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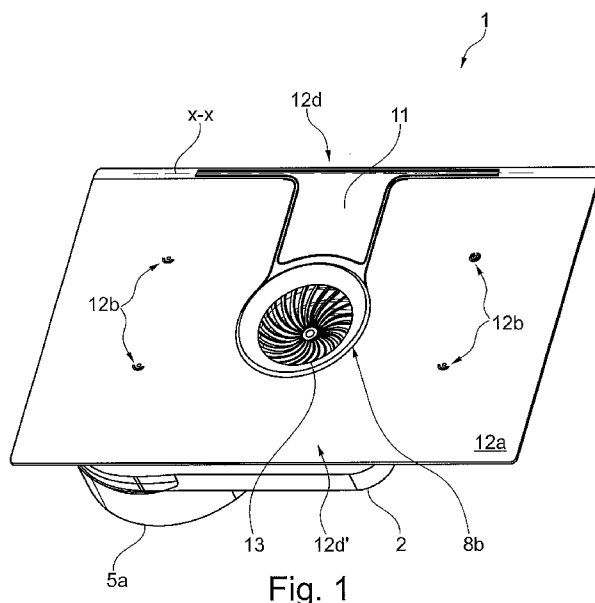
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(54) **Title:** A HOOD FOR DOMESTIC USE



(57) **Abstract:** The present invention relates to a domestic hood (1) comprising a holding frame (2), a forced ventilation unit (5) comprising an intake section (5b) and a delivery outlet (5d), a first opening (3) in said housing frame (2), in fluid communication with the delivery outlet (5d) of said forced ventilation unit (5), and said delivery outlet (5d) being designed to be engaged by a fume exhaust duct (14), a second opening (4) in said holding frame (2), in fluid communication with the delivery outlet (5d) of said forced ventilation unit (5) and with the environment outside the holding frame (2), at least one first filter (6a, 6b) operably put in fluid communication with the intake section (5b) of said forced ventilation unit (5) and with the environment outside said housing frame (2). The hood is characterized in that at least one first filter holder (8a, 8b) located between said delivery outlet (5d) of said forced ventilation unit (5) and said fume exhaust duct (14) and designed to contain said at least one first filter (6a, 6b), said at least one first filter holder (8a, 8b) defining a bottom (22) and a ceiling (23), which are interconnected by respective pairs of opposite sidewalls (24, 25), said ceiling (23) defining an opening (21), said at least one first filter holder (8a, 8b) comprising a door that can be moved between: - a first position in which said at least one first filter (6a, 6b) is accessible for removal of said at least one first filter (6a, 6b) from the filter holder (8a) through said opening (21) and - a second position in which said at least one first filter (6a, 6b) is not accessible; - a pull-out ribbon (21) for pulling out said at least one first filter (6a, 6b) through said opening (21), having a first free end (20A), designed to be grasped by

a user's hand, and placed proximate to said opening (21) and a second end (20B), opposite to the first end (20A), connected to said bottom (22) of said at least one first filter holder (8a, 8b), said pull-out ribbon extending along at least two walls of said at least one first filter (6a, 6b).



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“A hood for domestic use”

DESCRIPTION

Technical field

The present invention relates to a domestic extraction hood as defined in the
5 preamble of claim 1.

Particularly, but without limitation, the present invention relates to a hood that is integrated in a cooktop, and commercially available under the name of “downdraft hood”.

BACKGROUND OF THE INVENTION

10 Extractor hoods have become a common feature in residential kitchens, due to their undisputed usefulness in extracting food preparation gases.

The provision of domestic hoods that can effectively remove the gases generated when cooking food is of increasing importance.

For this purpose, foods have been developed that can both extract air and
15 exhaust the extracted air out of the house, using an intake section, and filter such air and recirculate it into the domestic environment.

For this purpose, a fume exhaust duct is provided downstream from the forced ventilation unit, i.e. its delivery outlet, allowing the fumes and the cooking steam that have been extracted to flow, for example, out of the house.

20 Of course, during filtration, the withdrawn air must be treated by one or more filters having the purpose of purifying the extracted gases.

In a hood, usual filters may be specially designed for grease filtration or for reducing odors in gases.

Grease filters typically consist of a metal grid and are located upstream from
25 the forced ventilation unit, whereas odor filters typically consist of a filter element comprising activated charcoal and are usually located downstream from the extraction unit and preferably within the path defined by the fume exhaust duct.

It shall be noted that both grease filters and odor filters require periodic maintenance, i.e. they must be washed, sanitized or regenerated for effective
30 operation.

Such maintenance must be able to be carried out by the user without requiring

any action by skilled personnel.

Nevertheless, in prior art hoods panels must be removed or pulled out for access to the compartment in which the aforementioned filters are placed.

5 This operation is very difficult for odor filters, which are located downstream from the outlet of the extraction unit and are more difficult to reach.

This problem is particularly felt in downdraft hoods, in which the removal of the odor filter requires disassembly of a number of hood elements or the provision of an open door for access to a filter holder in which the odor filter is accommodated, and in certain cases also removal of parts of the kitchen cabinet that houses the hood.

10 This is because downdraft foods are usually integrated in the cooktop or the countertop of the kitchen cabinet.

For example, US 2010/012110 discloses a prior art downdraft hood.

Particularly, if the food has a door and a filter holder, hood manufacturers shall find a trade-off between two opposite requirements. On the one hand, the door size
15 must be minimized for maximized fluid-tightness in the duct, and on the other hand the odor-filter size must be maximized to provide a low pressure drop and higher extraction efficiency.

Therefore, the technical purpose of the present invention is to provide a domestic hood that can provide a filtering system with a maximized surface area, in
20 which the opening provided for removal thereof is minimized for pressure drop minimization.

Particularly, the object of the present invention is to provide a domestic hood having simpler maintenance.

SUMMARY OF THE INVENTION

25 According to the present invention, the above mentioned technical purpose and objects are fulfilled by a domestic hood as defined in one or more of the claims annexed hereto.

Advantages

In addition, the present invention provides a domestic hood having easier
30 maintenance.

The present invention also provides a domestic hood that has a more efficient

filtering effect on the extracted gases.

Also, with the present invention, in downdraft hoods, filters can be removed from the side in which food cooking elements are provided, which improves ergonomics and allows utilization of the space below the top, possibly for an oven or another stationary installation.

With this arrangement, maintenance shall be simple, to ensure that the user will constantly take care of it and not avoid it due to difficulties or laziness.

