

DETAILED DESCRIPTION

[0020] Applicants have recognized that it would be advantageous for operators of slot machines to operate slot machines that maintain the interest of players who prefer the look and feel of mechanical slot machines, without foregoing the flexibility and other benefits of video slot machines.

[0021] Applicants have also recognized that the players who prefer mechanical reel slot machines prefer reels that have a finite number of locations at which symbols may be displayed, thus providing the players with a perceived probability of each of the symbols appearing along the payline.

[0022] Applicants have also recognized that players who prefer video slot machines are typically attracted to the colorful and detailed graphics and sophisticated animations of such slot machines, and would thus be likely attracted to other types of slot machines that offer these features.

[0023] Applicants have also recognized that it would be advantageous for a casino to offer a single slot machine that appeals to both the player who prefer mechanical slot machines and players who prefer video slot machines, rather than having to spend resources on obtaining and maintaining two different types of slot machines.

[0024] In various embodiments of the present invention, a slot machine includes mechanically spinning reels that each comprise one or more display devices for electronically or optically displaying symbols. In this way, many of the advantages of both mechanical reel slot machines and video slot machines are combined into a single device. For example, the mechanically spinning reels and the finite number of surface locations for displaying indicia along the reels may alleviate player suspicions that outcomes are being generated in a biased fashion. Also, the display devices allow the slot machine to change the indicia displayed on the reels without the need for mechanical replacement of components. Therefore, a single mechanical reel comprising one or more display devices is operable to display a very large number of indicia relative to what a conventional mechanical reel with a reel strip is capable of displaying. Furthermore, multiple different games may be played on the same mechanical reel slot machine. The slot machine may switch games by changing one or more of the indicia displayed on the reels. The display devices may also allow for the inclusion of supplementary information for the player's viewing. For example, the display devices of a reel may display pay tables, instructions on how to use the slot machine, explanations of outcomes, and marketing offers.

[0025] In one embodiment, the reels of a slot machine are fitted with display devices on the outer surface of the rim of the reel. Display memories may be fitted, for example, on the inner surface of the rim. The display memories may store graphical information about multiple different indicia. In one embodiment, each of the display memories may be respectively in communication with a corresponding display device. For example, upon an instruction from a processor of the slot machine, the display memories may transmit data representing one or more indicia to the display devices, causing the display devices to change the symbols currently being displayed.

[0026] In one embodiment, power may be provided to the display devices and display memories via conducting strips

of a reel. For example, one or more conducting strips may be electrically coupled to stationary power sources via, for example, wire brushes.

[0027] With these and other advantages and features of the invention that will become hereinafter apparent, the nature of the invention may be more clearly understood by reference to the following detailed description of the invention, the appended claims and to the several drawings included herein.

[0028] In the following description, reference is made to the accompanying figures that form a part hereof, and in which is shown, by way of illustration, specific embodiments in which the invention may be practiced. It should be noted that, with reference to the numbering of elements of the figures, the left most digit(s) of a reference numeral identifies the figure in which the reference numeral first appears. The embodiments described herein are described in sufficient detail to enable those skilled in the art to practice the invention, and it is to be understood that other embodiments may be utilized and that structural, logical, software, and electrical changes may be made without departing from the scope of the present invention. The following description is, therefore, not to be taken in a limited sense.

[0029] It should also be noted that, as used herein, the terms "an embodiment", "embodiment", "embodiments", "the embodiment", "the embodiments", "one or more embodiments", "some embodiments", and "one embodiment" mean "one or more embodiments" unless expressly specified otherwise. Further, although particular features of the present invention may be described with reference to one or more particular embodiments or figures, it should be understood that such features are not limited to usage in the one or more particular embodiments or figures with reference to which they are described.

[0030] Embodiments of the present invention will first be introduced by means of the various devices that may be used in practicing the present invention. Exemplary data structures illustrating tables that may be used when practicing embodiments of the present invention will then be described, followed by a description of various processes that exemplify methods of the present invention and that may use the exemplary tables and be carried out by the various devices.

[0031] Devices

[0032] Referring now to **FIG. 1**, illustrated therein is a front planar view of an embodiment **100** of a slot machine in accordance with one or more embodiments of the present invention.

[0033] The slot machine **100** comprises an upper light **110**. The light **100** may be used, for example, to inform casino employees or other persons that a jackpot has been won at the slot machine **100** or that change is needed at the slot machine **100**.

[0034] The slot machine **100** further comprises an upper portion **115** that may be used to display a payout schedule for one or more games playable on the slot machine **100**. The upper portion **115** may comprise an electronic display that may be updated based on a signal from a processor or static information painted on glass or another surface.