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(54) PAN SUPPORT AND GAS STOVE

WANNENTRÄGER UND GASOFEN

GRILLE-SUPPORT ET CUISINIÈRE À GAZ

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Description

[0001] The present invention relates to a pan support and to a gas stove with such a pan support.

[0002] A gas stove comprises one or a plurality of gas burners and a top sheet through which the one or the plurality of gas burners is guided. The top sheet can be made of metal, glass or glass-ceramic. A pan support for supporting pans or pots can be placed on the top sheet. Preferably, the pan support is removable from the top sheet for cleaning purposes.

[0003] EP 2 436 988 A2 describes a pan support for a gas cooker. The pan support includes at least three fins. The fins are directly disposed on a gas cooker panel.

[0004] It is one object of the present invention to provide an improved pan support.

[0005] Accordingly, a pan support for a gas stove is provided. The pan support comprises a plurality of support fingers for supporting a pan by means of a support surface, wherein at least one support finger comprises a magnet element and a container for receiving the magnet element, wherein the container comprises a bottom for resting on a top sheet of the gas stove, wherein the container is plugged into the at least one support finger along a height direction thereof, and wherein the height direction is oriented from the bottom towards the support surface. The magnet element rests on the bottom.

[0006] By means of the containers, the magnet elements are protected from heat. In this way, the magnet elements are also protected from damages or losing their magnetic properties due to heat. Magnetic materials that are heat-resistant are very expensive. By protecting the magnet elements from heat, cheaper materials can be used. Due to the fact that not all support fingers need a magnet, costs can be reduced.

[0007] The pan support preferably is a household appliance or part of a household appliance. The pan support can be named household pan support. The number of support fingers is arbitrary. The support fingers can be connected to each other by means of web sections. In particular, the web sections and the support fingers are arranged alternating so that one support finger is arranged between two web sections and vice versa. The web sections and the support fingers preferably form a circular shape of the pan support. However, the pan support can be rectangular. The web sections can have a rectangular cross-section. However, the geometry of the cross-section is arbitrary.

[0008] The pan support preferably is made of one piece. "One piece" in this context means that the pan support forms a common structural component and is not made of different separate parts that are assembled to form the pan support. The pan support can be integrally formed. "Integrally" or "monolithic" in this context means that the pan support is formed through the whole part of the same material. Preferably, the pan support is made of metal. The pan support can be a cast metal part. However, the pan support can also be a welded part that is assembled from individual parts, namely the support fingers and the web sections. The pan support is made of metal. For example, the pan support is made of steel, magnesium or aluminum. The pan support can also be made of a heat resistant plastic.

[0009] The containers are made of a different material than the pan support, in particular the support fingers and the web sections. The containers are preferably made of a heat resistant polymer material. The containers can be made of heat resistant plastic, silicone or rubber. In general, all materials that are heat-resistant and at the same time can reduce the impact on the magnet elements when positioning the pan support on the top sheet can be used for the containers. The bottoms of the containers face the top sheet.

[0010] "Pan" in this context can mean any cookware that can be used in connection with a gas stove. Each support finger has a support surface. The pan rests on these support surfaces. The support surfaces face away from the top sheet. The entirety of all support surfaces of all support fingers forms a seating surface for placing the pan on the pan support. "Plugged into" in this context means that the container can be at least partly received in the assigned support finger. In particular, the container being "plugged into" the support finger can be understood as the result of a linear movement along the height direction or a combination of a linear and a rotational movement along the height direction. The latter can be achieved by screwing or bolting the container into the support finger.

[0011] The height direction is oriented away from the top sheet. Preferably, each support finger has a coordinate system with a depth direction, the height direction and a width direction. The directions are arranged perpendicular to each other. "Received" in this context means that the magnet element is arranged at least partly inside the container. However, the magnet element can also be at least partly arranged inside the finger. The magnet element preferably is a permanent magnet. The container preferably is at least partly sandwiched between the magnet element and the top sheet. There can be support fingers without magnet elements. These support fingers can have an empty container. For example, only every second support finger comprises a magnet element. Alternatively, each support finger has a magnet element.

[0012] The magnet element rests on the bottom.

[0013] In this way, the container prevents direct contact of the magnet element and the top sheet. So breaking or scattering of the magnet element when placing the pan support on the top sheet is prevented. The container further protects the top sheet from damages like scratches. In particular, the bottom is sandwiched between the magnet element and the top sheet.

[0014] According to a further embodiment, the container encloses the magnet element in a depth direction and in a width direction of the at least one support finger.

[0015] The container can be box-shaped with side

walls enclosing the magnet element in the depth direction and in the width direction. However, the container can also be cylinder-shaped with a circumferential outer wall enclosing the magnet element in the depth direction and in the width direction. The container can have any shape.

[0016] According to a further embodiment, the container is attached to the at least one support finger in a form-locking manner.

[0017] A "form-locking" connection can be achieved by at least two elements engaging or meshing each other. A form-locking connection is detachable. However, the container can also be glued to the support finger.

[0018] According to a further embodiment, the container has an engaging section that engages with a counter-engaging section of the at least one support finger in a form-locking manner.

[0019] There can be provided a plurality of engaging sections at the container. Correspondingly, the support finger can have a plurality of counter-engaging sections.

[0020] According to a further embodiment, the engaging section is an external thread being provided at the container, wherein the counter-engaging section is an internal thread being provided at the at least one support finger.

[0021] This enables an easy assembly of the pan support. Alternatively, the engaging section can be an internal thread being provided at the container and the counter-engaging section can be an external thread being provided at the support finger.

[0022] According to a further embodiment, the container and the at least one support finger are cylinder-shaped.

[0023] The support finger can be hollow for receiving the container and/or the magnet element.

[0024] According to a further embodiment, two engaging sections in the form of snap-in hooks are provided, wherein the two engaging sections are arranged laterally at the container.

[0025] The snap-in hooks can be deformed elastically. "Laterally" in this context means that the snap-in hooks are arranged at side walls of the container. In this case, the container can be box-shaped.

[0026] According to a further embodiment, the two engaging sections protrude from side walls of the container along the height direction.

[0027] The container can be box-shaped and comprise the bottom, two long side walls and two short side walls. The engaging sections preferably protrude from the short side walls.

[0028] According to a further embodiment, one engaging section in the form of a snap-in hook is provided, wherein the one engaging section is arranged centrally at the container.

[0029] "Centrally" in this context means in the middle of the container. The middle can be an intersection of diagonals of the box-shaped container.

[0030] According to a further embodiment, the one engaging section protrudes from the bottom of the container along the height direction.

[0031] The engaging section can be guided through the magnet element. For this purpose, the magnet element can have a breakthrough.

