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(54) **AEROSOL GENERATING DEVICE, HEATING ASSEMBLY AND STORAGE ASSEMBLY**

(57) An aerosol generating device, a heating assembly and a storage assembly, the aerosol generating device comprising: a main body (11); a heating assembly (12) that is detachably connected to the main body; and a storage assembly (13) that is detachably connected to the main body. The storage assembly (13) stores a characteristic parameter, and the characteristic parameter corresponds to one model of heating assembly (12); and the main body (11) is used for acquiring the characteristic parameter from the storage assembly (13) and heating

the heating assembly (12) according to the characteristic parameter so as to further utilize the heating assembly (12) to heat an aerosol generating substrate to generate an aerosol. By means of the described means, in one aspect, the replacement of the heating assembly (12) and the storage assembly (13) may be facilitated and usage costs are reduced; in another aspect, during the replacement of parts, the parts are prevented from being replaced with forged and fake parts, thus affecting use by a user.

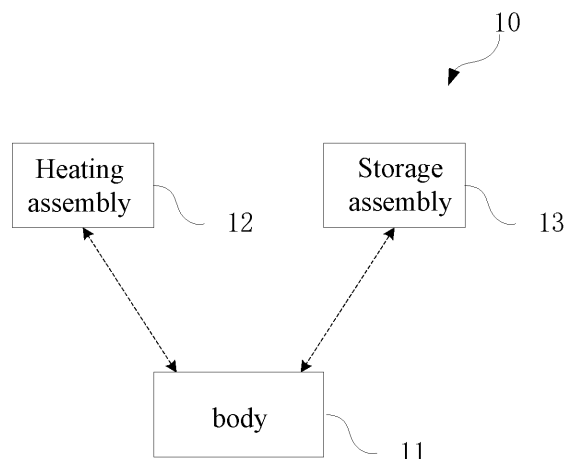


FIG. 1

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Description

[0001] The present application claims priority of Chinese Patent Application No. 201910829145.5, filed on September 03, 2019, in the title of "AEROSOL GENERATING DEVICE, HEATING ASSEMBLY AND STORAGE ASSEMBLY", the entire contents of which are hereby incorporated by reference in their entireties.

TECHNICAL FIELD

[0002] The present disclosure relates to the field of heating without combustion, and in particular to an aerosol generating device, a heating assembly and a storage assembly.

BACKGROUND

[0003] Most of the aerosol generating devices that involve heating without combustion in the art may take heating elements to heat aerosol generating substrates, generating a continuous fuming effect, such that a user may inhale the aerosol. After inhaling, the user may pull the aerosol generating substrate out of the heating element, allowing the heating element to be separated from the aerosol generating substrate.

[0004] Since heating the aerosol generating substrate may generate a certain amount of adhesive substance, the adhesive substance may adhere to the heating element, forming an adhesive state, and the adhesive substance may remain on a surface of the heating element, such that an outer diameter of the heating element may increase, being harmful to the heating element to some extent. In this way, a taste of the aerosol may be affected, and a service life of the aerosol generating device that involves heating without combustion may be reduced.

SUMMARY OF THE DISCLOSURE

[0005] To solve the above problem, the present disclosure provides an aerosol generating device, a heating assembly and a storage assembly. On the one hand, the heating assembly and the storage assembly may be replaced easily, and a usage cost may be reduced. On the other hand, while replacing components of the device, counterfeit or poor quality components may be avoided, such that usage experience may not be affected.

[0006] According to an aspect of the present disclosure, an aerosol generating device is provided and includes: a body; a heating assembly, detachably connected to the body; a storage assembly, detachably connected to the body. The storage assembly is configured to store a feature parameter, the feature parameter corresponds to one model of the heating assembly, the body is configured to obtain the feature parameter from the storage assembly and to heat the heating assembly based on the feature parameter, allowing the heating assembly to heat an aerosol generating substrate to gen-

erate an aerosol.

[0007] In some embodiments, the body includes: a housing assembly; and a controller, received inside the housing assembly. The heating assembly and the storage assembly are detachably connected to the housing assembly. When the heating assembly and the storage assembly are connected to the housing assembly, the heating assembly and the storage assembly are electrically connected to the controller. The controller is configured to obtain the feature parameter from the storage assembly.

[0008] In some embodiments, the storage assembly is a memory card, the housing assembly includes a card tray, the memory card is connected to the card tray by plugging. The card tray is arranged with a first contact terminal, the first contact terminal is connected to the controller. The memory card is arranged with a second contact terminal, and when the memory card is plugged into the card tray, the first contact terminal is electrically connected to the second contact terminal.

[0009] In some embodiments, the storage assembly is arranged with a first short-range communication module. The body is arranged with a second short-range communication module. The second short-range communication module of the body is configured to perform data interaction with the first short-range communication module of the storage assembly to obtain the feature parameter from the storage assembly.

[0010] In some embodiments, each of the first short-range communication module and the second short-range communication module is any one of a Wi-Fi communication module, a Bluetooth communication module, and a near-field communication module.

[0011] In some embodiments, the storage assembly is configured to store anti-counterfeiting data, the feature parameter and the anti-counterfeiting data form a data packet by setting an encryption algorithm. The controller is further configured to decrypt the data packet by performing a corresponding decryption algorithm to obtain the feature parameter and the anti-counterfeiting data, and configured to verify the anti-counterfeiting data.

[0012] In some embodiments, the heating assembly includes: a heating body; and a first conductive terminal, connected to the heating body. The body further comprises a second conductive terminal. The body is configured to supply power to the heating body when the first conductive terminal is connected to the second conductive terminal.

[0013] In some embodiments, the feature parameter comprises a parameter of a heating body of the heating assembly and a heating parameter of the heating assembly, the parameter of the heating body indicates correspondence between a resistance value of the heating body and a temperature of the heating body. The body is further configured to: detect the resistance value of the heating body, determine the temperature of the heating body based on the parameter of the heating body, and heat the heating assembly based on the temperature of

the heating body and the heating parameter.

[0014] According to another aspect of the present disclosure, a heating assembly is provided and is configured to be detachably connected to a body of an aerosol generating device. The aerosol generating device further comprises a storage assembly detachably connected to the body. The storage assembly is configured to store a feature parameter, the feature parameter corresponds to one model of the heating assembly, the body is configured to obtain the feature parameter from the storage assembly and to heat the heating assembly based on the feature parameter, allowing the heating assembly to heat an aerosol generating substrate to generate an aerosol.

