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(54) **Computer- or telephone-controllable programmable antitheft system, having an identification of the state of single protection fittings.**

(57) Antitheft plant, including a central control or alarm unit and protection fittings, in electric communication, by wire or by radio, with the central alarm unit. The central alarm unit includes programmable data processing means for assigning a respective identification code to each protection fitting. Each one of the protection fittings includes means for storing the identification code assigned thereto. The central control unit and

the protection fittings include means for monitoring the state and/or for the actuation/switching off of each one of the protection fittings, and the central control unit include means for presenting state information of each one of the protection fittings. The central control unit can include transceiver means for a functional communication with an Internet/electronic mail server, with a cellular mobile phone network or a fixed phone network.

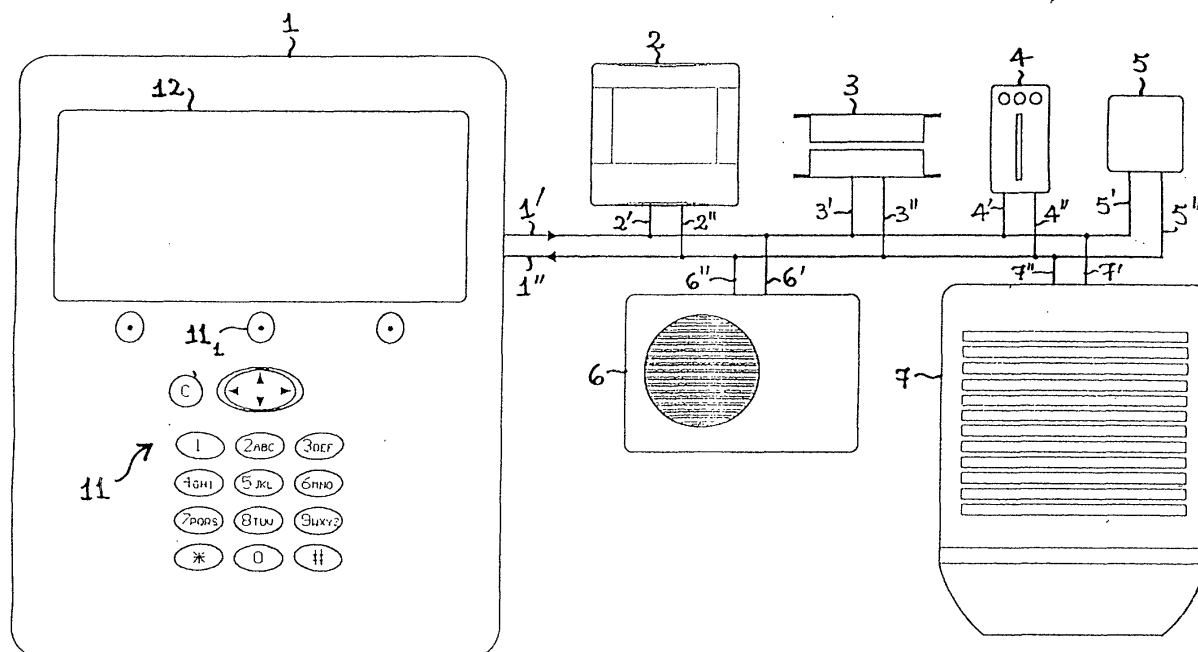


FIG. 1

Description

[0001] This invention relates to the field of antitheft plants for civil and industrial buildings.

[0002] More particularly, this invention relates to an antitheft plant including a central control or alarm unit and protection fittings.

[0003] By protection fittings the devices or peripheral elements of the antitheft plant are meant hereinafter, that perform the antitheft functions, such as for instance sensors or detectors, alarm devices, actuators, e.g. alarm actators.

[0004] With the antitheft plants of such a type, as a consequence of the roominess of the spaces they protect, a need immediately arises for a centralized monitoring of the state thereof.

[0005] Traditionally, this centralized monitoring is carried out with zone embodying solutions.

[0006] This invention takes its steps from considering that such solutions, however, turn out to be insufficient, and gives itself the object of providing an antitheft plant that can be monitored element by element from a central unit, i.e. an antitheft plant wherein the state of each single protection fitting, which is part thereof, is analysed and suitably displayed.

[0007] Such an object is reached, according to this invention, with the basic contrivance of attributing each protection fitting an identification code. State information of protection fittings of the antitheft plant is displayed in a friendly, i.e. simple and legible, way on a display, for instance a backlighted dot-matrix display.

[0008] By monitoring of the state of the protection fittings the sensing and the displaying of state information of the fittings, particularly of the state of well operating/malfunction and/or alarm/quiescence of the protection fittings is meant hereinafter.

[0009] The antitheft plant of this invention is based on a programming of single protection fittings, which is carried out before installing the antitheft plant itself. As mentioned above, each protection fitting is associated an identification code, which is stored in non-volatile memory means, such as for instance an electrically erasable programmable read only memory, which also store it in the absence of electric power supply to the antitheft plant.

[0010] The central control unit is presented in the form of a cellular phone, having a display, for instance a dot-matrix display, accompanied by an alphanumeric keypad having function keys, for instance three function keys, performing functions that vary in correspondence with response areas of the display. For the central control unit a suitably large size is envisaged to the object of easily using the keypad thereof and of easily reading the display thereof. The insertion of the identification codes above and the texts for describing the corresponding protection fittings is carried out as if a message were fingered on a cellular phone.

