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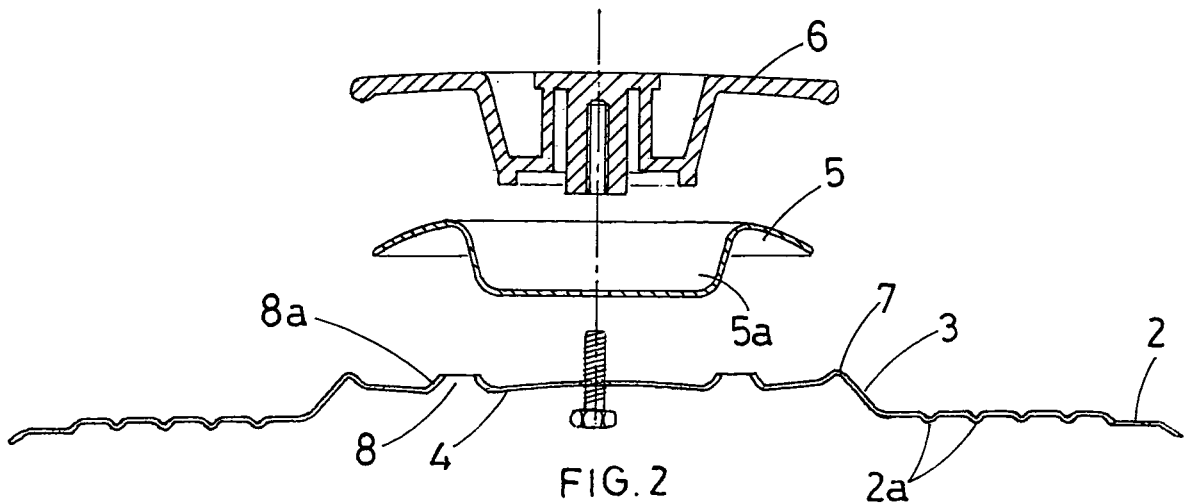
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(54) Lid for pots, pans and similar items

(57) The present invention refers to a lid (1) for pots, pans and similar items, of the type centrally provided with a shield (5) used to screen a series of through holes (8)

drilled around the stem (5a) of the shield (5), characterised in that the shield (5) and the series of through holes (8) are situated in a central raised area (4), with upper flat surface and perimeter border (7).



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Description

[0001] The present patent application refers to a lid for pots, pans and similar items, provided with multiple through holes that permit to eject the liquids or condensation produced inside the pot.

[0002] As it is known, when food is cooked and heated, condensation is formed and liquids are squirted (especially oil).

[0003] As a matter of fact, lids are used to create a stable, uniform cooking "environment" (not subject to atmospheric air) and prevent aqueous vapour, and especially squirts of liquids, from being dispersed outside the pot.

[0004] However, in case of an hermetically-closing lid, the condensation formed during cooking is forced to remain inside the pot, thus impairing the good outcome of the cooking process.

[0005] To that end, the market offers lids provided with a series of vent holes to permit evacuation of aqueous vapour from the pot.

[0006] When this type of lids was designed, it was noted that the vent holes favoured the creation of dangerous squirts of hot liquids.

[0007] For this reason, the said holes are drilled only in the central area of the lid, in such a position that they can be screened by means of a sort of shield fixed to the centre of the lid at a close distance from the holes.

[0008] It appears evident that the said shield, while it does not prevent the desired evacuation of the aqueous vapour coming out of the pot, is able to intercept the squirts of liquids and prevent their uncontrolled dispersion in the surrounding environment.

[0009] This generic solution has resulted in two different practical embodiments, the first being the realisation of a lid with convex configuration (shaped as a small dome), which is provided with the said series of through holes, and the shield on the top.

[0010] This type of lid, however, is impaired by a considerable drawback, since the drops of aqueous vapour and the squirts of liquids coming out of the holes tend to deposit on the lower wall of the protection shield, and inevitably fall on the upper surface of the lid.

[0011] Being it a convex surface, evidently the drops of aqueous vapour and liquids tend to slide towards the periphery of the lid, towards a sort of perimeter channel normally provided in this type of lids.

[0012] The specific drawback refers to the fact that the perimeter channel is filled easily, thus favouring the uncontrolled spilling of the liquids collected inside it. Even if the channel is not full, it is highly possible that liquids are spilled outside as soon as the lid is raised and moved away from the pot.

