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• **Pillot, Sergio**

33080 Porcia (PN) (IT)

• **Santarossa, Marco**

33080 Porcia (PN) (IT)

• **Ros, Paolo**

33080 Porcia (PN) (IT)

(71) Applicant: **Electrolux Home Products Corporation
N.V.**

1130 Brussel (BE)

(74) Representative: **Nardoni, Andrea et al**

Electrolux Italia S.p.A.

Corso Lino Zanussi, 30

33080 Porcia (PN) (IT)

(72) Inventors:

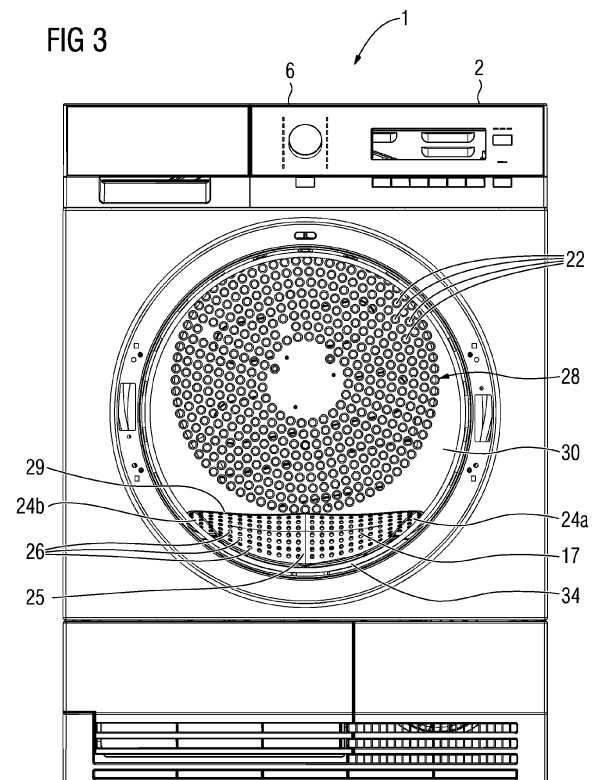
• **Dal Ben, Diego**

33080 Porcia (PN) (IT)

(54) **Tumble dryer with filter**

(57) The present invention concerns a tumble dryer (1) comprising a housing (2) provided with a charging opening for accessing a laundry treatment chamber (28) contained into this housing (2), wherein the laundry treatment chamber (28) comprises a drum (3) rotatably contained into the housing (2) and provided, at its front end, with an opening facing the charging opening, for loading/unloading laundry into the drum (3), said tumble dryer (1) further comprises a door (8) for closing/opening the charging opening, an exhaust duct, which inlet is arranged adjacent to the opening of the drum (3), in which air exiting the laundry treatment chamber (28) is conveyed, a filter (14) arranged at the inlet of the exhaust duct in such a way that an air flow (AF) streaming through the laundry treatment chamber (28) enters the exhaust duct passing through the filter (14), wherein the filter (14) has at least an obstructing region (18) arranged in such a way to prevent laundry from entering a region between the door (8) and the filter (14) when the door (8) is in the closed position.

FIG 3



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Description

[0001] The present invention relates to a tumble dryer comprising a fluff filter.

[0002] Tumble dryers usually comprise filter systems for collecting fluff or lint which is detached from the laundry to be treated in the drying process. Typically, a prior art tumble dryer provides a filter system adjacent to a door (when the door is closed) of the tumble dryer to enable easy access to the filter system. An air flow is provided inside the tumble dryer that enters the filter system. Fluff or lint that is carried by the air flow from the laundry to be dried is filtered out by the filter system, such that air that leaves the filter system is substantially free from lint or fluff. Said air can be heated up again and conveyed to the laundry treatment chamber of the tumble dryer.

[0003] Further the document US 3,378,934 discloses a lint trap for clothes dryers that is arranged in a region below the door of the clothes dryer and that filters out lint from the drying air stream.

[0004] Said document defines the objects to provide a lint trap wherein the lint-catching area is readily accessible and to provide a lint trap having a generally U-shaped configuration which can be opened, so that the interior surfaces thereof are easily accessible upon removal from the dryer. In some tumble driers according to the prior art laundry to be dried can be dragged in a gap between the front door and the filter system, due to a rotational movement of the drum. Therefore, the laundry might suffer mechanical damage.

[0005] Further, the known systems of filters or lint traps have the disadvantage that if laundry is jammed in the region between the door and the filter, it obstructs the air passage, with the risk of overheating and/or reduction of drying performances.

[0006] It is the aim of the present invention to provide a tumble dryer with a filter, wherein the risk of damage for the laundry to be dried is reduced.

[0007] It is a further object of the present invention to provide a tumble dryer with a filter, wherein the risk of overheating and/or reduction of drying performances due to the jamming of laundry between the door and the filter are reduced.

[0008] These aim and objects of the present invention are achieved by a tumble drier according to claim 1.

[0009] In particular, applicant has found that by providing a tumble drier comprising a lint/fluff filter having at least one obstructing region which forms a barrier for preventing laundry from entering a region between the door of the drier and the filter when the door is in a closed position, the laundry is not jammed or pinched between the door and the filter and is not damaged during the operation of the tumble dryer.

[0010] Further, the air passage in the region between the door and the filter is kept free from laundry and, thus, the ventilation is not impeded in this region. The overall performance of the ventilation of the process air can be

improved in this way.

[0011] In particular the above aim and objects are achieved by a tumble dryer, comprising:

- a housing provided with a charging opening for accessing a laundry treatment chamber contained into this housing, wherein the laundry treatment chamber comprises a drum rotatably contained into the housing and provided, at its front end, with an opening facing the charging opening, for loading/unloading laundry into the drum,
- a door for closing/opening the charging opening,
- an exhaust duct, which inlet is arranged adjacent to the opening of the drum, in which air exiting the laundry treatment chamber is conveyed,
- a filter arranged at the inlet of the exhaust duct in such a way that an air flow streaming through the laundry treatment chamber enters the exhaust duct passing through the filter, wherein the filter is arranged in such a way to be adjacent to the door when the door is in a closed position in which it closes the charging opening. The filter has at least an obstructing region arranged in such a way to prevent laundry from entering a region between the door and the filter when the door is in the closed position.