BRIEF DESCRIPTION OF THE DRAWINGS

Further features and advantages of the present invention will be more clearly apparent from the illustrative, non-limiting description of preferred, non-exclusive embodiments of a domestic hood as shown in the annexed drawings, in which:

- Figure 1 shows a perspective view of one embodiment of a domestic hood in a first operating configuration, according to the present invention;
- Figure 2 shows the hood of Figure 1 in a second operating configuration;
- Figure 3 shows a perspective view of the hood of Figure 1, in the first operating configuration, with certain parts omitted to better show other parts;
- Figure 4 shows a partially broken-away perspective view of the unit of Figure 1, with certain parts omitted to better show other parts;
- Figures 5A-5E show perspective views of one element of the hood of Figure 1, in various respective operating configurations.

DETAILED DESCRIPTION

Even when this is not expressly stated, the individual features as described with reference to the particular embodiments shall be intended as auxiliary to and/or interchangeable with other features described with reference to other exemplary embodiments.

A domestic hood of the present invention has been generally designated by numeral 1 in the figures.

The hood 1 comprises a holding frame 2, preferably made of metal and possibly having decorative parts made of plastic.

As used herein, the term holding frame is intended to designate a structural element designed to contain hood operating devices (as explained in greater detail

below), comprising specially shaped elements and/or covering panels that impart a particular aesthetic appearance to the hood.

The frame 2 of the hood 1 is designed to be integrated in or associated with a cooktop, so that the functional components of the hood (including the extraction unit, the filters, the fume exhaust duct, control members, etc.) and the cooktop (including heating means, electric and electronic circuits, the electronic controller, etc.) may be associated with a countertop or a kitchen cabinet to form a so-called downdraft hood.

It shall be noted that in this type of configuration the hood 1 is intended to be configured to generate a crossflow that is higher than the ascending flow rate of cooking steam, so that such steam is extracted toward the cooktop.

While reference is made herein below to a downdraft hood, it shall be understood that the present disclosure may be also implemented in other types of hoods, such as vertical hoods or inverted T-shaped hoods.

With the above assumptions, the frame 2 of the hood 1 comprises a first opening 3, preferably placed at a top of the frame, and at least one second opening 4, preferably placed on a different portion of the holding frame 2.

The hood 1 comprises a forced-extraction unit 5 comprising a conveyor 5a, e.g. a screw conveyor, which defines an intake section 5b, the latter being delimited, for instance, by a grid (not shown) through which gases are extracted, a delivery outlet 5d in fluid communication with a fume exhaust duct 14 and an additional closing grid (not shown).

In order to exhaust the gases generated during food preparation/cooking, the first opening 3 is designed to be engaged by the fume exhaust duct 14 and the second opening 4 is in fluid communication with the intake section 5b.

The forced ventilation unit 5 is, for example, a fan (of axial or centrifugal type), i.e. an electric operating machine with an impeller that can withdraw air from an extraction area, proximate to the food cooking area, and send it to a delivery outlet.

It shall be noted that the (axial or centrifugal) fan is located within the volume defined by the conveyor 5a.

Particularly, the first opening 3 and the second opening 4 are both designed to

be in fluid communication for exhausting cooking fumes outside the house (e.g. through a chimney flue), to create a so-called extraction arrangement (air ejected out of the environment in which the hood 1 is located) or a filtration arrangement (air recirculated into the domestic environment after appropriate filtration).

5 The hood 1 further comprises at least one filter 6a, 6b in which the at least one filter 6a, 6b is operably put in fluid communication with the intake section 5b of the forced ventilation unit 5 and with the environment outside the holding frame 2.

In the preferred embodiment of the invention, the hood 1 comprises two filters 6a and 6b, each having distinct filtering properties, and at least one filter holder 8a,
10 8b, preferably two filter holders as described below.

According to a preferred embodiment, the hood 1 comprises two filter holders 8a, 8b and two filters 6a and 6b, i.e. a compartment for each filter 6a and 6b.

Particularly, the filters 6a and 6b are operatively arranged in series relative to an air flow coming into the intake section 5b of the forced ventilation unit 5.

15 As used herein, the term “operatively arranged in series” is intended to indicate that the air flow that comes into the intake section 5b of the extraction unit 5 first through the filter 6a and then through the filter 6b.

Preferably, the hood 1 comprises a grease filter 6a and an odor filter 6b which is operatively disposed downstream from the grease filter.

20 The grease filter 6a consists of a metal grid filter.

The term odor filter 6b is intended to designate a filter that can capture and retain the odors generated during cooking, e.g. a charcoal-based filter.

Namely:

- the grease filter 6a is operatively disposed upstream from the intake section
25 5a;
- the odor filter 6b is operatively disposed downstream from the delivery outlet
5d.

In Figures 5A-5E the odor filter 6b is formed by implementing four distinct filter elements, but in different alternative embodiments there may be a greater or
30 smaller amount of filter elements and anyway according to the opening area of the compartment designed for housing it, as described in greater detail below.

It shall be noted that the hood 1 can also operate without one or more filters 6a, 6b.

Advantageously, the hood 1 comprises a first filter holder 8a which is designed to contain the at least one filter 6a, 6b, preferably the odor filter 6b.

5 The first filter holder 8a, is located between the delivery outlet 5d of the forced ventilation unit 5 and the fume exhaust duct 14.

For example, the filter holder 8a is made of plastic or preferably of metal.

In one aspect, the first filter holder 8a defines an opening 21 and comprises a door that can be moved between:

10 - a first position in which access is allowed to the filter 6b for removal thereof from the filter holder, i.e. a position in which the opening 21 is not closed by the door 9 and

15 - a second position in which the door 9 of the filter holder in which access is not allowed to the filter 6b, i.e. a position in which the door 9 closes such opening 21.

In such first position the door 9 is at least partially spaced apart from the first filter holder 8a such that the filter 6b faces the environment outside the holding frame 2 to allow removal of the filter from the filter holder 8.

20 Thus, the filter 6b may be pulled out of the first filter holder 8a, to remove it therefrom, for cleaning and/or regeneration and/or replacement of the spent filter for restoring the full function of the hood 1.

In one aspect, also referring to Figures 5A to 5E, the filter holder 8a defines a bottom 22 and a ceiling 23, which are interconnected by respective pairs of opposite sidewalls 24, 25.

25 Namely:

- the pair of sidewalls 24 define a surface that cannot have gases flowing therethrough and can only accommodate connection means 24' for removable connection of the filter holder 8 to the frame 2 of the hood 1;

30 - the pair of walls 25 define a surface that can have gases flowing therethrough and is preferably formed with an open design for the gas flow to impinge directly and without obstacles the surface of the filter 6b.

