



(11) **EP 4 548 785 A1**

(12) **EUROPEAN PATENT APPLICATION**
published in accordance with Art. 153(4) EPC

(43) Date of publication:
07.05.2025 Bulletin 2025/19

(51) International Patent Classification (IPC):
A24D 1/20 (2020.01) **A24F 40/40** (2020.01)

(21) Application number: **23829977.0**

(52) Cooperative Patent Classification (CPC):
A24D 1/20; A24F 40/40

(22) Date of filing: **14.06.2023**

(86) International application number:
PCT/CN2023/100284

(87) International publication number:
WO 2024/001795 (04.01.2024 Gazette 2024/01)

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA
Designated Validation States:
KH MA MD TN

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(30) Priority: **01.07.2022 CN 202221680972 U**

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(54) **HEAT-NOT-BURN AEROSOL GENERATING PRODUCT**

(57) A heat-not-burn aerosol-generating product, comprising a filter section (1), an airflow channel section (2), an aerosol-generating material section (3) and a wrapping layer (4), wherein the filter section (1), the airflow channel section (2) and the aerosol-generating material section (3) are sequentially connected to each other, and the wrapping layer (4) is at least arranged outside the airflow channel section (2); the airflow channel section (2) is axially provided with central air channel (21) in the center, gap (23) is provided between the airflow channel section (2) and the wrapping layer (4), and air inlet (22) is provided at the position of the wrapping layer (4) corresponding to the airflow channel section (2); and during operation, external air enters the central air channel (21) through the air inlet (22) via the gap (23). By means of the air intake mode where the air inlet (22) is in communication with the gap (23), airflow is more stable, and the suction stability is better. In addition, generated aerosol is extracted by air at an intersection of the airflow channel section (2) and the aerosol-generat-

ing material section (3), most of the air does not directly pass through the aerosol-generating material section (3) for heat exchange, and a substrate in the aerosol-generating material section (3) is not disturbed by the airflow, such that the aerosol has a moderate temperature, is relatively pure and has an excellent taste.

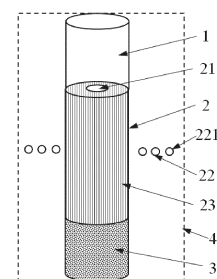


FIG. 1

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Description

FIELD

[0001] The invention relates to the technical field of aerosol generation, in particular to a heat-not-burn aerosol-generating product.

BACKGROUND

[0002] Heat-not-burn aerosol-generating products generate aerosols by heating aerosol-generating materials instead of burning. When the aerosol-generating materials are sucked by using electronic heating equipment, consumers can not only feel the fragrance of the aerosol-generating materials, but also the heat-not-burn aerosol-generating products are heated at low temperature, which can greatly reduce the undesirable substances produced by traditional cigarettes when they are burned at high temperature.

[0003] At present, in the process of smoking, air enters from the end of the heat-not-burn aerosol-generating product, passes through the heated material, takes out the aerosol generated by distillation and cracking of the heated material, and then enters the mouth of the smoker through the transmission structure. In the process of airflow, air passes through the substrate in the heating zone, exchanging heat in the form of thermal convection and carrying out aerosol. However, when the external cold air is mixed into the substrate heating zone, it will inevitably cause the temperature of the heated substrate to drop, which will lead to large fluctuations in the temperature of the substrate heating zone, different types and degrees of cracking reactions generated by materials at different temperatures, and different aroma substances released, resulting in poor suction consistency.

SUMMARY

[0004] The technical problem to be solved by the invention is to provide a heat-not-burn aerosol-generating product with constant heating zone temperature, large smoke suction, good continuity, and good consistency.

[0005] The technical scheme adopted by the invention for solving the technical problems is as follows: constructing a heat-not-burn aerosol-generating product, comprising a filter section, an airflow channel section, an aerosol-generating material section, and a wrapping layer, wherein the filter section, the airflow channel section, and the aerosol-generating material section are connected in sequence, and the wrapping layer is at least arranged outside the airflow channel section; the airflow channel section is axially provided with at least one central air channel in the center, gap is provided between the airflow channel section and the wrapping layer, and air inlet is provided at the position of the wrapping layer corresponding to the airflow channel section; and during operation, external air enters the central

air channel through the air inlet via the gap.

[0006] Preferably, the gap communicates with the central air channel at the intersection of the aerosol-generating material section and the airflow channel section.

[0007] Preferably, at least one groove is provided on the airflow channel section, and the gap is formed between at least one groove and the wrapping layer.

[0008] Preferably, at least one of the grooves is axially arranged on the outer wall of the airflow channel section, and the groove extends from one end of the airflow channel section close to the filter section to one end close to the aerosol-generating material section.

[0009] Preferably, the length of the groove is equal to the height of the airflow channel section.

