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(54) **Range hood**

(57) The present invention provides an improved range hood. The range hood provided in the present invention includes a double-inlet blower system and a double-inlet housing, and the double-inlet blower system is disposed in the double-inlet housing; the double-inlet blower system includes a first air inlet and a second air inlet disposed back-to-back; the double-inlet housing in-

cludes a first inlet portion and a second inlet portion disposed back-to-back; and the first air inlet and the first inlet portion are disposed opposite to each other, and the second air inlet and the second inlet portion are disposed opposite to each other. In this way, air flows more smoothly, and the air intake efficiency of the double-inlet blower system can be improved.

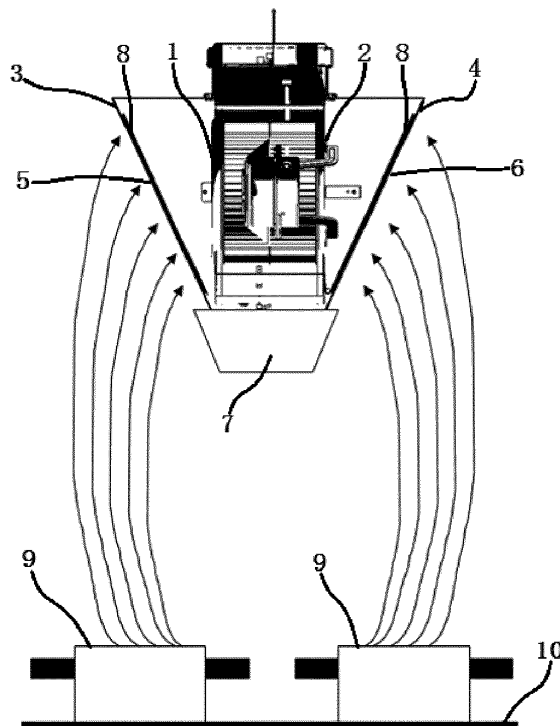


FIG. 1

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Description

Technical Field

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

Related Art

[0002] Blower systems of existing range hoods may be classified into two types: single-inlet blower systems and double-inlet blower systems. The existing range hood using a double-inlet blower system has a simple structure and lacks breakthrough.

[0003] Unless being supported by sufficient proofs, the prior art described herein does not mean that the prior art is well known by those of ordinary skill in the art of the present invention before the date of application of the present application.

SUMMARY

[0004] The main objective of the present invention is to provide an improved range hood.

[0005] A range hood provided by the present invention includes a double-inlet blower system and a double-inlet housing, and the double-inlet blower system is disposed in the double-inlet housing; the double-inlet blower system includes a first air inlet and a second air inlet disposed back-to-back; the double-inlet housing includes a first inlet portion and a second inlet portion disposed back-to-back; and the first air inlet and the first inlet portion are disposed opposite to each other, and the second air inlet and the second inlet portion are disposed opposite to each other. It can be seen that, the present invention provides a new range hood structure. In this way, air flows more smoothly, and the air intake efficiency of the double-inlet blower system can be improved.

[0006] Optionally, the double-inlet housing includes a first wall and a second wall disposed back-to-back; the first inlet portion is disposed on the first wall, and the second inlet portion is disposed on the second wall; and the first wall and the second wall are both disposed in an inclined manner, and the first wall and the second wall gradually approach each other from top to bottom.

[0007] Optionally, the double-inlet housing assumes an inverted pyramid frustum structure; the first inlet portion and second inlet portion are respectively disposed on two opposite side surfaces of the pyramid frustum.

[0008] Optionally, the pyramid frustum further includes a third side surface, the third side surface is connected to and disposed between the two opposite side surfaces; the range hood further includes a man-machine interaction device, and the man-machine interaction device is disposed on the third side surface.

[0009] Optionally, in a use state, the third side surface is disposed to face a user. It can be seen that, the present invention provides a new range hood structure.

[0010] Optionally, in a use state, the third side surface extends in a direction away from a user from top to bottom. In this way, the user may be prevented from touching the third side surface incidentally.

