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[Continued on next page]

(54) **Title:** MEDICAL DEVICE WITH CONTEXT-SPECIFIC INTERFACES

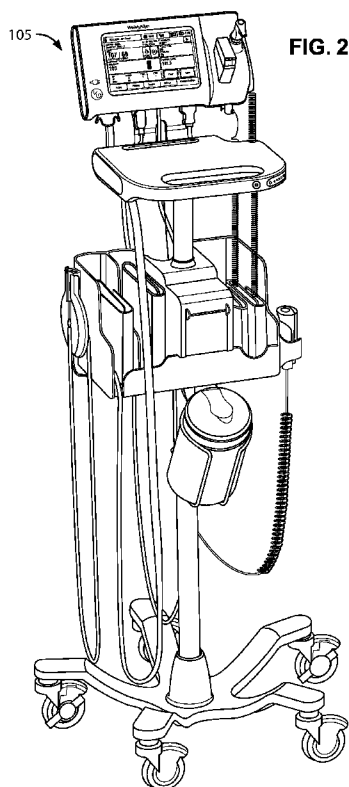


FIG. 2

(57) **Abstract:** A medical device includes: a processor; a display; and memory encoding instructions that, when executed by the processor, cause the processor to create an interface on the display, the interface including: a login area including one or more prompts for information identifying a user of the medical device; a profile selection area including two or more profiles offered by the device, wherein each of the profiles is a series of tasks to be performed by the medical device, and a description of each profile is provided in the profile selection area; a vital signs area programmed to display a plurality of vital signs associated with a patient; and an additional parameters area programmed to capture one or more additional parameters associated with the vital signs displayed in the vital signs area.



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MEDICAL DEVICE WITH CONTEXT-SPECIFIC INTERFACES

BACKGROUND

[0001] As the amount of information that is captured by a medical devices increase, the complexity of using the device also increases. Such use can be complicated by a failure to understand how the device is current configured to operate. Further, a user can be confused about what information is needed to complete a medical record. Such complexities can make the use of the medical device more difficult and undermine the efficiencies associated with the electronic capture and retention of medical data.

SUMMARY

[0002] In one aspect, a medical device includes: a processor; a display; and memory encoding instructions that, when executed by the processor, cause the processor to create an interface on the display, the interface including: a login area including one or more prompts for information identifying a user of the medical device; and a profile selection area including two or more profiles offered by the medical device, wherein each of the profiles is a series of tasks to be performed by the medical device, and a description of each profile is provided in the profile selection area.

[0003] In another aspect, a medical device includes: a processor; a display; and memory encoding instructions that, when executed by the processor, cause the processor to create an interface on the display, the interface including: a vital signs area programmed to display data associated with a plurality of vital signs for a patient; and an additional parameters area programmed to capture one or more additional parameters associated with the vital signs displayed in the vital signs area.

[0004] In yet another aspect, a medical device includes: a processor; a display; and memory encoding instructions that, when executed by the processor, cause the processor to create an interface on the display, the interface including: a login area including one or more prompts for information identifying a user of the medical device; a profile selection area including two or more profiles offered by the device, wherein each of the profiles is a series of tasks to be performed by the medical device, and a description of each profile is provided in the profile selection area; a vital signs area programmed to display a plurality of vital signs associated with

a patient; and an additional parameters area programmed to capture one or more additional parameters associated with the vital signs displayed in the vital signs area.

DESCRIPTION OF THE FIGURES

- [0005] Figure 1 illustrates a block diagram of a wireless ambulatory care system.
- [0006] Figure 2 illustrates an example medical device of the system of Figure 1.
- [0007] Figure 3 illustrates another example medical device of the system of Figure 1.
- [0008] Figure 4 illustrates an example login and profile selection interface for the medical device of Figure 3.
- [0009] Figure 4 illustrates another view of the interface of Figure 4.
- [0010] Figure 5 illustrates another view of the interface of Figure 4.
- [0011] Figure 6 illustrates another view of the interface of Figure 4.
- [0012] Figure 7 illustrates another view of the interface of Figure 4.
- [0013] Figure 8 illustrates an example vital signs interface for the medical device of Figure 3.
- [0014] Figure 9 illustrates an example interface for the medical device of Figure 3.
- [0015] Figure 10 illustrates another view of the interface of Figure 9.
- [0016] Figure 11 illustrates another view of the interface of Figure 9.
- [0017] Figure 12 illustrates another view of the interface of Figure 9.
- [0018] Figure 13 illustrates another view of the interface of Figure 9.
- [0019] Figure 14 illustrates another view of the interface of Figure 9.
- [0020] Figure 15 is a block diagram illustrating physical components of a computing device with which examples and embodiments of the disclosure can be practiced.

DETAILED DESCRIPTION

[0021] Examples of ambulatory care environments can include hospitals, clinics, managed care facilities, and other locations where medical care is provided. Medical personnel in ambulatory care environments can utilize vital signs monitoring devices, vital signs displays, personal computing devices and electronic medical record access portals. Medical staff and providers often need to record a patient's vital signs and enter those vital signs into the patient's electronic medical record. Currently, providers must perform vital signs measurements,

remember the measurements, and then enter those measurements into one or more computing devices which may or may not be directly linked to the patient's electronic medical record.

[0022] Figure 1 illustrates a block diagram of an example wireless ambulatory care network 100. The example network 100 includes medical devices 103 and 104, wireless computing devices 108 and 109, and communication network 110. In embodiments, the example network 100 can include more or fewer medical devices 103 and 104. In embodiments, the example network can include more or fewer wireless computing devices 108 and 109. The communication network 110 can be a wireless network, such as WiFi, Bluetooth, Zigbee, Ant, Z-Wave, etc.

[0023] In some embodiments, the one or more medical devices 103 and 104 can include one or more vital signs measurement components. For example, the medical devices 103 can include, for example, a thermometer, a heart rate monitor, a pulse oximeter, a non-invasive blood pressure monitor, and a respiration rate monitor. In embodiments, one or more vital signs measurement components are wirelessly linked to the medical devices 103 and 104 and can transmit measurements to the medical devices 103 and 104.

[0024] Example computing components of medical devices 103 and 104 are shown and described in more detail with reference to Figure 15, below.

[0025] In some embodiments, the one or more wireless computing devices 108 and 109 can be smart phones, tablet computers, personal digital assistants, laptop computers, and desktop computers, which can optionally be mounted on portable carts. Example computing components of the one or more wireless computing devices 108 and 109 are shown and described in more detail with reference to Figure 15, below. The use of less complicated wireless computing devices 108 and 109, such as heart rate monitors, pulse oximeters, etc., is also contemplated by this document.

[0026] Figure 2 illustrates one example of the medical device 105. The medical device 105 is shown on a mobile cart, and the medical device 105 is programmed to provide the functionalities described herein. The medical device 105 includes a user interface, such as a touch screen, and includes the ability to execute multiple workflows or profiles. In some embodiments, the medical devices 105 and 106 in Figures 2 and 3 are the medical device 103 or 104 shown in, and described with reference to, Figure 1. Other embodiments can include more or fewer components

than those shown in Figure 2, or include different components that accomplish the same or a similar function.

[0027] The medical device 105 is able to operate within one or more profiles. A profile is a series of one or more tasks that a user of the medical device 105 performs. When the medical device 105 operates within a profile, the medical device 105 provides functionality suitable for assisting the user in performing the profile. When the medical device 105 operates within different profiles, the medical device 105 provides different functionality.

[0028] When the medical device 105 is manufactured, the medical device 105 is configured to be able to operate within one or more profiles. After the medical device 105 is manufactured, the medical device 105 can be reconfigured to operate within one or more additional profiles. In this way, a user can adapt the medical device 105 for use in different profiles as needed.

[0029] In various embodiments, the medical device 105 operates within various profiles. For example, in some embodiments, the medical device 105 can operate within a monitoring profile or a non-monitoring profile. Example types of non-monitoring profiles include, but are not limited to, a spot check profile and an office profile. An example of a monitoring profile includes, but is not limited to, an intervals profile.

[0030] An additional example of the medical device 106 is shown in Figure 3. In this example, the medical device 106 is similar to that of the medical device 105 described above. In embodiments, the medical device 106 is mounted on a wall. The medical device 106 is programmed in a manner similar to that described above to monitor physiological parameters of a patient. In some embodiments, the medical device 106 is a stand-alone device, which can mean that is not part of a mobile cart and it is not part of a wall-mounted station.

[0031] In the examples described herein, the medical devices 104, 105, 106 are computing devices that have been programmed to perform special, complex functions. These specially-programmed devices function to manipulate and provide data to the users in an improved form factor and with greater efficiency.

