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(54) **Control Knob**

Steuerknopf

Bouton de commande

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## Description

**[0001]** The invention relates to a control knob which can be used as a press button, comprising a pressed state and an unpressed state, with a gripping part,
where the gripping part moves by a distance between the pressed and the unpressed state and where the space released by the gripping part during the unpressed state with respect to the pressed state defines a gap.

**[0002]** A control knob according to the preamble of claim 1 is known from EP-A-1734434.

**[0003]** Control knobs are used for many different controlling purposes, especially in gas or electric devices. Usually, they are mounted on control panels. To ease the controlling, gripping should be made as easy as possible. One possibility to ease the gripping of the control knob is to make the gripping area as large as possible. However, on the other hand, the space available on the control panel is limited, so the area covered by the control knob should be as small as possible. However, if a control knob with large dimensions is designed, it needs a lot of space on the control panel.

**[0004]** On the other hand, the space of the control knob released during the unpressed state with respect to the pressed state generates a gap, which is desired to be covered as far as possible, for example in order to reduce dirt.

**[0005]** Therefore, it is an object of the invention, to design a control knob, which has, one the one hand, a good and/or large gripping area and, on the other hand, a small area covered on the control panel by, at the same time, covering the gap as much as possible.

**[0006]** This object is solved by a control knob according to claim 1. Advantageous embodiments are described in the dependent claims.

**[0007]** According to claim 1, the control knob, which can be used as a press button (or: push button), comprises a pressed state and an unpressed state and has

a) a gripping part, with a gripping area, a overlayable area and an overlaying area,

aa) where the gripping part moves by a distance between the pressed and the unpressed state
bb) where the space inside the overlayable area and/or the overlaying area released during the unpressed state with respect to the pressed state defines a, preferably cylindrical, gap,

b) a bezel,

aa) which at least substantially covers the gap
bb) with an underlaying area and a underlayable area

c) where especially the gripping part circulates the underlaying area and/or the underlayable area of the bezel with its overlayable area and/or with its overlaying area, and characterized in that
d) the bezel is coloured and made of transparent material and preferably comprises an interior, especially coloured, illumination.

**[0008]** According to the invention, the bezel is, on the one hand, at least substantially covering the gap defined or generated by the gripping part. On the other hand, as the bezel comprises an underlaying area and a underlayable area, which is or can be circulated by the gripping part by overlaying, these areas of the bezel do not extend the area covered by the gripping part. This helps to reduce the area covered by the control knob. Consequently, the gripping area can be made relatively large, with a large gripping area, as the bezel areas covering the gap at least substantially do not extend the needed area further.

**[0009]** The bezel is coloured and/or made of transparent material and preferably comprises an interior, especially coloured, illumination. Especially in a dark environment, it is much easier to find and grip a control knob when it is internally illuminated. Also a coloured bezel itself can ease the finding of the control knob.

**[0010]** Preferably,

a) in the unpressed state, the gripping part circulates and/or surrounds the underlaying area of the bezel with its overlaying area and
b) in the pressed state, the gripping part circulates and/or surrounds the underlaying area and the underlayable area of the bezel with its overlayable area and with its overlaying area.

**[0011]** In a preferred embodiment, the knob is used as a press button and as a rotary switch. The enables to integrate additional functionality into the same control knob.

**[0012]** Preferably, the gripping area has,

a) in a first viewing direction, at least one recess with a curved shape in the side area,
b) in a second viewing direction, an at least substantially semi-circular shape and/or,
c) in a third viewing direction, a circular shape
d) where particularly the three viewing directions are perpendicular with each other.

**[0013]** The claimed shapes enable a form which is particularly easy to grip and thus a particular good gripping behaviour.

**[0014]** In an advantageous embodiment, the curved cross sectional form of the at least one recess extends along a secant,
where particularly the secant is parallel to the second viewing direction and
where the gripping area particularly comprises two recesses which preferably are arranged on opposite sides of the gripping area and/or where preferably the secants

are parallel.

**[0015]** In a particularly advantageous embodiment, two recesses with parallel secants form an elongated gripping area which enables the rotating with a large torque as the fingers can fix the recesses in a good way. But also pressing is supported by this in a good way.

**[0016]** Preferably, the gripping area has a cavity which is substantially circular,
where the cavity is particularly arranged between the two recesses. This improves and eases the pressing and/or rotating of the control knob further.

**[0017]** In a preferred embodiment, the gripping part comprises a central area circulating an axis of the control knob,
where the central area preferably extends along the axis through the bezel and/or where the bezel circulates the central area and where the central area preferably comprises an elongated blind hole in the center and/or, along the outer surface, two opposed flat areas in axial direction. The blind hole saves weight and manufacturing cost, as less material is needed. The flat areas improve the fixing of the gripping part.

**[0018]** In an advantageous embodiment, the bezel has a diameter which is smaller than the diameter of the overlayable area and/or the overlaying area and/or greater than the diameter of the central area. Preferably, the gripping part and/or the bezel are made out of a single part and/or the overlaying area has an opening which is used as an indicator.

