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(54) **KITCHEN APPLIANCE FOR COOKING/HEATING FOOD, EQUIPPED WITH A TOP RAIL**

(57) The invention relates a kitchen appliance (1; 101; 201; 301; 401; 501; 601; 701) comprising a cabinet (2) and a worktop (10) having one or more heating elements (12a, 12b). A rail (20; 420; 620) surrounds at least a portion of the perimeter of the worktop (10) and comprises at least one display device (40a; 40b).

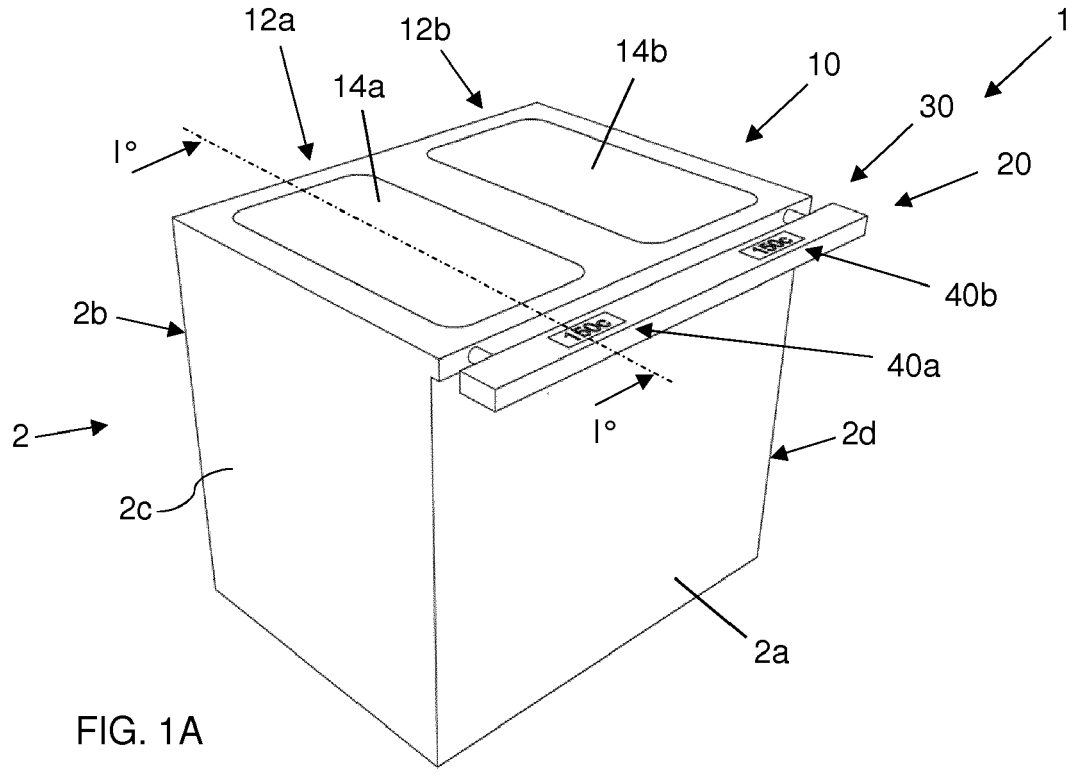

FIG. 1A

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Description

[0001] The present invention concerns the field of cooking/heating food.

[0002] In particular, the invention concerns a kitchen appliance for cooking/heating food.

[0003] Specifically, the invention relates to a kitchen appliance for cooking/heating food, equipped with a worktop and with a top rail.

BACKGROUND ART

[0004] Nowadays the use of kitchen appliances for cooking/heating food is widespread. Kitchen appliances of known type generally comprise a top surface, or worktop, including one or more heating elements where cooking pots and/or pans are placed thereon, for cooking/heating food placed therein.

[0005] For example some kitchen appliances of known type comprise a kitchen stove wherein the top surface, or stovetop, includes one or more gas cookers where cooking pots and/or pans are placed thereon for cooking/heating of foods contained therein.

[0006] In some kitchen appliances of known type, for example, the food is directly put over an heating element placed on the worktop, for example in barbecue grills. Heating elements arranged in the worktop may comprise, for example, natural gas burning elements or electrically-heated elements.

[0007] Beneath the worktop an oven for the baking of food can be arranged, wherein access is typically obtained by opening a door arranged in the front vertical side of the kitchen appliance.

[0008] In the same front vertical side of the appliance, and beneath the worktop, one or more control devices and/or display devices are arranged.

[0009] Control devices, for example dials/knobs, are used for controlling the appliance and/or the heating elements and/or the oven, if present.

[0010] Display devices preferably give feedback information related to the cooking of the food, such as the cooking temperature, the cooking time, the heating levels of the heating elements, and/or may give information relating settings/status of the appliance, such as alarms, selected cooking program, data and time, etc.

[0011] A known type of kitchen appliance is then preferably provided with one or more top rails which surround one or more lateral sides of the worktop, more preferably the front side of the worktop.

[0012] A first known type of top rail preferably comprises a substantially horizontal flat rail, which advantageously increases the working/holding surface of the worktop, so that the cooking pots and/or pans may lay thereon. This is particularly used in professional kitchen appliances.

[0013] A further known type of top rail preferably comprises a cylindrical bar for holding items, for example cooking utensils such as forks, spoons, and/or pot holders, towels, etc. Hanging hooks may be used to hang items to the bar.

[0014] Top rails above described may be suited to be releasably fixed or, alternatively, may be securely fixed, for example connected by welding (i.e. non-releasably fixed).

[0015] A drawback of known top rails is that they typically cover, partially or completely, the control devices and/or the display devices arranged beneath the worktop.

[0016] The top rail makes control devices difficult to reach and/or partially or completely obstruct their view, thus lowering their usability and visibility.

[0017] Relevant information for the cook or the chef, such as the cooking temperature, the cooking time, the heating levels of the heating elements, may not therefore be clearly visible, causing food to be not properly cooked, for example partially cook or overcooked.

[0018] The object of the present invention is therefore to overcome drawbacks posed by the known technique.

[0019] It is an object of the invention to provide a kitchen appliance which allows optimal information visibility compared to kitchen appliances of known type.

[0020] It is another object of the invention to provide a kitchen appliance which is more user-friendly compared to kitchen appliances of known type.

[0021] It is a further object of the invention to provide a kitchen appliance which allows proper cooking of the food compared to kitchen appliance of known type.

[0022] It is another object of the invention to provide a kitchen appliance which is more ergonomic compared to kitchen appliances of known type.

[0023] It is a further object of the invention to provide a system which improves performances of brand-new kitchen appliances or of existing kitchen appliances.

DISCLOSURE OF INVENTION

[0024] Applicant has found that by providing an appliance for cooking/heating food comprising a worktop and at least one rail which at least partially surrounds said worktop, and by providing the rail with a display device, it is possible to have optimal information visibility compared to kitchen appliances of known type.

[0025] The present invention relates, therefore, to an appliance for cooking/heating food comprising a cabinet and a worktop having one or more heating elements for cooking/heating food and at least one rail which surrounds at least a portion of the perimeter of said worktop, wherein said rail comprises at least one display device.

[0026] Preferably, the rail is fixed to the cabinet or to the worktop.

[0027] In a preferred embodiment of the invention, the rail is releasable fixed to the worktop or to the cabinet.

[0028] More preferably, the rail is fixed to a front side of the worktop or to a front side of the cabinet.

[0029] According to a preferred embodiment of the invention, the rail further comprises a control device, for

controlling one or more functions of the appliance, for example the heating element(s). Preferably, the control device comprises at least one input device.

[0030] In a preferred embodiment of the invention, said at least one input device is apt to control/set the temperature of one of said one or more heating elements.

[0031] According to a preferred embodiment of the invention, the display device and the control device are integrated in one device. Preferably, said integrated device comprises a touch screen.

[0032] In a preferred embodiment of the invention, the rail comprises an upper surface and the display device is arranged at said upper surface of the rail.

[0033] Preferably, the rail comprises a front surface and the control device is arranged at said front surface of the rail.

[0034] According to a preferred embodiment of the invention, the display device gives information relating said one or more heating elements and/or settings/status of the kitchen appliance. Preferably, said information comprises the cooking temperature of said one or more heating elements.

[0035] Preferably the kitchen appliance comprises a control unit and the display device communicates with said control unit.

[0036] In a preferred embodiment of the invention, the display device wirelessly communicates with the control unit.

[0037] According to a preferred embodiment of the invention, the appliance for cooking/heating food further comprises a control device arranged at the cabinet.

[0038] Preferably, the control device comprises at least one input device. More preferably, said at least one input device is apt to control/set the temperature of one of said one or more heating elements.

[0039] In a further aspect thereof, the present invention relates to a kit comprising a rail and a connecting device apt to fix said rail to a worktop or to a cabinet of an appliance for cooking/heating food, wherein said rail comprises at least one display device.

[0040] According to a preferred embodiment of the invention, the rail of the kit further comprises a control device for controlling one or more functions of an appliance to which the kit is fixed. Preferably, the control device of the kit comprises at least one input device.

[0041] In a preferred embodiment of the invention, said at least one input device of the kit is apt to control/set the temperature of one or more heating elements of the appliance to which the rail of the kit is being fixed.

[0042] According to a preferred embodiment of the invention, the display device and the control device of the kit are integrated in one device. Preferably, said integrated device of the kit comprises a touch screen.

