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(54) **Dishwashing machine base and dishwashing machine**

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Base pour lave-vaisselle et lave-vaisselle

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Description

Field of the invention

[0001] The present invention relates to the dishwashing machines in general, with particular reference to the so-called "free-standing machines". The invention has been developed to improve the subject of the ergonomic use of dishwashing machines.

Background art

[0002] The most common used dishwashing machines include a washtub within which are housed two sliding baskets to hold the crockery, an upper basket and a lower one. The inside of the washtub is easily accessed through a front door that is hinged at the lower region of a stationary structure of the machine to be angularly displaceable about a substantially horizontal axis between a generally vertical position of closing and a generally horizontal position of opening.

[0003] When the door is open the baskets can be extracted from the washtub for the loading and unloading operations of the crockery. Generally, the upper basket of the machine has lateral wheels engaged in relative sliding guides - usually telescopic wheels - operatively associated to the lateral walls of the washtub. The lower basket is also usually provided with lateral wheels, able to slide in relative rolling surfaces defined directly in the bottom of the washtub, or in a transition region between the bottom and the side walls of the washtub, at a substantially height corresponding to the height of the inner surface of the front door when it is in the substantially horizontal opened position. In substance, therefore, the lower basket is extracted from the washtub by its rolling wheels first on the rolling surfaces of the washtub and then on the inner surface of the door up to the position of the crockery loading /unloading.

[0004] These dishwashers are built to be placed directly on the floor of the home environment and have substantially standardized sizes. Typically, in case of free-standing machines, the overall sizes are approximately about 85 cm in height, about 60 cm wide and about 60 cm of depth or length while in case of portable dishwashing machine such dimensions are slightly lower, approximately 82 cm in height, approximately 59.5 cm in width and about 57 cm in depth or length. Are also known dishwashers with reduced lateral sizes whose width is approximately between 44.5 and 45 cm. The number of place settings that can be washed in a dishwasher is usually from ten to fourteen.

[0005] In these dishwashers the upper basket is located at a relative height from the floor which is generally comprised between 55 and 63 cm. The lower basket is instead at a relatively small height from the floor, indicatively comprised between 28 and 32 cm. It is evident, therefore, that the loading and unloading of the crockery, particularly with reference to the lower basket, are gen-

erally uncomfortable operations from the ergonomic point of view, because they require repeated legs and/or back exercises. This problem affects particularly aged people.

[0006] Small size dishwashing machines are also known for washing up generally a maximum of six place settings that do not have the just above highlighted problem being so "small" to be directly arranged on the work flat of a kitchen.

[0007] Bases or pedestals have been proposed with the aim of raising the device from the floor of the front-loading machines for the treatment of textile garments, such as washing machines or washerdryers, in order to simplify, from the ergonomic point of view, the operations of loading/unloading garments from the machine. Sometime the base is a compartment having a front opening which contain a sliding drawer that is movable between a retracted position and an extracted position.

[0008] In said drawer can be stored various kinds of objects, such as packages or containers of washing agents, or the same garments to be washed. Bases for washing machines for the treatment of textile garments with front loading can be found for example in DE 19 83 8630 A1, DE 9419048 U, DE 3212527 A1, DE 20302572 U, EP1462562 A1.

Summary and object of the invention

[0009] In the light of the above mentioned embodiment, one aim of the present invention is both realize a dishwasher machine base having more and perfected functions from the point of view of both its ergonomic use and its applications. A connected aim of the embodiment is to state a dishwashing machine including above base or, a combination machine - base, when the base is not an integral part of the dishwashing machine. A subsidiary aim of the invention is to realize a dishwashing machine designed for a possible application in combination with a base.

[0010] One or more above mentioned aims are achieved according to the present invention with a base and a dishwashing-machine having the characteristics of the attached claims. The claims form an integral part of the technical teaching provided herein with reference to the invention.

Brief Description of the Drawings

[0011] The features and the advantages of the present invention will emerge from the following detailed description and from the attached figures, which are provided purely by way of non limiting example and in which:

- Figure 1-4 are schematic, prospective views of a base according to the invention, in combination with a dishwashing-machine, in different conditions of use;
- Figure 5, 6 are schematic, prospective views of a

base according to a second embodiment of the invention, in combination with a dishwashing-machine, in different conditions of use; and
- Figure 7 is a schematic, prospective view of a dishwashing-machine, according to a particular feature of the invention, in combination with a base.

Detailed description of the embodiments of the invention

[0012] The reference to "one embodiment" in the context of this description is intended to indicate that a particular configuration, structure or characteristic described in relation with the invention is included in at least one embodiment.

[0013] Hence, phrases such as "in one embodiment" and similar that may be present in different points of this description, do not necessarily refer to the same embodiment of this invention. Furthermore, particular conformations, structures, or characteristics may be combined in any adequate way in one or more embodiments, also different from those shown. The references used herein are for convenience only and therefore do not define the scope of protection or the scope of the embodiments.

[0014] Furthermore, the dishwashing-machine is described below limited to the elements necessary to the understanding of the invention, assuming that the dishwashing-machine itself, includes all other components normally known and necessary for its operation.

[0015] With particular reference to Figures 1 and 2, with 1 is shown in the whole a dishwashing-machine like the one indicated in the introductory part of the present description, and in particular a free-standing dishwasher. The dishwasher 1 has structure and functionality generally known, which will not be described in detail. With reference to the illustrated embodiment, it is here sufficient to explain that the dishwasher 1 has a stationary structure 2 with a washtub 3, in which are housed an upper basket 4 and a lower basket 5. Is possible to remove and insert the baskets 4 and 5 with respect to the washtub 3 according to known feature, for example as described in the description introduction. In a preferred embodiment, the overall sizes of the dishwasher 1 (width W, height H and length or depth L) are the same already mentioned in the introduction of the present description.

[0016] The dishwashing machine 1 has a front door 6, to access to the washtub 3 and consequently to the baskets 4 and 5, that is hinged at a lower region of a stationary structure 2 of the machine 1, to be angularly displaceable about a substantially horizontal axis between a generally vertical position of closure, like in Fig. 1 and a generally horizontal position of opening, like in Fig. 2. As said, in the open position of the door 6, the lower basket 5 can slide with its wheels, not shown in Figures, on the inner surface of the door (the so-called inner door): in Figure 2 the lower basket 5 is schematically represented indeed in an extracted position from the washtub 3, resting on the inner side of the door 6.

[0017] The dishwasher 1 is installed on a base, according to the present invention, indicated on the whole by 10.

[0018] In one embodiment the dishwasher is simply placed on a top-wall 11 of the base 10 on which top are defined appropriated slots designed to partially receive standard adjustable dishwasher feet. In a different embodiment are provided specific means, of any known concept, to fasten the stationary structure of the dishwasher 1 to the base 10, such as screws and nuts to be used in place of the said feet, which engage corresponding holes provided in the top wall 11 of the base 10.

