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(71) Applicant: **Indesit Company S.p.A.**
60044 Fabriano (AN) (IT)

(72) Inventors:
- **Valeri, Andrea**
  60044 Fabriano (AN) (IT)
- **Nukala, Rajasekhar**
  500011 Secunderabad (IN)

(74) Representative: **Reposio, Giancarlo et al**
c/o Metroconsult S.r.l.
Via Sestriere 100
10060 None (TO) (IT)

(54) **Refrigerating appliance, in particular for household use, comprising a device for distributing a beverage**

(57) The present invention relates to a refrigeration appliance (1), in particular for household use, of the type comprising:
- a structure (2) within which at least one compartment (3, 4) is obtained for preserving foodstuffs, which is adapted to be closed by at least one door (3P, 4P);
- a device (10) for dispensing a beverage, said device (10) comprising a tank (11) associated with an inner wall (5) of the structure (2), in particular of said at least one door (3P, 4P).

The invention is characterized in that said tank (11) is secured to said inner wall (5) and comprises at least one first block (15) which allows coupling at least one container or door storage compartment (16) to said tank (11), so that said tank (11) can act as a support for said at least one container or door storage compartment (16).

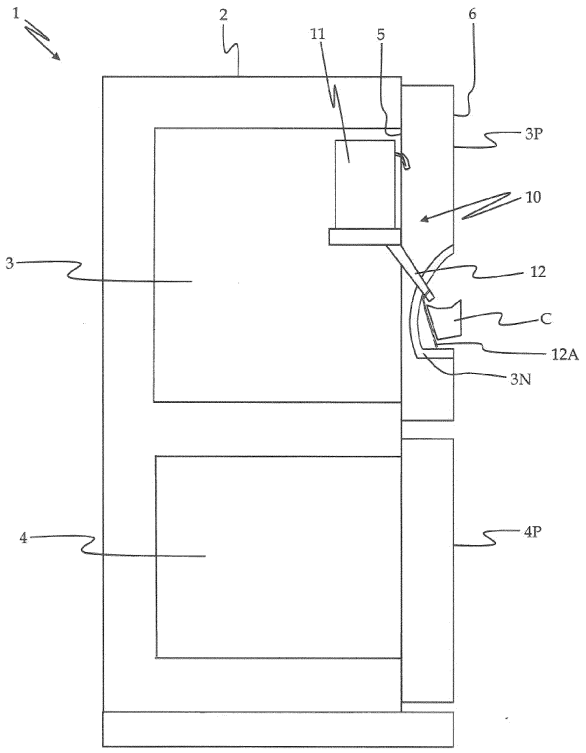

Fig. 1

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Description

[0001] The present invention relates to a refrigeration appliance, in particular for household use, comprising a device for dispensing a beverage.

[0002] Reference will be prevalently made in the following description to a refrigeration appliance for household use, even though the present invention is not strictly limited to such an appliance.

[0003] It is known in the art a refrigeration appliance, in particular for household use, of the type comprising a structure with at least one compartment formed therein for food preservation.

[0004] Refrigeration appliances known in the art typically comprise two compartments which are kept at different temperatures, thus providing at least two different food preservation states, in particular a refrigerator compartment suitable for preserving fresh food at a temperature between 0°C and 10°C and a freezer compartment suitable for preserving frozen food at a temperature between -15°C and -30°C; such refrigeration appliances are commonly referred to by those skilled in the art of household refrigeration as "double-door" or "combined" refrigerators, depending on the relative position of the two compartments. In a "double-door" refrigeration appliance, the freezer compartment is above the refrigerator compartment, whereas in a "combined" refrigeration appliance the freezer compartment is located at the bottom.

[0005] It is also known in the art that a refrigeration appliance, in particular for household use, can comprise a device for dispensing a beverage outside said refrigeration appliance, said device comprising a tank positioned inside a compartment of the refrigeration appliance, in particular said tank being usually located in a refrigerator compartment.

[0006] A valve is normally associated with said tank, said valve being operated by an actuator element associated therewith and positioned externally to the refrigeration appliance, said actuator element being in turn operated by a user wanting the beverage to exit the valve. Refrigeration appliances with such features have been common for decades in the USA; actually, the refrigeration appliances widespread on the American market are equipped with dispensers capable of dispensing not only refrigerated water, but also ice and, in some cases, refrigerated soft drinks.

[0007] These refrigeration appliances are usually fitted with two doors arranged side by side, and are therefore very bulky; the dispenser and the valve are associated with one door, the valve typically extending through the door, so that it protrudes both inside and outside the refrigeration appliance; furthermore, a recess is normally present on said door, outside the refrigeration appliance, where the valve or the associated ducts come out for dispensing the beverage; in said recess, the user can lay, for example, a glass or another container suitable for receiving the dispensed beverage.

[0008] In Europe, refrigeration appliances equipped with a dispenser have begun to catch on in quite recent times. It must be pointed out that the European market demands rather different products from those sold in the United States, i.e. products being much less bulky (60 or 70 cm wide) and usually dispensing refrigerated water only; moreover, such products must not be too expensive and therefore must use simple but effective technical solutions.

[0009] The recently greatly increased demand from the public and the resulting spread of refrigeration appliances comprising a beverage dispensing device have given rise to a need for converting the production lines of known refrigeration appliances in a simple and economical manner without requiring new moulds, so that a refrigeration appliance not equipped with a beverage dispensing device can be transformed into a refrigeration appliance equipped with such a device.

[0010] As a consequence, a significant drawback of known refrigeration appliances is their poor versatility, i.e. their insufficient propensity to being modified to include also a beverage dispensing device.

[0011] It has also been observed that the refrigeration appliances known in the art pose a number of problems, which are substantially due to the positioning of the tank inside a compartment of the refrigeration appliance.

[0012] In fact, the refrigeration appliances known in the art are so realized as to comprise a beverage dispensing tank, which tank is associated with one door of the refrigeration appliance itself; however, in known refrigeration appliances it is often the case that the tank is not firmly secured to said door.

[0013] This inevitably leads to stability problems suffered by the tank and by the whole refrigeration appliance, in particular when opening and/or closing said door. Of course, said stability problems may lead to further adverse consequences, e.g. overturning of foodstuffs contained in the refrigeration appliance and/or spilling of the beverage contained in the tank, which may soil both the refrigeration appliance and the surrounding area.

[0014] In this frame, it is the main object of the present invention to provide a refrigeration appliance, in particular for household use, which is adapted to overcome the above-described drawbacks, thus being particularly efficient and economical.

[0015] It is another object of the present invention to provide a refrigeration appliance, in particular for household use, which is so realized as to be highly versatile, such that it can be easily adapted to accommodate a beverage dispensing device without necessarily requiring any modifications to the entire production line of known refrigeration appliances.

[0016] It is a further main object of the present invention to provide a refrigeration appliance, in particular for household use, which is so realized as to firmly and safely accommodate inside of it a beverage dispensing tank, in particular in order to prevent both the tank and the whole

refrigeration appliance from suffering any stability problems, especially when opening and/or closing a door of said refrigeration appliance.

