the middle portion may, for example, be three such that, at any given moment, the display **1002** generally depicts a total of thirteen elements consisting of the three middle elements and a set of five elements on each side of the three middle elements.

[**0101**] In the illustrated embodiment, the middle portion is shown as a box with a set of three elements on each side of the three middle elements inside the box (shown as numbers **3**, **8**, and **2**), for a total of nine elements **1006**. The elements in the middle portion also appear to be larger than the other elements not in the middle portion. Note that fewer or more than three elements may appear in the middle portion.

[**0102**] The sequence of elements **1006** may be scrolled across the display **1002** in a linear or curvilinear manner. If scrolled in a linear manner as illustrated, the sequence of elements **1006** may be scrolled horizontally as illustrated, vertically, diagonally, or some other direction or combination of directions. Furthermore, if the display **1002** is a 3D display or a volumetric 3D display, for example, the sequence of elements **1006** may be scrolled in any conceivable manner in a spatial volume.

[**0103**] The scrolling indicia feature provides an award based on the portion of the sequence that is displayed differently (e.g., larger and a different color) when the scrolling stops. The sequence of elements **1006** preferably scrolls across the display **1002** for one or more iterations of the sequence so that each element of the sequence appears at least once on the display **1002**. For the sake of simplicity of explanation, however, suppose the scrolling stops with the three digits, "3 8 2", in **FIG. 10** yielding the award. If the elements **1006** are digits as illustrated, the award may be based on a multi-digit number formed by the middle three digits and, more specifically, may be a credit amount (e.g., 382 credits) corresponding to this number. Alternatively, the award may be based on an arithmetic expression including the middle three digits, such as addition of the digits (e.g., 13 credits=3+8+2) or multiplication of the digits (e.g., 48 credits=3×8×2). In another alternative embodiment, arithmetic symbols such as +, −, and × are interleaved between the digits and the award is based on the result of the arithmetic expression (e.g., 26 credits=3×8+2).

[**0104**] The rate at which the sequence of elements **1006** scrolls across the display **1002** may be controlled to create a sense of anticipation and excitement. For example, the rate of scrolling may be gradually increased to a fixed velocity, maintained at the fixed speed for a few seconds, and then gradually decreased until stopping the scrolling altogether. Alternatively, the rate of scrolling may fluctuate several times between increasing and decreasing to further tease the player.

[**0105**] It should be understood that although the scrolling indicia feature has been described herein in connection with **FIG. 10**, the scrolling indicia feature may be employed in connection with any gaming machine described in connection with any embodiment herein.

[**0106**] **FIGS. 11***a* through **11***c* illustrate a rapidly moving structure **1102** in action. A top box portion of a gaming machine **1100** is shown with a rapidly moving structure **1102** mounted as shown. The rapidly moving structure **1102** has a wand shape and moves rapidly back and forth in a cyclical fashion across the top of the gaming machine **1100** as shown in **FIG. 11***b*. As the lighting elements on the rapidly moving structure **1102** are selectively illuminated, an image appears as shown in **FIG. 11***c*.

[**0107**] As mentioned above, the rapidly moving structure may be in the shape of a hoop, which may be ovular, circular, or polygonal, incorporating lighting elements about its periphery. There may be one or more hoops assembled together which rotate rapidly about an axis.

[**0108**] A hoop-shaped rapidly moving structure may be incorporated into the top box of a gaming machine or may be used as the secondary display. Like the wand, the hoop is translucent when in motion, permitting objects to be placed inside of the hoop. For example, a moving pointer is placed inside of the hoop to interact with animated images outside of the hoop. Alternately, a spinning mechanical reel may be placed within the hoop. The text or animations displayed by the hoop modify values or results that appear when the mechanical reel stops.

[**0109**] **FIGS. 12***a* through **12***c* illustrate a hoop-shaped rapidly moving structure **1202** in varying degrees of movement. In **FIG. 12***a,* the rapidly moving structure **1202** is shown at rest atop a top box portion of a gaming machine **1200** which includes a secondary display **1204**. In **FIG. 12***b,* the rapidly moving structure **1202** is set into a circular motion about its axis in direction **1204**, which is illustrated for ease of discussion. At the same time, the lighting elements disposed about the periphery of the rapidly moving structure **1202** are selectively turned on and off through software until the desired imagery is displayed, such as that shown in **FIG. 12***c*. Here, the visual effect of the hoop-shaped rapidly moving structure **1202** is nearly the same as the visual effect of the wand-shaped rapidly moving structure **1102**, except that the numbers centrally displayed by the hoop-shaped rapidly moving structure **1202** will appear to be closer to the player than the numbers peripherally displayed. That is, the centrally displayed numbers will appear to "curve" toward the viewer. Note that a similar effect is obtainable using a wand-shaped rapidly moving structure by moving it in a circular path.

III. Gaming Machine Including a 3D Display

[**0110**] A. True 3D Displays

[**0111**] a. Volumetric 3D Display

[**0112**] The second category of displays is referred to herein as 3D displays. True 3D displays display imagery that fills a spatial volume and each unit or element in that volume is called a voxel. One such true 3D display is the volumetric 3D display shown and described in connection with **FIGS. 2***a*-**3**.

[**0113**] b. Multi-Layer Display

[**0114**] Another type of true 3D display is a multi-layer display **1300** shown in **FIG. 13** in an exploded view. The multi-layer display **1300** includes a first display layer **1302** and a second display layer **1304** each of which are sufficiently transparent to permit the second display layer **1304** to be visible through the first display layer **1302**. In an embodiment, the first and second display layers **1302**, **1304** are of the color, active matrix, liquid crystal type. The desert scene depicted in the gaming machines shown in FIGS. **4**-**7** includes foreground elements **1306***a,b,c* displayed on the