

Title: Air freshening apparatus

The present invention relates to an apparatus comprising a reservoir with a wick, which reservoir can be filled with a fuel, particularly with lamp oil and comprising a separate holder for an active component.

Such an apparatus is known FR-A-1 139 960 which discloses an oil lamp having an reservoir for fuel in which a wick is provided. Above the wick a holder for a fumigation substance, e.g. to fumigate insects, is provided. The bottom of the holder is directly heated by the hot burning gases which rise from the flame.

FR-A-2 510 410 discloses a electric lamp bulb with a holder for perfume. Air, which is heated by the electric lamp bulb is led to a wick which is placed in the perfume which is in the holder. Consequently, the perfume is evaporated through the wick more efficiently by the heated air which is flowing along the wick.

US-A-5 891 400 shows a candle container with a surrounding open top container for receiving and holding a gel containing a vaporizable or diffusable substance that passes from the gel into the surrounding atmosphere after exposure to the thermal energy from the lighted candle.

Dutch patent application NL-A-10.06055 discloses an apparatus in which the reservoir is filled with a mixture of a lamp fuel and an active component, such as a fragrance, which mixture is absorbed by a wick. The upper part of the wick is surrounded by a heat conducting bushlike element with openings via which the fragrance evaporates during burning. A shield is present to prevent the evaporated fragrance entering into the flame and getting burned.

A disadvantage of a mixture of lamp fuel and fragrance is that the composition of the mixture will not be constant due to a different evaporating rate and to a certain

evaporating of the fragrance during the period that the apparatus is not in use, i.e. is not burning.

The purpose of the invention is to improve the known apparatus, particularly with respect to the above disadvantage. Therefore, according to the invention, the air freshening apparatus as described in the preamble is characterized in that the apparatus is an air freshening apparatus further comprising heat conducting means for heat transport from the wick, when burning, to the separate holder for the active component, such as a fragrance, the heat conducting means comprising a metal element which is mounted in the vicinity of the wick at such a distance that, when the wick is burning, the flame heats the metal element.

In a first preferred embodiment the reservoir is provided with a lid holding the wick and with a lamp glass thereabove while in the lamp glass there is mounted a metal element, which forms part of the heat conducting means. In this embodiment the metal element can be mounted in the lamp glass in the vicinity of, particularly above the location of the wick, when burning.

From a constructional point of view the holder can form an integral part of the apparatus. Also the holder can form an integral part of the lamp glass. Further at least part of the holder can form part of the heat conducting means.

In a further embodiment the holder is replaceable, while the apparatus is provided with connecting means to connect the holder to the apparatus. In that embodiment at least part of the connecting means or at least part of a contact surface between the holder and the apparatus can form part of the heat conducting means.

The holder can be provided with a porous wick to transport the active component out of the holder. Also the holder can be provided with one or more openings in the upper part thereof via which openings the active component can, evaporate. In stead of a porous material, the wick, particularly the wick in the holder, can be formed by a

capillary element. Further, the holder can also be provided with a liquid permeable closing element, via which the active component is received by a carrier element, which carrier element can form part of the heat conducting means and serves as an evaporator.

The invention not only relates to an air freshening apparatus, but also to a combination of the above described air freshening apparatus and a holder for an active component, such as a fragrance.

The invention also relates to a holder for an active component, such as a fragrance, for use in the above described air freshening apparatus.

The invention will now be described with reference to the enclosed drawing, in which:

Fig. 1 shows a first embodiment of the air freshening apparatus according to the invention; and

Fig. 2 shows a second embodiment of such an air freshening apparatus.