[0010] Preferably, a sealing fastener is further arranged between the filter section and the airflow channel section, and an air guide hole is arranged on the sealing fastener, the air guide hole is communicated with the central air channel.

[0011] Preferably, the airflow channel section comprises a first airflow channel section and a second airflow channel section, wherein the first airflow channel section is connected with the filter section and the second airflow channel section is connected with the aerosol-generating material section; the outer wall of the first airflow channel section is attached to the inner wall of the wrapping layer, and the gap is arranged between the second airflow channel section and the wrapping layer.

[0012] Preferably, the length of at least one of the grooves is equal to the height of the second airflow channel section.

[0013] Preferably, at least one central hole is arranged in the center of the airflow channel section, and at least one central hole penetrates through the airflow channel section to form the central air channel.

[0014] Preferably, a filter is arranged in the central air channel.

[0015] Preferably, the material of the filter element includes any one of acetate fiber, polypropylene fiber, polylactic acid fiber, plant polysaccharide, and plant porous material.

[0016] Preferably, the wrapping layer comprises a side wall and a bottom wall, wherein the side wall wraps the sides of the airflow channel section and the aerosol-generating material section, and the bottom wall wraps the end of the aerosol-generating material section far from the airflow channel section.

[0017] Preferably, the bottom wall of the wrapping layer is provided with an air inlet hole, and the air inlet hole is in airflow communication with the central air channel.

[0018] The invention has the following beneficial effects: the airflow is more stable through the air inlet mode that the air inlet is connected with the gap, the suction stability is better, and the air inlet hole or air inlet groove is not easy to deform during heating; by means of the air intake mode where the air inlet is in communication with the gap, airflow is more stable, and the suction stability is better. In addition, generated aerosol is extracted by air at

an intersection of the airflow channel section and the aerosol-generating material section, most of the air does not directly pass through the aerosol-generating material section for heat exchange, and a substrate in the aerosol-generating material section is not disturbed by the airflow, such that the aerosol has a moderate temperature, is relatively pure and has an excellent taste.

BRIEF DESCRIPTION OF THE DRAWINGS

[0019] The invention will be further described with reference to the attached drawings and examples, in which:

Figure 1 is a schematic structural view of an embodiment of a heat-not-burn aerosol-generating product of the present invention;

Figure 2 is a schematic structural view of another embodiment of the heat-not-burn aerosol-generating product of the present invention;

Figure 3 is a schematic structural view of an embodiment of an airflow channel section of the present invention;

Figure 4 is a schematic structural view of another embodiment of the airflow channel section of the present invention;

Figure 5 is a top view of the airflow channel section of Figure 4;

Figure 6 is a bottom view of the airflow channel section of Figure 4;

Figure 7 is a schematic structural view of other embodiments of the heat-not-burn aerosol-generating product of the present invention; and

Figure 8 is a top view of the sealing fastener of the present invention.

DETAILED DESCRIPTION

[0020] To have a clearer understanding of the technical features, purposes, and effects of the present invention, specific embodiments of the present invention are described in detail against the accompanying drawings. In the following description, it is to be understood that "front", "back", "upper", "lower", "left", "right", "longitudinal", "transverse", "vertical", "horizontal", "top", "bottom", "inside", "outside", "head", "tail", etc. indicate orientations or positional relationships that are based on the orientations or positional relationships shown in the accompanying drawings. Constructing and operating in a particular orientation are intended only to facilitate description of the present technical solution, and is not intended to

indicate that the device or element referred to must have a particular orientation, and therefore is not to be construed as a limitation of the present invention.

[0021] It should also be noted that unless otherwise specified and limited, terms such as "installation", "connection", "joint", "fixing" and "setting" should be understood broadly, for example, they can be fixed connection, detachable connection or integrated; it can be a mechanical connection or an electrical connection; can be directly connected, can also be indirectly connected through an intermediary, can be the internal connection of two elements or the interaction between two elements. When an element is said to be "above" or "below" another element, the element can be "directly" or "indirectly" above the other element, or there may be one or more intervening elements. The terms "first", "second" and "third" are only for the convenience of describing the technical scheme, and cannot be understood as indicating or implying relative importance or implicitly indicating the number of indicated technical features. Therefore, features defined as "first", "second" and "third" can explicitly or implicitly include one or more such features. For those skilled in the art, the specific meanings of the above terms in the present invention can be understood according to particular situations.

[0022] In the following description, specific details, such as specific system structure and technology, are set forth for explanation rather than limitation, to thoroughly understand the embodiments of the present invention. However, it will be apparent to one skilled in the art that the present invention may be practiced in other embodiments without these specific details. In other cases, detailed descriptions of well-known systems, devices, circuits, and methods are omitted so as not to obscure the description of the present invention with unnecessary details.