[0017] Said objects are achieved by the present invention through a refrigeration appliance, in particular for household use, incorporating the features set out in the appended claims, which are intended to be an integral part of the present description.

[0018] Further objects, features and advantages of the present invention will become apparent from the following detailed description and from the annexed drawings, which are supplied by way of non-limiting example, wherein:

- Fig. 1 is a schematic sectional side view of a refrigeration appliance according to the present invention;
- Figs. 2a and 2b are, respectively, a first and a second perspective views of a beverage dispensing tank associated with the refrigeration appliance according to the present invention;
- Figs. 3a and 3b are, respectively, a perspective view of the tank of Figs. 2a and 2b and a perspective view of a component of the refrigeration appliance according to the present invention;
- Fig. 4 is a side view of the component of Fig. 3b;
- Figs. 5a and 5b are, respectively, a perspective view and a sectional view of a further component of the refrigeration appliance according to the present invention.

[0019] Said description and said drawings are to be considered as non-limiting examples. Referring now to the annexed drawings, Fig. 1 shows a schematic sectional view of a refrigeration appliance, in particular for household use, in accordance with the present invention, designated as a whole by reference numeral 1.

[0020] Said refrigeration appliance 1 comprises a structure 2 within which at least one compartment 3, 4 is obtained for preserving foodstuffs, which is adapted to be closed by at least one door 3P, 4P.

[0021] Preferably, said at least one compartment 3, 4 comprises:

- a refrigerator compartment 3, in particular suitable for preserving fresh food at a temperature between 0°C and 10°C, and adapted to be closed by a first door 3P,
- a freezer compartment 4, in particular suitable for preserving frozen food at a temperature between -15°C and -30°C, and adapted to be closed by a second door 4P.

[0022] It should be noted that the refrigeration appliance 1 shown in Fig. 1 is a "combined" one, in that the freezer compartment 4 is located under the refrigerator compartment 3; it is however clear that the refrigeration appliance 1 according to the present invention may be of a different type as well.

[0023] The refrigeration appliance 1 comprises a device, designated as a whole by reference numeral 10, for dispensing a beverage, said device 10 comprising a tank 11 associated with an inner wall 5 of the structure 2, in particular of said at least one door 3P, 4P, of the refrigeration appliance 1.

[0024] Said dispensing device 10 comprises a valve 12 associated with the tank 11. In the example of embodiment shown in Fig. 1, also the valve 12 is associated with the first door 3P; in this embodiment, the valve 12 according to the present invention preferably also acts as a duct for dispensing the beverage outside the refrigeration appliance 1, preferably conducting the beverage to a recess 3N obtained on an outer wall 6 of said structure 2, in particular of said first door 3P. It is however clear that said valve 12 and said recess 3N may be associated with other parts of the structure 2.

[0025] Furthermore, the valve 12 is associated with an actuator element 12A positioned outside the refrigeration appliance 1, preferably said actuator element 12A being of the type that can be operated via a thrust exerted by a user wanting the beverage to exit the valve 12 (e.g. said thrust being exerted by means of a container, designated by reference C in Fig. 1) .

[0026] As can be seen particularly in Figures 2a to 4, in accordance with the present invention the tank 11 is secured to said inner wall 5 and comprises at least one first block 15 (visible in Fig. 2a) which allows coupling at least one container or door storage compartment 16 (visible in Fig. 2b) to said tank 11, so that said tank 11 can act as a support for said at least one container or door storage compartment 16. Said at least one first block 15 preferably cooperates with a corresponding block 5A (visible in Figs. 2a and 2b) associated with the inner wall 5 of the structure 2, in particular of said at least one door 3P, 4P, to support said at least one container or door storage compartment 16. Preferably, said at least one first block 15 is associated with at least one side surface 11L of the tank 11.

[0027] It must be pointed out that such a provision proves to be very innovative when compared to the solutions currently known in the art, in that in said known solutions it is the tank which is supported by the containers or door storage compartments coupled to the inner wall of the structure of the refrigeration appliance.

[0028] On the contrary, the provisions of the present invention allow to firmly secure at least one container or door storage device 16 to a beverage dispensing tank 11, said tank 11 having already been secured to the inner wall 5 of the structure 2, in particular of said at least one door 3P, 4P.

[0029] Furthermore, as can be seen in Figures 2a to 4, the refrigeration appliance 1 comprises a support 20 secured to an inner wall 5 of the structure 2, in particular of said at least one door 3P, 4P, said support 20 being adapted to support said tank 11.

[0030] Consequently, according to the present invention, the tank 11 rests on the support 20.

[0031] In a preferred embodiment, the support 20 according to the present invention comprises at least one second block 25 (visible in Fig. 2a and Fig. 3b), which allows coupling at least one container or door storage compartment 16 to said support 20, so that said support 20 can also support (in addition to the tank 11) at least one further container or door storage compartment 16.

[0032] Preferably, said at least one second block 25 is associated with at least one side surface 20L of the support 20.

[0033] Preferably, also this at least one second block 25 cooperates with a corresponding block 5A associated with the inner wall 5 of the structure 2, in particular of said at least one door 3P, 4P, to support said at least one container or door storage compartment 16. The special provision of realizing a first block 15 on the tank 11 and/or at least one second block 25 on the support 20 allows to couple at least one container or door storage compartment 16 to said tank 11 and/or to said support 20, said tank 11 and said support 20 having already been firmly secured to the inner wall 5 of the structure 2, in particular of said at least one door 3P, 4P; this further improves the versatility of the refrigeration appliance 1, in particular without requiring a conversion of the production lines of said refrigeration appliance 1.

[0034] In a preferred embodiment, said inner wall 5 of the structure 2 corresponds to an inner panel of said at least one door 3P, 4P; it is however clear that said inner wall 5 may also correspond to other parts of the structure 2.

[0035] Said support 20 is preferably secured in a substantially central region of said inner wall 5. In addition, said support 20 is adapted to be coupled to a bottom surface 111 (particularly visible in Fig. 3a) of the tank 11; in particular, said support 20 comprises retaining means (designated as a whole by reference numeral 21), which are adapted to retain said tank 11 so as to prevent it from accidentally disengaging from the support 20. Preferably, said retaining means 21 comprise at least one slot 21F adapted to receive at least one tooth 13 associated with said bottom surface 11I of the tank 11, said at least one slot 21F including at least one hooking element (not shown in the figures) adapted to be coupled to said at least one tooth 13 to ensure that the tank 11 is firmly secured to the support 20.

[0036] Said retaining means 21 further comprise an actuating element 21T associated with said at least one hooking element, so as to allow the latter to move in such a way as to get coupled to and/or decoupled from said at least one tooth 13, in order to allow the tank 11 to be coupled to or separated from the support 20.

[0037] The support 20 comprises a hole 22 for the passage of the valve 12 or of any element (e.g. an extension) associated with said valve 12.

