or downward and placed in an open state or closed state by the operation of the stepping motor 32.

[0029] When the stepping motor 32 operates so that the opening-and-closing doors 21a through 21d are placed in an open state, the medals that are blocked slide and move downward along the inclined surface of the medal carrying location 27 as a result of their own weight.

[0030] Medal receiving openings 22a and 22d that are used to receive medals that are launched by the launching devices 16 and projected into the game space 13 are respectively disposed on the left and right sides of each of the opening-and-closing doors 21a through 21d. Furthermore, the medal receiving openings 22a through 22d respectively comprise LED lamps 23a through 23 that can emit light of a plurality of different colors. In cases where it is ascertained that a jackpot has been activated according to the drawing results of the drawing that is used to determine the presence or absence of a jackpot, the LED lamps 23 on the left and right sides are lit with the same color, thus providing notification that a jackpot has been activated. These LED lamps 23 function as notification means which provide notification of the drawing results of the drawing that is used to determine the presence or absence of jackpot. Furthermore, medal sensors 28 (not shown in the figures) such as infrared light sensors or the like are disposed inside the medal receiving openings 22a through 22d; as a result, medals that have entered the respective medal receiving openings 22 can be detected.

[0031] For example, when a medal enters one of the medal receiving openings 22a among the two medal receiving openings 22a disposed in the medal accumulating part 20a, it is acknowledged that a medal has been detected by the medal sensor 28 constituting the detection means; in this case, the LED lamp 23a disposed in one of the medal receiving openings 22a blinks while sequentially changing colors, and is then lit with a specified color after a specified period of time has elapsed. If a medal enters the other medal receiving opening 22a in a state in which one of the LED lamps 23a is lit with a specified color, and this medal is detected by the medal sensor 28, the LED lamp 23a disposed in the other medal receiving opening 22a blinks while changing colors, and is then lit with a specified color. In this case, if the color with which the two LED lamps 23a are lit is the same color, it is recognized that a jackpot has been activated, and the opening-and-closing doors 21a are driven by the stepping motor 32 so that the opening-and-closing doors 21a are placed in an open state. Then, the medals that are blocked by the opening-and-closing doors 21a slide downward along the inclined surface of the medal carrying location 27, and are accumulated in

the medal accumulating part 20b located beneath the medal accumulating part 20a.

[0032] Furthermore, in the case of the medal accumulating parts 20b through 20d, as in the case of the medal accumulating part 20a, after medals respectively enter the two medal receiving openings 22 (medal receiving openings 22b through 22d) provided in the medal accumulating parts 20 (medal accumulating parts 20b through 20d), if the color with which the LED lamps 23 that are respectively provided in the two medal receiving openings 22 is the same color, the opening-and-closing doors 21 (opening-and-closing doors 21b through 21d) are respectively place in an open state, and the medals are paid out.

[0033] The medals that are paid out from the medal accumulating parts 20a through 20c respectively move under their own weight into the medal accumulating parts 20b through 20d that are adjacent on the side of the medal discharge opening 17, and that are positioned lower than the medal accumulating parts 20a through 20c, and are accumulated in these medal accumulating parts 20b through 20d. The medals that are paid out from the medal accumulating part 20d that is located closely to the medal discharge opening 17 slide downward, and are either carried on the field plate 34 (described later), caused to drop into the medal discharge opening 17 from the field plate 34 and given to the player, or caused to drop into the medal dropping opening 37 and conveyed by the abovementioned transporting device 50.

[0034] For example, the system may be devised as follows: specifically, the medals that are accumulated in the uppermost medal accumulating part 20a are sequentially caused to move into the medal accumulating parts 20b, 20c and 20d that are adjacent on the side of the medal discharge opening 17, and the medals that are respectively accumulated in the medal accumulating parts 20a through 20c are caused to move into the medal accumulating part 20d. Subsequently, medals are paid out from the medal accumulating part 20d, so that all of the medals accumulated in the medal accumulating parts 20a through 20d are paid out from the medal accumulating part 20d at one time.

[0035] A horizontal medal push-out part 33 is disposed on the front part of the medal carrying location 27, and a field plate 34 is disposed on the central part of the undersurface of the medal push-out part 33. The field plate 34 is connected to a motor 35 (not shown in the figures) via a transmission member (not shown in the figures) or the like that can convert the rotational motion of the motor 35 into a rectilinear reciprocating motion, and the field plate 34 is thus constructed so that this field plate can be caused to perform a reciprocating motion between the front side and inside side by the operation of the motor 35. The field plate 34 has a length which is such that medals can be placed on the front side of the medal push-out member 33 even when the field plate 34 has moved to the furthest inside point. When projected medals and medals that have been paid out from the medal accumulating part 20d are placed on the field plate 34 in a case where the field plate 34 has moved to the front side, these projected medals are pushed out by the medal push-out part 33 when the field plate 34 subsequently moves to the inside side so that other medals carried on the field plate 34 can be pushed out and caused to drop into the medal discharge opening 17.

[0036] Furthermore, medal dropping openings 37 are disposed on the left and right sides of the medal discharge opening 17. Projected medals, medals paid out from the medal accumulating part 20d and the like slide down along the inclined surface of the medal carrying location 27 and drop into the medal dropping openings 37, whereupon these medals are transported by the transporting devices 50 and accommodated in the medal accommodating part 90.

[0037] Furthermore, the gaming machine 10 of this embodiment need not necessarily be a so-called pusher gaming machine comprising a medal push-out part 33 and field plate 34; for example, the machine may also be constructed so that the medals that slide downward along the medal carrying location 27 can drop directly into the medal discharge opening 17 or medal dropping openings 37.

[0038] Next, one of the transporting devices 50 will be described with reference to the attached figures.

[0039] Fig. 3 is a partially cut-away perspective view which schematically shows this transporting device 50.

[0040] The transporting device 50 is a device in which medals that have dropped into the medal dropping opening 37 (see Fig. 2), been caused to slide down the rails 51 communicating with the medal dropping opening 37, and placed on a stopper 52 on the tip end of the rails 51, are conveyed upward and fed onto rails 45 that communicate with the medal accommodating part 90 (see Fig. 2). The stopper 52 on the tip ends of the rails 51 has a comb-form shape, and is constructed with the tip end being bent so that medals that slide downward along the rails 51 can be stopped in the vicinity of the stopper 52.

[0041] The transporting device 50 comprises a medal elevator mechanism 70 that can lift medals that have been placed on the stopper 52. The medal elevator mechanism 70 has a plurality of buckets 71 that are used to accommodate the medals carried on the stopper 52, and a bucket driving device 72 containing a motor that is used to circulate the buckets 71 in the vertical direction. A sprocket 73 is attached to the drive shat 72a of the motor inside the bucket driving device 72, and a chain 75 to which the plurality of buckets 71 are attached is mounted on this sprocket 73 and another sprocket 73 that is positioned above this sprocket 73. The upper sprocket 73 is attached to supporting plates 64a and 64b so that this sprocket 73 is free to rotate.

[0042] A medal supporting plate 71a that is used to support medals is disposed on each bucket 71, and the

respective medal supporting plates 71a are inclined downward toward the side of the supporting plate 64a from the side of the supporting plate 64b. Furthermore, the end part on the upper side of each medal supporting plate 71a has a comb-form shape, and when the medal supporting plate 71a is raised from the lower end, the comb part of the medal supporting plate 71a and the comb part of the stopper 52 cross so as to face each other, so that the medals carried on the stopper 52 are scooped up when the medal supporting plate 71a passes the upper side of the stopper 52.

[0043] Furthermore, a medal stopper 76 that is used to prevent the medals from dropping downward from the medal supporting plate 71a of each bucket 71 is disposed on the supporting plate 64a. The medal stopper 76 extends in the vertical direction, and when the medal supporting plate 71a carrying the medals reaches the upper end of the medal stopper 76, the medals carried on the medal supporting plate 71a slide downward, and move onto the rails 45.

[0044] Furthermore, a medal hopper that is used to perform the paying out of medals may be disposed inside the housing 12, and the system may be devised so that medals paid out from this medal hopper are supplied to the stopper 52 besides the medals that are supplied to the stopper 52 from the medal dropping openings 37. By doing this, it is possible to cause a maximum quantity of medals to be accommodated on each medal supporting plate 71a, so that the player can be caused to experience a strong sense of anticipation regarding the supply of medals from the medal accommodating part 90.

[0045] Furthermore, the system may also be devised so that medals that have dropped from the medal dropping openings 37 are not supplied directly to the medal stopper 52, but are instead temporarily accumulated in the medal hopper, so that medals paid out from the medal hopper are supplied to the stopper 52.

[0046] As is shown in Fig. 3, each transporting device 50 is constructed so that the transported medals can be visually observed from the outside; furthermore, as is described above, the rails 45 that are connected to the transporting device 50 consist of a transparent material. As a result, the player can visually observe the meals that are conveyed to the medal accommodating part 90 by the transporting device 50 and rails 45 via the window part 14 (see Fig. 1).

[0047] Next, the medal accommodating part 90 will be described with reference to the attached figures.

[0048] Fig. 4A is a plan view which schematically shows the medal accommodating part 90 shown in Fig. 1, and Fig. 4B is a sectional view along line A-A in Fig. 4A.

[0049] As is shown in Figs. 4A and 4B, the medal accommodating part 90 has a substantially hexagonal spindle shape; furthermore, as is shown in Fig. 4A, six opening-and-closing parts 91 are formed in the circumferential edge part of the medal accommodating part 90 so that these opening-and-closing parts can open and close.

[0050] When the opening-and-closing parts 91 are in a closed state, the medals that are carried on the inclined surface 98 are blocked by the opening-and-closing parts 91. Then, when the opening-and-closing parts 91 are lowered so that the opening-and-closing parts 91 are placed in an open state, the medals carried on the inclined surface 98 slide downward, and move into the medal accumulating parts 20 (20a through 20d).

[0051] In the gaming machine 10 of this embodiment, a supply drawing that is used to select the medal carrying location 27 that is the object of medal supply among the six medal carrying locations 27 of the medal accommodating part 90 is performed each time that a specified period of time (e. g., 5 minutes) elapses. The opening-and-closing part 91 for the selected medal carrying location 27 is placed in an open state in accordance with the results of this supply drawing, and the medals accommodated in the medal accommodating part 90 are supplied to the medal accumulating part 20a disposed on the medal carrying location 27.

