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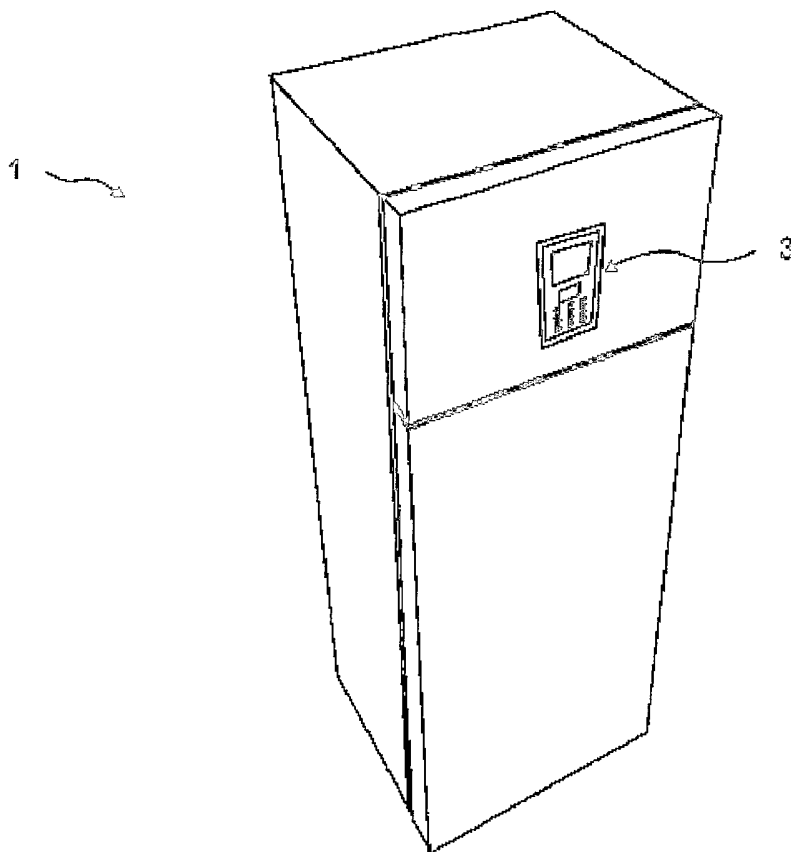
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[Continued on next page]

(54) Title: A REFRIGERATOR



(57) Abstract: This invention relates to a refrigerator (1) which provides the user with facilities like making telephone conversation, sending and listening the audio messages.



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Description

A REFRIGERATOR

- [001] This invention relates to a refrigerator which provides the user with communication facilities.
- [002] Kitchens occupy a considerable period of time in daily lives and ways are searched for using the appliances in the other rooms of the houses from the kitchen easily. In addition, the necessities of the consumers for the integrating the household appliances into each other have increased in accordance with the purposes such as saving from time and easy using. In state of art, applications like television, radio, internet connections, saving audio and text messages, automatic service calling for malfunction in the refrigerators are available.
- [003] United States Patent US6442952 defines a refrigerator control system which provides the user with facilities like watching television, sending audio and text messages by means of a display unit.
- [004] The object of this invention is to provide a refrigerator which allows the user to make telephone conversation.
- [005] The refrigerator realized in order to attain above mentioned objects of the present invention has been illustrated in the attached drawings, wherein;
- [006] Figure 1 is a perspective view of a refrigerator comprising a control panel.
- [007] Figure 2 is a schematic view of a main control unit and a control panel.
- [008] Figure 3 is a schematic view of a refrigerator comprising a keyboard panel, a speaker and a microphone.
- [009] Figure 4 is a schematic view of a control panel in which the keyboard panel lid is opened.
- [010] Figure 5 is a schematic view of a a control panel in which the keyboard panel lid is closed
- [011] Figure 6 is a schematic view of a touch screen.
- [012] The components shown in the figures have been enumerated as below;
1. Refrigerator
 2. Main control unit
 3. Control panel
 4. Communication connection
 5. Cooling function button
 6. Communication function button
 7. Screen
 8. Language select button
 9. Telephone on/off button