[0011] The central control unit is in electric communi-

cation with the protection fittings, for instance by radio or by wire. This invention particularly envisages a connection of the central control unit with the protection fittings by a two-wire transmission line, having an output line from and a response line to the central control unit, on which two-wire transmission line the protection fittings are connected in parallel.

[0012] The programming procedure is similar to the structure adopted in known programming languages, such as for instance BASIC, wherein the control line is marked by a number that identifies the memory area occupied. Before each line a code, for instance a decimal code, is inserted, in numeric progression. In the same modality a programming is carried out of the protection fittings of the antitheft plant of this invention. The identification code is provided by the central control unit and the description of the protection fitting is fingered by the installer. For instance:

1000 Bathroom window sensor

1001 Kitchen entrance sensor

1002 Main door magnetic contact

[0013] The identification code associated with each description is stored, for instance in a binary format. When the identification codes of all protection fittings have been stored, one proceeds with the installation thereof, positioning them in the areas where to the relevant associated description relates.

[0014] When the plant is supplied with electric power, the central control unit performs a state checking stage (as takes place in personal computers at the moment of the powering up thereof, when the programme present in BIOS polls all connected peripheral devices, verifying the correctness of the operation thereof). In the same way, the central control unit of the antitheft device of this invention proceeds with checking that the protection fittings are all connected, checking the state of connection and correct operation thereof, through scanning of the stored codes.

[0015] After such a state checking stage, the central control unit periodically performs the scanning of all protection fittings, putting them under test one at a time. Each protection fitting includes an internal circuit which fetches the identification code from the transmission line from the central control unit, and compares it with the one present in the E²PROM memory thereof above. If the codes are equal, the internal circuit communicates to the central control unit the state of the protection fitting through the response line. In the opposite case, the circuit sets an output thereof to a high-impedance state to allow the subsequent protection fitting to give his response.

[0016] The alarm actuators are endowed with internal programmes that detect the disconnection thereof from the transmission lines in case of shearing or of a short-circuit thereof, operating the actuation of the alarms. It is particularly envisaged the use of relay actuators.

[0017] To the end of a fast internal communication of the antitheft plant, this invention particularly envisages the use of devices that are able to communicate in a duplex or *full-duplex* way, i.e. with a data exchange in two directions simultaneously.

[0018] It is an advantage of this invention to be able to control any other type of user device by exploiting the central control unit and the actuators. Indeed, it suffices to equip the user device with a non-volatile electrically programmable memory and to assign an identification code thereto. The user device so can be directly programmed from the central alarm unit. For instance, one can programme a heating plant by introducing from the central alarm unit a turn-on/off timetable, or one can programme a lighting network.

[0019] Particularly, this invention further envisages to equip the antitheft plant with a plant of closed-circuit monitoring cameras, managed through the central control unit by actuating only one interested camera at a time. Video signals from the cameras can be connected in parallel onto a coaxial cable, eliminating the problem of having to be able to bring all video signals of the cameras to a selection circuit, saving large quantities of cable and space.

[0020] Still further, this invention takes its steps from considering the possibilities offered by Internet network, by electronic mail services and by the cellular phone network, and by the large and growing spreading thereof. Then, this invention gives itself the further object, and this also forms the teaching of this invention, of being able to remotely input instructions into the antitheft device, through electronic mail messages and/or cellular phone text messages SMS (Short Message Service), i.e. of using a computer, particularly a personal computer, or a cellular phone as control consoles of the antitheft plant.

[0021] Such an object is reached by equipping the central alarm unit with a modem for a communication with an Internet/electronic mail server, or with a transceiver, for a communication with cellular phone network.

[0022] Therefore, it is the subject of this invention an antitheft plant according to independent Claim 1.

[0023] Still a further object of this invention is that of being able to monitor an antitheft plant and to manage the central alarm unit thereof remotely, from a cellular phone in a direct way, i.e. without having to avail oneself of the short message texts.

[0024] Such an object is reached by equipping the central alarm unit and a cellular phone with respective transceivers tuned to each other on a given frequency. The two transceivers will communicate with each other on such a frequency through messages, encrypted with the object of protecting the pieces of information they carry, from eventual superfluous receivers placed in the neighbourhood of the antitheft plant.

[0025] Practically, a cordless function is so integrated into the involved cellular phone, such that everything presented on the display of the central alarm unit is in-

stantaneously also presented on the display of the cellular phone, and as a consequence one can manage the antitheft plant through the keypad of a cellular phone, as if one were directly operating from the console of the central alarm unit.

[0026] In such a way one has the advantage that one can eliminate the radiocontrols necessary heretofore for actuating the automation or control devices of a building. It turns to be apparent, from what mentioned above, how by means of an antitheft plant taught by this invention it is possible to recognize the sensors connected to the central alarm unit through codes associated therewith, and by virtue of that, how it is possible to open an automatic gate, to actuate/ deactivate the antitheft plant from outside the room this one protects (e.g. when one has already gone out of his/her home), to check the actuators of the antitheft plant at will, without having to reach the relevant switches, sometimes hidden in points not immediately accessed, etc., through a cellular phone.

