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(54) LIQUID-DISCHARGING PARTITION PLATE FOR DRYER, AND DRYER

FLÜSSIGKEITSAUSSTOSSPARTITIONSPLATTE FÜR TROCKNER UND TROCKNER

PLAQUE DE SÉPARATION À ÉVACUATION DE LIQUIDE POUR SÉCHOIR ET SÉCHOIR

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Description

FIELD

[0001] The present invention relates to the technical field of clothing treatment devices, and more particularly, to a liquid-discharging partition for a dryer and a dryer.

BACKGROUND

[0002] When a heat pump dryer works, a condensed fluid in a liquid guide groove flows back to an air duct due to the negative pressure in the air duct, which affects the drying efficiency. Therefore, how to prevent the condensed fluid from flowing back into the air duct is a technical problem that needs to be solved by those skilled in the art. US2017343272A1 relates generally to a base of a heat pump system and a heat pump system for a drier or a washer-drier. WO2015065299A1 relates generally to a heat pump laundry dryer, wherein the drying efficiency is increased and generation of undesired bad odors is prevented by facilitating the discharge of the condensate water.

SUMMARY

[0003] Aspects of the invention are set out in the claims. In the following, each of the described methods, apparatuses, embodiments, examples, and aspects, which do not fully correspond to the invention as defined in the claims is thus not according to the invention and is, as well as the whole following description, present for illustration purposes only or to highlight specific aspects or features of the claims. Embodiments not falling under the scope of the claims should be interpreted as examples useful for understanding the invention. The present disclosure is intended to solve at least one of the technical problems existing in the related art. Therefore, the present invention provides a liquid-discharging partition for a dryer. When negative pressure is generated in an air duct, a condensed fluid flowing back to an outlet of a liquid guide groove can flow to the liquid guide groove and a diffluent groove respectively. Therefore, on one hand, a diffluent effect can be achieved to reduce a hydraulic pressure, and on the other hand, a path for a back flow of the condensed fluid is increased, which is beneficial to preventing the condensed fluid from flowing back into the air duct.

[0004] The present disclosure also proposes a dryer having the liquid-discharging partition for the dryer.

[0005] According to the liquid-discharging partition for the dryer disclosed by the present invention, the liquid-discharging partition has a liquid guide groove, the liquid guide groove has an inlet and an outlet, the inlet and the outlet are defined at two ends of the liquid guide groove in a length direction of the liquid guide groove, respectively. The liquid-discharging partition further has a diffluent groove defined on at least one side of the liquid guide groove in a width direction of the liquid guide groove. The diffluent groove is in communication with the liquid guide groove through at least one liquid passing opening.

[0006] According to the liquid-discharging partition for the dryer disclosed by the present invention, the liquid guide groove and the diffluent groove are in communication with each other. In this way, when a negative pressure is generated in an air duct, a condensed fluid flowing back to the outlet of the liquid guide groove can flow to the liquid guide groove and the diffluent groove respectively. Therefore, on one hand, a diffluent effect can be achieved to reduce a hydraulic pressure, and on the other hand, a path for a back flow of the condensed fluid is increased, which is beneficial to preventing the condensed fluid from flowing back into the air duct.

[0007] In some embodiments of the present disclosure, the at least one liquid passing opening includes at least two liquid passing openings. One of the at least two liquid passing openings is formed as an inlet of the diffluent groove, and another one of the at least two liquid passing openings is formed as an outlet of the diffluent groove.

[0008] In some embodiments of the present disclosure, the at least one liquid passing opening includes a plurality of liquid passing openings spaced apart from one another in the length direction of the liquid guide groove. Each of the plurality of liquid passing openings is in communication with the diffluent groove.

[0009] The liquid-discharging partition includes: a plate body, a liquid guide portion, and a diffluent portion. The liquid guide portion is arranged on a side surface of the plate body. The liquid guide groove is defined between the liquid guide portion and the plate body. The diffluent portion is arranged on a side surface of the plate body. The diffluent groove is defined by the plate body and the diffluent portion, and/or the diffluent groove is defined by the plate body, the liquid guide portion, and the diffluent portion.

[0010] The liquid-discharging partition further includes at least one first liquid retaining rib arranged on the plate body and located within the diffluent groove. The at least one first liquid retaining rib is spaced apart from the liquid guide portion.

[0011] The liquid-discharging partition further includes a second liquid retaining rib arranged on the plate body and located within the diffluent groove. The second liquid retaining rib is spaced apart from the liquid guide portion and connected to the at least one first liquid retaining rib. On a plane parallel to the plate body, an extending direction of the second liquid retaining rib is not parallel to an extending direction of each of the at least one first liquid retaining rib.

[0012] In some embodiments of the present disclosure, the at least one first liquid retaining rib includes a plurality of first liquid retaining ribs spaced apart from one another. Two adjacent first liquid retaining ribs of the plurality of first liquid retaining ribs are connected to each

other by the second liquid retaining rib.

[0013] In some embodiments of the present disclosure, on the plane parallel to the plate body, at least one of an extending direction of each of the at least one first liquid retaining rib or an extending direction of the second liquid retaining rib is not parallel to the length direction of the liquid guide groove.

[0014] In some embodiments of the present disclosure, the liquid-discharging partition further includes a third liquid retaining rib arranged on the plate body and located within the diffluent groove. The third liquid retaining rib is parallel to the plurality of first liquid retaining ribs. The third liquid retaining rib is located between two adjacent first liquid retaining ribs of the plurality of first liquid retaining ribs and spaced apart from the second liquid retaining rib.

[0015] In some embodiments of the present disclosure, the liquid guide groove has a first side wall and a second side wall that are opposite to each other. At least one of the first side wall or the second side wall has at least one liquid guide rib provided on an inner surface thereof. The at least one liquid guide rib on either one of the first side wall and the second side wall extends obliquely towards another one of the first side wall and the second side wall.

[0016] In some embodiments of the present disclosure, the at least one liquid guide rib extends obliquely towards the outlet of the liquid guide groove from outside to inside in the width direction of the liquid guide groove.

[0017] In some embodiments of the present disclosure, the at least one liquid guide rib includes a plurality of liquid guide ribs spaced apart from each other in the length direction of the liquid guide groove.

[0018] In some embodiments of the present disclosure, the at least one liquid guide rib includes at least one first liquid guide rib and at least one second liquid guide rib. The at least one first liquid guide rib each has an end connected to the first side wall, and another end extending obliquely towards the outlet of the liquid guide groove and spaced apart from the second side wall. The at least one second liquid guide rib each has an end connected to the second side wall, and another end extending obliquely towards the outlet of the liquid guide groove and spaced apart from the first side wall.

[0019] In some embodiments of the present disclosure, the at least one first liquid guide rib includes a plurality of first liquid guide ribs. The at least one second liquid guide rib includes a plurality of second liquid guide ribs. The plurality of first liquid guide ribs and the plurality of second liquid guide ribs are arranged alternately and spaced apart from each other in the length direction of the liquid guide groove.

[0020] In some embodiments of the present disclosure, the at least one liquid passing opening is defined in one of the first side wall and the second side wall closer to the diffluent portion.

[0021] In some embodiments of the present disclosure, each of the liquid guide portion and the diffluent portion is a flexible member.

[0022] According to embodiments of the present disclosure, a dryer includes an air duct housing having a chamber where an evaporator and a condenser are mounted; and the above-mentioned liquid-discharging partition for the dryer. The liquid-discharging partition is located within the chamber. A liquid-discharging channel for a condensed fluid is defined between an inner bottom wall of the chamber and each of the liquid guide groove and the diffluent groove.

[0023] According to the dryer disclosed by the embodiments of the present disclosure, through the provision of the liquid-discharging partition for the dryer, when the negative pressure is generated in the air duct, the condensed fluid flowing back to the outlet of the liquid guide groove can flow into the liquid guide groove and the diffluent groove respectively. Therefore, on one hand, a diffluent effect can be achieved to reduce a hydraulic pressure, and on the other hand, a path for a back flow of the condensed fluid is increased, which is beneficial to preventing the condensed fluid from flowing back into the air duct.

[0024] Additional aspects and advantages of the present disclosure will be provided at least in part in the following description, or will become apparent at least in part from the following description, or can be learned from practicing of the present disclosure.