[0032] For example, as described further below, the medical devices 104, 105, 106 are specially programmed to provide the user with an improved interface during initial use of the devices. This allows the user to more efficiently select a profile for controlling the functionality of the device.

[0033] In addition, the medical devices 104, 105, 106 are specially programmed to assist the users once vital signs information is captured from the patients. For example, the devices are programmed to more efficiently and easily capture additional contextual information that is needed when saving vital signs data to a permanent record, such as an EMR record. This is accomplished using an interface that is more intuitive and robust.

[0034] Referring now to Figures 4-8, an example interface 200 for allowing a user to login to and select a profile for the medical devices 104, 105, 106 is shown.

[0035] In Figure 4, the interface 200 includes a login area 202 and a profile selection area 204. The login area 202 collects information to assist in the identification of the user. This information includes a clinician identifier (ID) and a password. In other examples, different information can be collected, such as a user name or badge number. Any other identification information can also be captured as desired. The user can enter the identification information into the device using an input device such as a keyboard, touchscreen, mouse, scanner, etc.

[0036] Referring now to Figure 5, once the user's identification information (i.e., clinician ID and password) is provided, the device confirms the credentials. This can be completed locally (i.e., by the device itself) and/or by accessing information on the network 110.

[0037] In Figure 6, the user's identification information has been confirmed. At this point, the profile selection area 204 is now active. The profile selection area 204 generally provides information about the different profiles that can be implemented by the device. In the example given, the device can operate using one of three profiles: spot, office, or interval.

[0038] Each of the profiles includes a separate area 206, 208, 210 that allows for contextual information to be provided about that profile. For example, the spot area 206 includes the name of the profile and a description of what is accomplished using the profile. This description can include such information as: (i) data acquisition - what vital signs data is collected for the profile; (ii) data retention - how that vital signs data is stored, such as in duration; (iii) patient identification retention - how patient-specific information is retained by the device; etc. In some examples, the description is a textual string (e.g., a series of sentences and/or one or more paragraphs) that describe, in prose form, how the profile functions.

[0039] In this example, the spot profile is a non-monitoring profile, and the description can provide information to the user such as: a customized label describing the facility's preferred term for the workflow such as "Rounds", "Vitals", "Observations", a customized description

such as, “For single-reading use on multiple patients,” or “Multiple patients per round”, and a customized icon to provide visual recognition of the workflow. Similar language can be provided in the office area 208 (e.g., a customized label describing the facility’s preferred term for the workflow such as “Vitals”, “Exams”, or “Readings”, a customized description such as, “For use on routine exams”, and a customized icon to provide visual recognition of the workflow) and interval area 210 (e.g., a customized label describing the facility’s preferred term for the workflow such as “Interval Monitoring”, “Intervals”, “Bedside Observations”, a customized description such as, “For multiple readings on single patients” or “Single patient monitoring”, and a customized icon to provide visual recognition of the workflow) to allow the user to make an educated decision on how to configure the device before the device is used. The user can select one of the areas 206, 208, 210 as desired using an input device (e.g., keyboard, mouse or touch) to start the device in that profile.

[0040] In Figure 7, once the profile is selected, the user must identify the patient. In this example, a box 211 is presented to the user, and the user can identify the patient using various methods, such as by scanning a patient identification tag.

[0041] Once the profile is selected and the patient is identified, the user is provided with an interface 220, as shown in Figure 8. This interface 220 can be used to capture vital signs information, such as that shown in Figures 2-3.

[0042] In the example shown, more or fewer profile areas can be shown. In some embodiments, the profile areas are configurable depending on the type of device and/or the type of use for the device. For example, a particular facility (e.g., hospital or clinic) can tailor the profiles to those used at that facility, as well as tailor the description of those profiles to use vernacular that is more easily understood at the given facility. In this manner, the user is provided with the relevant profiles, and each profile area provides additional context so that the user can make the proper selection of the desired profile before vital capture.

[0043] In the shown embodiment, the login area 202 includes a control (“Continue without login”) that allows a user to use the medical device without providing login credentials. Such functionality could be used, for example, in an emergency situation where the time required to provide those credentials could compromise patient health. However, if the medical device is accessed in this manner, some of the functionality of the medical device can be limited or otherwise modified. For example, the medical device may not allow any vital signs data to be

recorded to an EMR until the user provides the necessary credentials. Other configurations are possible.

[0044] Referring now to Figures 9-14, an example interface 320 for capturing additional data upon saving of vital signs information by the medical devices 104, 105, 106 is shown. In these examples, the additional data can include parameters associated with the vitals data that is collected and stored by the medical device. Examples of this data include inputs for text, integers, decimals, lists, and modifiers (a custom input becomes a modifier if an association is established between the input and a parameter on the device during configuration). All custom inputs can have input ranges specified and validation rules established. Example custom inputs include, without limitation, Capillary Refill Time (CRT), Glucose, Glasgow Coma Score, Urine Output, Cuff Size, O2 Flow Rate, O2 concentration, Measurement Site, etc. The interface 320 allows for the sequential capture of this information in an easy-to-use and efficient manner.

[0045] At Figure 9, the interface 320 is shown displaying captured vital signs data, including NIBP, Pulse Rate, SpO2, and Temperature. As noted, these are only examples, and other vital signs data can also be captured and displayed. Once capture of the vital signs data is complete, the user selects a next button 328 to record the vital signs data to, for example, an EMR.

[0046] Figure 10 shows additional parameters areas 322, 324, 326 that are displayed when the user selects the next button 328 on the interface 320. These additional parameter areas 322, 324, 326 are used to capture further information that is needed when recording the vital signs data to the EMR.

[0047] For example, the additional parameter area 322 records an Early Warning Score for the patient. The user selects between Scores 1-3. The additional parameter areas 324, 326, capture other parameters, such as CRT, Pain, Respirations, White Cell Count, Respiratory Distress, and/or Conscious Level. While three additional parameters are shown, more or fewer can be captured. For example, the additional parameters that are obtained can be tailored to the vital signs information that is captured by the device and shown on the interface 320.

[0048] Once the user provides the information required in each of the additional parameters areas 322, 324, 326, the next button 328 become active, as shown in Figure 11. In this example, the user must provide each additional parameter or affirmatively skip one or more of the parameters (see Figure 14) before the next button 328 become active.

[0049] Once the next button 328 is selected, a summary of the additional parameters is provided to the user on an interface 332 at Figure 12. This allows the user to review the additional parameter information for accuracy. Assuming everything is correct, the user can select the button 330 to store the additional parameters.

[0050] At Figure 13, the interface 320 is again shown. In this context, the next button 328 is removed, and a save button 342 is provided. Once selected by the user, the save button 342 causes the vital signs data and additional parameters to be saved, for example, locally and/or to an EMR record across the network 110.

[0051] Referring again to Figures 10-11, the additional parameter areas 322, 324, 326 can also include skip buttons that allow the user to avoid providing one or more of the additional parameters. If a skip button is pressed, the user is presented with an interface 350 shown in Figure 14. The example interface 350 indicates that the particular facility requires that the additional parameter be recorded. If the user selects the “OK” button, recordation of the parameter is overridden, and the override is recorded (e.g., such information as user name and time). If the user selects “Cancel”, the user has the opportunity to provide the additional parameter on the appropriate area 322, 324, 326.

[0052] In these examples, whether or not the additional parameters are required can be configured based upon device and/or facility preferences. For example, a facility can decide which additional parameters must be captured for certain vital signs data recordations. These parameters can be required before the user is allowed to record the information in the EMR. In other examples, the information can be recorded even if one or more of the additional parameters are skipped. Other configurations are possible.

[0053] Figure 15 is a block diagram illustrating physical components (i.e., hardware) of a computing device 1800 with which embodiments of the disclosure may be practiced. The computing device components described below may be suitable to act as the computing devices described above, such as wireless computing device and/or medical device of Figure 1. In a basic configuration, the computing device 1800 may include at least one processing unit 1802 and a system memory 1804. Depending on the configuration and type of computing device, the system memory 1804 may comprise, but is not limited to, volatile storage (e.g., random access memory), non-volatile storage (e.g., read-only memory), flash memory, or any combination of such memories. The system memory 1804 may include an operating system 1805 and one or more

program modules 1806 suitable for running software applications 1820. The operating system 1805, for example, may be suitable for controlling the operation of the computing device 1800. Furthermore, embodiments of the disclosure may be practiced in conjunction with a graphics library, other operating systems, or any other application program and is not limited to any particular application or system. This basic configuration is illustrated in Figure 15 by those components within a dashed line 1808. The computing device 1800 may have additional features or functionality. For example, the computing device 1800 may also include additional data storage devices (removable and/or non-removable) such as, for example, magnetic disks, optical disks, or tape. Such additional storage is illustrated in Figure 15 by a removable storage device 1809 and a non-removable storage device 1810.

