

08-2015

REFRIGERATION OR COOLING; COMBINED HEATING AND REFRIGERATION SYSTEMS;
HEAT PUMP SYSTEMS; MANUFACTURE OR STORAGE OF ICE; LIQUEFACTION OR
SOLIDIFICATION OF GASES

Kälteerzeugung oder Kühlung; kombinierte Heizungs- und Kältesysteme; Wärmepumpensysteme;
Herstellen oder Lagern von Eis; Verflüssigen oder Verfestigen von Gasen

DISPLAY AND CONTROL UNIT AND HOUSEHOLD DEVICE EQUIPPED THEREWITH

Anzeige- und/oder Bedieneinheit, insbesondere für ein Kältegerät (10, 30), mit einer Schutzschicht (41), einer semitransparenten farbgebenden Schicht (42), einer optischen Sperrschicht (43) und einer Lichterzeugungsschicht (45), wobei die optische Sperrschicht (43) eine Durchbrechung (54, 55, 56) aufweist. In einem Kältegerät ist die Anzeige- und Bedieneinheit in der Sichtfläche angeordnet. Die Anzeige kann farblich in die Sichtfläche integriert sein.

Publication: [WO 2015113883 A1 20150806](#)

Applicant: BSH HAUSGERÄTE GMBH, Carl-Wery-Str. 34, 81739 München, DE

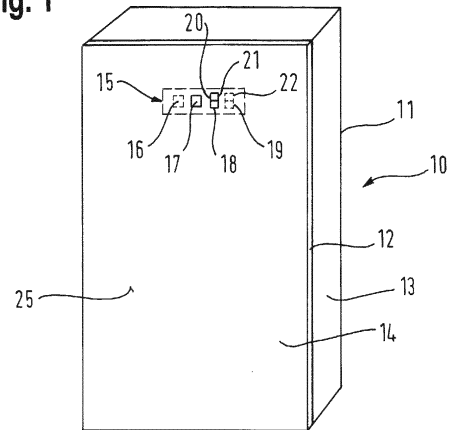
Inventor: ALT, René, Loristr. 6, 80335 München, DE; BECKE, Christoph, Kolbermoorer Str. 15A, 83109 Grosskarolinenfeld, DE; EICHER, Max, Laimer Platz 1a, 80689 München, DE; HARTWEIN, Christine, Isartalstraße 24, 80469 München, DE; KIRSCHBAUM, Maïke, Jahnstr. 4, 80469 München, DE; STAUD, Ralph, Wörthstr. 30, 81667 München, DE; TISCHER, Thomas, Jagdstraße 9, 85540 Haar, DE

Prio: DE 20140203 10 2014 201 892.7

Appl.No: EP2015051183

IPC: F25D 11/00 2006.01 (IA)

Fig. 1



A COOLING DEVICE COMPRISING AN EVAPORATION TRAY

The present invention relates to a cooling device (1) comprising a body (2), a compressor (3) that is situated inside the body (2) and that performs the refrigeration cycle and an evaporation tray (4) that is disposed on the compressor (3) and whereto the water condensed on the evaporator is transferred.

Publication: [WO 2015113981 A1 20150806](#)

Applicant: ARCELIK ANONIM SIRKETI, E5 Ankara Asfalti Uzeri, Tuzla, 34950 Istanbul, TR

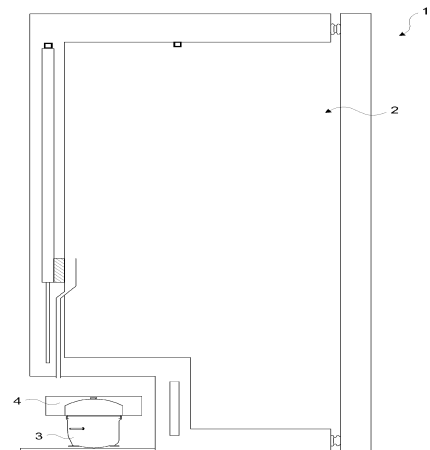
Inventor: SAKALLI, Ozgun, E5 Ankara Asfalti Uzeri, Tuzla, 34950 Istanbul, TR; AYNUR, Tolga Nurettin, E5 Ankara Asfalti Uzeri, Tuzla, 34950 Istanbul, TR; KERPICCI, Husnu, E5 Ankara Asfalti Uzeri, Tuzla, 34950 Istanbul, TR; KUYUMCUOGLU, Aleks, E5 Ankara Asfalti Uzeri, Tuzla, 34950 Istanbul, TR

Prio: TR 20140130 A 2014/01074

Appl.No: EP2015051641

IPC: F25D 21/14 2006.01 (IA)

Figure 1



A COOLING DEVICE COMPRISING AN EVAPORATION TRAY

The present invention relates to a cooling device (1) comprising a body (2), a compressor (3) that is situated inside the body (2), that performs the refrigeration cycle and that has a casing (4) covering the compressor (3), and an evaporation tray (5) that is disposed on the casing (4) and whereto the water condensed on the evaporator is transferred.

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Applicant: ARCELIK ANONIM SIRKETI, E5 Ankara Asfalti Uzeri, Tuzla, 34950 Istanbul, TR



Inventor: KERPICCI, Husnu, E5 Ankara Asfalti Uzeri, Tuzla, 34950 Istanbul, TR; UZUN, Yasam, E5 Ankara Asfalti Uzeri, Tuzla, 34950 Istanbul, TR; KOSE, Yunus, E5 Ankara Asfalti Uzeri, Tuzla, 34950 Istanbul, TR

Prio: TR 20140203 A 2014/01201

Appl.No: EP2015051644

IPC: F25D 21/14 2006.01 (IA)

A LOCKER SYSTEM

A temperature controlled storage apparatus(10), comprising; a plurality of lockable storage spaces, each of the plurality of lockable storage spaces comprising one or more compartments; in which the temperature of each of the one or more compartments is independently controllable to provide either one of: chilled temperature; or frozen temperature; and wherein access to the storage space is remotely programmable.

Publication: [**WO 2015114331 A1 20150806**](#)

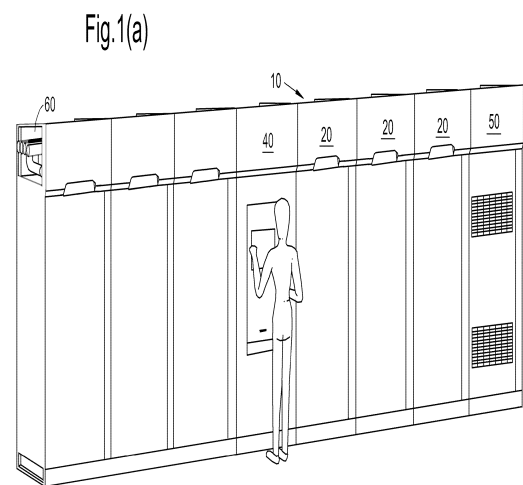
Applicant: ILLINOIS TOOL WORKS INC., 155 Harlem Avenue, Glenview, Illinois 60025, US; IMAM, Nashim, Phillips & Leigh, 5 Pemberton Row, London EC4A 3BA, GB

Inventor: IMAM, Nashim, Phillips & Leigh, 5 Pemberton Row, London EC4A 3BA, GB; DADE, Nigel, 9 Minster Court, Long Sutton, Spalding, Lincolnshire, PE12 9GL, GB; HUNT, Gareth, 105 Westfield's, Narborough, King's Lynn, Norfolk, PE32 1SY, GB; CHUNG, Hoi, Kan, Phillips & Leigh, 5 Pemberton Row, London EC4A 3BA, GB

Prio: GB 20140129 1401539.0, GB 20140204 1401910.3, GB 20140327 1405566.9, GB 20140618 1411043.1, GB 20140919 1416641.7, GB 20140922 1416742.3, GB 20141223 1423158.3

Appl.No: GB2015050198

IPC: F25D 13/04 2006.01 (IA)



SYSTEMS AND METHODS FOR VACUUM COOLING A BEVERAGE

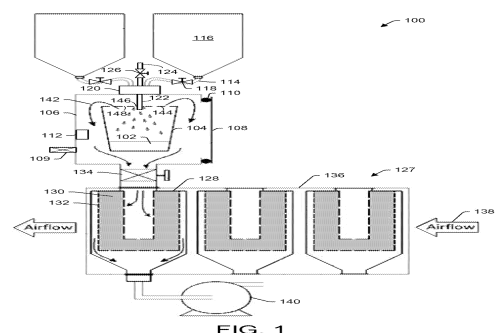
Vacuum cooling assemblies for cooling a beverage are disclosed herein. In an embodiment, the vacuum cooling assembly may include a container compartment, a container disposed within the container compartment, and at least one beverage supply line in communication with the container compartment. The at least one beverage supply line may be configured to supply the beverage to the container within the container compartment. The vacuum cooling assembly also may include at least one vapor trap in communication with the container compartment. Moreover, the vacuum cooling assembly may include a vacuum pump in communication with the at least one vapor trap. The vacuum pump may be configured to create a vacuum in the at least one vapor trap and the container compartment, causing at least a portion of the beverage to evaporate, thereby vacuum cooling the beverage within the container.

Publication: [**WO 2015116903 A1 20150806**](#)

Applicant: THE COCA-COLA COMPANY, Patents, One Coca-Cola Plaza, NW, Atlanta, GA 30313, US

Inventor: ROEKENS, Jurgen, Jagerslaan 14, 1910 Kapenhout, BE; KNIP, Abram, C., Els van Roodenlaan 11, 2104 TX Heemstede, NL; DESSING, Jacobus P., M., Kruisweg 1121, 2131 CV Hoofddorp, NL

Prio: US 20140131 61/934,246



Appl.No: US2015013698
IPC: F25D 7/00 2006.01 (IA)

SHELF ASSEMBLY AND REFRIGERATOR PROVIDED WITH SAME

A shelf assembly and a refrigerator provided with the same. The shelf assembly comprises a shelf (2), positioning supports (3) fixedly arranged on the shelf (2), rails (4) in a sliding fit with the positioning supports (3), and a damping mechanism (5) arranged between the positioning supports (3) and the rails (4). The rails (4) extend along the vertical direction, and the positioning supports (3) drive the shelf (2) to move on the rails (4) along the vertical direction. Arranged between the positioning supports (3) and the rails (4) in a mutually matching manner are channels (32), sliders (42) in a sliding fit with the channels (32), a plurality of holding portions (33) located within the channels (32) and coordinating with the sliders (42) to hold a position of the shelf (2), and stopping portions (34) arranged around each holding portion (33). The stopping portions (34) cooperate with the sliders (42) to stop the shelf (2) from moving continuously along the vertical direction towards one side. The damping mechanism (5) comprises racks (51) arranged on one out of the positioning supports (3) and the rails (4), and gears (52) arranged on the other out of the positioning supports (3) and the rails (4) so as to match the racks (51).

Publication: **WO 2015117564 A1 20150813**

Applicant: HAIER GROUP CORPORATION, Haier Industrial Park, NO.1 Haier Road, Laoshan District, Qingdao, Shandong 266101, CN; QINGDAO HAIER JOINT STOCK CO.,LTD, Haier Industrial Park, NO.1 Haier Road, Laoshan District, Qingdao, Shandong 266101, CN

Inventor: FEI, Bin, Haier Industrial Park, NO.1 Haier Road, Laoshan District, Qingdao, Shandong 266101, CN; JIANG, Yibing, Haier Industrial Park, NO.1 Haier Road, Laoshan District, Qingdao, Shandong 266101, CN; XIN, Ruowu, Haier Industrial Park, NO.1 Haier Road, Laoshan District, Qingdao, Shandong 266101, CN; SHI, Wenchang, Haier Industrial Park, NO.1 Haier Road, Laoshan District, Qingdao, Shandong 266101, CN; WANG, Jing, Haier Industrial Park, NO.1 Haier Road, Laoshan District, Qingdao, Shandong 266101, CN

Prio: CN 20140208 201410045624.5

Appl.No: CN2015072414

IPC: F25D 25/02 2006.01 (IA)

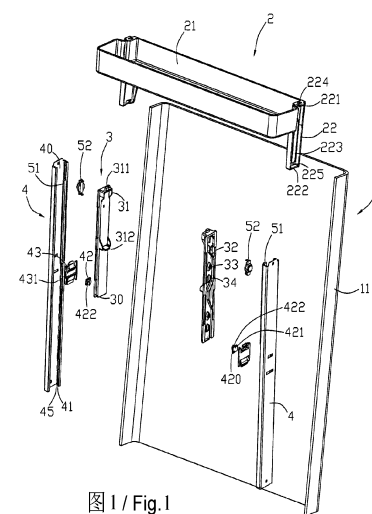


图 1 / Fig.1

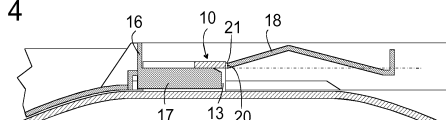
COMPRESSOR MODULE AND ASSEMBLY METHOD THEREFOR

Eine Verdichterbaugruppe für ein Haushaltskältegerät umfasst einen Verdichter und eine Verdunstungsschale (2). An einer Kapsel (1) des Verdichters ist ein Bügel (10) angebracht, um zwischen Kapsel (1) und Bügel (10) einen Durchgang (14) zu definieren. In der Verdunstungsschale (2) ist ein Rastkanal (7) geformt. Verdichter (1) und Verdunstungsschale (2) sind in Längsrichtung (x) des Rastkanals (7) aus einer freien Stellung, in der der Bügel (10) in den Rastkanal (7) eingreift und der Durchgang (14) frei von Teilen der Verdunstungsschale (2) ist, in eine Raststellung verschoben, in der ein Steckfinger (17) der Verdunstungsschale (2) von einer Vorderseite (23) des Bügels (10) her in den Durchgang (14) eingeschoben ist und eine Kontaktfläche (20) eines elastisch auslenkbaren Fingers (18) der Verdunstungsschale (2) an einer Rückseite (21) des Bügels (10) angreift, dadurch gekennzeichnet, dass der elastische Finger (18) sich jenseits der Rückseite (21) des Bügels (10) bis zu einer an der Verdunstungsschale (2) festen Basis (19) erstreckt, die weiter als die Kontaktfläche (20) von der Rückseite (21) des Bügels (10) entfernt ist.

Publication: **WO 2015117832 A1 20150813**

Applicant: BSH HAUSGERÄTE GMBH, Carl-Wery-Str. 34, 81739 München, DE

Fig. 4



Inventor: GLASER, Benjamin, Riedhauser Str. 29a, 89415 Lauingen (Donau), DE; KEMMER, Andreas, Ludwigstr. 18, 89522 Heidenheim, DE; SCHUNDNER, Peter, Eichendorffstr. 15, 89537 Giengen, DE; STEININGER, Sascha, Einsteinstrasse 27, 73447 Oberkochen, DE; WEHLAUCH, Marcus, Ludwig-Richter-Str. 26, 89520 Heidenheim, DE

Prio: DE 20140210 10 2014 202 327.0

Appl.No: EP2015051228

IPC: F25D 21/14 2006.01 (IA)

METHOD FOR CONTROLLING THE ATMOSPHERE OF A REFRIGERATING CHAMBER

The present invention relates to a method for controlling the atmosphere of a refrigerating chamber (3), said chamber (3) being provided with a refrigeration system (2) including: a compressor (4); an external condenser (5) having a fan (50); and an internal evaporator (6) having a fan (60). Said chamber (3) is provided with a sensor (8) for measuring temperature and a sensor (7) for measuring hygrometry. Said method particularly involves: measuring the hygrometry inside said chamber (3) and comparing same to a hygrometric threshold; and depending on the result, actuating the air flow of said fan (60) of the evaporator (6) differently and adjusting the set pressure of the compressor (4).

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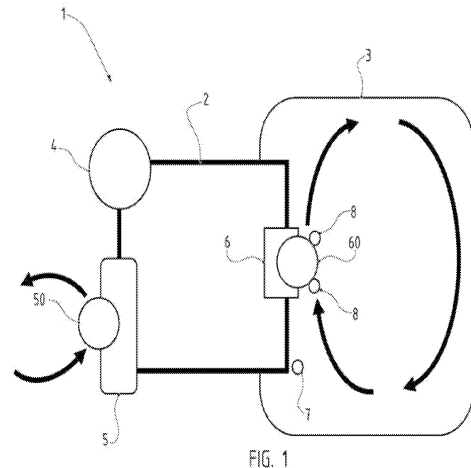
Applicant: DPKL, 27 rue du Garric, F-81000 Albi, FR

Inventor: PETIT, Sandrine, 27 rue du Garric, F-81000 Albi, FR; KRZAK, Laurent, 27, rue du viviers Canitrot, F-81400 Carmaux, FR; DUPARC, Benoît, "Gardes" PIAC, F-82400 St Paul d'Espis, FR

Prio: FR 20140206 1450901

Appl.No: FR2014050767

IPC: F25D 17/04 2006.01 (IA)



METHOD FOR REGULATING THE ATMOSPHERE INSIDE A REFRIGERATION ENCLOSURE

The invention relates to a method for regulating the temperature and hygrometry of internal air inside a refrigeration chamber (3) according to a temperature set value and a hygrometry set value determined by a user, the temperature and hygrometry being varied by means of the circulation of a refrigerant through a refrigeration loop (2) having a compressor (4), a condenser (5) and an evaporator (7), the regulation being performed by an automaton (11) comparing the measured temperature and hygrometry of the internal air with the temperature and hygrometry set values. According to the invention, when the temperature of the internal air is above the temperature set value, the automaton (11) activates a cold production procedure during which: (i) if the hygrometry of the internal air is below the hygrometry set value, the automaton (11) adjusts downward an air flow set value of an internal fan (9) adapted to produce an air flow through the evaporator (7) and adjusts upward an operating set value of the motor of the compressor (4) such as to increase the temperature of the refrigerant in the evaporator (7) and, consequently, increase the hygrometry of the internal air, and, if the hygrometry of the internal air is above the hygrometry set value, the automaton (11) adjusts upward the air flow set value of the internal fan (9) and adjusts downward the operating set value of the motor of the compressor (4) such as to reduce the temperature of the refrigerant in the evaporator (7) and, consequently, reduce the hygrometry of the internal air, and if the hygrometry of the internal air is equal to the hygrometry set value, the automaton (11) maintains the air flow set value of the internal fan (11) and the operating set value of the motor of the compressor (4) as they are; and (ii) the automaton (11) activates an external fan (8) adapted to produce an air flow through the condenser (5) at an air flow set value such as to maintain the pressure of the refrigerant leaving the condenser (5) constant during the entire duration of the cold production procedures of the regulation method, and, when the temperature of the internal air is less than or equal to the temperature set value, the automaton (11) activates a procedure for stopping cold production, and if the hygrometry of the internal air is below the hygrometry set value, the automaton (11) adjusts the air flow set value of the internal fan (9), and, if the hygrometry of the internal air is greater than or equal to the hygrometry set value, the automaton (11) stops the internal fan (9).

Publication: [WO 2015118277 A1 20150813](#)

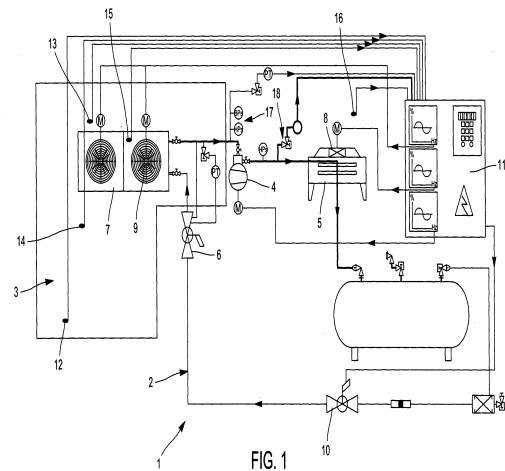
Applicant: DPKL, Gardes Piac, F-82400 Saint-Paul-d'Espis, FR

Inventor: DUPARC, Benoit, "Gardes" PIAC, F- 82400 St Paul d'Espis, FR; KRZAK, Laurent, 7 rue du Viviers Canitrot, F-81400 Carmaux, FR; PETIT, Sandrine, 27 rue du Garric, F-81000 Albi, FR

Prio: FR 20140206 1450901, FR 20140331 PCT/FR2014/050767

Appl.No: FR2015050293

IPC: F25D 17/04 2006.01 (IA)



BEVERAGE COOLING DEVICE

In the present invention, a beverage cooling device includes a beverage flow path for conveying a beverage, and a first cooling device provided with a tank which stores a liquid coolant. The beverage cooling device includes a second cooling device comprising: a plate-shaped thermoelectric element having a heat absorbing surface and a heat dissipating surface the temperature of which is higher than the heat absorbing surface; a cold plate that is disposed so as to conduct heat with the heat absorbing surface to cool the beverage; and a heat sink that is disposed so as to conduct heat with the heat dissipating surface. The beverage cooling device includes the following: a liquid coolant flow path by which the liquid coolant stored in the tank is conveyed to the heat sink, and the liquid coolant which has captured the heat from the heat sink is returned to the tank; and an ejector that is provided with a nozzle connected to an end of the liquid coolant flow path on the side at which the liquid coolant is returned to the tank, and a diffuser that mixes the liquid coolant to be sprayed from the nozzle and the liquid coolant near the nozzle and then sprays the same.

Publication: [WO 2015118704 A1 20150813](#)

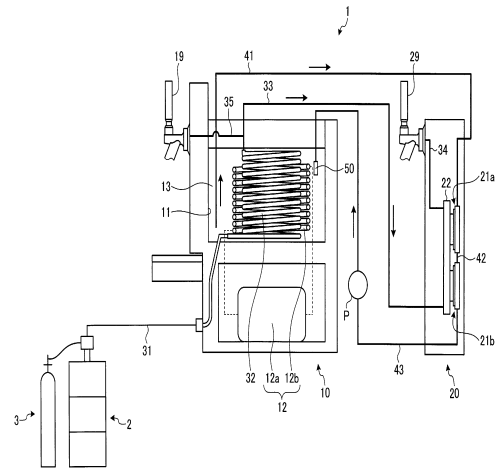
Applicant: NIPPON LIGHT METAL COMPANY, LTD., 2-20, Higashi-shinagawa 2-chome, Shinagawa-ku, Tokyo, 1408628, JP; TEX E. G. CO., LTD., 3-28, Oyamagaoka 2-chome, Machida-shi, Tokyo, 1940215, JP; ASAHI BREWERIES, LTD., 23-1, Azumabashi 1-chome, Sumida-ku, Tokyo, 1308602, JP

Inventor: MITSUHATA, Shinsuke, Research & Development Laboratories for Packaging, Asahi Breweries, Ltd., 1-21, Midori 1-chome, Moriya-shi, Ibaraki, 3020106, JP; SATO, Yoshinori, Research & Development Laboratories for Packaging, Asahi Breweries, Ltd., 1-21, Midori 1-chome, Moriya-shi, Ibaraki, 3020106, JP; KOBAYASHI, Takahide, c/o Tex E. G. Co., Ltd., 3-28, Oyamagaoka 2-chome, Machida-shi, Tokyo, 1940215, JP; NOMURA, Shinichi, c/o Nikkeikin Aluminium Core Technology Co., Ltd., 2-20, Higashi-shinagawa 2-chome, Shinagawa-ku, Tokyo, 1400002, JP

Prio: JP 20140205 2014-020556

Appl.No: JP2014065974

IPC: F25D 11/00 2006.01 (IA)



STORAGE CONTAINER

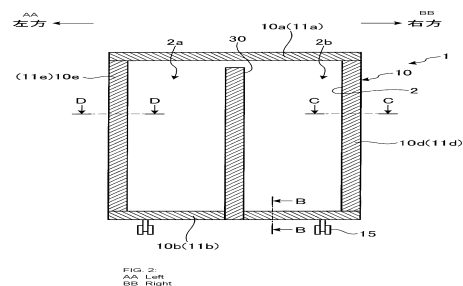
&X03000;A storage container provided with a main storage container body (1) having a heat-insulating structure in the shape of a cuboid, the main storage container body (1) being moveable by casters (15) disposed therebelow, wherein the storage container is provided with a partitioning member (30) dividing a storage compartment (2) formed inside the main storage container body (1) into a plurality of storage areas (2a, 2b) by being disposed vertically inside the main storage container body (1). The partitioning member (30) has therein a cooling material (35) and adjusts the temperature of air inside the storage areas (2a, 2b) to a desired temperature by dissipating heat accumulated in the cooling material (35) from surfaces thereof.

Publication: [WO 2015118896 A1 20150813](#)

Applicant: FUJI ELECTRIC CO., LTD., 1-1, Tanabeshinden, Kawasaki-ku, Kawasaki-shi, Kanagawa, 2109530, JP

Inventor: ERIKAWA, Hajime, c/o FUJI ELECTRIC CO., LTD., 1-1, Tanabeshinden, Kawasaki-ku, Kawasaki-shi, Kanagawa, 2109530, JP

Prio: JP 20140210 2014-023621



Appl.No: JP2015050217
IPC: F25D 3/00 2006.01 (IA)

BOX FOR PRESERVING FRESHNESS FOR USE IN REFRIGERATOR

A box for preserving freshness (100) for use in a refrigerator. The box for preserving freshness (100) comprises a box body (1) and a cover plate (2) arranged on the box body (1). The box body (1) is provided with a top opening (15) used for taking an item. The cover plate (2) covers the top opening (15). The cover plate (2) comprises a plate frame (21), a self-falling plate (22) installed within the plate frame (21) so as to cover the box body (1), and an adjustment structure (23) used for adjusting the height of the self-falling plate (22) with respect to the box body (1). The self-falling plate (22) is provided with a self-falling rail (223) extending along the width direction of the box for preserving freshness (100). The adjustment structure (23) is provided with a driving portion (232) sliding with respect to the self-falling rail (223) so as to enable the self-falling plate (22) to be lifted or to fall down. The present box for preserving freshness (100) is simple in structure and easier to adjust.

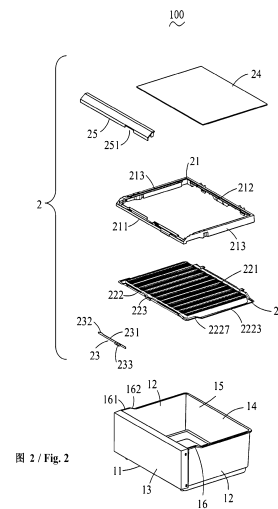
Publication: [**WO 2015120811 A1 20150820**](#)

Applicant: HAIER GROUP CORPORATION, Haier Industrial Park, NO.1 Haier Road, Laoshan District, Qingdao, Shandong 266101, CN; QINGDAO HAIER JOINT STOCK CO.,LTD, Haier Industrial Park, NO.1 Haier Road, Laoshan District, Qingdao, Shandong 266101, CN
Inventor: XU, Zhiguo, Haier Industrial Park, NO.1 Haier Road, Laoshan District, Qingdao, Shandong 266101, CN; YANG, Falin, Haier Industrial Park, NO.1 Haier Road, Laoshan District, Qingdao, Shandong 266101, CN; SUN, Dongguang, Haier Industrial Park, NO.1 Haier Road, Laoshan District, Qingdao, Shandong 266101, CN; WANG, Meng, Haier Industrial Park, NO.1 Haier Road, Laoshan District, Qingdao, Shandong 266101, CN

Prio: CN 20140217 201410052349.X

Appl.No: CN2015073002

IPC: F25D 25/00 2006.01 (IA)

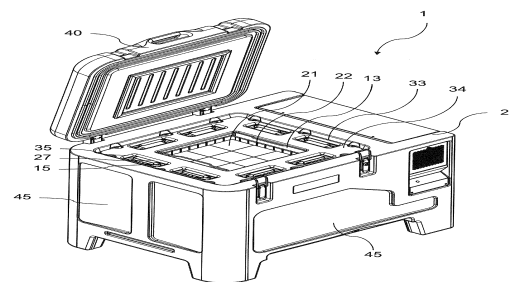


COOLING APPARATUS

Kühlvorrichtung (1), insbesondere eine Kühltruhe (2), mit einem Kühlkreislauf (3) einen Kompressor (4), mindestens einen Verdampfer (5) und einen Kondensator (44), sowie einem verschließbaren Kühlraum (6) mit einer Mehrzahl von Kühlraumseitenwänden (7), einem Kühlraumboden (8), mindestens einem Kühlelement (9) und einem Isolierbehälter (10). In der Kühlvorrichtung (1) sind der Verdampfer (5) und das Kühlelement (9) so innerhalb des Kühlraumes (6) angeordnet, dass die Rückseite des Kühlelementes (11) am Verdampfer (5) zumindest teilweise anliegt und die Vorderseite des Kühlelementes (12) dem Isolierbehälter (10) zugewandt ist, und der Isolierbehälter (10) zumindest zu den mindestens einen Kühlelement (9) hin geschlossen ist und einen Kühlgutraum (13) bildet. Die am Verdampfer (5) anliegende Rückseite des Kühlelementes (11) weist mindestens eine Aussparung (14) auf, in welche mindestens ein entnehmbare Kältespeicher (15) einsetzbar ist. Vorzugsweise im Bereich des nach unten weisenden Endes (16) des Isolierbehälters (10) sind mindestens ein Heizelement (17) und mindestens ein Speicherelement (18) angeordnet.

Publication: [**WO 2015120911 A1 20150820**](#)

Applicant: DOMETIC S.A.R.L., 17, op der Hei, 9808 Hosingen, LU



Inventor: DEMUTH, Jeannot, Im Foemichterwee 3, L-9151 Eschdorf, LU; NIKOLAJEW, Igor, Rue de la Gare 15, L-8380 Klein Bettingen, LU; GIRRENS, Nico, Hauptstroos 34, L-9839 Rodershausen, LU; HOFFMANN, Andreas, Hauptstrasse 3, 54673 Ammeldingen, DE

Prio:

Appl.No: EP2014053009

IPC: F25D 3/08 2006.01 (IA)

DOMESTIC APPLIANCE HAVING A DOOR LEAF WHICH COMPRISES A RECESSED HANDLE

Die Erfindung betrifft ein Haushaltsgerät, insbesondere ein Haushaltskältegerät (1). Das Haushaltsgerät umfasst einen Innenraum, eine eine Elektronik (20) aufweisende elektronische Steuervorrichtung, die eingerichtet ist, im Betrieb des Haushaltsgerätes zumindest eine Funktion des Haushaltsgerätes anzusteuern, und ein Türblatt (2) zum Öffnen und Verschließen des Innenraums, das eine dem Innenraum zugewandte Innenseite und eine dem Innenraum abgewandte Außenseite (7) aufweist. In der Außenseite (7) des Türblatts (2) ist eine Griffmulde (4) angeordnet, welche einen Griff (13) umfasst, welcher einen Hinterschnitt (16) bezüglich der Außenseite (7) des Türblatts (2) bildet. Das Haushaltsgerät umfasst ferner eine Beleuchtung mit wenigstens einem insbesondere als LED (21) ausgebildeten Leuchtmittel, die eingerichtet ist, die Griffmulde (4) zu beleuchten. Zumindest ein Großteil der Elektronik (20) und das wenigstens eine Leuchtmittel (21) bilden eine gemeinsame Baugruppe (22), die innerhalb des Türblatts (2) neben dem Hinterschnitt (16) angeordnet ist, sodass das wenigstens eine Leuchtmittel (21) sein Licht aus dem Hinterschnitt (16) in die Griffmulde (4) zu strahlen vermag.

Publication: [**WO 2015124370 A1 20150827**](#)

Applicant: BSH HAUSGERÄTE GMBH, Carl-Wery-Str. 34, 81739 München, DE

Inventor: BECKE, Christoph, Kolbermoorer Str. 15A, 83109 Grosskarolinenfeld, DE; EICHER, Max, Laimer Platz 1a, 80689 München, DE; FÖRSTERLING, Klaus, Heilmaierstraße 22, 83123 Amerang, DE; HARTWEIN, Christine, Isartalstraße 24, 80469 München, DE; KESSLER, Andreas, Wasserturmstraße 10, 81827 München, DE; KLEINLEIN, Philipp, Brudermühlstraße 1, 81371 München, DE; STAUD, Ralph, Wörthstr. 30, 81667 München, DE; TISCHER, Thomas, Jagdstraße 9, 85540 Haar, DE; YAO, Xingen, Nanfang Garden Fengcai Yuan 8-606, Nanjing, Jiangsu 211100, CN

Prio: DE 20140218 10 2014 202 889.2

Appl.No: EP2015051314

IPC: F25D 27/00 2006.01 (IA)

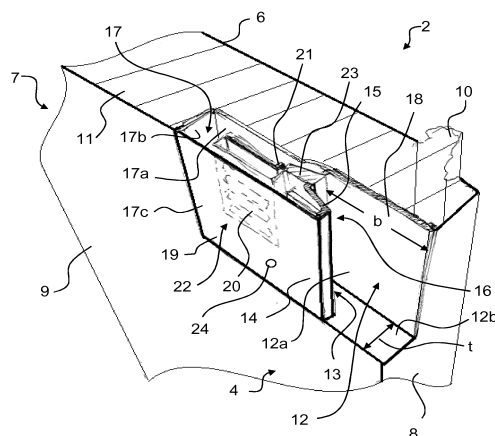


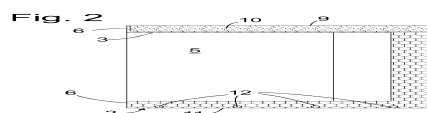
FIG. 3

REFRIGERATION APPLIANCE COMPRISING A PANEL HEATING UNIT

Ein Kältegerät, insbesondere ein Haushaltskältegerät, umfasst einen Korpus (1) und eine Tür. Der Korpus (1) umfasst wenigstens eine Innenwand (3), die wenigstens eine Lagerkammer (4, 5) begrenzt, eine Außenwand (2) und eine zwischen Außenwand (2) und Innenwand (3) eingeschlossene Wärmedämmschicht (7). Die Außenwand (2) erstreckt sich über seitliche Flanken (9, 11) des Korpus bis auf eine der Tür zugewandte Vorderseite (6) des Korpus (1). Eine Flächenheizeinrichtung (12) ist an wenigstens einer ersten der seitlichen Flanken (11) zwischen die Außenwand (2) und die Wärmedämmschicht (7) eingefügt.

Publication: [**WO 2015124431 A1 20150827**](#)

Applicant: BSH HAUSGERÄTE GMBH, Carl-Wery-Str. 34, 81739 München, DE



Inventor: DIEBOLD, Jürgen, Scheffelweg 1, 89568 Hermaringen, DE; HEIN, Christian, Robert-Koch-Straße 73, 89522 Heidenheim, DE; HOPF, Markus, Eckartstr. 6, 73431 Aalen, DE; IHLE, Hans, Frauenstraße 3, 89537 Giengen, DE; WEBER, Armin, Im Roten Feld 17, 73466 Lauchheim, DE; WENGERT, Daniel, Rosenbergstr. 24, 89520 Großkuchen, DE

Prio: DE 20140219 10 2014 203 014.5

Appl.No: EP2015052369

IPC: F25D 21/04 2006.01 (IA)

DOMESTIC REFRIGERATION APPLIANCE COMPRISING AN INTERIOR CHAMBER IN WHICH A SUPPORT IS ARRANGED IN A MOVEABLE MANNER, ON WHICH SUPPORT A CONTAINER IS ARRANGED IN A MANNER COUPLED IN TERMS OF MOVEMENT

Haushaltskältegerät (1) mit einem Innenraum (4, 5), der durch Wände (3a, 3b, 3c) eines Innenbehälters (3) begrenzt ist, und mit zumindest einem Behälter (9, 10) zur Aufnahme von Lebensmitteln, der im Innenraum (4, 5) verschiebbar angeordnet ist, und mit einem Träger (11), der verschiebbar in dem Innenraum (3) gelagert ist, und der Behälter (9, 10) auf dem Träger (11) zerstörungsfrei lösbar angeordnet ist und zum Verschieben mit dem Träger (11) bewegungsgekoppelt ist, wobei zur Bewegungskopplung der Behälter (9, 10) zumindest ein Koppелеlement (27, 28) aufweist und der Träger (11) zumindest ein Koppелеlement (16, 17) aufweist und die Koppелеlemente (16, 17, 27, 28) im gekoppelten Zustand in Tiefenrichtung des Haushaltskältegeräts (1) betrachtet überlappend angeordnet sind.

Publication: [WO 2015124433 A1 20150827](#)

Applicant: BSH HAUSGERÄTE GMBH, Carl-Wery-Str. 34, 81739 München, DE

Inventor: CIZIK, Herbert, Hornbergstraße 19, 73113 Ottenbach, DE; FINK, Jürgen, Karlstr. 87, 89547 Gerstetten, DE; AHMEDOV, Sezgin, Felsenstraße 46, 89518 Heidenheim, DE

Prio: DE 20140220 10 2014 203 066.8

Appl.No: EP2015052375

IPC: F25D 25/02 2006.01 (IA)

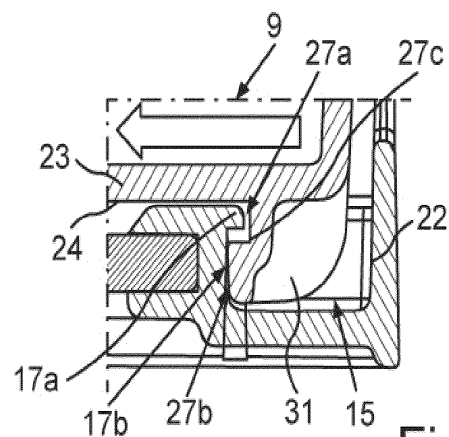


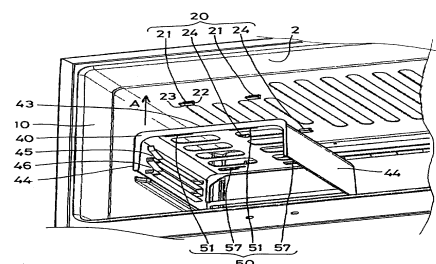
Fig. 7

REFRIGERATOR

[Problem] To provide a refrigerator that allows a user to decide, based on user preference, the location of an ice-making unit in the freezer chamber and how much ice to make. [Solution] A refrigerator according to an embodiment is characterized by comprising an ice-making unit to make and store ice and by having mounting units to which the ice-making unit can be attached and detached in a plurality of locations in the freezer chamber.

Publication: [WO 2015125415 A1 20150827](#)

Applicant: KABUSHIKI KAISHA TOSHIBA, 1-1, Shibaura 1-chome, Minato-ku, Tokyo, 1058001, JP; TOSHIBA LIFESTYLE PRODUCTS & SERVICES CORPORATION, 2-9, Suehiro-Cho, Ome-Shi, Tokyo, 1988710, JP



Inventor: MORIYA, Masahide, c/o Intellectual Property Dept. Toshiba Lifestyle Products & Services Corporation, 2-9, Suehiro-Cho, Ome-Shi, Tokyo, 1988710, JP; INUI, Masaharu, c/o Intellectual Property Dept. Toshiba Lifestyle Products & Services Corporation, 2-9, Suehiro-Cho, Ome-Shi, Tokyo, 1988710, JP

Prio: JP 20140221 2014-031804

Appl.No: JP2015000352

IPC: F25D 23/00 2006.01 (IA)

TEMPERATURE-REGULATED TRANSPORT BOX

Provided is a compact and lightweight transport box, in which inside temperature variation is minimized, and which allows for accurate temperature regulation. The transport box comprises: an insulating container (5); an internal heat conducting container (8) mounted inside the insulating container (5); and an exposed insulating cover body (6) in which a cover internal side heat conducting plate (35) on the inside surface faces the opening part of the internal heat conducting container (8). In a state in which the opening part of the insulating container (5) is blocked by the insulating cover body (6), the cover internal side heat conducting plate (35) is near the opening end (17) of the internal heat conducting container (8).

Publication: [WO 2015125790 A1 20150827](#)

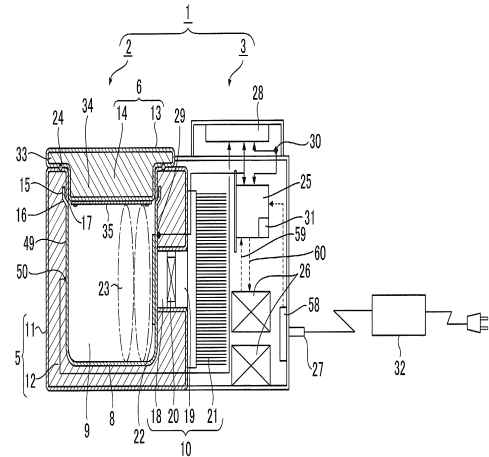
Applicant: CBC EST CO., LTD., 7-19-31, Higashisuna, Koto-ku, Tokyo, 1360074, JP

Inventor: TSUNO Katsuhiko, c/o CBC EST Co., Ltd., 7-19-31, Higashisuna, Koto-ku, Tokyo, 1360074, JP

Prio: JP 20140218 2014-043268

Appl.No: JP2015054331

IPC: F25D 11/00 2006.01 (IA)



REFRIGERATION SYSTEM OF REFRIGERATOR CAR

The present invention relates to a cooling device for a refrigerator car, which includes a compressor, a condenser, an evaporator, an expansion valve, a refrigerant flow line, and the like, the cooling device comprising: a battery in which electricity is stored by a generator of a car engine; the compressor driven by electric power provided from the battery; and a condenser receiving box disposed to be isolated from an engine room, wherein the compressor and the condenser are disposed in the condenser receiving box together.

Publication: [WO 2015126019 A1 20150827](#)

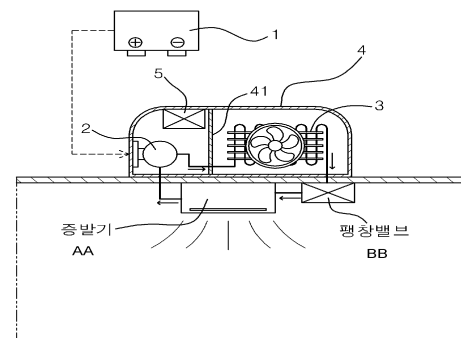
Applicant: KO, Hong-dal, 102-1402, 58, Banpo-daero, Seocho-gu, Seoul 137-875, KR

Inventor: KO, Hong-dal, 102-1402, 58, Banpo-daero, Seocho-gu, Seoul 137-875, KR

Prio: KR 20140224 10-2014-0021286

Appl.No: KR2014006511

IPC: F25D 19/00 2006.01 (IA)



AA ... Evaporator
BB ... Expansion valve

FREEZING APPARATUS

Provided is a freezing apparatus capable of freezing an object to be frozen efficiently according to the material or the shape of the object to be frozen during freezing of the object to be frozen using a freezing medium. A freezing apparatus (1) that freezes an object to be frozen using a freezing medium (S) has a first freezing space and a second freezing space whose inner temperatures can be adjusted. The first freezing space contains a plurality of freezing medium bags (15) with the freezing medium (S) sealed therein and in the second freezing space, the freezing medium (S) is housed in such a manner that it can immerse the object to be frozen.

Publication: [US 20150219381 A1 20150806](#)

Applicant: Technican Co., Ltd., Yokohama-shi, Kanagawa, JP; Technican Co., Ltd., Yokohama-shi, Kanagawa, JP

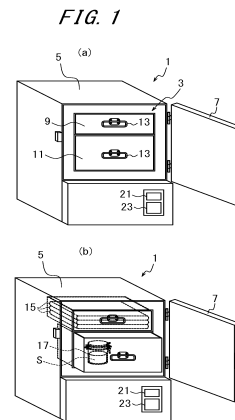
Inventor: Yoshio, Yamada, Yokohama-shi, JP

Prio: JP 20130423 2013-090634, WO 20150216
PCT/JP2014/001945

Appl.No: US14421890

IPC: F25D 11/00 2006.01 (IA)

Patent Application Publication Aug. 6, 2015 Sheet 1 of 2 US 2015/0219381 A1



SYSTEMS AND METHODS FOR BALANCING AN HVAC SYSTEM

Systems and methods are disclosed that involve balancing conditioned air delivered to a plurality of zones based on temperature-time profiles for each of the plurality of zones. Wireless temperature sensors may be used to send temperature data to a processing unit to develop the plurality of temperature-time profiles. The temperature-time profiles are analyzed to identify any outliers requiring adjustment of conditioned air to a zone. Adjustments to balance the conditioned air may be made manually or automatically. Other systems and methods are disclosed.

Publication: [US 20150219382 A1 20150806](#)

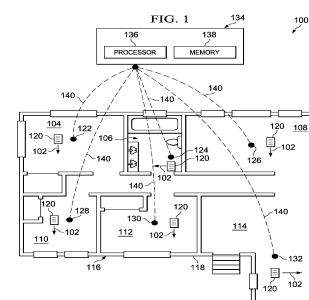
Applicant: Lennox Industries Inc., Richardson, US; Lennox Industries Inc., Richardson, US

Inventor: Robert B., Uselton, Plano, US

Prio: US14169637

Appl.No: US14169637
IPC: F25D 17/04 2006.01 (IA)

Patent Application Publication Aug. 6, 2015 Sheet 1 of 3 US 2015/0219382 A1



Domestic/Professional Refrigerator

A refrigerator (1) includes a storage chamber (12) for produce storage and a produce ripening control system (10). The produce ripening control system (10) includes an ethylene absorber (18) adapted to operate in absorption mode in a first status and in desorption mode in a second status. A recirculation circuit (20) is configured to fluidly connect the absorber (18) with the storage chamber (12) and to draw air from the storage chamber (12), to flow the drawn air through the absorber (18) and to return it into the storage chamber (12). A control unit (30) configured to selectively operate the absorber either in the absorption mode for ethylene absorption or in the desorption mode for ethylene desorption.

Publication: [US 20150219383 A1 20150806](#)

Applicant: ELECTROLUX APPLIANCES AKTIEBOLAG, Stockholm, SE; ELECTROLUX APPLIANCES AKTIEBOLAG, Stockholm, SE

Inventor: Urban, Wahlby, Osterskar, SE; Claudio, Cenedese, Pasion di Prato, IT; Omero, Tuzzi, Trieste, IT

Prio: EP 20140204 14153832.2

Appl.No: US14612746

IPC: F25D 17/06 2006.01 (IA)

Patent Application Publication Aug. 6, 2015 Sheet 1 of 3 US 2015/0219383 A1

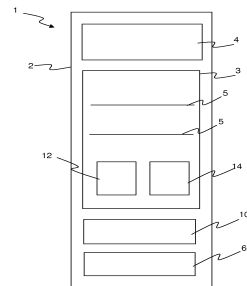


FIG. 1

MOISTURE CONTROL SYSTEM FOR AN APPLIANCE AND METHOD FOR CONTROLLING MOISTURE WITHIN AN APPLIANCE

A moisture control system includes a cabinet having a mullion defining first and second compartments and openings within the mullion to provide selective communication between the compartments. An evaporator is disposed in the first compartment. A cooling bank is disposed in the second compartment in selective thermal communication with the evaporator, and includes cooling and condensing portions separated by a dividing member, and a fluid collector disposed proximate the condensing portion. A first cooling fan is disposed proximate the evaporator and configured to direct air across the evaporator and through the first compartment. A second cooling fan is disposed proximate the cooling bank and operable between an evaporator position in fluid communication with the evaporator and the cooling bank, and a bank position in fluid communication with the cooling bank. A panel assembly is disposed proximate the plurality of openings and operable between a plurality of positions.

Publication: [US 20150219384 A1 20150806](#)

Applicant: WHIRLPOOL CORPORATION, Benton Harbor, US; WHIRLPOOL CORPORATION, Benton Harbor, US

Inventor: Steven J., Kuehl, Stevensville, US

Prio:

Appl.No: US14686963

IPC: F25D 17/06 2006.01 (IA)

Patent Application Publication Aug. 6, 2015 Sheet 1 of 6 US 2015/0219384 A1

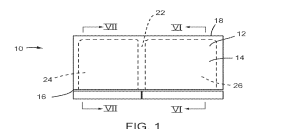


FIG. 1

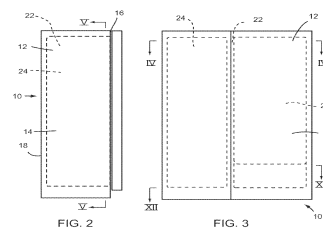


FIG. 2

FIG. 3

REFRIGERATION DEVICE HAVING AUTOMATIC DEFROSTING AND METHOD FOR OPERATING A REFRIGERATION DEVICE OF THIS TYPE

The invention relates to a refrigeration device, in particular a domestic refrigeration device, comprising a refrigerant circuit. The refrigerant circuit has a compressor, an evaporator, and a shut-off valve between an outlet of the compressor and an inlet of the evaporator. The refrigeration device also comprises a heater for defrosting the evaporator and a control unit that is designed to prepare for defrosting of the evaporator by operating the compressor with the shut-off valve closed.

Publication: [US 20150219385 A1 20150806](#)

Applicant: BSH BOSCH UND SIEMENS HAUSGERÄTE GmbH, München, DE

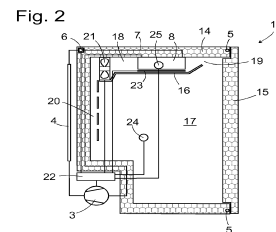
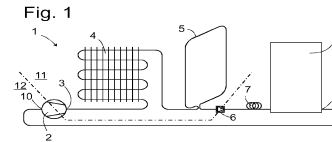
Inventor: Jochen, Härten, Königsbrunn, DE; Birtan, Sert, Tekirdag, TR; Alex, Sperling, Augsburg, DE; Nikolaus, Ziegler, Bopfingen, DE

Prio: DE 20120802 10 2012 213 644.4, WO 20150202 PCT/EP2013/065140

Appl.No: US14419129

IPC: F25D 21/08 2006.01 (IA)

Patent Application Publication Aug. 6, 2015 Sheet 1 of 2 US 2015/0219385 A1



Evaporator Coil Mounted Electric Heater Assembly

An air handling unit used in a heating, ventilation, and/or air conditioning (HVAC) system may include an enclosure having an air inlet, an air outlet, and a fluid duct that extends from the air inlet to the air outlet, a heater assembly comprising a base plate comprising an inner surface and an outer surface and that is configured to form at least a portion of the fluid duct, and a heat exchanger assembly configured to selectively receive the heater assembly between a left heat exchanger slab and a right heat exchanger slab. The base plate of the heater assembly may be configured to carry a plurality of electrical components on the outer surface of the base plate and may be configured to carry a plurality of heating elements on an inner surface that are disposed within the fluid duct and configured to heat an airflow passing through the fluid duct.

Publication: [US 20150219386 A1 20150806](#)

Applicant: Trane International Inc., Piscataway, US

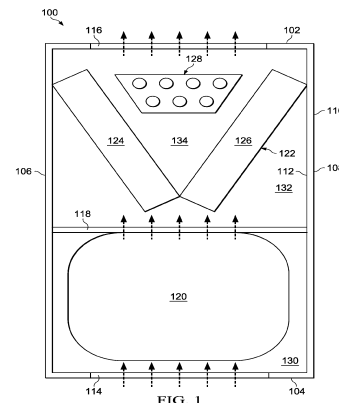
Inventor: Leslie Lynn, Zinger, Bullard, US; Thomas Eddie, Kennedy, Tyler, US; Brad Lynn, Kersh, Flint, US

Prio:

Appl.No: US14577874

IPC: F25D 21/08 2006.01 (IA)

Patent Application Publication Aug. 6, 2015 Sheet 1 of 4 US 2015/0219386 A1



REFRIGERATOR AND MANUFACTURING METHOD THEREOF

Disclosed herein is a refrigerator having a door rotatably hinged to a body of the refrigerator that prevents droop of the door at the side opposite to the axis of rotation of the door. A dyke formed on the rear surface of the door is provided with a roller, which is supported by the bottom surface of the storage compartment. A roller cap having a roller accommodation space to accommodate a part of the roller is connected to the dyke, and the roller is rotatably mounted to the roller cap.

Publication: [US 20150219387 A1](#) [20150806](#)

Applicant: SAMSUNG ELECTRONICS CO., LTD., Suwon-si, Gyeonggi-do, KR; SAMSUNG ELECTRONICS CO., LTD., Suwon-si, Gyeonggi-do, KR

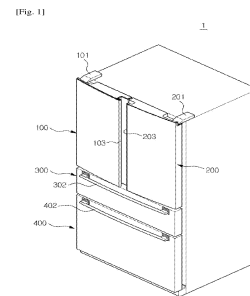
Inventor: Ki Youn, Kim, Gwangju, KR; Seung Yong, Yang, Seoul, KR; Jee Hoon, Lee, Goyang-si, KR

Prio: KR 20120903 10-2012-0097373, WO 20150223 PCT/KR2013/007826

Appl.No: US14423345

IPC: F25D 23/02 2006.01 (IA)

Patent Application Publication Aug. 6, 2015 Sheet 1 of 9 US 2015/0219387 A1



REFRIGERATOR WATER SUPPLY SYSTEM

A refrigerator has a storage chamber opened and closed by a door and a water supply system to supply water to a water taking port disposed at the door. The water supply system includes a water tank and a plurality of connecting pipes. The water tank includes an elongated cylindrical shaped body and a cap configured to form a reservoir such that a section of the cap overlaps the body, a first port having a passageway integral with the elongated cylindrical shaped body, and a second port integral with the cap, the second port being aligned in a direction different from a longitudinal axis of the water tank. The connecting pipes include a first water line positioned in an opening of the first port in a direction different from the longitudinal axis of the water tank, and a second water line positioned in an opening of the second port.

Publication: [US 20150219388 A1](#) [20150806](#)

Applicant: SAMSUNG ELECTRONICS CO., LTD., Suwon-si, KR; SAMSUNG ELECTRONICS CO., LTD., Suwon-si, KR

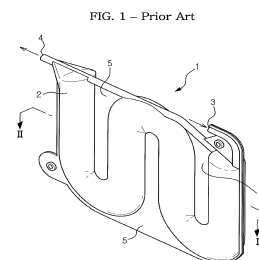
Inventor: Sang Min, PARK, Gwangju, KR

Prio: KR 20071120 10-2007-118412

Appl.No: US14686327

IPC: F25D 23/12 2006.01 (IA)

Patent Application Publication Aug. 6, 2015 Sheet 1 of 10 US 2015/0219388 A1



ILLUMINATING DISPLAY COOLER ASSEMBLY

An illuminating display cooler assembly is configured to cool and display one or more products. The assembly may include a cover moveably secured to a main body. The cover is configured to be moved between an open position and a closed position over an internal chamber. At least one clear display panel is formed in the main body. The clear display panel(s) is configured to allow one or more products within the internal chamber to be viewed. At least one light-emitting member is configured to emit light into the internal chamber to enhance an appearance of the product(s) within the internal chamber. The light is diffracted by ice within the internal chamber.

Publication: [US 20150219389 A1 20150806](#)

Applicant: iSee Store Innovations, LLC, St. Louis, US; iSee Store Innovations, LLC, St. Louis, US

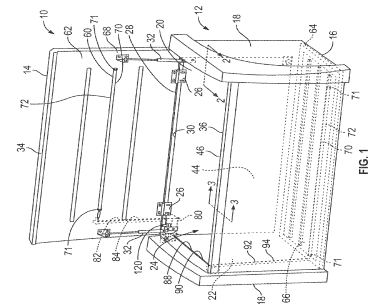
Inventor: Mark, Schaefer, TOWN AND COUNTRY, US; SSHA CHALAPATHI, MADIREDDI, ST. CHARLES, US; YE, TIAM, MARYLAND HEIGHTS, US

Prio:

Appl.No: US14170689

IPC: F25D 27/00 2006.01 (IA)

Patent Application Publication Aug. 6, 2015 Sheet 1 of 6 US 2015/0219389 A1



CASCADING ICE LUGE, APPARATUS, AND METHODS

Embodiments of cascading ice luges and embodiments of apparatuses and methods for making cascading ice luges are disclosed. One apparatus embodying the principles of the invention features shelves and attached brackets in stepwise configuration. The shelves are affixed to a scaffold. Ice blocks can be frozen in trays such that pre-formed lanes are formed in the ice blocks. The trays can be of convenient size that can be placed in a conventional household freezer. Ice blocks can be arranged on the shelves in stepwise figuration and oriented so that a liquid or beverage placed on the uppermost ice block will flow in the pre-formed lanes in a cascading manner thereby rapidly cooling the beverage with minimal dilution.

Publication: [US 20150219390 A1 20150806](#)

Applicant: Stephen John, Luther, Terryville, US

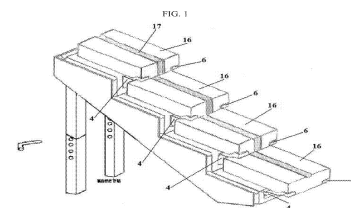
Inventor: Stephen John, Luther, Terryville, US

Prio:

Appl.No: US14614407

IPC: F25D 31/00 2006.01 (IA)

Patent Application Publication Aug. 6, 2015 Sheet 1 of 10 US 2015/0219390 A1



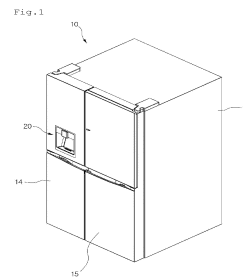
REFRIGERATOR AND FILTER DEVICE

A refrigerator and filter device are described. In one aspect, the refrigerator includes a main body that defines a storage space. The refrigerator includes a door that is configured to open and close at least a portion of the storage space. The refrigerator further includes a dispenser that is located at the door and is configured to dispense water. The refrigerator further includes a filter that is configured to purify water and supply the purified water to the dispenser. The refrigerator further includes at least two heads that are configured to attach to the filter. The refrigerator further includes a connector that is configured to connect the at least two heads to each other, the connector providing a passage between the at least two heads. The refrigerator further includes a bracket on which the connector and the at least two heads are seated, the bracket being coupled to the connector.

Publication: [US 20150226473 A1 20150813](#)

Applicant: LG ELECTRONICS INC., Seoul, KR
Inventor: JONGHO, YUN, Seoul, KR; KYUNGHOON, KOAK, Seoul, KR; BONGJUN, KIM, Seoul, KR; SIYEON, AN, Seoul, KR
Prio: KR 20140212 10-2014-0015797
Appl.No: US14595347
IPC: F25D 23/12 2006.01 (IA)

Patent Application Publication Aug. 13, 2015 Sheet 1 of 9 US 2015/0226473 A1



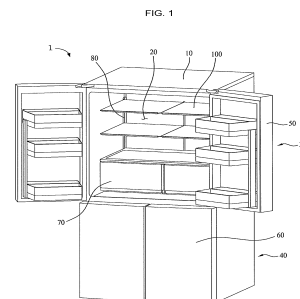
REFRIGERATOR

A refrigerator is provided. A refrigerator may include a storage space to store food or other items therein, a plurality of shelf brackets mounted to or at a rear portion of the storage space, a plurality of securing recesses arranged in a vertical direction at the plurality of shelf brackets, a plurality of plates provided in the storage space and arranged adjacent to each other on a same plane to receive food or other items loaded thereon, a plurality of shelf support frames provided at bottom surfaces of the plurality of plates, and hooks provided at the plurality of shelf support frames and configured to be engaged with the plurality of securing recesses. Food or other items loaded onto one of the plurality of plates may be easily slid onto the other plate arranged on the same plane.

Publication: [US 20150226474 A1 20150813](#)

Applicant: LG ELECTRONICS INC.; LG ELECTRONICS INC., Seoul, KR
Inventor: Kyukwan, Choi, Seoul, KR; Kyusuh, Park, Seoul, KR; Sungkyong, Han, Seoul, KR
Prio: KR 20140210 10-2014-0014848
Appl.No: US14618505
IPC: F25D 25/02 2006.01 (IA)

Patent Application Publication Aug. 13, 2015 Sheet 1 of 5 US 2015/0226474 A1



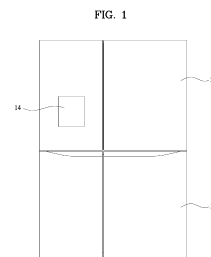
REFRIGERATOR AND METHOD FOR CONTROLLING THE SAME

A refrigerator and a method for controlling the same are disclosed. A refrigerator includes a timer for measuring an interval of one hour after power is supplied to the refrigerator, a door opening/closing sensor for sensing opening and closing of a door, a storage unit for storing information whether door is opened in a sector defined as one hour by the timer and at least 7 sector units each having 24 consecutive sectors, and a control unit for predicting a refrigerator use pattern in 24 sectors by overlapping 7 sector units, performing a normal operation mode to maintain a storage compartment at a first desired temperature in a sector in which door opening is predicted, and performing a power-saving operation mode to maintain the storage compartment at a second desired temperature higher than the first desired temperature in a sector in which door opening is not predicted.

Publication: [US 20150226475 A1 20150813](#)

Applicant: LG Electronics Inc., Seoul, KR
Inventor: Byoungsuk, Choi, Seoul, KR; Jinseok, Hu, Seoul, KR; Heesun, Kim, Seoul, KR
Prio: KR 20140207 10-2014-0014009
Appl.No: US14509284
IPC: F25D 29/00 2006.01 (IA)

Patent Application Publication Aug. 13, 2015 Sheet 1 of 5 US 2015/0226475 A1



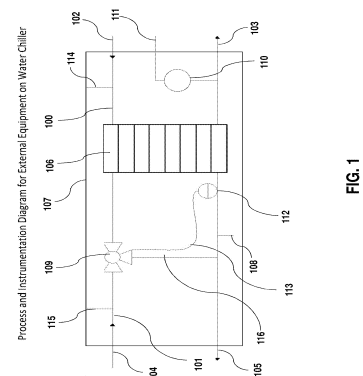
Air Conditioning Condenser Attachment for High Efficiency Liquid Chillers

Provided herein are high-efficiency liquid chiller systems and related methods for efficient climate control of a room environment. A split-system air conditioning (AC) unit is connected to a liquid chiller positioned within an enclosure and adjacent to the AC unit. Refrigerant from the AC unit is used to cool a liquid via a heat exchanger positioned in the enclosure. The cooled liquid is, in turn, supplied to a downstream cooling application. In a closed-loop manner, warmed refrigerant is returned to the AC unit for cooling and warmed liquid returned to the heat exchanger for cooling in the heat exchanger. A reservoir in thermal contact with the cooled liquid may be used as a source of chilled liquid for any number of various cooling applications, including via air handlers positioned in distinct locations.

Publication: [US 20150233626 A1 20150820](#)

Applicant: SURNA INC., Boulder, US
Inventor: Stephen, KEEN, Boulder, US
Prio:
Appl.No: US14624275
IPC: F25D 17/02 2006.01 (IA)

Patent Application Publication Aug. 20, 2015 Sheet 1 of 8 US 2015/0233626 A1



METHOD AND SYSTEM FOR REDUCING THE POSSIBILITY OF VEHICLE HEAT EXCHANGER FREEZING

Methods and systems for reducing the possibility of heat pump evaporator fin freezing are described. Evaporator fin temperature is compared to a threshold temperature that varies with vehicle operating conditions. Actions to mitigate evaporator fin freezing may be taken if evaporator fin temperature is less than the threshold temperature.

Publication: [US 20150233627 A1 20150820](#)

Applicant: Ford Global Technologies, LLC, Dearborn, US;
Ford Global Technologies, LLC, Dearborn, US

Inventor: Franco, Ragazzi, Ann Arbor, US

Prio:

Appl.No: US14185619

IPC: F25D 21/04 2006.01 (IA)

Patent Application Publication Aug. 20, 2015 Sheet 1 of 4 US 2015/0233627 A1



DRAIN COVER

A drain cover includes a base portion including an outer rim and defining a collection area. The drain cover also includes a central portion coupled to the base portion and extending upward from the base portion, wherein the collection area tapers from the central portion toward the outer rim, and wherein the collection area is vertically lower adjacent the central portion relative to an outer periphery of the collection area.

Publication: [US 20150233628 A1 20150820](#)

Applicant: Hussmann Corporation, Bridgeton, US

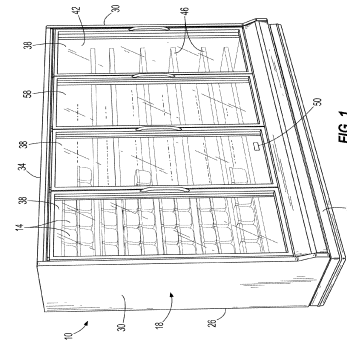
Inventor: Nathaniel A., Farmer, Creve Coeur, US; Jason C., Lintker, St. Louis, US; John F., Parker, O'Fallon, US; Thomas C., Wind, Wildwood, US

Prio:

Appl.No: US14621503

IPC: F25D 21/14 2006.01 (IA)

Patent Application Publication Aug. 20, 2015 Sheet 1 of 5 US 2015/0233628 A1



REFRIGERATOR

Provided is a refrigerator including a cabinet having a storage compartment provided therein, a main door pivotably mounted at the cabinet for opening and closing the storage compartment, an auxiliary storage compartment mounted at a rear of the main door, and an auxiliary door pivotably mounted over a front of the main door for opening and closing the auxiliary storage compartment. A first hinge bracket may be fixed to an upper end of the cabinet, the first hinge bracket including a rotation shaft that is coupled to an upper portion of the main door. A second hinge bracket may be fixed to an upper portion of the sub door, the second hinge bracket including a rotation shaft that is coupled to the upper portion of the main door. The rotation shaft of the second hinge bracket may be positioned more forward than the rotation shaft of the first hinge bracket.

Publication: [US 20150233629 A1 20150820](#)

Applicant: LG ELECTRONICS INC.; LG ELECTRONICS INC.,
Seoul, KR

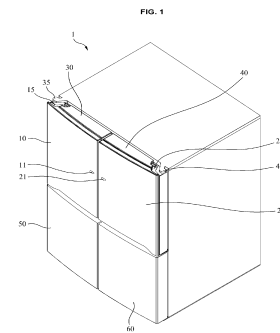
Inventor: Kyukwan, CHOI, Seoul, KR; Kyusuh, Park,
Seoul, KR; Sungkyong, Han, Seoul, KR

Prio: KR 20140217 10-2014-0017874

Appl.No: US14615078

IPC: F25D 23/04 2006.01 (IA)

Patent Application Publication Aug. 20, 2015 Sheet 1 of 10 US 2015/0233629 A1



CHEST COOLER ACCESSORY

A chest cooler accessory for maintaining food items above a level of ice and water within the chest cooler that includes a rectangular elastic net that is maintained around three sides to the undersurface of the chest cooler lid to be open along the elastic net side that is adjacent to the lid latching side to pass food items into the elastic net that flexes to support them above the water and ice level during transport, and which elastic net attachment to the lid undersurface is with fasteners that do not effect the lid internal integrity.

Publication: [US 20150233630 A1 20150820](#)

Applicant: Glen W., Bond, Monroe, US

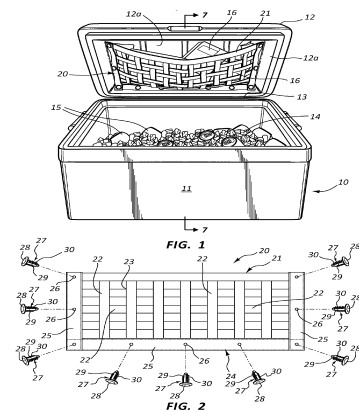
Inventor: Glen W., Bond, Monroe, US

Prio:

Appl.No: US14185478

IPC: F25D 23/12 2006.01 (IA)

Patent Application Publication Aug. 20, 2015 Sheet 1 of 5 US 2015/0233630 A1



Rapid Spinning Liquid Immersion Beverage Supercooler

Methods, processes, apparatus, kits and systems for chilling and cooling bottled or canned beverages, desserts, and food items to selected desired temperatures by rapidly rotating and counter-rotating the bottled or canned beverages, desserts, and food items that are immersed in cooled liquids in short time spans.

Publication: [US 20150233631 A1 20150820](#)

Applicant: Douglas, Shuntich, Maitland, US

Inventor: Douglas, Shuntich, Maitland, US

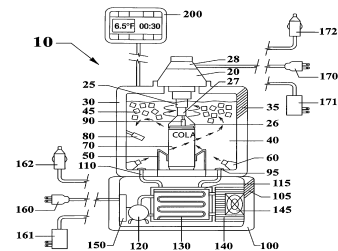
Prio:

Appl.No: US14298117

IPC: F25D 31/00 2006.01 (IA)

Patent Application Publication Aug. 20, 2015 Sheet 1 of 6 US 2015/0233631 A1

FIGURE 1



BEVERAGE CHILLER AND METHOD

A beverage chilling apparatus includes a body defining one or more upwardly-open cavities shaped to receive a container filled with beverage, and a downwardly-open annular cavity extending around the upwardly-open cavity(ies). The cavity has a large open bottom opening suitable for receiving scooped crushed or cubed ice into the annular cavity. A bottom cap threads onto and sealingly covers the bottom opening to retain the ice in the annular cavity, and further in designed to hold some water from melted ice in the container. A method of chilling comprises filling the body to scoop crushed or cubed ice into the annular cavity, and covering the bottom opening to retain the ice in the downwardly-open cavity, and inverting the body to thus chill containers placed in the at least one upwardly-open cavity.

Publication: [US 20150233632 A1 20150820](#)

Applicant: Michael D., Miller, Comstock, US

Inventor: Michael D., Miller, Comstock, US

Prio:

Appl.No: US14612753

IPC: F25D 31/00 2006.01 (IA)

Patent Application Publication Aug. 20, 2015 Sheet 1 of 4 US 2015/0233632 A1

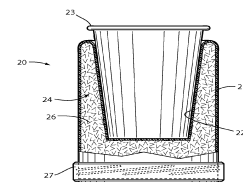


FIG. 1

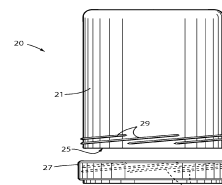


FIG. 2

Cooler with Embedded Matrix of Cleats and Attachable Accessories

A cooler having an embedded matrix of cleats which substantially covers the internal and external surfaces of the cooler is provided. The cleats of the cooler correspondingly connect to and allow for the attachment of various articles, such as beverage holders, lid hinges, wheels, towing bar, leg attachments, handles, paper towel holders or seats, to be secured to the exterior or interior surface of the cooler. Dividers may be secured to the interior of the cooler so as to allow the compartmentalization of the interior cooler space. The cooler also has adjustable securing devices which allow a user to build his/her own securing attachment device to secure virtually any object to the cleats of the cooler.

Publication: [US 20150241107 A1 20150827](#)

Applicant: John R., Mech, Winnetka, US

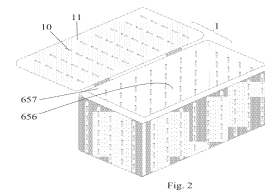
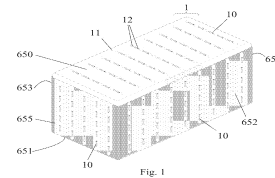
Inventor: John R., Mech, Winnetka, US

Prio:

Appl.No: US14186514

IPC: F25D 3/08 2006.01 (IA)

Patent Application Publication Aug. 27, 2015 Sheet 1 of 23 US 2015/0241107 A1



MINIMUM CAVETTO MODULE PORTABLE REFRIGERATED CABINET WITH ONE FREE COLD PASSAGE

Disclosed herein, in one aspect, is a portable minimum cavetto module refrigerated cabinet with a single free cold passage that comprises a thermally insulated broad vertical cabinet, having a compact and low-power refrigerating machine, characterized in that it has been supplemented with: a) a platform (1) 1 with three openings located horizontally at the inner midpoint of the cabinet and constituting a segment which divides into two miniaturized modules, an occupied module (2), and a miniaturized module of a single free cold passage (3); b) a supplemental feature of an arc-shaped duct (4) which rises up from the platform and screwed by this, with grills (5) and (6), and a hinged air filter (7); c) two concave cavetto moldings (8) in the internal lateral walls, and partition walls facing each other (9) and (10), which when open are supported on projecting structures (11), in closed position supported by means of a latch bar (12), and supported on the internal base a sliding tray (13) with a handle (14), which above this tray, without direct contact, there are inclined cross racks (15), and in the upper part of the cabinet the air of condensation is channeled by grills (16) and (17); d) parallel profiles (18) welded between joints with transverse profiles (19), with four base wheels (20), thus forming a vertical assembly of a portable minimum cavetto module refrigerated cabinet with a single free cold passage, suitable for shops or beverage distributor operations.

Publication: [US 20150241108 A1 20150827](#)

Applicant: Pedro Miguel Fernandez, Maldonado, Capiatá, PY

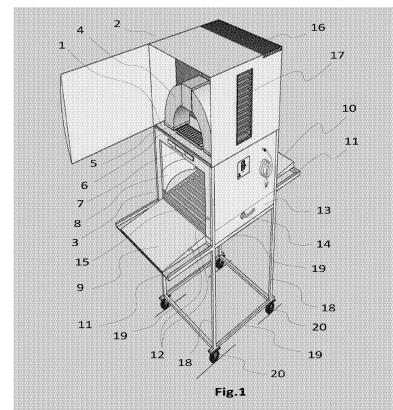
Inventor: Pedro Miguel Fernandez, Maldonado, Capiatá, PY

Prio: PY 20131204 13/57871

Appl.No: US14559199

IPC: F25D 11/00 2006.01 (IA)

Patent Application Publication Aug. 27, 2015 Sheet 1 of 3 US 2015/0241108 A1



FOLDABLE REFRIGERATOR

A foldable refrigerator is provided. The foldable refrigerator moves from a functional First Position A to a collapsed Second Position B. The foldable refrigerator may be folded into the collapsed Second Position B for transportation and/or storage. The foldable refrigerator has an extendable handle and wheels which allow pulling or pushing the refrigerator in a manner similar to luggage. The refrigerator further has extendable and adjustable legs which allow the refrigerator to be raised or lowered to various heights. The refrigerator has a gyroscope which allows the compressor of the refrigerator to remain in an upright position.

Publication: [US 20150241109 A1 20150827](#)

Applicant: SHAUN, PASSLEY, Chicago, US

Inventor: SHAUN, PASSLEY, Chicago, US

Prio:

Appl.No: US14190683

IPC: F25D 11/00 2006.01 (IA)

Patent Application Publication Aug. 27, 2015 Sheet 1 of 16 US 2015/0241109 A1

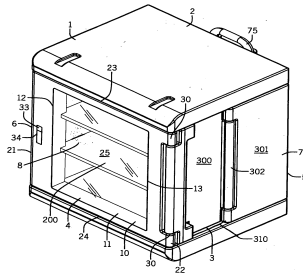


FIG. 1

Refrigeration Compressor Feet Mounting

A compressor (20) has a case (22) and a pair of feet (70A, 70B). The feet are alternatively mountable in a first orientation and a second orientation orthogonal to the first orientation.

Publication: [US 20150241110 A1 20150827](#)

Applicant: Carrier Corporation, Farmington, US; Carrier Corporation, Farmington, US

Inventor: Frederick L., Miller, Syracuse, US; Igor V., Korolev, Cicero, US

Prio: WO 20150220 PCT/US2013/049274

Appl.No: US14422940

IPC: F25D 19/00 2006.01 (IA)

Patent Application Publication Aug. 27, 2015 Sheet 1 of 6 US 2015/0241110 A1

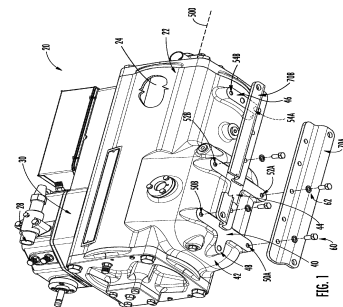


FIG. 1

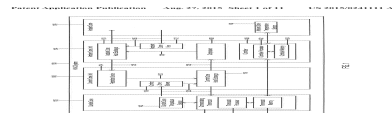
Electric Heat Defrost Algorithm

A method of operating an HVAC system is provided. The method comprises, when a defrost mode of the HVAC system ends and a defrost recovery mode of the HVAC system begins, continuing to operate a supplemental heat generator that was in operation in the defrost mode. The method further comprises, after a period of time in the defrost recovery mode has passed, deactivating at least a first portion of the total heating capacity of the supplemental heat generator.

Publication: [US 20150241111 A1 20150827](#)

Applicant: Trane International Inc., Piscataway, US

Inventor: Leslie Lynn, Zinger, Bullard, US



Prio:
Appl.No: US14577886
IPC: F25D 21/00 2006.01 (IA)

FOLDING APPROACH TO CREATE A 3D VACUUM INSULATED DOOR FROM 2D FLAT VACUUM INSULATION PANELS

An appliance door includes a vacuum insulated structure having a plurality of core sections that are folded to form an ice and/or water dispensing cavity on an outer side of the appliance door. The vacuum insulated door structure may be positioned between an outer door member and a door liner.