[0011] Optionally, the range hood further includes an oil collecting device, and the oil collecting device is disposed at the bottom of the double-inlet housing.

[0012] Optionally, the first inlet portion and the second inlet portion are respectively provided with a filtering device.

[0013] Optionally, the first inlet portion includes two modes, namely, OFF and ON; and the second inlet portion includes two modes, namely, OFF and ON. In this way, the user may perform more flexible control according to requirements thereof.

[0014] Optionally, the double-inlet housing uses an integrally formed structure.

[0015] Optionally, the first air inlet faces the first inlet portion in a horizontal direction; and the second air inlet faces the second inlet portion in the horizontal direction. In this way, the air flows more smoothly.

[0016] Optionally, the double-inlet blower system includes a volute, an impeller and a motor.

[0017] It should be noted that, directional expressions such as "disposed in an inclined manner", "from top to bottom", and "in the horizontal direction" are used based on a customary mounting state of the range hood if there is no specific illustration.

[0018] It should be pointed out that, "first", "second" and "third" used in the specification are merely used for description, and are not used to indicate relative importance; moreover, they are not used to define the number of the limited features; moreover, they are not used to define logic relationships or order relationships of the limited features.

[0019] The summary of the present invention is not used to describe all possible implementation manners of the present invention. In the whole application, many examples are used for guidance, and the examples may be used to various feasible combinations.

BRIEF DESCRIPTION OF THE DRAWINGS

[0020] The disclosure will become more fully understood from the detailed description given herein below for illustration only, and thus are not limitative of the disclosure, and wherein:

FIG. 1 is a reference diagram of a use state of an embodiment of a range hood according to the present invention.

DETAILED DESCRIPTION

[0021] To make the objectives, solutions and beneficial effects of the present invention more comprehensible, the present invention is further described with reference to the accompany drawings and preferred embodiments.

Some accompany drawings may not be precise enough, and in this case, the description set forth herein prevails.

[0022] The present invention provides an embodiment of a range hood, including a man-machine interaction device (not shown), an oil collecting device 7, a double-inlet blower system, and a double-inlet housing. Specifically, the man-machine interaction device includes a control device and a display device, where the control device includes keys. The double-inlet blower system includes a volute, a multi-blade centrifugal impeller, and a motor. A reference diagram of a use state of the embodiment of the range hood is shown in FIG. 1, which is a view obtained from the perspective of a user facing the range hood when the range hood is in the use state, and in the drawing, a sectional view of the range hood is used.

[0023] The double-inlet blower system is disposed in the double-inlet housing. The double-inlet blower system includes a first air inlet 1 and a second air inlet 2 disposed back-to-back. The double-inlet housing includes a first wall 3 and a second wall 4 disposed back-to-back, where the first wall 3 and the second wall 4 are both disposed in an inclined manner, and the first wall 3 and second wall 4 gradually approach each other from top to bottom, as shown in the drawing. The first wall 3 is provided with a first inlet portion 5, and the second wall 4 is provided with a second inlet portion 6. Further, the first inlet portion 5 and the second inlet portion 6 are also disposed back-to-back. It can be seen that, the first inlet portion 5 uses an inlet structure of a side-draft range hood, and the second inlet portion 6 also uses an inlet structure of a side-draft range hood.

[0024] The first air inlet 1 and the first inlet portion 5 are disposed opposite to each other, and the second air inlet 2 and the second inlet portion 6 are also disposed opposite to each other. Specifically, as shown in the drawing, the first air inlet 1 faces the first inlet portion 5 in a horizontal direction; and the second air inlet 2 faces the second inlet portion 6 in the horizontal direction.

