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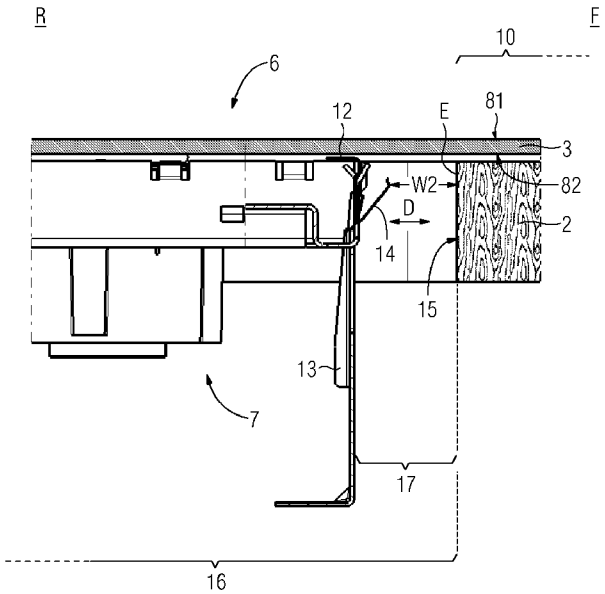
(54) Title: KITCHEN WORKTOP ARRANGEMENT

FIG 3



(57) Abstract: A kitchen worktop arrangement, comprising a glass ceramic worktop plate having a top side and a bottom side averted from the top side, and being attached with its bottom side to the top side of a supporting plate; the supporting plate comprising at least one cut-out for arranging a cooking hob assembly, the cooking hob assembly being arranged at the bottom side of the glass ceramic worktop plate in a section averted from the cut-out, the cooking hob assembly defining at least one cooking section of the glass ceramic worktop plate, wherein the worktop plate comprises at least one bearing section projecting beyond the cooking section of the worktop plate, the bottom side of the bearing section being attached to the top side of the supporting plate; and wherein at least one mounting interface is secured at or to the bottom side of the glass ceramic worktop plate within or in the area of the cooking section for releasable coupling one or more components of the hob assembly to the bottom side.

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Description

Kitchen worktop arrangement

The underlying invention is related to kitchen worktop arrangement, a method for assembling a kitchen worktop arrangement, and an unlocking tool for engagement with a fastening element of a worktop arrangement.

In known kitchen worktop arrangements it is common to arrange a cooking hob below a glass ceramic plate in a cut-out of a kitchen worktop. In order to secure the glass ceramic plate and/or the hob, and further to prevent moisture and dirt from entering the interspace between cooking hob and worktop plate, it is known to provide profile and/or frame elements circumferential to the glass ceramic plate of the cooking hob and along the edges of the cut-out.

Said profile and/or frame elements, however, disturb the overall appearance of the kitchen worktop arrangement, whereby the cooking hob is felt like a “foreign body” in the overall design of the kitchen. More importantly, however, the profile and/or frame elements are usually insufficient in preventing moisture to enter the interspace between cooking hob and worktop plate along the usually four edges of the cut-out, and, additionally, dirt accumulates along the profile and/or frame.

It is therefore a long felt need to provide a kitchen worktop arrangement having a cooking hob mounted totally flush in the worktop plate, on the one hand and to prevent moisture to enter the interspace between cooking hob and worktop plate.

For example, EP 1 080 669 A2 discloses a built-in cooking hob that is frameless integrated into the kitchen worktop such that

worktop plates and cooktop plate are arranged in a flush mounted manner, so as to obtain easy to clean surfaces, in particular in the transient region between the worktop and cooktop plates, and/or to improve the humidity tightness in the transient region between the worktop and cooktop plates. However, in such worktop arrangement the cooking hob, and particularly the electric and electronic parts thereof, are difficult to reach for exchange or maintenance service. Usually, the entire cooking hob is thus dismounted, and at least partially disassembled from the work-plate. For such purpose, the adhesion of the cooking hob has to be detached and the cooking hob has to be disassembled from above completely from the kitchen worktop arrangement. Moreover, the solution described in EP 1 080 669 A2 is relatively compli-cate, and particularly in need of a cover screen element, shielding the appearance of the supporting plate to the user.

In view of this, it is an object of the present invention to provide kitchen worktop arrangement allowing for improved easy maintenance, on the one hand, and providing easy to clean sur-faces, in particular in the transient region between the worktop and cooktop plates, thereby improving the humidity tightness in particular in the transient region between the worktop and cook-top plates, on the other hand. It is a further object of the present invention to provide a kitchen worktop arrangement hav-ing a uniform and non-disturbing overall appearance.

These and other problems are solved by the subject matter of the attached independent claims. Particularly, the above objects of the invention are achieved by a kitchen worktop arrangement ac-cording to claim 1, a method for assembling a kitchen worktop arrangement according to claim 13, and an unlocking tool accord-ing to claim 15.

Preferred embodiments may be taken from the dependent claims, and, beyond that, from the following description, in particular comprising various embodiments as covered and described in the annexed claims.

A kitchen worktop arrangement according to claim 1 at least comprises a glass ceramic worktop plate having a top side, and a bottom side averted from the top side, and being attached with its bottom side directly or indirectly to the top side of a supporting plate. The supporting plate comprises at least one cut-out for arranging a cooking hob assembly, which is arranged at the bottom side of the glass ceramic worktop plate in a section of the cut-out, the cooking hob assembly defining at least one cooking section of the glass ceramic worktop plate. Thereby, it will be immediately understood by a person skilled in the art that the at least one cooking section defined by the cooking hob assembly may substantially correspond to the dimensions of the cut-out, however, advantageously the dimension of the cut-out may be chosen substantially larger than the cooking section.

For such purpose, the worktop plate comprises at least one bearing section projecting beyond the cooking section of the worktop plate, and wherein the bottom side of the bearing section is attached to the top side of the supporting plate. This attachment may be permanently, for example, adhesive. However, alternatively the worktop plate simply may be laid on the supporting plate with its bearing section, or otherwise loosely or detachably connected. Particularly, a sealing element, may be provided between the supporting plate and the worktop plate, particularly in or at the bearing surface.

According to the present invention the worktop arrangement further comprises at least one mounting interface, which is secured at or to the bottom side of the glass ceramic worktop plate

within or in the area of the cooking section for releasable coupling one or more components of the hob assembly to the bottom side of the worktop plate.

In an embodiment, a kitchen worktop arrangement as indicated above is provided. The kitchen worktop arrangement may comprise one or more worktop plates, one or more cooking hob assemblies, and optionally further components common to kitchen worktops.

The kitchen worktop arrangement may comprise a glass ceramic worktop plate, including for example a cooktop arrangement or a cooktop plate section.

The glass ceramic worktop plate, *i.e.* worktop plate, may comprise a cooking section, *e.g.* having or defining one or more separate or continuous cooking areas. Thereby, each cooking hob assembly, which is arranged at the bottom side of the glass ceramic worktop plate in a section of a respective cut-out, may define a corresponding cooking section of the glass ceramic work-top plate. In other words, a cooking section, preferably may be considered a particular area of the worktop plate in which one or more, i.e. at least one, cooking hob of for example a hob assembly, is provided.

The cooking section therefore be adapted to accommodate, i.e. support, in particular depending on the number of cooking hobs, one or more cooking vessels or similar for the purpose of cooking food therein, for example. The cooking vessels in operation may be placed on the top side of the worktop plate.

The cooking hobs may be any type of hob, in particular comprising radiant heating hobs and/or induction heating hobs.

The worktop plate comprises at least one bearing section, for

example implemented as a bearing surface having a predetermined size, in particular minimum size. The present inventors have found that such bearing section may in its shortest dimension, e.g. a width and/or depth direction, be less than 10 cm, preferably less than 5 cm, more preferably less than 3.0 cm, most preferably less than 2.5 cm. A more slim and thin bearing section is advantageously increasing the freedom of arrangement, design and particularly reduces place requirement. However, on the other hand a broader bearing section in general may be advantageously increase stability of the worktop arrangement, and may particularly prevent the glass ceramic worktop plate from unwanted breakage. Preferably, the bearing section may in its shortest dimension, e.g. a width and/or depth direction, be at least 1.0 cm, preferably at least 1.25 cm, more preferably at least 1.5 cm, most preferably at least 1.75 cm. For example, the bearing section in its shortest dimension, e.g. a width and/or depth direction, may be from at least 1.0 cm to less than 10 cm, from at least 1.0 cm to less than 5 cm, from at least 1.0 cm to less than 3.0 cm, from at least 1.0 cm to less than 2.5 cm, from at least 1.25 cm to less than 10 cm, from at least 1.25 cm to less than 5 cm, from at least 1.25 cm to less than 3.0 cm, from at least 1.25 cm to less than 2.5 cm, from at least 1.5 cm from at least 1.5 cm, from at least 1.5 cm to less than 10 cm, from at least 1.5 cm to less than 5 cm, from at least 1.5 cm to less than 3.0 cm, from at least 1.5 cm to less than 2.5 cm, from at least 1.75 cm to less than 10 cm, from at least 1.75 cm to less than 5 cm, from at least 1.75 cm to less than 3.0 cm, or from at least 1.75 cm to less than 2.5 cm.

In a preferred embodiment at least one pair of two bearing sections projects beyond the cooking section of the worktop plate, each of the two bearing sections projecting in an opposing direction. Particularly, a first bearing section may be provided projecting beyond the rear side of the cooking section of the

worktop plate, and a second bearing may be provided projecting beyond the frontal side of the cooking section of the worktop plate. Additionally, at least one lateral bearing section may be provided projecting beyond a lateral side of the cooking section of the worktop plate. Preferably at least one pair of two lateral bearing sections is provided projecting beyond the lateral sides of the cooking section of the worktop plate, each of the two bearing sections projecting in a different lateral direction. In an embodiment each and any from the frontal, the rear, and the lateral bearing sections may in its shortest dimension, e.g. a width and/or depth direction, be the same or different. Particularly, an opposing pair of bearing sections may be of the same dimension.

The bottom side of the bearing section thereby is directly or indirectly attached to the top side of the supporting plate, whereby the supporting plate may support the bearing section and thus the worktop plate may provide a supporting surface in the form of a counterpart bearing section, which preferably corresponds to the dimensions of the respective bearing section.