[0015] According to still another aspect of the present disclosure, a storage assembly is provided and is configured to be detachably connected to a body of an aerosol generating device. The aerosol generating device further comprises a heating assembly detachably connected to the body. The storage assembly is configured to store a feature parameter, the feature parameter corresponds to one model of the heating assembly, the body is configured to obtain the feature parameter from the storage assembly and to heat the heating assembly based on the feature parameter, allowing the heating assembly to heat an aerosol generating substrate to generate an aerosol.

[0016] According to the present disclosure, the aerosol generating device includes: a body; a heating assembly, detachably connected to the body; and a storage assembly, detachably connected to the body. The storage assembly stores a feature parameter, and the feature parameter corresponds to one model of the heating assembly. The body is configured to obtain the feature parameter from the storage assembly and to heat the heating assembly based on the feature parameter, allowing the heating assembly to heat the aerosol generating substrate to generate the aerosol. In this way, both the heating assembly and the storage assembly are configured as detachable assemblies, and the feature parameter stored in the storage assembly may be in one-to-one correspondence with the heating assembly. On the one hand, components of the aerosol generating device may be replaced easily, and the usage cost may be reduced. On the other hand, while replacing components of the device, counterfeit or poor quality components may be avoided, such that usage experience may not be affected.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] In order to more clearly illustrate technical solutions of embodiments of the present disclosure, the accompanying drawings for the embodiments will be briefly described in the following. Obviously, the drawings in the following show only some of the embodiments of the present disclosure. Any ordinary skilled person in the art may obtain other drawings based on these drawings with-

out any creative work.

FIG. 1 is a structural schematic view of an aerosol generating device according to a first embodiment of the present disclosure.

FIG. 2 is another structural schematic view of an aerosol generating device according to a first embodiment of the present disclosure.

FIG. 3 is a schematic view of a temperature-time variation curve according to an embodiment of the present disclosure.

FIG. 4 is a schematic view of a pulse voltage according to an embodiment of the present disclosure.

FIG. 5 is a structural schematic view of a body and a memory card according to an embodiment of the present disclosure.

FIG. 6 is a structural schematic view of an aerosol generating device according to a second embodiment of the present disclosure.

FIG. 7 is a structural schematic view of an aerosol generating device according to a third embodiment of the present disclosure.

FIG. 8 is a structural schematic view of a heating assembly according to an embodiment of the present disclosure.

FIG. 9 is a structural schematic view of a storage assembly according to an embodiment of the present disclosure.

DETAILED DESCRIPTION

[0018] Technical solutions in the embodiments of the present disclosure will be clearly and completely described below by referring to the accompanying drawings in the embodiments of the present disclosure. It shall be understood that the embodiments described in detail herein only show components relevant to the present disclosure, instead of all components of the device. All other embodiments obtained by an ordinary skilled person in the art based on the embodiments in the present disclosure without making creative work shall fall within the scope of the present disclosure.

[0019] Terms "first", "second", and the like, in the present disclosure are used to distinguish various objects and are not used to describe a particular order. In addition, terms "includes", "has" and any variations thereof are intended to cover non-exclusive inclusion. For example, a process, a method, a system, a product, or an apparatus that includes a series of operations or units is not limited to the listed operations or units, but optionally includes operations or units that are not listed, or optionally includes other operations or units that are inherent to the process, the method, the product, or the apparatus.

[0020] The term "embodiments" herein means that a particular feature, a structure, or a property described in an embodiment may be included in at least one embodiment of the present disclosure. Presence of the term at various sections in the specification does not necessarily

mean one same embodiment or a separate or an alternative embodiment that is mutually exclusive with other embodiments. The skilled person in the art shall understand explicitly and implicitly that the embodiments described herein may be combined with other embodiments.

[0021] As shown in FIGS. 1 and 2, FIG. 1 is a structural schematic view of an aerosol generating device according to a first embodiment of the present disclosure, and FIG. 2 is another structural schematic view of the aerosol generating device according to a first embodiment of the present disclosure. A left half portion of FIG. 2 represents an overall schematic view of the aerosol generating device 10. A right half portion of FIG. 2 represents an explosive view of the aerosol generating device 10. The aerosol generating device 10 includes a body 11, a heating assembly 12, and a storage assembly 13 (not shown in FIG. 2). The body 11 and the heating assembly 12 are detachably connected. The body 11 and the storage assembly 13 are detachably connected.

[0022] In an embodiment, in detail, the body 11 includes a first body portion 11a and a second body portion 11b. The first body portion 11a is configured to receive a battery. The second body portion 11b is configured to receive a controller, a storage assembly, and so on. The second body portion 11b is configured to connect to the heating assembly 12. For example, the second body portion 11b is arranged with a first connection member, and the heating assembly 12 is arranged with a second connection member. The first connection member and the second connection member are configured to allow the second body portion 11b to be connected to the heating assembly 12. In an embodiment, the connection member may be a snap, a screw, or the like. In addition, the heating assembly 12 may be connected to the first body portion 11a through a bottom of the heating assembly 12.

[0023] In an embodiment, the aerosol generating device 10 further includes a first cover 14 and a second cover 15 that are detachably connected to the body 11. When the heating assembly 12 is fixedly connected to the body 11, the first cover 14 may cover the heating assembly 12 to protect the heating assembly 12. Further, the second cover 15 may cover the heating assembly 12 (or the first cover 14) and the second body portion 11b to protect the heating assembly 12 and the second body portion 11b.

[0024] In the present disclosure, the heating assembly 12 is detachably connected to the body 11. The storage assembly 13 stores a feature parameter. The feature parameter corresponds to one model of the heating assembly 12. The body 11 is configured to obtain the feature parameter from the storage assembly 13, and heat the heating assembly 12 based on the feature parameter, such that the heating assembly 12 is taken to heat the aerosol generating substrate to generate the aerosol.

[0025] Further, in detail, the body 11 includes a housing assembly and a controller received inside the housing assembly. The heating assembly 12 and the storage as-

sembly 13 are detachably connected to the housing assembly. When the heating assembly 12 and the storage assembly 13 are connected to the housing assembly, the heating assembly 12 and the storage assembly 13 are electrically connected to the controller. The controller is configured to obtain the feature parameter from the storage assembly 13 and to heat the heating assembly 12 based on the feature parameter, allowing the heating assembly 12 to heat the aerosol generating substrate to generate the aerosol.

