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Salomon et al.(10) **Pub. No.: US 2008/0202978 A1**(43) **Pub. Date: Aug. 28, 2008**(54) **METHOD AND DEVICE FOR A FIRST AID CONTAINER****Publication Classification**(76) Inventors: **Doron Salomon**, Rechovot (IL);
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B65D 69/00 (2006.01)(52) **U.S. Cl.** **206/570; 206/438**(57) **ABSTRACT**

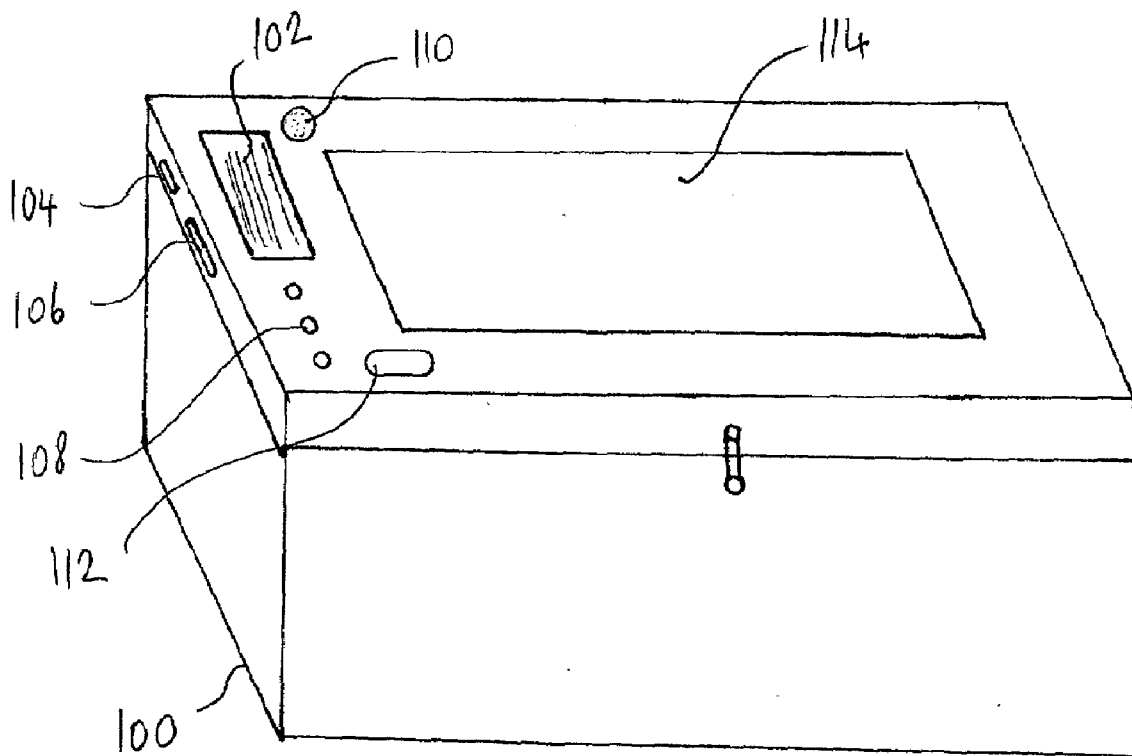
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First aid container with electronic aids to assist the non-professional user wishing to give medical assistance. The container would include a digital memory, micro-processor with an operating system and relevant software to execute the features of the invention, like for example step by step instruction how to give different treatments and instrument and medicine identification. There would be a screen and a loud-speaker. Optionally there could be a wireless transmitting and receiving system in conjunction with mobile phone operators or independently, GPS system and ability to send and receive SMS messages. Optional ability to accept verbal instructions, with voice recognition technology. Optional CD tray and connectors.

(21) Appl. No.: **12/036,254**(22) Filed: **Feb. 24, 2008****Related U.S. Application Data**