10. Keyboard panel
11. Speaker
12. Microphone
13. Compartment temperature indicator
14. Alert and info indicator
15. Volume level indicator
16. Message indicator
17. Telephone indicator
18. Info screen
19. Keyboard panel indicator
20. Touch screen
21. Keyboard panel lid
22. Sensor connection
23. Power and component connection

[013] The refrigerator (1) comprises a main control unit (2) for controlling the operation of the components like the compressor and the fan with respect to the data received from the sensors and adjustment buttons, a control panel (3) which allows for the adjustment and display of the functions and send the said data to the control unit (2) preferably via the serial transmission, a communication connection (4) for external communication, a keyboard panel (10) having keys like (0, 1, 2, ... 9, #, *, ...) for turning on/off the telephone and dialing, a speaker (11) for having a telephone conversation, sending audio message and listening to the audio messages and a microphone (12) for having a telephone conversation and saving the audio messages.

[014] The main control unit (2) comprises one or more sensor connection (22) for transmitting the data like the temperature and moisture detected by the sensors and one or more power and component connections (23) providing the connection with the components like the power supply, the compressor and the fan.

[015] The control panel (3) comprises one or more cooling function button (5) for adjusting the cooling functions, one or more communication function buttons (6) for saving the audio messages, listening and adjusting the volume level, a screen (7) for displaying temperature values and other alerts which are current or adjusted in the compartments, a language select button (8) for selecting the language of the text messages coming from the main control unit (2) related to the functions of the refrigerator (1) and a keyboard panel lid (21) which can be opened and closed by being slightly pressed and protects the keyboard panel from the outer factors.

[016] The keyboard panel (10) comprises a telephone on/off button (9) for starting and ending the telephone conversation.

[017] The screen (7) comprises one or more compartment temperature indicators (13) for

indicating the temperature which is current and adjusted in the compartments, one or more alert and info indicators (14) which warns the user by lights during the economic operation, standby position or high temperature alert, a volume level indicator (15) indicating the volume level of the message, a message indicator (16) which warns the user by lights in case a message is sent or received, a telephone indicator (17), which warns the user by lights during the telephone conversation or a call and an info screen (18) which displays the text messages from the main control unit (2) related to the functions of the refrigerator (1).

[018] If the user wants to have a telephone conversation via the refrigerator (1), he/she calls by pressing the telephone on/off button (9) and the telephone indicator (17) turns on simultaneously. The number is dialed by using the keyboard panel (10). When the telephone conversation ends, the telephone is turned off by pressing the telephone on/off button (9) and the telephone indicator (17) turns off. If the user forgets to press the telephone on/off button (9), the telephone indicator (17) stays in on position. The conversation is started by pressing the telephone on/off button (9). The communication function buttons (6) on the control panel (3) fulfills the functions like sending audio messages, listening to the coming messages and adjusting the volume levels apart from the telephone conversation.