**[0019]** Especially when the bezel has a diameter which is smaller than the diameter of the overlayable area and the overlaying area, it enables a very good covering of the gap while, at the same time, the space needed on the control panel is at least relatively small. If the gripping part and/or the bezel are made out of a single part, the control knob can be designed very compact so that it is easier to optimize the gripping behaviour without requiring too much space.

**[0020]** Preferably, the bezel has at least substantially a cylindrical shape and/or the bezel has a circular bottom with a hole in the center, where the hole is preferably substantially circular and has a projection and, on the opposite side, a flat area and/or where the bottom is preferably connected with the central area torque proof and/or axially movable. This means, that, if the control knob is used as a rotary switch, the bezel rotates together with the gripping part. However, if the knob is axially movable, it can cover the gap advantageously while being in the unpressed state.

**[0021]** In an advantageous embodiment, the invention comprises a cooking device, especially a free standing cooker, with a control knob according to one of the preceding claims.

**[0022]** The invention will be described in further details with references to the drawings in which

FIG 1 shows a control knob according to the invention from a first viewing direction in an unpressed state,

FIG 2 shows the control knob according to FIG 1 in a pressed state,

FIG 3 shows the control knob according to FIG 1 and 2 in a second viewing direction in an unpressed state,

FIG 4 shows the control knob according to FIG 3 in a pressed state,

FIG 5 shows the control knob according to FIG 1 to 4 in a third viewing direction,

FIG 6 shows the control knob according to FIG 1 to 5 in a forth viewing direction,

FIG 7 shows the control knob according to FIG 1 to 6 in a perspective view,

FIG 8 shows another embodiment of a control knob according to the invention in an unpressed state in a cross sectional view,

FIG 9 shows the control knob according to FIG 8 in a pressed state and in which

FIG 10 shows the control knob according to FIG 8 and 9 assembled into a device.

**[0023]** FIG 1 to FIG 7 show a first control knob 1 according to the invention, FIG 8 to FIG 9 show a second embodiment of a control knob 1 according to the invention.

**[0024]** FIG 1 and FIG 2 show the control knob 1 in a first viewing direction A, from the front, where FIG 1 shows an unpressed state and FIG 2 shows a pressed state.

**[0025]** FIG 3 and FIG 4 show the control knob 1 in a second viewing direction B, from the side, where FIG 3 shows an unpressed state and FIG 4 shows a pressed state.

**[0026]** FIG 5 shows the control knob 1 in a third viewing direction C, from the tup, FIG 6 shows the control knob 1 in a forth viewing direction D, from the bottom, whereas FIG 7 shows the control knob 1 in a perspective view.

**[0027]** FIG 8 and FIG 9 show the second control knob 1 in a cross sectional view
where FIG 8 shows an unpressed state and FIG 9 shows a pressed state.

**[0028]** The control knobs 1 according to FIG 1 to 9 comprises a gripping part 4, which is attached to a bezel 3.

**[0029]** The gripping part 4 comprises, at the top, a gripping area 4a, which is, apart from a central area 4d, substantially hollow inside.

**[0030]** In a first viewing direction A, shown in FIG 1 and 2, the shape of the gripping area 4a shows two recesses 5 and 6 with curved shapes in the side areas. In a second viewing direction B, shown in FIG 3 and 4, the gripping area 4a has a semi-circular shape. In a third viewing direction C, shown in FIG 5, the gripping area 4a has a circular shape. The three viewing directions A, B, C are perpendicular with each other.

**[0031]** On its outer side, the gripping area is followed immediately below by an overlayable area 4b and an

overlaying area 4c. The overlayable area 4b as well as the overlaying area 4c form at least substantially a cylinder outer surface. Furthermore, the overlayable area 4b and the overlaying area 4c together form at least substantially a cylinder outer surface.

**[0032]** The bezel 3 comprises an underlying area 3a, which is followed by a underlayable area 3b and an uncovered area 3c. The three areas itself as well as together also form at least substantially a cylinder outer surface. At the bottom of the uncovered area 3c, a bottom 3d is attached.

**[0033]** The bottom 3d comprises, in its center, a hole 15, which is substantially circular and comprises, on one side, a flat area 12 and, on the opposite site, a quadratic projection 16.

**[0034]** On two opposing sites, the gripping part 4 comprises, on its gripping area 4a, a recess 5 and a recess 6. The recess 5 has a curved shape and extends, as can be seen from FIG 5, along a secant 7 of the circular shape of the gripping area 4a parallel to the first viewing direction A. The recess 6 also has a curved shape and extends, as can also be seen from FIG 5, along another secant 8 of the circular shape of the gripping area 4a, also parallel to the first viewing direction A. Consequently, the secants 7 and 8 are parallel to each other. Furthermore, the gripping area 4a comprises a circular cavity 9, which is arranged between the recesses 5 and 6.

**[0035]** The bezel 3 is made of transparent, especially coloured, material and comprises an interior illumination 18, shown in FIG 8 and 9.