[0013] In order to avoid the uncontrolled dispersion of liquids out of the pot, the "perforated" lid has been given a concave configuration (shaped as a bowl), that is to say an opposite configuration compared to the aforementioned prior lids.

[0014] In this case, the traditional through holes and protective shield are positioned in the deepest point of the external surface of the lid.

[0015] In this way, after being intercepted by the shield and after falling towards the surface of the lid, the drops of aqueous vapour and liquids tend to remain in the central area of the lid, because the central area is deeper than the surrounding areas.

[0016] Although this second type of perforated lids prevents the liquids from spilling outside in an uncontrolled way, it must be noted that the lid is impaired by a series of inconveniences caused by the presence of an upper profile with considerably concave configuration.

[0017] The first inconvenience consists in the fact that, because of the "inclination" towards the centre, after falling on the external surface of the lid from the shield, the drops of liquids slide again inside the pot from the holes that were initially used for evacuation.

[0018] Especially disadvantageous is the fact that the fall of aqueous vapour drops inside the pot can "water" the food contained in the pot, thus impairing the good outcome of the cooking process.

[0019] A second inconvenience of concave perforated lids becomes evident when the said lids are used with shallow pots, such as pans and similar items.

[0020] In such a case, the "lowered" central area of the concave lid can directly interfere with the food contained in the pan.

[0021] Even if the said direct interference is not present, a problem is represented by the fact that the height of the cooking space comprised between the bottom of the pan and the internal surface of the concave lid is not constant.

[0022] Evidently, the cooking space has a minimum height in the central area (being impaired by the presence of the deepest section of the concave lid) and a gradually increasing height towards the peripheral areas.

[0023] The irregular height of the cooking space, which of course corresponds to irregular volume, impairs the uniformity of the cooking process for the food situated in the centre of the pan compared to the food situated in a peripheral position.

[0024] A critical examination of the prior technique has resulted in the design of the new "perforated" lid of the present patent application, which offers a solution to the problems described for the two prior types of "perforated" lids.

[0025] The first purpose of the lid of the invention is to guarantee that the drops of liquids falling from the protective shield in the centre of the external surface of the lid are efficaciously intercepted and held in the central area.

[0026] In this way, the drops are prevented from dangerously sliding towards the perimeter of the lid, and at the same time from falling again in the pot, with the risk to damage the cooking process.

[0027] Another purpose of the new lid of the invention is to guarantee that the cooking space is given uniform

internal height and volume, thus ensuring homogenous cooking of the food contained in the pan.

[0028] Moreover, this prevents the risk that the internal surface of the lid of the invention interferes with the food cooked in the pan.

[0029] The said advantages were obtained by giving a completely new profile to the lid of the invention, it being understood that the lid is provided with the traditional central series of through holes around the stem used to support the protective shield.

[0030] In particular, the lid of the invention does not have a concave or convex profile. As a matter of fact, the lid is provided with a perfectly flat profile, from which a small raised circular area projects in central position, having a flat surface, where through holes are drilled for evacuation of liquids and where the stem of the traditional protective shield is fixed.

[0031] The other peculiarities of the lid of the invention consist in the fact that the central raised area is surrounded by a perimeter border, and the holes are surrounded by corresponding borders with basically truncated-conical upward profile.

[0032] In order to illustrate the operation of the lid of the invention, it must be noted that the liquids coming out of the holes that are intercepted by the shield can only fall above the central flat, raised area of the lid, being positioned immediately below the shield.

[0033] Likewise, the liquids that are deposited above the central flat area are held inside the central flat area, without being spilled towards the peripheral areas or through the vent holes into the pot.

[0034] This advantageous effect is generated by the interaction of multiple factors; first of all, it must be said that the perfect planarity of the central raised area, on which the drops "coming" from the shield fall, prevents the liquids collected in the shield to be exposed to the centrifugal or centripetal forces that are spontaneously present in the case of the inclined profiles (either concave or convex) that characterise the surface of the prior lids.

[0035] Equally important is the presence of the perimeter border of the central raised area of the lid of the invention, in view of its ability to oppose - as if it was a small dam - the tendency of cooking liquids to flow in an uncontrolled way towards the external areas of the lid.

[0036] Of course, also the presence of the raised borders around the through holes in the central raised area is extremely important, since the said borders completely prevent the liquids collected in the central raised area from passing through the holes and falling again in the pot.