[0019] The base 10 has a strong enough structure to withstand the maximum weight of the dishwasher 1 in operative condition (for example with maximum loads of crockery and water). In a preferred embodiment, the supporting structure of the base 10 is built with metallic material.

[0020] In a preferred embodiment the base 10 has a width dimension W normally sized to support a dishwasher 1, for example, of a width L indicatively comprised between 59.5 and 60 cm. Preferably, also the depth or length L of the base 10 is dimensioned for a dishwasher 1 size, for example, approximately comprised between 56.5 and 60 cm. It is evident, therefore, that the width L of the base 10 has the same size of the door width of a common free-standing floor dishwasher like the one here shown with 1. The height of the base 10 can be, for example, approximately comprised between 25 and 37 cm.

[0021] The base 10 has a front passage 12 and is entirely hollow inside, in order to define a housing - not visible - for at least one movable support structure, generally designated with 20. In the installed condition, the base 10 supports the dishwasher 1, with its front passage 12 which is located below the front door 6 of the dishwasher 1.

[0022] The movable support structure 20 is constrained to the base 10 to be displaceable through the front passage 12 and is capable to assume an operative and inoperative position, as visible in Fig 1-2 and 4, respectively. In the inoperative position, the movable support structure 20, is substantially inside the housing, and in the operative position, the movable support structure 20 is at least in part outside of the housing. As later better explained, according to the main invention characteristics, the base 10 and the movable support structure 20, are configured so that when the structure 20 is in its operative position, at least a part of the movable support structure 20 protrudes laterally beyond the width dimension (W) of the base 10, particularly to be accessible from an user also when the front door 6 of the dishwashing machine 1 is in its respective opening position substantially horizontal. The operating position of the support structure 20 is visible in Figure 4. More particularly, in the exemplified embodiment in Figures 1-4, the support structure 20 comprises a first part of the structure 20a, which is constrained to the base 10 in order to slide substantially linearly through the front passage 12, between respective retracted (Figures 1 and 2) and extracted (fig-

ures 3 and 4) positions. The first part of the structure 20a, which is configured in the example as a sliding drawer, supports in a guided way the second part of the structure, indicated with 20b, which can transversely move respect to the first part of the structure 20a when the first part of structure 20a is in its respective extracted position respect to its housing on the base 10. In the illustrated embodiment, also the second part of the structure 20b, is configured substantially in a sliding drawer and is movable in a direction generally perpendicular to the direction of movements of the first part of the structure 20a.

[0023] Comparing the figures 3 and 4 it is possible to notice how, in this embodiment, the second part of the structure 20b is displaceable between a respective retracted position (Figure 3) and a respective extracted one (Figure 4) with respect to the first part of structure 20a, when this last is extracted from the housing of the base 10.

[0024] As clearly visible in Figure 4, in its extracted position, the second part of the structure 20b protrudes laterally beyond the width dimension W of the base 10, beyond of the first part of the structure 20a and beyond the front door 6 of the dishwasher 1.

[0025] The first part of the structure 20a is here exemplified in a sliding drawer having a structure substantially box-shaped, preferably opened upwardly; however this is not essential for the purposes of the invention implementation: what matters is, in fact, that the first part of the structure 20a is arranged in order to be able to be extracted and retracted respect to its relative housing of the base and support the second part of the structure 20b. At most, therefore, the first part of the structure might simply include an horizontal base which moves in a linear way respect to the housing of the base, and on which base is supported the second part of the structure which moves transversally; for a such case, the above horizontal base is also preferably associated with a vertical front wall in order to close the front passage 12 of the base 10 when the first part of the structure 20a is in its retracted position. Same considerations are also valid for the second part of the structure 20a, which is here exemplified in a sliding drawer, that is an upwardly opened box-shape structure, which can fulfill functions of container: more generally, the second part of the structure 20b can be structured to exploit a support function for generic items, and in this case it may comprise a metal sheet not necessarily configured as a drawer.

[0026] The means to fix the first part of the structure 20a to the base 10 may be of any known type, for example, common linear guides cooperating between the external longitudinal side of the part of the structure 20a and the internal sidewalls of the base 10, like the guide means usually used to constrain the linear sliding drawers with possible rolling elements. The same applies to the guide means used to constrain the second part of the structure 20b to the first one 20a: in one embodiment, these guide means may be operatively assembled between the bottom of the part 20a and the bottom of the

part 20b.

[0027] In a particularly, advantageous embodiment of the invention the second part of the structure 20b can be completely displaceable between its respective retracted position and a first extracted position in corresponding of a first longitudinal side of the first part of the structure 20a and is moreover displaceable between its respective retracted position and a second extracted position in corresponding of a second longitudinal side of the first part of the structure 20a. A such solution is exemplified in Figure 4, where with the solid line, in the second part of the structure 20b, is represented in its first extracted position, while with the dashed line is represented its second extracted position. This feature is particularly advantageous for a user, both in view of a flexible installation of the dishwashing machine 1 and the base 10 (suppose a case in which the devices are in the household environment close to a wall: the structure part 20b can be extracted in correspondence with the opposite side of the wall).

[0028] The advantages of the invention are evident in Figure 4. First of all the base 10 allows to raise from the floor the dishwasher 1 ensuring itself the user a general improvement of the ergonomic use of machine 1. The ergonomic advantages are further increased thanks to the possibility, allowed by the invention, to have access directly to the support structures 20 when the machine 1 is in its operative position, even despite a concurrent condition of the opening position of the door 6 of the machine. In this context, in a particularly advantageous embodiment, the structure 20, and in particular its part 20b, fulfills functions of container - or of support of a separate container - for the so-called wet-waste, and in particular garbage. As known, before being placed in the baskets of a dishwasher, from the crockery should be removed the residues of food: this operation can be performed directly at a kitchen sink, when this device is provided with a waste disposal unit, or using a garbage can or other container used for the collecting of wet-waste.

[0029] In the case of present invention, when the dishes are ready to be loaded in the dishwasher 1, the machine's user does not have to do anything but carry the support structure 20 in the operating position of Figure 4, before opening the door 6 and extract the interested basket 4 or 5. As seen, in this operating position the part of the structure 20b is freely accessible from above, laterally to the door 6, and therefore convenient to dump directly the eventual food scraps from the crockery. As mentioned, for this purpose, it's not strictly necessary that the second part of the structure 20b is configured as a drawer, being able the same to include a simple frame for the support of a plastic bag or similar adapted to receive the wet waste.

[0030] Once loaded the dishwasher, the baskets 4 and 5 can be pushed inside the washtub 3 and the front door 6 closed. The parts 20a and 20b can be then positioned in sequence, in their respective retracted positions, in the conditions shown in Figure 1.

