According to the present invention, if it is necessary to keep an indoor area silent in an air cleaning mode, a variable air volume control device may be operated to decrease the air volume flow rate and thus to reduce noise. Conversely, if it is necessary to rapidly clean indoor air, the variable air volume control device may be operated to increase the air volume flow rate to an original value.

According to the present invention, particularly, since the air volume flow rate is independently varied without a significant structural change from an air conditioner structure of the related art, the air conditioner of the present invention may be very conveniently used and losses that may be caused by the purchase of an additional air cleaner may be prevented.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view illustrating an air conditioner of the related art including an air cleaner.

FIG. 2 is a schematic front perspective view illustrating an air conditioner according to a first embodiment of the present invention.

FIG. 3 is a perspective view illustrating a front inlet panel.

FIG. 4 is a perspective view illustrating a blade unit.

FIGS. 5 and 6 are views illustrating an operation of a left variable air volume control device.

FIGS. 7 and 8 are views illustrating an operation of a right variable air volume control device.

FIG. 9 is a view illustrating variable air volume control devices arranged in and adjacent to a blower.

FIG. 10 is a view illustrating a structure of the air conditioner according to an embodiment of the present invention.

FIG. 11 is a schematic front perspective view illustrating an air conditioner according to a second embodiment of the present invention.

FIG. 12 is a view illustrating a modified variable air volume control device according to the present invention.

FIG. 13 is a view illustrating a method of adjusting an air volume flow rate in an air cleaning mode according to another embodiment of the present invention.

MODE OF THE INVENTION

Advantages and features of the present invention, and implementation methods thereof will be clarified through the following descriptions given with reference to the accompanying drawings.

However, the present invention is not limited to the embodiments set forth herein but may be embodied in different forms.

Rather, these embodiments are provided so that the present invention will be thorough and complete, and will fully convey the scope of the present invention to those skilled in the art. Therefore, the scope of the present invention should be defined by the claims.

Accordingly, in some embodiments, well-known device structures, well-known processes, and well-known techniques will not be described in detail to avoid ambiguous interpretation of the present invention.

Throughout the present disclosure, like reference numerals denote like elements. In the following description, technical terms are used only for explaining exemplary embodiments, and not for purposes of limitation.

The terms of a singular form may include plural forms unless specifically mentioned. In addition, the term "comprises (or includes)" specifies the presence of stated elements or operations (action), but does not preclude the presence or addition of one or more other elements or operations (actions).

Unless otherwise defined, all terms (including technical and scientific terms) used herein have the same meaning as commonly understood by those of ordinary skill in the art to which this invention belongs.

It will be further understood that terms, such as those defined in commonly used dictionaries, will not be interpreted in an idealized or overly formal sense unless so defined herein.

Hereinafter, preferred embodiments of the present invention will be described with reference to the accompanying drawings.

FIG. 2 is a schematic front perspective view illustrating an air conditioner according to a first embodiment of the present invention; FIG. 3 is a perspective view illustrating a front inlet panel; FIG. 4 is a perspective view illustrating a blade unit; FIGS. 5 and 6 are views illustrating an operation of a first left variable air volume control device; FIGS. 7 and 8 are views illustrating an operation of a first right variable air volume control device; FIG. 9 is a view illustrating variable air volume control devices arranged in a blower region; and FIG. 10 is a view illustrating a structure of the air conditioner according to an embodiment of the present invention.

Referring to FIGS. 2 to 10, when the air conditioner 100 of the embodiment is operated in an air cleaning mode, the air volume flow rate may be varied independently of the air volume flow rate in a heating or cooling mode. In other words, a user may adjust the range