**[0036]** The center area 4d of the gripping part 4 extends along an axis 13 through the bezel 3 and comprises an elongated blind hole 10 in its center and, along its surface in axial direction, two opposed flat areas 11 and 21, as can be seen from FIG 6. The overlaying area 4c and the overlayable area 4b of the gripping part 4 have a diameter which is greater then the diameter of the bezel 3. The central area 4d of the gripping part 4, however, has a diameter which is smaller then the diameter of the bezel 3.

**[0037]** The central area 4d of the gripping part 4 is, as can be seen especially from FIG 6 and FIG 7, inserted into the bottom 3d of the bezel 3, where the flat area 12 of the bezel 3 touches the flat area 21 and the projection 16 touches the flat area 11 in a way, that the bezel 3 and the gripping part 4 are connected torque proof but, at the same time, axially movable.

**[0038]** The control knob 1 can be rotated or pressed (or: pushed). Depending on if the control knob is pressed or not, it is in a pressed state or an unpressed state.

**[0039]** In the unpressed state, as can be seen from FIG 8 , for example, the overlaying area 4c covers the underlaying area 3a, whereas the underlayable area 3b remains uncovered.

**[0040]** In the pressed state FIG. 9, the overlaying area 4c covers the underlayable area 3b. The overlayable area 4b covers the underlaying area 3a.

**[0041]** Between the pressed and the unpressed state, the gripping part 4 moves by a distance. The space inside the overlayable area 4b and the overlaying area 4c released by the gripping part 4 during the unpressed state with respect to the pressed state defines a cylindrical gap 17 which is shown in FIG 1 and FIG 3. The cylindrical gap 17 is at least substantially covered by the bezel 3.

**[0042]** The overlaying area 4c is interrupted by a rectangular opening 14 which allows illumination of the control knob 1.

**[0043]** The control knob 1 can be used in a freestanding cooker. FIG 10 shows the control knob 1 on a surface 18 of a device. The control knob 1 is, with its blind hole 10, pushed into a pivot 20. The pivot 20 is a part of a detection unit 19 detecting the press and/or the rotary movement.

**[0044]** Reference Signs

| | |
|---|---|
| 1 | knob |
| 3 | bezel |
| 3a | underlaying area |
| 3b | underlyable area |
| 3c | uncovered area |
| 3d | bottom |
| 4 | gripping part |
| 4a | gripping area |
| 4b | overlayable area |
| 4c | overlaying area |
| 4d | central area |
| 5, 6 | recess |
| 7, 8 | secant |
| 9 | cavity |
| 10 | blind hole |
| 11, 12, 21 | flat area |
| 13 | axis |
| 14 | opening |
| 15 | hole |
| 16 | projection |

17 gap

18 surface

19 detection unit

20 pivot

## Claims

**1.** Control knob (1) which can be used as a press button, comprising a pressed state and an unpressed state with

a) a gripping part (4), with a gripping area (4a), a overlayable area (4b) and an overlaying area (4c),

aa) where the gripping part (4) moves by a distance between the pressed and the unpressed state,
bb) where the space inside the overlayable area (4b) and/or the overlaying area (4c) released during the unpressed state with respect to the pressed state defines a, preferably cylindrical, gap (17),

b) a bezel (3),

aa) which at least substantially covers the gap (17),
bb) with an underlaying area (3a) and a underlayable area (3b),

c) where the gripping part (4) circulates the underlaying area (3a) and/or the underlayable area (3b) of the bezel (3) with its overlayable area (4b) and/or with its overlaying area (4c), **characterized in that**
d) the bezel (3) is coloured and made of transparent material and preferably comprises an interior, especially coloured, illumination.

**2.** Control knob according to claim 1, where

a) in the unpressed state, the gripping part (4) circulates and/or surrounds the underlaying area (3a) of the bezel with its overlaying area (4c) and
b) in the pressed state, the gripping part (4) circulates and/or surrounds the underlaying area (3a) and the underlayable area (3b) of the bezel with its overlayable area (4b) and with its overlaying area (4c).

**3.** Control knob according to claim 1 or 2, where the control knob (1) is used as a press button and as a rotary switch.

**4.** Control knob according to one of the preceding claims,
where the gripping area (4a) has,

a) in a first viewing direction (A), at least one recess (5) with a curved shape in the side area,
b) in a second viewing direction (B), an at least substantially semicircular shape and/or,
c) in a third viewing direction (C), a circular shape,
d) where particularly the three viewing directions (A, B, C) are perpendicular with each other.

**5.** Control knob according to claim 4,

a) where the curved cross sectional form of the at least one recess (5) extends along a secant (7),
b) where particularly the secant (7) is parallel to the second viewing direction (B)
c) and where the gripping area (4a) particularly comprises two recesses (5, 6),
d) which preferably are arranged on opposite sides of the gripping area (4a) and/or where preferably the secants (7, 8) are parallel.

**6.** Control knob according to one of the preceding claims,

a) where the gripping area (4a) has a cavity (9) which is substantially circular,
b) where the cavity (9) is particularly arranged between the two recesses (5, 6).