The first embodiment of the apparatus according to the invention as shown in fig. 1 comprises a reservoir 1, which is filled with lamp fuel 2 and is closed by a lid 3. Through an opening in the lid 3 a wick 4 is inserted into the lamp fuel in the reservoir 1. A lamp glass 5 is placed on the top of the lid 3. A separate holder 6, filled with an active component 7, such as a fragrance, is provided. In the embodiment shown, the holder 6 forms an integral part of the lamp glass 5. Through an opening in the upper part of the holder 6 a wick 8 is inserted into the active component 7 in the holder 6. In the lamp glass 5 a metal element 9 is mounted in the vicinity of the wick 4, particularly above the wick 4 at such a distance that, when the wick is burning, the flame heats the metal element 9. Heat conducting means are formed by the metal part 5 and at least part of the contact surface 10 between the holder 6 and the lamp glass 5.

Particularly, part of the contact surface 10 can be a metal part connected to the metal element 9. When the wick 4 is burning, heat is conducted from the metal element 9 and at least part of the contact surface 10 to the active component 7 in the holder 6, with the consequence that the active component is evaporated via the wick 8.

Fig. 2 shows an embodiment of the apparatus according to the invention, in which a reservoir 11, filled with a lamp fuel 12 is closed by a heat conducting plug 13. Through an opening in the plug 13 a wick 14 is inserted. A separate holder 15, filled with an active component 16, such as a fragrance, is replaceable mounted on a side surface of the reservoir 11, e.g. by clamping means 17. Through the open end of the holder 15 a wick 18 is inserted. The wick 18 reaches out of a bushlike element 19, which is mounted above the opening of the holder 15. The bushlike element 19 is connected is provided with a projection 21, which reaches to above the plug 13 and forms with the plug 13 heat conducting means. When the wick 14 is burning, heat is conducted through the plug 13 and the bushlike element 19 to

the active component 16 in the holder 15, with the consequence that the active component is evaporated via the wick 18. A shield 20 is provided to prevent the evaporated active component entering into the flame and getting burned.

It will be clear that the invention is not restricted to the preferred embodiments shown in the figures. Particularly, it will be clear to the skilled man that many alternatives exist for performing the function of the apparatus discussed. So, the form and size of the reservoir, the holder and the lamp can arbitray chosen. Taking into the heat generated by burning of lamp fuel several, preferably transparent materials can be used; however, the heat conducting means will be of metal.

Claims

1. Apparatus comprising a reservoir with a wick, which reservoir can be filled with a fuel, particularly with lamp oil and comprising a separate holder for an active component, characterized in that the apparatus is an air freshening apparatus further comprising heat conducting means for heat transport from the wick, when burning, to the separate holder for the active component, such as a fragrance, the heat conducting means comprising a metal element which is mounted in the vicinity of the wick at such a distance that, when the wick is burning, the flame heats the metal element.
2. Air freshening apparatus according to claim 1, characterized in that the reservoir is provided with a lid holding the wick and with a lamp glass thereabove while in the lamp glass there is mounted a metal element, which forms part of the heat conducting means.
3. Air freshening apparatus according to claim 1 or 2, characterized in that the metal element is mounted in the lamp glass in the vicinity of, particularly above the location of the wick, when burning.
4. Air freshening apparatus according to any one of the preceding claims, characterized in that the holder forms an integral part of the apparatus.
5. Air freshening apparatus according to claim 2 and 4, characterized in that the holder forms an integral part of the lamp glass.
6. Air freshening apparatus according to any one of the preceding claims, characterized in that at least part of the holder forms part of the heat conducting means.
7. Air freshening apparatus according to anyone of the claims 1-3, characterized in that the holder is replaceable and that the apparatus is provided with connecting means to connect the holder to the apparatus.

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8. Air freshening apparatus according to claim 7, characterized in that at least part of the connecting means or at least part of a contact surface between the holder and the apparatus forms part of the heat conducting means.
9. Air freshening apparatus according to any one of the preceding claims, characterized in that the holder is provided with a porous wick to transport the active component out of the holder.
10. Air freshening apparatus according to any one of the preceding claims 1-8, characterized in that the holder is provided with one or more openings in the upper part thereof via which openings the active component can evaporate.
11. Combination of an air freshening apparatus according to claim 7 or 8 and a holder for an active component, such as a fragrance.
12. Holder for an active component, such as a fragrance, for use in an air freshening apparatus according to claim 7 or 8.