Publication: [US 20150241112 A1 20150827](#)

Applicant: Whirlpool Corporation, Benton Harbor, US;
Whirlpool Corporation, Benton Harbor, US

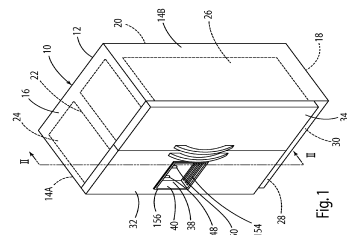
Inventor: GUOLIAN, WU, St. Joseph, US

Prio:

Appl.No: US14187622

IPC: F25D 23/02 2006.01 (IA)

Patent Application Publication Aug. 27, 2015 Sheet 1 of 7 US 2015/0241112 A1



REFRIGERATOR HAVING A SLIDING DOOR

The present invention provides a refrigerator having a sliding door, comprising: a refrigerator body which has an opened front part and has a storage space therein; a pair of sliding guide units provided on upper and lower ends of the refrigerator body; a door arranged on the front side of the refrigerator body; and a sliding operation unit which has one end that is coupled so as to allow a sliding movement and a horizontal rotation along each sliding guide unit and the other end that is hingedly coupled to the door, and which is foldable according to a moving direction during the sliding movement such that the door is gradually separated from the front side of the refrigerator body during the sliding movement so as to open the inside of the refrigerator body

Publication: [US 20150241113 A1 20150827](#)

Applicant: KANGTANSANUP CO., LTD., Hanam-si,
Gyeonggi-do, KR; KANGTANSANUP CO., LTD.,
Hanam-si, Gyeonggi-do, KR

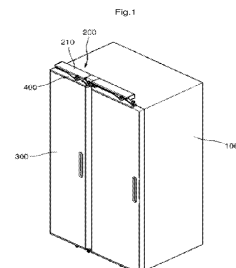
Inventor: Woo Ki, Kim, Icheon-si, KR

Prio: KR 20120913 10-2012-0101522, WO
20150309 PCT/KR2013/007959

Appl.No: US14426935

IPC: F25D 23/02 2006.01 (IA)

Patent Application Publication Aug. 27, 2015 Sheet 1 of 8 US 2015/0241113 A1



VACUUM PACKAGED 3D VACUUM INSULATED DOOR STRUCTURE AND METHOD THEREFOR USING A TOOLING FIXTURE

A method for creating a vacuum insulated panel including preforming a continuous insulation member having male and female engaging surfaces and providing a barrier film envelope having an opening. The insulation member is disposed within the barrier film envelope and a tooling fixture is pressed against the barrier film envelope to press the barrier film envelope against the male and female engaging surfaces to remove gas from between the barrier film envelope and the male and female engaging surfaces. Substantially all gas is removed from within the barrier film envelope so that the barrier film envelope substantially conforms to an exterior surface of the insulation member. The opening of the barrier film envelope is then hermetically sealed, wherein the barrier film envelope forms a continuous layer over the core insulation member to form a vacuum insulated panel.

Publication: [US 20150241114 A1 20150827](#)

Applicant: Whirlpool Corporation, Benton Harbor, US;
Whirlpool Corporation, Benton Harbor, US

Inventor: GUOLIAN, WU, St. Joseph, US

Prio:

Appl.No: US14187640

IPC: F25D 23/02 2006.01 (IA)

Patent Application Publication Aug. 27, 2015 Sheet 1 of 11 US 2015/0241114 A1

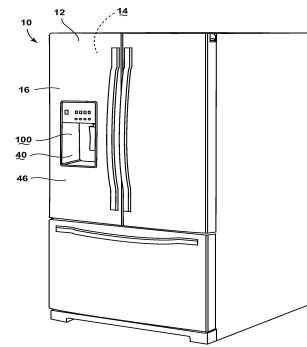


FIG. 1

REFRIGERATOR APPLIANCE AND A DOOR FOR AN APPLIANCE

A door for an appliance is provided. The door of the appliance includes an outer panel with a rear surface. The door also includes a vacuum insulation panel and a barrier layer. The barrier layer is positioned between the rear surface of the outer panel and the vacuum insulation panel within the door.

Publication: [US 20150241115 A1 20150827](#)

Applicant: General Electric Company, Schenectady, US;
General Electric Company, Schenectady, US

Inventor: Edward Philip, Strauss, Louisville, US;
Stephanos, Kyriacou, Louisville, US

Prio:

Appl.No: US14188775

IPC: F25D 23/02 2006.01 (IA)

Patent Application Publication Aug. 27, 2015 Sheet 1 of 5 US 2015/0241115 A1

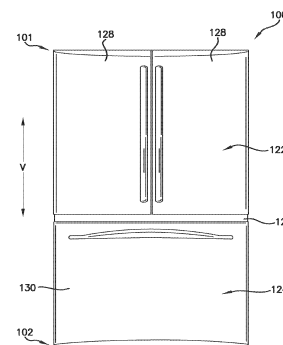


FIG. 1

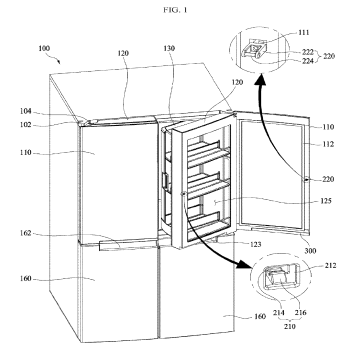
REFRIGERATOR

A refrigerator includes a cabinet having a storage compartment and a main door mounted on the cabinet by a hinge and having an access opening. An auxiliary storage compartment is provided at a rear portion of the main door and is accessible through the access opening. A sub door is mounted on the main door and opens and closes the access opening. A locking device selectively couples the main door with the sub door, and a handle is pivotably attached on the sub door and can be pushed rearward by pivoting about an end of the handle. A lock control device is mounted in the sub door and unlocks the locking device as a result of the handle being pushed rearward about the end of the handle. The handle has a gripping recess and opens the main door and the sub door simultaneously as a result of being pulled.

Publication: [US 20150241116 A1](#) [20150827](#)

Applicant: LG ELECTRONICS INC., Seoul, KR
Inventor: Kyukwan, CHOI, Seoul, KR; Minsub, KIM, Seoul, KR; Sungkyong, HAN, Seoul, KR
Prio: KR 20140221 10-2014-0020486
Appl.No: US14606384
IPC: F25D 23/02 2006.01 (IA)

Patent Application Publication Aug. 27, 2015 Sheet 1 of 7 US 2015/0241116 A1



REFRIGERATOR PANTRY COMPARTMENT

A compartment for storing items in a mullion wall separating refrigerated compartments is provided. One exemplary embodiment provides a refrigerator with a first refrigerated compartment selectively coverable by a first door and a second refrigerated compartment selectively coverable by a second door. A mullion separates the first and second refrigerated compartments. A storage compartment is located in the mullion and separable from the first refrigerated compartment by a selectively closeable lid.

Publication: [US 20150241117 A1](#) [20150827](#)

Applicant: WHIRLPOOL CORPORATION, Benton Harbor, US; WHIRLPOOL CORPORATION, Benton Harbor, US
Inventor: JULIA B., BURKE, St. Joseph, US; ASHISH DONGARMAL, GOGAD, Cedar Rapids, US; ANANT RAVINDRA, KARANJIKAR, Pune, IN; DEAN A., MARTIN, Solon, US
Prio:
Appl.No: US14187411
IPC: F25D 23/06 2006.01 (IA)

Patent Application Publication Aug. 27, 2015 Sheet 1 of 5 US 2015/0241117 A1

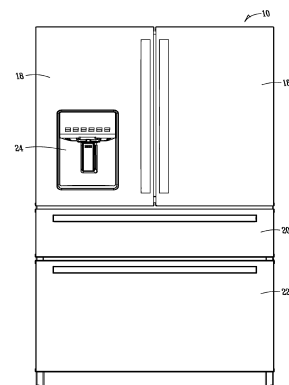


Fig. 1

MULTI-SECTION CORE VACUUM INSULATION PANELS WITH HYBRID BARRIER FILM ENVELOPE

A multi-layer vacuum insulating panel that includes: a first barrier film having at least one polymeric material layer and; a second barrier film having at least one interior polymeric layer, a metal foil layer, and at least one exterior polymeric layer positioned on the opposite side of the metal foil layer as the at least one interior polymeric layer; a sealing junction between the first barrier film and the second barrier film at a sealing section about a perimeter of the first barrier film and the second barrier film where the first barrier film and the second barrier film physically and sealingly engage one another; and a multi-section central core having a first fumed silica region that contains at least one fumed silica compound and at least one fibrous (fiberglass) region that are each discrete regions within the interior volume.

Publication: [US 20150241118 A1 20150827](#)

Applicant: WHIRLPOOL CORPORATION, Benton Harbor, US; WHIRLPOOL CORPORATION, Benton Harbor, US

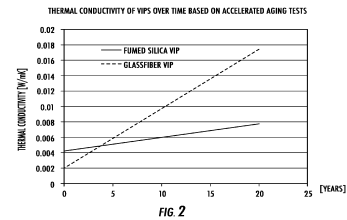
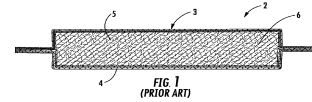
Inventor: GUOLIAN, WU, St. Joseph, US

Prio:

Appl.No: US14187605

IPC: F25D 23/06 2006.01 (IA)

Patent Application Publication Aug. 27, 2015 Sheet 1 of 9 US 2015/0241118 A1



LIGHTING UNITS FOR REFRIGERATOR DRAWERS AND BASKETS

Lighting units for refrigerator drawers and baskets are disclosed. An example refrigerator drawer assembly includes a shelf having a divider, the shelf defining at least a portion of a drawer compartment, first and second drawers disposed beneath the shelf, an elongated light source attached to a bottom surface of the divider, the elongated light source having a plurality of light-emitting diodes (LEDs) along the length of the elongated light source to provide a source of visible light for the first and second drawers.

Publication: [US 20150241119 A1 20150827](#)

Applicant: WHIRLPOOL CORPORATION, Benton Harbor, US; WHIRLPOOL CORPORATION, Benton Harbor, US

Inventor: BASAVRAJ ISHWAR, SANKHGOND, Evansville, US

Prio:

Appl.No: US14187484

IPC: F25D 27/00 2006.01 (IA)

Patent Application Publication Aug. 27, 2015 Sheet 1 of 11 US 2015/0241119 A1

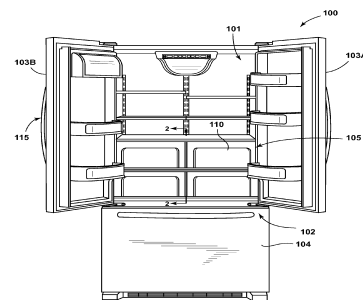


FIG. 1

LOGISTICS SYSTEM FOR MANAGING THERMAL CONDITIONING OF UNIT LOADS OF PCM PANELS AND METHOD OF USE

A logistics system for monitoring and signaling the thermal condition of unit loads of PCM panels during a thermal conditioning cycle as between deep frozen, thermally dampened frozen, and thermally spent, and method of managing thermal conditioning of PCM panels utilizing such signals.

Publication: [US 20150241120 A1 20150827](#)

Applicant: MINNESOTA THERMAL SCIENCE, LLC,
Plymouth, US

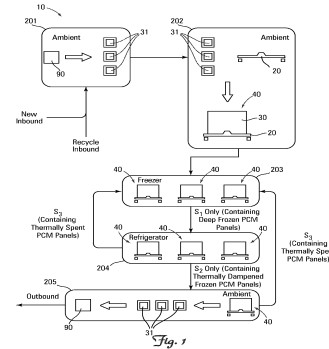
Inventor: William T., Mayer, Stacy, US

Prio:

Appl.No: US14188395

IPC: F25D 29/00 2006.01 (IA)

Patent Application Publication Aug. 27, 2015 Sheet 1 of 4 US 2015/0241120 A1



Revolving framed refrigerator device

A revolving framed refrigerator device having an inverted U frame having an interior side, a top end, a pair of spaced apart legs, and a center, a motor disposed within the frame proximal the center, a rotation control disposed on one leg, the rotation control in operational communication with the motor, a multi-doored refrigerator disposed within the frame, the refrigerator having a front side spaced apart from a back side, a first side spaced apart from a back side, a top side spaced apart from a bottom side, the top side connected to the motor, a plurality of doors disposed on the front side, a plurality of doors disposed on the back side, and a bearinged base wherein the rotation control rotates the refrigerator to a desired position.

Publication: [US 9109827 B1 20150818](#)

Applicant: Lorrita D., Williams, Seattle, US

Inventor: Lorrita D., Williams, Seattle, US

Prio:

Appl.No: US14479913

IPC: F25D 11/00 2006.01 (IA)

U.S. Patent Aug. 18, 2015 Sheet 1 of 3 US 9,109,827 B1

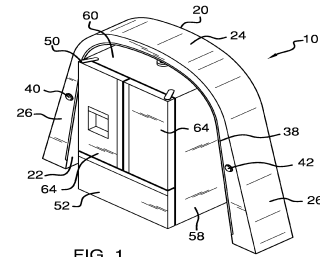


FIG. 1

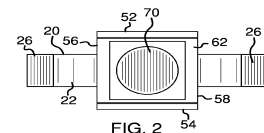


FIG. 2

Adjustable shelving assembly and the method thereof

An adjustable shelving assembly includes at least two support rails, at least one geared rack provided in each of the at least two support rails, and an actuating mechanism placed adjacent to the at least one geared rack. The actuating mechanism is configured to support at least one shelf and facilitates movement of the at least one shelf along the at least two support rails. The actuating mechanism includes a pinion mating with the at least one geared rack, a plurality of permanent magnets mounted coaxially inside the pinion, ferromagnetic disks provided on either ends of the pinion, and a shaft placed axially in the pinion, connecting the permanent magnets. The permanent magnets magnetize or demagnetize the ferromagnetic disks when the shaft is rotated for locking or unlocking the at least one shelf.

Publication: [US 9113705 B1 20150825](#)

Applicant: Wipro Limited, Bangalore, IN; Wipro Limited, Bangalore, IN

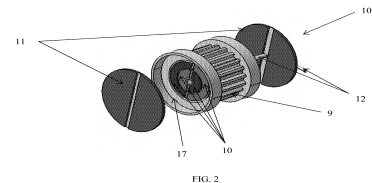
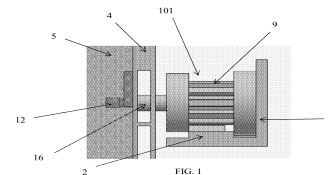
Inventor: Jeju, Jacob, Chennai, IN; Puneet, Makkar, Krishna Nagar, IN

Prio: IN 20140310 1244/CHE/2014

Appl.No: US14258830

IPC: F25D 23/00 2006.01 (IA)

U.S. Patent Aug. 25, 2015 Sheet 1 of 3 US 9,113,705 B1



Drawer system and method of its illumination

The present invention relates to a drawer system containing an outer frame and at least one drawer which further contains at least one optical fibre leading from the outer surface of the outer frame through the wall of the outer frame, and through at least one wall of the drawer. The optical fibre is interrupted at the entry and at the exit to/from the construction material of the wall of the drawer, and the sections of the optical fibre are positioned in the walls of the frame and of the drawer so that at the interrupted ends the sections of the optical fibre (3) connect to each other when drawers are closed. The present invention further relates to the method of illuminating the interior part of the drawer system.

Publication: [EP 2901890 A1 20150805](#)

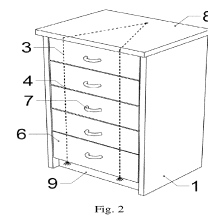
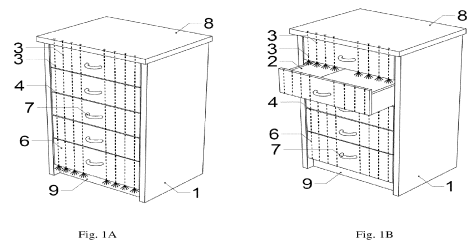
Applicant: Česká Zemedelská Univerzita V Praze, Kamý cká 129, 165 21 Praha 6 Suchdol, CZ

Inventor: Bohm, Martin, Suchdolska 353/35, 16500 Praha 6 - Suchdol, CZ; Bomba, Jan, K Zatoru 463, 26724 Hostomice, CZ; Sedivka, Premysl, Polni 1179, 54401 Dvur Kralove nad Labem, CZ; Skalska, Petra, Suchdolska 353/35, 16500 Praha 6 - Suchdol, CZ

Prio: CZ 20140203 201429180 U

Appl.No: EP14193271

IPC: A47B 88/00 2006.01 (IA)



REFRIGERATOR

A refrigerator includes a biological information obtaining unit (18, 19, 21, 22, 23, 24, 25, 26, 27, 28) for obtaining biological information of a person.

Publication: [EP 2902731 A1 20150805](#)

Applicant: Kabushiki Kaisha Toshiba, 1-1 Shibaura 1-chome, Minato-ku Tokyo 105-8001, JP; Toshiba Consumer Electronics Holdings Corporation, 2-15, Sotokanda 2-Chome Chiyoda-Ku, Tokyo 101-0021, JP; Toshiba Home Appliances Corporation, 2-15 Sotokanda 2-chome Chiyoda-ku, Tokyo 101-0021, JP

Inventor: FURUTA, Kazuhiro, c/o Intellectual Property Division Toshiba Corporation 1-1 Shibaura 1-chome Minato-ku, Tokyo 105-8001, JP; MARUTANI, Yuuki, c/o Intellectual Property Division Toshiba Corporation 1-1 Shibaura 1-chome Minato-ku, Tokyo 105-8001, JP; MASHIMO, Takuya, c/o Intellectual Property Division Toshiba Corporation 1-1 Shibaura 1-chome Minato-ku, Tokyo 105-8001, JP

Prio: JP 20120925 2012210849

Appl.No: EP13842804

IPC: F25D 11/00 2006.01 (IA)

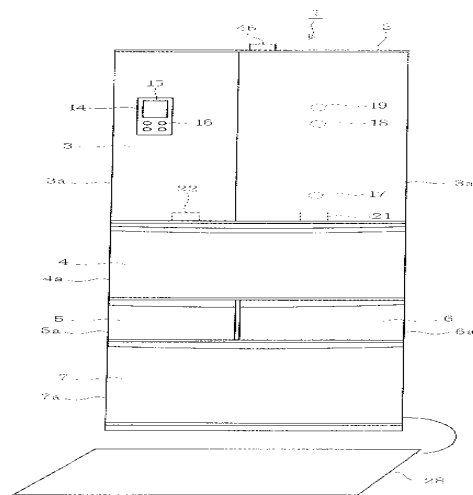


FIG. 1

Domestic/professional refrigerator

Domestic/professional refrigerator (1) comprising a storage chamber (12) for produce storage and a produce ripening control system (10), the produce ripening control system (10) comprising: - an ethylene absorber (18) adapted to operate in absorption mode in a first status and in desorption mode in a second status; - a recirculation circuit (20) configured to fluidly connect the absorber (18) with the storage chamber (12) and to draw air from the storage chamber (12), to flow the drawn air through the absorber (18) and to return it into the storage chamber (12); - a control unit (30) configured to selectively operate the absorber either in the absorption mode for ethylene absorption or in the desorption mode for ethylene desorption.

Publication: [EP 2902732 A1 20150805](#)

Applicant: Electrolux Appliances Aktiebolag, St Göransgatan 143, 105 45 Stockholm, SE

Inventor: Cenedese, Claudio, Electrolux Italia S.p.A. Corso Lino Zanussi 30, 33080 Porcia (PN), IT; Tuzzi, Omero, Electrolux Italia S.p.A. Corso Lino Zanussi 30, 33080 Porcia (PN), IT; Wählby, Urban, St. Göransgatan 143, S-10545 Stockholm, SE

Prio:

Appl.No: EP14153832

IPC: F25D 17/04 2006.01 (IA)

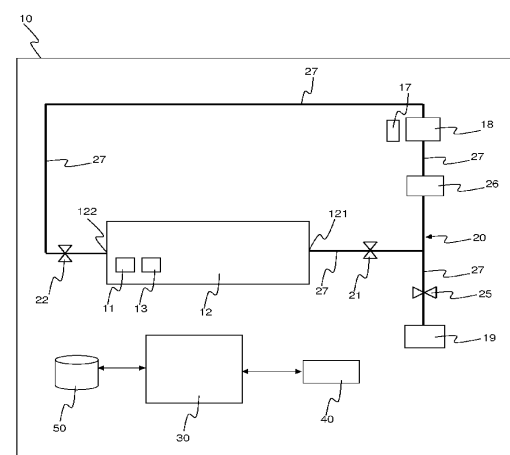


Fig. 2

REFRIGERATOR

A refrigerator includes an outside environment information obtaining unit (48) including at least one of a sound obtaining unit (22) configured to obtain outside environment information and an imaging unit (21) configured to image an outside environment, the outside environment information obtaining unit (21, 22) being configured to obtain outside environment information which is capable of grasping an outside situation and a communication unit (48) configured to communicate with an external device (103) connected thereto via a network (102), thereby rendering the outside environment information obtained by the outside environment information obtaining unit (21, 22) referable at the external device (103) side.

Publication: [EP 2902733 A1 20150805](#)

Applicant: Kabushiki Kaisha Toshiba, 1-1 Shibaura 1-chome, Minato-ku Tokyo 105-8001, JP; Toshiba Consumer Electronics Holdings Corporation, 2-15 Sotokanda 2-chome Chiyoda-ku, Tokyo 101-0021, JP; Toshiba Home Appliances Corporation, 2-15 Sotokanda 2-chome Chiyoda-ku, Tokyo 101-0021, JP

Inventor: MARUTANI, Yuuki, c/o Intellectual Property Division Toshiba Corporation 1-1 Shibaura 1-chome Minato-ku, Tokyo 105-8001, JP; FURUTA, Kazuhiro, c/o Intellectual Property Division Toshiba Corporation 1-1 Shibaura 1-chome Minato-ku, Tokyo 105-8001, JP; MASHIMO, Takuya, c/o Intellectual Property Division Toshiba Corporation 1-1 Shibaura 1-chome Minato-ku, Tokyo 105-8001, JP

Prio: JP 20120927 2012214367

Appl.No: EP13841973

IPC: F25D 23/00 2006.01 (IA)

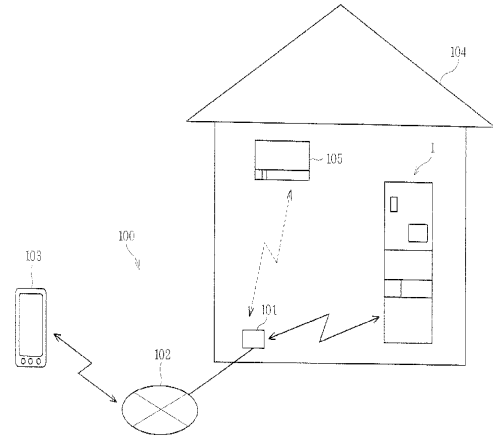


FIG. 1

REFRIGERATOR

Provided is a refrigerator including a plurality of storage compartments sectioned as upper and lower parts of an interior of a heat insulating box by partitioning walls (118a, 118b), each of the storage compartments having a different temperature zone, and doors (105a) disposed on individual front surfaces of the storage compartments. Further provided are door gaskets (133) provided on the doors (105a) and brought into tight contact with corresponding front surfaces around opening of the heat insulating box, and door frames (135) that openably support the doors (105a). Each of the doors (105a) includes an outer plate, an inner plate (132), a foamed insulator (134) that fills a space between the outer plate and the inner plate (132), and a frame fixing member (136) embedded in the foamed insulator (134). Frame protection members (140) are provided on the storage compartment side of the doors (105a). Heat exchange caused by cooling of the door frames (135) is prevented for reduction of power consumption.

Publication: [EP 2902734 A1 20150805](#)

Applicant: Panasonic Intellectual Property Management Co., Ltd., 1-61, Shiromi 2-chome Chuo-ku, Osaka-shi, Osaka 540-6207, JP

Inventor: HORII, Shin'ichi, c/o Panasonic Intellectual Property Management Co., Ltd., IP Management Department 7F OBP Panasonic Tower 2-1-61, Shiromi., Chuo-ku Osaka-shi, Osaka 540-6207, JP

Prio: JP 20120928 2012215889

Appl.No: EP13841378

IPC: F25D 23/02 2006.01 (IA)

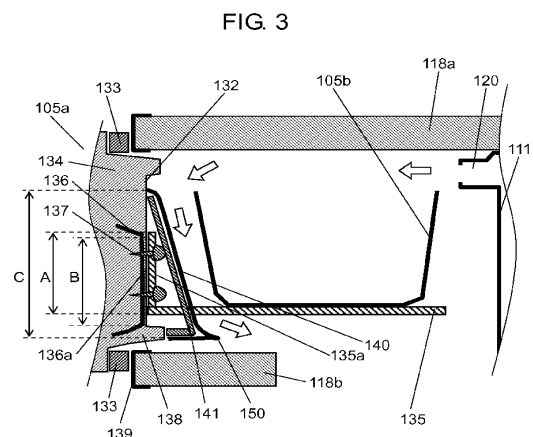


FIG. 3

REFRIGERATOR

In order to use a vacuum insulating material as a heat-insulating material for the door of a refrigerator, and to provide a handle part for the door, it is necessary to form a recessed section in the front panel of the door. The presence of such a recessed section prevents bonding the vacuum insulating material to the front panel of the door. Therefore, in a refrigerator, using a vacuum insulating material, having a recessed section in the front panel of the door, a thin door is obtained that also improves heat-insulating performance. A refrigerator pertaining to an embodiment has: a vacuum-insulating material (21), a recessed section (29) composing the handle part (17) of a door (7), and a molded heat-insulating material (23). The vacuum-insulating material is arranged contacting the back-face side of the front panel (25) composing the door. The recessed section is provided in a different position from the position in which the front panel vacuum-insulating material is arranged. The molded heat-insulating material is arranged on the back-face side of a portion corresponding to the position of the recessed section of the front panel.

Publication: [EP 2902735 A1 20150805](#)

Applicant: Kabushiki Kaisha Toshiba, 1-1 Shibaura 1-chome, Minato-ku Tokyo 105-8001, JP; Toshiba Lifestyle Products & Services Corporation, 2-9, Suehiro-cho, Ome-shi, Tokyo 198-8710, JP

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Prio: JP 20120925 2012210381

Appl.No: EP13842845

IPC: F25D 23/06 2006.01 (IA)

Fig. 2

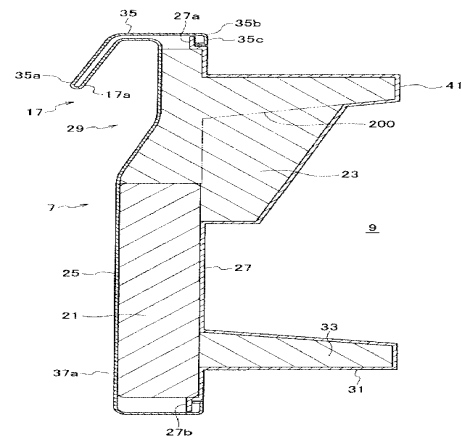


Plate freezer and method for operating a plate freezer

A plate freezer and a method for operating the plate freezer is disclosed. The plate freezer comprises a stack of freezer plates, each freezer plate having a first and a second surface, surrounding a hollow interior though which a coolant may be circulated, which freezer plates are movably mounted in a frame, wherein each freezer plate comprises at least a first actuator mounted in a first end of the freezer plate and at least a second actuator mounted in a second end of the freezer plate, said actuators being mounted on the first surface of the freezer plate in a first end of the actuator and a second end of the actuator is intended for being brought into contact with the second surface of an adjacent freezer plate. The actuators are preferably hydraulic actuators. The overall height of a plate freezer having a certain capacity can be reduced, and the time needed for freezing the product is reduced.

Publication: [EP 2902736 A1 20150805](#)

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Inventor: Møller, Thomas Buus, Fløvevej 19, 9530 Støvring, DK

Prio: DK 20140130 201470044

Appl.No: EP15153146

IPC: F25D 31/00 2006.01 (IA)

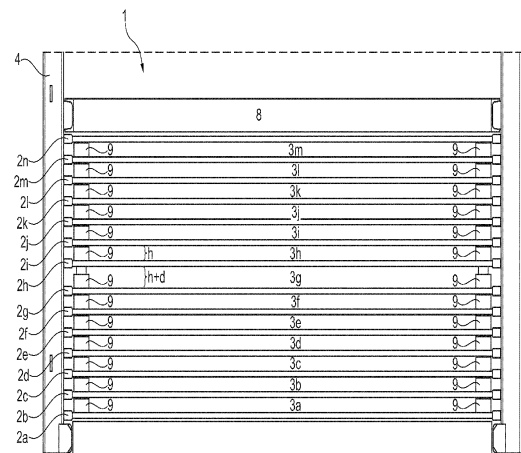


Fig. 5

Dehumidification configuration

A dehumidification configuration 100 includes a dehumidification area 10 as an area for removing moisture contained in air, and a reproduction area 20 as an area for separating the moisture having been removed in the dehumidification area 10, inside a casing 9. The dehumidification configuration 100 further includes, inside the casing 9, a non-dehumidification area 30 as an area in which there is placed a main part of a cooling unit 4 for cooling a heat 5 generating member which is a to-be-cooled part placed in the dehumidification area 10. The dehumidification area 10 has a configuration sealed from the reproduction area 20 and the non-dehumidification area 30.

Publication: [EP 2905061 A1 20150812](#)

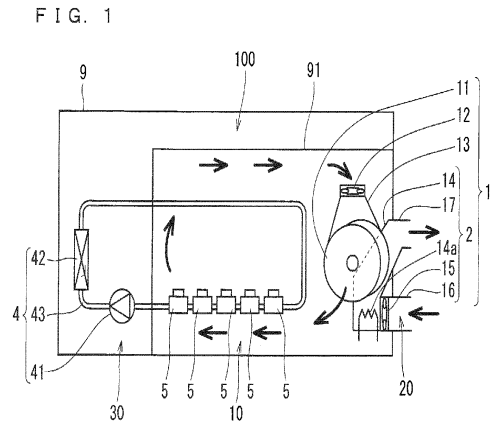
Applicant: Mitsubishi Electric Corporation, 7-3, Marunouchi 2-chome, Chiyoda-ku Tokyo 100-8310, JP

Inventor: Kijima, Takumi, c/o Mitsubishi Electric Corporation 7-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo 1008310, JP

Prio: JP 20140205 2014020007

Appl.No: EP15152456

IPC: B01D 53/06 2006.01 (IA)



Refrigerator

Provided is a refrigerator. The refrigerator includes a main body having a refrigerating compartment and a freezing compartment, a door that opens or closes the refrigerating compartment or the freezing compartment, a dispenser disposed in the door to dispense cold water; a filter unit disposed within the refrigerating compartment to purify water supplied from a water supply source outside the main body, a water tank storing the water supplied from the filter unit to cool the stored water by using cool air within the refrigerating compartment, and a tube tank assembly disposed in the door to store the cold water cooled in the water tank. The tube tank assembly includes a tube defining a cold water passage through which the cold water flows and a tube support around which the tube is wound several times.

Publication: [EP 2905564 A1 20150812](#)

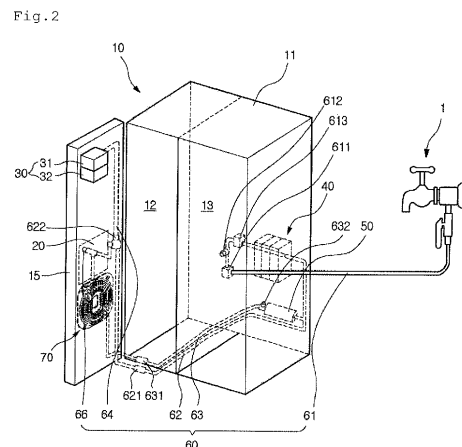
Applicant: LG Electronics Inc., 128, Yeoui-daero, Yeongdeungpo-gu Seoul 150-721, KR

Inventor: Tae, Dongbeen, 51, Gasan digital 1-ro, Geumcheon-gu, 153-802 Seoul, KR; Koak, Kyunghoon, 51, Gasan digital 1-ro, Geumcheon-gu, 153-802 Seoul, KR; An, Siyeon, 51, Gasan digital 1-ro, Geumcheon-gu, 153-802 Seoul, KR

Prio: KR 20140211 20140015278

Appl.No: EP14198778

IPC: F25D 23/12 2006.01 (IA)



Refrigerator and controlling method thereof

A refrigerator and a control method thereof are provided. The refrigerator includes a carbonated water producing apparatus configured to produce carbonated water by supplying water and carbon dioxide gas to a carbonated water tank, a user interface configured to display information of carbonated water concentration, and a control unit configured to control the carbonated water producing apparatus to produce the carbonated water according to the information of carbonated water concentration, wherein the user interface displays a set concentration of the carbonated water and a present concentration of the carbonated water.

Publication: [EP 2905565 A1 20150812](#)

Applicant: Samsung Electronics Co., Ltd, 129, Samsung-ro
Yeongtong-gu Suwon-si, Gyeonggi-do 443-742, KR

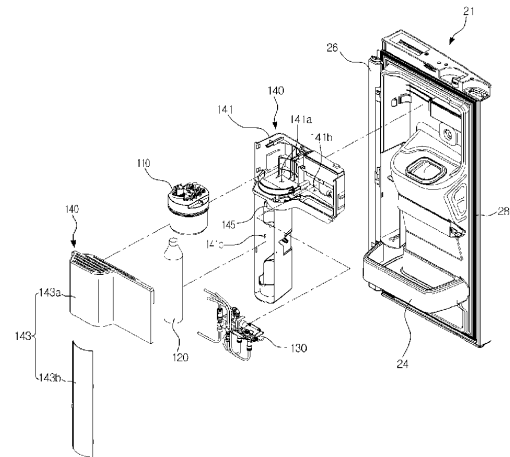
Inventor: KIM, Woo-Sung, 102-401, Jinheung
Therubens, Jangdeok-dong, Gwangsan-gu,
Gwangju, KR; KIM, Jung Yeob, 209-1603,
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Hanwa Ggumegreen Apt., Yongbong-dong,
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Prio: KR 20140210 20140015013

Appl.No: EP15153663

IPC: F25D 23/12 2006.01 (IA)

FIG. 5



Refrigerator and method for controlling the same

A refrigerator and a method for controlling the same are disclosed. A refrigerator includes a timer (40) for measuring an interval of one hour after power is supplied to the refrigerator, a door opening/closing sensor (50) for sensing opening and closing of a door, a storage unit (70) for storing information whether door is opened in a sector defined as one hour by the timer (40) and at least 7 sector units each having 24 consecutive sectors, and a control unit (100) for predicting a refrigerator use pattern in 24 sectors by overlapping 7 sector units, performing a normal operation mode to maintain a storage compartment at a first desired temperature in a sector in which door opening is predicted, and performing a power-saving operation mode to maintain the storage compartment at a second desired temperature higher than the first desired temperature in a sector in which door opening is not predicted.

Publication: [EP 2905566 A1 20150812](#)

Applicant: LG Electronics, Inc., 128, Yeoui-daero
Yeongdeungpo-gu, Seoul 150-721, KR

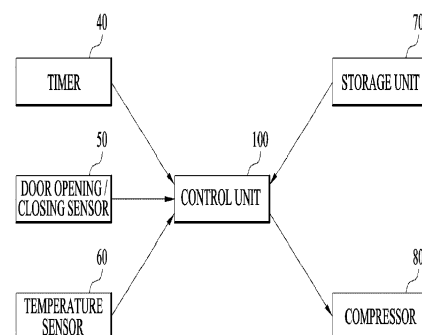
Inventor: CHOI, Byoungsuk, c/o LG Electronics Inc. 19,
Yangjae-daero 11gil, Seocho-gu, 137-893
Seoul, KR; HU, Jinseok, c/o LG Electronics Inc.
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Seoul, KR; KIM, Heesun, c/o LG Electronics Inc.
19, Yangjae-daero 11gil, Seocho-gu, 137-893
Seoul, KR

Prio: KR 20140207 20140014009

Appl.No: EP14183480

IPC: F25D 29/00 2006.01 (IA)

FIG. 2



Temperature controlled display cabinet

The invention relates to a temperature controlled display cabinet (10) comprising frame parts (11, 12, 13) and side walls (15), which cabinet (10) has at least one door (16) or an opening on front and/or back side of the cabinet (10). The walls (15) and doors (16) of the temperature controlled display cabinet (10) are transparent material and a side duct (23) for temperature controlled gas flow (S) is located at one of the side walls (15) of the temperature controlled display cabinet (10) and the side duct (23) is formed by a duct wall structure (25) of transparent material.

Publication: [EP 2907416 A1 20150819](#)

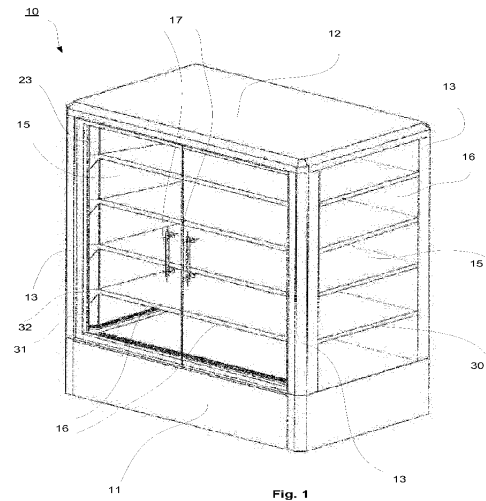
Applicant: Norpe Oy, Teollisuustie 7, 06150 Porvoo, FI

Inventor: Sillanpää, Jani, Niittäjantie 6, FI-07230 Monninkylä, FI

Prio: FI 20140213 20145140

Appl.No: EP15153034

IPC: A47F 3/04 2006.01 (IA)



An improved hinge group for doors of refrigerator cabinets

A hinge group (50) for closing panels of an access entry of refrigerator cabinets comprising: a first support element (51) fixable to a fixed frame (21) of the access entry; a second support element (54) fixable to the closing panel (30), and hinged to the first support element (51); elastic return means (53) interposed between the first and the second support element (51, 54) for return from the open position to the closed position, which comprise a torsion spring (53) substantially parallel to the hinge axis (X) and decentred with respect thereto; cam means (511, 545) for transforming means of the rotary motion of the second support element (54) with respect to the first support element (51) into rotary motion of the first end (53a) with respect to the second end (53b) of the torsion spring (53), comprising a pin (545) and an abutting element (511) for the pin (545) in which the abutting element (511) is rotatably associated to the first support element (51).

Publication: [EP 2908073 A1 20150819](#)

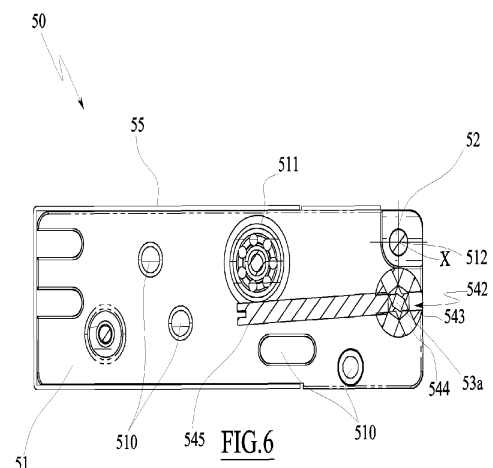
Applicant: Cisaplast S.P.A., Via Poliski, 3, 46029 Suzzara (MN), IT

Inventor: Guiducci, Alberto, CISAPLAST S.P.A. 3, Via Poliski, 46029 Suzzara (Mantova), IT

Prio: IT 20140213 RE20140010

Appl.No: EP15154314

IPC: F25D 23/02 2006.01 (IA)



A cabinet-side door frame for refrigerator cabinets

A front frame (20) for doors of refrigerator cabinets, comprising a border able to delimit an access entry of the refrigerator cabinet, wherein at least a portion (21, 22, 23) of the border comprises a first part (210, 220, 230) made of a plastic material, in which the plastic material is high-density foam polyurethane.

Publication: [EP 2908074 A1 20150819](#)

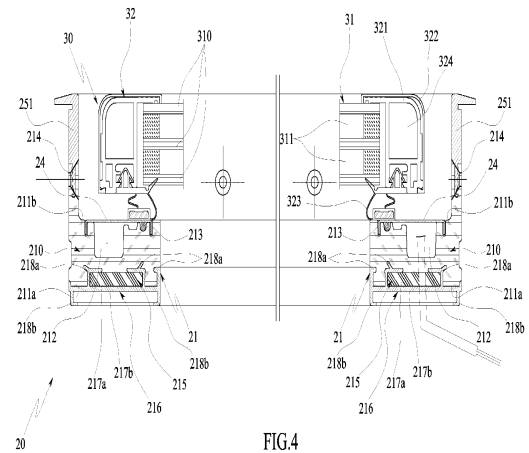
Applicant: Cisaplast S.P.A., Via Poliski, 3, 46029 Suzzara (MN), IT

Inventor: Staffetta, Alessandro, 33, Via G. Cantore, 46029, Suzzara (MN), IT; Annibali, Luca, 14, Viale Gorizia, Mantova (MN), 46100 Mantova, IT

Prio: IT 20140213 RE20140011

Appl.No: EP15154387

IPC: F25D 23/02 2006.01 (IA)



Refrigerator

Provided is a refrigerator (10). The refrigerator (10) includes a main body (11) to define a storage space (12), a door (14) that opens and closes the storage space (12), a dispenser (20) provided at the door (14) to dispense water, a filter device (40) having at least two filters (42) to purify water supplied from an external water supply source (1), thereby supplying the purified water into the dispenser (20), at least two heads (45) fixing the filters (42), a connector (3) that connects the at least two heads (45) to each other, the connector (3) providing a passage between the at least two heads (45), and a bracket (43) on which the connector (3) and the heads (45) are seated, the bracket (43) being coupled to the connector (3).

Publication: [EP 2908075 A1 20150819](#)

Applicant: LG Electronics Inc., 128, Yeoui-daero, Yeongdeungpo-gu Seoul 150-721, KR

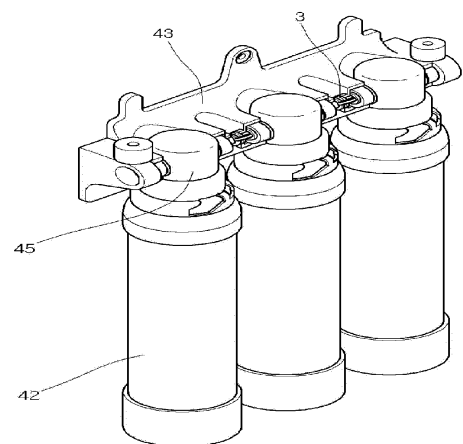
Inventor: Yun, Jongho, c/o LG Electronics Inc. 51, Gasan digital 1-ro, Geumcheon-gu, 153-802 Seoul, KR; Koak, Kyunghoon, c/o LG Electronics Inc. 51, Gasan digital 1-ro, Geumcheon-gu, 153-802 Seoul, KR; Kim, Bongjun, c/o LG Electronics Inc. 51, Gasan digital 1-ro, Geumcheon-gu, 153-802 Seoul, KR; An, Siyeon, c/o LG Electronics Inc. 51, Gasan digital 1-ro, Geumcheon-gu, 153-802 Seoul, KR

Prio: KR 20140212 20140015797

Appl.No: EP14197543

IPC: F25D 23/12 2006.01 (IA)

Fig. 5



Water cooling unit for conditioning systems

A water cooling unit (10) for conditioning systems, comprising, within a box-like container (11), - an air precooling panel (12), provided with a matrix of through holes, associated with means (13) for cooling a stream of external air (14) that passes through the matrix of holes, - at least one pair (15) of laterally adjacent heat exchange batteries (16, 17), for each pair of laterally adjacent batteries a first battery (16) being for freecooling of the water entering an evaporator (18) and the second battery (17) being a condensation battery for a condenser of the evaporator (18), - means (21) for the exit outside the box-like container (11) of the heated air (22) that exits from the at least one pair (15) of laterally adjacent heat exchange batteries, - first means for hydraulic connection between the water return (43) of an air-conditioning system (19) and the water inlet (44) of the at least one freecooling battery (16), and - second means for hydraulic connection between the at least one freecooling battery (16) and the evaporator (18).

Publication: [EP 2910864 A1 20150826](#)

Applicant: Emerson Network Power S.R.L., Via Leonardo da Vinci, 16-18, 35028 Piove di Sacco (PD), IT

Inventor: Furlan, Giancarlo, Via Romagnoli, 6, 35126 Padova, IT; Dall'olio, Roberto, Via Eustachio Manfredi, 5, 40138 Bologna, IT

Prio: IT 20140221 PD20140037

Appl.No: EP15155733

IPC: F24F 1/46 2011.01 (IA)

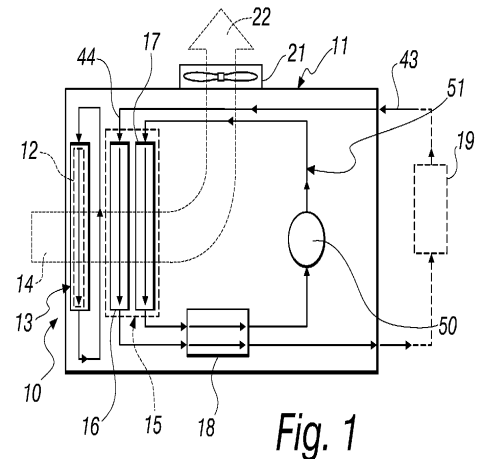


Fig. 1

REFRIGERATOR

A refrigerator comprises a storage chamber, a door that opens and closes a front opening of the storage chamber, a terminal mounting part that is provided on the front of the door and to which a mobile information terminal is detachably mounted, and a terminal power supply for supplying power to a mobile information terminal when the mobile information terminal is mounted in the terminal mounting part.

Publication: [EP 2910877 A1 20150826](#)

Applicant: Kabushiki Kaisha Toshiba, 1-1 Shibaura 1-chome, Minato-ku Tokyo 105-8001, JP; Toshiba Consumer Electronics Holdings Corporation, 2-15 Sotokanda 2-chome Chiyoda-ku, Tokyo 101-0021, JP; Toshiba Home Appliances Corporation, 2-15 Sotokanda 2-chome Chiyoda-ku, Tokyo 101-0021, JP

Inventor: MARUTANI, Yuuki, c/o Intellectual Property Division TOSHIBA CORPORATION 1-1 Shibaura 1-chome Minato-ku, Tokyo 105-8001, JP; FURUTA, Kazuhiro, c/o Intellectual Property Division TOSHIBA CORPORATION 1-1 Shibaura 1-chome Minato-ku, Tokyo 105-8001, JP; TSUKAMOTO, Kenichi, c/o Intellectual Property Division TOSHIBA CORPORATION 1-1 Shibaura 1-chome Minato-ku, Tokyo 105-8001, JP; MASHIMO, Takuya, c/o Intellectual Property Division TOSHIBA CORPORATION 1-1 Shibaura 1-chome Minato-ku, Tokyo 105-8001, JP; WATANABE, Kota, c/o Intellectual

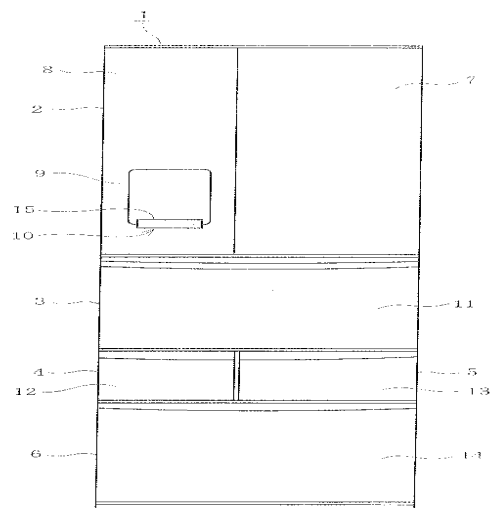


FIG. 1

Property Division TOSHIBA CORPORATION 1-1
Shibaura 1-chome Minato-ku, Tokyo 105-
8001, JP

Prio: JP 20121012 2012226942, JP 20130312
2013049071, JP 20130531 2013115459

Appl.No: EP13844991

IPC: F25D 23/02 2006.01 (IA)

Vacuum packaged 3D vacuum insulated door structure and method therefor using a tooling fixture

A method for creating a vacuum insulated panel (34) including preforming a continuous insulation member (22) having male and female engaging surfaces (28, 26) and providing a barrier film envelope (30) having an opening. The insulation member (22) is disposed within the barrier film envelope (30) and a tooling fixture (90) presses the barrier film envelope (30) against the male and female engaging surfaces (28, 26) to remove gas (32) from between the barrier film envelope (30) and the male and female engaging surfaces (28, 26). Substantially all gas (32) is removed from within the barrier film envelope (30) so that the barrier film envelope (30) substantially conforms to the insulation member (22). The opening of the barrier film envelope (30) is hermetically sealed. The barrier film envelope (30) forms a continuous layer over the insulation member (22) to form a vacuum insulated panel (34). An appliance door (12) comprising said vacuum insulated panel (34).

Publication: [EP 2910878 A1 20150826](#)

Applicant: Whirlpool Corporation, 2000 North M-63 MD
3601, Benton Harbor, MI 49022, US

Inventor: Wu, Guolian, Whirlpool Europe s.r.l., Patent
Dept. v.le G. Borghi 27, 21025 Comerio, IT

Prio: US 20140224 201414187640

Appl.No: EP15152173

IPC: F25D 23/02 2006.01 (IA)

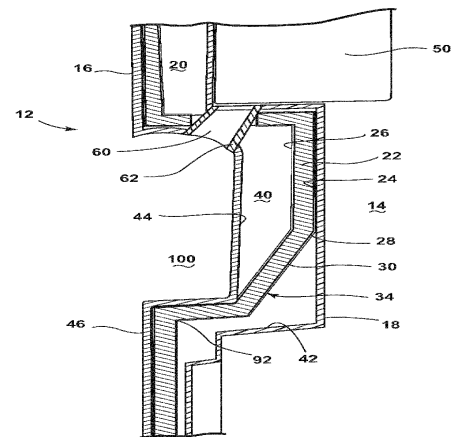


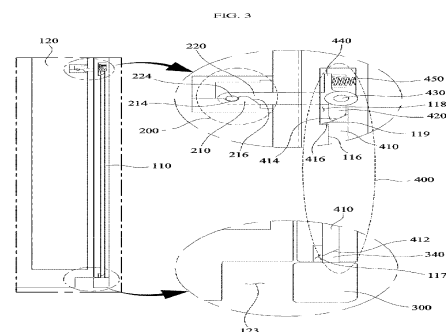
FIG. 4

Refrigerator

A refrigerator includes a cabinet (100) having a storage compartment provided therein, a main door (120) pivotably mounted at one side of the cabinet (100) for opening and closing the storage compartment, an auxiliary storage compartment (130) coupled to a rear of the main door (120), a sub door (110) pivotably mounted at one side of the main door (120) for opening and closing the auxiliary storage compartment (130), a locking device (200) for selectively coupling the main door (120) and the sub door (110) to each other, a handle (300) pivotably mounted at one side of the sub door (110) for pivoting and opening the main door (120) when pulled and releasing the locking device (200) when pushed, and a lock control device (400) mounted in the sub door (110) for lock control with operation of the handle (300) to release the locking device (200).

Publication: [EP 2910879 A1 20150826](#)

Applicant: LG Electronics Inc., 128, Yeouui-daero,
Yeongdeungpo-gu Seoul 150-721, KR



Inventor: CHOI, Kyukwan, c/o LG Electronics Inc. 19, Yangjae-daero 11-gil, Seocho-gu, 137-893 Seoul, KR; KIM, Minsub, c/o LG Electronics Inc. 19, Yangjae-daero 11-gil, Seocho-gu, 137-893 Seoul, KR; HAN, Sungkyong, c/o LG Electronics Inc. 19, Yangjae-daero 11-gil, Seocho-gu, 137-893 Seoul, KR

Prio: KR 20140221 20140020486

Appl.No: EP15152828

IPC: F25D 23/02 2006.01 (IA)

A folding approach to create a 3D vacuum insulated door from 2D flat vacuum insulation panels

An appliance door (32) includes a vacuum insulated structure (52) having a plurality of core sections (1, 2, 3, 4, 5, 6, 7) that are folded to form an ice and/or water dispensing cavity (38) on an outer side of the appliance door (32). The vacuum insulated door structure (52) may be positioned between an outer door member (54) and a door liner (56).

Publication: [EP 2910880 A1 20150826](#)

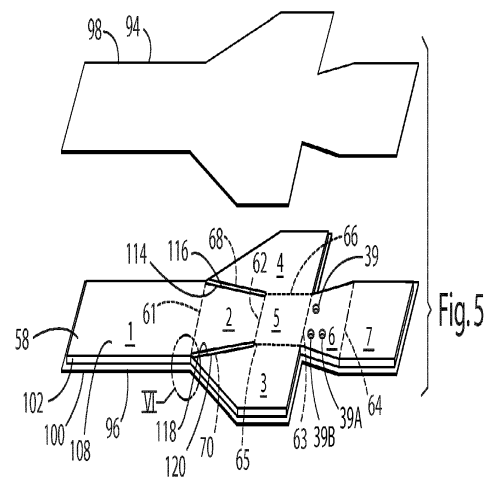
Applicant: Whirlpool Corporation, 2000 North M-63 MD 3601, Benton Harbor, MI 49022, US

Inventor: Wu, Guolian, Whirlpool Europe s.r.l., Patent Dept. v.le G. Borghi 27, 21025 Comerio, IT

Prio: US 20140224 201414187622

Appl.No: EP15154577

IPC: F25D 23/02 2006.01 (IA)



LIGHTING UNITS FOR REFRIGERATOR DRAWERS AND BASKETS

Lighting units for refrigerator drawers and baskets are disclosed. An example refrigerator drawer assembly includes a shelf (220) having a divider (315), the shelf (220) defining at least a portion of a drawer compartment, first and second drawers (210) disposed beneath the shelf (220), and an elongated light source (225) attached to a bottom surface of the divider (315), the elongated light source (225) having a plurality of light-emitting diodes (LEDs) (615) along the length of the elongated light source (225) to provide a source of visible light for the first and second drawers (210).

Publication: [EP 2910881 A1 20150826](#)

Applicant: Whirlpool Corporation, 2000 North M-63 MD 3601, Benton Harbor, MI 49022, US

Inventor: Sankhgond, Basavraj Ishwar, Whirlpool Europe s.r.l., Patent Dept. v.le G. Borghi 27, 21025 Comerio, IT

Prio: US 20140224 201414187484

Appl.No: EP15153502

IPC: F25D 27/00 2006.01 (IA)

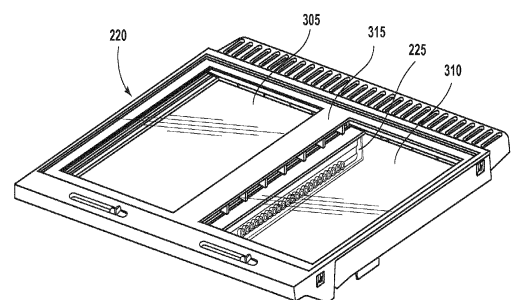


FIG. 4

REFRIGERATING APPLIANCE COMPRISING WATER-BEARING FITTINGS

Kältegerät mit wenigstens einem wasserführenden Einbauteil, das eine mit einer gegen Mikroben und/oder Pilze wirksamen chemischen Substanz beaufschlagte Oberflächenschicht und eine von der chemischen Substanz im Wesentlichen freie Trägerschicht aufweist, dadurch gekennzeichnet, dass die chemische Substanz eine Silberverbindung enthält und in eine Kunststoffmatrix eingebettet ist.

Publication: [EP 1529186 B1 20150826](#)

Applicant: BSH Hausgeräte GmbH, Carl-Wery-Strasse 34,
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Inventor: ATHANASIOU, Athanasios, Am Wildbad 102,
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Prio: DE 20020805 20212003 U

Appl.No: EP3784041

IPC: A01N 59/16 2006.01 (IA)

TEMPERATURE CONTROL SYSTEM FOR COOLING FOOD AND CORRESPONDING METHOD

Temperatursteuerungssystem (10) zur Kühlung von Lebensmitteln auf eine optimale Temperatur, wobei das Temperatursteuerungssystem umfasst: eine Wanne (20) mit einer Öffnung, einer Seitenwand (30) und einem Boden (34) zum Halten der Lebensmittel, wobei ein erstes Isolationselement (42) einen Teil der Seitenwand umgibt, eine Kühlvorrichtung (40), geeignet zum Kühlen der Öffnung mit einer ersten Rate und zum Kühlen des Bodens mit einer zweiten Rate, wobei die erste Rate größer ist als die zweite Rate, und ein zweites Isolationselement (44), das die Seitenwand und das erste Isolationselement umgibt, wobei die Seitenwand und das zweite Isolationselement einen Kanal (36) bilden, dadurch gekennzeichnet, dass der Kanal mit einem Glykolmedium (38) zum Kühlen der Wanne gefüllt ist, und dadurch, dass der Kanal eine erste Breite an einer ersten Stelle angrenzend an die Seitenwand (30) besitzt und der Kanal eine zweite Breite an einer zweiten Stelle angrenzend an den Boden (34) besitzt, wobei die erste Breite größer ist als die zweite Breite.

Publication: [EP 1759154 B1 20150812](#)

Applicant: The Delfield Company, 980 South Isabella
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W., 2603 N. Winn Road, Mt. Pleasant, MI
48858, US

Prio: US 20040623 874738

Appl.No: EP5761686

IPC: A47F 3/04 2006.01 (IA)

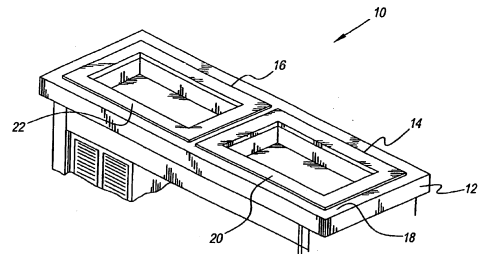


Fig. 1

ICE-MAKING DEVICE FOR REFRIGERATOR

Kühlschrank mit einem Eisversorgungssystem, mit: einem Hauptkörper (100), der einen Lagerraum aufweist; einer Tür (131), die am Hauptkörper (100) vorgesehen ist, um den Lagerraum zu öffnen oder zu schließen, wobei die Tür (131) aufweist: eine äußere Tür (133), die ein vorderes äußeres Erscheinungsbild der Tür (131) definiert; eine Türverkleidung (134), die ein hinteres äußeres Erscheinungsbild der Tür (131) definiert, einem Antriebsmotor, der an einer Innenseite der Tür (131) angeordnet ist; einem Antriebsverbinder (154), der an einer Innenseite der Tür (131) angeordnet ist, der mit einer Rotation durch den Motor beweglich ist und Verriegelungsvorsprünge (154a) aufweist; einem Eisbereiter (161), der an einem oberen Teil eines Einbauraums (151S) angebracht ist; einer Eisbank (181), die abnehmbar in den Einbauraum (151S) unter dem Eisbereiter (161) und einer Eisbereiterabdeckung (171) eingebaut ist, wobei die Eisbank (181) aufweist: eine Eiszerkleinerungsanordnung, die mit einer Rotation beweglich ist; eine Überführungsvorrichtung, die mit einer Rotation zusammen mit der Eiszerkleinerungsanordnung beweglich ist, um Eis in der Eisbank (181) zu einem Auslass zu überführen; dadurch gekennzeichnet, dass der Kühlschrank aufweist einen Verriegelungsverbinder (189), der auf deren Rückseite angeordnet ist und in einer Rotation zusammen mit der Eiszerkleinerungsanordnung und der Überführungsvorrichtung beweglich ist; und Verriegelungsrippen (189a), die eingerichtet sind, mit den Verriegelungsvorsprüngen (154a) des Antriebsverbinders (154) in Eingriff zu treten, wenn die Eisbank (181) in den Einbauraum (151S) eingebaut wird, wobei die Türverkleidung (134) aufweist: Haltestufen (135), die jeweils auf beiden Seitenenden einer Rückseite der Tür (131) vorgesehen sind, wobei die Haltestufen (135... (+1707)

Publication: [EP 2008041 B1 20150819](#)

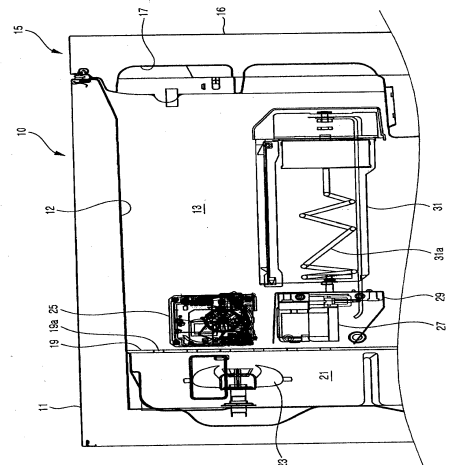
Applicant: LG Electronics Inc., 20, Yeouido-dong, Yeongdeungpo-gu Seoul 150-721, KR
Inventor: KOO, Bon-Young, Daedong Apartment 106-802 Sangnam-dong, Changwon City, Gyeongsangnam-do, 641-777, KR; KIM, Jong-Gon, 142-9, Sarim-dong, Changwon City, Gyeongsangnam-do, 641-825 / KR, KR; KWON, Oh-Chul, Booyoung e-green 6-cha Apartment 702-903 Jelmi Maeul, Sammun-ri, Jangyu-myeon, Gimhae City, 621-723, KR; PARK, Yoo-Min, 842-4, Gwanji-ri Myeongseok-myeon, Jinju City, Gyeongsangnam-do, 660-953, KR; KIM, Myung-Soo, Deoksan Apartment 202-304 1260-1, Oe-dong, Gimhae City, Gyeongsangnam-do, 621-775, KR; GWAK, Young-Hoon, 74-10, Dongdaesin-dong 1-ga, Seo-gu, Busan City, 602-101, KR; CHO, Hyeon-Po, 433-1, Sujeong-dong Dong-gu, Busan City, 601-030, KR

Prio: KR 20060418 20060035107, KR 20060418 20060035110, KR 20060418 20060035122

Appl.No: EP7746057

IPC: F25C 1/24 2006.01 (IA)

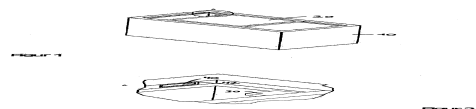
【Figure 1】



REFRIGERATOR AND/OR FREEZER

Kühl- und/oder Gefriergerät, insbesondere Kühl- und/oder Gefriertruhe (10/130), mit einem Korpus und einem relativ zum Korpus bewegbaren Deckel (20/140) oder einer relativ zum Korpus bewegbaren Tür oder Klappe, der/die eine Scheibe, vorzugsweise eine Glas- (20/140) oder Kunststoffscheibe, aufweist oder durch diese gebildet wird, sowie mit einer Heizeinrichtung, mittels derer die Scheibe beheizbar ist, wobei Mittel (30,32,42/150,152,162) zur Übertragung der für den Betrieb der Heizeinrichtung erforderlichen Leistung vorgesehen sind, die nach dem Prinzip der induktiven Leistungsübertragung arbeiten, dadurch gekennzeichnet, dass die Mittel (150,152,162) zur Übertragung der Leistung derart angeordnet sind, dass die Leistungsübertragung wenigstens bereichsweise unabhängig von der Position des Deckels (20/140) bzw. der Tür oder Klappe erfolgt.

Publication: [EP 2059740 B1 20150805](#)



Applicant: Liebherr-Hausgeräte Lienz GmbH, Dr.-Hans-Liebherr-Strasse 1, 9900 Lienz, AT
Inventor: SIMONER, Richard, Nikolsdorf 81, 9782 Nikolsdorf, AT; OBERHAUSER, Florian, Bichl 16, 9911 Assling, AT
Prio: DE 20061214 202006018920 U, DE 20070523 202007007344 U
Appl.No: EP7856708
IPC: A47F 3/04 2006.01 (IA)

Controlling chilled state of a cargo

Verfahren zum Betreiben eines Kühlsystems für einen Container zum Kühlen von Kühlgütern, wobei das Kühlsystem (100) einen Kompressor (110), einen Verflüssiger (120) und einen Verdampfer (140), die in Reihe geschaltet sind, ein dem Verdampfer (140) zugeordnetes Verdampfergebläse (150) und eine Heizung (180) aufweist, wobei das Kühlsystem (100) dahingehend betreibbar ist, Zuluft (SA) an den Container (200) abzuführen und Abluft (RA) vom Container (200) aufzunehmen, wobei das Verfahren Folgendes umfasst: Bestimmen der Temperatur der Zuluft (SA), Bestimmen der Temperatur der Abluft (RA), Bestimmen eines Heizbedarfs und/oder eines Kühlbedarfs auf der Grundlage der Ablufttemperatur (TRA) und der Zulufttemperatur (TSA), Aktivieren des Verdampfergebläses (150), wenn ein Heizbedarf bestimmt wird, und Erhöhen der Drehzahl des Verdampfergebläses (150), wenn verstärkte Heizung bestimmt wird, und Aktivieren des Kompressors (110) und des Verdampfergebläses (150), wenn ein Kühlbedarf bestimmt wird, und Erhöhen der dem Kompressor (110) zugeführten Energie und Beibehalten einer niedrigen ersten Drehzahl des Verdampfergebläses (150), wenn verstärktes Kühlen bestimmt wird.

Publication: [EP 2180277 B1 20150812](#)

Applicant: Thermo King Corporation, 314 West 90th Street, Minneapolis, MN 55420, US; Johnson Controls Technology Company, 915 East 32nd Street, Holland, MI 49423, US

Inventor: Thogersen, Ole, Gl. Vindingevej 12, 5800 Nyborg, DK; Dyrmosé, Allan, Svelvikpæren 1, 5400 Bogense, DK; Vad Steffensen, Dan, Tingvængen 1, 8981 Spentrup, DK

Prio: US 20081024 108090 P

Appl.No: EP9252462

IPC: F25B 49/02 2006.01 (IA)

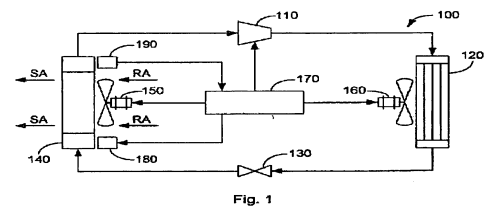


Fig. 1

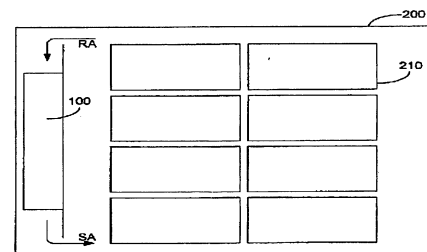
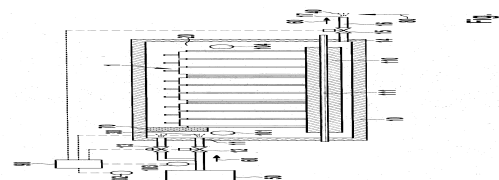


Fig. 2

METHOD AND DEVICE FOR DECREASING MOISTURE IN A GAS IN A BATTERY HOUSING INTERIOR

Verfahren zur Minderung der Feuchtigkeit eines Gases in einem Batteriegehäuseinnenraum, bei dem ein Gas (30) mit einem geringeren Wasserdampfanteil als das Gas (20) im Batteriegehäuseinnenraum mittels einer Trocknungseinrichtung (50) erzeugt und in den Batteriegehäuseinnenraum eingeleitet wird und ein Gas (40) aus dem Batteriegehäuseinnenraum herausgeleitet wird, so dass der Batteriegehäuseinnenraum zumindest teilweise mit dem Gas (30) mit geringeren Wasserdampfanteil ausgefüllt ist, dadurch gekennzeichnet, dass das Gas (30) mit geringeren Wasserdampfanteil ein in Gasströmungsrichtung (60) nach der außerhalb des Batteriegehäuseinnenraums angeordneten Trocknungseinrichtung (50) im Batteriegehäuseinnenraum angeordnetes Trockenmittel (70) durchströmt.

Publication: [EP 2514022 B1 20150805](#)



Applicant: Samsung SDI Co., Ltd., 428-5, Gongse-dong
Giheung-gu Yongin-si, Gyeonggi-do, KR;
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Stuttgart, DE

Inventor: YAN, Xiaofeng, Waiblinger Strasse 81, 71384
Weinstadt, DE

Prio: DE 20091218 102009054922

Appl.No: EP10770844

IPC: H01M 10/42 2006.01 (IA)

IMPROVEMENTS IN OR RELATING TO COOLING

Kühlgerät mit: einem Hohlraum zur Aufnahme eines zu kühlenden Produkts (20); einer Dreheinrichtung, um das Produkt, das in den Hohlraum aufgenommen ist, zu drehen, und einer Kühlmittelzuführeinrichtung, um ein Kühlmittel zu dem Hohlraum vorzusehen; wobei die Dreheinrichtung angepasst ist, um das Produkt (20) um zwei parallele, nicht koinzidente Achsen (21, 22) zu drehen; und wobei eine der Achsen (21) eine Achse des Produkts ist.

Publication: [EP 2547970 B1 20150812](#)

Applicant: Enviro-Cool UK Limited, Little Lucy's Farm
Lower Street Hildenborough, Kent TN11 8PT,
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Prio: GB 20100317 201004453

Appl.No: EP11710555

IPC: F25D 31/00 2006.01 (IA)

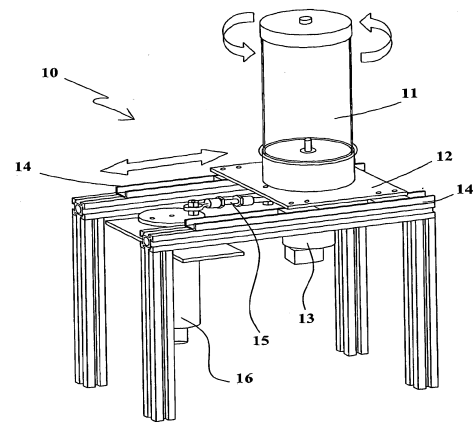


Fig. 1

A COOLING DEVICE

Kühlvorrichtung (1), umfassend einen Gehäusekörper (2), in den Lebensmittel und Getränke gegeben werden, einen Frischhalter (3), der in dem Gehäusekörper (2) angeordnet ist, eine Abdeckung (4), die am Frischhalter (3) angeordnet ist und den Frischhalter (3) von Innenvolumen des Gehäusekörpers (2) trennt, wenigstens einen Lufteinlass (5), der dafür sorgt, dass kalte Luft in den Frischhalter (3) geleitet wird, und wenigstens einen Luftauslass (6), der dafür sorgt, dass Luft aus dem Frischhalter (3) abgelassen wird, gekennzeichnet durch wenigstens einen Pegelsensor (7), der im Inneren des Frischhalters (3) angeordnet ist und die momentane Füllrate des Frischhalters (3) bestimmt, indem er den oberen Pegel der Lebensmittel im Frischhalter (3) erkennt, und eine Steuereinheit (8), die dafür sorgt, dass die Menge der relativen Feuchtigkeit (RH) im Frischhalter (3) entsprechend den vom Pegelsensor (7) erlangten Daten angepasst wird.

Publication: [EP 2580550 B1 20150805](#)

Applicant: Arçelik Anonim Sirketi, E5 Ankara Asfalti Uzeri
Tuzla, 34950 Istanbul, TR

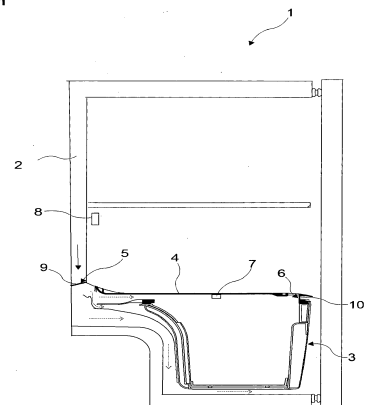
Inventor: KOCATURK, Serdar, E5 Ankara Asfalti Uzeri
Tuzla, 34950 Istanbul, TR; KERPICCI, Husnu, E5
Ankara Asfalti Uzeri Tuzla, 34950 Istanbul, TR;
ONBASIOGLU, Seyhan Uygur, E5 Ankara Asfalti
Uzeri Tuzla, 34590 Istanbul, TR

Prio: TR 20100608 201004618

Appl.No: EP11723969

IPC: F25D 25/02 2006.01 (IA)

Figure 1



REFRIGERATION DEVICE COMPRISING A POURING DEVICE FOR RECEIVING DRIPPING CONDENSATION WATER

Kältegerät, insbesondere Haushaltskältegerät, mit einem Innenbehälter (1), einer Tauwassersammelrinne (4), die wenigstens eine Abtropfkante (5) aufweist, und einer Ausgießvorrichtung (7) zum Aufnehmen des von der Abtropfkante (5) abtropfenden Tauwassers, sowie zum Weiterleiten des Tauwassers an eine außerhalb des Kältegeräts liegende Ausgießstelle, wobei die Ausgießvorrichtung (7) einen Aufnahmeabschnitt (10) aufweist, der sich in einer Lage zum Weiterleiten des Tauwassers bis unter die Abtropfkante (5) der Tauwassersammelrinne (4) erstreckt, wobei die Ausgießvorrichtung (7) am Innenbehälter (1) oder an einem an dem Innenbehälter (1) befestigten Gehäusebauteil (8) schwenkbar gelagert ist, dadurch gekennzeichnet, dass die Tauwassersammelrinne (4) einen Rinnenabschnitt (6, 6a) aufweist, der sich bis zu einer Kante (15) zwischen einer horizontalen Bodenwand (16) des Innenbehälters (1) und einer vertikalen frontseitigen Rahmenwand (17) des Innenbehälters (1) erstreckt.

Publication: [EP 2585774 B1 20150812](#)

Applicant: BSH Hausgeräte GmbH, Carl-Wery-Strasse 34, 81739 München, DE

Inventor: ECKARTSBERG, Peter, Friedrich-Ebert-Straße 7, 73433 Aalen, DE; LAIBLE, Karl-Friedrich, Ahornweg 53, 89129 Langenau, DE; SEELMEIER, Michael, Im Gehren 31, 73572 Heuchlingen, DE

Prio: DE 20100625 102010030561

Appl.No: EP11726750

IPC: F25D 21/14 2006.01 (IA)

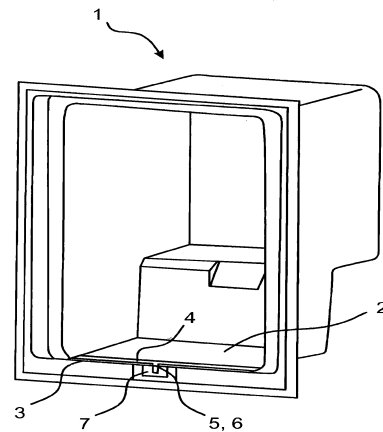


Fig. 1

A REFRIGERATOR THE WATER STORAGE CONTAINER OF WHICH IS STERILIZED

Kühlschrank (1), umfassend einen Gehäusekörper (2), ein Fach für frische Lebensmittel (3), einen Wasserspender, der heißes oder kaltes Wasser für den Benutzer bereitstellt, einen Wasserspeicherbehälter (5), der im Fach für frische Lebensmittel (3) angeordnet ist und in dem Wasser zum Leiten an den Wasserspender gespeichert ist, ein oder mehrere UV-Lichtquellen (6), die im Gehäusekörper (2) angeordnet ist, derart, dass sie dem Wasserspeicherbehälter (5) zugewandt sind, und dafür sorgen, dass der Wasserspeicherbehälter (5) mit Ultraviolettstrahlen, die in ihn hinein gestrahlt werden, sterilisiert wird, gekennzeichnet durch - einen ersten Teil (7), der den Abschnitt des Wasserspeicherbehälters (5) bildet, der der UV-Lichtquelle (6) zugewandt ist, und der Material umfasst, das Ultraviolettstrahlung durchlässt, und - einen zweiten Teil (8), der den Abschnitt des Wasserspeicherbehälters (5) bildet, der dem Inneren des Fachs für frische Lebensmittel (3) zugewandt ist, und der Material enthält, das für Ultraviolettstrahlung undurchlässig ist, so dass die Ultraviolettstrahlung sich nicht im Fach für frische Lebensmittel (3) verteilt, und der mit dem ersten Teil (7) verbunden ist.

Publication: [EP 2616751 B1 20150805](#)

Applicant: Arçelik Anonim Sirketi, E5 Ankara Asfalti Uzeri Tuzla, 34950 Istanbul, TR

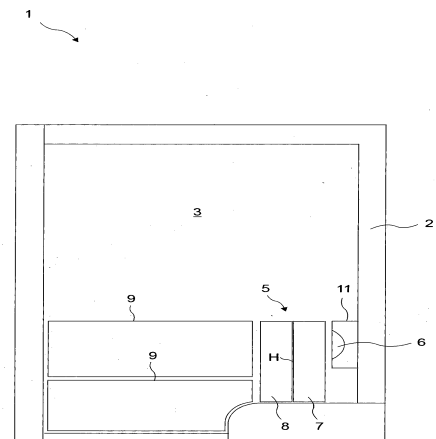
Inventor: KAHRAMAN, Soner, E5 Ankara Asfalti Uzeri Tuzla, 34950 Istanbul, TR; OZDEMIR, Akin, E5 Ankara Asfalti Uzeri Tuzla, 34950 Istanbul, TR; SENTURK, Turker, E5 Ankara Asfalti Uzeri Tuzla, 34950 Istanbul, TR

Prio: TR 20100914 201007528

Appl.No: EP11757839

IPC: F25D 23/12 2006.01 (IA)

Figure 1



Air conditioner for vehicle

Klimaanlage für ein Fahrzeug (10), welche aufweist: einen Kompressor (21), der ein Wärmeaustauschmedium verdichtet; einen externen Wärmetauscher (24), der das Wärmeaustauschmedium aufnimmt und Wärme mit der Außenseite eines Fahrzeuginnenraums austauscht; und einen internen Wärmetauscher (14), der das Wärmeaustauschmedium aufnimmt und Wärme mit der Innenseite eines Fahrzeuginnenraums austauscht, wobei die Klimaanlage für ein Fahrzeug in der Lage ist, durchzuführen: einen Defroster-Kühlbetrieb (B), in dem das Wärmeaustauschmedium, das vom Kompressor verdichtet worden ist, dazu gebracht wird, in den externen Wärmetauscher (24) zu fließen und Wärme freizusetzen, und dann in den internen Wärmetauscher (14) zu fließen und Wärme zu absorbieren; einen Heißgasbetrieb (A), in dem das Wärmeaustauschmedium, das vom Kompressor (21) verdichtet worden ist, dazu gebracht wird, in den externen Wärmetauscher (24) zu fließen und Wärme freizusetzen, ohne dass es dazu gebracht wird, Wärme in dem internen Wärmetauscher (14) zu absorbieren; und einen Defrosterbetrieb, in welchem der externe Wärmetauscher entfrosten wird, dadurch gekennzeichnet, dass der Defrosterbetrieb durchgeführt wird, indem in einer vorbestimmten Sequenz zwischen dem Defroster-Kühlbetrieb (B) und dem Heißgasbetrieb (A) abwechselnd umgeschaltet wird.