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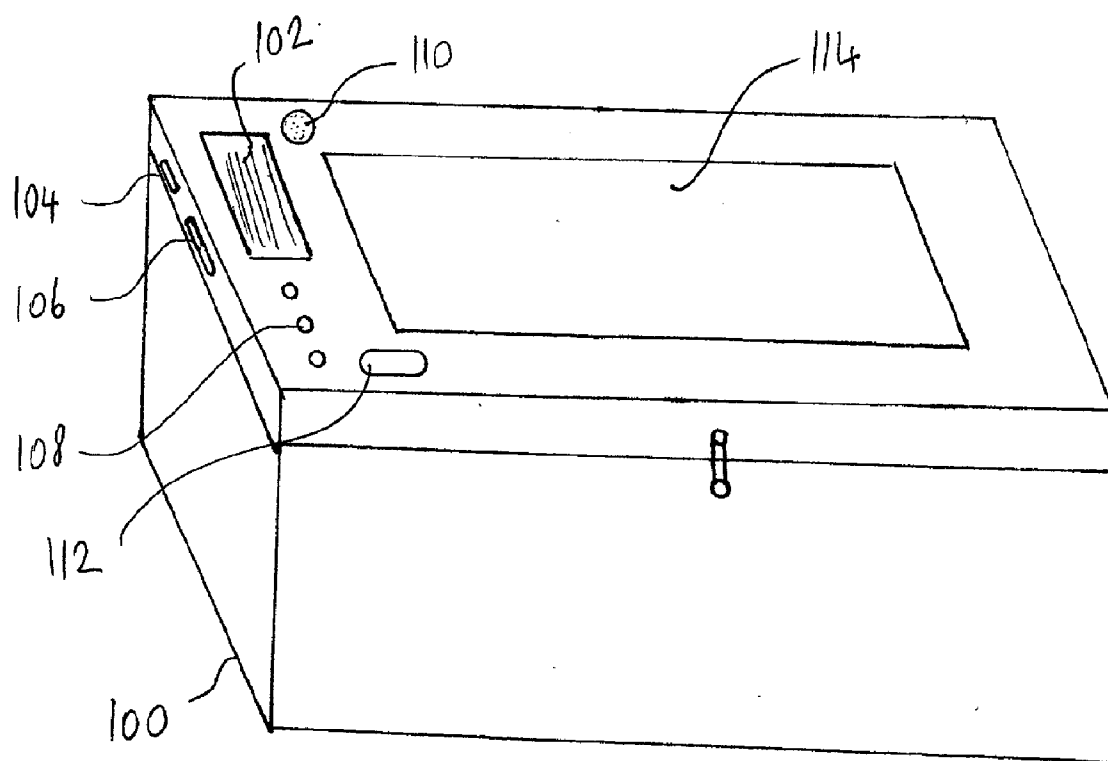


FIG 1

METHOD AND DEVICE FOR A FIRST AID CONTAINER

FIELD OF THE INVENTION

[0001] This invention is in the field of first aid containers and in particular one that can offer visual and vocal instruction, especially but not limited to times of emergency.

BACKGROUND OF THE INVENTION

[0002] First aid by its very nature needs to be administered in times of emergency when correct action taken promptly can reduce injury and even save lives. Few people have sufficient knowledge to administer the correct treatment in the best way especially because when an emergency occurs, a person often does not think calmly and correctly. Generally, only people who train regularly in applying first aid and practice regularly like paramedics, ambulance drivers and medical staff in hospital emergency ward can apply the optimal treatment and without guidance.

[0003] The average person sometimes vaguely remembers what he once learned in a first aid course or what his mother used to say about treating a particular injury or illness.

[0004] This invention reveals apparatus and a method to instruct and direct non-professional persons by audible and/or visual means how to deal with an emergency. It also gives instruction how to use various equipment and medications, how apply the equipment and medications to the particular injury or illness.

SUMMARY OF THE INVENTION

[0005] It is to be understood that both the foregoing general description and the following detailed description present embodiments of the invention and are intended to provide an overview or framework for understanding the nature and character of the invention as it is claimed. The accompanying drawings are included to provide a further understanding of the invention and are incorporated into and constitute a part of this specification. The drawings illustrate various embodiments of the invention and, together with the description, serve to explain the principles and operations of the invention.

[0006] This invention reveals a first aid container that gives clear and calm instruction for a large range of emergency situations, whether caused by injury or from illness. There could be a menu to choose a general subject matter and a sub-menu and if necessary a sub-sub-menu to enable the user to reach as quickly as possible, the exact subject matter for which he needs instruction. This menu system could be mechanical or electronic, with operation controls to search and to operate the programs.

[0007] There could be a choice of categories of medicine like for example conventional, herbal, naturopathic and homeopathic.

[0008] A menu could be chosen or a search made to find the desired type of medicine and/or type of problem.

[0009] Once the specific problem has been found in the memory, text and/or pictures on the screen and/or a voice would explain what to do, offering a number of alternative situations and explanations for each situation. The instruction could suggest how best to carry out specific tasks and/or instruction which medicine to take and the dose. There could be a "forward" option to skip sections of material that are not currently relevant to the user. This would enable the user to

reach the specific information he needs to know as quickly as possible. The vocal explanation could be available in a choice of languages.

