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(54) A panel for cooling devices

(57) The cooling device of the invention is a device which has at least one display and/or control panel (5) on a heat insulated body (1), and in which foodstuff is stored. The device comprises a slot (4) in which said panel (5) is engaged from an internal wall (2) side of the body (1); at least one insulation part (6) which is formed so as to fill the entire space of the slot (4) remaining from the panel (5) and which leans on the rear surface (12) of the panel (5); at least one cover (7) which is provided at the rear side of the insulation part (6) and fixed to the internal wall (2).

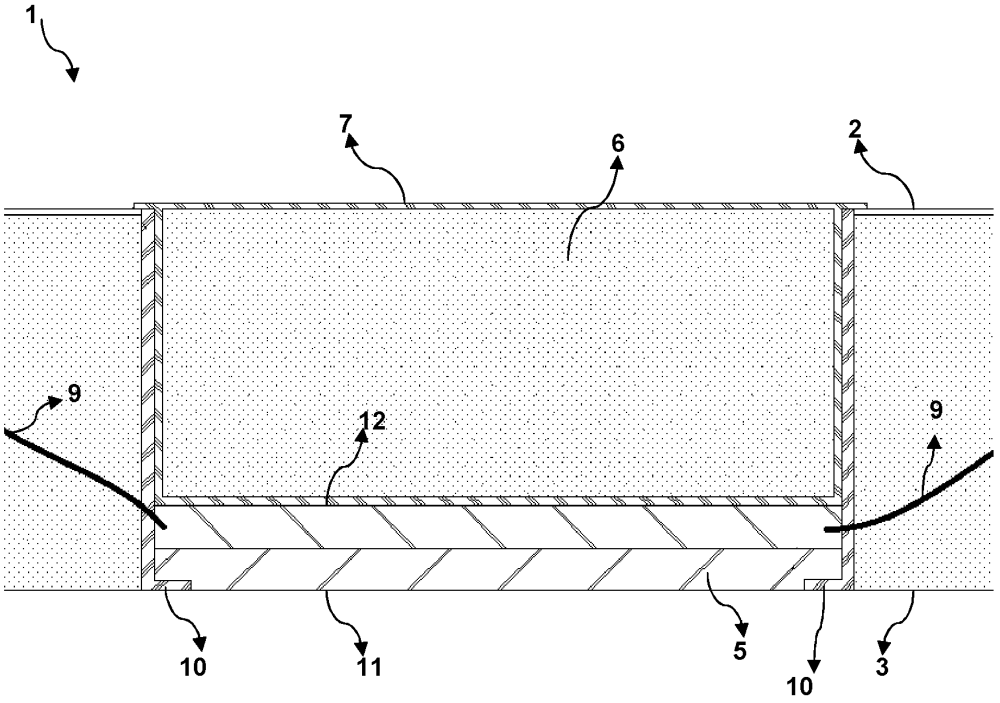

Figure – 3

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Description

Technical Field

[0001] The invention relates to placing display/control panels in the cooling devices used for storing foodstuff.

Prior Art

[0002] As known, body and door sections of the cooling devices, which are used for storing foodstuff, are surrounded by thermal insulation materials. Thanks to these insulation materials, which are filled in the spaces remaining between the sheet metal materials in the device body or device door, heat exchange between the food storage chamber of the device and the external environment is minimized. However, using the insulation material makes it difficult to place some parts on the device body or device door. For example, many new generation refrigerator doors are provided with a display/control panel, and these panels are placed in a space formed inside the heat insulation material. These display/control panels, which are used by the user for adjusting operation of the device or acquiring information about the operation condition of the device, can sometimes fail, and are able to engage and disengage for repair, change, etc. Various studies have been made in the art for ensuring that operations become more practical.

[0003] For instance, a published patent application no EP2184571 discloses a display/control panel placed in a door of the refrigerator. It is seen that the panel is placed in a space provided inside the insulated section in the refrigerator. The panel is placed from the side part of the door, and simultaneously, a door handle in the shape of a slot is placed in the placement space. However, partial spaces are provided around the handle and panel; and since these two parts are side by side, the heat insulation material is not able to be used in a wide volume. Due to little insulation material, the amount of the heat loss in this area is more than the other sections.

Brief Description of the Invention

[0004] The cooling device of the invention is a device which has at least one display and/or control panel on a heat insulated body, and in which foodstuff is stored. The device comprises a slot in which said panel is engaged from an internal wall side of the body; at least one insulation part which is formed so as to fill the entire space of the slot remaining from the panel and which leans on the rear surface of the panel; at least one cover which is provided at the rear side of the insulation part and fixed to the internal wall.

