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(54) **Laundry drying machine**

(57) The present invention relates to a laundry drying machine (1) comprising a laundry container (6) suitable for receiving the laundry to be dried, a basement (14) having an upper side (17) and a lower side (16) opposite to the upper side (17), the upper side (17) comprising a seat (18A) for receiving a heat exchanger (19) through which moist air coming from the laundry container (6)

may flow. An extractable tank (9) arranged at the basement (14) for the collection of condensation water formed by the heat exchanger (19) is provided. The lower side (16) of the basement (14) forms an inlet air path (I) for air to be conveyed to the heat exchanger (19) and an outlet air path (O, O1) for air to be expelled from the heat exchanger (19).

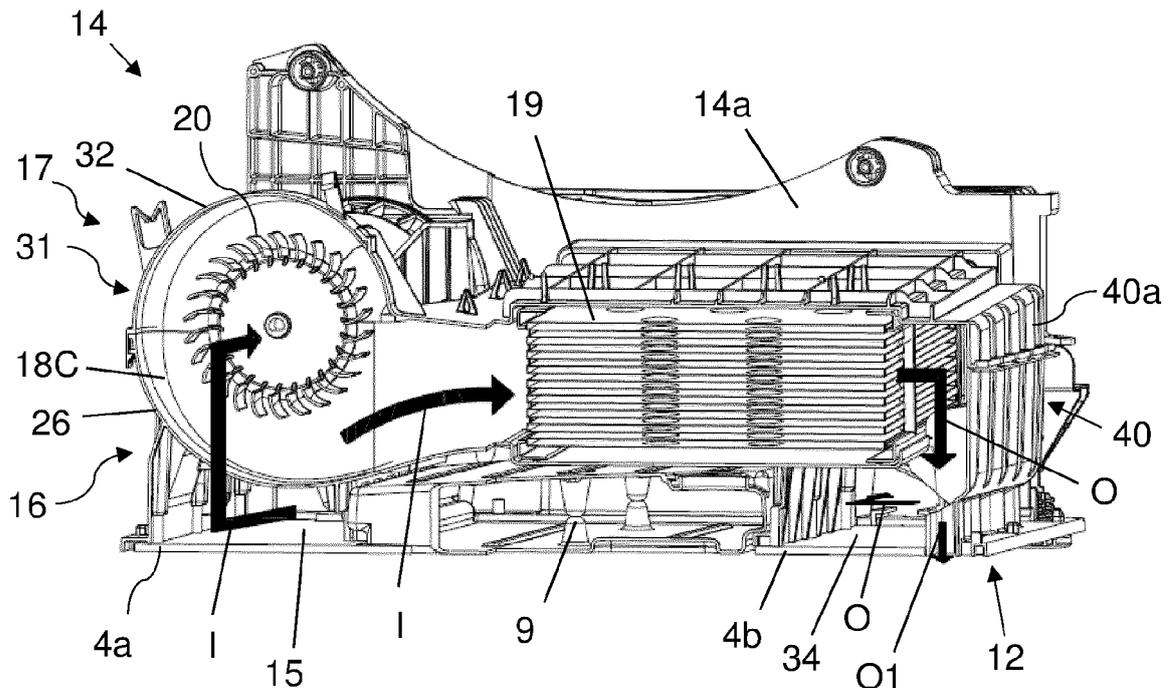


FIG. 11

Description**FIELD OF THE INVENTION**

[0001] The present invention concerns the technical field of laundry treating machines, especially laundry drying machines.

[0002] In particular, the present invention refers to laundry drying machines of the condenser type.

BACKGROUND ART

[0003] Laundry treating machines capable of carrying out a drying process on laundry generally comprise a casing that houses a laundry container, like a rotating drum, where laundry to be treated is received, a basement portion having seats for receiving machine operational devices, and an air circuit for carrying out drying operation by circulating hot air through the laundry container. Air circulating means and heating means are provided in the air circuit for circulating and heating drying air, respectively. In condenser type dryers, condensing means are further provided in the air circuit for removing moisture from drying air passing through articles to be treated thereby allowing said air to be recirculated cyclically within the air circuit. Moisture removed from articles is either collected in a tank periodically emptied by a user or it is directly exhausted by a pipe connected to a waste water net.

[0004] Washing-drying appliances, i.e. appliances provided for performing articles washing and drying operations in a single machine are also known and generally comprise a water circuit including pumping means for allowing washing water to be supplied to a laundry treating chamber and a drying arrangement as described before for drying laundry.

[0005] In the following description the invention will be disclosed with particular reference to a machine suitable for carrying out a drying operation on laundry such as a laundry drying machine or a washing-drying machine.

[0006] In a known condenser type laundry dryer, means for condensing moisture removed by articles are configured in many different ways.

[0007] Typical examples comprise an air-air heat exchanger. Such condensing means require to be cooled in order to constantly provide a cold surface where wet drying air can be condensed. Normally, air taken from dryer machine surroundings is used as cooling means. For this reason a plurality of conduits are provided on the lower portion of the laundry drying machine and, generally, a basement portion is appropriately designed to form at least a portion of cooling conduits.

[0008] In prior art laundry drying machines such cooling conduits are generally formed on the upper side of machine basement, i.e. on the basement side facing the laundry container. However such construction is particularly disadvantageous because it complicates the arrangement of further machine operating devices like air

pumping means, motor means and so on.

[0009] A further drawback of such prior art laundry drying machines consists in that the position of air conduits on basement upper side causes the air ports on machine casing walls to be either placed at a high position relative to the machine resting surface or to be placed on lower region of casing lateral wall by complicatedly connecting them with air conduits. This arrangement definitely determines an efficiency reduction and therefore an increase in power losses.

[0010] Another drawback of prior art laundry drying machines described above consists in high noise produced by cooling air circulating through conduits having complex and tortuous paths.

[0011] The aim of the present invention is therefore to solve the noted drawbacks and thus providing a laundry drying machine having an improved basement arrangement.

[0012] An object of the present invention is to provide a laundry treating machine with a basement having a more compact and rational design that improves arrangement of machine operational devices thereon.

[0013] Another object of the present invention is to provide a laundry drying machine suitable for carrying out a drying process on laundry having an improved performance in cooling condensing means, said laundry drying machine ensuring an efficient cooling air flow.

[0014] A further object of the invention is to provide a laundry drying machine producing a low noise during working operation compared to laundry treating machine of known type.

[0015] Another object of the invention is to provide a laundry drying machine which is easy to be assembled.

[0016] Advantages, objects, and features of the invention will be set forth in part in the description and drawings which follow and in part will become apparent to those having ordinary skill in the art upon examination of the following or may be learned from practice of the invention.

DISCLOSURE OF INVENTION

[0017] The applicant has found that by providing a laundry drying machine comprising a laundry container suitable for receiving the laundry to be dried, a basement having an upper side and a lower side opposite to the upper side, an extractable tank disposed in the basement for the collection of condensation water formed by a heat exchanger, wherein the lower side of the basement forms an inlet air path for air to be conveyed to the heat exchanger and an outlet air path for air to be expelled from the heat exchanger it is possible to obtain a more compact and rational design of the basement itself.

[0018] The present invention relates, in a first aspect thereof, to a laundry drying machine comprising:

- a laundry container suitable for receiving the laundry to be dried;
- a basement having an upper side and a lower side

opposite to said upper side, said upper side comprising a seat for receiving a heat exchanger through which moist air coming from said laundry container may flow;

- an extractable tank arranged at the basement for the collection of condensation water formed by said heat exchanger,

wherein said lower side of said basement forms an inlet air path for air to be conveyed to said heat exchanger and an outlet air path for air to be expelled from said heat exchanger.