[0025] Specifically, the double-inlet housing is of an inverted pyramid frustum structure, and the first wall 3 and the second wall 4 are two opposite side surfaces of the pyramid frustum structure. The pyramid frustum structure further includes a third side surface, and the third side surface is connected to and disposed between the first wall 3 and the second wall 4. The man-machine interaction device is disposed on the third side surface. In the use state, the third side surface is disposed to face the user. Moreover, in the use state, the third side surface extends in a direction away from the user from top to bottom; as far as this embodiment is concerned, the range hood is mounted to a wall, so that the third side surface extends towards the wall from top to bottom.

[0026] In addition, as shown in the drawing, the first inlet portion 5 and the second inlet portion 6 are each provided with an oil-filter screen 8. The oil collecting device 7 is disposed at the bottom of the double-inlet housing. Oil attached on the oil-filter screens 8 moves downwards under the gravity, and finally flows into the oil col-

lecting device 7.

[0027] The first inlet portion 5 includes two modes, namely, OFF and ON; the second inlet portion 6 also includes two modes, namely, OFF and ON. The first inlet portion 5 and the second inlet portion 6 are respectively corresponding to two cookers 9 on a cooktop 10. If both of the two cookers 9 work, the first inlet portion 5 is set to the ON mode, so that cooking fume generated by the left cooker 9 flows to the first inlet portion 5, then further flows to the first air inlet 1, and is finally exhausted; the second inlet portion 6 is also set to the ON mode, so that cooking fume generated by the right cooker 9 flows to the second inlet portion 6, then further flows to the second air inlet 2, and is finally exhausted. Specifically, as shown in the drawing, arrowed lines indicate the cooking fume. If merely the left cooker 9 in the two cookers 9 works, the first inlet portion 5 is set to the ON mode, so that cooking fume generated by the left cooker 9 flows to the first inlet portion 5, then further flows to the first air inlet 1, and is finally exhausted; and the second inlet portion 6 is set to the OFF mode (that is, the second inlet portion 6 is closed). If merely the right cooker 9 in the two cookers 9 works, the second inlet portion 6 is set to the ON mode, so that cooking fume generated by the right cooker 9 flows to the second inlet portion 6, then further flows to the second air inlet 2, and is finally exhausted; and the first inlet portion 5 is set to the OFF mode (that is, the first inlet portion 5 is closed). If neither of the cookers 9 works, the first inlet portion 5 is set to the OFF mode, and the second inlet portion 6 is also set to the OFF mode.

[0028] The above description is merely a preferred embodiment of the present invention, and other embodiments may further be obtained by adding, deleting, modifying or replacing some technical features. For example, the control device may further include a touch screen, a knob, or the like. For another example, the man-machine interaction device may merely include the control device. For still another example, the man-machine interaction device may merely include the display device.

[0029] It should be additionally noted that, the present invention should not be understood as merely limiting to the implementation manner as described in the foregoing, but should be understood as covering all possible implementation situations determined by the claims of the present invention in combination with the disclosed content of the specification. Therefore, content without departing from the technical solution of the present invention, and any simple alternation, equivalent variation and modification made on the embodiment according to the technical essence of the present invention all fall within the protection scope of the technical solution of the present invention. It should be particularly pointed out that, any inferior application based on the present invention still falls within the protection scope of the technical solution of the present invention.

Reference numerals:

in that:

[0030]

1. first air inlet,
2. second air inlet,
3. first wall,
4. second wall,
5. first inlet portion,
6. second inlet portion,
7. oil collecting device,
8. oil-filter screen,
9. cooker,
10. cooktop.

the pyramid frustum further comprises a third side surface, and the third side surface is connected to and disposed between the two opposite side surfaces of the pyramid frustum; and the range hood further comprises a man-machine interaction device, and the man-machine interaction device is disposed on the third side surface.

5. The range hood according to claim 4, **characterized in that:**

15 in a use state, the third side surface is disposed to face a user.