BRIEF DESCRIPTION OF DRAWINGS

[0025] The above and/or additional aspects and advantages of the present disclosure will become apparent and understandable from the following description of embodiments in conjunction with the accompanying drawings, in which:

FIG. 1 is a schematic perspective view of a liquid-discharging partition for a dryer according to embodiments of the present disclosure;

FIG. 2 is a schematic plan view of a liquid-discharging partition for a dryer according to embodiments of the present disclosure, in which a direction of an arrow on the liquid-discharging partition refers to a flowing direction of a condensed fluid during a normal water discharging operation of the liquid-discharging partition;

FIG. 3 is a schematic plan view of a local structure of a dryer according to embodiments of the present disclosure; and

FIG. 4 is a schematic cross-sectional view of a local structure of a dryer according to embodiments of the present disclosure.

Reference numerals:

[0026]

dryer 100;

liquid-discharging partition 10;
plate body 1;
liquid guide portion 2; liquid guide groove 21; inlet 211; outlet 212;
first side wall 213; second side wall 214; liquid passing opening 22;
diffluent portion 3; diffluent groove 31;
first liquid retaining rib 4, second liquid retaining rib 5, third liquid retaining rib 6;
liquid guide rib 7; first liquid guide rib 71; second liquid guide rib 72;
air duct housing 20; chamber 201; water guide groove 202; evaporator 30; condenser 40; water storage portion 50; and liquid-discharging channel a.

DESCRIPTION OF EMBODIMENTS

[0027] Embodiments of the present disclosure are described below in detail, examples of the embodiments are illustrated in accompanying drawings, and throughout the description, the same or similar reference signs represent the same or similar components or the components having the same or similar functions. The embodiments described below with reference to the accompanying drawings are exemplary and merely used to explain the present disclosure, rather than being construed as limitation on the present disclosure.

[0028] Various embodiments or examples for implementing different structures of the present disclosure are provided below. In order to simplify the description of the present disclosure, components and arrangements of specific examples are described herein. Of course, these specific examples are merely for the purpose of illustration, and they are not intended to limit the present disclosure. Furthermore, the same reference numerals and/or reference letters may appear in different examples of the present disclosure for the purpose of simplicity and clarity, instead of indicating a relationship between different discussed embodiments and/or arrangements. In addition, the present disclosure provides examples of various specific processes and materials. However, applications of other processes and/or the use of other materials are conceivable for those skilled in the art.

[0029] A liquid-discharging partition 10 for a dryer 100 and the dryer 100 according to embodiments of the present disclosure are described below with reference to the drawings. For example, the dryer 100 may be a heat pump dryer.

[0030] As illustrated in FIG. 1 and FIG. 2, according to the liquid-discharging partition 10 of the dryer 100, the liquid-discharging partition 10 has a liquid guide groove 21. The liquid guide groove 21 has an inlet 211 and an outlet 212. The inlet 211 and the outlet 212 are located at two ends of the liquid guide groove 21 in a length direction (referring to a direction F1 illustrated in FIG. 2) of the liquid guide groove 21, respectively. It should be noted that, as illustrated in FIG. 4, the inlet 211 of the liquid guide groove 21 is in communication with an air duct of the dryer 100. An evaporator 30 of the dryer 100 is located within the air duct. A condensed fluid on the evaporator 30 can flow into the liquid guide groove 21 through the inlet 211 of the liquid guide groove 21, and is finally discharged through the outlet 212 of the liquid guide groove 21. For example, the outlet 212 of the liquid guide groove 21 is in communication with a water storage portion 50 of the dryer 100. The water storage portion 50 is configured to store the condensed liquid flowing to the water storage portion 50 from the liquid guide groove 21.

[0031] The liquid-discharging partition 10 further has a diffluent groove 31 defined on at least one side of the liquid guide groove 21 in a width direction of the liquid guide groove 21 (refer to a direction F2 illustrated in FIG. 2). In other words, the diffluent groove 31 may be located on one side of the liquid guide groove 21 in the width direction of the liquid guide groove 21, or the diffluent groove 31 may be located on each of two sides of the liquid guide groove 21 in the width direction of the liquid guide groove 21. The diffluent groove 31 is in communication with the liquid guide groove 21 through liquid passing openings 22. For example, as illustrated in FIG. 2, the diffluent groove 31 may be formed in a trapezoidal shape.

[0032] It should be noted that the inventor found in actual researches that in the related art, the heat pump dryer has the liquid-discharging partition provided on a base thereof. The liquid-discharging partition separates an air duct and a water channel at a condenser and an evaporator. However, when a negative pressure is generated in the air duct, that is, an external air pressure is greater than an air pressure inside the air duct, the condensed fluid collected in the water storage portion of the dryer will flow back to the air duct along the water channel through the inlet of the liquid guide groove, affecting a drying efficiency of the dryer.

[0033] In the present disclosure, when the negative pressure is generated in the air duct, the condensed fluid flowing back from the water storage portion 50 flows to the outlet of the liquid guide groove 21, and flows into the liquid guide groove 21 and the diffluent groove 31 respectively after passing through the outlet of the liquid guide groove 21. In this way, by arranging the liquid guide groove 21 and the diffluent groove 31 that are in communication with each other, on one hand, a diffluent effect can be achieved to reduce a hydraulic pressure, and on the other hand, a path for a back flow of the condensed fluid is increased, which is beneficial to preventing the condensed fluid from flowing back into the air duct through the inlet of the liquid guide groove 21.

[0034] Accordingly, according to the liquid-discharging partition 10 for the dryer 100, the liquid guide groove 21 and the diffluent groove 31 are in communication with each other. In this way, when the negative pressure is generated in the air duct, the condensed fluid flowing back to the outlet 212 of the liquid guide groove 21 can flow to the liquid guide groove 21 and the diffluent groove 31 respectively. Therefore, on one hand, a diffluent effect

can be achieved to reduce a hydraulic pressure, and on the other hand, a path for a back flow of the condensed fluid is increased, which is beneficial to preventing the condensed fluid from flowing back into the air duct.

[0035] In some embodiments of the present disclosure, as illustrated in FIG. 2, at least two liquid passing openings 22 are provided. One of the at least two liquid passing openings 22 is formed as the inlet of the diffluent groove 31 and another one of the at least two liquid passing openings is formed as the outlet of the diffluent groove 31. Therefore, the diffluent groove 31 has an inlet and an outlet that are in communication with the liquid guide groove 21, which facilitates the condensed fluid in the liquid guide groove 21 to flow into and flow out of the diffluent groove 31, and is beneficial to improving a diffluent efficiency of the diffluent groove 31.

[0036] For example, as illustrated in FIG. 2, two liquid passing openings 22 are provided and spaced apart from each other in a length direction of the liquid guide groove 21. The liquid passing opening 22 approximate to the inlet 211 of the liquid guide groove 21 is an inlet of the diffluent groove 31, and the liquid passing opening 22 distal to the inlet 211 of the liquid guide groove 21 is an outlet of the diffluent groove 31.

[0037] In some embodiments of the present disclosure, referring to FIG. 2, a plurality of liquid passing openings 22 is provided and spaced apart from one another in the length direction of the liquid guide groove 21 and is each in communication with the diffluent groove 31. This facilitates the flowing of the condensed fluid in the liquid guide groove 21 into or out of the diffluent groove 31, and is advantageous in improving the diffluent efficiency of the diffluent groove 31. Of course, the present disclosure is not limited to this, and only one liquid passing opening 22 may be provided.

[0038] As illustrated in FIG. 1, the liquid-discharging partition 10 includes a plate body 1, a liquid guide portion 2, and a diffluent portion 3. The liquid guide portion 2 is arranged on a side surface of the plate body 1. The liquid guide groove 21 is defined between the liquid guide portion 2 and the plate body 1. The diffluent portion 3 is arranged on a side surface of the plate body 1. The diffluent groove 31 is defined by the plate body 1 and the diffluent portion 3; and/or the diffluent groove 31 is defined by the plate body 1, the liquid guide portion 2, and the diffluent portion 3.

[0039] For example, as illustrated in FIG. 1 and FIG. 2, the liquid guiding portion 2 arranged on a side surface of the plate body 1, and the liquid guide groove 21 is defined by the liquid guiding portion 2 and the plate body 1. The diffluent portion 3 is arranged on a side surface of the plate body 1, and the diffluent groove 31 is defined by the plate body 1, the liquid guide portion 2, and the diffluent portion 3. The diffluent groove 31 is in communication with the liquid guide groove 21 through two liquid passing openings 22.