[0031] In one embodiment like the illustrated one, the drawer of the second part of the structure 20b has a containment volume less than the useful volume of the drawer of the first part of the structure 20a. The difference in volume between the two parts in question can advantageously be used to contain some frequently used items, particularly articles to use in combination with the dishwasher 1, such as packages of washing agents (liquid or powder detergent, soaps, regeneration salt, conditioner). Obviously nothing prevents to foresee also more second parts of the structure 20b, for example with drawers to be opened transversely on one side or both sides of the structure 20a, for example one for the wet waste and another one for different items, such as those mentioned above.

[0032] In its exemplified embodiment the base 10 is configured as a distinct part respect to the support structure or cabinet 2 of the dishwasher 1, but in a different embodiment, not shown, the base 10 with its relative, movable, support structure 20 is integrated in said cabinet. In a such case, for example, the dishwasher machine base can also advantageously serve as a multi-purpose container for some operational components of the dishwasher (a drain pump or a water conditioner), in a space not occupied by the support structure 20 when this is in its inoperative position.

[0033] Figures 5 and 6 illustrate a second embodiment of the invention, wherein the support structure associated with the base 10 comprises at least one swivel structure 20' which is articulated to the base 10 to perform at least one rotational movement about a substantially vertical axis, during the passage between the respective inoperative and operative positions. In this case, also, like seen in Fig. 6 when the swivel structure 20' is in its operative extracted position, the same structure protrudes laterally beyond the width dimension W of the base and the door 6 of the dishwasher 1. The swivel structure 20', which is here configured like an angularly movable drawer, particularly with a plan profile substantially in the shape of a circular sector and can be fixed in a guided way to the base 10 by a hinge of known conception, for example a hinge to a fixed fulcrum or pivot hinge movable, such as a hinge with roto-translational motion.

[0034] In the example of Figures 5 and 6, the base 10 includes two different swivel structures 20', each of which is articulated to the base 10 substantially in correspondence with its respective longitudinal side of this last, in its front area, with the two structures 20' openable towards the two opposite sides of the door 6, one with clockwise rotation and the other one with a counterclockwise rotation. Such embodiment of structure 20' can be used to receive the wet waste and the other structure 20' to contain various items particularly to be used in combination with the dishwasher 1, as already exemplified above. It is also possible to provide a single rotatable structure 20' larger in place of the two illustrated, openable in order to protrude only by one side of the door 6.

[0035] When actuating the invention, to the structure

parts 20a 20b and /or to each rotatable structure 20' are operatively associated switchable devices for open/close operations, configured to maintain the same parts in inoperative or retracted position and allow with manual control the passage in extracted or operative position, like the already known push-push devices; eventually the opening movement of the parts in question can be facilitated by the presence of springs or other items of mechanical energy accumulators. The parts 20a, 20b and/or 20' are preferably provided with suitable gripping items, here schematically represented with, non shown, front handles.

[0036] As previously mentioned, in one embodiment the base 10 is configured as a distinct part respect to the cabinet of the dishwasher 1: such a base can then be combined with a normally intended dishwasher installed directly on the floor of a generic environment household.

[0037] According to a further aspect inventive in itself, is provided a dishwashing machine specifically designed for being used in combination with a base, not necessarily a base 10 of the type previously described.

[0038] Normally the sewerage drain for household appliances (such as a wall attachment or associated with the pipe of a sink), are arranged at a height that requires making the drain pipe of a dishwasher in order to form a handle to a height average of between 40 and 80 cm from the floor.

[0039] The presence of a base, however, has the effect of raising the whole dishwasher and the bottom of the relative washtub, to a quote approximately between 25 and 37 cm: in this situation, with a normal dishwasher, the handle of the drain pipe have to be at a height relatively close to the attack of the sewerage. This condition can cause siphoning during the machine operations. More particularly, it may happen that, at a loading of water in the washtub during a washing program, more or less important sewers depressions, caused for example by concomitant drains, performed by other household devices or sanitary, may occur. These depressions can drain the water already loaded in the washtub also in absence of activation of the dishwasher pump drain.

[0040] In order to avoid this kind of events, according to the above consideration autonomously inventive, a dishwasher is provided with an anti-siphoning arrangement, namely used when it is installed onto a support structure. But, when the dishwasher is installed directly onto the floor, the above arrangement is not used and its discharge hose can be arranged in the common way. In a preferred embodiment, the above anti-siphoning arrangement is equipped with a system to fasten the discharge hose to the cabinet where it is installed.

[0041] An example is shown in Figure 7, where the dishwasher 1 is installed on a generic support structure 10, not necessarily the same as the one described before. As usual, the dishwasher 1 has the discharge hose 7 linked to the related connection 8a on the back 8 of the machine, in the lower region.

[0042] The anti-siphoning arrangement includes an in-

terstice, generally vertical oriented, defined substantially between a lateral wall 2a of the cabinet 2 and the back 8 of the machine 1. For this purpose the said edge of the back is then turned down substantially like an "L" in order to be generally exposed in correspondence to a vertical recess of the back 8, not visible in the figure. The arrangement includes also an exit passage 9 for the discharge hose 7, such a passage being defined in an upper region of the lateral wall 2a, generally closed to back 8. The interstice defined between the lateral wall 2a and the back 8 extends in height between the lower region of back 8 and the said upper region of the lateral wall 2a, where the passage 9 is. When the dishwasher 1 must be installed on a base 10, afterwards, the discharge hose 7 is forced to pass through the mentioned interstice and to come out through passage 9, in a way where - in the installed condition of the machine - in correspondence to passage 9, the hose 7 results in a curving upstream of its exit edge 7a. This arrangement allows avoiding siphoning risks. Passage 9 can be considered on both the lateral walls 2a of cabinet 2, whose back 8 is equipped with 2 vertical nooks, each one in correspondence to the back edge of the two walls 2a.

[0043] The passage (or passages) 9 could be closed by the related cap (or caps), or it (or they) could be partially pre-formed in the walls 2a, for instance by means of localized circular weakening of the walls themselves, that can be opened just in case of need.

[0044] As per the above descriptions, the invention's main characteristics, as well as their advantages, are clear, namely represented by an improvement of the ergonomics of the dishwasher's use, and by the extended possibilities of using a related base. It is clear that the base and the dishwasher described in the previous sections for exemplification purposes can be subjected to numerous variants by a man skilled in the art without departing from the scopes of the invention as defined in the attached claims

[0045] For instance, considering the configurations described in the Figures 1-4, the second part of structure 20b can be swivel along a vertical axis, like the case of structure 20' in Figure 6. Of course, on the same part of structure 20' multiple swivel structures can be provided, or a combination with a sliding structure (like the 20b) and a swivel one (like the 20').

