

(19) **DANMARK**

(10) **DK/EP 3241468 T3**



Patent- og
Varemærkestyrelsen

(12) Oversættelse af
europæisk patentskrift

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- (51) Int.Cl.: **A 47 J 45/07 (2006.01)**
- (45) Oversættelsen bekendtgjort den: **2019-02-11**
- (80) Dato for Den Europæiske Patentmyndigheds
bekendtgørelse om meddelelse af patentet: **2018-10-24**
- (86) Europæisk ansøgning nr.: **17164779.5**
- (86) Europæisk indleveringsdag: **2017-04-04**
- (87) Den europæiske ansøgnings publiceringsdag: **2017-11-08**
- (30) Prioritet: **2016-05-03 FR 1654008** **2016-06-02 FR 1655008**
- (84) Designerede stater: **AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV
MC MK MT NL NO PL PT RO RS SE SI SK SM TR**
- (73) Patenthaver: **CRISTEL, Parc d'Activités du Moulin, 25490 Fesches le Chatel, Frankrig**
- (72) Opfinder: **DODANE, Paul, 15 Rue du Camping, 25490 Fesches le Chatel, Frankrig**
BRUGGER, Emmanuel, 19 bis rue de Beaucourt, 25230 DASLE, Frankrig
DROUVILLE, Pascal, 6 rue Paul Claudel, 90400 DANJOUTIN, Frankrig
- (74) Fuldmægtig i Danmark: **ACCURA ADVOKATPARTNERSELSKAB, Tuborg Boulevard 1, 2900 Hellerup, Danmark**
- (54) Benævnelse: **Køkkenredskab med aftageligt håndtag**
- (56) Fremdragne publikationer:
FR-A1- 3 016 787
GB-A- 853 161

Kitchen utensil with removable handle

The invention relates to a kitchen utensil including a container and a handle, on the outer upper perimeter of the container with an extending fastening tab provided with at least one opening for the engagement and reception of a hook-forming end of a hooking tab comprised by the handle, a latch still being mounted on the latter that is able to occupy at least one unlocked position and a locked position in which it is pushed back under the action of return means, to extend, on the opposite side relative to the hooking tab, below the fastening tab of the container.

The present invention relates to the field of kitchen utensils, and more particularly those equipped with a removable handle.

Many kitchen utensils are already known in the form of containers which, rather than being equipped with a fixed handle, comprise, substantially on their outer upper perimeter, a fastening tab, quite often called ear due to the shape of said tab, on which a removable handle can be attached. Such a removable handle is interesting for several reasons. In particular, it can be removed from the container once the latter is placed on a cooktop so as to give it a smaller bulk. Furthermore, the removable nature of the handle greatly facilitates the storage of these cooking utensils, as well as their cleaning, etc.

Thus, among these cooking utensils with removable handles, more particularly known are those whereof the fastening tab on the upper border of the container comprises at least one opening, which is generally oblong and comparable to a slit, in which opening a hook-forming end of a hooking tab comprised by the handle will be able to engage from the top. Under this simple cooperation between said hook-forming end of the fastening tab of the handle and the corresponding opening in the lug of the container, it is possible to manipulate the latter using said handle.

However, to secure the latter on said fastening tab of the container, a latch or bolt is also provided, one end of which is able to extend below the fastening tab of the container,

when pushed back in the locking position. In short, in this locking position, the fastening tab of the container extends between said bolt and the hooking tab of the handle. The latter is typically equipped, in the upper part, with a control button making it possible to act on said bolt, quite frequently subject to the action of resilient return means tending to push it back into its locked position.

Irrespective of the respected manufacturing quality, functional play remains between the handle and the fastening tab of the container, which does not give very reassuring impression of the risk of the handle coming loose.

In this respect, already known from document FR 3,016,787 is a cooking utensil including a container and a removable handle. In this case, the fastening tab equipping the container is provided with two housings for each receiving a tongue configured in a hook shape equipping the hooking tab of the handle. These tongues are movable away from one another under the impulse of resilient return means, tending to push them back into a locked position, i.e., hooking in the openings of said fastening tab of the container.

Furthermore, a deformable member in the form of a crushable silicone pellet is inserted between the hooking tab of the handle and the fastening tab of the container when these elements are locked on one another.

In short, between the moment where the handle is hooked on the container and before locking on one another, a crushing of this silicone pellet occurs so as to react the typical functional play between these elements.