The bottom side of the bearing surface may be configured for being adhesively attached, *i.e.* bonded, to a top side of a supporting plate of the kitchen arrangement. Alternatively, however, the attachment of the bottom side of the bearing surface to the top side of a supporting plate may also be removable, for example, the bearing surface simply may be laid directly or indirectly onto a top side of the supporting plate of the kitchen arrangement. According to both alternatives, the bottom side of the bearing surface and/or the corresponding counterpart bearing section may comprise a sealing element, for example, a rubber sealing, preferably arranged aligned with at least a part of the edge of the bearing section. Preferably, such sealing element may be aligned with the entire edge of the bearing section, for

example, arranged circumferentially around the entire cut-out of the supporting plate.

In particular, the kitchen worktop arrangement of the present invention comprises a supporting plate, and, optionally, one or more additional worktop plates, arranged, in the fully assembled state, on the top side of the supporting plate, in a side-by-side arrangement, for example.

The one or more additional worktop plates may be attached with their bottom, *i.e.* lower, sides to the top side of the supporting plate. For the attachment, an adhesive, for example a glue, in particular a heat-resistant and/or moisture-resistant glue, maybe used.

In variants, the worktop plate may be configured as a single continuous plate, *e.g.* glass ceramic plate, comprising one or more cooking sections and one or more worktop sections implemented as countertops within a kitchen arrangement. Alternatively, at least one of the additional worktop plates may be formed as an integral part of the supporting plate. In a particular embodiment, at least two additional worktop plates are arranged each adjacent to one lateral side of the worktop plate. In such case the supporting plate may provide the counterpart bearing sections as a part of a, particularly the, cut-out, in to which the worktop plate is let in flush.

It is particularly preferred that the worktop plate is dimensioned such that each of its lateral side has a length substantially equal to the depth of the additional worktop plates. It is also particularly preferred that the worktop plate is dimensioned such that each of its lateral sides has a length substantially equal to the depth of the supporting plate. In a particularly preferred embodiment, the frontal edge surface of the

worktop plate is flush mounted with the frontal edge surface of at least one of the additional worktop plates, which thus form a common flush edge surface. In a further particularly preferred embodiment, the frontal edge surface of the worktop plate is flush mounted with the frontal edge surface of the supporting plate, which thus form a common flush edge surface. In a still further particularly preferred embodiment, the frontal edge surface of the worktop plate is flush mounted with the frontal edge surface of at least one of the additional worktop plates and the frontal edge surface of the supporting plate. In a further particularly preferred embodiment, the rear edge surface of the worktop plate is flush mounted with a rear edge surface of at least one of the additional worktop plates, which thus form a common flush rear edge surface. In a further particularly preferred embodiment, the rear edge surface of the worktop plate is flush mounted with the rear edge surface of the supporting plate, which thus form a common flush rear edge surface. In a still further particularly preferred embodiment, the rear edge surface of the worktop plate is flush mounted with the rear edge surface of at least one of the additional worktop plates and the rear edge surface of the supporting plate. These embodiments particularly allows for an elegant and uniform design, and further provides for flush and easy to clean surfaces. This particularly allows for an elegant and uniform design, and further provides for flush and easy to clean surfaces. Moreover, a person skilled in the art will immediately understand that according to such embodiments, the worktop plate's frontal and/or rear edge surface does not form a butt with an additional worktop plate. In a particularly preferred configuration neither the frontal nor the rear side edge of the worktop plate forms a butt with an additional worktop plate.

According to the present invention at least one mounting interface is secured at or to the bottom side of the glass ceramic

worktop plate within or in the area of the cooking section for releasable coupling one or more components of the hob assembly to the bottom side. For example, the mounting interfaces may be provided, *e.g.* attached, in particular directly attached, at or to a bottom side of the worktop plate in the region of the cooking section.

In an embodiment of the afore-mentioned general principle, the mounting interfaces may be implemented at or on a top section, *e.g.* an upper cover or bearing structure, of the hob assembly.

The mounting interfaces may be implemented, for example, to provide a slot-and-hook type locking interface.
The mounting interfaces may be provided on an extension, edge, and/or projection projecting from the bottom side of the worktop plate. The mounting interface may for example be implemented as a type of locking bracket, projecting, for example, perpendicularly from the bottom side, and/or being attached to the bottom side of the worktop plate by gluing, *e.g.* surface bonding.

In the embodiment under consideration, the one or more mounting interfaces may be configured for releasable coupling, *e.g.* mounting, in particular snap-mounting and/or snap-fit mounting, thereto one or more components of the hob assembly. For example, the one or more mounting interfaces may be adapted for mounting a top-section of the hob assembly and/or a bottom cover, lid, and/or casing of the hob assembly.

Particularly, a mounting interface may comprise a fastening element, for example a one-piece fastening element for a cooking hob as essentially described in EP 2144 009 A1. Particularly, such fastening element may comprise an upper portion being permanently connectable to an upper part of the cooking hob, and a lower portion being detachably connectable to a lower part of

the cooking hob, so that the upper part and the lower part of the cooking hob form the cooking hob. For example, the one or more mounting interfaces may be adapted for mounting a lower part of the hob assembly, particularly a bottom cover, lid, and/or casing of the hob assembly.

A releasable coupling within the meaning of the present invention may, in particular, be understood as a connection or coupling between two parts or components, such that the connection or coupling may be released by essentially non-destructive reversal of the connection process for establishing the releasable coupling. Further, releasable coupling in particular shall relate and embrace mounting and/or dismounting.

According to the present invention, providing the bearing surface projecting a predetermined distance beyond the cooking section of the worktop plate, it is possible to attach, e.g. lay or glue, the worktop plate onto a 2-dimensioal area located, for example, laterally adjacent to the cooking section, and/or in a rear and/or frontal region adjacent to the cooking section, to the supporting plate to thereby obtain a tight, in particular moisture-tight and/or humidity-tight connection.

Further, in the configuration as set forth above, but also below, flush-mounted worktop plates, *i.e.* surfaces, may be obtained, which may be a great improvement for avoiding soiling and dirt in gaps occurring between adjacent worktop plates. Also, the permeability for moisture, *e.g.* water, in a joint area involving neighbouring worktop plate may be reduced. Particularly, providing a butt or joint at the frontal and/or rear side edge of the worktop plate may advantageously be avoided.

Terms such as “lateral” or “laterally”, “rear”, “frontal”, “upper”, “lower”, “bottom”, “opposite” or the like, as used herein,

preferably refer to the relative position of a respective part or plate with regard to its position fully mounted for its intended use. The term “laterally”, for example, preferably refers to opposite sides and/or directions to opposite sides, in particular left- and right-handed sides and/or front and rear sides, relative to a user front side, *i.e.* the frontal side opposite to the rear side, of the worktop arrangement, in particular hob assembly, and/or cooking section. A user front side may be considered a side of the worktop arrangement, *e.g.* of the cooking hob, that faces the user of the worktop arrangement in the ordinary mounted state, and under ordinary use.

In a preferred embodiment, the at least one mounting interface is configured such that at least one component of the hob assembly is mountable and dismountable from the bottom side of the glass ceramic worktop plate. This advantageously allows that installation, service, maintenance and/or exchange of parts, is possible without the need for removing the worktop plate. Particularly, the hob assembly as a whole, a lower part of the hob assembly, particularly a bottom cover, lid, and/or casing of the hob assembly may advantageously easy be mountable and dismountable from the bottom side of the glass ceramic worktop plate. Accordingly, the mounting interface may be configured such that the one or more components of the hob assembly, for example a bottom-sided cover, or a lower part of a casing, for example open at the top, such as a one-sided open casing, and the like, or optionally the hob assembly as a whole, are accessible form a bottom side and can be both mounted and dismounted from the bottom side of the worktop arrangement.

Such a mounting option is for example of advantage for servicing and/or repair of the cooking hob, particularly in cases in which the worktop plate in the region of the bearing section is adhesively bonded to the supporting plate and thus cannot simply be

removed from above.

In a further advantageous embodiment the at least one mounting interface comprises at least one fastening element, and wherein each fastening element has a locking direction in parallel to the worktop plate, the locking direction being preferably oriented perpendicularly to an edge of the cut-out and/or perpendicularly to a side, preferably lateral side and/or frontal side, of the worktop plate. Such placement and configuration advantageously allows that upon servicing and/or repair of the cooking hob the mounting interface is readily accessible and operable, particularly from below.

Each of the mounting interfaces may correspond to a counterpart mounting interface implemented at a particular one of the one or more components of the hob assembly.

The one or more fastening elements may comprise snap-locking and/or slide-locking elements configured for mounting the at least one component in a push-to-lock movement. Dismounting may be obtained in a pull-to-unlock movement and/or by the use of a particular unlocking tool according to the present invention and preferably configured for disengaging the snap-locking and/or slide-locking element.

In embodiments, each of the fastening elements may have a locking direction running in parallel to the worktop plate, meaning for example, that the one or more components may be fixed in a direction perpendicular to the worktop plate.

The locking direction may be oriented perpendicularly to a circumferential edge of the cooking section and/or perpendicularly to a lateral side of the worktop plate.

Using such fastening elements may be advantageous for manually mounting or dismounting the one or more components of the hob assembly to or from the worktop plate from the bottom side of the worktop arrangement.

Also, a standardized locking interface may be obtained so as to be able to mount different types of cooking hobs, and/or to rapidly exchange a cooking hob in case of, for example, malfunction or defect according to demand.

In a further advantageous embodiment at least one fastening element is configured such that it is moveable from and/or can be transferred between a locking position to an unlocking position by manually engaging an unlocking tool according to the present invention with the fastening element.

Implementing such fastening elements may be of advantage in view of obtaining secure fastening of the one or more components at the bottom side of the worktop plate.

In a further advantageous embodiment the mounting element is configured and arranged such that the mounting element is engageable by the unlocking tool from the bottom side of the worktop arrangement, and wherein the engaging optionally requires pushing the unlocking tool in a direction towards the bottom side of the worktop plate to thereby engage the unlocking tool with the mounting element and to unlock the component from the mounting element. Particularly, the unlocking tool may be configured and implemented such that engaging the tool may require pushing the unlocking tool in a direction towards the bottom side of the worktop plate to thereby engage the unlocking tool with the mounting interface, and particularly the fastening element, and unlock the component from the mounting interface, particularly from the fastening element, for example with one or

more snap elements, and to thereby move the fastening element, *e.g.* an engagement element, locking element or similar, from the locking position to the unlocking position, for example.

