

inherently configured storage medium **72** such as erasable programmable read-only memory (EPROM), random access memory (RAM) or equivalent for storing video in uncompressed or compressed formats commonly employed in the art and a video monitor **74** for displaying stored video footage, as shown in FIG. 4. Suitable video monitors for this application may comprise of the type known in the art as a cathode ray tube (CRT) display, light emitting diode (LED) display, a liquid crystal display (LCD), plasma, or any other suitable display technology, substantially as configured in FIG. 5. A suitable video playback card **70** for this application which incorporates inherently configured storage medium **72** and controller functionality may be of the type commonly used in a standard consumer computer such those manufactured by Nvidia Corporation of Santa Clara, Calif. In other configurations, a consumer-based video playback device **76** may be utilized in lieu of the video playback card for continuous viewing of video footage stored on such formats as magnetic tape, compact disc, digital video discs (DVDs), or other storage media appreciably known in the art, particularly on video playback devices of the type manufactured by Panasonic Company of Osaka, Japan and Sony Corporation of Tokyo, Japan, for example. In either one of the two arrangements noted above for video playback, activation of the requisite components for video playback means **68** may occur upon first recognition of acceptable forms of currency by the bill validator **46** for which permits activation of the spin switch **30** by the operator to commence operation of the memento dispensing device **10** and continues to operate for a predetermined period of time after consummating the memento sales transaction. In other activation states, video playback means **68** may occur for a timed interval without the requisite payment of currency by the operator, such as in the instance of utilizing the consumer-based video playback device **76**, which may be appropriately configured for continuous playback of video and manually controlled of its operation by personnel of the establishment for an allotted time interval rather than by process controller means **34**. Audio transmission from such configuration may depend on speakers **78** coupled to appropriately configured outputs emanating from the consumer-based video playback device **76**, which collectively operate independent of the circuitry for process controller means and are housed within the cabinet **12**, substantially as shown in FIG. 5. Other video playback means **68**, substantially similar to that incorporating a consumer-based video playback device, include an all-in-one digital display device **80** housed within an upper portion **82** of the cabinet, preferably comprising a microcontroller **84** coupled to a display monitor **86** in the form of LCD or equivalent display technology, an amplifier **88** and a digital/analog converter **90** for accepting and converting an audio signal for output to speakers **92**, a memory card reader **94** capable of accessing and reading stored media on a compact flash card, including JPEG, MP3, MPEG 1, and MPEG2 formats, and a hard drive **96**, as substantially shown in FIG. 6. One such device suited for this application and incorporating the above featured components is Model LM1530 as specifically manufactured by Caltron Industries, Inc. of Fremont, Calif. Means available for activating the all-in-one digital display device **80** may comprise of an onboard switch **98** locally operated thereat, a remote control transmitter **100** capable of transmitting infrared (IR) signals to a receiver **102** coupled to the microcontroller **84**, or a motion sensor IR **104**. Conditions

for operation of the all-in-one digital display may occur similarly to that described for the available means for video playback noted above, with exception where the motion sensor IR activates the all-in-one digital display device **80** in the presence and movement of an object, such as a person.

[0044] In addition to the available means for video playback as noted above, the memento dispensing device **10**, as shown in FIG. 7, further comprises means for producing digitally enhanced sound **106** from a sound generator **108** communicatively coupled to process controller means **34**. Sound may emanate from a plurality of speakers **110** housed within the cabinet **12** at predetermined, timed events, such as upon the insertion of an appropriate denomination of currency in the currency acceptor **44**, upon activation or stopping of the reel wheels **18**, or upon dispensing a memento from the memento bin or hopper assembly **56**. In the preferred embodiment of the present invention, process controller means **34** is coupled to a register orientated programmable sound generator **112**, particularly bearing an integrated circuit capable of producing a wide variety of complex sounds under software control and comprising onboard memory **112a**. In an alternative arrangement, as depicted in FIG. 8, the programmable sound generator may be configured with and supplementally controlled by a dedicated sound microcontroller **114** to alleviate computational activity of process controller means, primarily to ensure uninterrupted operation and control of other operative functions of the present invention, notably in the instance where the application program executes commands for starting and stopping the rotation of the reel wheels **18**. A sound microcontroller suited for this particular purpose, specifically directed to sound production, may comprise of the type manufactured by General Instrument Corporation, noted herein as 16-bit based models CP1600/1610. Analog signal outputs from the programmable sound generator **112** are preferably coupled to an audio power amplifier **116** having a moderate supply voltage range of 8 to 22, such as model LM380 manufactured and offered by National Semiconductor Corporation of Santa Clara, Calif. Output of the audio signal as produced from the sound generator **112** is made possible by coupling the audio power amplifier outputs with an equal number of speakers **110** operating within a compatible, conforming impedance range.

[0045] FIG. 9 is a block diagram which schematically illustrates the methodology and arrangement of the logic circuitry that contains process controller means **34** for selectively controlling operation of the memento dispensing device **10** and peripheral components connectively coupled thereto, such as those components operably dedicated in setting in motion the reel wheels **18** each bearing images or symbols housed within the cabinet **12**. Process controller means preferably comprises a main microcontroller **118** that executes control operations according to a preset application program, a resident memory module **120** for storing the application program, and a random access memory (RAM) module **122** suitably serving as system memory for temporary storage of input and output data accumulated during operation and operating histories, for example. Microcontrollers most suited for this application include the 68000 series manufactured by Motorola Corporation of Schaumburg, Ill. and the 8051 series manufactured by the Intel Corporation of Santa Clara, Calif. and Dallas Semiconductor of Dallas, Tex. It is noted herein that other microcontrollers **118** may equally be suited for this application providing they