[0026] In an embodiment, the storage assembly 13 stores the feature parameter, and the feature parameter corresponds to one model of the heating assembly 12. Since the feature parameter is fixed, the heating assembly 12 matching with the feature parameter may be heated only based on the feature parameter. In this way, when a model of a connected heating assembly 12 does not match the model corresponding to the feature parameter, the connected heating assembly 12 may not heat the aerosol generating substrate properly, such that a taste of the aerosol to be inhaled may be unsatisfying. In this way, randomly changing the model of the heating assembly 12 may be avoided. When the user replaces the heating assembly 12, only the heating assembly 12 in a same model may be replaced.

[0027] In an embodiment, the feature parameter includes a parameter of a heating body in the heating assembly 12 and a heating parameter. The parameter of the heating body indicates correspondence between a resistance value of the heating body and a temperature of the heating body.

[0028] The parameter of the heating body may be formed based on various models of heating assemblies 12. Material of the heating body, a process of manufacturing the heating body, a device for manufacturing the heating body and other factors causes feature parameters (such as a temperature T - resistance R curve, an initial resistance value R0, a temperature coefficient of resistance (TCR), and so on) of various models of heating bodies to be various. While manufacturing the product, the heating assembly 12 may be placed in a test device, and feature parameters of the various models of the heating assemblies 12 may be tested.

[0029] The heating parameter may be a "temperature-time variation curve", configured to determine that the heating body is heated in various extent as time passes. As shown in FIG. 3, a schematic view of a temperature-time variation curve according to an embodiment of the present disclosure is shown.

[0030] For example, the controller may control the temperature of the heating body based on a preset temperature-time curve and by applying a PID algorithm. The "temperature-time" curve refers to a heating curve of tobacco.

[0031] A specific scenario will be described in the following to illustrate the present embodiment.

[0032] When the user uses an electronic cigarette device for smoking, the body 11 may be connected to the

heating assembly 12 firstly. For example, a switch button arranged on the body 11 may be switched on. In this way, the electronic cigarette device starts to operate.

[0033] The body 11 obtains the feature parameter in the storage component 13, obtains correspondence between the resistance value and the temperature of the heating body in the heating assembly 12, and starts timing. Subsequently, a current resistance value of the heating body may be obtained, and a current temperature may be obtained based on the parameter of the heating body. Finally, a voltage of the heating body may be controlled based on the "temperature-time" curve.

[0034] It shall be understood that, generally, in order to obtain a better taste by heating the aerosol generating substrate (such as tobacco), a temperature required to heat the aerosol generating substrate may be variable in various time periods. In an embodiment, as shown in FIG. 3, a horizontal axis indicates the time, and a vertical axis indicates the temperature.

[0035] In a time period T_0 - T_1 , the heating body may be heated, and a temperature of the heating body rises from a room temperature W_0 to a temperature W_1 .

[0036] In a time period T_1 - T_2 , the temperature of the heating body remains at the temperature W_1 .

[0037] In a time period T_2 - T_3 , the temperature of the heating body may be reduced, and the temperature of the heating body decreases from the temperature W_1 to a temperature W_2 .

[0038] In a time period T_3 - T_4 , the temperature of the heating body remains at the temperature W_2 .

[0039] After the time point T_4 , the temperature of the heating body is reduced, and the temperature of the heating body decreases from the temperature W_2 to the room temperature.

[0040] In an embodiment, a value of the T_1 may be 5s to 10s, a value of the T_2 may be 12s to 18s, a value of the W_1 may be 320°C to 360°C , and a value of the W_2 may be 300°C to 340°C .

[0041] In an embodiment, $T_1=7\text{s}$, $T_2=15\text{s}$, $W_1=340^{\circ}\text{C}$, and $W_2=320^{\circ}\text{C}$. In this case, when the temperature of the heating body decreases by 1°C , the resistance of the heating body decreases by $2.28\text{m}\Omega$ accordingly. Therefore, when the temperature of the heating body decreases from the temperature W_1 to the temperature W_2 , i.e., decreases by 20°C , the resistance value of the heating body needs to be decreased by $20 \times 2.28\text{m}\Omega$.

[0042] Further, while taking electrical energy to control the temperature for heating the heating body, a pulse frequency and/or a pulse amplitude and/or a duty cycle of the electrical energy supplied to the heating body may be variable to control the temperature of the heating body. In this way, the aerosol generating device may be controlled to release an aerosol having a better taste. As shown in FIG. 4, FIG. 4 is a schematic view of a pulse voltage according to the present disclosure. For example, in a time period t_1 , an enable switch may be switched on, and the battery may provide electrical energy to the heating body. In a time period t_2 , an enable switch may

be switched off, and the battery may not provide electrical energy to the heating body. Therefore, a percentage of the time period t_1 over the time period T may be adjusted to further adjust the temperature of the heating body. In detail, when the duty cycle of the time period t_1 is increased, the temperature of the heating body may be increased, and when the duty cycle of the time period t_1 is decreased, the temperature of the heating body may be decreased.

[0043] In another embodiment, the storage assembly 13 stores the feature parameter and an anti-counterfeiting parameter. The feature parameter and the anti-counterfeiting parameter correspond to one model of heating assembly 12. When the body 11 is connected to one heating assembly 12 and one storage assembly 13, the body 11 may obtain a first anti-counterfeiting parameter from the heating assembly 12 and obtain a second anti-counterfeiting parameter and the feature parameter from the storage assembly 13. The controller determines whether the first anti-counterfeiting parameter and the second anti-counterfeiting parameter are valid, whether the first anti-counterfeiting parameter and the second anti-counterfeiting parameter refer to a same model. When the first anti-counterfeiting parameter and the second anti-counterfeiting parameter are determined to be valid, and when the first anti-counterfeiting parameter and the second anti-counterfeiting parameter are determined as referring to the same model, the heating assembly 12 may be heated by taking the feature parameter.

[0044] Practically, the body 11, the heating assembly 12 and the storage assembly 13 may be sold as a whole, or one or two of the main body 11, the heating assembly 12 and the storage assembly 13 may be sold in combination. In this way, the user may replace any of the components easily. For example, when the user purchases the device for a first time, the user purchases the body 11, the heating assembly 12 and the storage assembly 13 at the same time (correspondence between the model of the heating assembly 12 and the model of the storage assembly 13 needs to be aware). While using, when the heating assembly 12 is worn out and needs to be replaced, a heating assembly 12 in a model same as the previous model may be purchased only. To be noted that, when the user purchases a heating component 12 with a model different from the previous one, the heating component 12 may not operate properly since the feature parameter stored in the storage assembly 13 remains unchanged.