Such implementations of the unlocking tool and corresponding fastening elements in particular are of advantage in case that the worktop plate is adhesively secured to the supporting plate, meaning that access to the cooking hob, for example, is not simply possible from the top side due to the adhesive bonded connection, but can only be accessed from the bottom side.

In a further advantageous embodiment, the mounting interface, preferably the at least one fastening element, comprises one or more spring loaded snap elements, preferably configured such that the engaging comprises passing over the snap element from the locking into the unlocking position by elastically deforming at least in part the at least one spring loaded snap element.

The one or more spring loaded snap element may be implemented such that the main direction of deformation required for transferring a respective snap element between the locking and the unlocking position is oriented essentially parallel to the worktop plate, and optionally perpendicular to a face side, in particular lateral face side, of the worktop arrangement, *e.g.* the worktop plate.

Using such snap elements may be advantageous for obtaining a tight and secure releasable mechanical connection that can easily and comparatively quickly be disengaged for dismounting the one or more components.

In a further advantageous embodiment, the cut-out is configured and arranged as a circumferentially closed recess of the sup-

porting plate, the recess being configured such that the hob assembly projects, in the mounted state, through or into the recess whilst being accessible from the bottom side. Thereby the circumference of the recess may substantially correspond to or be adapted to the circumference of the cooking hob assembly. For example, a rectangular cooking hob assembly may be arranged in a rectangular shaped cut-out.

In particular, the supporting plate may be configured to act at the same time as a carrier plate for absorbing mechanical loads acting on the worktop arrangement and as carrier plate, *e.g.* substrate, for the overlying class ceramic worktop plate or plates.

In an advantageous embodiment, the worktop plate projects a predetermined length beyond at least one of the sides of the cooking section, wherein at least one of the fastening elements is provided, such that in the ordinary mounted state of the cooking hob assembly, for at least one of the inner face sides of the cut-out, preferably for each one of the inner face sides, a predefined minimum distance to an adjacent side of a mounted hob assembly, preferably to the fastening elements, particularly to the snap elements, if present, is defined.

Thereby, the worktop plate may be particularly configured such that it projects a relatively large predetermined length beyond at least one circumferential, in particular lateral side, *i.e.* edge, of the cooking section, *e.g.* the section underneath which the cooking hob, having one or more hobs, may be installed. Particularly, the worktop plate may have a length of more than 0.5 m, preferably more than 0.75 m, more preferably more than 1.0 m, still more preferably more than 1.5m, most preferably more than 2.0 m. Particularly, the worktop plate may be configured such that it projects any desired predetermined

length beyond at least one circumferential, in particular lateral side of the cooking section. This particularly allows to provide a relatively big, continuous, even and uniform worktop surface. Particularly, the worktop plate may have a length, substantially equal to the length of the support plate.

Particularly, the kitchen worktop arrangement may be provided in form of a classical kitchenette usually placed adjacent to at least one wall of the kitchen, or alternatively as a free standing kitchen block. Particularly, in the form of a free standing kitchen block, the present invention allows that any side edge of the supporting plate is flush mounted with the side edges of the worktop plate, particularly the single worktop plate covering the entire support plate.

The projection of the worktop plate may be such that in the ordinary mounted state, *i.e.* in the state in which the bearing section is attached in an overlapping arrangement to the top side of the supporting plate, and in which the hob assembly may be releasable coupled to the one or more mounting interfaces, and projects through or into the cut-out, a predefined minimum distance to an adjacent side of the hob assembly, and/or to the fastening elements, and/or to the snap elements, is defined for at least one of the inner face sides of the cut-out recess, preferably for each one of the inner face sides.

The predefined minimum length may for example amount to one or more, or a couple of centimetres, *e.g. at least 2.5cm, at least* 5cm, *at least* 10cm, *at least* 20cm or more. In particular, such a minimum predefined length is suitable for providing a gap, *e.g.* circumferential gap, between face sides of the supporting plate, in particular face sides of the cut-out, and the circumference of the mounted cooking hob, sufficiently large to avoid interference with movements of fastening elements, *e.g.* locking

elements or snap-locking elements, between the locking and unlocking position.

In particular it is of advantage that the predetermined minimum length is such that the gap is sufficiently large to allow several consecutive actions of mounting and dismounting the one or more components without damaging and/or requiring replacement of the mounting interfaces, *e.g.* fastening elements.

In an advantageous embodiment, and as indicated above, the minimum distance may be defined such that it is possible to freely move the fastening element between its locking and unlocking position without interfering, in the locking and/or unlocking position, with the corresponding face side of the cut-out. In particular, a proper minimum distance W2, may be one or more centimetres, particularly at least 1.0 cm, preferably at least 1.5cm, more preferably at least 2.0cm, still more preferably at least 2.5cm, still more preferably at least 3.0 cm, most preferably at least 4.0cm.

In a further advantageous embodiments, the kitchen worktop arrangement further comprises at least one further worktop plate having a top side, and a bottom side averted from the top side, and also being attached with its bottom side to the top side of a supporting plate. Thereby, the top side of the worktop plate and the top side of the at least one further, i.e. second, worktop plate form a flush mounted working surface. Optionally, a gap or butt between the worktop plate and an adjacent second worktop plate is filled with a humidity-tight seal, for example, silicon.

In particular with such embodiments, the worktop plate comprising the cooking section may be implemented to overlap, *e.g.* fully overlap, the recess or cut-out accommodating the cooking

hob. With this, improved humidity tightness may be obtained.

Particularly preferred is that the worktop plate and the at least one further worktop plate may have the same, *i.e.* essentially the same, thickness measured perpendicular to the supporting plate.

The at least one further worktop plate may be secured, preferably adhesively secured, to the top side of the supporting plate, *e.g.* adjacent, in particular directly adjacent, to the worktop plate having the cooking section.

Particularly preferred are second worktop plates manufactured from ceramic glass, solid wood or stone.

In embodiments, the worktop plate and the at least one further worktop plate may be made from the same material. Alternatively preferred is that the at least one further worktop plate may be made from the same material as the supporting plate. According to a particular preferred embodiment the at least one further worktop plate is formed as an integral part of the supporting plate.

The supporting plate and/or the further worktop plate is preferably made from a swelling and/or moisture resistant material, for example solid wood or stone material.

The further worktop plate and the worktop plate provided in connection with the cooking hob may be flush-mounted to the supporting plate. Here, a smooth transition between the worktop plates may be obtained, implying for example easy-to-clean top surfaces.

In embodiments, the at least one mounting interface, preferably

of the fastening element is adhesively attached, i.e. adhesively bonded, to the bottom side of the worktop plate, *i.e.* the worktop plate comprising the cooking section.

Such adhesive attachments in particular allow comparatively easy assembly of the kitchen worktop arrangement, and beyond this enable the implementation of worktop arrangements having an essentially continuous, in particular flush-mounted, top, *i.e.* worktop, layer, for example made from glass, *e.g.* a continuous top worktop layer made from glass, *e.g.* ceramic glass.

The problem underlying the present invention is also solved by a method according to claim 13.

The method of the present invention is for assembling a kitchen worktop arrangement of the present invention and comprises at least the following steps:

a step a) of providing the supporting plate;

a step b) of providing the glass ceramic worktop plate;

a step c) of providing at least one mounting interface at the bottom side of the worktop plate, optionally comprising securing at least one mounting interface to the bottom side of the worktop plate by adhesive attachment;

a step d) of securing the bearing section of the worktop plate to the top side of the supporting plate at a counterpart bearing section; and

a step e) of releasable securing the one or more components of the hob assembly to the at least one mounting interface.

It shall be noted, that the steps given above do not necessarily have to be carried out in the given order. The provided steps may be carried out in any other suitable order.

However, the order as given above may apply for particular variants of the method. For example, securing the bearing section to the supporting plate may be performed prior to releasable secure the one or more components to the one or more mounting interfaces.

It will be immediately acknowledged by a person skilled in the art that a feature, effect or advantage described herein in connection with the inventive kitchen worktop arrangement, may also be a feature, effect or advantage of the inventive method, and vice versa.

The proposed method provides a possibility of assembling a worktop arrangement having a continuous upper working surface, *e.g.* including one or more flush-mounted worktop plates, which is favourable in view of cleaning properties, and provides the possibility of assembling a worktop arrangement in which the cooking hob assembly may optimally be shielded from humidity applied during use of the worktop arrangement to the top side of the worktop plate(s).

In embodiments of the method, the step e) of releasable securing the one or more components of the hob assembly to the at least one mounting interface further comprises

- engaging the at least one mounting interface with at least one of a counterpart mounting interfaces provided at the one or more components of the hob assembly by pushing the one or more components in a movement perpendicular towards the bottom side of the worktop plate to thereby engage the mounting interface/s and counterpart mounting interface(s).

In particular, such a push locking mounting option may be of advantage in cases where the worktop is intended for adhesive bonding to the supporting plate, and may be advantageous in case that the cooking hob needs to be serviced or exchanged.

The problems underlying the present invention is also solved by an unlocking tool according to claim 15. Said unlocking tool is for engagement with a fastening element of a worktop arrangement according to the present invention. The unlocking tool is configured to move the fastening element from and/or transfer the fastening element from a locking position to an unlocking position, and preferably configured for disengaging at least one spring loaded snap element. The unlocking tool is particularly useful as a supply part, being a product interrelated to the kitchen worktop arrangement according to the present invention and specifically complementing and working together with the kitchen worktop arrangement, particularly the mounting interface and/or fastening element.

The present invention will be described in further detail with reference to the drawings from which further features, embodiments and advantages may be taken, and in which:

FIG. 1A shows a schematic, perspective representation of a kitchen worktop arrangement according to a first inventive embodiment;

FIG. 1B shows a schematic, perspective representation of a kitchen worktop arrangement according to a second inventive embodiment;

FIG. 2 shows a cross sectional view along line A-A of Figs 1A or 1B;

FIG. 3 shows a detail of the cross sectional view of FIG. 2;

FIG. 4 shows a bottom view of a section of the worktop arrangement according to the first or second embodiment;

FIG. 5 shows an exemplary fastening element according to the first or second embodiment;

FIG. 6 shows a dismounting situation; and

FIG. 7 shows an unlocking tool according to the present invention.