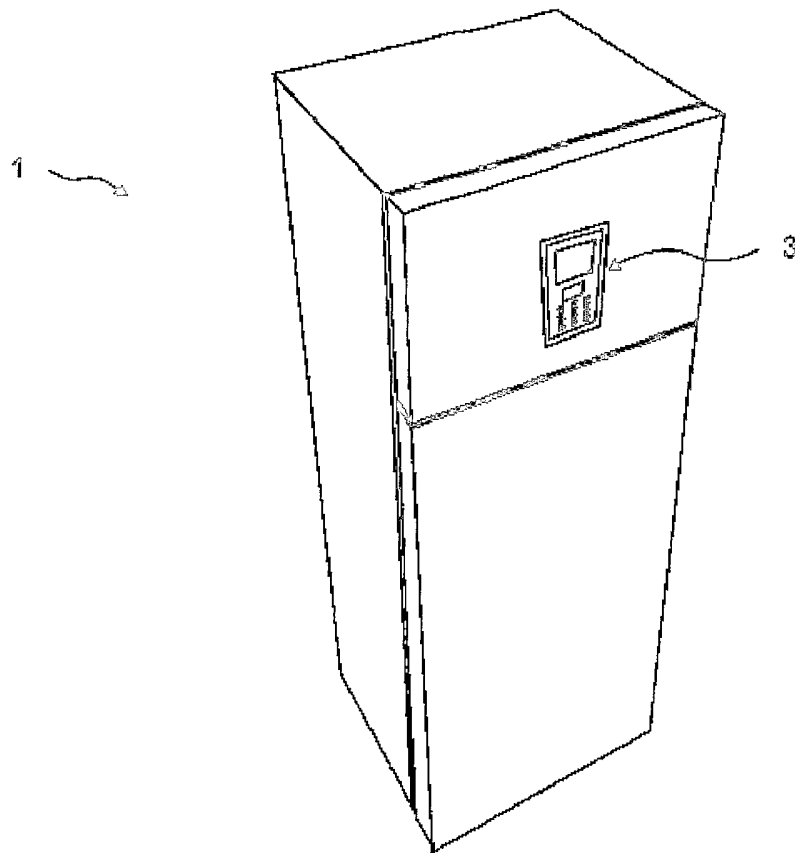
[019] In another embodiment of the invention, the control panel (3) comprises a touch screen (20) having the function of a keyboard panel indicator (19) which is activated by replacing the temperature indicators (13) and the alert and info indicators (14) when the telephone indicator (17) is touched and allows a telephone call by pressing the keys being displayed.

[020] In another embodiment of the invention, the keyboard panel (10), the speaker (11) and the microphone (12) is mounted on the control panel (3) for easy use.

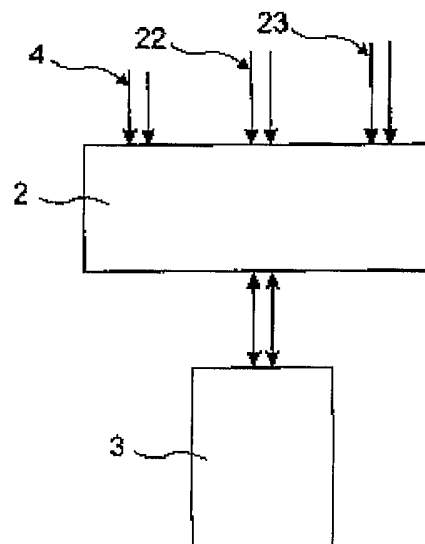
Claims

- [001] A refrigerator (1) characterized by a keyboard panel (10) having keys like (0, 1, 2, ... 9, #, *, ...) for turning on/off the telephone and dialing, a speaker (11) for having a telephone conversation, sending audio message and listening to the audio messages and a microphone (12) for having a telephone conversation and saving the audio messages.
- [002] A refrigerator (1) as defined in Claim 1 characterized by a keyboard panel (10) comprising a telephone on/off button (9) for starting and ending the telephone conversation.
- [003] A refrigerator (1) as defined in Claim 1 characterized by a control panel (3) comprising one or more cooling function button (5) for adjusting the cooling functions, one or more communication function buttons (6) for saving the audio messages, listening and adjusting the volume level, a screen (7) for displaying temperature values and other alerts which are current or adjusted in the compartments and a language select button (8) for selecting the language of the text messages coming from the main control unit (2) related to the functions of the refrigerator (1).
- [004] A refrigerator (1) as defined in Claim 3 characterized by a control panel (3) comprising a screen (7) having a telephone indicator (17) which warns the user by lights during the telephone conversation or the call.
- [005] A refrigerator (1) as defined in Claim 2 characterized by a control panel (3) comprising a keyboard panel lid (21) which can be opened and closed by being slightly pressed and protects the keyboard panel from the outer factors.
- [006] A refrigerator (1) as defined in Claim 3 characterized by a control panel (3) comprising touch screen (20) having the function of a keyboard panel indicator (19) which is activated by replacing the current indicators thereon when the telephone indicator (17) is touched and allows a telephone call by pressing the keys being displayed.
- [007] A refrigerator (1) as defined in Claim 3 characterized by a control panel (3) on which a keyboard panel (10), a speaker (11) and a microphone (12) is mounted for easy use.