Objectives of the Invention

[0005] An aim of the invention is to form a display and/or control panel for cooling devices used for storing foodstuff.

[0006] Other aim of the invention is to ensure that said panel is able to engage to and disengage from the internal section of the device. Thus; aesthetic view of the device is not disrupted by ensuring that the connection elements remain inside.

[0007] The other aim of the invention is to ensure that said panel is able to engage and disengage easily.

[0008] Another aim of the invention is to minimize heat loss from the surrounding area of the panel by ensuring that the surrounding area of the panel is heat insulated.

[0009] A further aim of the invention is to form a cooling device having a panel, production and assembly of which are easy and cost-effective.

Description of the Drawings

[0010] An exemplary cooling device body and a panel engaged thereto are shown in the attached drawings wherein;

Figure 1 is a perspective view of the internal side of the body.

Figure 2 is an upper sectional view of the section in which the panel is engaged.

Figure 3 is an upper sectional view of the panel in an engaged state.

[0011] The parts in the figures are individually enumerated and the corresponding terms of reference numbers are as follows:

Cooling device body	(1)
Internal wall	(2)
External wall	(3)
Slot	(4)
Panel	(5)
Heat insulation part	(6)
Cover	(7)
Connection element	(8)
Cable	(9)
Rabbet	(10)
Front surface	(11)
Rear surface	(12)

Description of the Invention

[0012] The cooling device (not shown) of the invention, which is to be used for storing foodstuff, comprises at least one display and/or control panel thereon, and said panel is used by the user for adjusting operation of the device or acquiring information about the operation condition of the device. The panel is positioned on a heat insulated body of the cooling device. Figure 1 shows a part of the heat insulated body of the cooling device, and this part can be in the form of a movable door or a fixed

wall. In other words, said body (1) can be any one of the openable and closable doors of a refrigerator, as well as can be used as one of the fixed walls surrounding the internal volume.

[0013] Figure 2 shows a sectional view of said body (1), and at least one slot (4) provided therein is formed for the placing the panel (5) (shown in figure 3) of the invention. Access to the slot (4) is ensured from the internal wall (2) side of the body (1). In other words, for the engaged state of the panel (5), as shown in figure 3, the panel (5) is needed to be pushed inside the slot (4) from the internal wall (2) side. In this assembled state, the panel (5) leans on at least one rabbet (10) at the external wall (3) side of the body (1), and front surface (11) of the panel (5) can be seen therefrom (at the external wall (3) side). (Also, electricity is able to be carried to the panel (5) by the fixed cables (9) remaining inside the body (1).)

[0014] As shown in figure 3, a thermal insulation part (6) closing a rear surface (12) of the panel (5) is provided. The insulation part (6) is formed so as to fill the entire space of the slot (4) remaining from the panel (5). Thus, formation of heat loss from the surrounding area of the panel (5) is prevented. At the rear side of the insulation part (6), at least one cover (7) preventing the disengagement of the part (6) from slot (4) is located. The cover (7) is fixed to the internal wall (2), and therefore, disengagement of the insulation part (6) and the panel (5) are prevented. The cover (7) is able to be fixed to the internal wall (2) via various connection elements (8) (such as screw, etc.) (figure 1); therefore external aesthetic of the device is not disrupted. In the alternative embodiments of the invention, the cover (7) is able to be made so as to be integral with the insulation part (6). One of the important points apart from the thermal insulation is that the insulation part (6) ensures the panel (5) to be fixed with the help of the cover (7) by leaning on the rear surface (12) of the panel (5).

[0015] Thanks to the embodiment of the invention, easy disassembling of the panel (5) is ensured by disengaging only the cover (7) and the insulation part (6). Thus, also, easy and cost effective assembly of the panel (5) is ensured.

Claims

1. A cooling device, which has at least one display and/or control panel (5) on a heat insulated body (1) of the device and in which foodstuff is stored **characterized by** comprising;
   a slot (4) in which said panel (5) is engaged from an internal wall (2) side of the body(1);
   at least one insulation part (6) which is formed so as to fill the entire space of the slot (4) remaining from the panel (5) and which leans on the rear surface (12) of the panel (5);
   at least one cover (7) which is provided at the rear side of the insulation part (6) and fixed to the internal wall (2).

2. A cooling device according to claim 1 **characterized by** comprising at least one rabbet (10), on which a front surface of the panel (5) inside the slot (4) leans, at an external wall side (3) of the body (1).