In the embodiments shown in the figures, elements similar or identic in function are designated with like reference signs. It is noted, that the figures may not be true to scale with respect to each other.

The embodiments in the figures may relate to preferred embodiments, while all elements and features described in connection with embodiments may be used, as far as appropriate, in combination with any other embodiment and feature as discussed herein, in particular related to any other embodiment discussed further above.

Figures 1A and 1B show schematic, perspective representations of two particularly preferred embodiments of the inventive kitchen worktop arrangement 1. The kitchen worktop arrangement 1 comprises a glass ceramic worktop plate 3 having a top side 81, and a bottom side 82 averted from the top side 81. The plate 3 is attached with its bottom side 82 directly or indirectly to the top side of a supporting plate 2. The supporting plate 2 comprises at least one cut-out E, 16 for arranging a cooking hob assembly 7, which is arranged at the bottom side 82 of the plate 3 in a section of the cut-out E, 16. Thereby, the cooking hob assembly 7 defines at least one cooking section 6 of the glass ceramic worktop plate 3. As apparent from Figures 1A and 1B the cooking section 6 defined by the cooking hob assembly 7 is substantially smaller than the dimension of the cut-out E, 16.

The supporting plate 2 is preferably made from a swelling and/or moisture resistant material, for example solid wood or stone material.

The first embodiment shown in Fig. 1A differs from the second embodiment shown in Fig. 1B in that in Fig. 1A a single worktop plate 3 is provided over the entire length of the supporting plate 2, whereas in Fig. 1B two second worktop plates 4 are provided. In other words, the worktop plate according to Fig. 1A is configured as a single continuous plate 3, *e.g.* glass ceramic plate. The worktop plates 3 and/or 4 are attached with their bottom sides to the top side of the supporting plate 2. Particularly in case of second worktop plates 4, such attachment may be an adhesive attachment. Additionally or alternatively, and particularly in case of plate 3, the attachment may comprise a sealing element, for example, a rubber sealing, preferably arranged aligned with at least a part of the edge of the bearing section and/or cut-out E, 16. Regarding an embodiment as shown in Fig. 1B, such sealing element may be aligned with the entire edge of the bearing section 10, for example, arranged circumferentially around the entire cut-out 16 of the supporting plate 2.

The presently shown embodiments are provided in the form of a classical kitchenette adjacent to at least one wall of the kitchen. It will, however, be immediately understood that the present invention is also advantageously applicable to other forms of kitchen worktop arrangements, particularly in the form of kitchen blocks. In the presently shown embodiments, an optional back wall 5 is provided, that may for example be made from the same or different material as the first and/or second worktop plate(s) 3, 4. Particularly, the back wall 5 may be made of glass material, *e.g.* a ceramic glass material. This particularly allows providing a harmonious design of the entire kitchen

worktop arrangement 11, however, more importantly allows for providing a kitchen worktop arrangement 1 having an entirely easy to clean surface.

The worktop plates 3, 4 are also preferably made from a swelling and/or moisture resistant material. Particularly, the worktop plates 3, 4 can be made of glass ceramic material, wherein the second worktop plates 4 may also be made from a different material than glass, *e.g.* stone, metal and/or wood. If wood is used as material of the worktop plates 4 and/or the supporting plate 2, solid wood is preferred. Particularly, wood having a cheap quality and having a low swelling and/or moisture resistance, for example, chip or particle boards, are avoided.

The first worktop plate 3 in the present example is made from a ceramic glass material because beneath the first worktop plate 3 a cooking hob assembly 7 is provided, which is indicated in Figs 1A and 1B by a dashed line. The glass ceramic material al lows heating cooking vessels positioned on the top side of the first worktop plate 3.

In general, other materials than glass may be envisaged as far as they allow heating of the vessels through the first worktop plate 3. In so far, mentioning glass ceramic shall not be restrictive, and this term shall be considered as disclosing and comprising any material suitable for heating cooking vessels positioned on the top side of the first worktop plate 3 by a cooking hob 7 positioned underneath the first worktop plate 3.

Underneath the cooking section 6, a cooking hob assembly 7, *e.g.* a cooking hob 7, is provided such that cookware placed on the top side 81 of the first worktop plate 3, within for example one of the cooking zones 9 of the cooking hob assembly 7, can be heated for the preparation of food or similar.

The first worktop plate 3 comprises at least one bearing section 10 projecting beyond the cooking section 6, and particularly the edge of the cut-out E, of the worktop plate 3. The bottom side of the bearing section 10 is attached to the top side of the supporting plate 2. This attachment may be permanently, for example, adhesive, as explained above with regard to the plate 3 as such. However, alternatively the worktop plate 3 simply may be laid on the supporting plate 2 with its bearing section 10, or otherwise loosely or detachably connected. A sealing element provided between the supporting plate 2 and the worktop plate 3, may be particularly arranged in or at the bearing surface 10. The bearing section 10 in Figures 1A and 1B is marked by shading.

Back (B) and frontal (F) sections of the first worktop plate 3 projecting over the cooking section 6 and/or the cut-out E, 16 may also be used as bearing sections 10 attachment to the supporting plate 2. Additionally or alternatively, lateral sections (L) of the first worktop plate 3 projecting over the cooking section 6 and/or the cut-out E, 16 may also be used as bearing sections 10.

In view of this, and under consideration of the embodiments shown in Figs 1A and 1B, a bearing section 10 extending circumferentially to the cooking section 6 may be provided. This circumferential bearing section 10 may be used to attach the first worktop plate 3 to the top side of the supporting plate 2 to thereby obtain a tight, and in particular humidity-tight, connection between the first worktop plate 3 and the supporting plate 2 avoiding moisture creeping in between the worktop plate 3 and supporting plate 2, *e.g.* towards the cooking hob assembly 7.

As immediately apparent from Fig. 1B, the second worktop plates 4 may be attached to the supporting plate 2 by, *e.g.* full-surface adhesive bonding, in a flush-mounting arrangement with the first worktop plate 2, *i.e.* worktop plate.

Gaps 11 remaining between the worktop plates 3 and 4 may be filed with a humidity tight seal to thereby obtain a closed, continuous and humidity-tight worktop plate 3, 4 allowing, for example, easy cleaning and having improved antibacterial properties in particular in view of debris accommodating in the gaps 11.

Thereby, as also apparent from Figs. 1A and 1B, it is particularly preferred that the worktop plate 3 is dimensioned such that each of its lateral side (L) has a length substantially equal to the depth x of the entire worktop space, and particularly the additional worktop plates 4. Thereby, the worktop plates 3 and 4 are dimensioned such that each of its lateral sides L has a length substantially equal to the depth x of the supporting plate 2. In a particularly preferred embodiment, the frontal edge surface 83 of the worktop plate 3 is flush mounted with the frontal edge surfaces 41 of the additional worktop plates 4 and with the frontal edge surface 21 of the supporting plate 2, which thus form a common flush edge surface. As also particularly seen from Figs. 1A and 1B, the rear edge surface of the worktop plate 3 may be flush mounted with a rear edge surface of at least one of the additional worktop plates 4 and the rear edge surface of the supporting plate 2, which thus form a common flush rear edge surface R. As a result of such configuration and arrangement, the worktop plate's 3 frontal 83 and rear edge surface does not form a butt with an additional worktop plate 4.

Referring now to FIG. 2 and 3, showing a cross sectional view along line A-A in Figs 1A or 1B, and a detail of the cross sectional view of FIG. 2, respectively, the attachment of the cooking hob assembly 7 to the first worktop plate 3 and supporting plate 2 will be described in more detail.

As can be inferred from FIG. 2 and FIG. 3, several mounting interfaces 12 are secured at or to the bottom side 82 of the first worktop plate 3 within or in the area of the cooking section 6.

The several, e.g. two, three, four or more, mounting interfaces 12 are configured for releasable coupling thereto one or more components of the cooking hob assembly 7. For example, a bottom cover, *e.g.* in the form of a bottom housing, or even the whole cooking hob assembly 7, may be implemented for releasable attachment to the mounting interfaces 12.

The mounting interfaces 12 may for example be provided at four opposing sides of the cooking section 6, and the cooking hob assembly 7, respectively. However, other arrangements and numbers of mounting interfaces 12 may be envisaged.

For example there may be provided only two mounting interfaces 12 at lateral sides L (*cf.* FIG. 1) of the cooking section 6.

In embodiments, mounting interfaces 12 may, *e.g.* additionally or alternatively, be provided at the rear side R and/or front side F of the cooking section, as may for example be inferred from FIG. 2. Any other combination and arrangement of mounting interfaces may be provided.

As can be inferred in particular from a combined view of FIG. 2 and FIG. 3, the mounting interfaces 12 are configured such that the one or more components of the hob assembly 7, *e.g.* at least

a bottom-sided cover, such as a one-sided open casing, or the hob assembly 7 as a whole, are mountable and dismountable from the bottom side, which is indicated by a double arrow in FIG. 2.

The mounting interface 12 comprises one or more fastening elements also referenced with reference sign 12, wherein each of the fastening elements 12 has a locking direction D (*cf.* FIG. 3) in parallel to the first worktop plate 3.

The locking direction D in the present embodiment is oriented perpendicularly to a circumferential edge E of the cut-out 16 and perpendicularly to a frontal side F of the first worktop plate 3.

The fastening elements 12 in the present example embodiment are implemented such that they can be transferred between a locking position to an unlocking position by manually engaging an unlocking tool 13 with the fastening element 12.

An exemplary fastening element 12 and unlocking tool 13 will be described in more detail in connection with FIG. 5 to FIG. 7 below.

The fastening element 12 is configured such that engaging the unlocking tool 13 with the fastening element 12 may be obtained by pushing the unlocking tool 12 into the fastening element 12 from the bottom side of the worktop arrangement 1 towards the bottom side of the first worktop plate 3, which is indicated in FIG. 2 and FIG.3 by corresponding arrows.

In the unlocking process, one or more spring loaded snap elements 14, 19, 20, 23 (see FIG. 5) of the fastening element 12, are passed over, i.e. transferred, from the locking into the unlocking position by elastically deforming at least in part one

or more of the corresponding spring loaded snap element(s) 14, 19, 20, 23.