[0054] Other program modules that may be used in accordance with embodiments of the present disclosure, and in particular to generate screen content, may include electronic mail and contacts applications, word processing applications, spreadsheet applications, database applications, slide presentation applications, drawing or computer-aided application programs, etc.

[0055] Furthermore, embodiments of the disclosure may be practiced in an electrical circuit comprising discrete electronic elements, packaged or integrated electronic chips containing logic gates, a circuit utilizing a microprocessor, or on a single chip containing electronic elements or microprocessors. For example, embodiments of the disclosure may be practiced via a system-on-a-chip (SOC) where each or many of the components illustrated in Figure 15 may be integrated onto a single integrated circuit. Such an SOC device may include one or more processing units, graphics units, communications units, system virtualization units and various application functionality all of which are integrated (or "burned") onto the chip substrate as a single integrated circuit. Embodiments of the disclosure may also be practiced using other technologies capable of performing logical operations such as, for example, AND, OR, and NOT, including but not limited to mechanical, optical, fluidic, and quantum technologies. In addition, embodiments of the disclosure may be practiced within a general purpose computer or in any other circuits or systems.

[0056] The computing device 1800 may also have one or more input device(s) 1812 such as a keyboard, a mouse, a pen, a sound or voice input device, a touch or swipe input device, etc. The output device(s) 1814 such as a display, speakers, a printer, etc. may also be included. The

aforementioned devices are examples and others may be used. The computing device 1800 may include one or more communication connections 1816 allowing communications with other computing devices 1818. Examples of suitable communication connections 1816 include, but are not limited to, RF transmitter, receiver, and/or transceiver circuitry; universal serial bus (USB), parallel, and/or serial ports. Additionally, the communication connections 1816 can include a Bluetooth Low Energy Radio.

[0057] The term computer readable media as used herein may include non-transitory computer storage media. Computer storage media may include volatile and nonvolatile, removable and non-removable media implemented in any method or technology for storage of information, such as computer readable instructions, data structures, or program modules. The system memory 1804, the removable storage device 1809, and the non-removable storage device 1810 are all computer storage media examples (i.e., memory storage.) Computer storage media may include RAM, ROM, electrically erasable read-only memory (EEPROM), flash memory or other memory technology, CD-ROM, digital versatile disks (DVD) or other optical storage, magnetic cassettes, magnetic tape, magnetic disk storage or other magnetic storage devices, or any other article of manufacture which can be used to store information and which can be accessed by the computing device 1800. Any such computer storage media may be part of the computing device 1800. Computer storage media does not include a carrier wave or other propagated or modulated data signal.

[0058] Communication media may be embodied by computer readable instructions, data structures, program modules, or other data in a modulated data signal, such as a carrier wave or other transport mechanism, and includes any information delivery media. The term "modulated data signal" may describe a signal that has one or more characteristics set or changed in such a manner as to encode information in the signal. By way of example, and not limitation, communication media may include wired media such as a wired network or direct-wired connection, and wireless media such as acoustic, radio frequency (RF), infrared, and other wireless media.

[0059] Embodiments of the present disclosure may be utilized in various distributed computing environments where tasks are performed by remote processing devices that are linked through a communications network in a distributed computing environment.

[0060] The logical flows depicted herein are just examples. There may be many variations to these diagrams or the steps (or operations) described therein without departing from the spirit of the disclosure. For instance, the steps may be performed in a differing order, or steps may be added, deleted or modified.

[0061] While embodiments have been described, it will be understood that those skilled in the art, both now and in the future, may make various improvements and enhancements can be made.

CLAIMS

What is claimed is:

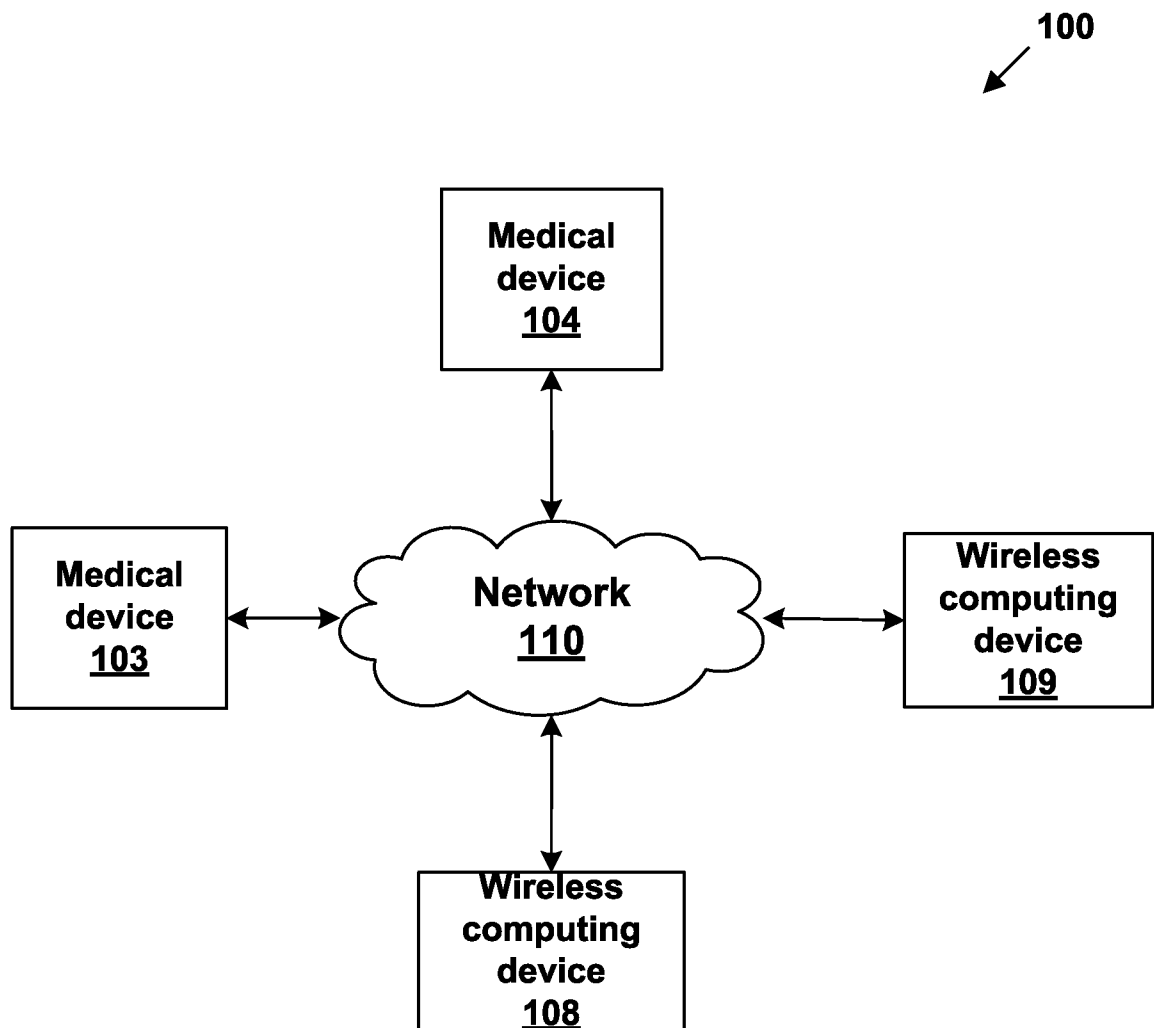
1. A medical device comprising:
a processor;
a display; and
memory encoding instructions that, when executed by the processor, cause the processor to create an interface on the display, the interface including:
a login area including one or more prompts for information identifying a user of the medical device; and
a profile selection area including two or more profiles offered by the medical device, wherein each of the profiles is a series of tasks to be performed by the medical device, and a description of each profile is provided in the profile selection area.
2. The medical device of claim 1, wherein the login area includes prompts for a clinician identifier and a password.
3. The medical device of claim 1, wherein the description for each of the two or more profiles includes a prose description of a functionality associated with each respective profile.
4. The medical device of claim 1, wherein the user must provide the information identifying the user before selecting one of the two or more profiles in the profile selection area.
5. The medical device of claim 1, further comprising a vital signs interface that is loaded once the user has provided the information identifying the user and selected one of the two or more profiles.
6. The medical device of claim 5, further comprising a patient identifier area that prompts for identification of a patient before the vital signs interface is provided.