[0019] Opportunely the lower side of the basement is the side of the basement which faces the floor on which the laundry drying machine is installed.

[0020] In a preferred embodiment of the invention, a bottom sheet is associated to the lower side of the basement such that at least one hollow space is formed therein to define at least a portion of one of the air paths.

[0021] Preferably a first bottom sheet is associated to said lower side of the basement such that a first hollow space is formed therein to define at least a portion of the inlet air path and a second bottom sheet is associated to the lower side of the basement such that a second hollow space is formed therein to define at least a portion of the outlet air path.

[0022] In a further embodiment of the invention, an air passage is formed at the bottom of the lower side of the basement.

[0023] Preferably an air passage is formed at the bottom of the lower side of the basement to communicate with the second hollow space.

[0024] Advantageously the extractable tank is arranged in the lower side of the basement between the inlet air path and the outlet air path.

[0025] Opportunely, the extractable tank separates the inlet air path from the outlet air path.

[0026] Preferably the inlet air path and the outlet air path comprise respective air conduits, such air conduits being separated by the extractable tank. Advantageously the air flow direction along the separated air conduits is opposite.

[0027] Preferably the extractable tank is slidably arranged on the lower side of the basement.

[0028] Opportunely the extractable tank is arranged below the heat exchanger.

[0029] In a preferred embodiment of the invention, the inlet air path comprises an inlet aperture and/or the outlet air path comprises an outlet aperture.

[0030] Preferably the inlet aperture is provided on a front wall of a casing.

[0031] Preferably the outlet aperture is provided on the front wall of the casing. Opportunely the basement comprises a conveyor for driving the inlet air path from the lower side to the upper side towards the heat exchanger.

[0032] Opportunely the basement comprises a conveyor for driving the outlet air path from the upper side to the lower side.

[0033] In a preferred embodiment of the invention, the basement comprises further seats for receiving operational devices that comprise at least one of the following: motor means, fluid compressing means, heat exchanging means, fluid condensing and/or evaporating means, a portion of a heat pump circuit. Advantageously the basement comprises one or more ducts so as to direct part of the inlet air path or part of the outlet air path towards said one or more further seats for cooling said one or more further seats.

[0034] Opportunely the basement comprises an upper shell and a lower shell connected one to the other and the lower shell comprises said upper side and said lower side.

[0035] Preferably, the lower shell of the basement comprises/defines/forms the lower side of the basement and the extractable tank is slidably arranged on the lower side of lower shell.

[0036] Preferably, the lower shell of the basement comprises/defines/forms the lower side of the basement and the bottom sheets are removably mounted onto the lower side of the lower shell.

[0037] Preferably, the lower shell of the basement comprises/defines/forms the upper side of the basement and the condensing means rests on the upper side of the lower shell of the basement.

[0038] Preferably the heat exchanger is an air-air heat exchanger.

[0039] Preferably the machine of the invention is a combined laundry washing and drying machine.

BRIEF DESCRIPTION OF THE DRAWINGS

[0040] The accompanying drawings, which are included to provide a further understanding of the invention and are incorporated in and constitute a part of this specification, illustrate a possible embodiment of the invention and together with the description serve to explain the principles of the invention. In the drawings, corresponding characteristics and/or components are identified by the same reference numbers. In particular:

- Figure 1 shows a perspective view of a laundry drying machine according to the invention with an upright side wall and an upper side wall removed;
- Figure 2 shows a perspective bottom view of the laundry drying machine illustrated in Figure 1;
- Figure 3 shows a partially exploded view of the laundry drying machine illustrated in Figure 2;
- Figure 4 shows a plan bottom view of the laundry drying machine illustrated in Figure 1;
- Figure 5 shows a perspective sectional view taken along line V-V of Figure 4;
- Figure 6 shows a perspective bottom view of the basement of the laundry drying machine of Figure 3;
- Figure 7 shows a partially exploded view of the basement of the laundry drying machine illustrated in Figure 6;

- Figure 8 shows an exploded view of the basement of the laundry drying machine illustrated in Figure 6;
- Figure 9 shows the exploded view of Figure 8 from a reverse angle view.
- Figure 10 shows a perspective sectional view of the basement of the laundry drying machine illustrated in Figure 1 with air pumping means and condensing means arranged therein;
- Figure 11 shows a rear sectional view of air pumping means and condensing means arranged on the laundry drying machine basement illustrated in Figure 10;
- Figure 12 shows a perspective sectional view of the laundry drying machine basement of Figure 10 from a reverse angle view.

DETAILED DESCRIPTION OF THE INVENTION

[0041] The present invention has proved to be particularly successful when applied to laundry drying machines of the condenser type. It should in any case be underlined that the present invention is not limited to this type of application. On the contrary, the present invention can be usefully applied to all the machines requiring a drying phase for wetted clothes, as for example a combined laundry washing and drying machine.

[0042] With reference to Figure 1, a laundry drying machine 1 according to the invention comprises a casing 10 formed by two couples of upright side walls 2 arranged perpendicularly one another, respectively on the drying machine rear and front part, and on the lateral side thereof. In Figure 1 one of the lateral side walls has been removed for showing some of the laundry drying machine parts accommodated within casing 10. An upper wall portion, not illustrated, and a bottom portion 4 close the ends of the box-like structure formed by the upright side walls 2 joined together.

[0043] A laundry container 6 comprising a rotatably drum 7 is provided within the casing 10. A front door 8, pivotally coupled to the front upright side wall 2, is provided for allowing access to the drum interior region to place laundry to be treated therein. A user control interface, not illustrated, is preferably arranged on the top of the casing 10 for input of laundry drying programs and displaying machine working conditions.

[0044] The bottom portion 4 of the laundry drying machine 1 comprises a basement 14. The basement 14 is preferably made by two portions, an upper shell 14a and a lower shell 14b as shown in Figures 8 and 9, which are properly connected one to the other, preferably by means of screws.

[0045] The basement 14, and in particular the two shells 14a, 14b, is preferably made of polymeric material.

[0046] Two bottom sheets 4a, 4b are removably mounted onto a lower side 16 of the basement 14. The lower side 16 of the basement 14 is the side of the basement 14 which faces the floor on which the laundry drying machine 1 is installed.

[0047] Preferably, the lower shell 14b of the basement

14 comprises/defines/forms the lower side 16 of the basement 14 and the bottom sheets 4a, 4b are removably mounted onto the lower side 16 of the lower shell 14b

[0048] The laundry drying machine 1 of the invention is of the condenser type and comprises condensing means 19 arranged in a drying air circuit passing through the laundry container 6. The hot air produced along the drying air circuit removes moisture from laundry in the container 6 and the hot moist air passes through the condensing means 19.

[0049] Preferably, condensing means 19 are in the form of an air-air cross-flow type heat exchanger, as shown in Figure 10. The moist air passing through the condensing means 19 is cooled by an air cooling flow passing through the condensing means 19 itself. The cooled air is then conveyed again to the drying air circuit. Advantageously the moist air and the cooled air are driven along ducts which are defined by the shape of the basement 14, and in particular by the shape of the upper and lower shells 14a, 14b.

[0050] After the moist air has been cooled, condensation water is formed and advantageously collected in an extractable moisture tank 9 located beneath the heat exchanger 19. The moisture tank 9 is preferably in the form of a drawer slidably arranged on the lower side 16 of the basement 14 so that it can be easily and periodically emptied by a user.