[0052] As is shown in Fig. 4B, a tooth-form part 95 is disposed on the lower part of each opening-and-closing part 91. Furthermore, a gear 93 attached to the shat of an opening-and-closing motor 92 (not shown in the figures) is disposed in the vicinity of the lower end of the tooth-form part 95. The gear 93 engages with a gear 94 that is disposed between the tooth-form part 95 of the opening-and-closing part 91 and the gear 93, and the gear 94 engages with the tooth-form part 95.

[0053] Furthermore, a raising limit position sensor 96 which is a mechanical type sensor is disposed in the vicinity of the upper end of the tooth-form part 95, and a lowering limit position sensor which is a mechanical type sensor is disposed on the upper side of the gear 94 in the vicinity of the tooth-form part 95.

[0054] When the opening-and-closing part 91 is to be opened, the opening-and-closing motor 92 operates so that the gear 93 rotates in the right-hand direction, thus causing the opening-and-closing part 91 to be lowered. Then, when a contact 95a disposed on the upper end of the tooth-form part 95 is detected by the lowering limit position sensor 97 during the lowering of the opening-and-closing part 91, the rotation of the opening-and-closing motor 92 is stopped. Then, when a fixed period of time (e. g., 5 seconds) has elapsed, the opening-and-closing motor 92 is caused to rotate in the reverse direction (left-hand rotation), so that the opening-and-closing part 91 is raised. When the contact 95a is detected by the raising limit position sensor 96 during the raising of the opening-and-closing part 91, the rotation of the opening-and-closing motor 92 is stopped.

[0055] The supply of medals to the medal accumulating part 20a from the medal accommodating part 90 is accomplished by the raising and lowering of the above-mentioned opening-and-closing part 91.

[0056] Furthermore, in Fig. 4B, only the tooth-form

part 95 disposed on one side (the upper side in Fig. 4A) of the opening-and-closing part 91 is shown; however, the opening-and-closing part 91 has tooth-form parts 95 on both the left and right sides, and is constructed so that the both the left and right tooth-form parts 95 can be driven by the motor 92. Furthermore, the raising limit position sensor 96 and lowering limit position sensor 97 may be disposed on both the left and right sides, or may be disposed on only one side. In a case where the raising limit position sensor 96 and lowering limit position sensor 97 are disposed on one side of the opening-and-closing part 91, the detection of the contact 95a by the raising limit position sensor 96 and lowering limit position sensor 97 is acknowledged, and the rotation of motors 92 respectively provided for both the left and right tooth-form parts 95 is stopped.

[0057] Next, the launching device 16 will be described with reference to the attached figures.

[0058] Fig. 5 is a sectional view which shows the area in the vicinity of one of the launching devices 16 of the housing 12 schematically. Furthermore, in Fig. 5, for convenience of description, a state is shown in which a portion of this launching device 16 is viewed in a sectional view.

[0059] As is shown in Fig. 5, launching device 16 is attached on the lower side of the window part 14 of the housing 12 so that this launching device 16 can pivot within a specified range in the vertical direction and left-right direction. The player can cause the launching device 16 to pivot in the vertical direction and left-right direction by operating a lever 120 that is disposed on the launching device 16. Furthermore, a launch button 122 is disposed on this lever 120, and the player can launch medals 1 by pressing this launch button 122.

[0060] A medal loading opening 118 is formed in the left side of the launching device 16, and a medal launching opening 119 is formed in the right side of the launching device 16. Furthermore, guide rails 123 that communicate with the medal loading opening 118 and medal launching opening 119 are disposed inside the launching device 16. These guide rails 123 are disposed so that the rails are inclined downward toward the inside end, and are bent upward at an intermediate point. Furthermore, a stopper 121 is disposed inside the launching device 16, and a shutter 124 is disposed to the inside of the stopper 121. The stopper 121 can be moved upward and downward by the operation of a solenoid that is attached to the stopper 121, and the shutter 124 can be opened and closed by the operation of a motor that is attached to the shutter 124. Furthermore, the stopper 121 and shutter 124 are disposed at a spacing that is greater than the diameter of the medals 1.

[0061] Furthermore, a launching roller 125 is attached to a launching motor (not shown in the figures) on the right side of the shutter 124. The launching roller 125 can be caused to rotate in the direction indicated by the arrow in the figure by the operation of the launching motor. Furthermore, the launching roller 125 is disposed so that this roller contacts the medals 1 that slide downward along the guide rails 123. When the launching roller 125 contacts the medals 1 that slide downward along the guide rails 123 while the launching roller 125 is rotating, the medals 1 can be accelerated, so that the medals 1 can be launched in a good attitude from the medal launching opening 119.

[0062] When a plurality of medals 1 enter the medal loading opening 118, the plurality of medals 1 are blocked by the shutter 124. In this case, the stopper 121 is in an open state, and one medal 1 is present between the stopper 121 and the shutter 124. When the launch button 122 is pressed, the stopper 121 moves downward, so that the medal 1 that is present in front of the stopper is blocked; then, immediately afterward, the shutter 124 is placed in a pivoted open state, and the launching roller 125 rotates, so that the medal 1 that is present between the stopper 121 and shutter 124 slides downward along the guide rails 123, is accelerated by contact with the launching roller 125, and is launched from the medal launching opening 119.

[0063] In the figure, as shown by the arrow of chain double-dashed line, the medals 1 launched from the medal launching opening 119 are projected into the game space 13.

[0064] When a specified time (e. g., 0.5 seconds) has elapsed following the placing of the shutter 124 in an open state, the shutter 124 pivots and is placed in a closed state; furthermore, the stopper 121 moves upward so that a medal 1 is fed out as far as the shutter 124. Then, when the launch button 122 is pressed again, this medal 1 is launched by the method described above. Furthermore, for example, the abovementioned elapsed time can be set in accordance with the period of time extending from the point in time at which the shutter 124 is placed in an open state (when the launching device 16 approaches most closely to a horizontal attitude) to the point in time at which the medal 1 passes the lower end of the shutter 124 or the like. Furthermore, it would also be possible to install a sensor in the vicinity of the medal launching opening 119, and to devise the system so that the shutter 124 is placed in a closed state when the medal that is accelerated by the launching roller 125 is detected by the abovementioned sensor after the shutter 124 has been placed in an open state.

[0065] Fig. 6 is a block diagram which schematically shows the internal construction of the gaming machine constituting this embodiment. As is shown in Fig. 6, a control part 60 is disposed inside the housing 12 of the gaming machine 10. The control part 60 comprises a central processing unit (CPU) 66, a ROM 62 and a RAM 64.

[0066] The ROM 62 stores game programs that control the flow of the overall games of the gaming machine 10, programs relating to the drawing that is conducted in order to establish the presence or absence of a jackpot, programs used to conduct the supply drawing that is used to select the medal carrying location 27 that is

the object of medal supply, audio data that is required in order to generate BGM, effect sounds and the like in accordance with the game conditions, and other data. Furthermore, the ROM 62 also stores drawing probability tables that are required in order to conduct the drawing that is used to determine the presence or absence of a jackpot, supply drawing probability tables that are required in order to conduct the supply drawing used to select the medal carrying location 27 that is the object of medal supply among the six medal carrying locations 27, and the like.

[0067] The CPU 66 is connected to the medal sensors 28 and LED lamps 23 (23a through 23d) disposed in the medal receiving openings 22 (22a through 22d) via an interface circuit 61. When it is detected by medal sensor 28 that a medal has entered one of the two medal receiving openings 22, a detection signal is sent to the CPU 66 via the interface circuit 61. Then, the CPU 66 that has received such a detection signal from the medal sensor 28 determines the lit color of the LED lamp 23 in one medal receiving opening 22, and sends a control signal to the LED lamp 23 which causes this lamp to be lit with the determined lit color.

[0068] Furthermore, when it is detected by the medal sensor 28 that a medal has entered the other medal receiving opening 22, a detection signal is sent to the CPU 66 via the interface 61. Then, the CPU 66 that has received such a detection signal from the medal sensor 28 performs a drawing on the basis of the abovementioned drawing probability table that is stored in the ROM 62, and, in cases where a jackpot has been activated, the CPU 66 transmits a control signal to the LED lamp 23 of the other medal receiving opening 22 which causes this LED lamp 23 to be lit with the same color as the previously lit LED lamp 23.

[0069] Furthermore, the CPU 66 is connected to the medal accommodating part 90 via an interface circuit 63. Each time that a specified period of time has elapsed, the CPU 66 sends a driving signal to the opening-and-closing motor 92, and causes the opening-and-closing motor 92 to operate. When the CPU 66 receives a detection signal from the lowering limit position sensor 97 during the lowering of the opening-and-closing part 91 by the rotation of the opening-and-closing motor 92, the CPU 66 sends a control signal to the opening-and-closing motor 92 and stops the opening-and-closing motor 92. Then, after a fixed period of time (5 seconds) has elapsed, the CPU 66 again sends a control signal to the opening-and-closing motor 92 and causes the opening-and-closing motor 92 to rotate in the reverse direction so that the opening-and-closing part 91 is raised. Furthermore, when the CPU 66 receives a detection signal from the raising limit position sensor 96 during the raising of the opening-and-closing part 91, the CPU 66 sends a control signal to the opening-and-closing motor 92 and stops the opening-and-closing motor 92.

[0070] Furthermore, the CPU 66 is connected to a stepping motor 32, motor 35 and speaker 46 via an interface circuit 65.

[0071] The stepping motor 32 is used to open and close the opening-and-closing doors 21 (21a through 21d) of the medal accumulating parts 20 (20a through 20d), and the motor 35 is used to cause a reciprocating motion of the abovementioned field plate 34.

[0072] As is described above, the speaker 46 is used to output BGM, voice, effect sounds or the like in accordance with the game conditions.

[0073] The game that is played in the gaming machine constituting this embodiment will be described below with reference to Figs. 7 and 8.

[0074] Fig. 7 is a flow chart which shows the game execution processing routine that is executed in the gaming machine 10 shown in Fig. 1. This subroutine is called up and executed when the power supply of the gaming machine 10 is switched on. Furthermore, in the case of this game execution processing, since the same processing is performed for each of the four medal accumulating parts 20 (20a through 20d), the processing performed for one medal accumulating part 20 among the four medal accumulating parts 20 (20a through 20d) will be described below.