7. A medical device comprising:
 - a processor;
 - a display; and
 - memory encoding instructions that, when executed by the processor, cause the processor to create an interface on the display, the interface including:
 - a vital signs area programmed to display data associated with a plurality of vital signs for a patient; and
 - an additional parameters area programmed to capture one or more additional parameters associated with the vital signs displayed in the vital signs area.
8. The medical device of claim 7, wherein the additional parameters area includes a separate area for capture of each of the additional parameters.
9. The medical device of claim 8, wherein each separate area includes a control which allows the user to skip providing the respective additional parameter associated with the respective separate area.
10. The medical device of claim 9, further comprising a prompt area that is created when the user selects the control to skip providing the respective additional parameter, the prompt area including instructions on providing the additional parameter.
11. The medical device of claim 10, wherein the medical device records when the user decides to skip one or more of the additional parameters.
12. The medical device of claim 7, wherein a control used to save data associated with recorded vital data and the additional parameters is activated when the user provides the additional parameters.
13. The medical device of claim 7, wherein a control used to save data associated with recorded vital signs data and the additional parameters is inactive until the use provides the additional parameters.

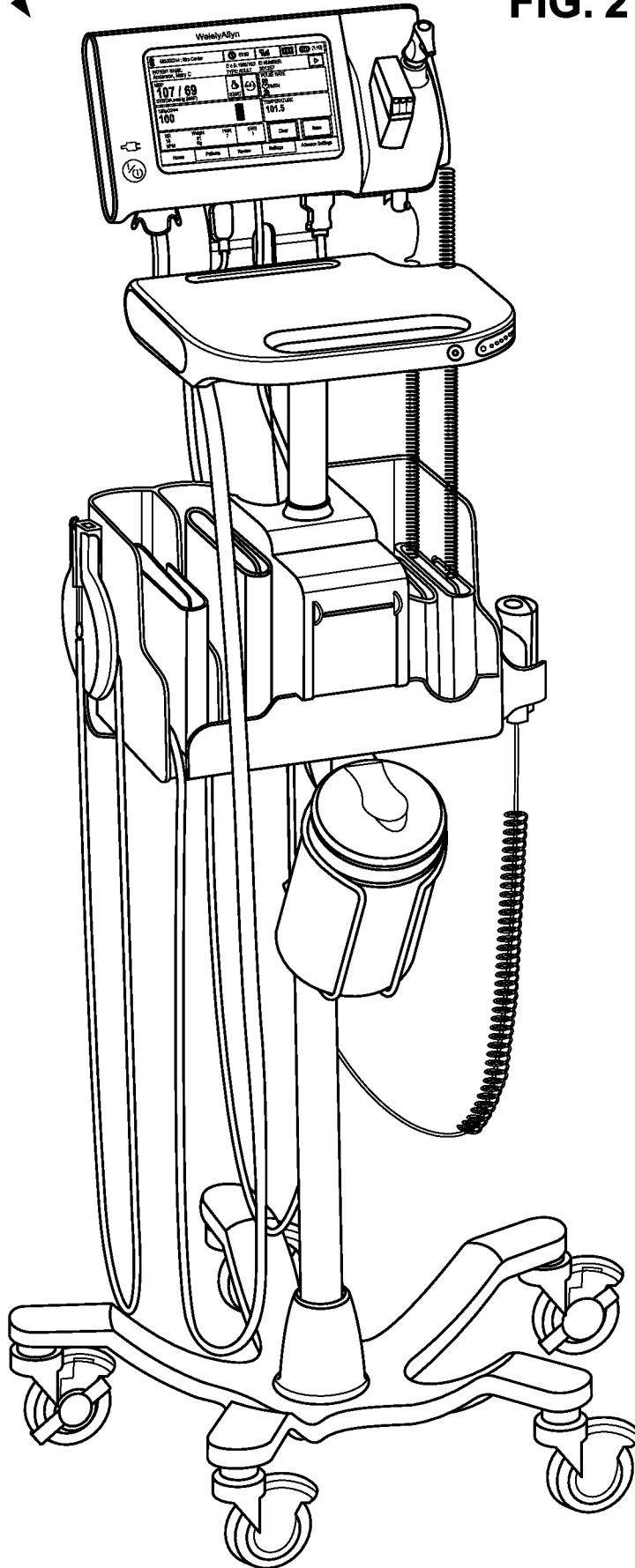
14. A medical device comprising:
a processor;
a display; and
memory encoding instructions that, when executed by the processor, cause the processor to create an interface on the display, the interface including:
a login area including one or more prompts for information identifying a user of the medical device;
a profile selection area including two or more profiles offered by the device, wherein each of the profiles is a series of tasks to be performed by the medical device, and a description of each profile is provided in the profile selection area;
a vital signs area programmed to display a plurality of vital signs associated with a patient; and
an additional parameters area programmed to capture one or more additional parameters associated with the vital signs displayed in the vital signs area.
15. The medical device of claim 14, wherein the login area includes a clinician identifier and a password.
16. The medical device of claim 14, wherein the description for each of the two or more profiles includes a prose description of a functionality of the respective profile.
17. The medical device of claim 14, wherein the additional parameters area includes a separate area to capture each of the additional parameters.
18. The medical device of claim 17, wherein each separate area includes a control which allows the user to skip providing the respective additional parameter associated with the respective separate area.

19. The medical device of claim 18, further comprising a prompt area that is created when the user selects the control to skip providing the respective additional parameter, the prompt area including instructions on providing the additional parameter.

20. The medical device of claim 19, wherein a control used to save data associated with recorded vital data and the additional parameters is activated when the user provides the additional parameters.