It should be noted that in document FR 3,016,788, a similar state of the art is described, except that the silicone pellet is provided in its center with a centering spur provided to be housed in a cavity arranged to match on the fastening tab of the container.

Although such a silicone pellet resolves the issue of reacting play between the removable handle and the container of the kitchen utensil, it makes the cooperation of these parts somewhat restrictive.

- 5 Indeed, when seeing to this cooperation, there is cause to guarantee the crushing of said pellet before the locking of the hooking tab of the handle occurs on the fastening tab of the container. In order to obtain this crushing, it is necessary to exert a certain pressure using the handle of said fastening tab, which may result in tilting of the container, and therefore a risk of spilling.

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The unlocking operation is therefore also more difficult. Indeed, this crushed silicone pellet substantially increases the friction forces between the fastening tab and the bolt, creating a greater unlocking command force.

- 15 The present invention aims to resolve the drawbacks of this state of the art.

It is in the context of a first inventive approach that one conceived that this reaction of the play between the hooking tab of a handle and the fastening tab of the container results, at least in part, from a tightening effect procured by the bolt of the hooking tab of the
20 handle on the fastening tab of the container.

More particularly, it was thought that this gripping effect results from a movement of said bolt along a direction that is not parallel to the plane of the fastening.

- 25 In a complementary manner, it was also conceived to associate, with the hook-forming end of the hooking tab and/or the opening in the fastening tab for the reception of this hook-forming end, a deformable damping element serving to absorb the functional play, often essential to authorize the cooperation of these parts.

- 30 The advantages resulting from the present invention consist of reacting play between the handle and container resulting essentially from a tightening action under the impulse of

the return means, for example resilient, of the bolt on the fastening tab of the container, in cooperation with the hooking tab of the handle, no additional force needing to be produced to provide this cooperation between the handle and the container, compared with the prior technical solution where the bolt does not provide such a tightening action.

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Likewise, in the absence of any prestressed deformable member between the handle and the container, the unlocking command remains just as easy.

To that end, the invention relates to a kitchen utensil including a container and a handle, on the outer upper perimeter of the container with an extending fastening tab or lug provided with at least one opening for the engagement and reception of a hook-forming end of a hooking tab comprised by the handle, a latch still being mounted on the latter that is able to occupy at least one unlocked position and a locked position in which it is pushed back under the action of return means, to extend, on the opposite side relative to the hooking tab, below the fastening tab of the container, characterized by the fact that the latch is mounted sliding on the handle along a direction forming an acute angle relative to the fastening tab in order, starting from an unlocked position, separated from said fastening tab, to tighten toward the latter under the action of said return means in the locked position.

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Advantageously, but not necessarily, the return means are of the resilient type.

According to another particularity of the present invention, the hook-forming end of the hooking tab of the handle and/or the opening in the fastening tab for receiving said end is provided with a deformable damping element able to absorb the functional play.

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Other aims and advantages of the present invention will appear in the following description relative to one example embodiment provided for information and non-limitingly.

The understanding of this description will be facilitated in reference to the appended drawing, in which:

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- Figure 1 is a schematic and perspective illustration of a kitchen utensil according to the invention;

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- Figure 2 is a partial sectional schematic illustration of the handle cooperating with the fastening tab of the container (not shown) of the cooking utensil according to the invention,

- Figure 3 is a detail view of figure 2.

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As shown in the figures of the attached drawing, the present invention relates to a kitchen utensil (1) including a container (2) and a handle (3). On the outer upper perimeter (4) of the container (2) extends at least one fastening tab (5), also often called lug, with which a hooking tab (6) cooperates comprised at one end (7) of the handle (3).

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In reference more particularly to figures 2 and 3, the fastening tab (5) includes at least one opening (8) generally with an oblong shape and extending, preferably, tangentially to the container (2), or even coaxially inasmuch as said opening (8) can adopt a rectilinear or curved shape.

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Said opening (8) is provided for the engagement and reception of a hook-forming end (9) comprised by the hooking tab (6) corresponding to the handle (3).

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On the latter, preferably but not limitingly, on the hooking tab (6), a latch (10) is mounted sliding, capable of occupying at least an unlocked position (not visible in the figures) and a locked position (11) in which it is pushed back under the action of return means (12).

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Specifically, in this locked position (11), said latch (10) extends, more particularly through its end (13), below the fastening tab (5), in short from the opposite side (14) relative to that (15) above which the fastening tab (6) extends.

