

[0035] FIG. 8 is a drawing to show the reel and the liquid crystal display in front of the reel in the first to third embodiments of the invention;

[0036] FIG. 9 is a drawing to show the positional relationships among liquid crystal, the reels, the reel side reflectors, reel backlights, and a fluorescent lamp in the first to third embodiments of the invention;

[0037] FIG. 10 is a drawing to show the back of a door in the embodiment of the gaming machine according to the invention;

[0038] FIG. 11 is a block diagram to show the configuration of a main control circuit in the embodiment of the gaming machine according to the invention;

[0039] FIG. 12 is a block diagram to show the configuration of a sub-control circuit in the embodiment of the gaming machine according to the invention;

[0040] FIG. 13 is a perspective view to show a reel means in fourth to sixth embodiments of the invention;

[0041] FIG. 14 is a perspective view to show a reel in the fourth to sixth embodiments of the invention;

[0042] FIG. 15 is a sectional view of the reel in the in the fourth to sixth embodiments of the invention; and

[0043] FIG. 16 is a drawing to show the positional relationships among liquid crystal, the reels, reel side reflectors, reel backlights, and a fluorescent lamp in the fourth to sixth embodiments of the invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0044] Referring now to the accompanying drawings, there are shown preferred embodiments of the invention.

[0045] First Embodiment

[0046] FIG. 1 shows a first embodiment applying a gaming machine according to the invention to a pinball slot machine (a so-called "Pachi-Slot machine" in Japan). FIG. 2 shows a state that a full screen display is not displayed by a liquid crystal display in display screen 5a and a member such as reels 3 disposed at the back of the liquid crystal are displayed through the display screen 5a.

[0047] A pinball slot machine 1 as a gaming machine is provided for the player to play a game using game medium such as a card storing information of the game play value given to the player as well as coins, medals and tokens. In the description that follows, it is assumed that the player uses medals.

[0048] In FIGS. 1 and 2, a panel display unit 2a roughly as a vertical plane is formed at the front of a cabinet 2 forming the whole of the pinball slot machine 1, and a liquid crystal display 5 (described later) having a rectangular 15-inch liquid crystal display screen 5a is provided on the front of the panel display unit 2a. An image can be displayed over the full face of the display screen 5a.

[0049] In the cabinet 2b, three reels (left reel 3L, center reel 3C, and right reel 3R) each with a symbol row including different types of symbols placed on the outer peripheral surface are provided in a row. The player can observe the

symbols on the reels through the display windows 4L, 4C, and 4R. Each reel rotates at a constant speed (for example, 80 revolutions per minute).

[0050] The three reels 3L, 3C, and 3R are housed in a reel case 310, as shown in FIG. 3. Reel side reflectors 320L and 320R each made of a white plate molded are attached to the sides of the reel case 310 so that they are positioned on the sides of the reel row 3L, 3C, 3R. The reels 3L, 3C, and 3R have annular reel belts 340L, 340C, and 340R attached to annular reel wheels 330L, 330C, and 330R attached to brackets 311L, 311C, and 311R for rotation.

[0051] In FIGS. 4 and 5, the reel wheel 330 is made up of a first annular rim 330a to which one side of the reel belt 340 is attached, a second annular rim 330b to which an opposite side of the reel belt 340 is attached, arms 330c for supporting the first rim 330a, and a boss 330d of an attachment part for attaching the reel wheel 330 to the bracket 311.

[0052] The reel wheel 330 in the embodiment is formed with the whole (first rim 330a, second rim 330b, arms 330c, and boss 330d) made transparent. Polycarbonate is used as the material of the reel wheel 330 in the embodiment. The reel belt 340 is bonded so that it is sandwiched between the first rim 330a and the second rim 330b on both sides of the reel belt 340. In the reel wheel 330 in the embodiment, the first rim 330a and the second rim 330b are not directly jointed and are connected through the reel belt 340.

[0053] FIG. 6 shows the reel belts 340L, 340C, and 340R on which symbol rows each made up of 21 symbols are printed. The symbols are given code numbers 00 to 20 and are stored in ROM 32 (shown in FIG. 9) described later as a data table. The symbol rows each made up of symbols of "blue 7 (symbol 91)," "red 7 (symbol 92)," "BAR (symbol 93)," "bell (symbol 94)," "plum (symbol 95)," "Replay (symbol 96)," and "cherry (symbol 97)" are represented on the reel belts 340L, 340C, and 340R. The symbol rows on the reel belts 340L, 340C, and 340R are rotated so as to move in the arrow direction in FIG. 6 for producing variable display means of the symbol rows. The symbols may be printed on an outer peripheral surface 340a of the reel belt 340 shown in FIG. 5 or may be printed on an inner peripheral surface 340b of the reel belt 340. The portion of each symbol may be formed with asperities.

[0054] The configuration of the liquid crystal display 5 is as shown in FIG. 7. FIG. 8 shows a state in which the reel side reflectors 320 are removed. In FIGS. 7 and 8, a transparent acrylic plate 501 is provided on the front of the liquid crystal display 5, followed by a reel glass base 502, a bezel metal frame 503, liquid crystal 504, a liquid crystal holder 505, a diffuser sheet 506, a light guide plate 507, a rear holder 508, and an antistatic sheet 509 which are stacked in order. A display driver 512 is disposed in the upper part of the liquid crystal display 5 for driving the liquid crystal 504 to display an image on the liquid crystal 504. The antistatic sheet 509 prevents dusts from being deposited on the portion corresponding to the reel window (display window).

[0055] The light guide plate 507 is a plate material subjected to special treatment (containing laser beam machining) to uniformly reflect light on the back of a plate member such as an acrylic plate. The light guide plate 507 receives