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(54) **COOKER HOOD**

(57) The present invention according to a first aspect provides an improved cooker hood. The cooker hood provided in the present invention includes a filter assembly and a drive apparatus. The filter assembly includes two movable smoke guide plates (1) and a plate body member (2) located between the two movable smoke guide plates (1), and the two movable smoke guide plates (1) are adapted to move under drive of the drive apparatus; the filter assembly is adapted to switch between a first mode and a second mode by moving the two movable smoke guide plates (1); and when the filter assembly is in the first mode, the filter assembly is overall of a truncated V shape, the two movable smoke guide plates (1)

respectively correspond to two side walls of the truncated V shape, and the plate body member (2) corresponds to a top wall of the truncated V shape; and when the filter assembly is in the second mode, the filter assembly is overall of a flat plate shape. The present invention provides a new cooker hood whose structure of a filter assembly is adjustable. According to a second aspect, the invention provides a cooker hood comprising a smoke collection chamber (5) with the filter assembly being disposed in the smoke collection chamber (5) and in a first mode two movable smoke guide plates (1) are respectively spaced from the smoke collecting chamber (5) and intake channels are formed therebetween.

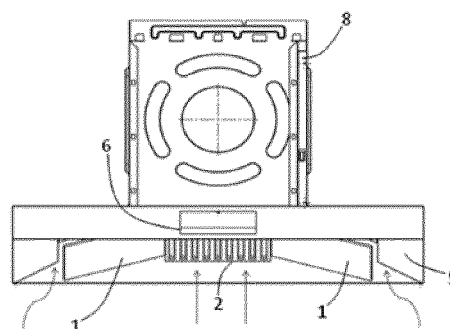


FIG. 4

Description

BACKGROUND

Technical Field

[0001] The present invention relates to the field of cooker hoods.

Related Art

[0002] Filters or guide plates are generally fixedly disposed at air inlets of existing cooker hoods as filter modules, the structure is pretty undiversified, and improvement and breakthrough are required.

[0003] Unless sufficient evidence support, the prior art herein does not mean that the prior art are known to a person of ordinary skill in the art related to the present invention before the application date of this application.

SUMMARY

[0004] The present invention provides an improved cooker hood.

[0005] The cooker hood provided according to a first aspect of the present invention includes a filter assembly and a drive apparatus. The filter assembly includes two movable smoke guide plates and a plate body member located between the two movable smoke guide plates, and the two movable smoke guide plates are adapted to move under drive of the drive apparatus; the filter assembly is adapted to switch between a first mode and a second mode by moving the two movable smoke guide plates; and when the filter assembly is in the first mode, the filter assembly is overall of a truncated V shape, the two movable smoke guide plates respectively correspond to two side walls of the truncated V shape, and the plate body member corresponds to a top wall of the truncated V shape; and when the filter assembly is in the second mode, the filter assembly is overall of a flat plate shape. The first aspect of the present invention provides a new cooker hood whose structure of a filter assembly is adjustable.

[0006] According to a second aspect of the present invention a cooker hood is provided which includes a smoke collection chamber, and further includes a filter assembly and a drive apparatus. The filter assembly is disposed in the smoke collection chamber; the filter assembly includes two movable smoke guide plates and a plate body member located between the two movable smoke guide plates, and the two movable smoke guide plates are adapted to move under drive of the drive apparatus; the filter assembly is adapted to switch between a first mode and a second mode by moving the two movable smoke guide plates; when the filter assembly is in the first mode, the two movable smoke guide plates are respectively spaced from the smoke collection chamber and air intake channels are formed therebetween; and

when the filter assembly is in the second mode, the air intake channels are at least partially closed by the corresponding movable smoke guide plates. This second aspect of the present invention provides a new cooker hood whose air intake channels are adjustable.

[0007] According to the second aspect of the present invention, optionally, when the filter assembly is in the first mode, the filter assembly is overall of a truncated V shape, the two movable smoke guide plates respectively correspond to two side walls of the truncated V shape, and the plate body member corresponds to a top wall of the truncated V shape.