Publication: [EP 2666652 B1 20150812](#)

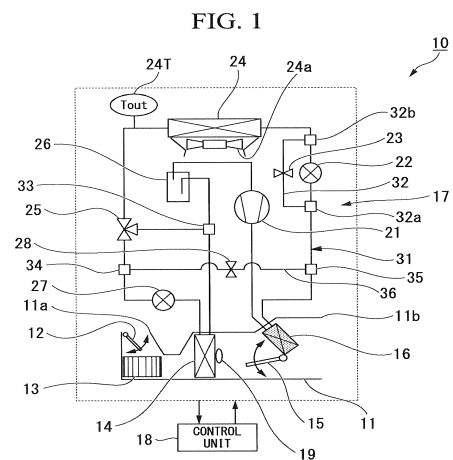
Applicant: Honda Motor Co., Ltd., 1-1, Minami-Aoyama 2-chome Minato-ku, Tokyo 107-8556, JP

Inventor: Tsunoda, Isao, c/o Honda R&D Co., Ltd. 4-1, Chuo 1-chome, Wako-shi, Saitama 351-0193, JP; Ichikawa, Kazuma, c/o Honda R&D Co., Ltd. 4-1, Chuo 1-chome, Wako-shi, Saitama 351-0193, JP

Prio: JP 20120521 2012115561, JP 20120521 2012115564

Appl.No: EP13167757

IPC: B60H 1/00 2006.01 (IA)



DOOR HANDLE FOR A DOMESTIC APPLIANCE DOOR

Haushaltsgerät mit einer Gerätetür (1), deren Türgriff (3) ein Griffstück (7) aufweist, das über zumindest einen Griffstückhalter (5) an der sichtseitigen Außenwand (11, 15) der Gerätetür (1) montiert ist, wobei der Griffstückhalter (5) einen mit der Türfront (11) in Anlage befindlichen Grundkörper (9) und einen am schmalen Türseitenrand (15) montierbaren Montageschenkel (13) aufweist, dadurch gekennzeichnet, dass zwischen dem Griffstückhalter (5) und der Gerätetür-Außenwand (11, 15) ein Ausgleichselement (19) angeordnet ist, das einen Spalt (s) zwischen der Gerätetür-Außenwand (11, 15) und dem Griffstückhalter (5) schließt, dass das Ausgleichselement (19) eine im Vergleich zum Griffstückhalter (5) reduzierte Bauteilsteifigkeit aufweist, und/oder der Griffstückhalter (5) unter Verformung des Ausgleichselementes (19) an der Gerätetür-Außenwand montierbar ist, und dass das Ausgleichselement (19) zumindest an der der Türfront (11) zugewandten Seite (4) des Grundkörpers (9) angeordnet ist, und das Ausgleichselement (19) im Inneneckbereich (20) zwischen dem Montageschenkel (13) und dem Grundkörper (9) angeordnet ist, der eine Außenkante (16) der Gerätetür (1) umschließt.

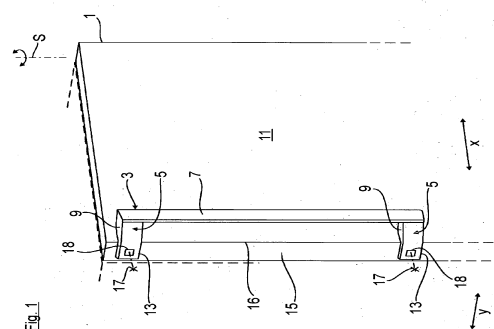
Publication: [EP 2676087 B1 20150812](#)

Applicant: BSH Hausgeräte GmbH, Carl-Wery-Strasse 34, 81739 München, DE

Inventor: BAMBACH, Franz, Am Eichelberg 46, 69242 Mühlhausen, DE; LEGNER, Christian, Einsteinstr. 29/2, 73447 Oberkochen, DE; PFISTER, Bernd, Antoniusweg 18, 89079 Ulm, DE; WLCZEK, Christian, Wiesentfeller Str. 70, 81249 München, DE

Prio: DE 20110215 102011004138

Appl.No: EP12700870



IPC: F25D 23/02 2006.01 (IA)

REFRIGERATOR COMPRISING A HEAT ACCUMULATOR

Kältegerät, insbesondere Haushaltskühlgerät mit einer Lagerkammer (3) für Kühlgut, einem in thermischem Kontakt mit der Lagerkammer (3) angeordneten, zum Halten der Lagerkammer (3) in einem vorgegebenen Temperaturbereich intermittierend arbeitenden Verdampfer (5) und einem dem Verdampfer (5) zugeordneten Wärmespeicher (10), der ein Speichermedium (12) enthält, das in Betriebs- und Ruhephasen des Verdampfers (5) jeweils seinen Aggregatzustand ändert, wobei der vorgegebene Temperaturbereich der Lagerkammer (3) über 0°C und die Schmelztemperatur des Speichermediums (12) unter 0°C liegt, dadurch gekennzeichnet, dass der Wärmespeicher (10) ein Trägermaterial (14) umfasst, in dem das Speichermedium (12) tröpfchenweise in Zellen (11) gebunden ist.

Publication: [EP 2686624 B1 20150805](#)

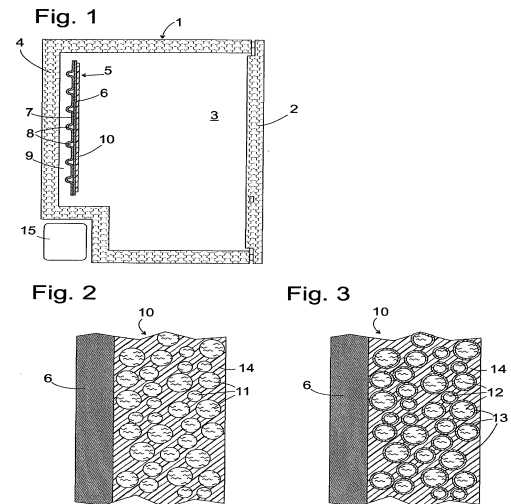
Applicant: BSH Hausgeräte GmbH, Carl-Wery-Strasse 34, 81739 München, DE

Inventor: HOLZER, Stefan, Spritzenhausplatz 12, 73430 Aalen, DE; MRZYGLOD, Matthias, Logauweg 25, 89075 Ulm, DE

Prio: DE 20110314 102011005480, DE 20110520 102011076169

Appl.No: EP12706608

IPC: F25D 3/00 2006.01 (IA)



DOMESTIC REFRIGERATOR

Haushaltskältegerät (1), aufweisend einen wärmeisolierten Innenbehälter (2) mit einem kühlbaren Innenraum (3, 4) für Kühlgut, ein zum Verschließen des Innenraums vorgesehene wärmeisoliertes Türblatt (14, 18) mit einer Außenseite und einer dem Innenraum (2) zugewandten Innenseite (20), und eine Karbonisierungseinrichtung (19) für Getränke, die einen Gasbehälter (29), eine Mischeinrichtung (31) und einen Getränkebehälter (30) umfasst und an der Innenseite (20) des Türblatts (14, 18) angeordnet ist, dadurch gekennzeichnet, dass die Innenseite (20) des Türblatts (14, 18) eine Innenhaut mit einem Ausschnitt aufweist, dem zur Bildung eines Aufnahmeraums (28) für die Karbonisierungseinrichtung (19) ein Hinterlegteif zugeordnet ist, das durch Hinterschäumen mit Wärmeisoliermaterial mit der Innenhaut des Türblatts (14, 18) verbunden ist und der Aufnahmeraum (28) eine Abdeckung aufweist.

Publication: [EP 2691716 B1 20150805](#)

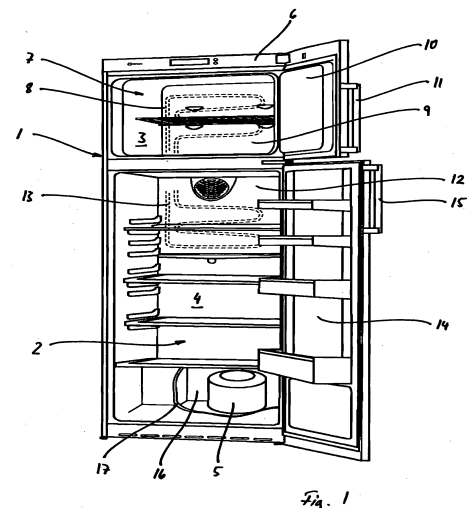
Applicant: BSH Hausgeräte GmbH, Carl-Wery-Strasse 34, 81739 München, DE

Inventor: HOPF, Markus, Eckartstr. 6, 73431 Aalen, DE; KEMPFLER, Stephan, Kesselgasse 6, 89352 Ellzee, DE; SCHMIDT, Gerald, Gärtnereweg 5, 89547 Gerstetten, DE; WERNER, Hans Peter, Bernauer Str. 17, 89537 Giengen, DE

Prio: DE 20110328 102011006246

Appl.No: EP12709858

IPC: F25D 23/12 2006.01 (IA)



EVAPORATION APPARATUS FOR A REFRIGERATOR

Verdunstungsvorrichtung (48) zum Verdunsten von Abtauwasser (40) eines Kältegeräts (10), insbesondere Haushaltskältegeräts, aufweisend eine Wärmequelle (46) und eine Verdunstungsschale (44) mit einem Aufnahmeraum (60) zum Aufnehmen des Abtauwassers (40), wobei die Verdunstungsschale (44) kontaktfrei zu der Wärmequelle (46) angeordnet ist, wobei die Wärmequelle (46) eine Wärmeleiteinrichtung (58) aufweist, und wobei die Wärmeleiteinrichtung (58) in den Aufnahmeraum (60) hineinragt, dadurch gekennzeichnet, dass die Wärmeleiteinrichtung (58) durch ein Gehäuse (52) eines Verdichters (34) des Kältegerätes (10) gebildet ist.

Publication: [EP 2697580 B1 20150819](#)

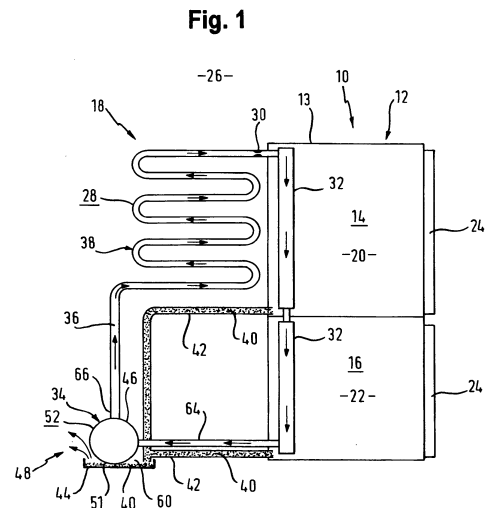
Applicant: BSH Hausgeräte GmbH, Carl-Wery-Strasse 34, 81739 München, DE

Inventor: FOTIADIS, Panagiotis, Steigstr. 111, 89537 Giengen, DE; IHLE, Hans, Frauenstr. 3, 89537 Giengen, DE; RAU, Sebastian, Burgstallstr. 2, 73495 St. Ämten, DE

Prio: DE 20110414 102011007414

Appl.No: EP12715644

IPC: F25D 21/14 2006.01 (IA)



A COOLING DEVICE PREVENTING FREEZING OF FOODSTUFFS PLACED IN THE FRESH FOOD COMPARTMENT

Kühlvorrichtung (1), umfassend wenigstens ein Fach für frische Lebensmittel (2), in das zu kühlende Lebensmittel gelegt werden, einen Kompressor (3), der das Kältefluid im Kühlzyklus verdichtet und zirkulieren lässt, wenigstens einen Verdampfer (4), der für das Kühlen des Innenvolumens des Fachs für frische Lebensmittel (2) sorgt, indem er die Wärmeenergie absorbiert, einen Temperatursensor des Fachs für frische Lebensmittel (5), der die Temperatur im Fach für frische Lebensmittel (2) misst, einen Verdampfertemperatursensor (6), der die Temperatur am Verdampfer (4) misst, eine erste Heizeinrichtung (7), die am Verdampfer (4) angeordnet ist, eine zweite Heizeinrichtung (8) und eine Steuereinheit (9), die die Temperatur (TEVA), die von dem Verdampfertemperatursensor (6) detektiert wird, mit der Schwellentemperatur (TEVAc_r) des Verdampfers (4) vergleicht, die vom Hersteller vorgegeben ist, während der Kompressor (3) nicht aktiviert ist, und die Temperatur (TR), die von dem Sensor des Fachs für frische Lebensmittel (5) detektiert wird, steuert, wenn die vom Verdampfertemperatursensor (6) detektierte Temperatur (TEVA) die Schwellentemperatur (TEVAc_r) des Verdampfers (4) erreicht, die vom Hersteller vorgegeben ist, die Temperatur (TR), die von dem Sensor des Fachs für frische Lebensmittel (5) detektiert wird, mit der Aktivierungstemperatur (TRcut-in) des Kompressors (3) vergleicht, die vom Hersteller vorgegeben ist, und den Kompressor (3) aktiviert, wenn die Temperatur (TR), die von dem Sensor des Fachs für frische Lebensmittel (5) detektiert wird, gleich oder größer als die Aktivierungstemperatur (TRcut-in) des Kompressors (3) ist, und den Kompressor (3) aktiviert, wenn die Temperatur (TR), die von dem Sensor des Fachs für frische Lebensmittel (5) detektiert wird, kleiner als die... (+1960)

Publication: [EP 2724097 B1 20150826](#)

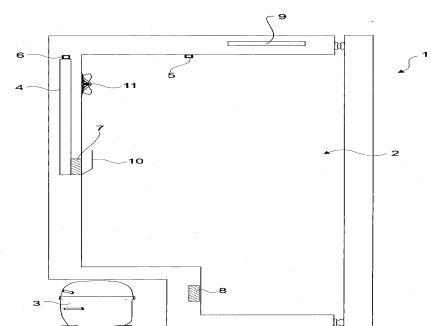
Applicant: Arçelik Anonim Sirketi, E5 Ankara Asfalti Uzeri Tuzla, 34950 Istanbul, TR

Inventor: SARICAY, Tugba, E5 Ankara Asfalti Uzeri Tuzla, 34950 Istanbul, TR; ERCAN, Turgay, E5 Ankara Asfalti Uzeri Tuzla, 34950 Istanbul, TR; BERBEROGLU, Ridvan, E5 Ankara Asfalti Uzeri Tuzla, 34950 Istanbul, TR

Prio: TR 20110627 201106333

Appl.No: EP12729659

Figure 1



IPC: F25D 29/00 2006.01 (IA)

REFRIGERATION APPLIANCE

Kältegerät (1), insbesondere Haushaltskältegerät, mit einer einen Kühlraum (3) wenigstens teilweise einschließenden thermischen Isolierung (5), in der ein Zuführrohr (7) für Kältemittel zur Zuführung des Kältemittels zu einem Verdampfer (8) des Kältegerätes (1) vorgesehen ist, das Zuführrohr (7) einen endseitigen Abschnitt (9) mit einer Einspritzstelle (11) zum Einspritzen des Kältemittels in den Verdampfer (8) aufweist, der berührungsfrei von der Isolierung (5) in einer Aussparung (10) der Isolierung (5) verläuft, dadurch gekennzeichnet, dass Schall demnach vom Zuführrohr (7) im Bereich des Abschnitts (9) mit der Einspritzstelle (11) zunächst an eine umgebende Luft und dann über die Luft nach außen an die Isolierung (5) übertragen werden kann.

Publication: **EP 2726801 B1 20150812**

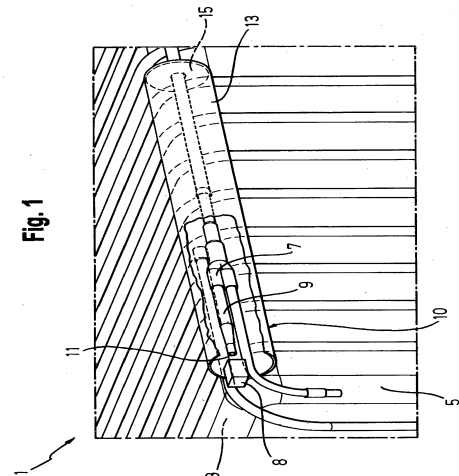
Applicant: BSH Hausgeräte GmbH, Carl-Wery-Strasse 34, 81739 München, DE

Inventor: HOWE, Michael, Reutlinger Str. 9, 89537 Giengen, DE; PFLOMM, Berthold, Neunkirchenweg 56, 89077 Ulm, DE; THEVESSEN, Michael, Fuggerweg 2, 88483 Burgrieden, DE

Prio: DE 20110629 102011078319

Appl.No: EP12730449

IPC: F25D 23/06 2006.01 (IA)



Heat exchange unit and method for manufacturing a heat exchange unit

Wärmetauscheinheit, insbesondere für ein Kühlgerät, umfassend ein Metallblech (2), mindestens ein Metallausstauschrohr (3), das auf dem Blech (2) getragen wird, und Befestigungsmittel zum Befestigen des Rohres (3) am Blech (2), wobei die Einheit (1) in Bezug auf mindestens eine Biegunslinie (7a, 7b, 7c, 7d) gebogen ist, das Befestigungsmittel eine Abdeckung (4) umfasst, welche die gesamte oder beinahe die gesamte Länge des Rohres (3) abdeckt, so dass Kontakt zwischen dem Rohr (3) und dem Blech (2) gewährleistet ist, und die Abdeckung (4) ein Isolieren der Kontaktfläche des Rohres (3) mit dem Blech (2) von externen Elementen ermöglicht, ermöglicht, dass die Kontaktfläche maximal ist, und dadurch den thermischen Wirkungsgrad der Wärmetauscheinheit (1) verbessert, wobei die Abdeckung (4) mittels Klebstoff am Blech (2) fixiert ist, dadurch gekennzeichnet, dass die Oberfläche der Abdeckung (4) in Kontakt mit dem Rohr (3) keinen Klebstoff aufweist, die Oberfläche daher einen Reibungskoeffizienten aufweist, der ein Verschieben des Rohres (3) unter der Abdeckung (4) ermöglicht, wenn die Einheit (1) in Bezug auf die mindestens eine Biegunslinie (7a, 7b, 7c, 7d) gebogen wird, wodurch gleichzeitiges Biegen des Blechs (2) und des Rohres (3) ermöglicht wird, wobei die Abdeckung (4) Seitenlaschen (4a), die an das Metallblech (2) geklebt sind, ein Band (5) mit Wärmeleitungseigenschaften und einen Streifen (6) umfasst, der am Band (5) fixiert ist, wobei wenigstens ein Teil der Oberfläche des Streifens (6) der Oberfläche der Abdeckung (4) in Kontakt mit dem Rohr (3) entspricht.

Publication: **EP 2801782 B1 20150812**

Applicant: Fagor, S. Coop., Barrio San Andrés, s/n Apdo. 213, 20500 Arrasate-Mondragon, ES

Inventor: Garcia Martin, Mikel, Zarugalde 58, 4B, 20500 ARRASATE - MONDRAGON, ES; Armendariz Huici, Alain, Plaza Ilargi 6, 2°B, 20550 ARETXABALETA, ES; Garitano Alustiza, Julen, Ernai 5, 2°A, 20570 BERGARA, ES

Prio:

Appl.No: EP13382221

IPC: F28F 1/22 2006.01 (IA)

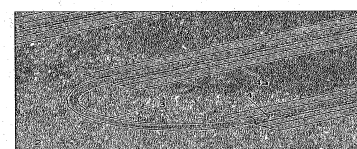
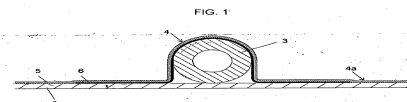
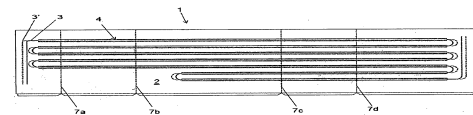


FIG. 3

Kühl- und/oder Gefriergerät

Die vorliegende Erfindung betrifft ein Kühl- und/oder Gefriergerät mit wenigstens einem Korpus und mit wenigstens einem gekühlten Innenraum, der sich in dem Korpus des Gerätes befindet, wobei das Gerät wenigstens ein duftemittierendes Bauteil aufweist.

Publication: [DE 102014001857 A1 20150813](#)

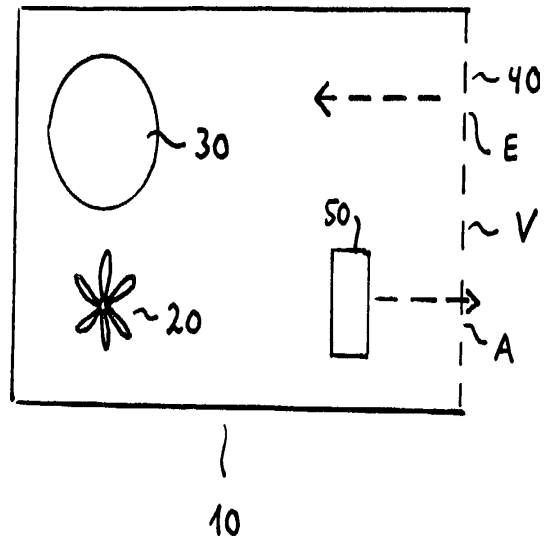
Applicant: Liebherr-Hausgeräte Ochsenhausen GmbH,
88416, Ochsenhausen, DE

Inventor: Ruf, Johannes, 88416, Ochsenhausen, DE

Prio:

Appl.No:

IPC: F25D 11/00 2006.01 (IA)



Kühl- und/oder Gefriergerät

Die vorliegende Erfindung betrifft ein Kühl- und/oder Gefriergerät mit wenigstens einem Kältemittelkreislauf, der wenigstens einen Kompressor, wenigstens einen Verflüssiger, wenigstens eine Kapillare und wenigstens einen Verdampfer umfasst, wobei das Gerät des Weiteren wenigstens eine durch zumindest ein Heißgasventil absperrbare Bypassleitung aufweist, die sich im Bypass um den Verflüssiger erstreckt, wobei sich in dem Teil des Kältemittelkreislaufes, der von der Bypassleitung umgangen wird, wenigstens ein Stoppventil befindet.

Publication: [DE 102014001929 A1 20150813](#)

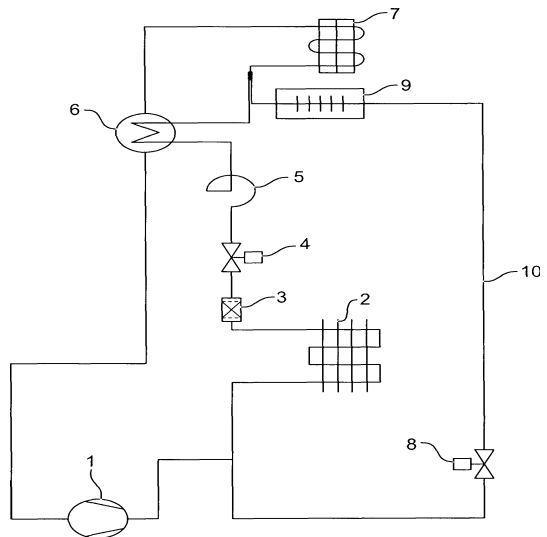
Applicant: Liebherr-Hausgeräte Lienz GmbH, Lienz, AT

Inventor: Korber, Richard, Dölsach, AT; Granditsch,
Werner, Berg/Drau, AT

Prio:

Appl.No:

IPC: F25D 21/06 2006.01 (IA)

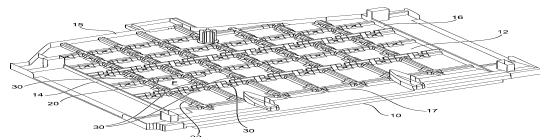


Kühl- und/oder Gefriergerät

Die vorliegende Erfindung betrifft ein Kühl- und/oder Gefriergerät mit wenigstens einer Tauwasserschale zum Auffangen von Tauwasser aus dem gekühlten Innenraum des Gerätes und/oder von dem Verdampfer des Gerätes, wobei die Tauwasserschale auf ihrer Innenseite mit einem oder mehreren Stegen zur Versteifung der Tauwasserschale ausgebildet ist, wobei die Stege wenigstens einen Durchlass aufweisen, so dass das in der Tauwasserschale befindliche Wasser von einer Seite des Steges auf die andere Seite des Steges fließen kann.

Publication: [DE 102014002372 A1 20150820](#)

Applicant: Liebherr-Hausgeräte Ochsenhausen GmbH,
88416, Ochsenhausen, DE



Inventor: Döbler, Roland, 88471, Laupheim, DE; Kunz, Jochen, 88430, Rot, DE; Jendrusch, Holger, 88430, Rot, DE

Prio:

Appl.No:

IPC: F25D 21/14 2006.01 (IA)

Kühl- und/oder Gefriergerät

Die vorliegende Erfindung betrifft ein Kühl- und/oder Gefriergerät mit wenigstens einem Korpus, in dem sich zumindest ein gekühlter Innenraum befindet, und mit wenigstens einem Verschlusselement, das mittels eines oder mehrerer Scharniere an dem Korpus schwenkbar angeordnet ist und mittels dessen der gekühlte Innenraum verschließbar ist, wobei das wenigstens eine Scharnier zumindest teilweise in einer Scharnierbuchse angeordnet ist, wobei wenigstens eine Heizung zur Beheizung der Scharnierbuchse vorgesehen ist, und wobei die Heizung teilweise oder insgesamt durch eine Heizfolie gebildet wird.

Publication: [DE 102014004572 A1 20150820](#)

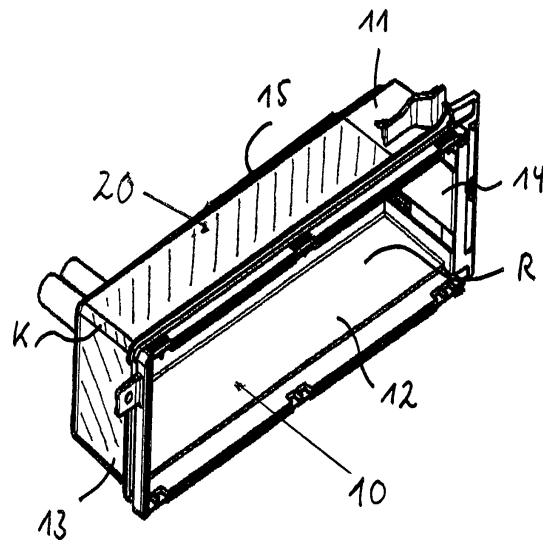
Applicant: Liebherr-Hausgeräte Lienz GmbH, Lienz, AT

Inventor: Walder, Stefan, Sillian, AT

Prio: DE 20140214 10 2014 002 076.2

Appl.No:

IPC: F25D 23/02 2006.01 (IA)



Kühl- und/oder Gefriergerät

Die vorliegende Erfindung betrifft ein Kühl- und/oder Gefriergerät mit einem Korpus und mit einem gekühlten Innenraum, der sich in dem Korpus befindet, wobei der Korpus eine Gerätedecke aufweist, in der sich ein Schacht befindet, der zur Aufnahme einer Elektronikkomponente bestimmt ist oder in dem sich eine Elektronikkomponente befindet, wobei der Schacht eine Öffnung zur Durchführung eines oder mehrerer Kabel in den Schacht aufweist, wobei sich eine bewegbar, vorzugsweise eine schwenkbar angeordnete Klappe vorgesehen ist, mittels derer die Öffnung verschließbar ist, wobei die Öffnung derart dimensioniert ist, dass diese zur Durchführung eines Kabelbaums geeignet ist.

Publication: [DE 102014004703 A1 20150820](#)

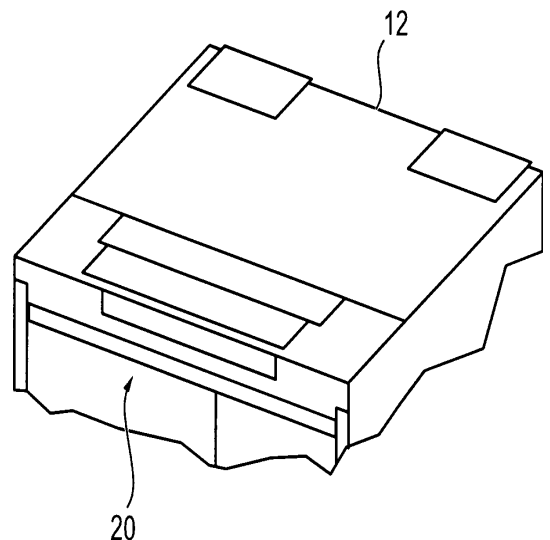
Applicant: Liebherr-Hausgeräte Ochsenhausen GmbH, 88416, Ochsenhausen, DE

Inventor: Schweikart, Stefan, 88450, Berkheim, DE; Probst, Arnulf, 89281, Altenstadt, DE

Prio: DE 20140217 10 2014 002 128.9

Appl.No:

IPC: F25D 23/06 2006.01 (IA)



Kühl- und/oder Gefriergerät

Die vorliegende Erfindung betrifft ein Kühl- und/oder Gefriergerät mit wenigstens einem Korpus und mit wenigstens einem gekühlten Innenraum sowie mit wenigstens einem Verschlusselement, mittels dessen der gekühlte Innenraum verschließbar ist, wobei das Kühl- und/oder Gefriergerät des Weiteren wenigstens einen Öffnungssensor, wenigstens ein Alarmentelement und wenigstens eine mit dem Öffnungssensor und mit dem Alarmentelement in Verbindung stehende Steuereinheit aufweist, wobei der Öffnungssensor derart ausgebildet und angeordnet ist, dass er ermittelt, ob sich das Verschlusselement in seiner geöffneten Stellung befindet, wobei die Steuereinheit derart ausgebildet ist, dass sie die Zeitdauer ermittelt, in der das Verschlusselement offen steht und bei Erreichen oder Überschreiten eines Zeit-Grenzwertes ein das Alarmentelement aktivierendes Signal ausgibt, wobei das Gerät wenigstens ein Mittel zur Erfassung der Anwesenheit eines Nutzers aufweist oder mit wenigstens einem Mittel zur Erfassung der Anwesenheit eines Nutzers in Verbindung steht oder verbindbar ist, das derart ausgebildet ist, dass es die Abgabe eines Alarms durch das Alarmentelement unterbindet, wenn die Anwesenheit eines Nutzers erfasst wird.

Publication: [DE 102014004704 A1 20150813](#)

Applicant: Liebherr-Hausgeräte Ochsenhausen GmbH,
88416, Ochsenhausen, DE

Inventor: Werne, Markus, 89257, Illertissen, DE;
Herrmann, Jürgen, 88430, Rot an der Rot, DE;
Haller, Erna, 88453, Edelbeuren, DE

Prio: DE 20140207 10 2014 001 693.5

Appl.No:

IPC: F25D 29/00 2006.01 (IA)

Haushaltskältegerät mit einem Lagerbereich und einer Befeuchtungsvorrichtung und einem Fluid-Auffangbecken unter einer Schublade des Lagerbereichs

Die Erfindung betrifft ein Haushaltskältegerät (1) mit einem Innenraum (4, 5) zur Aufnahme von Lebensmitteln, in dem ein Teilvolumen als separierter Lagerbereich (8) ausgebildet ist, in den Lebensmittel einbringbar sind, und mit einer Befeuchtungsvorrichtung (11), mit welcher in dem Lagerbereich (8) eine von dem restlichen Innenraum unabhängige Einbringung eines Fluids erfolgen kann, wobei der Lagerbereich (8) eine Schublade (9) aufweist, in welche die Lebensmittel einbringbar sind, und ein mit der Schublade (9) fluidleitend gekoppeltes Auffangbecken (14) aufweist, welches zur Aufnahme des sich an einem Boden (15) der Schublade (9) sammelnden flüssigen Fluids ausgebildet ist.

Publication: [DE 102014202122 A1 20150806](#)

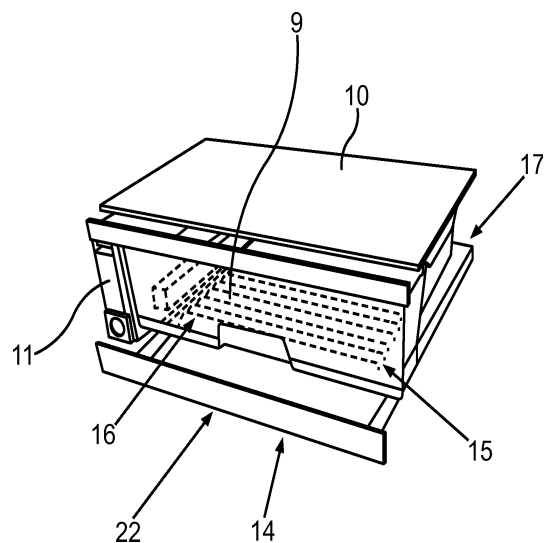
Applicant: BSH Hausgeräte GmbH, 81739, München, DE

Inventor: Klingshirn, Astrid, Dr., 86441, Zusmarshausen, DE;
Kluger, Axel, 89537, Giengen, DE;
Schüssler, Andreas, 81541, München, DE;
Spielmannleitner, Markus, 73479, Ellwangen, DE;
Wendel, Darja, 78647, Trossingen, DE

Prio:

Appl.No:

IPC: F25D 25/02 2006.01 (IA)



Verdichterbaugruppe und Montageverfahren dafür

Eine Verdichterbaugruppe für ein Haushaltskältegerät umfasst einen Verdichter und eine Verdunstungsschale (2). An einer Kapsel (1) des Verdichters ist ein Bügel (10) angebracht, um zwischen Kapsel (1) und Bügel (10) einen Durchgang (14) zu definieren. In der Verdunstungsschale (2) ist ein Rastkanal (7) geformt. Verdichter (1) und Verdunstungsschale (2) sind in Längsrichtung (x) des Rastkanals (7) aus einer freien Stellung, in der der Bügel (10) in den Rastkanal (7) eingreift und der Durchgang (14) frei von Teilen der Verdunstungsschale (2) ist, in eine Raststellung verschoben, in der ein Steckfinger (17) der Verdunstungsschale (2) von einer Vorderseite (23) des Bügels (10) her in den Durchgang (14) eingeschoben ist und eine Kontaktfläche (20) eines elastisch auslenkbaren Fingers (18) der Verdunstungsschale (2) an einer Rückseite (21) des Bügels (10) angreift, dadurch gekennzeichnet, dass der elastische Finger (18) sich jenseits der Rückseite (21) des Bügels (10) bis zu einer an der Verdunstungsschale (2) festen Basis (19) erstreckt, die weiter als die Kontaktfläche (20) von der Rückseite (21) des Bügels (10) entfernt ist.

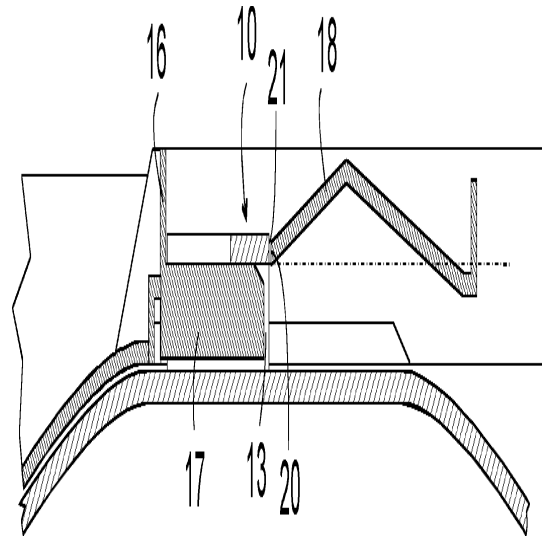
Publication: [DE 102014202327 A1 20150813](#)

Applicant: BSH Hausgeräte GmbH, 81739, München, DE
Inventor: Glaser, Benjamin, 89415, Lauingen, DE;
 Kemmer, Andreas, 89522, Heidenheim, DE;
 Schundner, Peter, 89537, Giengen, DE;
 Steininger, Sascha, 73447, Oberkochen, DE;
 Wehlauch, Marcus, 89520, Heidenheim, DE

Prio:

Appl.No:

IPC: F25D 21/14 2006.01 (IA)



Haushaltsgerät mit einem, eine Griffmulde umfassenden Türblatt

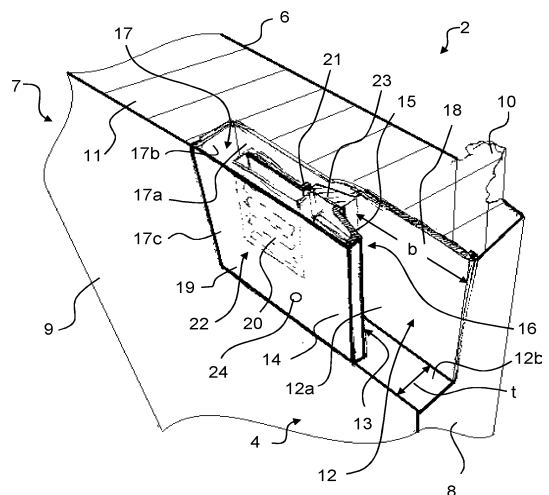
Die Erfindung betrifft ein Haushaltsgerät, insbesondere ein Haushaltskältegerät (1). Das Haushaltsgerät umfasst einen Innenraum, eine eine Elektronik (20) aufweisende elektronische Steuervorrichtung, die eingerichtet ist, im Betrieb des Haushaltsgerätes zumindest eine Funktion des Haushaltsgerätes anzusteuern, und ein Türblatt (2) zum Öffnen und Verschließen des Innenraums, das eine dem Innenraum zugewandte Innenseite und eine dem Innenraum abgewandte Außenseite (7) aufweist. In der Außenseite (7) des Türblatts (2) ist eine Griffmulde (4) angeordnet, welche einen Griff (13) umfasst, welcher einen Hinterschnitt (16) bezüglich der Außenseite (7) des Türblatts (2) bildet. Das Haushaltsgerät umfasst ferner eine Beleuchtung mit wenigstens einem insbesondere als LED (21) ausgebildeten Leuchtmittel, die eingerichtet ist, die Griffmulde (4) zu beleuchten. Zumindest ein Großteil der Elektronik (20) und das wenigstens eine Leuchtmittel (21) bilden eine gemeinsame Baugruppe (22), die innerhalb des Türblatts (2) neben dem Hinterschnitt (16) angeordnet ist, sodass das wenigstens eine Leuchtmittel (21) sein Licht aus dem Hinterschnitt (16) in die Griffmulde (4) zu strahlen vermag.

Publication: [DE 102014202889 A1 20150820](#)

Applicant: BSH Hausgeräte GmbH, 81739, München, DE
Inventor: Becke, Christoph, 83109, Großkarolinenfeld, DE;
 Eicher, Max, 80689, München, DE;
 Försterling, Klaus, 83123, Amerang, DE;
 Hartwein, Christine, 80469, München, DE;
 Kessler, Andreas, 81827, München, DE;
 Kleinlein, Philipp, 81371, München, DE;
 Tischer, Thomas, 85540, Haar, DE; Yao, Xingen, Nanjing, CN; Staud, Ralph, 81667, München, DE

Prio:

Appl.No:



IPC: F25D 23/02 2006.01 (IA)

Kältegeräte-Fachboden und Haushaltskältegerät mit einem solchen Kältegeräte-Fachboden

Die Erfindung betrifft einen Kältegeräte-Fachboden (13a), aufweisend einen Kunststoffboden (16), der eine ebene Abstellfläche (16a) für Kühlgut und einen um die Abstellfläche (16a) umlaufenden Randabschnitt (14) aufweist, wobei der Kunststoffboden (16) wenigstens einen sich aus der Ebene der Abstellfläche (16a) abgesetzten Bodenabschnitt (16b) aufweist, der mit der Abstellfläche (16a) über eine um 360 Grad umlaufende Übergangskontur (16c) einteilig verbunden ist, die den abgesetzten Bodenabschnitt (16b) kantenlos mit der Abstellfläche (16a) verbindet. Die Erfindung betrifft außerdem ein Haushaltskältegerät (1) mit wenigstens einem solchen Kältegeräte-Fachboden (13a).

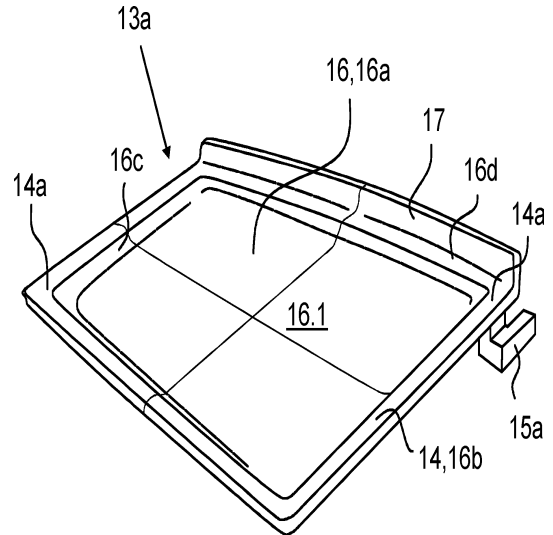
Publication: [DE 102014202891 A1 20150820](#)

Applicant: BSH Hausgeräte GmbH, 81739, München, DE
Inventor: Becke, Christoph, 83109, Großkarolinenfeld, DE; Eicher, Max, 80689, München, DE; Försterling, Klaus, 83123, Amerang, DE; Hartwein, Christine, 80469, München, DE; Kessler, Andreas, 81827, München, DE; Kleinlein, Philipp, 81371, München, DE; Staud, Ralph, 81667, München, DE; Tischer, Thomas, 85540, Haar, DE

Prio:

Appl.No:

IPC: F25D 25/02 2006.01 (IA)



Kältegerät und Flaschenkühler dafür

Ein Flaschenkühler für den Einbau in einem Kältegerät hat ein Gehäuse (12), das eine Aufnahmekammer (13) für eine Flasche (14) begrenzt. Die Aufnahmekammer (13) ist im Gehäuse (12) beweglich gelagert, und ein Motor (29) ist zum Antreiben einer oszillierenden Bewegung der Aufnahmekammer (13) vorgesehen.

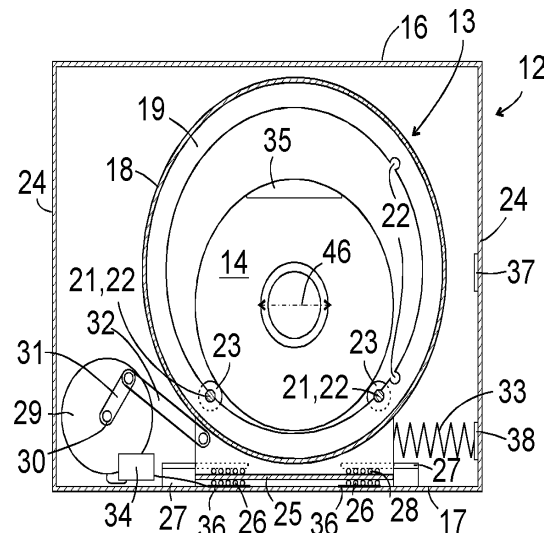
Publication: [DE 102014202925 A1 20150820](#)

Applicant: BSH Hausgeräte GmbH, 81739, München, DE
Inventor: Athanasiou, Athanasios, Dr., 89537, Giengen, DE

Prio:

Appl.No:

IPC: F25D 25/00 2006.01 (IA)



Kältegeräte-Fachboden und Haushaltskältegerät mit einem solchen Kältegeräte-Fachboden

Die Erfindung betrifft ein Kältegeräte-Fachboden (13a), aufweisend einen Boden (14), der eine Abstellfläche (14.1) für Kühlgut bildet, der eine sich zumindest über einen überwiegenden Teil der Breite des Bodens (14) erstreckende Vorderkante (15) aufweist, und der Lagermittel (16) aufweist, die zum ausziehbaren Lagern des Bodens (14) in einem Lagerraum eines Haushaltskältegeräts (1) ausgebildet sind, wobei der Boden (14) eine von der Vorderkante (15) abgesetzte Greifeinrichtung (17) aufweist, die zum manuellen Herausziehen und/oder manuellen Hineinschieben des ausziehbar gelagerten Bodens (14) ausgebildet ist. Die Erfindung betrifft außerdem ein Haushaltskältegerät (1) mit einem solchen Kältegeräte-Fachboden (13a).

Publication: [DE 102014202941 A1 20150820](#)

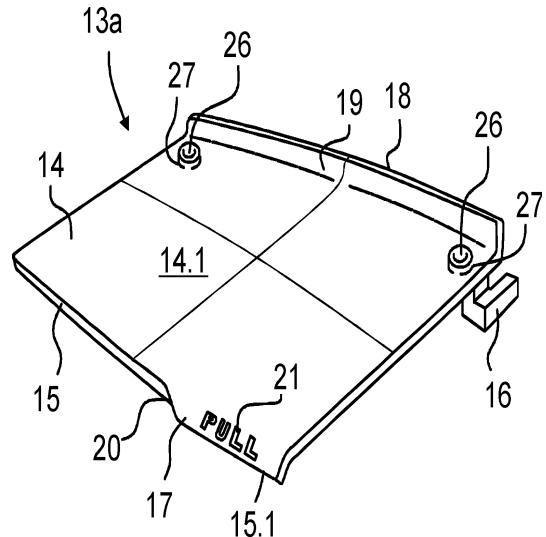
Applicant: BSH Hausgeräte GmbH, 81739, München, DE

Inventor: Becke, Christoph, 83109, Großkarolinenfeld, DE; Eicher, Max, 80689, München, DE; Försterling, Klaus, 83123, Amerang, DE; Hartwein, Christine, 80469, München, DE; Kessler, Andreas, 81827, München, DE; Kleinlein, Philipp, 81371, München, DE; Staud, Ralph, 81667, München, DE; Tischer, Thomas, 85540, Haar, DE

Prio:

Appl.No:

IPC: F25D 25/02 2006.01 (IA)



Kältegerät mit einer Flächenheizeinrichtung

Ein Kältegerät, insbesondere ein Haushaltskältegerät, umfasst einen Korpus (1) und eine Tür. Der Korpus (1) umfasst wenigstens eine Innenwand (3), die wenigstens eine Lagerkammer (4, 5) begrenzt, eine Außenwand (2) und eine zwischen Außenwand (2) und Innenwand (3) eingeschlossene Wärmedämmschicht (7). Die Außenwand (2) erstreckt sich über seitliche Flanken (9, 11) des Korpus bis auf eine der Tür zugewandte Vorderseite (6) des Korpus (1). Eine Flächenheizeinrichtung (12) ist an wenigstens einer ersten der seitlichen Flanken (11) zwischen die Außenwand (2) und die Wärmedämmschicht (7) eingefügt.

Publication: [DE 102014203014 A1 20150820](#)

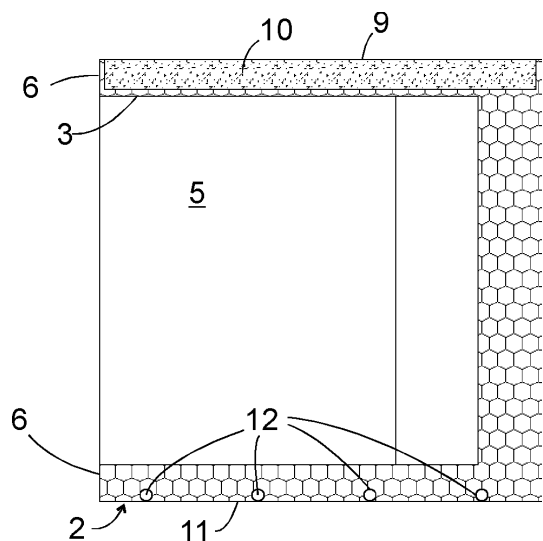
Applicant: BSH Hausgeräte GmbH, 81739, München, DE

Inventor: Hein, Christian, 89522, Heidenheim, DE; Hopf, Markus, 73431, Aalen, DE; Ihle, Hans, 89537, Giengen, DE; Weber, Armin, 73466, Lauchheim, DE; Wengert, Daniel, 89520, Heidenheim, DE; Diebold, Jürgen, 89568, Hermaringen, DE

Prio:

Appl.No:

IPC: F25D 23/06 2006.01 (IA)



Haushaltskältegerät mit einem Innenraum, in dem ein Träger verschiebbar angeordnet ist, auf dem ein Behälter bewegungsgekoppelt angeordnet ist

Die Erfindung betrifft ein Haushaltskältegerät (1) mit einem Innenraum (4, 5), der durch Wände (3a, 3b, 3c) eines Innenbehälters (3) begrenzt ist, und mit zumindest einem Behälter (9, 10) zur Aufnahme von Lebensmitteln, der im Innenraum (4, 5) verschiebbar angeordnet ist, und mit einem Träger (11), der verschiebbar in dem Innenraum (3) gelagert ist, und der Behälter (9, 10) auf dem Träger (11) zerstörungsfrei lösbar angeordnet ist und zum Verschieben mit dem Träger (11) bewegungsgekoppelt ist, wobei zur Bewegungskopplung der Behälter (9, 10) zumindest ein Koppellement (27, 28) aufweist und der Träger (11) zumindest ein Koppellement (16, 17) aufweist und die Koppellemente (16, 17, 27, 28) im gekoppelten Zustand in Tiefenrichtung des Haushaltskältegeräts (1) betrachtet überlappend angeordnet sind.

Publication: [DE 102014203066 A1 20150820](#)

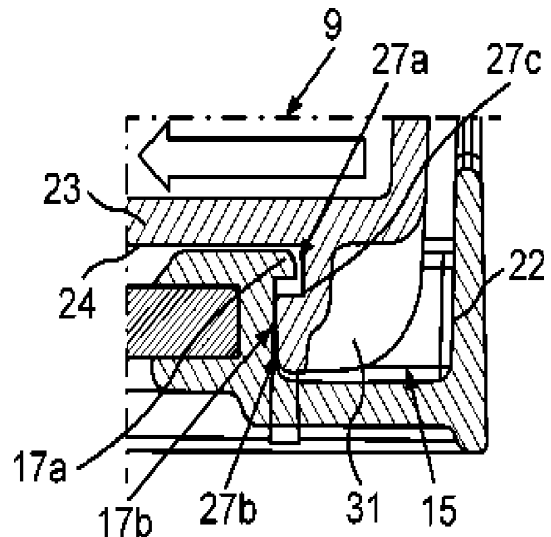
Applicant: BSH Hausgeräte GmbH, 81739, München, DE

Inventor: Cizik, Herbert, 73113, Ottenbach, DE; Fink, Jürgen, 89547, Gerstetten, DE; Ahmedov, Sezgin, 89518, Heidenheim, DE

Prio:

Appl.No:

IPC: F25D 25/00 2006.01 (IA)



Tür für ein Haushaltsgerät

Die Erfindung betrifft eine Tür (3, 4) für ein Haushaltsgerät, insbesondere ein Haushaltskältegerät (1), mit zwei vertikalen Rändern (8, 9, 12, 13) und zwei horizontalen Rändern (10, 11, 14, 15) sowie einem sich zwischen den zwei vertikalen Rändern (8, 9, 12, 13) erstreckenden Trägerteil (20, 21). Um flexibel, kostengünstig und auf einfache Art und Weise das Erscheinungsbild der Tür (3, 4) verändern zu können, ist die Tür (3, 4) gekennzeichnet durch eine an dem Trägerteil (20, 21) befestigte und zerstörungsfrei abnehmbare Blende (18, 19), die sich vertikal abschnittsweise zwischen den horizontalen Rändern (10, 11, 14, 15) erstreckt.

Publication: [DE 102014203340 A1 20150827](#)

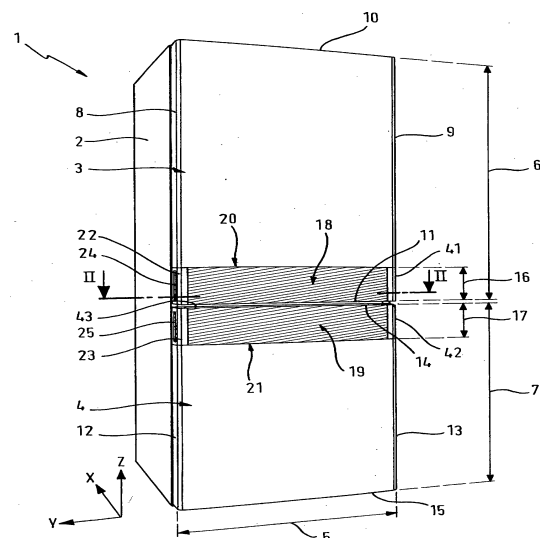
Applicant: BSH Hausgeräte GmbH, 81739, München, DE

Inventor: Hentschel, Verena, 82194, Gröbenzell, DE; Hoyer, Jens, 81677, München, DE

Prio:

Appl.No:

IPC: F25D 23/02 2006.01 (IA)



Haushaltsgerät mit einem Transportsicherungskörper

Die Erfindung betrifft ein Haushaltsgerät, insbesondere Haushaltskältegerät (1), aufweisend einen durch einen Innenbehälter (7) zumindest teilweise begrenzten Innenraum (6), eine zum Öffnen und Schließen des Innenraumes (6) ausgebildete Tür (2, 3), welche eine dem Innenraum (6) zugewandte Türinnenseite (10) aufweist, zumindest ein Ausstattungsteil, welches in dem Innenraum (6) oder an der Türinnenseite (10) angeordnet ist, und einen Transportsicherungskörper (12, 13, 25) zum Sichern des Ausstattungsteiles, der eine Vielzahl von Verformungsabschnitten aufweist, die jeweils unabhängig voneinander einen unverformten Zustand und einen verformten Zustand einnehmen können. Um einen einfach und kostengünstig herzustellenden Transportsicherungskörper bereitzustellen, der universell für unterschiedliche Haushaltsgeräte und Anordnungen von Ausstattungsteilen in einem Haushaltsgerät geeignet ist, die Ausstattungsteile dabei zuverlässig während dem Transport sichert und einfach und kostengünstig zu montieren ist, ist erfindungsgemäß vorgesehen, dass wenigstens ein Verformungsabschnitt zumindest durch ein erstmaliges Schließen der Tür (2, 3) von dem unverformten Zustand in den verformten Zustand gebracht ist oder bringbar ist. Um eine zu ermöglichen, ist vorgesehen, dass.

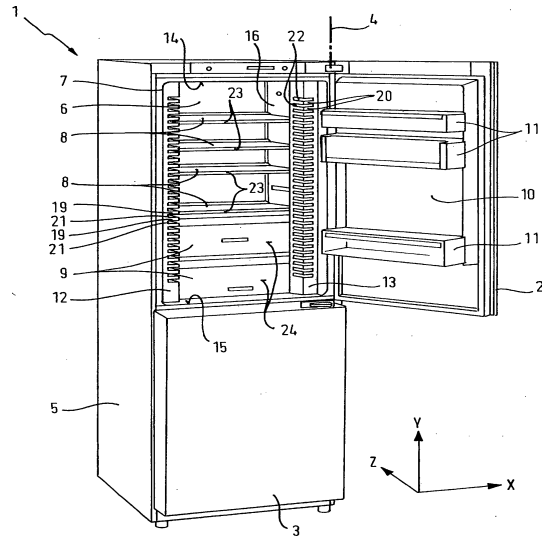
Publication: [DE 102014203614 A1 20150827](#)

Applicant: BSH Hausgeräte GmbH, 81739, München, DE
Inventor: Schlude, Heike, 73432, Aalen, DE; Benitsch, Roland, 89564, Nattheim, DE; Legner, Christian, 89551, Königsbronn, DE; Sen, Hüseyin, 89537, Giengen, DE

Prio:

Appl.No:

IPC: F25D 23/02 2006.01 (IA)



Haushaltsgerät

Die Erfindung betrifft ein Kältegerät, insbesondere Haushaltskältegerät (1), mit einer aus Kunststoff bestehenden Innenwand (2) zumindest teilweise begrenzenden Innenwand (3) mit zumindest einer bezüglich des Innenraumes (2) nach außen gerichteten, einstückigen Ausbuchtung (8, 9), in der ein Einsatzteil (14, 39) angeordnet ist. Der Erfindung liegt dabei die Aufgabe zugrunde, ein Kältegerät, insbesondere ein Haushaltskältegerät, bereitzustellen, wodurch das Kältegerät eine verbesserte Möglichkeit zur Halterung von Fachböden oder Schubladen an der Innenwand ermöglicht, gleichzeitig jedoch weiterhin eine hohe thermische Isolationswirkung aufweist und einfach und kostengünstig herzustellen ist. Diese Aufgabe wird bei einem eingangs erwähnten Kältegerät dadurch gelöst, dass die Ausbuchtung (8, 9) einen Hinterschnitt (20, 34) aufweist, der mit einem Vorsprung (21, 41) des Einsatzteiles (14, 39) gekoppelt ist.

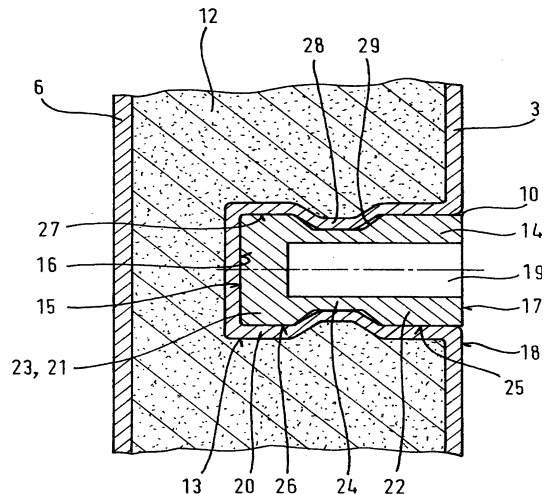
Publication: [DE 102014203619 A1 20150827](#)

Applicant: BSH Hausgeräte GmbH, 81739, München, DE
Inventor: Betz, Joachim, 73560, Böbingen, DE; Raab, Alfred, 73460, Hüttlingen, DE

Prio:

Appl.No:

IPC: F25D 23/06 2006.01 (IA)



Kältegerät

Ein Kältegerät, insbesondere ein Haushaltskältegerät, hat einen Verdichter (1), einen Verflüssiger (5), einen ersten Verdampfer (10), der einen thermischen Puffer kühlt, einen zweiten Verdampfer (13), der ein Kühlfach kühlt, ein Wegeventil (8), das in einer ersten Stellung einen Fluss von Kältemittel durch den Verflüssiger (5) und den ersten Verdampfer (10) und in einer zweiten Stellung einen Fluss von Kältemittel durch einen durch den thermischen Puffer (18) verlaufenden ersten Druckleitungsabschnitt (15) und den zweiten Verdampfer (13) erlaubt. In der zweiten Stellung ist der Verflüssiger (5) dem ersten Druckleitungsabschnitt (15) und dem zweiten Verdampfer (13) vorgeschaltet.

Publication: [DE 102014223460 A1 20150827](#)

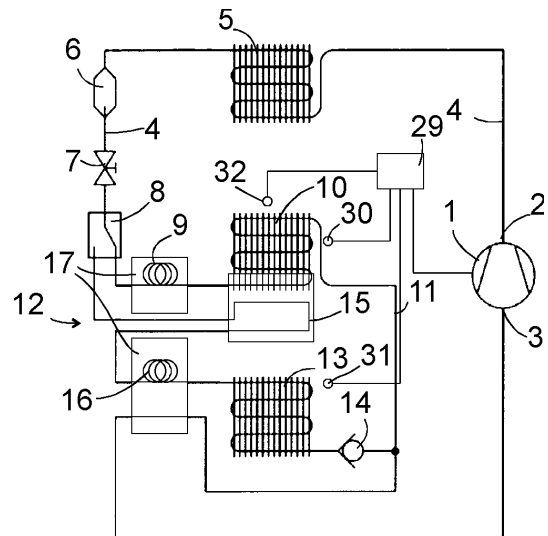
Applicant: BSH Hausgeräte GmbH, 81739, München, DE

Inventor: Babucke, Andreas, Dr., 89522, Heidenheim, DE; Baysal, Kudret, Dr., 89537, Giengen, DE
DE 20140227 10 2014 203 615.1

Prio:

Appl.No:

IPC: F25D 11/02 2006.01 (IA)



SHIELD DEVICE AND REFRIGERATOR HAVING THE SAME

PROBLEM TO BE SOLVED: To provide a shield device which unfailingly prevents warm air used for defrosting from flowing into a storage room, and to provide a refrigerator including the shield device. **SOLUTION:** A shield device 50 of the invention mainly includes: a blower cover 51 schematically having a lid shape; a drive shaft 54 which is driven penetrating through the blower cover 51; and a support base body 52 which supports the blower cover 51 and the drive shaft 54. A side surface of a thread 54a formed on an outer peripheral side surface of the drive shaft 54 presents an inclined shape and thereby forms an air channel to drain water components adhering thereto. **COPYRIGHT:** (C)2015, JPO&INPIT

Publication: [JP 2015064122 A 20150409](#)

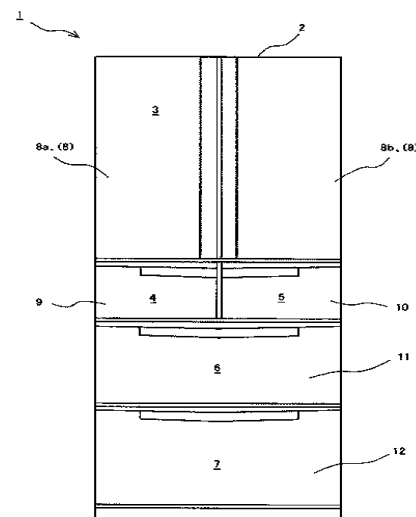
Applicant: HAIER ASIA INTERNATIONAL CO LTD

Inventor: OYU HIDEKI; KURATANI TOSHIJI; TATENO KYOYA; YAMAGUCHI TATSUHIKO

Prio:

Appl.No: JP2013197002

IPC: F25D 17/08 2006.01 (IA)



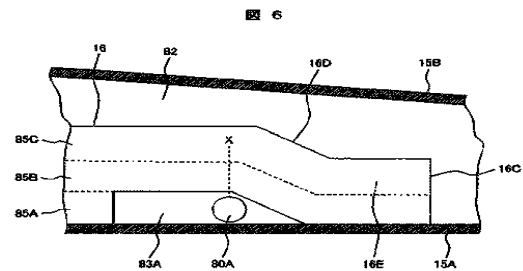
REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a novel refrigerator capable of suppressing polyurethane foam from entering a storage groove formed by the vacuum insulation material and an inner wall surface of an outer case for storing a radiation piping element.
SOLUTION: A storage groove storing a radiation piping element is formed in an end surface portion of a vacuum insulation material, and the end surface portion is fixedly attached to an inner wall surface of an outer case so as to surround the radiation piping element. Since the end surface portion of the vacuum insulation material is fixedly attached to the inner wall surface of the outer case so as to surround the radiation piping element, it is possible to suppress polyurethane foam from entering the storage groove storing the radiation piping element and to improve the heat insulation performance of the vacuum insulation material.
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Publication: [JP 2015064134 A 20150409](#)

Applicant: HITACHI APPLIANCES INC
Inventor: KASHIWABARA KAZUTERU; ECHIGOYA HISASHI; ARAI YUSHI

Prio:
Appl.No: JP2013197634
IPC: F25D 23/06 2006.01 (IA)



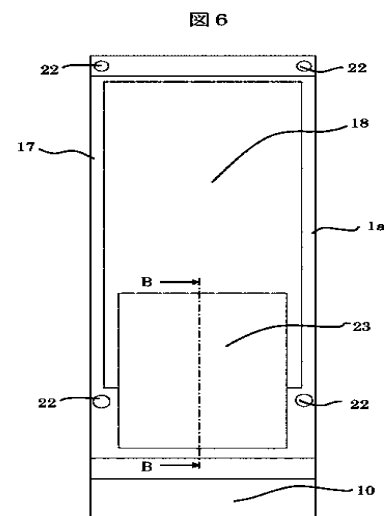
REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a refrigerator ensuring high reliability against vacuum leakage and the like while ensuring the heat insulation performance of a heat insulation material for a surface in which an inlet is provided.
SOLUTION: A refrigerator including a surface in which an inlet is formed, is configured so that a first vacuum insulation material and a second vacuum insulation material are provided on the surface, the first vacuum insulation material and the second vacuum insulation material are provided without closing the inlet, the first vacuum insulation material and the second vacuum insulation material overlap each other to form an overlap part, and a cover part covering neighborhoods of the inlet is provided in portions other than the overlap part.
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Publication: [JP 2015064135 A 20150409](#)

Applicant: HITACHI APPLIANCES INC
Inventor: HORII ATSUSHI; NAGAMORI TOSHIHIKO; SHIGENAKA KEISUKE

Prio:
Appl.No: JP2013197679
IPC: F25D 23/06 2006.01 (IA)

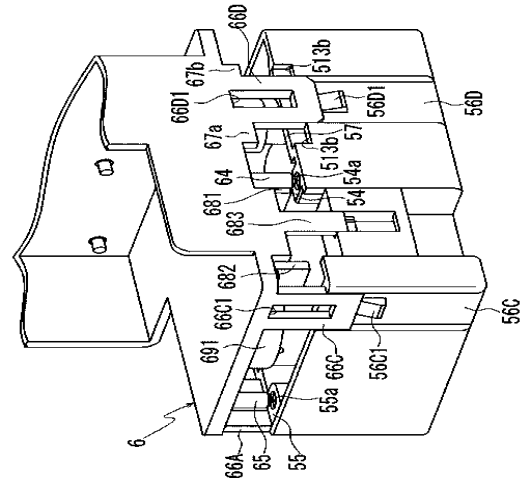


DAMPER GEAR

PROBLEM TO BE SOLVED: To easily perform alignment of a cover with respect to a case. **SOLUTION:** A damper gear 1 has a drive mechanism 9 of a baffle plate 7 housed in a body case 4 that is formed by assembling a lower cover 5 and a cover 6 to each other. On an outer periphery of a peripheral wall 51, surrounding the drive mechanism 9, of the lower case 5, engagement grooves 56A to 56D are provided along the direction of assembling the lower case 5 and the cover 6. The cover 6 is provided with engagement pieces 66A to 66D for being engaged with the engagement grooves 56A to 56D. The engagement pieces 66A to 66D are engaged with corresponding positioning grooves 56A to 56D from the assembling direction so that the lower case 5 and the cover 6 can be assembled. **COPYRIGHT:** (C)2015, JPO&INPIT

Publication: [JP 2015064152 A 20150409](#)

Applicant: NIDEC SANKYO CORP
Inventor: SAITO SHUNJI
Prio:
Appl.No: JP2013199170
IPC: F25D 17/08 2006.01 (IA)

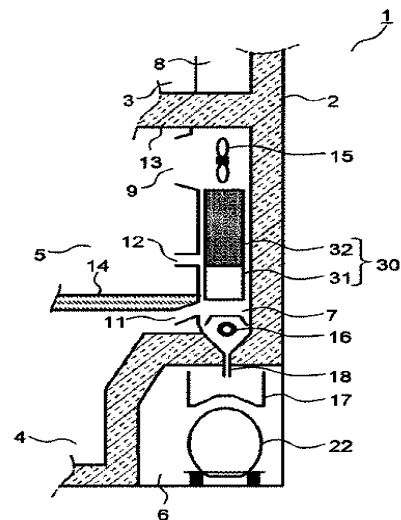


REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a refrigerator that can realize power saving. **SOLUTION:** A refrigerator comprises: a refrigerating chamber 4 that refrigerates and preserves stored objects; a freezing chamber 5 that freezes and preserves stored objects; a cold air duct 7 through which cold air to be discharged into the refrigerating chamber 4 and the freezing chamber 5 is passed; a first evaporator 31 and a second evaporator 32 that are arranged in the cold air duct 7 and generates the cold air; a first return part 11 that returns the cold air from the refrigerating chamber 4 to the cold air duct 7; and a second return part 12 that returns the cold air from the freezing chamber 5 to the cold air duct 7. The first evaporator 31 is higher in evaporating temperature than the second evaporator 32, and arranged upstream of the second evaporator 32. The first return part 11 is provided upstream of the first evaporator 31, and the second return part 12 is provided so as to face the second evaporator 32. **COPYRIGHT:** (C)2015, JPO&INPIT

Publication: [JP 2015064153 A 20150409](#)

Applicant: SHARP CORP
Inventor: CHO TSUNEYOSHI
Prio:
Appl.No: JP2013199172
IPC: F25D 17/08 2006.01 (IA)



FREEZING DEVICE

PROBLEM TO BE SOLVED: To provide a freezing device capable of suppressing wasteful loss of cold of liquid coolant resulting from a conveyor. **SOLUTION:** A freezing device 10 includes: an immersion tank 11 in which liquid coolant is stored; a raw material supply unit 12 that supplies a raw material 1 to the immersion tank 11; and a conveyor that conveys the raw material 1 frozen in the immersion tank 11 from the immersion tank to the outside thereof. The conveyor comprises: a lower stage conveyor 12 whose one end is positioned in liquefied nitrogen in the immersion tank and the other end is positioned in a gas phase in the immersion tank; and an upper stage conveyor 13 whose one end is positioned in the gas phase in the immersion tank and the other end is positioned outside the immersion tank. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015064183 A 20150409](#)

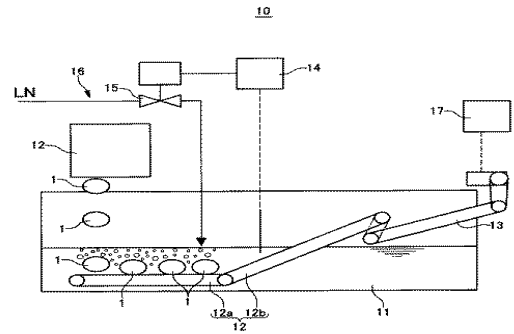
Applicant: TAIYO NIPPON SANSO CORP

Inventor: MAKINO KOJI; AOTA KANEKI

Prio:

Appl.No: JP2013199610

IPC: F25D 3/11 2006.01 (IA)



REFRIGERATOR

PROBLEM TO BE SOLVED: To generate mist with a bacteria elimination effect and supply it to a storage chamber without generating harmful gas such as ozone while using an electrostatic atomization device as mist generation means. **SOLUTION:** An electrostatic atomization device 36 is installed in a partition plate 8 between a refrigerating chamber 3 and a vegetable chamber 4. Water W in a water storage tank 43 is supplied to a mist discharge part 49 via a water-absorbing pin 48, a water-retaining material 47, and a conductive sheet 46. A high negative voltage is applied to the mist discharge part 49 from a power supply device 56, and mist including a hydroxy radical with a strong oxidation effect is discharged from the mist discharge part 49. The mist is supplied from a mist discharge port 52 into the vegetable chamber 4. A counter electrode with respect to the mist discharge part 49 is not installed near the mist discharge part 49, and no ozone is generated. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015064197 A 20150409](#)

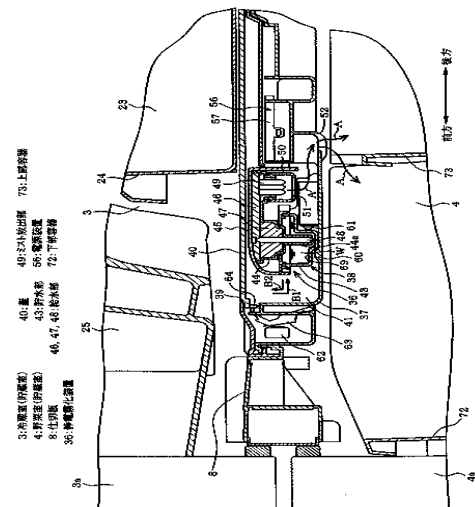
Applicant: TOSHIBA CORP; TOSHIBA LIFESTYLE PRODUCTS & SERVICES CORP

Inventor: SHINAGAWA HIDEJI; KOJIMA KENJI; OIKAWA MAKOTO; KAMIYAMA HIDEO; IMAKUBO KENJI; AINO KAZUAKI; ISHIBASHI IKUO

Prio: JP 20090327 2009079161, JP 20090604 2009135017

Appl.No: JP2014224063

IPC: F25D 23/00 2006.01 (IA)

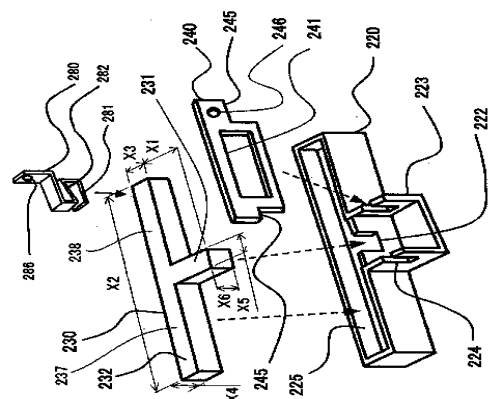


REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a refrigerator capable of achieving reduction in thickness by installing an atomizer in a portion in which a depth direction is small.**SOLUTION:** A refrigerator includes: a refrigeration room having a container for a chilled temperature zone provided below a stored goods storing space for storing stored goods, and a back surface wall provided at the back of the back surface of the container; a refrigeration room door for opening/closing a front surface opening part of the refrigeration room; a door pocket provided inside the refrigeration room door and provided on a front surface side of the container; and an atomizer which has a columnar-shaped discharge electrode which is elongated in an axial direction, an electrode holding part for holding the discharge electrode, and voltage applying means for applying a voltage to the discharge electrode, and which generates mist by applying the voltage to the discharge electrode. The atomizer is provided on a back surface wall of the refrigeration room at the back of the container by the discharge electrode, the electrode holding part and the voltage applying means being formed integrally, and the discharge electrode is installed so that a direction orthogonal with respect to the axial direction of its columnar shape becomes the depth direction of the refrigerator.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015064199 A 20150409](#)

Applicant: MITSUBISHI ELECTRIC CORP
Inventor: OKABE MAKOTO; SAKAMOTO KATSUMASA; MORIOKA REIJI; HANDA MASUMI; NAKAJIMA HIROSHI
Prio: JP 20090327 2009079584
Appl.No: JP2015005213
IPC: F25D 23/00 2006.01 (IA)

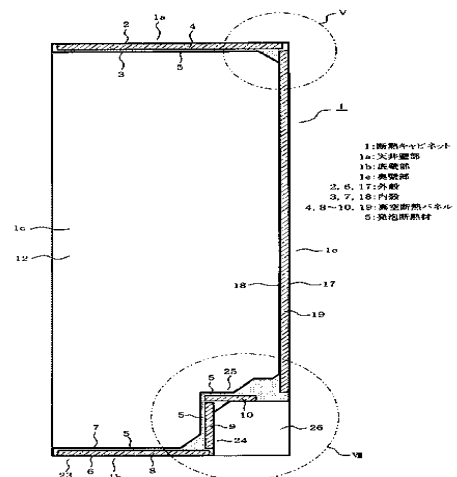


HEAT-INSULATING CABINET

PROBLEM TO BE SOLVED: To provide a heat-insulating cabinet having enough heat-insulating performance and rigidity.**SOLUTION:** The heat-insulating cabinet includes a ceiling wall part, a bottom wall part, a left-side wall part, a right-side wall part and a back wall part. Both or one of the ceiling wall part and/or the bottom wall part of them are/is structured so that a space between an outer shell and an inner shell of each of them is filled with a vacuum heat-insulating panel and foam heat-insulating material filled inside or outside the panel. The left-side wall part, the right-side wall part and the back wall part are structured so that a space between the outer shell and the inner shell of each of them is filled with a vacuum heat-insulating panel without using the foam heat-insulating material together, and a mutual space between the edge parts of the vacuum heat-insulating panel is filled with the foam heat-insulating material.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015064200 A 20150409](#)

Applicant: TOSHIBA CORP; TOSHIBA LIFESTYLE PRODUCTS & SERVICES CORP
Inventor: SAEKI TOMOYASU; YOSHIDA TAKAAKI; KONDO TOSHIYUKI
Prio:
Appl.No: JP2015005836
IPC: F25D 23/06 2006.01 (IA)



DAMPER DEVICE

PROBLEM TO BE SOLVED: To prevent sealability from deteriorating.**SOLUTION:** A damper device 1A comprises a frame 10A which is equipped with a base 12 having an opening 11, and a baffle plate 20A rotatably supported by the frame 10A, and is configured to open and close the opening 11 by the baffle plate 20A which is rotated circumferentially around a rotation axis X. In the damper device 1A, the frame 10A is provided with an annular wall 40A enclosing the opening 11, and the baffle plate 20A is provided with a cushioning member 50A fitted into the annular wall 40A, so that when rotating the baffle plate 20A in a direction of closing the opening 11, the cushioning member 50A is fitted into the annular wall 40A to seal the opening 11.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015068506 A 20150413](#)

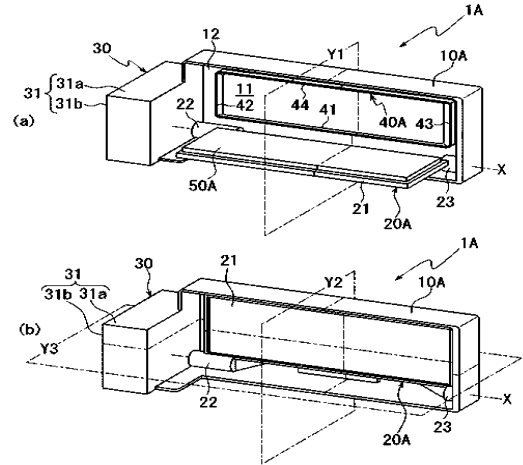
Applicant: NIDEC SANKYO CORP

Inventor: SAITO SHUNJI

Prio:

Appl.No: JP2013200135

IPC: F25D 17/08 2006.01 (IA)



REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a refrigerator which can improve cooling efficiency by suppressing flowing-in of cold air via a freezing duct between two partitioned freezing storage chambers in a freezing space.**SOLUTION:** A freezing duct 48 for connecting an evaporator chamber and a freezing space 40 branches into a first flow passage 48b connected to a first freezing storage chamber 42 in a branch part 48a, and a second flow passage 48c connected to a second freezing storage chamber. A freezing damper 49 for opening/closing the freezing duct 48 includes a valve body 49b mounted on a rotary shaft 49c rotated by a driving mechanism 49d and adjusting opening of the freezing damper 49 by controlling a rotation angle of the rotary shaft 49c, and it executes a first mode for introducing the air cooled in an evaporator into the first flow passage 48b and a second mode for introducing into the second flow passage 48c by changing the opening of the freezing damper 49.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015068509 A 20150413](#)