[0012] In an advantageous embodiment, at least a part of the obstructing region is arranged in such a way to be positioned adjacent to a bottom section of the door when the door is in the closed position. Preferably, at least the part of the obstructing region positioned adjacent to the bottom section of the door when the door is in the closed position is substantially counter-shaped to the bottom section of the door.

[0013] Preferably, the bottom section of the door and the part of the obstructing region positioned adjacent to the bottom section of the door when the door is in the closed position mate with each other.

[0014] In a further advantageous embodiment of the invention the gap between the bottom section of the door and the part of the obstructing region positioned adjacent to the bottom section of the door when the door is in the closed position is in the range between 0 mm to 1 mm, preferably between 0,5 mm to 1 mm.

[0015] A barrier is formed by the obstructing region which delimits or closes the laundry treatment chamber and, thus, provides that laundry cannot leave the laundry treatment chamber in direction towards the filter. When the gap is 0 mm, the filter is in contact to the door. Comprising a minimal gap, tolerances can be compensated. A gap of such width secures, that laundry cannot enter between the door and the filter.

[0016] In an advantageous embodiment, the obstructing region comprises a first grid through which at least part of the air exiting the laundry treatment chamber enters the filter.

[0017] Preferably, the obstructing region is arranged in such a way to extend between a structural element

delimiting the laundry treatment chamber and supporting the filter, and the bottom section of the door when the latter is in the closed position.

[0018] Preferably, at least a part of the obstructing region is arranged in a substantially vertical orientation when the tumble dryer is in its intended working position.

[0019] Advantageously, the obstructing region is arranged such that a part of the front opening of the drum is nearly closed by the filter grid and laundry is prevented to leave the drum in this region. Thus, the filter can deflect laundry which leaves the drum back into the drum, thereby reducing the risk, that laundry is jammed in a region outside the drum.

[0020] In a further advantageous embodiment, the filter comprises at least one lateral portion which is inclined towards the laundry treatment chamber for deflecting back towards the laundry treatment chamber pieces of laundry which enter the region between this lateral portion and the adjacent door when the latter is in the closed position.

[0021] Such lateral portions can particularly prevent laundry to be jammed in the lateral corners or a neck formed between the front door, the filter and housing parts. Such laundry can press upon the front door and force it to open unintended. The risk of unintended opening can be, therefore, reduced.

[0022] In an advantageous embodiment, the at least one lateral portion has at least partially a grid structure, so that air can enter the filter at least partially through this at least one lateral portion.

[0023] In a further advantageous embodiment, the filter comprises at least one second filter grid, adjacent to the obstructing region.

[0024] Such second filter grid can carry out functions different from the functions of the first filter grid.

[0025] Preferably, the second filter grid has at least partially a curved form.

[0026] According to a further advantageous embodiment of the invention the second filter grid has at least partially a curved form.

[0027] Thus, the second filter grid can be adapted to the air flow or to structural elements of the tumble dryer such as the door or a door opening.

[0028] More preferably, the second filter grid merges smoothly to a frontal edge of the charging opening of the tumble dryer. Thus, gaps or steps between filter and front opening can be prevented which would disturb the air flow. Further, the forms of the filter, the front opening and the door are adapted to each other in an optimized way.

[0029] Still more preferably, the second filter grid is connected to the frontal edge of the charging opening and is at least partially counter-shaped to the frontal edge.

[0030] According to a further advantageous embodiment the second filter grid adjoins to a circular frontal edge of a charging opening of the tumble dryer.

[0031] In such configuration, the housing of the tumble dryer can have a circular charging opening and advantageously a circular gasket can be used. Further the air flow in the region of the second filter grid is optimized. Advantageously, the second filter grid is arranged in such a way to be at least partially distanced from a bottom section of the door when the latter is in the closed position. Thus, a region is created wherein a part of the air flow can stream. This region can be entered and left by the air flow and improves the passage of the overall air flow. Preferably, the second filter grid comprises at least one central portion and two lateral portions, wherein at least the central portion and the lateral portions comprise one or more gaskets for providing air tight fastening of the filter to a filter seat provided at the inlet of the exhaust duct.

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tageously a circular gasket can be used. Further the air flow in the region of the second filter grid is optimized. Advantageously, the second filter grid is arranged in such a way to be at least partially distanced from a bottom section of the door when the latter is in the closed position. Thus, a region is created wherein a part of the air flow can stream. This region can be entered and left by the air flow and improves the passage of the overall air flow. Preferably, the second filter grid comprises at least one central portion and two lateral portions, wherein at least the central portion and the lateral portions comprise one or more gaskets for providing air tight fastening of the filter to a filter seat provided at the inlet of the exhaust duct.

[0032] Preferably, the filter is arranged in a filter hole and a gasket, advantageously an annular gasket, can be advantageously provided around the filter to mate with the border of the filter hole. Thus, the filter can provide an air tight connection to a housing or a structural element of the tumble dryer, thereby improving the efficiency of the air flow.

[0033] Further, the curved portion can deflect the air in an effective way and provides an outer appearance that is adapted to a common access opening of a tumble dryer, thereby providing easy access for a user. It is also possible that the gasket is provided completely along the parts of the filter which are in contact with the housing or structural elements.

[0034] In an advantageous embodiment, the obstructing region and the second filter grid are connected to each other by an edge section.

[0035] Further characteristics and advantages of the present invention will be highlighted in greater detail in the following detailed description of some of its preferred, but not limitative, embodiments, provided with reference to the enclosed drawings. In the drawings, corresponding characteristics and/or components are identified by the same reference numbers. In particular:

FIG 1 illustrates a sectional view of a tumble dryer comprising a filter arrangement according to the invention;

FIG 2 illustrates a detailed sectional view of such filter arrangement;

FIG 3 illustrates a front view of a tumble dryer with a filter arrangement according to the invention, in which the door has been removed;

FIG 4 illustrates a filter element in demounted and open status;

FIG 5 illustrates a perspective view of a front panel of a tumble dryer with an alternative embodiment of the filter element having a door which is in a closed position;

FIG 6 illustrates a perspective view of the front panel according to FIG 6 wherein the door is in an open position.

[0036] FIG 1 illustrates a sectional view of a tumble dryer 1 according to the invention.

[0037] The tumble dryer 1 can advantageously be a condenser tumble dryer.

[0038] The tumble dryer 1 advantageously comprises a housing 2 with a top cover 6, a back wall 5 and preferably a basement 7.

[0039] Wheel bearings 4 are advantageously supported by the basement 7, wherein a drum 3 is preferably rotationally supported on the wheel bearings 4.