[0043] In a preferred embodiment of the invention, the rail of the kit comprises an upper surface and the display device is arranged at said upper surface of the rail.

[0044] Preferably, the rail of the kit comprises a front surface and the control device is arranged at said front surface of the rail.

[0045] According to a preferred embodiment of the invention, the display device of the kit gives information relating one or more heating elements and/or settings/status of the appliance to which the rail of the kit is being fixed.

[0046] Preferably, said information comprises the cooking temperature of said one or more heating elements.

[0047] Preferably the display device of the kit is apt to wirelessly communicate with a control unit of the appliance to which the rail of the kit is being fixed.

BRIEF DESCRIPTION OF THE DRAWINGS

[0048] Further characteristics and advantages of the present invention will be highlighted in greater detail in the following detailed description of preferred embodiments of the invention, provided with reference to the enclosed drawings. In the drawings, corresponding characteristics and/or components are identified by the same reference numbers. In particular:

- Figure 1A shows a perspective view of an appliance for cooking/heating food according to a preferred embodiment of the invention;
- Figure 1B shows an exploded view of the appliance for cooking/heating food of Figure 1A;
- Figure 1C shows an enlarged view of the appliance for cooking/heating food of Figure 1B;
- Figure ID is a partial schematic plan sectional view taken along line I°- 1° of Figure 1A;
- Figure 2A shows a perspective view of an appliance for cooking/heating food according to a further preferred embodiment of the invention;
- Figure 2B shows an exploded view of the appliance for cooking/heating food of Figure 2A;
- Figure 2C is a partial schematic plan sectional view taken along line II°- II° of Figure 2A;
- Figure 3A shows a perspective view of an appliance for cooking/heating food according to a further preferred embodiment of the invention;
- Figure 3B shows an exploded view of the appliance for cooking/heating food of Figure 3A;
- Figure 3C is a partial schematic plan sectional view taken along line III°- III° of Figure 3A;
- Figure 4A shows a perspective view of an appliance for cooking/heating food according to a further preferred embodiment of the invention;
- Figure 4B shows an exploded view of the appliance for cooking/heating food of Figure 4A;
- Figure 4C is a partial schematic plan sectional view taken along line IV°- IV° of Figure 4A;
- Figure 5A shows a perspective view of an appliance for cooking/heating food according to a further preferred embodiment of the invention;
- Figure 5B shows an exploded view of the appliance for cooking/heating food of Figure 5A;

- Figure 5C is a partial schematic plan sectional view taken along line V°- V° of Figure 5A;
- Figure 6A shows a perspective view of an appliance for cooking/heating food according to a further preferred embodiment of the invention;
- Figure 6B shows an exploded view of the appliance for cooking/heating food of Figure 6A;
- Figure 6C is a partial schematic plan sectional view taken along line VI°- VI° of Figure 6A;
- Figure 7A shows a perspective view of an appliance for cooking/heating food according to a further preferred embodiment of the invention;
- Figure 7B shows an exploded view of the appliance for cooking/heating food of Figure 7A;
- Figure 7C is a partial schematic plan sectional view taken along line VII°- VII° of Figure 7A;
- Figure 8A shows a perspective view of an appliance for cooking/heating food according to a further preferred embodiment of the invention;
- Figure 8B shows an exploded view of the appliance for cooking/heating food of Figure 8A;
- Figure 8C is a partial schematic plan sectional view taken along line VIII°-VIII° of Figure 8A.

DETAILED DESCRIPTION OF EXEMPLARY EMBODIMENTS OF THE INVENTION

[0049] The present invention is particularly advantageous when applied to appliance for cooking/heating food of professional type, preferably, but not necessarily with electrically-heated cast iron plates, as described below. It should in any case be underlined that the present invention is not limited to appliance for cooking/heating food of such type. On the contrary, the present invention can be conveniently applied to appliance for cooking/heating food of any type, for example appliance for cooking/heating food comprising heating elements of different type, such as for example burner gas cookers, induction cookers, gas or electric griddle/fry tops, countertop gas or electric grills, countertop gas or electric lava rock grills, tank gas or electric pasta cookers, Chinese noodle cookers, tank gas or electric fryers, countertop electric bain marie and/or further comprising an oven for the baking of foods.

[0050] With reference to Figure 1A an appliance for cooking/heating food 1 according to a first preferred embodiment of the invention is illustrated.

[0051] The appliance for cooking/heating food 1 preferably comprises a cabinet 2 preferably having a vertical front side wall 2a, a vertical rear side wall 2b and two vertical lateral side walls 2c, 2d.

[0052] The appliance for cooking/heating food 1 then preferably comprises a worktop 10 arranged at the top of the cabinet 2.

[0053] The worktop 10 preferably comprises two heating elements 12a, 12b. The two heating elements 12a, 12b preferably comprise electrical-heated elements 12a, 12b preferably comprising two respective electrical-heated cast iron plates 14a, 14b.

[0054] The appliance for cooking/heating food 1 here illustrated and described with reference to figures 1A and 1B is preferably a professional kitchen appliance which is, for example, used to cook hamburgers, or meat in general, that are directly placed over the plates 14a, 14b. The heating elements here illustrated and described with reference to figures 1A and 1B, and in the further embodiments illustrated and described later, are example of heating elements which may be foreseen in appliances for cooking/heating food.

[0055] Nevertheless, in further preferred embodiments according to the invention, heating elements may be of different type, for example burner gas cookers, induction cookers, gas or electric griddle/fry tops, countertop gas or electric grills, countertop gas or electric lava rock grills, tank gas or electric pasta cookers, Chinese noodle cookers, tank gas or electric fryers, countertop electric bain marie.

[0056] Heating elements are then preferably shaped so that cooking pots and/or pans are placed thereon for cooking/heating of foods contained therein.

[0057] In the preferred embodiment illustrated and described herein, and in embodiments described later, the appliance for cooking/heating food is preferably provided with two heating elements. In different embodiments, nevertheless, the number of heating elements may be different, even just one.

[0058] In further preferred embodiments, then, the kitchen appliance may further preferably comprise an oven, not illustrated, for the baking of foods therein. The oven is preferably arranged into the cabinet beneath the worktop and access is obtained by opening a door arranged in the front vertical side of the kitchen appliance.

[0059] According to an aspect of the invention, the kitchen appliance 1 preferably comprises a top rail 20. In the preferred embodiments here illustrated and described, the top rail is preferably arranged along the perimeter of the worktop 10 at its front side.

[0060] In further preferred embodiments, nevertheless, the top rail may be arranged in different places along the perimeter of the worktop and/or surrounding other lateral side of the worktop than the front side.

[0061] The top rail 20 is preferably connected to the worktop 10 of the kitchen appliance 1 by means of a connecting device 30. The top rail 20 is preferably connected to the front side of worktop 10.

[0062] The connecting device 30 preferably comprises two spacers 31a, 31b which allows the top rail 20 to be mounted spaced apart from the front side of the worktop 10.

[0063] In a further preferred embodiment of the invention, the connecting device may be preferably suited to allow the top rail 20 to be secured to the cabinet 2, more preferably secured to the front wall side 2a of the cabinet 2.

[0064] In a preferred embodiment of the invention, the connecting device 30 is preferably suited to allow the top

rail 20 to be releasably secured to the worktop 10, more preferably releasably secured to the front side of the worktop 10. Advantageously, the top rail 20 may be easily mounted/removed in case of cleaning operations and/or substitution and/or maintenance.

[0065] In alternative preferred embodiments, nevertheless, the connecting device 30 may be suited to securely fix the worktop to the cabinet or to the top rail for example connected by welding (i.e. non-releasable fixed).

[0066] The top rail 20, as better illustrated in Figure 1C, is preferably flat shaped and preferably comprises an upper surface 22 and a front surface 24.

[0067] The top rail 20 with its upper surface 22 advantageously increases the working/holding surface of the worktop 10 so that, advantageously, cooking pots and/or pans may lay, at least partially, thereon. In a further preferred embodiment, top rail 20 may also be used for holding items, for example cooking utensils such as forks, spoons, and/or pot holder, towels, etc.

[0068] In alternative preferred embodiments, the top rail may be differently shaped, for example cylindrical bar-shaped. In such case, the top rail is mainly advantageously used for holding items.

[0069] According to an aspect of the invention, the top rail 10 preferably comprises at least one display device 40a, 40b.

[0070] In the preferred embodiment illustrated and described herein, with reference to Figures 1A to ID, the top rail 10 preferably comprises two display devices 40a, 40b. Display devices 40a, 40b preferably display a temperature value, exemplary indicated with value "150c" in the Figures. The first display device 40a preferably displays the temperature value of the first heating element 12a and the second display device 40b preferably displays the temperature value of the second heating element 12b.

[0071] Display devices 40a, 40b are preferably arranged at the upper surface 22 of the top rail 20, so that they are easily visible.

[0072] Advantageously, display devices 40a, 40b give a feedback to the cook or chef on the working condition of the heating elements 12a, 12b, in particular the actual cooking temperature of each heating element 12a, 12b.

[0073] Still advantageously, the cook or chef may control cooking temperature and ensuring that food is cooked to perfection.

[0074] Preferably, display devices 40a, 40b comprises LEDs. In different embodiments, the display devices may comprise LCDs, TFT, IPS, AMOLED, 7 SEGMENTS, LED BAR, etc.

[0075] Display devices 40a, 40b are preferably electrically connected to a control unit 50, only schematically illustrated, placed inside the cabinet 2.