[0038] The support 20 also comprises a bottom cover 23 that covers and protects at least a portion of the valve 12 and/or the mechanisms (not shown in detail in the annexed drawings) of said retaining means 21, in particular the mechanisms associated with said at least one hooking element.

[0039] The tank 11 and the support 20 further comprise guiding means 14, 24 adapted to facilitate the proper coupling between said tank 11 and support 20, in particular by positioning the tank 11 correctly onto the support 20, so as to allow the retaining means 21 to operate properly.

[0040] In a preferred embodiment, said guiding means comprise at least one groove 24 provided on the support 20, said at least one groove 24 being adapted to receive at least one relief 14 provided on the tank 11.

[0041] As it can be seen in Figure 4, preferably said at least one groove 24 is inclined relative to the inner wall 5, in particular an upper end 24S of the groove 24 being farther from the inner wall 5 than a lower end 24I of said groove 24; it is clear that, in such an embodiment, said at least one relief 14 has a shape and a profile matching those of said at least one groove 24 (as shown in Fig. 3a), also said at least one relief 14 being so realized as to be inclined relative to said inner wall 5.

[0042] Figure 4 also shows that the refrigeration appliance 1 according to the present invention comprises at least one reinforcing element 31 to facilitate fastening the support 20 to the inner wall 5; said reinforcing element 31 is positioned in an interspace 7 obtained between the inner wall 5 and the outer wall 6 of the structure 2, in particular of said at least one door 3P,4P.

[0043] Preferably, said interspace 7 is filled with insulating material, in particular a plastic foam material (e.g. polyurethane), said insulating material also allowing (in addition to insulating said at least one compartment 3, 4 from the outside environment) to definitively secure the reinforcing element 31.

[0044] It must be pointed out that the thickness of the insulating material depends on the type of cell (i.e. on the cell's operating temperatures) and, of course, on the type of insulating material in use.

[0045] The reinforcing element 31 is then coupled to the support 20 through fastening means 31F (visible in Fig. 4, said fastening means 31F consisting, for example, of at least one screw) that cross said inner wall 5, said fastening means 31F allowing to bear the support 20.

[0046] The refrigeration appliance 1 further comprises locating means 24P (also visible in Fig. 4) that facilitate the proper positioning of the support 20 with respect to the inner wall 5, in particular prior to securing said support 20 through the fastening means 31F.

[0047] Preferably, said locating means comprise at least one reference pin 24P associated with a back wall 20P of the support 20 (i.e. a wall of the support 20 facing towards the inner wall 5 in operation), said at least one reference pin 24P matching at least one aperture (not shown in the drawings and consisting, for example, of a round or elongated hole) in said inner wall 5. Furthermore, said locating means comprise at least one abutment (not shown in the drawings) provided on said reinforcing element 31 and adapted to receive said at least

one reference pin 24P, said at least one abutment possibly comprising a blind hole with a protruding collar around its perimeter, which collar is adapted to fit into the round or elongated hole in the inner wall 5 to ensure the proper positioning of the reinforcing element 31 within the interspace 7.

[0048] It is clear that the reinforcing element 31 should preferably be taped or glued to the inner wall 5 prior to foaming the interspace 7.

[0049] The special provisions concerning the support 20 allow to make the refrigeration appliance 1 according to the present invention more versatile, in that they make said refrigeration appliance 1 suited to including a beverage dispensing tank 11 without requiring a conversion of the production lines of said refrigeration appliance 1 and without requiring new moulds.

[0050] In addition, the provisions of the present invention allow to provide a refrigeration appliance 1 which is so realized that the beverage dispensing tank 11 can be firmly secured to the inner wall 5 of the structure 2 of the refrigeration appliance 1, in particular of said at least one door 3P, 4P. This prevents both the tank 11 and the whole refrigeration appliance 1 from suffering instability problems, in particular when opening and/or closing said at least one door 3P, 4P, also eliminating any possible adverse consequences, such as, for example, overturning of foodstuffs contained in the refrigeration appliance 1 and/or spilling of the beverage contained in the tank 1.

[0051] In accordance with the present invention, as can be seen in Figures 5a and 5b, the refrigeration appliance 1 comprises a hooking system (designated as a whole by reference numeral 40) for hanging the tank 11 on the inner wall 5 of the structure 2, in particular of said at least one door 3P, 4P, which system acts as an anti-tip device.

[0052] In particular, said hooking system 40 comprises at least one coupling and supporting element 41 adapted to be placed into a cut-out 5T of the inner wall 5.

[0053] Said coupling and supporting element 41 comprises at least one wing 42 adapted to be positioned into said interspace 7 and then buried into an insulating material, in particular a plastic foam material (e.g. polyurethane), so that the coupling and supporting element 41 is firmly positioned and secured in said cut-out 5T of the inner wall 5.

[0054] In a preferred embodiment, said coupling and supporting element 41 comprises a cavity 43 adapted to receive at least one appendix 17 of said tank 11; in particular, said appendix 17 is located on a back surface 11P of the tank 11, i.e. a surface of the tank 11 which, in an operating condition (i.e. a condition occurring when the tank is being hung on the inner wall 5), faces towards the inner wall 5.

[0055] In addition, said appendix 17 comprises at least one rib 17N on its top surface and/or on its bottom surface, said at least one rib 17N making the appendix 17 stronger and/or allowing the appendix 17 to be properly centered in the cavity 43.

[0056] Preferably, said cavity 43 and said appendix 17 are so realized as to have a downward inclined profile when viewed from the tank 11 in the direction of the inner wall 5, so that the tank 11 can stay firmly hung on the inner wall 5. It is clear that such a realization requires the coupling between the tank 11 and the inner wall 5 to occur through a substantially diagonal translational movement of the tank 11 relative to said inner wall 5, such movement being also facilitated and guided by the particular shape of at least one groove 24 provided on the support 20 and of at least one respective relief 14 provided on the tank 11. Said substantially diagonal translational movement is also required by the presence of the valve 12 associated with the tank 11, which has to move diagonally to be able to go through the inclined hole 22.

[0057] The coupling and supporting element 41 further comprises an edge 44 adapted to be associated with said cut-out 5T, said edge 44 preventing the insulating material from undesirably coming out of the interspace 7 and improving the finishing of the inner wall 5 of the refrigeration appliance 1.

[0058] Preferably, said coupling and supporting element 41 and/or said inner wall 5 comprise abutments (not shown in the drawings), which allow the coupling and supporting element 41 to be properly positioned into the cut- out 5T.

[0059] Preferably, the tank 11 is coupled to the inner wall 5 in such a way as to leave a space S (visible in Figures 5a and 5b) between the back surface 11P of the tank 11 and said inner wall 5, so as to allow for air circulation in said space S and to improve the thermal exchange with the tank 11 for adequately cooling the content of said tank 11.

[0060] To this end, the tank 11 and/or the inner wall 5 preferably comprise at least one spacer element 18 (visible in Figures 3a, 5a and 5b) adapted to maintain said space S between the back surface 11P of the tank 11 and the inner wall 5.