[0040] The drum 3 advantageously comprises an opening at its front end 15 through which laundry to be dried can be placed within the drum 3.

[0041] Further, a front door 8 is advantageously provided for being opened and closed and for providing access to the interior side of the drum 3. The drum 3 is preferably of substantially cylindrical shape, wherein front end 15 and rear end 27 are advantageously opened. However, it is also possible that e.g. the rear end 27 can comprise a rear wall. The front door 8 has an outer side 9 and an inner side 10. The inner side 10 shall be understood as that side which is directed towards the drum 3 when the door 8 is closed.

[0042] A laundry treatment chamber 28 is enclosed by the drum 3, the front door 8 and the back wall 5. In regular operation, the laundry to be dried is intended to be positioned within the interior side of the drum 3. However, the drum 3 has preferably an open front end 15 and an open rear end 27, and therefore it is possible that laundry can escape from the interior side of the drum 3 due to the rotational movement of the drum 3. The front door 8 is adapted to close the laundry treatment chamber 28 and to provide access to the laundry treatment chamber 28 and has preferably, but not necessarily, a specifically formed inner side 10. In the example illustrated in enclosed Figures, the inner side 10 of the front door 8 is advantageously substantially bowl-shaped and has advantageously a curved section 11 that advantageously merges into a bottom section 12.

[0043] A filter 14, which will be better described in the following, is fixed to one or more parts of the housing in such a way to be placed, when the door 8 in a closed position, in a region between front door 8 and drum 3.

[0044] In the example illustrated in the enclosed drawings, the filter 14 is advantageously arranged, when the door 8 in the closed position, below a bottom section 12 of the inner side 10 of the front door 8. Further, the filter 14 is arranged in or at the inlet of an exhaust duct of the tumble dryer 1 which is part of the ventilation system that provides the air flow AF for the tumble dryer 1.

[0045] Further the tumble dryer 1 is adapted to provide air circulation of air, preferably with variable temperature. The air flow AF is preferably generated in a region below the basement 7, e.g. in a duct with a fan (not shown).

The air flow AF passes through several parts of the housing 2 until it enters the laundry treatment chamber 28. Means for guiding the air flow AF into the interior side of the drum 3 can be advantageously provided. The air flow AF preferably passes through the rear end 27 into the interior side of the drum 3. There the air absorbs moisture or humidity from the laundry and, thus, dries the laundry.

[0046] Leaving the interior side of the drum 3, the air flow AF passes the front end 15, wherein the air flow AF is guided, advantageously by the curved section 11 and the bottom section 12, towards the filter 14. The filter 14 is preferably arranged in such a way that the air flow AF passes there through and advantageously reach the region below the basement 7, where it is again sucked in by the fan.

[0047] In the drying process, when the drying air flows through and around the laundry to be dried, the air picks up or takes fluff or lint from the laundry which is then carried away in the air flow AF.

[0048] By passing through the filter 14, the fluff or lint which is carried in the air flow is caught or hold back by or within the filter 14. Thus, it is prevented that fluff or lint can enter the air ventilation duct below the basement 7 or the fan or can re-enter the laundry treatment chamber 28.

[0049] As stated above, preferably the filter 14 is provided in a region at least partially between front door 8 and drum 3. Further the filter 14 preferably extends partially inside the basement 7, where it is seated in a recess or a support structure provided by the housing 2 and/or by the basement 7.

[0050] Advantageously, the filter 14 is at least partially adapted in its form (i.e. counter-shaped) to the bottom region 12 of the front door 8 in such way that the form of the filter 14 at least partially follows the form of the bottom section 12 of the front door 8 when the front door 8 is in a closed position. The shape of the filter 14 is preferably at least partially adapted to the preferably truncated form of the bottom section 12 of the front door 8.

[0051] A gasket 31 is preferably provided which follows the shape of the front door 8, and which abuts against the casing 2 when the door is in the closed position (position illustrated for example in enclosed Figures 1 and 2 and 6), for ensueing the airtight closure of the door 8.

[0052] The filter 14 is preferably designed and dimensioned such that it can be arranged or fastened also to the filter seat of a prior art tumble dryer. In other words, the filter 14 is preferably able to replace the filter component of a known tumble dryer.

[0053] In general, the filter 14 can be at least partially counter-shaped to the bottom section 10 of the front door 8, in order to minimize or to avoid a gap between the front door 8 and the filter 14. Preferably, the gap between filter 14 and bottom section 10 is in the region between 0,5 mm to 1 mm, when the front door 8 is closed.

[0054] FIG 2 illustrates a detailed sectional view of such filter 14. Preferably, the filter 14 comprises a obstructing region, preferably comprising a first filter grid

18; preferably the filter 14 comprises also a second filter grid 17, advantageously connected to the obstructing region 18 by an edge section 29.

[0055] Preferably obstructing region 18, second filter grid 17, and edge section 29 are formed integrally (i.e. they are a single piece obtained, preferably, by injection moulding). Advantageously, the obstructing region 18 is arranged substantially parallel to the front end 15 of the drum 3 and, preferably, slightly directed towards the internal drum 3. In such a configuration the obstructing region 18 delimits or encloses the laundry treatment chamber 28 by preventing laundry to get in a gap between bottom section 12 of front door 8 and the filter 14. Further advantageously, the second filter grid 17 and/or the edge section 29 are arranged in such a way that, when the door 8 is in the closed position, they are at least partially close to or in contact with the bottom section 12 of the front door 8, thereby minimizing or closing the gap between front door 8 and filter 14. Advantageously, the obstructing region 18 forms a barrier for laundry between the bottom section 12 of the front door 8 and a structural element 32 delimiting a lower region of the laundry treatment chamber 28.

[0056] Further advantageously, the filter 14 has a first and second filter panel 20, 21 which are preferably partially arranged within a recess 16 which can be provided by a part of the housing 2. Further, first and second filter panel 20, 21 preferably comprise one or more meshes 23 through which the air flow AF can pass, wherein the fluff or lint carried by the air flow AF and passing through the filter 14 is caught in the meshes 23.

[0057] First filter panel 20 and a second filter panel 21 are preferably interconnected by a hinge 19. Thus, the filter 14 can be advantageously released and removed from its seat in the tumble dryer 1 and folded apart for removing the fluff or lint and the filter 14 can be folded again and reinstalled.