Claims

1. A dishwashing machine (1) with a washtub (3) and a front door (6) to have access to the washtub (3), the front door (6) having a width dimension (W) and being hinged at a lower region thereof to a stationary structure (2) of the machine (1), to be angularly displaceable about a substantially horizontal axis between a generally vertical position of closure and a generally horizontal position of opening, wherein the machine (1) has a base (10) having a

width dimension (W), a height dimension (H) and a length dimension (L), the base (10) defining a housing for at least one movable support structure (20; 20') and having a front passage (12) underneath the front door (6), the movable support structure (20; 20') being constrained to the base (10) to be displaceable through the front passage (12) and being capable to assume an inoperative position, in which the movable support structure (20; 20') is substantially inside of the housing, and an operative position, in which the movable support structure (20; 20') is at least partly outside the housing,

characterised in that the base (10) and the movable support structure (20; 20') are configured in such a way that, in its operative position, the movable support structure (20; 20') protrudes laterally beyond the width dimension (W) of the base (10) and beyond the width dimension (W) of the front door (6), to be accessible by a user also when the front door (6) of the dishwashing machine (1) is in the respective substantially horizontal position of opening.

2. The dishwashing machine according to claim 1, wherein the movable support structure (20) comprises a first part of structure (20a) slidable substantially linearly through the front passage (12) between respective retracted and extracted positions with respect to the housing, the first part of structure (20a) supporting in a guided way a second part of structure (20b) which displaceable transversally with respect to the first part of structure (20a) when the first part of structure (20a) is in the respective extracted position with respect to the housing, the second part of structure (20b) being displaceable between a respective retracted position and a respective extracted position with respect to the first part of structure (20a), in its extracted position the second part of structure (20a) protruding laterally beyond the width dimension (W) of the base (20) and beyond a width dimension of the first part of structure (20a).

3. The dishwashing machine according to claim 1, wherein the support structure comprises at least one swivel structure (20') which is articulated to the base (10) to perform at least one rotation movement about a substantially vertical axis, during the passage between the respective inoperative and operative positions, in its operative position the swivel structure (20) protruding laterally beyond the width dimension (W) of the base (10).

4. The dishwashing machine according to claim 2, wherein the second part of structure (20b) is constrained to the first part of structure (20a) to be slidable substantially linearly between the respective retracted and extracted positions with respect to the first part of structure (20a).

5. The dishwashing machine according to claim 4, wherein the second part of structure (20b) is displaceable between the respective retracted position and a first extracted position at a first longitudinal side of the first part of structure (20a) and is displaceable between the respective retracted position and a second extracted position at a second longitudinal side of the first part of structure (20a) which is opposite to the first longitudinal side.
6. The dishwashing machine according to claim 3, comprising one first said swivel structure (20') and one second said swivel structure (20'), each of which is articulated to the base (10) substantially at a respective longitudinal side of the base.
7. The dishwashing machine according to any one of the preceding claims, wherein the movable support structure (20) comprises a structure substantially configured as a slidable drawer (20a, 20b).
8. The dishwashing machine according to any one of the preceding claims, wherein the movable support structure (20; 20') comprises a structure substantially configured as an angularly movable drawer (20').
9. The dishwashing machine according to claim 2 or claim 5, wherein the second part of structure (20b) comprises a structure substantially configured as a slidable drawer.
10. The dishwashing machine according to any one of the preceding claims, **characterized in that** is defined by a cabinet (2) of the dishwashing machine (1).
11. The dishwashing machine according to any one of claims 1 to 10, **characterized in that** it is configured as a distinct part with respect to a cabinet (2) of the dishwashing machine (1).
12. The dishwashing machine according to claim 1, comprising a cabinet (2) and a discharge hose (7) that extends from a back (8) of the machine (1), wherein the machine (1) also comprises an anti-siphoning arrangement, including means for constraining an intermediate region of the of the discharge hose (7) to the cabinet (2).
13. The dishwashing machine according to claim 12, wherein the anti-siphoning arrangement includes an interstice, defined substantially between a lateral wall (2a) of the cabinet (2) and the back (8) of the machine (1), and an exit passage (9) for the discharge hose (7) defined in an upper region of said lateral wall (2a) which is proximate to the back (8) of the machine (1), the interstice extending in height at least between a lower region of the back (8) of the machine (1) and said upper region of said lateral wall

(2a).

Patentansprüche

1. Geschirrspülmaschine (1) mit einer Waschwanne (3) und einer Vordertür (6), um Zugang zu der Waschwanne (3) zu haben, wobei die Vordertür (6) eine Breitenabmessung (W) aufweist und an einem unteren Bereich davon an einer stationären Struktur (2) der Maschine (1) gelenkig angebracht ist, um zwischen einer im wesentlichen vertikalen Schließstellung und einer im wesentlichen horizontalen Öffnungsstellung um eine im wesentlichen horizontale Achse winklig verlagerbar zu sein, wobei die Maschine (1) eine Basis (10) aufweist, welche eine Breitenabmessung (W), eine Höhenabmessung (H) und eine Längenabmessung (L) aufweist, wobei die Basis (10) ein Gehäuse für wenigstens eine bewegliche Stützstruktur (20; 20') definiert und unterhalb der Vordertür (6) einen vorderen Durchlass (12) aufweist, wobei die bewegliche Stützstruktur (20; 20') so an der Basis (10) gehalten ist, dass sie durch den vorderen Durchlass (12) verlagerbar ist und dazu in der Lage ist, eine Ruhestellung, in welcher sich die bewegliche Stützstruktur (20; 20') im wesentlichen in dem Gehäuse befindet, sowie eine Betriebsstellung einzunehmen, in welcher sich die bewegliche Stützstruktur (20; 20') wenigstens teilweise außerhalb des Gehäuses befindet, **dadurch gekennzeichnet, dass** die Basis (10) und die bewegliche Stützstruktur (20; 20') in einer solchen Weise ausgebildet sind, dass die bewegliche Stützstruktur (20; 20') in ihrer Betriebsstellung seitlich über die Breitenabmessung (W) der Basis (10) und über die Breitenabmessung (W) der Vordertür (6) herausragt, so dass sie einem Benutzer zugänglich ist, auch wenn sich die Vordertür (6) der Geschirrspülmaschine (1) in der jeweiligen im wesentlichen horizontalen Öffnungsstellung befindet.
2. Geschirrspülmaschine nach Anspruch 1, wobei die bewegliche Stützstruktur (20) ein erstes Strukturteil (20a) umfasst, welches im wesentlichen linear durch den vorderen Durchlass (12) zwischen eingezogenen bzw. ausgezogenen Stellungen in Bezug auf das Gehäuse verschiebbar ist, wobei das erste Strukturteil (20a) in einer geführten Weise ein zweites Strukturteil (20b) stützt, welches in Bezug auf das erste Strukturteil (20a) transversal verlagerbar ist, wenn sich das erste Strukturteil (20a) in Bezug auf das Gehäuse in der jeweiligen ausgezogenen Stellung befindet, wobei das zweite Strukturteil (20b) zwischen einer jeweiligen eingezogenen Stellung und einer jeweiligen ausgezogenen Stellung in Bezug auf das erste Strukturteil (20a) verlagerbar ist, wobei das zweite Strukturteil (20a) in seiner ausge-

zogenen Stellung seitlich über die Breitenabmessung (W) der Basis (20) und über eine Breitenabmessung des ersten Strukturteils (20a) herausragt.