[0027] For instance, if one is in bed and the antitheft plant goes in an alarm state, it could be dangerous to reach the central unit, probably arranged in the neighbourhood of a main entrance, to check the situation and deactivate the alarm. By means of the cellular phone endowed with the control console function within the reach of the hands, when the alarm comes into function one can know where an intrusion is taking place, without having to move oneself, so avoiding risks of assault.

[0028] A further advantage of this invention turns out from the possibility offered by cellular phones of last-generation cellular phones, such as model *Genie* by Philips, of creating in the memory of a cellular phone a written list of phone numbers and of univocally associating a respective vocal composition to each of these ones. Such a possibility allows an antitheft plant to be managed by a cellular phone through simple vocal instructions. For instance, to open a gate it will suffice to utter: --OPEN GATE--; to close it: --CLOSE GATE--; to lock it: --LOCK GATE--. In such a way, it will be possible to manage the antitheft plant e.g. from an automobile, without having to divert the look from the driving.

[0029] The vocal instructions will be stored in the memory of the cellular phone in the stage of installing the antitheft plant.

[0030] Still a further advantage is that by exploiting a voice synthesis circuit it is possible to make the cellular phone to accept vocal instructions input by authorized persons only, storing in the installation stage vocal instructions uttered by authorized persons. So one will have a security feature in case of a loss of the cellular phone.

[0031] Still a further object of this invention is to also be able to control an antitheft plant by means of a cordless phone.

[0032] Such an object is reached by endowing the central alarm unit with a transceiver endowed with a socket for its interfacing with the fixed phone network.

[0033] Therefore, it is the subject of this invention an

antitheft plant according to independent Claim 1.

[0034] Preferred embodiments are set forth in dependent claims.

[0035] This invention will be fully understood based on the following detailed description of a preferred embodiment thereof, only given as a matter of example, absolutely not of restriction, referring to the annexed drawings, wherein:

- FIGURE 1 is a general diagram of an inventive antitheft plant;
- FIGURE 2 is the circuit diagram of a microprocessor embodiment of this invention;
- FIGURE 3 represents a cellular phone adapted to be used as a control console for the antitheft plant of this invention, and
- FIGURE 4 represents a diagram of an embodiment of the communication system between a cellular phone and the central alarm unit of the antitheft plant of this invention.

[0036] Referring to FIGURE 1, an antitheft plant of this invention includes a central control unit 1 having an alphanumeric keypad 11, for inputting instructions, and a display 12, and protection fittings such as a sensor 2, a magnetic contact 3, a connector 4, an actuator 5, an internal siren 6 and an external siren 7. Such protection fittings are connected with the central control unit by means of a two-wire line, including two transmission lines 1', 1'', respectively of output from, and return or response to the central control unit 1. The protection fittings are connected onto such two-wire line in parallel, through respective connection branches 2', 2'', 3', 3'', 4', 4'', 5', 5'', 6', 6'', 7', 7''.

[0037] Referring to FIGURE 2, the circuit constitution is depicted of an embodiment of this invention, based whereupon one is able to understand the operating stages of the installation of the antitheft plant of this invention.

[0038] The central control unit 1 includes a central control unit board 13, the main component whereof is a central control unit microprocessor or CPU (Central Processing Unit) 21. The latter communicates, through an address bus 101 and through a data bus 102, an output and an input bus from/into it respectively, with an EPROM 22, an E²PROM 23, a RAM memory 24, and circuits for selecting memories and input/output devices 25. Through data bus 102 the central control unit microprocessor 21 also communicates with alphanumeric keypad 11, through a keypad interface 26 and a keypad connector 27, as well as with display 12 through a display output 28 and a display connector 29. The central control unit board 13 also includes a Universal Asynchronous Receiver-Transmitter or UART 30, which communicates as a transmitter TX and as a receiver RX through a UART connection board 30' and that receives a signal from a frequency divider circuit 30''; a serial port 31 having a serial port connection board 31'; a date and

hour timer 32, and a socket for telephone sequence switch 33, all communicating on data bus 102. Microprocessor 21 controls the mentioned units through bidirectional control lines 103. A clock circuit 34 sends a clock signal to central control unit microprocessor 21 and to frequency divider 30''. A reset circuit 35 sends a signal to central control unit microprocessor 21 and to UART 30.

[0039] Central control unit board transmits and receives codes through transmission line 1' and reception line 1'' respectively, to/from each protection fitting interface module 14. The latter includes a protection fitting microprocessor or CPU 36 with a clock circuit 37 and a reset circuit 38. Protection fitting interface module includes a protection fitting E²PROM memory 39 which an address bus 105 accesses from protection fitting microprocessor 36. Moreover, a data bus 106 and a group of control lines 107 connect protection fitting E²PROM memory 39 and protection fitting microprocessor 36. The codes sent by/coming to the central control unit enter into/go out of protection fitting interface module 14 through a connection board 40 by means of a first and a second amplifier 41, 42.

[0040] The circuit also includes a sensor or connector input interface 15 and a siren or actuator output interface 16. An output signal line 43' and an antitamper signal line 43'' go out of a sensor or connector 43. Such lines form inputs to logical gates AND or of logical product 44, 45, whereinto lines 44', 45' respectively come from data bus 106, and wherefrom output lines 44'', 45'' respectively go out, to data bus 106.