In the illustrated embodiment, the latch (10) cooperates with the peripheral edge (16) of the fastening tab (5). It should be noted that the present invention is not, however, limited to such an embodiment.

- 5 More particularly, the latch (10) extends below the hooking tab (6) while being mounted sliding in a housing (17) in the form of an opening in said hooking tab (6). Additionally, the body of said latch (10) extends through said housing (17) and a control button (18), preferably made from a thermally insulating material, is secured to it.
- 10 Thus, through the control button (18), accessible on the top of the hooking tab (6), the user can push back the latch (10) in its unlocked position, against the action of said return means (12).

- It should particularly be noted in this respect that said return means (12) can be of the resilient type and in particular assume the form of a spring, knowing that they can assume other embodiments. As an example, such return means (12) can be made up of several magnets, in particular two magnets acting in opposition. Thus, under the action of the unlocking command, one of said magnets, carried by the latch, can approach another stationary magnet mounted in magnetic opposition, such that by releasing the unlocking
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- 20 command, said magnets repel one another, returning the latch to its locked position.

- Many other embodiments of said return means (12) can be considered, while being within the reach of one skilled in the art, in particular the use of an electromechanical actuator, or even a motor.

- 25 To return to the non-limiting example embodiment of the invention, as illustrated in figures 1 to 3, said return means (12) are of the resilient type and shown by a spring (19) positioned substantially in the housing (17) while being inserted between the latch (10) and a stop (20) arranged in said housing (17) to be able to perform its function of returning
- 30 said latch (10) to the locked position (11).

According to the invention, the latch (10) is mounted sliding on the handle (3) in a direction (21) forming an acute angle (22) relative to the plane (23) of the fastening tab (5) in order, starting from an unlocked position, separated from said fastening tab (5), to tighten toward the latter under the action of the return means (12) in the locked position.

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According to one advantageous embodiment, at its end (13), the latch (10) includes a bearing surface (24) intended to cooperate with the opposite side (14) of the fastening tab (5) by pushing the latter back toward the hooking tab (6) of the handle (3). Preferably, said bearing surface (24) forms, in said locked position (11), an undercut angle (25) with said opposite side (14) of the fastening tab (5), so as to avoid any wedge effect of the action of the latch (10).

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According to still another advantageous embodiment, the latch (10), at said end (13) intended to cooperate with the fastening tab (5), includes, on its lower side (26), an engagement bevel (27). Through the latter, the latch (10) is naturally pushed back in its unlocked direction in contact with the fastening tab (5), when the handle (3) is engaged on the container (2).

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According to still another particularity of the present invention, depending on the case on the hook-forming end (9) of the hooking tab (6) and/or in the opening (8) in the fastening tab (5) for receiving said end (9), a deformable damping element (28) is arranged intended to absorb the functional play between said hook-forming end (9) and said opening (8).

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Thus and as visible in figures 2 and 3, this deformable damping element (20) can be associated with the hooking tab (6) substantially in the rotation angle between the handle (3) and the fastening tab (5). Being located precisely at the height of this rotation angle, this element made from deformable material (28) has no stress, whether during the placement or the removal of the handle (3).

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The advantages resulting from the present invention of lie essentially in the lack of play between the handle and the container, without the placement of the handle requiring

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stressing any deformable element. Furthermore, the unlocking command can be done with the same ease as a handle not performing any play reacting function.

CLAIMS

1. A kitchen utensil including a container (2) and a handle (3), on the outer upper perimeter of the container (2) with an extending fastening tab (5) or lug provided with at least one opening (8) for the engagement and reception of a hook-forming end (9) of a hooking tab (6) comprised by the handle (3), a latch (10) still being mounted on the latter that is able to occupy at least one unlocked position and a locked position (11) in which it is pushed back under the action of return means (12) to extend, on the opposite side (14) relative to the hooking tab (6), below the fastening tab (5) of the container (2), characterized in that the latch (10) is mounted sliding on the handle (3) along a direction (21) forming an acute angle (22) relative to the plane (23) of the fastening tab (5) in order, starting from an unlocked position, separated from said fastening tab (5), to tighten toward the latter under the action of said return means (12) in the locked position (11).
2. The kitchen utensil according to claim 1, characterized in that the hook-forming end (9) of the hooking tab (6) of the handle (3) and/or the opening (8) in the fastening tab (5) for receiving said end (9) is provided with a deformable damping element (28) able to absorb the functional play between said hook-forming end (9) and said opening (8).
3. The kitchen utensil according to claim 1 or 2, characterized in that the latch (10) comprises, at its end (13), a bearing surface (24) intended to cooperate with the fastening tab (5) while pushing the latter back toward the hooking tab (6) of the handle (3), this bearing surface (24) forming, in the locked position (11), an undercut angle (25) with the fastening tab (5).
4. The kitchen utensil according to any one of the preceding claims, characterized in that the return means (12) are of the resilient type.
5. The kitchen utensil according to any one of the preceding claims, characterized in that the latch (10) extends below the hooking tab (6) while being mounted sliding in a housing (17) in the form of an opening in said hooking tab (6).