[0076] Display devices 40a, 40b are preferably electrically connected to the control unit 50 by means of an electric line 52, preferably comprising electrical wires 52.

[0077] In a preferred embodiment, not shown, the electric line preferably comprises electrical connectors that facilitates electric connection/disconnection between the top rail 20 and the control unit 50. This is particularly advantageous when the top rail 20 is releasable fixed to the worktop 10, or to the cabinet 2.

[0078] In further preferred embodiments, display devices may wirelessly communicate with the control unit 50, for example through known wireless technologies, such as, for example, ANT+ or Bluetooth.

[0079] Information displayed by the display devices 40a, 40b are preferably managed by the control unit 50.

[0080] In a preferred embodiment, display devices 40a, 40b only and permanently display a temperature value, as illustrated in attached Figures.

[0081] In different advantageous embodiments, the parameter displayed may be a different parameter, for example the cooking time, a cooking program, an alarm, data and time.

[0082] The display device may therefore give information relating settings/status of the kitchen appliance.

[0083] In different further preferred embodiments, a plurality of parameters may be displayed by the display device, preferably at the same time on the display. Alternatively, the different parameters may be displayed one after another on the display.

[0084] In further preferred embodiments, further to the task of displaying information the display device may be preferably suited to allow the user to input parameters, for example select or set cooking parameters and/or other functioning parameters, for example setting the cooking temperature or the cooking time, time and data, setting the display colour, etc.

[0085] In an advantageous embodiment, the display device comprises a touch screen.

[0086] In the preferred embodiment illustrated and described herein, and in embodiments described later, the appliance for cooking/heating food is preferably provided with two display devices. In different advantageous embodiments, nevertheless, the number of display devices may be different, even just one.

[0087] With reference to Figures 2A, 2B and 2C, an appliance for cooking/heating food 101 according to a further preferred embodiment of the invention is described.

[0088] The appliance for cooking/heating food 101 differs from the appliance for cooking/heating food 1 previously described with reference to Figures 1A to ID in that the top rail 20 is connected adjacent to the front side of the worktop 10, without any gap.

[0089] The top rail 20 is preferably connected by means of a connecting device 130, not illustrated in detail, that may comprise, for example, one or more flanges, a snap-fit connection, adhesive, magnets, rivets, screws, etc.

[0090] In a preferred embodiment of the invention, the connecting device 130 is preferably suited to allow the top rail 20 to be releasably secured to the worktop 10, more preferably releasably secured to the front side of

the worktop 10.

[0091] Preferably, the top rail 20 may be easily mounted/removed in case of cleaning operations and/or substitution and/or maintenance.

[0092] In alternative preferred embodiments, the connecting device may be suited to securely fix the top rail to the worktop, for example connected by welding (i.e. non-releasable fixed).

[0093] With reference to Figures 3A, 3B and 3C an appliance for cooking/heating food 201 according to a further preferred embodiment of the invention is described.

[0094] The appliance for cooking/heating food 201 differs from the appliance for cooking/heating food 1 previously described with reference to Figures 1A to ID in that it further comprises one or more, preferably a couple of, control knobs 260a, 260b.

[0095] Control knobs 260a, 260b are preferably arranged at front side wall 2a of the cabinet 2.

[0096] The first control knob 260a is preferably apt to control/set the temperature of the first heating element 12a and the second control knob 260b is preferably apt to control/set the temperature of the second heating element 12b.

[0097] Control knobs 260a, 260b are preferably electrically connected to the control unit 50 and information displayed by the display devices 40a, 40b are preferably managed by the control unit 50 according to control signals coming from control knobs 260a, 260b.

[0098] In the preferred embodiment illustrated and described herein, and in embodiments described later, the appliance for cooking/heating food is preferably provided with two control knobs. In different embodiments, nevertheless, the number of control knobs may be different, even just one.

[0099] With reference to Figures 4A, 4B and 4C an appliance for cooking/heating food 301 according to a further preferred embodiment of the invention is described.

[0100] The appliance for cooking/heating food 301 differs from the appliance for cooking/heating food 201 previously described with reference to Figures 3A to 3C in that the top rail 20 is connected adjacent to the front side of the worktop 10, without any gap.

[0101] The top rail 20 is preferably connected by means of a connecting device 130, not illustrated in detail.

[0102] Features and advantages of the connecting device 130 are preferably the same previously described with reference to the connecting device 130 of embodiment illustrated in Figures 2A to 2C.

[0103] With reference to Figures 5A, 5B and 5C an appliance for cooking/heating food 401 according to a further preferred embodiment of the invention is described.

[0104] The appliance for cooking/heating food 401 differs from the appliance for cooking/heating food 1 previously described with reference to Figures 1A to ID in that the top bar 420 further comprises a couple of control devices 445a, 445b.

[0105] The first control device 445a is preferably apt to control/set the temperature of the first heating element 12a and the second control device 445b is preferably apt to control/set the temperature of the second heating element 12b.

[0106] Control devices 445a, 445b are preferably arranged at the front side 24 of the top bar 420 so that they are easily reachable by the user. Control devices 445a, 445b preferably comprise push buttons or touch sensitive buttons.

[0107] In further preferred embodiments, the control device may preferably be apt to select or set other cooking parameters and/or other functioning parameters, for example setting the cooking time, time and data, setting the display colour of the display devices 40a, 40b, etc.

[0108] Control devices 445a, 445b are preferably electrically connected to the control unit 50 and information displayed by the display devices 40a, 40b are preferably managed by the control unit 50 according to control signals coming from control devices 445a, 445b.

[0109] In the preferred embodiment illustrated and described herein, and in embodiments described later, the appliance for cooking/heating food is preferably provided with two control devices. In different embodiments, nevertheless, the number of control devices may be different, even just one.

[0110] With reference to Figures 6A, 6B and 6C an appliance for cooking/heating food 501 according to a further preferred embodiment of the invention is described.

[0111] The appliance for cooking/heating food 501 differs from the appliance for cooking/heating food 401 previously described with reference to Figures 5A to 5C in that the top rail 420 is connected adjacent to the front side of the worktop 10, without any gap.

[0112] The top rail 20 is preferably connected by means of a connecting device 130, not illustrated in detail.

[0113] Features and advantages of the connecting device 130 are preferably the same previously described with reference to the connecting device 130 of embodiment shown in Figures 2A to 2C.

[0114] With reference to Figures 7A, 7B and 7C an appliance for cooking/heating food 601 according to a further preferred embodiment of the invention is described. The appliance for cooking/heating food 601 differs from the appliance for cooking/heating food 401 previously described with reference to Figures 5A to 5C in that the control devices 645a, 645b preferably comprise sliding buttons, more preferably of touch sensitive type.

[0115] The first control device 645a is preferably apt to control/set the temperature of the first heating element 12a and the second control device 645b is preferably apt to control/set the temperature of the second heating element 12b.

[0116] With reference to Figures 8A, 8B and 8C an appliance for cooking/heating food 701 according to a further preferred embodiment of the invention is de-

scribed.

[0117] The appliance for cooking/heating food 701 differs from the appliance for cooking/heating food 601 previously described with reference to Figures 7A to 7C in that the top rail 20 is connected adjacent to the front side of the worktop 10, without any gap.

[0118] The top rail 20 is preferably connected by means of a connecting device 130, not illustrated in detail.

[0119] Features and advantages of the connecting device 130 are preferably the same previously described with reference to the connecting device 130 of embodiment shown in Figures 2A to 2C.

[0120] According to a further aspect of the invention, it should be noted that top rail which equips the kitchen appliance may be already installed in brand-new kitchen appliance ready for the market.

[0121] In further preferred embodiments, the top rail may be sold as an accessory for kitchen appliances; in this case the top rail is preferably releasably connectable to the worktop or the cabinet, as already explained above. Furthermore, in this case, the top rail is suited to be connected to a control unit of the kitchen appliance. In a preferred embodiment, top rail and control unit are connected through an electric line, more preferably provided with connectors.

[0122] In a further preferred embodiment, top rail and control unit are connected through wireless technology, such as ANT+ or Bluetooth.

[0123] In further preferred embodiments, the top rail may be sold as a kit to be installed in existing kitchen appliances.

[0124] In such case, control unit of the existing kitchen appliance may be adapted to communicate with display device of the top rail.

[0125] It has thus been shown that the present invention allows all the set objects to be achieved. In particular, it makes possible to provide an appliance for cooking/heating food which has an optimal information visibility compared to kitchen appliances of known type. Kitchen appliance according to the invention is more user-friendly and allows proper cooking of the food compared to kitchen appliance of known type.

[0126] Furthermore, kitchen appliance according to the invention is more ergonomic compared to kitchen appliances of known type.

[0127] While the present invention has been described with reference to the particular embodiments shown in the figures, it should be noted that the present invention is not limited to the specific embodiments illustrated and described herein; on the contrary, further variants of the embodiments described herein fall within the scope of the present invention, which is defined in the claims.

Claims

1. An appliance for cooking/heating food (1; 101; 201; 301; 401; 501; 601; 701) comprising a cabinet (2), a worktop (10) having one or more heating elements (12a, 12b) for cooking/heating food, and at least one rail (20; 420; 620) which surrounds at least a portion of the perimeter of said worktop (10),
characterized in that
said rail (20; 420; 620) comprises at least one display device (40a; 40b).

2. Appliance (1; 101; 201; 301; 401; 501; 601; 701) according to claim 1,
characterized in that said rail (20; 420; 620) is fixed to said worktop (10) or to said cabinet (2).