According to the embodiment as shown in the accompanying figures, the sidewalls 24 are parallel to each other and so are the sidewalls 25, whereas the pair of sidewalls 24 are perpendicular to the pair of side walls 25.

In one aspect, the ceiling 23 is parallel to the bottom 22 and the opening 21 is
5 formed in the ceiling 23 of the filter holder 8a.

It shall be noted that the filter 6b is pulled out of the first filter holder 8a manually, by the action of a user.

For this purpose, when the door 9 is moved to such first position, a pull-out ribbon 20 is provided to put out the at least one filter 6a, 6b through the opening 21.

10 The pull-out ribbon 20 defines a first free end 20A, which is designed to be grasped by a user's hand.

Such first end 20A is located proximate to the opening 21 to face the environment outside the holding frame 2 and allow a user to grasp it by his/her hand.

The pull-out ribbon 20 defines second end 20B, opposite to the first end 20A,
15 which is connected to the bottom 22 of the filter holder 8a.

In one aspect, in order to allow removal of the filter 6b, the pull-out ribbon 20 extends along at least two walls of the filter.

With this arrangement, as the user removes the filter 6a by pulling the end 20a, the ribbon 20, which is restrained at its end 20b, forces the filter 6b to move out of its
20 starting position and particularly causes the filter 6b to be moved at least partially out of the opening 21.

Then, the user may directly grasp the filter by his/her hand and pull it out of the filter holder 8a.

In order to facilitate full extraction and removal of the filter 6b from the
25 opening 21 additional aids may be provided such as a tool or similar implements.

It shall be noted that the pull-out ribbon 20 must be long enough:

- for its end 20a to extend beyond the opening 21 and be comfortably grafted by the hand of the user;
- to extend along the at least two walls of the filter 6b and be connected to the
30 bottom 22.

Obviously, the greater the extent of the filter 6b, the longer the pullout ribbon

20.

It shall be noted that the filter 6b comprises an enclosure 25 which is configured to retain the filter element along its peripheral edge.

Particularly, the enclosure 25 retains the filter element while allowing gases to
5 flow therethrough, with no obstructions being provided on the filter surface that is designed to receive the gas flow.

Such enclosure 25 is in surface contact with the bottom 22 and interposes the second end 20B of the pull-out ribbon 20 between the bottom 22 and the enclosure 25, i.e. the part of the enclosure 25 which contacts the bottom 22 of the filter holder
10 8a.

The pull-out ribbon 20 comprises connection means 26 for connecting its second end 20B to the bottom 22 of the filter holder 8a.

In one embodiment, the connection elements 26 consist of rivets. Alternatively, glues or similar implements may be also provided.

15 In one aspect, the filter holder 8a comprises a guide element 27 which is configured to guide the pull-out ribbon 20. Such guide element 27 is placed proximate to the opening 21.

Particularly, the guide element 27 has the purpose of guiding the ribbon 20 as the filter is being pulled out.

20 In one embodiment, the guide element 27 consists of a slot through which the pull-out ribbon is allowed to pass.

This slot is formed by molding on the ceiling 23 of the filter holder 8a proximate to an edge 21a of the opening 21.

As described above (see Figures 5A to 5E), it will be appreciated that the filter
25 6b comprises a plurality of additional filters, arranged one behind the other along a preset direction of extension. For example, in the particular embodiment of the figures, four filters are provided to form the odor filter 6b.

Of course, a number other than four may be provided, as specially needed by the application. It shall be nevertheless appreciated that the number of filters 6b to be
30 accommodated in the filter holder 8a will vary according to both the size of the opening 21 and the total filtering area that the filter 6a is required to have.

In other words, assuming a fixed total filtering area required of the filter 6b, the number of filters that will compose the odor filter 6b shall only depend on the size of the opening 21. Particularly, the smaller the area of the opening, the greater the number of filters to be provided.

5 In one aspect, in order to allow the (four) filters 6b to be pulled out of the filter holder 8a, the pull-out ribbon 20 extends proximate to the ceiling 23 and proximate to one of said two sidewalls 24, to wrap around such filters.

Particularly, the pull-out ribbon 20 shall be disposed in such position as to be interposed between the bottom 22 of the filter holder 8a and the wall of each
10 enclosure 25 of the filters, which is in surface contact with the bottom 22 of the holder 8a.

As a supplement to the above description of the hood 1, as shown in the accompanying figures, it shall be noted that the first filter holder 8a can be only accessed by a user when the hood is installed, because it faces the side exposed to the
15 user.

In one aspect, the first filter holder 8a comprises pull-out members (not shown) for moving the door 9 between the first and second positions.

These pull-out members comprising, for example, a user interface such as screws 10b,

20 In one aspect, the hood 1 comprises a second filter holder 8b which is designed to contain an additional filter 6a, 6b, disposed between the second opening 4 of the frame 2 and the intake section 5b of the forced ventilation unit 5.

As shown in the figures, the second filter holder 8b is located proximate to the opening 4 of the holding frame 2 and is preferably configured to house the grease
25 filter 6a.

In one aspect, the second filter holder 8b defines a pool 8c which at as a seat for collection of any liquids or fluids flowing out of cookware during food cooking.

In one aspect, it will be appreciated that the second filter holder 8b is designed to contain the filter 6 which is disposed between the opening 4 and the intake section
30 5b of the forced ventilation unit 5.

It shall be noted that the filter 6 preferably has a shape that matches the profile

of the pool 8 for effective utilization of the volume of the pool.

It shall be further noted that the forced extraction unit 5 is located in a portion of the frame 2 that is different from that in which the pool 8c of the filter holder 8b is formed. Particularly, the forced ventilation unit 5 is offset from said pool 8c.

5 This asymmetrical position of the pool 8c and the filter 6a with respect to the axis of symmetry of the forced ventilation unit 5 advantageously prevents any dropping liquid or the like from directly impinging upon the motor, thereby avoiding the need to using watertight motors.

10 It shall be further noted that the fluid connection between the delivery outlet 5d of the forced extraction unit 5 and the first filter holder 8a is provided by the screw conveyor 5a.

In one aspect, the second filter holder 8b is connected to the housing frame 2 in a portion thereof that can be accessed by user when the hood is installed.

15 Particularly, a protective grid 13 is provided, which is removably associated with the second filter holder 8b, for protecting the filter 6a from any object that might be sucked therein due to the crossflow generated by the forced ventilation unit 5 when the hood 1 is in operation.

20 The hood 1 comprises a cover element 11 for covering the door 9 of the filter holder 8a (see Figures 2 and 3); such cover element 11 is connected to the holding frame 2 in a portion thereof that can be accessed by a user when the hood 1 is installed,

25 Particularly, such cover element 11 is configured to be able to move from a first position (see Figure 1) in which it conceals the door 9 of the first filter holder 8a from the view and a second position (see Figure 2) in which such door can be accessed by the user.