[0008] When the filter assembly is in the first mode and in this mode is overall of a truncated V shape, the two movable smoke guide plates respectively corresponding to two side walls of the truncated V shape, and the plate body member corresponding to a top wall of the truncated V shape, optionally a bottom opening of the truncated V shape faces the outside of the cooker hood. In this way, an inner cavity of the filter assembly facilitates smoke gathering.

[0009] Optionally, the plate body member is a holeless plate or a filter.

[0010] According to the first aspect of the invention, optionally, the cooker hood further includes an oil cup; when the filter assembly is in the second mode, the two movable smoke guide plates are both obliquely disposed higher in front than behind; and when the filter assembly is in the first mode and the second mode, the oil cup is located below a back end of the filter assembly. In this way, grease attached on the filter assembly is easy to be collected.

[0011] According to the second aspect of the invention, optionally, the cooker hood further includes an oil cup; and when the filter assembly is in the first mode and the second mode, a lowest point of the filter assembly is located at a back end of the filter assembly, and the oil cup is located below the back end of the filter assembly. That is, when the filter assembly is in the first mode, the lowest point of the filter assembly is located at the back end of the filter assembly, and the oil cup is located below the back end of the filter assembly; and when the filter assembly is in the second mode, the lowest point of the filter assembly is located at the back end of the filter assembly, and the oil cup is located below the back end of the filter assembly. In this way, grease attached on the filter assembly is easy to be collected.

[0012] Optionally, when the filter assembly is in the first mode, a lowest point of the filter assembly is located at the back end of the filter assembly. In this way, the grease attached on the filter assembly is easy to be collected.

[0013] Optionally, the cooker hood further includes an upper side filter obliquely disposed higher in front than behind, where when the filter assembly is in the second mode, the two movable smoke guide plates are both obliquely disposed higher in front than behind, and a back end of the upper side filter is connected to a front end of the filter assembly. In this way, grease attached on the

upper side filter is easy to be transferred to the filter assembly, thereby facilitating grease collection.

[0014] Optionally, the cooker hood according to the first aspect further includes a smoke collection chamber, where when the filter assembly is in the first mode, the two movable smoke guide plates are respectively spaced from the smoke collection chamber and air intake channels are formed therebetween.

[0015] Optionally, the smoke collection chamber is obliquely disposed higher in front than behind.

[0016] Optionally, the cooker hood further includes an oil cup located at a bottom end of the smoke collection chamber; the oil cup includes a back wall and an air guide plane that is obliquely disposed higher in front than behind; and the back wall is connected to the air guide plane, and an angle between the back wall and the air guide plane is an acute angle. Disposing of the air guide plane helps to guide an air flow to flow to the smoke collection chamber.

[0017] Optionally, according to the first or second aspect of the invention when the filter assembly is in the first mode, the two movable smoke guide plates are respectively spaced from the plate body member and air inlets are formed therebetween.

[0018] Optionally, according to the first or second aspect of the invention the two movable smoke guide plates are both holeless plates.

[0019] Optionally, according to the first or second aspect of the invention when the filter assembly switches between the first mode and the second mode, the two movable smoke guide plates respectively rotate.

[0020] It should be noted herein that unless particularly specified, position expressions such as "outside", "bottom", "higher in front than behind", "front end", "back end", "bottom end", "below", "above", "obliquely", "horizontal plane", "external surface", "left", and "right" that appear in the present application are used based on a common use status of the cooker hood.

[0021] It should be noted herein that "first" and "second" appearing in this specification are merely intended to describe objectives instead of indicating relative importance, and do not define the number of features limited by the "first" and "second" or a logical relationship or a sequence of the features limited by the "first" and "second".

[0022] Features and advantages which are described with respect to the first aspect of the invention also apply - if suitable - to the second aspect and vice versa and will thus only be described once.

[0023] The content of the foregoing technical solutions of this application is not used for describing all possible implementations of the present invention. In this whole application, a plurality of examples is listed to provide guidance, and these examples can be used for various feasible combinations.