[0075] First, the CPU 66 determines whether or not a medal has entered either of the two medal receiving openings 22 (step S10). Specifically, the CPU 66 determines whether or not a detection signal has been received from the medal sensor 28 detecting a medal that has entered one of the two medal receiving openings 22 installed in the medal accumulating part 20. In cases where it is determined in step S10 that no medal has entered either of the two medal receiving openings 22, this subroutine is ended.

[0076] On the other hand, in cases where it is determined that a medal has entered one of the two medal receiving openings 22, the CPU 66 next determines whether or not lit color data has already been stored in the RAM 64 (step S12). This lit color data is data that relates to the lit color of the LED lamps 23 of the medal receiving openings 22 determined in step S18 (described below), and is stored in the RAM 64. The information that lit color data is already stored in the RAM 64 indicates that a medal has already entered one of the medal receiving openings 22, and that the corresponding LED lamp 23 is lit with the lit color determined in step S18.

[0077] In cases where it is determined in step S12 that lit color data has already been stored in the RAM 64, this subroutine is ended.

[0078] On the other hand, in cases where it is determined in step S12 that no lit color data is stored in the RAM 64, the CPU 66 next determines whether or not lit color data relating to the other medal receiving opening is stored in the RAM 64 (step S14). The information that lit color data relating to the other medal receiving opening 22 is stored in the RAM 64 in step S14 indicates that a medal has already entered this other medal receiving opening 22 prior to the entry of a medal into the first

medal receiving opening 22 so that the LED lamp 23 is lit with the lit color determined in step S 18.

[0079] In cases where it is determined in step S14 that lit color data relating to the other medal receiving opening 22 is not stored in the RAM 64, the CPU 66 next executes processing that causes the LED lamp 23 of the first medal receiving opening 22 to blink (step S16). When the processing of this step S16 is executed, the LED lamp 23 blinks while sequentially changing color. Furthermore, the blinking of this LED lamp 23 is performed for a fixed period of time (e. g., 3 seconds).

[0080] When the processing of step S16 has been executed, the CPU 66 next executes lit color determination processing (step S18). In this step S18, the CPU 66 performs a lit color determining drawing on the basis of a lit color determination probability table stored in the ROM 62, and stores lit color data relating to the determined lit color in the RAM 64.

[0081] When the processing of step S18 has been executed, the CPU 66 next executes processing that lights the LED lamp 23 of the first medal receiving opening 22 with the lit color determined in step S18 (step S20). When the processing of step S20 has been executed, this subroutine is ended.

[0082] In cases where it is determined in the abovementioned step S14 that lit color data relating to the other medal receiving opening 22 is stored in the RAM 64, the CPU 66 next executes processing that causes the LED lamp 23 of the first medal receiving opening 22 to blink (step S22). When the processing of this step S22 is executed, the LED lamp 23 blinks while sequentially changing color. Furthermore, the blinking of this LED lamp 23 is performed for a fixed period of time (e. g., 3 seconds).

[0083] When the processing of step S22 has been executed, the CPU 66 next executes drawing processing (step S24). In this step S24, the CPU 66 performs a drawing on the basis of the abovementioned drawing probability table in order to determine the presence or absence of a jackpot. The results of this drawing are stored in the RAM 64 as drawing data. In this drawing, a drawing is performed that determines whether a jackpot has been activated or missed.

[0084] When the processing of this step S24 is executed, the control part 60 functions as drawing means which perform a drawing in order to determine the presence or absence of a jackpot when medals are detected by the medal sensors 28 disposed in both of the two medal receiving openings 22.

[0085] When the processing of step S24 has been executed, the CPU 66 next determines whether or not a jackpot has been activated (step S26). Specifically, the CPU 66 determines whether or not the drawing data stored in the RAM 64 is drawing data that corresponds to a jackpot.

[0086] In cases where it is determined in step S26 that a jackpot has not been activated, i.e., in cases where the drawing data stored in the RAM 64 is drawing data that corresponds to a "miss", the CPU 66 next executes processing that causes the LED lamp 23 of the first medal receiving opening 22 be lit with a different color than that of the LED lamp 23 of the other medal receiving opening 22 (step S28). In this step S28, the CPU 66 causes the LED lamp 23 of the first medal receiving opening 22 to be lit on the basis of the lit color data relating to the other medal receiving opening 22 that is stored in the RAM 64 in the abovementioned step S20, so that this lit color is a lit color that is different from the lit color of the LED lamp 23 of the other medal receiving opening 22.

[0087] On the other hand, in cases where it is determined in step S26 that a jackpot has been activated, the CPU 66 next executes processing that causes the LED lamp 23 of the first medal receiving opening 22 to be lit with light of the same color as that of the LED lamp 23 of the other medal receiving opening 22 (step S30). In this step S30, the CPU 66 lights the LED lamp 23 of the first medal receiving opening 22 on the basis of the lit color data relating to the other medal receiving opening 22 that is stored in the RAM 64 in the abovementioned step S20 so that this lit color is the same as the light color of the LED lamp 23 of the other medal receiving opening 22.

[0088] When the processing of step S30 has been executed, the CPU 66 next executes processing that opens the opening-and-closing doors 21 (step S32). In this step S32, the CPU 66 sends a driving signal to the stepping motor 32 and lowers the opening-and-closing doors 21 so that these doors are placed in an open state. When the processing of this step S32 is executed so that the opening-and-closing doors 21 are placed in an open state, the medals that have accumulated in the medal accumulating part 20 are paid out. Furthermore, when the processing of this step S32 is executed, the control part 60, stepping motor 32 and opening-and-closing doors 21 function as pay-out means which pay out medals from the medal accumulating part 20.

[0089] In cases where the processing of step S32 has been executed, or in cases where the processing of the abovementioned step S28 has been executed, the CPU 66 next executes reset processing, so that the two LED lamps 23 are both extinguished, and so that the lit color data stored in the RAM 64 is erased. When the processing of step S34 has been executed, this subroutine is ended.

[0090] In the gaming machine 10 of this embodiment, as is shown in Fig. 7, the transmission that medals have respectively entered the two medal receiving openings 22 disposed in each medal accumulating part 20 is notified, and a drawing is performed in order to determine the presence or absence of a jackpot. In cases where the drawing results indicate that a jackpot has been activated, the player is notified of this jackpot by the lighting of the two LED lamps 23 with the same lit color, and medals are paid out from the medal accumulating part 20. On the other hand, in cases where the drawing re-

sults indicate that a jackpot has not been activated (i.e., that the jackpot has been missed), the two LED lamps 23 are lit with different lit colors, so that the player is notified that the drawing results indicate a "miss". Furthermore, as is described with reference to Fig. 7, in cases where medals have entered one of the two medal receiving openings 22 in continuous succession, a drawing used to determine the presence or absence of a jackpot is not performed.

[0091] Fig. 8 is a flow chart which shows the medal supply processing routine that is executed in the gaming machine 10 shown in Fig. 1. This subroutine is called up and executed when the power supply of the gaming machine 10 is switched on.

[0092] First, the CPU 66 determines whether or not a specified period of time (5 minutes) has elapsed (step S40). In cases where it is determined that this specified period of time has not elapsed, the CPU 66 again performs the determination processing of step S40. On the other hand, in cases where it is determined in step S40 that the abovementioned specified period of time has elapsed, the CPU 66 next executes supply drawing processing (step S42). In this step S42, the CPU 66 performs a drawing on the basis of the supply drawing probability table that is stored in the ROM 62, and selects the medal carrying location 27 that is the object of medal supply among the six medal carrying locations 27 on the basis of the drawing results.

[0093] When the processing of step S42 has been executed, the CPU 66 next sends a driving signal to the opening-and-closing motor 92 in order to open the opening-and-closing part 91 associated with the medal carrying location 27 that has been selected in step S42, and causes this opening-and-closing motor 92 to rotate (step S44). When the processing of this step S44 is executed, the opening-and-closing motor 92 rotates in the rightward direction, so that the opening-and-closing part 91 is lowered (see Fig. 4).

[0094] When the processing of step S44 has been executed, the CPU 66 next determines whether or not a detection signal has been received from the lowering limit position sensor 97 (step S46). Specifically, the CPU 66 determines whether or not a detection signal transmitted from the lowering limit position sensor 97 as a result of the contact 95a disposed on the comb-form part 95 being detected by the lowering limit position sensor 97 during the lowering of the opening-and-closing part 91 has been received.

[0095] In cases where it is determined in step S46 that a detection signal has not been received, the CPU 66 again performs the determination processing of step S46.

[0096] On the other hand, in cases where it is determined in step S46 that a detection signal has been received, the CPU 66 next sends a stopping signal to the opening-and-closing motor 92 in order to stop the lowering of the opening-and-closing part 91, and thus stops the rotation of the opening-and-closing motor 92 (step S48).

[0097] When the processing of step S48 has been executed, the CPU 66 next waits until a specified period of time (5 seconds) has elapsed, and maintains the stopped state of the opening-and-closing part 91 (step S50). Then, in order to raise the opening-and-closing part 91, the CPU 66 sends a driving signal to the opening-and-closing motor 92, and causes the opening-and-closing motor 92 to perform reverse rotation (step S52). When the processing of this step S52 is executed, the opening-and-closing motor 92 rotates in the leftward direction, so that the opening-and-closing part 91 is raised (see Fig. 4).

[0098] When the processing of step S52 has been executed, the CPU 66 next determines whether or not a detection signal has been received from the raising limit position sensor 96 (step S54). Specifically, the CPU 66 determines whether or not a detection signal transmitted from the raising limit position sensor 96 as a result of the contact 95a disposed on the comb-form part 95 being detected by the raising limit position sensor 96 during the raising of the opening-and-closing part 91 has been received.

[0099] In cases where it is determined in step S54 that a detection signal has not been received, the CPU 66 again performs the determination processing of step S54.

[0100] In cases where it is determined in step S54 that a detection signal has been received, the CPU 66 next sends a stopping signal to the opening-and-closing motor 92 in order to stop the raising of the opening-and-closing part 91, and thus stops the rotation of the opening-and-closing motor 92 (step S56). When the processing of step S56 has been executed, this subroutine is ended.