Applicant: TOSHIBA CORP; TOSHIBA LIFESTYLE

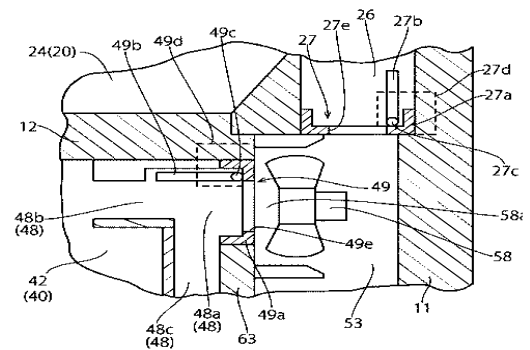
PRODUCTS & SERVICES CORP

Inventor: HAYASHI HIDETAKE

Prio:

Appl.No: JP2013200307

IPC: F25D 17/08 2006.01 (IA)



REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a refrigerator capable of preventing dew condensation occurring by temperature difference between the outside air and the inside of the refrigerator, while suppressing power consumption.**SOLUTION:** The refrigerator includes: a biparting type door 23 which is pivotally supported in a rotatable manner at both right and left sides of a front surface opening part of a storage chamber 22, and which blocks the opening part; a rotary partition body 70 which blocks between the biparting type door 23 from the inside of the refrigerator; a dew-proofing heater 72 provided at the rotary partition body 70 and suppressing generation of dew condensation; a control unit for controlling a heating value of the dew-proofing heater 72; a humidity sensor for detecting the humidity in an installation atmosphere of the refrigerator 10; and a second sensor of a type different from the humidity sensor. The control unit controls the heating value of the dew-proofing heater 72 on the basis of the detection values of the humidity sensor and the second sensor.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015068510 A 20150413](#)

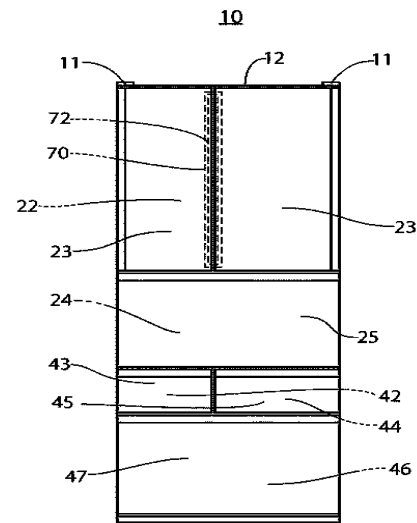
Applicant: TOSHIBA CORP; TOSHIBA LIFESTYLE PRODUCTS & SERVICES CORP

Inventor: HIGASHINAKA YUJI

Prio:

Appl.No: JP2013200308

IPC: F25D 21/04 2006.01 (IA)



COLD STORAGE

PROBLEM TO BE SOLVED: To provide a cold storage improving energy-saving performance than the conventional one with its design and strength being held.**SOLUTION:** A cold storage includes a heat-insulated box 50 having an opening 50A, and a door 20 covering the opening 50A. The door 21 includes a metallic outside member 6A at least constituting a design face, a resin inside member 6B formed closer to the opening 50A than the outside member 6A, and a resin intermediate part 7 provided between the outside member 6A and the inside member 6B.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015068511 A 20150413](#)

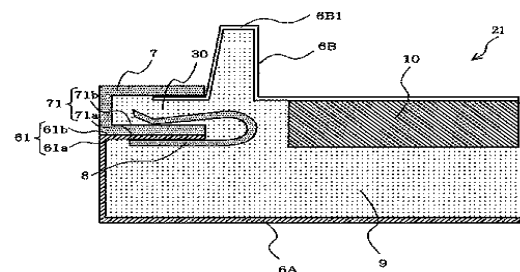
Applicant: MITSUBISHI ELECTRIC CORP

Inventor: KODAMA TAKUYA; TANI NORIYUKI; KOBAYASHI TAKASHI

Prio:

Appl.No: JP2013200427

IPC: F25D 23/02 2006.01 (IA)



COLD AIR DAMPER

PROBLEM TO BE SOLVED: To provide a cold air damper capable of preventing bending of a baffle in a direction separating from an opening portion by reaction force from a frame-shaped rib surrounding the opening portion when the baffle is disposed on a close position. **SOLUTION:** A cold air damper 1 includes a frame 3 provided with an opening portion 2, a frame-shaped rib 22 disposed on an edge part of the opening portion 2 of the frame 3 and projecting while surrounding the opening portion 2, a baffle plate 28, and a driving unit 5 for rotating the baffle plate 28 around an axis extending in the direction orthogonal to the X direction at an outer peripheral side of the frame-shaped rib 22. The baffle plate 28 includes an inner portion 41 at an inner peripheral side with respect to the frame-shaped rib 22 in a state of being disposed on a close position 4B, an outer portion 42 at an outer peripheral side with respect to the frame-shaped rib 22, and a frame-shaped portion 43 overlapped to the frame-shaped rib 22. The inner portion 41 is provided with a reinforcement portion 44 thicker than the outer portion 42 and the frame-shaped portion 43. As the reinforcement portion 44 is disposed at the inner peripheral side of the frame-shaped rib 22, the baffle plate 28 is not bent in a direction separating from the opening portion

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Publication: [JP 2015068518 A 20150413](#)

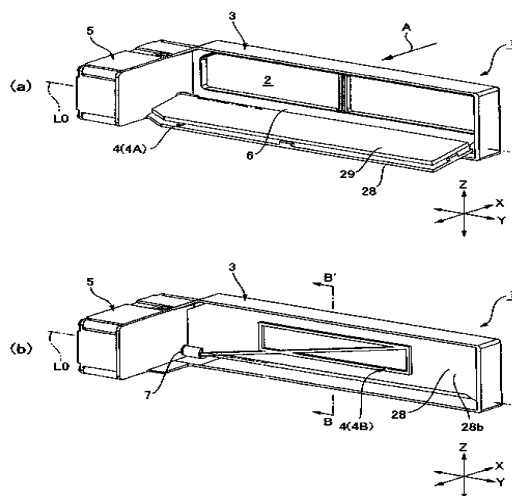
Applicant: NIDEC SANKYO CORP

Inventor: SAITO SHUNJI

Prio:

Appl.No: JP2013201057

IPC: F25D 17/08 2006.01 (IA)



COLD AIR DAMPER

PROBLEM TO BE SOLVED: To provide a cold air damper not damaging a heater by closing motion of a baffle for closing an opening portion. **SOLUTION:** A cold air damper 1 includes a frame 3 provided with an opening portion 2, a frame-shaped rib 22 projecting to one side in a cold air circulating direction A from an opening edge of the opening portion 2 of the frame 3, a baffle 4, and a heater 9. A baffle plate 28 of the baffle 4 includes an inner portion 41 at an inner peripheral side with respect to the frame-shaped rib 22 in a state of being disposed on a close position 4B, an outer portion 42 at an outer peripheral side with respect to the frame-shaped rib 22, and a frame-shaped portion 43 overlapped to the frame-shaped rib 22. The inner portion 41 is provided with a reinforcement portion 44. The heater 9 is attached to an outer peripheral side of the reinforcement portion 44 at a back surface 28b of the baffle plate 28 positioned at a side opposite to the frame-shaped rib 22 and covers most of the frame-shaped portion 43. The heater 9 is loaded on the back surface 28b of the baffle plate 28, and not held between the baffle 4 and the frame-shaped rib 22. COPYRIGHT: (C)2015, JPO&INPIT

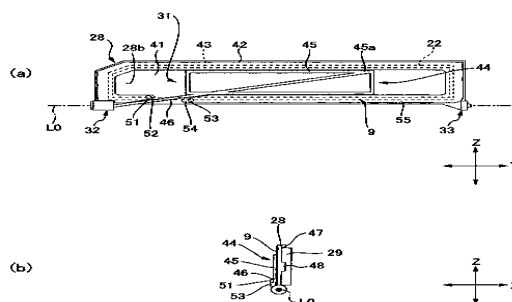
Publication: [JP 2015068519 A 20150413](#)

Applicant: NIDEC SANKYO CORP

Inventor: SAITO SHUNJI

Prio:

Appl.No: JP2013201058



IPC: F25D 17/08 2006.01 (IA)

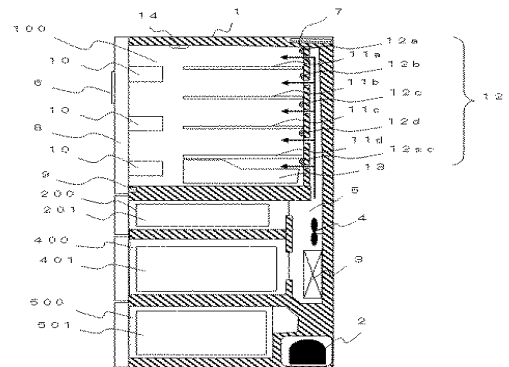
REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a refrigerator that enables change for arrangement suitable for storage of food to the refrigerator and refrigeration storage in a short time in comparison to conventional ones by accurately detecting storage objects in the refrigerator and displaying information for moving storage objects to a free area or arrangement positions suitable for refrigeration storage.**SOLUTION:** With an image obtained by imaging a refrigerator 100 with imaging means 12, a control device 7 extracts arrangement information of storage objects of the refrigerator 100, and calculates storage information for moving the storage objects to the free area or arrangement positions suitable for refrigeration storage in the refrigerator 100 to display the storage information on a display part of an operation panel 6.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015068525 A 20150413](#)

Applicant: MITSUBISHI ELECTRIC CORP
Inventor: SHIBATA MAIKO; UCHIDA TAKESHI;
MATSUMOTO MARIKO; NAGATA SHIGEYUKI

Prio:
Appl.No: JP2013201165
IPC: F25D 23/00 2006.01 (IA)



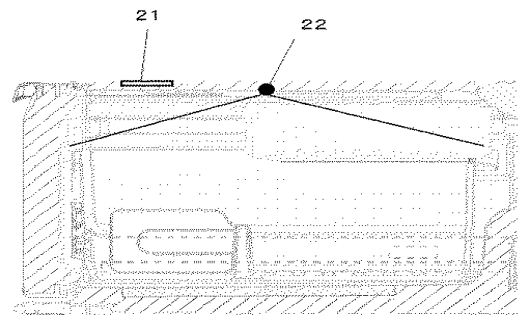
REFRIGERATOR, AND DISPLAY SYSTEM IN REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a refrigerator enabling easy recognition of food in a storage chamber and to provide a refrigeration system.**SOLUTION:** A refrigerator includes: a refrigerator body; a drawer-type storage chamber formed inside the refrigerator body; a door opening/closing the storage chamber; a lighting device lighting the inside of the storage chamber; an imaging device imaging the inside of the storage chamber; and a control part controlling the imaging device. The imaging device is disposed at a portion upper than the height-direction center part of the storage chamber. The lighting device is disposed at a portion upper than the imaging device in the storage chamber. According to such a structure, food in the storage chamber can be brightly and clearly imaged.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015068533 A 20150413](#)

Applicant: PANASONIC CORP
Inventor: NAKAGAWA MASASHI; KAMISAKO TOYOSHI;
NAKAMURA MOTOSHIRO

Prio:
Appl.No: JP2013201522
IPC: F25D 23/00 2006.01 (IA)



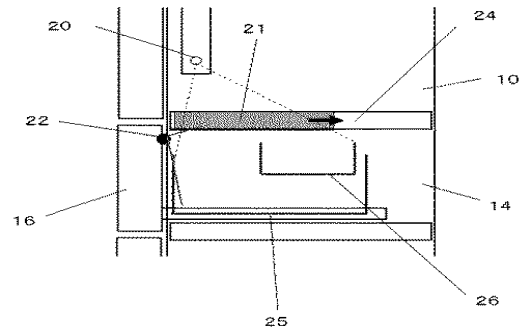
REFRIGERATOR, AND REFRIGERATOR INTERNAL DISPLAY SYSTEM

PROBLEM TO BE SOLVED: To provide a refrigerator enabling easy imaging of food in a storage chamber and to provide a refrigeration system.**SOLUTION:** A refrigerator includes: a refrigerator body; a plurality of storage chambers formed inside the refrigerator body; a lighting device lighting the inside of the storage chamber; a door opening/closing the storage chamber; an imaging device imaging the inside of the storage chamber; a partition wall for partitioning the plurality of storage chambers; and a control part controlling the imaging device. The partition wall has a transparent part. According to such a structure, food in the storage chamber can be brightly and clearly imaged because a viewing field/irradiated light reaching region in the storage chamber is widen without having a complicated structure.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015068534 A 20150413](#)

Applicant: PANASONIC CORP
Inventor: NAKAGAWA MASASHI; KAMISAKO TOYOSHI;
 NAKAMURA MOTOSHIRO

Prio:
Appl.No: JP2013201523
IPC: F25D 23/00 2006.01 (IA)



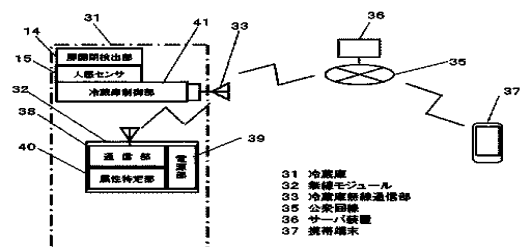
REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a refrigerator capable of securing satisfactory communication even when an outer casing is made of metal.**SOLUTION:** The refrigerator includes: a wireless module attached to a food product or a package part of the food product stored in a storage chamber of the refrigerator; and a refrigerator wireless communication unit for performing communication with the wireless module and a public line. The refrigerator wireless communication unit is provided on a refrigerator body or on a heat insulation door. In the communication between the wireless module and the refrigerator wireless communication unit, communication having a first frequency band is performed, and in the communication between the wireless communication for a refrigerator and the public line, the communication is performed in a second frequency band which is higher than the first frequency band. Thereby, even when the wireless module is stored in the storage chamber of the refrigerator together with the food product, the wireless module and the public line can communicate satisfactorily and surely via the refrigerator wireless communication unit, so that reliability improves.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015068535 A 20150413](#)

Applicant: PANASONIC CORP
Inventor: ASO MITSUHIRO; KAMEI RINAKO; KAMISAKO
 TOYOSHI; NAKAGAWA MASASHI; NAKAMURA
 MOTOSHIRO

Prio:
Appl.No: JP2013201525
IPC: F25D 23/00 2006.01 (IA)

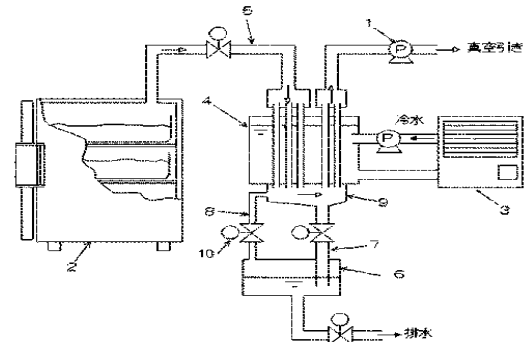


VACUUM COOLING DEVICE

PROBLEM TO BE SOLVED: To provide a vacuum cooling device capable of quickly cooling by increasing a cooling speed.
SOLUTION: A vacuum cooling device comprises: a processing tank 2 to store a processed material; a vacuum generation device 1 which is connected to the processing tank 2 through vacuum piping 5 and sucks gas in the processing tank; a heat exchanger 4 which condenses steam by cooling the gas sucked by the vacuum generation device 1; and a drain tank 6 to store drain generated in the heat exchanger 4. The vacuum cooling device cools the processed material stored in the processing tank by evacuating the gas from an interior thereof. The heat exchanger 4 and the drain tank 6 are connected to each other through a drain transfer pipe 7 and an air distribution pipe 8. A drain tank side edge of the drain transfer pipe 7 is installed at a position submerged in the drain accumulated in the drain tank 6. The air distribution pipe 8 is installed at the position not submerged in the drain. A ventilation valve 10 installed in the middle of the air distribution pipe 8 is opened in an initial phase of a vacuum cooling process and closed in a final phase thereof.
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Publication: [JP 2015068556 A 20150413](#)

Applicant: SAMSON CO LTD
Inventor: AKIO NOBUMOTO; NOGUCHI NAOKI
Prio:
Appl.No: JP2013202804
IPC: F25D 7/00 2006.01 (IA)

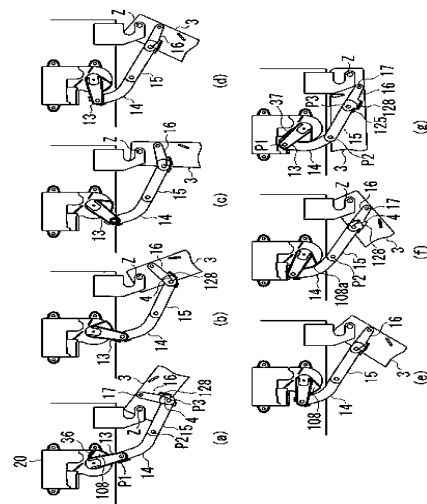


REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a refrigerator having a motor for driving a door to close from a fully-opened position of 90° or more, in which a driving member is configured not to be projected from a front side of the door.
SOLUTION: A driving member 20 having a motor is mounted on a body 2 of the refrigerator, and is connected to a door 3 via a link mechanism 12 comprising a lever 13 connected to an output shaft 100 of the driving member, in which the lever is connected with a first connecting member 14, a second connecting member 15, and a third connecting member 16 which are sequentially connected in order. It is configured that, for example, the door can be closed by means of motor operation from a fully-opened position of over 90° to a fully-closed position. A movement locus of the link mechanism 12 is limited of a range from within a thickness of the door 3 to the driving member 20, thereby preventing the driving member, such as the motor or the connecting member, to be projected from a front side of the door.
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Publication: [JP 2015068572 A 20150413](#)

Applicant: NIDEC SANKYO CORP
Inventor: HAYASHI KATSUHIKO
Prio:
Appl.No: JP2013203464
IPC: F25D 23/02 2006.01 (IA)

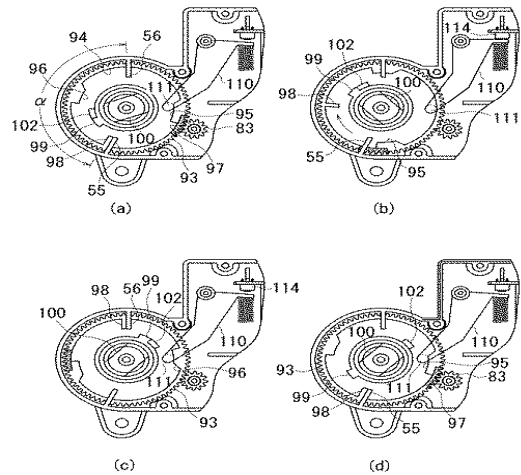


REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a refrigerator having a motor for driving a door to close, in which the door can be easily opened and closed by hand. **SOLUTION:** A refrigerator includes: a pusher 99 provides on a fourth gear 93 of a last line of a speed-reducing gear connected to a motor; and a contacting member 102 provided on an output shaft 100 on a door-side positioned on the shaft, in which, when the door is driven towards a closing direction, the pusher 99 pushes the contacting member 102 so that a rotation of the motor is delivered to the door-side. When the door is fully closed, the motor is operated to rotate reversely so that the fourth gear 93 is moved to a waiting position corresponding to a fully-opened position. When the door is closed manually, the contacting member 102 is moved apart from the pusher 99 so as to be disconnected from the motor, thereby enabling the door to be closed with little force. Further, when the door is fully closed, the pusher 99 is apart at the waiting position, thereby enabling the door 3 to be easily opened manually to a fully-opened position. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015068573 A 20150413](#)

Applicant: NIDEC SANKYO CORP
Inventor: HAYASHI KATSUHIKO
Prio:
Appl.No: JP2013203465
IPC: F25D 23/02 2006.01 (IA)

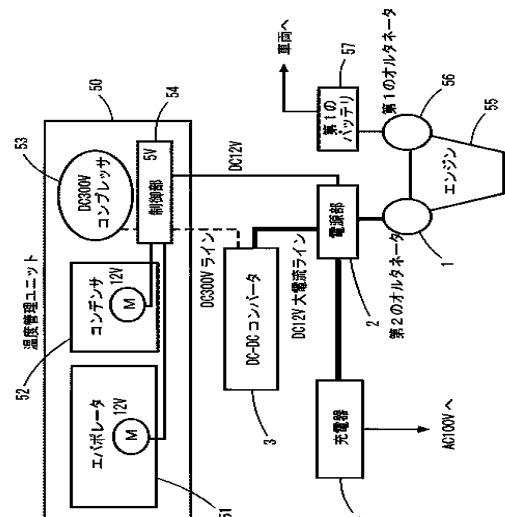


POWER SOURCE SYSTEM FOR DETACHABLE TEMPERATURE MANAGEMENT UNIT

PROBLEM TO BE SOLVED: To facilitate laying of a wiring by using a relatively fine wiring, in a case of laying a wiring from a battery to a temperature management unit capable of being attached/detached to/from a container of a temperature management vehicle. **SOLUTION:** A power source system for supplying power to a temperature management unit 50 capable of being attached/detached to/from a container of a temperature management vehicle includes a battery 2 charged by an alternator 1 equipped with an engine 55 of the temperature management vehicle, and a DC-DC converter 3 converting the direct current voltage of the battery 2 into boosted direct current voltage to be applied to a device 53 of the temperature management unit 50. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015068625 A 20150413](#)

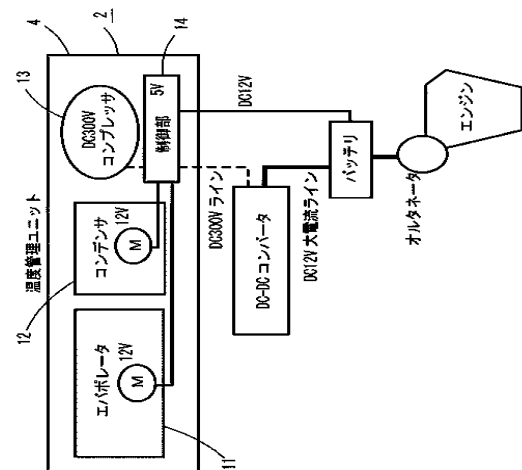
Applicant: ATOZ KK; TAICANG JINGHE ELECTROMECHANICAL CO LTD
Inventor: WATANABE CHIHARU; HATANAKA HIROJI; HU MENG JIE; OZAKI YUKIO
Prio:
Appl.No: JP2013205953
IPC: F25D 11/00 2006.01 (IA)



TEMPERATURE MANAGEMENT UNIT, TEMPERATURE MANAGEMENT WAREHOUSE AND TEMPERATURE MANAGEMENT VEHICLE

PROBLEM TO BE SOLVED: To reduce labor in attaching/detaching a temperature management unit to/from a temperature management warehouse. **SOLUTION:** A temperature management unit integrally incorporates a heat exchange system required for temperature management in a temperature management warehouse 1 into a housing 4, and has a fixation unit for fixing the housing 4 to an opening part 3 of the temperature management warehouse 1. The housing 4 is formed so as to seal the opening part 3 by being fixed to the opening part 3 of the temperature management warehouse 1 by the fixation unit, and is provided, for a device of the heat exchange system, with a vent hole opened outside the temperature management warehouse 1 and a vent hole opened inside the temperature management warehouse 1, in a state of being fixed to the temperature management warehouse 1. COPYRIGHT: (C)2015, JPO&INPIT

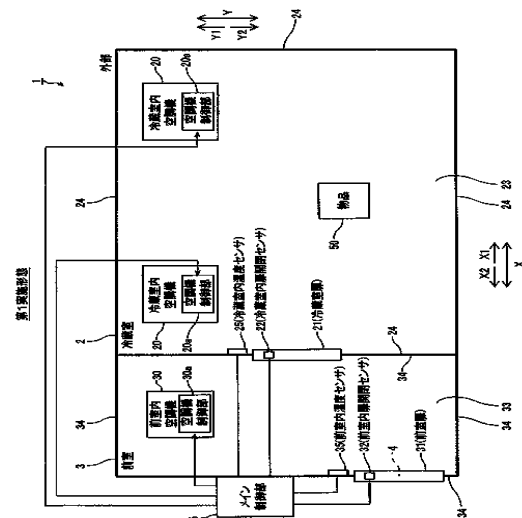
Publication: [JP 2015068626 A 20150413](#)
Applicant: ATOZ KK; TAICANG JINGHE ELECTROMECHANICAL CO LTD
Inventor: WATANABE CHIHARU; HATANAKA HIROJI; HU MENG JIE; OZAKI YUKIO
Prio:
Appl.No: JP2013205954
IPC: F25D 11/00 2006.01 (IA)



REFRIGERATING SYSTEM

PROBLEM TO BE SOLVED: To provide a refrigerating system capable of suppressing temperature increase of a refrigerator due to carry-in operation of articles. **SOLUTION:** A refrigerating system 1 includes a refrigerator 2 in which an article 50 is stored at about -25°C, a refrigerator air conditioner 20 for keeping the refrigerator 2 at about -25°C, a front chamber 3 that is positioned adjacent to the refrigerator 2 and has a carry-in port 4 through which the article 50 is carried from the outside, while being kept at about -5°C which is lower than the outside temperature and higher than the temperature inside the refrigerator 2, a front chamber air conditioner 30 for keeping the front chamber 3 at about -5°C, and a main controller 5 for performing temperature suppression control by operating the refrigerator air conditioner 20 and the front chamber air conditioner 30 so as to suppress temperature increase of the refrigerator 2 due to carry-in operation of the article 50 in association with the carry-in operation of the article 50 into the front chamber 3 from the outside. COPYRIGHT: (C)2015, JPO&INPIT

Publication: [JP 2015068629 A 20150413](#)
Applicant: FUJI ELECTRIC CO LTD
Inventor: OZU TAKESHI; YOSHIDA HITOSHI
Prio:
Appl.No: JP2013206172
IPC: F25D 13/00 2006.01 (IA)



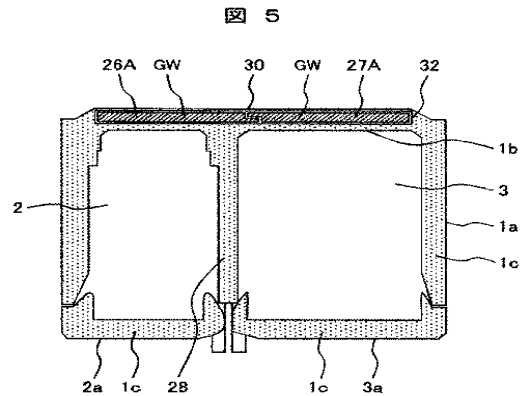
REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a novel refrigerator that reduces heat leakage from a connection area of a unit core material constituting a vacuum heat insulation material, to improve heat insulation performance.
SOLUTION: A vacuum insulation material is arranged so that the connection area of a unit core material of the vacuum heat insulation material is positioned in a heat insulation box body of the area of a storage room other than an area where a refrigeration room exists. According to this, since the connection area of the unit core material is positioned in the heat insulation box body of an area where a cold storage room having higher temperature than the refrigeration room exists, heat leakage can be reduced in comparison to the area where the refrigeration room exists, and heat insulation performance can be improved.
COPYRIGHT: (C)2015,JPO&INPIT

Publication: [JP 2015068632 A 20150413](#)

Applicant: HITACHI APPLIANCES INC
Inventor: YAMAZAKI YASUTAKA; HONDA HIDEYUKI; WATANABE HIROTOSHI

Prio:
Appl.No: JP2013206258
IPC: F25D 23/06 2006.01 (IA)

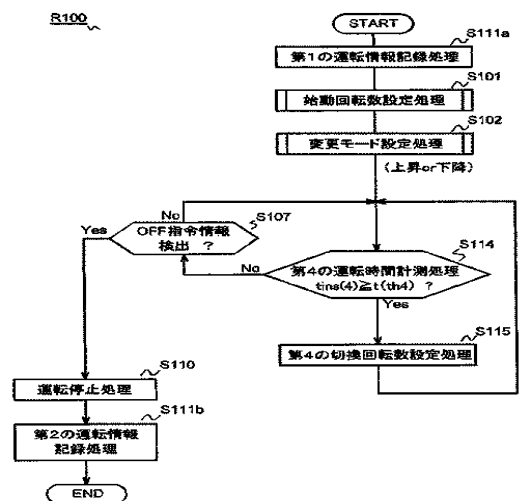


COMPRESSOR MOTOR CONTROL DEVICE FOR REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a compressor motor control device for refrigerator enabling a set number of revolution during stable operation to track to a state of heat load.
SOLUTION: In accordance with processing for setting the number of revolution at the time of stationary state according to a preferred embodiment of this invention, a starting number of revolution ω_a is controlled to be coincident with a final set number of revolution that is the latest number. Due to this fact, the processing for setting the number of revolution at the time of stationary state during operation reflects the latest state of heat load, resulting in that a set value of the starting number of revolution ω_a tracks the state of the heat load as the stationary operation advances. In addition, since controlling of the starting number of revolution ω_a enables a substantial modification of the number of update revolution ω_b set at its subsequent stage to be avoided, it is possible to avoid redundancy of an ON-operation period at the stationary operation.
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Publication: [JP 2015072086 A 20150416](#)

Applicant: DIAMOND ELECTRIC MFG CO LTD
Inventor: SUGAWARA AKIRA
Prio:
Appl.No: JP2013208096
IPC: F25D 11/00 2006.01 (IA)



COMPRESSOR MOTOR CONTROL DEVICE FOR CHILLER

PROBLEM TO BE SOLVED: To provide a compressor motor control device for a chiller, capable of adequately setting a set number of revolution in a descending mode, based on slight temperature information. **SOLUTION:** In this embodiment, a descending mode can be adopted by various modifications, in spite of that only slight temperature information is acquired. As a result of this, since a set number of revolution can be automatically changed in a descending direction in a proper scene in the embodiment, the electricity consumption of a compressor motor can be suppressed while maintaining a preservation state of a food storage material. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015072087 A 20150416](#)

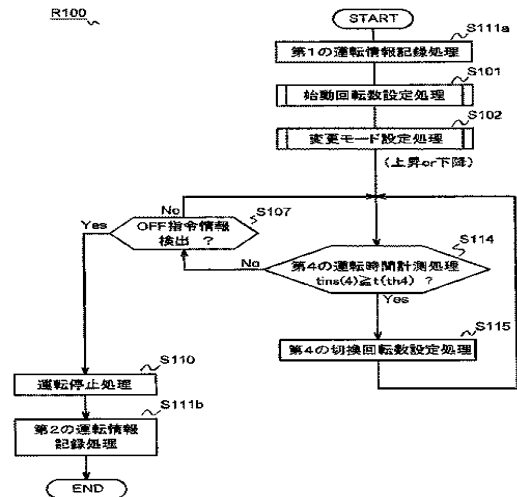
Applicant: DIAMOND ELECTRIC MFG CO LTD

Inventor: SUGAWARA AKIRA

Prio:

Appl.No: JP2013208098

IPC: F25D 11/00 2006.01 (IA)



COMPRESSOR MOTOR CONTROL DEVICE FOR COOLING MACHINE

PROBLEM TO BE SOLVED: To provide a compressor motor control device for a cooling machine that effectively utilizes limited temperature information and can reflect the information to rotational frequency setting. **SOLUTION:** In rotational frequency setting processing R101 at a steady time, a plurality of pieces of threshold information is set. Consequently, a plurality of comparison results between a parameter $t_{ins}(6)$ and a threshold are obtained. Then, when a measured total period $t_{ins}(6)$ reaches either one (or both) of the thresholds, the rotational frequency setting processing is transitioned to processing S121, and a setting rotational frequency is shifted up by one stage. In this embodiment, by using threshold information having different natures, multiple analysis can be performed to one parameter, and an optimal setting of the setting rotational frequency can be attained. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015072088 A 20150416](#)

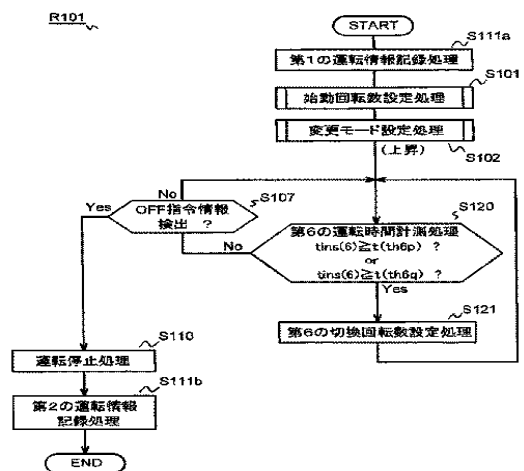
Applicant: DIAMOND ELECTRIC MFG CO LTD

Inventor: SUGAWARA AKIRA

Prio:

Appl.No: JP2013208099

IPC: F25D 11/00 2006.01 (IA)



COMPRESSOR MOTOR CONTROL DEVICE FOR REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a compressor motor control device for refrigerator capable of setting mode coincided with a state of heat load.SOLUTION: A priority mode selection processing S310 is constituted of a processing S311, processing S312 and processing S313. Out of the processing, the processing S311 sets the first mode information as the priority mode information (S313) when mode information (first mode information) is made by the first mode selection recording processing R220. The processing S312 sets the second mode information as the priority mode information (S313) when mode information (the second mode information) is made by the second mode selection recording processing R210. When neither the first mode information nor the second mode information can be attained, the processing S313 sets the mode information (the third mode information) made by the third mode selection recording processing R200 as the priority mode information.COPYRIGHT: (C)2015,JPO&INPIT

Publication: **JP 2015072089 A 20150416**

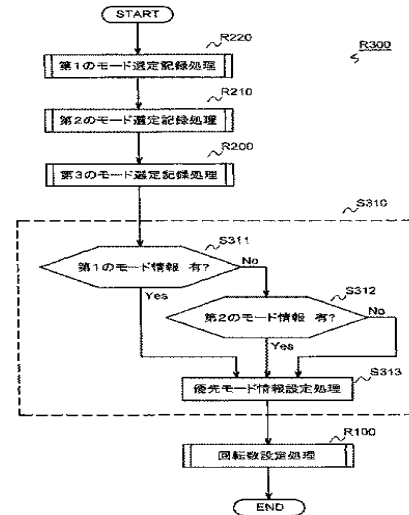
Applicant: DIAMOND ELECTRIC MFG CO LTD

Inventor: SUGAWARA AKIRA

Prio:

Appl.No: JP2013208100

IPC: F25D 11/00 2006.01 (IA)



REFRIGERATION DEVICE FOR CONTAINER

PROBLEM TO BE SOLVED: To suppress degradation of freshness of plants by properly adjusting an oxygen concentration inside of a container.SOLUTION: An oxygen concentration inside of a container 11 is detected by an oxygen concentration detection sensor 51. When the oxygen concentration detected by the oxygen concentration detection sensor 51 is higher than an oxygen concentration of a mixture gas, a mixture gas having the oxygen concentration lower than that of outside air and higher than a target concentration is supplied into the container 11. The oxygen concentration inside of the container 11 is lowered near the oxygen concentration of the mixture gas by supplying the mixture gas into the container 11, and then lowered to the target concentration by respiration of plants 15.COPYRIGHT: (C)2015,JPO&INPIT

Publication: **JP 2015072103 A 20150416**

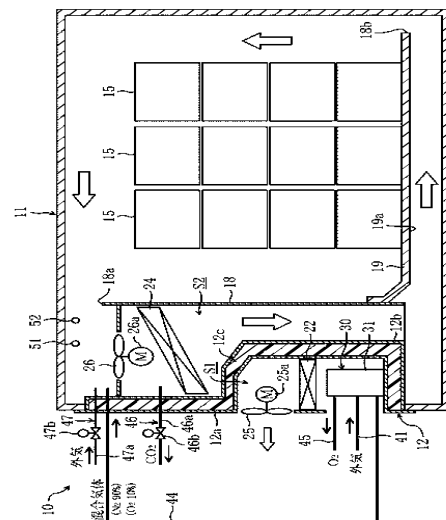
Applicant: DAIKIN IND LTD

Inventor: TANAKA NAOHIRO; OZATO ATSUSHI; IKEMIYA KAN; UKON TETSUYA

Prio:

Appl.No: JP2013208520

IPC: F25D 11/00 2006.01 (IA)



REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a refrigerator easy to use which can preserve and maintain a food product without trouble.**SOLUTION:** A refrigerator easy to use includes: object specifying means 77 to specify an object from a camera for picturing a storage chamber for storing a food product, and a pictured image; a preservation period memory part 79 for memorizing the object specified by the object specifying means; comparison means 80 to compare the image of the object specified by the object specifying means before and after a prescribed time; and compensation calculation means 81 to compensate a preservation period memorized in the preservation period memory part under a prescribed condition. The compensation calculation means is constituted to change and compensate a preservation period memorized in the preservation period memory part, based on a comparison result of the comparison means. As a result of this, when a change of an image of a food product specified by the object specifying means is small, a preservation period is kept as it is, and when a change is big, a preservation period is changed and compensated, determining that the same food product is bought to change to a new product, or a specified food product is consumed.**COPYRIGHT:** (C)2015,JPO&INPIT

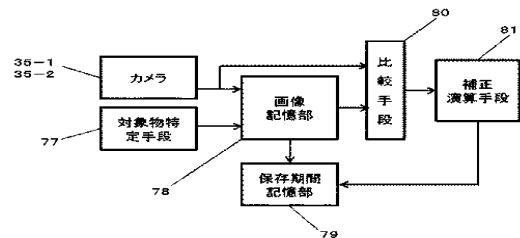
Publication: [JP 2015072109 A 20150416](#)

Applicant: PANASONIC IP MANAGEMENT CORP
Inventor: KAMISAKO TOYOSHI; NAKAGAWA MASASHI;
 NAKAMURA MOTOSHIRO; NAKAMUTA
 TOMONARI; TAKAGI SHOICHI

Prio: JP 20130329 2013071719, JP 20130903
 2013181871

Appl.No: JP2014006551

IPC: F25D 23/00 2006.01 (IA)



SUB-ENGINE TYPE REFRIGERATION UNIT FOR TRANSPORTATION

PROBLEM TO BE SOLVED: To provide a sub-engine type refrigeration unit for transportation that can drastically reduce suction of exhaust gas including many particulates into a unit body at start of a sub-engine and that can eliminate adverse effects such as dirt, corrosion and heat deterioration caused by suction of the exhaust gas.**SOLUTION:** A sub-engine type refrigeration unit 1 for transportation that diffuses exhaust gas discharged from an exhaust port of a sub-engine 3 in a direction separating from a unit body 2 by blown-out air from an air blowing fan 7 driven by the sub-engine 3 is mounted with an exhaust gas diffusing fan 23 that is driven by a battery mounted as an engine starting power source and that is arranged to enable diffusion of the exhaust gas discharged from the sub-engine 3 in the direction separating from the unit body 2 separately from the air blowing fan 7. When the sub-engine 3 is started, operation of the exhaust gas diffusing fan 23 is started before starting of the sub-engine 3 so as to diffuse the exhaust gas at start of the sub-engine.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015075240 A 20150420](#)

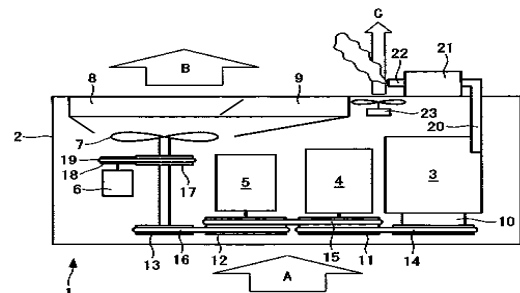
Applicant: MITSUBISHI HEAVY IND LTD

Inventor: KAI MASAKAZU

Prio:

Appl.No: JP2013209380

IPC: F25D 11/00 2006.01 (IA)



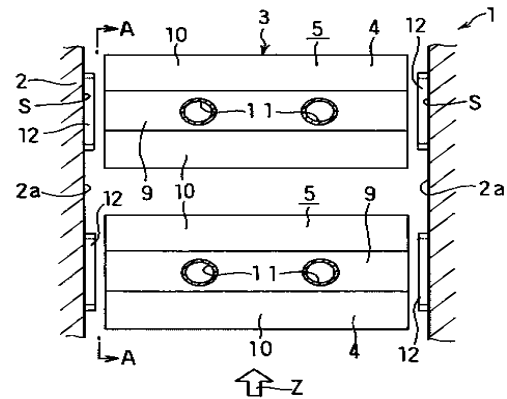
- 1: サブエンジン式輸送用冷凍ユニット (冷凍ユニット)
- 2: ユニット本体
- 3: サブエンジン
- 4: サブエンジン
- 5: サブエンジン
- 6: 送風ファン
- 7: 送風ファン
- 8: コントローラ
- 9: コントローラ
- 10: コントローラ
- 11: コントローラ
- 12: コントローラ
- 13: コントローラ
- 14: コントローラ
- 15: コントローラ
- 16: コントローラ
- 17: コントローラ
- 18: コントローラ
- 19: コントローラ
- 20: コントローラ
- 21: 排気口
- 22: 排気口
- 23: 排気ガス拡散用ファン

REFRIGERATION DEVICE

PROBLEM TO BE SOLVED: To provide a refrigeration device with improved cooling performance.**SOLUTION:** A refrigeration device 1 comprises: an air duct 2 having two flat surfaces 2a parallel to the flow direction of air and opposing each other; and an evaporator 3 arranged in the air duct 2. The evaporator 3 includes: a plurality of fin groups 5 that is composed of a plurality of plate fins 4 arranged in parallel and is disposed at a spacing in the air flow direction; and a heat exchange pipe 8 that includes a plurality of straight pipe parts 6 penetrating the plate fins 4 of each fin group 5 and fixed therein, and bent pipe parts 7 connecting adjacent straight pipe parts 6, the number of the bent pipe parts 7 being less by one than that of the straight pipe parts 6. The plate fins 4 of the fin group 5 of the evaporator 3 are so arranged that the two side edge parts parallel to each other are individually positioned in a plane parallel to the air flow direction. The individual flat surfaces 2a of the air duct 2 are formed with ribs 12 for disturbing the flow of the air at height positions corresponding to the individual fin groups 5 of the evaporator 3.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015075266 A 20150420](#)

Applicant: SHOWA DENKO KK
Inventor: HARADA YUTA
Prio:
Appl.No: JP2013210931
IPC: F25D 19/00 2006.01 (IA)

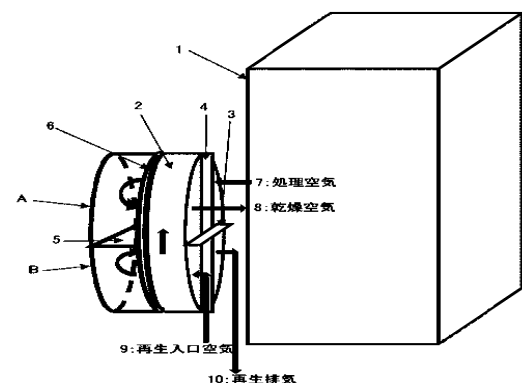


DEHUMIDIFIER AND REFRIGERATOR USING DEHUMIDIFIER

PROBLEM TO BE SOLVED: To provide a dehumidifier and a refrigerator using the dehumidifier in which energy consumption is low and an evaporator of the refrigerator is hardly frosted.**SOLUTION:** In order to solve the aforesaid theme, a refrigerator is divided into at least four zones in an order of the first adsorption zone, the second adsorption zone, the first desorption zone and the second desorption zone in a rotating direction opposite to a rotating direction of a desiccant rotor carrying moisture absorbent, air inside the refrigerator is flowed to the first adsorption zone, air passed through the first adsorption zone is passed to the second adsorption zone in a direction opposite to the passing direction in the first adsorption zone and passed through the second adsorption zone twice, air passed through a condenser of the refrigerator and heated is passed to the first desorption zone, air passed through the first desorption zone is passed to the second desorption zone in a direction opposite to the passing direction at the first desorption zone and passed through the desorption zone twice.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015075271 A 20150420](#)

Applicant: SEIBU GIKEN CO LTD
Inventor: KIN IRIKI
Prio:
Appl.No: JP2013211532
IPC: F25D 23/00 2006.01 (IA)

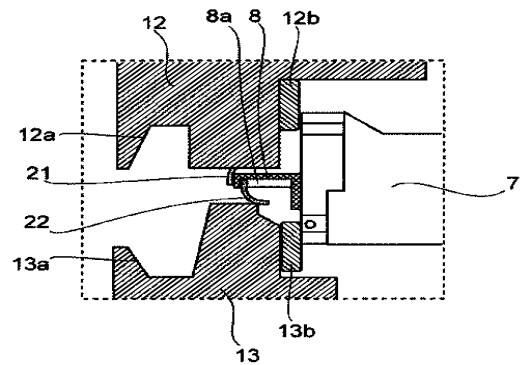


COLD STORAGE

PROBLEM TO BE SOLVED: To provide a cold storage which prevents decrease in blocking outdoor air between adjacent doors. **SOLUTION:** A cold storage includes a projection part 8 projecting forward from a front surface of a heat insulation wall 7, and a first seal member 21 which is provided in one of a first door 12 and the projection part 8, and closes a gap between the first door 12 and the projection part 8 when the first door 12 is closed. When the first door 12 is closed, the first seal member 21 comes into contact with a front surface of the projection part 8 or a rear surface of the first door 12. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015075273 A 20150420](#)

Applicant: SHARP CORP
Inventor: TAGASHIRA SHUHEI; BABA SEIJI
Prio:
Appl.No: JP2013211534
IPC: F25D 21/04 2006.01 (IA)

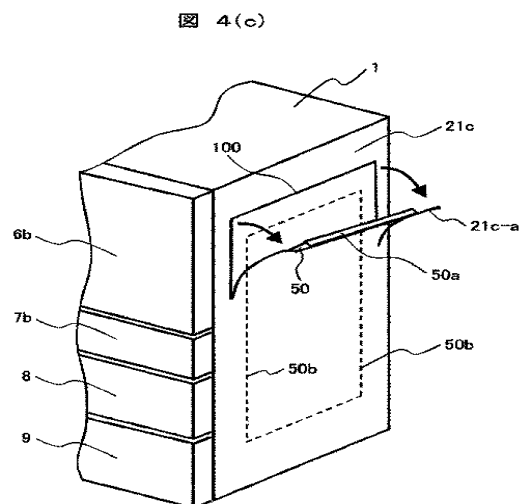


REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a new refrigerator capable of easily taking out a vacuum heat insulating material or its core material before a crushing process in a recycling process without adversely affecting various performances of the refrigerator. **SOLUTION:** A core material of a vacuum heat insulating material is taken out by cutting a part of a wall surface in the vicinity of the vacuum heat insulating material, of a heat insulating housing, and peeling off the wall surface in the vicinity of the vacuum heat insulating material. As only a part of the wall surface in the vicinity of the vacuum heat insulating material, of the heat insulating housing, is cut, various performances of a refrigerator are not adversely affected. The core material of the vacuum heat insulating material can be easily taken out by peeling up the wall surface in the vicinity of the vacuum heat insulating material. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015075275 A 20150420](#)

Applicant: HITACHI APPLIANCES INC
Inventor: ECHIGOYA HISASHI; ARAI YUSHI;
 KASHIWABARA KAZUTERU
Prio:
Appl.No: JP2013211658
IPC: F25D 23/06 2006.01 (IA)

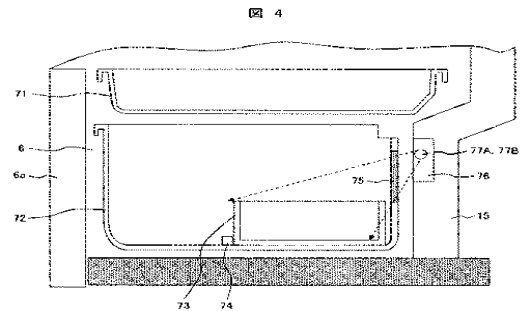


REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a new refrigerator capable of improving storage stability of root crops by suppressing growth of roots, leaves, sprouts and the like of the root crops.**SOLUTION:** A light source for radiating light of a wavelength within a range of 620-2500 nm, is disposed on a heat insulating portion positioned at a back surface or a side surface of a vegetable compartment, and the light source is lit when an opening/closing door of the vegetable compartment is closed to irradiate root crops stored in a root crop storage case, with the light of wavelength within a range of 620-2500 nm. As the growth of the root crops can be suppressed by irradiating the root crops with the light of wavelength within the range of 620-2500 nm, storage stability of the root crops can be improved.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015075276 A 20150420](#)

Applicant: HITACHI APPLIANCES INC
Inventor: FUNAYAMA ATSUKO; KOKUBU MASAKO
Prio:
Appl.No: JP2013211659
IPC: F25D 23/00 2006.01 (IA)

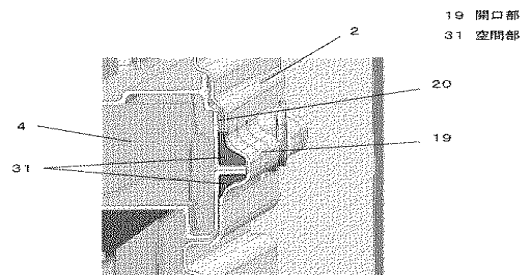


COLD STORAGE

PROBLEM TO BE SOLVED: To provide a cold storage which allows inexpensive and high-quality formation of a heat insulation box having a heat insulation partition wall partitioning the heat insulation box into a plurality of storage rooms.**SOLUTION:** A cold storage includes a heat insulation box 1a having an outer box 3, an inner box 2, and a foam heat insulation material; a partition wall 4 partitioning the heat insulation box 1a into a plurality of storage rooms; and a door provided in a front opening of the storage room. The partition wall 4 is filled inside with a foam heat insulation material 15 and is singly arranged in the inner box 2. A foam heat insulation material is filled in between the outer box 3 and the inner box 2, and a part of the foam heat insulation material is brought into contact with and joined to the partition wall 4. This enhances the degree of freedom of formability of the partition wall 4, ensures heat insulation characteristics and formation quality in low cost, enhances adhesiveness between the heat insulation box 1a and the partition wall 4, and increases the strength of the heat insulation box 1a.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015075295 A 20150420](#)

Applicant: PANASONIC IP MANAGEMENT CORP
Inventor: UMEE MASASHI; OBATA TAKASHI
Prio:
Appl.No: JP2013212473
IPC: F25D 23/06 2006.01 (IA)



COLD STORAGE

PROBLEM TO BE SOLVED: To provide a cold storage which allows inexpensive and high-quality formation of a heat insulation box having a heat insulation partition wall partitioning the heat insulation box into a plurality of storage rooms. **SOLUTION:** A cold storage includes a heat insulation box 1a having an outer box 3, an inner box 2, and a foam heat insulation material; a partition wall 4 partitioning the heat insulation box 1a into a plurality of storage rooms; and a door provided in a front opening of the storage room. An inner face of the partition wall 4 can be provided with separate peeling prevention means, thereby simplifying a metal mold for molding the partition wall 4. Consequently, cost reduction is achieved, peeling of the foam heat insulation material in the partition wall is prevented, the strength of the partition wall 4 is increased, and an inexpensive and high-quality cold storage can be provided. **COPYRIGHT:** (C)2015, JPO&INPIT

Publication: [JP 2015075296 A 20150420](#)

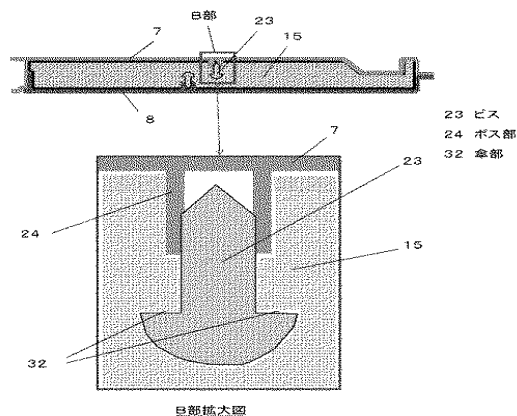
Applicant: PANASONIC IP MANAGEMENT CORP

Inventor: UMEE MASASHI; OBATA TAKASHI

Prio:

Appl.No: JP2013212474

IPC: F25D 23/06 2006.01 (IA)



COLD STORAGE

PROBLEM TO BE SOLVED: To provide a cold storage which allows inexpensive and high-quality formation of a heat insulation box having a heat insulation partition wall partitioning the heat insulation box into a plurality of storage rooms. **SOLUTION:** A cold storage includes a heat insulation box 1a having an outer box 3, an inner box 2, and a foam heat insulation material; a partition wall 4 partitioning the heat insulation box 1a into a plurality of storage rooms; and a door provided in a front opening of the storage room. The partition wall 4 is filled inside with a foam heat insulation material 15 and is singly arranged in the inner box 2. A foam heat insulation material is filled in between the outer box 3 and the inner box 2, and the partition wall 4 is formed by joining a plurality of plates and has an opening 19 on one of joint surfaces for filling the foam heat insulation material. This allows, with a simple metal mold, the formation of the opening on one of the joint surfaces for filling the foam heat insulation material, and allows, in an inexpensive and high-quality manner, the formation of the heat insulation box having the heat insulation partition wall partitioning the heat insulation box into a plurality of storage rooms. **COPYRIGHT:** (C)2015, JPO&INPIT

Publication: [JP 2015075297 A 20150420](#)

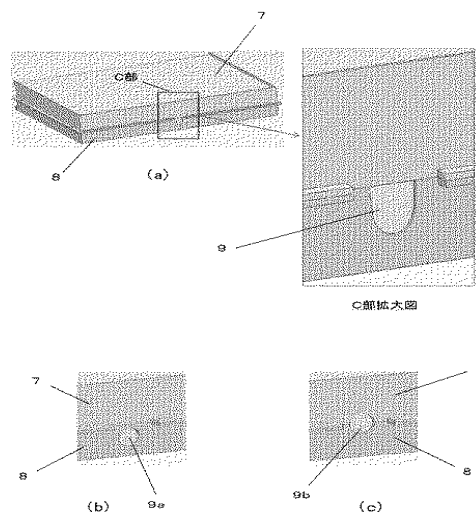
Applicant: PANASONIC IP MANAGEMENT CORP

Inventor: UMEE MASASHI; OBATA TAKASHI

Prio:

Appl.No: JP2013212475

IPC: F25D 23/06 2006.01 (IA)



COLD STORAGE

PROBLEM TO BE SOLVED: To provide a cold storage which forms, in an inexpensive and high-quality manner, a heat insulation box having a heat insulation partition wall partitioning the heat insulation box into a plurality of storage rooms. **SOLUTION:** A cold storage includes a heat insulation box having an outer box, an inner box, and a foam heat insulation material; a partition wall partitioning the heat insulation box into a plurality of storage rooms; and a door provided in a front opening of the storage room. The partition wall is provided with a through part 26, which is constituted by a heat insulation material 25 incorporated before filling the foam heat insulation material. Consequently, the deformation of the through hole (wind passage part) due to a forming pressure in forming is prevented, and an inexpensive and high-quality cold storage is provided. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015075298 A 20150420](#)

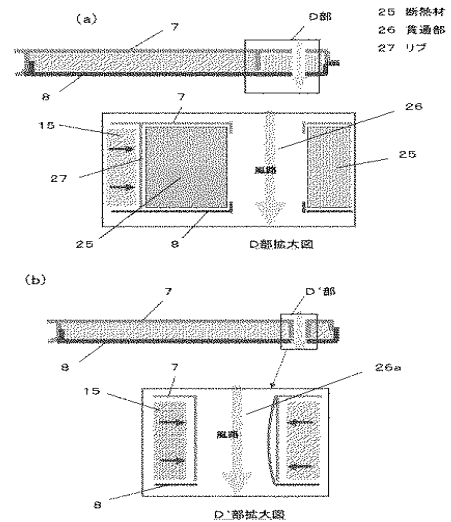
Applicant: PANASONIC IP MANAGEMENT CORP

Inventor: UMEE MASASHI; OBATA TAKASHI

Prio:

Appl.No: JP2013212476

IPC: F25D 23/06 2006.01 (IA)



PIPE ASSEMBLY AND REFRIGERATION DEVICE

PROBLEM TO BE SOLVED: To provide a pipe assembly for enabling the fixation of a capillary tube while suppressing a load on a connection portion between the capillary tube and a refrigerant pipe, and to provide a refrigeration device. **SOLUTION:** A bypass circuit 50 to be used for part of a refrigerant circuit 10 includes a capillary tube 60, a first bypass pipe 53, a second bypass pipe 54, and a binding band 80. The first bypass pipe 53 is connected to one end of the capillary tube 60 via a first connection portion X, and the second bypass pipe 54 is connected to the other end of the capillary tube 60 via a second connection portion Y. The binding band 80 combines a first connection portion neighborhood 53a of the first bypass pipe 53, a second connection portion neighborhood 54a of the second bypass pipe 54 extending in the same direction, and part of a circle 64 of the capillary tube 60, together. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015078777 A 20150423](#)

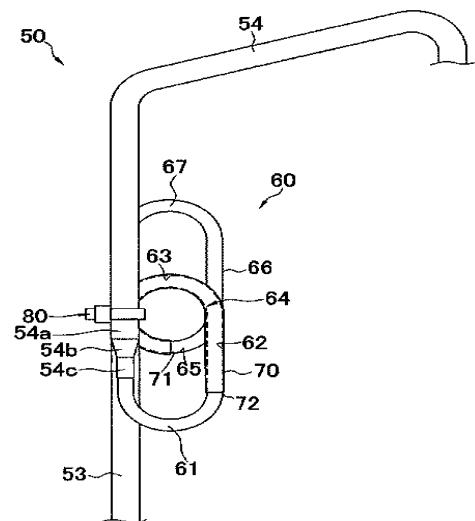
Applicant: DAIKIN IND LTD

Inventor: MURAI SHINYA; KINOSHITA ATSUSHI

Prio:

Appl.No: JP2013214545

IPC: F25D 19/00 2006.01 (IA)

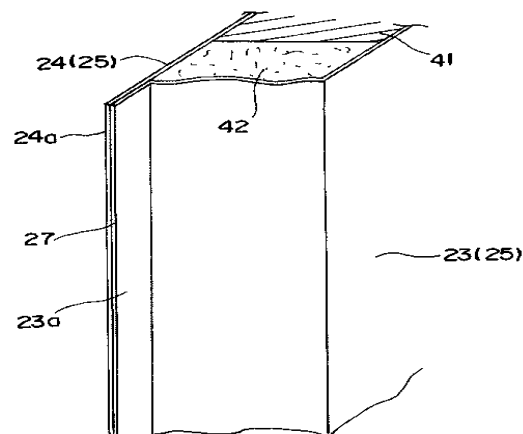


INNER PARTITIONING PANEL

PROBLEM TO BE SOLVED: To provide an inner partitioning panel that suppresses influence of solvent of adhesive used in pasting a panel constituent member on perishable foods or the like, and suppresses hardening of a synthetic resin material arranged on a panel outer peripheral edge and having resilience due to solvent of adhesive.
SOLUTION: A tabular heat insulation material 41 is stored and arranged inside a recess-shaped storage body 23, without being pasted with adhesive. The open surface of the recess-shaped storage body 23 is closed by thermally welding or sewing an outer peripheral part 24a of a cover sheet 24 to an outer peripheral part 23a of the recess-shaped storage body 23. The heat insulation material 41 is stored inside a bag-shaped body 25.
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Publication: [JP 2015078782 A 20150423](#)

Applicant: MARUICHI:KK
Inventor: HYODO KAZUTAKA
Prio:
Appl.No: JP2013214707
IPC: F25D 23/06 2006.01 (IA)

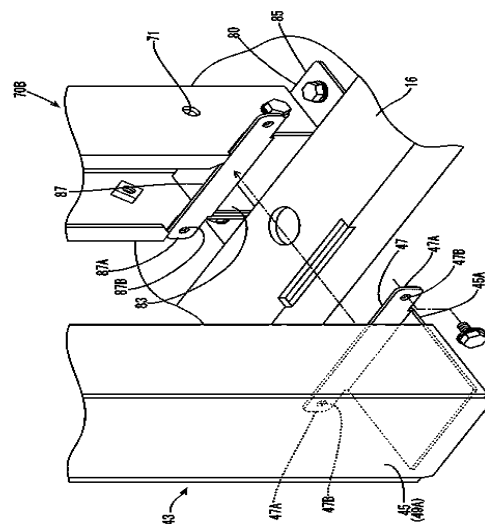


REFRIGERATION STORAGE HOUSE

PROBLEM TO BE SOLVED: To facilitate an assembling work for rail installing members.
SOLUTION: A refrigeration storage house 10 comprises a storing chamber 20 provided with a front opening 21 and constituted by adiabatic walls; a partition member 40 for partitioning the front opening 21 in a vertical or lateral direction at an opening end of the storing chamber 20; a drawer 50 with a lid part 51 that can open or close an opening 23 formed to be defined by the partition member 40, the drawer 50 can be stored in the storing chamber 20; and rails 60 enabling the drawer 50 to be drawn. There are provided a plurality of rail mounting members 70B placed more inside the storing chamber 20 than the partition member 40 to enable rails 60 installed in a vertical direction. Within the storing chamber 20 is installed a supporting unit 80 for supporting the partition member 40 and the rail mounting members 70B, the rail mounting members 70B are supported at a side surface 83 of the supporting unit 80, and the partition member 40 is supported at a front surface 87 of the supporting unit 80.
 COPYRIGHT: (C)2015,JPO&INPIT

Publication: [JP 2015078786 A 20150423](#)

Applicant: HOSHIZAKI ELECTRIC CO LTD
Inventor: HIROZAWA MASARU
Prio:
Appl.No: JP2013215333
IPC: F25D 23/04 2006.01 (IA)



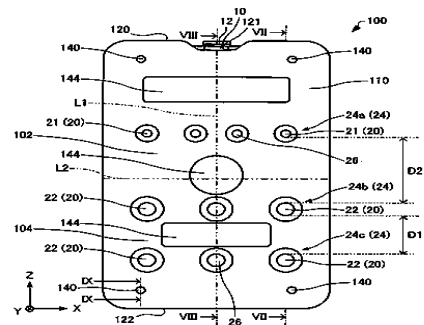
HEAT STORAGE MATERIAL CONTAINER AND TRANSPORTATION CONTAINER

PROBLEM TO BE SOLVED: To provide a heat storage material container capable of restricting occurrence of strain.
SOLUTION: A heat storage material container 100 of this invention comprises a pouring and discharging part 10 for pouring or discharging heat storage material; and a plurality of connection units 20 in which the first major surface 110 and the second major surface are depressed and the inner surfaces are connected to each other. The pouring and discharging part 10 is arranged at one end 121 and the connection units 20 form rows 24 extending along the second direction crossing at a right angle with the first direction from one end 121 toward the other end 122 when viewed from a vertical direction of the first major surface 110. A plurality of rows 24 are arranged along the first direction, and a distance D1 between the row 24 most spaced apart from the pouring and discharging part 10 and the row 24 adjacent to the row 24 most spaced apart from the pouring and discharging part 10 is smaller than another inter-row distance D2.
COPYRIGHT: (C)2015,JPO&INPIT

Publication: [JP 2015078788 A 20150423](#)

Applicant: JSR CORP
Inventor: TAMURA YUKIKO; OTA JUNYA; KANAE KENTARO

Prio:
Appl.No: JP2013215597
IPC: F25D 3/00 2006.01 (IA)



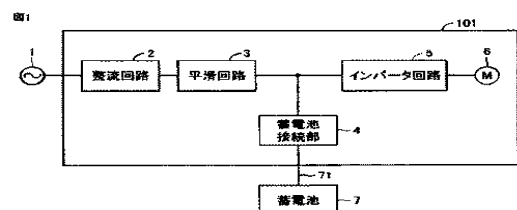
ELECTRICAL EQUIPMENT WITH DETACHABLE STORAGE BATTERY

PROBLEM TO BE SOLVED: To solve the problem in which when a storage battery suppressing an electric power peak is incorporated in a housing of electric equipment such as an air conditioner, a refrigerator or the like, the arrangement space for the storage battery is necessary and the electric equipment thereby may become larger in size.
SOLUTION: Electric equipment (101) has a storage battery made detachable, and includes an AC/DC conversion circuit (2, 4) which converts commercial AC power (1) into first DC power and outputs the first DC power, an inverter circuit (5) which converts the first DC power into AC power and outputs the AC power, a load (6) which is supplied with the AC power, and a storage battery connection part (4) where the storage battery (7) is attached and detached. The storage battery connected to the storage battery connection part outputs second DC power to the inverter circuit through the storage battery connection part, and the AC/DC conversion circuit supplies the first DC power to the inverter circuit or storage battery.
COPYRIGHT: (C)2015,JPO&INPIT

Publication: [JP 2015078809 A 20150423](#)

Applicant: SHARP CORP
Inventor: MURAMOTO SEIJI; SUEKANE TOMOAKI; KAWAMURA HIROSHI

Prio:
Appl.No: JP2013217247
IPC: F25D 11/00 2006.01 (IA)



REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a refrigerator suppressing outflow of cool air and excellent in convenience.**SOLUTION:** A surface panel part of an upper door of a refrigerator is divided to make three doors. It is constituted that the upper two doors (mini doors 3a) open in a cross direction, and the lower one door (a bottle door 3b) opens downward. The bottle door 3b is integrated with a base plate, and constituted so that a bottle inclines ahead similarly when opening the door. The bottle door 3b includes a side plate, and has a prevention effect of cool air outflow. A food product can be taken out in a short time by constituting the doors in a through-view structure.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015081686 A 20150427](#)

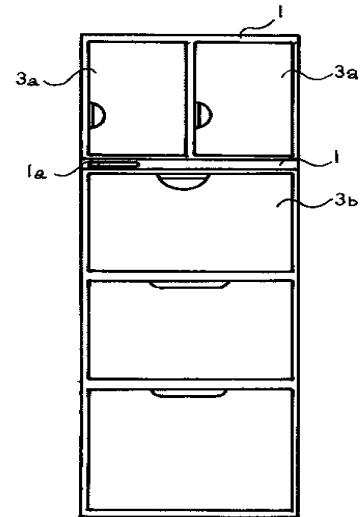
Applicant: YAMASHITA SHUZO

Inventor: YAMASHITA SHUZO

Prio:

Appl.No: JP2013218018

IPC: F25D 23/02 2006.01 (IA)



COOLING STORAGE

PROBLEM TO BE SOLVED: To shorten a time taken to cool a food product.**SOLUTION:** A cooling storage 10 includes: a storage chamber 15 for storing a food product; a cooler 27 for cooling the storage chamber 15; an internal thermistor 25 for detecting a temperature in the storage chamber 15; and a control unit 35 for controlling the operation of the cooler 27 so that a temperature in the storage chamber 15 becomes a set temperature T_A . The control unit 35 operates the cooler 27 so that a temperature in the storage chamber 15 becomes a cooling temperature T_B lower than the set temperature T_A , and then performing cooling control of operating the cooler 27 so that a temperature in the storage chamber 15 becomes the set temperature T_A .**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015081698 A 20150427](#)

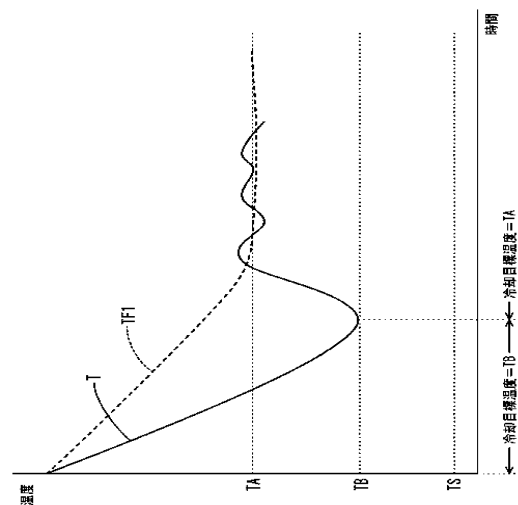
Applicant: HOSHIZAKI ELECTRIC CO LTD

Inventor: KAWACHI MOTOHIRO; TANAKA KATSUYUKI;
SAKANO SHINYA; YAMAZAKI TAKUYA;
SUYAMA AKIRA

Prio:

Appl.No: JP2013218881

IPC: F25D 11/00 2006.01 (IA)



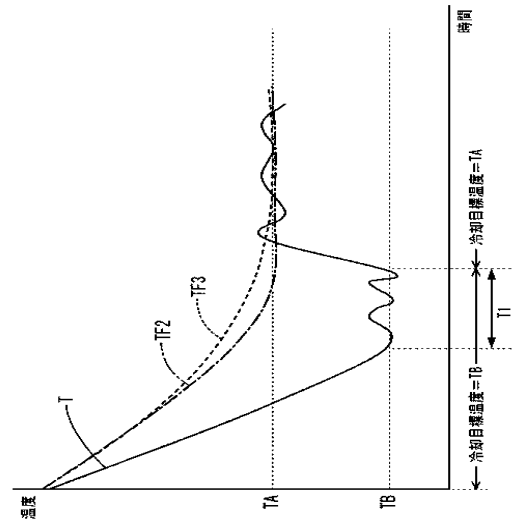
COOLING STORAGE

PROBLEM TO BE SOLVED: To shorten a time taken to cool a food product.**SOLUTION:** A cooling storage includes: a storage chamber for storing a food product; a cooler for cooling the storage chamber; an internal thermistor for detecting a temperature in the storage chamber; and a control unit for controlling the operation of the cooler so as to bring a temperature in the storage chamber to a set temperature T_A . The control unit operates the cooler so that a temperature in the storage chamber becomes a cooling temperature T_B lower than the set temperature T_A , performing temperature maintaining operation of operating the cooling device for a temperature maintaining time T_1 so that a temperature in the storage chamber maintains the cooling temperature T_B , and performing first cooling control of operating the cooler so that a temperature in the storage chamber becomes the set temperature T_A after the temperature maintaining operation.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015081699 A 20150427](#)

Applicant: HOSHIZAKI ELECTRIC CO LTD
Inventor: KAWACHI MOTOHIRO; TANAKA KATSUYUKI;
 SAKANO SHINYA; YAMAZAKI TAKUYA;
 SUYAMA AKIRA

Prio:
Appl.No: JP2013218882
IPC: F25D 29/00 2006.01 (IA)

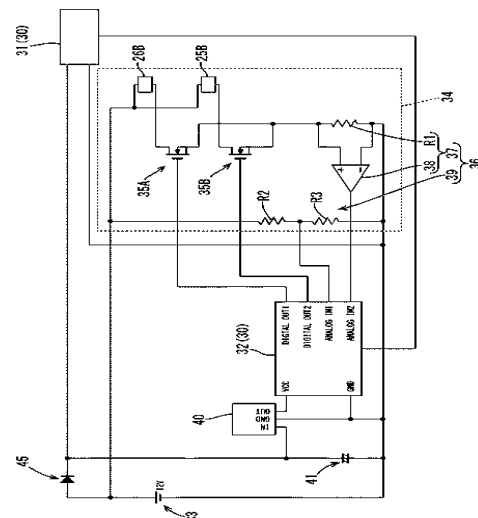


COOLING STORAGE HOUSE

PROBLEM TO BE SOLVED: To operate a control circuit even if a short circuit occurs in a motor circuit having loads for cooling a storage room.**SOLUTION:** A cooling storage house 10 has a storage room 12 in which a cooling object is stored and includes: a power supply source 33; a motor circuit 34 having loads which receive electric power supply from the power supply source 33 and operate for cooling the storage room 12; a control circuit 30 which receives the electric power supply from the power supply source 33; and auxiliary power supply means 41 which supplies electric power to the control circuit 30 when a short circuit occurs in the motor circuit 34.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015081700 A 20150427](#)

Applicant: HOSHIZAKI ELECTRIC CO LTD
Inventor: YANO HIROSHI
Prio:
Appl.No: JP2013218883
IPC: F25D 11/00 2006.01 (IA)

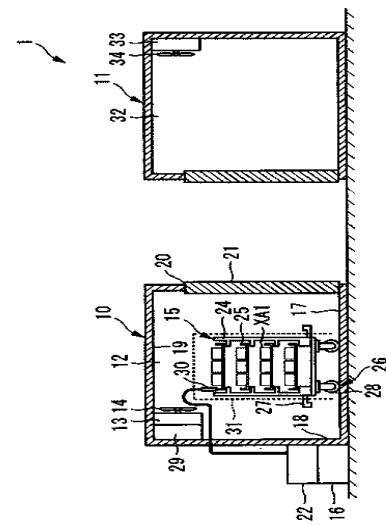


REFRIGERATION EQUIPMENT, PROCESS OF MANUFACTURE OF FROZEN DRINK AND DEHUMIDIFICATION MECHANISM OF REFRIGERATION EQUIPMENT

PROBLEM TO BE SOLVED: To freeze a large amount of drink while keeping its freshness. **SOLUTION:** Refrigeration equipment 1 of this invention comprises: a refrigeration space 12 with ice point or less that can be opened or closed; a conductive transport device 15 arranged in the refrigeration space 12 and having drink XA1 arranged therein; casters 26 insulating the conductive transport device 15 against a floor surface 17, side surfaces 18 and ceiling surface 19 forming the refrigeration space 12; a power source terminal 30 connected to the conductive transport device 15; a power source device 16 for applying voltage to the drink XA1 through the power source terminal 30; and a dehumidification mechanism 29 having a casing 29a where air in the refrigeration space 12 passes and for dehumidifying air by applying voltage in the casing 29a. This refrigeration equipment 1 keeps the drink XA1 under super cooling state by applying voltage to the drink XA1 in the closed refrigeration space 12. COPYRIGHT: (C)2015,JPO&INPIT

Publication: [JP 2015081704 A 20150427](#)

Applicant: KAWASEN CO LTD
Inventor: TOKISU NOBUHIRO
Prio:
Appl.No: JP2013219040
IPC: F25D 13/00 2006.01 (IA)

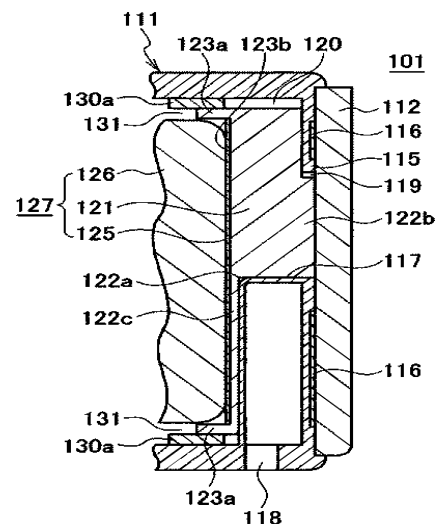


REFRIGERATOR DOOR

PROBLEM TO BE SOLVED: To provide a refrigerator door including a heat insulated structure which reduces a thickness of the door, maintains or improves heat insulation performance, simplifies the assembly process, and prevents damage of a vacuum insulation material. **SOLUTION:** A refrigerator door 101 according to one embodiment includes: a door frame 111; a front surface plate 112 attached to the door frame; a structure 117 which is disposed in the door frame so that its front surface faces a rear surface of the front surface plate; a plate-like vacuum insulation material 126 disposed at the rear surface side of the structure; and a molding heat insulation material 121 disposed in a space enclosed by a front surface of the vacuum insulation material, the rear surface of the front surface plate, and an outer side surface of the structure. COPYRIGHT: (C)2015,JPO&INPIT

Publication: [JP 2015081706 A 20150427](#)

Applicant: TOSHIBA CORP; TOSHIBA LIFESTYLE PRODUCTS & SERVICES CORP
Inventor: ABE KOMI; KAWADA RYO
Prio:
Appl.No: JP2013219090
IPC: F25D 23/06 2006.01 (IA)

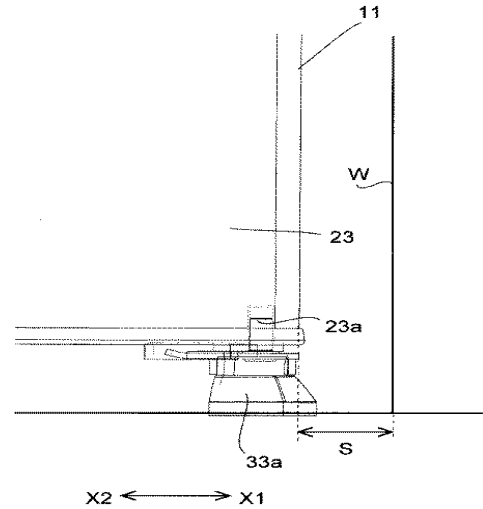


REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a refrigerator that can be stably installed while reducing the installation area. **SOLUTION:** A leg part 33a projects forward (to a side Y1) from the front of a refrigerator body 11 and also projects sideward from a side face of the refrigerator body 11, and the amount of projection from the side face of the refrigerator body 11 can be made smaller than a predetermined lower-limit value of a heat radiation space S by the refrigerator body 11. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015081717 A 20150427](#)

Applicant: SHARP CORP
Inventor: URAKUBO MINORU
Prio:
Appl.No: JP2013219497
IPC: F25D 23/00 2006.01 (IA)

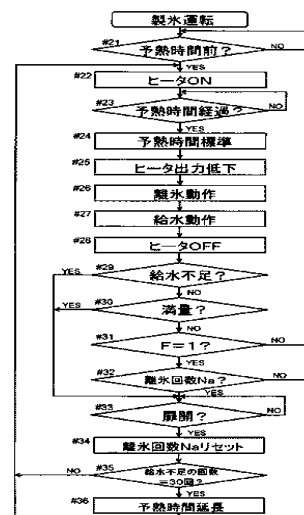


REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a refrigerator capable of improving power saving effect. **SOLUTION:** A refrigerator 1 includes: a cold chamber 2; an ice-making chamber 31 which is at a temperature equal to or lower than the freezing point; a chiller which produces cold air to be sent out to the cold chamber 2 and ice-making chamber 31; a feed water tank 4 which is arranged in the cold chamber 2 and reserves water; an ice tray 9 which is arranged in the ice-making chamber 31; a feed water pipe 14 which guides the water in the feed water tank 4 to the ice tray 9; an ice separation part which separates ice; and an ice storage container 11 which stores the ice, and performs an ice making operation in which a water feeding operation to feed water to the ice tray 9 and an operation to separate the ice made in the ice tray 9 are repeated. The refrigerator has a normal mode in which cooling is performed under predetermined cooling conditions and a power-saving mode in which electric power is saved under cooling conditions different from those of the normal mode, enters the normal mode through a predetermined return operation done in the power-saving mode, stops an ice making operation at the end of the operation to feed the water after the operation to separate the ice is performed as many times as the predetermined number Na of times of the operation to separate the ice when the power-saving mode is entered under the predetermined conditions, and restarts the operation to make the ice when the return operation is done. **COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015081727 A 20150427](#)

Applicant: SHARP CORP
Inventor: YAGI YUTAKA; OTA YUKI; KATO FUMIAKI
Prio:
Appl.No: JP2013219897
IPC: F25D 11/02 2006.01 (IA)



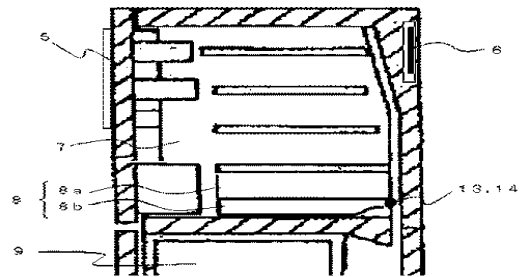
REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a refrigerator capable of suppressing food degradation, compared to a conventional one, by setting an inner temperature for melting ice crystal in a food after releasing supercooling, according to a freezing point of a stored food.**SOLUTION:** A refrigerator includes: a storage chamber 8b for preserving food; temperature control means for controlling a temperature in the storage chamber to a target temperature; food temperature detection means 14 for detecting a temperature of food in the storage chamber; and supercooling control means 6 for setting a target temperature to an ice crystal melting inner temperature, according to a temperature after temperature-rise, when temperature-rise of the food detected with the food temperature detection means 14 in a fixed time becomes larger than a supercooling release determination reference in a supercooling state of the food.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015081742 A 20150427](#)

Applicant: MITSUBISHI ELECTRIC CORP
Inventor: MATSUMOTO MARIKO; UCHIDA TAKESHI;
 SHIBATA MAIKO; OKABE MAKOTO

Prio:
Appl.No: JP2013220758
IPC: F25D 11/02 2006.01 (IA)



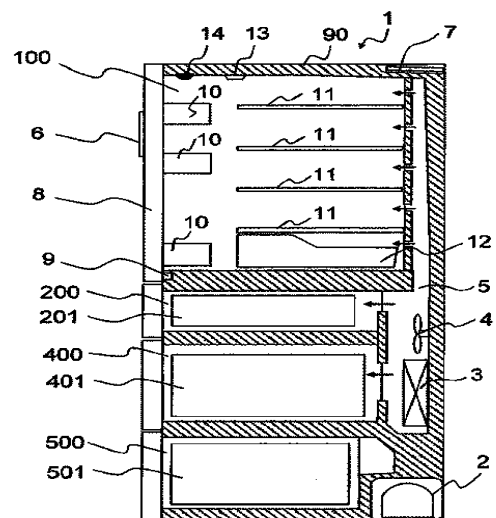
REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a refrigerator capable of controlling inventory management in the refrigerator as well as of suppressing reduction in effective storage space of the refrigerator and increase in cost of manufacture while alleviating the time and labor of users.**SOLUTION:** A refrigerator comprises: a cold room 100; a door 8 for opening/closing the cold room 100; an inside camera 14 for capturing an image of an object passing through an opening of the cold room 100 at predetermined time intervals to form a plurality of images; and a control device 7 having a storage part storing inventory information in the cold room 100, and updating the inventory information based on the plurality of images. The control device 7 detects a traveling direction of an object by the arithmetic processing based on the plurality of images so as to determine whether the object is loaded in the cold room 100 or the object is unloaded from the cold room 100, and updates the inventory information on the basis of the result of the determination of loading or unloading of the object.**COPYRIGHT:** (C)2015,JPO&INPIT

Publication: [JP 2015081762 A 20150427](#)

Applicant: MITSUBISHI ELECTRIC CORP
Inventor: SHIBATA MAIKO; NAGATA SHIGEYUKI; UCHIDA
 TAKESHI; OKABE MAKOTO

Prio:
Appl.No: JP2013221557
IPC: F25D 23/00 2006.01 (IA)

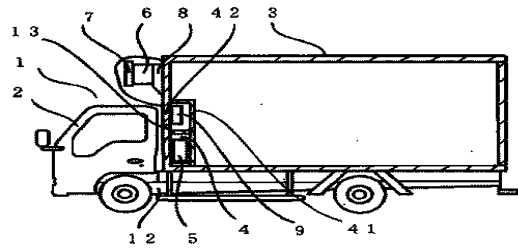


FREEZER REFRIGERATOR

PROBLEM TO BE SOLVED: To provide a freezer refrigerator capable of suppressing a temperature change in a secondary battery effectively using an internal volume of a stockroom. **SOLUTION:** A freezer refrigerator (1) according to the present invention includes a refrigeration cycle (R) in which a refrigerant circulates in an electric freezer (6), and a secondary battery storage chamber (4) storing a secondary battery (5) for driving the electric freezer (6). The secondary battery storage chamber (4) is constituted out of a heat insulating panel (41) and is installed between a cabin (2) and a cargo room (3) while being isolated from the cargo room (3) by the heat insulating panel (41). **COPYRIGHT:** (C)2015, JPO&INPIT

Publication: [JP 2015081763 A 20150427](#)

Applicant: TOPRE CORP
Inventor: OKAWA TAKAHIDE; SHINMACHI TAKUMASA
Prio:
Appl.No: JP2013231540
IPC: F25D 11/00 2006.01 (IA)



GRAIN REFRIGERATOR

The present invention relates to a grain refrigerator comprising: a grain storage portion where a grain is stored by a side wall and a partition of a housing; an evaporator installed inside the grain storage portion; and an evaporator containing portion covering the evaporator to the outside of the evaporator. The present invention includes: a cover installed in the upper portions of the side walls sealing an upper portion of the grain storage portion; and an inner cover installed inside the cover sealing the upper portion of the grain storage portion when the cover is open.