3. Appliance (1; 101; 201; 301; 401; 501; 601; 701) according to claim 1 or 2, **characterized in that** said rail (20; 420; 620) is releasable fixed to said worktop (10) or to said cabinet (2).

4. Appliance (401; 501; 601; 701) according to any preceding claim,
characterized in that said rail (20; 420; 620) further comprises a control device (445a, 445b; 645a, 645b) for controlling one or more functions of the appliance (401; 501; 601; 701).

5. Appliance (401; 501; 601; 701) according to claim 4, **characterized in that** said control device (445a, 445b; 645a, 645b) comprises at least one input device (445a, 445b; 645a, 645b).

6. Appliance (401; 501; 601; 701) according to claim 5, **characterized in that** said at least one input device (445a, 445b; 645a, 645b) is apt to control/set the temperature of one of said one or more heating elements (12a, 12b).

7. Appliance according to any claim 4 to 6, **characterized in that** said display device and said control device are integrated in one device.

8. Appliance (1; 101; 201; 301; 401; 501; 601; 701) according to any preceding claim, **characterized in that** said rail (20; 420; 620) comprises an upper surface (22) and said display device (40a; 40b) is arranged at said upper surface (22) of said rail (20; 420; 620).

9. Appliance (401; 501; 601; 701) according to any claim 4 to 7, **characterized in that** said rail (420; 620) comprises a front surface (24) and said control device (445a, 445b; 645a, 645b) is arranged at said front surface (24) of said rail (420; 620).

10. Appliance (1; 101; 201; 301; 401; 501; 601; 701) according to any preceding claim, **characterized in that** said display device (40a; 40b) gives information relating said one or more heating elements (12a, 12b) and/or settings/status of said appliance (1; 101;

201; 301; 401; 501; 601; 701).

11. Appliance (1; 101; 201; 301; 401; 501; 601; 701) according to any preceding claim, **characterized in that** it further comprises a control unit (50) and said display device (40a; 40b) communicates with said control unit (50).

12. Appliance according to claim 11, **characterized in that** said display device wirelessly communicates with said control unit.

13. Appliance (201; 301) according to any preceding claim, **characterized in that** it further comprises a control device (260a, 260b), arranged at said cabinet (2) for controlling one or more functions of the appliance (401; 501; 601; 701), comprising at least one input device (260a, 260b) apt to control/set the temperature of one of said one or more heating elements (12a, 12b).

14. A kit comprising a rail (20; 420; 620) and a connecting device apt to fix said rail to a worktop (10) or to a cabinet (2) of an appliance for cooking/heating food (1; 101; 201; 301; 401; 501; 601; 701); **characterized in that** said rail (20; 420; 620) comprises at least one display device (40a; 40b).

15. Kit according claim 14, **characterized in that** said rail (20; 420; 620) further comprises a control device (445a, 445b; 645a, 645b) for controlling one or more functions of and appliance (401; 501; 601; 701) to which said kit is being fixed.

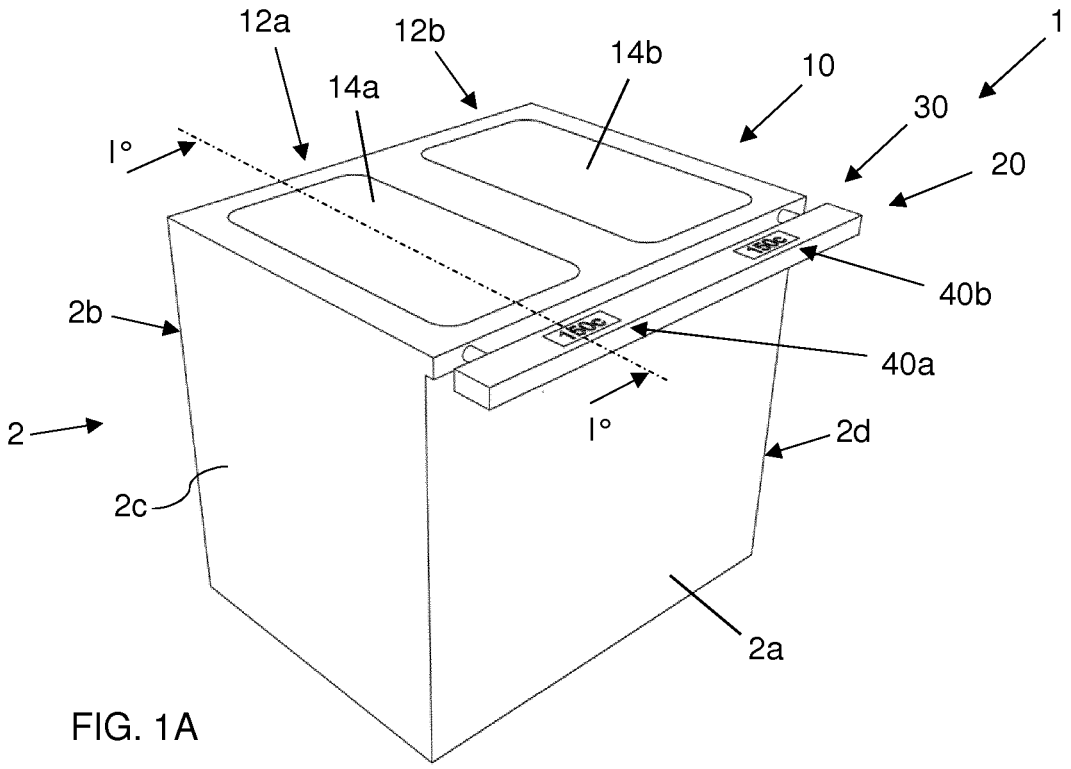
12a
12b
14b
14a
10
1
30
20
I°
40b
2b
40a
2
I°
2d
2c
2a

FIG. 1A

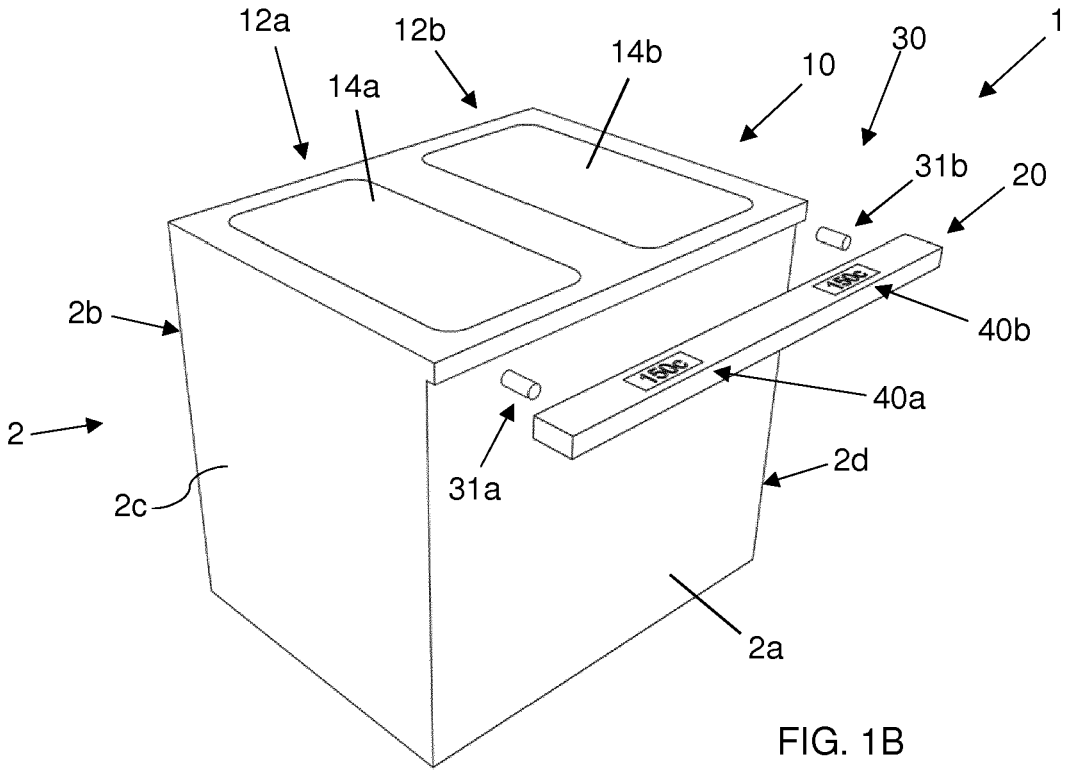
12a
12b
14b
14a
10
30
1
31b
20
2b
40b
40a
2
31a
2d
2c
2a