BRIEF DESCRIPTION OF THE DRAWINGS

[0024] The following accompanying drawings are merely used for exemplarily describing and explaining the present invention, and do not limit the scope of the present invention, and wherein:

FIG. 1 is a schematic structural diagram of Embodiment 1 of a cooker hood in a second mode according to the present invention;

FIG. 2 is another schematic structural diagram of Embodiment 1 of the cooker hood in the second mode according to the present invention;

FIG. 3 is a schematic structural diagram of Embodiment 1 of the cooker hood in a first mode according to the present invention;

FIG. 4 is another schematic structural diagram of Embodiment 1 of the cooker hood in the first mode according to the present invention;

FIG. 5 is a schematic structural diagram of Embodiment 2 of a cooker hood in a first mode according to the present invention;

FIG. 6 is another schematic structural diagram of Embodiment 2 of the cooker hood in the first mode according to the present invention; and

FIG. 7 is a schematic structural diagram of Embodiment 3 of a cooker hood in a first mode according to the present invention.

List of Reference Numerals:

[0025] 1: Movable smoke guide plate; 2: Plate body member; 3: Upper side filter; 4: Oil cup; 5: Smoke collection chamber; 6: Human-machine interaction interface; 7: Decoration cover; and 8: Housing.

DETAILED DESCRIPTION

[0026] To make the objectives, solutions, and beneficial effects of the present invention clearer, the following further describes the present invention with reference to the accompanying drawings and preferred embodiments.

Embodiment 1

[0027] Embodiment 1 of a cooker hood provided in the present invention includes an oil cup 4, a smoke collection chamber 5, a control panel, a decoration cover 7, a housing 8, a fan (not shown), a filter assembly, and a drive apparatus (not shown), as shown in FIG. 1 to FIG. 4. FIG. 1 is a main view of the cooker hood, FIG. 2 is a

bottom view of the cooker hood, FIG. 3 is a right view of the cooker hood, and the cooker hood shown in FIG. 4 is not provided with the oil cup 4. The control panel is disposed above the smoke collection chamber 5, and a human-machine interaction interface 6 is disposed on the control panel. The fan is mounted inside the housing 8, and the decoration cover 7 is disposed outside the housing 8.

[0028] The filter assembly is disposed in the smoke collection chamber 5. The smoke collection chamber 5 is obliquely disposed higher in front than behind. As shown in FIG. 3, a point A in FIG. 3 indicates a "front" end of the smoke collection chamber 5, and a point B in FIG. 3 indicates a "back" end of the smoke collection chamber 5. An oblique angle of the smoke collection chamber 5 is 15 degrees, that is, an angle between a line connecting the point A and the point B and a horizontal plane in FIG. 3 is 15 degrees, in other words, an angle between an edge contour line of the smoke collection chamber 5 and the horizontal plane is 15 degrees. It can be learned that the overall structure of the cooker hood is between that of a top cooker hood and that of an inclined cooker hood, so as to facilitate function implementation of the filter assembly and collection of grease attached on the filter assembly. The oil cup 4 is located at a bottom end of the smoke collection chamber 5. The oil cup 4 includes a back wall and an air guide plane that is obliquely disposed higher in front than behind; and the back wall is connected to the air guide plane, and an angle between the back wall and the air guide plane is an acute angle.

[0029] The filter assembly includes two movable smoke guide plates 1 and a plate body member 2 located between the two movable smoke guide plates 1, and the two movable smoke guide plates 1 are adapted to move under drive of the drive apparatus. The filter assembly is adapted to switch between a first mode and a second mode by moving the two movable smoke guide plates 1. When the filter assembly switches between the first mode and the second mode, the two movable smoke guide plates 1 respectively rotate with respect to a rotating shaft. The "rotating shaft" runs through the corresponding movable smoke guide plate 1 in a forward-and-backward extending direction of the corresponding movable smoke guide plate 1. The drive apparatus includes two motors, the two motors correspond to the two movable smoke guide plates 1 in a one-to-one manner, and the motor drives the rotating shaft of the corresponding movable smoke guide plate 1 to rotate, to enable the corresponding movable smoke guide plate 1 to rotate. Preferably, the two movable smoke guide plates 1 rotate synchronously. The sizes and shapes of the two movable smoke guide plates 1 are the same.

[0030] The plate body member 2 is detachably mounted in the smoke collection chamber 5, and the plate body member 2 remains unchanged when the filter assembly switches between the first mode and the second mode. Specifically, the plate body member 2 is a filter, and an

edge contour of an external surface of the plate body member 2 is rectangular.