**FIG. 1**

105

FIG. 2

106

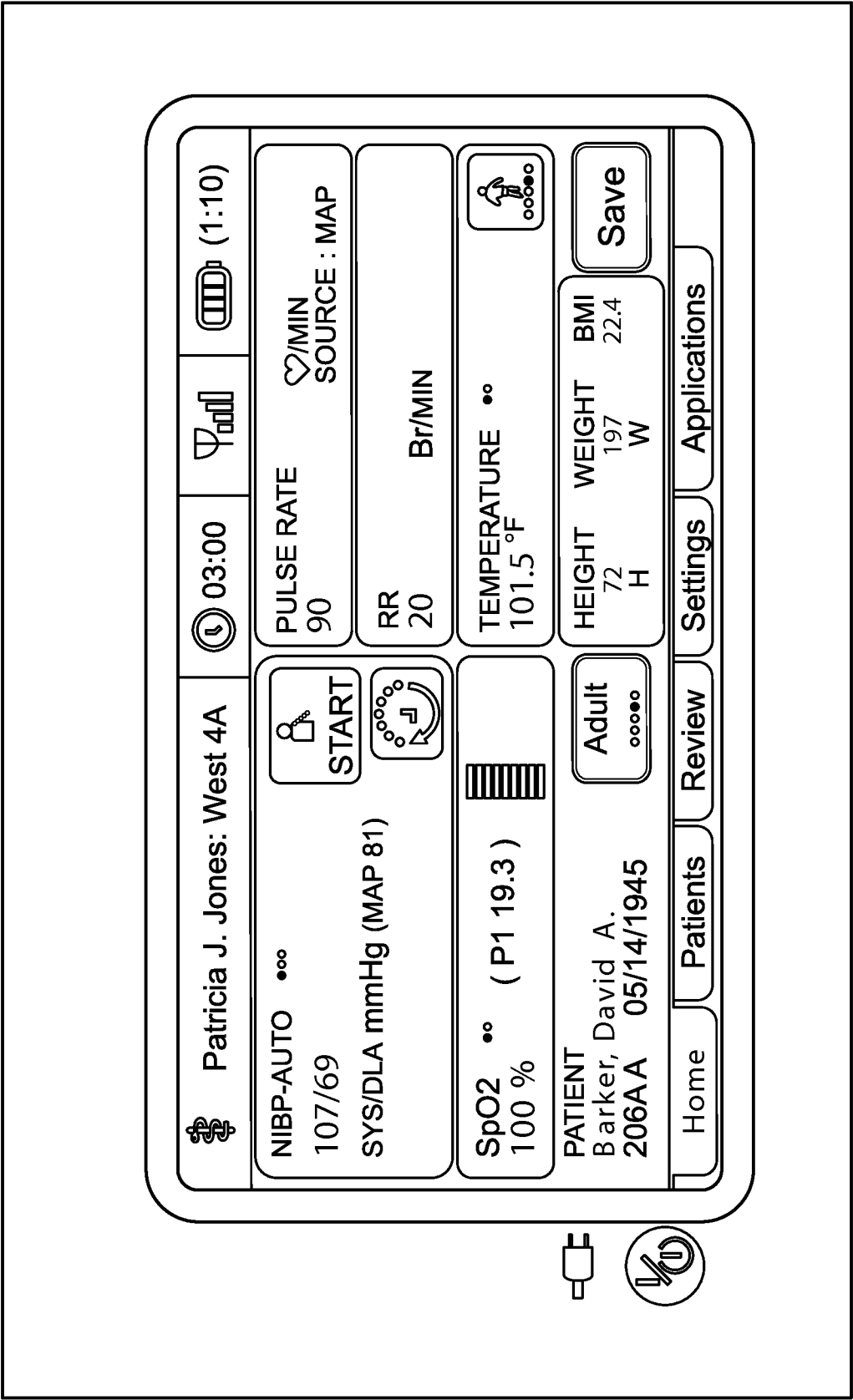
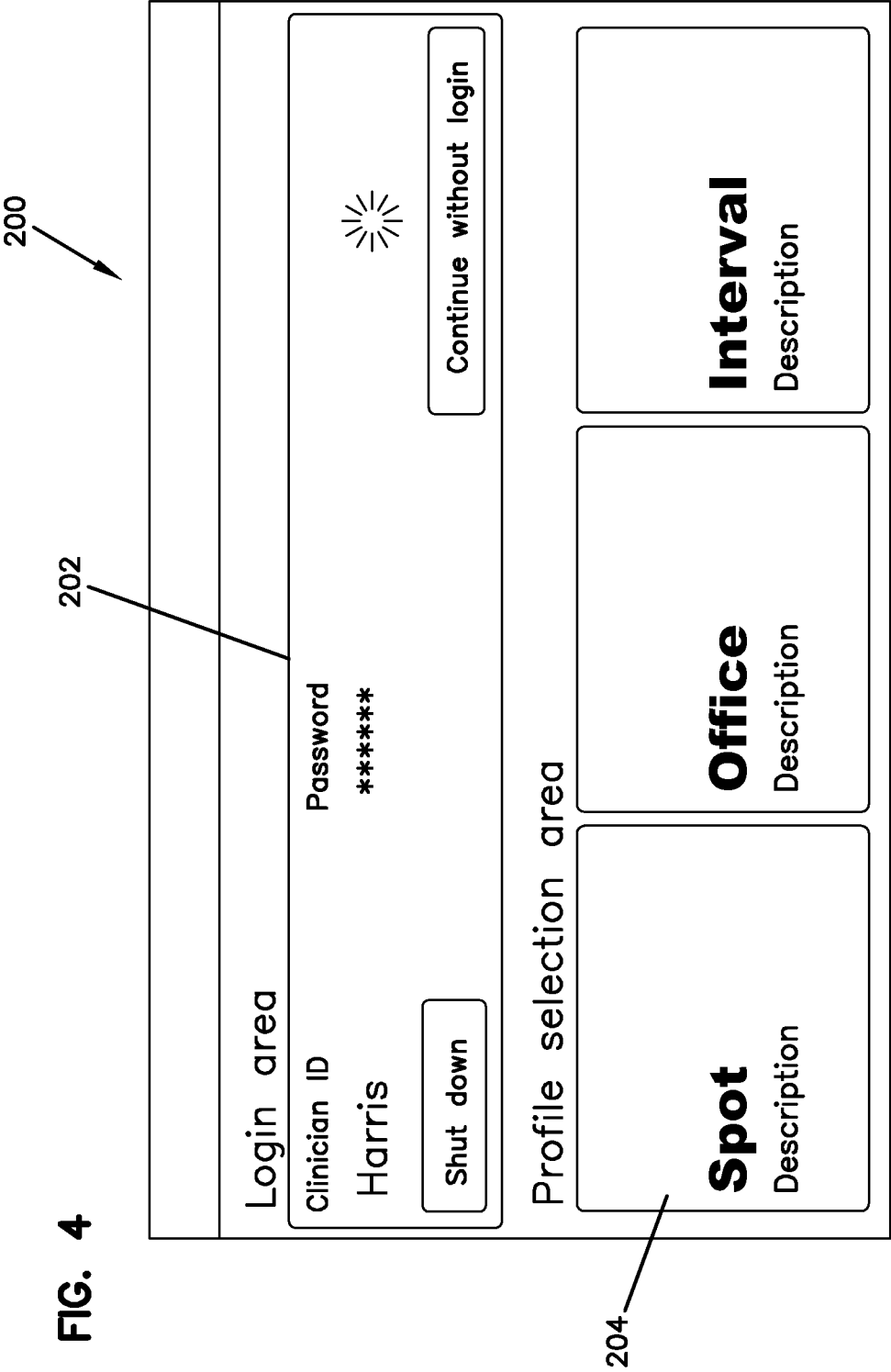