[0051] The air cooling flow for the heat exchanger 19 is advantageously provided on the bottom portion 4 of the laundry drying machine 1. The air cooling flow is preferably conveyed inside the casing 10 through an inlet aperture 11A and discharged outside the casing 10 exhausted through an outlet aperture 11B. The apertures 11A and 11B are preferably arranged in the front upright side wall 2, as shown in Figure 1. In the exemplary embodiment of the invention disclosed in the Figures, the air cooling flow is divided into two portions, namely an inlet air path for air to be conveyed to said heat exchanger 19 and an outlet air path for air to be expelled from said heat exchanger 19, as indicated by arrows "I" and "O" in Figures. If desired, apertures of the air cooling flow may be arranged on different upright side walls 2 other than the laundry drying machine front wall.

[0052] Part of the inlet air path I and part of the outlet air path O are defined by the lower side 16 of the basement 14 and the bottom sheets 4a, 4b which delimit hollow spaces 38a, 38b adapted to convey cooling air I inside the machine 1 and discharge exhausted cooling air O outside the machine 1.

[0053] According to the invention, the moisture tank 9 is preferably arranged between the inlet air path I and the outlet air path O in the lower side 16 of the basement 14.

[0054] In particular, bottom sheets 4a, 4b and a bottom side 9a of the moisture tank 9 rest on the same level of a lower edge 39 of basement 14 that surrounds the hollow spaces 38a, 38b. The hollow spaces 38a, 38b are upwardly limited by surfaces placed on a higher level rela-

tive to the lower edge 39.

[0055] On an upper side 17 of the basement 14, seats 18A-18F are formed for receiving therein operational devices 5 of the laundry drying machine 1, like the condensing means 19, air pumping means 20, motor means for powering air pumping means 20 and other functional devices for operating laundry drying machine 1 to carry out a drying treatment on laundry as, for example, heat pump circuit components (not shown in the Figures) like fluid compressing means, heat exchanging means, fluid condensing and/or evaporating means. In practice, basement 14 comprises a lower side 16 forming at least a portion of a first air path wherein the air is drawn in from outside the machine 1 and/or the air is exhausted outside the machine 1 and further comprises an upper side 17 forming at least a portion of a second air path that passes through one or more of said operational devices 5, and in particular through the condensing means 19. Preferably, the lower shell 14b of the basement 14 comprises/defines/forms the upper side 17 of the basement 14 and the condensing means 19 rests on the upper side 17 of the lower shell 14b of the basement 14.

[0056] As shown in Figure 10, when the bottom sheet 4a is associated under the basement 14 facing the lower side 16 of the latter, the bottom sheet 4a substantially covers the hollow space 38a formed in the lower side 16 of basement 14 thereby forming an inlet conduit 15 for conveying air entering the laundry drying machine 1 through the inlet aperture 11A. Such conduit 15 has a lower surface 15A defined by the bottom sheet 4a and upper surfaces 15B that are defined by the basement 14 itself through the surfaces upwardly limiting the hollow space 38a formed in the basement 14 lower side 16, as better shown in Figure 5.

[0057] Conduit 15 sucks air taken from outside by pumping means 20 for cooling condensing means 19 resting within seat 18A. It has to be noted that the seat 18A is defined by respective hollow portions of the upper shell 14a and of the lower shell 14b. Pumping means 20 are powered though an electric motor (not shown) housed in the seat 18B which is formed in the upper side 17 of basement 14. Said motor powers also further pumping means 51, shown in Figure 10, that are arranged coaxially with pumping means 20 and received within seat 18D to circulate drying air through the laundry container 6. Motor means are therefore interposed between pumping means 20 of the cooling air and the pumping means 51 for circulating drying air inside the container 6. Rotational axis of the electric motor shaft extends parallel to the air flow path within conduit 15.

[0058] Pumping means 20, that preferably comprises a centrifugal fan, are arranged on a level of the basement 14 that extends just over conduit 15 that rests on a lower level, therefore air path along conduit 15 is reversed and lead to said level by means of a conveyor 21, partially shown in Figures 10 and 12, arranged between the pumping means 20 and the conduit 15. Conveyor 21 is preferably made of felt and it is designed to reduce flow re-

sistance when the air reverses its path of about 180 degrees increasing its height relative to the floor where the laundry drying machine 1 rests. In this way performance of the laundry drying machine 1 is not negatively affected, while an improved compactness in distributing operational devices on the basement 14 may be achieved.

[0059] A volute 31 surrounds the pumping means 20. As can be seen in Figure 11, volute 31 is formed by a portion 26 of basement 14 and by a cover 32 which is removably attached to portion 26 thereby closing seat 18C. The portion 26 is preferably defined by the lower shell 14b of the basement 14 and the cover 32 is removably attached to the portion 26. In different embodiments, the cover 32 may be integrally made with the upper shell 14a.

[0060] Even though it is not shown in the Figures, a similar arrangement is also provided for pumping means 51 received within seat 18D to circulate drying air through the laundry container 6.

[0061] Air sucked by pumping means 20 is output centrifugally from the latter and directed towards condensing means 19 thanks to the volute 31, as shown by arrows "I" in Figures 10 and 11.

[0062] As said before, condensing means 19 are in the form of an air-air cross-flow type heat exchanger. When air passes through condensing means 19 its path lies on an upper level compared to the air flowing within conduit 15. Even the flow direction of air within conduit 15 is substantially perpendicular to that of air flowing through condensing means 19. Seat 18A, that houses condensing means 19, is shaped to diffuse air coming out from pumping means 20 to the whole surface of condensing means 19.

[0063] In Figure 11 it is shown from a rear view of the basement 14 the air path flowing through condensing means 19 and then downwardly towards the bottom sheet 4b. Air O that exits condensing means 19 is guided from said upper side 17 to the lower side 16 of basement 14 by means of a conduit portion 40, or conveyor, formed in the basement 14, for example by joining a cover 40a to the upper shell 14a of the basement 14. Air conveyed by conduit portion 40 is also reversed in its flow direction of about 180 degrees and it is then received in an outlet conduit 34 which is formed in a manner similar to inlet conduit 15, i.e. by a lower surface 34A defined by the bottom sheet 4b and upper surfaces 34B that are defined by the basement 14 itself through the surface upwardly limiting the hollow space 38b formed in the basement 14 lower side 16. Another view of air path O leaving condensing means 19 for entering outlet conduit 34 is shown in Figure 12. Outlet conduit 34 leads exhausted air from condensing means 19 to exit laundry drying machine 1 through the outlet aperture 11B, as indicated by arrow O in Figures. In Figure 12 the outlet conduit 34 has been partly cut away.

[0064] Outlet conduit 34 and inlet conduit 15 are separated by the moisture tank 9 when the latter is positioned in its working position. The moisture tank 9 is advanta-

geously slidable associated to a housing 54 in the lower portion 16 of the basement 14 by means of guiding portions 52, 53, as shown in Figure 7. The guiding portions 52, 53 are defined by respective separating walls which separates the housing 54 from the respective conduits 15, 34. Openings 57, 58 in said separating walls 52, 53 are provided in order to reduce the weight of the basement 14.

[0065] When the moisture tank 9 is positioned in its working position, therefore, the outlet conduit 34 and the inlet conduit 15 are advantageously properly separated so that air I for the condensing means 19 does not mix with exhausted air O coming from the condensing means 19.

[0066] In different embodiments, the separating walls 52, 53 may have a closed structure, i.e. without openings 57, 58. Advantageously, the separation between the air I for the condensing means 19 and the exhausted air O coming from the condensing means 19 is guaranteed by the separating walls 52, 53 themselves, independently of the presence of the tank 9.

[0067] Condensation water formed in the condensing means 19 is advantageously conveyed to the moisture tank 9 through a connecting device. The connecting device preferably comprises a male portion or female 60, visible in Figures 7 and 8, which is inserted in a corresponding female or male portion of the moisture tank 9, not visible in the Figures. The male portion 60 preferably comprises a valve, not illustrated, which is opened when the moisture tank 9 is in its working position and is automatically closed when the moisture tank 9 is removed from the housing 54, so as to avoid water leakage.