[0023] Referring to Figure 1 to Figure 2, it is a heat-not-burn aerosol-generating product of the present invention. The structure of the heat-not-burn aerosol-generating product can be divided into three sections, comprising a filter section 1, an airflow channel section 2 and, an aerosol-generating material section 3, wherein the filter section 1, the airflow channel section 2, and the aerosol-generating material section 3 are connected in sequence. The airflow channel section 2 can also be called an aerosol extractor, and its purpose is to extract the aerosol generated by heating the aerosol-generating material section 3. In addition, the heat-not-burn aerosol-generating product also includes a wrapping layer 4, which is at least arranged outside the airflow channel section 2. The wrapping layer 4 shown in Figures 1 to 2 is in its unfolded state. In this embodiment, the filter section 1, the airflow channel section 2, and the aerosol-generating material section 3 are all contained in the wrapping layer 4. It should be noted that the wrapping layer 4 only needs to at least wrap the airflow channel section 2. In other embodiments, the filter section 1, the airflow channel section 2, and the aerosol-generating material sec-

tion 3 can be wrapped by different packaging materials and then assembled into a whole, which can be selected according to the actual situation, and the present invention does not limit this.

[0024] Specifically, the material of the filter section 1 includes any one of acetate fiber, polypropylene fiber, paper filter rod, reconstituted tobacco, polylactic acid fiber, resin, plant polysaccharide, resin, and plant porous material, etc., and filters and adsorbs the aerosol to achieve the effect of improving the purity and comfort of the aerosol. Understandably, the material of the filter section 1 can also include two or more of the above materials. Generally, the material of the airflow channel section 2 can be silica gel. Further, the aerosol-generating material section 3 can also be called a base material section, and the material of the aerosol-generating material section 3 can include any one or more solid base materials such as wire, sheet, granule, powder, and paste.

[0025] The airflow channel section 2 is provided with at least one central air channel 21 in the center, and further, at least one central air channel 21 penetrates through the center of the airflow channel section 2 in an axial direction. Specifically, the center of the airflow channel section 2 is provided with at least one central hole, and at least one central hole axially penetrates through the airflow channel section 2 to form a central air channel 21. There is gap 23 between the airflow channel section 2 and the wrapping layer 4, the gap 23 forms a lateral airflow channel; the gap 23 communicates with the central air channel 21, specifically, the gap 23 communicates with the central air channel 21 at the intersection of the aerosol-generating material section 3 and the airflow channel section 2; the wrapping layer 4 is provided with air inlet 22 at the position corresponding to the airflow channel section 2, and further, the air inlet 22 includes air inlet hole 221 or air inlet groove 222, the air inlet hole 221 or the air inlet groove 222 is arranged at any position of the part of the wrapping layer 4 wrapping the airflow channel section 2 to form an air inlet channel and communicate with the outside air. The air inlet channel communicates with the lateral airflow channel, and the external air enters the central air channel 21 through the air inlet channel. During suction, external air is sucked into the air inlet channel from the air inlet hole 221 or the air inlet groove 222, and the air enters the airflow channel section 2 downward along the lateral airflow channel, and then with lateral airflow channel enters the central air channel 21 at the intersection of the bottom of the airflow channel section 2 and the aerosol-generating material section 3, where negative pressure is formed to extract the aerosol generated by the aerosol-generating material section 3, and then passes through the central air channel 21 of the airflow channel section 2 and then enters the mouth of the smoker through the filter section 1.

[0026] Further, the cross-sectional shape of the central air channel 21 can be set to any one of circular, rectangular, zigzag, pentagonal, elliptical, honeycomb, and

other shapes to extract aerosol.

[0027] Concerning Figure 3, in this embodiment, the cross-sectional shape of the central air channel 21 is set in a zigzag shape. Further, at least one groove is provided on the airflow channel section 2, and a gap 23 is formed between at least one groove and the inner wall of the wrapping layer 4, and at least one gap 23 form a lateral airflow channel. In this embodiment, at least one of the grooves is axially arranged on the outer wall of the airflow channel section 2, and the groove extends from one end of the airflow channel section 2 close to the filter section 1 to one end close to the aerosol-generating material section 3. Specifically, the groove can extend vertically or spirally from one end of the airflow channel section 2 close to the filter section 1 to one end close to the aerosol-generating material section 3, and the length of the groove is approximately equal to the height of the airflow channel section 2, that is, the outer wall of the airflow channel section 2 is completely provided with the groove in the vertical direction.

