



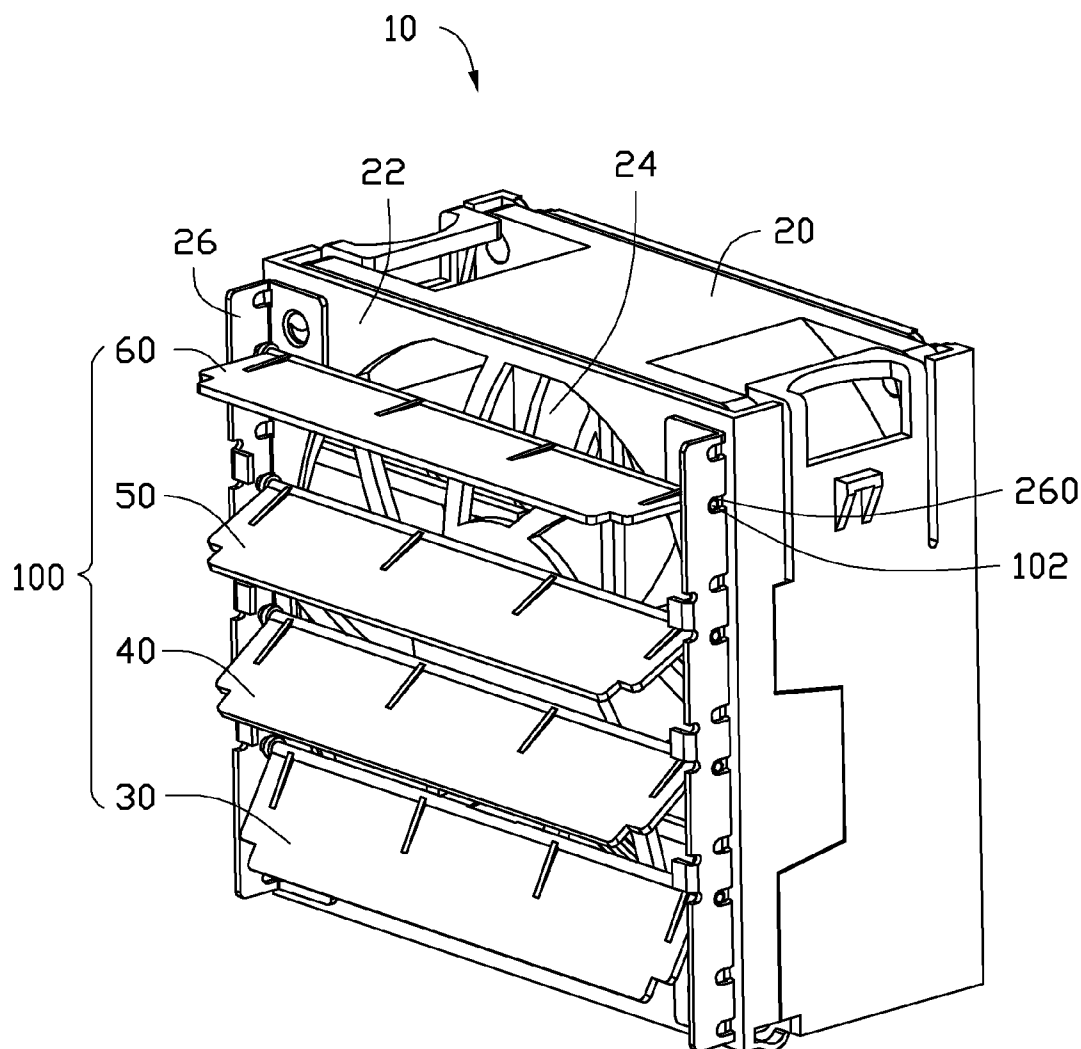
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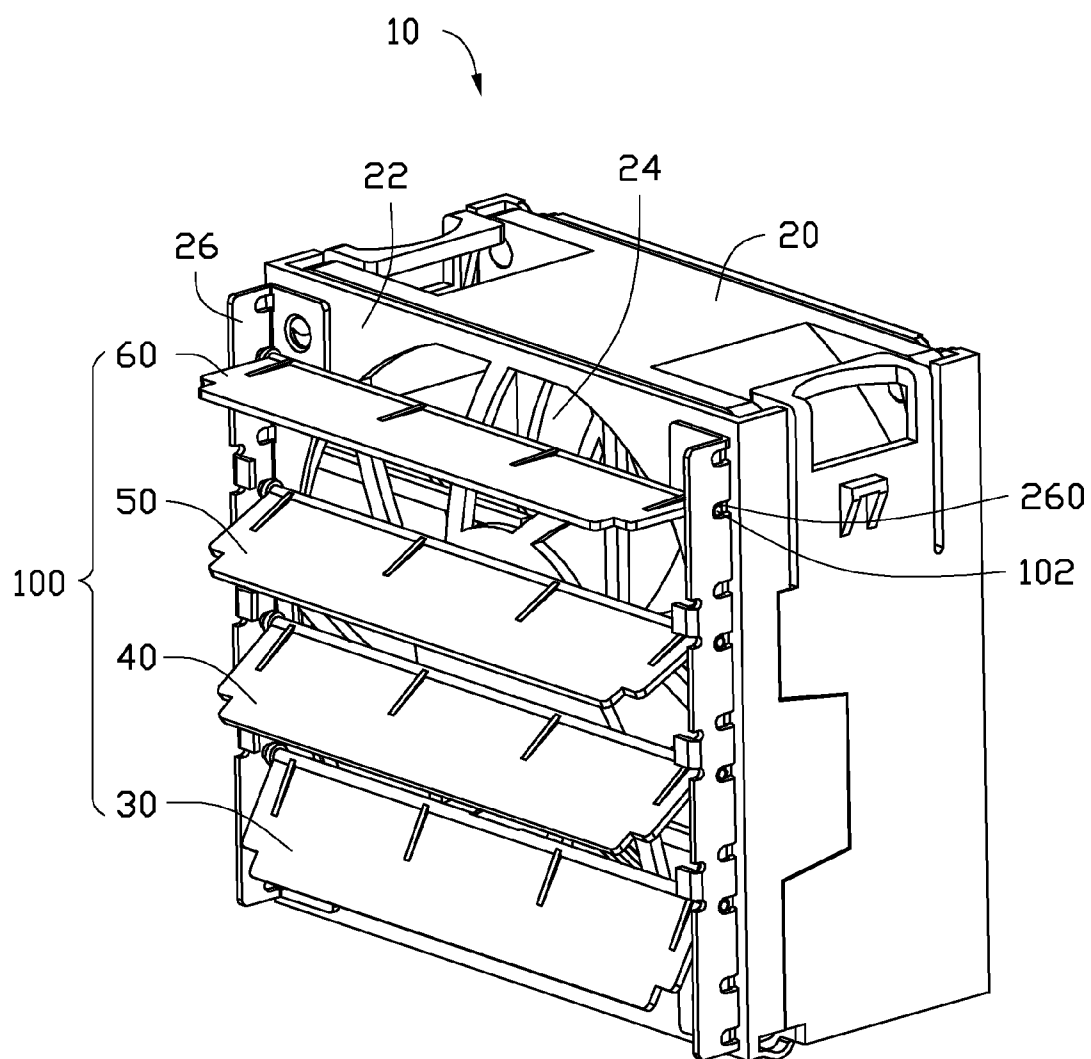
(19) **United States**(12) **Patent Application Publication**
CHEN(10) **Pub. No.: US 2015/0167691 A1**(43) **Pub. Date: Jun. 18, 2015**(54) **FAN ASSEMBLY****Publication Classification**(71) Applicant: **HON HAI PRECISION INDUSTRY CO., LTD.**, New Taipei (TW)(72) Inventor: **CHIH-WEI CHEN**, New Taipei (TW)(73) Assignee: **HON HAI PRECISION INDUSTRY CO., LTD.**, New Taipei (TW)(51) **Int. Cl.**
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(57) **ABSTRACT**