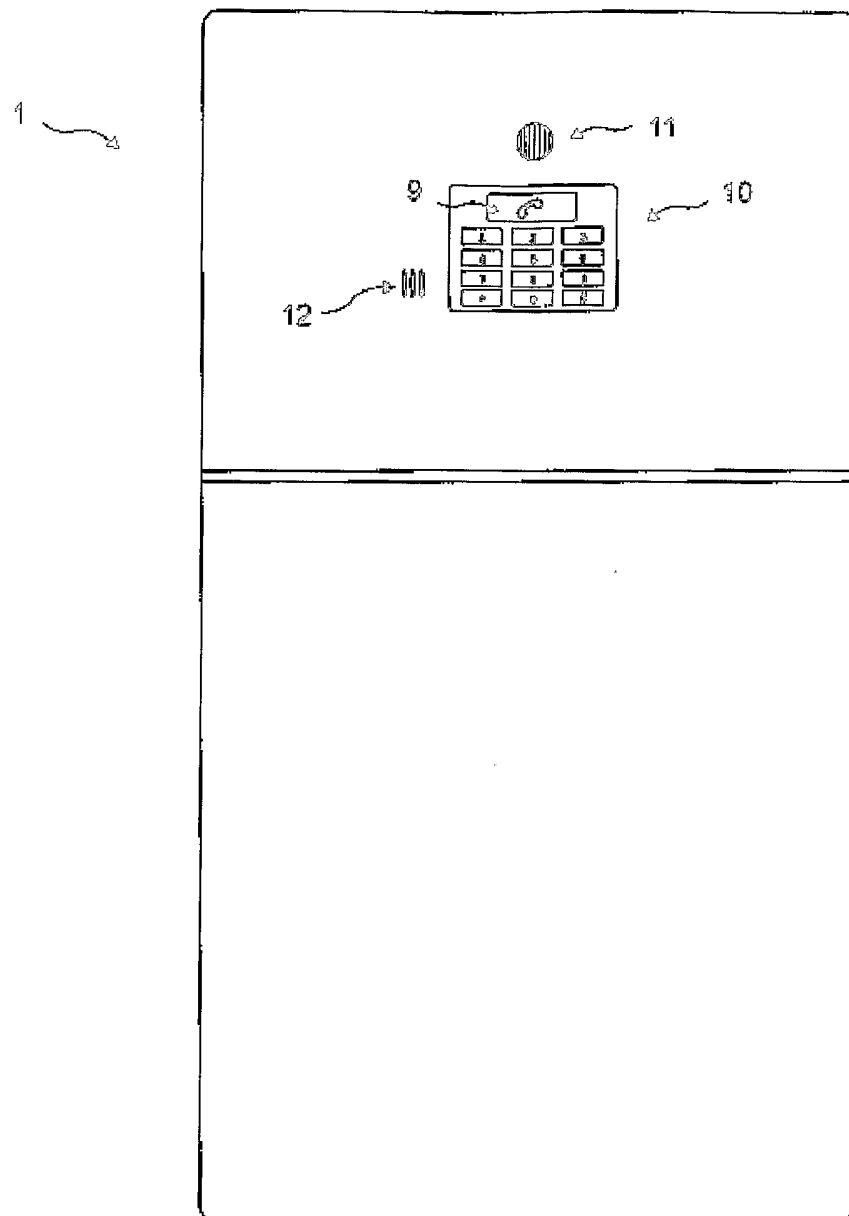
[Fig. 001]