[0068] In the preferred embodiment illustrated herein the moisture tank 9 has advantageously a parallelepiped shape and is arranged below the condensing means 19 (i.e. the moisture tank 9 lies at a lower height level than the condensing means 19) and in the central part of the lower portion 16 of the basement 14, i.e. substantially symmetrically positioned with respect the basement 14. Nevertheless, in different embodiments the moisture tank may have a different shape, it may also be asymmetrically placed with respect the basement.

[0069] Further to the outlet conduit 34, air passages 12 are formed as openings at the bottom of the lower side 16 of the basement 14. The exhausted air from the condensing means 19 is advantageously conveyed also through these air passages 12 to be expelled outside the casing 10 of the machine 1, as indicated by arrow "O1" in Figures 11 and 12. Such air passages 12 are always accessible to air because the lower side 16 of the basement 14 extends in a position that is spaced apart and substantially parallel to a floor on which the laundry drying machine 1 is placed. The distance between the lower side 16 of the basement 14 and the floor is determined in an adjustable manner through vertically adjustable supports 13 placed under the casing 10.

[0070] In further embodiments, air passages 12 at the bottom of the lower side 16 of the basement 14 may be

the only apertures for allowing exhausted air O coming from the heat exchanger 19 to be expelled to the outside.

[0071] Advantageously, the provision of these air passages 12 in the lower side 16 of the basement 14 ensures to provide the laundry drying machine 1 with at least an outlet air path O1 independently of the position where said machine 1 is placed, i.e. without worrying about any items that may obstruct the outlet aperture 11B arranged in the front upright side wall 2.

[0072] Moreover, provision of air passages 12 allows noise produced by the laundry drying machine 1 when moving air mass to be greatly reduced, thereby allowing the machine 1 to be placed and operated close to rooms where low noise or silent is required, especially during night hours.

[0073] Preferably, the upper surfaces 15B, 34B of the conduits 15, 34 can comprise one or more opening so as a part of the air flowing along the lower side 16 of the basement 14 may flow into at least one of the seats 18B-18F for cooling purpose, for example to cool an electric motor or heat pump circuit components. Conclusively it can be stated that a laundry drying machine according to the invention has an efficient arrangement for its basement which enhances layout of operational devices and air path formed thereon. Thanks to the basement arrangement according to the invention, noise produced by a laundry drying machine for moving air mass can be greatly lowered, thereby allowing the machine to be placed and operated close to rooms where low noise or silent is required.

[0074] It has thus been shown that the present invention allows all the set objects to be achieved. In particular, it makes it possible to obtain a laundry treating machine with a basement having a more compact and rational design with respect the known technique.

[0075] Clearly, changes may be made to the laundry drying machine as described herein without, however, departing from the scope of the present invention.

[0076] For example, further to the inlet conduit 15 inlet air passages may be provided in the lower side of the basement so that air may be drawn in from outside the machine not only from the front aperture 11A. Such inlet air passages are always accessible to air, as explained before with reference to the outlet passages 12. While the laundry drying machine has been described with reference to a laundry drying machine of the condenser type provided with an air-air heat exchanger, it should be noted that the present invention is not limited to the specific embodiment 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. A laundry drying machine (1) comprising:

- a laundry container (6) suitable for receiving the laundry to be dried;
- a basement (14) having an upper side (17) and a lower side (16) opposite to said upper side, said upper side (17) comprising a seat (18A) for receiving a heat exchanger (19) through which moist air coming from said laundry container (6) may flow;
- an extractable tank (9) arranged at the basement (14) for the collection of condensation water formed by said heat exchanger (19), **characterized in that** said lower side (16) of said basement (14) forms an inlet air path (I) for air to be conveyed to said heat exchanger (19) and an outlet air path (O, O1) for air to be expelled from said heat exchanger (19).
2. A machine (1) according to claim 1, **characterized in that** a bottom sheet (4a, 4b) is associated to said lower side (16) of said basement (14) such that at least one hollow space (38a, 38b) is formed therein to define at least a portion of one of said air paths (I, O).
3. A machine (1) according to claim 1, **characterized in that** a first bottom sheet (4a) is associated to said lower side (16) of said basement (14) such that a first hollow space (38a, 38b) is formed therein to define at least a portion of said inlet air path (I) and a second bottom sheet (4b) is associated to said lower side (16) of said basement (14) such that a second hollow space (38b) is formed therein to define at least a portion of said outlet air path (O, O1).
4. A machine (1) according to claim 2, **characterized in that** an air passage (12) is formed at the bottom of said lower side (16) of said basement (14), preferably in fluid communication with said second hollow space (38b).
5. A machine (1) according to any preceding claim, **characterized in that** said extractable tank (9) is arranged in said lower side (16) of said basement (14) between said inlet air path (I) and said outlet air path (O, O1).
6. A machine (1) according to claim 5, **characterized in that** said extractable tank (9) separates said inlet air path (I) from said outlet air path (O, O1).
7. A machine (1) according to claim 5 or 6, **characterized in that** said inlet air path (I) and said outlet air path (O, O1) comprise respective air conduits (15, 34), said air conduits (15, 34) being separated by said extractable tank (9).
8. A machine (1) according to any preceding claim, **characterized in that** said extractable tank (9) is slidably arranged on said lower side (16) of said basement (14).
9. A machine (1) according to any preceding claim, **characterized in that** said extractable tank (9) is arranged below said heat exchanger (19).
10. A machine (1) according to any preceding, **characterized in that** said inlet air path (I) comprises an inlet aperture (11A) and/or said outlet air path (O) comprises an outlet aperture (11B).
11. A machine (1) according to claim 10, **characterized in that** said inlet aperture (11A) is provided on a front wall (2) of a casing (10) and/or said outlet aperture (11B) is provided on a front wall (2) of a casing (10).
12. A machine (1) according to any preceding, **characterized in that** said basement (14) comprises a conveyor (21) for driving said inlet air path (I) from said lower side (16) to said upper side (17) towards said heat exchanger (19) and/or said basement (14) comprises a conveyor (40) for driving said outlet air path (O) from said upper side (17) to said lower side (16).
13. A machine (1) according to any preceding claim, **characterized in that** said basement (14) comprises one or more further seats (18B-18F) for receiving operational devices (5) that comprise at least one of the following: motor means, fluid compressing means, heat exchanging means, fluid condensing and/or evaporating means, a portion of a heat pump circuit.
14. A machine (1) according to claim 13, **characterized in that** said basement (14) comprises one or more ducts so as to direct part of said inlet air path (I) or part of said outlet air path (O) towards said one or more further seats (18B-18F) for cooling said one or more further seats (18B-18F).
15. A machine (1) according to any preceding claim, **characterized in that** said basement (14) comprises an upper shell (14a) and a lower shell (14b) connected one to the other, wherein the lower shell (14b) comprises said upper side (17) and said lower side (16).