FIG. 1B

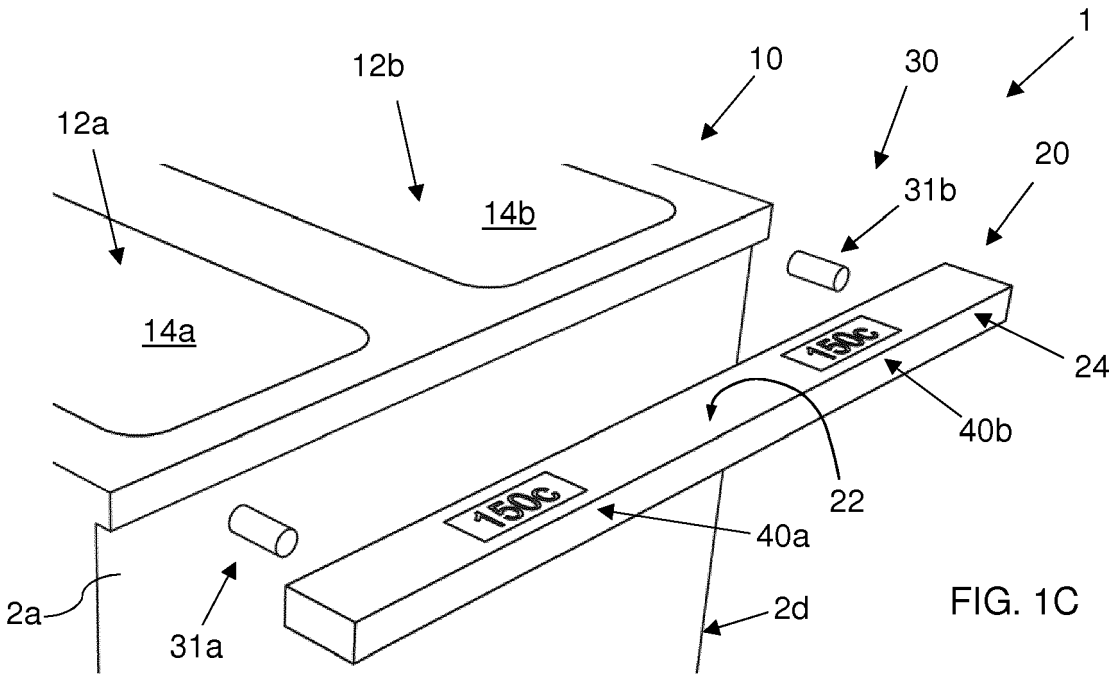
1
12b
10
30
12a
20
31b
14b
14a
150c
24
40b
22
150c
40a
2a
31a
2d