[0061] Also the special provisions concerning the hooking system 40 make the refrigeration appliance 1 of the present invention more versatile, in that they allow to easily transform a refrigeration appliance 1 in order to make it suitable for comprising a beverage dispensing tank 11 without requiring new moulds or a full conversion of the production lines.

[0062] Furthermore, the provisions of the present invention allow to provide a refrigeration appliance 1 which is so realized that the beverage dispensing tank 11 can be firmly secured to the inner wall 5 of the structure 2 of the refrigeration appliance 1, in particular of said at least one door 3P, 4P, since the hooking system 40 allows hanging the tank 11 on said inner wall 5.

[0063] It is clear that this allows to make both the tank 11 and the whole refrigeration appliance 1 more stable, in particular when opening and/or closing said at least one door 3P, 4P; as a result, the presence of the hooking system 40 allows to eliminate any possible adverse consequences, such as, for example, overturning of foodstuffs contained in the refrigeration appliance 1 and/or

spilling of the beverage contained in the tank 1.

[0064] The following will describe a method for assembling a beverage dispensing device 10 in a refrigeration appliance 1, in particular for household use, in accordance with the present invention.

[0065] In particular, said method comprises the following steps:

a) making the tank 11 in a manner such that it comprises at least one first block 15 which allows coupling at least one container or door storage compartment 16 (visible in Fig. 2b) to said tank 11, so that said tank 11 can act as a support for said at least one container or door storage compartment 16;
b) making a cut-out and/or a hole in an inner wall 5 of the structure 2, in particular of at least one door 3P, 4P;
c) securing a support 20 to said inner wall 5, in particular to a substantially central portion of said inner wall 5, said support 20 being adapted to support a tank 11 of said beverage dispensing device 10;
d) coupling said tank 11 to said support 20, in particular by activating retaining means 21 adapted to retain said tank 11, so as to prevent it from accidentally disengaging from the support 20.

[0066] In a preferred embodiment, said step b) is preceded by a step a1) of making the support 20 in a manner such that it comprises at least one second block 25 allowing at least one further container or door storage compartment 16 to be coupled to said tank 11. Furthermore, said step c) may comprise the following steps:

c1) positioning a reinforcing element 31 into an interspace 7 obtained between the inner wall 5 and an outer wall 6 of the structure 2;
c2) coupling said reinforcing element 31 to the support 20, in particular through fastening means 31F crossing said inner wall 5;
c3) filling said interspace 7 with insulating material, in particular a plastic foam material, to definitively secure the reinforcing element 31.

[0067] Preferably, said step d) is carried out by using guiding means 14, 24 adapted to facilitate the proper coupling between the tank 11 and the support 20.

[0068] In addition, the method according to the present invention may comprise a step e) of coupling at least one container or door storage compartment 16 to a first block 15 of said tank 11 and/or to at least one second block 25 of said support 20.

[0069] The method according to the present invention may further comprise the following steps:

f) making a cut-out 5T in the inner wall 5 of the structure 2, in particular of said at least one door 3P, 4P;
g) placing at least one coupling and supporting element 41 into said cut-out 5T, in particular in a manner such that at least one wing 42 of the coupling and supporting element 41 is positioned into said interspace 7 and then buried into an insulating material, in particular a plastic foam material, so that the coupling and supporting element 41 is firmly positioned and secured in said cut-out 5T of the inner wall 5;
h) hanging the tank 11 on said coupling and supporting element 41, in particular by inserting an appendix 17 located on a back surface 11P of the tank 11 into a cavity 43 of said coupling and supporting element 41.

[0070] Preferably, said step h) is carried out through a substantially diagonal translational movement of the tank 11, said movement being possibly also guided by the particular shape of at least one groove 24 provided on the support 20 and of at least one respective relief 14 provided on the tank 11.

[0071] The features and advantages of a refrigeration appliance, in particular for household use, according to the present invention are apparent from the above description.

[0072] In particular, the special provision of a first block 15 on the tank 11 and/or at least one second block 25 on the support 20 allows to couple at least one container or door storage compartment 16 to said tank 11 and/or to said support 20, said tank 11 and/or said support 20 having already been firmly secured to the inner wall 5 of the structure 2, in particular of said at least one door 3P, 4P; this improves the versatility of the refrigeration appliance 1.

[0073] In fact, the special features of the refrigeration appliance 1 according to the present invention allow to make the refrigeration appliance 1 according to the present invention suited to including a beverage dispensing tank 11 without requiring a conversion of the production lines of said refrigeration appliance 1 and without requiring new moulds.

[0074] In addition, the provisions of the present invention allow to provide a refrigeration appliance 1 which is so realized that the beverage dispensing tank can be firmly secured to the inner wall 5 of the structure 2 of the refrigeration appliance 1, in particular of said at least one door 3P, 4P. This prevents both the tank 11 and the whole refrigeration appliance 1 from suffering instability problems, particularly when opening and/or closing said at least one door 3P, 4P, also eliminating any possible adverse consequences, such as, for example, overturning of foodstuffs contained in the refrigeration appliance 1 and/or spilling of the beverage contained in the tank 1.

[0075] It is however clear that many changes may be made to the refrigeration appliance, in particular for household use, according to the present invention, and that in its practical implementation the various components may have different shapes and arrangements or be replaced with other technically equivalent elements without departing from the novelty spirit of the inventive idea.

[0076] It can therefore be easily understood that the present invention is not limited to the above-described refrigeration appliance, in particular for household use, but may be subject to many modifications, improvements or replacements of equivalent parts and elements without departing from the inventive idea, as clearly specified in the following claims.

Claims

1. A refrigeration appliance (1), in particular for household use, comprising:

   - a structure (2) within which at least one compartment (3, 4) is obtained for preserving foodstuffs, which is adapted to be closed by at least one door (3P, 4P);
   - a device (10) for dispensing a beverage, said device (10) comprising a tank (11) associated with an inner wall (5) of the structure (2), in particular of said at least one door (3P, 4P),

   characterized in that

   said tank (11) is secured to said inner wall (5) and comprises at least one first block (15) which allows coupling at least one container or door storage compartment (16) to said tank (11), so that said tank (11) can act as a support for said at least one container or door storage compartment (16).

2. A refrigeration appliance (1) according to claim 1, **characterized in that** said at least one first block (15) is associated with at least one side surface (11L) of the tank (11).

3. A refrigeration appliance (1) according to claim 1, **characterized in that** said refrigeration appliance (1) comprises a support (20) secured to said inner wall (5) of the structure (2), in particular of said at least one door (3P, 4P), said support (20) being adapted to support said tank (11).

4. A refrigeration appliance (1) according to claim 3, **characterized in that** said support (20) comprises at least one second block (25) that allows coupling at least one container or door storage compartment (16) to said support (20), so that said support (20) can support at least one additional container or door storage compartment (16).