[0032] According to a further embodiment, the one engaging section comprises a plurality of snap-in elements.

[0033] The snap-in elements can be deformed elastically. The engaging section can be mushroom-shaped. This mushroom-shape can be divided into four quarters in the form of the snap-in elements. Accordingly, four snap-in elements can be provided. However, the number of snap-in elements is arbitrary.

[0034] According to a further embodiment, the container comprises a cover for covering the magnet element.

[0035] The cover can be made of a plastic material, in particular of a heat-resistant plastic material. The cover can be an injection molded part.

[0036] Furthermore, a gas stove is provided. The gas stove comprises a top sheet and at least one such pan support which is placed on the top sheet.

[0037] The pan support is attached to the top sheet by means of the magnet elements. The pan support is removable from the top sheet. The gas stove can comprise a plurality of pan supports. The gas stove can be a household appliance or part of a household appliance. The gas stove can be named household gas stove. The gas stove preferably comprises a cooking trough which is covered by the top sheet. The top sheet can be named cover sheet. The gas stove further has at least one gas burner. However, the number of gas burners is arbitrary. Each gas burner can have a pan support. The top sheet is preferably a glass plate or a glass-ceramic plate. The top sheet can also be made of metal, in particular stainless steel. The top sheet preferably has a breakthrough. The breakthrough can be a circular bore. The gas burner is guided through the breakthrough.

[0038] According to an embodiment, the gas stove further comprises a magnet holder with a plurality of magnetic parts, wherein the magnetic parts magnetically interact with the magnet elements of the pan support, and wherein the top sheet is sandwiched between the magnet holder and the pan support.

[0039] "Interaction" in this context means that the magnetic parts and the magnet elements attract each other to fix the pan support to the top sheet. In this way, the pan support is also exactly aligned on the top sheet. The magnet holder is optional. In the case that the top sheet itself has ferromagnetic properties, the magnet holder is expendable. The magnet holder is preferably attached to the top sheet. In particular, the magnet holder is attached to a back side of the top sheet. The pan support is preferably placed on a front side of the top sheet. The magnet holder can be glued, riveted or bolted to the top sheet. The magnet holder can be made of steel, aluminum, plastic or the like. The magnet holder preferably has a circular shape. The magnet holder can comprise a central breakthrough. The gas burner can be guided

through the breakthrough. The magnet holder preferably comprises a plurality of receiving sections which are evenly distributed around a circumference of the magnet holder. Each receiving section can receive a magnetic part. The magnetic part can be a permanent magnet or a ferromagnetic part.

[0040] Further embodiments, features and advantages of the present invention will become apparent from the subsequent description and dependent claims, taken in conjunction with the accompanying drawings, in which:

Fig. 1 shows a schematic perspective exploded view of one embodiment of a gas stove;
Fig. 2 shows a schematic perspective view of one embodiment of a magnet holder for the gas stove according to Fig. 1;
Fig. 3 shows a schematic perspective view of one embodiment of a pan support for the gas stove according to Fig. 1;
Fig. 4 shows a schematic perspective view of one embodiment of a container for the pan support according to Fig. 3;
Fig. 5 shows a schematic perspective view of another embodiment of a container for the pan support according to Fig. 3;
Fig. 6 shows a schematic perspective view of another embodiment of a pan support for the gas stove according to Fig. 1;
Fig. 7 shows a schematic perspective exploded view of one embodiment of a support finger for the pan support according to Fig. 6;
Fig. 8 shows a schematic perspective view of one embodiment of a container for the pan support according to Fig. 6; and
Fig. 9 shows a schematic perspective view of another embodiment of a container for the pan support according to Fig. 6.

[0041] In the Figures, like reference numerals designate like or functionally equivalent elements, unless otherwise indicated.

[0042] Fig. 1 shows a schematic exploded view of an embodiment of a gas hob or gas stove 1. The gas stove 1 can be a household appliance or part of a household appliance. The gas stove 1 comprises a cooking trough 2. The cooking trough 2 is a deep-drawn metal sheet. The gas stove 1 further has at least one gas burner 3. The number of gas burners 3 is arbitrary. As Fig. 1 shows, there can be provided one gas burner 3. The gas burner 3 is placed in the cooking trough 2. The gas burner 3 can be mounted in or at the cooking trough 2.

[0043] The cooking trough 2 is covered by means of a cover sheet or top sheet 4. The top sheet 4 is a glass plate or a glass-ceramic plate. The top sheet 4 can also be made of metal, in particular stainless steel. The top sheet 4 has a breakthrough 5. The breakthrough 5 can be a circular bore. The gas burner 3 is guided through the breakthrough 5. An actuation knob 6 can be mounted at the top sheet 4. The actuation knob 6 can be used to actuate a gas valve. The gas valve is used for regulation a flow of combustion gas from a main gas pipe to the gas burner 3. In this way, the power of the gas burner 3 can be regulated. The top sheet 4 has a front side 7 and a back side 8.

[0044] Between the cooking trough 2 and the top sheet 4 is placed a magnet holder 9. The magnet holder 9 is shown in Fig. 2. The magnet holder 9 is optional. The magnet holder 9 is attached to the top sheet 4. In particular, the magnet holder 9 is attached to the back side 8 of the top sheet 4. The magnet holder 9 can be glued, riveted or bolted to the top sheet 4. The magnet holder 9 can be made of steel, aluminum, plastic or the like.

[0045] As can be seen from Fig. 2, the magnet holder 9 has a circular shape. The magnet holder 9 comprises a central breakthrough 10. The breakthrough 10 can have a circular shape. The gas burner 3 is guided through the breakthrough 10. The gas burner 3 can be used to place the magnet holder 9 correctly at the top sheet 4. Fixing sections 11 protrude into the breakthrough 10. The number of fixing sections 11 is arbitrary. For example, there are provided three fixing sections 11. Each fixing section 11 has a bore 12. The bores 12 can be used to bolt the magnet holder 9 to the top sheet 4.

[0046] The magnet holder 9 comprises a plurality of receiving sections 13 which are evenly distributed around a circumference of the magnet holder 9. For example, there are provided eight receiving sections 13. However, the number of receiving sections 13 is arbitrary. The receiving sections 13 are box-shaped. However, the receiving sections 13 can have any shape. The receiving sections 13 can be cylindrical, for example. Each receiving section 13 receives a magnetic part 14. The magnetic part 14 can be a permanent magnet or a ferromagnetic part. The magnetic part 14 is box-shaped. However, the magnetic part 14 can have any shape.