[0041] In output interface 16, a siren or actuator 46 has, as its input, an actuation line 108 from control lines 107, an output line 46' and an antitamper signal line 46''. The latter two outputs form inputs to gates AND 47, 48, which have, as their second inputs, a response signal line 111, and a line 112 respectively, and, as their outputs, lines 47', 48' that add themselves to lines 44'', 45''.

[0042] The installation of the antitheft plant of this invention takes place as follows.

1st Stage: First powering-up

[0043] In EPROM memory 22 a programme is stored which checks the correctness of the operation of the antitheft plant or system, and first of all displays on display 12 information for presenting the antitheft plant, such as for instance "WELCOME IN THE SYSTEM". Thereafter a main menu page is displayed, such as for instance:

- > 1 - First programming
- 2 - Partial programming
- 3 - Hour and date
- 4 - Name of the building

[0044] Here the installer finds himself in a condition to have to carry out a first selection. Supposing the se-

lected item to be "First programming", the system asks for introducing, through fingering on keypad 11, an antitamper safety code, for the protection of the subsequent programming stage.

2nd Stage: Programming

[0045] In this stage a short description is associated or assigned to each one of protection fittings, to the object of being able to monitor the state thereof on display 12. On the display the message appears "Connect the first device to be programmed and press ENTER". Then one connects the protection fitting, or device, for instance detector or sensor 2, to central control unit 1, and presses a key whereto the ENTER function has been attributed, for instance key function 11₁ (see FIGURE 1). Central control unit E²PROM 23 creates, in its interior, an area reserved to codes for identifying protection fittings or devices, with respective short descriptions. On the display messages appear, such as for instance:

1000 Infrared sensor
description:
[cursor]

CONFIRMATION

[0046] The identification codes so can be provided in a numeric succession by pressing ENTER key 11₁. The numbering limit of protection fittings can depend both on memory size and on the number of protection fittings that can be connected, without overcoming absorption limits. Moreover, the numbering can be subdivided in groups of protection fittings based on categories of protection fittings. For instance, the sensors can be made to fall between 2000 and 2999, actuators between 3000 and 3999, so as to partition E²PROM memory in a plurality of indexed blocks. Simultaneously with this operation central control unit microprocessor 21 transmits through UART transceiver 30, a check code equivalent to ZERO, which is received from protection fitting interface module 14. Protection fitting microprocessor 36 thereof fetches the check code on a line of data bus 106, converting it from serial to parallel through internal registers thereof. Then it compares it with a code present in protection fitting E²PROM memory 39. If the code corresponds to the one present in the memory, then protection fitting microprocessor 36 fetches, from the same memory, a further code, the the serial number, which is stored in the manufacturing stage, and transmits it to the central control unit through return line 1". UART transceiver 30 converts information from serial to parallel and puts it at the disposal of central control unit microprocessor 21. Through this code the circuit sets the category of devices whereto the protection fitting belongs, displaying its name on display 12, as mentioned above. At the same time, under this message, the cursor appears, for instance in a lightening or a pulsed form, which in-

vites the installer to introduce the following of the description through alphanumeric keypad 11. Finally, after confirming the message, the protection device or fitting is identified and stored in the memory area marked by the code itself, at the same time the code is transferred to the connected protection fitting to be stored in protection fitting E²PROM 39.

[0047] The described operation is iterated for each protection fitting which will have to be connected to the central processing unit, such as for instance sensors, connectors, magnetic contacts, detectors, actuators, sirens.

3rd Stage: Putting in operation

[0048] At the end of the programming the electric power supply is cut out to central control unit 1 and one proceeds to a connection in parallel of all protection fittings on two-wire line 1', 1", respecting the spaces assigned in the stage of the description. After the installation power is again given to the central control unit 1. Display 12 displays a welcome introduction, e.g. "WELCOME IN THE SYSTEM", and immediately after the circuit starts scanning all protection fittings present on two-wire line 1', 1", going to check their state one at a time. Central control unit 21 fetches from E²PROM 23 the codes assigned in the programming stage and inputs them onto transmission line 1', one at a time. Each code is simultaneously fetched by all protection fittings or devices present on two-wire line 1', 1" and stored in the internal registers of each protection fitting microprocessor 36. At this point the code present in protection fitting E²PROM 39 is fetched and compared with the one just stored in the registers in the protection fitting microprocessor. If the two codes are equal, the protection fitting whereto it relates sends a state response to the central control unit; if the two codes are not equal, it sets its output to a high-impedence state till when it will receive the corresponding code. The response to be sent to the central control unit 1 is still fetched by protection fitting microprocessor 36 and finds itself on output lines 44', 45' of detector input interface. Here the sensor, according to the state thereof, shows itself with two logical levels: in case of alarm it presents the output signal at a HIGH level, otherwise at a LOW level, the same thing happens for the antitamper set by signal TAMPER. The antitamper function is realized by means of a button which in a normal position is kept pressed by a lever. In this position the output signal is an enable logical level. If one tries to open the box that holds the circuits, the lever lifts up and the output signal changes state, turning the alarm on. After putting under test lines 44', 45', the same protection fitting microprocessor 36 takes a binary information therefrom, that it sends to central control unit 1 in a serial format. On the other side central control unit 21 fetches this information and through a programme it presents on display 12, with a message, the behaviour of polled protection fitting. Immediately after, microproc-

essor 21 increments a code counter by a unity, and repeats such procedure indefinitely, till when the electric power supply is cut out.