5. A refrigeration appliance (1) according to one or more of the preceding claims 3 to 4, **characterized in that** said support (20) is adapted to be coupled to a bottom surface (11I) of the tank (11), in particular said support (20) comprising retaining means (21) adapted to retain said tank (11) so as to prevent it from accidentally disengaging from the support (20).

6. A refrigeration appliance (1) according to claim 5, **characterized in that** said tank (11) and said support (20) comprise guiding means (14, 24) adapted to facilitate the proper coupling between said tank (11) and support (20), in particular said guiding means comprising at least one groove (24) provided on the support (20), said at least one groove (24) being adapted to receive at least one relief (14) provided on the tank (11).

7. A refrigeration appliance (1) according to one or more of the preceding claims, **characterized in that** it comprises at least one reinforcing element (31) to facilitate fastening the support (20) to the inner wall (5), in particular said reinforcing element (31) being positioned in an interspace (7) obtained between the inner wall (5) and the outer wall (6) of the structure (2), in particular of said at least one door (3P, 4P), and being coupled to the support (20) through fastening means (31F) that cross said inner wall (5).

8. A refrigeration appliance (1) according to one or more of the preceding claims, **characterized in that** it comprises a hooking system (40) for hanging the tank (11) on the inner wall (5) of the structure (2), in particular of said at least one door (3P, 4P).

9. A refrigeration appliance (1), in particular for household use, comprising:

   - a structure (2) within which at least one compartment (3, 4) is obtained for preserving foodstuffs, which is adapted to be closed by at least one door (3P, 4P);
   - a device (10) for dispensing a beverage, said device (10) comprising a tank (11) associated with an inner wall (5) of the structure (2), in particular of said at least one door (3P, 4P),

   characterized in that

   said refrigeration appliance (1) comprises a support (20) secured to said inner wall (5) of the structure (2), in particular of said at least one door (3P, 4P), said support (20) being adapted to support said tank (11).

10. A refrigeration appliance (1) according to claim 9, **characterized in that** said support (20) is adapted to be coupled to a bottom surface (11I) of the tank (11), in particular said support (20) comprising retaining means (21) adapted to retain said tank (11) so as to prevent it from accidentally disengaging from the support (20).

11. A refrigeration appliance (1) according to claim 10, **characterized in that** said retaining means (21) comprise at least one slot (21F) adapted to receive at least one tooth (13) associated with said bottom surface (11I) of the tank (11), said at least one slot

(21F) including at least one coupling element adapted to be coupled to said at least one tooth (13) to ensure that the tank (11) is firmly secured to the support (20).

12. A refrigeration appliance (1) according to one or more of the preceding claims 10 and 11, **characterized in that** said tank (11) and said support (20) comprise guiding means (14, 24) adapted to facilitate the proper coupling between said tank (11) and support (20), in particular by positioning the tank (11) correctly onto the support (20), so as to allow the retaining means (21) to operate properly, in particular said guiding means comprising at least one groove (24) provided on the support (20), said at least one groove (24) being adapted to receive at least one relief (14) provided on the tank (11) and being inclined relative to the inner wall (5), in particular an upper end (24S) of the groove (24) being farther from the inner wall (5) than a lower end (24I) of said groove (24), said at least one relief (14) having a shape and a profile matching those of said at least one groove (24).

13. A refrigeration appliance (1) according to one or more of the preceding claims, **characterized in that** it comprises at least one reinforcing element (31) to facilitate fastening the support (20) to the inner wall (5), in particular said reinforcing element (31) being positioned in an interspace (7) obtained between the inner wall (5) and the outer wall (6) of the structure (2), in particular of said at least one door (3P, 4P), and being coupled to the support (20) through fastening means (31F) that cross said inner wall (5).

14. A refrigeration appliance (1) according to one or more of the preceding claims, **characterized in that** the tank (11) comprises at least one first block (15) that allows coupling at least one container or door storage compartment (16) to said tank (11), so that said tank (11) can act as a support for said at least one container or door storage compartment (16), said support (20) comprising at least one second block (25) that allows coupling at least one container or door storage compartment (16) to said support (20), so that said support (20) can support at least one container or door storage compartment (16).

15. A refrigeration appliance (1) according to one or more of the preceding claims, **characterized in that** it comprises a hooking system (40) for hanging the tank (11) on the inner wall (5) of the structure (2), in particular of said at least one door (3P, 4P).