**7.** Control knob according to one of the preceding claims,

a) where the gripping part (4) comprises a central area (4d) circulating an axis (13) of the control knob,
b) where the central area (4d) preferably extends along the axis (13) through the bezel and/or where the bezel (3) circulates the central area (4d) and
d) where the central area (4d) preferably comprises an elongated blind hole (10) in the center and/or, along the outer surface, two opposed flat areas (11, 12) in axial direction.

**8.** Control knob according to one of the preceding claims,

a) where the bezel (3) has a diameter which is smaller than the diameter of the overlayable area (4b) and/or the overlaying area (4c) and/or greater than the diameter of the central area (4d)

and/or
b) where the gripping part (4) and/or the bezel (3) are made out of a single part
c) and/or where the overlaying area (4c) has an opening (14) which is used as an indicator.

**9.** Control knob according to one of the preceding claims,

a) where the bezel (3) has at least substantially a cylindrical shape and/or
b) where the bezel (3) has a circular bottom (3d) with a hole (15) in the center,
c) where the hole (15) is preferably substantially circular and has, on one side, a projection (16) and, on the opposite side, a flat area (21)
d) and/or where the bottom (3d) is preferably connected with the central area (4d) torque proof and/or axially movable.

**10.** Cooking device, especially free standing cooker, with a control knob according to one of the preceding claims.

**Patentansprüche**

**1.** Einstellknopf (1), der als Druckknopf verwendet werden kann und der einen gedrückten Zustand und einen nicht gedrückten Zustand umfasst, mit

a) einem Griffteil (4) mit einem Griffbereich (4a), einem überlagerbaren Bereich (4b) und einem überlagernden Bereich (4c),

aa) wobei sich der Griffteil (4) zwischen dem gedrückten Zustand und dem nicht gedrückten Zustand um eine Distanz bewegt,
bb) wobei der Raum innerhalb des überlagerbaren Bereichs (4b) und/oder des überlagernden Bereichs (4c), der im nicht gedrückten Zustand im Verhältnis zum gedrückten Zustand freigegeben ist, eine vorzugsweise zylindrische Lücke (17) begrenzt,

b) einer Einfassung (3)

aa) die die Lücke (17) wenigstens im wesentlichen abdeckt,
bb) mit einem unterlagernden Bereich (3a) und einem unterlagerbaren Bereich (3b),

c) wobei der Griffteil (4) den unterlagernden Bereich (3a) und/oder den unterlagerbaren Bereich (3b) der Einfassung (3) mit seinem überlagerbaren Bereich (4b) und/oder mit seinem überlagernden Bereich (4c) umkreist, **dadurch gekennzeichnet, dass**
d) die Einfassung (3) farbig und aus transparentem Material gefertigt ist und vorzugsweise eine innere, insbesondere farbige Beleuchtung umfasst.

**2.** Einstellknopf gemäß Anspruch 1, wobei

a) der Griffteil (4) im nicht gedrückten Zustand den unterlagernden Bereich (3a) der Einfassung mit seinem überlagernden Bereich (4c) umkreist und/oder umschließt, und
b) der Griffteil (4) im gedrückten Zustand den unterlagernden Bereich (3a) und den unterlagerbaren Bereich (3b) der Einfassung mit seinem überlagerbaren Bereich (4b) und mit seinem überlagernden Bereich (4c) umkreist und/oder umschließt.

**3.** Einstellknopf gemäß Anspruch 1 oder 2, wobei der Einstellknopf (1) als Druckkopf und als Drehknopf verwendet wird.

**4.** Einstellknopf gemäß einem der vorangehenden Ansprüche,
wobei der Griffbereich (4a)

a) in einer ersten Betrachtungsrichtung (A) mindestens eine Ausbuchtung (5) mit einer gebogenen Form im Seitenbereich aufweist,
b) in einer zweiten Betrachtungsrichtung (B) zumindest im wesentlichen eine Halbkreisform aufweist und/oder
c) in einer dritten Betrachtungsrichtung (C) eine Kreisform aufweist,
d) wobei insbesondere die drei Betrachtungsrichtungen (A, B, C) rechtwinkelig zueinander stehen.

**5.** Einstellknopf gemäß Anspruch 4,

a) wobei sich die gebogene Querschnittform wenigstens einer Ausbuchtung (5) entlang einer Sekante (7) erstreckt,
b) wobei insbesondere die Sekante (7) parallel zur zweiten Betrachtungsrichtung (B) ist,
c) und wobei der Griffbereich (4a) insbesondere zwei Einbuchtungen (5, 6) umfasst,
d) die vorzugsweise auf gegenüber liegenden Seiten des Griffbereichs (4a) angeordnet sind und/oder wobei die Sekanten (7, 8) vorzugsweise parallel sind.