[0047] Now turning back to Fig. 1, the gas stove 1 further has a pan support 15A. The pan support is shown in Fig. 3. The pan support 15A is used to place a pan or pot on the gas stove 1. The pan support 15A is placed on the front side 7 of the top sheet 4. In this way, the top sheet 4 is placed between the pan support 15A and the magnet holder 9.

[0048] As can be seen from Fig. 3, the pan support 15A has a plurality of support fingers 16 of which only two are provided with reference signs in Fig. 3. The support fingers 16 can be named support fins. The number of support fingers 16 is arbitrary. However, the number of support fingers 16 is the same as the number of the receiving sections 13 of the magnet holder 9. For example, there are provided eight support fingers 16. Each support finger 16 is assigned to one receiving section 13. Each support finger 16 has a first support surface 17. The first support surface 17 is arranged parallel to the front side 7 of the top sheet 4. The entirety of the first support surfaces 17 of all support fingers 16 forms a seating surface for placing a pan or pot on the pan support

15A. Each support finger 16 also has a second support surface 18. The second support surface 18 is inclined or slanted. The second support surface 18 negatively inclines in direction of a central passage 19 of the pan support 15A. The gas burner 3 is at least partly received in the central passage 19.

[0049] Each support finger 16 has a front side 20 which faces the central passage 19 and a back side 21 that faces away from the central passage 19. The support fingers 16 have containers 22 which are placed on the front side 7 of the top sheet 4. Preferably, each support finger 16 has its own container 22. However, there can also be provided support fingers 16 that do not have such a container 22. The containers 22 are detachable from the pan support 15A. The containers 22 will be explained in more detail later. The support fingers 16 are connected to each other by means of web sections 23. The web sections 23 and the support fingers 16 are arranged alternating so that one support finger 16 is arranged between two web sections 23 and vice versa. The web sections 23 and the support fingers 16 form a circular shape of the pan support 15A. However, the pan support 15A can be rectangular. The web sections 23 can have a rectangular cross-section. However, the geometry of the cross-section is arbitrary.

[0050] The pan support 15A preferably is made of one piece. "One piece" in this context means that the pan support 15A forms a common structural component and is not made of different separate parts that are assembled to form the pan support 15A. The pan support 15A can be integrally formed. "Integrally" or "monolithic" in this context means that the pan support 15A is formed through the whole part of the same material. The pan support 15A can be a cast metal part. However, the pan support 15A can also be a welded part that is assembled from individual parts, namely the support fingers 16 and the web sections 23. The pan support 15A is made of metal. For example, the pan support 15A is made of steel, magnesium or aluminum. The pan support 15A can also be made of a heat resistant plastic.

[0051] As can be seen from Fig. 4, the container 22 is box-shaped. However, the container 22 can have any shape. Each container 22 receives a magnet element 24, in particular a permanent magnet. The magnet element 24 is also box-shaped. There can be received more than one magnet element 24 in the container 22. As the container 22, the magnet element 24 can have any shape. For example, the magnet element 24 can have a cylindrical shape. The container 22 has a box-shaped receiving element 25 for receiving the magnet element 24 and a cover 26 for closing the receiving element 25. The cover 26 is optional. The receiving element 25 and the cover 26 are made of heat resistant plastic, silicone or rubber. In general, all materials that are heat-resistant and at the same time can reduce the impact on the magnet element 24 when positioning the pan support 15A on the top sheet 4 can be used for the container 22. For example, the receiving element 25 and the cover 26 can be injection molded parts.

[0052] The receiving element 25 comprises a bottom 27, two long side walls 28 and two short side walls 29. The bottom 27 and the side walls 28, 29 are integrally formed. The bottom 27 is arranged between the magnet element 24 and the front side 7 of the top sheet 4. The receiving element 25 further comprises two engaging sections 30, 31. The engaging sections 30, 31 are snap-in hooks. The engaging sections 30, 31 protrude from the short side walls 29. However, the engaging sections 30, 31 can also protrude from the long side walls 28. In this way, the engaging sections 30, 31 are arranged laterally at the receiving element 25. The engaging sections 30, 31 can be deformed elastically.

[0053] By means of the engaging sections 30, 31 a snap-in connection between the container 22 and the dedicated support finger 16 of the pan support 15A can be provided. For this purpose, the support fingers 16 have counter-engaging sections that correspond to the engaging sections 30, 31. By means of the snap-in connection, the container 22 is connected to the pan support 15A in a form-locking manner. A "form-locking" connection can be achieved by at least two elements, namely the engaging sections 30, 31 and the corresponding counter-engaging sections of the support fingers 16, engaging or meshing each other. However, the container 22 can also be glued to the pan support 15A.

[0054] Now returning to Fig. 3 each finger 16 has a coordinate system comprising a depth direction d, a height direction h and a width direction w. The depth direction d is oriented from the back side 21 towards the front side 20. The height direction h is oriented from the bottom 27 of the container 22 towards the first support surface 17. The width direction w is oriented perpendicular to the depth direction d and the height direction h. All directions d, h, w are arranged perpendicular towards each other. The back side 21 is positioned in a plane that is spanned by the height direction h and the width direction w.

[0055] Fig. 5 shows an alternative embodiment of the container 22. The container 22 according to Fig. 5 differs from the container 22 according to Fig. 4 in that the short side walls 29 are not provided with engaging sections 30, 31. Instead of the two laterally arranged engaging sections 30, 31, the container according to Fig. 5 comprises a centrally arranged engaging section 32. The engaging section 32 is a snap-in hook. The engaging section 32 comprises four snap-in elements 33 to 36. The snap-in elements 33 to 36 can be deformed elastically. The engaging section 32 protrudes from the bottom 27 and is guided through a breakthrough 37 that is provided in the cover 26. The engaging section 32 can also be guided through a breakthrough 38 which is provided in the magnet element 24. The function of the engaging section 32 is the same as for the engaging sections 30, 31.

[0056] Fig. 6 shows a further embodiment of a pan support 15B for the gas stove 1. The pan support 15B has, as the pan support 15A, a plurality of support fingers

16. The support fingers 16 are cylinder-shaped and have a support surface 17 for placing a pan or pot thereon. The support surface 17 is arranged parallel to the front side 7 of the top sheet 4. Each support finger 16 has an outer wall 39 which is cylindrical. Each support finger 16 has a container 22 that rests on the front side 7 of the top sheet 4. The container 22 is made of silicone, rubber, plastic or the like. The support fingers 16 are connected to each other by means of web sections 23. The pan support 15B has a circular shape.