For this purpose, the cover element 11 comprises mechanical connection means, which are operably associated with the holding frame 22 to cause such cover element to move from the first position to the second position and vice versa.

30 For example, the mechanical connection means comprise a hinge/pintle mechanism which allows access to the door 9 of the filter holder 8a.

Such hinge/pintle mechanism allows the cover element 11 to be pivoted about

an axis of rotation X-X (see Figure 3).

The hood 1 further comprises a housing body 12 for containing filter holders 8a and 8b. It shall be noted that the housing body 12 comprises a cooktop 12a associated with the holding frame 2, and defining a work surface or food cooking area divided into a plurality of areas 12b, which are designed to receive respective pieces of cookware for cooking food.

Such cooktop 12a comprises heating means 12c (see Figure 4) for heating the plurality of areas 12b designed to receive respective pieces of cookware for cooking food.

It shall be noted that this plurality of areas 12d designed to receive respective pieces of cookware the cooking food are those areas in which the heat generated by the heating means 12c propagates.

It shall be noted that other areas 12d, 12d' of the cooktop 12a, which are different and distinct from the plurality of areas 12b, are not impinged upon or do not receive the heat generated by the heating means 12c.

In one embodiment, the cooktop 12a consists of a glass sheet and the heating means 12c consist of magnetic induction plates or electrical resistors.

In one aspect of the hood 1, the cover element 11 for the door 9 of the first filter holder 8a is placed in the work surface in which foods are prepared, and particularly in an area 12d that is not heated by the heating means 12c.

In other words, the cover element 11 lies in the plane in which foods are prepared.

In one aspect of the hood 1, the door 9 of the filter holder 8a is placed in the work surface in which foods are prepared, and particularly in an area 12d that is not heated by the heating means 12c.

The odor filter 6b is placed in the work surface in which foods are prepared, and particularly in the area 12d that is not heated by the heating means 12c.

Advantageously, the protective grid 13 is disposed in the same work surface as the cooktop but in another area 12d' that is not heated by the heating means 12c.

Therefore, in the hood 1 the filter holders 8a and 8b and the filters 6a and 6b face each other on the same work surface or food cooking area.

Therefore, the filters 6a and 6b may be removed from the same side in which the elements required for cooking food are provided, and typically in downdraft hoods the grease filters 6a are typically pulled out for cleaning whereas the odor filters 6b are replaced by pulling them out from below.

5 Advantageously, since the filter holders 8a and 8b and the filters 6a and 6b are placed on the same surface in which the areas 12b designed for receiving respective pieces of cookware for cooking foods are defined, this will improve the ergonomics of the hood 1 as maintenance of filters 6a and 6b is facilitated for the user, without requiring the action of specially skilled personnel.

10 In other words, since the filter holders 8a and 8b and the filters 6a and 6b are placed on the same surfaces in which the area 12 designed for receiving respective pieces of cookware for cooking foods are defined, the hood 1, unlike conventional downdraft hoods the hood 1 can have no space occupied above the cooktop 12a, especially in the island configuration.

15 It shall be further noted that the door of the first filter holder 8a will move from the first position to the second position without requiring removal of parts of the holding frame 2, and is thus a process that can be directly actuated by an unskilled user.

20 Also, it shall be noted that the second position of the door 9 (i.e. the sealed configuration) will avoid leakages along the fume exhaust duct 14 as the door 9 will hermetically seal the filter holder between the delivery outlet 5b of the forced ventilation unit 5 and the fume exhaust duct 14.

25 In other words, in the second position of the door 9 a seal is obtained between the door and the fume exhaust duct, which will reduce or eliminate lower-resistance paths, as compared with the predetermined gas exhaust path.

Therefore, in the hood 1, along the path from the delivery outlet 5d of the forced ventilation unit 5 to fume exhaust, no lower-resistance path is created for gases, which will prevent any dispersion thereof in the environment that surrounds the hood 1 without prior filtering.

30 Therefore, advantageously, the hood 1 has a higher filtering efficiency as compared with conventional hoods, as all the gases that are extracted by the

extraction unit flow through the series of filters 6a and 6b and particularly through the odor filter 6b.

Those skilled in the art will obviously appreciate that a number of changes and variants may be made to the arrangements as described hereinbefore to meet
5 incidental and specific needs.

All of these variants and changes fall within scope of the invention, as defined in the following claims.

CLAIMS

1. A domestic hood (1) comprising:

- a holding frame (2);

- a forced ventilation unit (5) comprising an intake section (5b) and a delivery outlet (5d),

- a first opening (3) in said holding frame (2), in fluid communication with the delivery outlet (5d) of said forced ventilation unit (5), and said delivery outlet (5d) being designed to be engaged by a fume exhaust duct (14),

- a second opening (4) in said holding frame (2), in fluid communication with the delivery outlet (5d) of said forced ventilation unit (5) and with the environment outside the holding frame (2), at least one first filter (6a, 6b) operably put in fluid communication with the intake section (5b) of said forced ventilation unit (5) and with the environment outside said housing frame (2),

- at least one first filter (6a, 6b) operably put in fluid communication with the intake section (5b) of said forced ventilation unit (5) and with the environment outside said holding frame (2),

- at least one first filter holder (8a, 8b) located between said delivery outlet (5d) of said forced ventilation unit (5) and said fume exhaust duct (14) and designed to contain said at least one first filter (6a, 6b),

- a door (9), which is designed to be moved between a first position in which said at least one first filter (6a, 6b) can be accessed to allow removal of said at least one said at least one first filter from the filter holder (8a, 8b) and a second position in which access to said at least one first filter (6a, 6b) is prevented;

- a housing body (12) which comprises a cooktop (12a) associated with said housing frame (2), said cooktop (12a) defining a work surface divided into a plurality of areas (12b), which are designed to receive respective pieces of cookware for cooking food, and having heating means (12c) for heating said plurality of areas (12b),

characterized in that it comprises a cover element (11) for covering said door (9), connected to said holding frame (2) in a portion thereof that can be accessed by a user when the hood is installed, such that it can move from a first position in which it conceals said door (9) from the view and a second position in which said door (9) is

accessible, said cover element (11) being placed in said work surface, on a first area (12d) of said cooktop (12a) which is not heated by said heating means (12c), said cover element (11) comprising mechanical connection members which are operably configured to cause it to pivot about its axis (X-X) from said first position to said
5 second position and vice versa.