3. Geschirrspülmaschine nach Anspruch 1, wobei die Stützstruktur wenigstens eine schwenkbare Struktur (20') umfasst, welche schwenkbar mit der Basis (10) verbunden ist, um wenigstens eine Rotationsbewegung um eine im wesentlichen vertikale Achse durchzuführen, wobei die schwenkbare Struktur (20) beim Durchtritt zwischen den Ruhe- bzw. Betriebsstellungen in ihrer Betriebsstellung seitlich über die Breitenabmessung (W) der Basis (10) herausragt. 5
4. Geschirrspülmaschine nach Anspruch 2, wobei das zweite Strukturteil (20b) so an dem ersten Strukturteil (20a) gehalten ist, dass es im wesentlichen linear zwischen den eingezogenen bzw. ausgezogenen Stellungen in Bezug auf das erste Strukturteil (20a) verschiebbar ist. 10
5. Geschirrspülmaschine nach Anspruch 4, wobei das zweite Strukturteil (20b) zwischen der jeweiligen eingezogenen Stellung und einer jeweiligen ersten ausgezogenen Stellung an einer ersten Längsseite des ersten Strukturteils (20a) verlagerbar ist und zwischen der jeweiligen eingezogenen Stellung und einer jeweiligen zweiten ausgezogenen Stellung an einer zweiten Längsseite des ersten Strukturteils (20a) verlagerbar ist, welche der ersten Längsseite gegenüberliegt. 20
6. Geschirrspülmaschine nach Anspruch 3, umfassend eine erste schwenkbare Struktur (20') und eine zweite schwenkbare Struktur (20'), von denen jede im wesentlichen an einer jeweiligen Längsseite der Basis schwenkbar mit der Basis (10) verbunden ist. 25
7. Geschirrspülmaschine nach einem der vorhergehenden Ansprüche, wobei die bewegliche Stützstruktur (20) eine Struktur umfasst, welche im wesentlichen als ein verschiebbarer Auszug (20a, 20b) ausgebildet ist. 30
8. Geschirrspülmaschine nach einem der vorhergehenden Ansprüche, wobei die bewegliche Stützstruktur (20; 20') eine Struktur umfasst, welche im wesentlichen als ein winklig bewegbarer Auszug (20') ausgebildet ist. 35
9. Geschirrspülmaschine nach Anspruch 2 oder 5, wobei das zweite Strukturteil (20b) eine Struktur umfasst, welche im wesentlichen als ein verschiebbarer Auszug ausgebildet ist. 40
10. Geschirrspülmaschine nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** sie durch ein Gehäuse (2) der Geschirrspül-

maschine (1) begrenzt ist.

11. Geschirrspülmaschine nach einem der Ansprüche 1 bis 10, **dadurch gekennzeichnet, dass** sie in Bezug auf ein Gehäuse (2) der Geschirrspülmaschine (1) als ein gesondertes Teil ausgebildet ist. 45
12. Geschirrspülmaschine nach Anspruch 1, umfassend ein Gehäuse (2) und einen Ablaufschlauch (7), welcher sich von einer Rückseite (8) der Maschine (1) erstreckt, wobei die Maschine (1) auch eine Rücksaugenschutzanordnung umfasst, welche Mittel zum Halten eines mittleren Bereichs des Ablaufschlauchs (7) an dem Gehäuse (2) umfasst. 50
13. Geschirrspülmaschine nach Anspruch 12, wobei die Rücksaugenschutzanordnung einen Zwischenraum, welcher im wesentlichen zwischen einer Seitenwand (2a) des Gehäuses (2) und der Rückseite (8) der Maschine (1) definiert ist, und einen Ausgangsdurchlass (9) für den Ablaufschlauch (7) umfasst, welcher in einem oberen Bereich der Seitenwand (2a) definiert ist, welcher sich in der Nähe der Rückseite (8) der Maschine (1) befindet, wobei sich der Zwischenraum in seiner Höhe wenigstens zwischen einem unteren Bereich der Rückseite (8) der Maschine (1) und dem oberen Bereich der Seitenwand (2a) erstreckt. 55

Revendications

1. Machine à laver la vaisselle (1) dotée d'une cuve de lavage (3) et d'une porte frontale (6) donnant accès à la cuve (3), la porte frontale (6) présentant une largeur (W) et étant articulée au niveau de sa partie inférieure à une structure fixe (2) de la machine (1), afin de pivoter autour d'un axe sensiblement horizontal entre une position de fermeture globalement verticale et une position d'ouverture globalement horizontale, 5

la machine (1) comportant une base (10) présentant une largeur (W), une hauteur (H) et une longueur (L), la base (10) définissant un logement destiné à au moins une structure de support mobile (20 ; 20') et comportant un passage avant (12) situé au-dessous de la porte frontale (6), la structure de support mobile (20 ; 20') étant assujettie à la base (10) de façon à pouvoir être déplacée à travers le passage avant (12) et être capable de prendre une position non fonctionnelle, dans laquelle la structure de support mobile (20 ; 20') se situe essentiellement à l'intérieur du logement, et une position fonctionnelle dans laquelle la structure de support mobile (20 ; 20') se situe, au moins partiellement, à l'extérieur du logement, 10