In the present embodiment, engaging the unlocking tool 13 causes the snap elements 14, 23 to move outwards with regard to the cooking section 6, *i.e.* towards a corresponding face side 15 of the supporting plate 2.

In order to obtain proper operability of the fastening elements 12 and snap elements 14, and in order to avoid interference between the fastening elements 12, snap elements 14, and unlocking tool 13 during operation, the first worktop plate 3 projects a predetermined length W1, *e.g.* a predefined minimum length, beyond the circumferential sides R, F, L of the cooking section 6, where one of the fastening elements 12 is provided such that in the ordinary mounted state, as shown in FIG. 2 and FIG. 3, for example, a predefined minimum distance W2 between a corresponding inner face side 15 of the supporting plate 2 and an adjacent side of the cooking hob assembly 7, and/or an adjacent fastening element 12, and/or the spring loaded snap element 14, 23 is defined.

By this, easy mounting and dismounting of the cooking hob assembly 7 or parts thereof secured by the mounting interface 12 is enabled without undue complication due to possible restrictions imposed by adjacent sections of the supporting plate 2.

In particular, selecting a proper minimum distance W2, *e.g.* one or more centimetres, particularly at least 1.0 cm, preferably at least 1.5cm, more preferably at least 2.0cm, still more preferably at least 2.5cm, still more preferably at least 3.0 cm, most preferably at least 4.0cm, the snap elements 14 can be transferred between the locking and unlocking position without inter-

ference with the supporting plate 2 thereby enabling free locking and unlocking operations.

Reference is now made to FIG. 4 showing a bottom view of a section of the worktop arrangement 1. As can be inferred from FIG. 4, a recess 16 is provided in the supporting plate 2 into which the cooking hob assembly 7 projects in the ordinary mounted state.

A circumferential gap 17 is established between the face sides 15 of the recess 16 and the cooking hob assembly 7, the fastening elements 12, and/or the mounting interfaces 12, such that the cooking hob assembly 7 can be mounted and dismounted from the kitchen worktop arrangement 1 from the bottom side, in a comparatively easy, quick, and straightforward way, greatly reducing the work effort required.

Beyond that, because the first worktop plate 3 sufficiently extends beyond the cooking section 6, attachment of the first cooktop plate 3 to the supporting plate 2 is efficient in obtaining humidity tight seal between the bottom side and the top side of the worktop plates 3, 4, even in case that several worktop plates 3, 4, as is the case with the exemplary embodiment of Fig. 1B, are positioned next to each other.

Reference is now made to FIG. 5 to FIG. 7 showing an exemplary fastening element 12, a dismounting situation, and an exemplary unlocking tool 13, i.e. a dismounting tool.

The fastening element 12 comprises a mounting surface 18 by which the fastening element 12 may for example be adhesively attached to the bottom side 82 of the first worktop plate 3.

Perpendicular to the mounting surface 18 a snap projection 19 comprising a snap nose 20 is provided for engaging a corresponding snap recess 21 provided at a wall section 22 or at or on a corresponding flange section of the component to be snap connected.

Further, on both sides of the snap projection 19, a spring projection 23 is provided that also project perpendicular from the mounting surface 18 to the same direction as the snap projection 19.

The snap projection 19 and spring projections 23 are provided such that the wall section 22 of the component to be secured can be inserted there between such that the spring projections 23 urge the wall section towards the snap projection 19 such that the snap recess 21 is penetrated by the snap projection 19, and snap-fitted thereto.

Unlocking the snap-connection between the snap projection 19 and the snap recess 21 may comprise, as is shown in FIG. 6, entering the unlocking tool 13 into the fastening element 12 such that on each lateral side of the snap nose 20, a tooth 24 (see also FIG. 7) is inserted in between the wall section 22 and the snap projection 19. As apparent from FIG. 7 an unlocking tool 13 according to the present invention is configured for engagement with a fastening element 12 of a worktop arrangement 1 according to the present invention, and particularly configured to move the fastening element 12 from and/or transfer the fastening element 12 from a locking position to an unlocking position, and preferably configured for disengaging at least one spring loaded snap element 14, 19, 20, 23.

By this, the wall section is urged away from the snap projection 19 against the action of the spring projections 23 which are

urged outwardly. Upon full insertion of the unlocking tool 13, the snap recess 21 and snap nose 20 no longer engage, and the wall section 22 can be pushed away from the fastening element 12 to thereby remove the component by lowering the component.

Mounting the component may be obtained by urging the wall section 22 into the gap between the snap nose 20 and the snap recess 21 of the fastening element 12 to thereby engage the snap nose 19 into the snap recess 21.

Due to the fact, that the circumferential gap 17 is sufficiently large, interference between for example the spring projections 23 and the face sides 15 of the supporting plate 2, and interference between the unlocking tool 13 and the supporting plate 2 can be greatly be avoided, thereby easing at least dismounting the component, *e.g.* the cooking hob assembly 7, from the bottom side.

An exemplary method of assembling the kitchen worktop assembly 1 may comprise the following steps:

a step a) of providing the supporting plate (2);
a step b) of providing the glass ceramic worktop plate (3);
a step c) of providing at least one mounting interface (12) at the bottom side (82) of the worktop plate (3), optionally comprising securing at least one mounting interface (12) to the bottom side (82) of the worktop plate (3) by adhesive attachment;
a step d) of securing the bearing section (10) of the worktop plate (3) to the top side (81) of the supporting plate (2) at a counterpart bearing section (10’); and

a step e) of releasable securing the one or more components (7, 22) of the hob assembly (7) to the at least one mounting interface (12).

Engaging the one or more counterpart mounting interfaces, e.g. the snap recesses 21, provided at the one or more components, *e.g.* wall section 22, with mating counterpart mounting interfaces, *e.g.* the snap noses 20, may be obtained, as in the exemplary embodiment shown in connection with the figures, by pushing the one or more components in a movement perpendicular towards the bottom side of the first worktop plate 3 to thereby engage the mounting interface/s 21 and counterpart mounting interface/s 20

The features of the present invention disclosed in the specification, the claims and/or the figures may both separately and in any combination thereof be material for realizing the invention in various forms thereof.

In all, and in particular in view of the exemplary embodiments shown and described in connection with the figures, it can be seen, that the underlying problem is solved by the solution as proposed herein.

List of reference numerals

1. Kitchen worktop arrangement
2. Supporting plate
21. Frontal edge of supporting plate
3. First worktop plate
4. Second worktop plates
41. Frontal edge of second worktop plates
5. Back wall
6. Cooking section
7. Cooking hob assembly
81. Top side
82. Bottom side
83. Frontal edge of first worktop plate
9. Cooking zone
10. Bearing section
11. Gap
12. Mounting interface, fastening elements
13. Unlocking tool
14. Spring loaded snap element
15. Face side
16. Recess
17. Circumferential gap
18. Mounting surface
19. Snap projection
20. Snap nose
21. Snap recess
22. Wall section
23. Spring projection
24. Tooth

D locking direction
E circumferential edge of cutout
F front side
L lateral side
R rear side

x depth of worktop plate
W1 predefined length
W2 minimum distance

Claims

1. A kitchen worktop arrangement (1), comprising
   - a glass ceramic worktop plate (3) having a top side (81), and a bottom side (82) averted from the top side (81), and being attached with its bottom side (82) to the top side of a supporting plate (2);
   - the supporting plate (2) comprising at least one cut-out (E) for arranging a cooking hob assembly (7),
   - the cooking hob assembly (7) being arranged at the bottom side (82) of the glass ceramic worktop plate (3) in a section of the cut-out (E), the cooking hob assembly (7) defining a cooking section (6) of the glass ceramic work-top plate (3),

   wherein the worktop plate (3) comprises at least one bearing section (10) projecting beyond the cooking section (6) of the worktop plate (3), the bottom side of the bearing section (10) being attached to the top side of the supporting plate (2); and

   wherein at least one mounting interface (12) is secured at or to the bottom side (82) of the glass ceramic worktop plate (3) within or in the area of the cooking section (6) for releasable coupling one or more components (7, 22) of the hob assembly (7) to the bottom side (82).

2. The kitchen worktop arrangement (1) according to claim 1, wherein the at least one mounting interface (12) is configured such that at least one component (7, 22) of the hob assembly (7) is mountable and dismountable from the bottom side (82) of the glass ceramic worktop plate (3).

3. The kitchen worktop arrangement (1) according to claim 1 or 2, wherein the at least one mounting interface (12) comprises at least one fastening element (12), and wherein each fastening element (12) has a locking direction (D) in parallel to the worktop plate (3), the locking direction (D) being preferably oriented perpendicularly to an edge of the cut-out (E) and/or perpendicularly to a side (R, F, L), preferably lateral side (L) and/or frontal side (F), of the worktop plate (3).

4. The kitchen worktop arrangement (1) according to claim 3, wherein the at least one fastening element (12) is configured such that it is moveable from and/or can be transferred between a locking position to an unlocking position by manually engaging an unlocking tool (13) with the fastening element (12).

5. The kitchen worktop arrangement (1) according to any one of claims 1 to 4, wherein the mounting element (12) is configured and arranged such that the mounting element (12) is engageable by the unlocking tool (13) from the bottom side of the worktop arrangement (1), and wherein the engaging optionally requires pushing the unlocking tool (13) in a direction towards the bottom side (82) of the worktop plate (3) to thereby engage the unlocking tool (13) with the mounting element (12) and to unlock the component from the mounting element (12).

6. The kitchen worktop arrangement (1) according to any one of claims 1 to 5, wherein the mounting interface (12), preferably the at least one fastening element (12), comprises one or more spring loaded snap elements (14, 19, 20, 23), preferably configured such that the engaging comprises passing over the snap element (14, 19, 20, 23) from the locking into the unlocking position by elastically deforming at least in part the at least one spring loaded snap element (14, 19, 20, 23).

7. The kitchen worktop arrangement (1) according to any one of claims 1 to 6, wherein the cut-out (E) is a circumferentially closed recess (16) of the supporting plate (2), the recess (16) being configured such that the hob assembly (7) projects, in the mounted state, through or into the recess (16) whilst being accessible from the bottom side.