[0031] The two movable smoke guide plates 1 are both holeless glass plates, and edge contours of external surfaces of the two movable smoke guide plates 1 are both rectangular.

[0032] When the filter assembly is in the first mode, as shown in FIG. 3 and FIG. 4, the filter assembly is overall of a truncated V shape, the two movable smoke guide plates 1 respectively correspond to two side walls of the truncated V shape, and the plate body member 2 corresponds to a top wall of the truncated V shape. When the filter assembly is in the first mode, a bottom opening of the truncated V shape faces the outside of the cooker hood. The "bottom opening of the truncated V shape" may be understood as an opening formed by means of spacing between free ends of the two movable smoke guide plates 1 (where the free end of the movable smoke guide plate is an end of the movable smoke guide plate 1 away from the plate body member 2). When the filter assembly is in the first mode, an angle between the external surfaces of the two movable smoke guide plates 1 is an obtuse angle, as shown in FIG. 4.

[0033] When the filter assembly is in the first mode, the free ends of the two movable smoke guide plates 1 are respectively spaced from the smoke collection chamber 5 and air intake channels are formed therebetween. Specifically, the free ends of the two movable smoke guide plates 1 are respectively spaced from a smoke guide plane of the smoke collection chamber 5 and the air intake channels are formed therebetween. In this case, if the fan runs (that is, a user controls the human-machine interaction interface 6 to start the cooker hood), an air flow enters the cooker hood in a direction of arrow shown in FIG. 4. A part of the air flow enters the air intake channels at two sides, and the other part of the air flow enters the filter. In fact, when the filter assembly is in the first mode and the fan runs, the two movable smoke guide plates 1 are adapted to guide flowing of the air flow, and a cavity formed by means of spacing between the two movable smoke guide plates 1 is suitable for smoke gathering.

[0034] When the filter assembly is in the first mode, a lowest point of the filter assembly is located at a back end of the filter assembly. Specifically, the filter assembly has two lowest points, one point is an inner angle of the free end of the left movable smoke guide plate 1, and the other point is an inner angle of the free end of the right movable smoke guide plate 1, as shown in FIG. 4. When the filter assembly is in the first mode, the filter assembly in the right view of the cooker hood is covered by the smoke collection chamber 5, as shown in FIG. 3.

[0035] When the filter assembly is in the second mode, as shown in FIG. 1 and FIG. 2, the filter assembly is overall of a flat plate shape, and the left movable smoke guide plate, the plate body member 2, and the right movable smoke guide plate are sequentially connected. An edge contour of an external surface of the filter assembly

is rectangular. When the filter assembly is in the second mode, the two movable smoke guide plates 1 are both obliquely disposed higher in front than behind, and the filter assembly is overall obliquely disposed higher in front than behind. When the filter assembly is in the second mode, an angle between the filter assembly and the horizontal plane is 15 degrees, that is, an angle between the external surface of the filter assembly and the horizontal plane is 15 degrees. When the filter assembly is in the second mode, the air intake channels at two sides are respectively closed by the corresponding movable smoke guide plates 1. When the filter assembly is in the second mode, the fan can also run, and a generated air flow can only enter the filter.

[0036] When the filter assembly is in the first mode and the second mode, the oil cup 4 is located below the back end of the filter assembly. The grease attached on the filter assembly is gathered to the back end of the filter assembly under action of gravity, and drops into the oil cup 4 from the back end of the filter assembly.

[0037] The foregoing is merely a preferred embodiment of the present invention, and other embodiments may be further obtained by adding, deleting, modifying, or replacing some technical features. For example, the two movable smoke guide plates may be both holeless stainless-steel plates. For another example, the size of the air intake channel formed by means of spacing between the movable smoke guide plate and the smoke collection chamber may be adjustable, and specifically, may be adjusted based on a control instruction entered by the user, or may be automatically adjusted based on a running shift of the fan of the cooker hood or detected smoke concentration. For another example, when the filter assembly is in the second mode, the angle between the filter assembly and the horizontal plane may be 30 degrees or another angle less than 30 degrees. For another example, the oblique angle of the smoke collection chamber may be 30 degrees or another angle less than 30 degrees. For another example, the bottom opening of the truncated V shape may face the inside of the cooker hood. For another example, the two movable smoke guide plates may be respectively provided with an air intake hole. For another example, the air intake channels formed by means of spacing between the movable smoke guide plates and the smoke collection chamber may be partially closed by the corresponding movable smoke guide plates when the filter assembly switches to the second mode. For another example, the drive apparatus is not limited to the solution described in this embodiment, and may use another existing driving solution that can achieve the objectives of this application.