**6.** Einstellknopf gemäß einem der vorangehenden Ansprüche,

a) wobei der Griffbereich (4a) einen Hohlraum (9) aufweist, der im wesentlichen kreisförmig ist,

b) wobei der Hohlraum (9) Insbesondere zwischen den zwei Einbuchtungen (5, 6) angeordnet ist,

**7.** Einstellknopf gemäß einem der vorangehenden Ansprüche.

a) wobei der Griffteil (4) einen mittleren Bereich (4d) umfasst, der um eine Achse (13) des Einstellknopfes kreist,
b) wobei sich der mittlere Bereich (4d) vorzugsweise entlang der Achse (13) durch die Einfassung erstreckt und/oder wobei die Einfassung (3) den mittleren Bereich (4d) umkreist, und
c) wobei der mittlere Bereich (4d) vorzugsweise ein längliches Sackloch (10) in der Mitte und/oder entlang des Außenbereichs zwei einander gegenüber angeordnete, flache Bereiche (11, 12) in Achsrichtung umfasst.

**8.** Einstellknopf gemäß einem der vorangehenden Ansprüche,

a) wobei die Einfassung (3) einen Durchmesser aufweist, der kleiner ist als der Durchmesser des überlagerbaren Bereichs (4b) und/oder des überlagernden Bereichs (4c) und/oder größer als der Durchmesser des mittleren Bereichs (4d), und/oder
b) wobei der Greitteill (4) und/oder die Einfassung (3) aus einem einzigen Teil gefertigt sind,
c) und/oder wobei der überlagernde Bereich (4c) eine Öffnung (14) aufweist, die als Indikator verwendet wird.

**9.** Einstellknopf gemäß einem der vorangehenden Ansprüche,

a) wobei die Einfassung (3) zumindest Im wesentlichen eine zylindrische Form aufweist, und/oder
b) wobei die Einfassung (3) einen kreisförmigen Boden (3d) mit einem Loch (15) in der Mitte aufweist,
c) wobei das Loch (15) vorzugsweise im wesentlichen kreisförmig ist und auf einer Seite einen Vorsprung (16) und auf der gegenüberliegenden Seite einen flachen Bereich (21) aufweist,
d) und/oder wobei der Boden (3d) vorzugsweise mit dem mittleren Bereich (4d) drehfest und/oder axial beweglich verbunden ist.

**10.** Kochvorrichtung, insbesondere ein frei stehender Kochherd, mit einem Einstellknopf gemäß einem der vorangehenden Ansprüche.

**Revendications**

**1.** Bouton de commande (1) qui peut être utilisé en tant que bouton-poussoir, comprenant un état pressé et un état non pressé avec

a) une partie de préhension (4), avec une zone de préhension (4a), une zone pouvant être disposée au-dessus (4b) et une zone sus-jacente (4c),

aa) où la partie de préhension (4) se déplace d'une distance entre les états pressé et non pressé,
bb) où l'espace à l'intérieur de la zone pouvant être disposée au-dessus (4b) et/ou la zone sus-jacente (4c) libéré pendant l'état non pressé par rapport à l'état pressé définit un espace (17) de préférence cylindrique,

b) une collerette (3),

aa) laquelle recouvre au moins sensiblement l'espace (17),
bb) avec une zone sous-jacente (3a) et une zone pouvant être disposée au-dessous (3b),

c) où la partie de préhension (4) encercle la zone sous-jacente (3a) et/ou la zone pouvant être disposée au-dessous (3b) de la collerette (3) avec sa zone pouvant être disposée au-dessus (4b) et/ou avec sa zone sus-jacente (4c), **caractérisé en ce que**
d) la collerette (3) est colorée et constituée d'un matériau transparent et comprend de préférence une illumination intérieure particulièrement colorée.

**2.** Bouton de commande selon la revendication 1, où

a) dans l'état non pressé, la partie de préhension (4) encercle et/ou entoure la zone sous-jacente (3a) de la collerette avec sa zone sus-jacente (4c), et
b) dans l'état pressé, la partie de préhension (4) encercle et/ou entoure la zone sous-jacente (3a) et la zone pouvant être disposée au-dessous (3b) de la collerette avec sa zone pouvant être disposée au-dessus (4b) et avec sa zone sus-jacente (4c).

**3.** Bouton de commande selon la revendication 1 ou 2, où le bouton de commande (1) est utilisé en tant que bouton-poussoir et en tant que commutateur rotatif.

**4.** Bouton de commande selon l'une des revendications précédentes, où la zone de préhension (4a)

comporte,

a) dans une première direction d'observation (A), au moins un évidement (5) avec une forme incurvée dans la zone latérale,
b) dans une deuxième direction d'observation (B), une forme au moins sensiblement semi-circulaire, et/ou
c) dans une troisième direction d'observation (C), une forme circulaire,
d) où, particulièrement, les trois directions d'observation (A, B, C) sont perpendiculaires les unes aux autres.

**5.** Bouton de commande selon la revendication 4,

a) où la forme incurvée en coupe transversale dudit au moins un évidement (5) s'étend le long d'une sécante (7),
b) où, particulièrement, la sécante (7) est parallèle à la deuxième direction d'observation (B),
c) et où la zone de préhension (4a) comprend particulièrement deux évidements (5, 6),
d) lesquels sont de préférence agencés sur les côtés opposés de la zone de préhension (4a) et/ou où, de préférence, les sécantes (7, 8) sont parallèles.