- caractérisée en ce que** la base (10) et la structure de support mobile (20 ; 20') sont configurées d'une manière telle que, dans sa position fonctionnelle, la structure de support mobile (20 ; 20') fait saillie latéralement au-delà de la largeur (W) de la base (10) et au-delà de la largeur (W) de la porte frontale (6), de façon à être également accessible pour un utilisateur lorsque la porte frontale (6) de la machine à laver la vaisselle (1) se trouve dans la position respective d'ouverture sensiblement horizontale.
2. Machine à laver la vaisselle selon la revendication 1, dans laquelle la structure de support mobile (20) comporte une première partie de structure (20a) pouvant coulisser de façon sensiblement linéaire à travers le passage avant (12) entre des positions respectives de retrait et d'extension par rapport au logement, la première partie de structure (20a) supportant et guidant une deuxième partie de structure (20b) apte à se déplacer transversalement par rapport à la première partie de structure (20a) lorsque la première partie de structure (20a) se trouve dans la position respective de retrait par rapport au logement, la deuxième partie de structure (20b) pouvant se déplacer entre une position respective de retrait et une position respective d'extension par rapport à la première partie de structure (20a), dans sa position en extension, la deuxième partie de structure (20a) faisant saillie latéralement au-delà de la largeur (W) de la base (20) et au-delà de la largeur de la première partie de structure (20a).
 3. Machine à laver la vaisselle selon la revendication 1, dans laquelle la structure de support comprend au moins une structure pivotante (20') articulée sur la base (10) afin d'effectuer au moins un mouvement de rotation autour d'un axe sensiblement vertical, durant le passage entre les positions respectives non fonctionnelle et fonctionnelle, dans sa position fonctionnelle, la structure pivotante (20) faisant saillie latéralement au-delà de la largeur (W) de la base (10).
 4. Machine à laver la vaisselle selon la revendication 2, dans laquelle la deuxième partie de structure (20b) est assujettie à la première partie de structure (20a) de manière à pouvoir coulisser de façon sensiblement linéaire entre les positions respectives en retrait et en extension, par rapport à la première partie de structure (20a).
 5. Machine à laver la vaisselle selon la revendication 4, dans laquelle la deuxième partie de structure (20b) est apte à se déplacer entre la position respective en retrait et une première position en extension, située d'un premier côté longitudinal de la première partie de structure (20a), et est apte à se déplacer entre la position respective en retrait et une deuxième position en extension, située d'un deuxième côté longitudinal de la première partie de structure (20a), opposé au premier côté longitudinal.
 6. Machine à laver la vaisselle selon la revendication 3, comportant une première structure pivotante (20') et une deuxième structure pivotante (20'), qui sont, chacune, articulées par rapport à la base (10) sensiblement au niveau d'un côté longitudinal respectif de la base.
 7. Machine à laver la vaisselle selon l'une quelconque des revendications précédentes, dans laquelle la structure de support mobile (20) comprend une structure configurée essentiellement sous la forme d'un tiroir coulissant (20a, 20b).
 8. Machine à laver la vaisselle selon l'une quelconque des revendications précédentes, dans laquelle la structure de support mobile (20 ; 20') comprend une structure configurée essentiellement comme un tiroir pivotant (20').
 9. Machine à laver la vaisselle selon la revendication 2 ou la revendication 5, dans laquelle la deuxième partie de structure (20b) comprend une structure configurée essentiellement sous la forme d'un tiroir coulissant.
 10. Machine à laver la vaisselle selon l'une quelconque des revendications précédentes, **caractérisée en ce qu'elle** est formée par une carrosserie (2) de la machine à laver la vaisselle (1).
 11. Machine à laver la vaisselle selon l'une quelconque des revendications 1 à 10, **caractérisée en ce qu'elle** est configurée comme une partie distincte d'une carrosserie (2) de la machine à laver la vaisselle (1).
 12. Machine à laver la vaisselle selon la revendication 1, comportant une carrosserie (2) et un tuyau d'évacuation (7) s'étendant depuis un dos de la machine (1), dans laquelle la machine (1) comporte également un dispositif anti-siphon, comportant des moyens pour assujettir une zone intermédiaire du tuyau d'évacuation (7) à la carrosserie (2).
 13. Machine à laver la vaisselle selon la revendication 12, dans laquelle le dispositif anti-siphon comporte un interstice, défini essentiellement entre une paroi latérale (2a) de la carrosserie (2) et le dos (8) de la machine (1), et un passage de sortie (9) pour le tuyau d'évacuation (7) défini dans une zone supérieure de ladite paroi latérale (2a) qui se trouve à proximité du dos (8) de la machine (1), l'interstice s'étendant en hauteur au moins entre une zone inférieure du dos (8) de la machine (1) et ladite zone supérieure de ladite paroi latérale (2a).