2. A domestic hood as claimed in claim 1, wherein said at least one first filter holder (8a, 8b) defines a bottom (22) and a ceiling (23), which are interconnected by respective pairs of opposite sidewalls (24, 25), said ceiling (23) defining an opening
10 (21), said door (9) closing such opening (21) when said door (9) is in said second position.

3. A domestic hood as claimed in claim 2, comprising a pull-out ribbon (20) for pulling out said at least one first filter (6a, 6b) through said opening (21), and having
15 a first free end (20A), designed to be grasped by a user's hand, and placed proximate to said opening (21) and a second end (20B), opposite to the first end (20A), connected to said bottom (22) of said at least one first filter holder (8a, 8b), said pull-out ribbon extending along at least two walls of said at least one first filter (6a, 6b).

20 4. A domestic hood as claimed in claim 3, wherein said at least one first filter (6a, 6b) comprises an enclosure (25), which is configured to retain the filter element along its peripheral edge, said enclosure (25) being in surface contact with said bottom (22) and interposing said second end (20B) of said pull-out ribbon (20) between said bottom (22) and said enclosure (25).

25

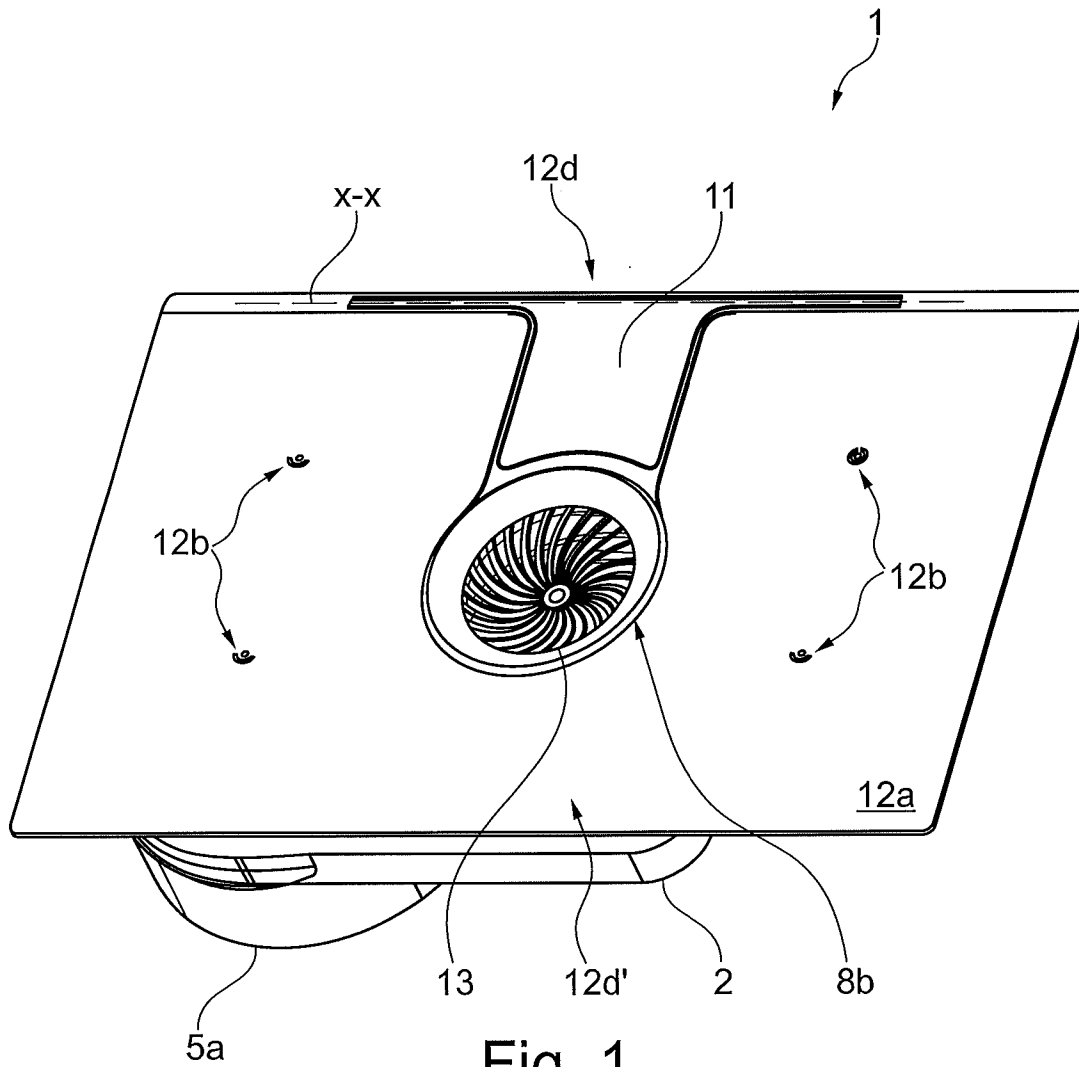
5. A domestic hood as claimed in claim 3, comprising connection means (26) for connecting said second end (20B) of said pull-out ribbon (20), said connection means being operable to connect said second end to said bottom (22).

30 6. A domestic hood as claimed in claim 3, wherein said at least one first filter holder (8a, 8b) comprises a guide element (27) for guiding said pull-out ribbon (20), said

guide element (27) being placed proximate to said opening (21).

7. A domestic hood as claimed in claim 3, comprising a plurality of additional filters (6a, 6b), arranged one behind the other along a preset direction of extension, said pull-out ribbon (20) extending proximate to said ceiling (23) and proximate to one of said two sidewalls (24, 25) of said filter holder (8a, 8b) to wrap said plurality of additional filters (6a, 6b).
8. A domestic hood as claimed in claim 1 or 2, wherein said door (9) in said second position hermetically seals said first filter holder (8a) between said delivery outlet (5d) of said forced ventilation unit (5) and said flue exhaust duct (14).
9. A domestic hood as claimed in claim 1, wherein said filter holder (8a, 8b) comprises pull-out members for moving said door (9) between the first and second positions, said pull-out members comprising a user interface designed to control the actuation of said pull-out members.
10. A domestic hood as claimed in claim 1, wherein said at least one filter (6a, 6b) comprises first (6a) and second (6b) filters, and said hood (1) comprises a second filter holder (8b), which is designed to contain said second filter (6a) between said first opening (3) and said intake section (5b) of said forced ventilation unit (5), said first filter holder (8a) being designed to contain said first filter (6b).