[0101] In the gaming machine 10 of this embodiment, as is described with reference to Fig. 8, a supply drawing that is used to select the medal carrying location 27 that is the object of medal supply is performed, and the opening-and-closing part 91 is placed in an open state for a fixed period of time (5 seconds) in order to supply medals to the medal carrying location 27 that is selected on the basis of the drawing results. When the opening-and-closing part 91 is placed in an open state, the medals slide downward along the inclined surface 98 of the medal accommodating part 90, so that the medals move into the medal accumulating part 20 installed on the medal carrying location 27.

[0102] Next, the game that is played in the gaming machine 10 of this embodiment will be described with reference to Figs. 9 and 10.

[0103] Figs. 9A through 9C and 10A through 10C are diagrams which show how the game is played in the gaming machine 10 of this embodiment.

[0104] For example, when a medal enters the left-side medal receiving opening 22a of the two uppermost medal receiving openings 22a among the medal receiving openings 22 (22a through 22d) that are provided with

two of these medal receiving openings 22 being provided for each of four medal accumulating parts 20 (20a through 20d) as shown in Fig. 9A, the LED lamp 23a that is disposed in the left-side medal receiving opening 22a (as shown in Fig. 9B) blinks while sequentially changing color, and is then lit with a specified color as shown in Fig. 9C after a fixed period of time has elapsed.

[0105] Then, when a medal enters the medal receiving opening 22a on the opposite side (right side) after the LED lamp 23a installed in the left-side medal receiving opening 22a is lit with a specified color, a drawing that is used to determine the presence or absence of a jackpot is performed, and if a jackpot is activated, the LED lamp 23 disposed in the right-side medal receiving opening 22a blinks while sequentially changing color as shown in Fig 10A, and is then lit with the same color as the lit color of the LED lamp 23a of the left-side medal receiving opening 22a (as shown in Fig. 10B) after a fixed period of time has elapsed, so that the player is notified that a jackpot has been activated on the basis of the results of the abovementioned drawing.

[0106] Furthermore, after the abovementioned notification that a jackpot has been activated is made, the opening-and-closing doors 21a are lowered so that these doors assume an open state as shown in Fig. 10C, and the medals that have accumulated in the medal accumulating part 20a are paid out. The medals that are paid out from the medal accumulating part 20a slide downward along the inclined surface of the medal carrying location 27 under their own weight, and are accumulated in the medal accumulating part 20b located beneath the medal accumulating part 20a.

[0107] In the gaming machine 10 of this embodiment, as is described with reference to Figs 1 through 10A - 10C, notification that a jackpot has been activated is made by lighting both of the two LED lamps 23 that are installed in each of the medal accumulating parts 20 with the same lit color. Accordingly, the activating of a jackpot can be recognized by direct perception. Furthermore, the feeling of achievement at having activated a jackpot can be sufficiently experienced as a result of such notification that a jackpot has been activated, and overlooking of the scenario in which the medals are paid out can be prevented. As a result, the players can thoroughly enjoy the game.

[0108] Furthermore, in the gaming machine 10 of this embodiment, drawings that are used to determine the presence or absence of a jackpot are performed separately for each of the two medal sensors 28 when medals are detected by the two medal sensors 28 that are installed in each of the four medal accumulating parts 20. Accordingly, the player projects medals while aiming at both of the two medal receiving openings 22 for which medal sensors 28 are respectively installed, so that the skill of the player can be reflected in the game results.

[0109] Furthermore, the challenge of the game can be increased by varying the number of medal sensors 28 that are installed for each medal accumulating part 20.

[0110] Furthermore, in the gaming machine 10 of this embodiment, the players are notified of the drawing results of the drawing that is used to determine the presence or absence of a jackpot by means of LED lamps 23 which have high visual recognition characteristics; accordingly, the activating of jackpots can be confirmed more reliably.

[0111] Furthermore, in the gaming machine 10 of this embodiment, the medal accumulating parts 20a through 20c are respectively disposed at higher levels than the medal accumulating parts 20b through 20d that are adjacent on the side of the medal discharge opening 17, so that the medals that are paid out from the medal accumulating parts 20a through 20c move as a result of their own weight, and are respectively accumulated in the medal accumulating parts 20b through 20d. Accordingly, there is no need for a device that is used to move the medals or the like, and as a result, the cost of manufacturing the gaming machine can be reduced.

[0112] Furthermore, in the gaming machine 10 of this embodiment, the medals that are transported by the transporting devices 50 and rails 45 are accommodated in the medal accommodating part 90, and these medals that are accommodated in the medal accommodating part 90 are supplied to the medal carrying locations 27 that are selected on the basis of the supply drawing. Accordingly, in the stage in which the medals are transported by the transporting devices 50 and rails 45, the medal carrying locations 27 to which the medals are being supplied cannot be recognized. Accordingly, all of the players playing the game using six game fields 15 are enveloped by a feeling of anticipation regarding the supply of the medals, so that the interest of the game can be continued.

[0113] Furthermore, in the gaming machine 10 of this embodiment, since the machine is constructed so that the medals that are transported by the transporting devices 50 and rails 45 can be visually recognized by the players, the quantity of medals that are transported by the transporting devices 50 and rails 45 can be recognized. Accordingly, all of the players playing the game can be more strongly enveloped by a feeling of anticipation regarding the supply of the medals.

[0114] In the abovementioned example, a case is described in which the respective medal accumulating parts are disposed above the medal accumulating parts that are adjacent on the side of the medal discharge opening, and the medal gaming machine is constructed so that the medals in the respective medal accumulating parts move from these medal accumulating parts under their own weight, and are accumulated in the medal accumulating parts that are adjacent on the side of the medal discharge opening. However, in the present invention, as long as the respective medal accumulating parts are disposed so that these medal accumulating parts are sequentially disposed and ranged along the medal discharge opening, there are no particular restrictions on the positional relationship of the respective

medal accumulating parts; for example, the gaming machine may be constructed so that a medal accumulating part A among a plurality of medal accumulating parts is positioned beneath a medal accumulating part B that is adjacent on the side of the medal discharge opening, and so that medals that are paid out from the medal accumulating part A are moved into the medal accumulating part B by means of a moving device such as a conveyor or the like.

[0115] In the abovementioned example, a case is described in which two medal receiving openings equipped with medal sensors are respectively disposed corresponding to each medal accumulating part, and drawings for determining the presence or absence of a jackpot are performed separately for each of the two medal receiving openings. However, in the present invention, the system may also be devised so that the entry of medals into the medal receiving openings is acknowledged, and a common drawing is performed for all of the medal accumulating parts in order to determine the presence or absence of a jackpot with respect to the paying out of medals from one medal accumulating part, or from two or more medal accumulating parts, among the plurality of medal accumulating parts.

[0116] Furthermore, in the abovementioned example, a case is described in which the entry of medals into both of the two medal receiving openings installed in each medal accumulating part is acknowledged, a drawing for the purpose of determining the presence or absence of a jackpot is performed, and in cases where the drawing results indicates that a jackpot has been activated, medals are paid out from the medal accumulating part. In the present invention, however, the system may also be devised so that the entry of medals into each of a plurality of medal receiving openings disposed in each medal accumulating part is acknowledged, drawings are respectively performed for each of the abovementioned plurality of medal receiving openings, and the presence or absence of a jackpot is determined in accordance with the drawing results of all of the drawings relating to the plurality of medal receiving openings.

[0117] For example, the system may also be devised so that the entry of medals into each of two medal receiving openings disposed in each medal accumulating part is acknowledged, drawings that determine the activating or missing of a jackpot are performed for each individual medal receiving opening, a jackpot is determined to have been activated if the results of the drawings for the two medal receiving openings both indicate an activation, and a jackpot is determined to have been missed if either of the two sets of drawing results for the two medal receiving openings indicate a miss, or if both of these two sets of drawing results indicate a miss.

[0118] In the abovementioned example, a case is described in which the entry of medals into the medal receiving openings is acknowledged, a drawing for the purpose of determining the presence or absence of a jackpot is performed, and the paying out of medals from the medal accumulating part is performed in cases where the drawing results of the abovementioned drawing indicates that a jackpot has been activated. In the present invention, however, there are no particular restrictions on the conditions under which the drawing that is used to determine the presence or absence of a jackpot is performed; for example, such conditions may include the passage of a medal through a specified position within the game space, the collision of a medal with a target installed in a specified position within the game space, or the like. Furthermore, in the abovementioned example, a case is described in which a drawing for the purpose of determining the presence or absence of a jackpot is performed, and the paying out of medals from the medal accumulating part is performed in cases where a jackpot is activated according to the results of the abovementioned drawing. In the present invention, however, the gaming machine may be constructed so that the abovementioned drawing is not performed, and so that a jackpot is activated as a result of, for example, the passage of a medal through a specified position within the game space, the collision of a medal with a target installed in a specified position within the game space, or the like.

[0119] Furthermore, in the abovementioned example, a case is described in which notification of the activating of a jackpot is made in cases where the lit color of two LED lamps disposed in the medal accumulating part is the same color. In the present invention, however, there are no particular restrictions on the method that is used to notify the players of the activating of a jackpot. For example, such notification can be accomplished by increasing the brightness of all of a plurality of LED lamps corresponding to the medal accumulating part, or such notification can be accomplished by causing all of a plurality of LED lamps corresponding to the medal accumulating part to blink. For example, the activating of a jackpot can also be reported by the static display of a combination of patterns or the like displayed by respective display devices comprising a plurality of LED pattern display devices corresponding to the medal accumulating parts as a specified combination (e. g., a combination in which all of the patterns are "7")

[0120] Furthermore, in the abovementioned example, a case is described in which the passage of a fixed period of time (e. g., 5 minutes) is acknowledged, a supply drawing for the purpose of selecting the medal carrying location constituting the object of medal supply is performed, and medals are supplied to the medal carrying location selected in accordance with the results of this supply drawing. In the present invention, however, there are no particular restrictions on the conditions used to select the medal carrying location to which medals are supplied; for example, the activating of a jackpot and resulting pay-out of medals from one of the four medal accumulating parts are acknowledged, and the selection of the medal carrying location to which medals are to be supplied is performed accordingly.

[0121] The present invention is a gaming machine in which a plurality of medal accumulating parts 20a through 20d are disposed so that these parts are sequentially disposed and ranged along the medal discharge opening 17, the medals that are paid out from the respective medal accumulating parts 20a through 20c are moved sequentially and accumulated in the medal accumulating parts 20b through 20d that are adjacent on the side of the medal discharge opening 17, and the medals that are paid out from the medal accumulating part 20d located closely to the medal discharge opening 17 can be given to the player, wherein this gaming machine comprises drawing means which perform a drawing used to determine the presence or absence of a jackpot when medals are detected, notification means 23a through 23d which make a notification of the drawing results of the drawing means, and pay-out means 21a through 21d which pay out medals from the medal accumulating parts 20a through 20d.

