

sive display device, and provides light to the proximate display device, which then filters the light to create an image. For example, a flat OLED or plasma display device **18c** may be used to a) produce an image and b) to emit light that is filtered by LCD panels **18a** and **18b**. In this case, the distal and emissive display device emits at least some white light. For example, video output of one or more reels may include significant white light that is also used to illuminate one or more LCD panels for pixelated filtering. In another embodiment, the proximate LCD panels use reflective light where the light comes from in front of the gaming machine, e.g., from the ambient room. As one of skill in the art will appreciate, more light is needed as the number of reflective or non-emissive light filter-type display device increases, e.g., from 1 to 2 pixelated LCD panels **18a** and **18b**.

[0046] The proximate display devices **18a** and **18b** each have the capacity to be partially or completely transparent or translucent. In a specific embodiment, the relatively flat and thin display devices **18a** and **18b** are liquid crystal display devices (LCDs). Other display technologies are also suitable for use. Various companies have developed relatively flat display devices that have the capacity to be transparent or translucent. One such company is Uni-Pixel Displays, Inc., Inc. of Houston Tex., which sells display screens that employ time multiplex optical shutter (TMOS) technology. This TMOS display technology includes: (a) selectively controlled pixels that shutter light out of a light guidance substrate by violating the light guidance conditions of the substrate and (b) a system for repeatedly causing such violation in a time multiplex fashion. The display screens that embody TMOS technology are inherently transparent and they can be switched to display colors in any pixel area. A transparent OLED may also be used. An electroluminescent display is also suitable for use with proximate display devices **18a** and **18b**. Also, Planar Systems Inc. of Beaverton, Oreg. and Samsung of Korea, both produce several display devices that are suitable for use herein and that can be translucent or transparent. Kent Displays Inc. of Kent, Ohio also produces Cholesteric LCD display devices that operate as a light valve and/or a monochrome LCD panel.

[0047] FIG. 1B shows a display device arrangement suitable for use with a gaming machine in accordance with another embodiment of the present invention. In this arrangement, a touchscreen **16** is arranged in front of an exterior LCD panel **18a**, an intermediate light valve **18e** and a display device **18d** with a curved surface. A common line of sight **20** passes through all four layered devices.

[0048] Light valve **18e** selectively permits light to pass therethrough in response to a control signal. Various devices may be utilized for the light valve **18e**, including, but not limited to, suspended particle devices (SPD), Cholesteric LCD devices, electrochromic devices, polymer dispersed liquid crystal (PDLC) devices, etc. Light valve **18e** switches between being transparent, and being opaque (or translucent), depending on a received control signal. For example, SPDs and PDLC devices become transparent when applied with a current and become opaque or translucent when little or no current is applied. On the other hand, electrochromic devices become opaque when applied with a current, and transparent when little or no current is applied. Additionally, light valve **18e** may attain varying levels of translucency and opaqueness. For example, while a PDLC device is generally either transparent or opaque, suspended particle devices and

electrochromic devices allow for varying degrees of transparency, opaqueness or translucency, depending on the applied current level. Further description of a light valve suitable for use herein is described in commonly owned and co-pending patent application Ser. No. 10/755,657 and entitled "METHOD AND APPARATUS FOR USING A LIGHT VALVE TO REDUCE THE VISIBILITY OF AN OBJECT WITHIN A GAMING APPARATUS", which is incorporated herein by reference in its entirety for all purposes.

[0049] In one embodiment, the gaming machine includes a touchscreen **16** disposed outside the exterior display device **18a**. Touchscreen **16** detects and senses pressure, and in some cases varying degrees of pressure, applied by a person to the touchscreen **16**. Touchscreen **16** may include a capacitive, resistive, acoustic or other pressure sensitive technology. Electrical communication between touchscreen **16** and the gaming machine processor enable the processor to detect a player pressing on an area of the display screen (and, for some touchscreens, how hard a player is pushing on a particular area of the display screen). Using one or more programs stored within memory of the gaming machine, the processor enables a player to activate game elements or functions by applying pressure to certain portions of touchscreen **16**. Several vendors known to those of skill in the art produce a touchscreen suitable for use with a gaming machine.

[0050] As the term is used herein, a common line of sight refers to a straight line that intersects a portion of each display device. The line of sight is a geometric construct used herein for describing a spatial arrangement of display devices and need not be an actual line of some sort in the gaming machine. If all the proximate display devices are transparent along the line of sight, then a person should be able see all the display devices along the line of sight. Multiple lines of sight may also be present in many instances. As illustrated in FIG. 1B, one suitable arrangement includes screens for two display devices **18a** and **18d** that are intersectable by a common line of sight **20**.

[0051] Rear display device **18d** includes a digital display device with a curved surface that shows video data. A digital display device refers to a display device that is configured to receive and respond to a digital communication, e.g., from a processor or video card. Thus, OLED, LCD and projection type (LCD or DMD) devices are all examples of suitable digital display devices. E Ink Corporation of Cambridge, Mass. produces electronic ink displays that are suitable for use in rear display device **18d**. Microscale container display devices, such as those produced SiPix of Fremont, Calif., are also suitable for use in rear display device **18d**. Several other suitable digital display devices are provided below.

[0052] One suitable curved digital display device includes a projector that casts an image onto a curved surface. Suitable projectors include LCD-type and DMD-type projectors, as available from a wide variety of vendors known to those of skill in the art. In this case, the curved surface includes a white screen or translucent material, such as plastic, curved to desired dimensions. In a specific embodiment, the curvature substantially resembles the curvature of traditional mechanical reels used in a slot machine. Another suitable curved digital display device includes a flexible organic light emitting diode (OLED). Many flexible OLEDs