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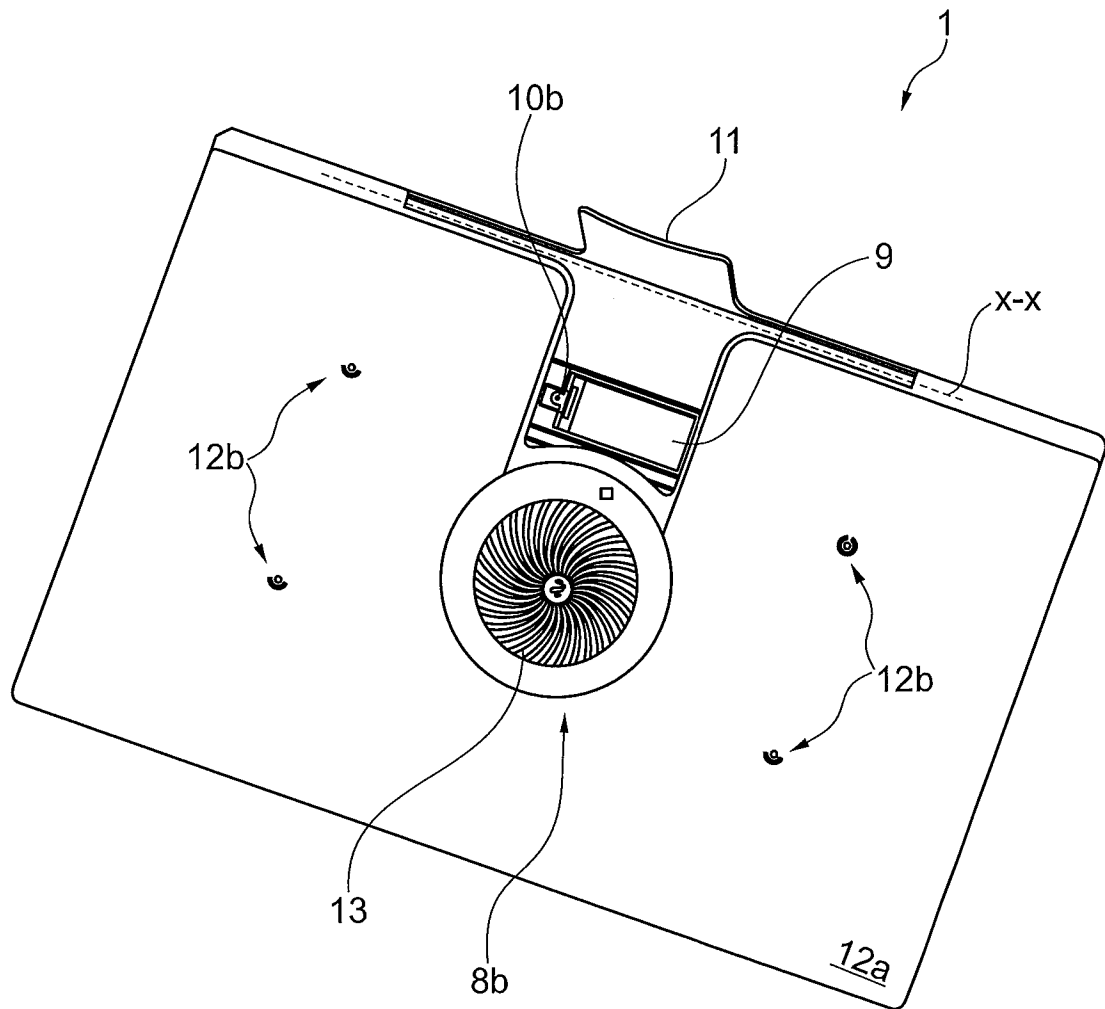