[0045] In addition, since the model of the heating assembly 12 must correspond to the model indicated by the storage assembly 13, the heating assembly 12 and the storage assembly 13 may be sold in combination with each other. For example, when purchasing the heating component 12, an adapted storage assembly 13 (such as a memory card) may be included, ensuring the aerosol generating device to be used normally.

[0046] In an embodiment, the memory card may be a SIM card, a secure digital memory card (SD card), a mul-

timedia card (MMC card), a nano memory card (NM card), and the like.

[0047] As shown in FIG. 5, FIG. 5 is a structural schematic view of the body and the memory card according to an embodiment of the present disclosure. The body 11 defines a tray receiving cavity 11c and includes a card tray 11d. The card tray 11d may be received in the tray receiving cavity 11c. The card tray 11d may be configured to hold a memory card. When the card tray 11d is received in the tray receiving cavity 11c, the memory card is electrically connected to the controller inside the body 11.

[0048] According to the present disclosure, the aerosol generating device includes: a body; a heating assembly, detachably connected to the body; and a storage assembly, detachably connected to the body. The storage assembly stores a feature parameter, and the feature parameter corresponds to one model of the heating assembly. The body is configured to obtain the feature parameter from the storage assembly and to heat the heating assembly based on the feature parameter, allowing the heating assembly to heat the aerosol generating substrate to generate the aerosol. In this way, both the heating assembly and the storage assembly are configured as detachable assemblies, and the feature parameter stored in the storage assembly may be in one-to-one correspondence with the heating assembly. On the one hand, components of the aerosol generating device may be replaced easily, and the usage cost may be reduced. On the other hand, while replacing components of the device, counterfeit or poor quality components may be avoided, such that usage experience may not be affected.

[0049] As shown in FIG. 6, FIG. 6 is a structural schematic view of an aerosol generating device according to a second embodiment of the present disclosure. The aerosol generating device 10 includes a body 11, a heating assembly 12 and a storage assembly 13 (not shown in Figure 2). The body 11 and the heating assembly 12 are detachably connected, and the body and the storage assembly 13 are detachably connected.

[0050] In an embodiment, the storage assembly 13 includes a first short-range communication module 131 and a memory card 132. The body 11 includes a controller 111 and a second short-range communication module 112 connected to the controller 111. The first short-range communication module 131 and the second short-range communication module 112 may communicate with each other in a short distance for transmitting the feature parameter.

[0051] In an embodiment, the first short-range communication module 131 and the second short-range communication module 112 may be any one of a WIFI communication module, a Bluetooth communication module, or a near-field communication (NFC) module.

[0052] In an embodiment, the storage component 13 further stores anti-counterfeiting data. The feature parameter and the anti-counterfeiting data form a data packet by setting an encryption algorithm. The controller

111 is further configured to decrypt the data packet by a corresponding decryption algorithm to obtain the feature parameter and the anti-counterfeiting data, and configured to verify the anti-counterfeiting data.

[0053] For example, a built-in encryption unit may be configured in the storage assembly 13, and the controller 111 of the body 11 may be arranged with a corresponding decryption unit. When the storage assembly 13 is successfully connected to the body 11, the encryption unit firstly encrypts the "anti-counterfeiting data" and transmits the encrypted data to the controller 111 of the body 11. When the controller 111 of the body 11 decrypts the data and determines the data to be consistent, the storage assembly 13 transmits the feature parameter to the controller 111.

[0054] As shown in FIG. 7, FIG. 7 is a structural schematic view of the aerosol generating device according to a third embodiment of the present disclosure. The aerosol generating device 10 includes a body 11, a heating assembly 12 and a storage assembly 13. The main body 11 and the heating assembly 12 are detachably connected, and the body 11 and the storage assembly 13 are detachably connected.

[0055] In another embodiment, the heating assembly 12 includes a first conductive terminal 121. The body 11 includes a controller 111 and a second conductive terminal 113 connected to the controller 111. When the first conductive terminal 121 is connected to the second conductive terminal 113, the body 11 may supply power to the heating assembly 12. The heating assembly 12 includes a heating body, and the body 11 is specifically configured to supply power to the heating body.

[0056] As shown in FIG. 8, FIG. 8 is a structural schematic view of the heating assembly according to an embodiment of the present disclosure. The heating assembly 12 includes a first conductive terminal 121 and a heating body 122. The heating assembly 12 is configured to be detachably connected to the body of the aerosol generating device. When the heating assembly 12 is connected to the body of the aerosol generating device, the first conductive terminal 121 is electrically connected to the second conductive terminal of the body. The aerosol generating device further includes a storage assembly detachably connected to the body.

[0057] The storage assembly stores the feature parameter. The feature parameter corresponds to one model of heating assembly 12. The body is configured to obtain the feature parameter from the storage assembly, and to heat the heating assembly based on the feature parameter, allowing the heating assembly to heat the aerosol generating substrate to generate the aerosol.

[0058] As shown in FIG. 9, FIG. 9 is a structural schematic view of the storage assembly according to an embodiment of the present disclosure. The storage assembly 13 includes a first short-range communication module 131 and a storage medium 132. The storage assembly 13 is detachably connected to the body of the aerosol generating device. Data interaction may be achieved be-

tween the first short-range communication module 131 and the second short-range communication module of the body. The aerosol generating device further includes the heating assembly detachably connected to the body.

[0059] The storage medium 132 stores the feature parameter. The feature parameter corresponds to one model of heating assembly. The body is configured to obtain the feature parameter from the storage medium 132, and to heat the heating assembly based on the feature parameter, allowing the heating assembly to heat the aerosol generating substrate to generate the aerosol.

[0060] It shall be understood that structures and operation principles of the heating assembly and storage assembly in the above embodiments may be similar to those in the aerosol generating device embodiments, and will not be repeatedly described herein.

[0061] The above description shows only implementations of the present disclosure, and does not limit the scope of the present disclosure. Any equivalent structure or equivalent process transformation made based on the specification and the accompanying drawings of the present disclosure, applied directly or indirectly in other related technical fields, shall be equivalently included in the scope of the present disclosure.

Claims

1. An aerosol generating device, comprising:

a body;
a heating assembly, detachably connected to the body;
a storage assembly, detachably connected to the body;
wherein, the storage assembly is configured to store a feature parameter, the feature parameter corresponds to one model of the heating assembly, the body is configured to obtain the feature parameter from the storage assembly and to heat the heating assembly based on the feature parameter, allowing the heating assembly to heat an aerosol generating substrate to generate an aerosol.