[0058] FIG 3 illustrates a front view of the tumble dryer 1 with a filter 14 according to the invention. The front door is not shown in this figure. Therefore a part of the laundry treatment chamber 28 can be seen. Preferably, a circular front edge 34 is formed as a charging opening of the tumble dryer 1. In this configuration it is possible to use a circular gasket in order to seal the front door 8. The second filter grid 17 is preferably adapted to the shape of the charging opening. This allows increasing the air flow through the filter 14.

[0059] In the case the front edge 34 has a truncated form, the form of the gasket 31 and the form of the second filter grid 17 is preferably counter-shaped, e.g. the end of the second filter grid 17 adjoining to the front edge 34 is preferably substantially linear.

[0060] Advantageously the second filter grid 17 comprises a curved shape that is preferably adapted to the shape of the inner side 10 of the front door 8. Therefore, the second filter grid 17 has preferably a curved portion 25 which advantageously comprises a curvature that corresponds to the curvature of the bottom section 12 of the

front door 8 as shown in the previous figures. Preferably, the second filter grid 17 has lateral portions 24a, 24b which prevent the laundry from being pinched or being dragged in the gap between front door and filter 14 from sideways.

[0061] The filter 14 comprises regularly or not regularly arranged through holes 26, through which air with fluff or lint can pass.

[0062] Further it is advantageously possible that an air distribution wall 30 is provided, either as part of the drum 3 closing the rear end 27 of the drum 3 or between drum 3 and back wall 5 of the housing 2. The air distribution wall 30 has outlet holes 22 for distributing the air within the laundry treatment chamber 28 in an optimized way.

[0063] FIG 4 illustrates a filter 14 in a folded out (i.e. opened) status. The filter 14 advantageously comprises the first and second filter panels 20, 21 which are preferably interconnected by a hinge 19. Mesh filters 23 are arranged on the filter panels 20, 21 where the fluff or lint is caught or held back when the air flow AF flows through the filter 14. The second filter grid 17 has preferably the curved portion 25 with through holes 26. Laterally attached to the curved portion 25, the lateral portions 24a, 24b are provided. Further the filter panels 20, 21 have side walls 33 which are formed and adapted such that the filter 14, when folded (i.e. closed) completely encloses an interior space, where air with fluff or lint can pass through and the fluff or lint is held back in the interior space.

[0064] Advantageously, the lateral portions 24a, 24b can have support sections 39 which are preferably provided with a gasket. The filter 14 can be supported by in or on the filter seat by means of the support sections 39. Comprising one or more gaskets in the support sections 39, the filter 14 can fit into the filter seat or filter hole and can be made advantageously air tight.

[0065] FIG 5 illustrates a front panel 35 of the tumble dryer 1, which is part of the frontal wall of the housing 2 or is associated to the frontal wall of the housing 2. Advantageously, door 8 is pivotably associated to the front panel 35 and it is shown in a closed position. Filter 14 is arranged adjacent to the door 8 when it is in the closed position. Advantageously, the obstructing region 18 of the filter 14 is in touch (i.e. it contacts) or almost in touch (i.e. it is very closed to) with the door 8. Consequently, a gap between the door 8 and the filter 14 does not exist or is very small. Such a configuration prevents laundry to enter the region between door 8 and filter 14 (in particular between the door 8 and the obstructing region 18). The charging opening of the tumble dryer 1 has preferably a linearly formed bottom section, wherein the second filter grid 17 is advantageously adapted (i.e. counter-shaped or partially counter-shaped) thereto. The gasket for the front door 8, if provided, is also advantageously adapted to the form of the charging opening.

[0066] The filter 14 has an obstructing region 18 which is directed towards the laundry treatment chamber 28 of the tumble dryer 1. Preferably, the obstructing region 18

comprises lateral portions 36a, 36b which are inclined or sloped towards the laundry treatment chamber 28.

[0067] Due to the rotation of the drum 3, laundry can be moved into a lateral region of the door 8, where the lateral portions 36a, 36b are arranged. There, the laundry is advantageously deflected by the lateral portions 36a, 36b and redirected towards the laundry treatment chamber 28.

[0068] FIG 6 illustrates the front panel 35 of the tumble dryer 1 with the door 8 which is in an open position. Thus, an edge section 29 of the filter 14 can be seen which is in contact or arranged closed to the door 8, when the door is in a closed position.

[0069] As can be seen, the inner side 10 of the door 8 has advantageously a partial circular form, wherein the section of the inner side 10 which is adjacent to the filter 14 is preferably formed linearly. Preferably, the edge section 29 is also formed linearly and, thus, fits to the form of the door 8 and can be in contact to the door 8 or, in a different embodiment, very close to the door.

[0070] The filter 14 has preferably a second filter grid 17 which has, preferably, lateral portions 37a, 37b. These lateral portions 37a, 37b are formed to be in contact or at least almost in contact to a lateral side of the door 8, when the door 8 is in a closed position. Further preferably, end portions 38a, 38b are provided on the filter 14 which form a transition to the front panel 35.

[0071] While the present invention has been described with reference to the particular embodiments shown in the figures, it should be noted that the present invention is not limited to the specific embodiments illustrated and described herein; on the contrary, further variants of the embodiments described herein fall within the scope of the present invention, which is defined in the claims.

Claims

1. Tumble dryer (1), comprising:

- a housing (2) provided with a charging opening for accessing a laundry treatment chamber (28) contained into said housing (2), wherein said laundry treatment chamber (28) comprises a drum (3) rotatably contained into said housing (2) and provided, at its front end, with an opening facing said charging opening, for loading/unloading laundry into said drum (3),
- a door (8) for closing/opening said charging opening,
- an exhaust duct, which inlet is arranged adjacent to said opening of said drum (3), in which air exiting said laundry treatment chamber (28) is conveyed,
- a filter (14) arranged at the inlet of said exhaust duct in such a way that an air flow (AF) streaming through said laundry treatment chamber (28) enters said exhaust duct passing through said

filter (14), wherein said filter (14) is arranged in such a way to be adjacent to said door (8) when the door (8) is in a closed position in which it closes said charging opening, **characterized in that**

said filter (14) has at least an obstructing region (18) arranged in such a way to prevent laundry from entering a region between said door (8) and said filter (14) when said door (8) is in said closed position.