Claims

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

6. The range hood according to claim 5, **characterized in that:**

comprising a double-inlet blower system and a double-inlet housing, the double-inlet blower system being disposed in the double-inlet housing;

in the use state, the third side surface extends in a direction away from the user from top to bottom.

the double-inlet blower system comprising a first air inlet (1) and a second air inlet (2) disposed back-to-back;

7. The range hood according to claim 2 or 3, **characterized by:**

the double-inlet housing comprising a first inlet portion (5) and a second inlet portion (6) disposed back-to-back; and

further comprising an oil collecting device (7), the oil collecting device (7) being disposed at the bottom of the double-inlet housing.

the first air inlet (1) and the first inlet portion (5) being disposed opposite to each other, and the second air inlet (2) and the second inlet portion (6) being disposed opposite to each other.

8. The range hood according to claim 1, **characterized in that:**

2. The range hood according to claim 1, **characterized in that:**

the first inlet portion (5) and the second inlet portion (6) are respectively provided with a filtering device.

the double-inlet housing comprises a first wall (3) and a second wall (4) disposed back-to-back; the first inlet portion (5) is disposed on the first wall (3), and the second inlet portion (6) is disposed on the second wall (4); and the first wall (3) and the second wall (4) are both disposed in an inclined manner, and the first wall (3) and the second wall (4) gradually approach each other from top to bottom.

9. The range hood according to claim 1, **characterized in that:**

the first inlet portion (5) comprises two modes, namely, OFF and ON; and the second inlet portion (6) comprises two modes, namely, OFF and ON.

3. The range hood according to claim 1, **characterized in that:**

10. The range hood according to claim 1, **characterized in that:**

the double-inlet housing uses an integrally formed structure.

the double-inlet housing assumes an inverted pyramid frustum structure; the first inlet portion (5) and the second inlet portion (6) are respectively disposed on two opposite side surfaces of the pyramid frustum.

11. The range hood according to claim 1, **characterized in that:**

the first air inlet (1) faces the first inlet portion (5) in a horizontal direction; and the second air inlet (2) faces the second inlet

portion (6) in the horizontal direction.

12. The range hood according to claim 1, characterized in that:

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the double-inlet blower system comprises a volute, an impeller, and a motor.

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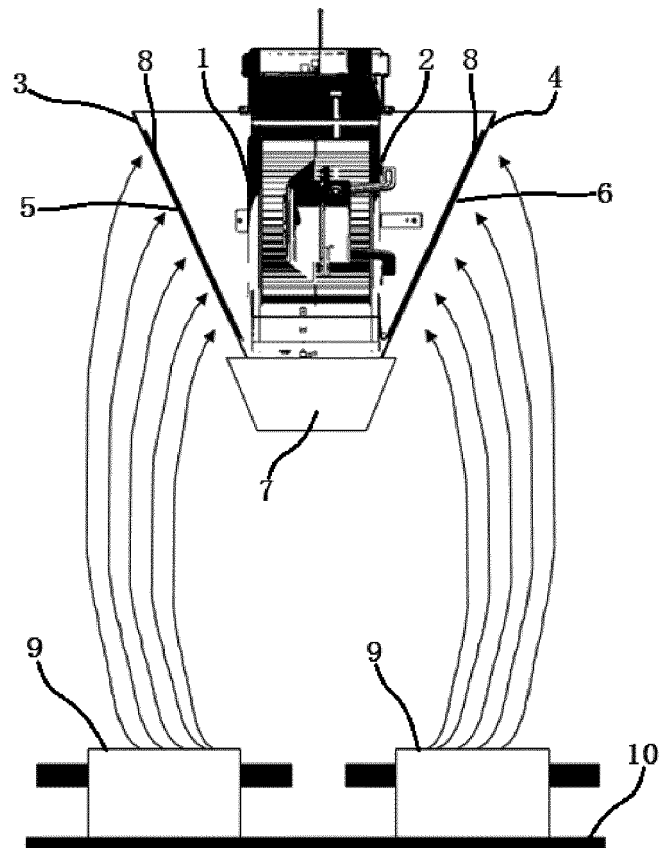


FIG. 1



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Application Number
EP 14 18 8924

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Place of search The Hague		Date of completion of the search 31 March 2015	Examiner Mendão, João
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