[0028] As shown in Figures 4 to 6, in some embodiments, the airflow channel section 2 may comprise a first airflow channel section 201 and a second airflow channel section 202, wherein the first airflow channel section 201 is connected with the filter section 1 and the second airflow channel section 202 is connected with the aerosol-generating material section 3; the outer wall of the first airflow channel section 201 is attached to the inner wall of the wrapping layer 4, and the gap 23 is provided between the second airflow channel section 202 and the wrapping layer 4. It should be noted that in this embodiment, the first airflow channel section 201 refers to a section located downstream of the airflow channel section 2, that is, a section connected with the filter section 1; the second airflow channel section 202 refers to a section located upstream of the airflow channel section 2, that is, a section connected with the aerosol-generating material section 3. Therefore, in this embodiment, only the second airflow channel section 202 is provided with grooves, and further, the length of at least one grooves is approximately equal to the height of the second airflow channel section 202, and the gap 23 is formed between the position where the second airflow channel section 202 is provided with grooves and the wrapping layer 4, and at least one gap 23 form a lateral airflow passage. However, there is no groove provided in the first airflow channel section 201, and the first airflow channel section 201 is directly attached to the wrapping layer 4, so the cross-sectional area of the first airflow channel section 201 is larger than cross-sectional area of the second airflow channel section 202, to prevent the air entering the airflow channel section 2 from the air inlet hole or the air inlet groove from directly flowing upward into the filter section 1 and affecting the taste; ensure that all the air entering the airflow channel section 2 from the air inlet hole or the air inlet groove flows down the lateral airflow channel, enters the central air channel 21 at the intersection of the bottom of the airflow channel section 2 and the aerosol-

generating material section 3, where negative pressure is formed to extract the aerosol generated by the aerosol-generating material section 3, then passes through the central air channel 21 of the airflow channel section 2 and enters the mouth of the smoker through the filter section 1.

[0029] Further, as shown in Figure 7, in other embodiments, the structure of this embodiment is similar to the structure of the embodiment shown in Figure 1, and the difference is that a sealing fastener 5 is also arranged between the filter section 1 and the airflow channel section 2 in this embodiment, and an air guide hole 51 is arranged on the sealing fastener 5, and the air guide hole 51 is communicated with the central air channel 21. Specifically, as shown in Figure 8, in this embodiment, the shape of the air guide hole 51 in the center of the sealing fastener 5 is a plum blossom; Understandably, in some other embodiments, the shape of the air guide hole 51 in the center of the sealing fastener 5 can be a gear shape or other shapes, which is not limited here.

[0030] Understandably, the function of the sealing fastener 5 is similar to the function of the first airflow channel 201 in the above-mentioned embodiment, and it is also to prevent the air entering the airflow channel section 2 from the air inlet hole or the air inlet groove from directly flowing upward into the filter section 1, thus affecting the taste. The outer wall of the sealing fastener 5 is attached to the inner wall of the wrapping layer 4, and the cross-sectional area of the sealing fastener is larger than the cross-sectional area of the airflow channel section 2, so that all air entering the airflow channel section 2 from the air inlet hole or the air inlet groove flows down along the lateral air channel, enters the central air channel 21 at the intersection of the bottom of the airflow channel section 2 and the aerosol-generating material section 3, where negative pressure is formed to extract the aerosol generated by the aerosol-generating material section 3, then passes through the central air channel 21 of the airflow channel section 2 and enters the mouth of the smoker through the filter section 1.

[0031] Further, a filter material can be optionally added into the central air channel 21 of the airflow channel section 2 to form a filter to filter the aerosol; the material of the filter can be acetate fiber, polylactic acid fiber, plant polysaccharide or plant porous material. The aerosol generated by the aerosol-generating material section 3 can be primarily filtered by the filter material arranged in the central air channel 21, and then the aerosol after preliminarily filtered is secondarily filtered by the filter section 1, and finally enters the mouth of the smoker.

[0032] Further, wrapping layer 4 includes a side wall and a bottom wall. The side wall wraps the sides of the filter section 1, the airflow channel section 2 and the aerosol-generating material section 3, and the bottom wall of the wrapping layer 4 wraps the end of the aerosol-generating material section 3 away from the airflow channel section 2. Specifically, the bottom wall of the wrapping layer 4 can be set as a sealed structure, so that

the bottom of the heat-not-burn aerosol-generating product is sealed and unventilated, and only the side of the heat-not-burn aerosol-generating product is ventilated, and the aerosol-generating material is heated in an oxygen-free environment, which is purer. In another embodiment, the bottom wall of the wrapping layer 4 is provided with an air inlet hole, the air inlet hole is in airflow communication with the central air channel 21, so that the bottom and the side of the heat-not-burn aerosol-generating product can be air-fed at the same time, which is helpful to increase the atomization amount and reduce the suction resistance and the inlet temperature during smoking.

[0033] Further, the shape of the wrapping layer 4 can be sheet or tubular, and the material of the wrapping layer 4 includes any one or more of paper, tin foil, and aluminum foil.

[0034] Specifically, wrapping layer 4 is a flexible sheet, which can be formed by winding paper. When the wrapping layer 4 is unfolded, it can be paper-shaped. When the wrapping layer 4 is bent, it can create a hollow column structure that can integrally wrap the filter section 1, the airflow channel section 2, and the aerosol-generating material section 3. In another embodiment, the wrapping layer 4 can be tubular, that is, a preformed paper tube, and the tubular wrapping layer 4 is integrally sleeved outside the filter section 1, the airflow channel section 2, and the aerosol-generating material section 3.