4th Stage: Actuation of actuators

[0049] The preceding stage is a passive operation, in that the central control unit goes to poll the detector or sensor to decide how to behave in the following. Now the action is opposite, in that the central control unit, if it acknowledges an alarm, has to instruct the actuators to turn themselves on.

[0050] The procedure is similar to the preceding one. Central control unit microprocessor 21 fetches the codes corresponding to actuators from E²PROM 23 and transmits them on transmission line 1'. The code are received by all actuators and then compared with their respective internal codes. At this point the microprocessor of the actuator which the code corresponds to, goes to enable the actuator through actuation line 108. Immediately after output interface 16 provides a response of confirmed actuation 47', that microprocessor 36 transmits to the central control unit. Through such a response the central control unit ensures itself that the actuators are actually turned on, so avoiding the problem of errors that could arise during the transmission of data. Display 12 indicates with a message all protection fittings turned on.

[0051] According to an embodiment, the central alarm unit is equipped with a modem, wherethrough being able to put itself in communication with a server for the connection to Internet network and to the electronic mail services to control and monitor the antitheft plant by computer.

[0052] According to another embodiment the central alarm unit is equipped with a modem (not shown) for a communication with an Internet/electronic mail server, the functional insertion whereof will fall within the designing skill of the average man of the art, whereby a description thereof is omitted herein.

[0053] As schematically represented in FIGURE 4, a cellular phone emits, through its antenna 200', a short-text-message signal S1 to a radio link 202, which returns it as a signal S3 to transceiver 203, which receives it through an antenna 203'. Transceiver 203 allows central alarm unit 1 to be controlled and monitored through SMSs. Indeed, the data processed by the latter arrive at transceiver 203 through a connector 203'', wherein they are encrypted and sent, upon composing a user code, to radio link 202 through antenna 203'. Antitheft plant information is so transmitted to the cellular phone besides precedently programmed information, in the progress of the installation. If one has the need of instructing a device connected to the central alarm unit it will suffice to compose a message that indicates the operations to be performed and to send it to transceiver 203 by network.

[0054] As illustrated in FIGURE 4, according to this

invention the central alarm unit and a cellular phone are endowed with respective transceivers 204 (having a connector 204'), 204'' tuned with each other. The cellular phone is endowed with a field sensor. As can be seen in FIGURE 3, on the video 205 of the cellular phone, besides a network presence indicator R, a field indicator C is made to appear, which indicates a signal strength based on a number of marks turned on; if at least one of the latter is on, one can communicate with the central alarm unit in cordless mode and then have a direct dialogue with it through signal S2, as represented in FIGURE 4.

[0055] As can be seen in FIGURE 3, the cellular phone is endowed with other two keys 206, 207, which can be used to visualize on display 205 the receiving-transmitting mode one wants to use, i.e., for instance, with key 206 one can visualize 'cordless' mode and with key 207 'network' mode. On the other side, a key can be used to select the modes sequentially, and the other key can be used for directly controlling an actuator, for instance an automatic gate. For the latter mode the user will be able to input a routine, selecting at his/her will how to exploit the control, programming it through the same code present in the actuator connected to the central alarm unit.

[0056] As illustrated in FIGURE 4, the cellular phone includes an antenna 200', a transceiver 203'', an additional, inventive transceiver 204'', a control circuit 208 and a selection circuit 209. The selection circuit 209 has as its input a bidirectional line for a cellular mobile phone signal SG from transceiver 203'' and a bidirectional line for a cordless communication signal SC. Control circuit 208 includes the microprocessor central control unit of the cellular phone with memories, keypad control and data visualization on the display, and has as its input, from the selection circuit, a line for a call warning signal LC, a bidirectional line for an output or utility signal SU and, as its output to the selection circuit, a line for a selection signal LS.

[0057] Once the cordless mode activated, after pressing the proper key, first of all on display 205 a message is visualized such as --CORDLESS MODE--, which will disappear shortly after; then control circuit 208 enables the line for selection signal LS, letting cordless communication field signal SC, coming from transceiver 204'', through the line for utility signal SU. Control circuit 208 represents a multiplexer which, based on the state of the signal on the line for selection signal SL enables/inhibits the channel preselected by the keypad. Once the channel preselected by the keypad enabled, all what is written on the display 12 of of the central alarm unit can be visualized on the display 205 of the cellular phone, and as the keypads of the cellulat phone and of the central alarm unit are identical with each other, it is possible to manage the central unit directly from the cellulare phone, as if one were fingering on the keys of the console of the central alarm unit, so one being able to monitor the situation of the antitheft plant from any point

of a house or also from outside it.

[0058] If one is operating in the 'cordless' mode and a call arrives from the cellular phone network, then transceiver 204 through the phone signal line (e.g. GSM signal) SG enables a trigger circuit in selection circuit 209 activating call warning line LC. Control circuit 208 fetches this piece of information and besides making rings to be emitted, makes a signalizer I on the display to wink (see FIGURE 3). In the meanwhile one has all the time necessary for terminating the operation of managing the central alarm unit, avoiding a loss of useful information. Then, by pressing the key of phone network mode, we can visualize the number of the calling user and then answer.