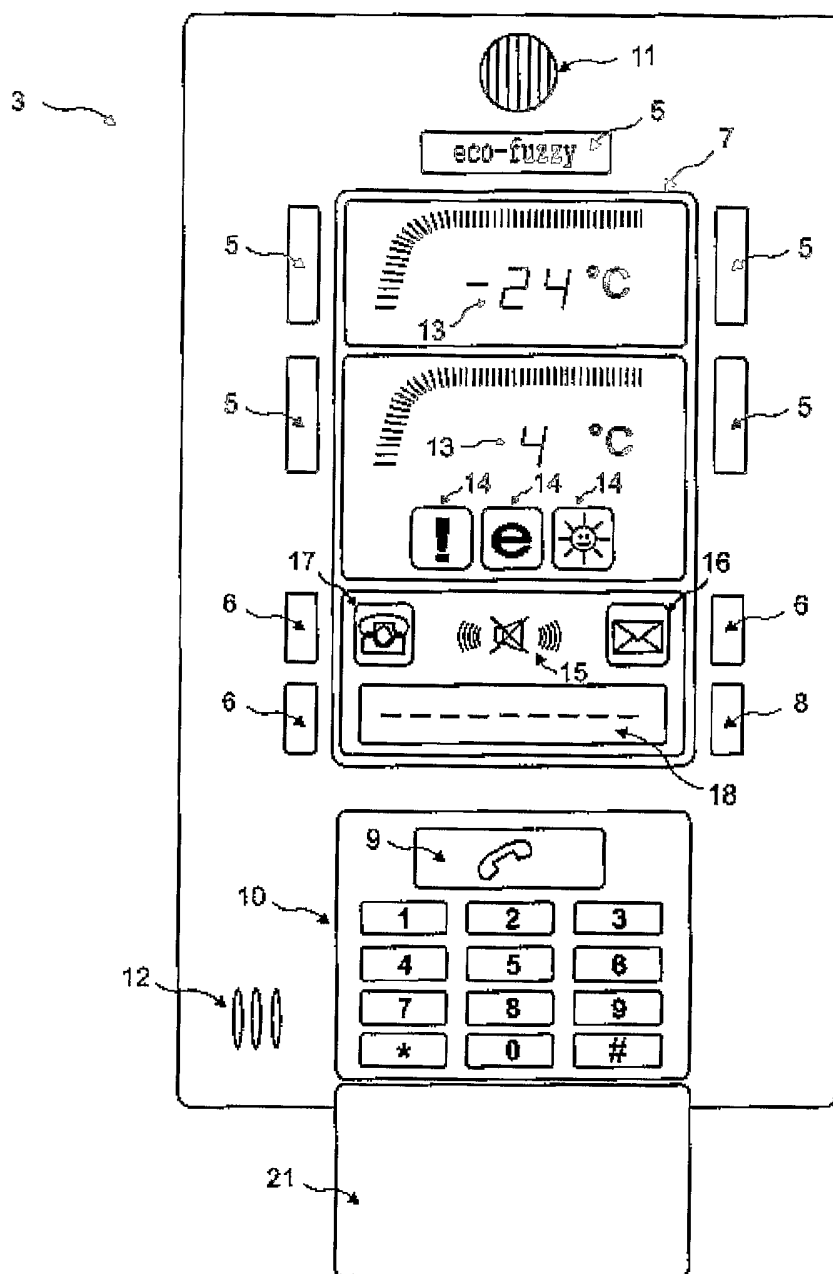
[Fig. 002]