**6.** Bouton de commande selon l'une des revendications précédentes,

a) où la zone de préhension (4a) comporte une cavité (9) qui est sensiblement circulaire,
b) où la cavité (9) est particulièrement agencée entre les deux évidements (5, 6).

**7.** Bouton de commande selon l'une des revendications précédentes, 1

a) où la partie de préhension (4) comprend une zone centrale (4d) encerclant un axe (13) du bouton de commande,
b) où la zone centrale (4d), de préférence, s'étend le long de l'axe (13) à travers la collerette et/ou où la collerette (3) encercle la zone centrale (4d), et
c) où la zone centrale (4d) comprend de préférence un trou borgne (10) allongé au centre et/ou, le long de la surface extérieure, deux zones plates opposées (11, 12) dans la direction axiale.

**8.** Bouton de commande selon l'une des revendications précédentes,

a) où la collerette (3) a un diamètre qui est plus petit que le diamètre de la zone pouvant être disposée au-dessus (4b) et/ou de la zone sus-jacente (4c) et/ou plus grand que le diamètre de la zone centrale (4d) et/ou
b) où la partie de préhension (4) et/ou la collerette (3) sont réalisées en une seule pièce,
c) et/ou où la zone sus-jacente (4c) comporte une ouverture (14) qui est utilisée en tant qu'indicateur.

**9.** Bouton de commande selon l'une des revendications précédentes,

a) où la collerette (3) a au moins sensiblement une forme cylindrique, et/ou
b) où la collerette (3) comporte un fond circulaire (3d) avec un trou (15) au centre,
c) où le trou (15) est de préférence sensiblement circulaire et comporte, sur un côté, une protubérance (16) et, sur le côté opposé, une zone plate (21),
d) et/ou où le fond (3d) est de préférence relié à la zone centrale (4d) de manière à résister à un couple et/ou à être mobile axialement.

**10.** Dispositif de cuisson, particulièrement une cuisinière non intégrée, avec un bouton de commande selon l'une des revendications précédentes.