Claims

1. A gaming machine comprising: said medal gaming machine has a projection device for projection of medals into a gaming space; said gaming machine has a medal discharge opening for discharging medals to an outside of said gaming space; and said gaming machine has a plurality of medal accumulating parts, and is constructed so that said plurality of medal accumulating parts are sequentially disposed and ranged along said medal discharge opening, the medals that are paid out from the respective medal accumulating parts are sequentially moved and accumulated in the medal accumulating parts that are adjacent on the side of said medal discharge opening, and the medals that are paid out from the medal accumulating parts that are located closely to said medal discharge opening are discharged from said medal discharge opening and given to a player, this gaming machine further comprising:

detection means for detecting medals that are projected from said projection device;
drawing means for performing a drawing in order to determine the presence or absence of a jackpot when medals are detected by said detection means;
notification means for making a notification of the drawing results of said drawing means; and
pay-out means for paying out medals from the medal accumulating parts when notification of a jackpot is made by said notification means.

2. The gaming machine according to claim 1, wherein a plurality of said detection means are disposed corresponding to the respective medal accumulating parts,

said drawing means performs a drawing in order to determine a presence or absence of a jackpot separately for each of said plurality of detection means when medals are detected by said detection means,

said notification means is disposed corresponding to each of said detection means, and

said pay-out means pays out medals from said medal accumulating parts when notification is made of a jackpot by a combination of notification contents of a plurality of notification means disposed corresponding to the medal accumulating parts.

3. The gaming machine according to claim 1 or 2, wherein said notification means comprises an LED lamp.

4. The gaming machine according to claim 3, wherein said LED lamps are respectively disposed corresponding to a plurality of said detection means, and said respective LED lamps are lit or caused to blink with a same color when said jackpot is activated.

5. The gaming machine according to claim 1 or 2, wherein said notification means comprises an LED pattern display device.

6. The gaming machine according to claim 5, wherein said LED pattern display means are respectively disposed corresponding to a plurality of said detection means, and said respective LED pattern display devices display a same pattern when said jackpot is activated.

7. The gaming machine according to any one of claims 1 to 6, wherein said respective medal accumulating parts are disposed above the medal accumulating parts that are adjacent on the side of said medal discharge opening, and

medals in the respective medal accumulating parts are caused to move by their own weight from these respective medal accumulating parts, and are accumulated in the medal accumulating parts that are adjacent on the side of said medal discharge opening.

8. A gaming machine comprising: said gaming machine has a projection device for projection of medals into a gaming space; said gaming machine has a medal discharge opening for discharging medals to an outside of said gaming space; and said gaming machine has a plurality of medal accumulating parts, and is constructed so that said plurality of medal accumulating parts are sequentially disposed and ranged along said medal discharge opening, the medals that are paid out from the re-

spective medal accumulating parts are sequentially moved and accumulated in the medal accumulating parts that are adjacent on the side of said medal discharge opening, and the medals that are paid out from the medal accumulating parts that are located closely to said medal discharge opening are discharged from said medal discharge opening and given to a player, this gaming machine further comprising:

a detector for detecting medals that are projected from said projection device;
a drawing device for performing a drawing in order to determine the presence or absence of a jackpot when medals are detected by said detector;
a notification device for making a notification of the drawing results of said drawing device; and
a pay-out device for paying out medals from the medal accumulating parts when notification of a jackpot is made by said notification device.

FIG. 1

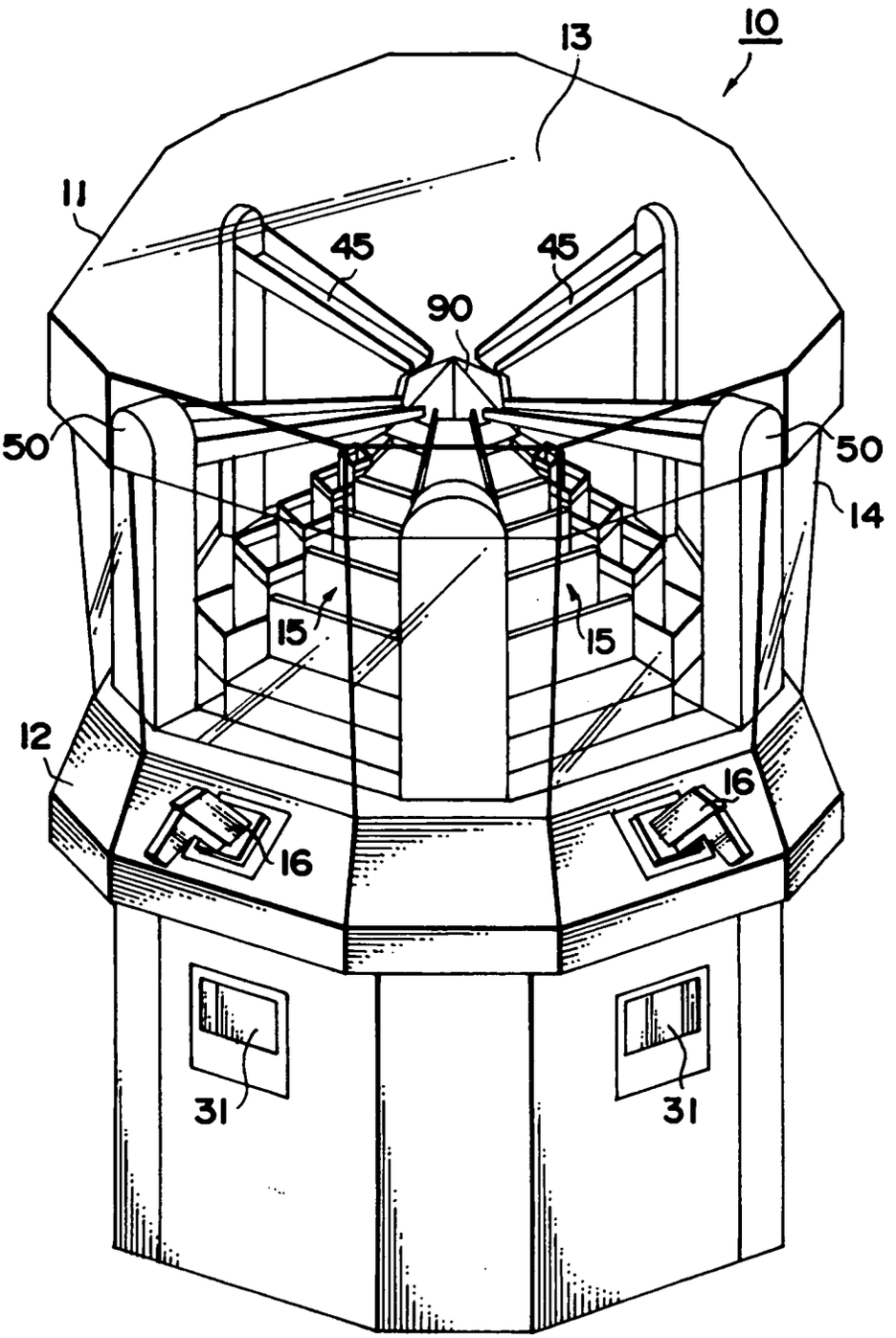
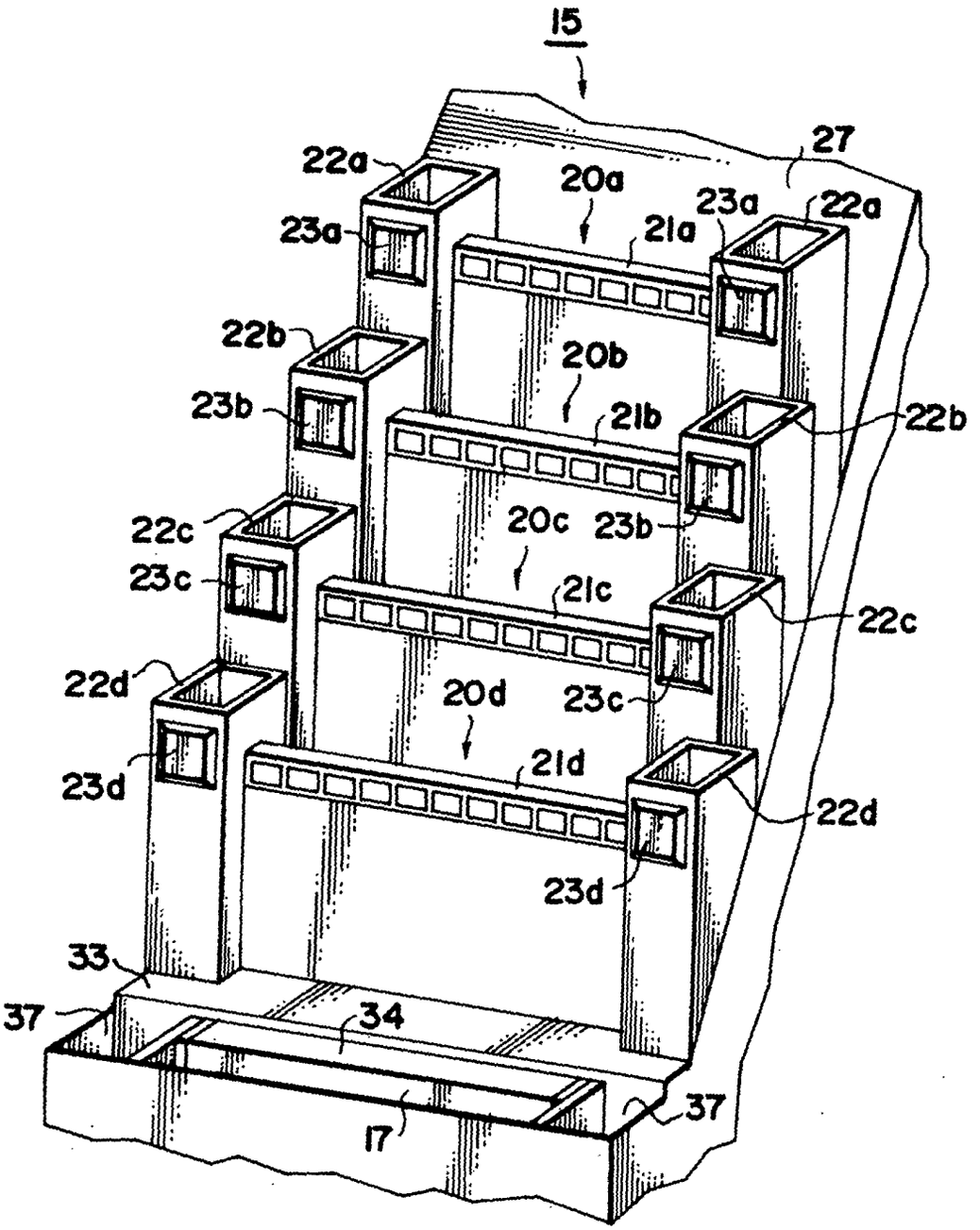