[0035] As shown in Figure 1, in some embodiments, the structure of the heat-not-burn aerosol-generating product can be divided into three sections, comprising a filter section 1, an airflow channel section 2, and an aerosol-generating material section 3; wherein, the length of the filter section 1 is 10mm, and its material is acetate fiber, and its suction resistance is 400Pa; the length of the airflow channel section 2 is 23mm, and the outer wall surface of the airflow channel section 2 is provided with 24 grooves with a depth of 0.4mm; the center of the airflow channel section 2 is provided with a central air channel 21 running through axially. The cross section of the central air channel 21 is circular, its diameter is 2.5mm, and its material is silica gel. The wrapping layer 4 is made of paper, which wraps the outer layers of the filter section 1, the airflow channel section 2, and the aerosol-generating material section 3. The thickness of wrapping layer 4 is 0.4mm, and the bottom wall of wrapping layer 4 is of a sealed structure so that the bottom wall is airtight, only the side wall is unventilated, and the substrate in the aerosol-generating material section 3 is heated in an oxygen-free environment, which is purer; the position of the wrapping layer 4 corresponding to the airflow channel section 2 is provided with an air inlet hole, and the distance from the position of the air inlet hole to the bottom of the aerosol-generating material section 3 is 25mm; the number of the air inlet holes can be eight, with a circular shape and a diameter of 0.4mm, and the air inlet holes can be evenly distributed at circumferential intervals, or the air inlet holes can be

arranged at any position on the airflow channel section 2, which is not specifically limited here. The material of aerosol-generating material section 3 is tobacco flakes, that is, reconstituted tobacco leaves, and the length of aerosol-generating material section 3 is 12 mm.

[0036] As shown in Figure 2, in other embodiments, the length of the filter section 1 is 7mm, and its material is acetate fiber, and its suction resistance is 500Pa; the length of the airflow channel section 2 is 23mm, and the surface of the airflow channel section 2 is provided with 16 grooves, each groove with a depth of 0.5mm; the center of the airflow channel section 2 is provided with a central air channel 21 running through axially, and the cross section of the central air channel 21 is pentagonal, and its material is silica gel; the wrapping layer 4 is made of paper with a thickness of 0.15mm, and the bottom wall of the wrapping layer 4 is provided with an air inlet hole to ventilate with the outside, and the bottom wall and the side wall are simultaneously air-fed, which is helpful to increase the atomization amount and reduce the suction resistance and the inlet temperature; the position of the wrapping layer 4 corresponding to the airflow channel section 2 is provided with an air inlet hole, and the distance from the air inlet hole to the bottom of the aerosol-generating material section 3 is 30mm; the number of the air inlet holes can be five, and their shapes are rectangular, and the length of the rectangular air inlet holes is 1.5mm and the width is 0.5mm; and the air inlet holes can be evenly distributed at circumferential intervals, and can also be arranged at any position on the airflow channel section 2, and is not specifically limited here; The material of the aerosol-generating material section 3 is cut tobacco, and the length of the aerosol-generating material section 3 is 15 mm.

[0037] When the invention is used for suction, air is sucked into the air inlet channel formed by the groove and the inner wall of the wrapping layer 4 from the air inlet hole or the air inlet groove to extract the aerosol generated by the aerosol-generating material section 3, most of the air does not directly pass through the aerosol-generating material section 3 for heat exchange, and the base material of the aerosol-generating material section 3 is not disturbed by airflow, so the temperature of the aerosol is moderate, and the aerosol is relatively pure and has a good taste. In addition, compared with the conventional methods of laser drilling and mechanical drilling of cigarettes on the filter tip, the airflow is more stable and the suction stability is better through the air intake mode in which the air inlet hole or the air inlet groove is connected with the groove, and the air inlet hole or the air inlet groove is not easy to deform during heating.

[0038] It can be understood that the above embodiment only expresses the preferred embodiment of the present invention, and its description is more specific and detailed, but it cannot be understood as limiting the patent scope of the present invention; it should be pointed out that for ordinary technicians in this field, the above technical features can be freely combined without departing

from the concept of the present invention, and several modifications and improvements can be made, which are all within the scope of protection of the present invention. Therefore, all equivalent transformations and modifications made within the scope of the claims of the present invention should belong to the scope of the claims of the present invention.