FIG. 3



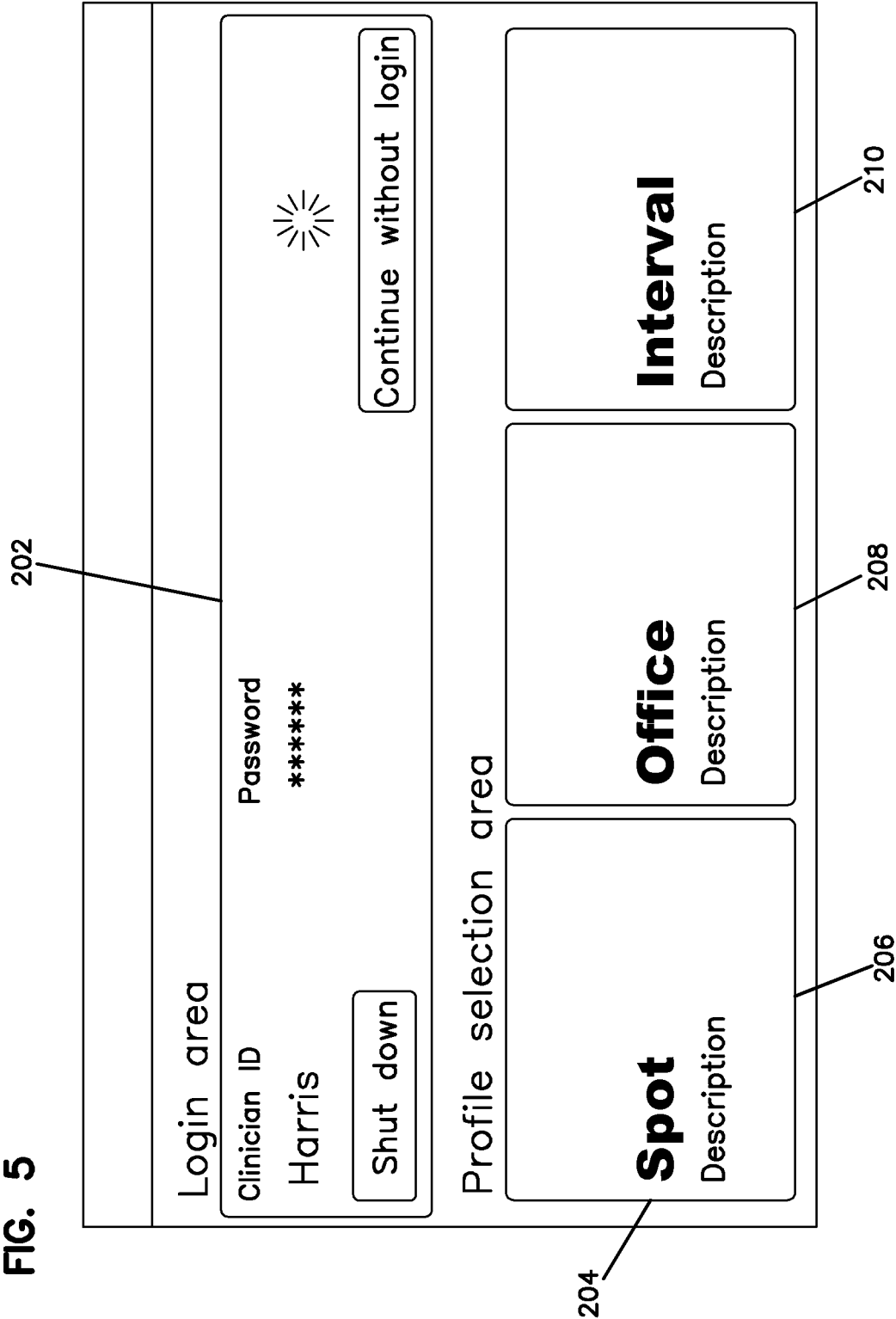


FIG. 6

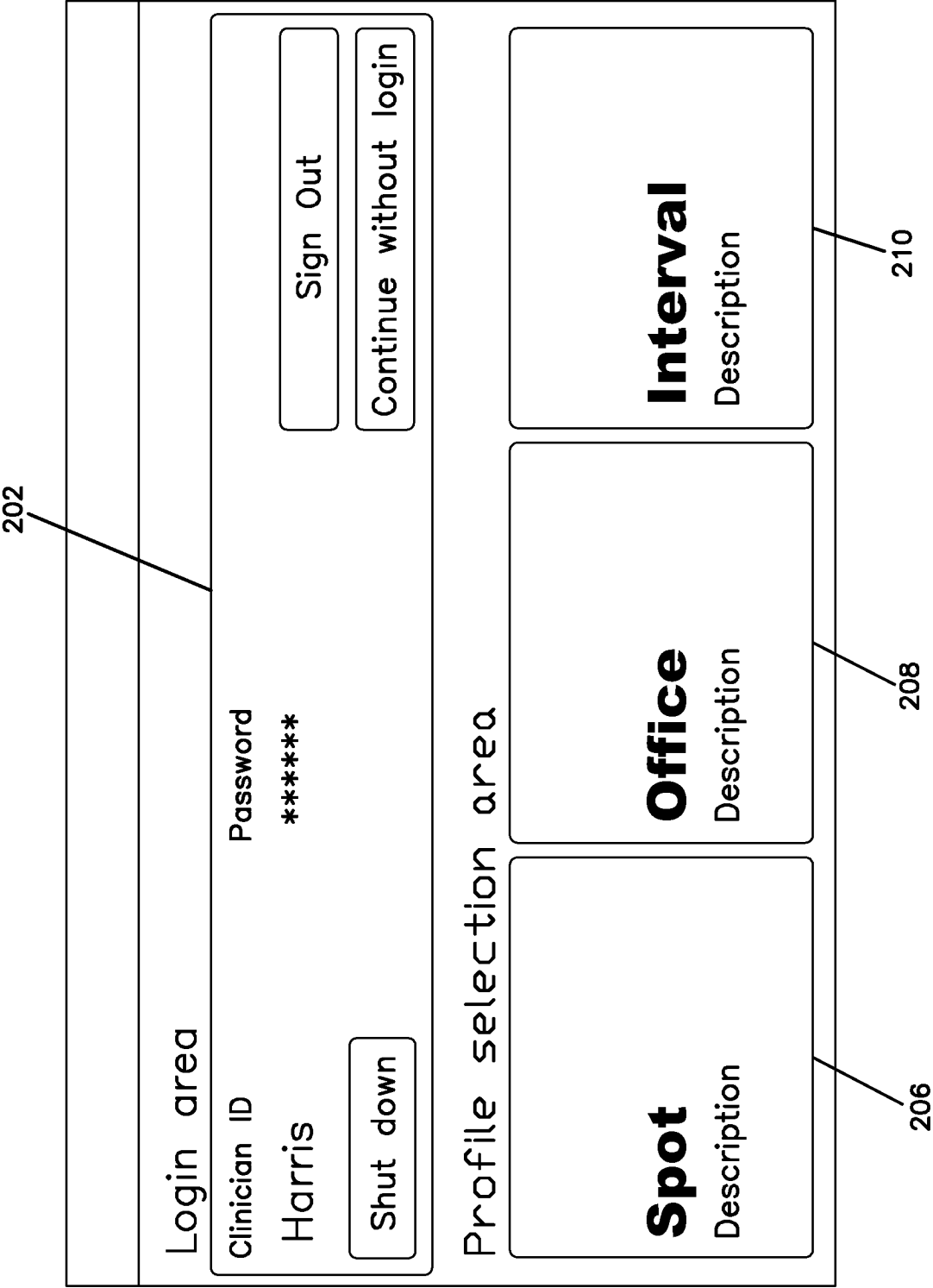


FIG. 7

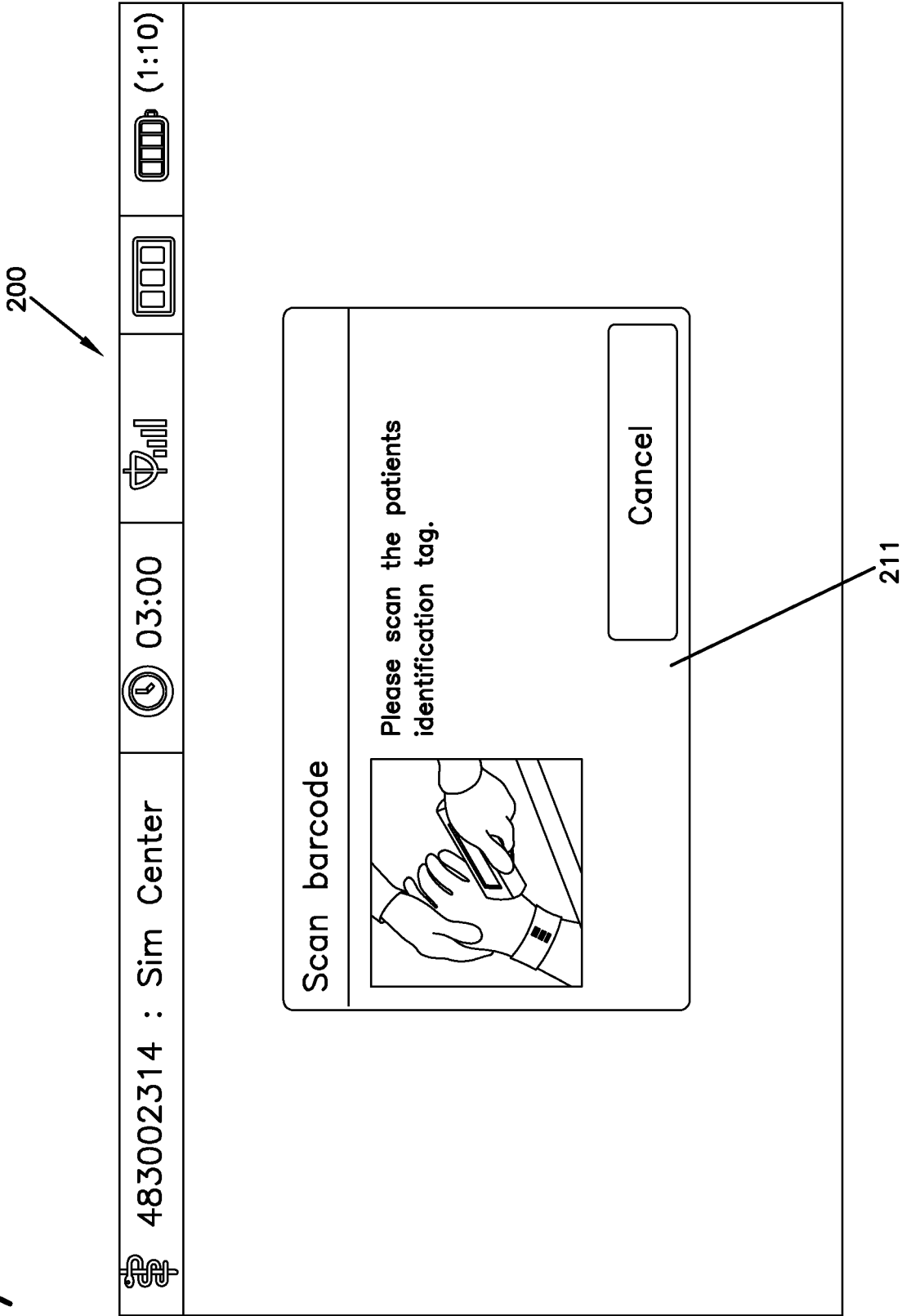


FIG. 8

220

⌂ Harris	
Home	Patient
Alarms	Review
Settings	

FIG. 9

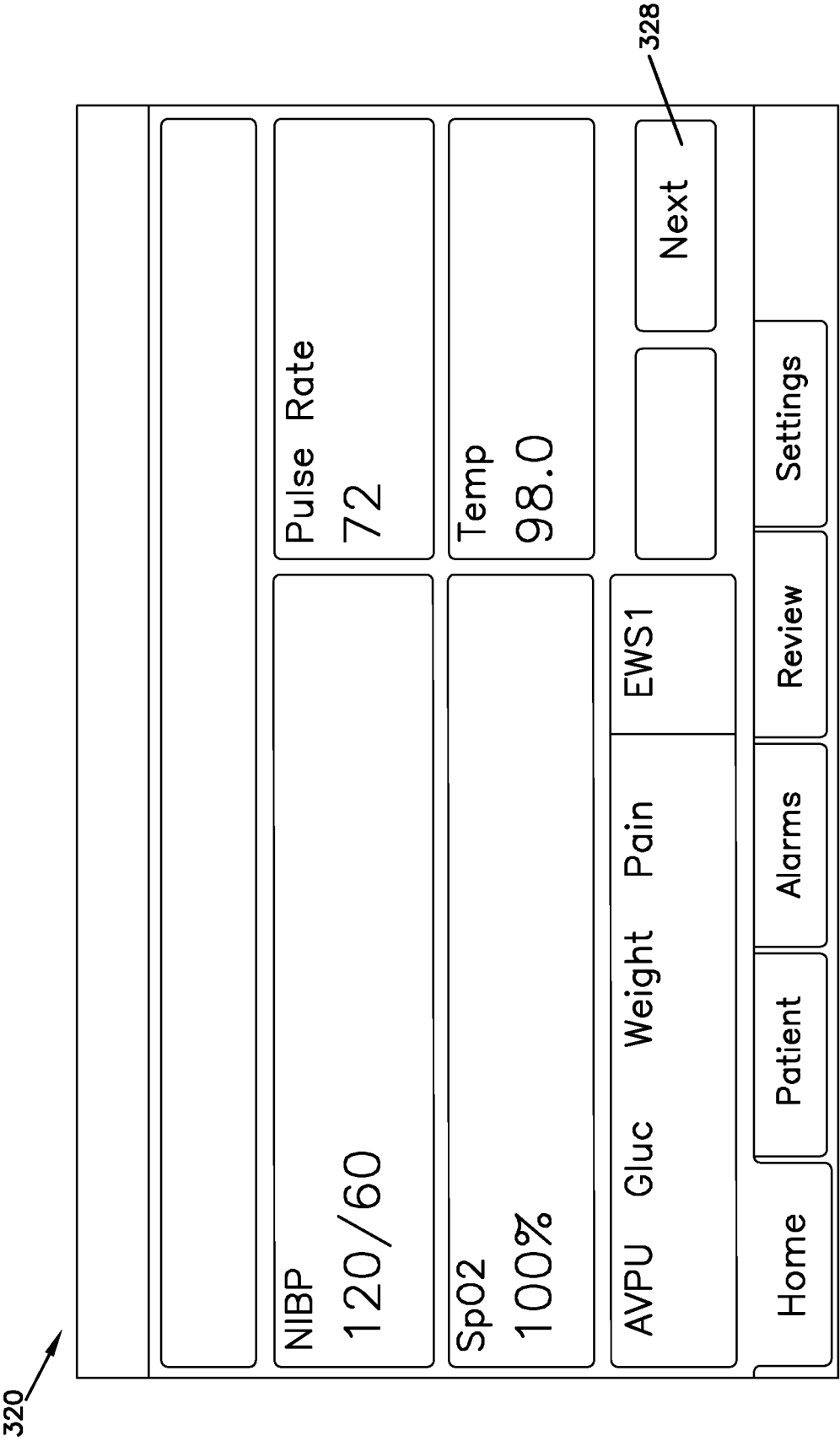


FIG. 10

Additional Parameters

1 of 3

Custom score selection

Early Warning Score 1

Early Warning Score 2

Early Warning Score 3

Conscious level

Skip

Glucose

Skip

Cancel

Next

322

326

324

328

FIG. 11

Additional Parameters

1 of 3