FIG.2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23a
21a
23a
22a
22b
20b
23b
21b
23b
22b
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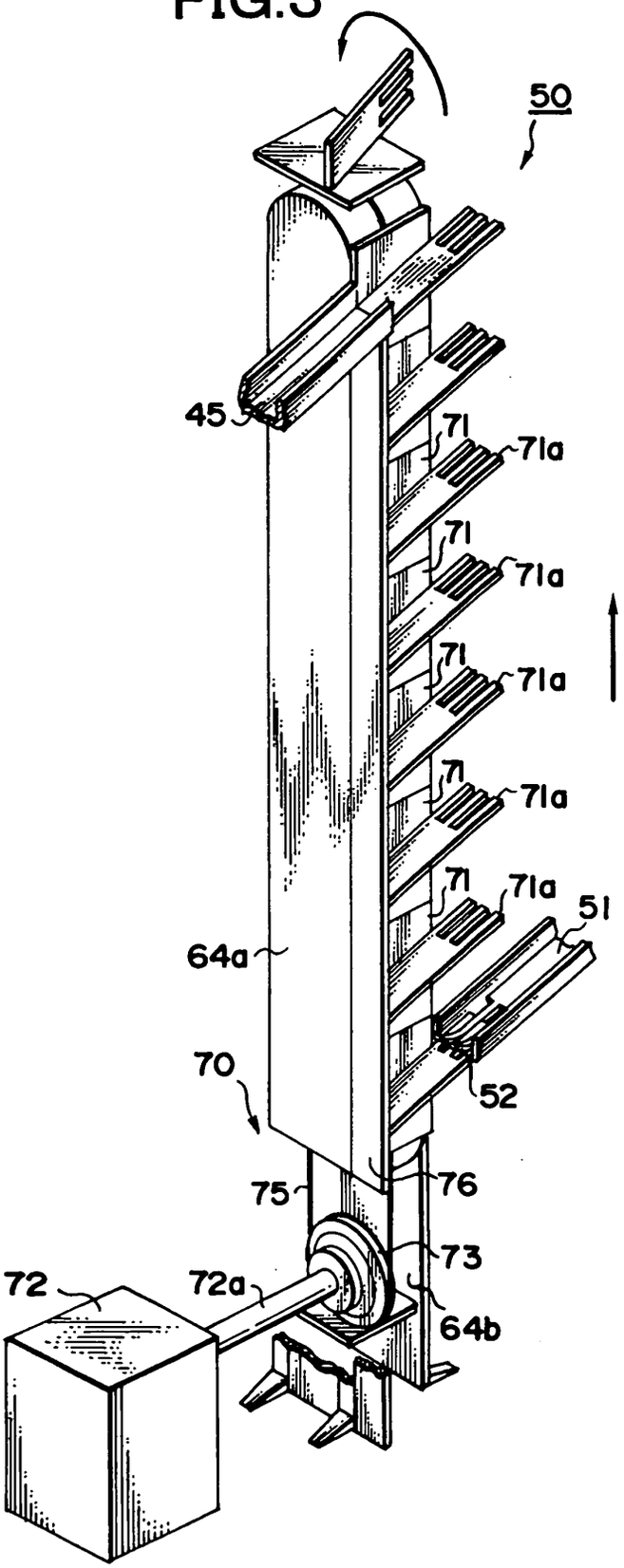
FIG.3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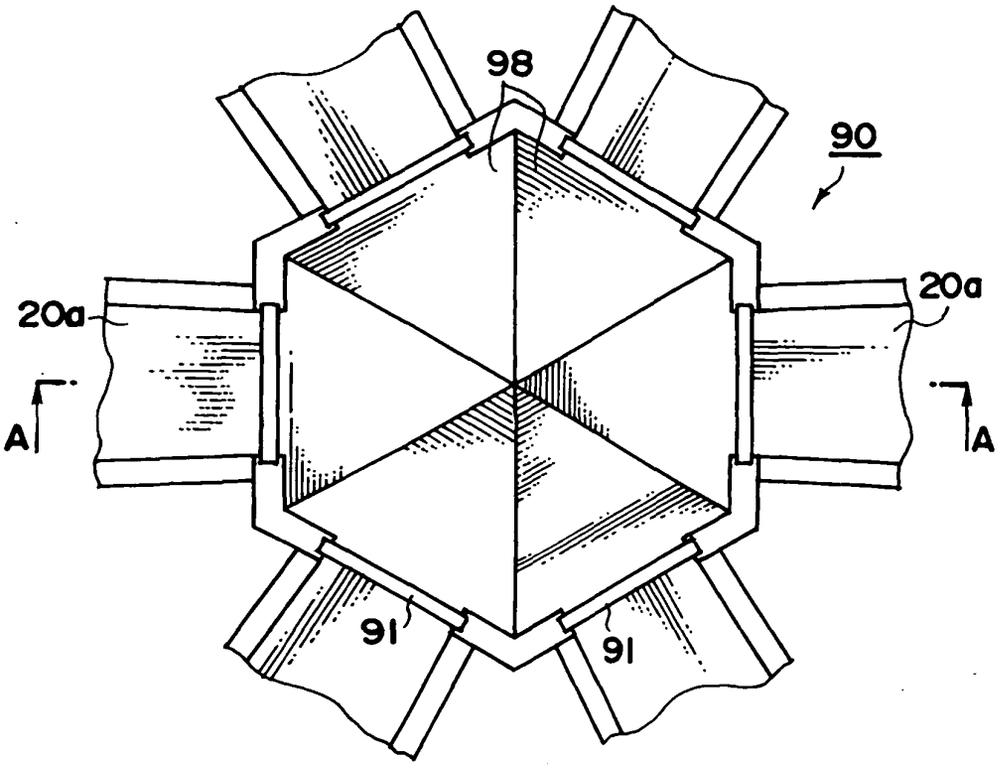
72a
64b

FIG.4A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A
91
91

FIG.4B

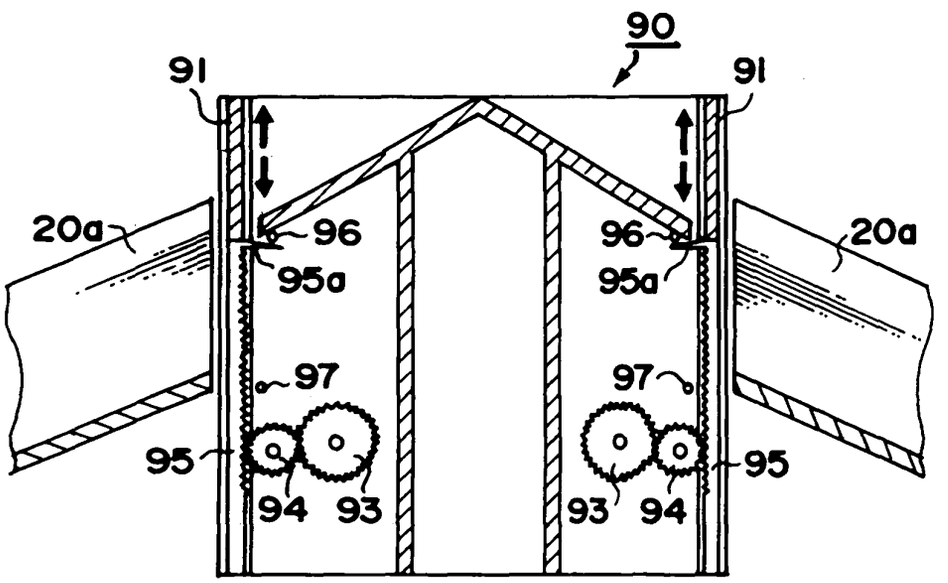
90
91
91
20a
20a
96
96
95a
95a
97
97
95
95
94
93
93
94