8. The kitchen worktop arrangement (1) according to any one of claims 1 to 7, wherein the worktop plate (3) projects a predetermined length (W1) beyond at least one of the sides (R, F, L) of the cooking section (6),

wherein at least one of fastening elements (12) is provided, such that in the ordinary mounted state of the cooking hob assembly (7), for at least one of the inner face sides (15) of the cut-out (E, 16), preferably for each one of the inner face sides (15), a predefined minimum distance (W2) to an adjacent side of a mounted hob assembly (7), preferably to the fastening elements (12), particularly to the snap elements (14, 19, 20, 23), if present, is defined.

9. The kitchen worktop arrangement (1) according to claim 8, wherein the minimum distance (W2) is defined such that the fastening element (12) can be freely moved between its locking and unlocking position without interfering, in the locking and/or unlocking position, with the corresponding inner face side (15) of the cut-out (E, 16).

10. The kitchen worktop arrangement (1) according to any one of claims 1 to 11, further comprising at least one further worktop plate (4) having a top side, and a bottom side averted from the top side (81), and being attached with its bottom side to the top side of a supporting plate (2);

wherein the top side (81) of the worktop plate (3) and the top side of the at least one further worktop plate (4) form a flush mounted working surface (3, 4);

and wherein, optionally, a gap (11) between the worktop plate (3) and an adjacent further worktop plate (4) is filled with a humidity-tight seal.

11. The kitchen worktop arrangement (1) according to claim 10, wherein the at least one further worktop plate (4) is formed as an integral part of the supporting plate (2).

12. The kitchen worktop arrangement (1) according to any one of claims 1 to 11, wherein the at least one mounting interface (12), preferably of the fastening element (12) is adhesively bonded to the bottom side (82) of the worktop plate (3).

13. A method for assembling a kitchen worktop arrangement (1) according to any one of claims 1 to 12, wherein the method comprises at least the following steps:

a step a) of providing the supporting plate (2);

a step b) of providing the glass ceramic worktop plate (3);

a step c) of providing at least one mounting interface (12) at the bottom side (82) of the worktop plate (3), optionally comprising securing at least one mounting interface (12) to the bottom side (82) of the worktop plate (3) by adhesive attachment;

a step d) of securing the bearing section (10) of the worktop plate (3) to the top side (81) of the supporting plate (2) at a counterpart bearing section (10');

and

a step e) of releasable securing the one or more components (7, 22) of the hob assembly (7) to the at least one mounting interface (12).

14. The method according to claim 13, wherein the step e) of releasable securing the one or more components (7, 22) of the hob assembly (7) to the at least one mounting interface (12) further comprises

- engaging the at least one mounting interface (12) with at least one of a counterpart mounting interfaces (21) provided at the one or more components (7, 22) of the hob assembly by pushing the one or more components (7, 22) in a movement perpendicular towards the bottom side (81) of the worktop plate (3) to thereby engage the mounting interface/s (12) and counterpart mounting interface/s (21).

15. An unlocking tool (13) for engagement with a fastening element (12) of a worktop arrangement (1) according to any one of claims 1 to 12, configured to move the fastening element (12) from and/or transfer the fastening element (12) from a locking position to an unlocking position, and preferably configured for disengaging at least one spring loaded snap element (14, 19, 20, 23).

FIG 1A

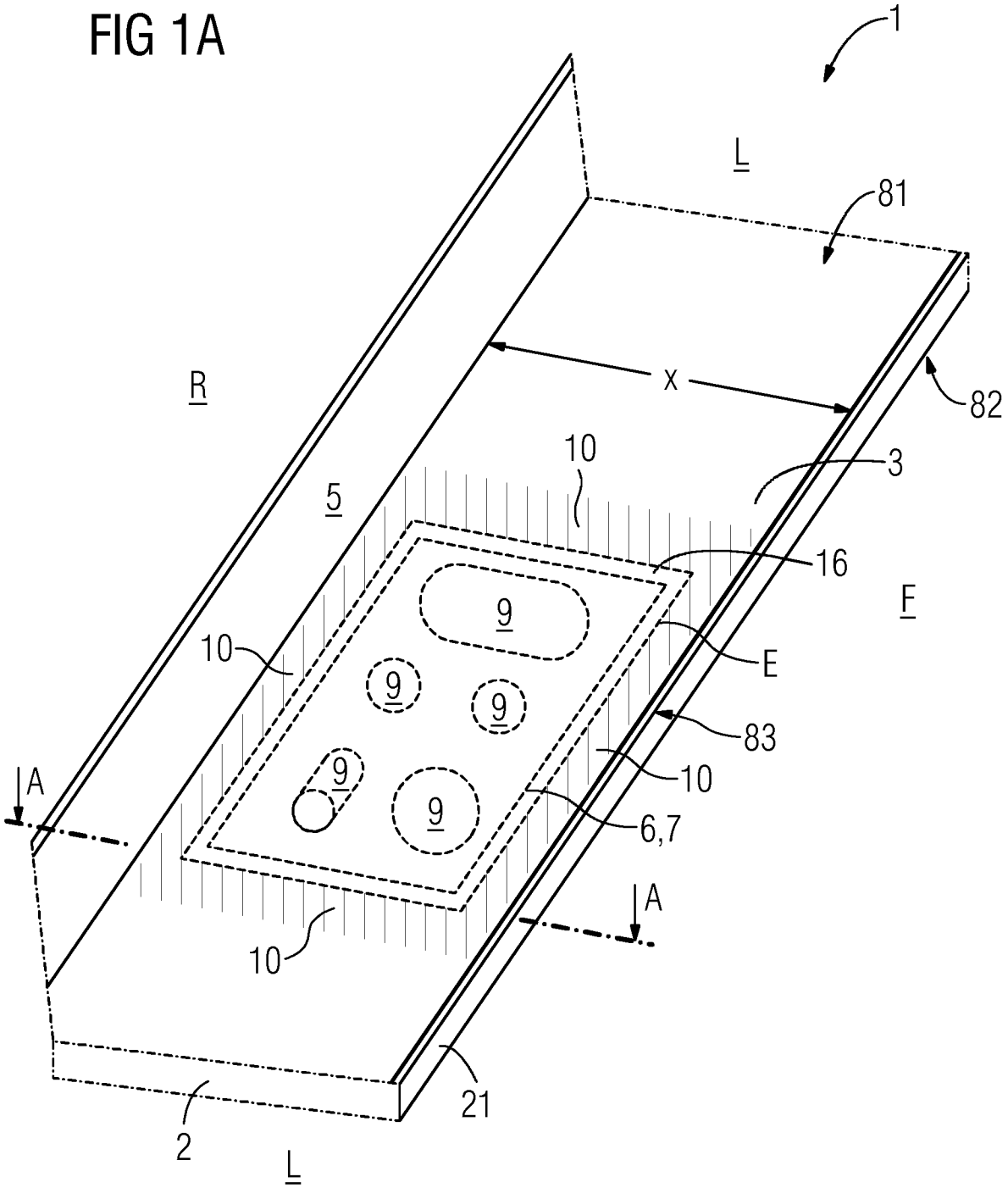
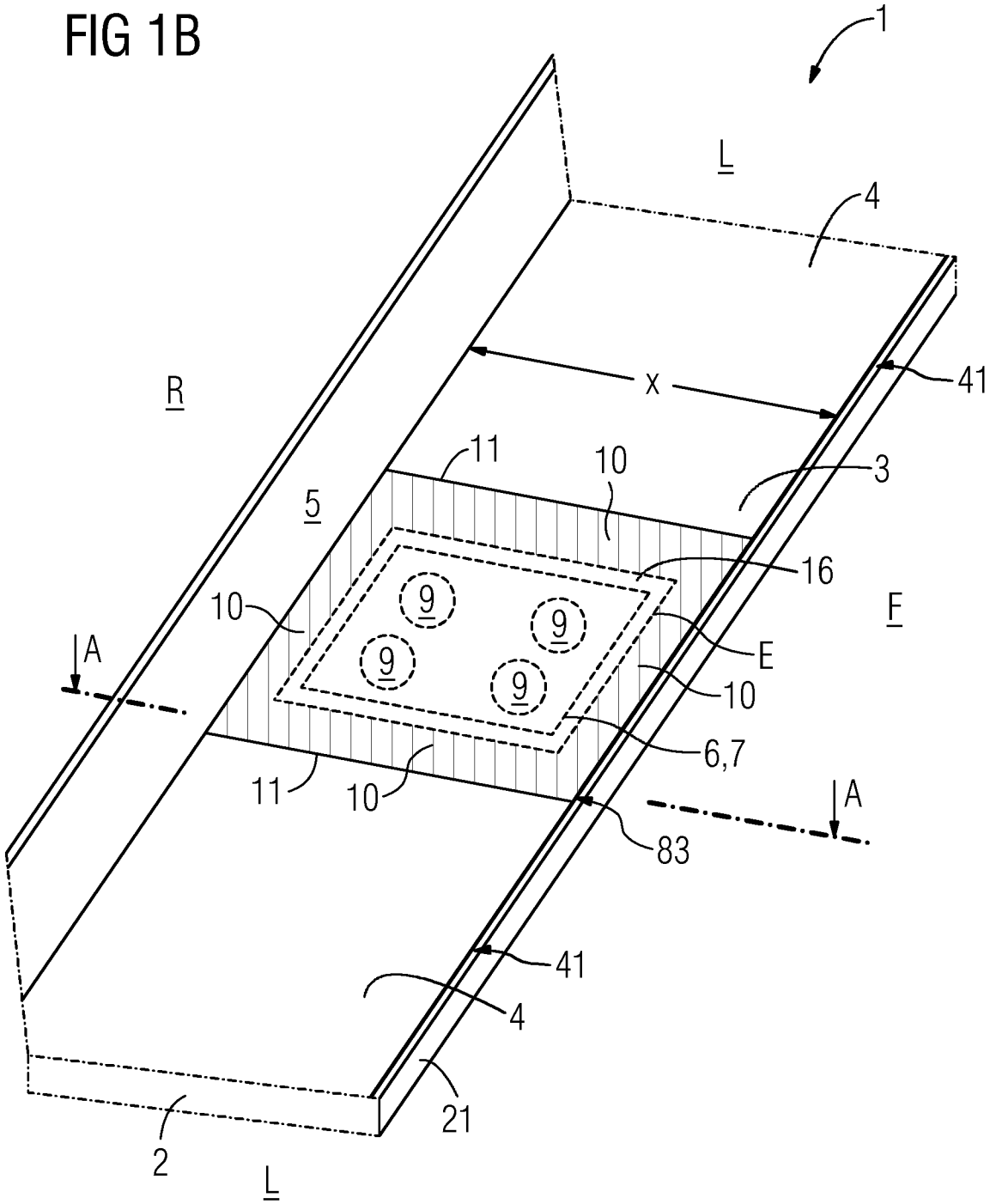


