FIELD OF THE DISCLOSURE

The present disclosure relates to the field of air fresheners for automotive and domestic applications.

BACKGROUND

Fragrance diffusers refer to a technology for indoor or automotive environmental comfort. With increasing need for freshening of the environment, there has been considerable demand for air freshener units. Air freshener units have evolved over the years since their inception around 1948 and several efforts have been made to improve the efficiency of air fresheners.

Conventional air diffusers have the capacity of circulating fragrances for hours if not days. They have found use both in indoor and outdoor applications. Conventional air freshener units are capable of emitting a single fragrance and operate on the concept of natural sublimation.

Continuous efforts have been made to emit dual/multiple fragrances using a single air freshener unit. However, the challenges faced by conventional air freshener units used for emitting dual/multiple fragrances by forced sublimation is that these air freshener units become bulky. Hence, increased space is required for accommodating these air freshener units for diffusing dual/multiple fragrances.

Hence, there is felt a need for a fragrance diffuser which enables overcoming the drawbacks of the conventional air freshener units.

OBJECTS

Some of the objects of the system of the present disclosure, which at least one embodiment herein satisfies, are as follows:

An object of the disclosure is to provide a fragrance diffuser which is compact in construction.

Another object of the present disclosure is to enable ease of operating the fragrance diffuser.

Still another object of the disclosure is to provide a fragrance diffuser which can be accommodated in existing available space.

Yet another object of the disclosure is to require less human intervention.

Another object of the disclosure is to provide added flexibility with selection options.

Finally, another object of the disclosure is to provide an energy saving option due to pulse modulation.

Other objects and advantages of the present disclosure will be more apparent from the following description when read in conjunction with the accompanying figures, which are not intended to limit the scope of the present disclosure.

BRIEF DESCRIPTION OF ACCOMPANYING DRAWINGS

The fragrance diffuser of the present disclosure will now be described with relation to the accompanying drawings, in which:

FIGURE 1 illustrates a perspective view of a fragrance diffuser unit in accordance with the present invention;

FIGURE 2 illustrates another perspective view of the fragrance diffuser unit shown in FIGURE 1;

FIGURE 3 illustrates a sectional view of the fragrance diffuser unit of **FIGURE 1**;

FIGURE 4 illustrates a sectional operative front view of the fragrance diffuser unit of **FIGURE 1**; and

FIGURE 5 illustrates the front view of the fragrance diffuser unit of **FIGURE 1**.

DETAILED DESCRIPTION

A system of the present disclosure will now be described with reference to the embodiments which do not limit the scope and ambit of the disclosure.

The embodiments herein and the various features and advantageous details thereof are explained with reference to the non-limiting embodiments in the following description. Descriptions of well-known components and processing techniques are omitted so as to not unnecessarily obscure the embodiments herein. The examples used herein are intended merely to facilitate an understanding of ways in which the embodiments herein may be practiced and to further enable those of skill in the art to practice the embodiments herein. Accordingly, the examples should not be construed as limiting the scope of the embodiments herein.

The invention will now be described with reference to **FIGURES 1 – 5**. **FIGURES 1** and **2** illustrate perspective views of the fragrance diffuser unit **100** in accordance with an embodiment of the present invention and **FIGURE 3** illustrates a sectional view of dual flavor forced sublimation fragrance diffuser unit of **FIGURE 1**.

The fragrance diffuser unit **100** includes a housing **102**, a front cover **104**, an outlet **106**, a pushing means **108**, a first actuating element **110** and a second actuating element **112**, a lid **114** for containing the cartridges within the main housing **102** and an air inlet **116**. As per **FIGURE 3** of the present disclosure, the front cover **130**, a blower **118**, partitions **120** and **138**, a first flap **122**, a

second flap **124**, a first cartridge **126** and a second cartridge **128**. The first flap **122** and the second flap **124** are pivoted at the lower end of the partitions **120** and **138** respectively so as to be angularly displaced in order to release the fragrance contained within the cartridge **126** and the cartridge **128** respectively.