[0057] The web sections 23 and the support fingers 16 are arranged alternating so that one support finger 16 is arranged between two web sections 23 and vice versa. The web sections 23 can have a rectangular cross-section. The pan support 15B preferably is made of one piece. The pan support 15A can be integrally formed. The pan support 15B can be a cast metal part. However, the pan support 15B can also be a welded part that is assembled from individual parts, namely the support fingers 16 and the web sections 23. The pan support 15B is made of metal. For example, the pan support 15B is made of steel, magnesium or aluminum. The pan support 15B can also be made of a heat resistant plastic.

[0058] Fig. 7 shows one embodiment of a support finger 16 for the pan support 15B. The support finger 16 is hollow and has a counter-engaging section 40 for engaging with the container 22. The counter-engaging section 40 can be an internal thread. The counter-engaging section 40 can also be suitable for engaging with engaging sections, in particular snap-in hooks, of the container 22. The container 22 comprises an engaging section 41 for engaging with the counter-engaging section 40. The engaging section 41 is an external thread. The container 22 has a cylindrical outer wall 42 and a bottom 27 that rests on the front side 7 of the top sheet 4.

[0059] As can be seen from Fig. 8, the container 22 has a receiving section 43 for receiving a magnet element 24. The magnet element 24 is arranged at least partly in the container 22 and at least partly inside the support finger 16. To mount the container 22 at the pan support 15B, the container 22 is screwed into the support finger 16. In this way, the container 22 is attached to the pan support 15B in a form-locking manner.

[0060] Fig. 9 shows a further embodiment of a container 22 for the pan support 15B. The container according to Fig. 9 differs from the container 22 according to Fig. 8 in that the engaging section 41 is not an external thread but a snap-in hook. The counter-engaging section 40 of the support finger 16 in this case is formed correspondingly to the snap-in hook.

[0061] The function of the pan support 15A, 15B is explained in the following. The pan support 15A, 15B is placed on the front side 7 of the top sheet 4. As the magnet holder 9 is placed on the back side 8 of the top sheet 4, the magnet elements 24 of the pan support 15A, 15B interact with the magnetic parts 14 being received in the magnet holder 9. In this way, the pan support 15A, 15B is always correctly positioned on the top sheet 4. In the case that the top sheet 4 itself has ferromagnetic properties, the magnet holder 9 is expendable.

[0062] By means of the containers 22, the magnet elements 24 are protected from heat. In this way, the magnet elements 24 are also protected from damages or losing their magnetic properties. Magnetic materials that are heat-resistant are very expensive. By protecting the magnet elements 24 from heat, cheaper materials can be used. The containers 22 also prevent direct contact of the magnet elements 24 and the top sheet 4. So breaking or scattering of the magnet elements 24 when placing the pan support 15A, 15B on the top sheet 4 is prevented.

[0063] The connection of the containers 22 to the pan support 15A, 15B is very robust so that the magnet elements 24 and/or the containers 22 cannot get lost. The containers 22 protect the front side 7 of the top sheet 4 from damages like scratches. The pan support 15A, 15B is easy to assemble without tools. The geometry of the pan support 15A, 15B, the containers 22 and the magnet elements 24 is flexible so that it can be easily adapted to different applications.

[0064] Although the present invention has been described in accordance with preferred embodiments, it is obvious for the person skilled in the art that modifications are possible in all embodiments.

Reference Numerals:

[0065]

1	gas stove
2	cooking trough
3	gas burner
4	top sheet
5	breakthrough
6	actuation knob
7	front side
8	back side
9	magnet holder
10	breakthrough
11	fixing section
12	bore
13	receiving section
14	magnetic part
15A	pan support
15B	pan support
16	support finger
17	support surface
18	support surface
19	central passage
20	front side
21	back side
22	container
23	web section
24	magnet element
25	receiving element
26	cover
27	bottom

28 long side wall
29 short side wall
30 engaging section
31 engaging section
32 engaging section
33 snap-in element
34 snap-in element
35 snap-in element
36 snap-in element
37 breakthrough
38 breakthrough
39 outer wall
40 counter-engaging section
41 engaging section
42 outer wall
43 receiving section

d depth direction
h height direction
w width direction

Claims

1. A pan support (15A, 15B) for a gas stove (1), comprising a plurality of support fingers (16) for supporting a pan by means of a support surface (17), wherein at least one support finger (16) comprises a magnet element (24) and a container (22) for receiving the magnet element (24), wherein the container (22) comprises a bottom (27) for resting on a top sheet (4) of the gas stove (1), **characterised in that** Z the container (22) is plugged into the at least one support finger (16) along a height direction (h) thereof, wherein the height direction (h) is oriented from the bottom (27) towards the support surface (17), and wherein the magnet element (24) rests on the bottom (27).

2. The pan support according to claim 1, wherein the container (22) encloses the magnet element (24) in a depth direction (d) and in a width direction (w) of the at least one support finger (16).

3. The pan support according claim 1 or 2, wherein the container (22) is attached to the at least one support finger (16) in a form-locking manner.

4. The pan support according to claim 3, wherein the container (22) has an engaging section (30, 31, 32, 41) that engages with a counter-engaging section (40) of the at least one support finger (16) in a form-locking manner.

5. The pan support according to claim 4, wherein the engaging section (41) is an external thread being provided at the container (22), and wherein the counter-engaging section (40) is an internal thread being provided at the at least one support finger (16).

6. The pan support according to claim 5, wherein the container (22) and the at least one support finger (16) are cylinder-shaped.

7. The pan support according to claim 4, wherein two engaging sections (30, 31) in the form of snap-in hooks are provided, and wherein the two engaging sections (30, 31) are arranged laterally at the container (22).

8. The pan support according to claim 7, wherein the two engaging sections (30, 31) protrude from side walls (28, 29) of the container (22) along the height direction (h).

9. The pan support according to claim 4, wherein one engaging section (32) in the form of a snap-in hook is provided, and wherein the one engaging section (32) is arranged centrally at the container (22).

10. The pan support according to claim 9, wherein the one engaging section (32) protrudes from the bottom (27) of the container (22) along the height direction (h).

11. The pan support according to claim 9 or 10, wherein the one engaging section (32) comprises a plurality of snap-in elements (33 - 36).

12. The pan support according to one of claims 7 - 11, wherein the container (22) comprises a cover (26) for covering the magnet element (24).

13. A gas stove (1), comprising a top sheet (4) and at least one pan support (15A, 15B) according to one of claims 1 - 12 which is placed on the top sheet (4).

14. The gas stove according to claim 13, further comprising a magnet holder (9) with a plurality of magnetic parts (14), wherein the magnetic parts (14) magnetically interact with the magnet elements (24) of the pan support (15A, 15B), and wherein the top sheet (4) is sandwiched between the magnet holder (9) and the pan support (15A, 15B).

