GAMING APPARATUS

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application is based upon and claims the benefit of priority from the prior Japanese Patent Applications No. P2002-184600, filed on Jun. 25, 2002, the entire contents of which are incorporated herein by reference.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] The present invention relates to a gaming apparatus, such as slot machine, pachinko machine or other gaming apparatus, which comprise a variable display means to variably display symbols required for a game and a controller to control the varying of the display.

[0004] 2. Description of the Related Art

[0005] Conventionally, as an aforementioned type of gaming apparatus, a slot machine which comprises a stopping means to stop varying of the display, as so-called "pachi-slo" gaming apparatus is known. **FIG. 1** shows a conventional pachi-slo gaming apparatus X.

[0006] The pachi-slo gaming apparatus X comprises, three reels **104** to **106**, which variably display a plurality of symbols, in display windows **101** to **103** on a face panel **100**, and a variable display unit configured with reel stop buttons **107** to **109**, to stop the reels **104** to **106**. If a prescribed symbol combination lines up on the variable display unit, a return is given to a player of the pachi-slo gaming apparatus X.

[0007] Further, winning lines, which relate to nine (9) symbols formed by three (3) rows X three (3) lines are printed on a front side of the face panel **100**. These winning lines are a one medal winning line **111** in the middle, which becomes active if one medal is inserted, two medal winning lines **112***a,* **112***b,* which become additionally active if two medals arc inserted, and three medal winning lines **113***a,* **113***b,* which become additionally active if three medals are inserted. In **FIG. 1**, the pachi-slo gaming apparatus X also has a game token insertion slot **114** configured to accept a game token (e.g., medal or coin) and a start lever **115** configured to start a game.

[0008] Incidentally, regarding the variable display unit, besides the above mechanical type using the reels **104** to **106**, there is also a display unit which can variably display symbols using a liquid crystal display (LCD), etc.

[0009] As for procedure of playing game, a game is started by insertion of a game token into the game token insertion slot **114**. The controller then controls the variable display unit to spin the reels **104** to **106** according to an operation of the start lever **115** by the player, and symbols are then variably displayed.

[0010] The variably displayed symbols stop automatically after a certain period of time or stop according to an operation of the reel stop buttons **107** to **109** so as to stop spinning of the reels **104** to **106** one after the other. As a result, if symbols on the reels **104** to **106** appeared within the display windows **101** to **103** reach a certain combination (winning combination), game tokens are paid out so that a return can be given to the player.

[0011] The aforementioned pachi-slo gaming apparatus X has a plurality of winning modes. Specifically, in a case where the player wins a prescribed prize, in addition to a single payout of medals, a game state is transferred to an advantageous state for the player for a certain period of time rather than the normal game state. As for such prizes, there are a big bonus (hereinafter referred to as "BB"), which allows a certain number of games serving relatively a bigger return to the player, and a regular bonus (hereinafter referred to as "RB"), which allows a certain number of games serving relatively a smaller return to the player.

[0012] Further, in the pachi-slo gaming apparatus X, a combination of symbols that lines up along the active winning lines **111** to **113** (hereinafter referred to as "active line") is internally sampled (hereinafter referred to as "internal sampling"), and winning is determined based on the result of internal sampling and a timing when the player performs a stopping operation by pushing of the reel stop buttons **107** to **109**.

[0013] In other words, in order to win a prize which medals or coins are paid out, it is necessary that winning as a result of internal sampling (hereinafter referred to as "internally winning") and that the player performs the stopping operation at a timing that allows lining up of the combination corresponding to the prize acquired by internally winning (hereinafter referred to as "internally winning prize") along the active line(s).

[0014] It means that even if the internally winning is achieved, the prize is not awarded in a case where the timing of the stopping operation is not appropriate. Therefore, a technique of performing the stopping operation in a timely manner (which is called "see-and-push" and which intervention of player's technique is high) is required, and such a type of pachi-slo gaming apparatus has become major today.

[0015] Regarding such a type of pachi-slo gaming apparatus, various techniques have been recently proposed to display the symbols as well as the winning lines **111** to **113** on the face panel **100** in order to improve attractiveness and to ease identification of the winning prizes.

[0016] For example, in the gaming apparatus described in the Japanese patent publication No. H4-220276, three pairs of LCD shutters are placed in a row in front of a display window corresponding to the three reels and displaying a winning symbol combination at completion of the game. On the other hand, the gaming apparatus activates the LCD shutter to conceal corresponding to the six rest positions that display non-winning symbols so as to display only the winning symbol combination.

[0017] Further, in the gaming apparatus described in the Japanese patent publication No. P2000-350805, an information display panel having some transparency is placed on the rear or close to the rear of the face panel and is configured with a matrix display unit enabling display by a dotted pattern using dots formed by a plurality of lines and columns. Moreover, the information display panel is configured by a transparent electronic luminescent (EL) panel in order to display characters and symbols, etc. on the panel by a dotted pattern.