

[0051] In use, when a predetermined trigger condition occurs, at least one image 52 is displayed on the LCD 50. The image 52 may be related to the underlying base game which uses the symbol carrying arrangement 16. For example, as shown in FIGS. 6 and 7 of the drawings, when a particular trigger condition occurs in the base game, a "wild card" symbol 54 is displayed on the LCD 50, overlying one of the symbol positions on one of the reels 18. When the reels 18 stop spinning, the symbol 54 substitutes for the underlying symbol on the relevant reel 18. In the example shown in FIG. 6 of the drawings, the symbol 54 is transparent so that the underlying reel symbol is visible through the symbol 54. In the example shown in FIG. 7 of the drawings, the symbol 54 is opaque so that the underlying reel symbol position is covered and is hidden by the symbol 54 on the LCD 50. It will be appreciated that the above-described example could apply to a base game and/or to a special feature game.

[0052] In addition, the LCD 50 can be used for displaying messages as an attracting unit for attracting patrons to the machine 10. Further, the LCD 50 can be used for a second screen feature which is triggered when a trigger condition is spun up on the reels 18 of the symbol carrying arrangement 16. Still further, the LCD 50 could be used to carry advertising material which may be displayed when a game is not being played or could also be displayed while a game is being played.

[0053] If desired, the image 52 carried on the LCD 50 could overlie one of the symbol positions on one of the reels 18 to create a three-dimensional effect. Then, the controller 44 may be operable to vary "camera angles" and to provide a "zooming in or out effect" to enhance the three-dimensional effect.

[0054] Referring to FIG. 8 of the drawings, a display 14, in accordance with a second embodiment of the invention is illustrated. With reference to the previous drawings, like reference numerals refer to like parts, unless otherwise specified.

[0055] The LCD 50 is a multi-layered structure overlying the symbol carrying arrangement 16.

[0056] For this purpose, the display 14 includes a monitor housing 60 which, in use, is secured to a door 62 (FIG. 1) of the gaming machine 10. The monitor housing 60 defines a plurality of apertures or openings 64. Each opening 64 of the monitor housing 60 is associated with one of the reels 18 of the symbol carrying arrangement 16.

[0057] The monitor housing further defines a recessed region 66 within which the LCD 50 is received.

[0058] The LCD 50 is a multi-layered structure and includes a glass panel LCD monitor 68. A user interface in the form of a touchscreen 70 is superimposed on the monitor 68.

[0059] The monitor 68 and the touchscreen 70 are connected via connectors 72, 74, respectively, to the controller 42 of the gaming machine 10.

[0060] The touchscreen 70 employs surface acoustic wave technology. Frets bound the touchscreen 70 and discern energy field disturbances. These disturbances are interpreted by the frets as decisions made coincident with touching the touchscreen 70 and the position at which the touchscreen 70 was touched.

[0061] The LCD 50 include a shutter mechanism 76 interposed between the monitor 68 and the monitor housing 60. The shutter mechanism 76 has zones or regions 78 which, in use, lie in register with the openings 64 in the monitor housing 60 and, accordingly, in register with those parts of the peripheries of the reels 18 visible through the openings 64.

[0062] At least the zones 78 of the shutter mechanism 76 are formed from a material responsive to varying energy levels. In particular, the zones 78 are formed from nematic curvilinear aligned phase (NCAP) liquid crystals.

[0063] Upon the application of appropriate energy levels, these NCAP crystals either render the zones 78 optically transparent allowing visual access to the parts of the reels 18 visible through the openings 64 in the monitor housing 60 or can be rendered opaque to form a background shutter for the LCD monitor 68 allowing the LCD monitor 68 to carry images with the reels 18 being hidden. In addition, the varying of the energy levels applied to the zones 78 of the shutter mechanism 76 allows varying degrees of transparency of those zones 78 to be achieved. The zones 78 of the shutter mechanism 76 are controlled by the controller 42 of the gaming machine 10 via a connector 80.

[0064] While it is envisaged that all of the zones 78 will operate in concert, it is also contemplated that the zones 78 could be independently addressable such as when a bonus round uses one or more of the reels 18 in the bonus event.

[0065] As a consequence, a gaming machine 10 is provided which includes a first display, being the symbol carrying arrangement 16, which can be selectively occluded by the second display being the LCD 50. The net effect is that a plurality of displays are stacked along a single visual path which reduces a visual footprint required to provide such plurality of displays. This also frees other areas of the cabinet 12 of the gaming machine 10 for other devices, artwork, or the like.

[0066] The visual impact imparted by the LCD 50 is enhanced by an illuminating layer in the form of a backlighting arrangement 82. The backlighting arrangement 82 includes a transparent panel 84 of a synthetic plastics material which, conveniently, is interposed between the monitor 68 and the shutter mechanism 76. The panel 84 supports a pair of opposed illuminating elements 86. The elements 86 can, for example, be in the form of fluorescent lamps. Additionally, illuminating elements (not shown) can be incorporated in the reels 18 for further visual enhancement.

[0067] With the provision of the display 14, it is possible for game play to be effected using the LCD 50 alone, the symbol carrying arrangement 16 on its own or both the LCD 50 and the symbol carrying arrangement 16. It is also contemplated that more than one LCD 50 could be incorporated in the display 14 with second and subsequent LCD's overlying the first LCD 50 of the display 14 in the same visual footprint.

[0068] Accordingly, it is an advantage of the invention that a gaming machine 10 is provided which has an enhanced display 14 in comparison with other gaming machines, in particular, those using mechanical reels 18 or other mechanical game playing arrangements such as pachinko machines, or the like.