[0059] If one is operating in communication mode through a cellular mobile phone company, as in GSM mode, signal S1 is picked up by the antenna of the cellular phone and received by transceiver 203. Through phone signal line SG information passes by virtue of the logical state of selection signal line SL which selects selection circuit 209 on such a signal while SC is locked. Then the output signal or useful signal SU communicates with the microprocessor present in control circuit 208. Starting from such a moment if someone telephones, the cellular phone behaves normally and then one can directly answer, as in the customary way. If during a conversation when one finds him/herself within the limits of reception/ transmission of the transceiver of central alarm unit 204 a signal S2 should arrive at the cellular phone, including alarm state information, on display 205 indicator I and the loudspeaker will emit acoustic pulses as when text messages are received. In this way, having a voice-actuated telephone, one is able to talk comfortably, while having the display in front, one can monitor the situation of the antitheft device. This condition will be possible only if the selection circuit will let signal SG and signal SG to pass one at a time, alternately, in the form of pulse trains.

[0060] According to another embodiment of this invention, the transceiver of the central alarm unit is further endowed with an input 210, having the function of interfacing with a fixed phone line, so featuring a proper cordless phone. The functions are the same as a cordless phone already on the market, additionally, however, the cordless phone will be able to interact with the central control unit too.

[0061] This invention has been described and depicted referring to a specific embodiment thereof, but it is to be expressly understood that additions, variations and/or omissions can be made, without departing from the relevant protection scope, which remains restricted by the annexed claims.

Claims

1. An antitheft plant, including a central control or alarm unit and protection fittings, in electric commu-

nication, by wire or by radio, with said central control unit; said central alarm unit including means for turning on/off the antitheft plant; programmable data processing means for assigning identification codes, one for each one of said protection fittings; means for inputting instructions to programme said programmable data processing means; said protection fittings including memory means, each one for storing the identification code assigned thereto; said central alarm unit and said protection fittings including means for monitoring the state of, and/or for actuating/ switching out each one of said protection fittings, and said central alarm unit including means for presenting state information of each one of said protection fittings.

2. The antitheft plant of Claim 1, wherein said central unit is connected to said protection fittings through a two-wire line made up of two wires in parallel, an output wire from said central alarm unit and a return or response wire to said central alarm unit.
3. The antitheft plant of Claim 2, further including means for warning about the shearing or a shortcircuit of the two-wire line.
4. The antitheft plant according to anyone of the preceding claims, further including monitoring cameras, connected in parallel on said output and response wires, as well as connected through a coaxial cable to display means.
5. The antitheft plant according to anyone of the preceding claims, wherein said central alarm unit further includes a modem for the communication with an Internet/electronic mail server, with the object of instructing, through electronic mail messages, the turning on/off of the antitheft plant; the actuation/ switching out of individual protection fittings, and/or of monitoring the state of the protection fitting by bringing the video output of the display of said central alarm unit onto the video display of a data processor.
6. The antitheft plant according to anyone of Claims 1 to 4, wherein said alarm central unit further includes transceiver means for communicating with a cellular mobile phone network, with the object of instructing, through short text messages, or SMS messages, the turning on/off of individual protection fittings, and/or for monitoring the state of protection fittings by bringing the video output of the display of said alarm central unit to the display of a cellular phone.
7. The antitheft plant according to anyone of Claims 1 to 4, further including a cellular phone; wherein said alarm central unit and said cellular phone respectively include transceiver means tuned therebe-

tween, for a direct communication between the cellular phone and said alarm central unit, with the object of directly instructing from the cellular phone the turning on/off of the antitheft plant; the actuation/switching out of individual protection fittings, and/or of monitoring the state of protection fittings by bringing the video output of the display of said alarm central unit on the display of the cellular phone.

8. The antitheft plant according to anyone of Claims 1 to 4, further including transceiver means endowed with means for interfacing to a fixed phone network, for a direct communication between a cordless phone and said central alarm unit, with the object of directly instructing from the cordless phone the switching on/off of the antitheft plant; the actuation switching off of individual protection fittings.