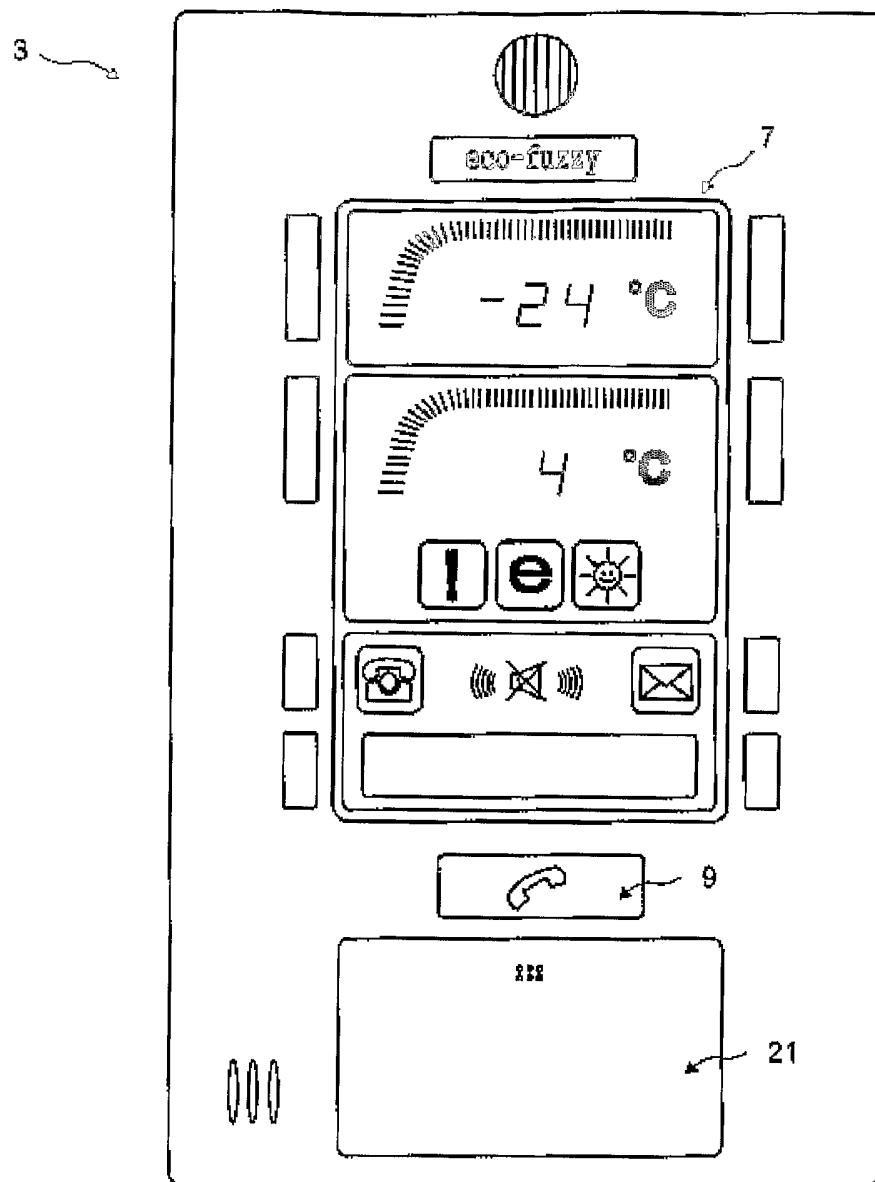
[Fig. 003]



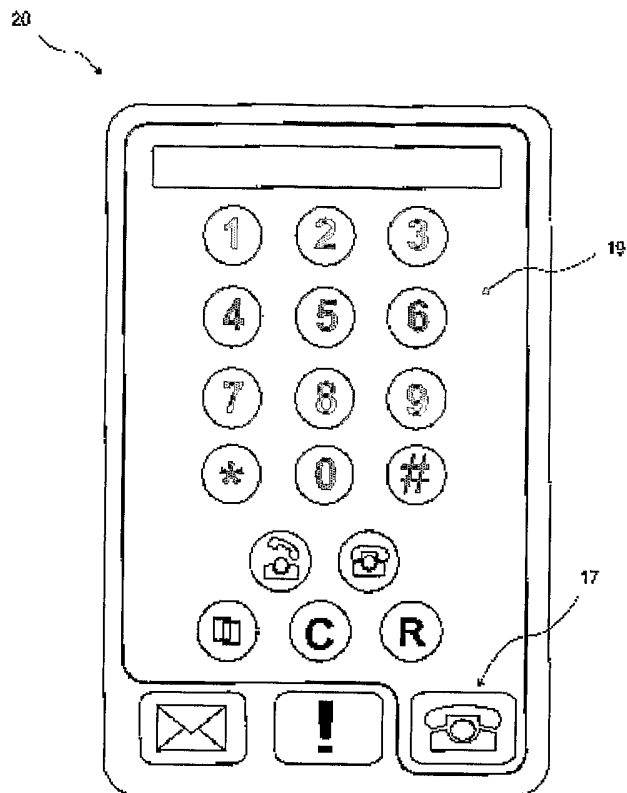
[Fig. 004]



[Fig. 005]



[Fig. 006]



INTERNATIONAL SEARCH REPORT

Inter al Application No
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A. CLASSIFICATION OF SUBJECT MATTER
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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)
IPC 7 F25D

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

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

EPO-Internal, PAJ, WPI Data

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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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