Fig. 2

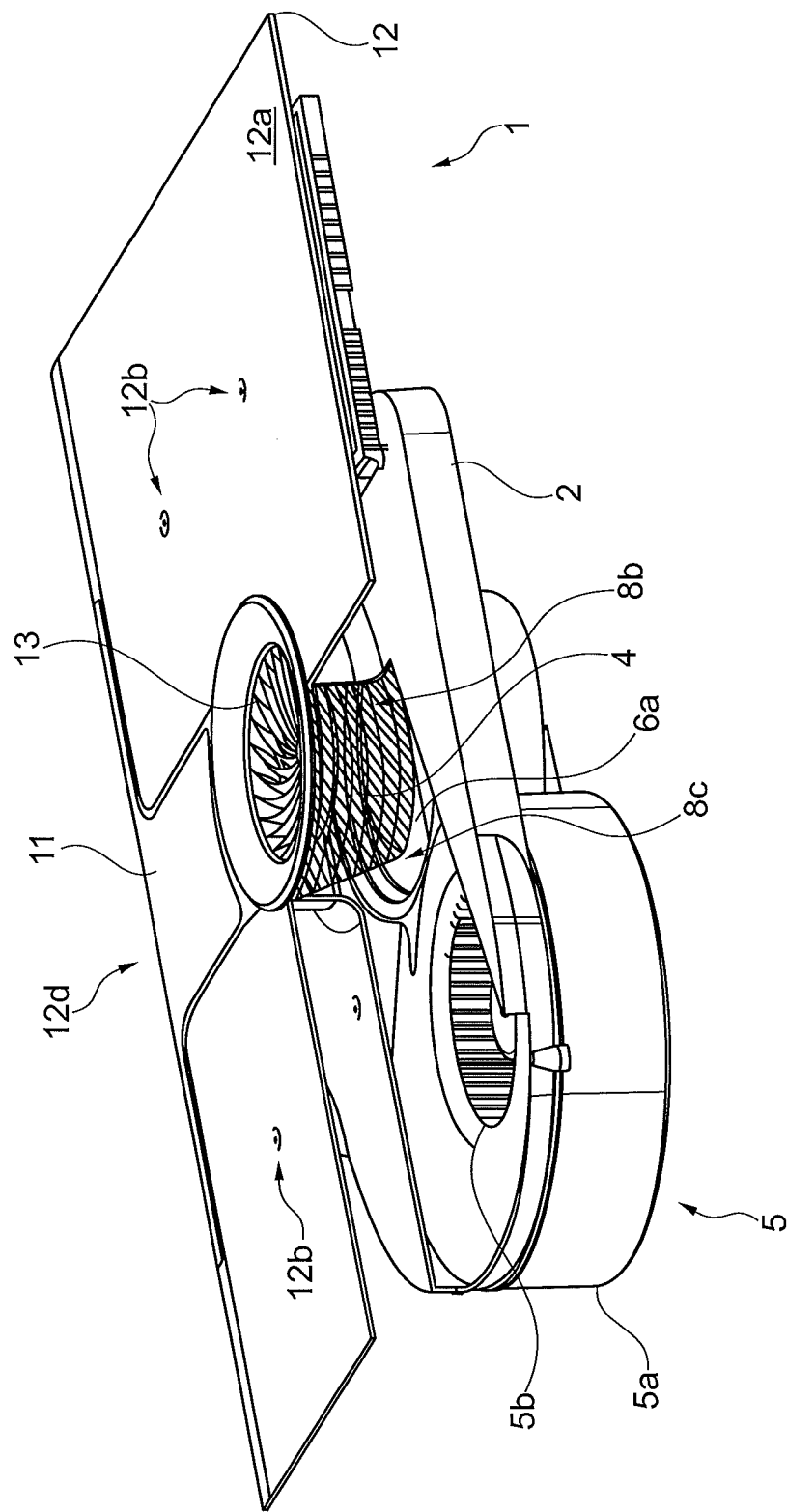


Fig. 3

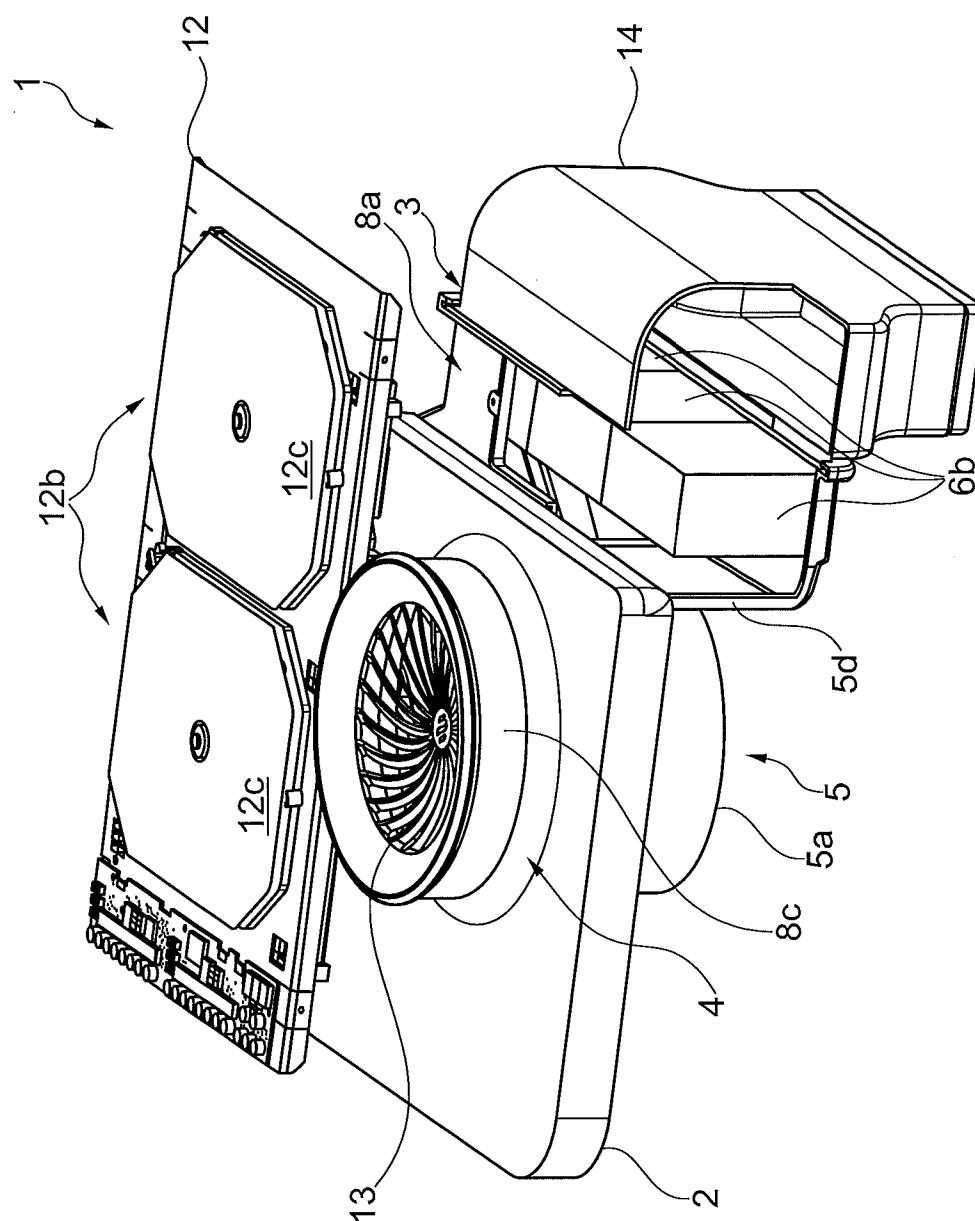
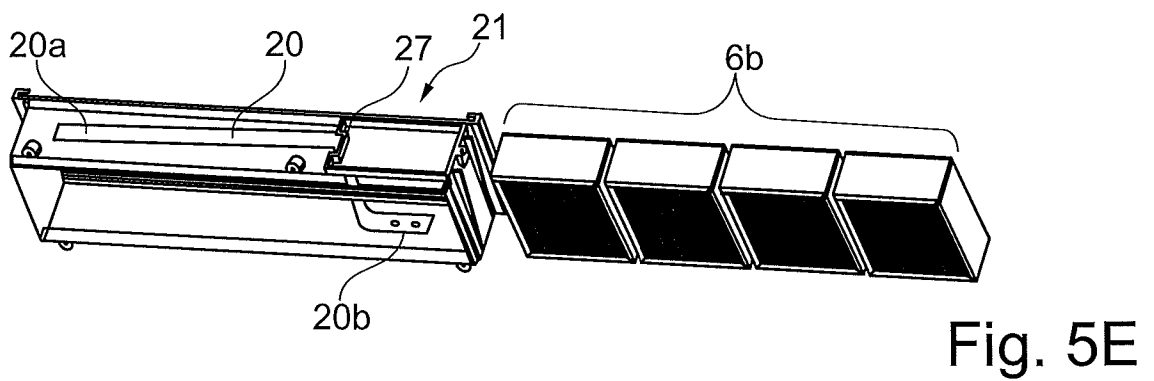
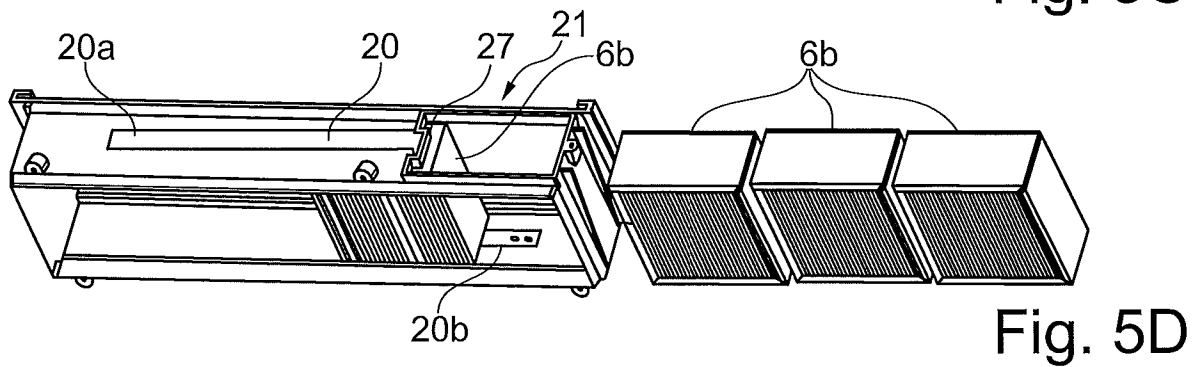
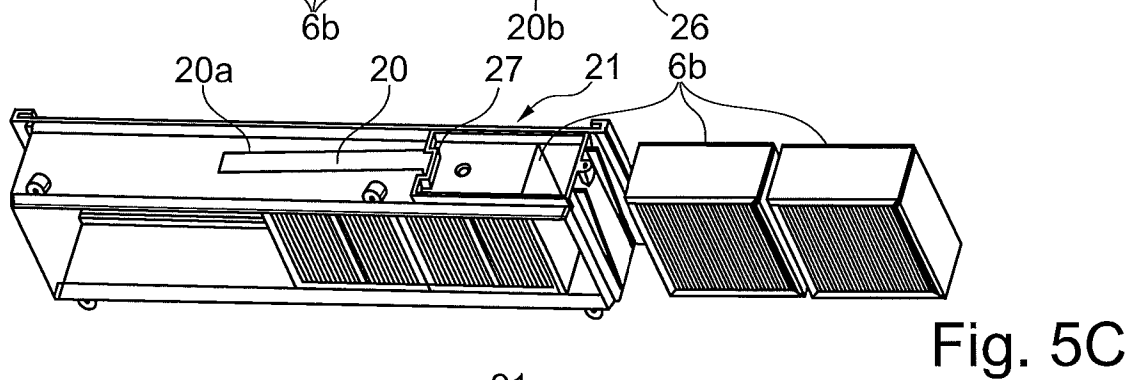
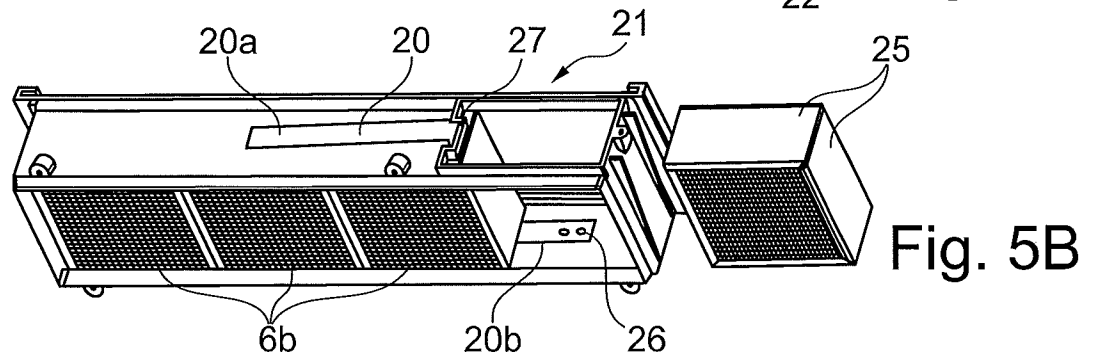
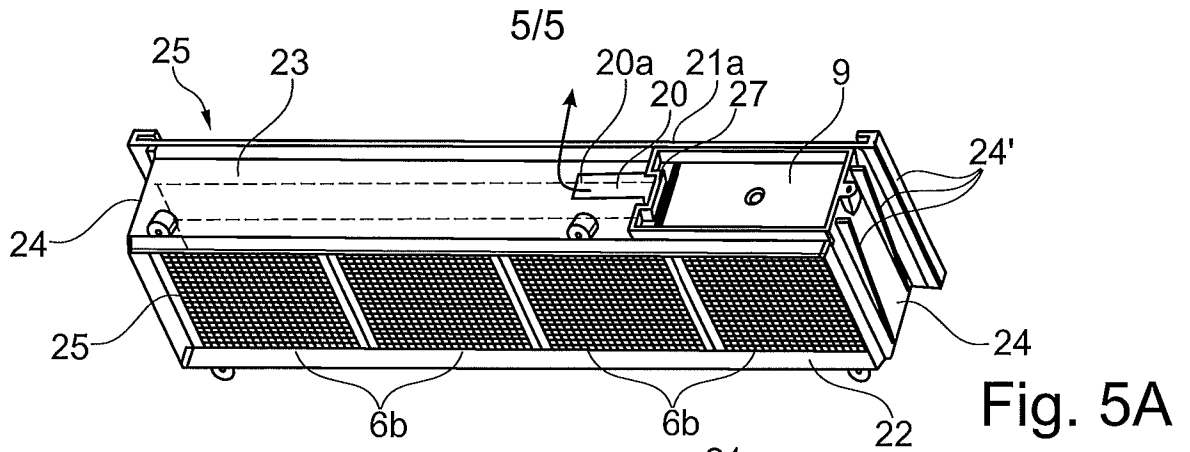


Fig. 4



INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2016/057022

A. CLASSIFICATION OF SUBJECT MATTER
INV. F24C15/20 B08B15/02
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 B08B

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)

EP0-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2010/012110 A1 (FEISTHAMMEL EGON [DE] ET AL) 21 January 2010 (2010-01-21) paragraphs [0051] - [0071]; figures 1-14 -----	1-10
Y	US 2014/290641 A1 (WORRELL JOHN [US]) 2 October 2014 (2014-10-02) the whole document -----	1-10
A	US 2012/204855 A1 (HUBER JOHN J [US]) 16 August 2012 (2012-08-16) the whole document -----	1-5,7-10
A	DE 20 2007 012934 U1 (EXKLUSIV HAUBEN GUTMANN GMBH [DE]) 29 November 2007 (2007-11-29) the whole document -----	1-5,7-10



Further documents are listed in the continuation of Box C.



See patent family annex.

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Date of the actual completion of the international search

31 January 2017

Date of mailing of the international search report

14/02/2017

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Authorized officer

Makúch, Milan

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2016/057022

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