Publication: [KR 20150033383 A 20150401](#)

Applicant: LEE, JONG MOON, KR; AHN, HYU YOUNG, KR; PARK, SUNG CHUL, KR
Inventor: PARK, SUNG CHUL, KR; AHN, HYU YOUNG, KR
Prio:
Appl.No: KR1020130113330
IPC: F25D 23/04 2006.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150033383 A
 (43) Publication date: 01.04.2015

(51) Int. Cl. F25D 23/04 (2006.01)
 F25D 11/00 (2006.01)
 F25D 23/02 (2006.01)

(21) Application number: 1020130113330 (72) Inventor: PARK, SUNG CHUL (KR)
 AHN, HYU YOUNG (KR)

(22) Application date: 24.09.2013

(71) Applicant: LEE, JONG MOON (KR); AHN, HYU YOUNG (KR); PARK, SUNG CHUL (KR)

(54) GRAIN REFRIGERATOR

(57) Abstract:
 The present invention relates to a grain refrigerator comprising: a grain storage portion where a grain is stored by a side wall and a partition of a housing; an evaporator installed inside the grain storage portion; and an evaporator containing portion covering the evaporator to the outside of the evaporator. The present invention includes: a cover installed in the upper portions of the side walls sealing an upper portion of the grain storage portion; and an inner cover installed inside the cover sealing the upper portion of the grain storage portion when the cover is open.

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HEAT LOSS PREVENTION DEVICE OF REFRIGERATOR AND HEATING CABINET

The technology provides an effect of heat insulation easily and saves electric energy and promotes sale. A space in which bar magnets of two lines can be put on is installed by separating a rubber backing and the bar magnet of tow lines is inserted. Double rubber backings of two lines are alternatively attached and detached to a main body of a refrigerator and a heating cabinet and perform a sealing function which seals an internal space of the refrigerator and the heating cabinet from the outside. There is a separation space between the backings.

Publication: [KR 20150035841 A 20150407](#)

Applicant: JEONG, JUNG GEUN, KR

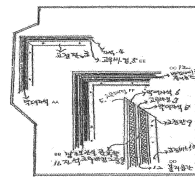
Inventor: JEONG, JUNG GEUN, KR

Prio:

Appl.No: KR1020150021101

IPC: F25D 23/12 2006.01 (IA)

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|---|---|
| (19) KOREAN INTELLECTUAL PROPERTY OFFICE | |
| KOREAN PATENT ABSTRACTS | |
| (11) Publication number: 1020150035841 A | |
| (43) Publication date: 07.04.2015 | |
| (51) Int. Cl. F25D 23/12 (2006.01) F25D 21/04 (2006.01) | |
| (21) Application number: 1020150021101 | (71) Applicant: JEONG, JUNG GEUN (KR) |
| (22) Application date: 11.02.2015 | (72) Inventor: JEONG, JUNG GEUN (KR) |
| (54) HEAT LOSS PREVENTION DEVICE OF REFRIGERATOR AND HEATING CABINET | <ul style="list-style-type: none"> • (10) Flange • (11) Magnetic rubber gasket for 2 weeks • (33) Fit paste • (4) Magnet • (8,8,AA) Bar magnet • (CC) Sealing between the space separating space • (DD) Shielding space • (FF) Rubber padding |
| (57) Abstract: The technology provides an effect of heat insulation easily and saves electric energy and promotes sale. A space in which bar magnets of two lines can be put on is installed by separating a rubber backing and the bar magnet of tow lines is inserted. Double rubber backings of two lines are alternatively attached and detached to a main body of a refrigerator and a heating cabinet and perform a sealing function which seals an internal space of the refrigerator and the heating cabinet from the outside. There is a separation space between the backings. | |
| COPYRIGHT KIPO 2015 | |



REFRIGERATOR

The purpose of the present invention is to provide a refrigerator, when drawing a drawer storage container, which can full draw the storage container while an angle of opening and closing a door is not highly opened, and inhibits heat loss, thereby inhibiting power consumption. When drawing the storage container while the door is opened to a front surface of a cold storage room, a convex unit is not formed in at least a hinge side or a part corresponding to the height dimension of the storage container, or the convex unit is formed in the height which does not interfere the storage container on the rear of the door facing the drawn storage container. A convex unit of the opposite side of the hinge is formed in the dimension which is higher than the convex unit of the height which does not interfere the storage container of the hinge side.

Publication: [KR 20150035863 A 20150407](#)

Applicant: HITACHI APPLIANCES, INC., JP

Inventor: YAMADA MIKIO, JP; EBIHARA TORU, JP

Prio: JP 20120614 2012 2012134356

Appl.No: KR1020150025021

IPC: F25D 25/00 2006.01 (IA)

| | |
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| (19) KOREAN INTELLECTUAL PROPERTY OFFICE | |
| KOREAN PATENT ABSTRACTS | |
| (11) Publication number: 1020150035863 A | |
| (43) Publication date: 07.04.2015 | |
| (51) Int. Cl. F25D 25/00 (2006.01) F25D 23/02 (2006.01) F25D 23/06 (2006.01) | |
| (21) Application number: 1020150025021 | (71) Applicant: HITACHI APPLIANCES, INC. (JP) |
| (22) Application date: 23.02.2015 | (72) Inventor: YAMADA MIKIO (JP) EBIHARA TORU (JP) |
| (30) Priority: 09.06.2012 JP 2012 2012130379 14.06.2012 JP 2012 2012134356 | |
| (54) REFRIGERATOR | |
| (57) Abstract: The purpose of the present invention is to provide a refrigerator, when drawing a drawer storage container, which can full draw the storage container while an angle of opening and closing a door is not highly opened, and inhibits heat loss, thereby inhibiting power consumption. When drawing the storage container while the door is opened to a front surface of a cold storage room, a convex unit is not formed in at least a hinge side or a part corresponding to the height dimension of the storage container, or the convex unit is formed in the height which does not interfere the storage container on the rear of the door facing the drawn storage container. A convex unit of the opposite side of the hinge is formed in the dimension which is higher than the convex unit of the height which does not interfere the storage container of the hinge side. | |
| COPYRIGHT KIPO 2015 | |


COOLING APPARATUS

According to an embodiment of the preset invention, a cooling apparatus is accommodated in a storage room of a refrigerator, and cools beverages to the setting temperature in a short period of time. The cooling apparatus comprises: a base in which a cool air outlet is formed on an upper surface; a tray located on an upper side of the base, having a container support unit in which a beverage container is put, and straightly reciprocating while being connected to the base; a stirring unit straightly reciprocating the tray; a guide unit guiding straight reciprocating movement of the tray; and a cool air supply unit connected to one side of the base and guiding cool air of low temperature to the base, wherein the guide unit comprises: a slider formed on the tray; and a guide rail formed on one side of the base corresponding to the position of the slider, combined with the slider, and guiding the movement of the slider.

Publication: [KR 20150040538 A 20150415](#)

Applicant: LG ELECTRONICS INC., KR
Inventor: LEE, HEE JUN, KR; LEE, YOUN SEOK, KR; HAN, JUN SOO, KR

Prio:
Appl.No: KR1020130119174
IPC: F25D 11/02 2006.01 (IA)

(19)  KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS
 (11) Publication number: 1020150040538 A
 (43) Publication date: 15.04.2015

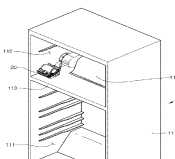
(51) Int. Cl. F25D 11/02 (2006.01)
 F25D 11/08 (2006.01)
 F25D 23/00 (2006.01)
 F25D 23/00 (2006.01)

(21) Application number: 1020130119174 (72) Inventor: LEE, HEE JUN (KR)
 LEE, YOUN SEOK (KR)
 HAN, JUN SOO (KR)

(22) Application date: 07.10.2013
 (71) Applicant: LG ELECTRONICS INC. (KR)

(54) COOLING APPARATUS
 (57) Abstract:
 According to an embodiment of the preset invention, a cooling apparatus is accommodated in a storage room of a refrigerator, and cools beverages to the setting temperature in a short period of time. The cooling apparatus comprises: a base in which a cool air outlet is formed on an upper surface; a tray located on an upper side of the base, having a container support unit in which a beverage container is put, and straightly reciprocating while being connected to the base; a stirring unit straightly reciprocating the tray; a guide unit guiding straight reciprocating movement of the tray; and a cool air supply unit connected to one side of the base and guiding cool air of low temperature to the base, wherein the guide unit comprises: a slider formed on the tray; and a guide rail formed on one side of the base corresponding to the position of the slider, combined with the slider, and guiding the movement of the slider.

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COOLING APPARATUS

According to an embodiment of the preset invention, a cooling apparatus is accommodated in a storage room of a refrigerator, and cools beverages to the setting temperature in a short period of time. The cooling apparatus comprises: a base in which a cool air outlet is formed on an upper surface; a tray located on an upper side of the base, having a container support unit in which a beverage container is put, and swinging for a setting angle while being connected to the base; a driving unit making the tray swing; and a cool air supply unit connected to one side of the base and guiding cool air of low temperature to the base. The base comprises: a cool air chamber in which cool air supplied from the cool air supply unit is collected; a discharge grill covering the upper surface of the cool air chamber, and forming a plurality of cool air outlets; and a tray support unit enlarged from both sides to the upper side, and supporting the tray to rotate. The tray comprises: a cool air guide hole in which cool air passes through; a first container support unit making the beverage container put in the width direction; and a pair of second container support units making two beverage containers put side by side in the front and back direction.

Publication: [KR 20150040539 A 20150415](#)

Applicant: LG ELECTRONICS INC., KR
Inventor: LEE, HEE JUN, KR; LEE, YOUN SEOK, KR; HAN, JUN SOO, KR

Prio:
Appl.No: KR1020130119175
IPC: F25D 11/02 2006.01 (IA)

(19)  KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS
 (11) Publication number: 1020150040539 A
 (43) Publication date: 15.04.2015

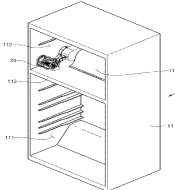
(51) Int. Cl. F25D 11/02 (2006.01)
 F25D 11/08 (2006.01)
 F25D 23/00 (2006.01)
 F25D 23/00 (2006.01)

(21) Application number: 1020130119175 (72) Inventor: LEE, HEE JUN (KR)
 LEE, YOUN SEOK (KR)
 HAN, JUN SOO (KR)

(22) Application date: 07.10.2013
 (71) Applicant: LG ELECTRONICS INC. (KR)

(54) COOLING APPARATUS
 (57) Abstract:
 According to an embodiment of the preset invention, a cooling apparatus is accommodated in a storage room of a refrigerator, and cools beverages to the setting temperature in a short period of time. The cooling apparatus comprises: a base in which a cool air outlet is formed on an upper surface; a tray located on an upper side of the base, having a container support unit in which a beverage container is put, and swinging for a setting angle while being connected to the base; a driving unit making the tray swing, and a cool air supply unit connected to one side of the base and guiding cool air of low temperature to the base. The base comprises: a cool air chamber in which cool air supplied from the cool air supply unit is collected; a discharge grill covering the upper surface of the cool air chamber, and forming a plurality of cool air outlets; and a tray support unit enlarged from both sides to the upper side, and supporting the tray to rotate. The tray comprises: a cool air guide hole in which cool air passes through; a first container support unit making the beverage container put in the width direction; and a pair of second container support units making two beverage containers put side by side in the front and back direction.

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REFRIGERATOR AND CONTROL METHOD THEREOF

The present invention relates to a refrigerator and a control method thereof. The refrigerator according to an embodiment of the present invention includes an AC/DC converter to change the AC power supply into the DC power supply; a compressor control part receiving the DC power supply from the AC/DC converter; a driving circuit to control the operation of the compressor based on the input signal from the compressor control part; a main control part connected to be able to communicate with the compressor control part and controlling the movement of a fan or a heater; and a switch to permit the provision of the above DC power supply from the above AC/DC converter to the compressor control part selectively. The main control part is characterized to control the movement of the switch by permitting the on or off signal to the switch.

Publication: [KR 20150040583 A 20150415](#)

Applicant: LG ELECTRONICS INC., KR
Inventor: SUH, YONG HUN, KR; LEE, JANG SEOK, KR
Prio:
Appl.No: KR1020130119276
IPC: F25D 29/00 2006.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150040583 A
 (43) Publication date: 15.04.2015

(51) Int. Cl. F25D 29/00 (2006.01)
 F25D 23/00 (2006.01)

(21) Application number: 1020130119276 (71) Inventor: SUH, YONG HUN (KR)
 (22) Application date: 07.10.2013 LEE, JANG SEOK (KR)

(71) Applicant: LG ELECTRONICS INC. (KR)

(54) REFRIGERATOR AND CONTROL METHOD THEREOF

(57) Abstract:
 The present invention relates to a refrigerator and a control method thereof. The refrigerator according to an embodiment of the present invention includes an AC/DC converter to change the AC power supply into the DC power supply; a compressor control part receiving the DC power supply from the AC/DC converter; a driving circuit to control the operation of the compressor based on the input signal from the compressor control part; a main control part connected to be able to communicate with the compressor control part and controlling the movement of a fan or a heater; and a switch to permit the provision of the above DC power supply from the above AC/DC converter to the compressor control part selectively. The main control part is characterized to control the movement of the switch by permitting the on or off signal to the switch.

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- (200) Compressor
- (130) Protection circuit
- (120) compressor control unit
- (140) Heater
- (122) Fan
- (122) Fan controller
- (110) AC/DC converter

REFRIGERATOR

The present invention relates to a refrigerator. According to an embodiment of the present invention, the refrigerator comprises: a body having an inner wall which forms a storage unit; a recognition device to recognize an image of a food stored in the storage unit; a memory storing the first image information and the second image information of the food recognized by the recognition device; an outlet formed on the inner wall and discharging cool air; a cool air control unit controlling flow of cool air in the outlet; and a control unit determining the position in which the food is stored in the storage unit by using difference image information of the first image information and the second image information, and controlling the cool air control unit according to the determined position.

Publication: [KR 20150042952 A 20150422](#)

Applicant: LG ELECTRONICS INC., KR
Inventor: LEE, IK KYU, KR
Prio:
Appl.No: KR1020130121791
IPC: F25D 29/00 2006.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150042952 A
 (43) Publication date: 22.04.2015

(51) Int. Cl. F25D 29/00 (2006.01)
 F25D 17/00 (2006.01)
 F25D 23/00 (2006.01)

(21) Application number: 1020130121791 (71) Applicant: LG ELECTRONICS INC. (KR)
 (22) Application date: 14.10.2013 (72) Inventor: LEE, IK KYU (KR)

(54) REFRIGERATOR

(57) Abstract:
 The present invention relates to a refrigerator. According to an embodiment of the present invention, the refrigerator comprises: a body having an inner wall which forms a storage unit; a recognition device to recognize an image of a food stored in the storage unit; a memory storing the first image information and the second image information of the food recognized by the recognition device; an outlet formed on the inner wall and discharging cool air; a cool air control unit controlling flow of cool air in the outlet; and a control unit determining the position in which the food is stored in the storage unit by using difference image information of the first image information and the second image information, and controlling the cool air control unit according to the determined position.

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SUPERCOOLING FREEZER

The present invention is to provide a supercooling freezer which can upgrade a conventional freezer to increase supercooling efficiency. The supercooling freezer comprises: a main body provided with a cooling chamber for storing containers filled with beverages in a supercooled state; a door for opening and closing the front portion of the main body; a plurality of shelves arranged in multiple stages in the cooling chamber for stored goods to be contained; a heat exchanger for cooling the air inside the cooling chamber; a cooling duct wherein the heat exchanger is built; an inlet installed in a portion of the cooling duct; an outlet installed in a portion of the cooling duct which is different from the inlet; a supply duct connected to the outlet and arranged on the rear surface inside the cooling chamber to circulate internal air of the cooling chamber; and a mixing unit mixing cold air passing through the heat exchanger with the internal air of the cooling chamber to be supplied to the supply duct. A plurality of divergence ducts are formed to protrude, being interconnected with the supply duct in front of the supply duct, and the divergence ducts have a plurality of exhaust holes discharging cool air to at least one side thereof.

Publication: [KR 20150043103 A 20150422](#)

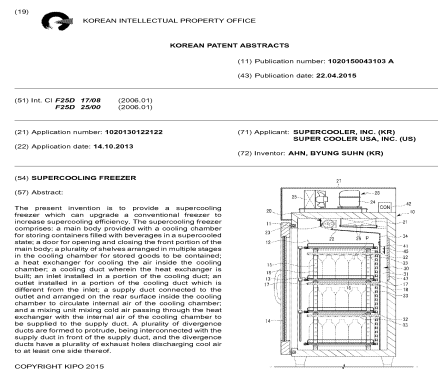
Applicant: SUPERCOOLER, INC., KR; SUPER COOLER USA, INC., US

Inventor: AHN, BYUNG SUHN, KR

Prio:

Appl.No: KR1020130122122

IPC: F25D 17/08 2006.01 (IA)



REFRIGERATOR WITH DISPENSER USING ADVANCED OXIDIZED WATER AND METHOD OF OPERATING SAME

A refrigerator with an advanced oxidized water dispenser comprises a storage room, at least one door for opening and closing the storage room, a dispenser having a water outlet for discharging water, and an advanced oxidized water generation unit for generating advanced oxidized water from water supplied by an external source and supplying generated advanced oxidized water to the water outlet.

Publication: [KR 20150043812 A 20150423](#)

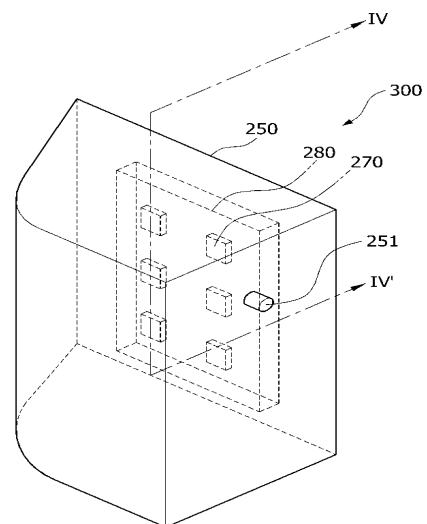
Applicant: SEOUL VIOSYS CO., LTD., KR

Inventor: YOO, JU WON, KR; JO, SANG HEE, KR; LEE, SEONG MIIN, KR

Prio:

Appl.No: KR1020130122687

IPC: F25D 11/00 2006.01 (IA)




REFRIGERATOR

A hinge device for a door unit of a refrigerator transfers the rotation center of the door unit and stabilizes opening and closing movement without impediment such as rattle by being connected with door unit opening and closing movement. The hinge device comprises: an axis member (105) installed on a refrigerator body (102) and having a hinge pin (153); a bearing member (107) having a long hole (107b) which is installed on the door unit (103) and in contact to relatively move or relatively rotate to the hinge pin (153); and a cam (109) installed on the hinge pin (153), being in contact with a cam follower (107d) of the bearing member (107), and forming a cam unit (C). Each contact between the hinge pin (153) and the long hole (107b) and contact between the cam (109) and the cam follower (107d) is always maintained without regard to opening and closing angle condition of the door unit (103), and guides opening and closing movement of the door unit (103) as the contact between the hinge pin (153) and the long hole (107b) and the cam unit (C) cooperate by beings connected with opening and closing movement of the door unit (103).

Publication: [KR 20150044822 A 20150427](#)

Applicant: SAMSUNG ELECTRONICS CO., LTD., KR
Inventor: KIKUCHI MANABU, JP; SUZUKI TOSHIKI, JP
Prio: JP 20140818 2014 2014166133
Appl.No: KR1020140140625
IPC: F25D 23/02 2006.01 (IA)

(10)  KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

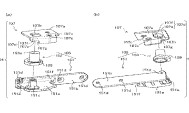
(11) Publication number: 1020150044822 A
 (43) Publication date: 27.04.2015

(51) Int. Cl. F25D 23/02 (2006.01)
 B60D 20/04 (2006.01)

(21) Application number: 1020140140625 (71) Applicant: SAMSUNG ELECTRONICS CO., LTD. (KR)
 (22) Application date: 17.10.2014 (72) Inventor: KIKUCHI MANABU (JP)
 SUZUKI TOSHIKI (JP)
 (30) Priority: 17.10.2013 JP 2013 2013216501
 18.12.2013 JP 2013 201329987
 18.08.2014 JP 2014 2014186133

(54) REFRIGERATOR

(57) Abstract:
 A hinge device for a door unit of a refrigerator transfers the rotation center of the door unit and stabilizes opening and closing movement without impediment such as rattle by being connected with door unit opening and closing movement. The hinge device comprises: an axis member (105) installed on a refrigerator body (102) and having a hinge pin (153); a bearing member (107) having a long hole (107b) which is installed on the door unit (103) and in contact to relatively move or relatively rotate to the hinge pin (153); and a cam (109) installed on the hinge pin (153), being in contact with a cam follower (107d) of the bearing member (107), and forming a cam unit (C). Each contact between the hinge pin (153) and the long hole (107b) and contact between the cam (109) and the cam follower (107d) is always maintained without regard to opening and closing angle condition of the door unit (103), and guides opening and closing movement of the door unit (103) as the contact between the hinge pin (153) and the long hole (107b) and the cam unit (C) cooperate by beings connected with opening and closing movement of the door unit (103).



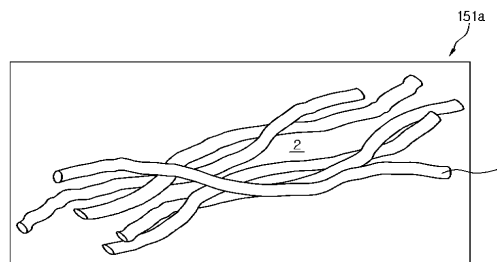
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HEAT INSULATING MATERIAL AND REFRIGERATOR HAVING SAME

The present invention comprises: a heartwood wherein plural sheets are laminated to form; an integument which accommodates the heartwood and depressurizes an interior; and an absorbent to maintain vacuum by absorbing a gas in the integument. Each sheet of the heartwood has a glass wool, a glass fiber of a singular type, and a spiracle formed by the glass wool. As the present invention can manufacture the sheet of 03.mm or less without the use of a micro fiber and the sheet by only a centrifugal side, an insulator which does not do harm to a human body and has an improved insulation performance can be manufactured. Also tensile strength can be improved. Additionally, as the present invention can improve porosity of an internal space over the existing glass fiber owing to the spiracles existing on every side, it can improve a heat transmission function, that is a performance of the insulator.

Publication: [KR 20150045031 A 20150428](#)

Applicant: SAMSUNG ELECTRONICS CO., LTD., KR
Inventor: JUNG, YOUNG SUNG, KR; KIM, HYUNG SUNG, KR; PARK, JIN HYUN, KR; PARK, JONG SUNG, KR; JIEMING ZHOU, CN; LEE, CHANG WOOK, KR
Prio:
Appl.No: KR1020130123979
IPC: F25D 23/06 2006.01 (IA)



DISPLAYING APPARATUS OF STORAGE CHAMBER AND CONTROLLING METHOD FOR THE SAME

The invention relates an apparatus for displaying the storage compartment of the refrigerator and a method for control of the same. The apparatus for displaying the storage compartment of the refrigerator in the invention comprises a camera that takes a picture of inside the storage compartment where food is stored; a controller that divides one picture taken by the said camera into multiple images and manages the images; and a display that shows the said images independently.

Publication: [KR 20150045255 A 20150428](#)

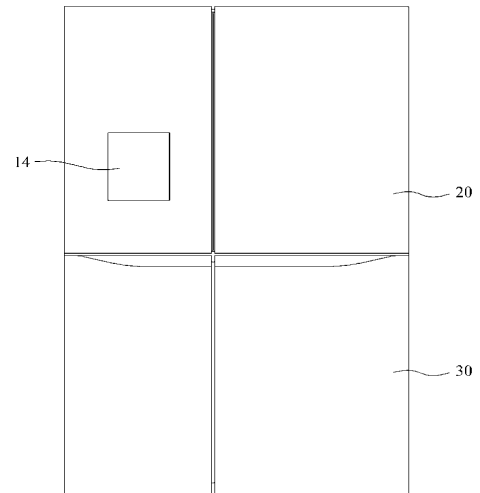
Applicant: LG ELECTRONICS INC., KR

Inventor: KIM, KWAN HYUNG, KR; HONG, SAM NYOL, KR; KIM, MI RAN, KR; KWON, SUNG DU, KR; LEE, JAE YOUNG, KR

Prio:

Appl.No: KR1020130124739

IPC: F25D 23/00 2006.01 (IA)



REFRIGERATOR

The present invention relates to a refrigerator. Provided is a refrigerator comprising: an inner case forming a storage room in which foods are stored, and having an opening in which a user can access the storage room; a rack dividing a space in a horizontal direction inside the inner case; a drawer inserted or drawn to a lower space of the rack, where foods are stored inside; and a camera installed on an upper side wall of the inner case and taking a picture inside the storage room.

Publication: [KR 20150045256 A 20150428](#)

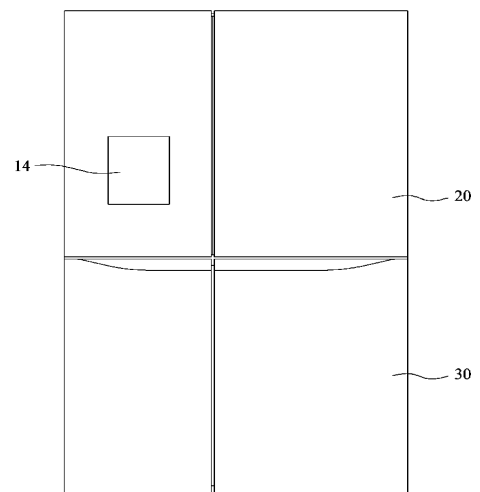
Applicant: LG ELECTRONICS INC., KR

Inventor: CHOI, HAE MIN, KR; KANG, HYUNG JOO, KR; SUNG, MYOUNG HO, KR

Prio:

Appl.No: KR1020130124740

IPC: F25D 23/00 2006.01 (IA)



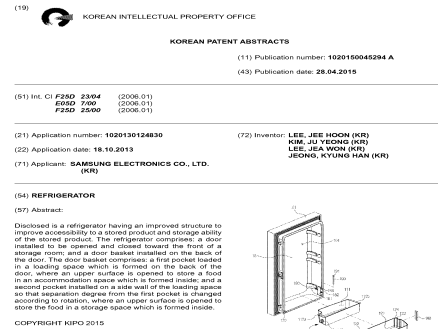
REFRIGERATOR

Disclosed is a refrigerator having an improved structure to improve accessibility to a stored product and storage ability of the stored product. The refrigerator comprises: a door installed to be opened and closed toward the front of a storage room; and a door basket installed on the back of the door. The door basket comprises: a first pocket loaded in a loading space which is formed on the back of the door, where an upper surface is opened to store a food in an accommodation space which is formed inside; and a second pocket installed on a side wall of the loading space so that separation degree from the first pocket is changed according to rotation, where an upper surface is opened to store the food in a storage space which is formed inside.

Publication: [KR 20150045294 A 20150428](#)

Applicant: SAMSUNG ELECTRONICS CO., LTD., KR
Inventor: LEE, JEE HOON, KR; KIM, JU YEONG, KR; LEE, JEA WON, KR; JEONG, KYUNG HAN, KR

Prio:
Appl.No: KR1020130124830
IPC: F25D 23/04 2006.01 (IA)



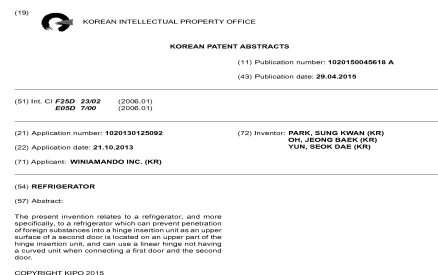
REFRIGERATOR

The present invention relates to a refrigerator, and more specifically, to a refrigerator which can prevent penetration of foreign substances into a hinge insertion unit as an upper surface of a second door is located on an upper part of the hinge insertion unit, and can use a linear hinge not having a curved unit when connecting a first door and the second door.

Publication: [KR 20150045618 A 20150429](#)

Applicant: WINIAMANDO INC., KR
Inventor: PARK, SUNG KWAN, KR; OH, JEONG BAEK, KR; YUN, SEOK DAE, KR

Prio:
Appl.No: KR1020130125092
IPC: F25D 23/02 2006.01 (IA)

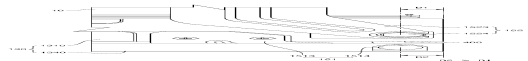


REFRIGERATOR

The present invention relates to a refrigerator having a hinge arrangement where a first hinge shaft of a first door and a second hinge shaft of a second door have the same distance for an edge of a side of a door, or where the second hinge shaft of the second door is further apart.

Publication: [KR 20150045619 A 20150429](#)

Applicant: WINIAMANDO INC., KR



Inventor: PARK, SUNG KWAN, KR; OH, JEONG BAEK, KR;
YUN, SEOK DAE, KR

Prio:

Appl.No: KR1020130125093

IPC: F25D 23/02 2006.01 (IA)

COOLING SYSTEM OF REFRIGERATION TOP CAR USING PHASE-CHANGE MATERIAL AND CONTROL METHOD THEREOF

This invention relates to a cooling system of a refrigerator truck using phase change material. The invention comprises a ground cold storage delivering cooling power of a refrigerant cooled with AC refrigerator to PCM (Phase Change Material) through a heat exchanger of a ground cold storage tank; an on-board cold storage installed on the truck to deliver the cold in the ground cold storage to PCM through the heat exchanger of the on-board cold storage using brine circulation; and a cargo box cooling system that supplies the cold of the on-board cold storage to a heat exchanger in a cargo box through brine circulation to maintain a constant temperature inside the cargo box using forced convection.

Publication: [KR 20150045689 A 20150429](#)

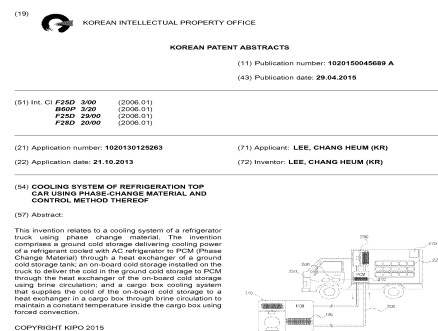
Applicant: LEE, CHANG HEUM, KR

Inventor: LEE, CHANG HEUM, KR

Prio:

Appl.No: KR1020130125263

IPC: F25D 3/00 2006.01 (IA)



REFRIGERATOR

The present invention relates to a refrigerator including a guard which can adjust the height along a guide installed inside of a door. The refrigerator comprises: a body; a storage room arranged inside the body, where the front is opened; the door rotationally connected to the body to open and close the opened front of the storage room; a guard to store stored products installed on the door; a guide installed on both ends inside the door, where a plurality of guard fixing grooves are arranged; and a guard fixing protrusion protruding on both sides of the guard to be inserted into the guard fixing groove, thereby tilting the guard, moving upwards and downwards along the guide, and adjusting the height of the guard. The refrigerator tilts the guard, moves along the inner side surface of the door for a distance which a user wants, and adjusts the height of the guard.

Publication: [KR 20150045749 A 20150429](#)

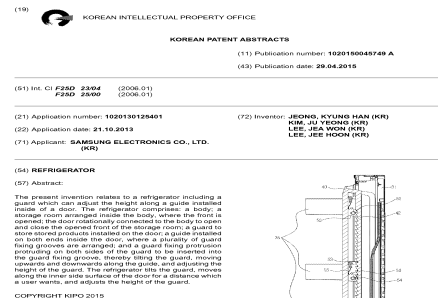
Applicant: SAMSUNG ELECTRONICS CO., LTD., KR

Inventor: JEONG, KYUNG HAN, KR; KIM, JU YEONG, KR;
LEE, JEA WON, KR; LEE, JEE HOON, KR

Prio:

Appl.No: KR1020130125401

IPC: F25D 23/04 2006.01 (IA)



REFRIGERATOR

The present invention relates to a refrigerator including a storage container which is double-withdrawn through a pair of withdrawal units attached on both sides of the storage container. The refrigerator comprises: a body; a storage room arranged inside the body, where the front is opened; a door rotationally connected to the body to open and close the opened front of the storage room; the storage container stored in the storage room, where foods are stored inside; a pair of withdrawal units respectively attached on the right side and the left side of the storage container so that the storage container can be sliding-withdrawn; a first rail arranged inside the storage room so that the withdrawal unit can slide along the inside of the storage room; and a second rail arranged on the withdrawal unit so that the storage container can slide along the inside of the withdrawal unit. The refrigerator comprises the withdrawal unit, thereby increasing the withdrawal distance of the storage container, completely withdrawing the same, and improving accessibility of a rear space of the storage container.

Publication: [KR 20150045750 A 20150429](#)

Applicant: SAMSUNG ELECTRONICS CO., LTD., KR
Inventor: KIM, JU YEONG, KR; LEE, JEA WON, KR; LEE, JEE HOON, KR; JEONG, KYUNG HAN, KR

Prio:
Appl.No: KR1020130125402
IPC: F25D 25/02 2006.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150045750 A
 (43) Publication date: 29.04.2015

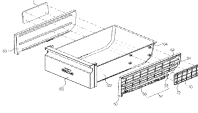
(51) Int. Cl. F25D 25/02 (2006.01)
 F25D 23/00 (2006.01)

(21) Application number: 1020130125402
 (22) Application date: 21.10.2013
 (71) Applicant: SAMSUNG ELECTRONICS CO., LTD. (KR)

(72) Inventor: KIM, JU YEONG (KR)
 LEE, JEA WON (KR)
 LEE, JEE HOON (KR)
 JEONG, KYUNG HAN (KR)

(54) REFRIGERATOR

(57) Abstract:
 The present invention relates to a refrigerator including a storage container which is double-withdrawn through a pair of withdrawal units attached on both sides of the storage container. The refrigerator comprises: a body; a storage room arranged inside the body, where the front is opened; a door rotationally connected to the body to open and close the opened front of the storage room; the storage container stored in the storage room, where foods are stored inside; a pair of withdrawal units respectively attached on the right side and the left side of the storage container so that the storage container can be sliding-withdrawn; a first rail arranged inside the storage room so that the withdrawal unit can slide along the inside of the storage room; and a second rail arranged on the withdrawal unit so that the storage container can slide along the inside of the withdrawal unit. The refrigerator comprises the withdrawal unit, thereby increasing the withdrawal distance of the storage container, completely withdrawing the same, and improving accessibility of a rear space of the storage container.



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AIR AND WATER COOLER

The present invention relates to an air and water cooler which has an improved structure to enable a user to use cool wind and cool water by one apparatus. According to the present invention, the air and water cooler includes: a compressor compressing a coolant; a condenser receiving the coolant compressed in the compressor and condensing the coolant; an expansion unit receiving the coolant passing through the condenser and enabling the coolant to expand to lower a pressure; a first vaporization unit where the coolant passing through the expansion unit flows and is vaporized by heat exchange with the outside; a cool wind generation unit supplying an air to the first vaporization unit and lowering temperature of the air by the heat exchange with the first vaporization unit; a second vaporization unit where the coolant passing through the first vaporization unit flows; and a cool water generation unit supplying the water to the second vaporization unit and lowering the temperature of the water by the heat exchange with the second vaporization unit.

Publication: [KR 20150046595 A 20150430](#)

Applicant: TONGMYONG UNIVERSITY INDUSTRIAL-ACADEMIC COOPERATION FOUNDATION, KR;
 MOON, IN TAEG, KR

Inventor: ROH, GEON SANG, KR; MOON, IN TAEG, KR

Prio:
Appl.No: KR1020130126032
IPC: F25D 11/00 2006.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

(11) Publication number: 1020150046595 A
 (43) Publication date: 30.04.2015

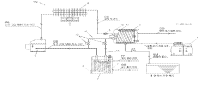
(51) Int. Cl. F25D 11/00 (2006.01)
 F25D 25/00 (2006.01)
 F25D 23/00 (2006.01)

(21) Application number: 1020130126032
 (22) Application date: 22.10.2013
 (71) Applicant: TONGMYONG UNIVERSITY INDUSTRIAL-ACADEMIC COOPERATION FOUNDATION (KR)
 MOON, IN TAEG (KR)

(72) Inventor: ROH, GEON SANG (KR)
 MOON, IN TAEG (KR)

(54) AIR AND WATER COOLER

(57) Abstract:
 The present invention relates to an air and water cooler which has an improved structure to enable a user to use cool wind and cool water by one apparatus. According to the present invention, the air and water cooler includes: a compressor compressing a coolant; a condenser receiving the coolant compressed in the compressor and condensing the coolant; an expansion unit receiving the coolant passing through the condenser and enabling the coolant to expand to lower a pressure; a first vaporization unit where the coolant passing through the expansion unit flows and is vaporized by heat exchange with the outside; a cool wind generation unit supplying an air to the first vaporization unit and lowering temperature of the air by the heat exchange with the first vaporization unit; a second vaporization unit where the coolant passing through the first vaporization unit flows; and a cool water generation unit supplying the water to the second vaporization unit and lowering the temperature of the water by the heat exchange with the second vaporization unit.



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- (AA) High temperature and high pressure coolant gas line
- (BB) Low temperature and low pressure coolant gas line
- (CC) Coolant liquid line
- (DD) Cooling air flow line
- (EE) Condensed air supply line
- (FF) Cool water supply line
- (GG) Cool water recovery line
- (HH) Condensed water recovery
- (II) Condensed water storage tank

HYBRID COLD STORAGE SYSTEM

The present invention relates to a cold storage system which applies to a cold warehouse or a refrigerating and freezing truck which stores or transfers an ice cream, agricultural products, and marine products in a refrigerated or frozen state. The present invention stores the low temperature heat energy by carrying out a phase change (from a liquid to a solid) of a low temperature latent heat phase change material (PCM) stored inside a cargo box by operating an AC refrigerator during the late hours as well as maintaining the inside of the cargo box to the refrigerating or freezing temperature. The present invention cools air inside the cargo box with an air blower installed in an evaporator unit through the low temperature heat energy and heat exchange, and stores the low temperature heat energy by changing the state (from liquid to solid) of the low temperature latent heat PCM through the heat exchange of the low temperature heat energy produced from the coolant gas heat exchanger, by dividedly circulating a coolant gas discharged from a condenser of the AC refrigerator installed outside the cargo box into an evaporator installed inside the cargo box, and a coolant gas heat exchanger inside a cold storage where the low temperature latent heat PCM is filled with a branch pipe.

Publication: [KR 101506187 B1 20150407](#)
Applicant: PARK, HYE WON, KR
Inventor: PARK, HYE WON, KR; PARK, SUNG JUN, KR
Prio:
Appl.No: KR1020130123109
IPC: F25D 19/00 2006.01 (IA)

(19) KOREAN INTELLECTUAL PROPERTY OFFICE

KOREAN PATENT ABSTRACTS

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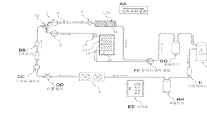
(51) Int. Cl. F25D 19/00 (2006.01)
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 F25D 11/00 (2006.01)
 F25D 3/00 (2006.01)

(21) Application number: 1020130123109
 (22) Application date: 16.10.2013

(71) Proprietor: PARK, HYE WON(KR)
 (72) Inventor: PARK, HYE WON (KR)
 PARK, SUNG JUN (KR)

(54) HYBRID COLD STORAGE SYSTEM

(57) Abstract:
 The present invention relates to a cold storage system which applies to a cold warehouse or a refrigerating and freezing truck which stores or transfers an ice cream, agricultural products, and marine products in a refrigerated or frozen state. The present invention stores the low temperature heat energy by carrying out a phase change (from a liquid to a solid) of a low temperature latent heat phase change material (PCM) stored inside a cargo box by operating an AC refrigerator during the late hours as well as maintaining the inside of the cargo box to the refrigerating or freezing temperature. The present invention cools air inside the cargo box with an air blower installed in an evaporator unit through the low temperature heat energy and heat exchange, and stores the low temperature heat energy by changing the state (from liquid to solid) of the low temperature latent heat PCM through the heat exchange of the low temperature heat energy produced from the coolant gas heat exchanger, by dividedly circulating a coolant gas discharged from a condenser of the AC refrigerator installed outside the cargo box into an evaporator installed inside the cargo box, and a coolant gas heat exchanger inside a cold storage where the low temperature latent heat PCM is filled with a branch pipe.



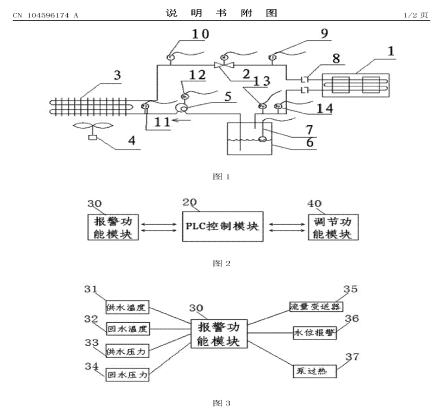
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- (FF) Branched coolant combination
- (EE) Control portion
- (DE) Stop valve
- (CG) Side glass
- (BR) Blower
- (RA) Cooling-insulating direction
- (CG) Liquid separator
- (HR) Oil separator
- (H) Strainer

Cooling circulating device used for mining electrical equipment

The invention discloses a cooling circulating device used for mining electrical equipment, which is used for automatically realizing temperature adjustment of the mining electrical equipment. The cooling circulating device is characterized by comprising a water cooling circulating loop, a detector module and a control module, wherein the water cooling circulating loop comprises a water cooling plate for reducing the working temperature of the electrical equipment, a circulating water pump and a water storage tank; the detector module is located in the water cooling circulating loop and is used for detecting operation parameters in the water cooling circulating loop; the control module is connected with the water cooling circulating loop and the detector module and is used for controlling the water cooling circulating loop according to the operation parameters.

Publication: [CN 104596174 A 20150506](#)
Applicant: SHANGHAI WTL HEAT PIPE TECHNOLOGY CO LTD
Inventor: QI SHUANGXI; TANG BIHONG; YANG JUANJUAN; YAO YONG
Prio:
Appl.No: CN201510036535
IPC: F25D 1/00



Improved tunnel type liquid nitrogen instant freezer

The invention relates to a quick-freezing plant. Specific to the technical problems caused by the use of a conveying plate strip in a liquid nitrogen instant freezer, the invention provides an improved tunnel type liquid nitrogen instant freezer. The improved tunnel type liquid nitrogen instant freezer comprises a tunnel type freezing chamber and surrounding conveying belts in the freezing chamber, wherein support guide rails are arranged on the side walls of the freezing chamber between two layers of conveying belts; the support guide rails extend from the feeding end of the freezing chamber to the discharging end. The tunnel type liquid nitrogen instant freezer is characterized in that diffusion cavities along the freezing chamber are formed in the side walls, which are in contact with the support guide rails, of the freezing chamber; the support guide rails are provided with a plurality of through holes for communicating cavities between upper and lower conveying belts with the diffusion cavities; a pipeline for communicating the diffusion cavities with the space above the upper layer conveying belt is arranged in the chamber wall of the freezing chamber; an exhaust fan is arranged on the pipeline. The improved tunnel type liquid nitrogen instant freezer is reasonable in structure, is easy and convenient to manufacture, and can be widely applied to the improvement of the conventional liquid nitrogen instant freezer.

Publication: [CN 104596175 A 20150506](#)

Applicant: WANG YAN

Inventor: WANG YAN

Prio:

Appl.No: CN201510004867

IPC: F25D 3/11

CN 104596175 A 说明书附图 1/6页

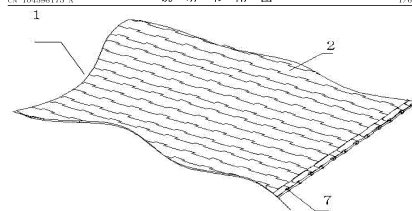


图 1

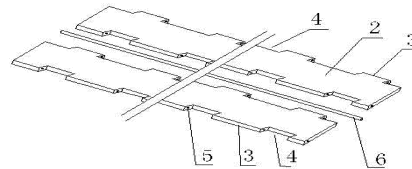


图 2

7

Cooling system for producing seamless steel tube

The invention relates to the technical field of cooling systems, in particular to a cooling system for producing a seamless steel tube. The cooling system comprises a cooling box body and a motor, wherein a refrigerating fan arranged on the top of the inner cavity of the cooling box body is fixedly mounted on the output shaft of the motor; a support bracket for supporting the seamless steel tube is arranged at the middle position of the bottom of the inner cavity of the cooling box body; water cooler mounting plates are fixedly mounted on the left side wall and the right side wall of the inner cavity of the cooling box body respectively; a plurality of water coolers directly facing the seamless steel tube are uniformly arranged on each water cooler mounting plate; mounting plates positioned on the left side and the right side of the support bracket are further arranged at the bottom of the inner cavity of the cooling box body; a liquid nitrogen sprayer directly facing the seamless steel tube is respectively arranged on each mounting plate. The cooling system for producing the seamless steel tube is good in cooling effect, and meets the performance requirement of the seamless steel tube.

Publication: [CN 104596176 A 20150506](#)

Applicant: ZHANGJIAGANG XINGYE STEEL TUBE CO LTD

Inventor: LI SHENGCHENG

Prio:

Appl.No: CN201510036326

CN 104596176 A 说明书附图 1/1页

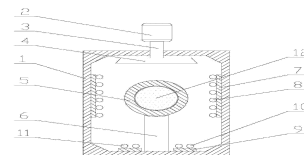


图 1

6

IPC: F25D 9/00

Refrigerator

The invention discloses a refrigerator which comprises a refrigerator body, a door body and an intensive pulse light generation device, wherein the intensive pulse light generation device is used for sterilization, and the refrigerator body and the door body are rotationally connected; an accommodating cavity used for accommodating food is formed in the refrigerator body, and the accommodating cavity is a sealed accommodating space when the door body is closed; the intensive pulse light generation device is arranged on the side wall of the accommodating space; the intensive pulse light generation device is electrically connected with the main control circuit of the refrigerator. According to the refrigerator, the intensive pulse light generation device is arranged so that the refrigerator can sterilize the food in the refrigerator through the intensive pulse light, sterilization of the intensive pulse light is realized by the aid of the synergistic effect of visible light, infrared light and ultraviolet light on microorganisms, an active structure effect is realized on cell wall protein and nucleic acid through instantaneous and insensitive pulse light energy so that denaturation and biological activity loss occur to cells, growth and propagation of the cells are prohibited, the sterilization effect of the intensive pulse light is remarkable, and no harmful gas is produced to a human body.

Publication: **CN 104596177 A 20150506**

Applicant: HEFEI HUALING CO LTD

Inventor: LI CHANG

Prio:

Appl.No: CN201410836851

IPC: F25D 11/00

CN 104596177 A 说明书附图 1/2页

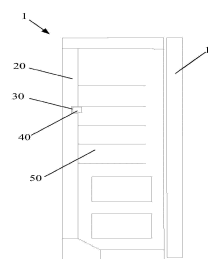


图 1

8

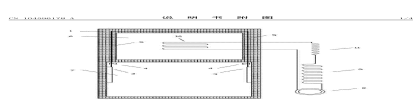
Energy-saving uniform-temperature refrigerator

The invention relates to an energy-saving uniform-temperature refrigerator. The energy-saving uniform-temperature refrigerator comprises a freezing chamber, a refrigerating chamber, a compressor, an evaporator, a condenser and a capillary tube, wherein the chamber wall of the refrigerating chamber and the chamber wall of the freezing chamber are respectively filled with a polyurethane foaming material; the freezing chamber is positioned on the upper part, and the refrigerating chamber is positioned at the lower part of the freezing chamber; an annular heat pipe mechanism is respectively arranged in the top, the back part and two side walls of the freezing chamber except a partition wall between a freezing chamber door and the refrigerating chamber; each annular heat pipe mechanism consists of a heat conduction plate and an annular heat pipe; a condensing section of each annular heat pipe is embedded into each heat conduction plate; the heat conduction plates and the condensing sections of the annular heat pipes are wrapped by the polyurethane foaming materials; evaporating sections of the annular heat pipes are positioned in the refrigerating chamber to substitute an evaporator of a refrigerating chamber of an existing refrigerator and transfer a part of cold in the freezing chamber into the refrigerating chamber for refrigerating of the refrigerating chamber. According to the energy-saving uniform-temperature refrigerator disclosed by the invention, the temperature fluctuation amplitude in the refrigerating chamber of the refrigerator can be effectively reduced by frequent start-stop of a heat exchange process of the annular heat pipes, and meanwhile, the loss of cold conducted from the freezing chamber of the refrigerator to an indoor environment is reduced.

Publication: **CN 104596178 A 20150506**

Applicant: USTC UNIV SCIENCE TECH CN

Inventor: CAO JINGYU; JI JIE; LI PENGCHENG; PEI GANG;
WANG JIAN; WANG QILIANG



8

Prio:
Appl.No: CN201510010593
IPC: F25D 11/02

Refrigerator capable of improving loss of refrigerating capacity of freezing chamber

The invention relates to a refrigerator capable of improving loss of refrigerating capacity of a freezing chamber. The refrigerator comprises a box body, a compressor, a cold closet evaporator, a condenser and a capillary tube; the box body is divided into the refrigerating chamber and a cold closet, the freezing chamber is arranged on the upper part, and the cold closet is arranged on the lower part of the refrigerating chamber; the wall of the cold closet and the wall of the refrigerating chamber are respectively filled with a polyurethane foaming material; the top part, the back part and two side walls of the refrigerating chamber except for a refrigerating chamber door and a separation wall between the refrigerating chamber and the cold closet are respectively provided with a heat pipe mechanism; the heat pipe mechanism consists of a heat transfer plate and more than three heat pipes, a condensation section of each heat pipe is embedded into the heat transfer plate, and the polyurethane foaming materials cover the condensation section of the heat transfer plates and the heat pipes; an evaporation section of each heat pipe is positioned in the cold closet, so partial refrigerating capacity of the refrigerating chamber is transferred into the cold closet, the area of the refrigerating chamber evaporator is increased, the area of the cold closet evaporator is reduced, and the heat pipe evaporation section and the cold closet evaporator are used for collectively providing the refrigerating capacity for the cold closet.

Publication: [CN 104596179 A 20150506](#)

Applicant: USTC UNIV SCIENCE TECH CN
Inventor: CAO JINGYU; HU MINGKE; JI JIE; LI JUNFEI; PEI GANG; WANG YUNYUN

Prio:
Appl.No: CN201510010643
IPC: F25D 11/02

CN 104596179 A 说明书附图 1/3 页

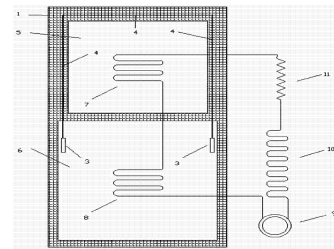


图 1

Grid-type refrigeration house for agricultural product distribution in community

The invention relates to a grid-type refrigeration house for agricultural product distribution in a community. The grid-type refrigeration house for agricultural product distribution in the community comprises a cabinet body, wherein the cabinet body comprises a storage cabinet A and a storage cabinet B; the cabinet body further comprises a humidification device and a refrigeration passage, wherein an inlet air supply pipe A is arranged on one side of the refrigeration passage, an upper end of the inlet air supply pipe A is connected with an air drawing and blowing two-purpose machine A, a refrigeration device is arranged at an upper end of the refrigeration passage, one end of the refrigeration device is connected with the inlet air supply pipe A, an inlet air supply pipe B is arranged on the other side of the refrigeration passage, an upper end of the inlet air supply pipe B is connected with one end of a direction changing air cap through an air drawing and blowing two-purpose machine B, the other end of the direction changing air cap stretches into the cabinet body, the refrigeration device performs circulating refrigeration through the air drawing and blowing two-purpose machines, the inlet air supply pipes and the refrigeration passage, the humidification device performs humidification, outdoor cold air is introduced through the direction changing air cap when outdoor temperature is lower than the internal temperature of the cabinet body, the refrigeration device stops working, a user can scan a visible window through scanning electrons, glass changes color and whether there are objects or not can be observed. The grid-type refrigeration house for agricultural product distribution in the community has the advantages that the exchange and storage of fresh food, independent use of owners and viewing are facilitated, the storage cabinet is constant in temperature and can preserve freshness, and the energy is saved.

Publication: [CN 104596180 A 20150506](#)

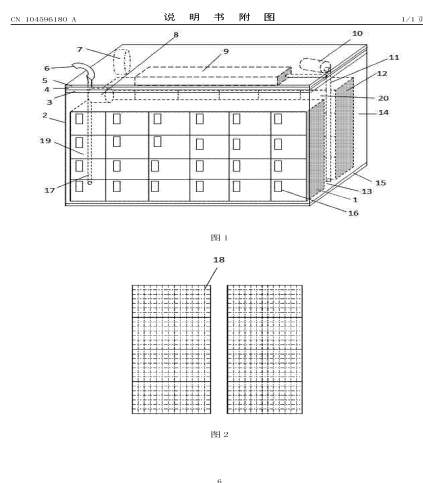
Applicant: BIAN GUOHUI; MU YALI; WANG JIAN

Inventor: BIAN GUOHUI; MU YALI; WANG JIAN

Prio:

Appl.No: CN201510055184

IPC: F25D 13/02



Cold preservation self-picking cabinet

The invention relates to a cold preservation self-picking cabinet, which is used for delivery and self-service picking of cold preserved cargoes in an express logistic process of electronic commerce. The cold preservation self-picking cabinet comprises a control cabinet and one or a plurality of storage cabinets, wherein the control cabinet comprises temperature control modules for independently controlling temperature of each storage compartment; the one or the plurality of storage cabinets comprise a plurality of independently refrigerated storage compartments, wherein each storage compartment comprises a refrigeration module used for independently refrigerating each storage compartment and a temperature sensor used for measuring temperature of each storage compartment.

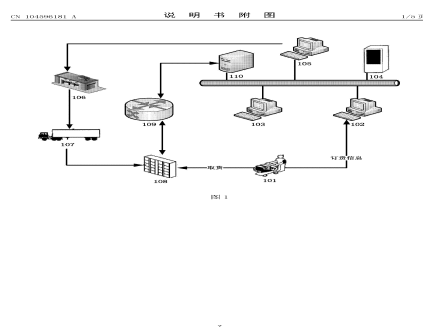
Publication: [CN 104596181 A 20150506](#)

Applicant: BEIJING JINGDONG CENTURY TRADING CO LTD; BEIJING JINGDONG SHANGKE INFORMATION TECHNOLOGY CO LTD

Inventor: LI JUNHONG

Prio:

Appl.No: CN201510069481



IPC: F25D 13/02

Low-energy-consumption circulating water cooling system and method

The invention relates to a low-energy-consumption circulating water cooling system and a method. The low-energy-consumption circulating water cooling system comprises a connecting pipeline, a heat exchanger arranged on the pipeline and a circulating water pump, wherein the pipeline between the water outlet of the heat exchanger and the circulating water pump is provided with at least two cooling towers, a plurality of cooling towers are connected in series, in parallel or in serial-parallel way, the approximation degree of at least one of the cooling towers is less than or equal to 4 DEG C. The low-energy-consumption circulating water cooling system is convenient to install, the outlet temperature of the circulating water is effectively reduced, the circulating flow of the cooling water is reduced, the circulating resistance is reduced, and the power of the circulating pump is reduced. When the ambient temperature is excessively high, higher mobility power is given to the cooling circulating system, the core process requirement can be met in priority, and the stable yield and high yield can be realized.

Publication: **CN 104596182 A 20150506**

Applicant: FUJIAN DEXING ENERGY CONSERVATION TECHNOLOGY CO LTD

Inventor: MEI BAOSHENG

Prio:

Appl.No: CN201510060233

IPC: F25D 17/02

CN 104596182 A 说明书附图 1/3页

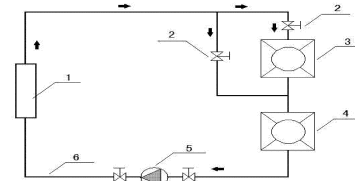


图1

Air flow circulation device for food refrigeration display cabinet

The invention relates to an air flow circulation device for a food refrigeration display cabinet and belongs to the technical field of domestic appliances. The food refrigeration display cabinet comprises a cabinet body, wherein the cabinet body is provided with a cabinet chamber, a cabinet door and a lamp box; a cabinet chamber roof plate is arranged at the top of the cabinet chamber; cabinet body foaming layers are arranged between a rear cabinet body plate and a rear cabinet chamber wall, between the lamp box and the cabinet chamber roof plate and between the left and right lateral plates of the cabinet body and the left and right outer walls of the cabinet chamber; the air flow circulation device comprises a fan and is characterized in that a fan accommodating chamber and an air flue cavity are sunken in the surface of the cabinet chamber roof plate and on one side, facing to the cabinet chamber, of the cabinet chamber roof plate; the fan is fixed in the fan accommodating chamber; a fan air outlet of the fan is corresponding to the air flue cavity. The suspension mode in the prior art is changed into the hidden mode, so that the occupation for the space of the cabinet chamber is avoided, the fan is prevented from being impacted by food and the viewing effect can be enhanced. Air flow discharged from the fan air outlet of the fan is concentrated, so that the fan efficiency is increased and the energy-saving effect is achieved.

Publication: **CN 104596183 A 20150506**

Applicant: SUZHOU LEIBA ELECTRICAL APPLIANCE CO LTD

Inventor: HUANG YONGWEI

Prio:

Appl.No: CN201510040899

CN 104596183 A 说明书附图 1/3页

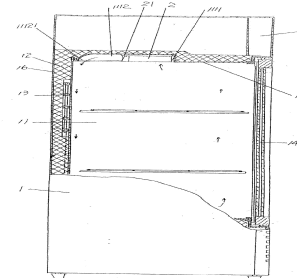


图1

IPC: F25D 17/06

Refrigerator condenser

The invention discloses a refrigerator condenser, which belongs to the technical field of household appliances. The condenser comprises a U-shaped refrigerant tube, the refrigerant tube is arranged on the inner surfaces of supporting screens enclosing the side and bottom of a compressor of a refrigerator, the supporting screens are provided with grooves, the refrigerant tube is fixedly embedded in the grooves, the outer surfaces of the supporting screens are flushed with the outer wall of the wall boards of the refrigerator, and are smoothly connected with the wall boards of the refrigerator, and the supporting screens are made of metal. The invention can solve the problem that refrigerating performance is decreased and electricity consumption is increased because the conventional embedded condenser for refrigerators can hardly dissipate heat, and the problem that special equipment is needed and the production cost is high during the condenser attaching process of refrigerator manufacturing.

Publication: **CN 104596184 A 20150506**

Applicant: LIU XIONG

Inventor: LIU XIONG

Prio:

Appl.No: CN201510031579

IPC: F25D 19/00

CN 104596184 A 说明书附图 1/2页

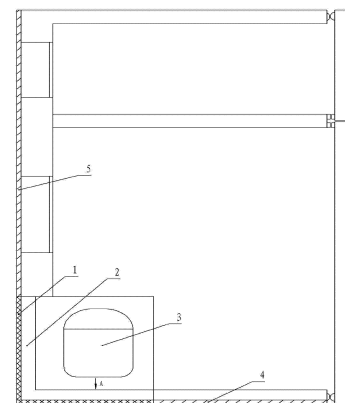


图 1

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Frost-free refrigerator controller

The invention discloses a frost-free refrigerator controller and belongs to the technical field of domestic electric appliances. The controller comprises a microprocessor, a driving control unit and a plurality of temperature sensors, wherein the temperature sensors are respectively connected with a signal input end of the microprocessor; a signal output end of the microprocessor is respectively connected with a corresponding input end of the driving control unit; a signal output end of the driving control unit is respectively connected with a plurality of corresponding cross flow fans; a temperature sensor respectively senses the temperature in each storage chamber, converts temperature signals which are detected in real time into electric signals and transmits the electric signals to the microprocessor; according to the detected temperature signals, the microprocessor judges the cross flow fans of the storage chamber; after being analyzed, the signals are transmitted to the driving control unit; the driving control unit controls the rotation speed of the cross flow fans. According to the frost-free refrigerator controller provided by the invention, the problem that frost is easily caused because the same indoor temperature is not balanced in the current refrigerator can be solved.

Publication: **CN 104596185 A 20150506**

Applicant: LIU XIONG

Inventor: LIU XIONG

Prio:

Appl.No: CN201510031065

IPC: F25D 21/04

CN 104596185 A 说明书附图 1/2页

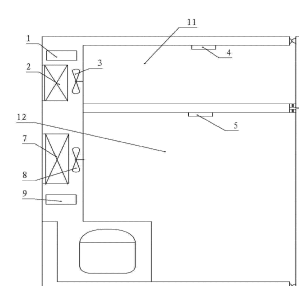


图 1

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Refrigerator interior fixing device, refrigerator using device and application method of device

The invention relates to a household appliance fixing device and particularly relates to a refrigerator interior fixing device, a refrigerator using the device and an application method of the device. The fixing device serving as an air column bag is mounted between the refrigerator interior and the inner surface of the refrigerator; airbags expand after being inflated and fill a gap between the interior and the inner surface of the refrigerator so as to fix the position of the interior. According to the refrigerator interior fixing device, a universal air column bag is used for fixing refrigerator interior fittings; the damage to the refrigerator and the interior caused by collision and impact which are possibly generated in the transportation process; the production and processing processes are simple; finished products are convenient to use and are not influenced by the size of the refrigerator, and the size, the shape and the mounting positions of the interior fittings; the refrigerator interior is simple to mount.

Publication: [CN 104596186 A 20150506](#)

Applicant: HISENSE RONSHEN GUANGDONG REFRIGERATORS CO LTD

Inventor: TANG MINGJUN; YANG MING; ZHENG WEIZHUANG

Prio:

Appl.No: CN201510019921

IPC: F25D 23/00

CN 104596186 A 说明书附图 1/3页

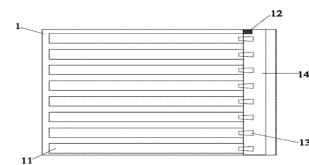


图 1

7

Refrigeration equipment

The invention discloses refrigeration equipment. The refrigeration equipment comprises a box body and a door body, and the box body and the door body are connected through a hinge. The box body comprises a box body main part and a top cover arranged on the box body main part. The hinge comprises a fixed part and a rotating part, the fixed part is arranged between the top cover and the box body main part and is fixedly connected with the box body main part, the rotating part is in rotating connection with the door body, and the fixed part of the hinge is clamped and fixedly connected with the top cover. When the top cover of the refrigeration equipment is stressed, the hinge fixes the top cover in clamping and fixing modes, and the top cover is not likely to be warped upwards.

Publication: [CN 104596187 A 20150506](#)

Applicant: HEFEI HUALING CO LTD

Inventor: CHEN LONG; WANG JIEXIANG; WANG RONG

Prio:

Appl.No: CN201410625439

IPC: F25D 23/02

CN 104596187 A 说明书附图 1/3页



图 1

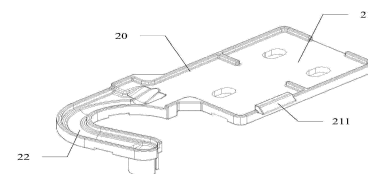


图 2

6

Mist spraying preservation box of refrigerator

The invention discloses a mist spraying preservation box of a refrigerator. The mist spraying preservation box aims at overcoming the defect that a refrigerating chamber cannot provide separated spaces with high humidity when fresh fruits and vegetables are preserved in a refrigerator. The mist spraying preservation box is characterized in that a switch is arranged on the bottom of a box body, a water volume controller is connected to the rear portion of the switch, and a mist spraying nozzle is arranged on the water volume controller. A water storage tank and a water suction pipe in the water storage tank are connected to the rear portion of the water volume controller, an opening is formed in the rear face of the water storage tank, and a corresponding water tank plug is arranged on the opening. The mist spraying preservation box of the refrigerator is simple in structure and convenient to use, an independent space can be isolated in the refrigerating chamber of the refrigerator and humidity of the independent space can be increased so that fresh fruits and vegetables can be preserved, and the other parts of the refrigerating chamber of the refrigerator are not influenced.

Publication: [CN 104596188 A 20150506](#)

Applicant: ZHANG GAOFAN

Inventor: ZHANG GAOFAN

Prio:

Appl.No: CN201310533095

IPC: F25D 23/10

CN 104596188 A 说明书附图 1/2 页

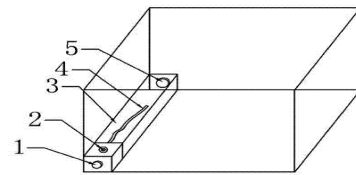


图 1

5

Connecting structure of heat insulation box body and refrigeration house body of refrigeration house AIO (All in One) machine

The invention discloses a connecting structure of a heat insulation box body and a refrigeration house body of a refrigeration house AIO (All in One) machine. The connecting structure comprises PVC (Poly Vinyl Chloride) heat insulation sectional materials, wherein the PVC heat insulation sectional materials are arranged in the periphery of a heat insulation box body and between an inner metal plate and an outer metal plate; a contraction opening of which the thickness is inwards reduced is formed outside a lower opening of the heat insulation box body by the PVC heat insulation sectional materials; the contraction opening is arranged in a connecting opening formed in the top part of a refrigeration house body; sealing pads are arranged between contact surfaces of the PVC heat insulation sectional materials at the periphery of the contraction opening and the top part the refrigeration house body; the outer metal plate of the heat insulation box body and the top part of the refrigeration house body are connected through an angle steel plate. The connecting structure disclosed by the invention is simple in structure, quick in installation and good in sealing performance; the inner metal plate and the outer metal plate of the heat insulation box body are isolated by adopting the PVC heat insulation sectional materials, so that a cold bridge is effectively prevented from being generated between the inner metal plate and the outer metal plate.

Publication: [CN 104596189 A 20150506](#)

Applicant: AASDNIND H V A C NR CO LTD

Inventor: DENG JIANQIN

Prio:

Appl.No: CN201510037887

CN 104596189 A 说明书附图 1/2 页

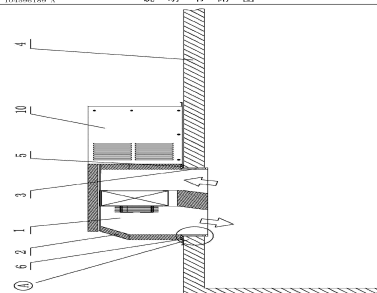


图 1

5

IPC: F25D 23/10

Shelf and refrigerator having shelf

The invention provides a shelf and a refrigerator having the shelf, wherein the shelf comprises a shelf plate and a lifting structure; the lifting structure comprises a rotating rod, a support rod, a slide block and a rack; a thread is formed on a rod body of the rotating rod; at least one end of the rotating rod is provided with a worm rod; a worm wheel and a gear are arranged on the support rod; the worm wheel is engaged to the worm rod; the gear is engaged to the rack; the rack is vertically arranged; and the rod section, provided with the thread, of the rotating rod, is screwed with the slide block. The support rod moves to drive the whole lifting structure to move so as to drive the shelf to move. The refrigerator has the shelf. The gear fits the rack, so that the support rod can move along the direction of the rack. The support rod moves to drive the whole lifting structure to move so as to drive the shelf to move. When the shelf is applied to the refrigerator, the lifting structure is convenient to operate, and is small in refrigerator occupied space.

Publication: **CN 104596190 A 20150506**

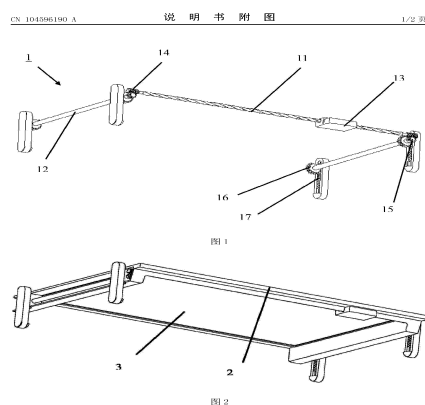
Applicant: HAIER GROUP CORP; QINGDAO HAIGAO DESIGN MANUFACTURE CO LTD

Inventor: LI QIANG; LI XIANG; LIU YUEQI; XIANG SHENGYONG

Prio:

Appl.No: CN201310530884

IPC: F25D 25/02



Shelf and refrigerator provided with shelf

The invention provides a shelf and a refrigerator provided with the shelf. The shelf comprises frames, a first tray, a second tray and a connection mechanism, wherein the frames are oppositely arranged in pairs, the first tray and the second tray are arranged in the length direction of the frames in a sliding mode, the connection mechanism connects the first tray and the second tray so that the first tray and the second tray can slide synchronously, and the first tray and the second tray move in a dislocation mode in the vertical direction. The refrigerator is provided with the shelf, the frames are arranged on the two opposite side walls of the refrigerator. By means of the arrangement of the connection mechanism, the first tray and the second tray can slide along the frames at the same time, the two trays can move in the dislocation mode in the vertical direction after the first tray slides out of the frames, and accordingly users can take articles conveniently. Meanwhile, according to the shelf at the high position, the trays in the vertical direction can move, and accordingly the utilization rate is increased, and the overall utilization rate of space of the refrigerator is increased.

Publication: **CN 104596191 A 20150506**

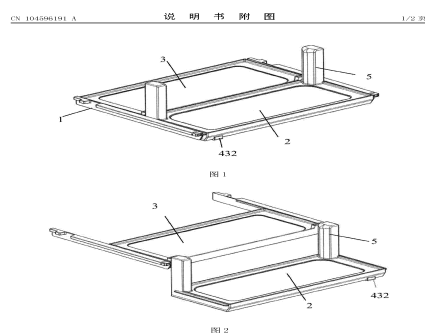
Applicant: HAIER GROUP CORP; HAIER GROUP TECH R & D CT

Inventor: LI BIAO; LIU YONGHUI; WANG BAOXIANG; WANG MINGSHENG

Prio:

Appl.No: CN201310533087

IPC: F25D 25/02



Shelf assembly and refrigerator provided with shelf assembly

The invention provides a shelf assembly and a refrigerator provided with the shelf assembly. The shelf assembly comprises supporting plates and a shelf supported in sliding rails in a sliding mode. The supporting plates are arranged in parallel, the symmetric sliding rails are arranged on the opposite sides, and each supporting plate is provided with at least two horizontal sliding rails and a vertical sliding rail communicated with one end of each horizontal sliding rail. The refrigerator is provided with the shelf assembly. The shelf plate can slide to different horizontal sliding rails through communication of the vertical sliding rail, and different height requirements of the shelf are met; besides, due to guiding of the sliding rails, the height of the shelf can be conveniently changed; when the shelf is used on the refrigerator, internal layout of the refrigerator can be easily adjusted, space is flexibly divided, and the requirement for placing articles of different heights is met.

Publication: [CN 104596192 A 20150506](#)

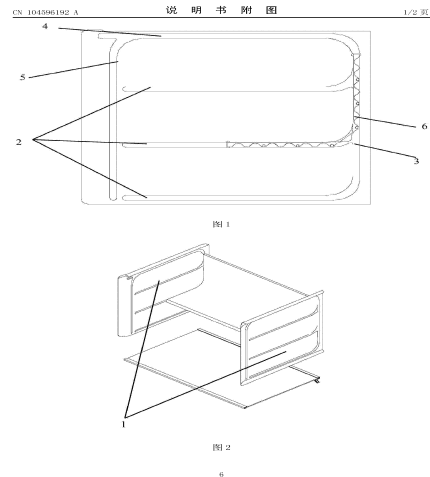
Applicant: HAIER GROUP CORP; QINGDAO HAIGAO DESIGN MANUFACTURE CO LTD

Inventor: LI QIANG; LI XIANG; LIU YUEQI; XIANG SHENGYONG

Prio:

Appl.No: CN201310533834

IPC: F25D 25/02



Temperature sensing and indicating device

The invention provides a temperature sensing and indicating device. The temperature sensing and indicating device is provided with a temperature sensing region and a comparison region displayed by multiple colors. The overall temperature sensing and indicating device is set in the mode that the temperature sensing region senses the temperature condition and indicates the temperature through corresponding colors, then the indicating color is compared with the comparison region, and the current temperature or temperature range is obtained. The temperature sensing and indicating device is lower in cost and meanwhile is more environmentally friendly, and numbers are easy to read.