FIG.5

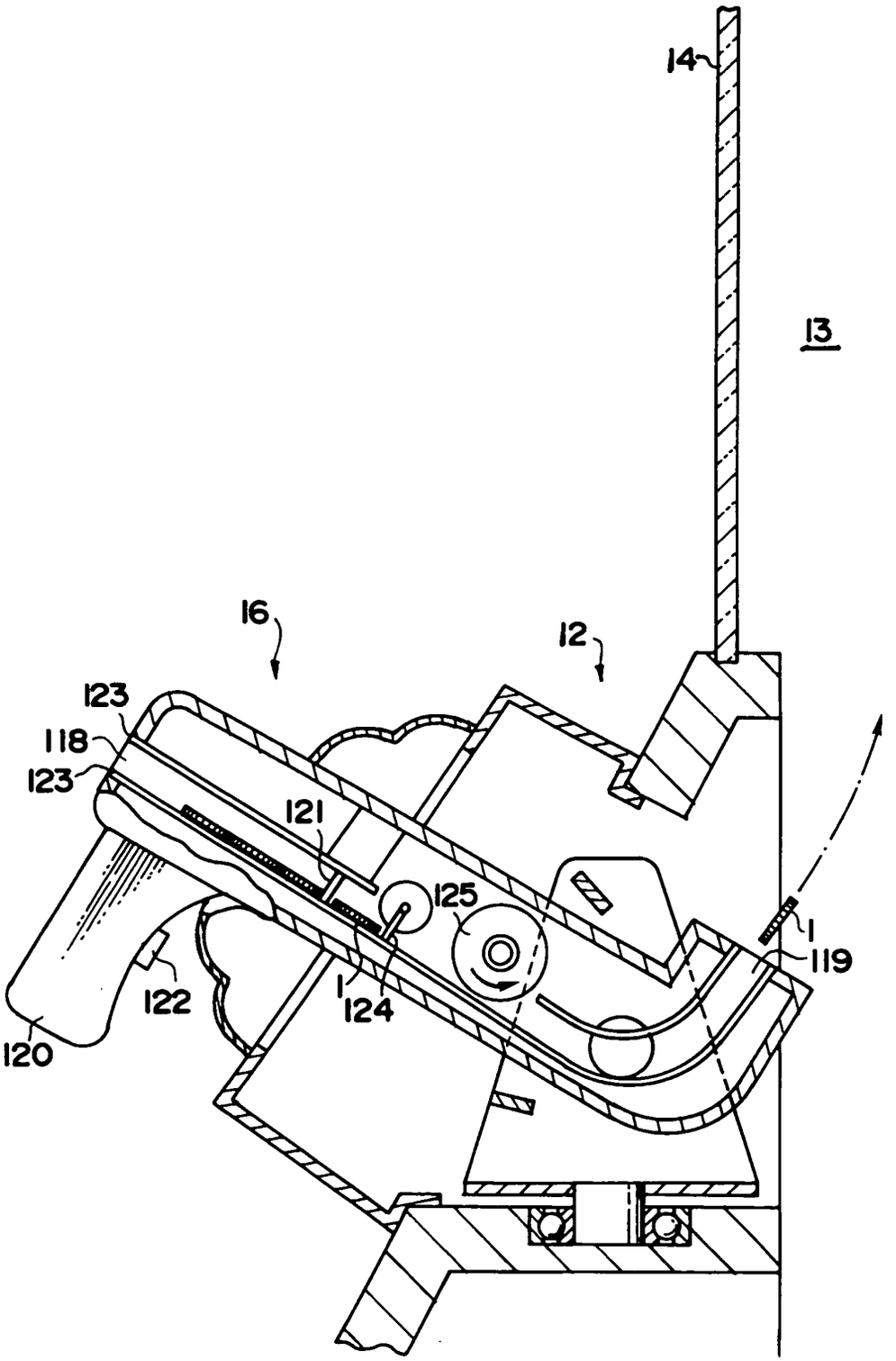

FIG.6

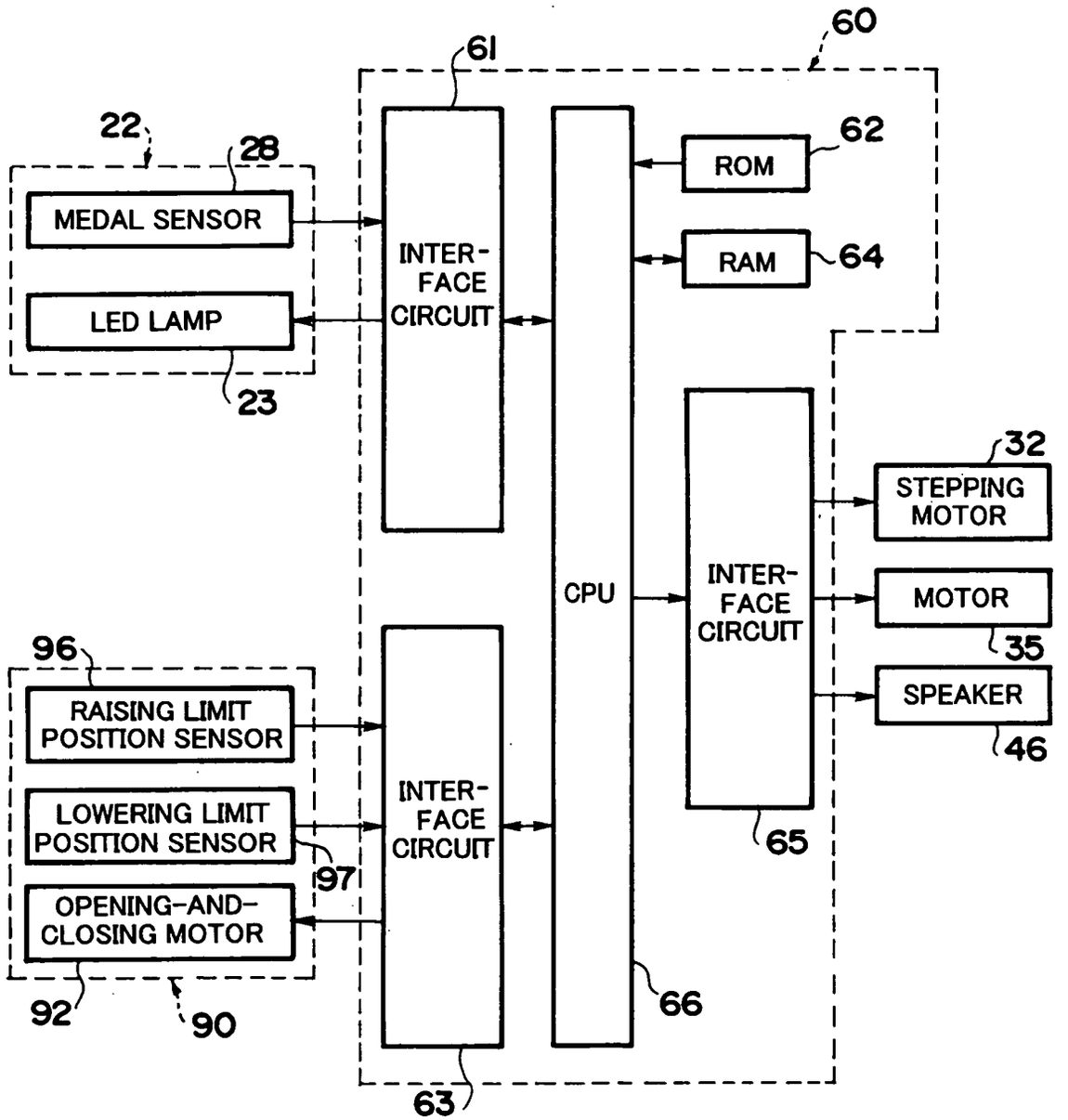
60
61
22
28
MEDAL SENSOR
LED LAMP
23
INTER-FACE CIRCUIT
ROM
62
RAM
64
CPU
INTER-FACE CIRCUIT
32
STEPPING MOTOR
MOTOR
35
SPEAKER
46
65
66
96
RAISING LIMIT POSITION SENSOR
LOWERING LIMIT POSITION SENSOR
97
OPENING-AND-CLOSING MOTOR
92
90
INTER-FACE CIRCUIT
63

FIG.7

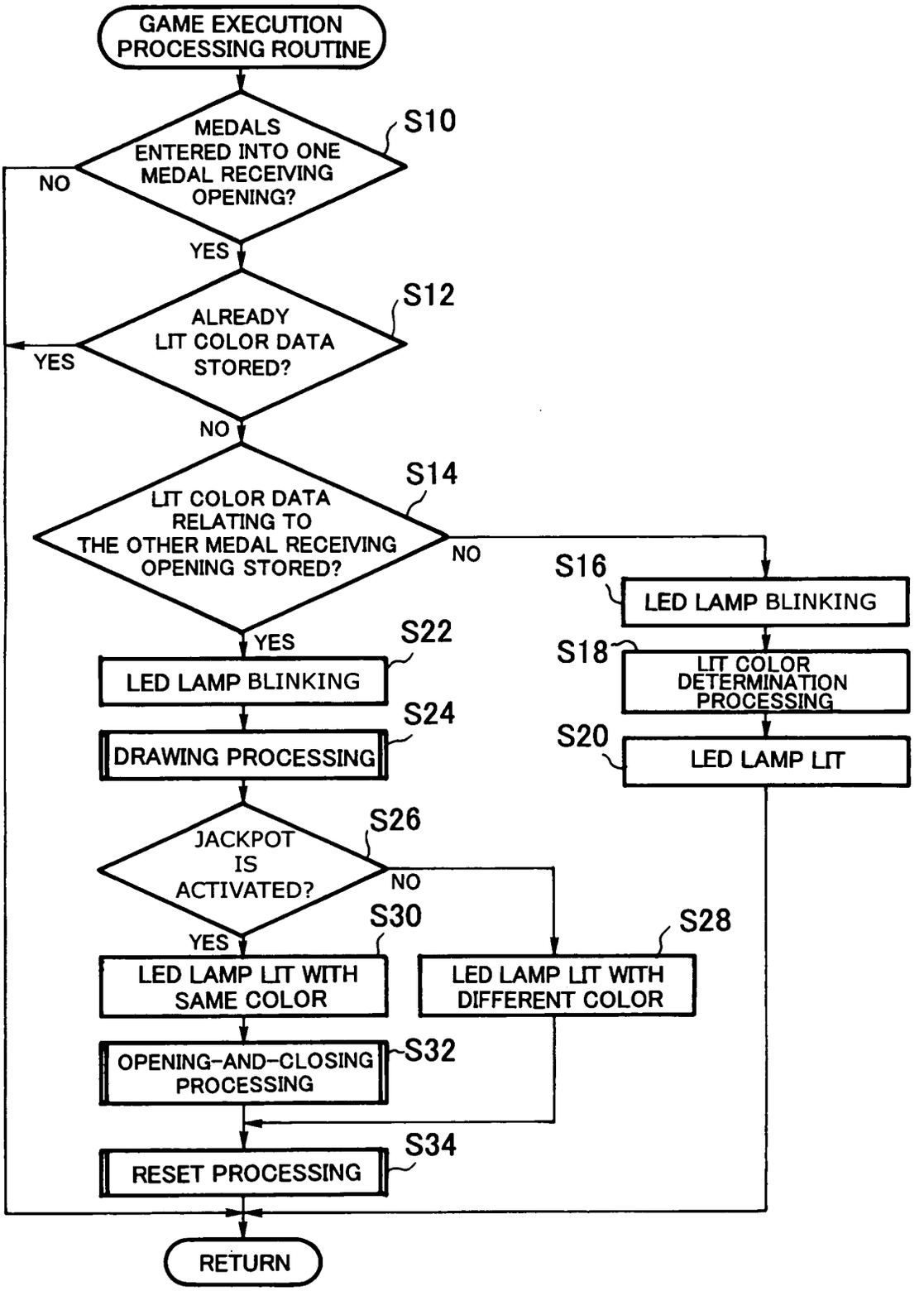
GAME EXECUTION PROCESSING ROUTINE
MEDALS ENTERED INTO ONE MEDAL RECEIVING OPENING?
S10
NO
YES
ALREADY LIT COLOR DATA STORED?
S12
YES
NO
LIT COLOR DATA RELATING TO THE OTHER MEDAL RECEIVING OPENING STORED?
S14
NO
YES
S16
LED LAMP BLINKING
S18
LIT COLOR DETERMINATION PROCESSING
S20
LED LAMP LIT
S22
LED LAMP BLINKING
S24
DRAWING PROCESSING
JACKPOT IS ACTIVATED?
S26
NO
YES
S28
LED LAMP LIT WITH DIFFERENT COLOR
S30
LED LAMP LIT WITH SAME COLOR
OPENING-AND-CLOSING PROCESSING
S32
RESET PROCESSING
S34
RETURN