[0037] The last important characteristic consists in the fact that the shield that protrudes from the centre of the lid of the invention has a sloping profile from the centre towards the periphery (such as a small umbrella); it being also provided that the perimeter border is situated in a slightly internal position with respect to the perimeter border that surrounds the central raised perforated area of the lid.

[0038] Because of this, the drops of the liquids that deposit on the lower side of the shield (which, soon or later, will fall down) tend to be conveyed towards the periphery of the central raised area of the lid of the invention, without going beyond the perimeter border.

[0039] This prevents the drops from directly passing through the holes near the stem of the shield (and from falling inside the pot). At the same time, the drops are prevented from going beyond the border around the central raised area of the lid and from sliding in an uncontrolled way towards the flat peripheral area of the lid.

[0040] For purposes of clarity the description of the invention continues with reference to the enclosed drawings, which is intended for purposes of illustration only and not in a limiting sense, whereby:

- figure 1 is a top view of the lid of the invention, without shield and knob;
- figure 2 is a cross-section of the lid, complete with shield and knob.

[0041] With reference to the aforementioned figures, the circular lid of the invention (1) has a large flat peripheral area (2), from which a circular raised area (4) with a perfectly flat upper surface protrudes in central position, united by means of a truncated-conical collar (3).

[0042] The stem (5a) of a shield (5), basically shaped as an umbrella, is fixed in the centre of the circular raised area (4), being the point where a traditional handle (6) is fixed.

[0043] The circular raised area (4) is surrounded by a perimeter border (7) and is provided with an annular series of through holes (8) surrounding at a short distance the stem (5a) of the shield (5); it being also provided that each hole (8) is surrounded by a corresponding raised border (8a) with truncated-conical upward profile.

[0044] Of course, the holes (8) are drilled around the stem (5a) in order to take advantage from the protection offered by the shield (5).

[0045] In the embodiment illustrated in the enclosed figures, the new lid of the invention (1) is provided with an annular series of stiffening ribs (2a) on the flat surface (2) around the central raised area (4).

[0046] However, without exiting the scope of the present inventive idea, another embodiment of the lid of the invention could be devised, being deprived of the annular ribs; likewise, it would be possible to give a certain inclination to the surface (2) that surrounds the central raised area (4).

Claims

1. Lid for pots, pans and similar items, of the type centrally provided with a shield (5) used to screen a series of through holes (8) drilled around the stem (5a) of the shield (5), **characterised in that** the shield (5) and the series of through holes (8) are situated

in a central raised area (4) provided with flat upper surface and a perimeter border (7).

2. Lid as defined in claim 1, **characterised in that** the central raised central area (4) is bordered by a larger peripheral area (2) with flat profile. 5
3. Lid as defined in claim 2, **characterised in that** the union between the central raised area (4) and the surrounding flat area (2) is obtained by means of a collar (3) with basically truncated-conical profile. 10
4. Lid as defined in one or more of the preceding claims, **characterised in that** each hole (8) drilled on the central raised area (4) is surrounded by a border (8a) with basically truncated-conical upward profile. 15
5. Lid as defined in one or more of the preceding claims, **characterised in that** the peripheral area (2) is provided with circular stiffening ribs (2a). 20
6. Lid as defined in one or more of the preceding claims, **characterised in that** the shield (5) has a sloping profile from the centre towards the periphery; it being provided that its perimeter border occupies a slightly internal position with respect to the perimeter border (7) that surrounds the central raised area (4). 25