Custom score selection

☒ Early Warning Score 1

☐ Early Warning Score 2

☐ Early Warning Score 3

Conscious level

Alert

Skip

Glucose

126

◀

▶

Skip

Cancel

Next

326

328

322

324

FIG. 12

Custom score summary3 of 3

0

NIBP – Systolic
132
mmHg

0

Temperature
99.7
°F

0

Pulse rate
63
BPM

0

SpO2
99
%

0

Conscious level
Alert

0

Glucose
126

Required response:
Protocol does not require
further action

Total MEWS score
0

OK

332

330

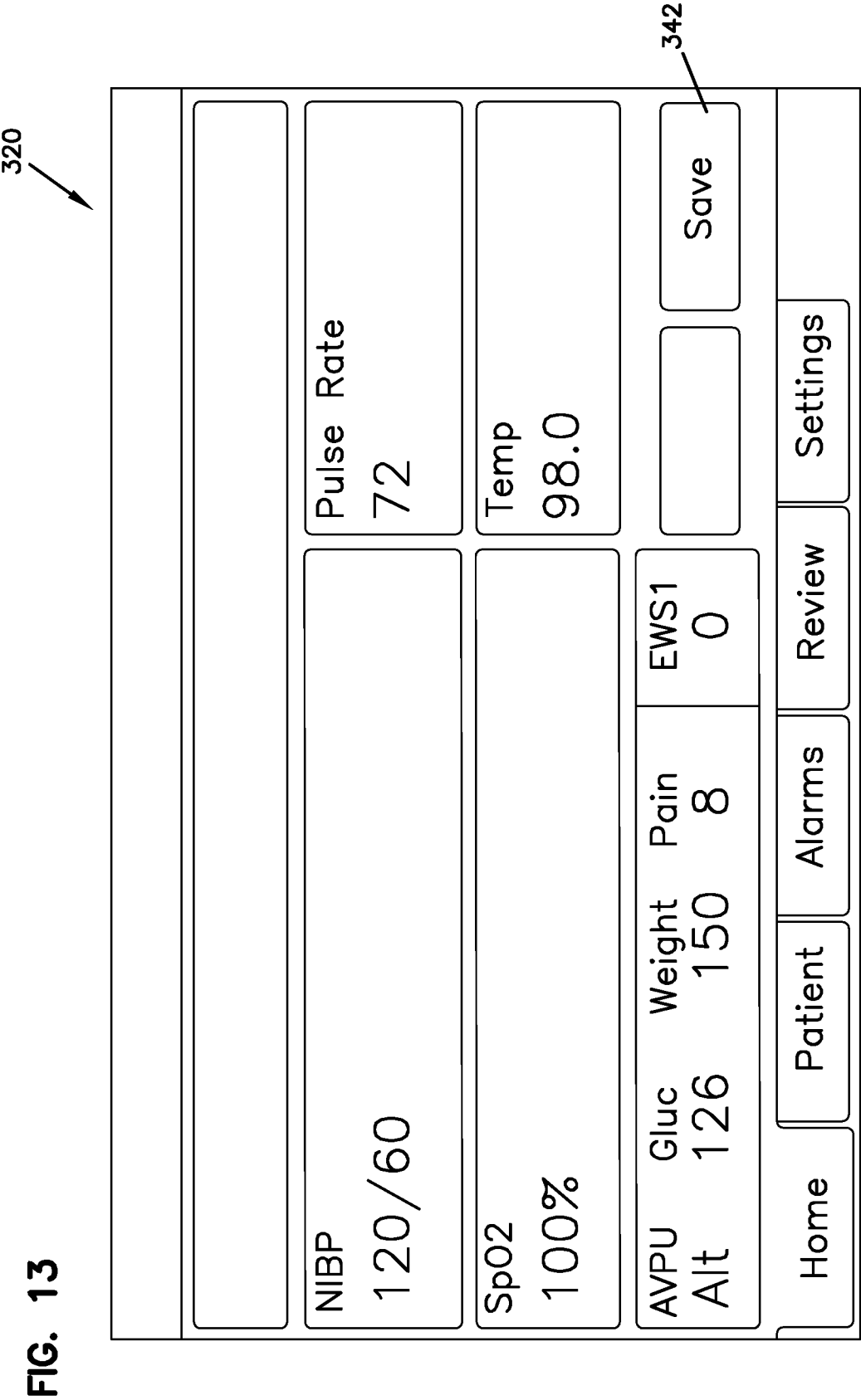
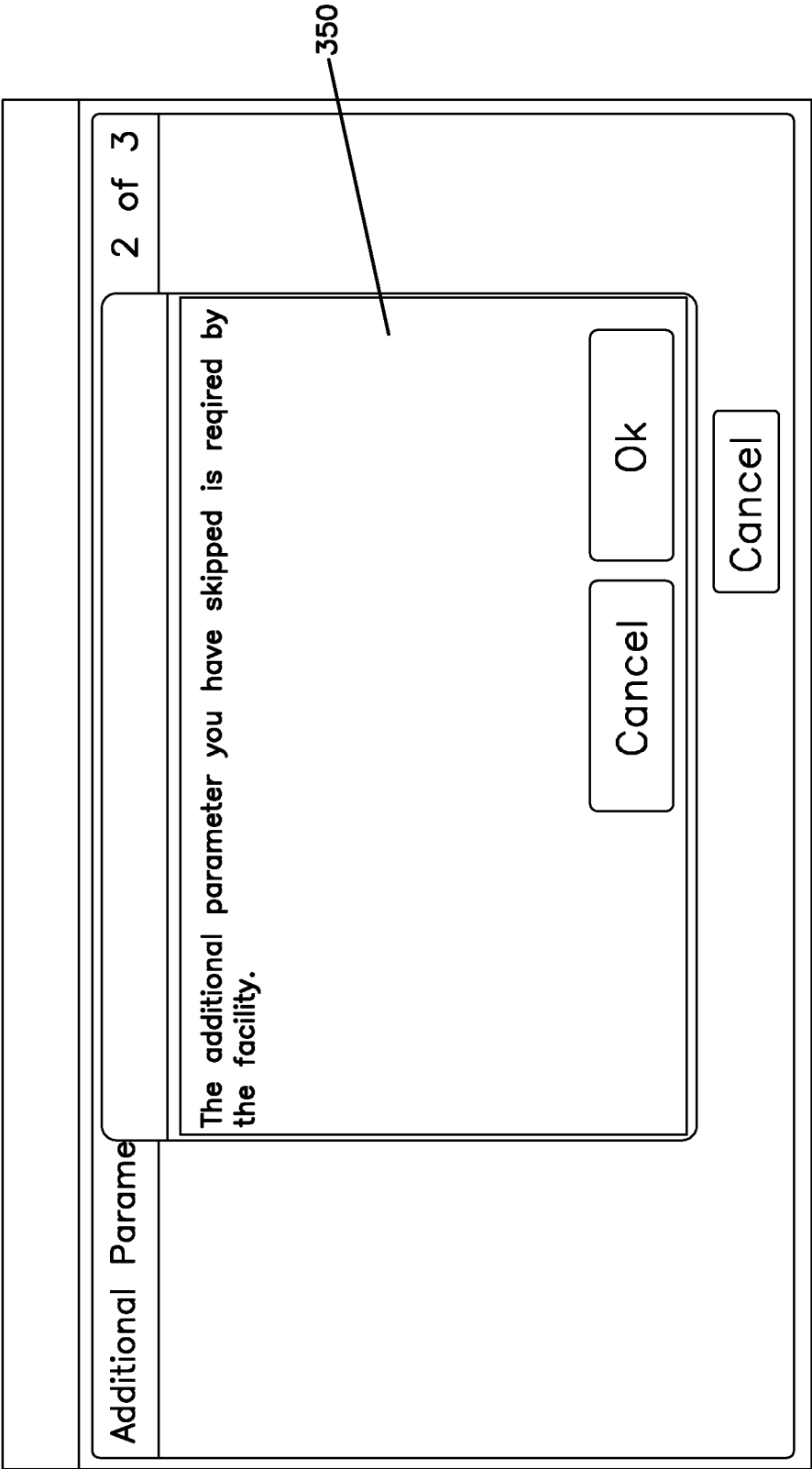