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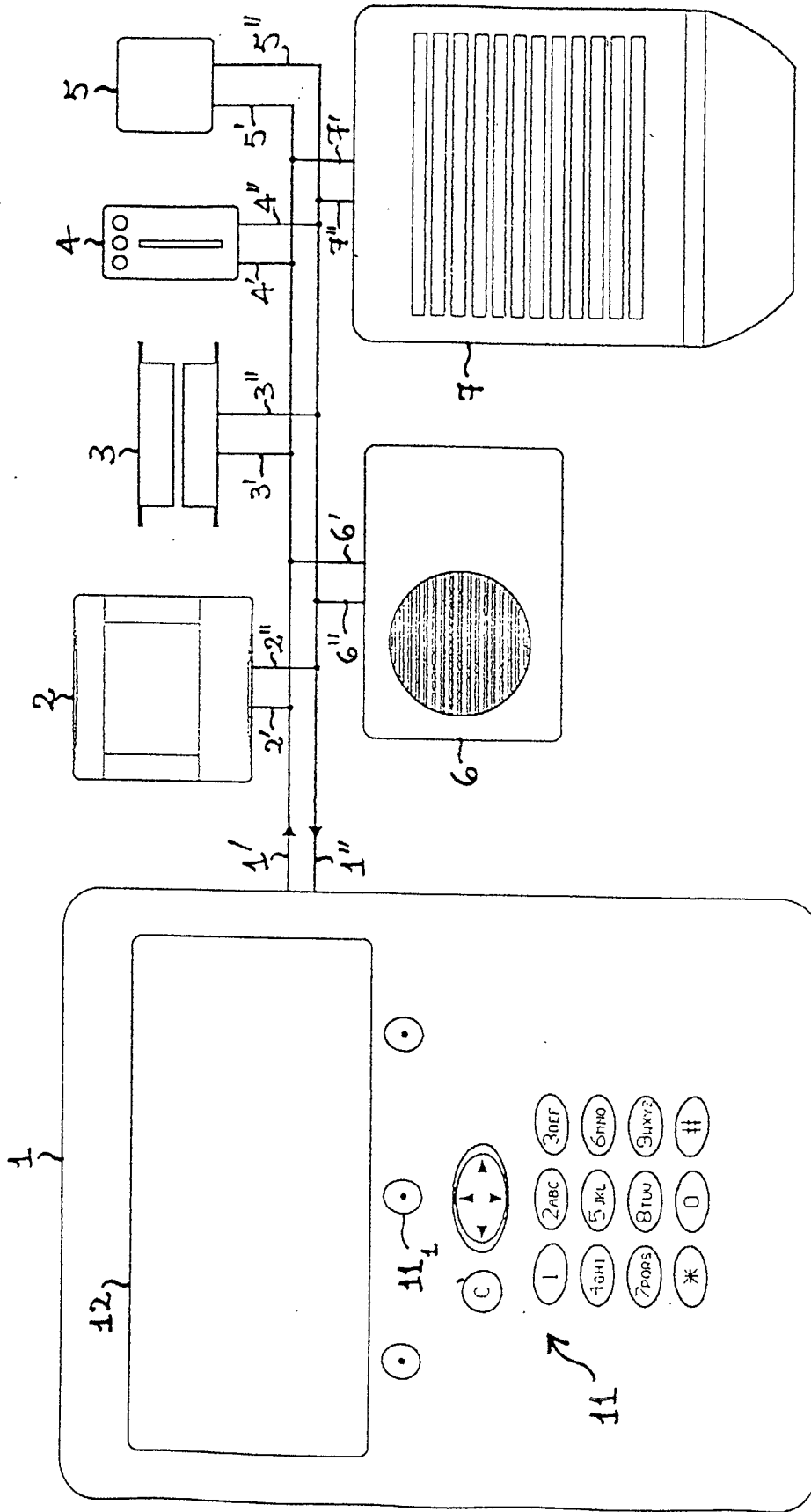