Publication: [CN 104596193 A 20150506](#)

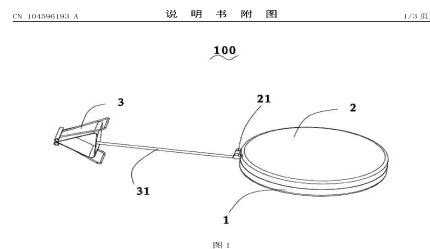
Applicant: QINGDAO HAIER CO LTD

Inventor: REN XIANWEI; WU QIAOYE; ZHANG KUI

Prio:

Appl.No: CN201410702182

IPC: F25D 29/00



Refrigerator

The invention discloses a refrigerator. The refrigerator comprises a body, a sterilization device and a recognition device, wherein the sterilization device is mounted in the refrigerator and is used for sterilizing objects placed in the body, and the recognition device is mounted in the body and is in communication connection with the sterilization device; the recognition device is used for recognizing shelf lives of the objects, and the sterilization device is used for adjusting corresponding sterilization modes according to the shelf lives. According to the refrigerator disclosed by the invention, the recognition device is used for automatically recognizing the shelf lives of the objects placed in the refrigerator, and the sterilization device is used for automatically adjusting the sterilization modes according to the shelf lives, so that intelligent sterilization control is realized, and the objects in the refrigerator is effectively kept fresh.

Publication: [CN 104596194 A 20150506](#)

Applicant: HEFEI HUALING CO LTD

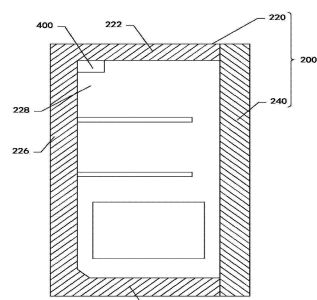
Inventor: LI CHANG

Prio:

Appl.No: CN201410853600

IPC: F25D 29/00

CN 104596194 A 说明书附图 1/2页



7

Drug refrigerating box with touch control screen

The invention discloses a drug refrigerating box with a touch control screen. The drug refrigerating box comprises a box body, a control circuit and a touch screen, wherein a box door is arranged on the box body; the control circuit is arranged in the box body; the touch screen is arranged on the box body; the touch screen is connected with the control circuit; the control circuit comprises a master control unit as well as a detecting unit, a performing unit and a touch screen control unit which are connected with the master control unit respectively, wherein the touch screen is connected with the touch screen control unit. According to the drug refrigerating box with the touch control screen disclosed by the invention, the touch screen which is convenient to operate and reliable to use is adopted to control the drug refrigerating box, operation of a user to the drug refrigerating box can be directly realized by pressing the touch screen through touch, a generated operation control signal is sent to the master control unit after being received and processed by the touch screen control unit which is arranged on the back of the touch screen, and the mater control unit is used for sending an order to the performing unit and associated performing elements after analyzing and judging the operation control signal, so that the control on the drug refrigerating box is realized.

Publication: [CN 104596195 A 20150506](#)

Applicant: SHANGHAI LISHEN SCIENT EQUIP

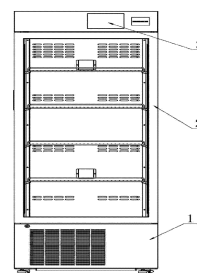
Inventor: WAN CHENGLIN; YAN YUJIA

Prio:

Appl.No: CN201410854902

IPC: F25D 29/00

CN 104596195 A 说明书附图 1/2页



6

Waterproof structure for temperature display box of refrigerator door body

The invention discloses a waterproof structure for a temperature display box of a refrigerator door body. The waterproof structure is characterized in that a ring-shaped water receiving slot is formed in the periphery of a mounting hole of the temperature display box, and a water outlet is formed in the bottom of an upper cover of the door body; the ring-shaped water receiving slot is connected with the water outlet through a guide slot. An inclined surface which is downwards inclined by 3-10degrees relative to the horizontal plane is arranged on the top surface of the upper cover of the door body; the bottom surface of the ring-shaped water receiving slot and the top surface of the upper cover of the door body form an inclined surface which is inclined in the same direction; the guide slot is connected with the lowest point of the ring-shaped water receiving slot; the guide slot is also downwards formed in an inclined manner; the position of the water outlet is lower than the lowest point of the ring-shaped water receiving slot. The cover plate and the upper cover of the door body form an inclined surface with the same inclined angle, a downward turn-up edge is arranged at the periphery of the cover plate, and the downward turn-up edge is positioned above the ring-shaped water receiving slot, so that water can be enabled uaranteed to sufficiently enter the ring-shaped water receiving slot without flowing towards other places. The waterproof structure has the advantages of being simple and reliable in structure, and capable of avoiding circuit damages due to unexpected water inflow of the temperature display box of the refrigerator door body.

Publication: [CN 104596196 A 20150506](#)

Applicant: SHANGHAI SONLU & SHANGLING ENTPR GROUP CO LTD

Inventor: GAO CHENGYANG; QI LIMIN; WANG DING

Prio:

Appl.No: CN201510002481

IPC: F25D 29/00

CN 104596196 A 说明书附图 1/2页

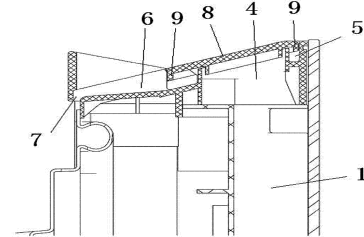


图 1

5

Alarming device of refrigerator and refrigerator with alarming device

The invention provides an alarming device of a refrigerator. The alarming device comprises a power supply interface, an energy storing device, an alarming device body and a control device, wherein the power supply interface is connected with an external power supply; the control device is connected with the power supply interface, the energy storing device and the alarming device body and is used for alarming through the alarming device body when the power supply interface does not provide a power supply. The alarming device of the refrigerator provided by the invention can give an alarming prompt to a user when the refrigerator is suddenly powered off, and rot and deterioration of foods in the refrigerator caused when the user does not know the power off are effectively prevented. The invention also provides the refrigerator.

Publication: [CN 104596197 A 20150506](#)

Applicant: HEFEI MIDEA REFRIGERATOR CO

Inventor: CHEN MINGYI

Prio:

Appl.No: CN201510007807

IPC: F25D 29/00

CN 104596197 A 说明书附图 1/3页

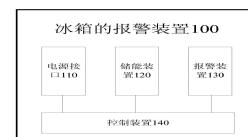


图 1

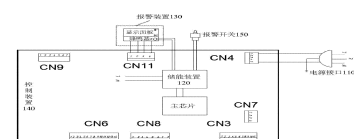


图 2

6

Frost-free refrigerator control method

The invention discloses a frost-free refrigerator control method and belongs to the technical field of domestic electric appliances. A refrigerator controller is adopted by the method. The control method comprises the following steps that a temperature sensor respectively senses the temperature in a refrigerating chamber and a freezing chamber, converts temperature signals which are detected in real time into electric signals and transmits the electric signals to a microprocessor; within preset time, the microprocessor analyzes a cross flow fan of the refrigerating chamber or a cross flow fan of the freezing chamber according to a refrigerating chamber temperature range and a freezing chamber temperature range, processes the signal, and transmits the processed signal to a driving control unit; the driving control unit controls the rotation speed of the cross flow fan. According to the frost-free refrigerator control method provided by the invention, the problem that frost is easily caused because the same indoor temperature is not balanced in the current refrigerator can be solved.

Publication: [CN 104596198 A 20150506](#)

Applicant: LIU XIONG
Inventor: LIU XIONG
Prio:
Appl.No: CN201510031215
IPC: F25D 29/00

CN 104596198 A 说明书附图 1/2页

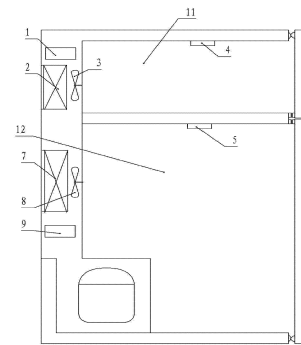


图 1

5

Refrigeration control method, refrigeration control device and air cooling refrigerator

The invention provides a refrigeration control method, a refrigeration control device and an air cooling refrigerator. The refrigeration control method comprises the following steps of under an energy-saving mode, judging whether a cold storage chamber is at a refrigeration state or not when detecting that the temperature of any of other chambers except the cold storage chamber in a plurality of chambers of the air cooling refrigerator reaches a pre-set refrigeration temperature; determining whether a compressor of the air cooling refrigerator is controlled to refrigerate the corresponding chamber or not according to a judging result. With the adoption of the technical scheme, the compressor is only controlled by the cold storage chamber to be started, and the other chambers can only request to refrigerate after the compressor is started, so that all the chambers can be refrigerated at the same time; a large and small period phenomenon of the startup of the compressor is avoided, the energy consumption of the air cooling refrigerator is reduced, and the utilization rate of cooling capacity is improved.

Publication: [CN 104596199 A 20150506](#)

Applicant: HEFEI MIDEA REFRIGERATOR CO
Inventor: CHEN CHUXIONG; DU SHIYUN; JIN SONGZHE;
 MA RUI; ZHANG SHAN

Prio:
Appl.No: CN201510066891
IPC: F25D 29/00

CN 104596199 A 说明书附图 1/2页

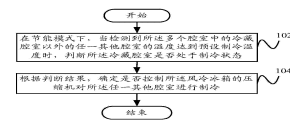


图 1

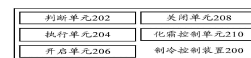


图 2

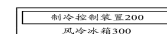


图 3

12

Fluoride-free automatic temperature control refrigeration tank

The invention discloses a fluoride-free automatic temperature control refrigeration tank which comprises a fluoride-free refrigeration tank, wherein a stirrer and an evaporator are mounted in the tank; a liquid return pipe is arranged between the evaporator and a compressor; a liquid inlet pipe is arranged between a condenser and the evaporator; an electric control cabinet is arranged on one side of the compressor and the condenser; a temperature controller is mounted in the electric control cabinet; a stirring control circuit, a manual refrigerating circuit and an automatic refrigerating circuit are mounted between the temperature controller and the condenser in a parallel form through the compressor; a stirring switch, a manual refrigerating switch and an automatic refrigerating switch which are respectively communicated with the three circuits are arranged on the electric control cabinet at one end of a power line of the temperature controller; a voltmeter is arranged on the electric control cabinet on the circuit at the other end of the temperature controller and the power supply. The fluoride-free automatic temperature control refrigeration tank has the advantages of high degree of automation and labor-saving effect.

Publication: [CN 104596200 A 20150506](#)

Applicant: XINXIANG DONGHAI LIGHT INDUSTRY MACHINERY CO LTD

Inventor: LENG QUANMIN

Prio:

Appl.No: CN201510048749

IPC: F25D 31/00

CN 104596200 A 说明书附图 1/2页

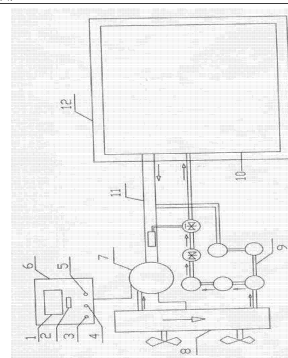


图 1

4

Refrigerator

A refrigerator comprises a gasket (22) adhering a case (11) and a door (15a). In addition, the refrigerator comprises a first closed door mode improving the insulation of a storage chamber by strongly pressing and compressing the gasket (22) to the case (11) by way of an actuator (23a), and a second closed door mode for relaxing the compressed state of the gasket (22) and suppressing the force to open the door. Energy efficiency is improved during the first closed door mode, in which the gasket (22) is compressed and the insulation of the storage chamber is improved, and the door can be opened with a small force during the second closed door mode, in which the compressed state of the gasket (22) is relaxed and the force to open the door is suppressed.

Publication: [CN 104603558 A 20150506](#)

Applicant: PANASONIC IP MAN CO LTD

Inventor: KAKITA KENICHI; KAMISAKO TOYOSHI; MORI KIYOSHI; NAKAGAWA MASASHI

Prio: JP 20120829 2012188371, JP 20130826 2013005012

Appl.No: CN201380045565

IPC: F25D 23/02

CN 104603558 A 说明书附图 1/10页

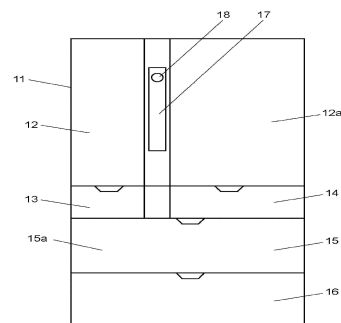


图 1

14

Refrigerator

A refrigerator is provided with heat-insulating doors (10, 11, 12) which can open and close the storage chambers, respectively, of the refrigerator body. The front surface of each of the heat-insulating doors (10, 11, 12) is constructed from a transparent front plate (25) equipped with a colored layer and having an exposed outer periphery. The grip (10a) of the heat-insulating door (10) is formed in a recessed manner in either the upper end surface or the lower end surface of the edge frame of the heat-insulating door (10). Although the refrigerator is provided with the multiple heat-insulating doors (10, 11, 12), the transparent front plate (25) is directly exposed at the outer periphery of each of the heat-insulating doors (10, 11, 12), there is no protrusion at the outer periphery, and the grip (10a) does not protrude from the front face of the transparent front plate (25).

Publication: [CN 104603559 A 20150506](#)

Applicant: PANASONIC CORP
Inventor: KURITA JUNICHI
Prio: JP 20120910 2012198240, JP 20121005
2012222828, JP 20130904 2013005220
Appl.No: CN201380046316
IPC: F25D 23/02

CN 104603559 A 说明书附图 1/21页

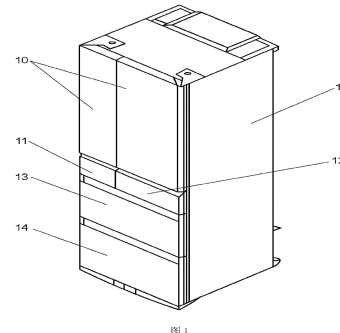


图 1

18

Housing for a household refrigerating device comprising at least one backing part and household refrigerating device comprising said type of housing

The invention relates to a housing (2) for a household refrigerating device (1), comprising an outer wall (6) and a liner (3) which is arranged at a distance from the outer wall (6), and an intermediate space (11) embodied between the outer wall (6) and the liner (3), in which at least one vacuum insulation element (12) is arranged. Said liner (3) comprises, on an outer side (3a), at least one recess (8) into which a finished backing part (9, 10) is mounted, prior to insertion in the recess (8). In the mounted state, an outer surface (9a, 10a) of the backing part (9, 10) is flush with the surface of the outer side (3a) adjacent to the recess (8). The invention also relates to a household refrigerating device (1) for accommodating food, comprising a housing (2).

Publication: [CN 104603560 A 20150506](#)

Applicant: BSH BOSCH SIEMENS HAUSGERAETE
Inventor: BIBERACHER SVEN; BRESCH MATHIAS;
DIEBOLD JUERGEN; KUEMMEL ROLAND;
NAHLES GUIDO; NEHER HERMANN; NUIDING
WOLFGANG; SCHILK ANDREAS; STELZER
JOERG; WOLF BERTRAM
Prio: DE 20120829 102012215316, EP 20130813
2013066927
Appl.No: CN201380045402
IPC: F25D 23/06

CN 104603560 A 说明书附图 1/21页

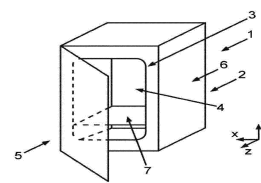


图 1

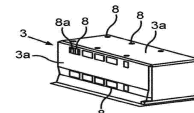


图 2

7

Refrigerator and manufacturing method thereof

Disclosed herein is a refrigerator having a door rotatably hinged to a body of the refrigerator that prevents droop of the door at the side opposite to the axis of rotation of the door. A dyke formed on the rear surface of the door is provided with a roller, which is supported by the bottom surface of the storage compartment. A roller cap having a roller accommodation space to accommodate a part of the roller is connected to the dyke, and the roller is rotatably mounted to the roller cap.

Publication: [CN 104603561 A 20150506](#)

Applicant: SAMSUNG ELECTRONICS CO LTD
Inventor: KIM KI-YOUN; LEE JEE-HOON; YANG SEUNG-YONG

Prio: KR 20120903 20120097373, KR 20130830 2013007826

Appl.No: CN201380045969

IPC: F25D 23/06

CN 104603561 A 说明书附图 1/10页

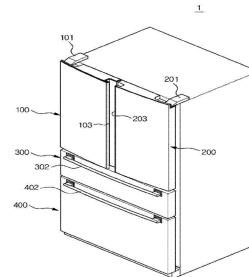


图1

10

Multiple access aircraft galley chiller

A chiller (10) for an aircraft galley (13) is disclosed having a housing defining an interior space, the housing including dividers to segregate the interior space into separate chambers (12,14,16). The chambers (12,14,16) are enclosed by a pair of doors (24,26) on a front of the housing that allow a user to gain access to the chambers, a first door (24) providing access to at least one chamber and a second door (26) providing access to at least one different chamber. A side door (22) is also provided that permits access to at least one chamber, wherein at least one chamber is not accessible through said side door.

Publication: [CN 104603562 A 20150506](#)

Applicant: BE AEROSPACE INC
Inventor: FORBES JAMES R; GODECKER WILLIAM J; KEMERY MICHAEL

Prio: US 20120413 201261623967, US 20130409 201313859590, US 20130410 2013036017

Appl.No: CN201380019242

IPC: F25D 23/12

CN 104603562 A 说明书附图 1/4页

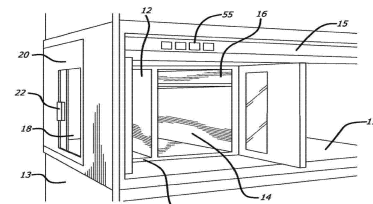


图1

5

Refrigeration appliance with a monitoring device

The invention relates to a refrigeration appliance (100) with a water-carrying conduit system which has a connector (114) for connecting to a domestic water supply system. According to the invention, a monitoring device (400) is designed to detect water leaks in the water-carrying conduit system of the refrigeration appliance (400). The invention also relates to such a monitoring device (400) for installation into a refrigeration appliance (100) and a monitoring device housing (400) for such a monitoring device (402).

Publication: [CN 104603563 A 20150506](#)

Applicant: BSH BOSCH SIEMENS HAUSGERAETE
Inventor: FAEHNLE ELMAR; GAPLIKOW EUGEN; KRAPP MICHAEL

Prio: DE 20120612 102012209817, EP 20130607 2013061764

Appl.No: CN201380031367

IPC: F25D 23/12

CN 104603563 A 说明书附图 1/10 页

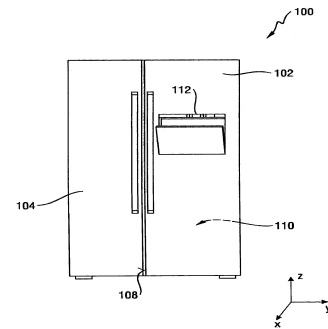


图 1

10

Air cooling device

The invention discloses an air cooling device. The air cooling device comprises a support, a cooling box and a draught fan, wherein the cooling box is arranged on the support, the draught fan is arranged on the cooling box and connected with a regulation room for regulating air volume, the regulation room is communicated with one end of an air pipe, the other end of the air pipe extends into the cooling box, the end, located inside the cooling box, of the air pipe is connected with an air chamber, an air outlet is formed in the air chamber, and the air outlet is formed inside the cooling box. The air cooling device can cool working components inside shell structures and can avoid the situation that the working components can not work normally due to overhigh working temperature.

Publication: [CN 104613692 A 20150513](#)

Applicant: SUZHOU CHENGPIN PREC MACHINERY CO LTD
Inventor: YANG JIANHUA

Prio:

Appl.No: CN201410775586

IPC: F25D 1/00

CN 104613692 A 说明书附图 1/3 页

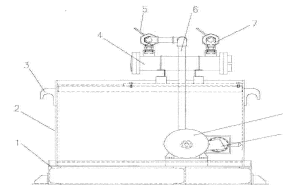


图 1

5

Quick-cooling sticker

The invention discloses a quick-cooling sticker which comprises a heat preservation layer (1), a sealing layer (2), water (3), a non-setting adhesive (4), a protecting layer (5), nitrate (6) and the like. The quick-cooling sticker works based on the principle that the nitrate is dissolved in the water and can absorb heat from the outer world. When the quick-cooling sticker is in use, heat of an object to be cooled can be taken away only by mixing the water and the nitrate in the sealing layer, uncovering the protecting layer and sticking the non-setting adhesive to the surface of the object to be cooled.

Publication: [CN 104613693 A 20150513](#)

Applicant: BEIJING INST PETROCHEM TECH
Inventor: FENG GUANGMIAO; LI XIAOMIN; LIU ZHENLIANG; WU LIZHI; WU XIAOHUA; ZHANG JING

Prio:
Appl.No: CN201510013709
IPC: F25D 5/02

CN 104613693 A 说明书附图 1/1页

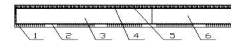


图1

Refrigerator

The invention discloses a refrigerator which comprises a refrigerator body, metal supports and foam supporting pieces. A bottom side body plate is arranged at the bottom of the refrigerator body. The metal supports are arranged on the bottom side body plate and used for supporting the refrigerator body. The foam supporting pieces are arranged on the bottom side body plate and used for supporting the refrigerator body. Each foam supporting piece comprises a supporting piece body and a foam layer. A foam space is defined between each supporting piece body and the bottom side body plate. The foam layers are arranged in the foam spaces. According to the refrigerator, the metal supports and the foam supporting pieces are combined to support the refrigerator body, and the strength of the bottom of the refrigerator body is improved to a certain extent.

Publication: [CN 104613694 A 20150513](#)

Applicant: HEFEI HUALING CO LTD
Inventor: LIU CHAO; WANG LIQIANG
Prio:
Appl.No: CN201510033043
IPC: F25D 11/00

CN 104613694 A 说明书附图 1/1页

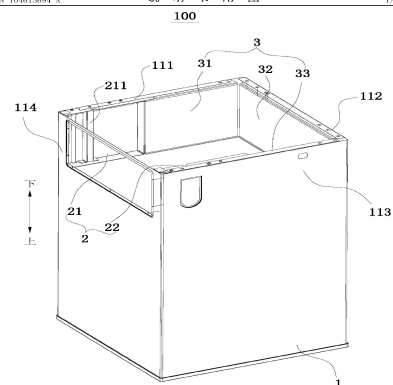


图1

Refrigerator

The invention discloses a refrigerator which comprises a refrigerator body, an air way cover plate, a partitioning plate, a plurality of groups of circulating air openings and air door switches. A partitioning room is arranged in the refrigerator body. The air way cover plate is arranged in the partitioning room. The partitioning plate is arranged in the partitioning room and is used for dividing the partitioning room into a plurality of partitioning layers. The groups of circulating air openings are formed in the air way cover plate. Each circulating air opening group comprises an air feeding opening and an air returning opening. Each partitioning layer corresponds to at least one group of circulating air openings. The air door switches are arranged at the air returning openings and are used for closing or at least partially opening the corresponding air returning openings. The partitioning room in the refrigerator body is divided into a plurality of partitioning layers by arranging the partitioning plate, the circulating air openings are correspondingly formed in the partitioning layers, air circulating in the refrigerator body is completed through the air feeding openings and the air returning openings, air returning openings in the partitioning layers are opened or closed through the air door switches, and the refrigerator has a local quick-freezing function.

Publication: [CN 104613695 A 20150513](#)

Applicant: HEFEI MIDEA REFRIGERATOR CO
Inventor: REN WEI; ZHANG JINGJING; ZHU YULONG
Prio:
Appl.No: CN201510066885
IPC: F25D 11/00

CN 104613695 A 说明书附图 1/1 页

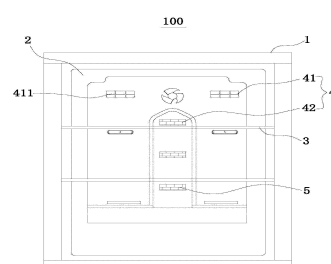


图 1

7

Refrigerator and control method

Provided is a refrigerator (10) and a method for controlling the same. The refrigerator (10) includes a compressor (111, 115) compressing a refrigerant, a condenser (120) condensing the refrigerant compressed in the compressor (111, 115), a refrigerant tube (100) guiding the refrigerant condensed in the condenser (120), a flow adjustment part (130) coupled to the refrigerant tube (100) to divide the refrigerant into a plurality of refrigerant passages (101, 103, 105), a plurality of expansion devices (141, 143, 145) respectively disposed in the plurality of refrigerant passages (101, 103, 105) to decompress the refrigerant condensed in the condenser (120), a plurality of evaporators (150, 160) evaporating the refrigerant decompressed in the plurality of expansion devices (141, 143, 145), and a supercooling heat exchanger (500) disposed at an outlet-side of the condenser (120) to supercool the refrigerant. The refrigerant supercooled in the supercooling heat exchanger (500) is introduced into the flow adjustment part (130).

Publication: [CN 104613696 A 20150513](#)

Applicant: LG ELECTRONICS INC
Inventor: HYOUNGKEUN LIM; JANGSEOK LEE; MINKYU OH; MYUNGJIN CHUNG; SANGBONG LEE
Prio: KR 20131104 20130133028, KR 20140619 20140075097
Appl.No: CN201410612966
IPC: F25D 11/02

CN 104613696 A 说明书附图 1/1 页

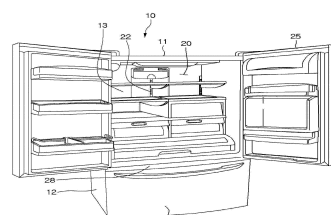


图 1

22

Refrigerator

A refrigerator is provided that may include at least one compressor that compresses a refrigerant, a condenser that condenses the refrigerant compressed in the at least one compressor, a refrigerant tube that guides the refrigerant condensed in the condenser, a plurality of evaporation passages, in which expansion devices may be respectively disposed, the plurality of evaporation passages branching from the refrigerant tube, a flow adjuster disposed in the refrigerant tube to supply the refrigerant into at least one evaporation passage of the plurality of evaporation passages, a plurality of evaporators, respectively, connected to the plurality of evaporation passages to evaporate the refrigerant decompressed in the plurality of expansion devices, and a liquid refrigerant supply device disposed at an outlet-side of the condenser to separate a liquid refrigerant of the refrigerant heat-exchanged in the condenser, thereby supplying the liquid refrigerant into the flow adjuster.

Publication: [CN 104613697 A 20150513](#)

Applicant: LG ELECTRONICS INC
Inventor: HYOUNGKEUN LIM; JANGSEOK LEE; MINKYU OH; MYUNGJIN CHUNG; NAMSOO CHO; SANGBONG LEE
Prio: KR 20131104 20130133028, KR 20131107 20130134918
Appl.No: CN201410612967
IPC: F25D 11/02

CN 104613697 A 说明书附图 1/13页

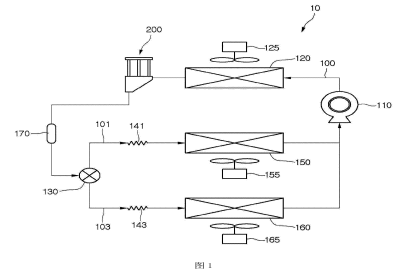


图 1

20

Refrigerator and method of controlling the same

Provided are a refrigerator and a method of controlling the refrigerator. The method includes driving a refrigerating cycle that includes a first evaporator and a second evaporator by activating a compressor and simultaneously supplying cold air to a refrigerator compartment and a freezer compartment by supplying refrigerant to the first and second evaporators according to the driving of the refrigerating cycle. The method may further include preventing the refrigerant from being introduced into the second evaporator by more than a first prescribed amount by increasing, for a first prescribed amount of time, a flow rate of the refrigerant supplied to the first evaporator; and preventing the refrigerant from being introduced into the first evaporator by more than a second prescribed amount by increasing, for a second prescribed amount of time, a flow rate of the refrigerant supplied to the second evaporator.

Publication: [CN 104613698 A 20150513](#)

Applicant: LG ELECTRONICS INC
Inventor: HYOUNGKEUN LIM; JANGSEOK LEE; MYUNGJIN CHUNG; SANGBONG LEE
Prio: KR 20131104 20130133028, KR 20131104 20130133029
Appl.No: CN201410613699
IPC: F25D 11/02

CN 104613698 A 说明书附图 1/19页

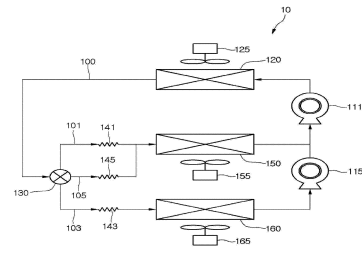


图 1

23

Refrigerator

A refrigerator includes a compressor compressing a refrigerant, a condenser condensing the refrigerant compressed in the compressor, a refrigerant tube guiding a flow of the refrigerant condensed in the condenser, an expansion device decompressing the refrigerant condensed in the condenser, and an evaporator evaporating the refrigerant decompressed in the expansion device. The evaporator includes an evaporation tube through which the refrigerant decompressed in the expansion device flows, a coupling tube through a refrigerant heat-exchanged with the refrigerant of the evaporator flows, and a heat-exchange fin coupled to the evaporation tube and the coupling tube.

Publication: [CN 104613699 A 20150513](#)

Applicant: LG ELECTRONICS INC
Inventor: HYOUNGKEUN LIM; JANGSEOK LEE; MINKYU OH; MYUNGJIN CHUNG; NAMSOO CHO; SANGBONG LEE

Prio: KR 20131104 20130133028, KR 20140127 20140009603

Appl.No: CN201410613701

IPC: F25D 11/02

CN 104613699 A 说明书附图 1/9页

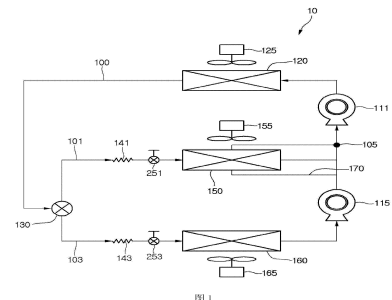


图 1

20

Refrigerator

The invention discloses a refrigerator. The refrigerator comprises a refrigerator body, wherein a refrigerating compartment and a refrigerator door are arranged in the upper part of the refrigerator body, separating plates are horizontally arranged in the refrigerating compartment, a freezer compartment is arranged in the lower part of the refrigerator body, a circulating cooling system is arranged in a sandwich layer in the rear part of the refrigerator body, and storage baskets are arranged on the inner wall of the refrigerator door. The refrigerator is characterized in that a slideway storage device is also arranged on the inner wall of the refrigerator door corresponding to the refrigerating compartment, and storage box structures are arranged at the lower positions of the two sides of the separating plates in the refrigerating compartment. According to the refrigerator disclosed by the invention, food like eggs and canned food can be easily stored, in particular, the food can be easily taken out in placing chronological order, so that the phenomenon that the food is expired due to the taking-out habits is avoided, and the space utilization of the refrigerating compartment can also be improved.

Publication: [CN 104613700 A 20150513](#)

Applicant: UNIV CHONGQING TECH & BUSINESS
Inventor: GAN SHIYUAN; ZHANG WEI

Prio:

Appl.No: CN201510090854

IPC: F25D 11/02

CN 104613700 A 说明书附图 1/3页

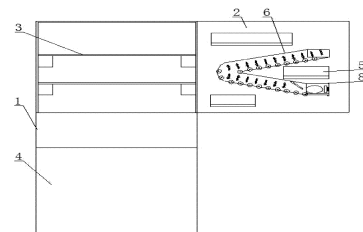


图 1

10

Integrated type automatic storing and discharging device for frozen blood plasma

The invention discloses an integrated type automatic storing and discharging device for frozen blood plasma. The integrated type automatic storing and discharging device for the frozen blood plasma comprises a heat preservation warehouse body, a refrigeration system, an inclined gravitational shelf, a feeding device, a discharging device and an automatic control system, wherein the refrigeration system is arranged in the heat preservation warehouse body, the feeding device is arranged on the side, provided with an upward inclined angle, of the inclined gravitational shelf, the discharging device is arranged on the side, provided with a downward inclined angle, of the inclined gravitational shelf, and the automatic control system controls the feeding device and the discharging device. The integrated type automatic storing and discharging device for the frozen blood plasma meets the demand for low-temperature storage of the frozen blood plasma and can automatically store and discharge singular blood plasma bags; the influence of frequent opening the warehouse door of a conventional refrigeration house by personnel on temperature and frosting is reduced, the intelligent and automatic goods feeding and discharging functions are achieved, automatic sorting and allocating can be conducted according to order requirements, in this way, the labor intensity of operation personnel is greatly relieved, and the personnel are prevented from conducting operation in a low-temperature environment.

Publication: [CN 104613701 A 20150513](#)

Applicant: SHENZHEN KELEN COMMERCIAL EQUIPMENT CO LTD

Inventor: LIU HENGSHUI; LIU SIZHEN; ZHOU CHANGLIANG

Prio:

Appl.No: CN201410791327

IPC: F25D 13/00

CN 104613701 A 说明书附图 1/6页

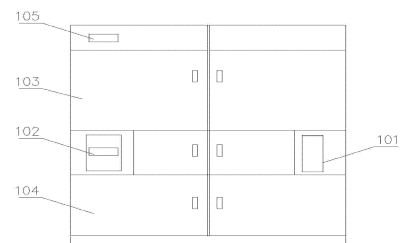


图 1

9

Automatic three-dimensional refrigeration house and automatic storage and house temperature balancing and purifying method

The invention discloses an automatic three-dimensional refrigeration house which comprises a house body, an information recognition device, a refrigeration system, a stacking machine system and a computer control device. The computer control device is used for controlling the operation of the stacking machine system and the refrigeration system and achieving automatic storing and taking of goods and fast cooling of the interior of the house. The invention further discloses an automatic storage and house temperature balancing and purifying method of the automatic three-dimensional refrigeration house. The method includes the steps that goods space coded orders in one-to-one correspondence with the operation time of a stacking machine of standard cargo spaces in the house body are set in advance, the information recognition device is used for recognizing the identity information of goods, the goods space coded orders for goods storing and taking are sent out according to a set storage rule, the stacking machine is controlled to operate, and automatic storing and taking of the goods are achieved; dynamic balancing adjusting of the temperature in the house and air purifying in the house are achieved according to the set temperature control program. Labor is saved, more importantly, the goods storage quality is good, and the extremely high commercial value is achieved.

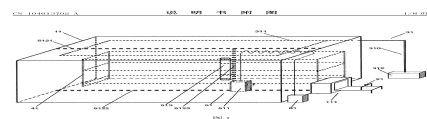
Publication: [CN 104613702 A 20150513](#)

Applicant: LI XUNTIAN

Inventor: LI XUNTIAN

Prio:

Appl.No: CN201510056820



10

IPC: F25D 13/00

Cooling water circulation system and control method

The invention discloses a cooling water circulation system and a control method, and relates to the technical field of industrial cooling circulation. The problem that energy consumption in cooling water circulation systems in small and medium-sized projects is too high can be solved. The cooling water circulation system comprises a water storage container, a water supply pipeline, a water pump system and a water returning pipeline. The water storage container is a water permeable brick container, arranged in underground water and used for storing cooling water and enabling the cooling water to be in heat exchange with the underground water. The water supply pipeline is used for connecting the water storage container and the water pump system. The water pump system is used for conveying the cooling water in the water storage container to equipment needing to be cooled through the water supply pipeline. The water returning pipeline is connected with the water storage container and is used for conveying the cooling water which passes through the equipment needing to be cooled back into the water storage container. The cooling water circulation system and the control method are used in the cooling water circulation systems in the small and medium-sized projects.

Publication: **CN 104613703 A 20150513**

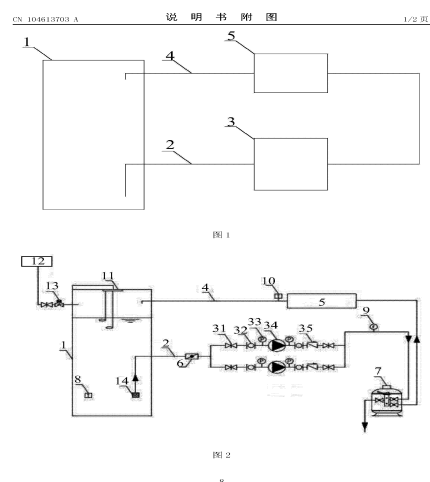
Applicant: CCDI INTERNAT BEIJING ARCHITECTURAL DESIGN CONSULTANTS CO LTD; CCDI INTERNAT SHENZHEN DESIGN CONSULTANTS CO LTD

Inventor: LYU HUI; YIN JIAWEI; YIN JINGJING

Prio:

Appl.No: CN201510009291

IPC: F25D 17/02



Reversed return circulating water system and arrangement method thereof

The invention discloses a reversed return circulating water system and an arrangement method thereof. The aim is that an off-leveling phenomenon appeared in a cooling triangle section can be solved, the equality of water distribution is achieved. According to the technical scheme, the circulating water system is arranged in a natural ventilation cooling tower, the circulating water system comprises a water supply main pipe, a water delivery female pipe and a water return female pipe, the water supply main pipe is connected with the water delivery female pipe, the water supply main pipe is provided with a plurality of groups of arranged circulating water pumps, the water delivery female pipe and the water return female pipe are connected to a plurality of cooling triangle sections in the cooling tower, the water delivery female pipe and the water return female pipe adopt the reversed return arrangement method, the lengths of the water delivery female pipe and the water return female pipe in each cooling triangle section are equal, the water supply main pipe, the water delivery female pipe, the water return female pipe and the cooling triangle section form a cyclic loop circuit, and an inlet of the water supply main pipe and an outlet of the water return female pipe are both connected to a steam engine room.

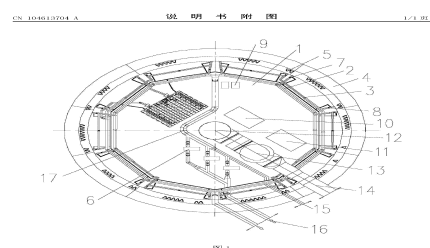
Publication: **CN 104613704 A 20150513**

Applicant: NORTHWEST ELECTRIC POWER DESIGN INST CO LTD OF CHINA POWER ENGINEERING CONSULTING GROUP

Inventor: GAO ZHIGUANG; NIU CHANG; WANG ZHE; WANG ZHI; YANG JINPING; YANG YINGZHE; ZHANG AIJUN; ZUO XIAOHONG

Prio:

Appl.No: CN201510057808



IPC: F25D 17/02

Air duct face plate used for refrigerator and refrigerator with air duct face plate

The invention discloses an air duct face plate used for a refrigerator and the refrigerator with the air duct face plate. The air duct face plate comprises a first plate body, a second plate body and a water guide structure. The first plate body is provided with first air outlets, and first air returning openings are formed in the left side wall and the right side wall of the lower portion of the first plate body respectively. The second plate body is connected with the first plate body, the transverse width of the second plate body is larger than that of the first plate body, second air returning openings are formed in the upper surface of the portion, exceeding the first plate body, of the second plate body, wind shielding ribs are arranged on the upper surface of the second plate body, and the upper surfaces of the wind shielding ribs are not flush. The water guide structure is arranged on the lower surface of the first plate body and surrounds the second air returning openings, air inlets are formed in the front side or the back side of the water guide structure, the bottom surface of the water guide structure forms a slope, and a water outlet is formed in the lower end of the water guide structure. The air duct face plate is good in appearance, the air returning openings of the air duct face plate are not prone to blocking, and freezing blocking of an air returning pipe can be avoided.

Publication: **CN 104613705 A 20150513**

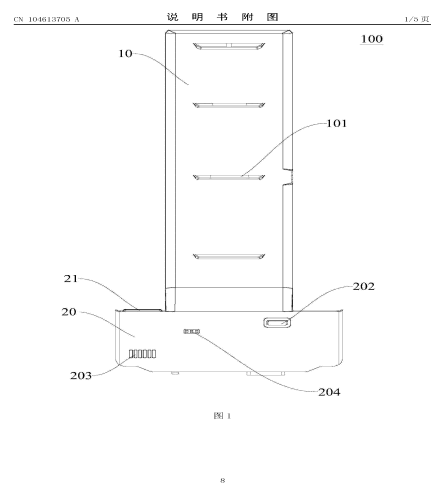
Applicant: HEFEI HUALING CO LTD

Inventor: ZHANG XIANGPING

Prio:

Appl.No: CN201510033029

IPC: F25D 17/04



Natural cold source combined cooling display cabinet system

The invention discloses a natural cold source combined cooling display cabinet system which comprises at least one cooling circulation system. Each cooling circulation system comprises a cooling capacity storing and adjusting system, at least two coolers which are connected in parallel, an outdoor fresh air pipeline, an air supply pipeline, an air return pipeline, an exhaust pipeline, an air supply cavity connecting pipe and an exhaust cavity connecting pipe, wherein the outdoor fresh air pipeline is connected with an air inlet of the cooling capacity storing and adjusting system, an air outlet of the cooling capacity storing and adjusting system is connected with the air supply pipeline, the input end of the air supply cavity connecting pipe is connected with the air supply pipeline, the output end of the air supply cavity connecting pipe is connected with cooler air supply cavities, the input end of the exhaust cavity connecting pipe is connected cooler air return cavities, and the output end of the exhaust cavity connecting pipe is connected with the air return pipeline, and the output end of the air return pipeline is connected with an air return opening of the adjusting system. The natural cold source combined cooling display cabinet system has the advantages that the problem that energy consumption of a display cabinet is high can be well solved, cooling is conducted in different areas, different seasons, time and periods, and the energy saving benefit is achieved.

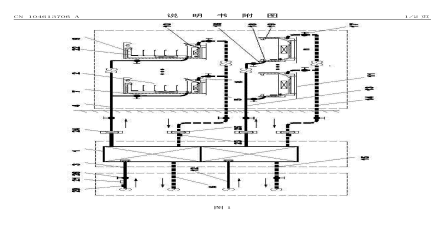
Publication: **CN 104613706 A 20150513**

Applicant: UNIV ZHENGZHOU LIGHT IND

Inventor: GONG YI; LYU YANLI; WU XUEHONG; XU WANGLONG; YUAN PEI; ZHANG WENHUI

Prio:

Appl.No: CN201510058901



IPC: F25D 17/06

Refrigerator

The refrigerator includes a compressor compressing a refrigerant, a condenser condensing the refrigerant compressed in the compressor, and a dryer in which the refrigerant condensed in the condenser is introduced. The dryer removes impurities or moisture of the refrigerant. A flow adjustment part is provided on an outlet-side of the dryer to switch or control a flow direction of the refrigerant. A plurality of evaporators is connected to the flow adjustment part, and the plurality of evaporators includes a first evaporator and a second evaporator. A first refrigerant passage extends from the flow adjustment part to the first evaporator, and a second refrigerant passage extends from the flow adjustment part to the second evaporator. A guide tube extends from the dryer to one side of at least one evaporator of the plurality of evaporators to guide the refrigerant to be cooled.

Publication: **CN 104613707 A 20150513**

Applicant: LG ELECTRONICS INC
Inventor: HYOUNGKEUN LIM; JANGSEOK LEE; MINKYU OH; MYUNGJIN CHUNG; SANGBONG LEE; YOUNGGYU AN; YOUNGSU JEONG
Prio: KR 20131104 20130133028, KR 20140321 20140033317
Appl.No: CN201410614138
IPC: F25D 19/00

CN 104613707 A 说明书附图 1/9页

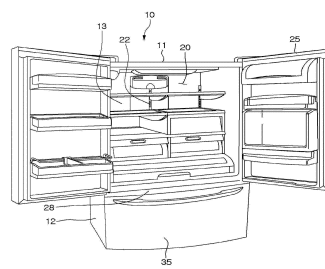


图 1

22

Overall refrigerating unit of refrigerator

An overall refrigerating unit of a refrigerator is formed by connecting a compressor, a condenser and an evaporator through pipelines, and further comprises a rack, a heat preservation cover, an evaporation fan and a control circuit. The compressor, the condenser, the evaporator and the heat preservation cover are all connected to the rack, a heat preservation cavity is formed between the heat preservation cover and the rack, the evaporator is located in the heat preservation cavity, the rack is provided with an air outlet communicated with the heat preservation cavity, the evaporation fan is arranged at the air outlet of the rack, the heat preservation cover is provided with a through hole allowing the pipelines to pass, a defrosting electric heating pipe is arranged at the position, at the bottom of the evaporator, in the heat preservation cavity, a condensation fan is arranged beside the condenser, a temperature sensor is arranged on the condenser, and the defrosting electric heating pipe, the condensation fan and the temperature sensor are all electrically connected with the control circuit. The overall refrigerating unit is reasonable in structure, small in size, high in refrigerating efficiency, convenient to mount and maintain, low in after-sale maintenance cost and fast in cooling of the condenser, has the functions of automatically defrosting the evaporator and automatically evaporating condensation water, and can be suitable for refrigerating of the refrigerator better.

Publication: **CN 104613708 A 20150513**

Applicant: JIN JUNSAN
Inventor: JIN CHANGYU; JIN JUNSAN
Prio:
Appl.No: CN201510002166
IPC: F25D 19/00

CN 104613708 A 说明书附图 1/4页

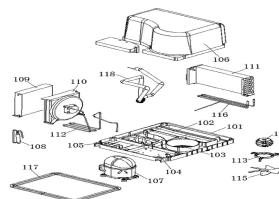


图 1

7

Refrigeration cycle of refrigerator

Provided is a refrigeration cycle of a refrigerator. The refrigeration cycle of the refrigerator including a first refrigeration cycle in which a first refrigerant flows along a first refrigerant tube and a second refrigeration cycle in which a second refrigerant flows along a second refrigerant tube includes first and second compressors compressing each of the first and second refrigerants into a high-temperature highpressure gaseous refrigerant, a combined condenser condensing each of the first and second refrigerants passing through the first and second compressors into a high-temperature highpressure liquid refrigerant, first and second expansion valves phase-changing each of the first and second refrigerants passing through the combined condenser into a low-temperature low-pressure two-phase refrigerant,; and first and second evaporators changing the refrigerant passing through each of the first and second expansion valves into a low-temperature low-pressure gaseous refrigerant. The combined condenser includes first and second condensation tubes constituting portions of the first and second refrigerant tubes that connect the first and second compressors to the first and second expansion valves, respectively and heat-exchange fins contacting surfaces of the first and second condensation tubes. The first and second condensation tubes share at least a portion of the heat-exchange fins, the first and second condensation tubes are bent several times to form a meander line in a state where the first and second refrigerant tubes each of which has a predetermined width and length are vertically disposed in parallel to each other, and the heat-exchange fins are inserted between the condensation tubes that are adjacent thereto.

Publication: [CN 104613709 A 20150513](#)

Applicant: LG ELECTRONICS INC
Inventor: JUYEONG HEO; KYEONGYUN KIM; KYUNGSEOK KIM
Prio: KR 20131105 20130133254
Appl.No: CN201410613065
IPC: F25D 19/04

CN 104613709 A 说明书附图 1/4页

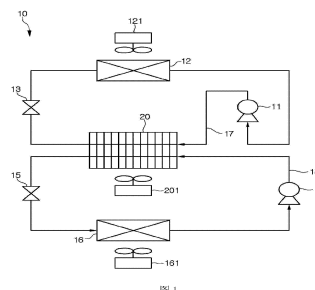


图 1

9

Electronic refrigeration device used for water dispenser for box water

The invention discloses an electronic refrigeration device used for a water dispenser for box water. The electronic refrigeration device comprises a cold transfer device, a refrigeration chip, a heat transfer box, a liquid return box, a water pump, a finned radiator and a cooling fan. The cold transfer device makes contact with a box water bag, the refrigeration chip is composed of multiple semiconductor refrigeration devices and comprises an upper end cold face and a lower end hot face, the upper end cold face makes contact with the cold transfer device, the lower end hot face makes contact with the heat transfer box, the heat transfer box, the liquid return box and the finned radiator are sequentially communicated through a liquid conveying pipe, the water pump is installed on the liquid return box, and the cooling fan is installed at the rear end of the finned radiator. Because a liquid circulation cooling system and the cooling mode of the finned radiator and the fan are adopted, the electronic refrigeration device has the advantages of being high in refrigeration efficiency and cooling efficiency.

Publication: [CN 104613710 A 20150513](#)

Applicant: SUZHOU HUA AI ELECTRONIC CO LTD
Inventor: SHEN YUCHUN
Prio:
Appl.No: CN201510027167

CN 104613710 A 说明书附图 1/4页

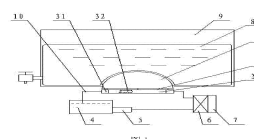


图 1

9

IPC: F25D 21/02

Refrigerator defrosted water pipe anti-freezing and anti-blocking structure suitable for desert areas

The invention belongs to the field of refrigerator design and manufacturing technologies and provides a refrigerator defrosted water pipe anti-freezing and anti-blocking structure suitable for desert areas. The structure comprises a defrosted water pipe and a condensation pipe of a condenser, a sand prevention net is arranged at a water discharge pipe opening of the defrosted water pipe, the body of the defrosted water pipe is provided with an embedded trough sunk inwards, a cover plate is installed at a notch of the embedded trough, through holes are formed in the cover plate, an ultrasonic generation device is installed at the bottom of the embedded trough, and the condensation pipe of the condenser penetrates through the through holes in the cover plate and is embedded in the embedded trough and attached to the bottom of the embedded trough. A part of the condensation pipe is placed in the embedded trough of the defrosted water pipe and the ultrasonic generation device is arranged, so motion of water molecules in the water pipe can be accelerated, the defrosted water pipe is prevented from being frozen, and the sand prevention net and the cover plate are arranged and play a role in preventing sand blocking.

Publication: [CN 104613711 A 20150513](#)

Applicant: WUXI HAOYU ENERGY SAVING AND ENVIRONMENTAL PROT EQUIPMENT CO LTD

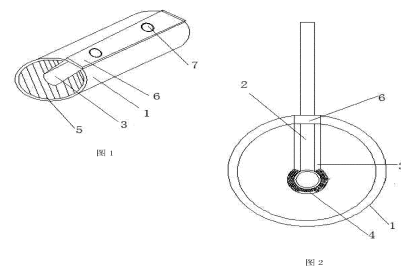
Inventor: HU XIAORONG; HU YU; YU JUAN

Prio:

Appl.No: CN201510048652

IPC: F25D 21/04

CN 104613711 A 说明书附图 1/13页



Anti-freezing-and-blocking structure with ultrasonic waves for defrosting water pipe

The invention belongs to the technical field of designing and manufacturing of refrigerators. An anti-freezing-and-blocking structure with ultrasonic waves for a defrosting water pipe comprises the defrosting water pipe and a condensing pipe of a condenser, a pipe body of the defrosting water pipe is provided with an embedding groove recessing inwards, an ultrasonic wave generating device is arranged at the bottom of the embedding groove, and the condensing pipe of the condenser is embedded in the embedding groove and attached to the bottom of the embedding groove. In the anti-freezing-and-blocking structure, part of the condensing pipe is arranged in the embedding groove of the defrosting water pipe, heat can be dissipated through the condensing pipe more effectively to achieve the aim of avoiding frosting of the defrosting water pipe, and the ultrasonic wave generating device is arranged to accelerate movement of water molecules in the water pipe so as to avoid freezing.

Publication: [CN 104613712 A 20150513](#)

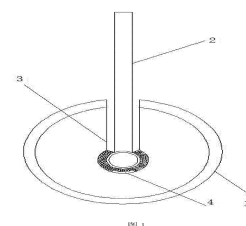
Applicant: WUXI HAOYU ENERGY SAVING AND ENVIRONMENTAL PROT EQUIPMENT CO LTD

Inventor: HU XIAORONG; HU YU; YU JUAN

Prio:

Appl.No: CN201510048661

CN 104613712 A 说明书附图 1/13页



IPC: F25D 21/04

Refrigerator defrosted water pipe anti-freezing and anti-blocking structure suitable for plateau areas

The invention belongs to field of refrigerator design and manufacturing technologies and provides a refrigerator defrosted water pipe anti-freezing and anti-blocking structure suitable for plateau areas. The structure comprises a defrosted water pipe and a condensation pipe of a condenser and further comprises a miniature water pump, the defrosted water pipe is connected with the miniature water pump, the body of the defrosted water pipe is provided with an embedded trough sunk inwards, an ultrasonic generation device is installed at the bottom of the embedded trough, and the condensation pipe of the condenser is embedded in the embedded trough and attached to the bottom of the embedded trough. A part of the condensation pipe is placed in the embedded trough of the defrosted water pipe, so heat emitted by the condensation pipe can be used more effectively, and the defrosted water pipe can be prevented from being frozen; the ultrasonic generation device is arranged, so motion of water molecules in the water pipe can be accelerated, the defrosted water pipe is prevented from being frozen; the miniature water pump plays a role in pressurization and water pipe freezing prevention.

Publication: [CN 104613713 A 20150513](#)

Applicant: WUXI HAOYU ENERGY SAVING AND ENVIRONMENTAL PROT EQUIPMENT CO LTD

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Prio:

Appl.No: CN201510048830

IPC: F25D 21/14

CN 104613713 A 说明书附图 1/13页

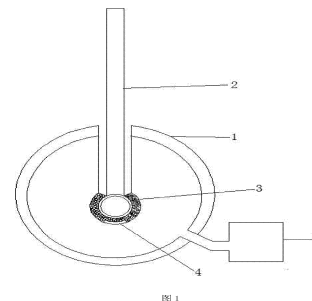


图 1

6

Refrigerator

Disclosed is a refrigerator including a cabinet defining a first storage area to store food, a door connected to the cabinet by first hinge members, so as to be rotatable about a first rotary shaft located at the front portion of the cabinet, and opening and closing the first storage area, a gasket provided on the door, and a container defining a second storage area received in the first storage area and being rotatable by a second hinge member installed on the cabinet.

Publication: [CN 104613714 A 20150513](#)

Applicant: LG ELECTRONICS INC

Inventor: HYUNBUM KIM; JIHYUN IM; JINDONG KIM

Prio: KR 20131101 20130132222

Appl.No: CN201410608681

IPC: F25D 23/02

CN 104613714 A 说明书附图 1/14页

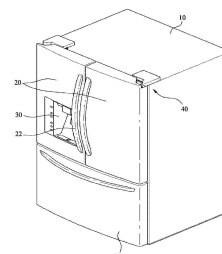


图 1

12

Refrigerator hinge installation method

The invention provides a refrigerator hinge installation method. The method includes the following steps of providing a refrigerator shell and reinforcing pieces, wherein the refrigerator shell comprises hinge installation areas, and no fixing holes used for fixing hinges are formed in the hinge installation areas or the reinforcing pieces; fixing the reinforcing pieces to the positions, corresponding to the hinge installation areas, of the inner side of the refrigerator shell; providing an inner container, and installing the inner container and the refrigerator shell together; filling the space between the refrigerator shell and the inner container with foaming materials; providing the hinges and hinge fixing screws, and installing the hinges, wherein the hinge fixing screws are fixed after penetrating through the hinges and directly forming screw fixing holes matched with the hinge fixing screws in the hinge installation areas and the reinforcing pieces, and therefore the hinges are fixed to the refrigerator shell. By means of the method, the hinges and a box body of a refrigerator can be matched in a gapless mode, the positioning effect of the hinges is improved, connection is firm, the hinges are not prone to looseness, the door body quality is improved, and the production efficiency is improved.

Publication: [CN 104613715 A 20150513](#)

Applicant: QINGDAO HAIER CO LTD
Inventor: CHENG YUWEI; FANG JING; FEI BIN; LIU JINGYE

Prio:
Appl.No: CN201410775073
IPC: F25D 23/02

CN 104613715 A 说明书附图 1/6页

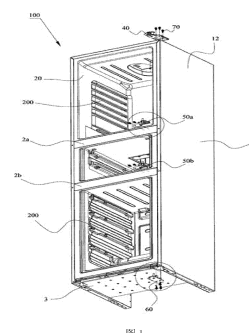


图 1

7

Refrigerator

The invention discloses a refrigerator. The refrigerator comprises a refrigerator body. Refrigerator doors are arranged on the refrigerator body, one side of each refrigerator door is in rotary connection with the refrigerator body, a handle installation groove is formed in the other side of each refrigerator door, a bending block is connected inside each handle installation groove in a rotary mode, torsion springs are arranged at the upper end and the lower end of each bending block respectively, and each bending block is driven by the corresponding torsion springs to be tightly attached to the refrigerator body. According to the refrigerator of the structure, when the refrigerator doors are opened, the bending block are pressed at first, the bending blocks rotate to enable external air to be communicated with air inside the refrigerator, air pressure inside the refrigerator and air pressure outside the refrigerator are the same accordingly, therefore, the refrigerator doors are easy to open, and the situation that articles inside the refrigerator topple over due to the fact that the refrigerator vibrates when the refrigerator doors are opened is prevented.

Publication: [CN 104613716 A 20150513](#)

Applicant: NINGBO HANDIAN ELECTRIC APPLIANCE CO LTD
Inventor: SUN LIJUN; YU JIAN; ZHANG WENYING
Prio:
Appl.No: CN201410833284
IPC: F25D 23/02

CN 104613716 A 说明书附图 1/2页

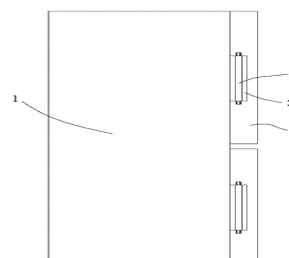


图 1

5

Energy-saving easy-to-open fridge

The invention relates to an energy-saving easy-to-open fridge. The energy-saving easy-to-open fridge comprises a box body and a fridge door, wherein an air guide ring is arranged in the fridge door, is tightly adhered to the fridge door, and is distributed on the four side edges of the inner wall of the fridge door; an air inlet pipe is connected to a position beside the air guide ring; a handle is movably mounted on the fridge door through a tension spring mechanism; an air ventilation cylinder which is communicated with the air guide ring is also arranged in the fridge door; a piston which can translate along the inner wall of the air ventilation cylinder is mounted in the air ventilation cylinder and is fixedly connected with one end of an elastic steel pipe; the elastic steel pipe is fixedly connected with a fridge body after extending out of the fridge door along the axis of the air ventilation cylinder; air openings which are communicated with the outside are formed in the air guide ring at equal intervals; each air opening directly faces the side wall of the fridge body. The fridge is low in material cost, can achieve a very good sealing effect, and can be opened and closed easily.

Publication: [CN 104613717 A 20150513](#)

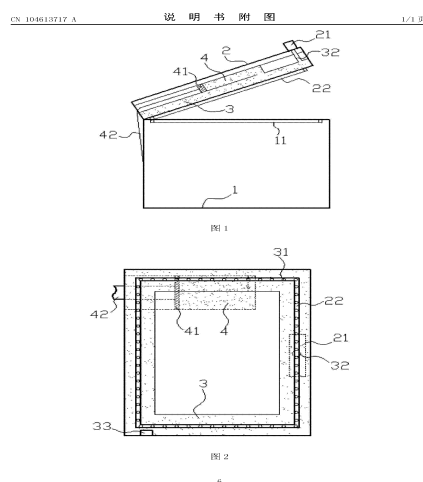
Applicant: ZHOU WUXIAN

Inventor: ZHOU WUXIAN

Prio:

Appl.No: CN201510092789

IPC: F25D 23/02



Liquid level induction type automatic protection refrigerator freshness-preserving sprayer

The invention discloses a liquid level induction type automatic protection refrigerator freshness-preserving sprayer. The liquid level induction type automatic protection refrigerator freshness-preserving sprayer comprises a water storage assembly, an installation base assembly, a water storage bin fixing assembly and a control panel assembly. The water storage assembly comprises a steam fog generating bin, water, a fogging device and a fog steam channel. The water storage assembly is further provided with a fogging linkage master control circuit board connected with the fogging device, a control circuit board and a refrigerator moistening fog detection assembly and connected with a power source master control circuit board through a wireless energy transmission device, the control circuit board is arranged in the control panel assembly, the refrigerator moistening fog detection assembly is arranged in the water storage bin fixing assembly, the power source master control circuit board is arranged in the installation base assembly, and a dry-boiling preventing liquid level sensor is arranged beside the fogging device and at the bottom of a fog making water storage bin. Intelligentization is high, the content of water fog steam in a refrigerator can be detected and controlled, the water fog steam can be evenly dispersed, the use state of the refrigerator can be identified, proper humidity is automatically provided for fruits, vegetables and food placed in the refrigerator, and the freshness degree of the food is kept or increased.

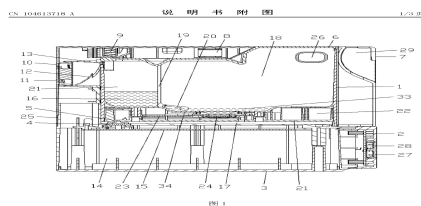
Publication: [CN 104613718 A 20150513](#)

Applicant: SUZHOU LUZHUYAO TECH CO LTD

Inventor: CHENG HUA; WU JINBING; XU BING

Prio:

Appl.No: CN201510043705



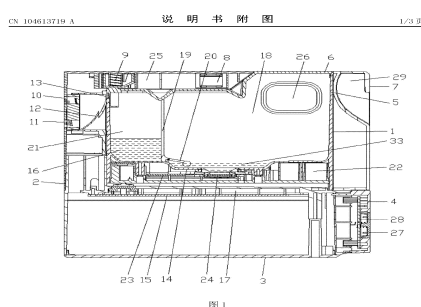
IPC: F25D 23/10

Drawer type aeration refrigerator freshness preservation sprayer

The invention discloses a drawer type aeration refrigerator freshness preservation sprayer. The sprayer comprises a drawer type water storage component, a mounting base component and a control panel component. The water storage component comprises a side water storage bin, a mist generating bin, a micro-content water bin, a misting device and a mist channel. A water replenishment control device and a real-time water level detection sensor are arranged on the lower portion of the micro-content water bin, the drawer type water storage component is further provided with an air inlet channel, an air circulation driving device, a misting linkage master control circuit board and a refrigerator moisture preservation mist detecting component. The misting linkage master control circuit board is connected with the air circulation driving device, the misting device and a refrigerator interior circuit control panel, and the control panel component is connected with the mounting base component. The drawer type aeration refrigerator freshness preservation sprayer is higher in intelligentization and can detect and control water mist content in a refrigerator, evenly disperse water mist, recognize a service condition of the refrigerator, provide fruits, vegetables and food placed in the refrigerator with the most appropriate humidity automatically and preserve or prolong food freshness.

Publication: **CN 104613719 A 20150513**

Applicant: SUZHOU LUZHIYAO TECH CO LTD
Inventor: HUI BINHUA; WU JINBING; YANG XIAOFANG
Prio:
Appl.No: CN201510043757
IPC: F25D 23/10

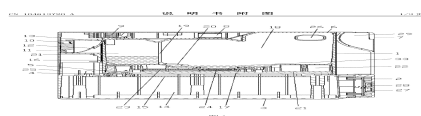


Wireless energy transmission spraying adjustable refrigerator fresh keeping sprayer

The invention discloses a wireless energy transmission spraying adjustable refrigerator fresh keeping sprayer. The wireless energy transmission spraying adjustable refrigerator fresh keeping sprayer comprises a water storage assembly, an installing base assembly, a water storage bin fixing assembly and a control panel assembly. The water storage assembly comprises a mist generating bin, water, a mist generating device and a mist channel. The water storage assembly is provided with a mist generating linkage master control circuit board, the mist generating linkage master control circuit board is connected with a control circuit board arranged in the mist generating device and the control panel assembly and a refrigerator moisture preserving mist detecting assembly arranged in the water storage bin fixing assembly, the mist generating linkage master control circuit board is connected with a power source master control circuit board arranged in the installing base assembly through a wireless energy transmission device, and the control panel assembly is connected with the installing base assembly. The wireless energy transmission spraying adjustable refrigerator fresh keeping sprayer is high in intelligent degree and capable of detecting and controlling the content of the water mist in a refrigerator, evenly scattering the water mist, recognizing the using state of the refrigerator, automatically providing the most appropriate moisture for fruit, vegetables and foods placed in the refrigerator and keeping the food fresh degree or prolonging the fresh keeping time.

Publication: **CN 104613720 A 20150513**

Applicant: SUZHOU LUZHIYAO TECH CO LTD
Inventor: CHENG HUA; WU JINBING; XU BING
Prio:



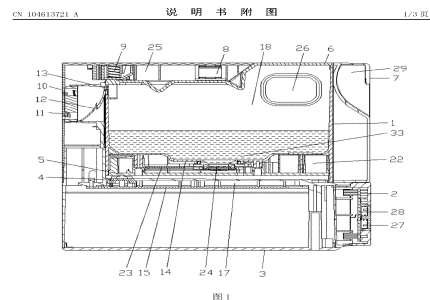
Appl.No: CN201510043844
IPC: F25D 23/10

Wireless energy transmission intelligent drawer induction type refrigerator fresh keeping sprayer

The invention discloses a wireless energy transmission intelligent drawer induction type refrigerator fresh keeping sprayer. The wireless energy transmission intelligent drawer induction type refrigerator fresh keeping sprayer comprises a drawer type water storage assembly, an electronic intelligent control circuit system and an installing base assembly. The water storage assembly comprises a mist generating bin, a micro water bin, a mist generating device and a mist channel. A real-time water level detecting sensor is arranged at the lower portion of the micro water bin, a mist circulation drive device is arranged at the upper portion of the water storage assembly, the electronic intelligent control circuit system is provided with a mist generating linkage master control circuit board and a refrigerator moisture preserving and mist detecting assembly, the mist generating linkage master control circuit board is connected with the mist generating device, the mist circulation drive device and a circuit control board in a refrigerator, and a control panel assembly is connected with the installing base assembly. The wireless energy transmission intelligent drawer induction type refrigerator fresh keeping sprayer is high in intelligent degree and capable of detecting and controlling the content of the water mist in the refrigerator, evenly scattering the water mist, recognizing the using state of the refrigerator, automatically providing the most appropriate moisture for fruit, vegetables and foods placed in the refrigerator and keeping the food fresh degree or prolonging the fresh keeping time.

Publication: [CN 104613721 A 20150513](#)

Applicant: SUZHOU LUZHIYAO TECH CO LTD
Inventor: HUI BINHUA; WU JINBING; XU BING
Prio:
Appl.No: CN201510043891
IPC: F25D 23/10



Wireless energy transmission breathing lamp type refrigerator fresh keeping sprayer

The invention discloses a wireless energy transmission breathing lamp type refrigerator fresh keeping sprayer. The wireless energy transmission breathing lamp type refrigerator fresh keeping sprayer comprises a water storage assembly, an electronic intelligent control circuit system and an installing base assembly. The water storage assembly comprises a mist generating bin, a mist generating water storage bin, a mist generating device and a mist channel. A mist circulation drive device is arranged at the upper portion of the water storage assembly. The electronic intelligent control circuit system is provided with a mist generating linkage master control circuit board, a control circuit board and a refrigerator moisture preserving and mist detecting assembly, the mist generating linkage master control circuit board is connected with the mist generating device, the mist circulation drive device and the circuit control board in a refrigerator, a control panel assembly is connected with the installing base assembly, and a breathing lamp panel is arranged on the control panel assembly. The wireless energy transmission spraying adjustable refrigerator fresh keeping sprayer is high in intelligent degree and capable of detecting and controlling the content of the water mist in the refrigerator, evenly scattering the water mist, recognizing the using state of the refrigerator, automatically providing the most appropriate moisture for fruit, vegetables and foods placed in the refrigerator and keeping the food fresh degree or prolonging the fresh keeping time.

Publication: [CN 104613722 A 20150513](#)



Applicant: SUZHOU LUZHIYAO TECH CO LTD
Inventor: CHENG HUA; HUI BINHUA; WU JINBING
Prio:
Appl.No: CN201510043892
IPC: F25D 23/10

Air-draft type refrigerator moisture and freshness preservation sprayer

The invention discloses an air-draft type refrigerator moisture and freshness preservation sprayer. The sprayer comprises a water storage component, a water storage bin fixing component and a control panel component. The water storage component comprises a main water storage bin, water, a misting device, a monitoring and controlling misting device installing bin and a mist channel. The water storage bin fixing component comprises an air inlet channel, an insertion and extraction guiding device, an insertion and extraction foolproof lock catch, an air pumping device, a refrigerator sprayer connecting hole, a mist guiding device, a power master control circuit board and a refrigerator moisture preservation mist detecting component. The water storage bin fixing component is connected with the water storage component through the insertion and extraction foolproof lock catch and the insertion and extraction guiding device, and the control panel component is also connected with the water storage component. The air-draft type refrigerator moisture and freshness preservation sprayer is higher in intelligentization and can detect and control water mist content in a refrigerator, evenly disperse water mist, recognize a service condition of the refrigerator, provide fruits, vegetables and food placed in the refrigerator with the most appropriate humidity automatically and preserve or prolong food freshness.

Publication: [CN 104613723 A 20150513](#)

Applicant: SUZHOU LUZHIYAO TECH CO LTD
Inventor: LU WENKANG; WU JINBING; YANG XIAOFANG
Prio:
Appl.No: CN201510043895
IPC: F25D 23/10

CN 104613723 A 说明书附图 1/3页

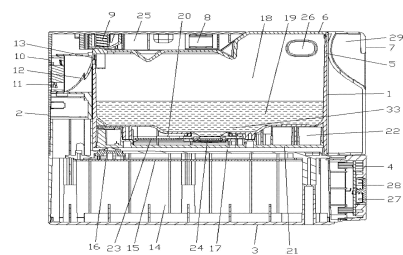


图1

Window grille air-supply type refrigerator freshness preservation sprayer

The invention discloses a window grille air-supply type refrigerator freshness preservation sprayer. The sprayer comprises a water storage component, a mounting base component, a water storage bin fixing component and a control panel component. The water storage component comprises a main water storage bin, water, a misting device, a monitoring and controlling misting device installation bin and a mist channel. The water storage bin fixing component comprises an air inlet channel, an insertion and extraction guiding device, an insertion and extraction foolproof lock catch, a window grille fin component driving device, a window-shade movable fin-type window grille component, an air guiding device, a power master control circuit board and a refrigerator moisture preservation mist detecting component. The water storage bin fixing component is connected with the water storage component through the insertion and extraction foolproof lock catch and the insertion and extraction guiding device, and the control panel component is also connected with the water storage component. The window grille air-supply type refrigerator freshness preservation sprayer is higher in intelligentization and can detect and control water mist content in a refrigerator, evenly disperse water mist, recognize a service condition of the refrigerator, provide fruits, vegetables and food placed in the refrigerator with the most appropriate humidity automatically and preserve or prolong food freshness.

Publication: [CN 104613724 A 20150513](#)

Applicant: SUZHOU LUZHIYAO TECH CO LTD



图2

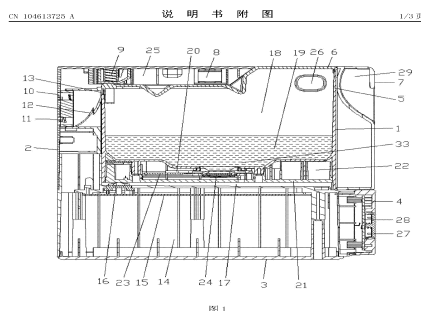
Inventor: HUI BINHUA; WU JINBING; XU BING
Prio:
Appl.No: CN201510043960
IPC: F25D 23/10

Top spraying type refrigerator moisture preservation and fresh keeping sprayer

The invention discloses a top spraying type refrigerator moisture preservation and fresh keeping sprayer. The sprayer comprises a water storage assembly, a water storage bin fixing assembly, an installation base assembly and a control panel assembly. The water storage assembly comprises a main water storage bin, water, a fogging device, a monitoring control fogging device installation bin and a moisture preservation steam fog spraying window. The moisture preservation steam fog spraying window is located on the top of the water storage assembly. The water storage bin fixing assembly comprises an air inlet channel, a plug-pull guide device, a plug-pull fool-proof lock catch, a steam fog circulation driving device and a refrigerator moisture preservation steam fog detection assembly. The installation base assembly comprises a main machine electric control installation base bin, a power source master control circuit board and a conducting device and is connected with the water storage bin fixing assembly through the plug-pull fool-proof lock catch. According to the top spraying type refrigerator moisture preservation and fresh keeping sprayer, the intelligent degree is high, steam fog content in a refrigerator can be detected and controlled, steam fog can be evenly scattered, the refrigerator using state can be recognized, the most appropriate humidity is automatically provided for fruits, vegetables and food placed in the refrigerator, and the fresh keeping time of the food is kept or prolonged.

Publication: [CN 104613725 A 20150513](#)

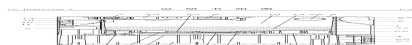
Applicant: SUZHOU LUZHUYAO TECH CO LTD
Inventor: LU WENKANG; WU JINBING; YANG XIAOFANG
Prio:
Appl.No: CN201510044033
IPC: F25D 23/10



Residual liquid induction type dry-burning preventing atomizer with automatic refrigerator freshness-keeping protection function

The invention discloses a residual liquid induction type dry-burning preventing atomizer with the automatic refrigerator freshness-keeping protection function. The atomizer comprises a water storage assembly, an installation base assembly, a water storage bin fixing assembly and a control panel assembly. The water storage assembly comprises a main water storage bin, water, an atomizing device and a vapor channel, wherein a low-level water storage bin and a real-time water level detection sensor are arranged on an atomizing unit and at the lower portion of the main water storage bin. The water storage bin fixing assembly comprises an air inlet channel, an inserting and unplugging guide device, an air circulating device, a power main control circuit board and a refrigerator humidity keeping vapor detecting assembly. The water storage bin fixing assembly is connected with the water storage assembly through an inserting and unplugging fool-proof lock catch and the inserting and unplugging guide device, and the control panel assembly is also connected with the water storage assembly. The atomizer is high in intelligenzation, capable of detecting and controlling the content of vapor in a refrigerator, scattering the vapor evenly, recognizing the use state of the refrigerator, automatically providing most appropriate humidity for fruits, vegetables and food which are placed into the refrigerator and keeping the freshness degree of the food or prolonging freshness time of the food.

Publication: [CN 104613726 A 20150513](#)



Applicant: SUZHOU LUZHIYAO TECH CO LTD
Inventor: HUI BINHUA; WU JINBING; XU BING
Prio:
Appl.No: CN201510044772
IPC: F25D 23/10

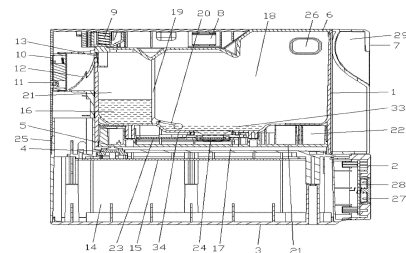
Liquid level induction drawer type automatic protection refrigerator freshness-preserving sprayer

The invention discloses a liquid level induction drawer type automatic protection refrigerator freshness-preserving sprayer. The liquid level induction drawer type automatic protection refrigerator freshness-preserving sprayer comprises a drawer type water storage assembly, an installation base assembly, a water storage bin fixing assembly and a control panel assembly. The drawer type water storage assembly comprises a steam fog generating bin, water, a fogging device, a fogging linkage master control circuit board and a steam fog channel. The fogging linkage master control circuit board is connected with the fogging device, a control circuit board and a refrigerator moistening fog detection assembly and connected with a power source master control circuit board arranged in the installation base assembly, a dry-boiling preventing liquid level sensor is arranged beside the fogging device and at the bottom of a fog making water storage bin, and the water storage assembly is connected with the installation base assembly in a drawer type movable connection mode. Intelligentization is high, the content of water fog steam in a refrigerator can be detected and controlled, the water fog steam can be evenly dispersed, the use state of the refrigerator can be identified, proper humidity is automatically provided for fruits, vegetables and food placed in the refrigerator, and the freshness degree of the food is kept or increased.

Publication: [CN 104613727 A 20150513](#)

Applicant: SUZHOU LUZHIYAO TECH CO LTD
Inventor: CHENG HUA; WU JINBING; XU BING
Prio:
Appl.No: CN201510044861
IPC: F25D 23/10

CN 104613727 A 说明书附图 1/3页



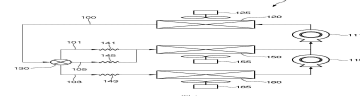
Refrigerator and method for controlling a refrigerator

A refrigerator (10) and a method for controlling a refrigerator are provided. The method may include driving a refrigerating cycle including a first evaporator (150) and a second evaporator (160) by activating at least one compressor (111, 115), supplying refrigerant to the first and second evaporators (150, 160) by controlling a flow adjuster (130), recognizing whether the refrigerant is concentrated into the first or second evaporator (150, 160), by sensing a temperature of the first or second evaporator (150, 160) through at least one temperature sensor (210, 220, 230, 240), reducing supply of the refrigerant to the first or second evaporator (150, 160) into which the refrigerant is concentrated, by adjusting the flow adjuster (130), storing information about an operation time of the flow adjuster (130), recognizing whether the at least one temperature sensor (210, 220, 230, 240) has malfunctioned, and determining an operation time of the flow adjuster (130) according to whether the at least one temperature sensor (210, 220, 230, 240) has malfunctioned.