[0040] As illustrated in FIG. 1 and FIG. 2, the liquid-discharging partition 10 further includes a first liquid retaining rib 4 arranged on the plate body 1, located within the diffluent groove 31, and spaced apart from the liquid guide portion 2. It can be understood that the arrangement of the first liquid retaining rib 4 in the diffluent groove 31 is beneficial to increasing a resistance to the back flowing of the condensed fluid when a negative pressure is generated in the air duct, and therefore is beneficial to preventing the condensed fluid from flowing back into the air duct.

[0041] As illustrated in FIG. 1 and FIG. 2, the liquid-discharging partition 10 further includes a second liquid retaining rib 5 arranged on the plate body 1, located within the diffluent groove 31, and spaced apart from the liquid guide portion 2. The second liquid retaining rib 5 is connected to the first liquid retaining rib 4. An extending direction of the second liquid retaining rib 5 is not parallel to an extending direction of the first liquid retaining rib 4. It can be understood that by a cross arrangement of the first liquid retaining rib 4 and the second liquid retaining rib 5, the path for the back flow of the condensed fluid is further increased, the resistance to the back flowing of the condensed fluid is increased at the same time. Besides, the structure is simple, and is convenient for processing and forming.

[0042] Further, as illustrated in FIG. 1, a plurality of liquid guide ribs 4 is provided and spaced apart from one another. Every two adjacent first liquid retaining ribs 4 are connected to each other by a second liquid retaining rib 5. Here, a plurality refers to two or more. It can be understood that the first liquid retaining ribs 4 and the second liquid retaining ribs 5 are in a cross arrangement, and every two adjacent first liquid retaining ribs 4 are connected by the second liquid retaining rib 5. In this way, it is beneficial to further increasing the path for the back flow of the condensed fluid while increasing the resistance to the back flowing of the condensed fluid.

[0043] In some embodiments of the present disclosure, as illustrated in FIG. 1 and FIG. 2, on a plane parallel to the plate body 1, at least one of an extending direction of the first liquid retaining rib 4 or an extending direction of the second liquid retaining rib 5 is not parallel to the length direction of the liquid guide groove 21. For example, neither the extending direction of the first liquid retaining rib 4 nor the extending direction of the second liquid retaining rib 5 is parallel to the length direction of the liquid guide groove 21. Therefore, when the negative pressure is generated in the air duct, the resistance of the first liquid retaining rib 4 and the second liquid retaining rib 5 to the back flowing of the condensed fluid can be further increased.

[0044] Further, as illustrated in FIG. 1, the liquid-discharging partition 10 further includes a third liquid retaining rib 6 arranged on the plate body 1 and located within the diffluent groove 31. The third liquid retaining rib 6 is parallel to the first liquid retaining rib 4. The third liquid retaining rib 6 is located between two adjacent first liquid retaining ribs 4 and spaced apart from the second liquid retaining rib 5. Therefore, the first liquid retaining rib 4,

the second liquid retaining rib 5, and the third liquid retaining rib 6 form a labyrinth-shaped structure, which greatly increases the path for the back flow of the condensed fluid while increasing the resistance to the back flowing with a simple structure and low cost. For example, as illustrated in FIG. 1, a plurality of third liquid retaining ribs 6 may be provided, and the plurality of third liquid retaining ribs 6 are arranged in parallel and spaced apart from each other.

[0045] In some embodiments of the present disclosure, referring to FIG. 2, the liquid guide groove 21 has a first side wall 213 and a second side wall 214 that are opposite to each other. For example, as illustrated in FIG. 2, the first side wall 213 and the second side wall 214 are defined by inner side walls of the liquid guide portion 2 that are opposite to each other in the F2 direction. At least one of the first side wall 213 or the second side wall 214 has a liquid guide rib 7 provided on an inner surface thereof. The liquid guide rib 7 on one of the first side wall 213 and the second side wall 214 extends obliquely towards the other of the first side wall 213 and the second side wall 214. In other words, only one of the first side wall 213 and the second side wall 214 has a liquid guide rib 7 provided on an inner surface thereof, and the liquid guide rib 7 extends obliquely towards the other of the first side wall 213 and the second side wall 214. Alternatively, as illustrated in FIG. 2, each of the first side wall 213 and the second side wall 214 has a liquid guide rib 7 provided on an inner surface thereof, and the liquid guide rib 7 on either one of the first side wall 213 and the second side wall 214 extends obliquely towards the other of the first side wall 213 and the second side wall 214. In this way, the provision of the liquid guide rib 7 is beneficial for increasing the resistance to the flowing of the condensed fluid in the liquid guide groove 21 and preventing the back flowing of the condensed fluid, when the negative pressure is generated in the air duct.

[0046] In some examples, as illustrated in FIG. 2, the liquid guide rib 7 extends obliquely towards the outlet 212 of the liquid guide groove 21 from outside to inside in the width direction of the liquid guide groove 21. In the F2 direction, a direction approaching the first side wall 213 and a direction approaching the second side wall 214 is "outside", and a direction approaching a center of the liquid guide groove 21 is "inside". It can be understood that, during the collection of the condensed fluid, the liquid guide rib 7 can play a role in guiding water, and when the negative pressure is generated and the back flowing is caused, the liquid guide rib 7 increases the resistance to the back flowing of the condensed fluid and can prevent the condensed fluid from flowing back to the air duct.

[0047] In some embodiments of the present disclosure, referring to FIG. 2, a plurality of liquid guide ribs 7 is provided and spaced apart from one another in the length direction of the liquid guide groove 21. Therefore, by the arrangement of the plurality of liquid guide ribs 7 spaced apart from one another, when the negative pressure is generated and the back flowing is caused, the resistance to the back flowing of the condensed fluid is further increased to prevent the condensed fluid from flowing back to the air duct.

[0048] Further, as illustrated in FIG. 2, the plurality of liquid guide ribs 7 includes a first liquid guide rib 71 and a second liquid guide rib 72. The first liquid guide rib 71 has an end connected to the first side wall 213, and another end extending obliquely towards the outlet 212 of the liquid guide groove 21 and spaced apart from the second side wall 214. The second liquid guide rib 72 has an end connected to the second side wall 214, and another end extending obliquely towards the outlet 212 of the liquid guide groove 21 and spaced apart from the first side wall 213. It can be understood that, by the arrangement of the first liquid guide rib 71 and the second liquid guide rib 72 that are spaced apart from each other, during the collection of the condensed fluid, the first liquid guide rib 71 and the second liquid guide rib 72 can play a good role in guiding water, and when the negative pressure is generated and the back flowing is caused, the first liquid guide rib 71 and the second liquid guide rib 72 can further increase the resistance to the back flowing of the condensed fluid, which is beneficial to preventing the condensed fluid from flowing back to the air duct.

[0049] In some embodiments of the present disclosure, the plurality of liquid guide ribs 7 includes a plurality of first liquid guide ribs 71 and a plurality of second liquid guide ribs 72. The plurality of first liquid guide ribs 71 and the plurality of second liquid guide ribs 72 are arranged alternately and spaced apart from each other in the length direction of the liquid guide groove 21. Therefore, when the negative pressure is generated and the back flowing is caused, the resistance to the back flowing of the condensed fluid can be greatly increased to prevent the condensed fluid from flowing back to the air duct. The structure is simple and the production cost is low.

[0050] In some embodiments of the present disclosure, the liquid passing opening 22 is defined in one of the first side wall 213 and the second side wall 214 closer to the diffluent portion 3. Therefore, the structure is simple, and is beneficial to the processing and forming of the liquid-discharging partition 10.

[0051] In some embodiments of the present disclosure, the liquid guiding portion 2 and the diffluent portion 3 are each a flexible member. For example, the liquid guide portion 2 and the diffluent portion 3 are each a silicone member or a rubber member. In this way, a sealing performance between the liquid-discharging partition 10 and an inner bottom wall of an air duct housing 20 can be enhanced, which is beneficial to preventing the condensed fluid from flowing into the air duct through gaps between the liquid guide portion 2, the diffluent portion 3, and the air duct housing 20, and is beneficial to improving the drying efficiency.

[0052] In some embodiments of the present disclosure, the first liquid retaining rib 4, the second liquid retaining rib 5, the third liquid retaining rib 6, and the liquid guide rib 7 are each a flexible member. For example, the

first liquid retaining rib 4, the second liquid retaining rib 5, the third liquid retaining rib 6, and the liquid guide rib 7 are each a silicone member or a rubber member.