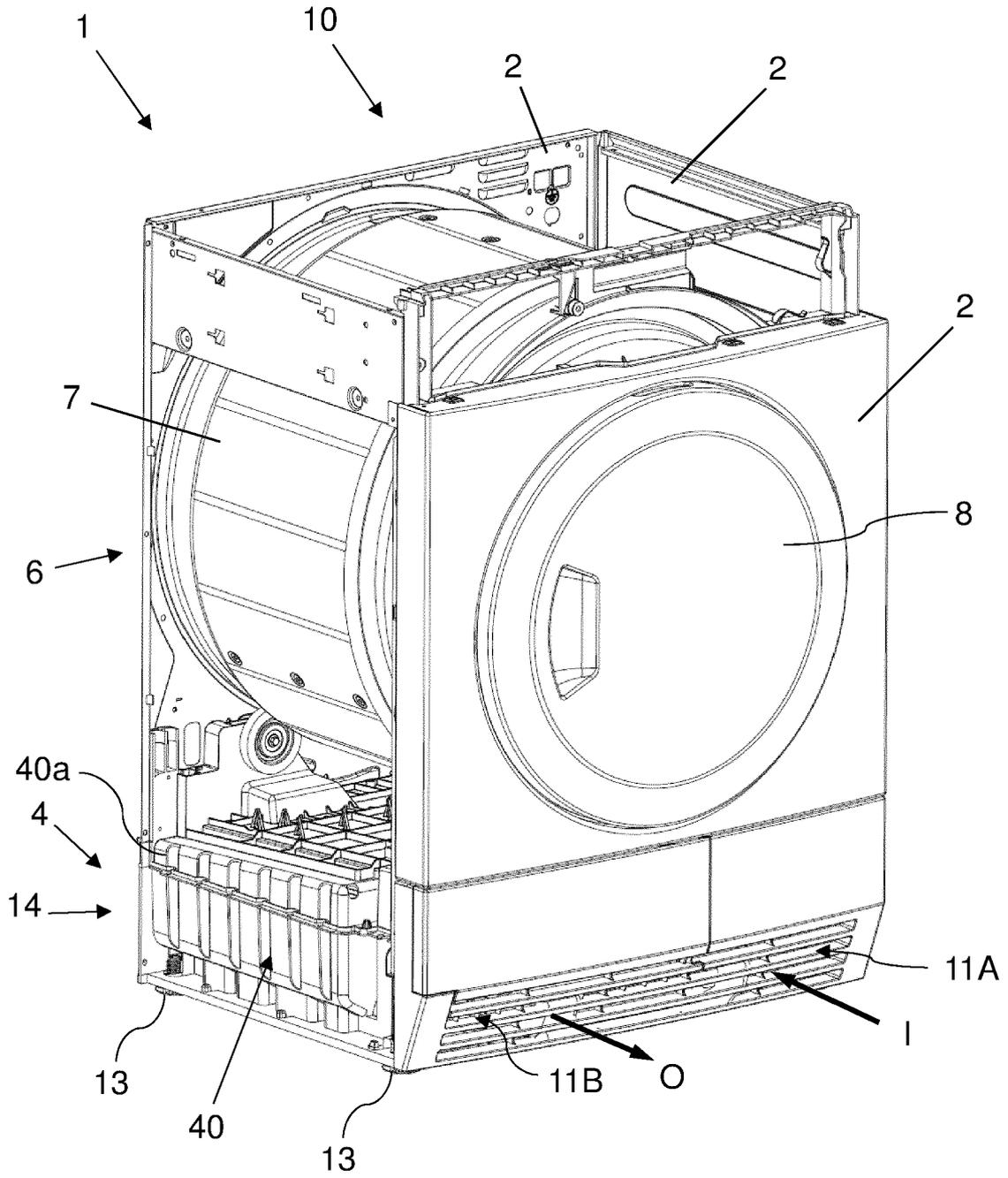


FIG. 1

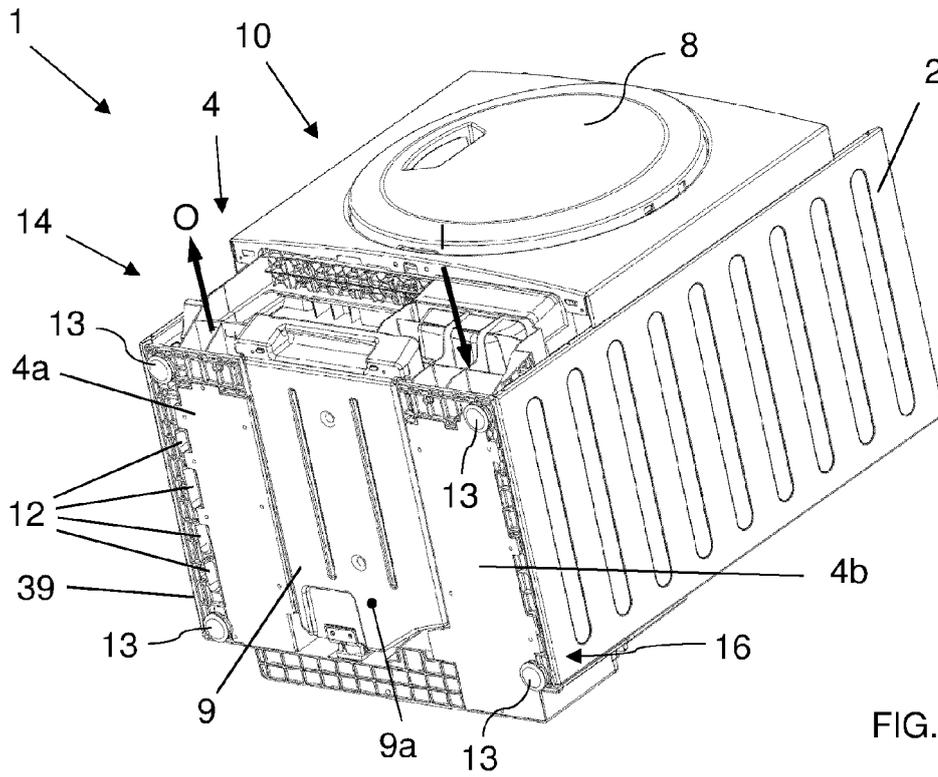


FIG. 2