FIG. 1C

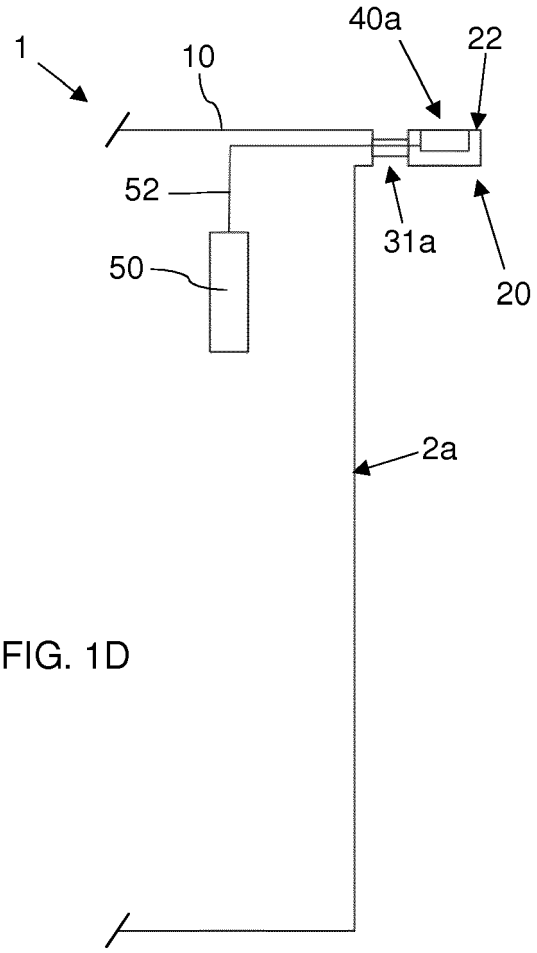
40a
22
1
10
52
31a
50
20
2a

FIG. 1D

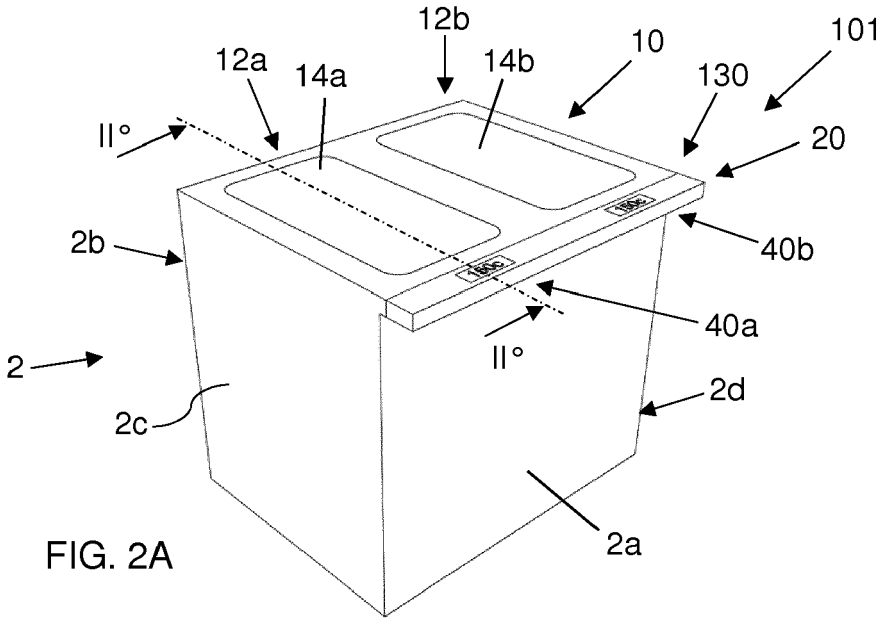

FIG. 2A

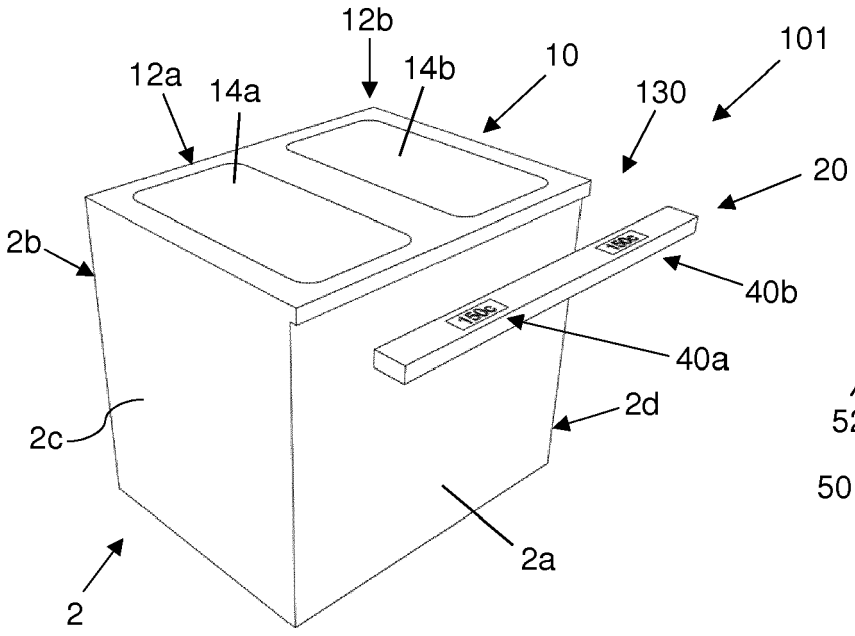

FIG. 2B

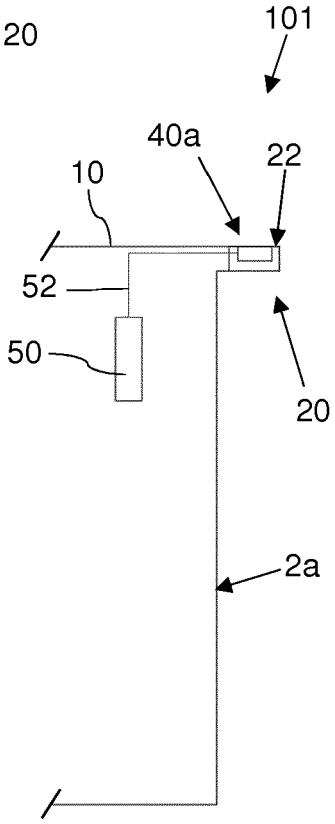

FIG. 2C

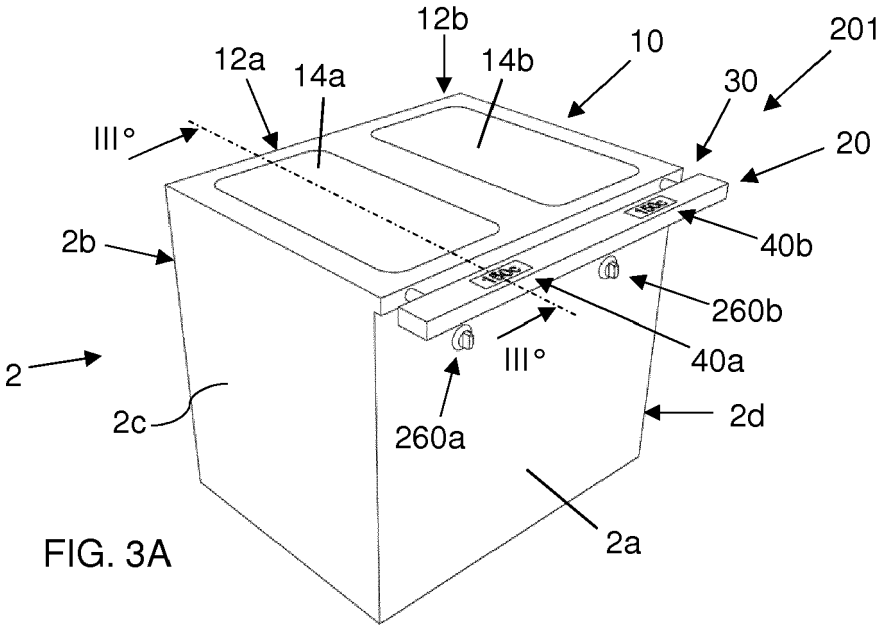

FIG. 3A

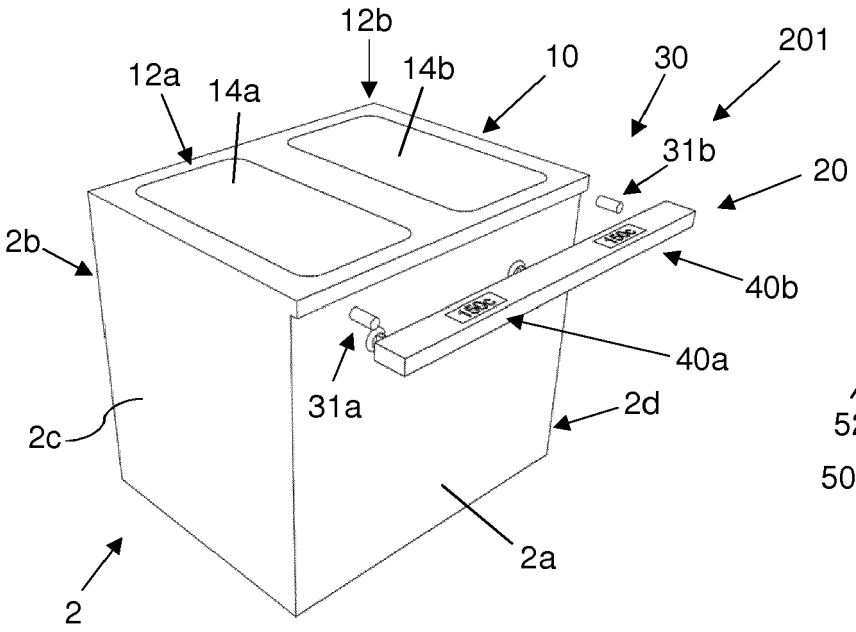

FIG. 3B

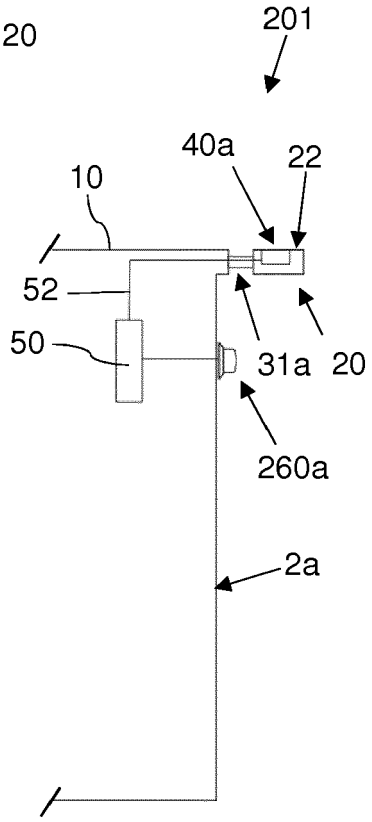

FIG. 3C

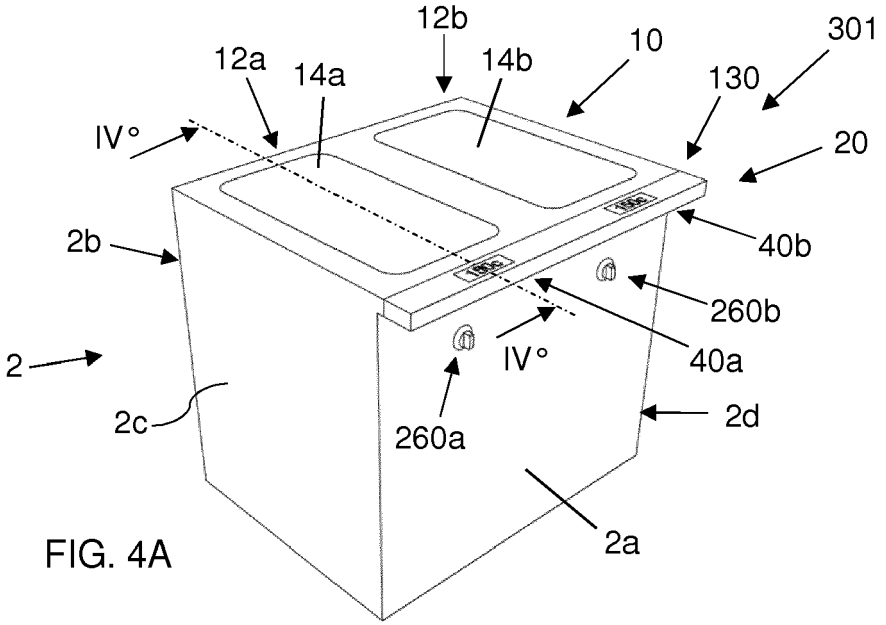

FIG. 4A

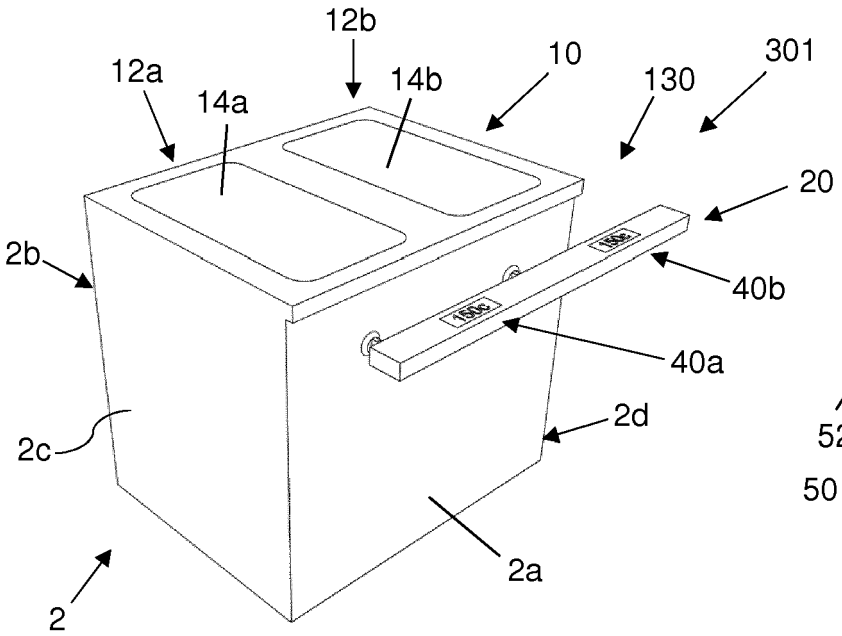

FIG. 4B

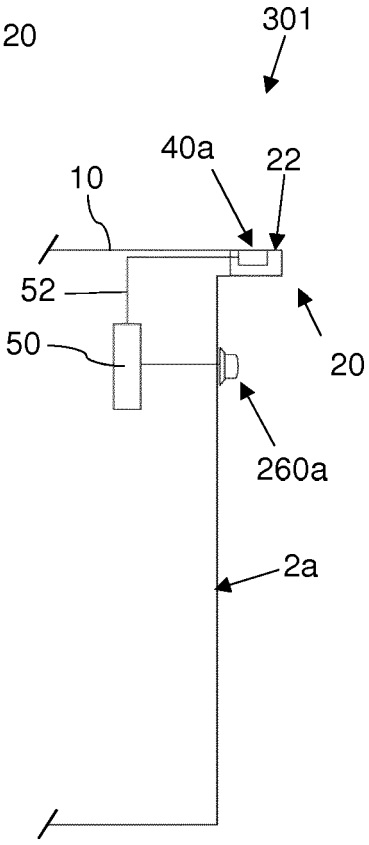