In order to operate the fragrance diffuser as shown in **FIGURE 4**, the switch **108** is pressed for operating the blower **118**. The fragrances contained in the first cartridge **126** and the second cartridge **128** is selected by displacing the first actuating element **110** and the second actuating element **112** within the respective slots **134** and **136** contained in **132** as shown in **FIGURE 5**. The various operations associated with the fragrance diffuser **100** such as selection of fragrance, selection of operational configuration of the blower **118**, particularly, blower speed is either controlled automatically or is manually controlled. The operational configuration of the blower 118 can be controlled by using pulse modulation for turning the blower ON and OFF for certain pre-determined period of time. In accordance with one embodiment, the blower can selectively operate at different speeds depending upon requirement. In accordance with one embodiment the selection of fragrance is done manually for e.g. there are selection knobs/ actuators accessible from outside, that can be mechanically actuated to make the selection of the fragrance. For example, on operating the second actuating element **112**, the second flap **124** is opened. The blower **118** enables in sucking atmospheric air inside the housing **102**. The air passes over the fragrance contained in the second cartridge **128** to diffuse the fragrance through the outlet **106**. Similarly, by operation of the first flap **122**, fragrance contained in the first cartridge **126** is emanated from the outlet **106**.

Thus, in accordance with the present invention, the fragrance diffuser unit **100**, as envisaged in the present disclosure enables in easy diffusion of dual fragrance using a single fragrance diffuser unit **100**.

TECHNICAL ADVANCEMENTS

The technical advancements offered by the present disclosure include the realization of:

- reduced maintenance cost;
- compact construction; and
- ease of operation.
- flexibility of selection.
- energy saving.
- low human intervention.

Throughout this specification the word "comprise", or variations such as "comprises" or "comprising", will be understood to imply the inclusion of a stated element, integer or step, or group of elements, integers or steps, but not the exclusion of any other element, integer or step, or group of elements, integers or steps.

The use of the expression "at least" or "at least one" suggests the use of one or more elements or ingredients or quantities, as the use may be in the embodiment of the disclosure to achieve one or more of the desired objects or results.

The terminology used herein is for the purpose of describing particular example embodiments only and is not intended to be limiting. As used herein, the singular forms "a", "an" and "the" may be intended to include the plural forms as well, unless the context clearly indicates otherwise. The terms "comprises," "comprising," "including," and "having," are inclusive and therefore specify the presence of stated features, integers, steps, operations, elements, and/or components, but do not preclude the presence or addition of one or more other features, integers, steps, operations, elements, components, and/or groups thereof. The method steps, processes, and operations described herein are not to

be construed as necessarily requiring their performance in the particular order discussed or illustrated, unless specifically identified as an order of performance. It is also to be understood that additional or alternative steps may be employed.

When an element or layer is referred to as being "on", “engaged to”, "connected to" or "coupled to" another element or layer, it may be directly on, engaged, connected or coupled to the other element or layer, or intervening elements or layers may be present. In contrast, when an element is referred to as being "directly on," “directly engaged to”, "directly connected to" or "directly coupled to" another element or layer, there may be no intervening elements or layers present. Other words used to describe the relationship between elements should be interpreted in a like fashion (e.g., “between” versus “directly between,” “adjacent” versus “directly adjacent,” etc.). As used herein, the term "and/or" includes any and all combinations of one or more of the associated listed items.

Although the terms first, second, third, etc. may be used herein to describe various elements, components, regions, layers and/or sections, these elements, components, regions, layers and/or sections should not be limited by these terms. These terms may be only used to distinguish one element, component, region, layer or section from another region, layer or section. Terms such as “first,” “second,” and other numerical terms when used herein do not imply a sequence or order unless clearly indicated by the context. Thus, a first element, component, region, layer or section discussed below could be termed a second element, component, region, layer or section without departing from the teachings of the example embodiments.

Spatially relative terms, such as “inner,” “outer,” “beneath”, “below”, “lower”, “above”, “upper” and the like, may be used herein for ease of description to describe one element or feature's relationship to another element(s) or feature(s)

as illustrated in the figures. Spatially relative terms may be intended to encompass different orientations of the device in use or operation in addition to the orientation depicted in the figures. For example, if the device in the figures is turned over, elements described as "below" or "beneath" other elements or features would then be oriented "above" the other elements or features. Thus, the example term "below" can encompass both an orientation of above and below. The device may be otherwise oriented (rotated 90 degrees or at other orientations) and the spatially relative descriptors used herein interpreted accordingly.

The foregoing description of the specific embodiments will so fully reveal the general nature of the embodiments herein that others can, by applying current knowledge, readily modify and/or adapt for various applications such specific embodiments without departing from the generic concept, and, therefore, such adaptations and modifications should and are intended to be comprehended within the meaning and range of equivalents of the disclosed embodiments. It is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation. Therefore, while the embodiments herein have been described in terms of preferred embodiments, those skilled in the art will recognize that the embodiments herein can be practiced with modification within the spirit and scope of the embodiments as described herein.

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