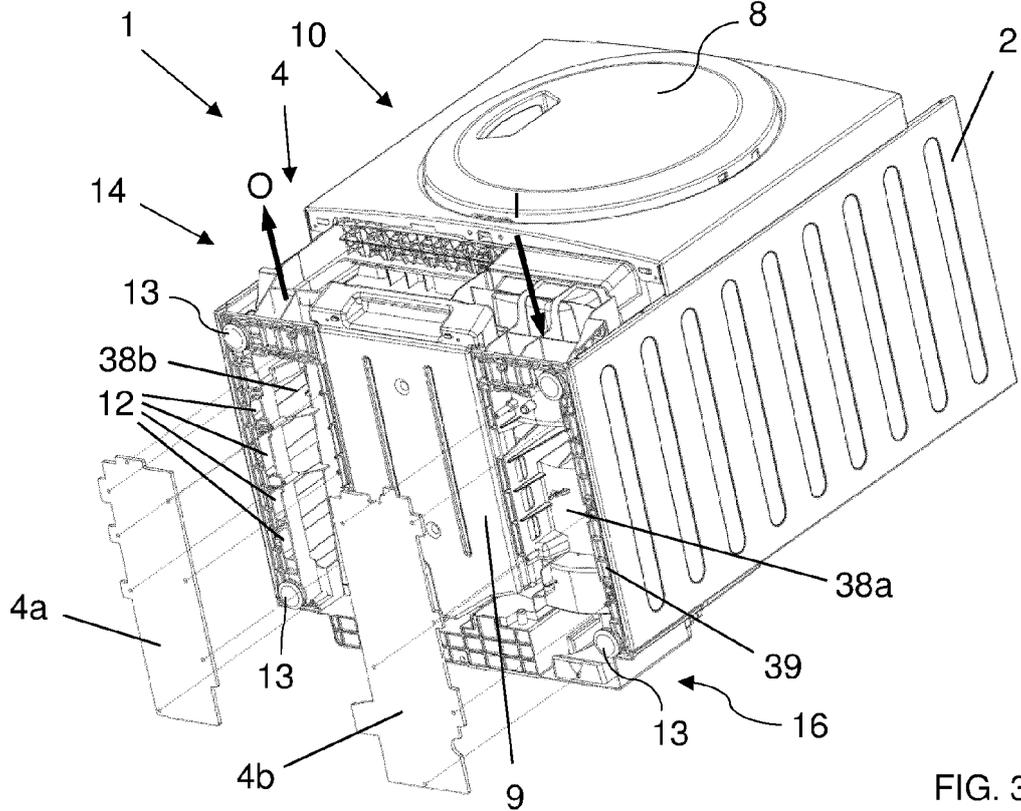


FIG. 3

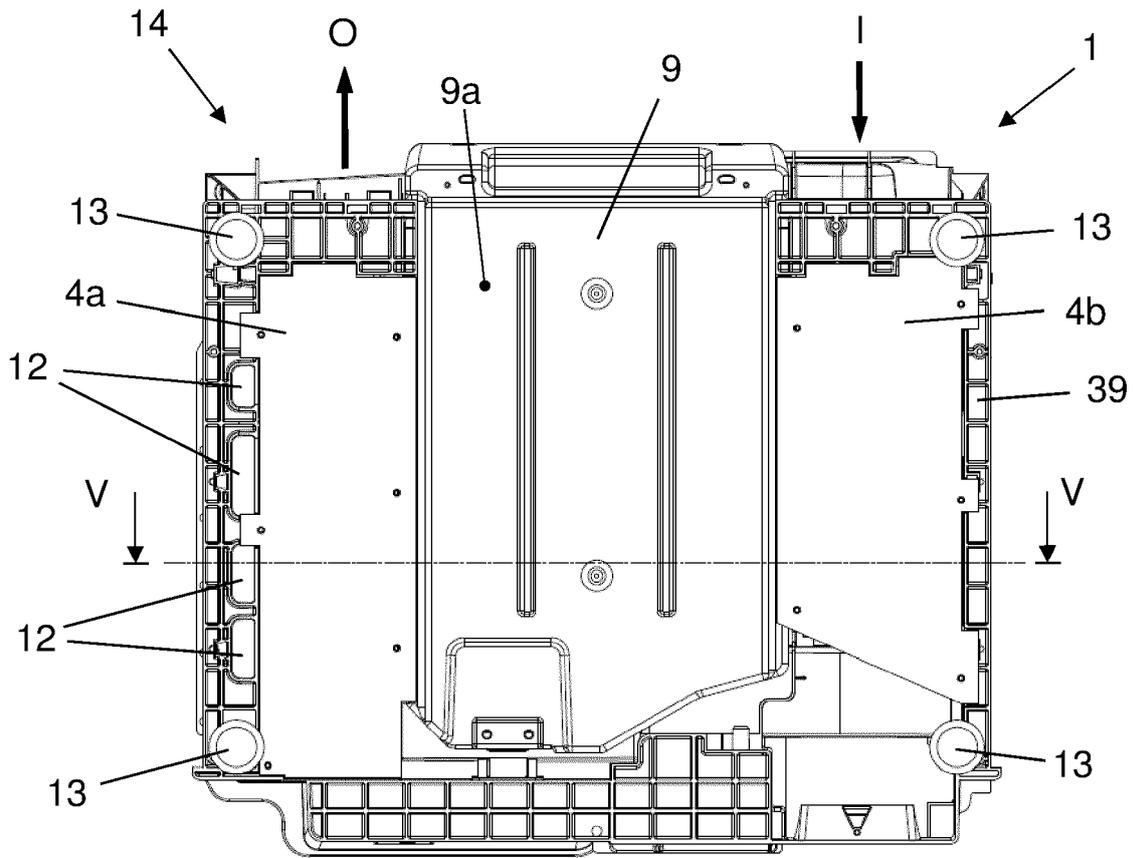


FIG. 4