FIG. 4C

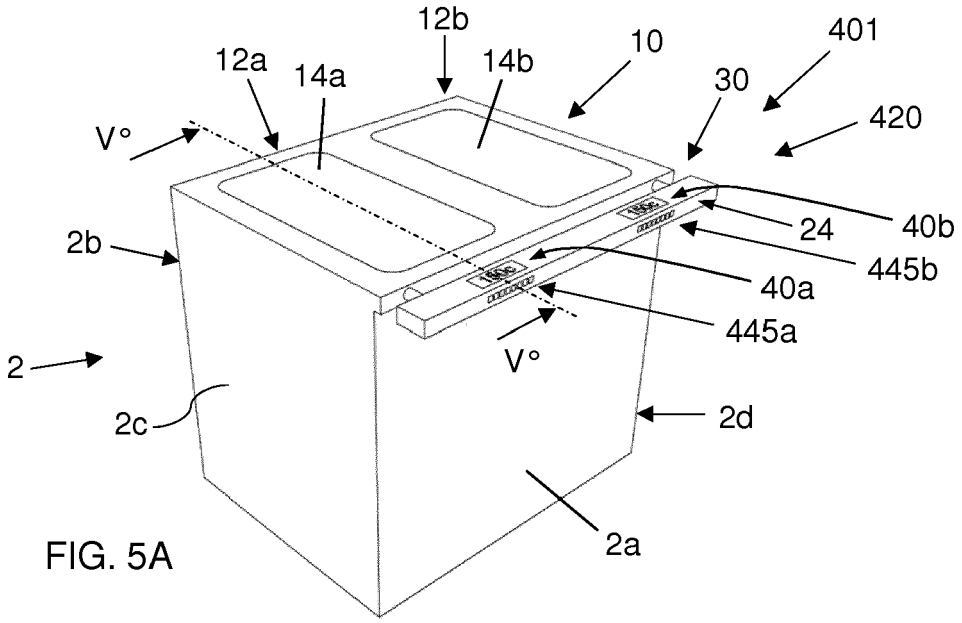

FIG. 5A

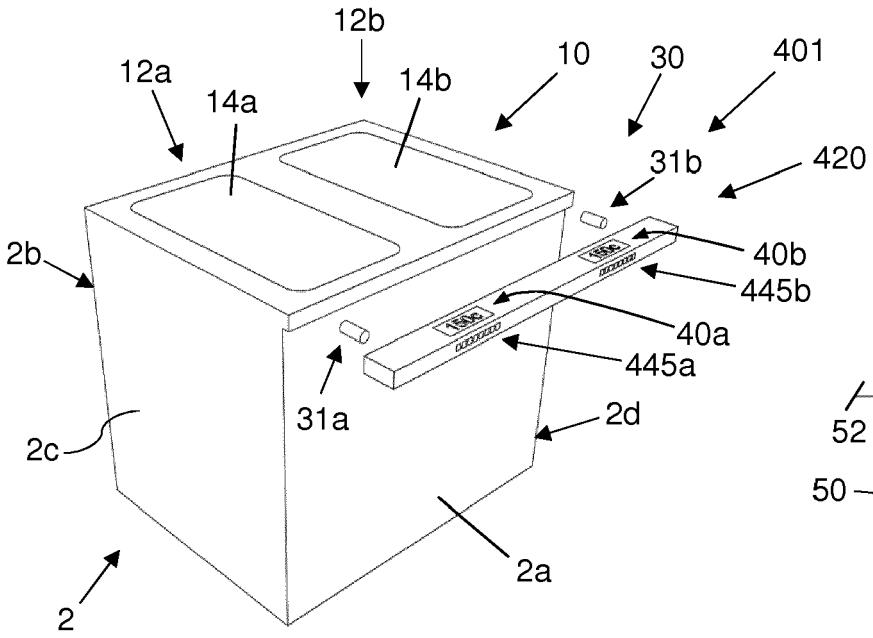

FIG. 5B

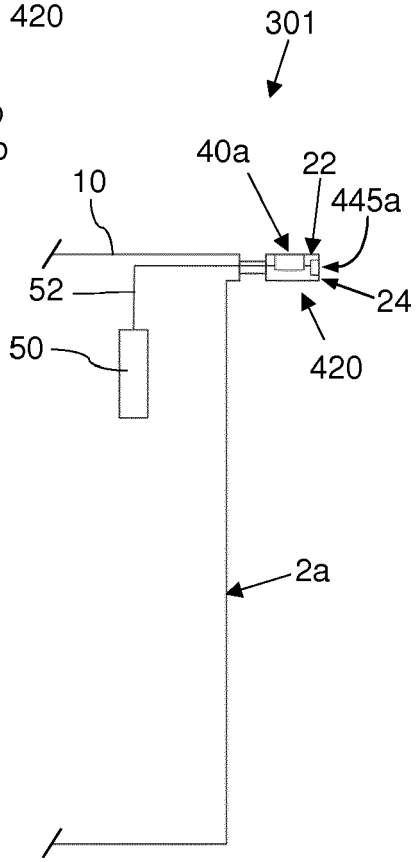

FIG. 5C

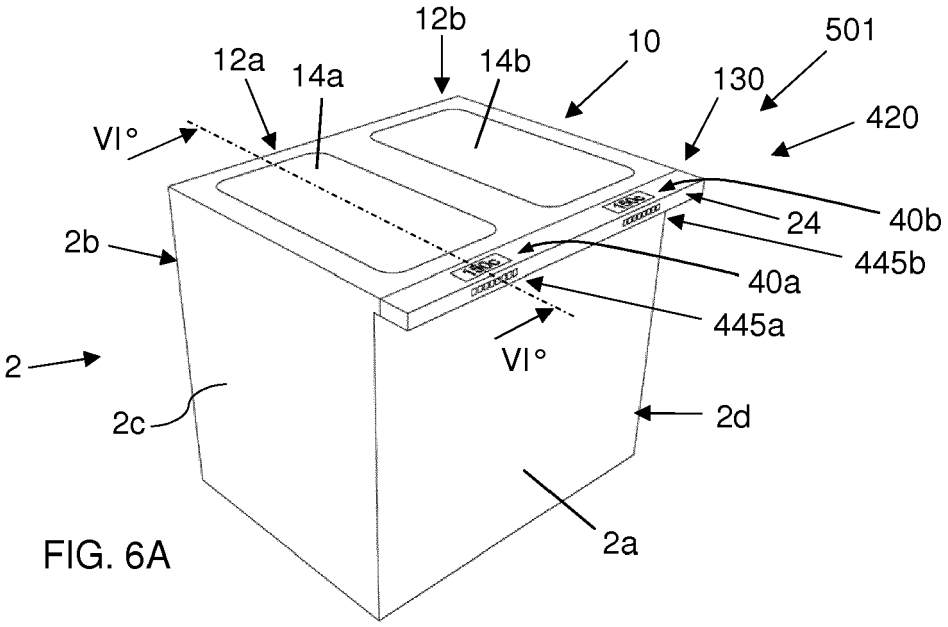

FIG. 6A

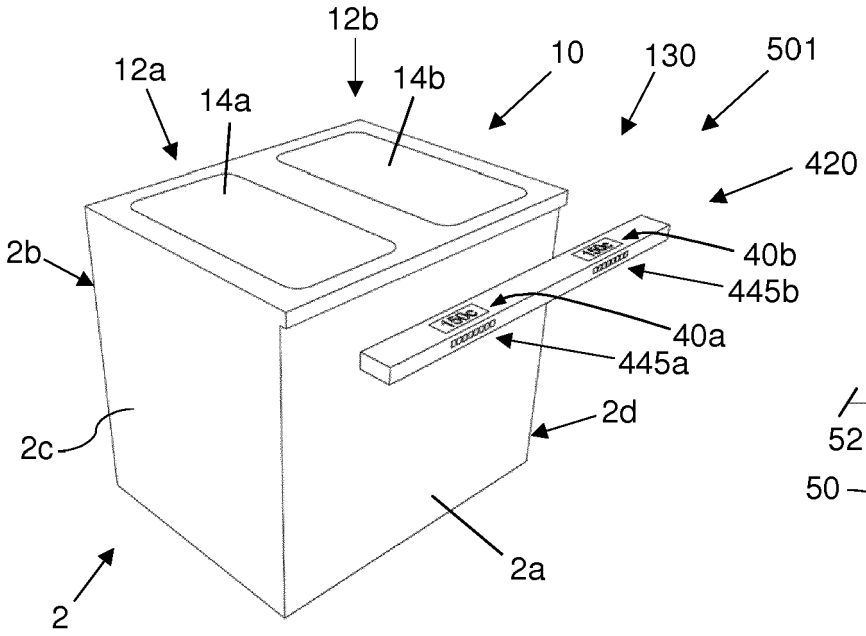

FIG. 6B

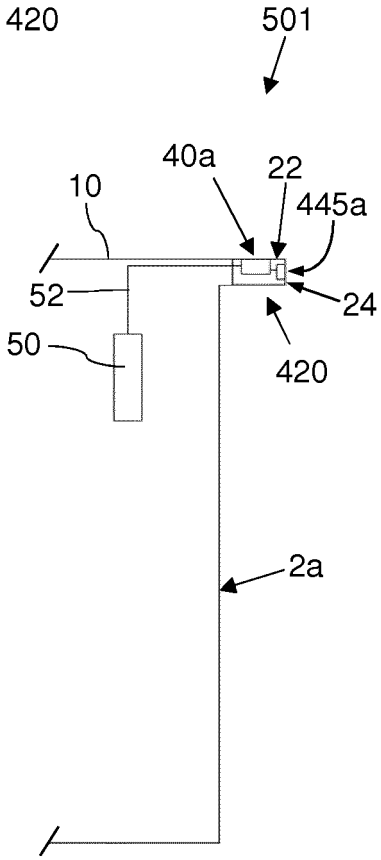

FIG. 6C

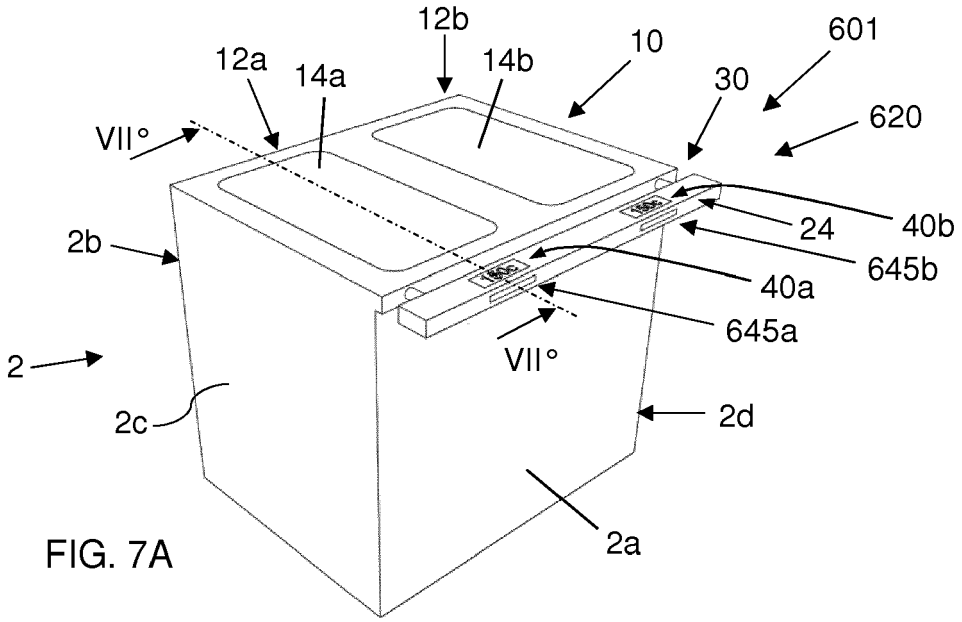

FIG. 7A

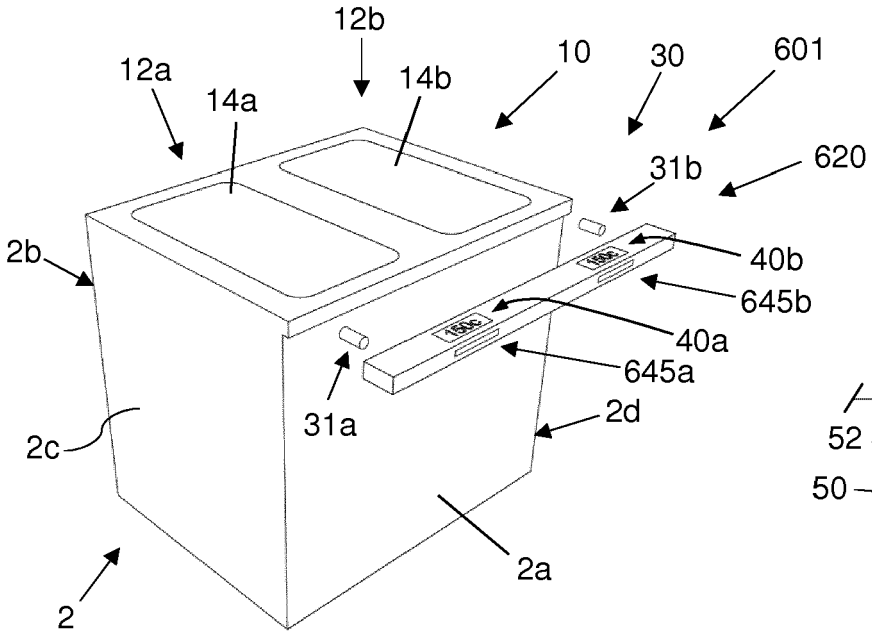

FIG. 7B

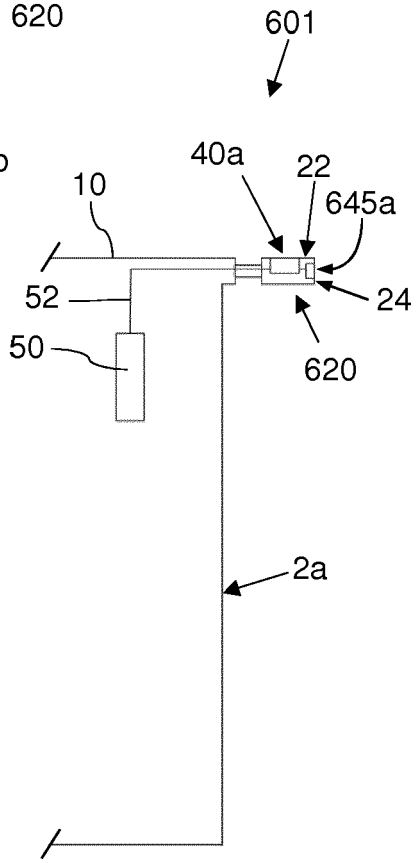

FIG. 7C

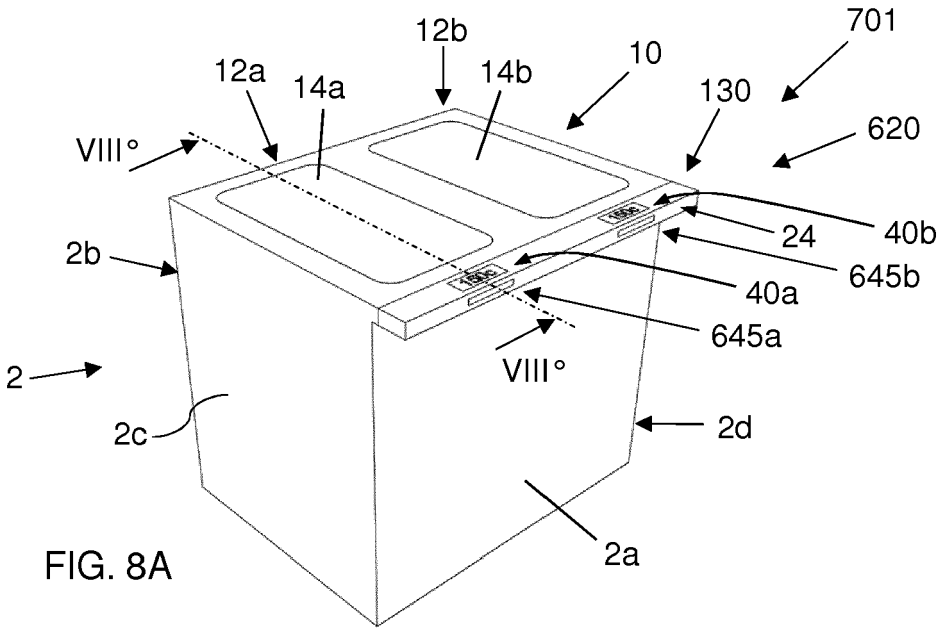

FIG. 8A

