

[0012] FIG. 2a is a perspective view of a gaming machine having a volumetric display displaying a basic game in accordance with an embodiment of the present invention;

[0013] FIG. 2b is an exploded diagram of a volumetric display suitable for use in a gaming machine according to an embodiment of the present invention;

[0014] FIG. 2c is an illustration of the volumetric display shown in FIG. 2a displaying a plurality of reel symbols spinning in a horizontal direction;

[0015] FIG. 2d is an illustration of a volumetric display displaying a plurality of reel symbols spinning in a vertical direction;

[0016] FIG. 2e is an illustration of a volumetric display displaying a plurality of reel symbols spinning in random directions;

[0017] FIG. 2f is an illustration of a volumetric display displaying a pay line and a plurality of reel symbols at rest;

[0018] FIG. 3 is a perspective view of a gaming machine having a volumetric display displaying a bonus game in accordance with a specific embodiment of the present invention;

[0019] FIG. 4 is a perspective view of a gaming machine having a 360 degree display displaying a bonus game in accordance with an embodiment of the present invention;

[0020] FIG. 5 is a perspective view of the 360 degree display shown in FIG. 4;

[0021] FIG. 6a is an illustration of a 360 degree display displaying image elements on to a bonus game moving in a horizontal direction;

[0022] FIG. 6b is an illustration of a 360 degree display displaying a multiplier feature of a gaming machine according to an embodiment of the present invention;

[0023] FIG. 7 is a perspective view of a two-player gaming machine with a 360 degree display according to an embodiment of the present invention; is FIG. 8 is a perspective view of a two-player gaming machine with a 360 degree display mounted horizontally to simulate spinning reels in a basic game;

[0024] FIG. 9a is a perspective view of a four-player gaming machine including a 360 degree display divided into quadrants and displaying a basic game according to an embodiment of the present invention;

[0025] FIG. 9b is a diagram showing the positions of the four player stations shown in FIG. 9a relative to the 360 degree display;

[0026] FIG. 10 is a front view of a gaming machine with a persistence-of-vision (POV) display displaying a scrolling indicia feature;

[0027] FIG. 11a is an illustration of part of the gaming machine shown in FIG. 10 showing a POV wand at rest according to an embodiment of the present invention;

[0028] FIG. 11b is an illustration showing the POV wand shown in FIG. 11a in a cyclical motion;

[0029] FIG. 11c is an illustration showing the POV wand of FIG. 11a simulating an image by rapidly moving back and forth; FIG. 12a is an illustration of part of the gaming

machine shown in FIG. 10 showing a POV hoop at rest according to an embodiment of the present invention;

[0030] FIG. 12b is an illustration of the POV hoop shown in FIG. 12a spinning about an axis;

[0031] FIG. 12c is an illustration of the POV hoop shown in FIG. 12a simulating an image by rapidly spinning about an axis;

[0032] FIG. 13 is an exploded view of part of a multi-layer display which is used in a gaming machine according to the present invention;

[0033] FIG. 14a is an exploded functional diagram of the primary components of a holographic display used in a gaming machine according to an embodiment of the present invention;

[0034] FIG. 14b is an exploded functional diagram of the primary components of a holographic display used in a gaming machine in accordance with another embodiment of the present invention;

[0035] FIG. 15 is a perspective view of a gaming machine having a holographic display displaying a bonus game to a player according to an embodiment of the present invention;

[0036] FIG. 16a is a diagrammatic sketch of an autostereoscopic lenticular display having cylindrical lenslets used in a gaming machine according to an embodiment of the present invention;

[0037] FIG. 16b is a diagrammatic sketch of an autostereoscopic lenticular display having spherical lenslets used in a gaming machine according to another embodiment of the present invention;

[0038] FIG. 17a is a diagrammatic sketch of an autostereoscopic display employing light lines used in a gaming machine of the present invention; and

[0039] FIG. 17b is a top view of part of the autostereoscopic display employing light lines shown in FIG. 17a.

[0040] While the invention is susceptible to various modifications and alternative forms, specific embodiments have been shown by way of example in the drawings and will be described in detail herein. It should be understood, however, that the invention is not intended to be limited to the particular forms disclosed. Rather, the invention is to cover all modifications, equivalents, and alternatives falling within the spirit and scope of the invention as defined by the appended claims.

DESCRIPTION OF ILLUSTRATIVE EMBODIMENTS

[0041] The art of gaming machines and in particular video-based gaming machines continues to develop. The advent of display technologies which exploit a phenomenon known as "persistence of vision" and which are capable of displaying true 3D images or virtual 3D images brings exciting new possibilities to the art of gaming machines. The present invention is directed to incorporating these display technologies into a gaming machine to create a visually stunning environment which attracts frequent game play. These display technologies broadly fall into one of two categories.