FIG. 1

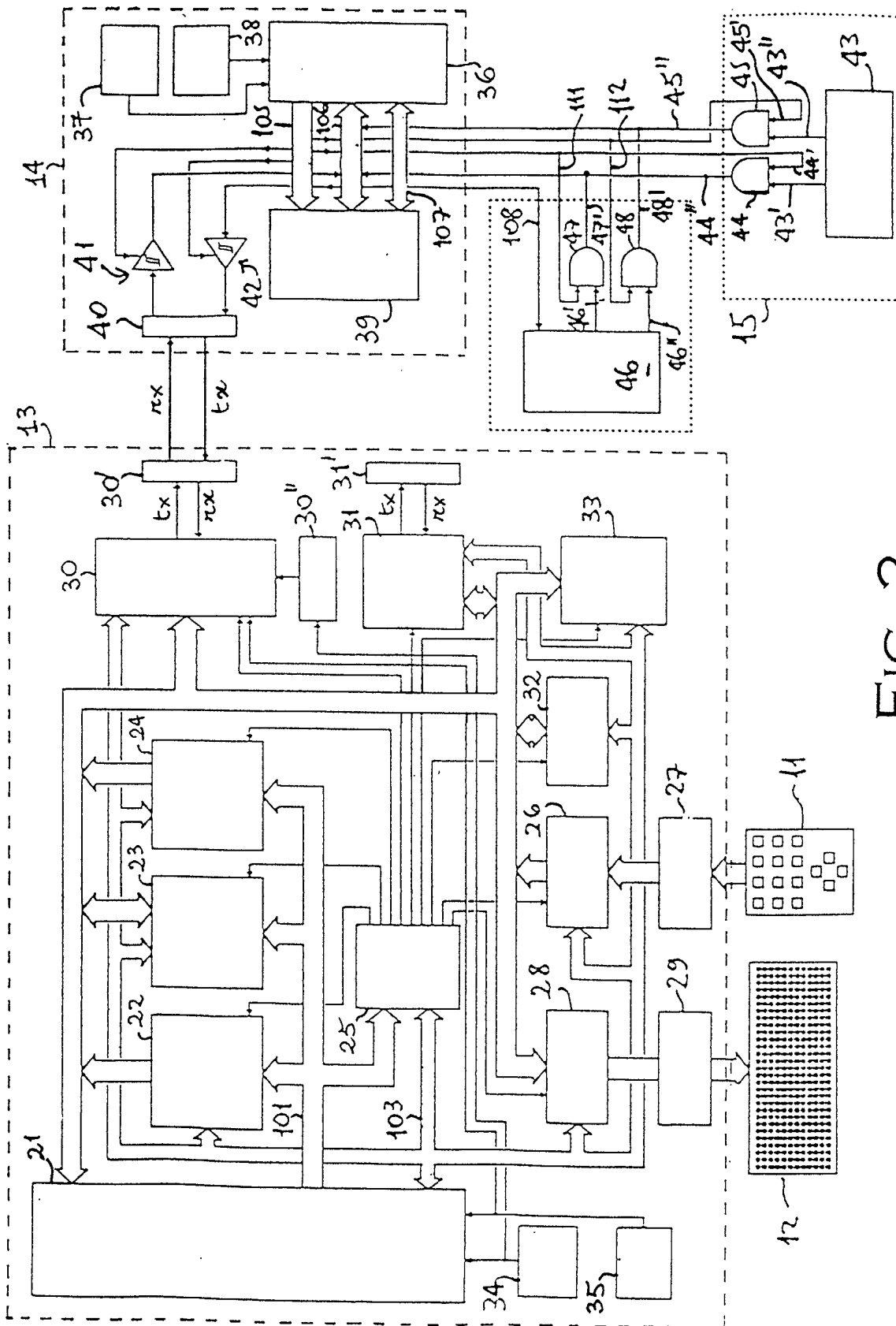


FIG. 2

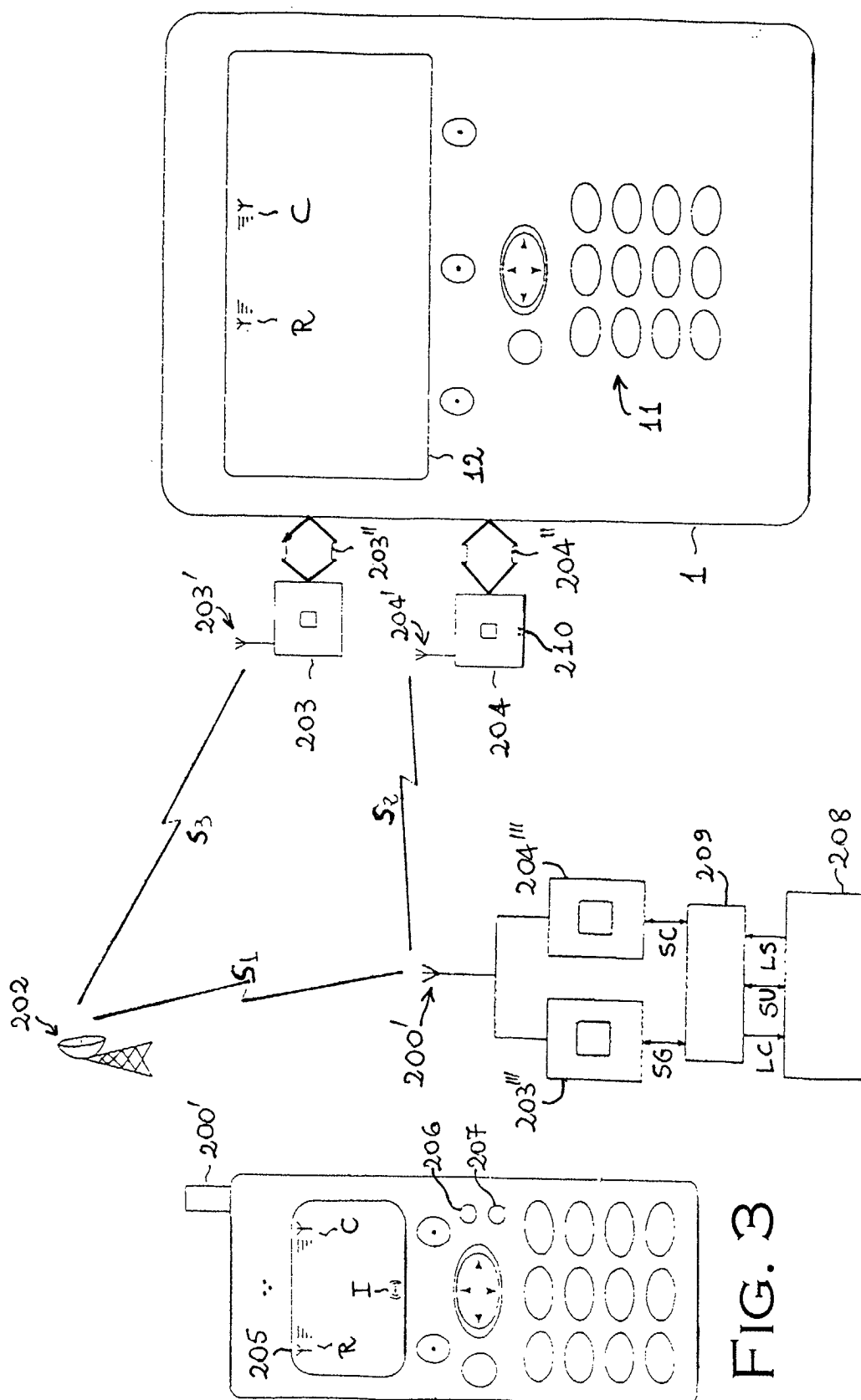


FIG. 4

FIG. 3



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Application Number
EP 02 42 5060

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