Publication: [CN 104613728 A 20150513](#)

Applicant: LG ELECTRONICS INC
Inventor: HYOUNGKEUN LIM; JANGSEOK LEE;
 MYUNGJIN CHUNG; SANGBONG LEE
Prio: KR 20131104 20130133030

CN 104613728 A 说明书附图 1/3页



Appl.No: CN201410575270
IPC: F25D 29/00

Display control assembly and refrigerating device comprising same

The invention discloses a display control assembly and a refrigerating device comprising the display control assembly. The display control assembly comprises an installation plate and a display control plate, wherein one side surface of the installation plate forms an installation face, an installation part is arranged on the installation face, and at least two edges of the installation plate are provided with stopping block parts protruding out of the installation face; the display control plate is installed on the installation face and connected with the installation part, and at least two edges of the display control plate abut against the stopping block parts. According to the display control assembly, due to the fact that the installation plate is provided with the installation part and the stopping block parts, the display control plate can be connected with the installation part when arranged on the installation plate; at least two edges of the display control plate abut against the stopping block parts of the installation plate, and therefore the positioning effect of the display control plate is guaranteed; the display control assembly is simple in structure and convenient to install, and cost is reduced.

Publication: **CN 104613729 A 20150513**

Applicant: HEFEI HUALING CO LTD
Inventor: LI XINGXING
Prio:
Appl.No: CN201510033027
IPC: F25D 29/00

CN 104613729 A 说明书附图 1/7页

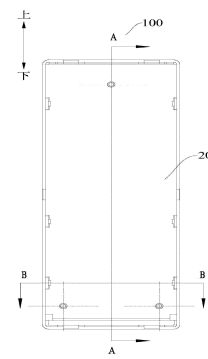


图 1

7

Fault operation method for refrigerators, and refrigerator using fault operation method

The invention discloses a fault operation method for refrigerators, and a refrigerator using the fault operation method. The fault operation method is applied to a refrigerator control system consisting of a main control circuit board, a display board, a temperature sensor, a heating device, a refrigerating system, a door switch, an ambient-temperature sensor, a refrigerating-temperature sensor, a freezing-temperature sensor, and a defrosting-temperature sensor. The fault operation method is characterized in that corresponding fault operation manners are set according to different fault modes of the refrigerator. According to the fault operation method disclosed by the invention, aiming at different fault types of the refrigerator, the corresponding fault operation modes are set, so that the refrigerator is guaranteed to more safely and reliably work under fault states.

Publication: **CN 104613730 A 20150513**

Applicant: HEFEI MEILING CO LTD
Inventor: FANG BO; LI ZISHENG
Prio:
Appl.No: CN201510099049
IPC: F25D 29/00

CN 104613730 A 说明书附图 1/10页



图 1

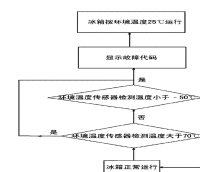


图 2

7

Three-station air cooling device of heavy-load train shaft and control method thereof

The invention discloses a three-station air cooling device of a heavy-load train shaft and a control method of the three-station air cooling device of the heavy-load train shaft. The three-station air cooling device of the heavy-load train shaft comprises a first station, a second station, a third station, rotating mechanisms arranged on the stations and used for rotating the heavy-load train shaft, and a step-by-step mechanism, wherein the first station, the second station and the third station are sequentially arranged and used for performing air cooling on the heavy-load train shaft, and the step-by-step mechanism is used for conveying the heavy-load train shaft to the first station, conveying the heavy-load train shaft between the adjacent stations and conveying the heavy-load train shaft out of the third station. Through the air cooling device, the quality of the heavy-load train shaft is improved, and the high-efficiency production rhythm requirement is met.

Publication: [CN 104613731 A 20150513](#)

Applicant: TAIYUAN HEAVY INDUSTRY CO LTD

Inventor: QIN JIE

Prio:

Appl.No: CN201410849289

IPC: F25D 31/00

CN 104613731 A 说明书附图 1/2 页

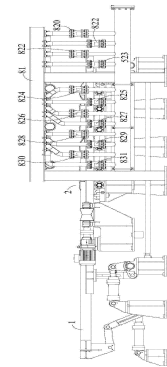


图 1

7

Refrigeration appliance with a carrying rail

The invention relates to a refrigeration appliance (100) with a carrying rail (300). According to the invention, an additional component is connected with a form fit to a carrying rail (300). The invention further relates to an additional component for installation in a refrigeration appliance (100) and to a fastening element (500) for such an additional component.

Publication: [CN 104620065 A 20150513](#)

Applicant: BSH BOSCH SIEMENS HAUSGERAETE

Inventor: FAEHNLE ELMAR; GAPLIKOW EUGEN; KRAPP MICHAEL

Prio: DE 20120612 102012209815, EP 20130606 2013061693

Appl.No: CN201380031366

IPC: F25D 23/00

CN 104620065 A 说明书附图 1/10 页

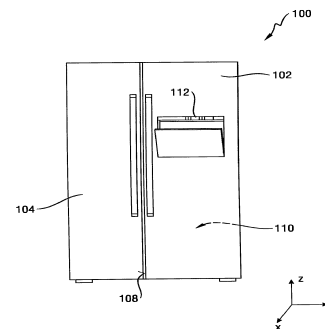


图 1

12

Refrigerator

A door has: an inner box frame (23) which is located on the inside of a refrigerator body; and a transparent front plate (25) which is equipped with a colored layer (28) and which is disposed on the edge frame (24) of the inner box frame (23) so as to cover the inner box frame (23). The door also has foamed urethane (29) poured into and foamed in the space between the transparent front plate (25), the inner box frame (23), and the edge frame (24). The transparent front plate (25) is adhered to and held by the foamed urethane (29), and the outer peripheral section of the transparent front plate (25) is adhered to the edge frame (24) of the inner box frame (23) by a double-sided tape (30).

Publication: [CN 104620066 A 20150513](#)

Applicant: PANASONIC CORP
Inventor: KURITA JUNICHI
Prio: JP 20120910 2012198237, JP 20120910 2012198238, JP 20120910 2012198239, JP 20130904 2013005219, JP 20130606 2013119502, JP 20130606 2013119503
Appl.No: CN201380047055
IPC: F25D 23/02

CN 104620066 A 说明书附图 1/16页

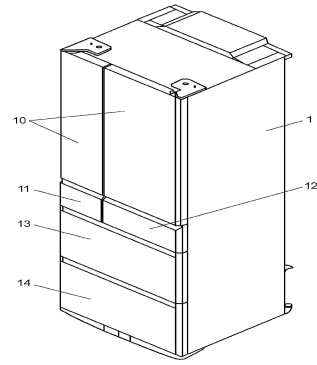


图 1

20

Biomass granule fuel cooling device

The invention provides a biomass granule fuel cooling device. The cooling device comprises a first conveying belt connected with a discharge pipeline of a granulator, a second conveying belt is arranged below the first conveying belt, a third conveying belt is arranged below the second conveying belt, a suction guard with a suction fan is arranged above the first conveying belt, a right blowing pipeline is arranged on one side of the second conveying belt, a grid plate preventing biomass granule fuel from falling off is arranged on the other side of the second conveying belt, a left blowing pipeline is arranged on one side of the third conveying belt, a lower blowing pipeline is arranged below the third conveying belt, a collecting frame is arranged on the other side of the third conveying belt, a plurality of sliding ways are arranged in the collecting frame, and each sliding way is provided with a material plate in an inserted mode. The biomass granule fuel cooling device is simple in structure and reasonable in design, rapid cooling of the biomass granule fuel can be achieved, it can be guaranteed that the granule fuel is not damaged, the cooling effect is improved, cooling time is shortened, and working efficiency is improved.

Publication: [CN 104634035 A 20150520](#)

Applicant: ANHUI GUANGDE WENQUANG BIOLOGY ENERGY CO LTD
Inventor: SHEN GUANGYUAN
Prio:
Appl.No: CN201410738906
IPC: F25D 1/00

CN 104634035 A 说明书附图 1/13页

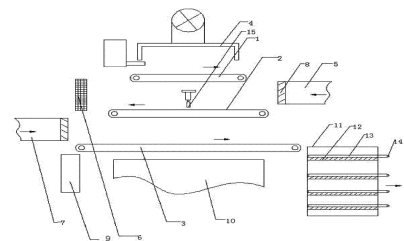


图 1

6

Cooling device

A cooling device comprises a core barrel. A water cooling layer is arranged outside the core barrel, and an outer shell is arranged outside the water cooling water. A water inlet is formed in the top of the water cooling layer, and a water outlet is formed in the bottom of the water cooling layer. The water cooling layer is provided with a spiral cooling water channel. Waste oil in the core barrel is cooled through the water cooling layer, and a better cooling effect is achieved through the spiral cooling water channel.

Publication: [CN 104634036 A 20150520](#)

Applicant: XI AN DAOHENG TRANSP EQUIPMENT TECHNOLOGY CO LTD

Inventor: THE INVENTOR HAS WAIVED THE RIGHT TO BE MENTIONED

Prio:

Appl.No: CN201310546470

IPC: F25D 1/02

CN 104634036 A 说明书附图 1/1 页

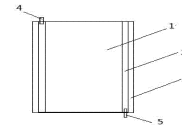


图 1

Tunnel type liquid nitrogen quick freezing machine

The invention relates to a quick freezing device and provides a tunnel type liquid nitrogen quick freezing machine to solve the technical problems in the prior art. The tunnel type liquid nitrogen quick freezing machine comprises a tunnel type freezing room, and the two ends of the freezing room are the feeding end and the discharging end respectively. The tunnel type liquid nitrogen quick freezing machine further comprises a surrounding type conveying belt which is located in the freezing room, the two ends of the conveying belt are located outside the feeding end and the discharging end of the freezing room respectively, one end of the conveying belt is arranged on a driving wheel in a sleeving mode, the other end of the conveying belt is arranged on a driven wheel in a sleeving mode so that an upper layer of conveying belt body and a lower layer of conveying belt body can be formed in the freezing room, and a liquid nitrogen spraying pipe and a diffusion draught fan are arranged on the top wall of the freezing room. The quick freezing device is characterized in that a liquid nitrogen reflection plate is arranged in the freezing room, the liquid nitrogen reflection plate is located between the upper layer of conveying belt and the lower layer of conveying belt, the liquid nitrogen reflection plate extends to the discharging end from the feeding end of the freezing room, and the two sides of the liquid nitrogen reflection plate are connected and fixed to the side walls of the two sides of the freezing room. The tunnel type liquid nitrogen quick freezing machine is reasonable in structure and capable of effectively reducing the use amount of liquid nitrogen and improving the quick freezing quality of food.

Publication: [CN 104634037 A 20150520](#)

Applicant: TAIXIANG GROUP INCUBATOR CO LTD

Inventor: LIU XIAOJIE; SONG ZHENHUA

Prio:

Appl.No: CN201510060546

IPC: F25D 3/11

CN 104634037 A 说明书附图 1/13 页

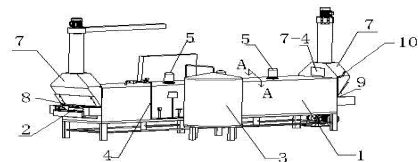


图 1

Refrigerator having automatic monitoring video-recording function

The invention belongs to the technical field of electronic products and particularly provides a refrigerator having an automatic monitoring video-recording function. The refrigerator comprises a refrigerator main body, a small panel located at the upper end of the refrigerator main body and an internal power supply circuit, wherein a plug-in card monitoring camera having the automatic monitoring video-recording function, a control switch and an infrared sensing switch which are electrically connected in sequence are arranged on the refrigerator main body. The control switch and the infrared sensing switch are respectively connected with the internal power supply circuit electrically. A smoke detector connected to the internal power supply circuit through a smoke detecting switch is further arranged on the refrigerator main body. The automatic monitoring video-recording function is added for a traditional refrigerator, so that the problem of indoor security and protection monitoring when people go out is solved, household thievery prevention is facilitated through monitoring video recording, and an important role is further played in an intelligent home system. The smoke detector arranged on the refrigerator can further detect indoor smoke at any time and play prevention and alarming roles on fire disasters.

Publication: [CN 104634038 A 20150520](#)

Applicant: XI AN QINGYULAN INFORMATION TECHNOLOGY CO LTD

Inventor: WANG ZHIFENG

Prio:

Appl.No: CN201310556083

IPC: F25D 11/00

CN 104634038 A 说明书附图 1/1 页

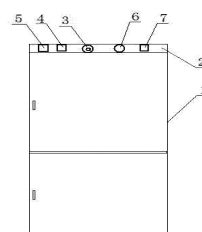


图 1

5

Mobile refrigerator

The invention relates to the technical field of household appliances, and in particular relates to a mobile refrigerator. The mobile refrigerator comprises brake pulleys arranged on the periphery of the bottom of the refrigerator and plate buttons. The buttons can be stirred and are arranged on the brake pulleys. The plate buttons are provided with ring-shaped parts. The inside radius of the ring-shaped part is larger than the distance of a brake pulley to a nearest corner on the bottom of the refrigerator. When the refrigerator is moved to a designated place, people can stop the brake pulleys without finding the plate buttons.

Publication: [CN 104634039 A 20150520](#)

Applicant: CHANGZHOU HUALIN ELECTRIC POWER EQUIPMENT FACTORY

Inventor: WANG QIANG

Prio:

Appl.No: CN201310574172

IPC: F25D 11/00

CN 104634039 A 说明书附图 1/3 页

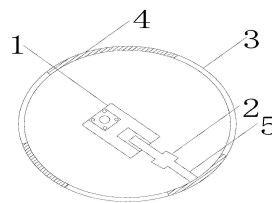


图 1

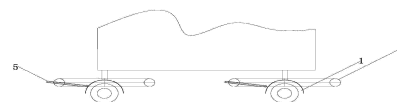


图 2

5

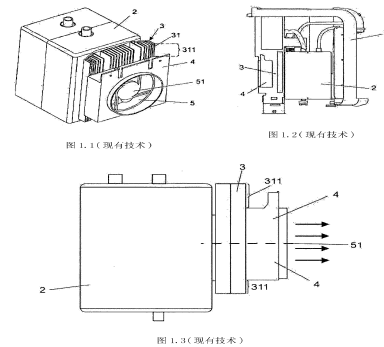
Thermoelectric system-based cooling device

The present invention relates to a thermoelectric system-based cooling device and more particularly provides a mobile device for supplying water and cooling water. Compared with existing devices, the above device is higher in power efficiency, better in dimension condition and improved in heat insulation performance. The cooling device comprises at least one component (101) associated with a cabinet (1). The component (101) comprises at least one chamber associated with at least one container (100); at least one chamber associated with at least one heat exchange system (200), wherein the heat exchange system (200) is associated with the at least one container (100); and at least one housing (104) associated with at least one radiator element (300).

Publication: [CN 104634040 A 20150520](#)

Applicant: WHIRLPOOL CHINA CO LTD
Inventor: A C DA SILVA; A SALQUE; L A RINALDI
Prio: BR 20131106 102013028644
Appl.No: CN201410638298
IPC: F25D 11/00

CN 104634040 A 说明书附图 1/2页



7

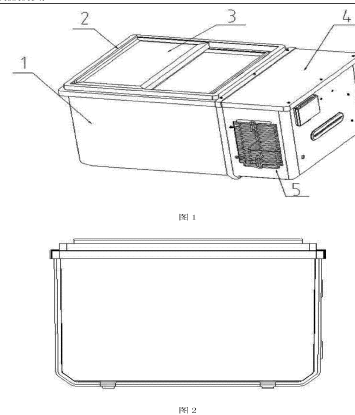
Tabletop cold-storage refrigerating device

The invention relates to a tabletop cold-storage refrigerating device which comprises a structure device, a system device and a cold-storage refrigerating mechanism. The structure device comprises a box device and a door device. The box device comprises a shell, a cabinet opening, an inner container, a cabin partition plate and a cabin cover. The outer side of the shell integrally has a 1-degree angle of inclination in the vertical direction. The upper portion of the shell is large, and the lower portion of the shell is small. The shell of the box device is made in an ABS adsorption mode. The cabinet opening matched with the shell is an ABS injection-molded piece. The cabinet opening is formed in the upper portion of the shell and is in a square shape. The door device is arranged in the cabinet opening. The tabletop cold-storage refrigerating device overcomes the defects in the prior art; the shell and other structures of the box device are changed into the ABS adsorption mode; the overall structure of the product is distributed in a front-back mode, and a door structure is newly designed; in the production process, the material cost of the product is lowered, the processes of the product are reduced, the labor cost is lowered, and the production efficiency of the product is improved.

Publication: [CN 104634041 A 20150520](#)

Applicant: QINGDAO ESSIN ELECTRICAL APPLIANCES CO LTD
Inventor: LI LEI; LI ZHAOPENG; LIU CHUNYANG; WANG YUTING; ZHANG KAIXIAN
Prio:
Appl.No: CN201410847649
IPC: F25D 11/00

CN 104634041 A 说明书附图 1/3页



6

Separation type intelligent refrigeration freshness retaining machine and refrigeration freshness retaining method thereof

Disclosed are a separation type intelligent refrigeration freshness retaining machine and a refrigeration freshness retaining method thereof. The separation type intelligent refrigeration freshness retaining machine comprises a cylindrical container used for containing protoplasmic beer, wherein the cylindrical container comprises an inner shell and an outer shell wound on the outer portion of the inner shell in a sleeving mode, a gap is kept between the inner wall of the outer shell and the inner shell, a first through hole and a second through hole are formed in the wall of the outer shell, the protoplasmic beer is stored in the inner shell, an interlayer for refrigeration is wound on the outer wall of the inner shell, the interlayer for refrigeration is communicated with one end of a first metal pipe and one end of a second metal pipe, and one end of the first metal pipe and one end of the second metal pipe are in the gap. According to the device, the defects that in the prior art, when a container which is formed integrally and contains the protoplasmic beer is inconveniently cleaned and maintained, in addition, the cleaning effect is poor, and the germ free condition cannot be ensured. In addition, the machine is combined with the refrigeration freshness retaining method of the machine, the temperature and pressure can be stably and efficiently controlled.

Publication: [CN 104634042 A 20150520](#)

Applicant: ZHU RENXI
Inventor: ZHU RENXI
Prio:
Appl.No: CN201510006705
IPC: F25D 11/00

CN 104634042 A 说明书附图 1/3 页

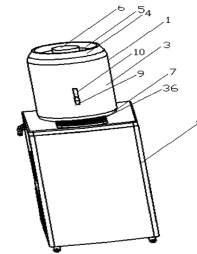


图 1

Refrigerator

The invention discloses a refrigerator, which comprises a refrigerator body, a door body and a plurality of ground leg components, wherein an opening is formed in the front surface of the refrigerator body, and the door body is pivotally connected to the opening; the ground leg components which can be adjusted up and down are connected to the bottom surface of the refrigerator body, and each ground leg component comprises a ground leg and a support leg; the ground leg comprises a body part and a screw part, and the screw part is arranged on the body part and extend upwards; the support leg is arranged on the outer circumferential surface of the body part, and the support leg and the body part are supported by the ground together. According to the refrigerator provided by the embodiment of the invention, the support legs are arranged on the body parts of the ground legs, so that the contact area of the ground legs and the ground is effectively increased, the support points of the ground legs are lengthened, and the stability of the refrigerator after the door body is opened is improved to avoid tilting forward.

Publication: [CN 104634043 A 20150520](#)

Applicant: HEFEI MIDEA REFRIGERATOR CO
Inventor: LIU XIUYU
Prio:
Appl.No: CN201510100784

CN 104634043 A 说明书附图 1/2 页

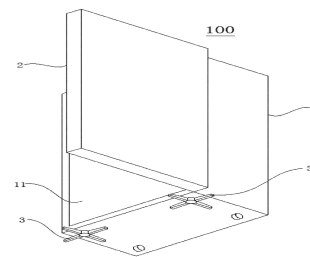


图 1

IPC: F25D 11/00

Dual-chamber dual-temperature platform cabinet

Provided is a dual-chamber dual-temperature platform cabinet. The dual-chamber dual-temperature platform cabinet is characterized in that the left end of a cabinet body is provided with a refrigerating chamber, the right side of the refrigerating chamber is provided with a freezing chamber, the right side of the freezing chamber is provided with an evaporator, the right side of the evaporator is provided with a compressor and a condenser, an air delivery duct is reserved on the upper portion between the refrigerating chamber and the freezing chamber. According to the dual-chamber dual-temperature platform cabinet, the problem that a single-chamber low-temperature platform cabinet is inconvenient to use is solved, and the dual-chamber dual-temperature platform cabinet is particularly suitable for utilization in kitchens of places such as homes.

Publication: [CN 104634044 A 20150520](#)

Applicant: QINGDAO ABLE WELL ELECTRICAL APPLIANCE CO LTD

Inventor: CHENG CHONGMO; LI SHENGQI; MA SHIZHENG; SHI LEI; XU YUMING; ZHANG JINGTAO

Prio:

Appl.No: CN201310547743

IPC: F25D 11/02

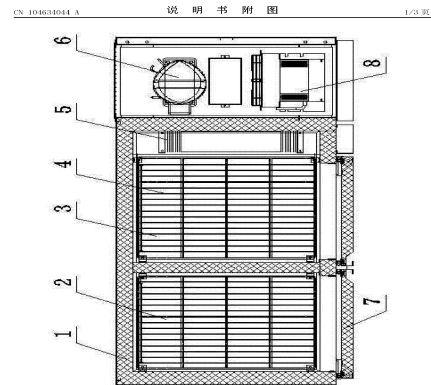


图 1

5

Refrigerator

The invention provides a refrigerator, wherein a substrate is placed at a specified location and the insertion part of the substrate is arranged at the rear part of the refrigerator in an unobtrusive manner. In this way, the front surface of the refrigerator can be observed conveniently. The refrigerator comprises a first guiding component at one end of a substrate assembly and a second guiding component at the other end of the substrate assembly. A substrate accommodation part comprises a guiding unit inclined towards a door panel and used for guiding the first guiding component; a first guiding part and a second guiding part.

Publication: [CN 104634045 A 20150520](#)

Applicant: HITACHI AIR CONDITIONING & HOUSEHOLD APPLIANCES CO LTD

Inventor: OGAWA MASHI; OKADA FUKUTARO

Prio: JP 20131112 2013233626

Appl.No: CN201410409251

IPC: F25D 11/02

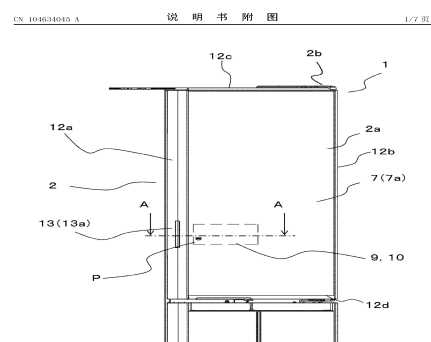


图 1

15

Air cooling refrigerator

The invention discloses an air cooling refrigerator and relates to the technical field of household electrical appliances. The problem of low use rate of storage space of a refrigerator can be solved. The air cooling refrigerator comprises at least two chambers, and neighboring chambers are separated by a partition plate; the partition plate is provided with a middle air flue, the middle air flue penetrates through two opposite end faces of the partition plate, and the two opposite end faces are both perpendicular to the thickness direction of the partition plate; a draught fan is arranged in the middle air flue, at least a part size of the draught fan is within the thickness range of the partition plate, and cold air in the middle air flue is transmitted into the corresponding chamber by the draught fan; an evaporator supplies cold air for the middle air flue. The air cooling refrigerator can effectively improve the use rate of the storage space of the refrigerator.

Publication: [CN 104634046 A 20150520](#)

Applicant: HISENSE RONSHEN GUANGDONG REFRIGERATORS CO LTD

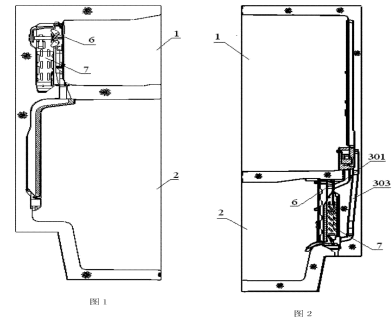
Inventor: CHEN JINYING; LI ZHIPENG; ZHAI HUIJIE

Prio:

Appl.No: CN201410836580

IPC: F25D 11/02

CN 104634046 A 说明书附图 1/9页



13

Refrigerator

The invention discloses a refrigerator. The refrigerator includes an inner case having a storage space; an outer case separated with the inner case by a vacuum space for heat insulating between the inner case and the outer case; a supporting portion arranged in the vacuum space and separating the outer case and the inner case; and a dewing preventive unit controlling the temperature of the outer case, arranged on the surface of the inner case or/and the outer case, arranged on the outer side of the vacuum space, and adjacent to the supporting portion.

Publication: [CN 104634047 A 20150520](#)

Applicant: LG ELECTRONICS INC

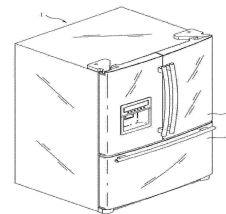
Inventor: JHEE SUNG; JUNG WONYEONG; LEE MYUNGRYUL

Prio: KR 20101028 20100105893

Appl.No: CN201510025655

IPC: F25D 11/02

CN 104634047 A 说明书附图 1/9页



13

Circulating cooling water system

The invention discloses a circulating cooling water system which comprises a cooling water tower, a refrigerating unit, a three-way valve and a heat exchanger. A water outlet of the cooling water tower, a condenser water inlet of the refrigerating unit and a water inlet of the heat exchanger are connected together through the three-way valve. An evaporator water outlet and an evaporator water inlet of the refrigerating unit are connected with the water inlet and a water outlet of the heat exchanger respectively. Working in the two modes can be achieved by controlling the communication relation of the three-way valve. According to different external environmental conditions, the different working modes can be selected to operate the system, so that the energy consumption is lowered, the refrigerating unit is switched off and only the cooling water tower is switched on particularly on the condition that the external environment temperature is low, the electricity consumption cost can be remarkably lowered, and the effect of energy conservation is achieved.

Publication: [CN 104634048 A 20150520](#)

Applicant: INST APPLIED ELECTRONICS CHINA ACADEMY
ENG PHYSICS

Inventor: LAO CHENGLONG; LI KAI; LI MING; LI PENG;
LIN SIFEN; SHEN XUMING; WANG HANBIN;
WANG JIANXIN; WU DAI; XIAO DEXIN; YANG
LINDE; YANG XINGFAN; ZHANG HAIYANG

Prio:

Appl.No: CN201510041678

IPC: F25D 16/00

CN 104634048 A 说明书附图 1/1 页

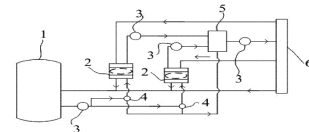


图 1

6

Energy-saving frozen-blocking prevention structure for defrosting water pipe of refrigerator

The invention belongs to the technical field of refrigerator designing and manufacturing and relates to an energy-saving frozen-blocking prevention structure for a defrosting water pipe of a refrigerator. The energy-saving frozen-blocking prevention structure comprises the defrosting water pipe and a condensation pipe of a condenser. The defrosting water pipe comprises an outer pipe, an inner pipe and a drainage passage arranged between the outer pipe and the inner pipe. The outer pipe and the inner pipe are communicated through a communicating hole passage. The condensation pipe is connected into the inner pipe from the communicating hole passage and is attached to the wall of the inner pipe. Part of the condensation pipe is placed in the defrosting water pipe, so heat dissipated from the condensation pipe can be utilized more effectively, and the purpose of preventing the defrosting water pipe from freezing can be achieved.

Publication: [CN 104634049 A 20150520](#)

Applicant: WUXI HAOYU ENERGY SAVING
ENVIRONMENTAL PROT EQUIPMENT CO LTD

Inventor: HU XIAORONG; HU YU; YU JUAN

Prio:

Appl.No: CN201510048718

IPC: F25D 21/14

CN 104634049 A 说明书附图 1/1 页

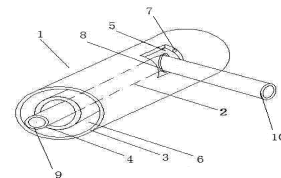


图 1

6

Energy-saving frozen-blocking prevention structure for defrosting water pipe

The invention belongs to the technical field of refrigerator designing and manufacturing and relates to an energy-saving frozen-blocking prevention structure for a defrosting water pipe. The energy-saving frozen-blocking prevention structure comprises the defrosting water pipe and a condensation pipe of a condenser. The body of the defrosting water pipe is provided with a caulking groove which is sunken inwards. The condensation pipe of the condenser is embedded in the caulking groove and is attached to the bottom of the caulking groove. Part of the condensation pipe is placed in the caulking groove of the defrosting water pipe, so heat dissipated from the condensation pipe can be utilized more effectively, and the purpose of preventing the defrosting water pipe from freezing can be achieved.

Publication: [CN 104634050 A 20150520](#)

Applicant: WUXI HAOYU ENERGY SAVING ENVIRONMENTAL PROT EQUIPMENT CO LTD

Inventor: HU XIAORONG; HU YU; YU JUAN

Prio:

Appl.No: CN201510048809

IPC: F25D 21/14

CN 104634050 A 说明书附图 1/3页

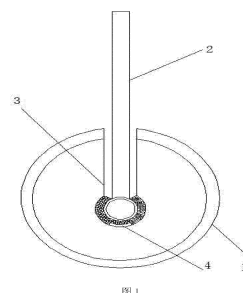


图 1

6

Defrosting water evaporating pan component applied to refrigerator

The invention discloses a defrosting water evaporating pan component applied to a refrigerator. The defrosting water evaporating pan is characterized by comprising a water collection tray, a microporous evaporating block, a fan and a support component, wherein the microporous evaporating block, the fan and the support component are vertically arranged in the water collection tray, and the support component is used for supporting the fan. A refrigerator condenser component is arranged in the water collection tray. The water collection tray forms a collection structure for defrosting water of the refrigerator, an absorbing structure for defrosting water in the water collection tray is formed by the microporous evaporating block, a forced convection passage is formed in a compressor chamber by the fan so as to form the evaporating structure of the defrosting water on the microporous evaporating block and the cooling structure for the condenser component by the forced convection passage. By the defrosting water evaporating pan component, evaporating effect of the defrosting water of the refrigerator and refrigeration efficiency of the refrigerator are improved.

Publication: [CN 104634051 A 20150520](#)

Applicant: HEFEI MEILING CO LTD

Inventor: JING SONG; LI QINGSONG; LI YAN GE; XUE MING

Prio:

Appl.No: CN201510098338

IPC: F25D 21/14

CN 104634051 A 说明书附图 1/3页

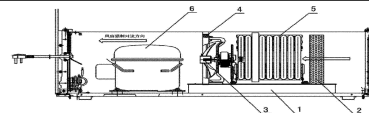


图 1

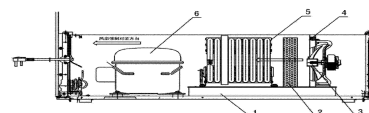


图 2

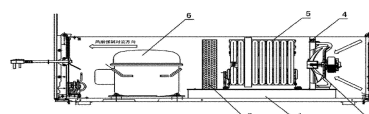


图 3

6

Sucking disc for fixing refrigerator wiring harness, refrigerator comprising sucking disc, and application of sucking disc

The invention discloses a sucking disc for fixing a refrigerator wiring harness, a refrigerator comprising the sucking disc, and application of the sucking disc. The sucking disc for fixing the refrigerator wiring harness comprises a sucking disc body, wherein the front of the sucking disc body is a concave adsorption surface, and the back of the sucking disc body is connected with one end of a rod-shaped part; the other end of the rod-shaped part is provided with a fastening part, and the fastening part is provided with a through hole for the refrigerator wiring harness to pass through. The refrigerator wiring harness can be conveniently and quickly fixed by the sucking disc provided by the invention. An adhesive tape does not need to be used, therefore, the waste of the adhesive tape is avoided, and the production cost is reduced.

Publication: [CN 104634052 A 20150520](#)

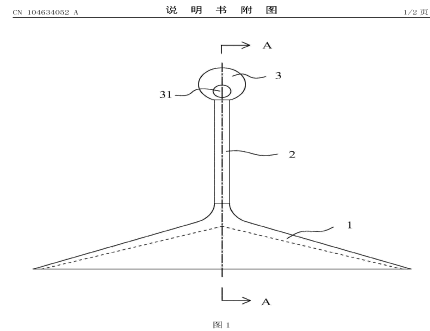
Applicant: TAIZHOU LG ELECT REFRIGERATOR

Inventor: JI LI

Prio:

Appl.No: CN201510116461

IPC: F25D 23/00



5

Refrigerated cabinet with detachable label clamps

The invention discloses a refrigerated cabinet with detachable label lamps. The refrigerated cabinet comprises a cabinet body and two glass doors. Openings are formed in the upper portion of the cabinet body; the two glass doors are mounted on the cabinet door to be used for opening or closing the openings; the two glass doors can move left and right and are each provided with a handle; the detachable label clamps are arranged on the glass doors; and footstands and universal wheels are arranged at the bottom end of the cabinet body. The detachable label clamps are arranged on the glass doors, and price tickets can be replaced at any time; according to the number of commodities in the cabinet body, the number of the label clamps is set; and if the price tickets are lost, the price tickets are easily found.

Publication: [CN 104634053 A 20150520](#)

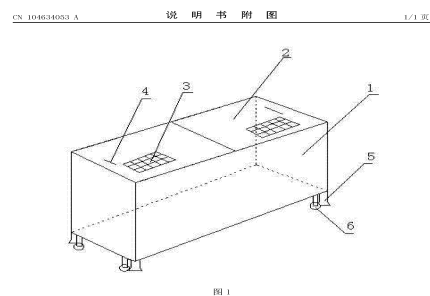
Applicant: WANG YUQING

Inventor: WANG YUQING

Prio:

Appl.No: CN201310543414

IPC: F25D 23/02



5

Visual function modularization refrigerator

The invention discloses a visual function modularization refrigerator, and relates to household appliances. The visual function modularization refrigerator is characterized in that a refrigerator body and a refrigerator door of the refrigerator are made of transparent materials, a plurality of drawer-type storage drawers are arranged in the refrigerator body, and the storage drawers are also made of transparent materials; the refrigerator door is provided with a control panel, and the control panel, a circuit system and a refrigeration system are connected into a loop; the temperature of one certain specific storage drawer is controlled by the control panel; the control panel is provided with a display panel, a refrigerator option key, a cold storage/refrigeration option key, a temperature rising and falling key and the like. The visual function modularization refrigerator has the advantages of being novel in structure, easy and convenient to process, convenient to use, capable of not tainting by odor, attractive and elegant, environmentally friendly and the like, thereby being a novel visual function modularization refrigerator with economical efficiency and practicability integrated.

Publication: [CN 104634054 A 20150520](#)

Applicant: UNIV DALIAN NATIONALITIES
Inventor: WU YUNNA; YANG BAOLING; ZHANG FENGJIE
Prio:
Appl.No: CN201310556207
IPC: F25D 23/02

CN 104634054 A 说明书附图 1/2 页

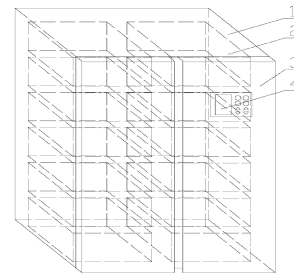


图 1

6

Side-spraying refrigerator moisturizing and fresh keeping sprayer

The invention discloses a side-spraying refrigerator moisturizing and fresh keeping sprayer. The sprayer comprises a water storage assembly, a water storage bin fixing assembly and a control panel assembly. The water storage assembly comprises a main water storage bin, water, an atomizing device, an atomizing device monitoring and controlling installing bin and a moisturizing mist spraying window, and the moisturizing mist spraying window is located at the top of the water storage assembly. The water storage bin fixing assembly comprises an air inlet channel, an insertion and extraction guide device, an insertion and extraction fool-proof lock catch, a mist circulation driving device, a power source main control circuit board and a refrigerator moisturizing mist detecting module, the water storage bin fixing assembly is connected with the water storage assembly through the insertion and extraction fool-proof lock catch and the insertion and extraction guide device, and the control panel assembly is connected with the water storage assembly. The intelligent degree is high, the content of the water mist in a refrigerator can be detected and controlled, the water mist can be evenly dispersed, the using state of the refrigerator can be recognized, the most suitable humidity is automatically provided for fruits, vegetables and food put into the refrigerator, the fresh degree of the food is kept, and the fresh time of the food is prolonged.

Publication: [CN 104634055 A 20150520](#)

Applicant: SUZHOU LUZHIYAO TECH CO LTD
Inventor: LU WENKANG; WU JINBING; YANG XIAOFANG
Prio:
Appl.No: CN201510044774

CN 104634055 A 说明书附图 1/3 页

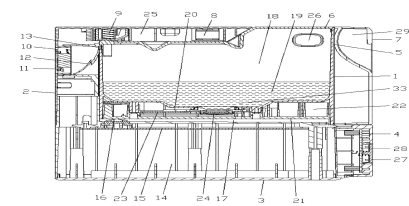


图 1

6

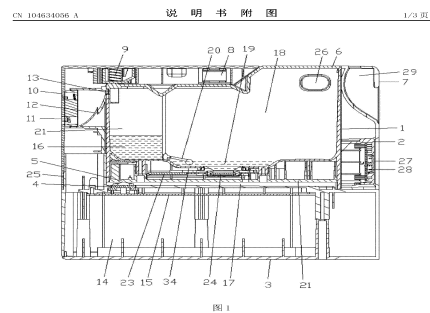
IPC: F25D 23/10

Automatic water replenishing micro-water energy-saving spray adjustable freshness-retaining sprayer of refrigerator

The invention discloses an automatic water replenishing micro-water energy-saving spray adjustable freshness-retaining sprayer of a refrigerator. The sprayer comprises a water storage assembly, a water storage bin fixing assembly, a mounting base assembly and a control panel assembly. The water storage assembly comprises a steam fog generating bin, water, a fogging device, a fogging linkage main control circuit board and a fog channel, the fogging linkage main control circuit board is connected with the fogging device, and connected with a power source main control circuit board, the control panel assembly is connected with the water storage bin fixing assembly, the mounting base assembly is provided with a detachable rechargeable battery, and the fogging linkage main control circuit board can adjust fog forming efficiency and the fog circulating output speed immediately. The sprayer is high in intelligentization degree, the content of water fog in the refrigerator can be detected and controlled, the water fog can be evenly dispersed, the use state of the refrigerator can be recognized, the most proper humidity is automatically provided for fruits, vegetables and food placed in the refrigerator, and the freshness degree of the food is kept or prolonged.

Publication: [CN 104634056 A 20150520](#)

Applicant: SUZHOU LUZHIYAO TECH CO LTD
Inventor: HUI BINHUA; WU JINBING; XU BING
Prio:
Appl.No: CN201510044864
IPC: F25D 23/10

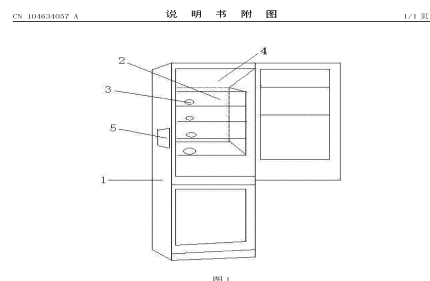


Refrigerator with timers

The invention belongs to the technical field of electronics and particularly provides a refrigerator with timers. The refrigerator comprises a housing (1) and a refrigerating chamber (4) arranged above the housing (1), wherein at least four storage drawers (2) are arranged in the refrigerating chamber (4), and one timer (3) is arranged at the front end of each storage drawer (2). The refrigerator with the timers has the advantages of prompting food storage time and purifying air.

Publication: [CN 104634057 A 20150520](#)

Applicant: SHAANXI BOYUAN SCIENCE & TECHNOLOGY
DEV CO LTD
Inventor: YANG JUNLI
Prio:
Appl.No: CN201310553208
IPC: F25D 23/12



Moisture and freshness preservation device of refrigerator

The invention discloses a moisture and freshness preservation device of a refrigerator and belongs to the technical field of refrigeration equipment. The moisture and freshness preservation device of the refrigerator comprises a box, a cryogenic storage container is arranged in the box, the back of the cryogenic storage container in the box is provided with a freshness preservation box assembly, the freshness preservation box assembly comprises a freshness preservation box cover and a freshness preservation box base, a first blade structure on the freshness preservation box cover and a second blade structure on the freshness preservation box base form a louver type structure when the freshness preservation box cover and the freshness preservation box base are installed together, the freshness preservation box cover is provided with ventilation holes, the whole freshness preservation box assembly is installed on a pedestal of the box, the pedestal is connected with a rear end cover through a connection pipe, and the freshness preservation box assembly, the pedestal, the connection pipe and the rear end cover form a through ventilation channel. The back of the cryogenic storage container of the refrigerator is additionally provided with the freshness preservation box assembly communicated with the outside, high-humidity air outside the cryogenic storage container enters the cryogenic storage container, the opening degree is adjusted through the louver type structure, and therefore the humidity in the box is adjusted.

Publication: [CN 104634058 A 20150520](#)

Applicant: AUCMA CO LTD
Inventor: LIN CHAO; LIU LEIXUN; LIU MING; YIN HUI
Prio:
Appl.No: CN201510030976
IPC: F25D 23/12

CN 104634058 A 说明书附图 1/13页

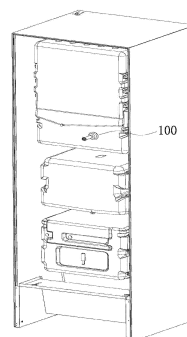


图 1

6

Shelf including a cold storage material therein, and refrigerator having the same

A shelf includes a cold storage material, a main shelf body having a space, configured to store the cold storage material therein, and one or more bracket(s) at a lower end portion of the main shelf body, configured to support the main shelf body. A refrigerator includes a main body having a storage chamber, a door rotatably coupled to the main body, and the shelf including the same.

Publication: [CN 104634059 A 20150520](#)

Applicant: DONGBU DAEWOO ELECTRONICS CORP
Inventor: JUNG CHUL WOONG
Prio: KR 20131111 20130136332
Appl.No: CN201310701545
IPC: F25D 25/02

CN 104634059 A 说明书附图 1/13页

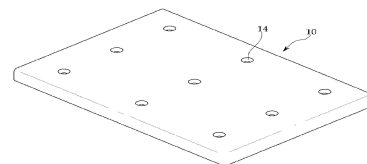


图 1

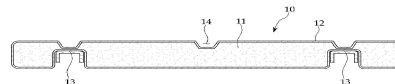


图 2

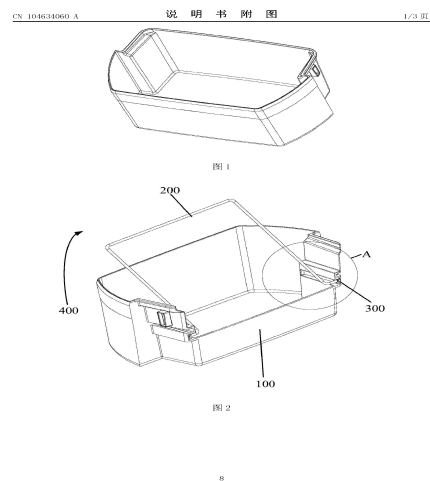
7

Bottle frame and refrigerator

The invention provides a bottle frame. The bottle frame comprises a bottle frame body and a heightening structure, wherein sliding grooves are formed in two inner side walls of the bottle frame body, a roller is arranged in each sliding groove, and the roller can slide along the sliding groove; the heightening structure comprises a blocking rod and adjusting rods, the adjusting rods are arranged at two ends of the blocking rod, one end of the adjusting rod is connected with the blocking rod, the other end of the adjusting rod is bent towards the side wall of the bottle frame body to form a bending structure, and the bending structure is connected with the roller. According to the technical scheme, the heightening structure is arranged on the inner side wall of the bottle frame, so that the height of the bottle frame is increased, the application range of the bottle frame is expanded, bottles in different heights can be stored in the bottle frame, and the bottle cannot topple over; and besides, the heightening structure has a simple structure and can be assembled and disassembled conveniently, the mounting efficiency of the bottle frame is improved greatly and the user experience is improved.

Publication: [CN 104634060 A 20150520](#)

Applicant: HEFEI HUALING CO LTD
Inventor: JIN XIANGHUA; WANG HAO; ZHENG XUEZAI
Prio:
Appl.No: CN201510109818
IPC: F25D 25/02

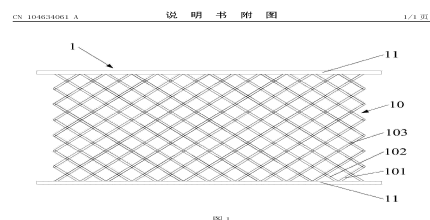


Refrigerator shelf and refrigerator

The invention provides a refrigerator shelf and a refrigerator. The refrigerator shelf comprises a shelf main body and two parallel clamping strips, wherein the shelf main body comprises a grid structure formed by multiple rod pieces through articulation; the shelf main body is arranged between two clamping strips and is connected with the two clamping strips; according to the refrigerator shelf, multiple rod pieces forming the grid structure are connected movably, the two clamping strips can support the shelf main body, the shelf main body can be stretched and deformed in a direction perpendicular to the length direction of the two clamping strip under the action of external force, thus, when the refrigerator shelf is arranged in a refrigerator containing cavity, the storage area of the same refrigerator shelf can be freely adjusted through the extensional deformation of the shelf main body, the requirements of users for different storage areas of the same refrigerator shelf are met, the height limits of different storage spaces in a vertical direction can be eliminated, the requirement of the user for storage of different articles in different heights is met, the using convenience of the user is improved and the space utilization rate is increased.

Publication: [CN 104634061 A 20150520](#)

Applicant: HEFEI MIDEA REFRIGERATOR CO
Inventor: CHEN PENGYU; LYU JINSHUI
Prio:
Appl.No: CN201510112135
IPC: F25D 25/02



Household water machine refrigeration control method and device

The invention discloses a household water machine refrigeration control method and device. The method includes the following steps that S1, a refrigeration command is received, and a refrigeration model is enabled according to the refrigeration command; S2, operation parameters of a household water machine are obtained; S3, whether the pause condition is met or not is judged according to the operation parameters; S4, if the pause condition is met, refrigeration is paused; S5, whether a restart condition is met or not is further judged, if the restart condition is met, refrigeration is conducted, and the S2 to S5 are executed repeatedly till the refrigeration end condition is met. Accordingly, in the operating process of the household water machine, the performance of a condenser and an evaporator can be restored to be the optimal performance state through refrigeration pause, and the evaporating temperature can be lowered to a low degree in next operation, so that the performance of the condenser, the evaporator and a compressor can be multiplied, super-low water temperature refrigeration is achieved, the refrigeration capacity is improved, and the stability of the household water machine is improved.

Publication: [CN 104634062 A 20150520](#)

Applicant: FOSHAN SHUNDE MIDEA WATER DISPENSER MFG CO LTD; MIDEA GROUP CO LTD

Inventor: LI XINGFAN; MA LONG; XIE JIANZHOU

Prio:

Appl.No: CN201510023758

IPC: F25D 29/00

CN 104634062 A 说明书附图 1/1页

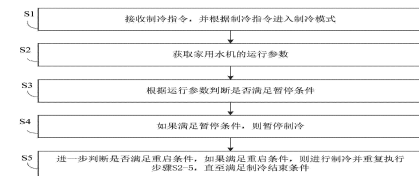


图1

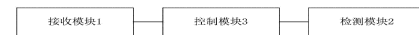


图2

15

Control method of refrigerator, control device of refrigerator and refrigerator

The invention provides a control method of a refrigerator, a control device of the refrigerator, and the refrigerator. The method comprises the following steps: detecting the current indoor temperature; judging whether the temperature variation between the current indoor temperature and the preset indoor temperature is greater than or equal to the preset indoor temperature variation or not, if so, adjusting the current running frequency of a compressor of the refrigerator, and/or the current first rotating speed of an outdoor fan of the refrigerator and/or the current second rotating speed of an indoor fan of the refrigerator; otherwise, controlling the compressor to keep the current running frequency, and/or controlling the outdoor fan to keep the current first rotating speed and/or the indoor fan to keep the current second rotating speed. Through the technical scheme provided by the invention, the working states can be adjusted by the refrigerator according to environmental temperatures and other constantly changing situations, and the refrigerator can work under the optimum condition at any time, so that the refrigerating efficiency of the refrigerator is improved, the noise of the refrigerator is reduced, and the life of the refrigerator is prolonged.

Publication: [CN 104634063 A 20150520](#)

Applicant: HEFEI MIDEA REFRIGERATOR CO

Inventor: XU DELIN

Prio:

Appl.No: CN201510109505

IPC: F25D 29/00

CN 104634063 A 说明书附图 1/3页

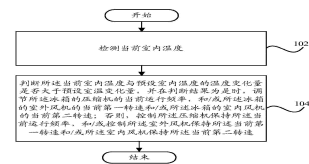


图1

16

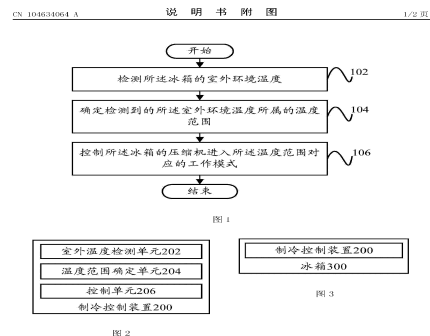
Refrigeration control method, refrigeration control device and refrigerator

The invention provides a refrigeration control method, a refrigeration control device and a refrigerator. The refrigeration control method comprises the following steps: detecting the outdoor environmental temperature of the refrigerator; determining the temperature range of the outdoor environmental temperature; and controlling a compressor of the refrigerator to enter a working mode corresponding to the temperature range. Through the technical scheme, the situation that the temperature in a refrigerator body is compensated only by a heater is avoided, and the working mode of the compressor can be directly determined according to the outdoor environmental temperature, so that the compressor can be directly turned on or off according to the outdoor environmental temperature, and thus the problem of a single-system computer refrigerator that the poor starting of the compressor is caused by the limited compensation ability of the heater when the outdoor environmental temperature is relatively low is solved; in addition, the existing compensating heater can be eliminated, so that the problem that the starting of the compressor is poor when the outdoor environmental temperature is too low is solved, and the production cost of the refrigerator is also reduced.

Publication: [CN 104634064 A 20150520](#)

Applicant: HEFEI MIDEA REFRIGERATOR CO
Inventor: CHEN CHUXIONG; DU SHIYUN; MA RUI; YANG TAO; ZHANG SHAN

Prio:
Appl.No: CN201510112132
IPC: F25D 29/00



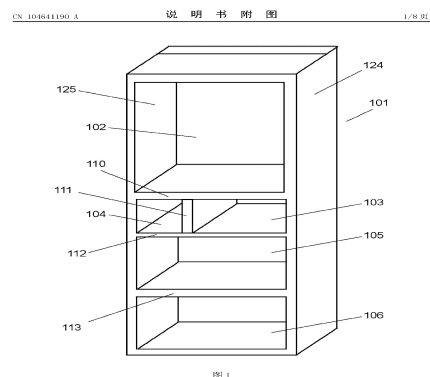
12

Refrigerator

A refrigerator is provided with: a freezing compartment defined and formed by heat insulating walls; a cold storage compartment disposed above the freezing compartment; and a cooling compartment disposed at the rear face of the freezing compartment. The refrigerator is also provided with: a cooler (107) disposed within the cooling compartment and having refrigerant pipes (145) which are stacked in the vertical direction and which have fins (146); and a cold storage compartment return duct located at a side face of the cooler (107) and returning cold air, which flows from the cold storage compartment, to the cooling compartment. The width of the refrigerant pipes (145) of the cooler (107) is set to be less in the lower part than in the upper part. As a result, air flow passage pressure loss is reduced, improving the cooling efficiency, and the portion of the cooler (107) to which frost adheres is dispersed.

Publication: [CN 104641190 A 20150520](#)

Applicant: PANASONIC IP MAN CO LTD
Inventor: HORIO YOSHIMASA
Prio: JP 20120919 2012205272, JP 20130919 2013005525
Appl.No: CN201380048835
IPC: F25D 21/04



15

Refrigeration device having an ice or water dispenser

The invention relates to a refrigeration device having an ice or water dispenser, said dispenser comprising an actuating lever (210). According to the invention, a light source (500) is arranged, in the light-emitting direction (A) of the light source (500), at a distance from a light-coupling surface (504) of the actuating lever (210) through an air gap (502).

Publication: [CN 104641191 A 20150520](#)

Applicant: BSH BOSCH SIEMENS HAUSGERAETE
Inventor: BECKE CHRISTOPH; EICHER MAX; GORODEZKI SWETLANA; KIRSCHBAUM MAIKE; SIGL MATHIAS; STAUD RALPH; TISCHER THOMAS; WERNER HANS PETER

Prio: DE 20120914 102012216372, EP 20130905 2013068357

Appl.No: CN201380047880

IPC: F25D 23/12

CN 104641191 A 说明书附图 1/7页

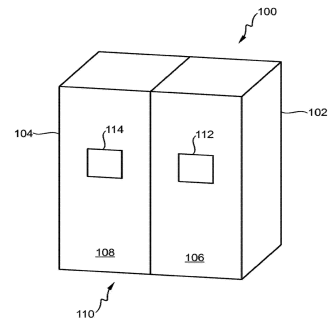


图 1

10

Multi-functional refrigerated container and refrigeration/thawing/thermal insulation method

The invention provides a multi-functional refrigerated container and a refrigeration/thawing/thermal insulation method. The refrigerated container mainly comprises a heat tube, an object placement region, a cold source placement region and a heat insulation material, wherein a condensation end of the heat tube is connected with the cold source placement region; an evaporation end of the heat tube is connected with the object placement region; the outer side of the multi-functional refrigerated container is wrapped by the thermal insulation material. The multi-functional refrigerated container has the advantages of long refrigeration time, uniform refrigeration temperature, simple structure, easiness in carrying and the like, can be used for refrigeration and transportation of objects such as foods, medicaments, blood plasma, vaccines and electronic low-temperature materials, can also be used for quickly thawing the refrigerated foods, and has a thermal insulation function for the objects.

Publication: [CN 104654700 A 20150527](#)

Applicant: JIHONG

Inventor: JIHONG

Prio:

Appl.No: CN201510067322

IPC: F25D 3/14

CN 104654700 A 说明书附图 1/2页

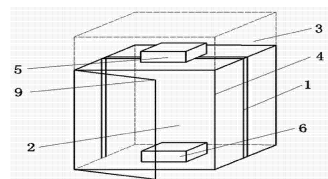


图 1

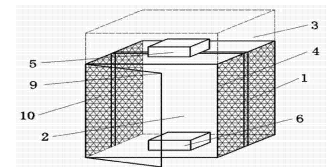


图 2

6

Cold storage facility with plasma device

The invention provides a cold storage facility with a sterilizing function. A plasma device is embedded in a box plate of a thermal insulating box, and comprises a sprayer and a plasma generator; the plasma generator is hermetically connected with the sprayer, and provided with an opening to allow water spray to enter the plasma generator; the plasma generator is provided with an electrode device which is composed of a dielectric plate and a plurality of electrode bars embedded in the dielectric plate, wherein the electrode bars are arranged in parallel; the plurality of electrode bars are crosswise and electrically connected with the two poles of an AC power source; a pipeline is buried in the box plate and hermetically connected with the plasma generator, and is composed of an inlet section, an outlet section and a middle section; the inlet section is provided with an inlet, while the outlet section is provided with at least one outlet; the middle section is communicated with the second side of the dielectric plate; a second fan is arranged at the inlet to suck air and then blow the plasmas out of the outlets.

Publication: [CN 104654701 A 20150527](#)

Applicant: LAI ZHONGPING
Inventor: LAI ZHONGPING
Prio:
Appl.No: CN201310582673
IPC: F25D 11/00

CN 104654701 A 说明书附图 1/3 页

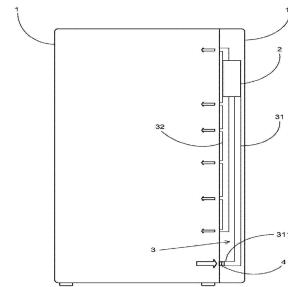


图 1

7

Movable refrigerator with infrared induction illumination function

The invention specifically provides a movable refrigerator with infrared induction illumination function; the movable refrigerator with infrared induction illumination function comprises a refrigerator body, a door body is hinged on the refrigerator body, wherein the refrigerator body is provided with a LED lamp, a switch, and an infrared sensor; a single chip machine, and a power supply circuit are arranged inside the refrigerator body; the infrared sensor is connected with the single chip machine by a wire; signals outputted from the single chip machine are inputted to the power supply circuit of the LED lamp through the switch; universal rollers are arranged at the bottom of the refrigerator body. Comparing to the prior art, the movable refrigerator with infrared induction illumination function has the advantages that: the functions of the refrigerator are extended; the addition of the infrared induction illumination device gives convenience for people using the refrigerator in dark environment at night; when the infrared sensor detects people moving close, the infrared sensor controls the LED lamp to illuminate, so as to provide illumination for the walking people; the universal rollers at the bottom of the refrigerator gives convenience for people to move the refrigerator.

Publication: [CN 104654702 A 20150527](#)

Applicant: XI AN SHUZHENG ELECTRONIC TECHNOLOGY CO LTD
Inventor: PAN XIN
Prio:
Appl.No: CN201310584109
IPC: F25D 11/00

CN 104654702 A 说明书附图 1/3 页

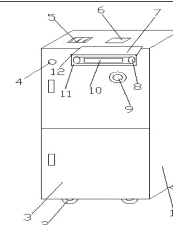


图 1

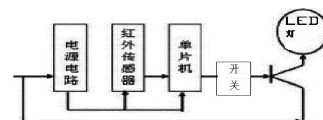


图 2

6

Vehicle-mounted glass panel foam door refrigerator

The invention discloses a vehicle-mounted glass panel foam door refrigerator, which comprises a door and a refrigerator body; the door is arranged on the refrigerator body, a refrigeration system and a temperature control system are arranged in the refrigerator body, the door comprises a glass panel, a foam layer, a door frame and a liner, the glass panel and the liner are arranged on the door frame, and the foam layer is arranged between the glass panel and the liner; the refrigerator body comprises a refrigerator body door frame, an external plate, a liner and a handle, the external plate and the corresponding liner are arranged on the refrigerator body door frame, a foam layer is arranged between the external plate and the corresponding liner, and the handle is arranged on the external plate. The vehicle-mounted glass panel foam door refrigerator has a good temperature-keeping effect and a good heat insulation effect, is convenient to operate, has an attractive appearance, and is suitable for production on an assembly line.

Publication: [CN 104654703 A 20150527](#)

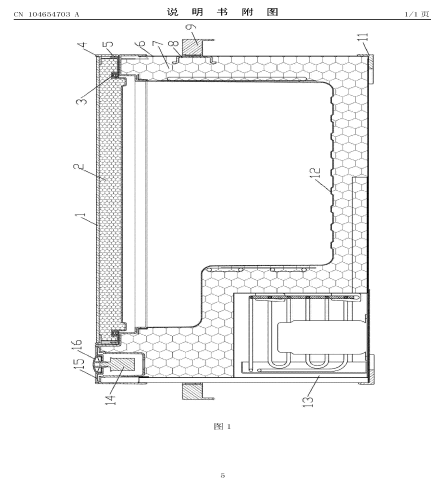
Applicant: HENAN SNOWSEA HOME APPLIANCE TECHNOLOGY CO LTD

Inventor: HE YANBING; LI YONGGAO; TIAN SHENGYANG; YANG FUJUN; YANG ZHE; ZHAI CHAORAN

Prio:

Appl.No: CN201510036321

IPC: F25D 11/00



Refrigerator

The invention provides a refrigerator. The refrigerator comprises a refrigerator body, a luminescence assembly, a sound-controlled induction assembly, a control assembly and a power supply, wherein the refrigerator body is provided with a panel; the luminescence assembly is mounted on the panel; the sound-controlled induction assembly is mounted on the refrigerator body; both the luminescence assembly and the sound-controlled induction assembly are electrically connected with the control assembly, and the control assembly can be used for controlling the work of the luminescence assembly according to an induction result of the sound-controlled induction assembly; the luminescence assembly, the sound-controlled induction assembly and the control assembly are all electrically connected with the power supply. According to the refrigerator provided by the invention, the work of the luminescence assembly and music signals induced by the sound-controlled induction assembly can be enabled to be matched with each other through the sound-controlled induction assembly and the control assembly, so as to bring auditory experience and sensory experience to users.

Publication: [CN 104654704 A 20150527](#)

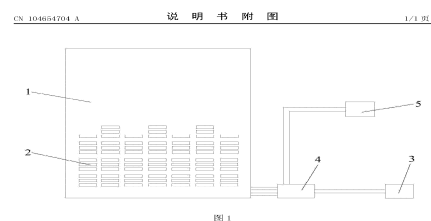
Applicant: HEFEI HUALING CO LTD

Inventor: LU JUN; YANG LETING; ZHANG YU

Prio:

Appl.No: CN201510112124

IPC: F25D 11/00

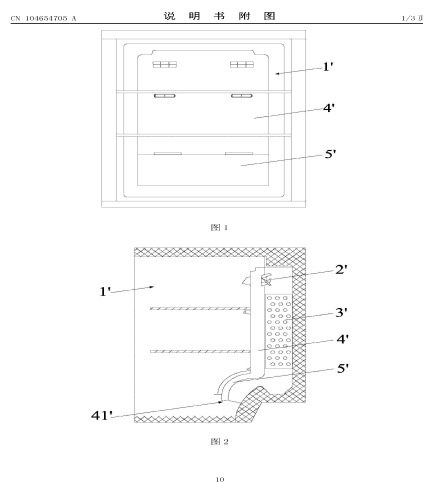


Refrigerator and air flue component thereof

The invention provides a refrigerator and an air flue component thereof, wherein the air flue component comprises an air flue cover plate, an air flue foamed plate and a fan; an air feeding hole and an air return hole are formed in the air flue cover plate; the air flue foamed plate is connected with the air flue cover plate; an air feeding channel and an air return channel are arranged on the air flue foamed plate; the air feeding hole is communicated with the air feeding channel; the air return hole is communicated with the first end of the air return channel; the fan is arranged on the air flue cover plate; an outlet of the fan is communicated with the air feeding channel; an inlet of the fan is communicated with a second end of the air return channel; the section area of the second end is larger than that of the first end. According to the air flue component provided by the invention, the section area of the second end of the air return channel is larger than that of the first end, so that the returned air uniformly fills a chamber of the evaporator under the guide effect of the second end of the air return channel before entering the chamber of the evaporator, and can be in uniform contact with a heat exchange surface of the evaporator, and thus the heat exchange efficiency of the evaporator to the returned air is improved.

Publication: [CN 104654705 A 20150527](#)

Applicant: HEFEI MIDEA REFRIGERATOR CO
Inventor: REN WEI; ZHANG JINGJING; ZHU YULONG
Prio:
Appl.No: CN201510117038
IPC: F25D 11/00

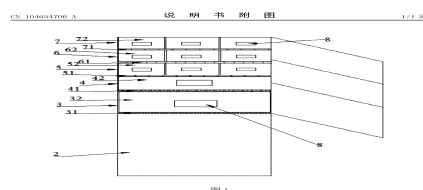


Energy-saving environment-friendly refrigerator

The invention provides an energy-saving environment-friendly refrigerator. The energy-saving environment-friendly refrigerator comprises a refrigerating chamber and a freezing chamber, wherein the refrigerating chamber comprises a first refrigerating layer, a second refrigerating layer, a third refrigerating layer, a fourth refrigerating layer and a fifth refrigerating layer from bottom to top; the first refrigerating layer comprises a first refrigerating plate and a first drawer positioned on the first refrigerating plate; the second refrigerating layer comprises a second refrigerating plate and a second drawer positioned on the second refrigerating plate; the third refrigerating layer comprises a third refrigerating plate and three equal-width third drawers positioned on the third refrigerating plate; the fourth refrigerating layer comprises a fourth refrigerating plate and three equal-width fourth drawers positioned on the fourth refrigerating plate; a fifth refrigerating layer comprises a fifth refrigerating plate and three equal-width fifth drawers positioned on the fifth refrigerating plate. The energy-saving environment-friendly refrigerator can be used for separately containing various objects, can prevent the objects from being tainted by other odor and can enable the storage to be relatively convenient, is convenient to use in life and a chemical lab, and has the advantages of being simple in structure, convenient to maintain, low in processing cost, energy-saving, environment-friendly, and the like.

Publication: [CN 104654706 A 20150527](#)

Applicant: TIANJIN QIXING TECHNOLOGY DEV CO LTD
Inventor: YUAN FENGGANG
Prio:
Appl.No: CN201310600987



IPC: F25D 11/02

Air-cooled refrigerator

The invention discloses an air-cooled refrigerator, relates to the technical field of household appliances, and is capable of solving the problem that the use ratio of a storage space of the refrigerator is low. The air-cooled refrigerator comprises a first chamber and a second chamber which are adjacently arranged; the two chambers are separated by a partition plate; a middle air duct is formed in the partition plate, and the middle air duct penetrates through two opposite end faces vertical to the thickness direction of the partition plate; a fan is arranged in the middle air duct; at least part volume of the fan is located within the thickness range of the partition plate; the middle air duct is communicated with an evaporation chamber; an evaporator is arranged in the evaporation chamber; cold-blast air generated by the evaporator is conveyed into the middle air duct under the action of the fan; the cold-blast air in the middle air duct is conveyed into the corresponding chambers through all air delivery ducts; the air in the corresponding chambers is conveyed into the evaporation chamber through all air return ducts. According to the air-cooled refrigerator disclosed by the invention, the use ratio of the storage space of the refrigerator can be effectively increased.

Publication: **CN 104654707 A 20150527**

Applicant: HISENSE RONSHEN GUANGDONG
REFRIGERATORS CO LTD

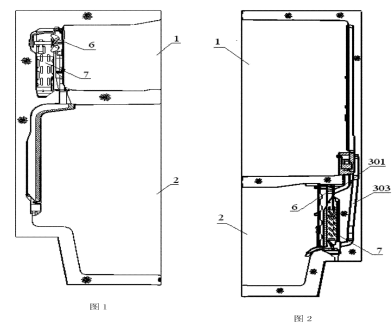
Inventor: CHEN JINYING; LI ZHIPENG; ZHAI HUIJIE

Prio:

Appl.No: CN201410852877

IPC: F25D 11/02

CN 104654707 A 说明书附图 1/19页



13

Refrigerator

The invention discloses refrigeration equipment. The refrigeration equipment comprises a box body, a heating box liner, a condenser pipe and a compressor, wherein the heating box liner is arranged in the box body, the condenser pipe is arranged on the heating box liner, the compressor is used for discharging high-temperature and high-pressure gas refrigerant, and the refrigerant can enter the condenser pipe to increase the internal temperature of the heating box liner. Thereby, since energy of the refrigeration system of the refrigeration equipment is used to increase the internal temperature of the heating box liner, the refrigeration equipment is environment-friendly and energy-saving.

Publication: **CN 104654708 A 20150527**

Applicant: HEFEI HUALING CO LTD

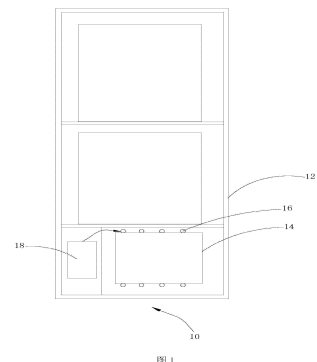
Inventor: XU ALUO

Prio:

Appl.No: CN201510067515

IPC: F25D 11/02

CN 104654708 A 说明书附图 1/1页



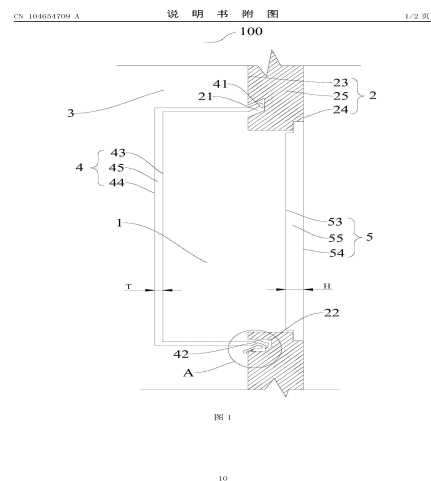
7

Refrigerator

The invention discloses a refrigerator. The refrigerator comprises a refrigerator body, a door body, an outer frame and a bar counter door, wherein a refrigerating room is defined in the refrigerator body; the door body is arranged on the refrigerator body so as to open and close the refrigerating room; the outer frame is arranged on either the refrigerator body or the door body and is recessed in the refrigerating room, and one end of the outer frame is open; the bar counter door is arranged on either the refrigerator body or the door body so as to close the open end of the outer frame and define a healthy temperature region together with the outer frame, and the temperature of the healthy temperature region is appropriate for being higher than that of the refrigerating room. According to the refrigerator disclosed by the invention, the healthy temperature region is suitable for storing ready-to-serve foods, such as beverages and fruits, the temperature of the foods stored in the healthy temperature region is appropriate after the foods are taken out of the healthy temperature region, and the foods can be eaten instantly, so that the refrigerator is more convenient and more user-friendly in use.

Publication: [CN 104654709 A 20150527](#)

Applicant: HEFEI HUALING CO LTD
Inventor: PAN SHUWEI; ZHANG MINGMING
Prio:
Appl.No: CN201510112198
IPC: F25D 11/02

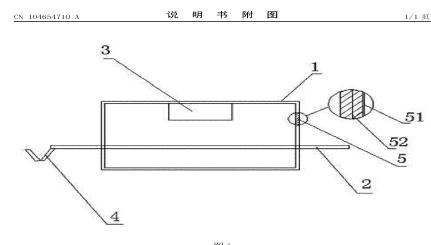


Single-freezing machine capable of saving energy

The invention discloses a single-freezing machine capable of saving energy. The single-freezing machine comprises a box body, a refrigerating unit located on the inner side of the box body and a conveying mesh belt penetrating the box body. A thermal insulation layer is arranged on a shell of the box body and is made of polyurethane foam; a convection-prevention film is arranged inside the thermal insulation layer; and a sealing layer is arranged on the outer side of the thermal insulation layer. According to the invention, the polyurethane foam with the good thermal insulation effect is adopted to be used as a thermal insulation material; and the convection-prevention film capable of reducing the heat convection quantity inside the material is arranged in the middle of the thermal insulation film, and the sealing layer capable of preventing the thermal insulation material from being exposed to a gaseous medium is arranged on the outer side of the thermal insulation layer, so that the single-freezing machine with a thermal insulation structure is good in thermal insulation effect, emitting of internal cool air is reduced, and energy is saved.

Publication: [CN 104654710 A 20150527](#)

Applicant: QINGDAO ZHONGTIAN XINDA
BIOTECHNOLOGY RES AND DEV CO LTD
Inventor: CHENG TAOMU; JIANG HONGJIE
Prio:
Appl.No: CN201310569960
IPC: F25D 13/06



Single-freezing machine with double thermal insulation layers

The invention discloses a single-freezing machine with double thermal insulation layers. The single-freezing machine comprises a box body, two refrigerating units and a conveying mesh belt penetrating the box body. The two refrigerating units are located on the upper side and the lower side of the conveying mesh belt respectively; and the two thermal insulation layers are arranged on a shell of the box body. A gas layer is arranged between the two thermal insulation layers. The double thermal insulation layers are adopted, and the gas layer is arranged between the thermal insulation layers, so that the thermal insulation effect is enhanced. Cold air of the single-freezing machine is more not prone to emitting out, and energy is saved.

Publication: [CN 104654711 A 20150527](#)

Applicant: QINGDAO ZHONGTIAN XINDA
BIOTECHNOLOGY RES AND DEV CO LTD

Inventor: CHENG TAOMU; JIANG HONGJIE

Prio:

Appl.No: CN201310569985

IPC: F25D 13/06

CN 104654711 A 说明书附图 1/1 页

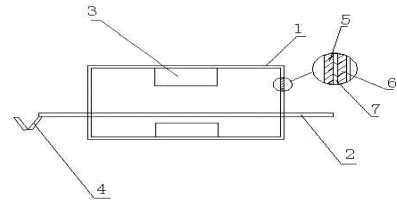


图 1

6

Refrigerator and controlling method thereof

The invention discloses a refrigerator and a method for controlling the refrigerator. The refrigerator comprises a refrigerator body, a wind channel, a refrigerating area, a freezing area, a temperature varying area and a semiconductor device, wherein the semiconductor device comprises a first radiator and a second radiator both which are arranged on both ends of a semiconductor module; the first radiator of the semiconductor device is connected with the temperature varying area and the second radiator is connected with the wind channel; the temperature varying area is arranged so that the heating function is realized in the refrigerator, and the space utilization ratio of the refrigerator is effectively increased.

Publication: [CN 104654712 A 20150527](#)

Applicant: HAIER GROUP CORP; HAIER GROUP TECH R &
D CT

Inventor: SUN YONGSHENG; TAO RUITAO; TENG
DONGHUI; WEI WEI

Prio:

Appl.No: CN201310603214

IPC: F25D 19/00

CN 104654712 A 说明书附图 1/2 页

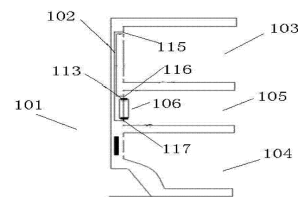


图 1

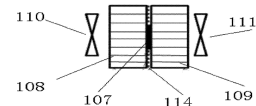


图 2

8

Middle-size and small-size frostless refrigeration house refrigeration device of solution dehumidifying combined air cooling machine

The invention relates to a middle-size and small-size frostless refrigeration house refrigeration device of a solution dehumidifying combined air cooling machine. A refrigeration house comprises a middle-temperature refrigeration house with the house temperature ranging from 0 to 5 DEG C, and a low-temperature refrigeration house with the house temperature ranging from -5 DEG C to -15 DEG C. The refrigeration device comprises three subsystems, namely a refrigeration circulating system, a solution circulating system and an air circulating system; main equipment is composed of a refrigeration compressor, a condenser, a solution condenser, a liquid storage device, a solution cooler, air coolers (A and B), dehumidifiers (A and B), a regenerator, a concentrated solution liquid storage device, a diluted solution liquid storage device, a gas-liquid separator, a concentrated solution pump and a diluted solution pump and the like. The solution condenser provides heat needed by solution regeneration; the solution cooler is used for cooling a dehumidifying solution; the dehumidifier A is used for dehumidifying circulating air of the low-temperature refrigeration house to reduce the humidity entering the air cooler B; the air cooler B is used for dehumidifying circulating air of the middle-temperature refrigeration house to reduce the humidity entering the air cooler A, so that the surfaces of coiled pipes of the air coolers (A and B) are prevented from being frosted and iced. A solution dehumidifying technology is used for dehumidifying the circulating air at inlets of the air coolers of the refrigeration houses so that the air dew point is reduced, and surface icing and frosting of surfaces of the cooling pipes can be completely solved; the middle-size and small-size frostless refrigeration house refrigeration device has very important meanings on the house temperature stable operation of the refrigeration houses and the energy conservation of the refrigeration houses.

Publication: [CN 104654713 A 20150527](#)

Applicant: UNIV ZHEJIANG OCEAN
Inventor: HAN ZHI; WANG JIALIANG; XU GUANGYING;
XU ZONGSHI

Prio:
Appl.No: CN201410699565
IPC: F25D 21/04

CN 104654713 A 说明书附图 1/2 页

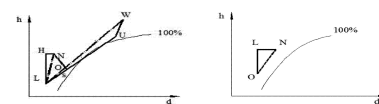


图 1

图 2

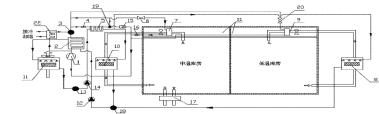


图 3

7

Cover box platform refrigerator

A cover box platform refrigerator comprises a cabinet body and a table top. The cover box platform refrigerator is characterized in that a glass cover box is mounted in the rear of the upper table top of the cabinet body, and a shelf is mounted in the cover box. The cover box platform refrigerator solves the problem of single function of a current cold-storage and fresh-keeping platform cabinet and is particularly suitable for kitchens of places such as a hotel and a guesthouse.

Publication: [CN 104654714 A 20150527](#)

Applicant: QINGDAO ABLE WELL ELECTRICAL APPLIANCE
CO LTD
Inventor: CHENG CHONGMO; LI SHENGQI; MA
SHIZHENG; SHI LEI; XU YUMING; ZHANG
JINGTAO

Prio:
Appl.No: CN201310587813

CN 104654714 A 说明书附图 1/1 页

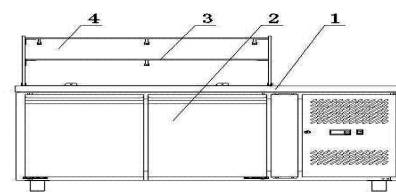


图 1

4

IPC: F25D 23/00

Sealing Structure For A Central Wall For A Refrigerator, And A Refrigerator Having The Same

The present disclosure relates to a sealing structure for a central wall for a refrigerator, and a refrigerator including the same. The sealing structure includes a refrigerating chamber inner case having a bent, angled or curved portion and a protrusion at one end; a freezer inner case having a bent, angled or curved portion and a protrusion at one end; a central wall which partitions the refrigerating chamber and freezer inner cases; a partition plate having bent, angled or curved portions at sides and/or a front surface thereof, seating grooves configured to receive the protrusions, and flanges at ends and/or a rear surface thereof, at or on a front surface of the central wall; a heat radiating pipe between the refrigerating chamber inner case and the freezer inner case; and a first supporting member on or in the bent, angled or curved portion of the refrigerating chamber inner case.