6. The kitchen utensil according to claim 4, characterized in that the latch (10) comprises a body extending through the housing (17) and the hooking tab (6) and a control button (18) is secured to it, preferably made from a thermally insulating material.

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7. The kitchen utensil according to claim 5 or 6, characterized in that the return means (12), of the resilient type, assume the form of a spring (19) substantially positioned in the housing (17) while being inserted between the latch (10) and a stop (20) arranged in said housing (17) to perform its function of returning said latch (10) to the locked position (11).

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Krav

1. Et køkkenredskab bestående af en beholder (2) og et håndtag (3), på den øverste ydre omkreds af beholderen (2) med et forlængende fastgørelsesbeslag (5) eller hank udstyret med mindst én åbning (8) til at gribe og modtage en krogformende ende (9) af et låsebeslag (6) omfattet af håndtaget (3), en holdemekanisme (10), der dog monteres på sidstnævnte, som mindst skal kunne indtage én ulåst position og én låst position (11), hvor den skubbes tilbage i forbindelse med returmekanismen (12) og, på den modsatte side (14) i forhold til låsebeslaget (6), går ned under beholderens (2) fastgørelsesbeslag (5), **kendetegnet ved, at** holdemekanismen (10) anbringes ved at glide den på håndtaget (3) langs en retning (21), som udgør en spids vinkel (22) i forhold til fastgørelsesbeslagets (5) niveau (23) for, startende fra en ulåst position adskilt fra det omtalte fastgørelsesbeslag (5), at blive strammet mod sidstnævnte i forbindelse med den omtalte returmekanisme (12) i den låste position (11).
2. Køkkenredskabet i henhold til krav 1, **kendetegnet ved, at** den krogformende ende (9) af håndtagets (3) låsebeslag (6) og/eller fastgørelsesbeslagets (5) åbning (8) til modtagelse af den omtalte ende (9) er udstyret med et deformerbart dæmpningselement (28), der er i stand til at absorbere det funktionelle spillerum mellem den omtalte krogformende ende (9) og den omtalte åbning (8).
3. Køkkenredskabet i henhold til krav 1 eller 2, **kendetegnet ved, at** holdemekanismen (10), i enden (13), omfatter en bæreflade (24), hvis formål er at arbejde sammen med fastgørelsesbeslaget (5), samtidig med at den skubber sidstnævnte tilbage mod håndtagets (3) låsebeslag (6), og denne bæreflade (24) udgør, i den låste position (11), en underskåret vinkel (25) med fastgørelsesbeslaget (5).
4. Køkkenredskabet i henhold til et hvilket som helst af de foregående krav, **kendetegnet ved, at** returmekanismen (12) er af en fjedrende type.
5. Køkkenredskabet i henhold til et hvilket som helst af de foregående krav, **kendetegnet ved, at** holdemekanismen (10) går ned under låsebeslaget (6), samtidig med at den anbringes glidende i en indkapsling (17) i form af en åbning i det omtalte låsebeslag (6).
6. Køkkenredskabet i henhold til krav 4, **kendetegnet ved, at** holdemekanismen (10) omfatter en kerne, som går gennem indkapslingen (17) og låsebeslaget (6) med en trykknop (18) fastgjort derpå, fortrinsvist lavet af et termisk isoleringsmateriale.
7. Køkkenredskabet i henhold til krav 5 eller 6, **kendetegnet ved, at** returmekanismen (12), af en fjedrende type, antager form som en fjeder (19) i en væsentlig position i indkapslingen (17), samtidig med at den indsættes mellem holdemekanismen (10) og et stop (20) placeret i den omtalte indkapsling (17) for at opfylde sin funktion med at returnere den omtalte holdemekanisme (10) til den låste position (11).