10 Claims

1. A heat-not-burn aerosol-generating product, comprising a filter section (1), an airflow channel section (2), an aerosol-generating material section (3), and a wrapping layer (4), wherein the filter section (1), the airflow channel section (2) and the aerosol-generating material section (3) are connected in sequence, and the wrapping layer (4) is at least arranged outside the airflow channel section (2);
the airflow channel section (2) is axially provided with at least one central air channel (21) in the center, gap (23) is provided between the airflow channel section (2) and the wrapping layer (4), and air inlet (22) is provided at the position of the wrapping layer (4) corresponding to the airflow channel section (2), and the air inlet (22) is in communication with the gap (23); and during operation, external air enters the central air channel (21) through the air inlet (22) via the gap (23).
2. The heat-not-burn aerosol-generating product according to claim 1, wherein the gap (23) communicates with the central air channel (21) at the intersection of the aerosol-generating material section (3) and the airflow channel section (2).
3. The heat-not-burn aerosol-generating product according to claim 1, wherein at least one groove is provided on the airflow channel section (2), and the gap (23) is formed between at least one groove and the wrapping layer (4).
4. The heat-not-burn aerosol-generating product according to claim 3, wherein at least one of the grooves is axially arranged on the outer wall of the airflow channel section (2), and the groove extends from one end of the airflow channel section (2) close to the filter section (1) to one end close to the aerosol-generating material section (3).
5. The heat-not-burn aerosol-generating product according to claim 4, wherein the length of the groove is equal to the height of the airflow channel section (2).
6. The heat-not-burn aerosol-generating product according to claim 3 or 4, wherein a sealing fastener (5) is further arranged between the filter section (1)

and the airflow channel section (2), and an air guide hole (51) is arranged on the sealing fastener (5), and the air guide hole (51) is communicated with the central air channel (21).

7. The heat-not-burn aerosol-generating product according to claim 3, wherein the airflow channel section (2) comprises a first airflow channel section (201) and a second airflow channel section (202), wherein the first airflow channel section (201) is connected with the filter section (1) and the second airflow channel section (202) is connected with the aerosol-generating material section (3), the outer wall of the first airflow channel section (201) is attached to the inner wall of the wrapping layer (4), and the gap (23) is arranged between the second airflow channel section (202) and the wrapping layer (4).

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8. The heat-not-burn aerosol-generating product according to claim 7, wherein the length of at least one of the grooves is equal to the height of the second airflow channel section (202).

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9. The heat-not-burn aerosol-generating product according to claim 1, wherein at least one central hole is arranged in the center of the airflow channel section (2), and at least one central hole penetrates through the airflow channel section (2) to form the central air channel (21).

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10. The heat-not-burn aerosol-generating product according to claim 1, wherein a filter is arranged in the central air channel (21).

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11. The heat-not-burn aerosol-generating product according to claim 10, wherein the material of the filter comprises any one of acetate fiber, polypropylene fiber, polylactic acid fiber, plant polysaccharide, and plant porous material.

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12. The heat-not-burn aerosol-generating product according to claim 1, wherein the wrapping layer (4) comprises a side wall and a bottom wall, wherein the side wall wraps the sides of the airflow channel section (2) and the aerosol-generating material section (3), and the bottom wall wraps the end of the aerosol-generating material section (3) far away from the airflow channel section (2).

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13. The heat-not-burn aerosol-generating product according to claim 12, wherein the bottom wall of the wrapping layer (4) is provided with an air inlet hole, and the air inlet hole is in airflow communication with the central air channel (21).

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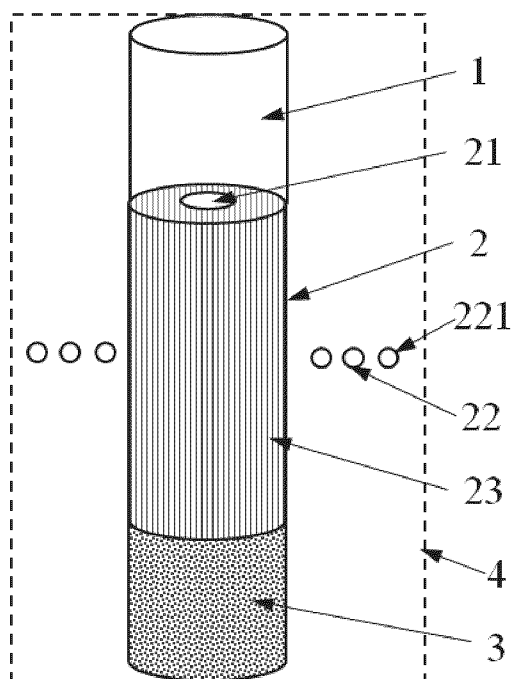