Patentansprüche

1. Topfträger (15A, 15B) für einen Gasherd (1) mit mehreren Trägerfingern (16) zum Tragen eines Topfes mithilfe einer Trägerfläche (17), wobei mindestens ein Trägerfinger (16) ein Magnetelement (24) und einen Behälter (22) zum Aufnehmen des Magnetelements (24) umfasst, wobei der Behälter (22) einen Boden (27) zum Auflegen auf ein oberes Blech (4) des Gasherds (1) umfasst, **dadurch gekennzeichnet, dass** der Behälter (22) in einer Höhenrichtung (h) in den mindestens einen Trägerfinger

(16) eingesteckt ist, wobei die Höhenrichtung (h) vom Boden (27) zur Trägerfläche (17) hin verläuft und das Magnetelement (24) auf dem Boden (27) aufliegt.

2. Topfträger nach Anspruch 1, wobei der Behälter (22) das Magnetelement (24) in einer Tiefenrichtung (d) und in einer Breitenrichtung (w) des mindestens einen Trägerfingers (16) umschließt.

3. Topfträger nach Anspruch 1 oder 2, wobei der Behälter (22) auf formschlüssige Weise an dem mindestens einen Trägerfinger (16) befestigt ist.

4. Topfträger nach Anspruch 3, wobei der Behälter (22) einen Eingriffabschnitt (30, 31, 32, 41) aufweist, der auf formschlüssige Weise in einen Gegeneingriffabschnitt (40) des mindestens einen Trägerfingers (16) eingreift.

5. Topfträger nach Anspruch 4, wobei es sich bei dem Eingriffabschnitt (41) um ein an dem Behälter (22) vorgesehenes Außengewinde handelt und bei dem Gegeneingriffabschnitt (40) um ein an dem mindestens einen Trägerfinger (16) vorgesehenes Innengewinde.

6. Topfträger nach Anspruch 5, wobei der Behälter (22) und der mindestens eine Trägerfinger (16) zylinderförmig sind.

7. Topfträger nach Anspruch 4, wobei zwei Eingriffabschnitte (30, 31) in Form von Rasthaken vorgesehen und die beiden Eingriffabschnitte (30, 31) seitlich an dem Behälter (22) angeordnet sind.

8. Topfträger nach Anspruch 7, wobei die beiden Eingriffabschnitte (30, 31) in Höhenrichtung (h) von Seitenwänden (28, 29) des Behälters (22) vorstehen.

9. Topfträger nach Anspruch 4, wobei ein Eingriffabschnitt (32) in Form eines Rasthakens vorgesehen ist und der eine Eingriffabschnitt (32) mittig am Behälter (22) angeordnet ist.

10. Topfträger nach Anspruch 9, wobei der eine Eingriffabschnitt (32) in Höhenrichtung (h) vom Boden (27) des Behälters (22) vorsteht.

11. Topfträger nach Anspruch 9 oder 10, wobei der eine Eingriffabschnitt (32) mehrere Rastelemente (33 - 36) umfasst.

12. Topfträger nach einem der Ansprüche 7 - 11, wobei der Behälter (22) eine Abdeckung (26) zum Abdecken des Magnetelements (24) umfasst.

13. Gasherd (1) mit einem oberen Blech (4) und mindestens einem Topfträger (15A, 15B) nach einem der Ansprüche 1 bis 12, der auf das obere Blech (4) gesetzt ist.

14. Gasherd nach Anspruch 13, der ferner einen Magnethalter (9) mit mehreren magnetischen Teilen (14) umfasst, wobei die magnetischen Teile (14) und die Magnetelemente (24) des Topfträgers (15A, 15B) magnetisch aufeinander einwirken und das obere Blech (4) zwischen dem Magnethalter (9) und dem Topfträger (15A, 15B) angeordnet ist.

Revendications

1. Grille-support (15A, 15B) pour une cuisinière à gaz (1), comprenant une pluralité de doigts de support (16) pour supporter une casserole au moyen d'une surface de support (17), dans laquelle au moins un doigt de support (16) comprend un élément d'aimant (24) et un contenant (22) pour recevoir l'élément d'aimant (24), dans laquelle le contenant (22) comprend un fond (27) pour reposer sur une plaque supérieure (4) de la cuisinière à gaz (1), **caractérisée en ce que** le contenant (22) est raccordé dans l'au moins un doigt de support (16) dans une direction de hauteur (h) de celui-ci, dans laquelle la direction de hauteur (h) est orientée à partir du fond (27) vers la surface de support (17), et dans laquelle l'élément d'aimant (24) repose sur le fond (27).

2. Grille-support selon la revendication 1, dans laquelle le contenant (22) entoure l'élément d'aimant (24) dans une direction de profondeur (d) et dans une direction de largeur (w) de l'au moins un doigt de support (16).

3. Grille-support selon la revendication 1 ou 2, dans laquelle le contenant (22) est fixé à l'au moins un doigt de support (16) par complémentarité de forme.

4. Grille-support selon la revendication 3, dans laquelle le contenant (22) comprend une section de mise en prise (30, 31, 32, 41) qui met en prise une section de mise en prise opposée (40) de l'au moins un doigt de support (16) par complémentarité de forme.

5. Grille-support selon la revendication 4, dans laquelle la section de mise en prise (41) est un filetage externe agencé sur le contenant (22), et dans laquelle la section de mise en prise opposée (40) est un filetage interne agencé sur l'au moins un doigt de support (16).

6. Grille-support selon la revendication 5, dans laquelle le contenant (22) et l'au moins un doigt de support (16) ont une forme de cylindre.

7. Grille-support selon la revendication 4, dans laquelle deux sections de mise en prise (30, 31) sous forme de crochets encliquetables sont agencées, et dans laquelle les deux sections de mise en prise (30, 31) sont agencées latéralement sur le contenant (22).

8. Grille-support selon la revendication 7, dans laquelle les deux sections de mise en prise (30, 31) font saillie à partir de parois latérales (28, 29) du contenant (22) dans la direction de hauteur (h).

9. Grille-support selon la revendication 4, dans laquelle une section de mise en prise (32) sous la forme d'un crochet d'encliquetage est agencée, et dans laquelle l'une section de mise en prise (32) est disposée au centre du contenant (22).

10. Grille-support selon la revendication 9, dans laquelle l'une section de mise en prise (32) fait saillie à partir du fond (27) du contenant (22) dans la direction de hauteur (h).

11. Grille-support selon la revendication 9 ou 10, dans laquelle l'une section de mise en prise (32) comprend une pluralité d'éléments d'encliquetage (33-36).