[0053] Referring to FIG. 3 and FIG. 4, a dryer 100 according to embodiments of the present disclosure includes an air duct housing 20 and the liquid-discharging partition 10 for the dryer 100 according to the above embodiments of the present disclosure. The air duct housing has a chamber 201 where an evaporator 30 and a condenser 40 are mounted. The liquid-discharging partition 10 is located within the chamber 201. A liquid-discharging channel a is defined between an inner bottom wall of the chamber 201 and each of the liquid guide groove 21 and the diffluent groove 31.

[0054] For example, as illustrated in FIG. 3 and FIG. 4, each of the evaporator 30 and the condenser 40 is arranged on the liquid-discharging partition 10 and can play a role in pressing the liquid-discharging partition 10 tight. The chamber 201 has a water guide groove 202 provided on the inner bottom wall thereof. The evaporator 30 is arranged on the water guide groove 202, and the water guide groove 202 is in communication with the inlet 211 of the liquid guide groove 21. When the dryer 100 operates normally, i.e., the negative pressure is not generated in the air duct, the condensed fluid on the evaporator 30 can flow downwards into the water guide groove 202, then flow into the liquid guide groove 21 and the diffluent groove 31 through the inlet 211 of the liquid guide groove 21, and finally be discharged through the outlet 212 of the liquid guide groove 21.

[0055] When the negative pressure is generated in the air duct, the condensed fluid flowing back from the water storage portion 50 flows to the outlet 212 of the liquid guide groove 21, and flows into the liquid guide groove 21 and the diffluent groove 31 after passing through the outlet 212 of the liquid guide groove 21. By the provision of the liquid guide groove 21 and the diffluent groove 31 which are in communication with each other, on one hand, a diffluent effect can be achieved to reduce a hydraulic pressure, and on the other hand, the path for the back flow of the condensed fluid is increased, which is beneficial to preventing the condensed fluid from flowing back into the air duct through the inlet of the liquid guide groove 21.

[0056] According to the dryer 100 of the embodiments of the present disclosure, by the provision of the liquid-discharging partition 10 for the dryer 100 according to the above embodiments of the present disclosure, when the negative pressure is generated in the air duct, the condensed fluid flowing back to the outlet 212 of the liquid guide groove 21 can flow to the liquid guide groove 21 and the diffluent groove 31. On one hand, the diffluent effect can be achieved to reduce the hydraulic pressure, and on the other hand, the path for the back flow of the condensed fluid is increased, which is beneficial to preventing the condensed fluid from flowing back into the air duct and therefore is beneficial to improving the drying efficiency.

[0057] Other configurations and operations of the dryer 100 according to the embodiments of the present disclosure are known to those of ordinary skill in the art, and will not be described in detail herein.

[0058] It should be understood that in the description of the present disclosure, the orientation or position relationship indicated by the terms "center", "length", "width", "thickness", "upper", "lower", "front", "rear", "left", "right", "vertical", "horizontal", "top", "bottom", "inner", "outer", "axial", "radial", "circumferential", etc., is based on the orientation or position relationship shown in the drawings, and is only for the convenience of describing the present disclosure and simplifying the description, rather than indicating or implying that the defined device or element must have a specific orientation or must be constructed and operated in a specific orientation. Thus, the orientation or position relationship indicated by these terms cannot be understood as limitations on the present disclosure.

[0059] In addition, the terms "first" and "second" are only used for purpose of description, and cannot be understood as indicating or implying relative importance or implicitly indicating the number of indicated technical features. Therefore, the features defined by the terms "first" and "second" may explicitly or implicitly include at least one of the features. In the description of the present disclosure, "plurality" means at least two, unless otherwise specifically defined.

[0060] It should be noted that in the description of the present disclosure, unless otherwise clearly specified and defined, terms such as "mount", "connect to", "connected", "fixed", and the like should be understood in a broad sense. For example, it may be a fixed connection or a detachable connection or integral connection; mechanical connection or electrical connection or communication; direct connection or indirect connection by an intermediate; internal communication of two components or an interaction relationship between two components. For those of ordinary skill in the art, the specific meaning of the above-mentioned terms in the present disclosure can be understood according to specific circumstances.

Claims

1. A liquid-discharging partition (10) for a dryer (100), the liquid-discharging partition (10) having:

   a liquid guide groove (21) having an inlet (211) and an outlet (212), the inlet (211) and the outlet (212) being defined at two ends of the liquid guide groove (21) in a length direction of the liquid guide groove (21), respectively; and
   a diffluent groove (31) defined on at least one side of the liquid guide groove (21) in a width direction of the liquid guide groove (21), the diffluent groove (31) being in communication with the liquid guide groove (21) through at least one

liquid passing opening (22);
a plate body (1);
a liquid guide portion (2) arranged on a side surface of the plate body (1), wherein the liquid guide groove (21) is defined between the liquid guide portion (2) and the plate body (1); and
a diffluent portion (3) arranged on a side surface of the plate body (1),
wherein the diffluent groove (31) is defined by the plate body (1) and the diffluent portion (3), and/or the diffluent groove (31) is defined by the plate body (1), the liquid guide portion (2), and the diffluent portion (3);
the liquid-discharging partition (10) further comprising:

at least one first liquid retaining rib (4) arranged on the plate body (1) and located within the diffluent groove (31), wherein the at least one first liquid retaining rib (4) is spaced apart from the liquid guide portion (2);
characterised in that the liquid-discharging partition (10) further comprises:
a second liquid retaining rib (5) arranged on the plate body (1) and located within the diffluent groove (31), wherein the second liquid retaining rib (5) is spaced apart from the liquid guide portion (2) and connected to the at least one first liquid retaining rib (4), and wherein on a plane parallel to the plate body (1), an extending direction of the second liquid retaining rib (5) is not parallel to an extending direction of each of the at least one first liquid retaining rib (4).

2. The liquid-discharging partition (10) for the dryer (100) according to claim 1, wherein the at least one liquid passing opening (22) comprises at least two liquid passing openings (22), wherein one of the at least two liquid passing openings (22) is formed as an inlet (211) of the diffluent groove (31), and wherein another one of the at least two liquid passing openings (22) is formed as an outlet (212) of the diffluent groove (31).

3. The liquid-discharging partition (10) for the dryer (100) according to any one of claims 1 to 2, wherein the at least one liquid passing opening (22) comprises a plurality of liquid passing openings (22) spaced apart from one another in the length direction of the liquid guide groove (21), each of the plurality of liquid passing openings (22) being in communication with the diffluent groove (31).

4. The liquid-discharging partition (10) for the dryer (100) according to claim 1, wherein the at least one first liquid retaining rib (4) comprises a plurality of first liquid retaining ribs (4) spaced apart from one another, wherein two adjacent first liquid retaining ribs (4) of the plurality of first liquid retaining ribs (4) are connected to each other by the second liquid retaining rib (5).

5. The liquid-discharging partition (10) for the dryer (100) according to claim 1, wherein on the plane parallel to the plate body (1), at least one of the extending direction of each of the at least one first liquid retaining rib (4) or the extending direction of the second liquid retaining rib (5) is not parallel to the length direction of the liquid guide groove (21).

6. The liquid-discharging partition (10) for the dryer (100) according to claim 4, the liquid-discharging partition (10) further comprising:
a third liquid retaining rib (6) arranged on the plate body (1) and located within the diffluent groove (31), wherein the third liquid retaining rib (6) is parallel to the plurality of first liquid retaining ribs (4), and wherein the third liquid retaining rib (6) is located between two adjacent first liquid retaining ribs (4) of the plurality of first liquid retaining ribs (4) and spaced apart from the second liquid retaining rib (5).

7. The liquid-discharging partition (10) for the dryer (100) according to claim 1, wherein the liquid guide groove (21) has a first side wall (213) and a second side wall (214) that are opposite to each other, wherein at least one of the first side wall (213) or the second side wall (214) has at least one liquid guide rib (7) provided on an inner surface thereof, the at least one liquid guide rib (7) on either one of the first side wall (213) and the second side wall (214) extending obliquely towards another one of the first side wall (213) and the second side wall (214).

8. The liquid-discharging partition (10) for the dryer (100) according to claim 7, wherein the at least one liquid guide rib (7) extends obliquely towards the outlet (212) of the liquid guide groove (21) from outside to inside in the width direction of the liquid guide groove (21), or, wherein the at least one liquid guide rib (7) comprises a plurality of liquid guide ribs (7) spaced apart from one another in the length direction of the liquid guide groove (21).