FIG.8

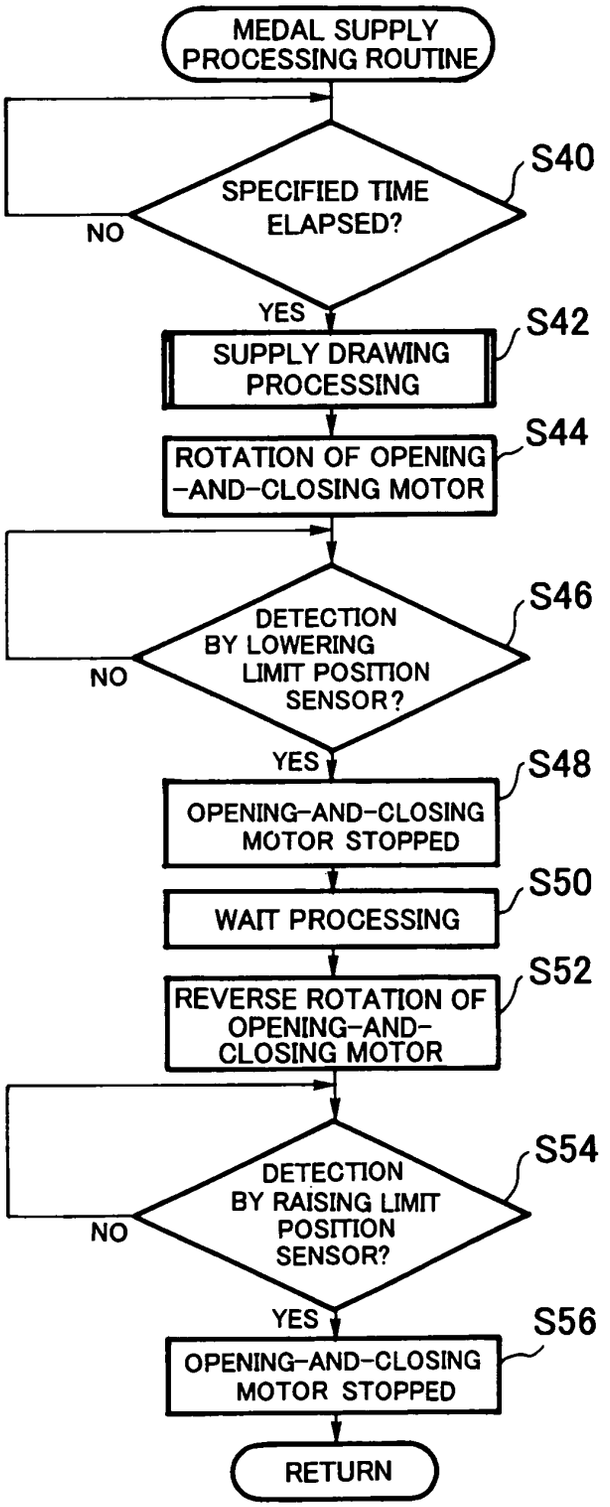
MEDAL SUPPLY PROCESSING ROUTINE
S40
SPECIFIED TIME ELAPSED?
NO
YES
S42
SUPPLY DRAWING PROCESSING
S44
ROTATION OF OPENING -AND-CLOSING MOTOR
S46
DETECTION BY LOWERING LIMIT POSITION SENSOR?
NO
YES
S48
OPENING-AND-CLOSING MOTOR STOPPED
S50
WAIT PROCESSING
S52
REVERSE ROTATION OF OPENING-AND-CLOSING MOTOR
S54
DETECTION BY RAISING LIMIT POSITION SENSOR?
NO
YES
S56
OPENING-AND-CLOSING MOTOR STOPPED
RETURN

FIG.9C

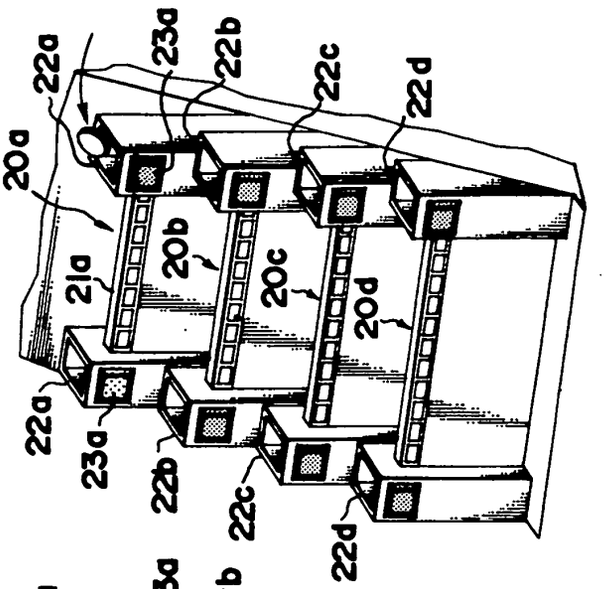

FIG.9B

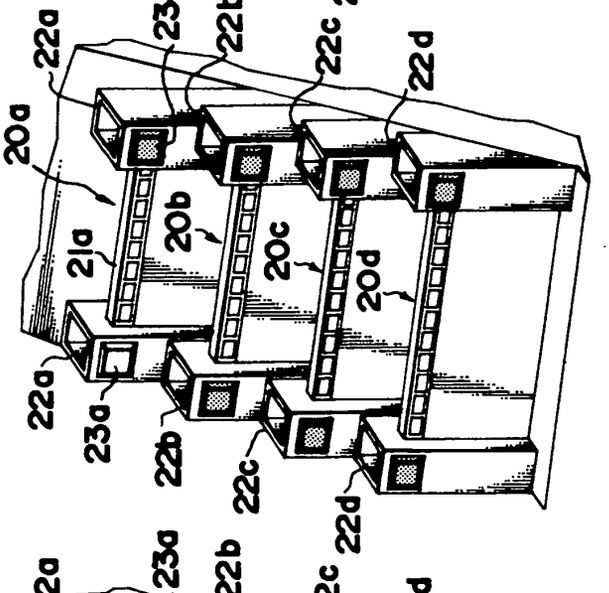

FIG.9A

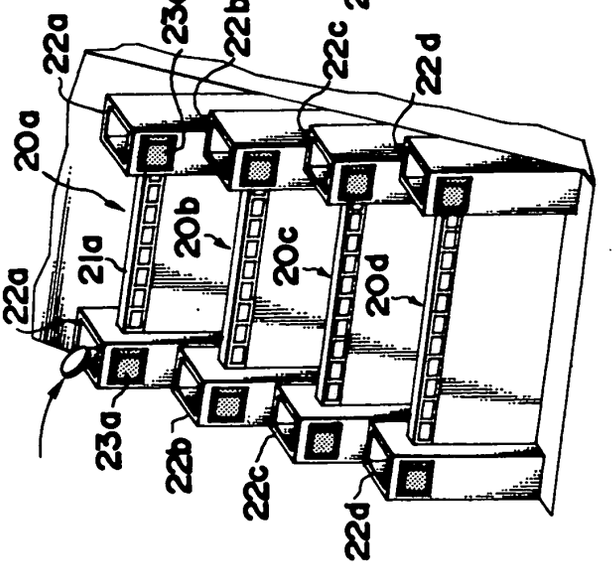

FIG.10A

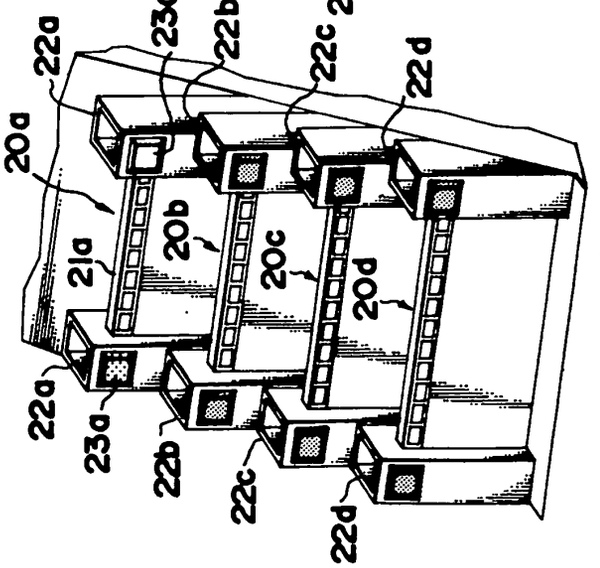

FIG.10B

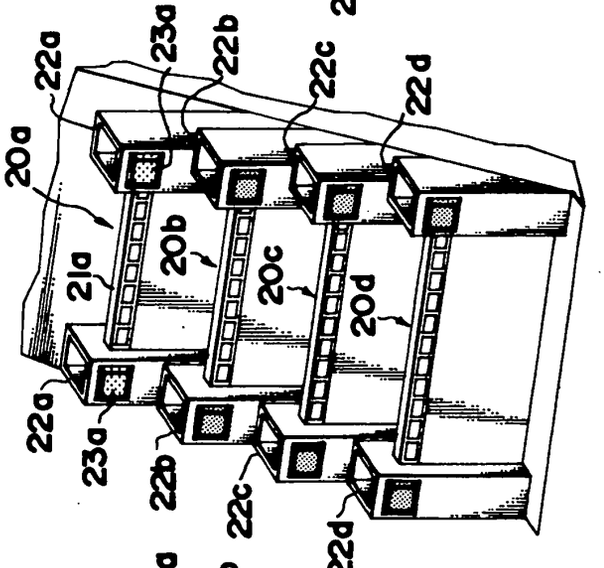

FIG.10C