FIG 1B



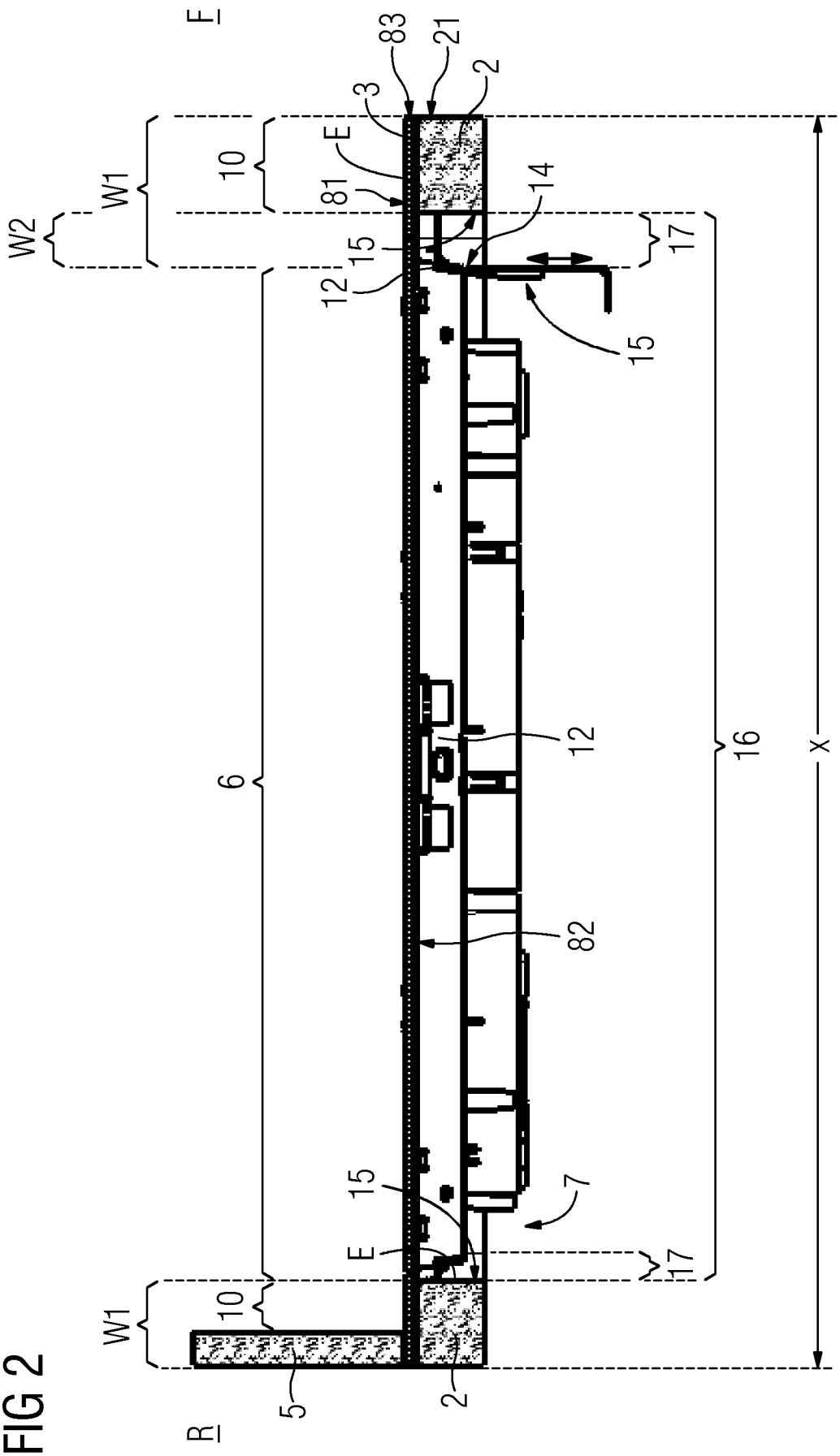
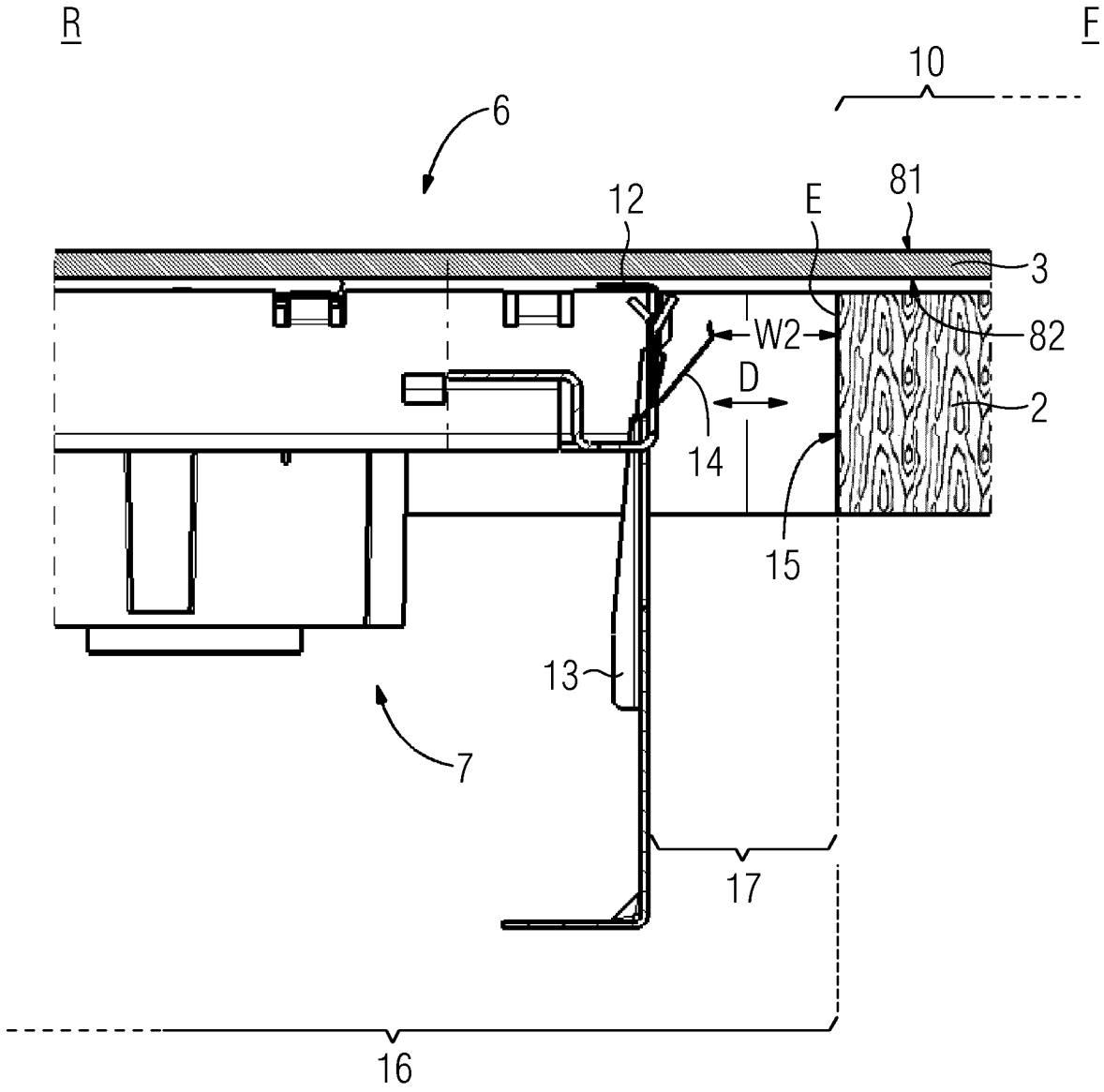