9. The liquid-discharging partition (10) for the dryer (100) according to claim 7, wherein the at least one liquid guide rib (7) comprises at least one first liquid guide rib (71) and at least one second liquid guide rib (72),

wherein the at least one first liquid guide rib (71) each has an end connected to the first side wall (213), and another end extending obliquely towards the outlet (212) of the liquid guide groove

(21) and spaced apart from the second side wall (214); and
wherein the at least one second liquid guide rib (72) each has an end connected to the second side wall (214), and another end extending obliquely towards the outlet (212) of the liquid guide groove (21) and spaced apart from the first side wall (213).

10. The liquid-discharging partition (10) for the dryer (100) according to claim 9, wherein the at least one first liquid guide rib (71) comprises a plurality of first liquid guide ribs (71), and wherein the at least one second liquid guide rib (72) comprises a plurality of second liquid guide ribs (72), the plurality of first liquid guide ribs (71) and the plurality of second liquid guide ribs (72) being arranged alternately and spaced apart from each other in the length direction of the liquid guide groove (21), or, wherein the at least one liquid passing opening (22) is defined in one of the first side wall (213) and the second side wall (214) closer to the diffluent portion (3).

11. The liquid-discharging partition (10) for the dryer (100) according to any one of claims 1 to 10, wherein each of the liquid guide portion (2) and the diffluent portion (3) is a flexible member.

12. A dryer (100), comprising:

an air duct housing (20) having a chamber (201) where an evaporator (30) and a condenser (40) are mounted; and
the liquid-discharging partition (10) for the dryer (100) according to any one of claims 1 to 11, wherein the liquid-discharging partition (10) is located within the chamber (201), and wherein a liquid-discharging channel for a condensed fluid is defined between an inner bottom wall of the chamber (201) and each of the liquid guide groove (21) and the diffluent groove (31).

Patentansprüche

1. Flüssigkeit ableitende Trennwand (10) für einen Trockner (100), wobei die Flüssigkeit ableitende Trennwand (10) Folgendes aufweist:

eine Flüssigkeitsleitrinne (21) mit einem Einlass (211) und einem Auslass (212), wobei der Einlass (211) und der Auslass (212) jeweils in Längsrichtung der Flüssigkeitsleitrinne (21) an zwei Enden der Flüssigkeitsleitrinne (21) definiert sind, und
eine Ablaufrinne (31), die in Breitenrichtung der Flüssigkeitsleitrinne (21) auf mindestens einer Seite der Flüssigkeitsleitrinne (21) definiert ist, wobei die Ablaufrinne (31) über mindestens eine Flüssigkeitsdurchflussöffnung (22) mit der Flüssigkeitsleitrinne (21) in Verbindung steht,
einen Plattenhauptteil (1),
einen Flüssigkeitsleitabschnitt (2), der an einer Seitenfläche des Plattenhauptteils (1) angeordnet ist, wobei die Flüssigkeitsleitrinne (21) zwischen dem Flüssigkeitsleitabschnitt (2) und dem Plattenhauptteil (1) definiert ist, und
einen Ablaufabschnitt (3), der an einer Seitenfläche des Plattenhauptteils (1) angeordnet ist, wobei die Ablaufrinne (31) von dem Plattenhauptteil (1) und dem Ablaufabschnitt (3) definiert wird und/oder die Ablaufrinne (31) von dem Plattenhauptteil (1), dem Flüssigkeitsleitabschnitt (2) und dem Ablaufabschnitt (3) definiert wird,
wobei die Flüssigkeit ableitende Trennwand (10) ferner Folgendes umfasst:

mindestens eine erste Flüssigkeit zurückhaltende Rippe (4), die an dem Plattenhauptteil (1) angeordnet ist und sich in der Ablaufrinne (31) befindet, wobei die mindestens eine erste Flüssigkeit zurückhaltende Rippe (4) von dem Flüssigkeitsleitabschnitt (2) beabstandet ist,
dadurch gekennzeichnet, dass die Flüssigkeit ableitende Trennwand (10) ferner Folgendes umfasst:
eine zweite Flüssigkeit zurückhaltende Rippe (5), die an dem Plattenhauptteil (1) angeordnet ist und sich in der Ablaufrinne (31) befindet, wobei die zweite Flüssigkeit zurückhaltende Rippe (5) von dem Flüssigkeitsleitabschnitt (2) beabstandet und mit der mindestens einen ersten Flüssigkeit zurückhaltenden Rippe (4) verbunden ist und wobei eine Verlaufsrichtung der zweiten Flüssigkeit zurückhaltenden Rippe (5) in einer parallel zum Plattenhauptteil (1) verlaufenden Ebene nicht parallel zu einer Verlaufsrichtung jeder der mindestens einen ersten Flüssigkeit zurückhaltenden Rippe (4) verläuft.

2. Flüssigkeit ableitende Trennwand (10) für den Trockner (100) nach Anspruch 1, wobei die mindestens eine Flüssigkeitsdurchflussöffnung (22) mindestens zwei Flüssigkeitsdurchflussöffnungen (22) umfasst, wobei eine der mindestens zwei Flüssigkeitsdurchflussöffnungen (22) als Einlass (211) der Ablaufrinne (31) und wobei eine andere der mindestens zwei Flüssigkeitsdurchflussöffnungen (22) als Auslass (212) der Ablaufrinne (31) ausgebildet ist.

3. Flüssigkeit ableitende Trennwand (10) für den Trockner (100) nach einem der Ansprüche 1 bis 2,

wobei die mindestens eine Flüssigkeitsdurchflussöffnung (22) mehrere in Längsrichtung der Flüssigkeitsleitrinne (21) voneinander beabstandete Flüssigkeitsdurchflussöffnungen (22) umfasst, wobei jede der mehreren Flüssigkeitsdurchflussöffnungen (22) mit der Ablaufrinne (31) in Verbindung steht.

4. Flüssigkeit ableitende Trennwand (10) für den Trockner (100) nach Anspruch 1, wobei die mindestens eine erste Flüssigkeit zurückhaltende Rippe (4) mehrere voneinander beabstandete erste Flüssigkeit zurückhaltende Rippen (4) umfasst, wobei zwei benachbarte erste Flüssigkeit zurückhaltende Rippen (4) der mehreren ersten Flüssigkeit zurückhaltenden Rippen (4) über die zweite Flüssigkeit zurückhaltende Rippe (5) miteinander verbunden sind.

5. Flüssigkeit ableitende Trennwand (10) für den Trockner (100) nach Anspruch 1, wobei in der parallel zum Plattenhauptteil (1) verlaufenden Ebene die Verlaufsrichtung jeder der mindestens einen ersten Flüssigkeit zurückhaltenden Rippen (4) oder/und die Verlaufsrichtung der zweiten Flüssigkeit zurückhaltenden Rippe (5) nicht parallel zur Längsrichtung der Flüssigkeitsleitrinne (21) verläuft.

6. Flüssigkeit ableitende Trennwand (10) für den Trockner (100) nach Anspruch 4, wobei die Flüssigkeit ableitende Trennwand (10) ferner Folgendes umfasst:
eine dritte Flüssigkeit zurückhaltende Rippe (6), die an dem Plattenhauptteil (1) angeordnet ist und sich in der Ablaufrinne (31) befindet, wobei die dritte Flüssigkeit zurückhaltende Rippe (6) parallel zu den mehreren ersten Flüssigkeit zurückhaltenden Rippen (4) verläuft und wobei sich die dritte Flüssigkeit zurückhaltende Rippe (6) zwischen zwei benachbarten ersten Flüssigkeit zurückhaltenden Rippen (4) der mehreren ersten Flüssigkeit zurückhaltenden Rippen (4) befindet und von der zweiten Flüssigkeit zurückhaltenden Rippe (5) beabstandet ist.

7. Flüssigkeit ableitende Trennwand (10) für den Trockner (100) nach Anspruch 1, wobei die Flüssigkeitsleitrinne (21) eine erste Seitenwand (213) und eine zweite Seitenwand (214) aufweist, die sich gegenüberliegen, wobei die erste Seitenwand (213) oder/und die zweite Seitenwand (214) an einer Innenfläche mindestens eine Flüssigkeitleitrippe (7) aufweist, wobei die mindestens eine Flüssigkeitleitrippe (7) auf einer Seitenwand der ersten Seitenwand (213) und der zweiten Seitenwand (214) schräg zu der jeweils anderen Seitenwand der ersten Seitenwand (213) und der zweiten Seitenwand (214) hin verläuft.