Publication: [CN 104654715 A 20150527](#)

Applicant: DONGBU DAEWOO ELECTRONICS CORP
Inventor: JANG DONG SIK
Prio: KR 20131121 20130141924
Appl.No: CN201310693355
IPC: F25D 23/00

CN 104654715 A 说明书附图 1/6页

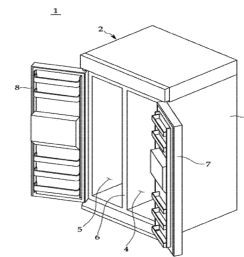


图 1

5

Ice refrigerator with chopsticks cage

The invention relates to an ice refrigerator with a chopsticks cage. The ice refrigerator comprises an ice refrigerator body, wherein the chopsticks cage is arranged at the edge of the free end of a door of the ice refrigerator body; a convex block is arranged on the back surface of the chopsticks cage; and a groove fitting the convex block is formed in the door of the ice refrigerator body. The ice refrigerator with the chopsticks cage realizes the purposes of the ice refrigerator besides refrigeration; the chopsticks cage is fixed on the ice refrigerator; people put chopsticks into the chopsticks cage; and the chopsticks cage dose not reverse, saves the space, and is designed in a detachable manner to bring convenience for cleaning, so that the convenience is brought to people life.

Publication: [CN 104654716 A 20150527](#)

Applicant: WIIMEDIA SOFTWARE CO LTD
Inventor: ZHANG CHUNJIANG
Prio:
Appl.No: CN201310570659
IPC: F25D 23/02

CN 104654716 A 说明书附图 1/2页

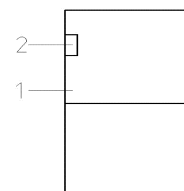


图 1

5

Single-door refrigerator

The invention discloses a single-door refrigerator. The single-door refrigerator comprises a refrigerator body (1) and a refrigeration pipe arranged in the rear wall of the refrigerator body (1), the refrigerator body (1) comprises a first side wall (2) and a second side wall (3), the first side wall (2) is provided with a humidification through hole (4), the outer side of the first side wall (2) of the refrigerator body (1) is firmly connected with a humidifier (5), the air outlet of the humidifier (5) is hermetically connected with the humidification through hole (4), an exhaust through hole (6) is formed in the second side wall (3), the outer side of the second side wall (3) is firmly connected with an exhaust fan (7), and the air inlet of the exhaust fan (7) is hermetically connected with the exhaust through hole (6). The single-door refrigerator has beneficial effects that the single-door refrigerator is capable of guaranteeing the humidity in the refrigerator and timely discharging the peculiar smell in the refrigerator so as to increase the goods preservation time in the refrigerator, and the single-door refrigerator is convenient to use; the single-door refrigerator has advantages of simple structure, convenience in maintenance, low processing cost, good freshness keeping effect and the like.

Publication: [CN 104654717 A 20150527](#)

Applicant: TIANJIN QIXING TECHNOLOGY DEV CO LTD

Inventor: YUAN FENGGANG

Prio:

Appl.No: CN201310593778

IPC: F25D 23/10

CN 104654717 A 说明书附图 1/1 页

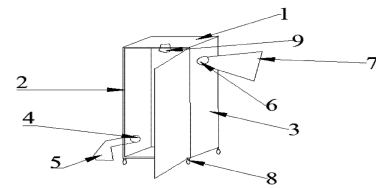


图 1

5

Refrigerator

A refrigerator includes an ice maker in a freezer and a water supply apparatus in a refrigerator chamber. The water supply apparatus is at a higher position than that of the ice maker and supplies water to the ice maker. The water supply apparatus includes a water tank configured to store water for making ice, a motor at one side of the water tank, a gear or other mechanism engaged with a driving shaft of the motor, and a second shaft connected to the gear, configured to open and close a water supply passage or hole in the water tank.

Publication: [CN 104654718 A 20150527](#)

Applicant: DONGBU DAEWOO ELECTRONICS CORP

Inventor: PARK WON-GU

Prio: KR 20131121 20130142053

Appl.No: CN201310684591

IPC: F25D 23/10

CN 104654718 A 说明书附图 1/1 页

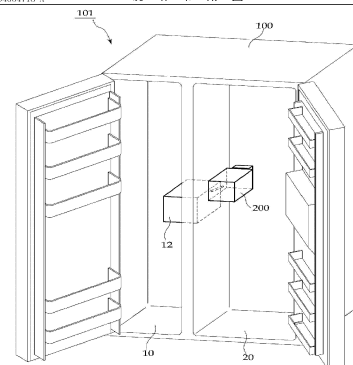


图 1

7

Refrigerator

The invention provides a refrigerator, which comprises a cavity, a phononic crystal piece and a compressor, wherein the outside wall surface of the cavity is provided with an installation cavity, the phononic crystal piece is arranged at the inner wall surface of the installation cavity, and the compressor is arranged at the inner bottom wall surface of the installation cavity by foot pads. The refrigerator has the advantages that the noise in the cavity is attenuated by the phononic crystal piece which is arranged in the cavity, the propagation of a large amount of noise to the outside is avoided, and the purpose of denoising the refrigerator is realized; the purchase requirement of a consumer on the refrigerator is well met, and the design concept of product optimizing of an enterprise is realized.

Publication: [CN 104654719 A 20150527](#)

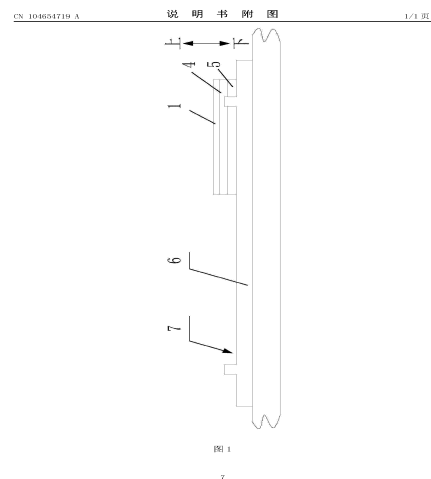
Applicant: HEFEI MIDEA REFRIGERATOR CO

Inventor: LYU JINSHUI

Prio:

Appl.No: CN201510109075

IPC: F25D 23/10



Refrigerator capable of achieving vegetable planting

The invention belongs to the field of vegetable planting, and particularly relates to a refrigerator capable of achieving vegetable planting. The refrigerator comprises a refrigeration layer and a planting layer; the refrigeration layer is arranged on the lower portion and is provided with a compressor and a refrigeration medium; and refrigeration and freshness retaining functions are achieved by circularly compressing the refrigeration medium. The planting layer is arranged on the upper portion and can be sequentially divided into three to four separated rooms; each growth separated room serves as a crop planting layer body; and each planting layer body is composed of a growth box, a crop culturing medium, a water mist spraying head, a mist spraying pump, an optical fiber light filling light source and ventilation holes. A temperature sensor and a humidity sensor are arranged in each planting layer body, so that the temperature and the moisture of the planting layer bodies can be automatically adjusted according to the internal environment of the planting layer bodies, and crop growth is facilitated.

Publication: [CN 104654720 A 20150527](#)

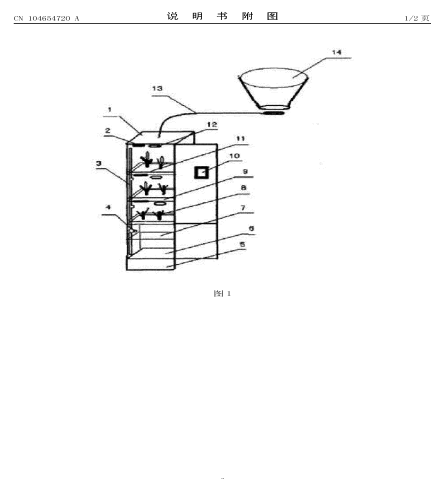
Applicant: MING TINGCHAO

Inventor: MING TINGCHAO

Prio:

Appl.No: CN201310572574

IPC: F25D 23/12



Vehicle-mounted cold/warm box with smoke sensing function

The invention belongs to an electronic product, and provides a vehicle-mounted cold/warm box with a smoke sensing function. The vehicle-mounted cold/warm box comprises a shell, and a power supply socket in the shell, wherein the shell is provided with a smoke sensor connected with the power supply socket. A groove chamber is formed in the shell; an electric socket connected with the power supply socket is arranged at the bottom of the groove chamber; the smoke sensor with a plug is clamped in the groove chamber; and the plug is matched with the electric socket. A handle is arranged on the front end surface of the smoke sensor. Chamfer angles are arranged at four corners of a port of the groove chamber. The vehicle-mounted cold/warm box realizes the smoke sensing function, and has functions of preventing the fire propagation and monitoring the indoor smoke content. A preferable detachable structure with the chamfer angles and the handle can achieve the effects of more convenience for use, simple structure and good practicability.

Publication: [CN 104654721 A 20150527](#)

Applicant: XI AN QINGYULAN INFORMATION TECHNOLOGY CO LTD

Inventor: WANG ZHIFENG

Prio:

Appl.No: CN201310575548

IPC: F25D 23/12

CN 104654721 A 说明书附图 1/1 页

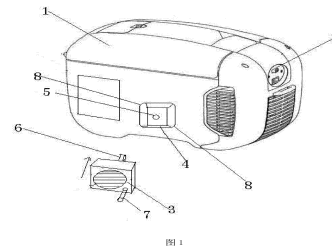


图 1

5

Vehicle-mounted cold and warm box with lighting function

The invention belongs to electronic products, and provides a vehicle-mounted cold and warm box with a lighting function. The vehicle-mounted cold and warm box comprises a shell and a power socket formed in the shell. An LED lamp set connected with the power socket is arranged at the front end of the shell. According to the scheme, the lighting function of the vehicle-mounted cold and warm box is achieved. Especially, at night and in the outdoor traveling process, the vehicle-mounted cold and warm box is of great use. According to the scheme, an inner ring of LED lamps and an outer ring of LED lamps are preferred, and the inner ring of LED lamps and the outer ring of LED lamps are each controlled by a three-gear power switch, so that the functions of saving energy and creating atmosphere are achieved, and the vehicle-mounted cold and warm box is simple in structure and high in practicability.

Publication: [CN 104654722 A 20150527](#)

Applicant: XI AN QINGYULAN INFORMATION TECHNOLOGY CO LTD

Inventor: WANG ZHIFENG

Prio:

Appl.No: CN201310575637

IPC: F25D 23/12

CN 104654722 A 说明书附图 1/3 页

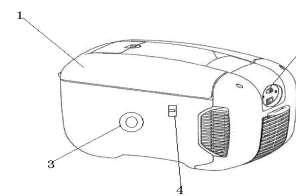


图 1

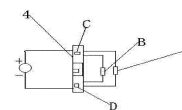


图 2

5

Vehicle-mounted cold and warm box with MP3 function

The invention belongs to electronic products, and provides a vehicle-mounted cold and warm box with an MP3 function. The vehicle-mounted cold and warm box comprises a shell and a power socket in the shell; and an MP3 player connected with the power socket is embedded into the side face of the shell. A conical groove is formed in the side face of the shell, and the bottom face of the conical groove is provided with a power interface connected with the power socket. The MP3 player which is provided with a plug matched with the power interface and is overall in a conical shape is clamped in the conical groove. According to the scheme, the MP3 function of the vehicle-mounted cold and warm box is achieved. Due to a preferred conical matched structure and a switch, the MP3 player has the self-locking performance at the matched position of the shell, and matching is more stable. The vehicle-mounted cold and warm box is simple in structure and high in practicability.

Publication: [CN 104654723 A 20150527](#)

Applicant: XI AN QINGYULAN INFORMATION TECHNOLOGY CO LTD

Inventor: WANG ZHIFENG

Prio:

Appl.No: CN201310575654

IPC: F25D 23/12

CN 104654723 A 说明书附图 1/1 页

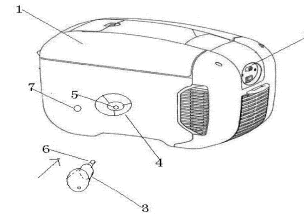


图 1

5

Vehicle-mounted cold and warm box with humidifying function

The invention belongs to electronic products, and provides a vehicle-mounted cold and warm box with a humidifying function. The vehicle-mounted cold and warm box comprises a shell and a power socket formed in the shell, and a humidifier connected with the power socket is arranged on the shell. A sliding groove with a blind hole in the lower end is formed in one side of the shell, and a sliding groove electrode connected with the power socket is arranged on the bottom face of the sliding groove; a sliding strip which is matched with the sliding groove and provided with an electrode in sliding connection with the sliding groove electrode is arranged on the back face of the humidifier; and the sliding groove is in a T shape, and a T-shaped sliding strip is arranged in the sliding groove in a matched manner. According to the scheme, the humidifying function of the vehicle-mounted cold and warm box is achieved, and especially, the vehicle-mounted cold and warm box is particularly practical in the northwest and in winter. Due to an optimized detachable structure, the vehicle-mounted cold and warm box is more convenient to use, flexible in control, simple in structure and high in practicability. According to the scheme, an optimized sliding groove motor and the T-shaped sliding groove sliding strip are matched, and therefore the vehicle-mounted cold and warm box is convenient to mount and dismount, simple in structure and high in practicability.

Publication: [CN 104654724 A 20150527](#)

Applicant: XI AN SHUZHENG ELECTRONIC TECHNOLOGY CO LTD

Inventor: PAN XIN

Prio:

Appl.No: CN201310575952

IPC: F25D 23/12

CN 104654724 A 说明书附图 1/1 页

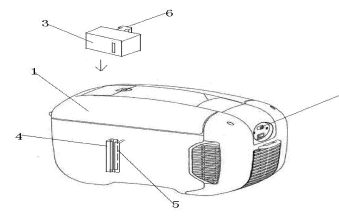


图 1

图 2

5

Refrigerator with electronic perpetual calendar and mirror

The invention specifically provides a refrigerator with an electronic perpetual calendar and a mirror. The refrigerator comprises a box body, wherein the box body is hinged to a box door, and is characterized in that the front face of the box door is provided with an accommodating groove, wherein one electronic perpetual calendar is fixedly arranged in the accommodating groove; the door box and the box body are magnetically closed; a slot is formed in the box door close to the closing part; a drawing plate is arranged in the slot; the mirror is arranged in the drawing plate. Compared with the prior art, the refrigerator has the advantages that the functions of the refrigerator are enriched, the perpetual calendar is additionally arranged to facilitate the examination of date and time by people, the space of the refrigerator is fully utilized. Besides, the mirror is arranged in the refrigerator, the drawing plate in the box door can be pulled out when a person needs to pick an object from the refrigerator, so the requirement that a person in love of beauty looks into the mirror at any time can be met. The refrigerator has a simple structure, is rational in design and has practicability.

Publication: [CN 104654725 A 20150527](#)

Applicant: XI AN SHUZHENG ELECTRONIC TECHNOLOGY
CO LTD

Inventor: PAN XIN

Prio:

Appl.No: CN201310583965

IPC: F25D 23/12

CN 104654725 A 说明书附图 1/2 页

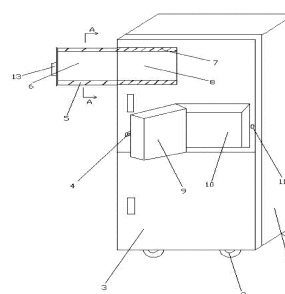


图 1

5

Multifunctional refrigerator

The invention particularly provides a multifunctional refrigerator. The multifunctional refrigerator comprises a box body, wherein one side of the box body is hinged to a door body. The multifunctional refrigerator is characterized in that the front side of the door body is provided with an accommodating chamber which is used for placing note paper; one side wall of the accommodating chamber is connected with a chamber cover; a pen cap is fixed on the inner side of the chamber cover; the right side of the box body is provided with a garbage box. Compared with the prior art, the functions of refrigerators are expanded and the accommodating chamber and the pen cap are added and accordingly the note paper and a pen can be placed. In addition, the box body is provided with the garbage box, people can throw the garbage into the garbage box arranged on one side of the refrigerator conveniently, and accordingly the convenience is brought to people, the space is saved, the structure is simple, the cost is low, and the practicability is achieved.

Publication: [CN 104654726 A 20150527](#)

Applicant: XI AN SHUZHENG ELECTRONIC TECHNOLOGY
CO LTD

Inventor: PAN XIN

Prio:

Appl.No: CN201310584304

IPC: F25D 23/12

CN 104654726 A 说明书附图 1/1 页

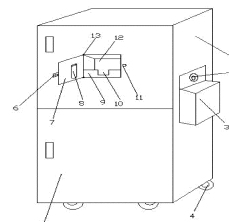


图 1

5

Food storage box and refrigerator

The invention discloses a food storage box and a refrigerator. The food storage box comprises a plurality of storage grooves and a plurality of proximity sensors, wherein each proximity sensor is arranged under the corresponding storage groove, and is connected with a main board, a through hole is formed in the bottom part of each storage groove, and a spring probe is embedded in each through hole; when the foods are contained into each storage groove, under the action force of the foods, each spring probe triggers the corresponding proximity sensor under the corresponding storage groove which is contained with the foods along the stress direction; when the foods are not contained in each storage groove, each spring probe restores to the initial state that the corresponding proximity sensor is not triggered; when each proximity sensor is triggered, a signal is sent to the main board; after the main board receives the signal, the information of the food contained in the food storage box is recorded. The food storage box has the advantages that the foods can be stored, the storage state of the current foods can be obtained, a user can eat, clean, add and replace the foods according to the food storage states, and the convenience is realized for the user.

Publication: [CN 104654727 A 20150527](#)

Applicant: TAIZHOU LG ELECT REFRIGERATOR

Inventor: SHENG LEI

Prio:

Appl.No: CN201510096506

IPC: F25D 25/02

CN 104654727 A 说明书附图 1/2页

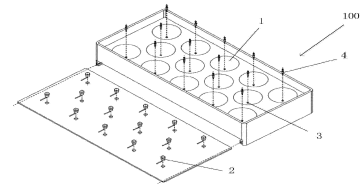


图 1

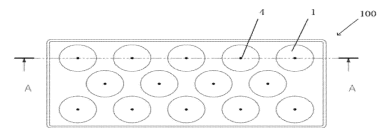


图 2

6

Bottle frame of refrigerator and refrigerator

The invention provides a bottle frame of a refrigerator and the refrigerator. The bottle frame of the refrigerator comprises a hollow outer frame body and an inner frame body, wherein the upper end of the outer frame body is provided with an opening, the upper part and the lower part of the inner frame body are communicated, the inner frame body is arranged in the outer frame body, and can be moved along the side wall of the outer frame body up and down, and the upper part of the inner frame body can upwards extend out of the outer frame body. The bottle frame of the refrigerator has the advantages that the height can be adjusted; after a user adjusts the height of the bottle frame, a bottle which is higher than the outer frame body is arranged in the bottle frame, so the tilting and damage of the bottle can be effectively prevented, the convenience is realized for the user, and the practicality is obvious.

Publication: [CN 104654728 A 20150527](#)

Applicant: HEFEI HUALING CO LTD

Inventor: JIN XIANGHUA; WANG HAO; ZHENG XUEZAI

Prio:

Appl.No: CN201510109051

IPC: F25D 25/02

CN 104654728 A 说明书附图 1/10页

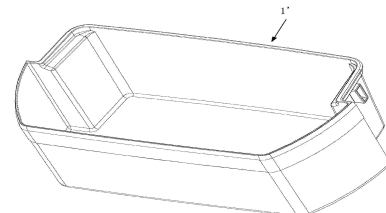


图 1

7

Multifunctional illuminating system for refrigerator

The invention relates to a multifunctional illuminating system for a refrigerator. The multifunctional illuminating system comprises a white light LED (Light Emitting Diode) illuminating module, a freshness keeping module, a sterilizing module, a deodorizing module and a control module, wherein driving devices of the illuminating module, the freshness keeping module, the sterilizing module and the deodorizing module are controlled and regulated by the control module. According to the multifunctional illuminating system for the refrigerator, the illuminating module, the freshness keeping module, the sterilizing module and the deodorizing module are integrally mounted, and the situation that the functions of an illuminating system for the refrigerator are single is changed, so that the multifunctional illuminating system has multiple functions of freshness keeping, sterilizing, deodorizing and the like besides the illuminating function.

Publication: [CN 104654729 A 20150527](#)

Applicant: DEQING NEW MINGHUI ELECTRIC LIGHTING CO LTD; UNIV FUDAN

Inventor: HAN QIUYI; LI QINGMING; LI XIAOQIN; QIAN YONG; ZHANG SHANDUAN; ZHU QIANWEN

Prio:

Appl.No: CN201510023015

IPC: F25D 27/00

CN 104654729 A 说明书附图 1/3页

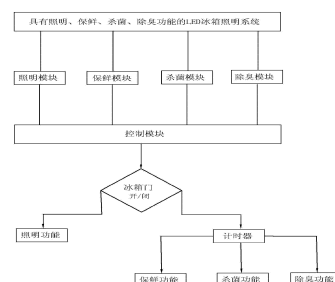


图 1

7

Movable refrigerator with monitor anti-theft function

The invention specifically provides a movable refrigerator with monitor anti-theft function; the movable refrigerator with monitor anti-theft function comprises a refrigerator body, a door body is hinged on the refrigerator body, wherein the refrigerator body is provided with an infrared anti-theft alarm device; a camera is fixed at the top of the door body; the camera is connected with an image processor which is arranged inside the refrigerator body; the image processor is connected with an image output interface on the lateral wall of the refrigerator body through an image storage; each of the four corners at the bottom of the refrigerator body is provided with a roller. Comparing to the prior art, the movable refrigerator with monitor anti-theft function has the advantages that: the functions of the refrigerator are extended; the infrared anti-theft alarm device is installed in addition; bumping can be given when a thief move close to the refrigerator, so as to remind people to take measures. The movable refrigerator is further provided with the camera; the defect that the existing monitors are not installed secret enough is solved; the indoor environment can be monitored; the security of family property is ensured.

Publication: [CN 104654730 A 20150527](#)

Applicant: XI AN SHUZHENG ELECTRONIC TECHNOLOGY CO LTD

Inventor: PAN XIN

Prio:

Appl.No: CN201310584058

IPC: F25D 29/00

CN 104654730 A 说明书附图 1/3页

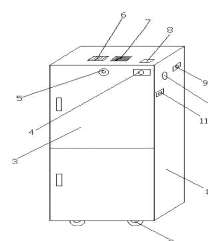


图 1

6

Method for saving energy of refrigerator with display

The invention discloses a method for saving energy of refrigerator with display; a hinge component and a hinge cover which covers the hinge component are fixed at the rotary connection between the refrigerator body and the refrigerator door; a travel switch which is triggered when the hinge component acts is arranged inside the hinge cover; and the travel switch is connected with a control module of a display device; the hinge component acts when the refrigerator door is open, the travel switch is triggered, the travel switch sends a signal to the control module; after the control module receives the signal, the control module drives the display device to cut off the power supply; when the refrigerator door is closed from the open state, the travel switch is triggered again, the travel switch sends a signal to the control module; the control module connects through the power supply of the display device after receiving the signal and delaying a setting time. The hinge component and the travel switch are installed between the refrigerator door and the refrigerator body; when the refrigerator door is open, the travel switch is triggered to send the signal for switching off the display device, thereby saving electricity.

Publication: [CN 104654731 A 20150527](#)

Applicant: QINGDAO JIAHEXING MILLING CO LTD

Inventor: LIU ZESHENG

Prio:

Appl.No: CN201310592086

IPC: F25D 29/00

Refrigerator with a configurable space

A refrigerator includes a configurable space having a Hall effect integrated circuit configured to detect a magnetic field and generate an electrical signal; a function control device configured to control an environment of the configurable space according to predetermined or preset information and the electrical signal from the Hall integrated circuit; and a storage bin in the configurable space, having a magnet thereon or therein in a location corresponding to the Hall effect integrated circuit.

Publication: [CN 104654732 A 20150527](#)

Applicant: DONGBU DAEWOO ELECTRONICS CORP

Inventor: KIM JAE SANG

Prio: KR 20131121 20130142056

Appl.No: CN201310723873

IPC: F25D 29/00

CN 104654732 A 说明书附图 1/7 页

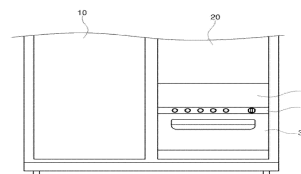


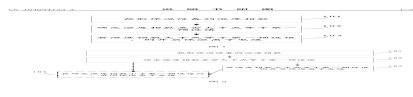
图 1

8

Control method of moisturizing ion circuit and moisturizing equipment

The embodiment of the invention provides a control method of a moisturizing ion circuit and moisturizing equipment, relates to the field of moisturizing, and aims to reduce the energy waste. The method is applied to the moisturizing equipment; the moisturizing equipment comprises the moisturizing ion circuit; the method comprises the following steps: acquiring a humidity index of the moisturizing equipment; determining whether the humidity index is greater than or equal to a first preset value; if the humidity index is greater than or equal to the first preset value, opening the moisturizing ion circuit to enable the moisturizing ion circuit to generate moisturizing functional ions. The method and the equipment are suitable for occasions of refreshment of refrigerators.

Publication: [CN 104654733 A 20150527](#)



9

Applicant: HISENSE RONSHEN GUANGDONG
REFRIGERATORS CO LTD
Inventor: WANG HAIYAN; YANG MIN
Prio:
Appl.No: CN201510042247
IPC: F25D 29/00

Method for indicating failure by using mesoecium illumination lamp and cold storage device

The embodiment of the invention provides a method for indicating a failure by using a mesoecium illumination lamp and a cold storage device. The cost of the cold storage device can be reduced, and the accuracy of failure indication can be improved. The cold storage device comprises a control plate and at least one mesoecium, wherein each mesoecium is provided with a door body, a mesoecium door switch and the mesoecium illumination lamp; the door body is used for opening and closing the mesoecium; the mesoecium door switch and the mesoecium illumination lamp correspond to the door body and are respectively connected with the control plate. When the door body is closed, the mesoecium door switch is turned off; when the door body is opened, the mesoecium door switch is turned on; meanwhile, the mesoecium door switch can be manually opened or closed. The method comprises the following steps that when the mesoecium door switch of the cold storage device is opened, the control plate controls the mesoecium illumination lamp to be turned on; when the mesoecium door switch of the cold storage device is closed, the control plate controls the mesoecium illumination lamp to indicate the failure. The method for indicating the failure provided by the embodiment of the invention is used for indicating the failure of the cold storage device.

Publication: [CN 104654734 A 20150527](#)

Applicant: HISENSE RONSHEN GUANGDONG
REFRIGERATORS CO LTD
Inventor: CHEN XING; CHEN YINFEI; GU XIAO; YAO
HUIMIN; ZENG WEN
Prio:
Appl.No: CN201510064094
IPC: F25D 29/00

CN 104654734 A 说明书附图 1/3页

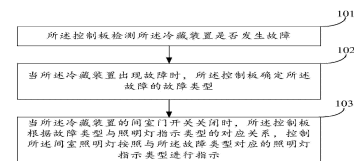


图1

15

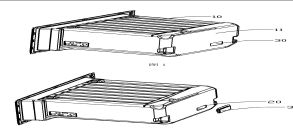
Assembling method for detection module in refrigerator

The invention provides an assembling method for a detection module in a refrigerator. The assembling method for the detection module in the refrigerator is used for installing the detection module in a foaming space between a refrigerator box body and a liner and comprises the following assembling steps of providing a holding box to fix the detection module in the holding box; forming a conducting hole in the liner and partially holding the holding box in the conducting hole; fixing the holding box on the rear side of the liner in a contact manner; performing foaming in the foaming space, after which the assembling of the detection module is completed. The assembling method for the detection module provided by the invention has the advantages that the assembling process is simplified, the production cost is reduced, the working environment of workers is improved and the integration with the master controller of the refrigerator is facilitated.

Publication: [CN 104654735 A 20150527](#)

Applicant: QINGDAO HAIER CO LTD; QINGDAO HAIER
REFRIGERATOR CO LTD
Inventor: JIANG YAN; LI DAN; LU XIAODONG; YU
HONGWEI; ZHENG JIAN

CN 104654735 A 说明书附图 1/3页



16

Prio:
Appl.No: CN201510072626
IPC: F25D 29/00

Refrigerator

The invention relates to a refrigerator. The refrigerator can comprise a plurality of door bodies and one or a plurality of operation detection modules. Particularly, each operation detection module is arranged on one door body and is configured to generate one or a plurality of operating signals according to an external operation within a distance range at the front thereof, so that the refrigerator can control another door body to open according to the one or plurality of operating signals generated by the operation detection module. The refrigerator provided by the invention has the advantages that a user is enabled to stay away from the opened door body and the door body is prevented from colliding and injuring a human body during opening since the operation detection module for generating the operating signals to control one door body to open is arranged on another door body.

Publication: [CN 104654736 A 20150527](#)

Applicant: QINGDAO HAIER CO LTD
Inventor: LI CHUNYANG; MIAO JIANLIN; WANG MING
Prio:
Appl.No: CN201510073424
IPC: F25D 29/00

CN 104654736 A 说明书附图 1/3页

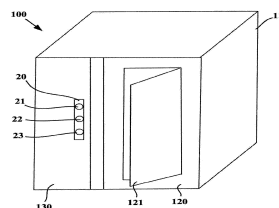


图 1

6

Waterproof display control assembly and refrigerator

The invention provides a waterproof display control assembly and a refrigerator. The waterproof display control assembly comprises a hollow embedding box, a panel and a control board, wherein one end of the embedding box is provided with an opening, the embedding box is arranged at the outside wall of an inner cavity and covers an installation opening of the outside wall of the inner cavity, the embedding box is internally provided with an installation cavity, the panel is arranged in the installation cavity, an overflow groove is formed in the part, near the installation opening, of the outside wall of the circumference, the control board is arranged in the installation cavity, and is positioned between the panel and the inner bottom wall of the embedding box, and the water which flows from the inner wall of the inner cavity to the upper side wall of the panel flows downwards along the overflow groove, and is disengaged from the panel. The waterproof display control assembly has the advantage that the water which flows from the inner wall of the inner cavity to the upper side wall of the panel flows downwards along the overflow groove, and is disengaged from the panel, and the water is prevented from entering the installation cavity and touching the control board, so the damage to the control board and electric shock accidents are avoided, the property of a refrigerator is well guaranteed, and the practicality is obvious.

Publication: [CN 104654737 A 20150527](#)

Applicant: HEFEI HUALING CO LTD
Inventor: HONG HU
Prio:
Appl.No: CN201510102462

CN 104654737 A 说明书附图 1/3页

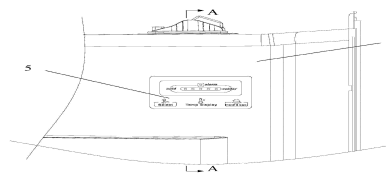


图 1

7

IPC: F25D 29/00

Mechanical type refrigerator door state alarm device

The invention discloses a mechanical type refrigerator door state alarm device. The mechanical type refrigerator door state alarm device is composed of a voice alarm circuit and a matched loudspeaker, wherein the voice alarm circuit is in parallel connected to the two ends of a lighting lamp; the voice alarm circuit is used for supplying power to the loudspeaker. When the refrigerator door is not closed or not closed tightly, voice promotion and alarm can be generated. The mechanical type refrigerator door state alarm device is small in size, low in cost, free of needs of changing a refrigerator structure and a circuit, and convenient to mount.

Publication: **CN 104654738 A 20150527**

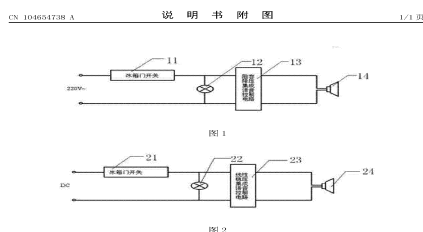
Applicant: HEFEI SIMAKE ELECTRONICS CO LTD

Inventor: DENG DAOKUI; JIANG FUQIANG

Prio:

Appl.No: CN201510110678

IPC: F25D 29/00



Refrigerator

A refrigerator according to an embodiment comprises a biological information acquisition means for acquiring the biological information of a person.

Publication: **CN 104662382 A 20150527**

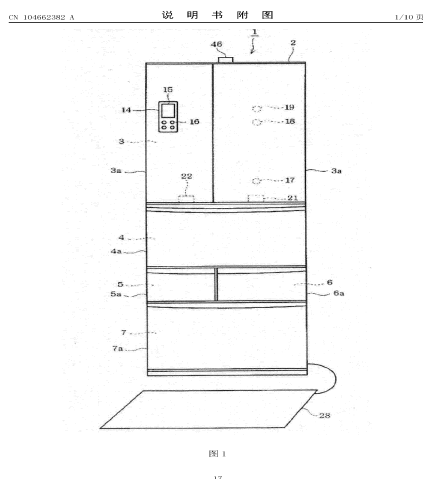
Applicant: TOSHIBA CONSUMER ELECT HOLDING; TOSHIBA HOME APPLIANCES CORP; TOSHIBA KK

Inventor: FURUTA KAZUHIRO; MARUTANI YUUKI; MASHIMO TAKUYA

Prio: JP 20120925 2012210849, JP 20130904 2013073800

Appl.No: CN201380049761

IPC: F25D 11/00

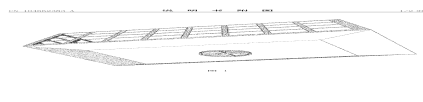


A freezer and method of its operation

A freezer for storing frozen confectionery products, the freezer comprising a substantially sealed openable chamber for storing the frozen confectionery products and having a lower region and an upper region, the lower region comprising air circulation means for directing air from the lower region to the upper region and refrigeration means for chilling the chamber.

Publication: **CN 104662383 A 20150527**

Applicant: UNILEVER NV



Inventor: DIKS-WARMERDAM LEONIE MARTINE;
HOGLAND HANS; TETRADIS-MAIRIS
GEORGIOS
Prio: EP 20130828 2013067763, EP 20120928
12186466
Appl.No: CN201380050865
IPC: F25D 17/06

Connection device of drawer-type refrigerator

Publication: **CN 101858681 B 20150513**

Applicant: HEFEI MIDEA REFRIGERATOR CO; HEFEI
MIDEA ROYALSTAR REFRIGER
Inventor: CHENG JIAN; LI LINGYUN; ZHU TAO
Prio:
Appl.No: CN201010213021
IPC: F25D 23/10

CN 101858681 B 说明书附图 1/2页

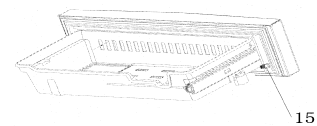


图1

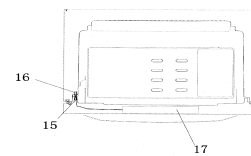


图2

6

Refrigerator applying radio frequency identification technology

Publication: **CN 101963431 B 20150527**
Applicant: HAIER GROUP CORP; QINGDAO HAIER CO LTD
Inventor: TIAN JIANBING; WANG MING; WANG
ZHENGYUE; WU HAIBIN; ZHANG KUI
Prio:
Appl.No: CN201010212249
IPC: F25D 23/10

CN 101963431 B 说明书附图 1/3页

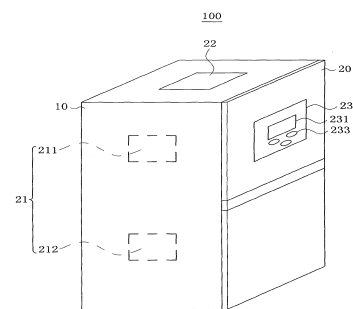
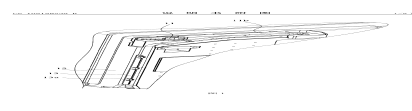


图1

7

Refrigerator

Publication: **CN 102128539 B 20150527**



8

Applicant: HAIER GROUP CO LTD; QINGDAO HAIER CO LTD
Inventor: DENG SHOULIANG; LI CHENGLIN; LI SHIDONG; WANG HAIJUAN; YU XINGJIA; ZHENG JIAN
Prio:
Appl.No: CN201010001137
IPC: F25D 23/12

Refrigerator and/or freezer

Publication: **CN 102135370 B 20150513**

Applicant: LIEBHERR HAUSGERAETE
Inventor: ARNULF PROBST; BERND BRUESSING
Prio: DE 20070119 202007000824, DE 20070213 202007002134, DE 20070216 202007002350
Appl.No: CN201110064909
IPC: F25D 27/00

CN 102135370 B 说明书附图 1/3页

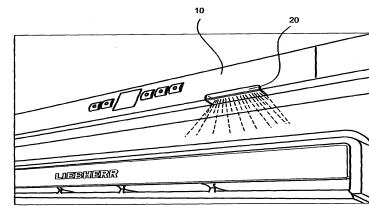


图 1

9

Refrigerator having a drawer

Publication: **CN 102235797 B 20150506**

Applicant: SAMSUNG ELECTRONICS CO LTD
Inventor: HONG DAE-JIN; HWANG JI-SICK; LIM JAE-HOON; PARK SUNG-IL
Prio: KR 20100421 20100036657, KR 20110208 20110010832
Appl.No: CN201110097674
IPC: F25D 23/12

CN 102235797 B 说明书附图 1/6页

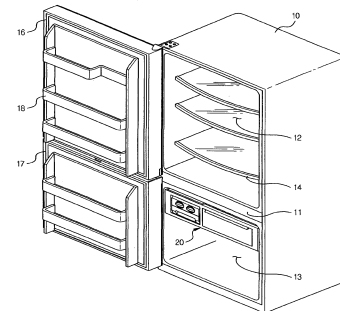


图 1

10

Detection device and method of defrosting device for refrigerator

Publication: **CN 102322718 B 20150520**

Applicant: HISENSE BEIJING ELECTRICAL APPLIANCE CO

Inventor: LTD
LAN YONGYU; LIU ZHAOXIANG; ZHU JIANGAO
Prio:
Appl.No: CN201110155217
IPC: F25D 21/08

Sliding shelves for refrigerators and freezers

Publication: **CN 102395849 B 20150513**

Applicant: ELECTROLUX DO BRASIL SA
Inventor: AMARAL GUSTAVO GNOATTO; DAVIN ADRIANO; FIALKOWSKI VALKIRIA PEDRI; GNYPEK MARIO FILHO; LOPES RAFAEL AMARAL ALONSO; MIRANDA JACQUES EDOUARD DE HOLANDA; WOLFF RODRIGO TELLES
Prio: BR 20100416 2010000126, BR 20090416 MU 8900569
Appl.No: CN201080016919
IPC: F25D 25/02

CN 102395849 B 说明书附图 1/4 页

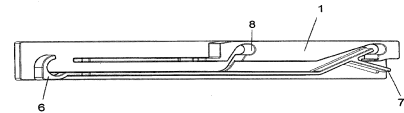


图 1

7

Ice maker control system and method

Publication: **CN 102405383 B 20150520**

Applicant: ELECTROLUX HOME PROD INC
Inventor: CANDEO MARCELO; COMSA CORNEL; DUCHARME DAVID R; FU XIAOYONG; HALL DAVID L; HANSEN DENNIS CARL; MAXIE GERALD; MCCOLLOUGH THOMAS W; SCHENK DENNIS; WATTS RUSSELL
Prio: US 20100226 2010025582, US 20090228 15650109
Appl.No: CN201080014279
IPC: F25D 17/06

CN 102405383 B 说明书附图 1/22 页

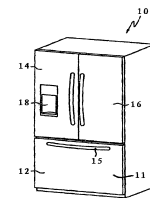


图 1

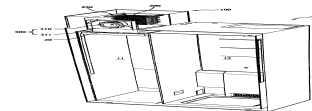
24

Refrigerator

Publication: **CN 102410692 B 20150527**

Applicant: LG ELECTRONICS INC
Inventor: YOON JONG-SOO
Prio: KR 20100720 20100069805

CN 102410692 B 说明书附图 1/1 页



1

Appl.No: CN201110242063
IPC: F25D 19/00

Refrigerator

Publication: **CN 102472550 B 20150513**

Applicant: LG ELECTRONICS INC
Inventor: AHN KWANG-WOON; CHO YEON-WOO; KIM YOUNG-JIN; SONG GYE-YOUNG

Prio: KR 20090715 20090064668, KR 20100610 2010003739

Appl.No: CN201080030797
IPC: F25D 19/00

CN 102472550 B 说明书附图 1/19页

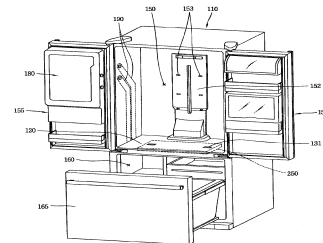


图 1

14

Refrigeration apparatus

Publication: **CN 102483280 B 20150527**

Applicant: SURE CHILL COMPANY LTD
Inventor: TANSLEY IAN
Prio: GB 20100709 2010051129, GB 20090715 0912286, GB 20090915 0916160

Appl.No: CN201080041090
IPC: F25D 11/00

CN 102483280 B 说明书附图 1/17页

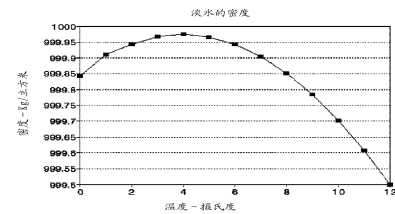


图 1

10

Container for refrigerated products for a refrigeration appliance

Publication: **CN 102483286 B 20150520**

Applicant: BSH BOSCH SIEMENS HAUSGERAETE
Inventor: BISCHOFBERGER THOMAS; BORMANN MARIETTA; CIZIK HERBERT; EICHLER MARTIN; IHLE HANS; POIDINGER ALBERT

Prio: DE 20090902 102009029133, EP 20100823 2010062222

CN 102483286 B 说明书附图 1/12页

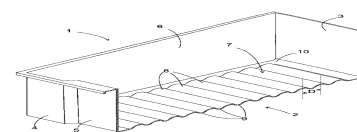


图 1

11

Appl.No: CN201080039076
IPC: F25D 21/14

Refrigerator

Publication: **CN 102564031 B 20150513**

Applicant: HEFEI HUALING CO LTD; HEFEI MIDEA REFRIGERATOR CO

Inventor: HAN XILI

Prio:

Appl.No: CN201210044370

IPC: F25D 23/10

CN 102564031 B 说明书附图 1/10页

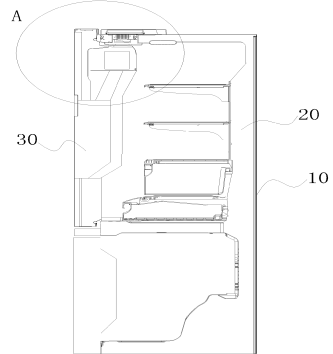


图 1

7

Insulated panel and method of assembly

Publication: **CN 102713478 B 20150513**

Applicant: ELECTROLUX HOME CARE PROD NA

Inventor: ANWAR MOHAMMED; CHITRE ROHIT; SANDERS PHILIP

Prio: AU 20091120 2009905704, AU 20101119 2010001560

Appl.No: CN201080059483

IPC: F25D 23/06

CN 102713478 B 说明书附图 1/10页

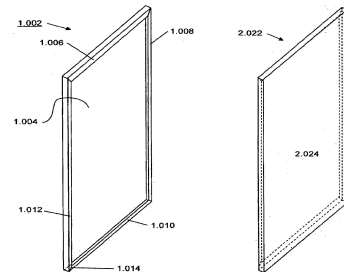


图 1

图 2

11

Refrigerator

Publication: **CN 102753922 B 20150513**

Applicant: PANASONIC CORP

Inventor: KAKITA KENICHI; UEDA YOSHIHIRO; UENO OSAMU; YAMANAKA NAOKI

Prio: JP 20100303 2010046442, JP 20100303 2010047164, JP 20100303 2010047197, JP 20110228 2011001145

CN 102753922 B 说明书附图 1/10页

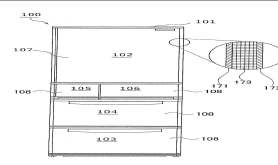


图 1

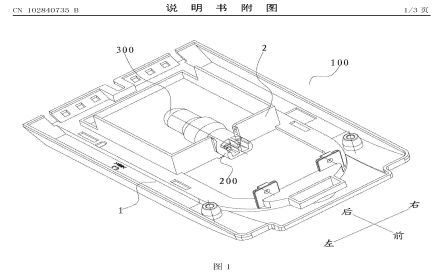
10

Appl.No: CN201180009129
IPC: F25D 27/00

Temperature control box for refrigerator and refrigerator provided with same

Publication: **CN 102840735 B 20150513**

Applicant: HEFEI MIDEA REFRIGERATOR CO
Inventor: FAN WEI
Prio:
Appl.No: CN201210349187
IPC: F25D 29/00

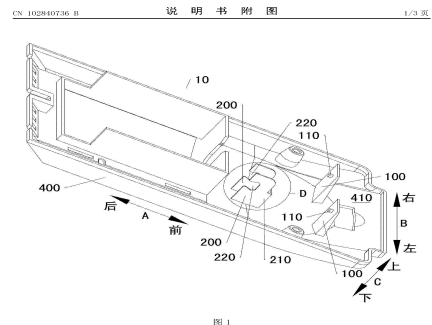


7

Temperature control box and refrigerator provided with same

Publication: **CN 102840736 B 20150513**

Applicant: HEFEI MIDEA REFRIGERATOR CO
Inventor: TAN YAN; WEI JIAN
Prio:
Appl.No: CN201210382199
IPC: F25D 29/00

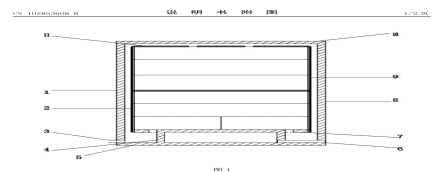


8

Laminated forced-cooling environment-protection electricity-saving refrigerator

Publication: **CN 102853608 B 20150513**

Applicant: LIUZHOU JINGYANG ENERGY SAVING
TECHNOLOGY RES DEV CO LTD
Inventor: WEI ZHAN
Prio:
Appl.No: CN201210318235



9

IPC: F25D 11/00

Refrigerator

Publication: [CN 102878759 B 20150513](#)

Applicant: HEFEI MIDEA REFRIGERATOR CO
Inventor: HAN LEI; PAN JUZHONG; PAN SHUWEI
Prio:
Appl.No: CN201210417353
IPC: F25D 23/02

CN 102878759 B 说明书附图 1/1页

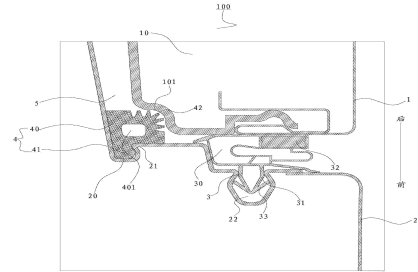


图 1

7

Refrigerator

Publication: [CN 102878760 B 20150513](#)

Applicant: HEFEI MIDEA REFRIGERATOR CO
Inventor: HAN LEI; PAN JUZHONG; PAN SHUWEI
Prio:
Appl.No: CN201210417372
IPC: F25D 23/02

CN 102878760 B 说明书附图 1/1页

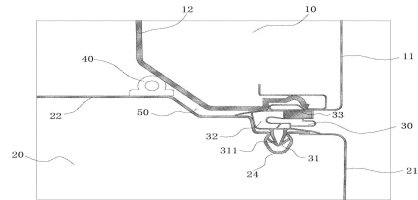


图 1

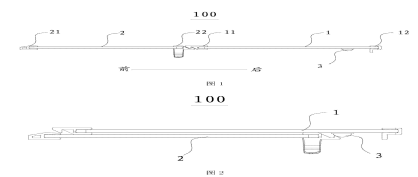
7

Refrigerator and glass storage rack assembly thereof

Publication: [CN 102878770 B 20150513](#)

Applicant: HEFEI MIDEA REFRIGERATOR CO
Inventor: WU GANG
Prio:
Appl.No: CN201210428596

CN 102878770 B 说明书附图 1/1页



11

IPC: F25D 25/02

Shelf component for refrigerator and refrigerator with shelf component

Publication: [CN 102878771 B 20150513](#)

Applicant: HEFEI MIDEA REFRIGERATOR CO

Inventor: ZHANG JIANHAI

Prio:

Appl.No: CN201210430964

IPC: F25D 25/02

CN 102878771 B 说明书附图 1/2页

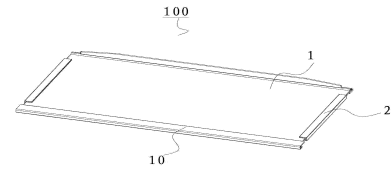


图 1

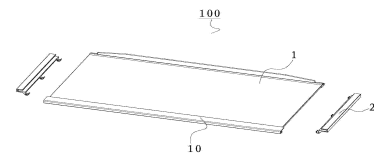


图 2

7

Refrigerator

Publication: [CN 102889731 B 20150506](#)

Applicant: LG ELECTRONICS INC

Inventor: JO IL-HYEON; LEE TAE-HEE; YUN SEOK-JUN;
YUN YOUNG-HOON

Prio: KR 20110721 20110072310, KR 20110721
20110072311, KR 20110721 20110072312

Appl.No: CN201210252703

IPC: F25D 11/02

CN 102889731 B 说明书附图 1/14页

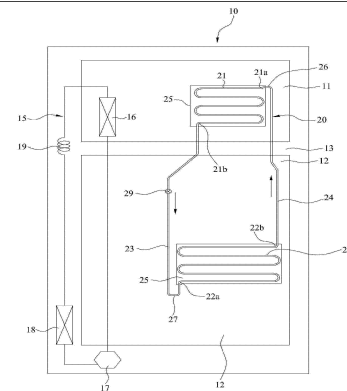


图 1

22

Refrigerator

Publication: [CN 102889738 B 20150520](#)

Applicant: LG ELECTRONICS INC

Inventor: KIM JOO-HYUN

Prio: KR 20110720 20110071818

Appl.No: CN201210233302

CN 102889738 B 说明书附图 1/4页

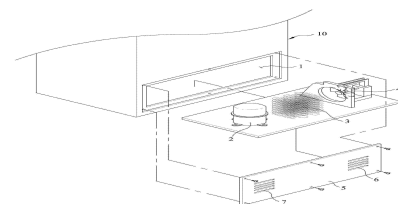


图 1

11

IPC: F25D 19/00

Refrigerator

Publication: [CN 102889741 B 20150513](#)

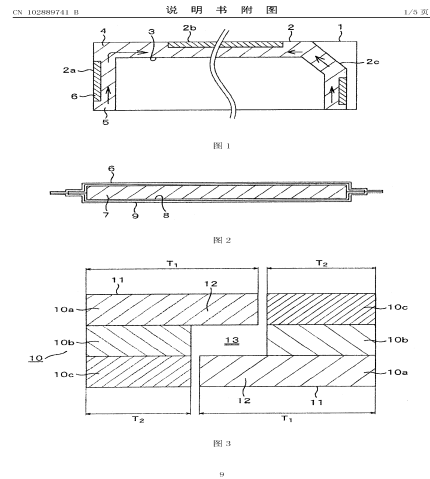
Applicant: HITACHI APPLIANCES INC

Inventor: YAMASAKI YASUI

Prio: JP 20110719 2011157401

Appl.No: CN201110302421

IPC: F25D 23/10



Door body and refrigerator with same

Publication: [CN 102901314 B 20150513](#)

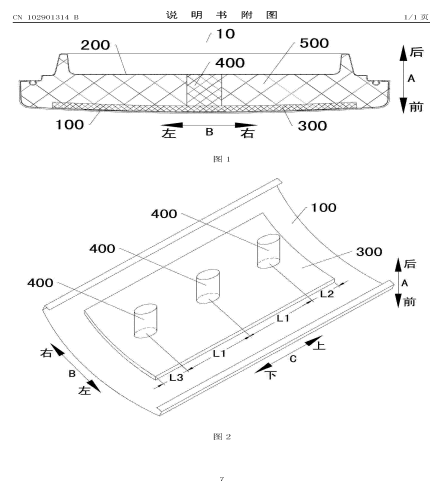
Applicant: HEFEI HUALING CO LTD

Inventor: DENG YUAN; SUN LIXIN

Prio:

Appl.No: CN201210460562

IPC: F25D 23/02



Drain pipe component for cold cabinet and cold cabinet with same

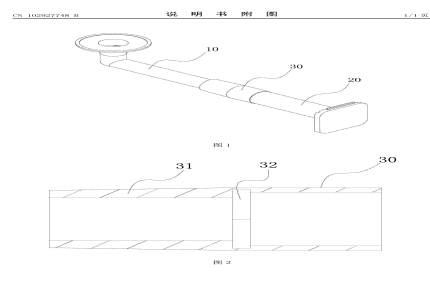
Publication: [CN 102927748 B 20150513](#)

Applicant: HEFEI MIDEA ROYALSTAR REFRIGER

Inventor: LIU CHAO; WU AN; ZHANG CHUNZHI; ZHANG HUAWEI

Prio:

Appl.No: CN201210487186



IPC: F25D 21/14

Refrigerator

Publication: [CN 102937353 B 20150520](#)

Applicant: SUZHOU SAMSUNG ELECTRONICS CO
Inventor: CAI YI; JIANG YANQIANG; JIN YIGEN; ZHAO XINGGEN

Prio:
Appl.No: CN201110233114
IPC: F25D 11/00

CN 102937353 B 说明书附图 1/6页

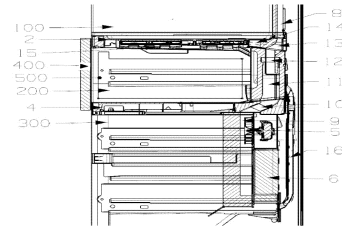


图1

8

Drawer structure of refrigerator

Publication: [CN 102937359 B 20150527](#)

Applicant: HAIER GROUP CO LTD; QINGDAO HAIER CO LTD
Inventor: LIU ZHAOLEI; ZHANG JIAN

Prio:
Appl.No: CN201210483353
IPC: F25D 25/02

CN 102937359 B 说明书附图 1/2页

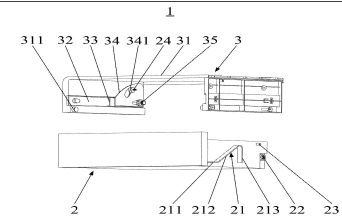


图1

图2

6

Portable electronic refrigerator

Publication: [CN 102967102 B 20150520](#)

Applicant: CHEN ZHIMING; GU WEI; JIANGSU YUZHONG NEW MATERIAL TECHNOLOGY CO LTD
Inventor: CHEN ZHIMING; GU WEI

Prio:
Appl.No: CN201210351159

CN 102967102 B 说明书附图 1/2页

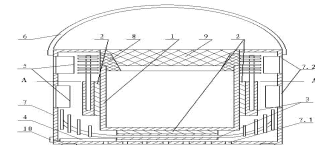


图1

6

IPC: F25D 11/00

Door body applied to refrigerator and refrigerator with door body

Publication: **CN 102967110 B 20150513**

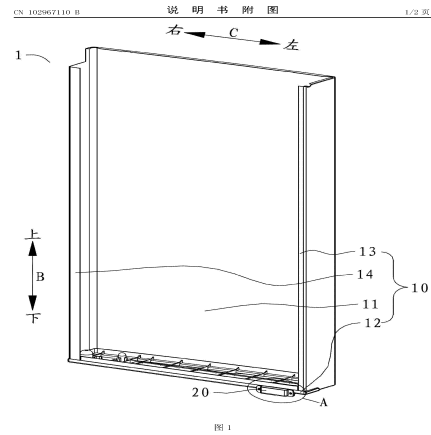
Applicant: HEFEI MIDEA REFRIGERATOR CO

Inventor: YAO JUN

Prio:

Appl.No: CN201210549563

IPC: F25D 23/02



Door body used for refrigerator and wine cabinet

Publication: **CN 102979408 B 20150520**

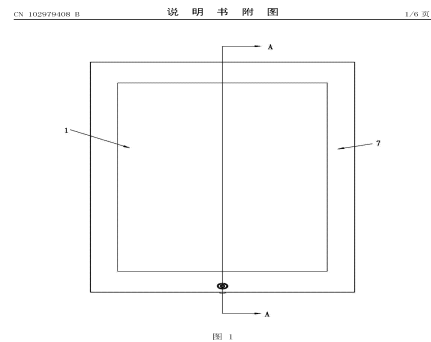
Applicant: NEW SHUNXIANG ELECTRICAL APPLIANCE CO LTD

Inventor: DENG GUIBING; LI YUFENG; OU BO

Prio:

Appl.No: CN201210483937

IPC: F25D 23/02



Refrigerator

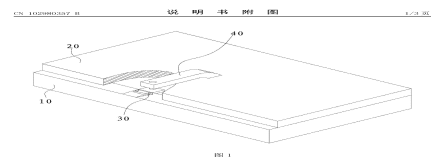
Publication: **CN 102980357 B 20150513**

Applicant: HEFEI MIDEA REFRIGERATOR CO

Inventor: LIU XIUYU; LU JUN; SHEN JIAN; WANG SHENGJIE; ZHANG YU

Prio:

Appl.No: CN201210567065



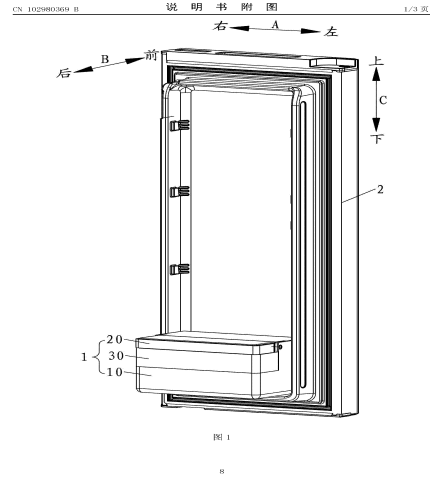
IPC: F25D 23/02

Door tray for refrigerator and refrigerator with same

Publication: [CN 102980369 B 20150513](#)

Applicant: HEFEI MIDEA REFRIGERATOR CO
Inventor: CHEN HAO; CHEN SONGFEI; HU YANMEI; XU YANPING; ZHANG HAIXING

Prio:
Appl.No: CN201210581217
IPC: F25D 25/02



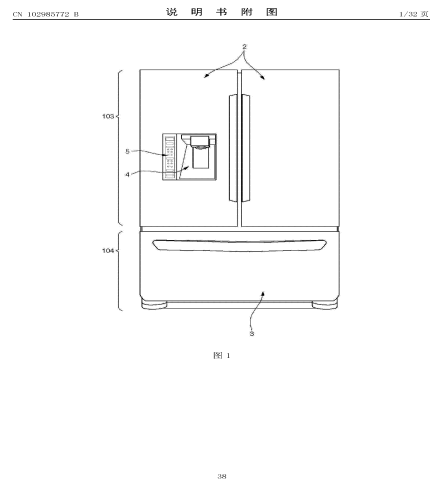
Refrigerator and cooling apparatus

Publication: [CN 102985772 B 20150513](#)

Applicant: LG ELECTRONICS INC
Inventor: CHO YEON-WOO; KIM YANG-GYU; LEE YOUN-SEOK

Prio: KR 20100713 20100067196, KR 20100715 20100068244, KR 20100715 20100068461, KR 20100715 20100068466, KR 20100719 20100069358, KR 20101119 20100115536, KR 20101119 20100115549, KR 20110628 20110062878, KR 20110713 2011005158, US 20101119 41551910, US 20101119 41553710

Appl.No: CN201180034721
IPC: F25D 11/02

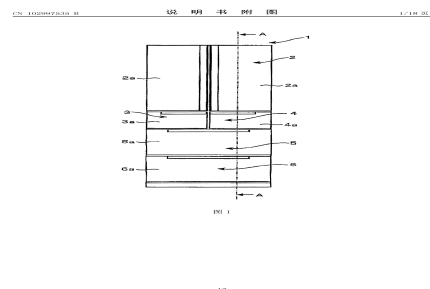


Refrigerator

Publication: [CN 102997535 B 20150520](#)

Applicant: HITACHI APPLIANCES INC
Inventor: FUJIKI YOSHIKI; OKATOME SHINICHIRO

Prio: JP 20110912 2011197823
Appl.No: CN201210038762



IPC: F25D 11/00

Refrigerator

Publication: [CN 102997550 B 20150527](#)

Applicant: MITSUBIHI ELECTRIC CORP
Inventor: MAEDA TAKESHI; YAMATO YASUNARI
Prio: JP 20110912 2011197976
Appl.No: CN201210336729
IPC: F25D 11/02

CN 102997550 B 说明书附图 1/13页

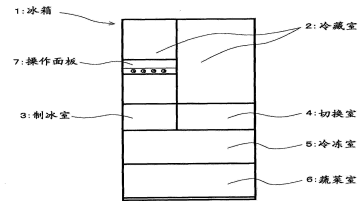


图 1

17

Fruit and vegetable box for refrigeration device and refrigeration device with fruit and vegetable box

Publication: [CN 103017467 B 20150513](#)

Applicant: HEFEI HUALING CO LTD
Inventor: ZHANG JIANHAI
Prio:
Appl.No: CN201210536409
IPC: F25D 25/02

CN 103017467 B 说明书附图 1/2页

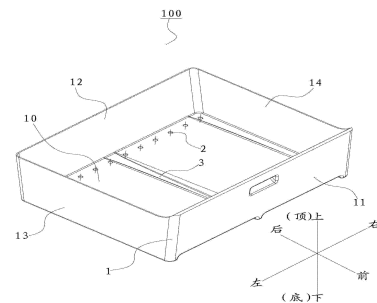


图 1

7

Refrigerator

Publication: [CN 103033016 B 20150520](#)

Applicant: LG ELECTRONICS INC
Inventor: KIM SEON-KYU; KWON HYO-KKU; LEE HANG-BOK
Prio: KR 20111004 20110100891
Appl.No: CN201210368039

CN 103033016 B 说明书附图 1/2页

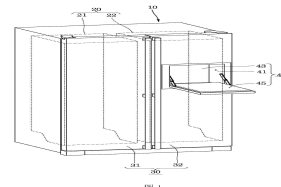


图 1

...

IPC: F25D 11/02

Refrigerator with improved drawer guide rail

Publication: [CN 103047825 B 20150520](#)

Applicant: GUANGDONG HOMA APPLIANCES CO

Inventor: CAI SHI ER; LI ZHANCHU; WU SHIQING

Prio:

Appl.No: CN201210530148

IPC: F25D 25/02

CN 103047825 B 说明书附图 1/3页

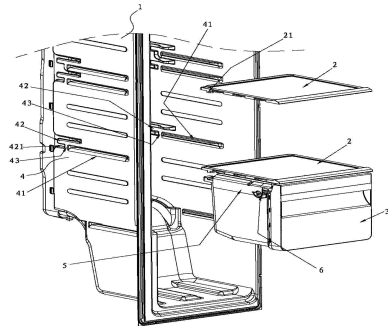


图 1

5

Cooling water circulation pump system

Publication: [CN 103075854 B 20150520](#)

Applicant: HUADIAN ELECTRIC POWER RES INST

Inventor: LIU PENGYUAN; RUAN JIONGMING; SONG

GUOLIANG; WANG BAOYU; YUAN WEI;

ZHANG HAIZHEN; ZHAO YUZHU

Prio:

Appl.No: CN201310005996

IPC: F25D 1/02

CN 103075854 B 说明书附图 1/2页

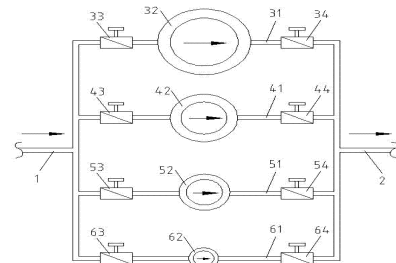


图 1

11

Refrigeration device, in particular a domestic refrigeration device

Publication: [CN 103080673 B 20150520](#)

Applicant: BSH BOSCH SIEMENS HAUSGERAETE

Inventor: KUEMMEL ROLAND; RAAB ALFRED; STEICHELE
HELMUT

Prio: DE 20100903 102010040251, EP 20110818
2011064235

Appl.No: CN201180042593

CN 103080673 B 说明书附图 1/3页

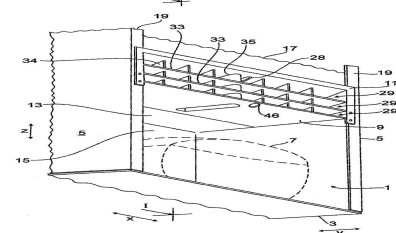


图 1

11

IPC: F25D 21/14

Center sill port for refrigerator

Publication: [CN 103090632 B 20150513](#)

Applicant: YINDU KITCHEN EQUIPMENT CO LTD

Inventor: YE JIN

Prio:

Appl.No: CN201310061589

IPC: F25D 23/10

CN 103090632 B 说明书附图 1/3页

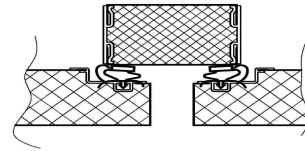


图1

5

Refrigerator

Publication: [CN 103105029 B 20150520](#)

Applicant: LG ELECTRONICS INC

Inventor: HWANG JUNG-YEON; KIM SEON-KYU; LEE DAE-SUNG; SEO WOON-KYU; YOON SEUNG-JIN

Prio: KR 20111115 20110118861

Appl.No: CN201210426330

IPC: F25D 11/00

CN 103105029 B 说明书附图 1/3页

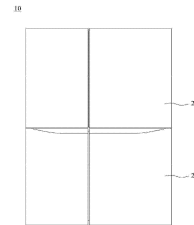


图1

12

Integrated type air duct system of refrigerator

Publication: [CN 103115465 B 20150520](#)

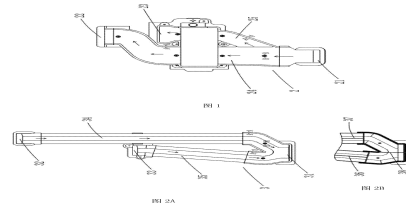
Applicant: HEFEI MEILING CO LTD

Inventor: TANG SHENJIE; XIA XITING

Prio:

Appl.No: CN201310080492

CN 103115465 B 说明书附图 1/3页



11

IPC: F25D 17/08

Triple-refrigerating system used for refrigerator

Publication: [CN 103115466 B 20150513](#)

Applicant: HEFEI MIDEA REFRIGERATOR CO

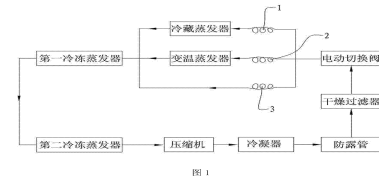
Inventor: DU LIANGLIANG; REN WEI

Prio:

Appl.No: CN201310079179

IPC: F25D 19/04

CN 103115466 B 说明书附图 1/3页



6

Refrigeration control method of refrigerator

Publication: [CN 103115476 B 20150513](#)

Applicant: HEFEI MIDEA REFRIGERATOR CO

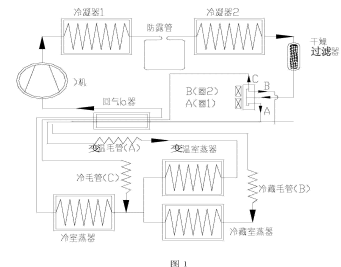
Inventor: FU XIULIANG; WANG JIA

Prio:

Appl.No: CN201310086135

IPC: F25D 29/00

CN 103115476 B 说明书附图 1/3页



9

Solar refrigerator

Publication: [CN 103123197 B 20150513](#)

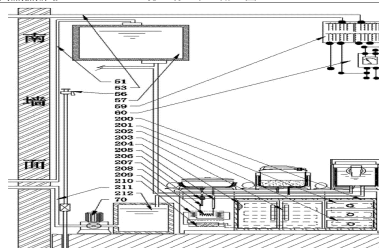
Applicant: LI WANHONG; NINGBO TECHNOLOGICAL ZONE LYU BRAND SOFT PACKAGING TECHNOLOGY TRADE CO LTD

Inventor: LI WANHONG; LI ZHENG

Prio:

Appl.No: CN201210523485

CN 103123197 B 说明书附图 1/3页



12

IPC: F25D 11/00

Refrigerating appliance

Publication: **CN 103148663 B 20150527**

Applicant: HAIER GROUP CO LTD; QINGDAO HAIER CO LTD

Inventor: LIU YIHONG; SONG YUFENG; YANG FALIN; ZHANG HONGXIA; ZHAO XIN

Prio:

Appl.No: CN201310089891

IPC: F25D 23/02

CN 103148663 B 说明书附图 1/4页

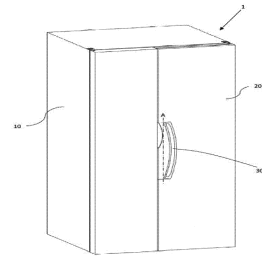


图 1

7

Refrigerator

Publication: **CN 103162500 B 20150513**

Applicant: HEFEI MIDEA REFRIGERATOR CO

Inventor: GENG XIUHUA; REN YANHUI; REN ZHENHAI; WANG MINGTAO

Prio:

Appl.No: CN201310116174

IPC: F25D 23/02

CN 103162500 B 说明书附图 1/3页

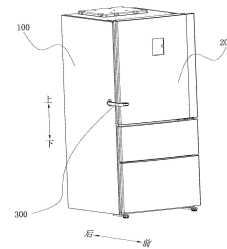


图 1

7

Refrigerator

Publication: **CN 103162503 B 20150513**

Applicant: HEFEI MIDEA REFRIGERATOR CO

Inventor: FAN WEI; WANG MENG; YAO NANFEI

Prio:

Appl.No: CN201310115687

CN 103162503 B 说明书附图 1/3页

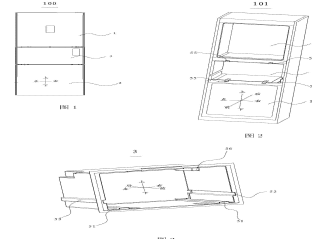


图 1

7

IPC: F25D 23/12

Vacuum insulation glass panel and refrigerator having the same

Publication: [CN 103189696 B 20150527](#)

Applicant: LG ELECTRONICS INC
Inventor: KIM YOUNG-BAE; SOH JAE-HYUN; YOON IL-SEOB

Prio: KR 20101011 20100098921, KR 20101011 20100098926, KR 20101011 20100098928, KR 20101105 20100110042, KR 20101105 20100110044, KR 20110920 2011006946

Appl.No: CN201180049195

IPC: F25D 23/06

CN 103189696 B 说明书附图 1/2 页

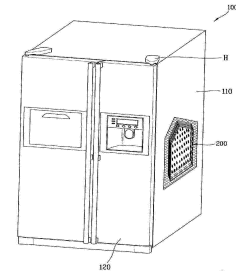


图 1

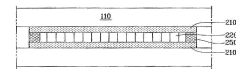


图 2

9

Refrigerator, door body and egg frame assembly

Publication: [CN 103216992 B 20150513](#)

Applicant: HEFEI MIDEA REFRIGERATOR CO
Inventor: CHEN SHIFA; ZHANG LEI; ZHOU GENSHENG

Prio:

Appl.No: CN201310162942

IPC: F25D 25/02

CN 103216992 B 说明书附图 1/2 页

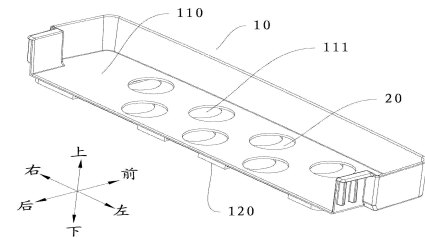


图 1

7

Operation method of one-driving-multiple intelligent instant freezer

Publication: [CN 103216994 B 20150520](#)

Applicant: QINGDAO AUCMA ULTRA LOW TEMPERATURE FREEZING MACHINES CO LTD

Inventor: LI BIN; LI PEIRONG; LI ZHIBO; SHAN BO; YANG DONGSHENG; ZHANG JINPO; ZHAO JIBIN

Prio:

Appl.No: CN201310130500

CN 103216994 B 说明书附图 1/2 页

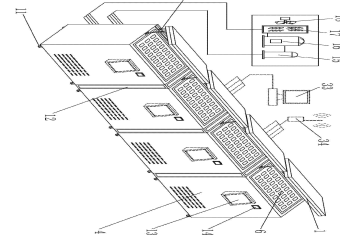


图 1

11

IPC: F25D 29/00

Refrigerator, in particular domestic refrigerator

Publication: [CN 103261821 B 20150520](#)

Applicant: BOSCH & SIEMENS HOME APPLIANCES CO LTD
Inventor: KEMPTE ANDREAS; KUEMMEL ROLAND;
LAIBLE KARL-FRIEDRICH; RAAB ALFRED;
STEICHELE HELMUT

Prio: DE 20100903 102010040252, EP 20110819
2011064265

Appl.No: CN201180042515

IPC: F25D 21/14

CN 103261821 B 说明书附图 1/3页

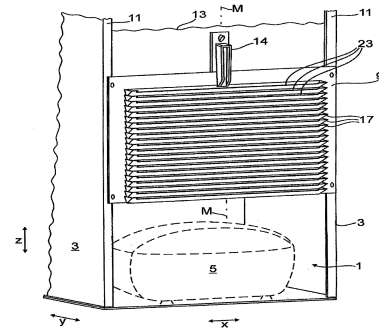


图 1

8

Dew removable tube rubber mat structure and refrigerator

Publication: [CN 103267397 B 20150527](#)

Applicant: HAIER GROUP CORP; QINGDAO HAIER CO LTD
Inventor: GAO HONGHU; HU MINHUI; LIU LEI; ZENG
FANJUN

Prio:

Appl.No: CN201310183536

IPC: F25D 21/04

CN 103267397 B 说明书附图 1/4页

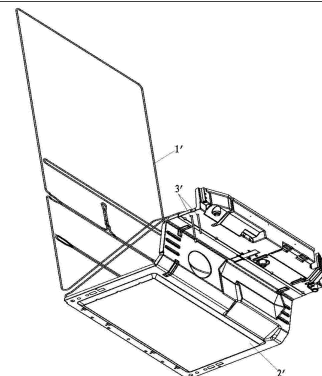


图 1

6

Drawer door body and mounting method thereof

Publication: [CN 103277960 B 20150527](#)

Applicant: HAIER GROUP CORP; QINGDAO HAIER CO LTD
Inventor: HE WENHUA; LI CHENGLIN; LIU ZHIJUN; WU
GUANGRUI; ZHANG HENG

Prio:

Appl.No: CN201310155009

CN 103277960 B 说明书附图 1/4页

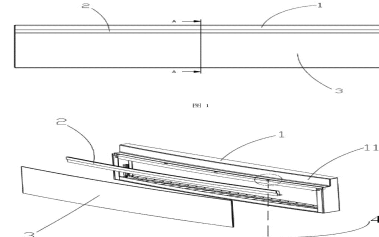


图 1

图 2

9

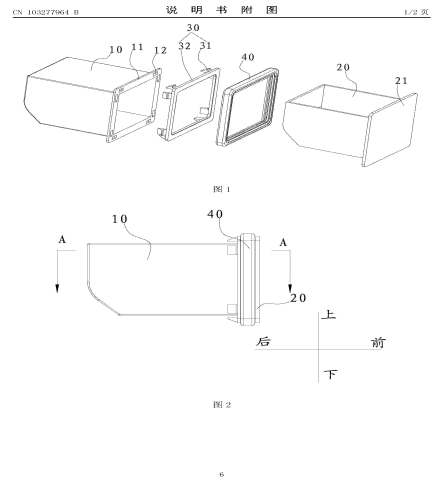
IPC: F25D 23/02

Refrigerator

Publication: [CN 103277964 B 20150513](#)

Applicant: HEFEI MIDEA REFRIGERATOR CO
Inventor: GENG XIUHUA; JIN AISHUN; YAO JUN; ZHENG XUEZAI

Prio:
Appl.No: CN201310221503
IPC: F25D 23/10

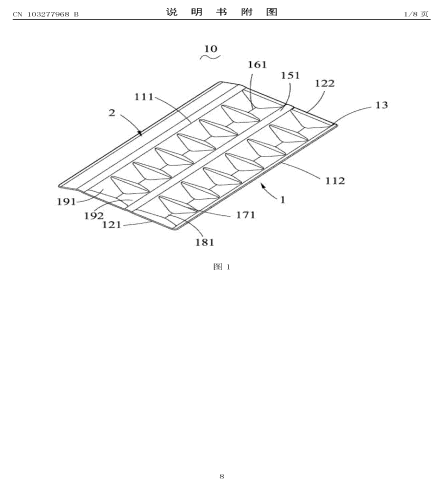


Rack and rack assembly

Publication: [CN 103277968 B 20150527](#)

Applicant: HAIER GROUP CORP; QINGDAO HAIER CO LTD
Inventor: MA XIANG; ZHANG HUI

Prio:
Appl.No: CN201310154889
IPC: F25D 25/02

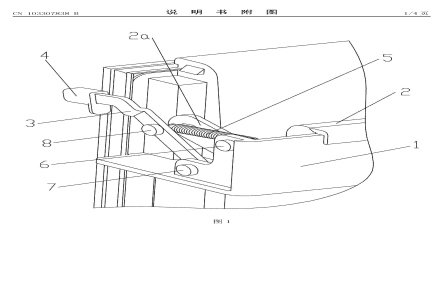


Boosting handle of refrigerator drawer door

Publication: [CN 103307838 B 20150506](#)

Applicant: AUCMA CO LTD
Inventor: DING WEI; LIN CHAO; LIU LEIXUN; LIU MING; XIAN FUWEI; YIN HUI

Prio:
Appl.No: CN201310216774



IPC: F25D 23/02

Folding bottle holder

Publication: **CN 103335481 B 20150527**

Applicant: HAIER GROUP CORP; QINGDAO HAIER CO LTD

Inventor: DANG GUANGMING; JI XIAOBAI; SUN NING

Prio:

Appl.No: CN201310243494

IPC: F25D 25/02

CN 103335481 B 说明书附图 1/2页

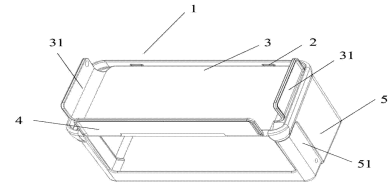


图 1

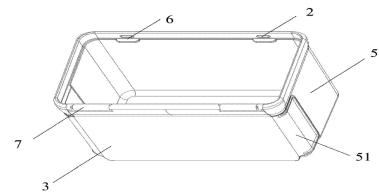


图 2