FIG. 1

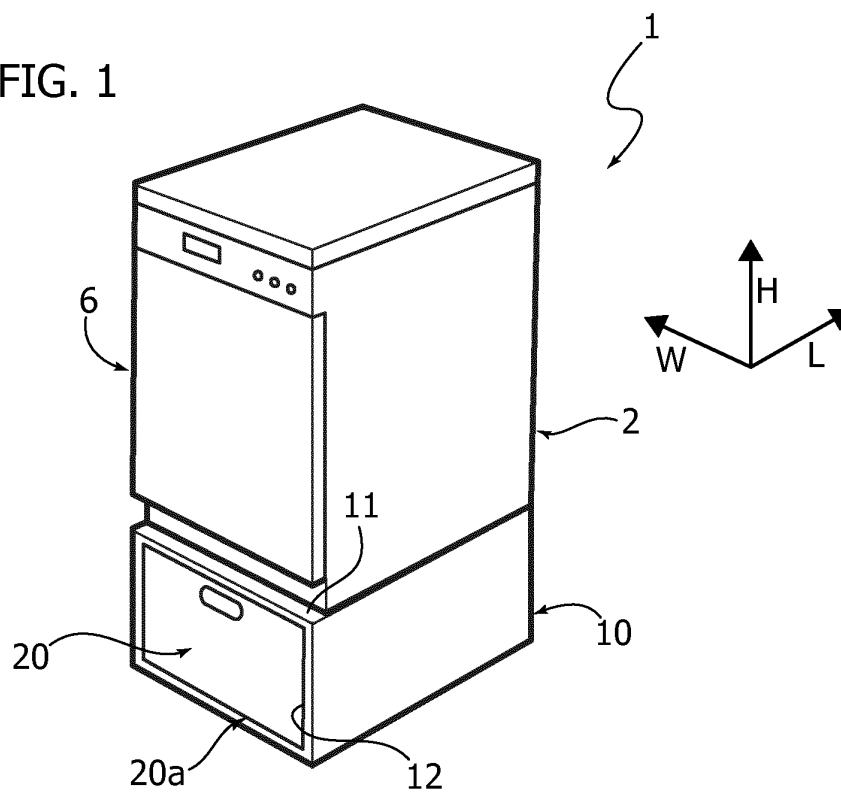


FIG. 2

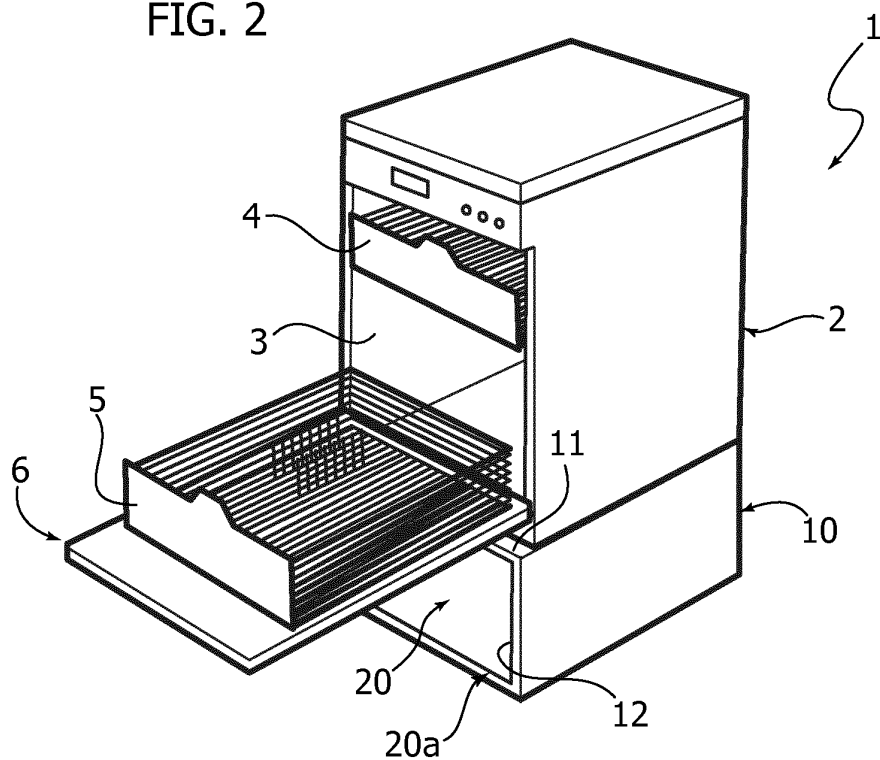


FIG. 3

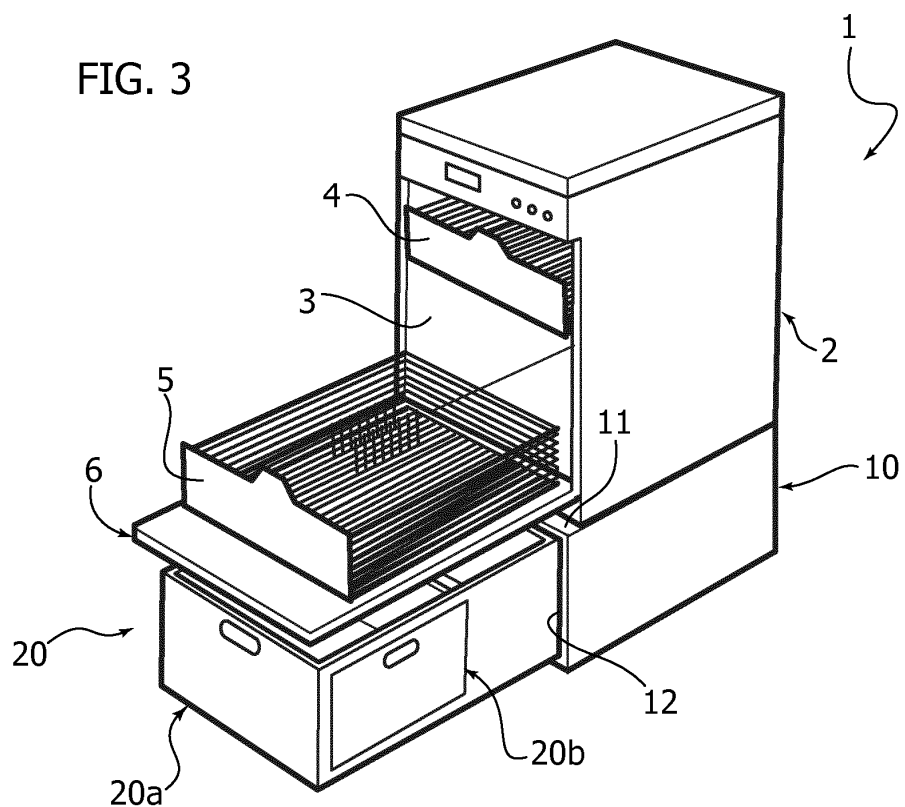


FIG. 4

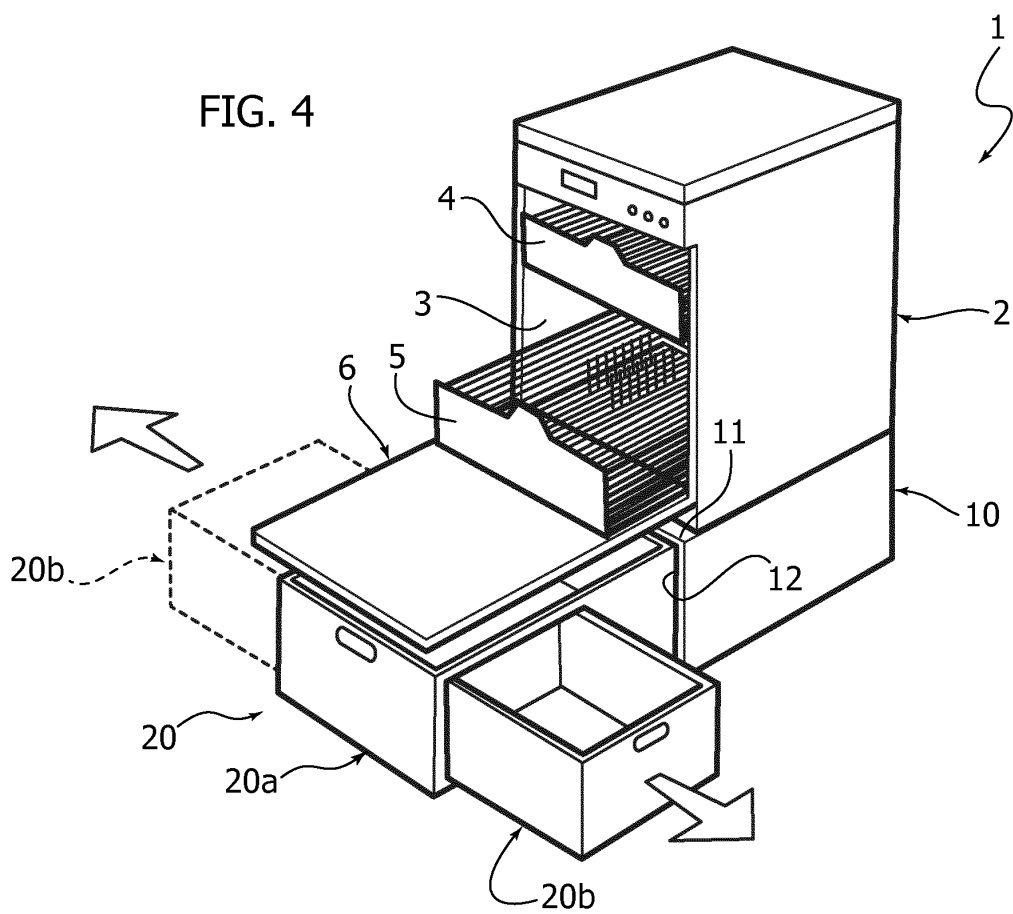


FIG. 5