2. Tumble dryer (1) according to claim 1, wherein at least a part of said obstructing region (18) is arranged in such a way to be positioned adjacent to a bottom section (12) of said door (8) when the door (8) is in said closed position.
3. Tumble dryer (1) according to claim 2, wherein at least said part of said obstructing region (18) positioned adjacent to said bottom section (12) when said door (8) is in said closed position is substantially counter-shaped to said bottom section (12) of said door (8).
4. Tumble dryer (1) according to one or more of the preceding claims, wherein said obstructing region (18) comprises a first grid (18) through which at least part of the air exiting said laundry treatment chamber (28) enters said filter (14).
5. Tumble dryer (1) according to one or more of claims 2 to 4, wherein said obstructing region (18) is arranged in such a way to extend between a structural element (32) delimiting said laundry treatment chamber (28) and supporting said filter (14), and said bottom section (12) of said door (8) when the latter is in the closed position.
6. Tumble dryer (1) according to one or more of the preceding claims, wherein said filter (14) comprises at least one lateral portion (36a, 36b) which is inclined towards the laundry treatment chamber (28) for deflecting back towards the laundry treatment chamber (28) pieces of laundry which enter the region between said lateral portion (36a, 36b) and the adjacent door (8) when the latter is in the closed position.
7. Tumble dryer (1) according to claim 6, wherein said at least one lateral portion (36a, 36b) has at least partially a grid structure, so that air can enter said filter (14) at least partially through said at least one lateral portion (36a, 36b)
8. Tumble dryer (1) according to one of the preceding claims, wherein said filter (14) comprises at least one second filter grid (17), adjacent to said obstructing region (18).

9. Tumble dryer (1) according to claim 8, wherein said second filter grid (17) has at least partially a curved form.
10. Tumble dryer (1) according to claim 8 or 9, wherein said second filter grid (17) merges smoothly to a frontal edge (34) of said charging opening of the tumble dryer (1). 5
11. Tumble dryer (1) according to claim 8 or 9 or 10, wherein said second filter grid (17) is connected to the frontal edge (34) of said charging opening and is at least partially counter-shaped to said frontal edge (34). 10
12. Tumble dryer (1) according to one or more of the claims 8 to 11, wherein said second filter grid (17) is arranged in such a way to be at least partially distanced from a bottom section (12) of said door (8) when the latter is in the closed position. 15 20
13. Tumble dryer (1) according to one or more of the claims 8 to 12, wherein said second filter grid (17) comprises at least one central portion (25) and two lateral portions (24a, 24b), wherein at least said central portion (25) and said lateral portions (24a, 24b) comprise one or more gaskets for providing air tight fastening of the filter (14) to a filter seat provided at the inlet of said exhaust duct. 25 30
14. Tumble dryer (1) according to one or more of the claims 8 to 13, wherein said obstructing region (18) and said second filter grid (17) are connected to each other by an edge section (29). 35