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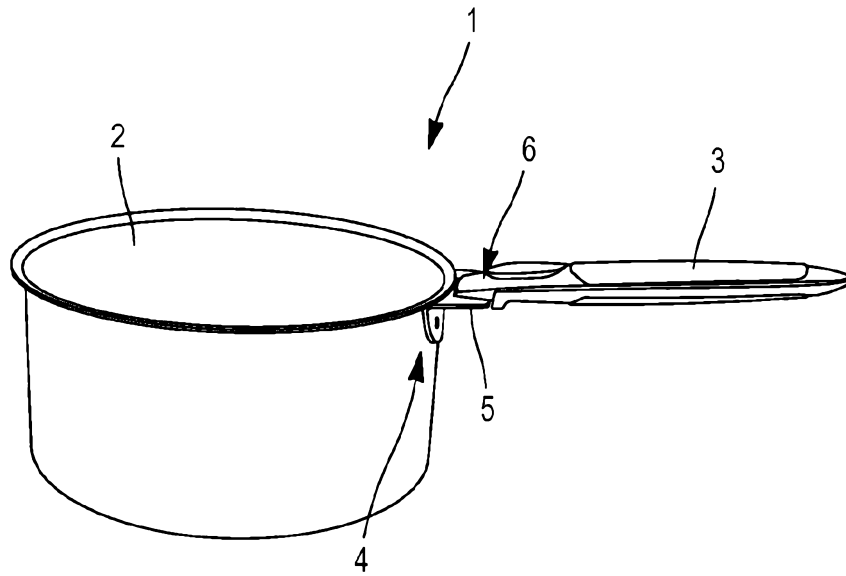


FIG. 1

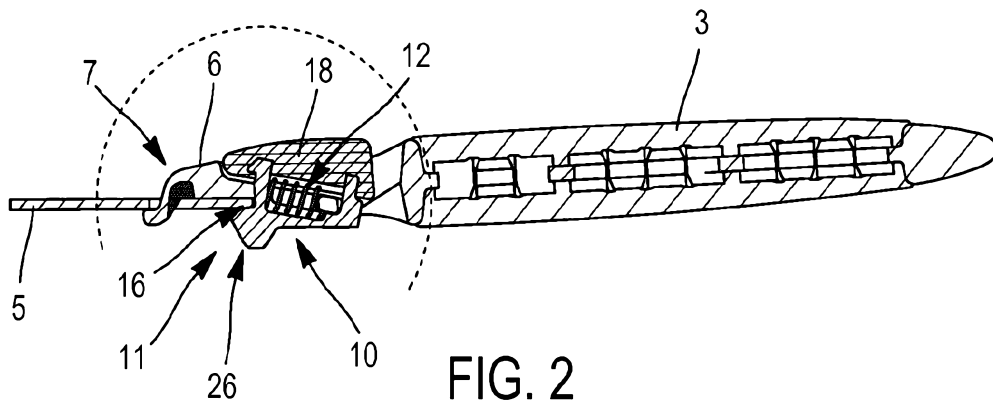


FIG. 2

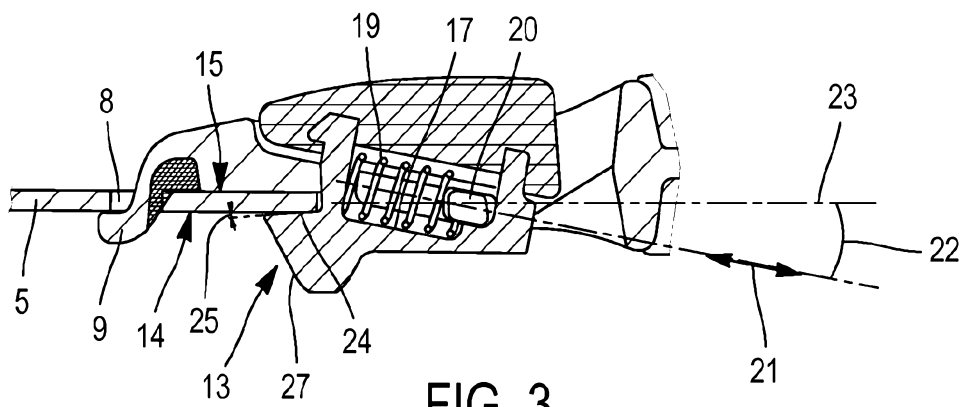


FIG. 3