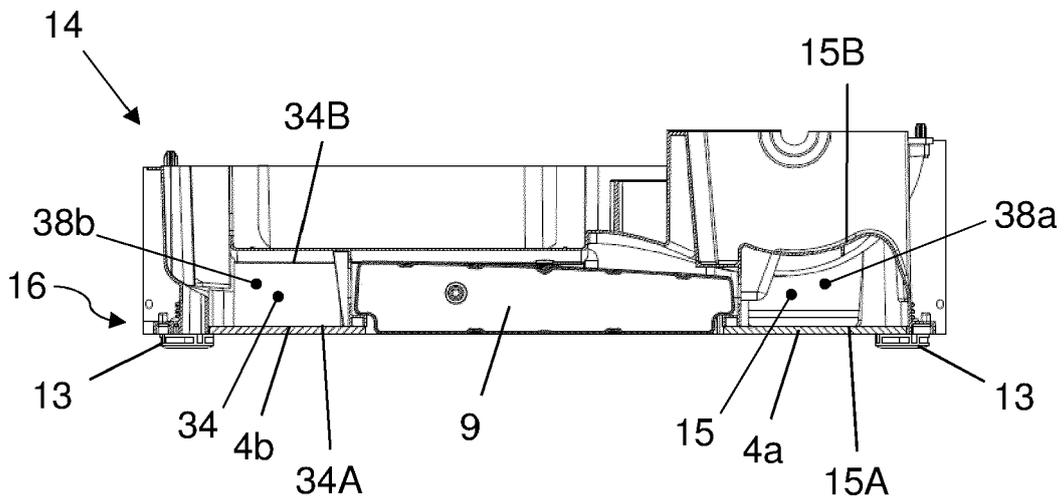
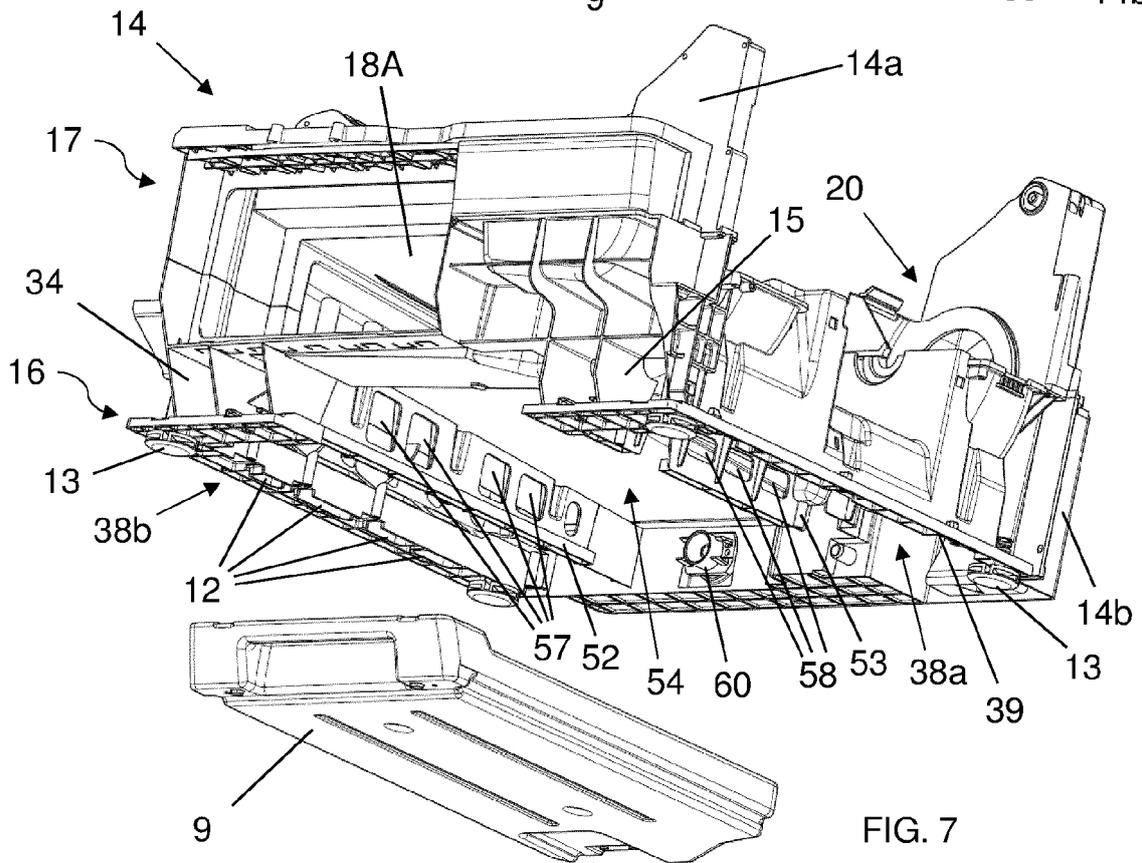
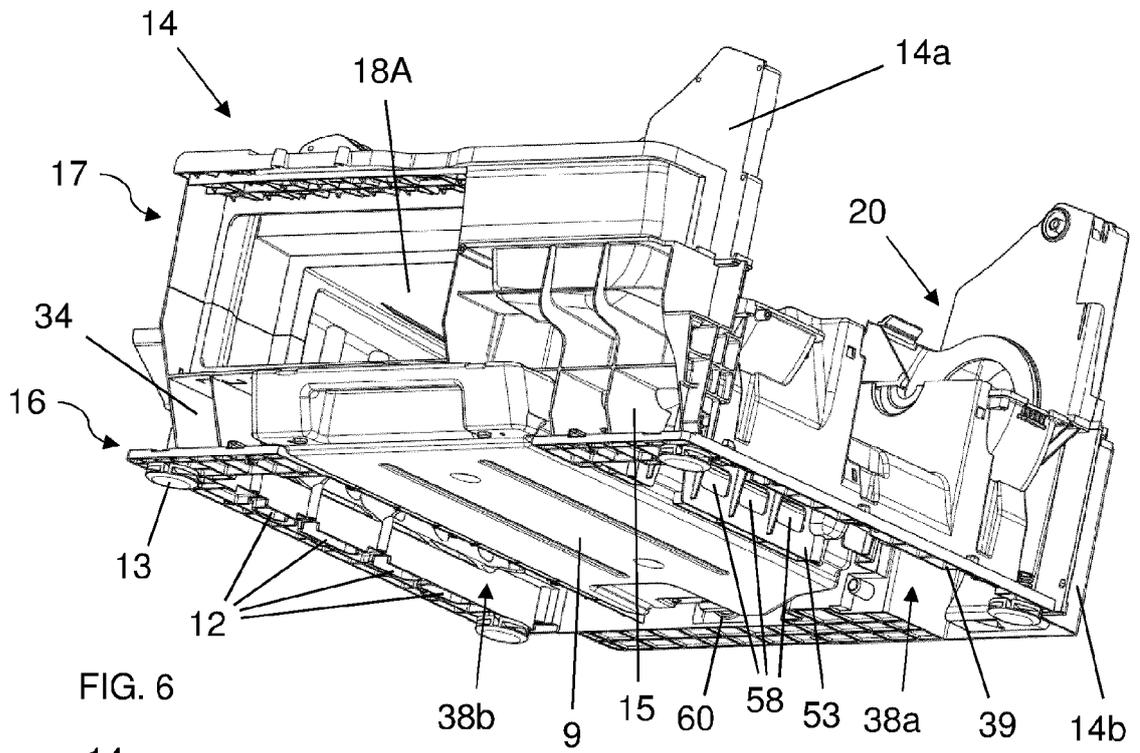