[0038] For another example, a filter piece may be further disposed. The two movable smoke guide plates are respectively spaced from the filter piece and air intake channels formed therebetween, that is, the "air intake channels" are formed between the two movable smoke guide plates and the filter piece (instead of the smoke collection chamber) at intervals.

[0039] According to the second aspect of the invention, for another example, when the filter assembly is in the second mode, the filter assembly may be overall of the truncated V shape. However, compared with when the filter assembly is in the first mode, when the filter assembly is in the second mode, the angle between the external surfaces of the two movable smoke guide plates is a larger obtuse angle.

10 Embodiment 2

[0040] The present invention further provides Embodiment 2 of another cooker hood. Embodiment 2 of the cooker hood is obtained by means of improvement based on Embodiment 1 of the cooker hood. Differences between Embodiment 2 of the cooker hood and Embodiment 1 of the cooker hood are mainly as follows.

[0041] The plate body member 2 of Embodiment 2 of the cooker hood is a holeless plate. Preferably, the plate body member 2 is a holeless glass plate. When Embodiment 2 of the cooker hood is in a first mode, a schematic structural diagram thereof is shown in FIG. 5 and FIG. 6. Embodiment 2 of the cooker hood shown in FIG. 5 is not provided with an oil cup 4.

[0042] When the filter assembly is in the first mode, the two movable smoke guide plates 1 are respectively spaced from the plate body member 2 and the air inlets are formed therebetween, as shown in FIG. 5. In this case, if the fan runs, an air flow enters the cooker hood in a direction of arrow shown in FIG. 5, a part of the air flow enters the air intake channels formed by means of spacing between the movable smoke guide plates 1 and the smoke collection chamber 5, and the other part of the air flow enters the air inlets formed by means of spacing between the movable smoke guide plates 1 and the plate body member 2. When the filter assembly is in a second mode, the air inlets are at least partially closed by the corresponding movable smoke guide plates 1.

[0043] For another structure and cooperation relationship between Embodiment 2 of the cooker hood, refer to the corresponding descriptions of Embodiment 1 of the cooker hood.

Embodiment 3

[0044] The present invention further provides Embodiment 3 of another cooker hood. Embodiment 3 of the cooker hood is obtained by means of improvement based on Embodiment 1 of the cooker hood. Differences between Embodiment 3 of the cooker hood and Embodiment 1 of the cooker hood are mainly as follows.

[0045] Embodiment 3 of the cooker hood further includes an upper side filter 3 obliquely disposed higher in front than behind. As shown in FIG. 7, the upper side filter 3 is disposed in the smoke collection chamber 5.

[0046] When the filter assembly is in a second mode, the filter assembly is overall obliquely disposed higher in front than behind, and a back end of the upper side filter

3 is connected to a front end of the filter assembly. Preferably, the back end of the upper side filter 3 is disposed above the front end of the filter assembly. Grease attached on the upper side filter 3 flows to the filter assembly under action of gravity, then flows to the back end of the filter assembly, and flows into the oil cup 4.

[0047] For another structure and cooperation relationship between Embodiment 3 of the cooker hood, refer to the corresponding descriptions of Embodiment 1 of the cooker hood. The foregoing are merely preferred embodiments of the present invention, and other embodiments may be further obtained by adding, deleting, modifying, or replacing some technical features. For example, the upper side filter and the plate body member may be of an integrated structure.

[0048] Components in different embodiments may be combined in any feasible manner, so as to achieve the objectives of the present invention.

[0049] It should be additionally noted that the present invention should not be understood as being limited to the implementations described above, but should be understood as covering all possible implementations determined with reference to content disclosed in the claims and specifications of the present invention. Therefore, any simple modifications, equivalent variations, and polishes made on the foregoing embodiments in accordance with the technical essence of the present invention without departing from content of the technical solutions of the present invention shall fall within the protection scope of the technical solutions of the present invention.