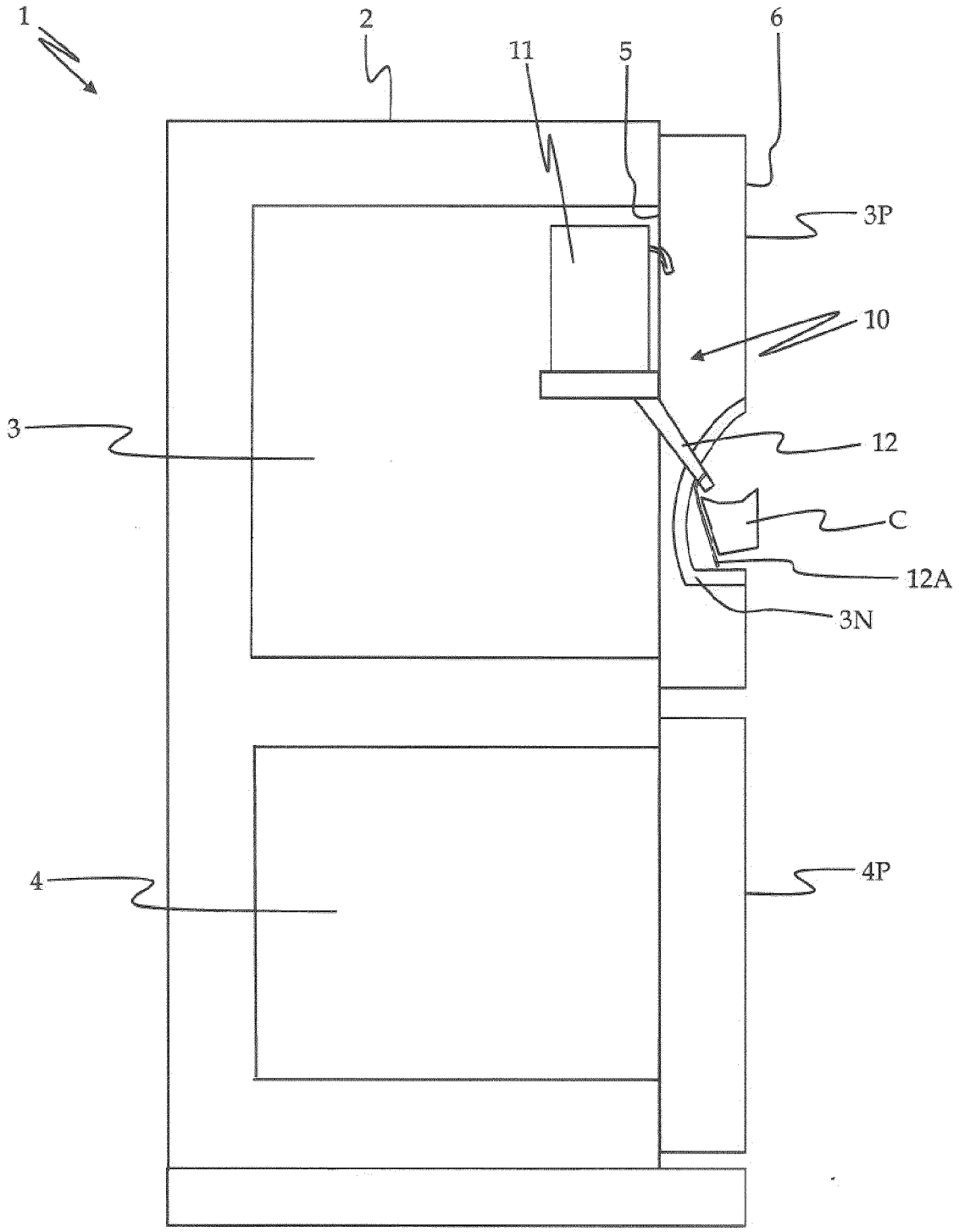
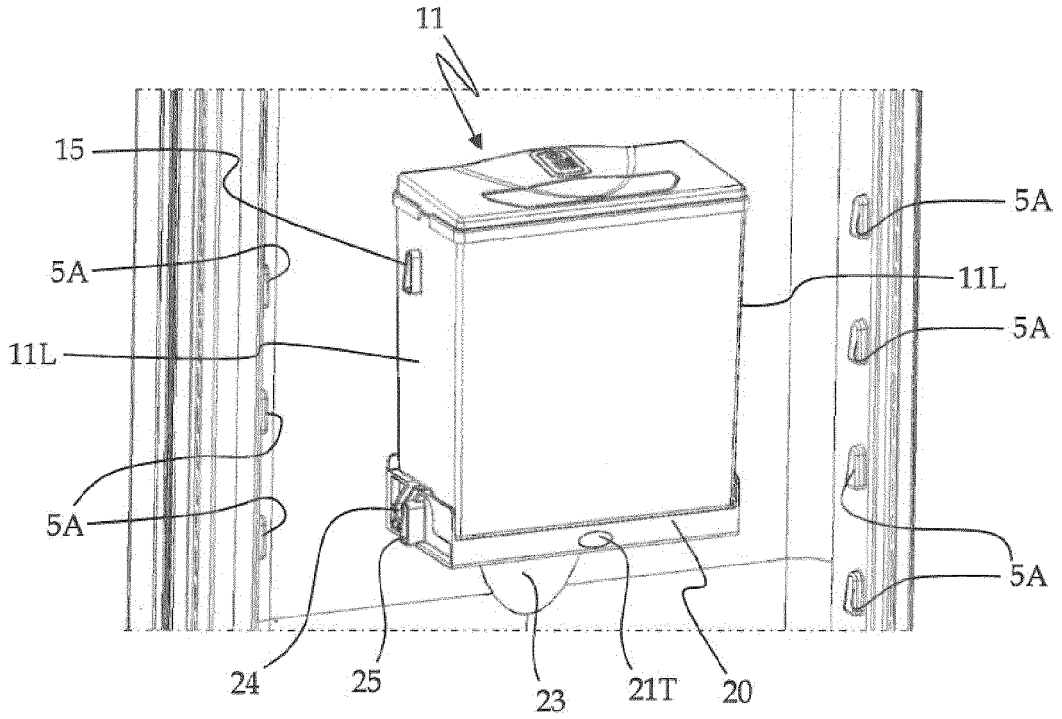


Fig. 1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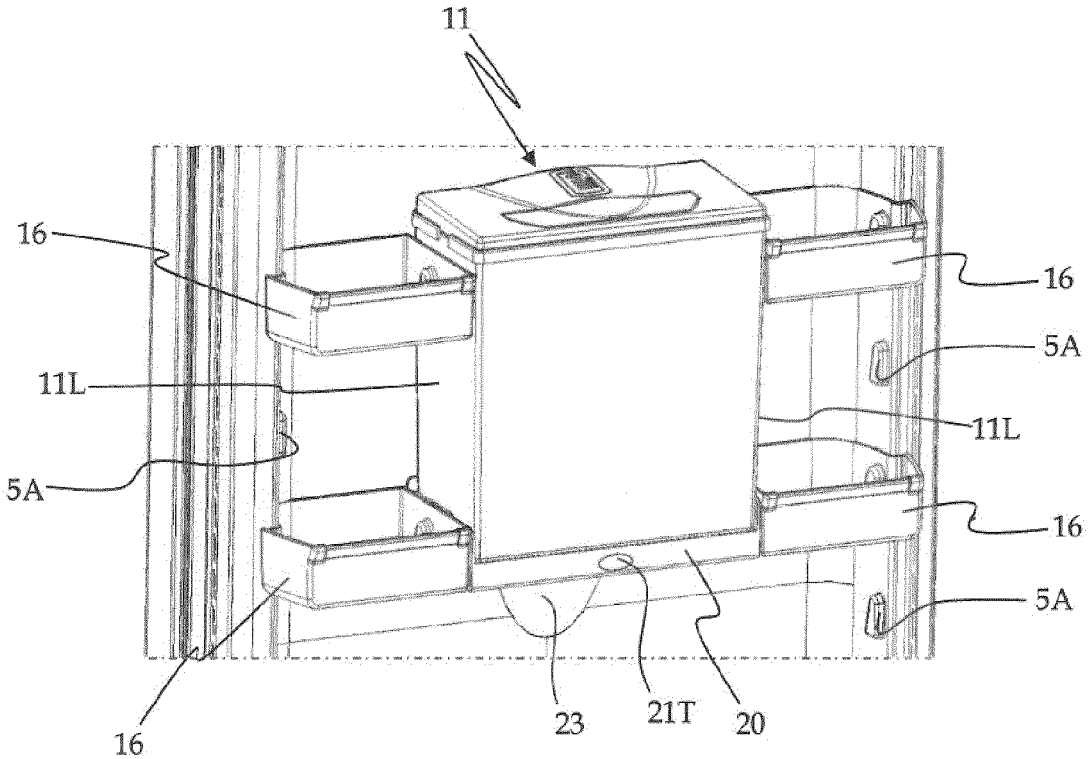
15
5A
5A
11L
5A
5A
11L
5A
5A
24
25
23
21T
20

Fig. 2a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11L
11L
5A
16
5A
16
23
21T
20