FIG. 5



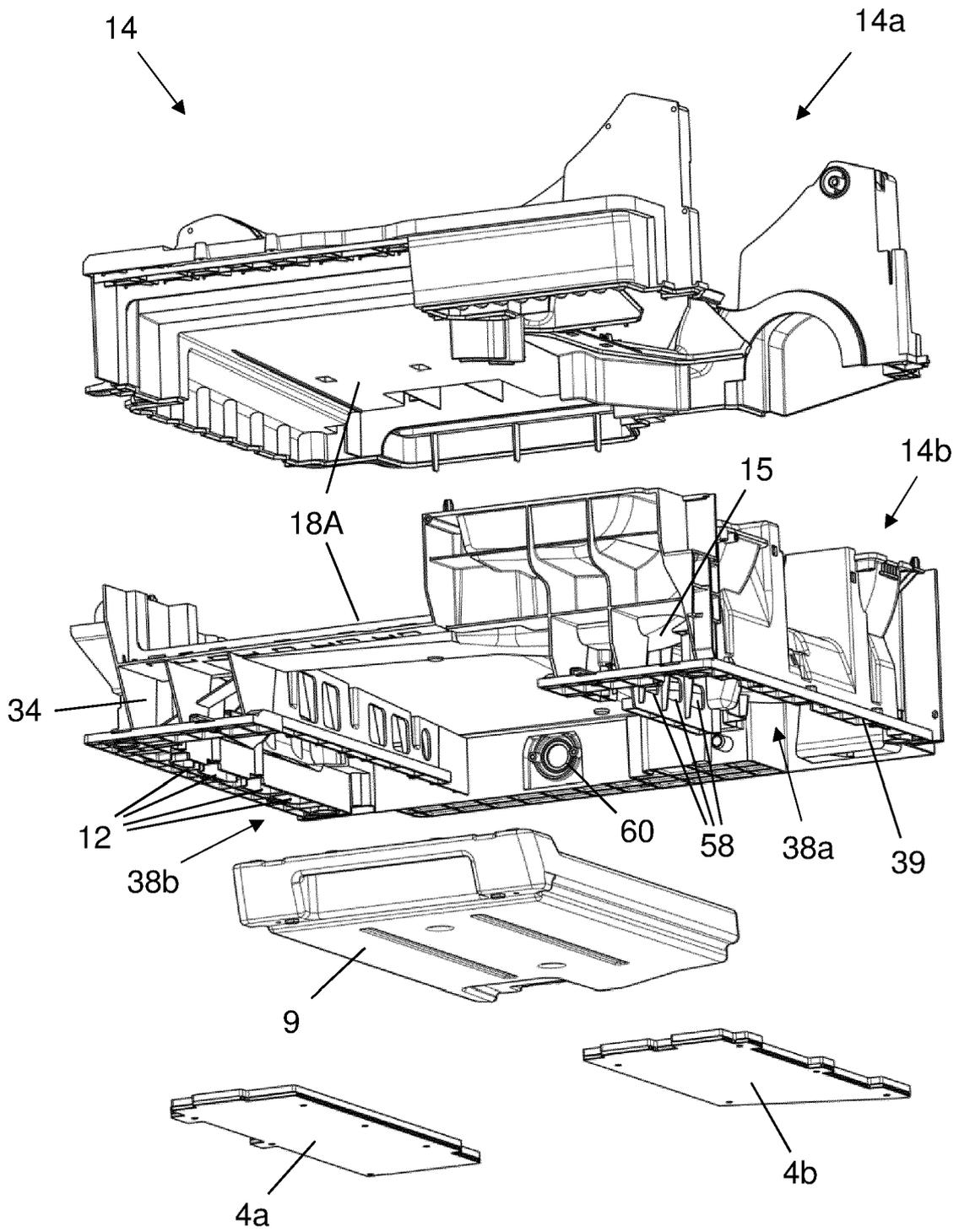


FIG. 8

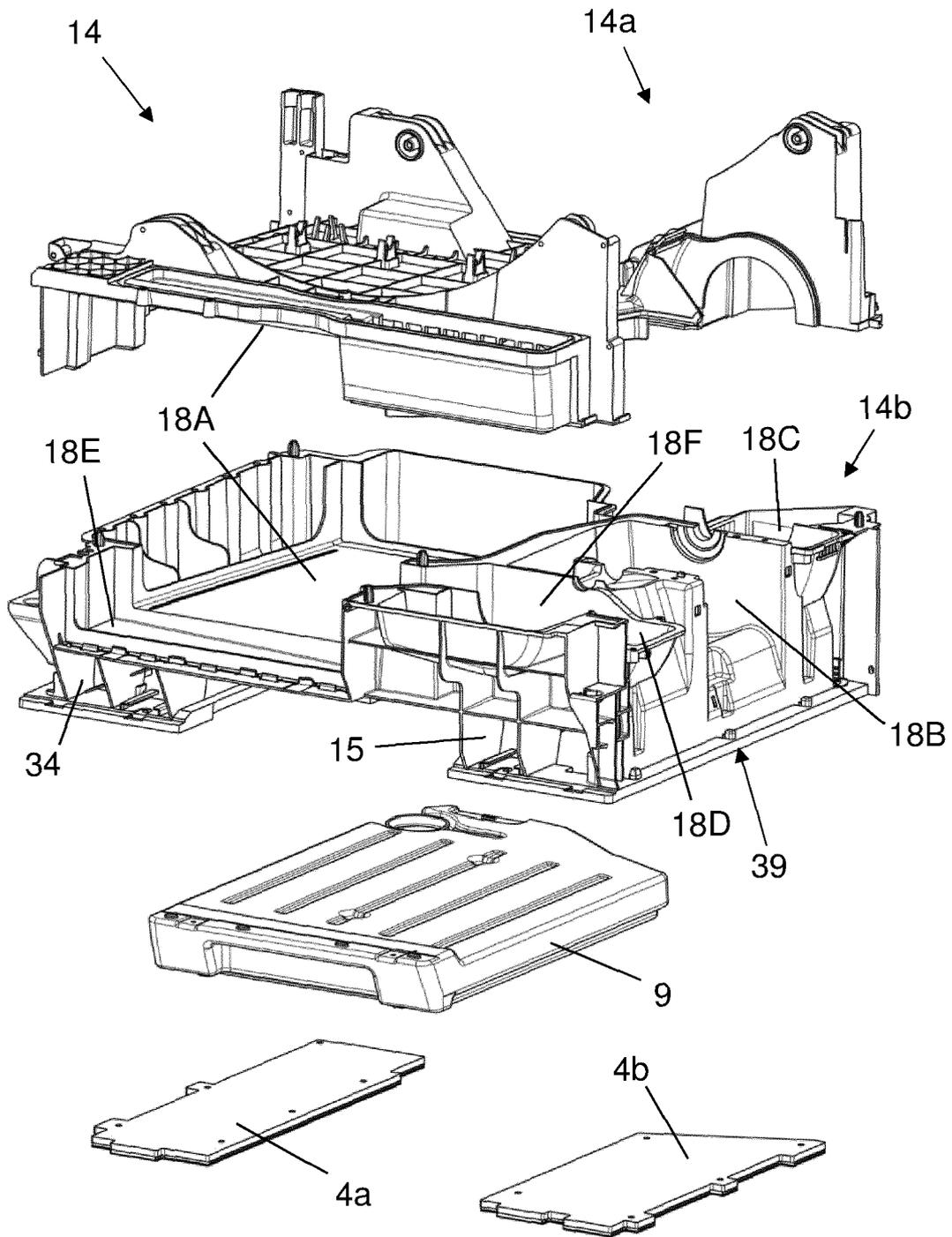


FIG. 9

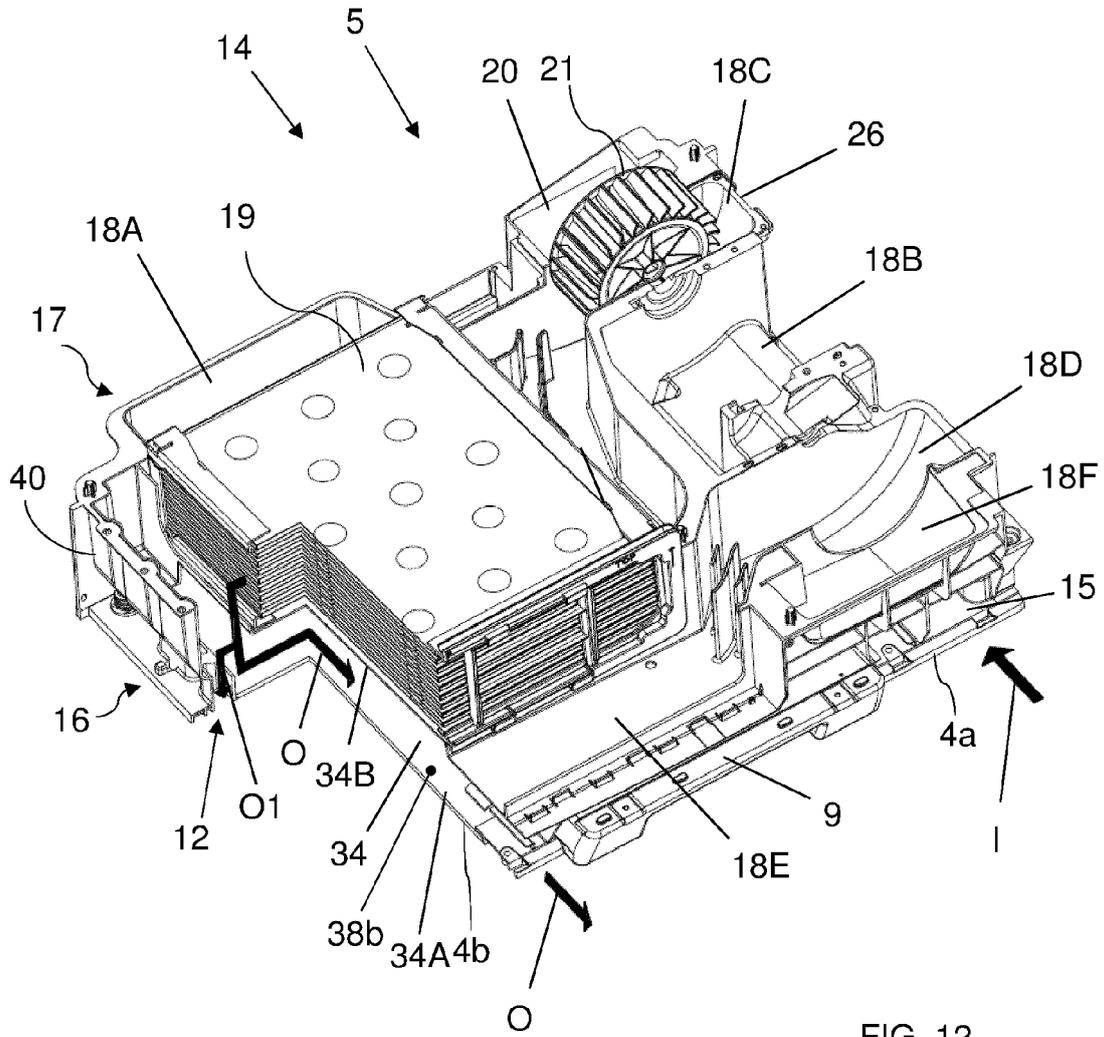


FIG. 12



EUROPEAN SEARCH REPORT

Application Number
EP 11 18 9816

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The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
Munich		23 May 2012	Westermayer, Wilhelm
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
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