Claims

1. A cooker hood, **characterized by:**

comprising a filter assembly and a drive apparatus, wherein

the filter assembly comprises two movable smoke guide plates (1) and a plate body member (2) located between the two movable smoke guide plates (1), and the two movable smoke guide plates (1) are adapted to move under drive of the drive apparatus;

the filter assembly is adapted to switch between a first mode and a second mode by moving the two movable smoke guide plates (1); and when the filter assembly is in the first mode, the filter assembly is overall of a truncated V shape, the two movable smoke guide plates (1) respectively correspond to two side walls of the truncated V shape, and the plate body member (2) corresponds to a top wall of the truncated V shape; and when the filter assembly is in the second mode, the filter assembly is overall of a flat plate shape.

2. A cooker hood, comprising a smoke collection cham-

ber (5), **characterized by:**

further comprising a filter assembly and a drive apparatus, wherein the filter assembly is disposed in the smoke collection chamber (5); the filter assembly comprises two movable smoke guide plates (1) and a plate body member (2) located between the two movable smoke guide plates (1), and the two movable smoke guide plates (1) are adapted to move under drive of the drive apparatus;

the filter assembly is adapted to switch between a first mode and a second mode by moving the two movable smoke guide plates (1);

when the filter assembly is in the first mode, the two movable smoke guide plates (1) are respectively spaced from the smoke collection chamber (5) and air intake channels are formed therebetween; and

when the filter assembly is in the second mode, the air intake channels are at least partially closed by the corresponding movable smoke guide plates (1).

3. The cooker hood according to claim 2, when the filter assembly is in the first mode, the filter assembly is overall of a truncated V shape, the two movable smoke guide plates (1) respectively correspond to two side walls of the truncated V shape, and the plate body member (2) corresponds to a top wall of the truncated V shape.

4. The cooker hood according to claim 1 or 3, **characterized in that**

when the filter assembly is in the first mode, a bottom opening of the truncated V shape faces the outside of the cooker hood.

5. The cooker hood according to anyone of claims 1 to 4, **characterized in that**

the plate body member (2) is a holeless plate or a filter and/or the two movable smoke guide plates (1) are both holeless plates.

6. The cooker hood according to anyone of claims 1 to 5, **characterized by:**

further comprising an oil cup (4), wherein when the filter assembly is in the second mode, the two movable smoke guide plates (1) are both obliquely disposed higher in front than behind; and

when the filter assembly is in the first mode and the second mode, the oil cup (4) is located below a back end of the filter assembly.

7. The cooker hood according to anyone of claims 1 to 5, **characterized by**

further comprising an oil cup (4), wherein when the filter assembly is in the first mode and the second mode, a lowest point of the filter assembly is located at a back end of the filter assembly, and the oil cup (4) is located below the back end of the filter assembly.

8. The cooker hood according to anyone of claims 1 to 7, **characterized by** further comprising an upper side filter (3) obliquely disposed higher in front than behind, wherein when the filter assembly is in the second mode, a back end of the upper side filter (3) is connected to a front end of the filter assembly. 10
9. The cooker hood according to claim 8, **characterized in that** the two movable smoke guide plates (1) are both obliquely disposed higher in front than behind. 15
10. The cooker hood according to claim 6, **characterized in that** when the filter assembly is in the first mode, a lowest point of the filter assembly is located at the back end of the filter assembly. 20
11. The cooker hood according to claim 1, **characterized by:**

further comprising a smoke collection chamber (5), wherein 30

when the filter assembly is in the first mode, the two movable smoke guide plates (1) are respectively spaced from the smoke collection chamber (5) and air intake channels are formed therebetween. 35
12. The cooker hood according to claim 11, **characterized in that** the smoke collection chamber (5) is obliquely disposed higher in front than behind. 40
13. The cooker hood according to claim 12, **characterized in by:**

further comprising an oil cup (4) located at a bottom end of the smoke collection chamber (5), wherein the oil cup (4) comprises a back wall and an air guide plane that is obliquely disposed higher in front than behind; and 45

the back wall is connected to the air guide plane, and an angle between the back wall and the air guide plane is an acute angle. 50
14. The cooker hood according to claim 1 or 2, **characterized in that** when the filter assembly is in the first mode, the two movable smoke guide plates (1) are respectively spaced from the plate body member (2) and air inlets 55

are formed therebetween.