2. The aerosol generating device according to claim 1, wherein,

the body comprises:

a housing assembly; and
a controller, received inside the housing assembly; and

the heating assembly and the storage assembly are detachably connected to the housing assembly;
when the heating assembly and the storage as-

sembly are connected to the housing assembly, the heating assembly and the storage assembly are electrically connected to the controller; and the controller is configured to obtain the feature parameter from the storage assembly.

3. The aerosol generating device according to claim 2, wherein,

the storage assembly is a memory card, the housing assembly comprises a card tray, the memory card is connected to the card tray by plugging;
the card tray is arranged with a first contact terminal, the first contact terminal is connected to the controller;
the memory card is arranged with a second contact terminal, and when the memory card is plugged into the card tray, the first contact terminal is electrically connected to the second contact terminal.

4. The aerosol generating device according to claim 2, wherein,

the storage assembly comprises a memory card and a first short-range communication module; the body is arranged with a second short-range communication module;
the second short-range communication module of the body is configured to perform data interaction with the first short-range communication module of the storage assembly to obtain the feature parameter from the storage assembly.

5. The aerosol generating device according to claim 4, wherein,

each of the first short-range communication module and the second short-range communication module is any one of a Wi-Fi communication module, a Bluetooth communication module, and a near-field communication module.

6. The aerosol generating device according to claim 2, wherein,

the storage assembly is configured to store anti-counterfeiting data, the feature parameter and the anti-counterfeiting data form a data packet by setting an encryption algorithm; and the controller is further configured to decrypt the data packet by performing a corresponding decryption algorithm to obtain the feature parameter and the anti-counterfeiting data, and configured to verify the anti-counterfeiting data.

7. The aerosol generating device according to claim 1, wherein,

the heating assembly comprises:

a heating body; and
a first conductive terminal, connected to the heating body;

the body further comprises a second conductive terminal; and
the body is configured to supply power to the heating body when the first conductive terminal is connected to the second conductive terminal.

8. The aerosol generating device according to claim 1, wherein,

the feature parameter comprises a parameter of a heating body of the heating assembly and a heating parameter of the heating assembly, the parameter of the heating body indicates correspondence between a resistance value of the heating body and a temperature of the heating body; and
the body is further configured to: detect the resistance value of the heating body, determine the temperature of the heating body based on the parameter of the heating body, and heat the heating assembly based on the temperature of the heating body and the heating parameter.

9. A heating assembly, configured to be detachably connected to a body of an aerosol generating device, wherein,

the aerosol generating device further comprises a storage assembly detachably connected to the body; and
the storage assembly is configured to store a feature parameter, the feature parameter corresponds to one model of the heating assembly, the body is configured to obtain the feature parameter from the storage assembly and to heat the heating assembly based on the feature parameter, allowing the heating assembly to heat an aerosol generating substrate to generate an aerosol.

10. The heating assembly according to claim 9, wherein,

the heating assembly comprises:

a heating body; and
a first conductive terminal, connected to the heating body;

the body further comprises a second conductive terminal; and
the body is configured to supply power to the heating body when the first conductive terminal

is connected to the second conductive terminal.

11. The heating assembly according to claim 9, wherein,

the feature parameter comprises a parameter of a heating body of the heating assembly and a heating parameter of the heating assembly, the parameter of the heating body indicates correspondence between a resistance value of the heating body and a temperature of the heating body; and
the body is further configured to: detect the resistance value of the heating body, determine the temperature of the heating body based on the parameter of the heating body, and heat the heating assembly based on the temperature of the heating body and the heating parameter.

12. A storage assembly, configured to be detachably connected to a body of an aerosol generating device, wherein,

the aerosol generating device further comprises a heating assembly detachably connected to the body; and
the storage assembly is configured to store a feature parameter, the feature parameter corresponds to one model of the heating assembly, the body is configured to obtain the feature parameter from the storage assembly and to heat the heating assembly based on the feature parameter, allowing the heating assembly to heat an aerosol generating substrate to generate an aerosol.

13. The storage assembly according to claim 12, wherein,

the body comprises:

a housing assembly; and
a controller, received inside the housing assembly; and

the heating assembly and the storage assembly are detachably connected to the housing assembly;
when the heating assembly and the storage assembly are connected to the housing assembly, the heating assembly and the storage assembly are electrically connected to the controller; and
the controller is configured to obtain the feature parameter from the storage assembly.

14. The storage assembly according to claim 13, wherein,

the storage assembly is a memory card, the

housing assembly comprises a card tray, the memory card is connected to the card tray by plugging;
 the card tray is arranged with a first contact terminal, the first contact terminal is connected to the controller;
 the memory card is arranged with a second contact terminal, and when the memory card is plugged into the card tray, the first contact terminal is electrically connected to the second contact terminal.

15. The storage assembly according to claim 14, wherein,

the storage assembly comprises a memory card and a first short-range communication module;
 the body is arranged with a second short-range communication module;
 the second short-range communication module of the body is configured to perform data interaction with the first short-range communication module of the storage assembly to obtain the feature parameter from the storage assembly.

16. The storage assembly according to claim 15, wherein,

each of the first short-range communication module and the second short-range communication module is any one of a Wi-Fi communication module, a Bluetooth communication module, and a near-field communication module.

17. The storage assembly according to claim 13, wherein,

the storage assembly is configured to store anti-counterfeiting data, the feature parameter and the anti-counterfeiting data form a data packet by setting an encryption algorithm; and
 the controller is further configured to decrypt the data packet by performing a corresponding decryption algorithm to obtain the feature parameter and the anti-counterfeiting data, and configured to verify the anti-counterfeiting data.