[0010] The first aid container could have a microprocessor with supporting software. Data could be recorded on for example, a chip, CD or other hardware. The software programs would offer an option of different treatments for varying degrees of injury or illness and could give variable advice depending on what first aid equipment is available for use. These options could also be presented in the visual and/or audible menus and sub-menus. The user would input the real-time situation regarding equipment and medication available to him.

[0011] The first aid container could include a basic stock of medicines and pain killers and also basic medical instruments. The vocal element could include information about the medicine, instruction how and when to use the medicine and warnings regarding dosage taking into account the age and health of the patient, recommendations regarding interaction with other medicines that the patient already takes. This information also would be input by the user to enable the instruction and advice to be as personal as possible for each patient.

[0012] The first aid container could include a visible screen to show for example the equipment referred to in the audible instructions and step by step instruction how to use and apply the equipment or medicine to the patient in a number of different situations. The pictures or video and the like, could be in one or more colors to better instruct the user what has to be done. As the audible instruction mentions a new piece of equipment or medicine, its position in the container and a picture of the item could appear on the screen, so that the user who is not familiar with the names of medical equipment and medicines would be sure he was using the correct equipment or medicine. This feature could appear as a full screen or as a smaller sized pop-up screen imposed on the main picture. The main picture could show in still pictures or multi-media pictures or video film, the application of the treatment. There could be a back button to repeat a chosen section again and a pause button to freeze the momentum until the user has done what is required and is ready to advance to the next stage.

[0013] Whenever the pictures or video show pictures or a film, the voice accompaniment could explain what action should be taken. There could be one or more of the following options namely, voice, written text, pictures and video.

[0014] There could be included in the software of this invention voice recognition technology. This would enable the user of the invention to continue to give first aid the patient with two hands without interruption and simultaneously give instruction and operate the software of the first aid container. Also if the first aid container were positioned out of reach of the user he would use the voice recognition technology to operate the software options without leaving the patient.

[0015] There could be an emergency button available on the container that would call direct to the emergency services and could also indicate automatically to those services, the location of the container. Such services would require technology known in the art for sending text messages, like for example, SMS technology and for satellite-aided position identification like GPS technology. The availability of these services would depend on the degree of technological sophistication included in the particular container.

[0016] The first aid container could have a power source such as an electrical power source in the form of, for example,

a rechargeable battery with a recharge device to connect to a vehicle battery and/or to the mains electricity supply or both. There could be a "low charge" battery warning device to warn visually and/or audibly that the battery needs recharging.

[0017] As a first aid container is usually left unused for long periods of time, there is a danger that the battery could be without electricity when it is needed. Therefore, an embodiment could include the ability to be constantly attached to a rechargeable battery until detached, whereupon the charged battery would provide the power to operate the various electrical components of this invention. The first aid container of this invention could have a communication connector like USB connector and/or connection port for cable connection to a computer and/or a housing to insert a CD disc and/or other forms of communication to input to the digital memory of the container relevant information concerning first aid and other medical matters. Examples of other such communication methods could be using SMS technology, infra-red transfer technology. The communication could be with wires or wireless. There would be a software program and the necessary hardware like a computer or a microprocessor to accept, store and process the said input information and to control and process the output, namely the audible and visible features.

[0018] Auxiliary features could include the ability to accept and store music files that could be played to calm a patient. Also there could be a radio connection to enable broadcast radio stations to be heard.

[0019] An example for use of this invention could be applying a splint and bandages to a broken leg. It is a difficult job to do correctly without doing damage to the leg. This invention would instruct the user step by step and also could warn him to look out for possible signs of other complications that the non-medical may not notice or be aware.

BRIEF DESCRIPTION OF THE DRAWINGS

[0020] The accompanying drawings, which are incorporated in and form a part of this specification, illustrate embodiments of the invention and together with the description, serve to explain by way of example only, the principles of the invention:

[0021] FIG. 1 is a schematic depiction of a first aid container of this invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0022] As will be appreciated the present invention is capable of other and different embodiments than those discussed **25** above and described in more detail below, and its several details are capable of modifications in various aspects, all without departing from the spirit of the invention.

[0023] Accordingly, the drawings and description of the embodiments set forth below are to be regarded as illustrative in nature and not restrictive.