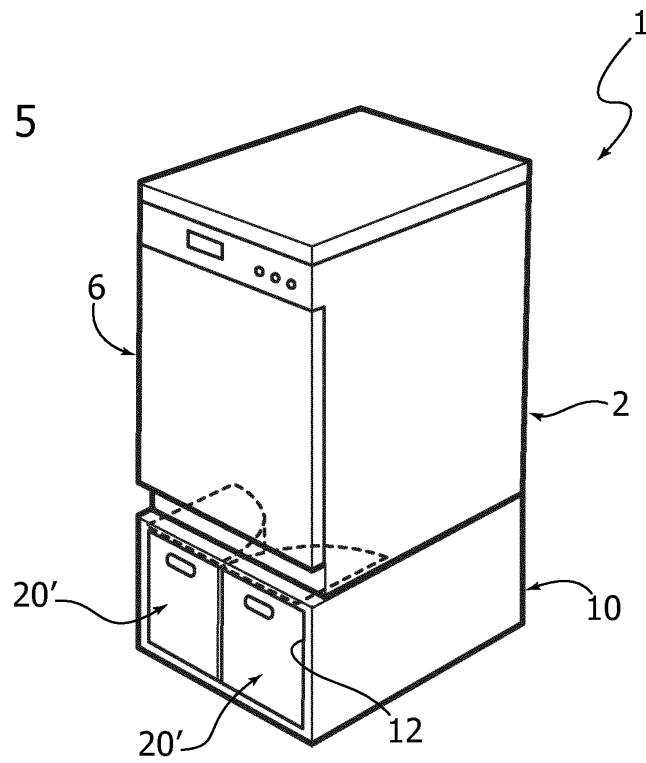


FIG. 6

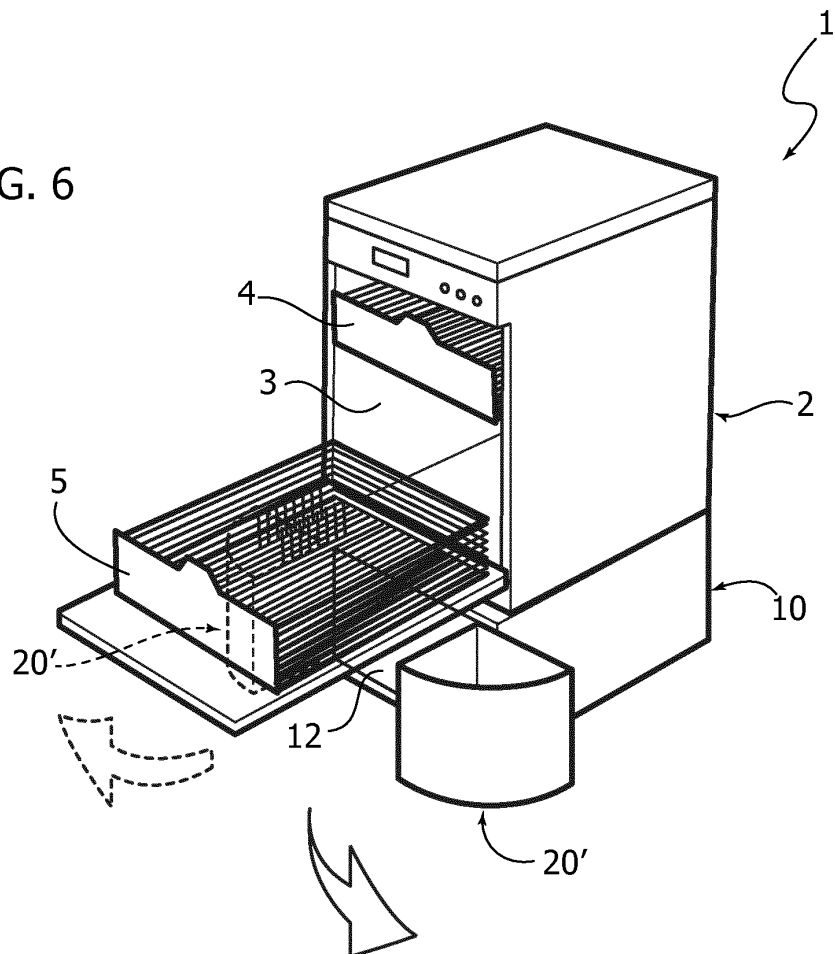
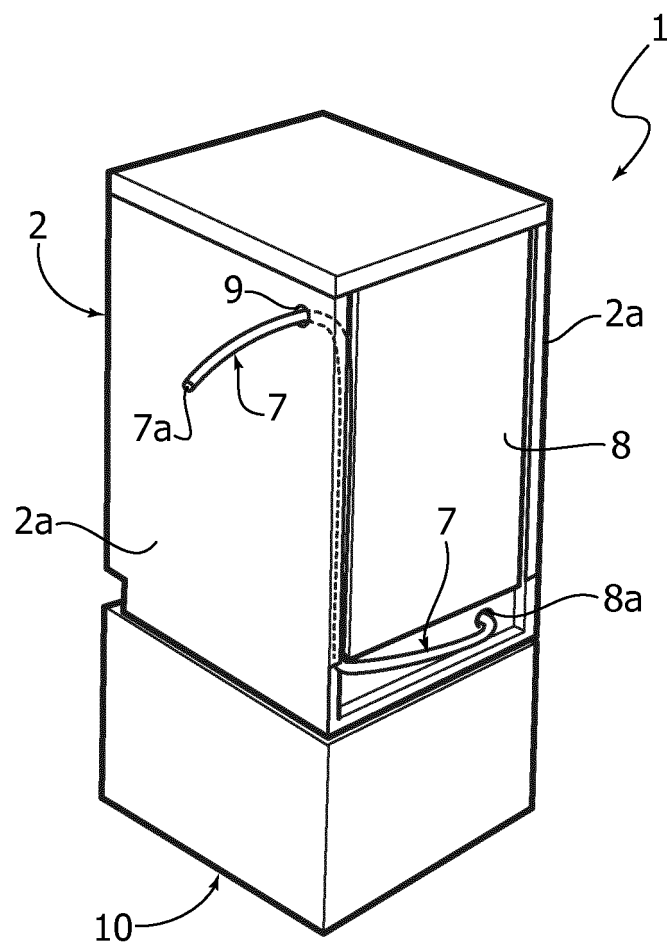


FIG. 7



REFERENCES CITED IN THE DESCRIPTION

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