8. Flüssigkeit ableitende Trennwand (10) für den Trockner (100) nach Anspruch 7, wobei die mindestens eine Flüssigkeitsleitrippe (7) in Breitenrichtung der Flüssigkeitsleitrinne (21) von außen nach innen schräg zu dem Auslass (212) der Flüssigkeitsleitrinne (21) hin verläuft oder wobei die mindestens eine Flüssigkeitsleitrippe (7) mehrere in Längsrichtung der Flüssigkeitsleitrinne (21) voneinander beabstandete Flüssigkeitsleitrippen (7) umfasst.

9. Flüssigkeit ableitende Trennwand (10) für den Trockner (100) nach Anspruch 7,

wobei die mindestens eine Flüssigkeitsleitrippe (7) mindestens eine erste Flüssigkeitsleitrippe (71) und mindestens eine zweite Flüssigkeitsleitrippe (72) umfasst, wobei bei der mindestens einen ersten Flüssigkeitsleitrippe (71) jeweils ein Ende mit der ersten Seitenwand (213) verbunden ist und ein anderes Ende schräg zum Auslass (212) der Flüssigkeitsleitrinne (21) hin verläuft und von der zweiten Seitenwand (214) beabstandet ist, und
wobei bei der mindestens einen zweiten Flüssigkeitsleitrippe (72) jeweils ein Ende mit der zweiten Seitenwand (214) verbunden ist und ein anderes Ende schräg zum Auslass (212) der Flüssigkeitsleitrinne (21) hin verläuft und von der ersten Seitenwand (213) beabstandet ist.

10. Flüssigkeit ableitende Trennwand (10) für den Trockner (100) nach Anspruch 9, wobei die mindestens eine erste Flüssigkeitsleitrippe (71) mehrere erste Flüssigkeitsleitrippen (71) und wobei die mindestens eine zweite Flüssigkeitsleitrippe (72) mehrere zweite Flüssigkeitsleitrippen (72) umfasst, wobei die mehreren ersten Flüssigkeitsleitrippen (71) und die mehreren zweiten Flüssigkeitsleitrippen (72) in Längsrichtung der Flüssigkeitsleitrinne (21) im Wechsel angeordnet und voneinander beabstandet sind oder wobei die mindestens eine Flüssigkeitdurchflussöffnung (22) in der ersten Seitenwand (213) oder der zweiten Seitenwand (214) näher am Ablaufabschnitt (3) definiert ist.

11. Flüssigkeit ableitende Trennwand (10) für den Trockner (100) nach einem der Ansprüche 1 bis 10, wobei es sich bei dem Flüssigkeitsleitabschnitt (2) sowie bei dem Ablaufabschnitt (3) um ein flexibles Element handelt.

12. Trockner (100), der Folgendes umfasst:

ein Luftführungsgehäuse (20) mit einer Kammer (201), in die ein Verdampfer (30) und ein Verflüssiger (40) eingebaut sind, und
Flüssigkeit ableitende Trennwand (10) für den Trockner (100) nach einem der Ansprüche 1 bis 11, wobei sich die Flüssigkeit ableitende Trennwand (10) in der Kammer (201) befindet und zwi-

schen einer unteren Innenwand der Kammer (201) und der Flüssigkeitsleitrinne (21) sowie der Ablaufrinne (31) ein Flüssigkeit ableitender Kanal für ein Kondensat definiert ist.

Revendications

1. Paroi de séparation de décharge de liquide (10) pour un sèche-linge (100), la paroi de séparation de décharge de liquide (10) ayant :

une rainure de guidage de liquide (21) ayant une entrée (211) et une sortie (212), l'entrée (211) et la sortie (212) étant définies aux deux extrémités de la rainure de guidage de liquide (21) dans une direction allant dans le sens de la longueur de la rainure de guidage de liquide (21), respectivement ; et
une rainure à flux divergent (31) définie sur au moins un côté de la rainure de guidage de liquide (21) dans une direction allant dans le sens de la largeur de la rainure de guidage de liquide (21), la rainure à flux divergent (31) étant en communication avec la rainure de guidage de liquide (21) au travers d'au moins une ouverture de passage de liquide (22) ;
un corps de plaque (1) ;
une partie de guidage de liquide (2) agencée sur une surface latérale du corps de plaque (1), dans laquelle la rainure de guidage de liquide (21) est définie entre la partie de guidage de liquide (2) et le corps de plaque (1) ; et
une partie à flux divergent (3) agencée sur une surface latérale du corps de plaque (1),
dans laquelle la rainure à flux divergent (31) est définie par le corps de plaque (1) et la partie à flux divergent (3), et/ou la rainure à flux divergent (31) est définie par le corps de plaque (1), la partie de guidage de liquide (2), et la partie à flux divergent (3) ;
la paroi de séparation de décharge de liquide (10) comportant par ailleurs :

au moins une première nervure de retenue de liquide (4) agencée sur le corps de plaque (1) et située à l'intérieur de la rainure à flux divergent (31), dans laquelle ladite au moins une première nervure de retenue de liquide (4) est espacée par rapport à la partie de guidage de liquide (2) ;
caractérisée en ce que la paroi de séparation de décharge de liquide (10) comporte par ailleurs :
une deuxième nervure de retenue de liquide (5) agencée sur le corps de plaque (1) et située à l'intérieur de la rainure à flux divergent (31), dans laquelle la deuxième nervure de retenue de liquide (5) est espacée par rapport à la partie de guidage de liquide (2) et raccordée à ladite au moins une première nervure de retenue de liquide (4), et dans laquelle, sur un plan parallèle au corps de plaque (1), une direction allant dans le sens de l'extension de la deuxième nervure de retenue de liquide (5) n'est pas parallèle à une direction allant dans le sens de l'extension de chaque nervure de ladite au moins une première nervure de retenue de liquide (4).

2. Paroi de séparation de décharge de liquide (10) pour le sèche-linge (100) selon la revendication 1, dans laquelle ladite au moins une ouverture de passage de liquide (22) comporte au moins deux ouvertures de passage de liquide (22), dans laquelle l'une desdites au moins deux ouvertures de passage de liquide (22) est formée sous la forme d'une entrée (211) de la rainure à flux divergent (31), et dans laquelle une autre desdites au moins deux ouvertures de passage de liquide (22) est formée sous la forme d'une sortie (212) de la rainure à flux divergent (31).

3. Paroi de séparation de décharge de liquide (10) pour le sèche-linge (100) selon l'une quelconque des revendications 1 à 2, dans laquelle ladite au moins une ouverture de passage de liquide (22) comporte une pluralité d'ouvertures de passage de liquide (22) espacées les unes par rapport aux autres dans la direction allant dans le sens de la longueur de la rainure de guidage de liquide (21), chacune de la pluralité d'ouvertures de passage de liquide (22) étant en communication avec la rainure à flux divergent (31).

4. Paroi de séparation de décharge de liquide (10) pour le sèche-linge (100) selon la revendication 1, dans laquelle ladite au moins une première nervure de retenue de liquide (4) comporte une pluralité de premières nervures de retenue de liquide (4) espacées les unes par rapport aux autres, dans laquelle deux premières nervures de retenue de liquide adjacentes (4) de la pluralité de premières nervures de retenue de liquide (4) sont raccordées l'une à l'autre par la deuxième nervure de retenue de liquide (5).

5. Paroi de séparation de décharge de liquide (10) pour le sèche-linge (100) selon la revendication 1, dans laquelle, sur le plan parallèle au corps de plaque (1), au moins l'une parmi la direction allant dans le sens de l'extension de chaque nervure de ladite au moins une première nervure de retenue de liquide (4) ou la direction allant dans le sens de l'extension de la deuxième nervure de retenue de liquide (5) n'est pas parallèle à la direction allant dans le sens de la longueur de la rainure de guidage de liquide (21).

6. Paroi de séparation de décharge de liquide (10) pour le sèche-linge (100) selon la revendication 4, la paroi de séparation de décharge de liquide (10) comportant par ailleurs :
une troisième nervure de retenue de liquide (6) agencée sur le corps de plaque (1) et située à l'intérieur de la rainure à flux divergent (31), dans laquelle la troisième nervure de retenue de liquide (6) est parallèle à la pluralité de premières nervures de retenue de liquide (4), et dans laquelle la troisième nervure de retenue de liquide (6) est située entre deux premières nervures de retenue de liquide adjacentes (4) de la pluralité de premières nervures de retenue de liquide (4) et est espacée par rapport à la deuxième nervure de retenue de liquide (5).