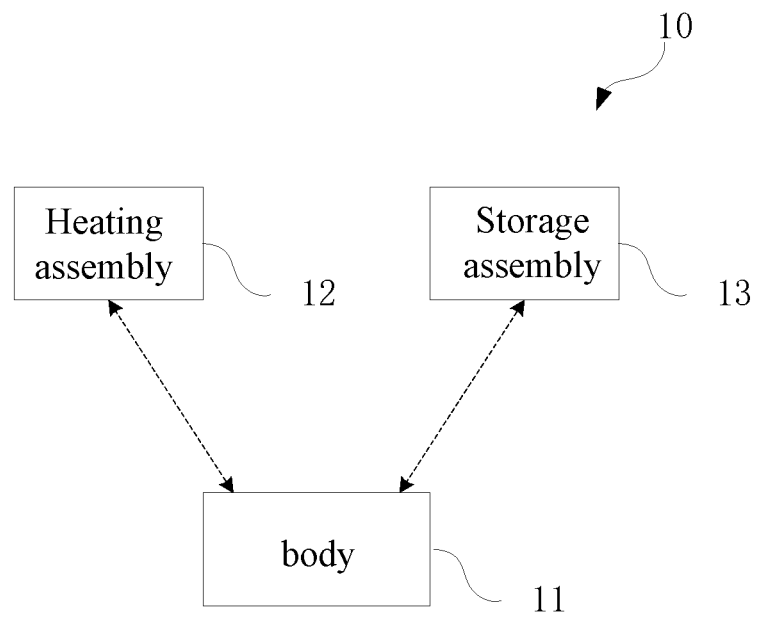


FIG. 1

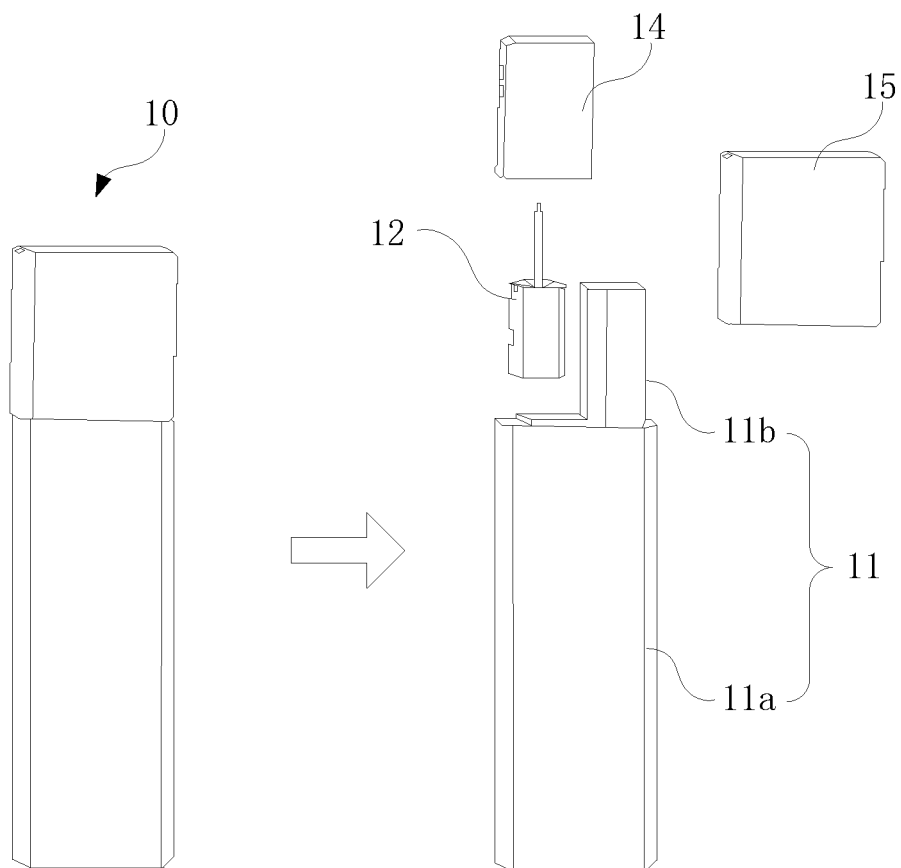


FIG. 2

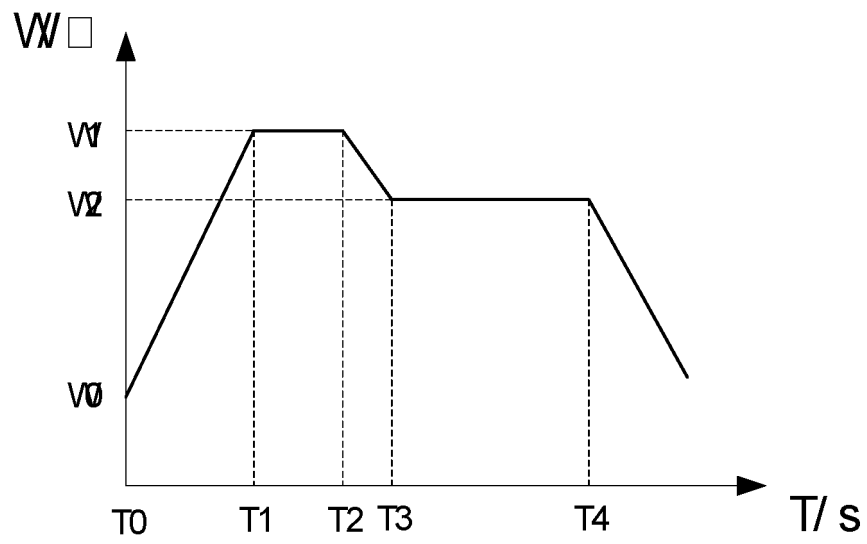


FIG. 3

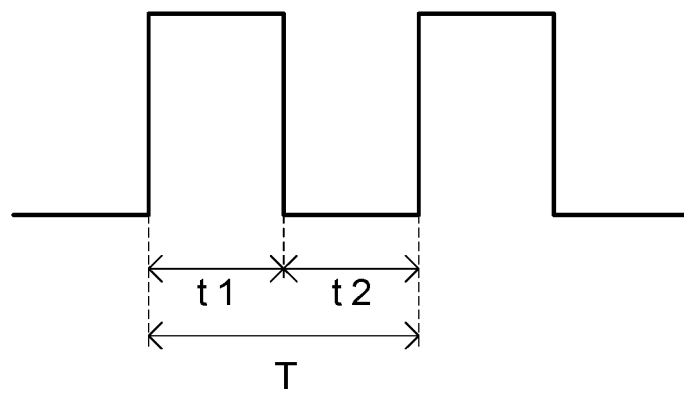


FIG. 4

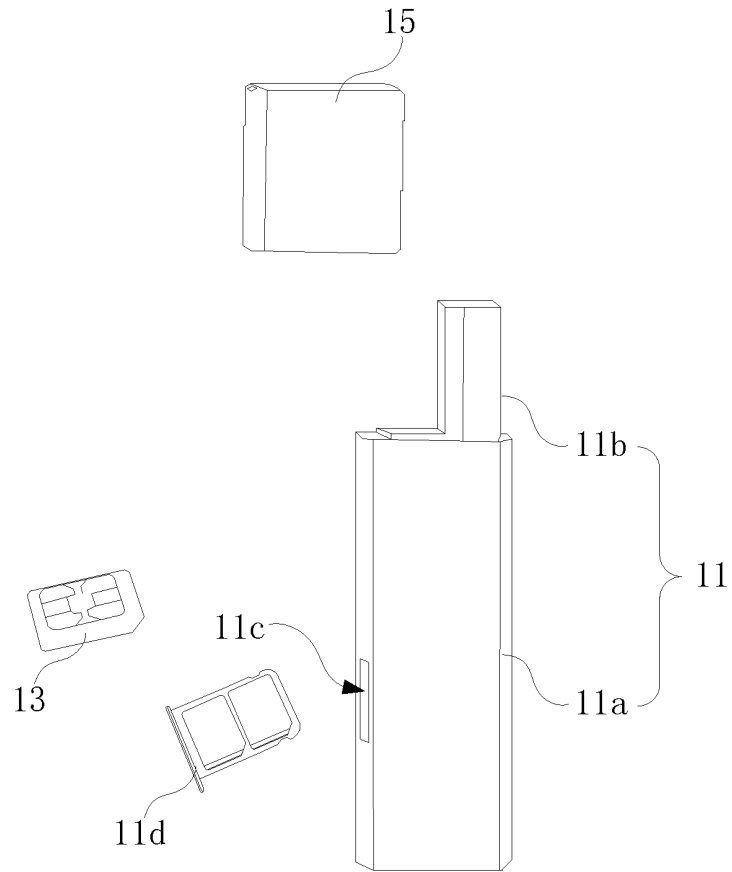


FIG. 5

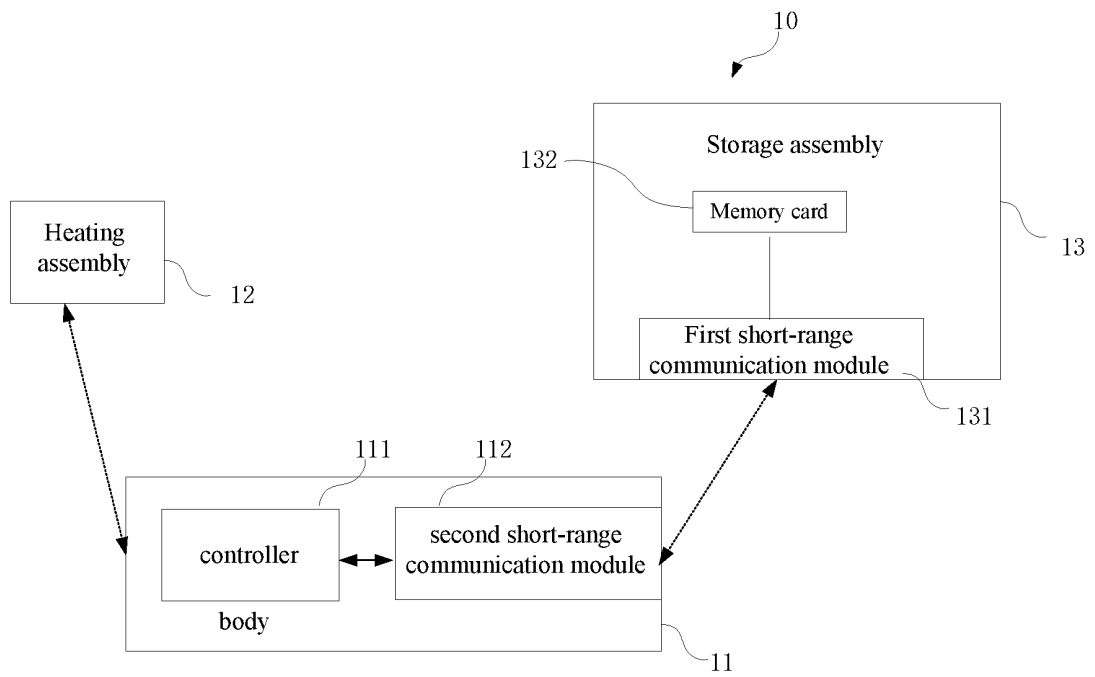


FIG. 6

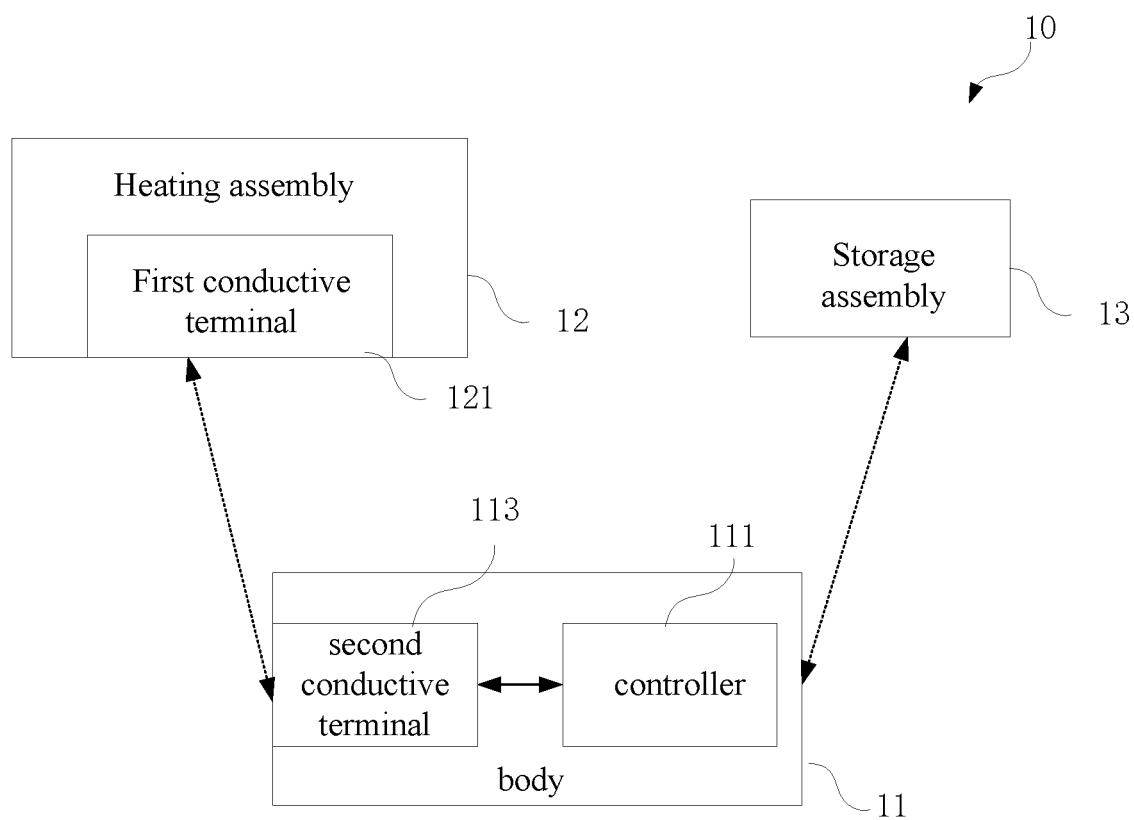


FIG. 7

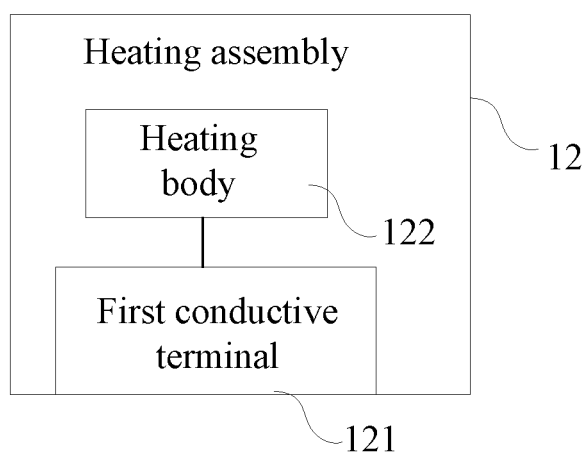


FIG. 8

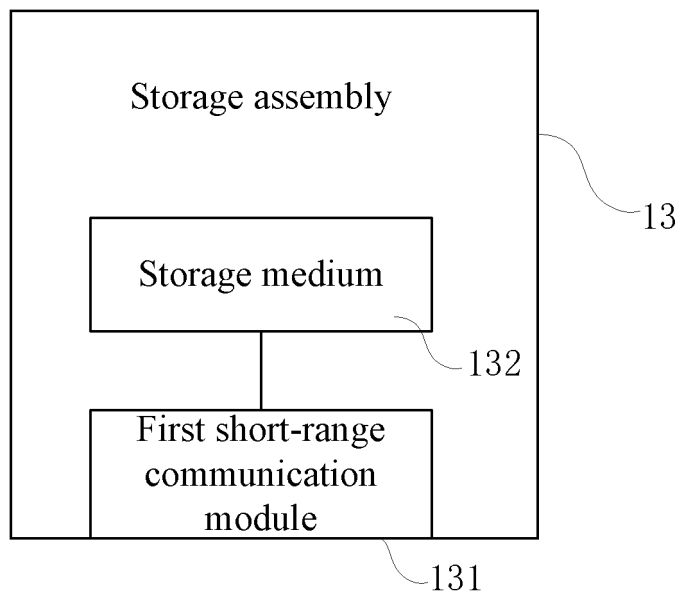


FIG. 9

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2020/112618

A. CLASSIFICATION OF SUBJECT MATTER A24F 47/00(2020.01)i According to International Patent Classification (IPC) or to both national classification and IPC																					
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) A24F47;A24F40 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched																					
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) CNABS, CNTXT, VEN, 气雾, 电子烟, 阻值, 温度, 加热, 发热, 麦克韦尔, 赵书民, 存储, 芯片, electronic cigarette, aerosol, vapor, vapour, smoke, mist, heat, terminal, temperature, resistance,																					