12. Grille-support selon l'une des revendications 7 à 11, dans laquelle le contenant (22) comprend un capot (26) pour recouvrir l'élément d'aimant (24).

13. Cuisinière à gaz (1), comprenant une plaque supérieure (4) et au moins une grille-support (15A, 15B) selon l'une des revendications 1 à 12 qui est placé sur la plaque supérieure (4).

14. Cuisinière à gaz selon la revendication 13, comprenant en outre un porte-aimant (9) comportant une pluralité de pièces magnétiques (14), dans laquelle les pièces magnétiques (14) interagissent magnétiquement avec les éléments d'aimant (24) de la grille-support (15A, 15B), et dans laquelle la plaque supérieure (4) est intercalée entre le porte-aimant (9) et la grille-support (15A, 15B).

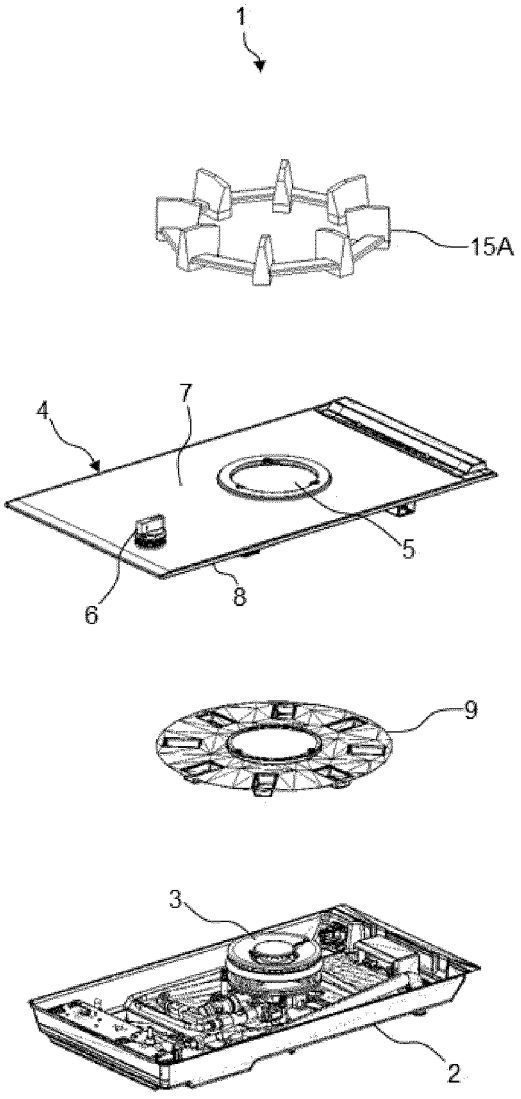

Fig. 1

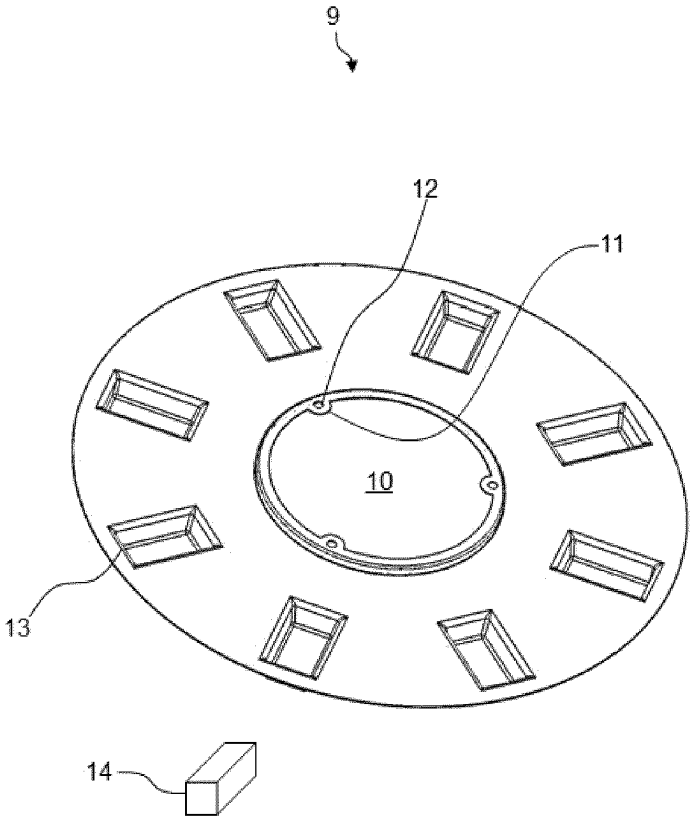

Fig. 2

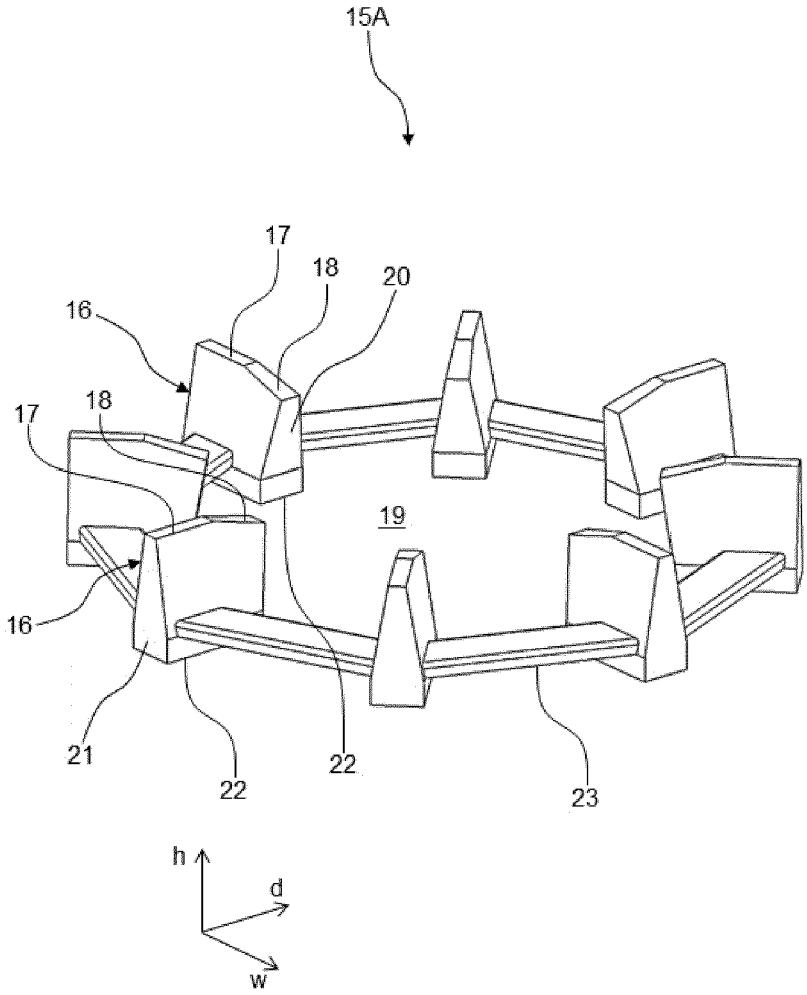