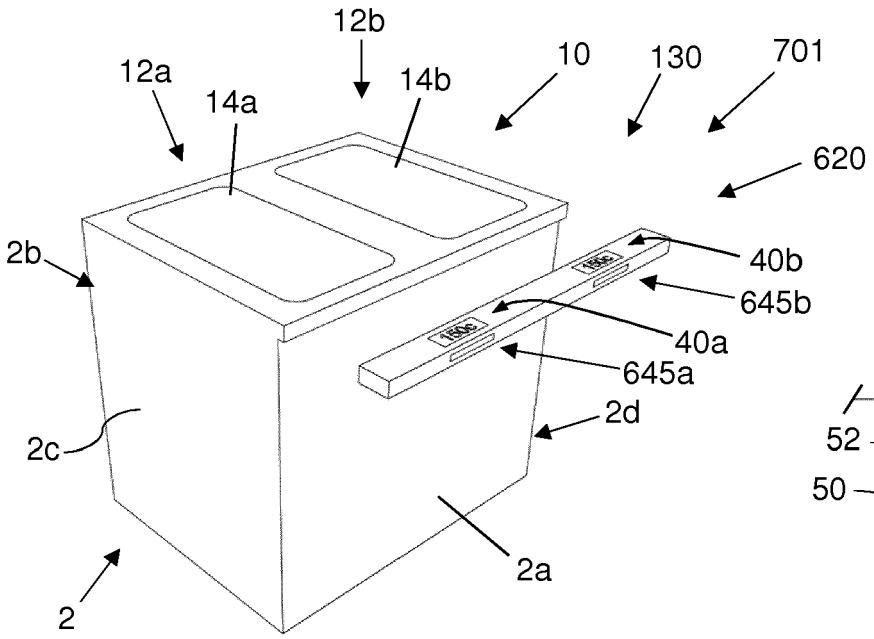

FIG. 8B

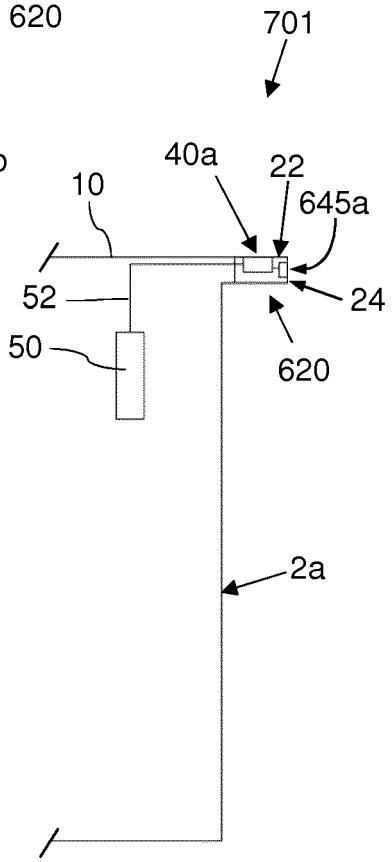

FIG. 8C

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EUROPEAN SEARCH REPORT

Application Number
EP 17 19 2815

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A	* figures 1-3 *	1-13	
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	27 March 2018	Moreno Rey, Marcos

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L : document cited for other reasons

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