7. Paroi de séparation de décharge de liquide (10) pour le sèche-linge (100) selon la revendication 1, dans laquelle la rainure de guidage de liquide (21) a une première paroi latérale (213) et une deuxième paroi latérale (214) qui sont à l'opposé l'une de l'autre, dans laquelle au moins l'une parmi la première paroi latérale (213) ou la deuxième paroi latérale (214) a au moins une nervure de guidage de liquide (7) mise en oeuvre sur une surface intérieure de celle-ci, ladite au moins une nervure de guidage de liquide (7) sur l'une ou l'autre parmi la première paroi latérale (213) et la deuxième paroi latérale (214) s'étendant de manière oblique vers une autre parmi la première paroi latérale (213) et la deuxième paroi latérale (214).

8. Paroi de séparation de décharge de liquide (10) pour le sèche-linge (100) selon la revendication 7, dans laquelle ladite au moins une nervure de guidage de liquide (7) s'étend de manière oblique vers la sortie (212) de la rainure de guidage de liquide (21) de l'extérieur vers l'intérieur dans la direction allant dans le sens de la largeur de la rainure de guidage de liquide (21), ou, dans laquelle ladite au moins une nervure de guidage de liquide (7) comporte une pluralité de nervures de guidage de liquide (7) espacées les unes par rapport aux autres dans la direction allant dans le sens de la longueur de la rainure de guidage de liquide (21).

9. Paroi de séparation de décharge de liquide (10) pour le sèche-linge (100) selon la revendication 7, dans laquelle ladite au moins une nervure de guidage de liquide (7) comporte au moins une première nervure de guidage de liquide (71) et au moins une deuxième nervure de guidage de liquide (72),

dans laquelle chaque nervure de ladite au moins une première nervure de guidage de liquide (71) a une extrémité raccordée à la première paroi latérale (213), et une autre extrémité s'étendant de manière oblique vers la sortie (212) de la rainure de guidage de liquide (21) et espacée par rapport à la deuxième paroi latérale (214) ; et
dans laquelle chaque nervure de ladite au moins une deuxième nervure de guidage de liquide (72) a une extrémité raccordée à la deuxième paroi latérale (214), et une autre extrémité s'étendant de manière oblique vers la sortie (212) de la rainure de guidage de liquide (21) et espacée par rapport à la première paroi latérale (213).

10. Paroi de séparation de décharge de liquide (10) pour le sèche-linge (100) selon la revendication 9, dans laquelle ladite au moins une première nervure de guidage de liquide (71) comporte une pluralité de premières nervures de guidage de liquide (71), et dans laquelle ladite au moins une deuxième nervure de guidage de liquide (72) comporte une pluralité de deuxièmes nervures de guidage de liquide (72), la pluralité de premières nervures de guidage de liquide (71) et la pluralité de deuxièmes nervures de guidage de liquide (72) étant agencées en alternance et espacées les unes par rapport aux autres dans la direction allant dans le sens de la longueur de la rainure de guidage de liquide (21), ou, dans laquelle ladite au moins une ouverture de passage de liquide (22) est définie dans l'une parmi la première paroi latérale (213) et la deuxième paroi latérale (214) plus proche de la partie à flux divergent (3).

11. Paroi de séparation de décharge de liquide (10) pour le sèche-linge (100) selon l'une quelconque des revendications 1 à 10, dans laquelle chacune parmi la partie de guidage de liquide (2) et la partie à flux divergent (3) est un élément flexible.

12. Sèche-linge (100), comportant :

un carter de conduit d'air (20) ayant une chambre (201) dans laquelle un évaporateur (30) et un condensateur (40) sont montés ; et
la paroi de séparation de décharge de liquide (10) pour le sèche-linge (100) selon l'une quelconque des revendications 1 à 11, dans lequel la paroi de séparation de décharge de liquide (10) est située à l'intérieur de la chambre (201), et dans lequel un canal de décharge de liquide pour un fluide condensé est défini entre une paroi inférieure intérieure de la chambre (201) et chacune de la rainure de guidage de liquide (21) et la rainure à flux divergent (31).