3. A cooling device according to claim 1 **characterized by** comprising connection elements (8) which engages the cover (7) to the internal wall (2).

4. A cooling device according to claim 1 **characterized in that** the cover (7) is integral with the insulation part (6).

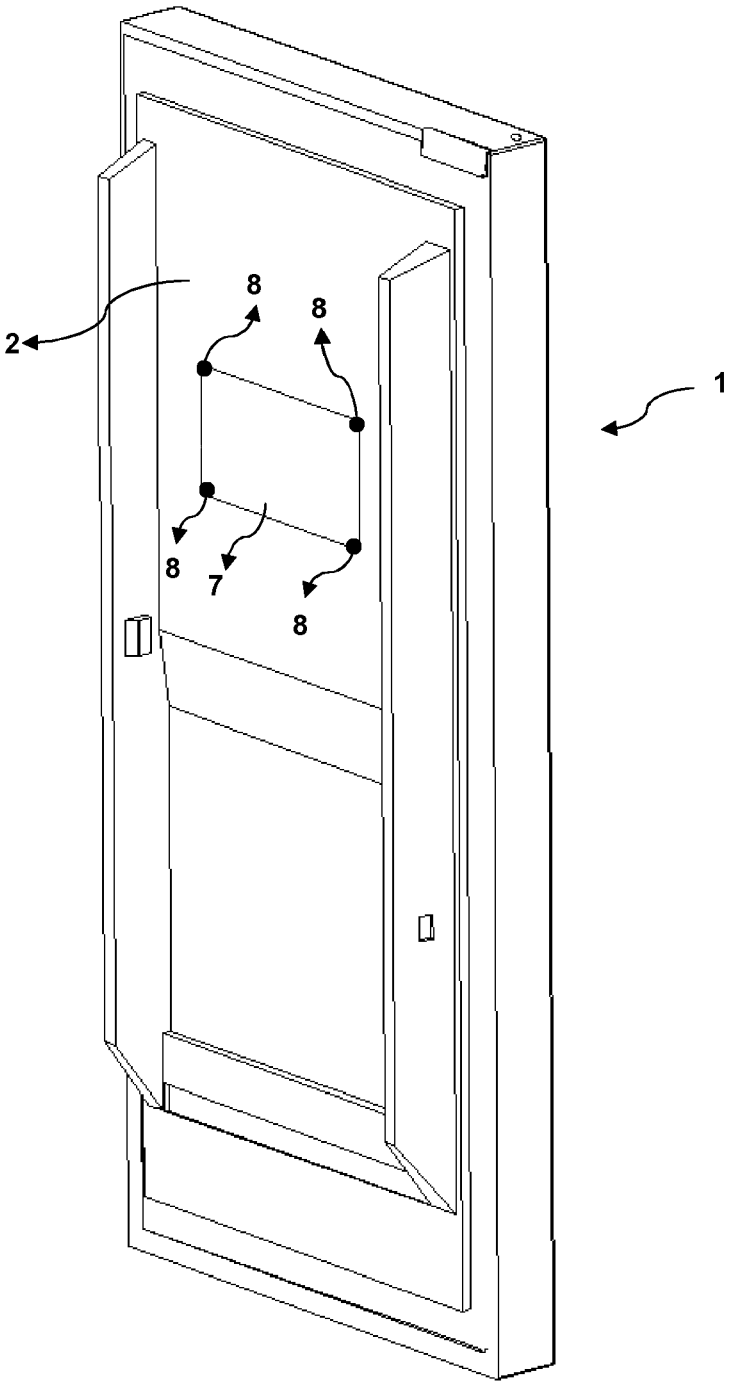

Figure – 1

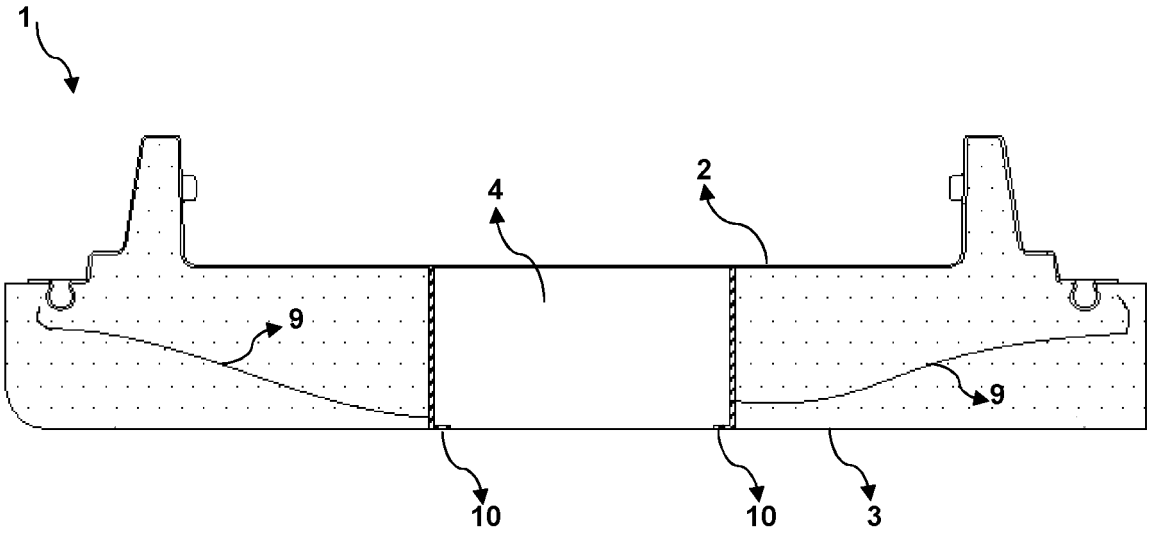

Figure – 2

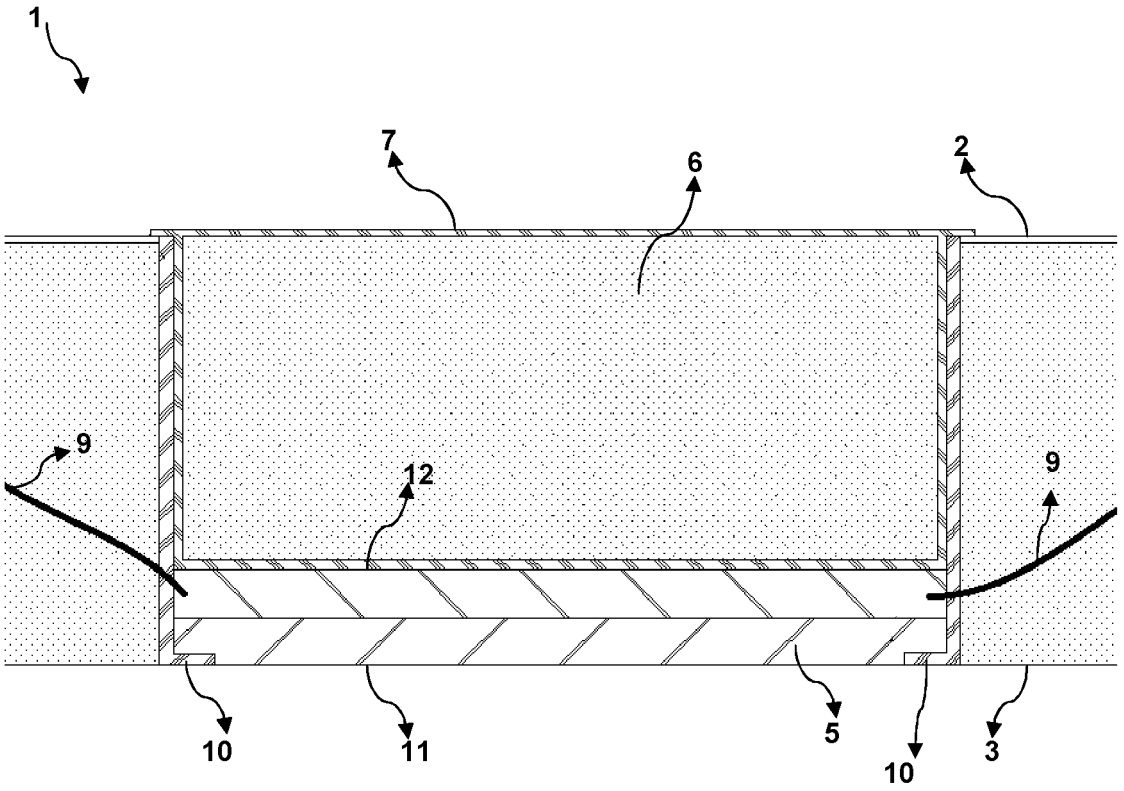

Figure – 3

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EUROPEAN SEARCH REPORT

Application Number
EP 12 15 7618

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			TECHNICAL FIELDS SEARCHED (IPC) F25D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	16 July 2012	Amous, Moez

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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1 EPO FORM 1503 03.82 (P04C01)

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

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