FIG 2

FIG 3



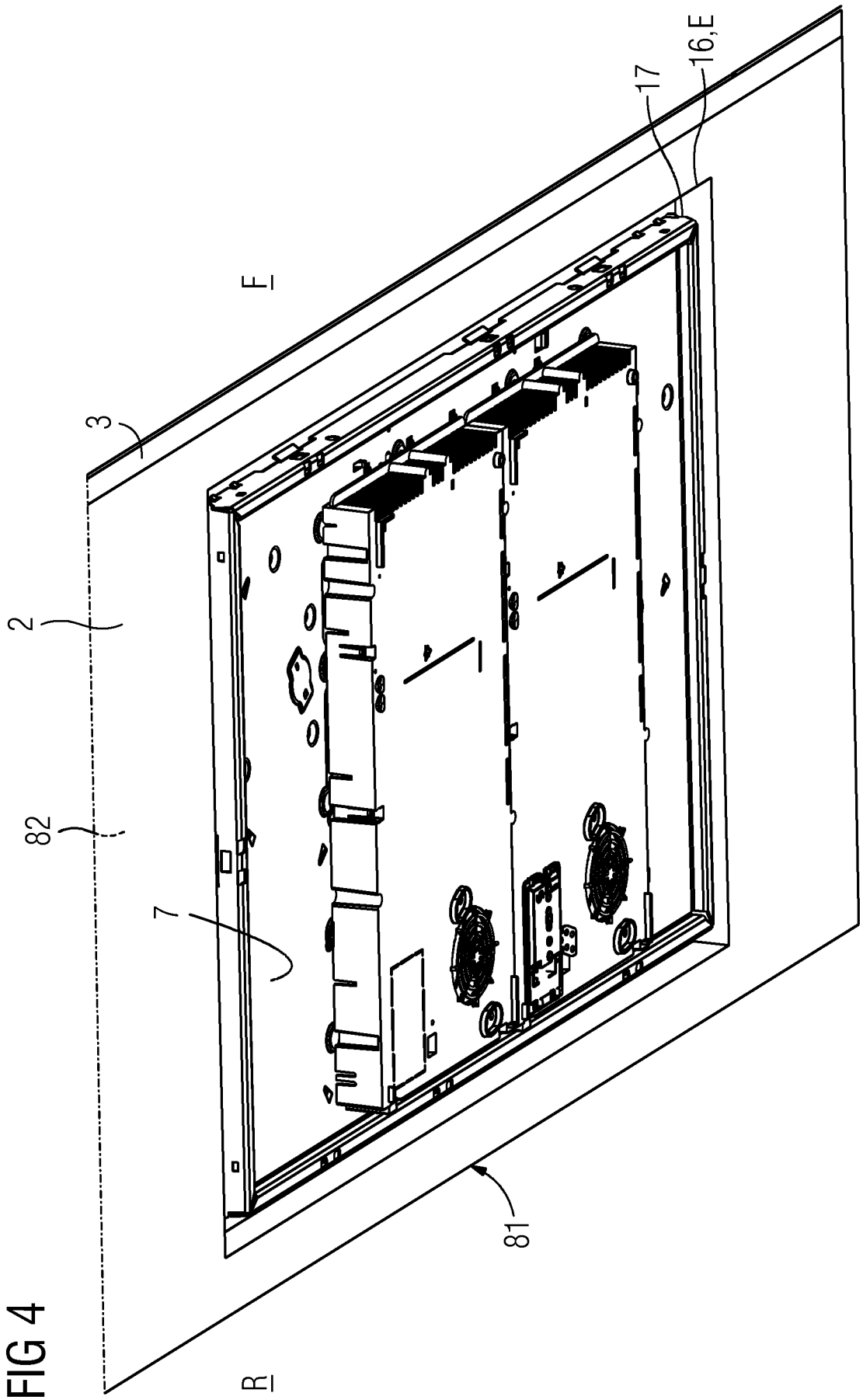


FIG 4

FIG 5

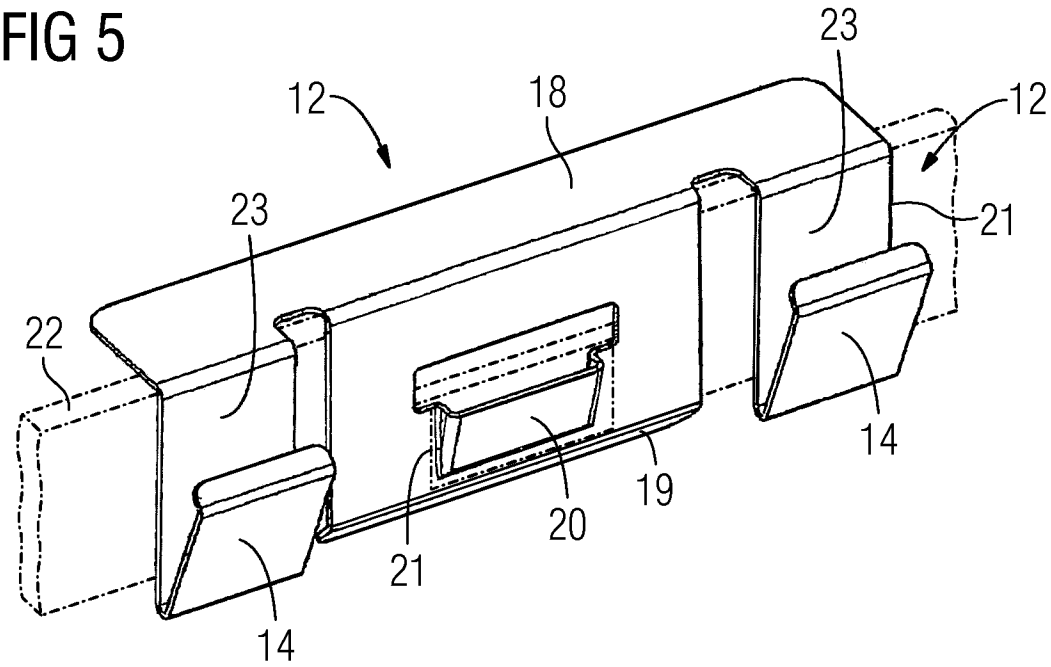


FIG 6

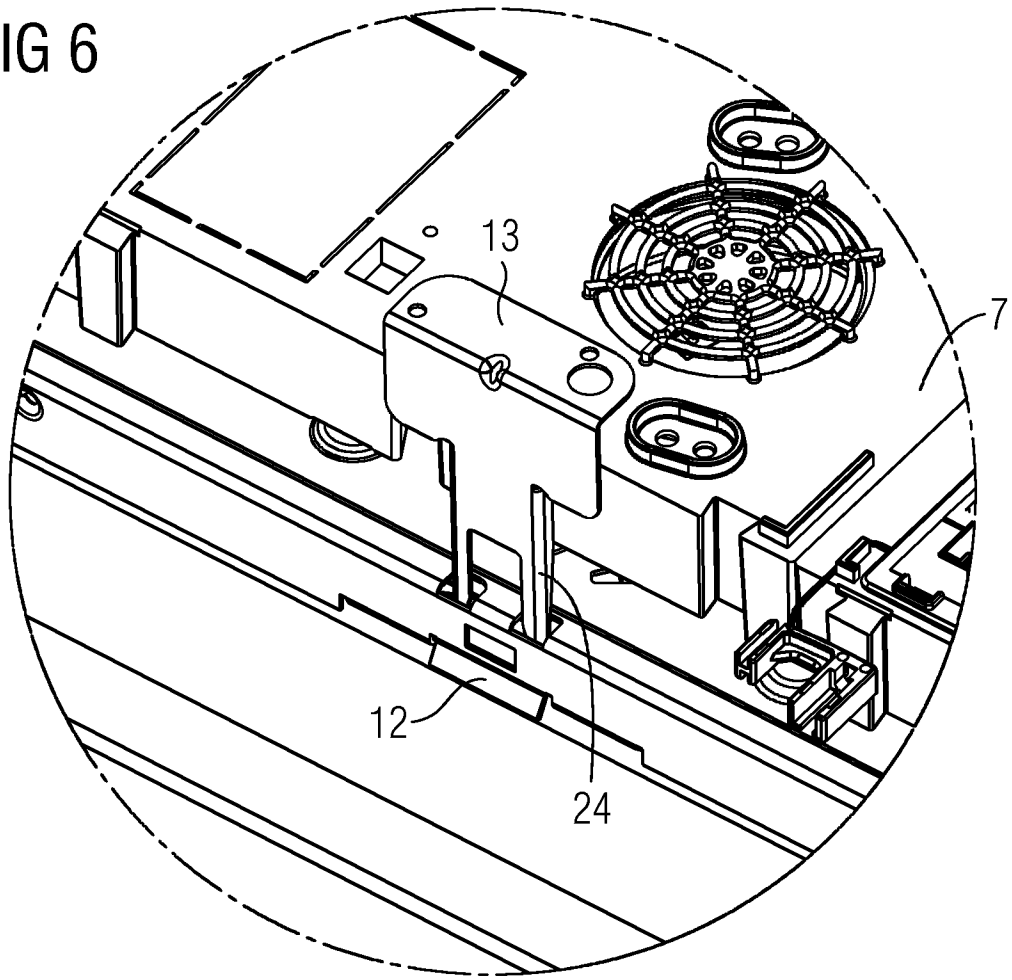
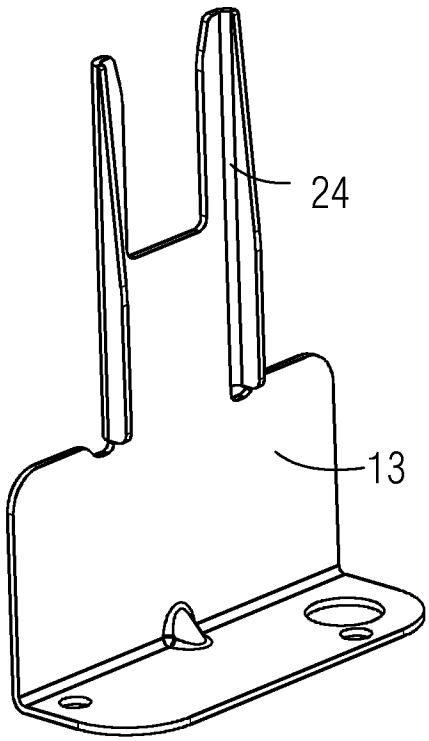


FIG 7



INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2017/057069

A. CLASSIFICATION OF SUBJECT MATTER
INV. F24C15/10
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
F24C B25B H05B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 2 144 009 A1 (ELECTROLUX HOME PROD CORP [BE]) 13 January 2010 (2010-01-13) cited in the application figures 1-5	1-14
Y	EP 2 546 576 A1 (BSH BOSCH SIEMENS HAUSGERAETE [DE]) 16 January 2013 (2013-01-16) paragraph [0017]; figure 2	1-14
X	US 687 401 A (MORSE CHARLES M [US]) 26 November 1901 (1901-11-26) figure 1	15
A	EP 2 602 556 A2 (BSH BOSCH SIEMENS HAUSGERAETE [DE]) 12 June 2013 (2013-06-12) figure 5	1-14

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[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
17 May 2017	23/05/2017

Name and mailing address of the ISA/	Authorized officer
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INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2017/057069

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 2 602 555 A2 (BSH BOSCH SIEMENS HAUSGERAETE [DE]) 12 June 2013 (2013-06-12) figures 2-4 -----	1-14
A	EP 2 099 257 A2 (BSH BOSCH SIEMENS HAUSGERAETE [DE]) 9 September 2009 (2009-09-09) figure 2 -----	1-14

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Form PCT/ISA/210 (continuation of second sheet) (April 2005)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/EP2017/057069

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 2144009 A1	13-01-2010	AT 471490 T	15-07-2010
		AU 2009267457 A1	14-01-2010
		CA 2729838 A1	14-01-2010
		CN 102066844 A	18-05-2011
		EP 2144009 A1	13-01-2010
		US 2011100350 A1	05-05-2011
		WO 2010003554 A1	14-01-2010
EP 2546576 A1	16-01-2013	EP 2546576 A1	16-01-2013
		ES 2396493 A1	21-02-2013
US 687401 A	26-11-1901	NONE	
EP 2602556 A2	12-06-2013	NONE	
EP 2602555 A2	12-06-2013	NONE	
EP 2099257 A2	09-09-2009	EP 2099257 A2	09-09-2009
		ES 1067491 U	16-05-2008