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FIG 1

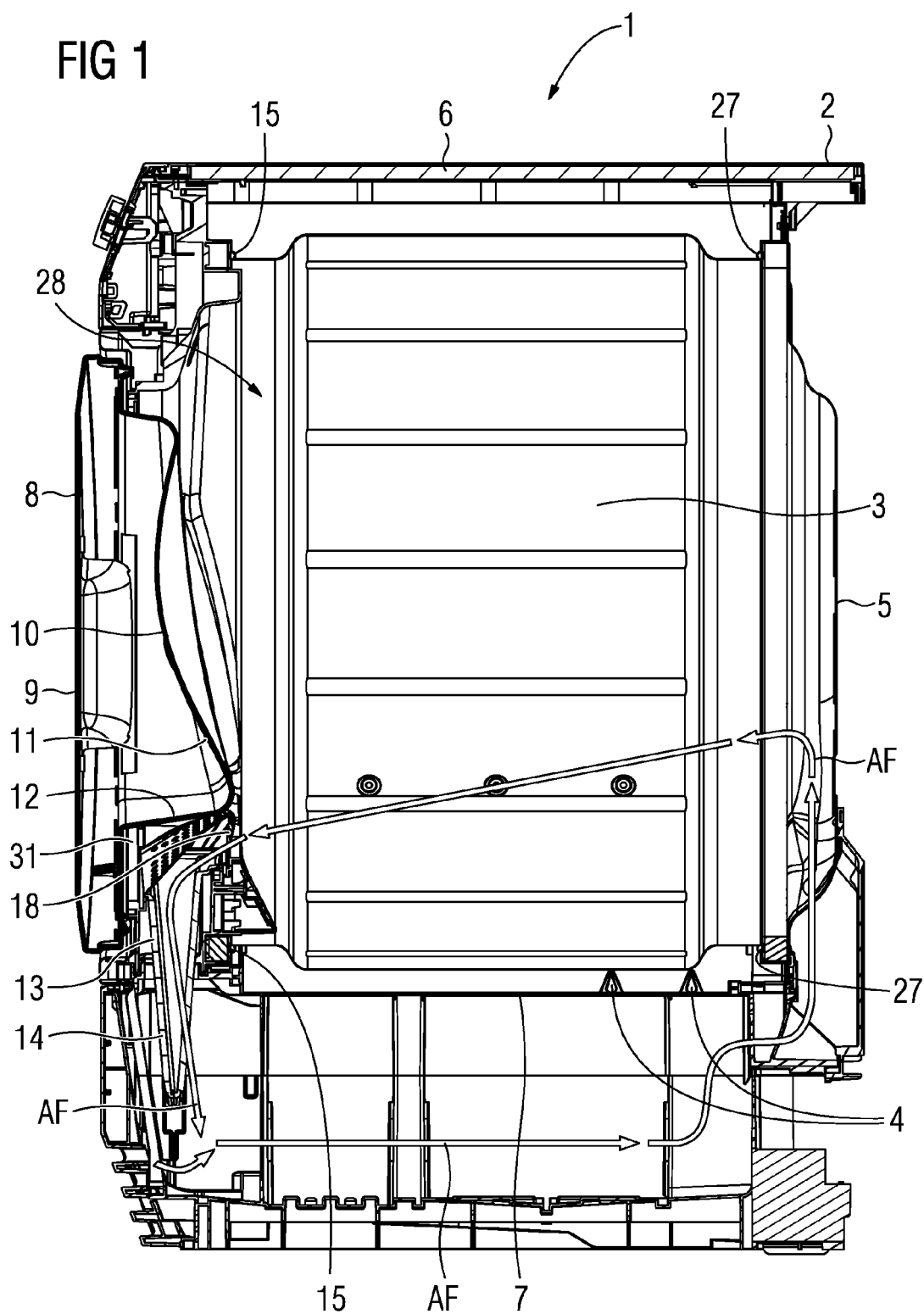


FIG 2

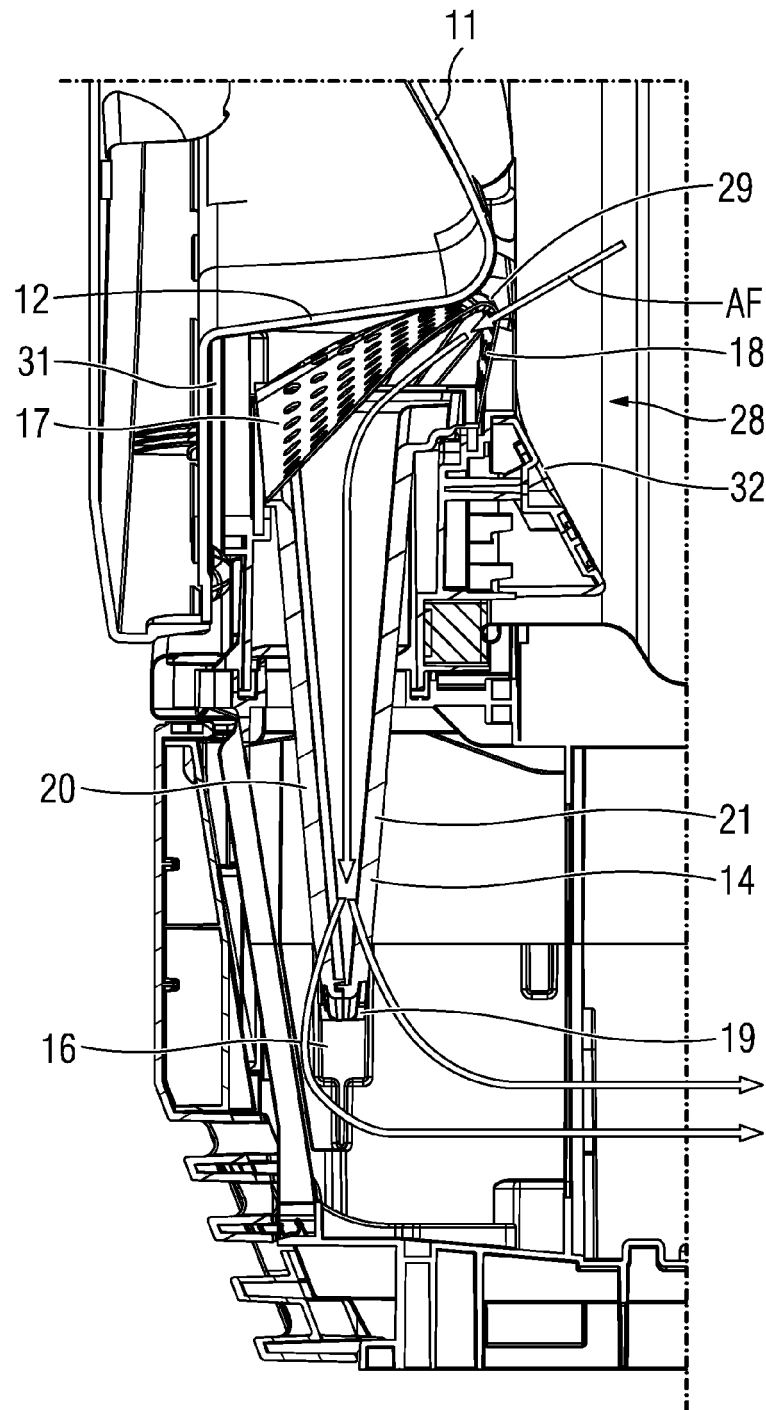


FIG 3

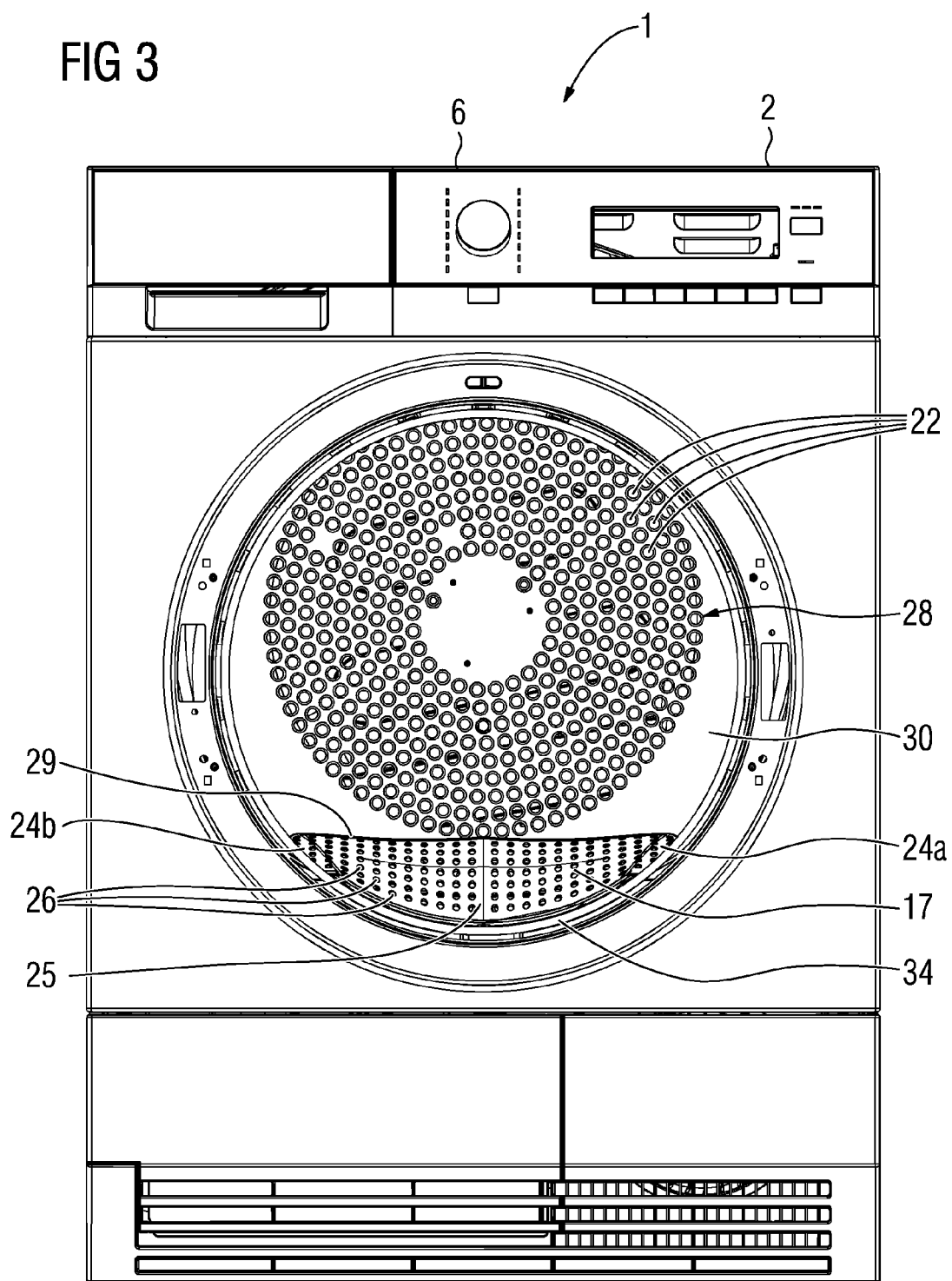


FIG 4

