electronic driving. No matter if the humidification function is in operational service, the humidification medium is located above the cross section of the gas flow channel as in, for example, technical solutions cited in Japanese patent application (JP2008-64433A), U.S. Patent application (US2010/0201007A1) and Chinese invention patent application (CN104428598 A).

How to control operation and shut down of the humidification function, and avoid formation of unnecessary air resistance when the humidification function is shut down are technical problems the present inventors strive to solve in the present disclosure.

SUMMARY

An aspect of the present disclosure provides a humidifying device, including: a container configured to accommodate a liquid; a first moisture absorptive member, at least partially dipped in the liquid in the container; a second moisture absorptive member with air permeability, in contact with or isolated from the first moisture absorptive member; and a driving member, configured to move the second moisture absorptive memberboth into contact with the first moisture absorptive member and into a position isolated from the first moisture absorptive member.

The first moisture absorptive member is allowed to stand still in the container and draw liquid from the container. When the humidification function is in operation, the driving member controls movement of the second moisture absorptive member, to allow it to contact the first moisture absorptive member and draw the liquid through the first moisture absorptive member, and air is passed mainly through the second moisture absorptive member, to realize operation of the humidification function. When the humidification function is shut down, the driving member controls movement of the second moisture absorptive member, to allow it to be isolated from the first moisture absorptive member, at which time, the second moisture absorptive member stops drawing liquid from the first moisture absorptive member, and the second moisture absorptive member moves away from the gas flow channel, so as to realize shut down of the humidification function.

According to certain particular embodiments of the present disclosure, when the second moisture absorptive member is brought into contact with the first moisture absorptive member, the second moisture absorptive member has a maximum blocking area, and when the second moisture absorptive member is isolated from the first moisture absorptive member, the second moisture absorptive member has a minimal blocking area.

According to certain particular embodiments of the present disclosure, the driving member includes a driving motor and a driving connecting rod that are connected to each other, and the driving connecting rod connects to and drives movement of the second moisture absorptive member.

According to certain particular embodiments of the present disclosure, the first moisture absorptive member is perpendicular to a still water surface of the liquid, and the driving connecting rod drives rotation

What is claimed is:

1. A humidifying device, comprising:

a container, configured to accommodate a liquid;

a first moisture absorptive member, at least partially dipped in the liquid in the container;

a second moisture absorptive member with air permeability, in contact with or isolated from the first moisture absorptive member; and

a driving member, configured to move the second moisture absorptive member both into contact with the first moisture absorptive member and into a position isolated from the first moisture absorptive member.

2. The humidifying device according to claim 1, wherein, when the second moisture absorptive member is brought into contact with the first moisture absorptive member, the second moisture absorptive member has a maximum blocking area, and when the second moisture absorptive member is isolated from the first moisture absorptive member, the second moisture absorptive member has a minimal blocking area.

3. The humidifying device according to claim 2, wherein, the driving member comprises a driving motor and a driving connecting rod connected that are to each other, and the driving connecting rod connects to and drives the movement of the second moisture absorptive member.

4. The humidifying device according to claim 3, wherein, the first moisture absorptive member is perpendicular to a still water surface of the liquid, and the driving connecting rod drives rotation of the second moisture absorptive member around a fixed end of the driving connecting rod, so as to allow the contact surface when the second moisture absorptive member is brought into contact with the first moisture absorptive member, to be parallel to the still water surface.

5. The humidifying device according to claim 1, wherein, the first moisture absorptive member and the second moisture absorptive member are presented as cuboids or cylinders.

6. The humidifying device according to claim 1, wherein, the first moisture absorptive member and the second moisture absorptive member comprise moisture absorptive bodies with a hygroscopic property, and the moisture absorptive bodies are at least one selected from a group consisting of wicks and dampening papers.

7. The humidifying device according to claim 6, wherein, the first moisture absorptive member and the second moisture absorptive member further comprise supports covering surfaces of the moisture absorptive bodies.

8. The humidifying device according to claim 1, wherein, the container comprises:

a water injection tank;

a closed chamber, comprising through-holes on the top thereof, wherein the first moisture absorptive member is placed within the closed chamber and communicatively connected to the outside via the through-holes; and

a drainage hole, communicatively connected to the water injection tank and the closed chamber.

9. The humidifying device according to claim 8, wherein, the liquid is water.

10. An air cleaner, comprising the humidifying device according to claim 1.

11. The air cleaner according to claim 10, comprising:

a housing, comprising an air-in panel and an air-out panel;

an air strainer, provided downstream from the air-in panel;

the humidifying device, provided downstream from the air-in panel;

a fan, provided downstream from the air-in panel; and

the air-out panel, provided downstream from the air strainer, the humidifying device and the fan.

12. A household appliance, comprising the humidifying device according to claim 1.