A fan assembly includes a fan and a number of guiding boards. The fan includes an end board defining a vent. The guiding boards have different weights and are pivotably mounted to the side board from top to bottom and from lightest to heaviest. The guiding boards cooperatively cover or uncover the vent.





FAN ASSEMBLY**BACKGROUND**

[0001] 1. Technical Field

[0002] The present disclosure relates to a fan assembly.

[0003] 2. Description of Related Art

[0004] For a conventional fan assembly, weights of guiding boards mounted to fans are the same. As a result, when the fans operate, the guiding boards extend away from the fans at same angles. Thus, airflow generated by the fans is directed toward a same distance away from the fan, so elements further away from the fan may not be effectively cooled.

BRIEF DESCRIPTION OF THE DRAWING

[0005] Many aspects of the present embodiments can be better understood with reference to the following drawing. The components in the drawing are not necessarily drawn to scale, the emphasis instead being placed upon clearly illustrating the principles of the present embodiments. Moreover, in the drawing, the view is schematic.

[0006] The FIGURE is an assembled, isometric view of an embodiment of a fan assembly.

DETAILED DESCRIPTION

[0007] The disclosure, including the accompanying drawings, is illustrated by way of example and not by way of limitation. It should be noted that references to “an” or “one” embodiment in this disclosure are not necessarily to the same embodiment, and such references mean “at least one.”

[0008] The FIGURE shows an embodiment of a fan assembly 10 comprising a fan 20 and a plurality of guiding boards 100.

[0009] The fan 20 comprises a side board 22. A substantially central portion of the side board 22 defines a vent 24. Two fixing pieces 26 protrude substantially perpendicularly from opposite sides of the side board 22, respectively. Each fixing piece 26 defines a plurality of fixing holes 260 along a lengthwise direction thereof.

[0010] Two pins 102 extend from opposite end portions, respectively, of a top portion of each guiding board 100. The two pins 102 of each guiding board 100 are received in a corresponding pair of fixing holes 260 to pivotably mount the guiding board 100 to the fan 20.

[0011] The guiding boards 100 cooperatively cover or uncover the vent 24 like a window shutter. The guiding boards 100 comprise a heaviest first board 30, a second heaviest

second board 40, a third heaviest third board 50, and a fourth heaviest fourth board 60. The guiding boards 100 are arranged on the side board 22 from top to bottom and from lightest to heaviest. Thus, the first board 30 is located at a lowest portion of the side board 22, and the fourth board 60 is located at a topmost portion of the side board 22.

[0012] When the fan 20 is not operating, the guiding boards 100 are substantially parallel to the side board 22 and cover the vent 24.

[0013] When the fan 20 operates, airflow generated by the fan 20 pushes the guiding boards 100 to rotate away from the side board 22, thereby making the guiding boards 100 slant relative to the side board 22 at different angles. The guiding boards 100 slant at different angles corresponding to their respective weights, and airflow is directed toward different distances from the fan 20. The fourth board 60 (the lightest guiding board 100) slants at the greatest angle, and the first board 30 (the heaviest guiding board 100) slants at the smallest angle.

[0014] It is believed that the present embodiments and their advantages will be understood from the foregoing description, and various changes may be made thereto without departing from the spirit and scope of the description or sacrificing all of their material advantages, the examples hereinbefore described merely being exemplary embodiments.

What is claimed is:

1. A fan assembly, comprising:

a fan comprising a side board defining a vent ; and
a plurality of guiding boards to cover or uncover the vent, wherein the plurality of guiding boards have different weights and are pivotably mounted to the side board from top to bottom and arranged in a lightest to heaviest order from top to bottom.

2. The fan assembly of claim 1, wherein two fixing pieces protrude from opposite sides of the side board, each fixing piece longitudinally defines a plurality of fixing holes, two pins extend from opposite end portions of a top portion of each guiding board to be pivotably received in two aligning fixing holes.

3. A fan assembly, comprising:

a fan comprising a side board defining a vent ; and
a plurality of guiding boards to cover or uncover the vent, wherein the plurality of guiding boards have different weights and are pivotably mounted to the side board from top to bottom.

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