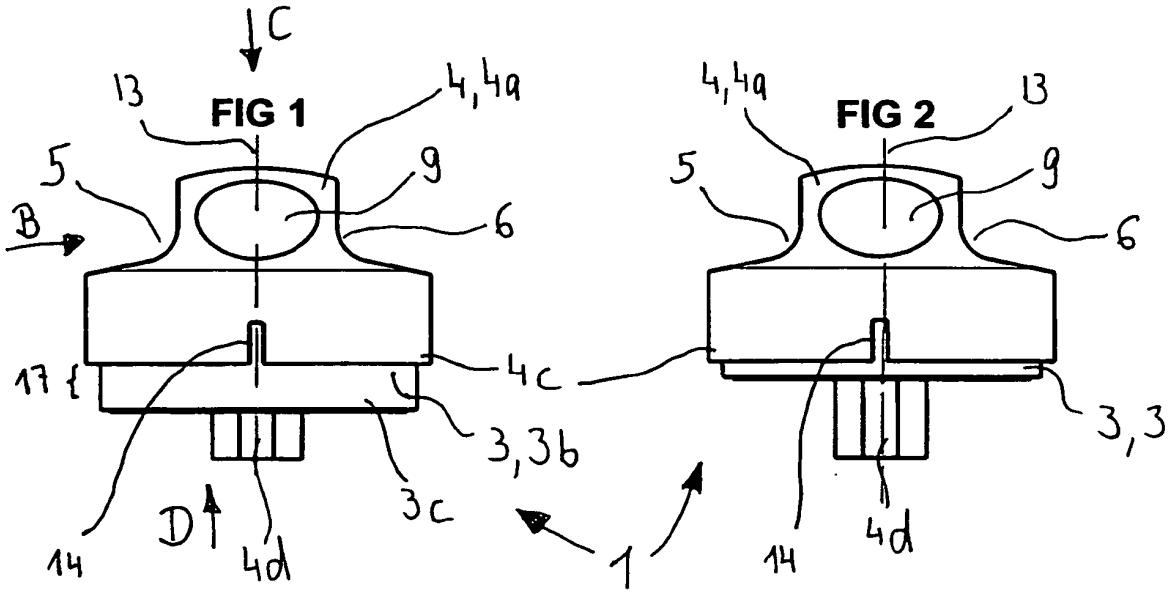



FIG 1




FIG 2

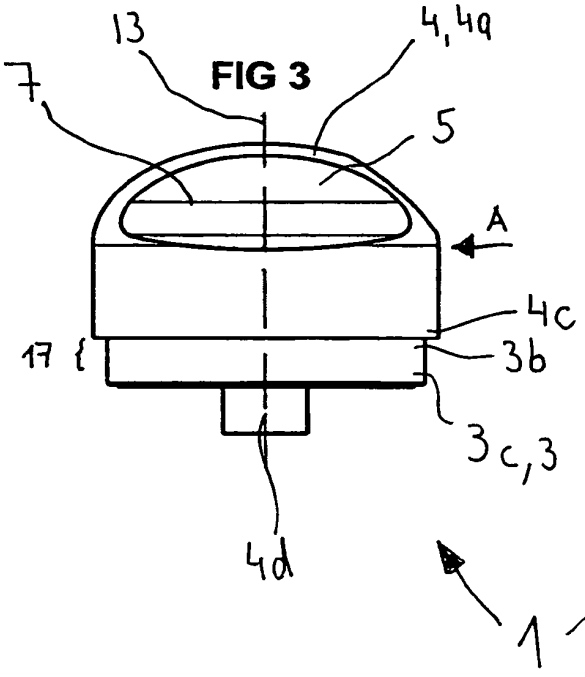



FIG 3

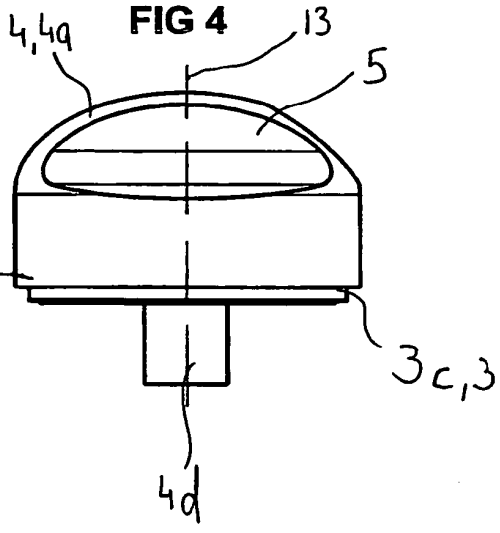



FIG 4

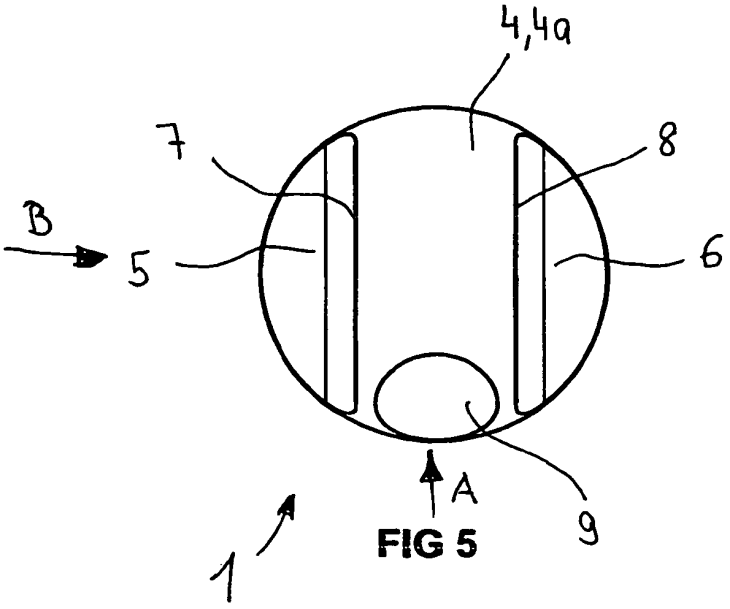



FIG 5

FIG 6

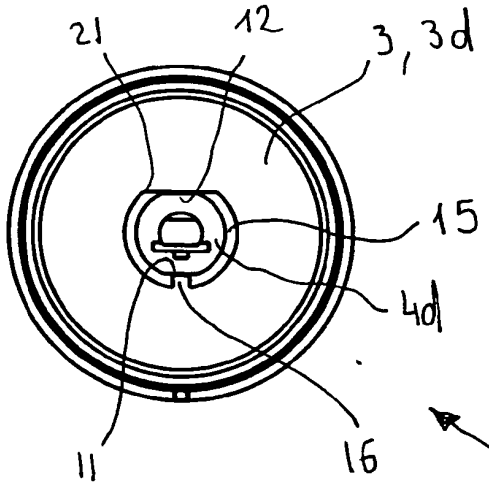
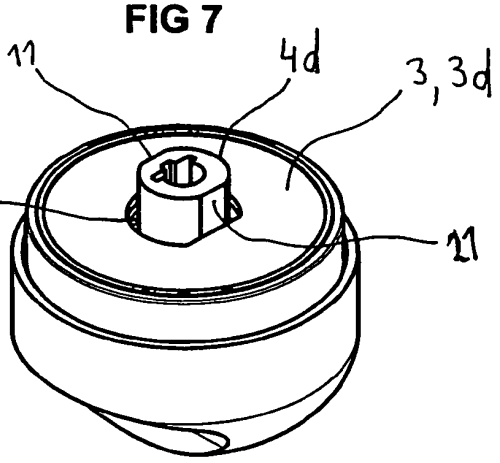