C. DOCUMENTS CONSIDERED TO BE RELEVANT <table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>PX</td> <td>CN 110584207 A (SHENZHEN SMOORE TECHNOLOGY LTD.) 20 December 2019 (2019-12-20) description, paragraphs 5-14</td> <td>1-17</td> </tr> <tr> <td>PX</td> <td>CN 110623305 A (SHENZHEN SMOORE TECHNOLOGY LTD.) 31 December 2019 (2019-12-31) description, paragraphs 5-15</td> <td>1-17</td> </tr> <tr> <td>X</td> <td>CN 109330027 A (SHENZHEN SMOORE TECHNOLOGY LIMITED) 15 February 2019 (2019-02-15) description, paragraphs 24-93, and figures 1-4</td> <td>1-17</td> </tr> <tr> <td>X</td> <td>CN 109963606 A (PAX LABS INC.) 02 July 2019 (2019-07-02) description, paragraphs 50-59 and figure 1</td> <td>1-17</td> </tr> <tr> <td>E</td> <td>CN 211861800 U (SHENZHEN SMOORE TECHNOLOGY LTD.) 06 November 2020 (2020-11-06) description, paragraphs 5-14</td> <td>1-17</td> </tr> <tr> <td>A</td> <td>WO 2019082280 A1 (JAPAN TOBACCO INC.) 02 May 2019 (2019-05-02) entire document</td> <td>1-17</td> </tr> </tbody> </table>	Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	PX	CN 110584207 A (SHENZHEN SMOORE TECHNOLOGY LTD.) 20 December 2019 (2019-12-20) description, paragraphs 5-14	1-17	PX	CN 110623305 A (SHENZHEN SMOORE TECHNOLOGY LTD.) 31 December 2019 (2019-12-31) description, paragraphs 5-15	1-17	X	CN 109330027 A (SHENZHEN SMOORE TECHNOLOGY LIMITED) 15 February 2019 (2019-02-15) description, paragraphs 24-93, and figures 1-4	1-17	X	CN 109963606 A (PAX LABS INC.) 02 July 2019 (2019-07-02) description, paragraphs 50-59 and figure 1	1-17	E	CN 211861800 U (SHENZHEN SMOORE TECHNOLOGY LTD.) 06 November 2020 (2020-11-06) description, paragraphs 5-14	1-17	A	WO 2019082280 A1 (JAPAN TOBACCO INC.) 02 May 2019 (2019-05-02) entire document	1-17
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Date of the actual completion of the international search 16 November 2020	Date of mailing of the international search report 24 November 2020																				
Name and mailing address of the ISA/CN China National Intellectual Property Administration (ISA/CN) No. 6, Xitucheng Road, Jimenqiao Haidian District, Beijing 100088 China Facsimile No. (86-10)62019451	Authorized officer Telephone No.																				

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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/CN2020/112618

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