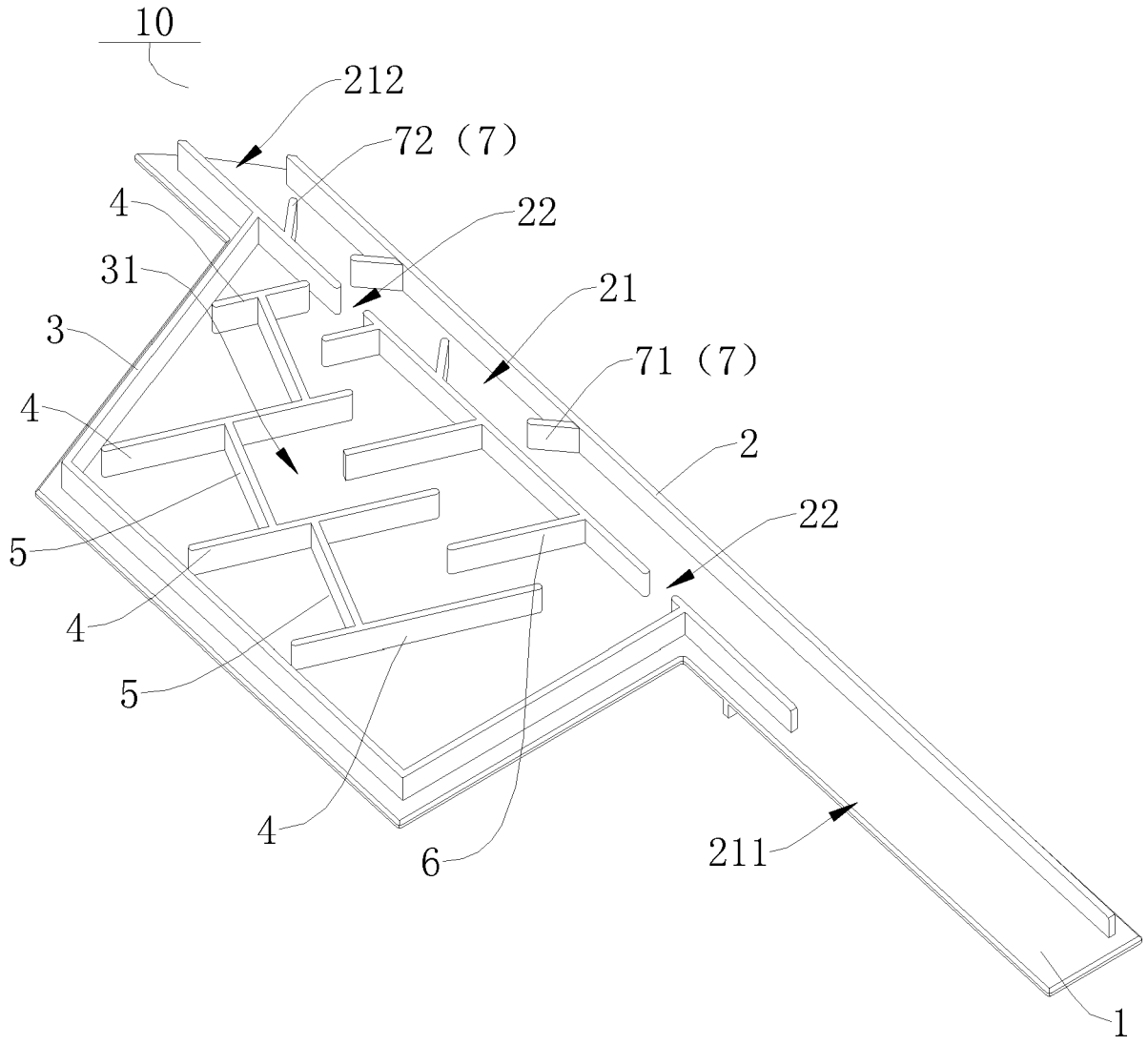

FIG. 1

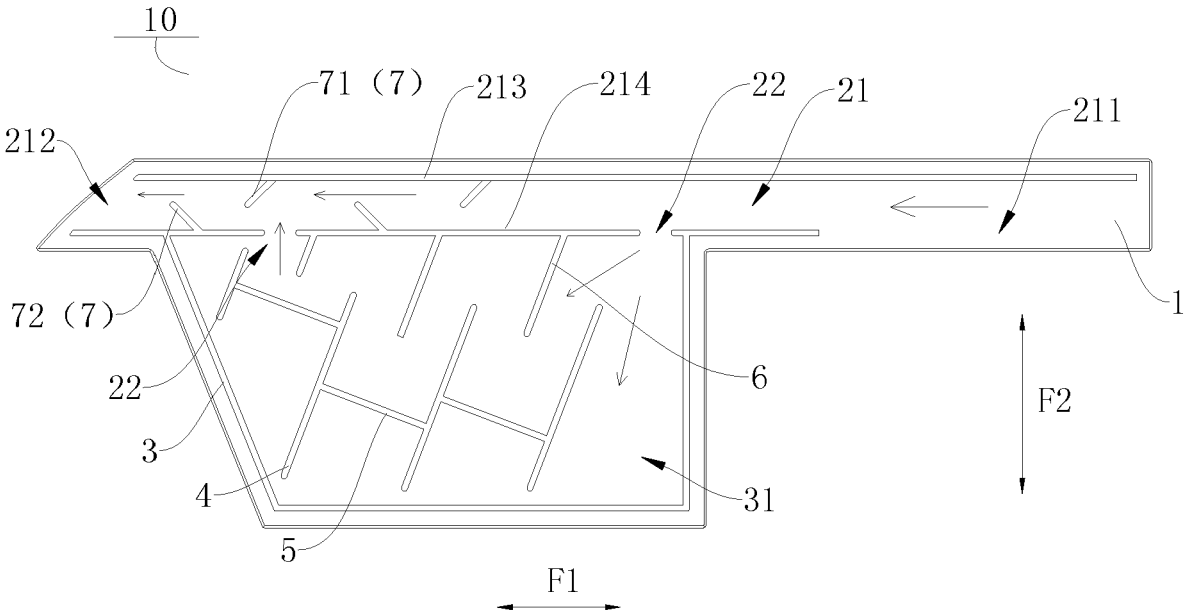

FIG. 2

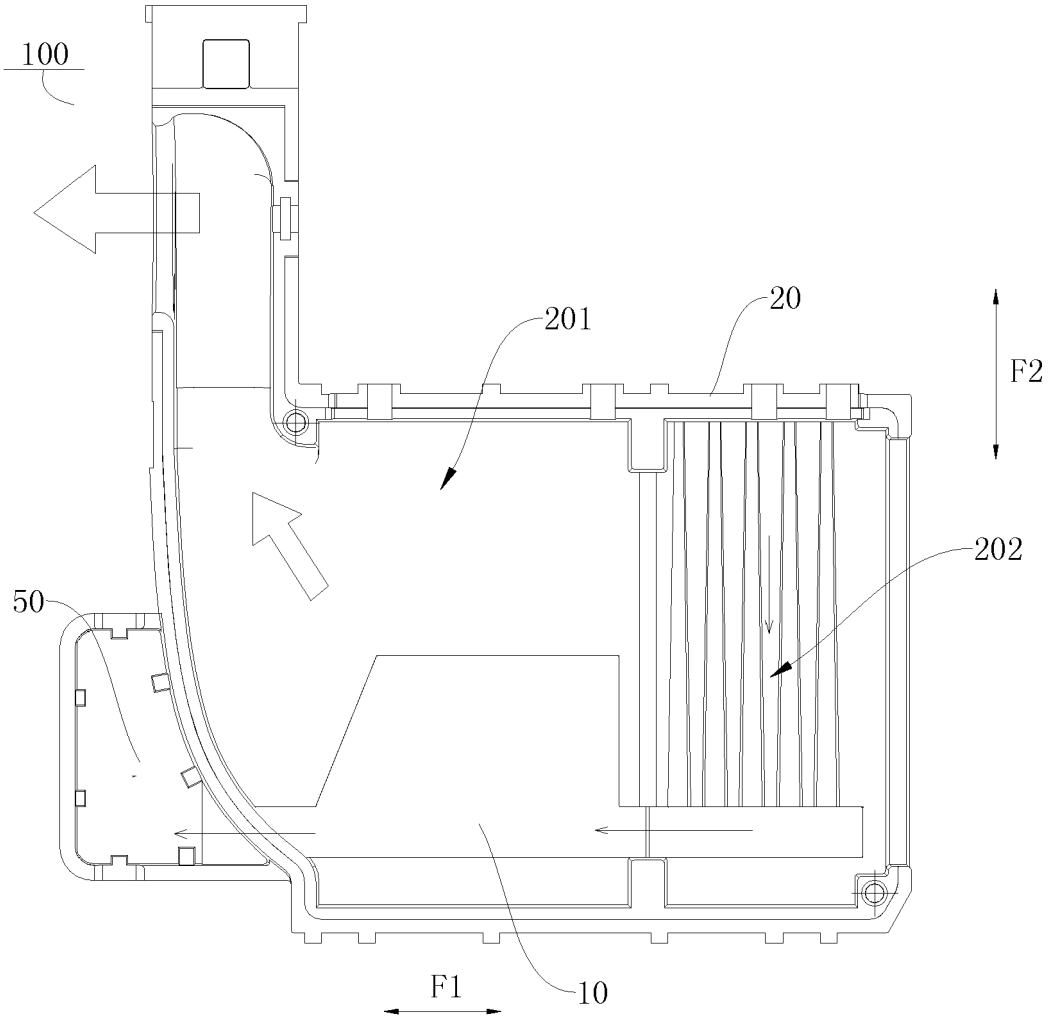

FIG. 3

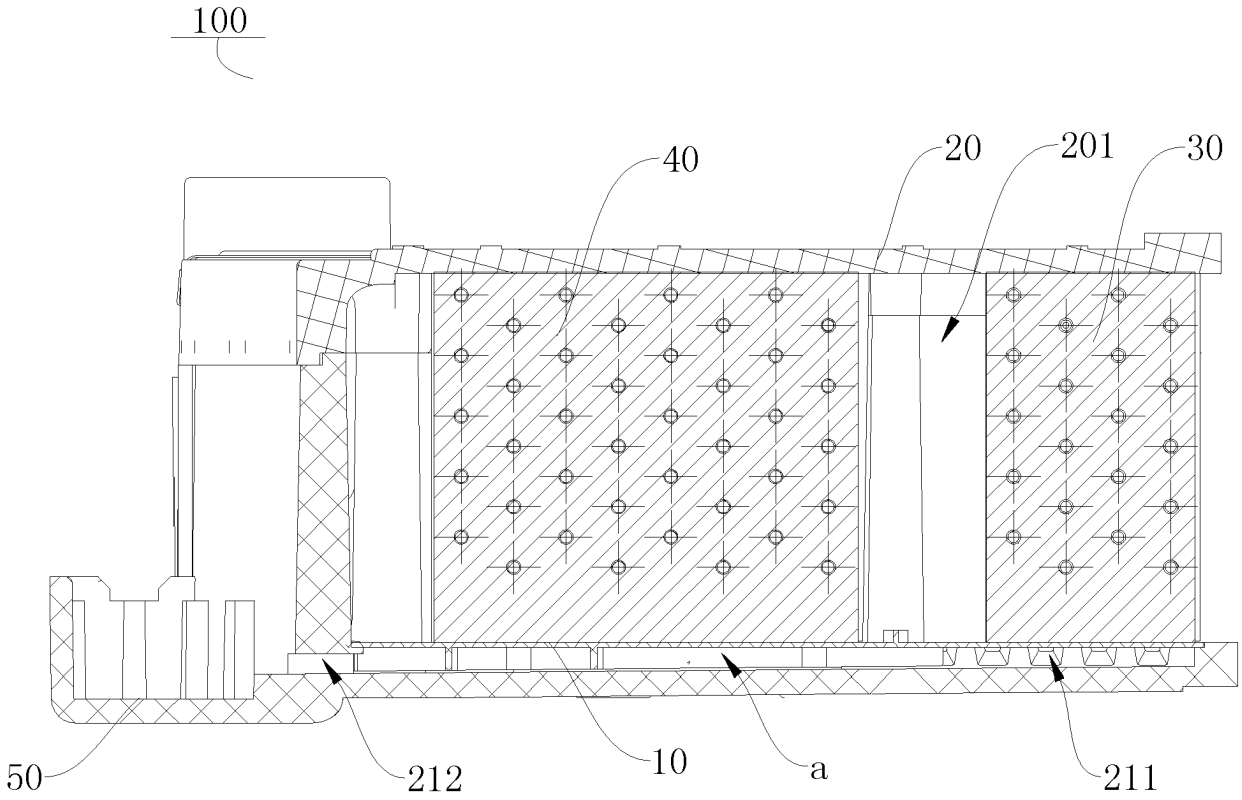

FIG. 4

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- US 2017343272 A1 **[0002]**
- WO 2015065299 A1 **[0002]**