Fig. 3

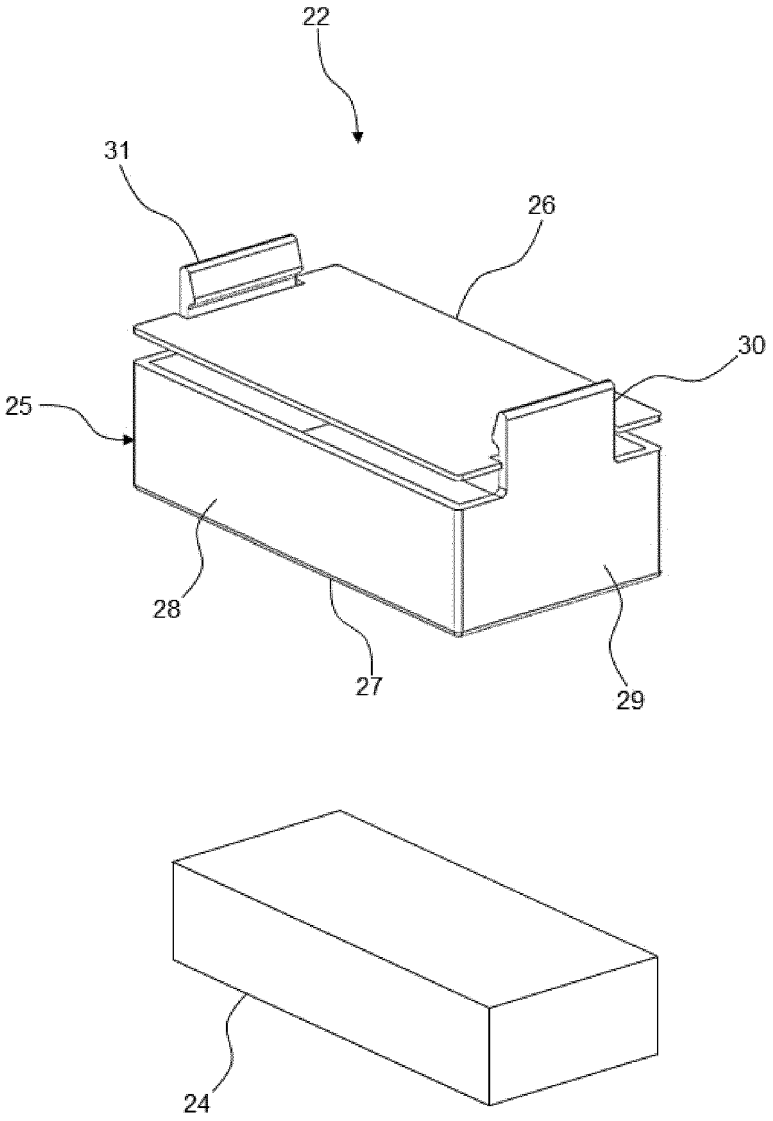

Fig. 4

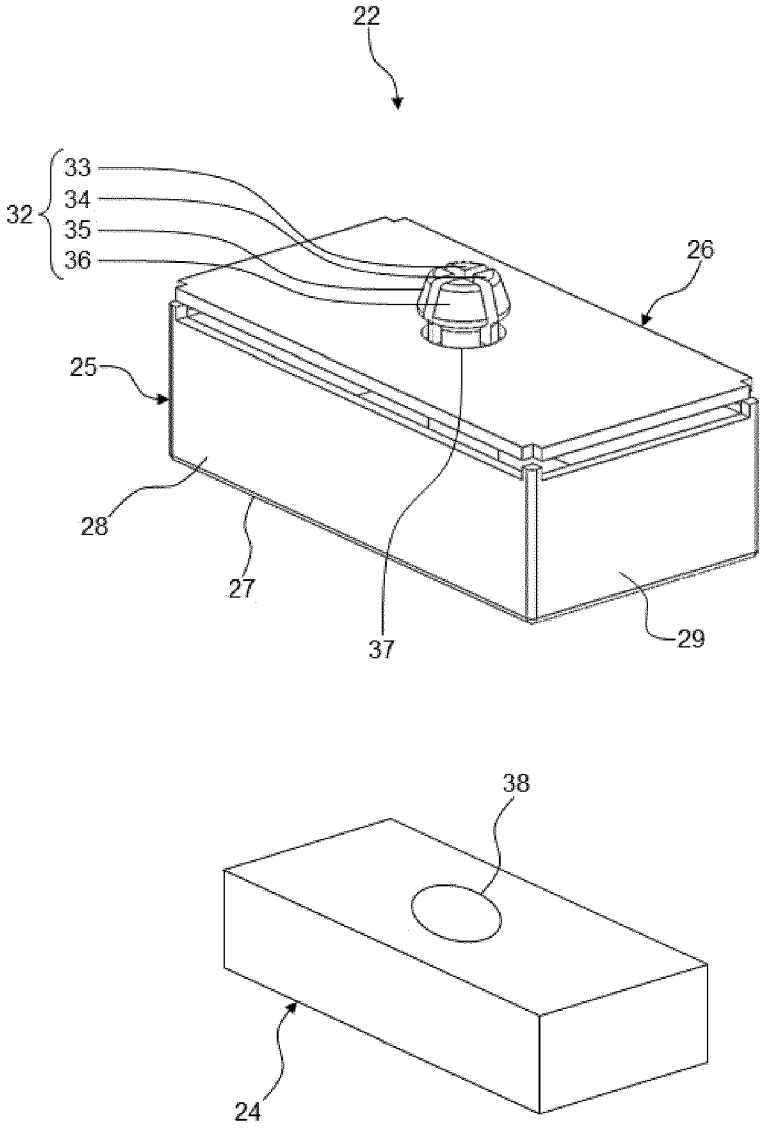

Fig. 5

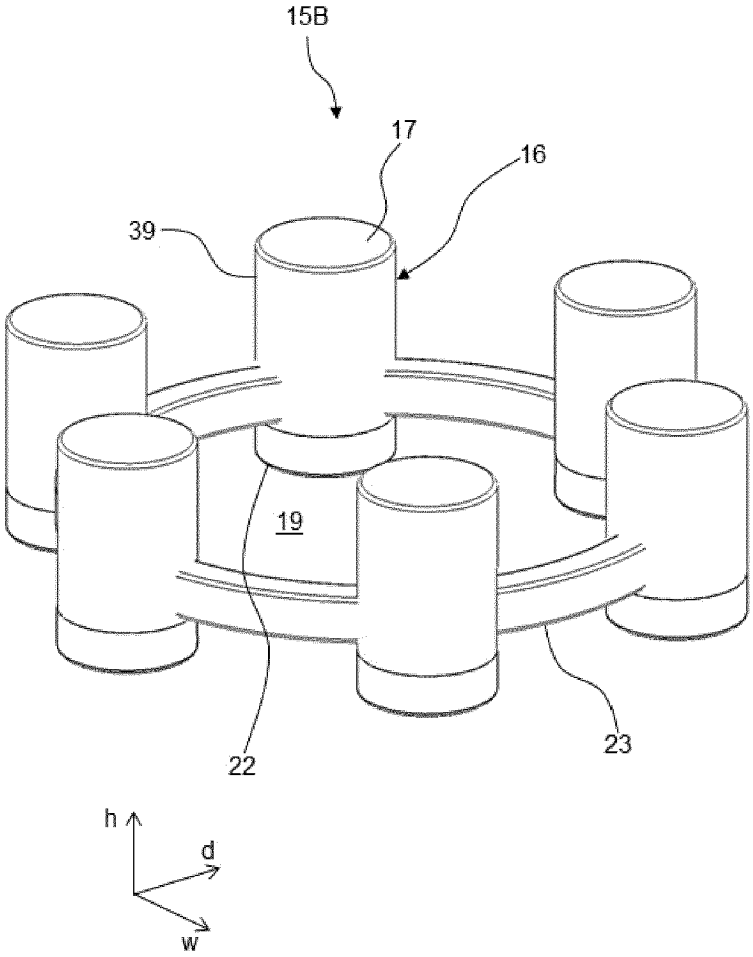

Fig. 6

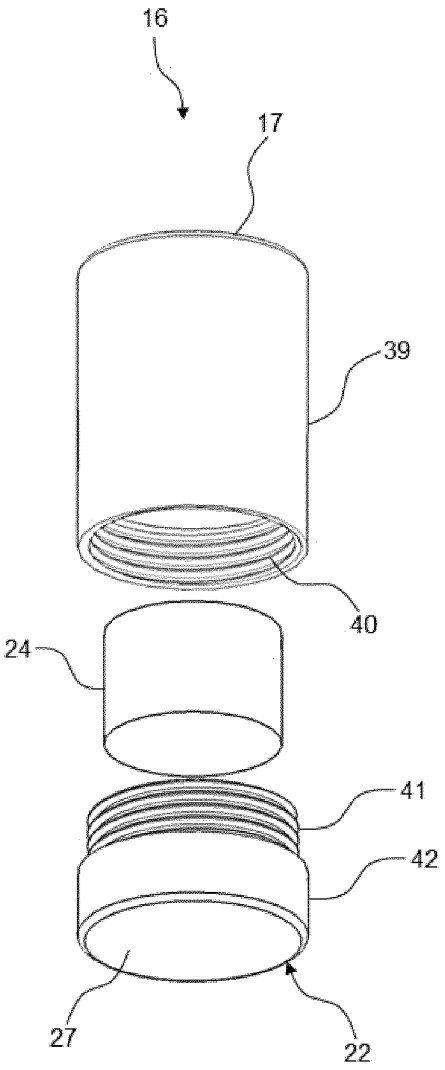

Fig. 7

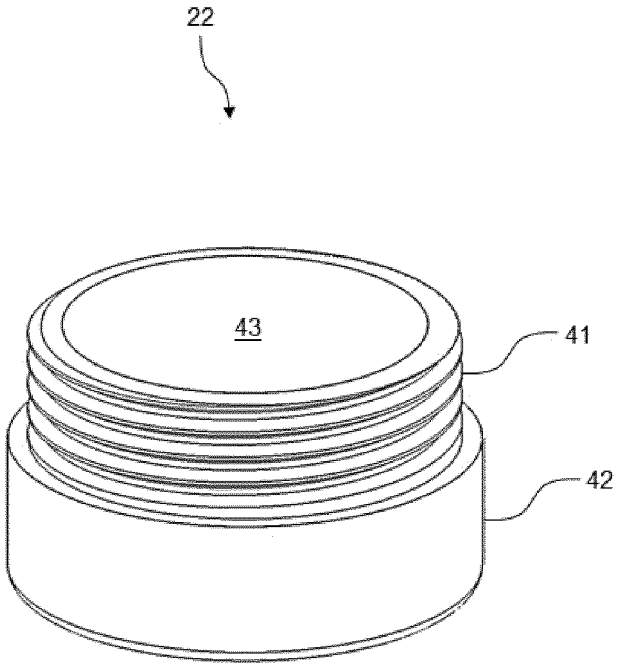

Fig. 8

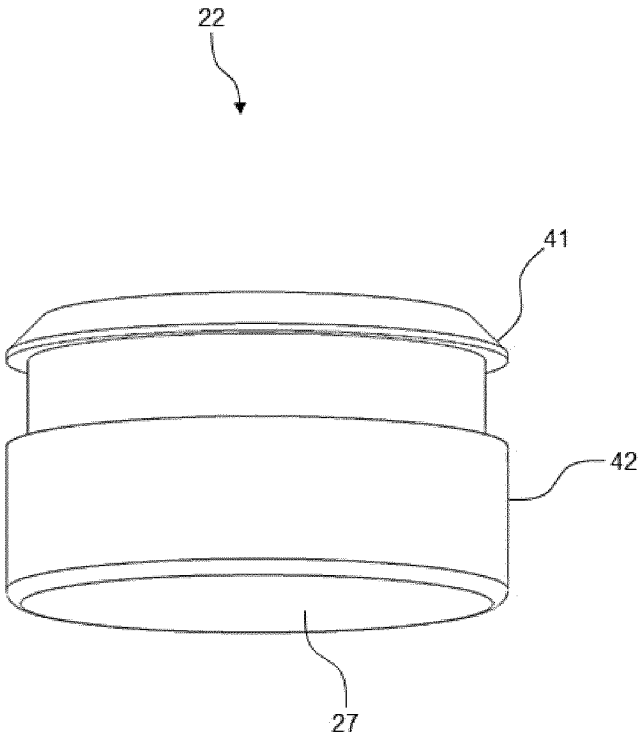

Fig. 9

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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