15. The cooker hood according to any one of the foregoing claims, **characterized in that** when the filter assembly switches between the first mode and the second mode, the two movable smoke guide plates (1) respectively rotate.

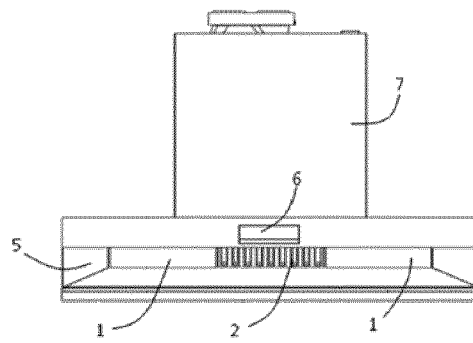


FIG. 1

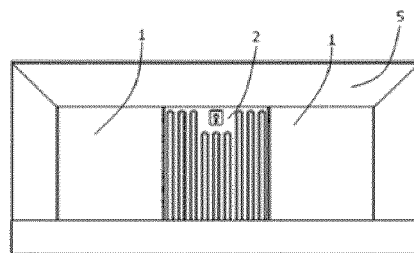


FIG. 2

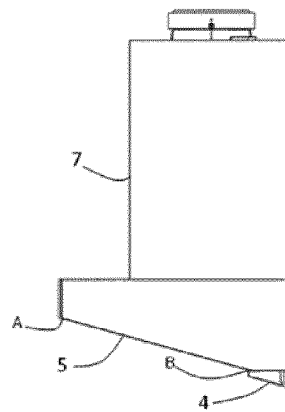


FIG. 3

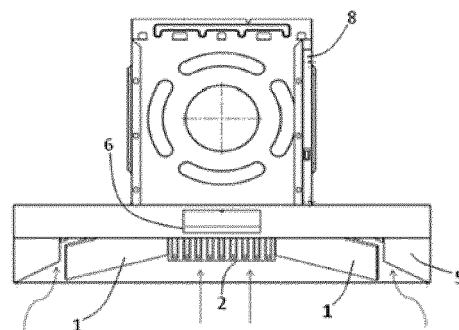


FIG. 4

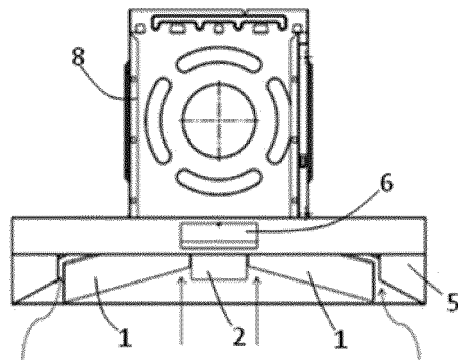


FIG. 5

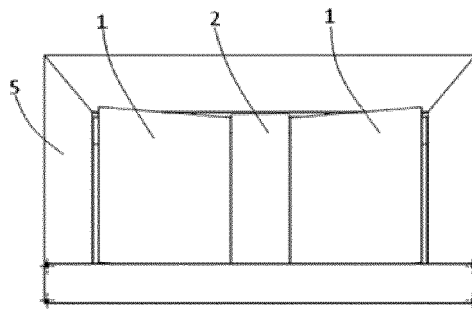


FIG. 6

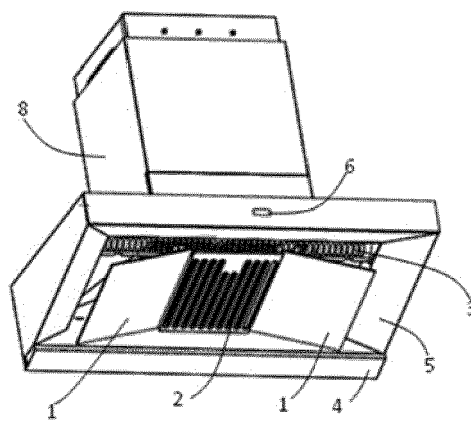


FIG. 7



EUROPEAN SEARCH REPORT

Application Number
EP 18 17 5899

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 17 October 2018	Examiner Fest, Gilles
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		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	

EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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