Fig. 2b

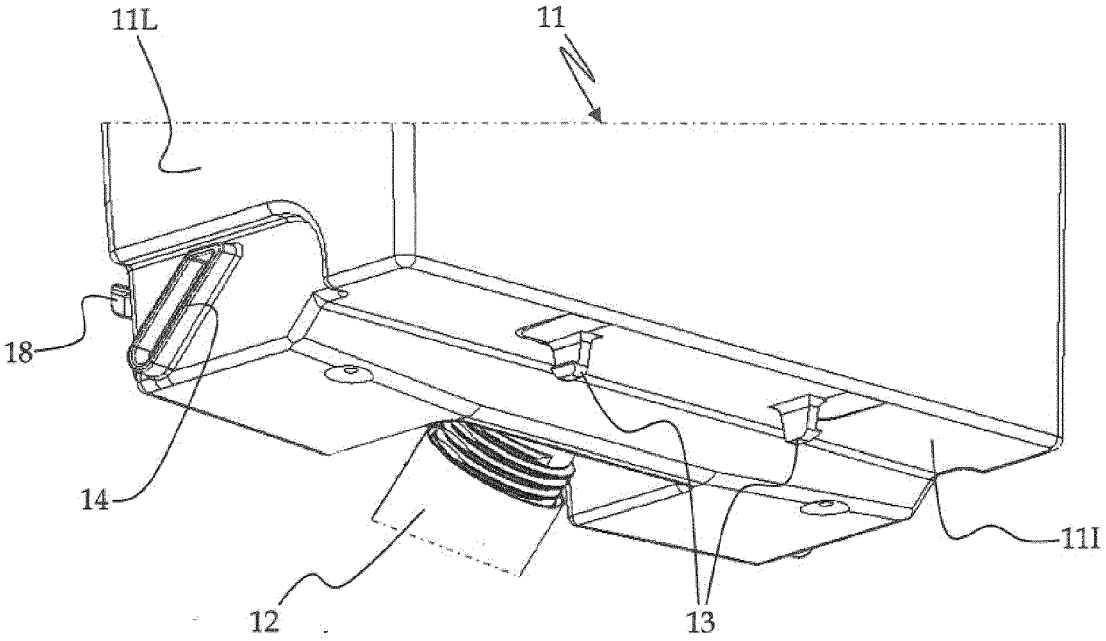


Fig. 3a

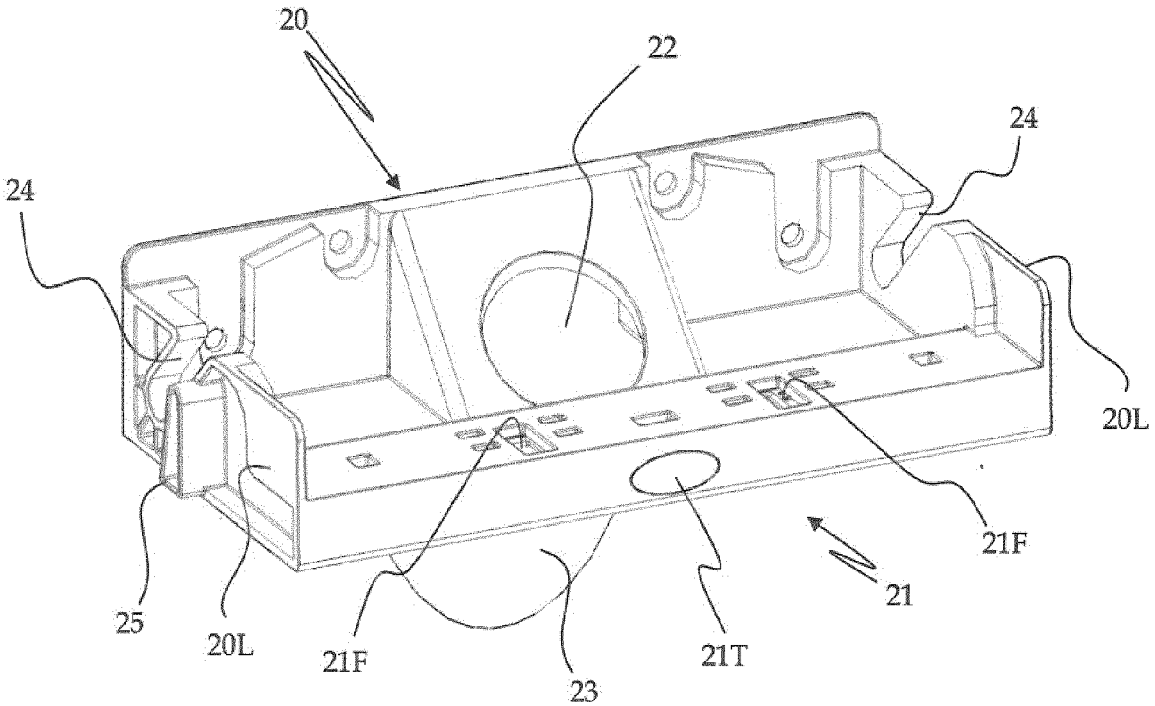


Fig. 3b

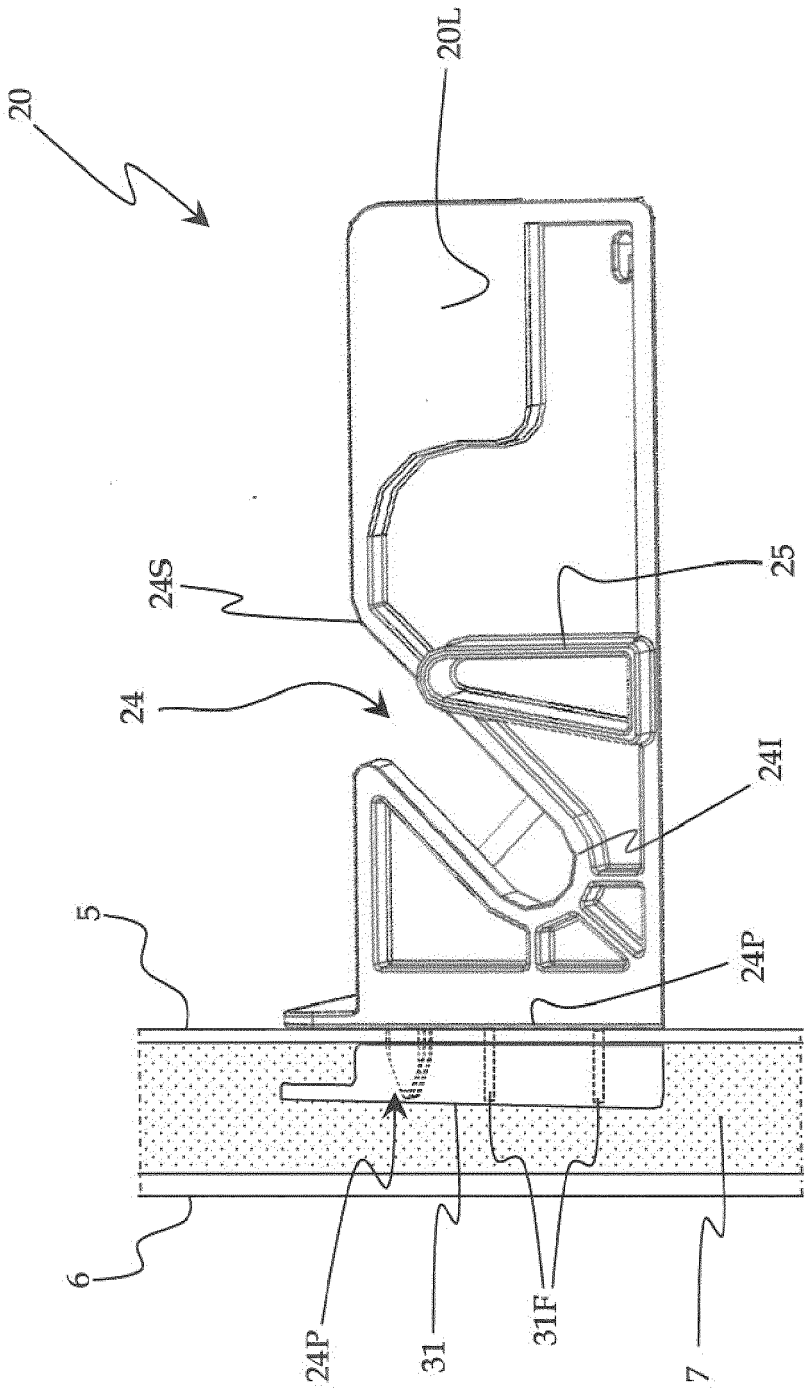
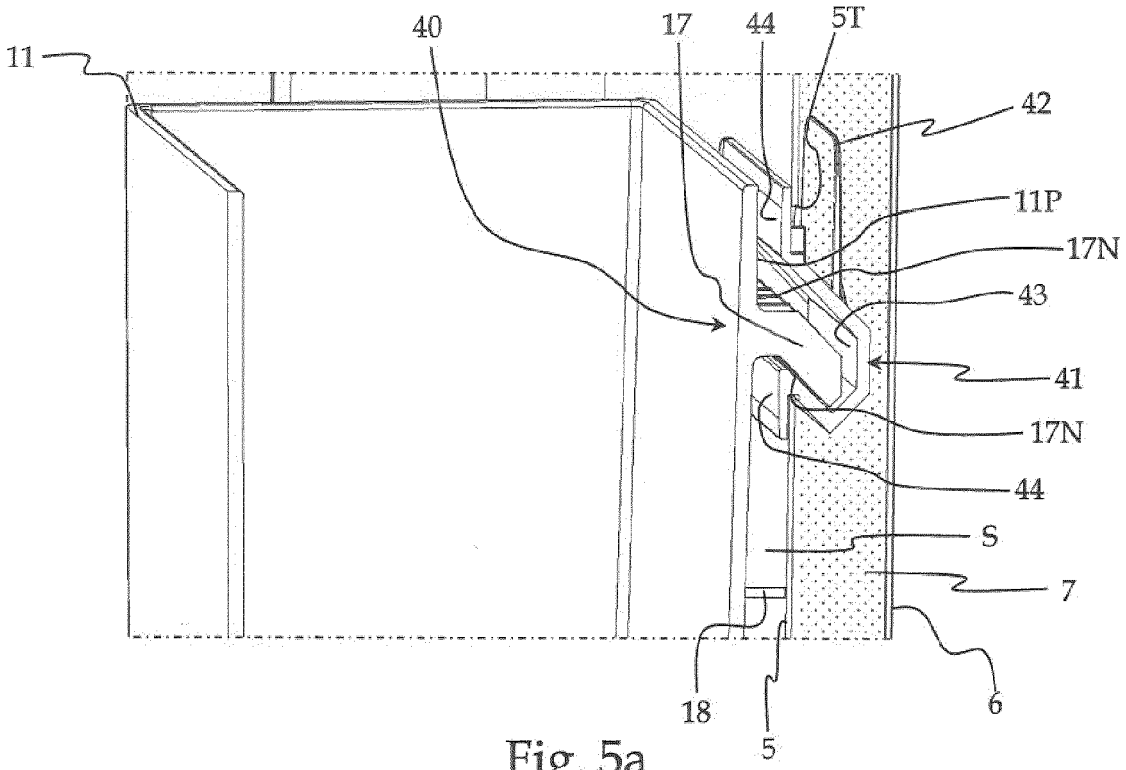


Fig. 4


11
40
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5T