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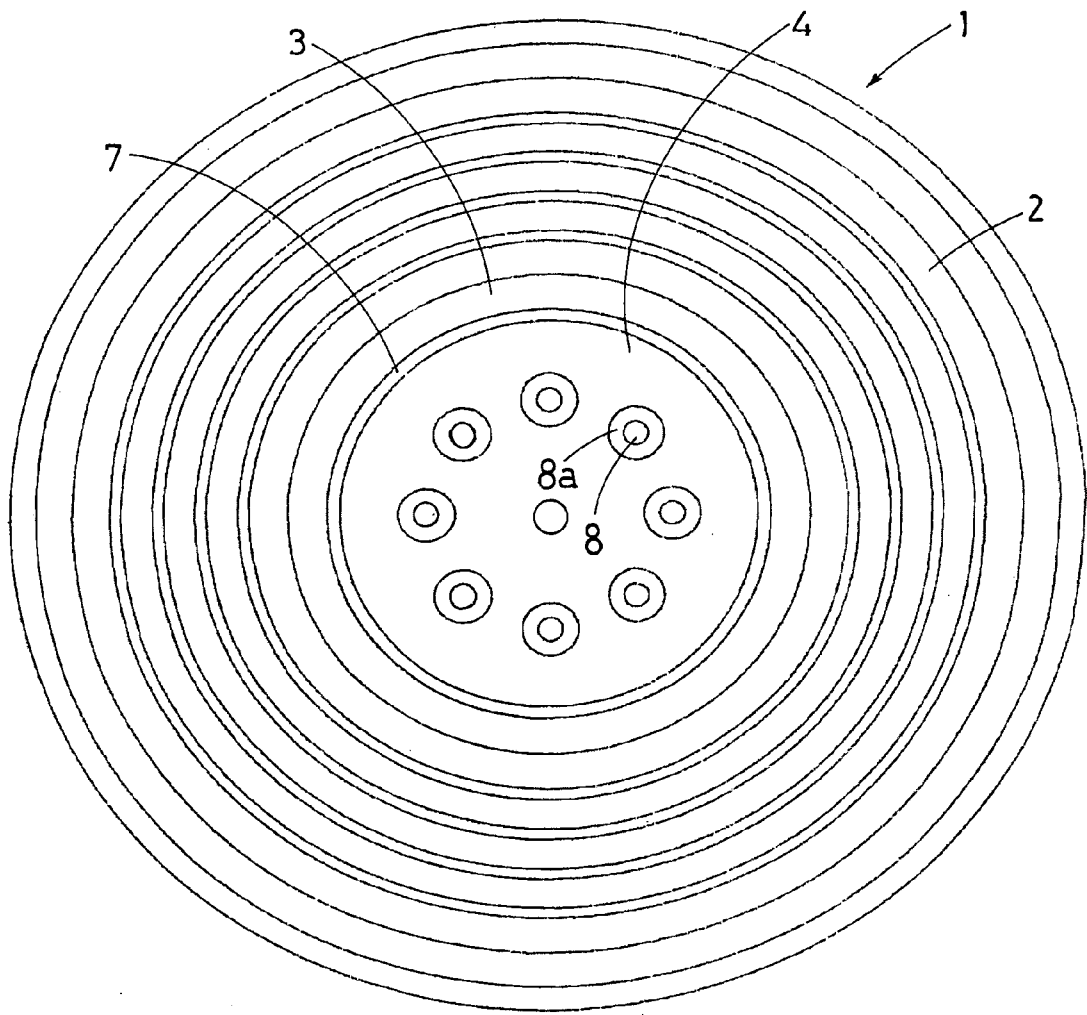


FIG. 1

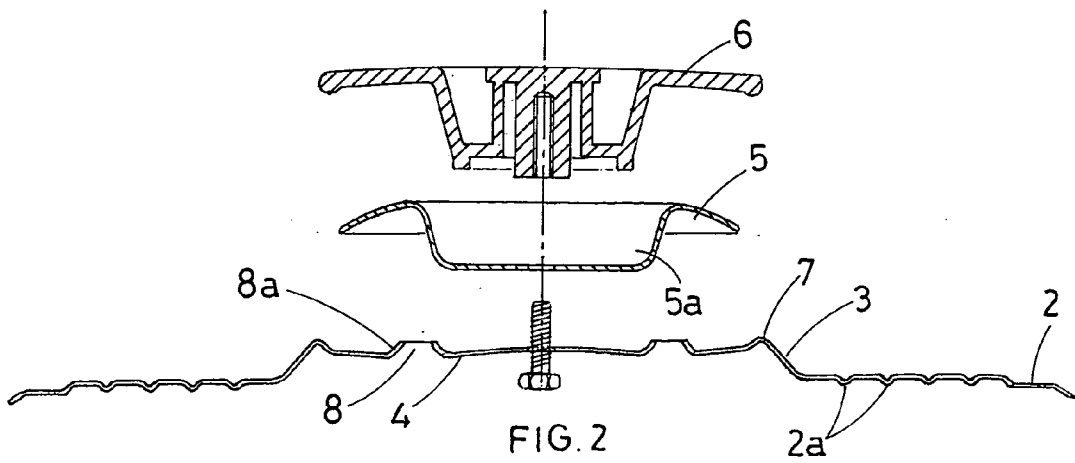


FIG. 2