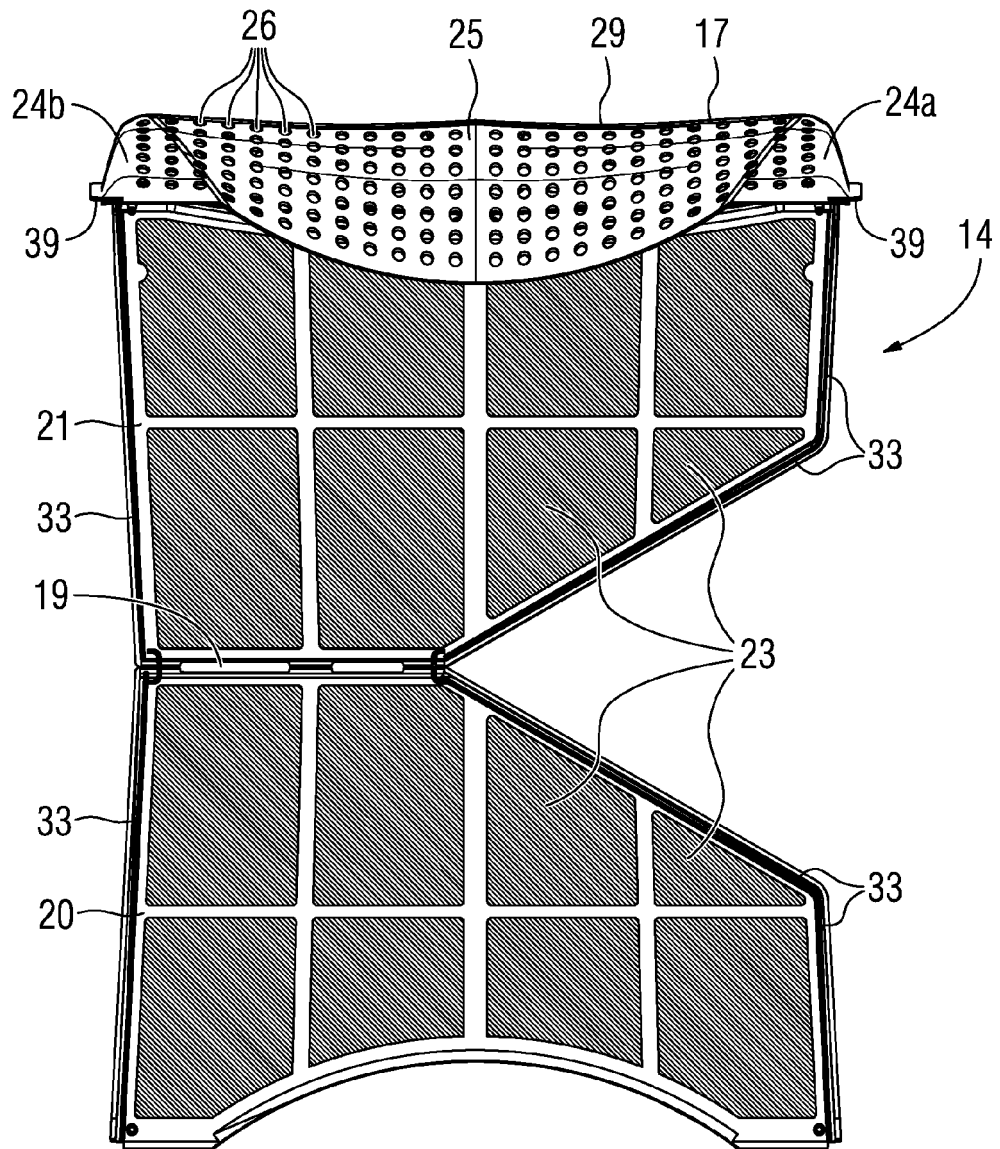


FIG 5

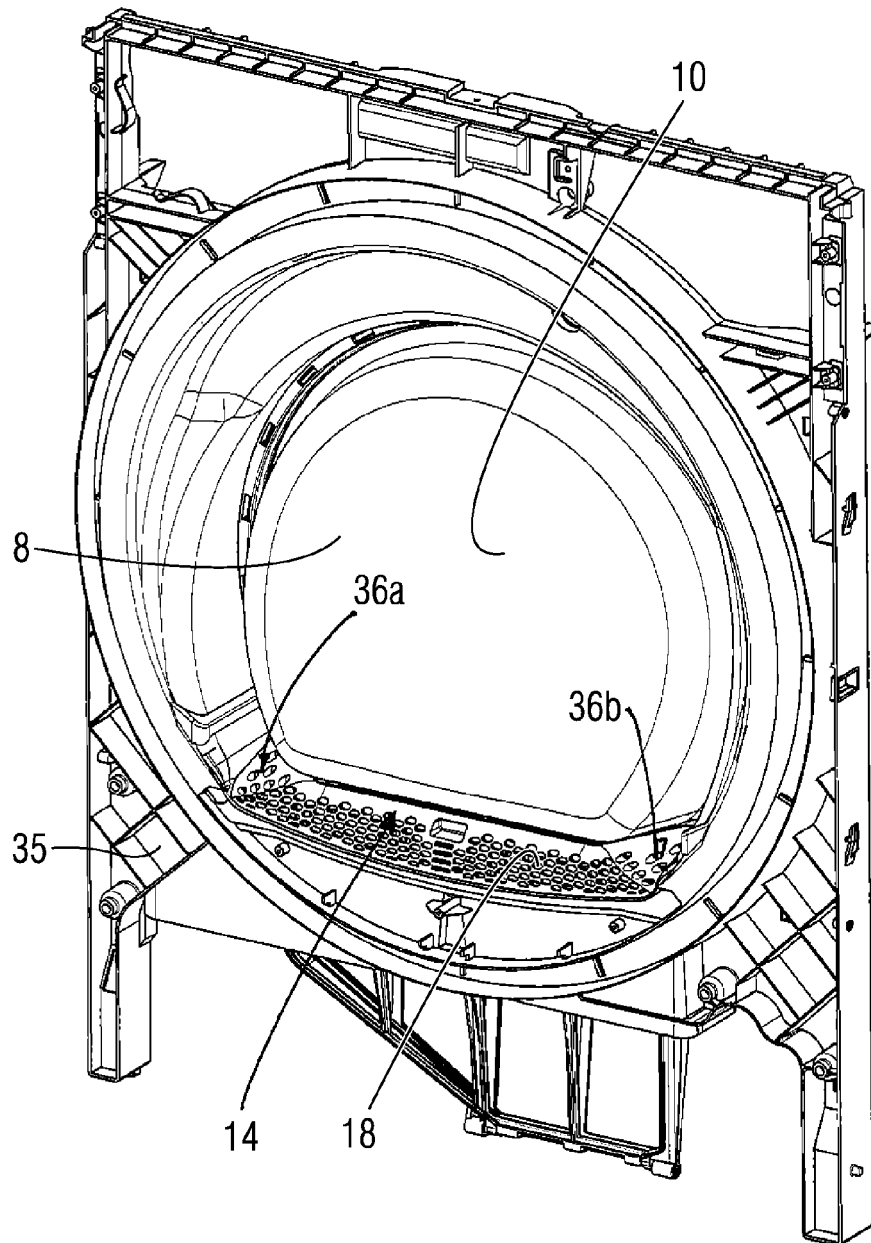
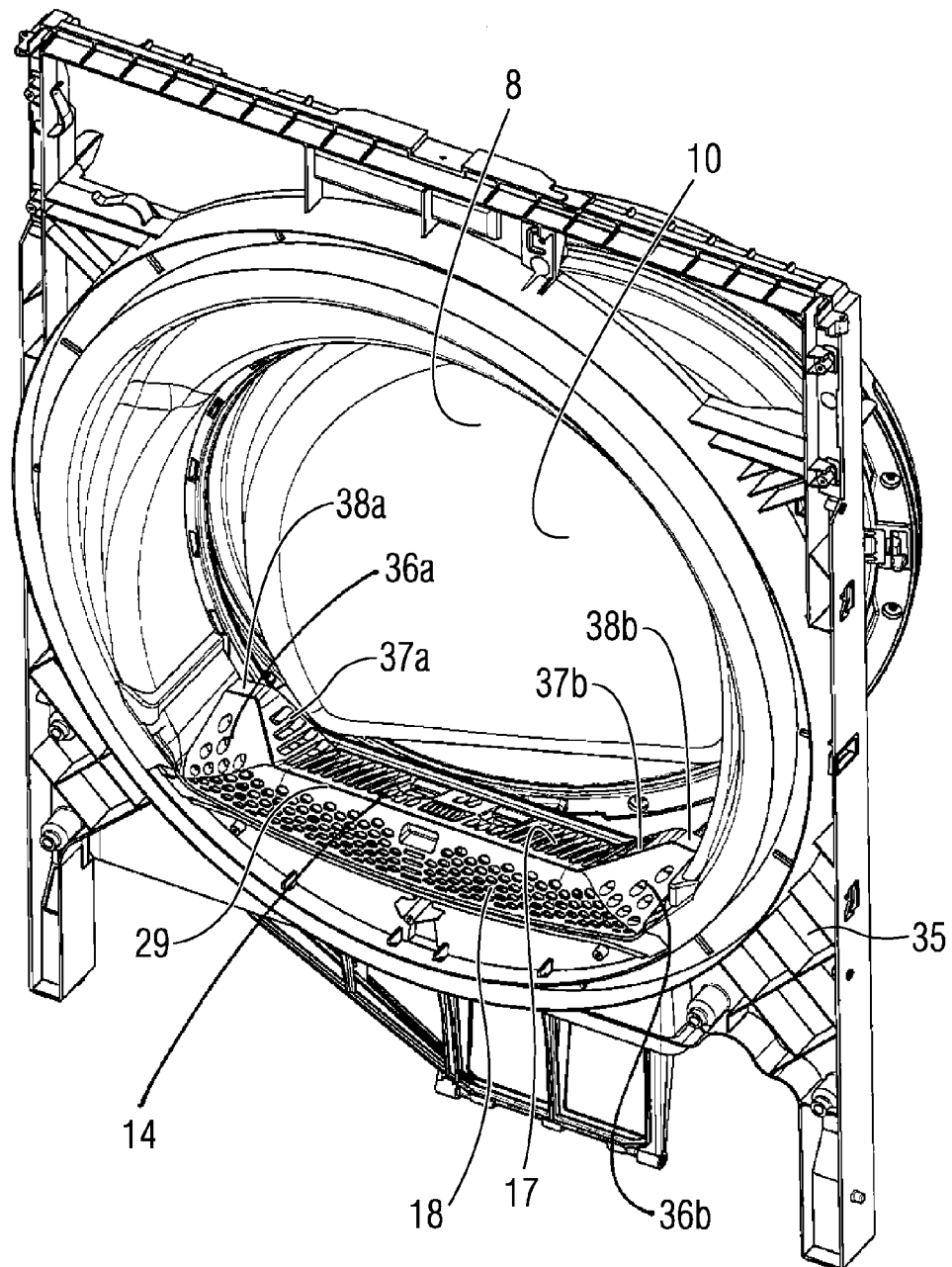


FIG 6





EUROPEAN SEARCH REPORT

Application Number
EP 12 16 7127

DOCUMENTS CONSIDERED TO BE RELEVANT			
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Place of search Munich		Date of completion of the search 25 September 2012	Examiner Clivio, Eugenio
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