[0024] FIG. 1 shows a first aid container **100** that could contain for example antiseptic cream, alcohol, sterile pads, bandages, plasters, basic medicines and latex gloves. In addition to such standard contents the container would have a loudspeaker **102** to implement the audible aspects of this invention.

[0025] Inside the container or in the walls or in the lid could be housed the computer components needed to operate the

features of this invention. The connection to the said computer components could be via a USB connector **104** or a CD tray **106**.

[0026] The various features and operational buttons **108** could be situated in the lid of the container **100**. The various features and operations could be one or more of this non-exclusive list, namely, a choice of language, choice of style of medicine, choice from the relevant menu to activate the vocal information to the subject matter as close as possible to the user's situation and needs, choice of visual display, pause, replay, fast-forward, music, or radio. Vocal input when using voice activated instruction would communicate via a microphone **110**.

[0027] There could be a small screen **112** to assist choosing the various options of this invention and show which part of the menu is currently being used and show other operational information.

[0028] The main screen **114** is for viewing pictures or videos in color or black and white of the treatment while the vocal instructions are heard via the loudspeaker **102**. The screen **114** could also show the picture of equipment or medicines spoken about, to help the user correctly identify the item and reduce errors in this area.

[0029] All or a portion of the said features shown in FIG. 1 on the lid of the first aid container could be inside the lid or elsewhere on the container.

What is claimed:

1. A first aid container containing medical equipment and medicines comprising;

- a. microprocessor with designated software and supporting hardware,
- b. at least one menu included in the said software that lists the treatment of at least one malady,
- c. a screen electronically connected to the said microprocessor,
- d. a loudspeaker electronically connected to the said microprocessor,
- e. a means to show in picture format, methods of medical treatment and examples of equipment and medicine,
- f. a means to transmit in audible format instruction regarding methods of medical treatment, and
- g. a power source electronically connected to the said microprocessor, to the said screen and to the said loudspeaker,
- h. whereby persons would receive visual and audible instruction and information regarding medical treatment and medical matters.

2. A method of using a first aid container comprising the following steps, namely;

- a. choosing from a menu the treatment required according to the malady of the patient,
- b. inputting to designated software the range of equipment and medicines available for use,
- c. treating the said patient according to audible instructions, and
- d. treating the said patient according to visual instructions.

3. A method of using a first aid container as claimed in claim 2 further comprising the following steps;

- a. sending and receiving text messages to communicate with medically qualified personnel,
- b. pressing an emergency button to activate the satellite aided position identifier, and
- c. communicating verbally with medically qualified **15** personnel for further treatment advice.

4. A first aid container as claimed in claim 1 further comprising a means to receive to and transmit from the said first aid container, radio wave signals.

5. A first aid container as claimed in claim 1 further comprising satellite aided position identification technology with designated software.

6. A first aid container as claimed in claim 1 further comprising text message communication technology with designated software.

7. A first aid container containing medical equipment and medicines comprising,

- a. microprocessor with designated software and supporting hardware,
- b. at least one menu included in the said software that lists the treatment of at least one malady,
- c. a screen electronically connected to the said microprocessor,
- d. a loudspeaker electronically connected to the said microprocessor,
- e. a means to show in picture format, methods of medical treatment and examples of equipment and medicine,
- f. a means to transmit in audible format instruction regarding methods of medical treatment, and
- g. a power source electronically connected to the said microprocessor, to the said screen and to the said loudspeaker a means to receive to and transmit from the said first aid container, radio wave signals,
- h. satellite aided position identification technology with designated software, electronically connected to the said microprocessor,

i. text message communication technology with designated software, electronically connected to the said microprocessor, and

j. a power source electronically connected to the said microprocessor, to the said screen and to the said loudspeaker,

k. whereby persons would receive visual and audible instruction and information regarding medical treatment and medical matters.

8. A first aid container as claimed in claims 1 and 7 wherein the said menus include a choice of categories of medicines.

9. A first aid container as claimed in claims 1 and 7 wherein the said software includes the ability for the user to input to the said microprocessor and supporting software, details of the equipment and medicines available for treating a patient.

10. A first aid container as claimed in claim 9 wherein the said visual and audible instruction and information regarding medical treatment and medical matters takes into account the said availability of the said equipment and medicines.

11. A first aid container as claimed in claim 9 wherein the said input includes medicines currently taken by the said patient.

12. A first aid container as claimed in claims 1 and 7 wherein the said software includes music that may be played to calm the said patient during the said treatment.

13. A first aid container as claimed in claims 1 and 7 further comprising voice recognition technology that enables the user to input information and operate the said software with verbal instructions.

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