FIG. 1

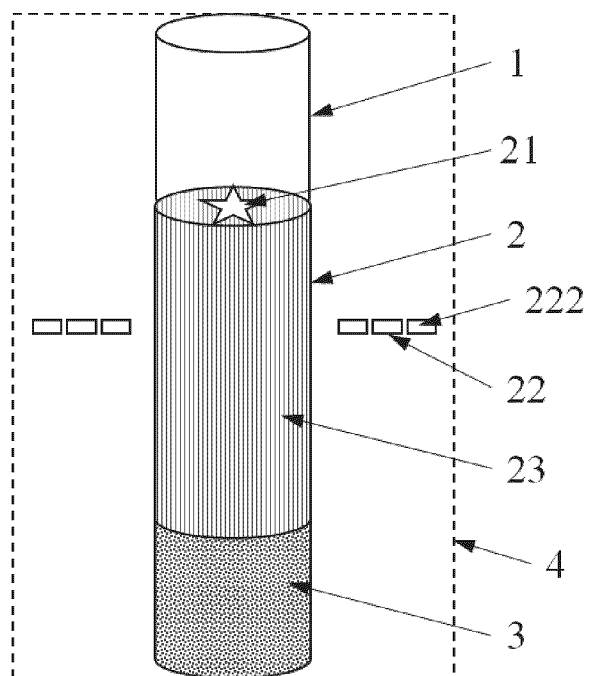


FIG. 2

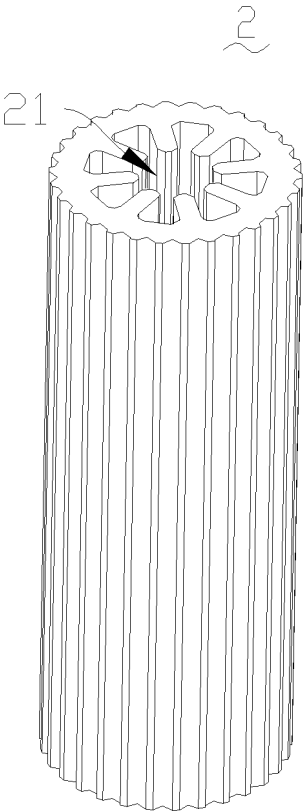


FIG. 3

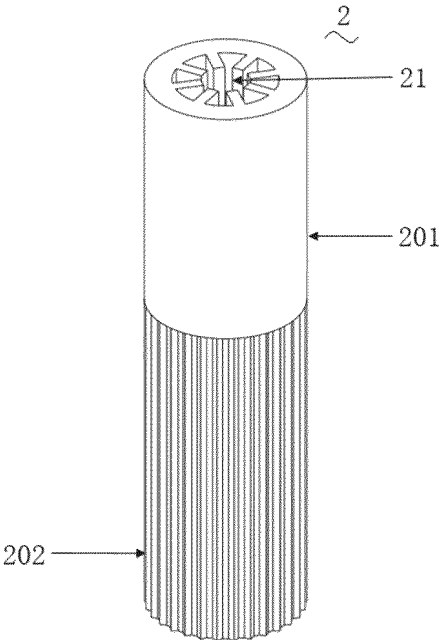


FIG. 4

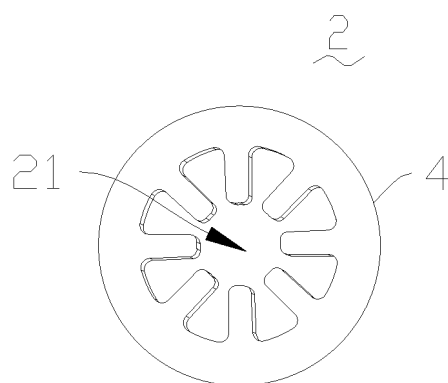


FIG. 5

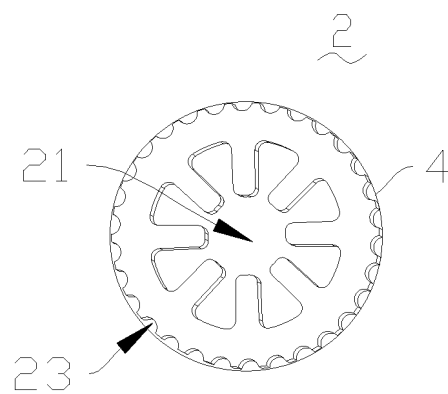


FIG. 6

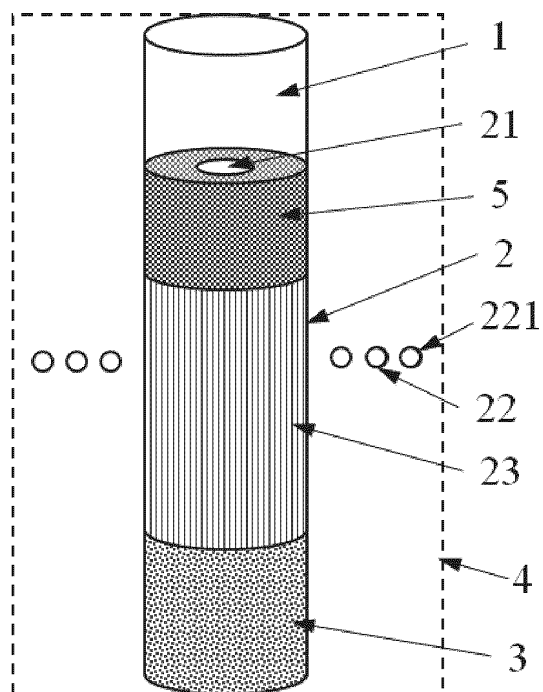


FIG. 7

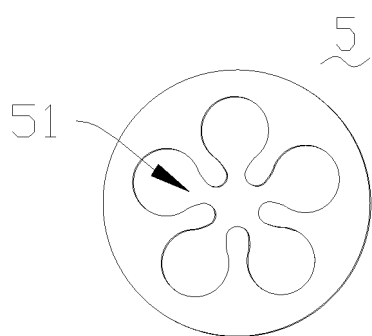


FIG. 8

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2023/100284

A. CLASSIFICATION OF SUBJECT MATTER

A24D1/20(2020.01)i; A24F40/40(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)

IPC:A24D,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)

CNTXT, EXTXT, WPABS: 气溶胶, 过滤, 包裹, 通道, aerosol, filter+, airflow channel, wrap+, passage

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
PX	CN 218354569 U (SHENZHEN MAISHI TECHNOLOGY CO., LTD.) 24 January 2023 (2023-01-24) claims 1-13	1-13
PX	CN 218354570 U (SHENZHEN MAISHI TECHNOLOGY CO., LTD.) 24 January 2023 (2023-01-24) claims 1-10, and description, paragraphs 25-38, and figures 1 and 2	1-5, 9-13
PX	CN 217284735 U (SHENZHEN MAISHI TECHNOLOGY CO., LTD.) 26 August 2022 (2022-08-26) claims 1-9, and figures 1 and 2	1-9, 12, 13
PX	CN 217161093 U (SHENZHEN MAISHI TECHNOLOGY CO., LTD.) 12 August 2022 (2022-08-12) claims 1-10, and figures 1-8	1-9
X	CN 114376265 A (SHENZHEN MAISHI TECHNOLOGY CO., LTD.) 22 April 2022 (2022-04-22) claims 1-8, and description paragraphs 33-46, and figures 1 and 2	1-9, 12, 13

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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Date of the actual completion of the international search

22 August 2023

Date of mailing of the international search report

24 August 2023

Name and mailing address of the ISA/CN

China National Intellectual Property Administration (ISA/
CN)
China No. 6, Xitucheng Road, Jimenqiao, Haidian District,
Beijing 100088

Authorized officer

Telephone No.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2023/100284

