1, or the pill dispenser **69** may be a standalone device. The pill dispenser **74** may use or include the system **32** of FIG. **3**, in some embodiments.

[0230] The pill dispenser **74** includes a touch screen **75** that is coupled to a door **76** that swings open so that cartridges **78** may be inserted. The touch screen **75** may be used to dispense one or more pills into a receptacle **79**. The pill dispenser **74** may also include a plurality of viewing windows **77** that display one or more pills of the one or more pill cartridges **78**.

[0231] FIG. **8** shows a pill dispenser **80** having a plurality of vertical windows **82** below a touch screen **83** and an elongated receptacle **81** in accordance with an additional embodiment of the present disclosure. The pill dispenser **80** may be used in addition to and/or in place of the pill dispenser **10** with system **1** of FIG. **1**, or the pill dispenser **80** may be a standalone device. The pill dispenser **80** may use the system **32**, in some embodiments.

[0232] The pill dispenser **80** includes a touch screen **83** disposed on a door **84**. There is a plurality of viewing windows **82** to view one or more pills. The pills may be dispensed by pressing the dispense button **85**. The pills may be dispensed into the receptacle **81**.

[0233] FIG. **9** shows a pill dispenser **86** having a dispensing mechanism that dispenses one or more cartridges **90** in accordance with an embodiment of the present disclosure. The pill dispenser **86** may be used in addition to and/or in place of the pill dispenser **10** with system **1** of FIG. **1**, or the pill dispenser **86** may be a standalone device. The pill dispenser **86** may use or include the system **32** of FIG. **3** in some embodiments.

[0234] The pill dispenser **86** includes a touch screen **87** and openings **88** and **89**. The pill dispenser **86** may dispense a cartridge **91** out the opening **89** which may then be used and disposed back in to the opening **88**. The cartridge **91** may include a snap-on lid coupled to the rest of the cartridge **91** through a living hinge. There may be a camera disposed within the housing of the pill dispenser **86** (e.g., inside, but above, the opening **88** to view the contents of the cartridge **91** when inserted into the opening **88**) to determine compliance. FIG. **9** shows a stack of cartridges **90** including the cartridge **91**. The pill dispenser **86** may be returned to a pharmacy for refilling. The pill cartridges **90** may be sterilized and/or washed and reused.

[0235] FIG. **11** shows a pill dispenser **92** having a secondary housing **95** along a side thereof in accordance with an embodiment of the present disclosure. The secondary housing **95** may house one or more pill cartridges **96**. The secondary housing **95** may be attachable to and/or detachable from the primary housing **99**. The pill dispenser **92** may be used in addition to and/or in place of the pill dispenser **10** with system **1** of FIG. **1**, or the pill dispenser **92** may be a standalone device. The pill dispenser **92** may use or include the system **32** of FIG. **3**, in some embodiments.

[0236] The pill dispenser **92** includes a speaker **94**, a microphone **95**, and a touch screen **93** to dispense a pill. The pills are dispensed from one or more cartridges **96** which are dropped into a cup **98** of a receptacle **97**. The pill-dispensing mechanism may be within the primary housing **99**, in the secondary housing **95**, or may be distributed between of the housings **95** and **99**.

[0237] FIG. **12** shows a pill dispenser **100** having a housing **101** coupled to the cartridge **102** and in sliding engagement with the cartridge **102** in accordance with an embodiment of the present disclosure. The pill dispenser **100** may be used in addition to and/or in place of the pill dispenser **10** with system **1** of FIG. **1**, or the pill dispenser **100** may be a standalone device. The pill dispenser **100** may use or include the system **32** of FIG. **3**, in some embodiments.

[0238] The housing **101** includes a touch screen **103** and a dispense button **104** coupled thereto. The pill cartridge **102** includes a viewing window **105** showing the pills. The housing **101** may slide such that an internal pill-dispensing mechanism may grab the pills stacked vertically and dispense the pills into the receptacle **106**.

[0239] FIG. **13** shows a pill dispenser **107** having a sliding-door **110** for receiving the pill in accordance with an embodiment of the present disclosure. The pill dispenser **107** may be used in addition to and/or in place of the pill dispenser **10** with system **1** of FIG. **1**, or the pill dispenser **107** may be a standalone device. The pill dispenser **107** may use or include the system **32** of FIG. **3**, in some embodiments. The pill dispenser **107** includes a touch screen **108** and a dispense button **109**. The door **110** can be opened by the knob **111** to dispense a pill.

[0240] FIGS. **14**A-**14**B show a pill dispenser **112** capable of receiving pill bottles as pill cartridges in accordance with an embodiment of the present disclosure. FIG. **14**A shows a top view of the pill dispenser **112**, and FIG. **14**B shows a side view of the pill dispenser **112**. The pill dispenser **112** may be used in addition to and/or in place of the pill dispenser **10** with system **1** of FIG. **1**, or the pill dispenser **112** may be a standalone device. The pill dispenser **112** may use or include the system **32** of FIG. **3**, in some embodiments.

[0241] The pill dispenser **112** includes a plurality of recesses **113** each shaped to receive a pill bottle. The cap of a pill bottle may be taken off and the pill bottle may be placed upside down and inserted into one or the plurality of recesses **113** such that the pills are poured into the recess. The recesses **113**, in other embodiments, may include a snap-top door such that pills, e.g., a group for each day of scheduled pills to be taken, may be held within a recess of the plurality of recesses **13**. The pills are dispensed out of a trap door **130**. The pill-dispensing mechanism may be gumball-type pill dispensing mechanism.

[0242] The pill dispenser **112** also includes a touch screen **116**, an identifying camera **115**, and a pill-bottle identifying camera **114**. As mentioned, the pill bottle may be opened and placed up-side down into one of the recesses. A camera **114** can rotate around the pill dispenser **112** to capture one or more images of the labels of the pill bottles including dosage and scheduling information displayed in text or encoded thereon. In some specific embodiments, the rotation may be made by a circular track coupled to stepper motor such that a circular structure having the camera **114** rests on the circular track and the stepper motor rotates the circular structure along the track. The stepper motor may be controlled by the one or more processors **30** within the pill dispenser **112**.

[0243] The pill-bottle identifying camera **114** may use OCR or information encoded on a barcode to update a pill-dispensing schedule within a memory coupled to a processor **30** therein or to generate a pill-dispensing schedule including a dosage schedule. The pill-bottle identifying camera **114** may read instructions from the label of the pill bottle disposed on the pill dispenser **112**. The label information can be compared to a prescription stored in internal