FIG 7



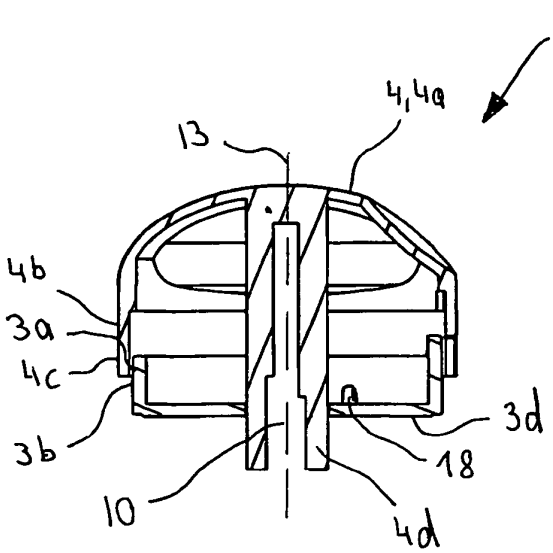



FIG 8

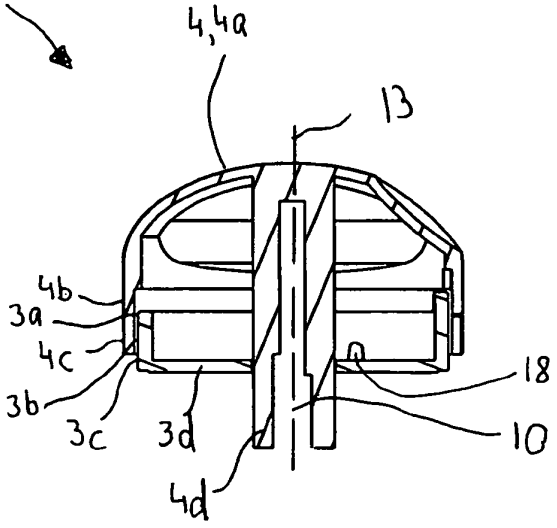



FIG 9

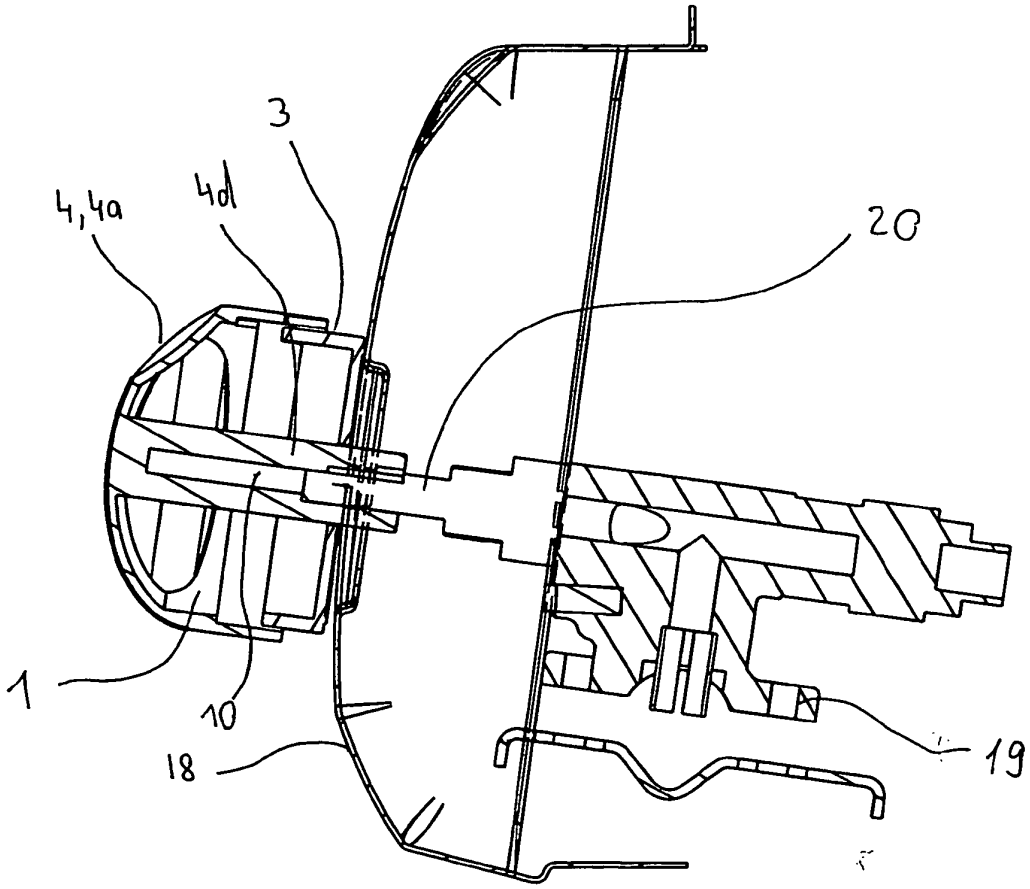



FIG 10

## REFERENCES CITED IN THE DESCRIPTION

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### Patent documents cited in the description


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