E-CIGARETTE WITH SELF-ASSEMBLY COMBUSTION PART

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ABSTRACT

Therefore, the technological essential point of the invention is that in e-cigarette that a user inhales the smoke that is generated by burning liquid containing nicotine, an atomizer burning the liquid is made to be detachable so that the repair or replacement of the atomizer can be easy and also it is aimed at providing e-cigarette with self-assembled combustion part in order to make it possible for a good quality smoking by improving the supply amount of air and airtightness.
E-CIGARETTE WITH SELF-ASSEMBLY COMBUSTION PART

TECHNOLOGICAL FIELD

[0001] The subject invention relates to an e-cigarette with a self-assembly combustion part, and more specifically, regarding e-cigarettes that, like cigarettes, generate smoke for the user to inhale by burning the liquid containing nicotine, the subject invention relates to an e-cigarette, which has a self-assembly combustion part that includes an atomizer burning the liquid and is built to be detachable such that repair or replacement of the atomizer can be easy and convenient while the air supply and airtightness is also improved to make it possible for a good quality smoking.

BACKGROUND TECHNOLOGY

[0002] Generally, the e-cigarette is for creating an effect of smoking the real cigarette by vaporizing liquefied nicotine or liquid with cigarette flavor, and consists of a storage part (10), a combustion part (20), and a power supply part (30), such that when a user starts to inhale, the liquefied nicotine or liquid with cigarette flavor stored in the storage part (10) is sent to the combustion part (20), and said combustion part (20) which receives the power from the power supply part (30) generates heat to vaporize said liquid so the smoke in the vapor form could be atomized. Unlike the existing real cigarette, only pure nicotine without other substances that are harmful to human body is inhaled with the e-cigarette, therefore it is used mainly as an assistant device to quit smoking.

[0003] With these conventional e-cigarettes, there are often cases of the combustion part (20) malfunctioning caused by a prolonged use or a carelessness in use, and particularly, there are often cases in which the life of thewick built-in the atomizer, which corresponds to the combustion part (20), comes to an end and becomes obsolete or thewick simply burns out due to excessive use.

[0004] In addition, due to the e-cigarette’s nature, if it is used for a certain period of time, it needs to be recharged by detaching and charging the power supply part (30), but when the combustion part (20) and the power supply part (30) are detached, there is a concern for outside dusts entering in and since it is typically kept in a case or a pocket when being carried or stored, foreign objects such as dusts can enter into the combustion part. Due to the fact that dismantling of the combustion part is difficult, not only does cleaning the inside made uneasy and inconvenient, but in case of burning without cleaning the inside of the combustion part, there may also exist problems such as a serious loss of lives because the substances harmful to human body may be created.

BRIEF DESCRIPTION OF FIGURES

[0005] FIG. 1 is in accordance with the subject invention
[0006] FIG. 2 is in accordance with the subject invention
[0007] FIG. 3 is in accordance with the subject invention

DETAILED DESCRIPTION FOR IMPLEMENTING THE INVENTION

[0008] Next, the subject invention is described in more detail with reference to the attached Figures.

[0009] The subject invention is not limited to the above-described preferred methods, and anyone who has common knowledge in the relevant technology field to which the subject invention belongs is capable to implement various modified methods of practicing the subject invention, without falling outside of the scope of what is essentially claimed in the claim section of the subject invention, and any such modifications in practice are well within the scope of what is claimed by the subject invention.

DESCRIPTION OF INVENTION

Problems to be Resolved

[0010] The subject invention is to resolve the problems mentioned above, with the essential technological point of the invention with respect to the e-cigarettes for which the user inhales, like the real cigarettes, the smoke generated by burning of the liquid containing nicotine, aiming to provide the atomizer that burns the liquid is built to be detachable such that not only the repair and/or replacement of the atomizer is made easy and convenient but the air supply and the airtightness is also improved, allowing a good quality of smoke to be generated. Accordingly, the objective of the invention is to provide an e-cigarette having such a self-assembly combustion part.

Solutions to the Problems

[0011] In an e-cigarette consisting of a cartridge (10) that stores the liquid containing nicotine, a combustion part (20) built to have said cartridge be interpolated to the upper portion, and a power supply part (30) built to provide the power while being combined with the bottom portion of said combustion part (20), wherein said combustion part (20) is consisted of:

[0012] its internal center equipped with a connecting terminal (110) whose base is connected to the power supply part (30) while threads (120) are formed around the perimeter, a lower cap (100) that has an airflow groove (130) formed at one side or the other at the bottom portion: an insertion hole (210) that, while connected to the upper side of said connecting terminal (110) of said lower cap (100), protrudes upward to be inserted into the storage part of said cartridge (10): an absorption member (220) formed to absorb the liquefied nicotine that flows through said insertion hole (210); a heating wire (230) formed at the bottom portion of said absorption member (220); an atomizer (200) equipped with a plurality of exhaust grooves (240) in a semi-circle shape in order to exhaust the smoke vaporized by said heating wire (230) and a trapping spot (310) formed on one internal side to enable said atomizer (200) to be inserted inside and affixed thereto; and an upper cap (300) equipped with thread grooves (320) located just below said trapping spot (310) that correspond to the threads (120) of said lower cap (100).

[0013] At this time, the connecting terminal (110) of said lower cap (100) is further consisted of a pressure-adjusting groove (111) equipped at one side or the other of its upper portion.

Effect of Invention

[0014] Therefore, the subject invention has the advantage of easy and convenient cleaning, repair and replacement of the atomizer when its life ends or it is out of order because such atomizer of the e-cigarette, according to the subject invention, is built to be detachable.

[0015] In addition, since the air amount that flows from the outside and is inhaled can be adjusted according to the size of
the plurality of pressure-adjusting grooves formed at the connecting terminal of the lower cap.

Description of Code

1. An e-cigarette that has a self-assembly combustion part consisting of:

   an inlet built for a user to inhale through by contact of the user’s mouth, a cartridge (10) that is located below said inlet having a storage part in which the liquid containing nicotine is stored, a combustion part (20) that is formed to have the storage part of said cartridge (10) be interpolated into its upper part while housing an atomizer to burn the liquid in said storage part, and a power supply part (30) that is connected to the base of said combustion part in order to supply the power; wherein said combustion part (20) in which the internal center is equipped with a connection terminal (110) whose base is connected to the power supply part (30) while threads (120) are formed around the perimeter, and a lower cap (100) that has an airflow groove (130) formed at one side or the other at the bottom;

   an insertion hole (210) that, while connected to the upper side of said connecting terminal (110) of said lower cap (100), protrudes upward to be inserted into the storage part of said cartridge (10) is formed; an absorption member (220) that is formed to absorb the liquefied nicotine that flows through said insertion hole (210); a heating wire (230) that is formed at the bottom of said absorption member (220); and an atomizer (200) that is equipped with a plurality of exhaust grooves (240) in a semi-circle shape in order to exhaust the smoke vaporized by said heating wire (230); and

   an upper cap (300) that is equipped with a trapping spot (310) formed on one internal side of the upper cap to enable said atomizer to be inserted and affixed thereto, and thread grooves (320) located below said trapping spot that correspond to the threads (12) of said lower cap (100).

2. An e-cigarette with a self-assembly combustion part according to claim 1, wherein the connecting terminal (110) of said lower cap (100) is further consisted of a pressure-adjusting groove (111) equipped at one side or the other of its upper portion.