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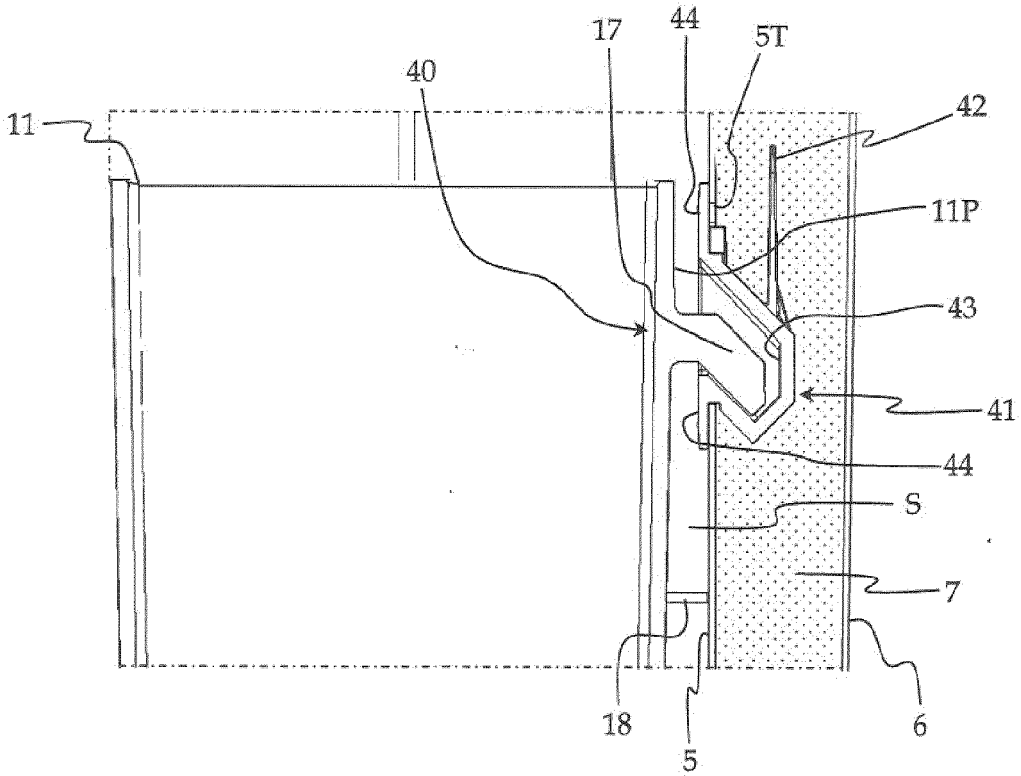
11P
17N
43
41
17N
44
S
7
18
5
6

Fig. 5a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S
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Fig. 5b