C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	CN 114376265 A (SHENZHEN MAISHI TECHNOLOGY CO., LTD.) 22 April 2022 (2022-04-22) claims 1-8, and description paragraphs 33-46, and figures 1 and 2	10, 11
Y	CN 216019100 U (SHENZHEN MAISHI TECHNOLOGY CO., LTD.) 15 March 2022 (2022-03-15) description, paragraph 75, and figure 4	10, 11
Y	CN 113598419 A (SHENZHEN MAISHI TECHNOLOGY CO., LTD.) 05 November 2021 (2021-11-05) description, paragraph 66, and figure 4	10, 11
Y	CN 216019099 U (SHENZHEN MAISHI TECHNOLOGY CO., LTD.) 15 March 2022 (2022-03-15) description, paragraph 66, and figure 4	10, 11
A	CN 109998160 A (CHINA TOBACCO YUNNAN INDUSTRIAL CO., LTD.) 12 July 2019 (2019-07-12) entire document	1-13
A	CN 113841941 A (SHENZHEN WOODY VAPES TECHNOLOGY CO., LTD.) 28 December 2021 (2021-12-28) entire document	1-13
A	CN 216701629 U (GUANGDONG GOLDEN LEAF TECHNOLOGY DEVELOPMENT CO., LTD.) 10 June 2022 (2022-06-10) entire document	1-13
A	WO 2022012684 A1 (BROADFAR (SHANGHAI) MANAGEMENT CONSULTING CO LTD; GUANGDONG GOLDEN LEAF TECHNOLOGY DEVELOPMENT CO., LTD.) 20 January 2022 (2022-01-20) entire document	1-13

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/CN2023/100284

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Patent document cited in search report			Publication date (day/month/year)	Patent family member(s)	Publication date (day/month/year)
CN	218354569	U	24 January 2023	None	
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CN	217284735	U	26 August 2022	None	
CN	217161093	U	12 August 2022	None	
CN	114376265	A	22 April 2022	None	
CN	216019100	U	15 March 2022	None	
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CN	216019099	U	15 March 2022	None	
CN	109998160	A	12 July 2019	None	
CN	113841941	A	28 December 2021	None	
CN	216701629	U	10 June 2022	None	
WO	2022012684	A1	20 January 2022	None	

Form PCT/ISA/210 (patent family annex) (July 2022)