FIG. 14



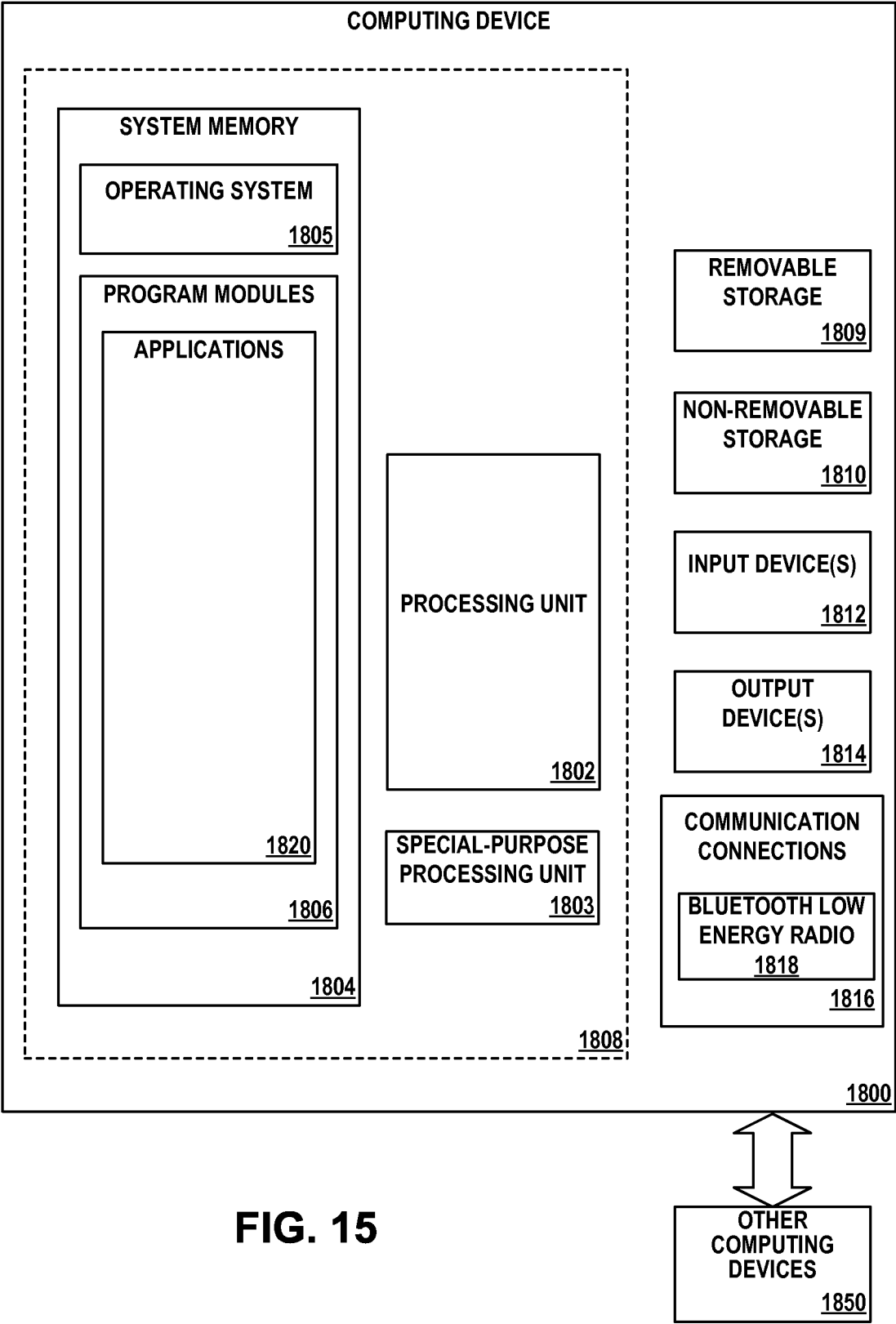


FIG. 15

A. CLASSIFICATION OF SUBJECT MATTER**A61B 34/00(2016.01)i, G06Q 50/22(2012.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A61B 34/00; A61B 5/08; G06F 17/00; G06T 11/20; G06Q 10/00; A61B 5/0205; A61B 5/00; G06Q 50/22

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords:processor, display, interface, login area, profile selection area, vital signs area, additional parameters area**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2007-0185390 A1 (PERKINS et al.) 9 August 2007 See paragraphs [0056], [0058], [0066], [0068], [0069], [0071], [0079]-[0082], [0085]-[0087], [0089]-[0092]; and figures 1, 7, 8, 16-21, 26-28B.	7, 8, 12, 13
Y		1-6, 14-17
A		9-11, 18-20
Y	US 2013-0267793 A1 (MEADOR et al.) 10 October 2013 See paragraphs [0039], [0075]-[0078], [0082]-[0083], [0087]-[0091], [0102], [0103], [0106]-[0109], [0111], [0158], [0159], [0177], [0178], [0221]-[0224]; claims 1-9; and figures 2A-3B, 4, 6C-6F, 14.	1-6, 14-17
A	US 2013-0267861 A1 (VASSALLO et al.) 10 October 2013 See paragraphs [0055]-[0081], [0086]-[0091]; and figures 2A-4, 7A, 7B.	1-20
A	US 2013-0044111 A1 (VANGILDER et al.) 21 February 2013 See abstract; paragraphs [0064]-[0080]; and figures 1-10.	1-20
A	US 7778851 B2 (SCHOENBERG et al.) 17 August 2010 See abstract; column 6, line 38 - column 7, line 57; and figures 2A, 2B.	1-20



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

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Date of the actual completion of the international search

29 February 2016 (29.02.2016)

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2015/059505

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