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(54) **ATOMIZER AND ELECTRONIC ATOMIZATION DEVICE**

(57) The present application relates to an atomizer and an electronic atomization device. The atomizer comprises: a housing provided with a first air inlet hole; and a draw resistance adjusting member provided in the housing and slidably connected to the housing. A plurality of second air inlet holes are formed in the draw resistance adjusting member; the draw resistance adjusting member operably slides relative to the housing, and at least

some of the second air inlet holes are controlled to be communicated with the first air inlet hole; the draw resistance adjusting member is fixed to the housing by means of a first sealing member, and an airflow sensing member is sealed by means of the first sealing member; a starting air channel of the airflow sensing member is provided in the first sealing member.

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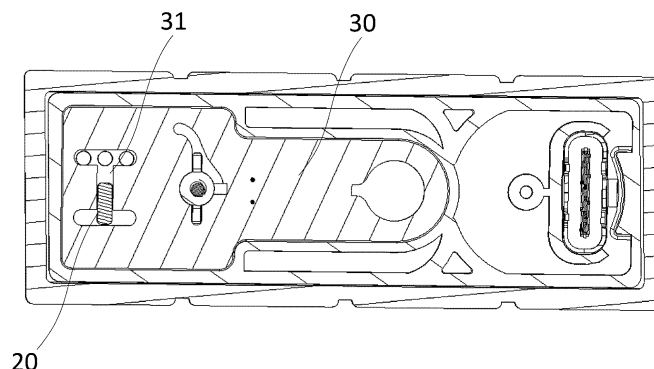


FIG. 9

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Description

TECHNICAL FIELD

[0001] This application relates to the field of atomization technologies, and in particular, to an atomizer and an electronic atomization device.

BACKGROUND

[0002] In the related art, an aerosol generation device mainly includes an atomization assembly and a battery assembly. The atomization assembly generally includes a liquid storage cavity and an atomization core. The liquid storage cavity is configured to store an atomizable material. The atomization core is configured to heat and atomize the atomizable material, to form an aerosol for an inhaler to inhale. The battery assembly is configured to provide energy to the atomization core.

[0003] However, to implement smooth inhalation resistance adjustment and good sealing performance, an existing aerosol generation device has a complex structure, a large quantity of component parts, and high assembly difficulty.

[0004] A technical problem is that there are too many existing component parts. A beneficial effect is that the component parts are reduced and the assembly difficulty is reduced.

SUMMARY

[0005] Based on this, it is necessary to provide an atomizer and an electronic atomization device with a small quantity of component parts and low assembly difficulty for problems that an existing aerosol generation device is provided with a complex structure, a large quantity of component parts, and high assembly difficulty.

[0006] According to a first aspect of this application, an atomizer is provided, including:

a housing provided with a first air inlet hole;
an inhalation resistance adjustment member, arranged in the housing, and slidably connected to the housing, where the inhalation resistance adjustment member is provided with a plurality of second air inlet holes, the inhalation resistance adjustment member is operable to slide relative to the housing, and at least part of the second air inlet holes are controlled to communicate with the first air inlet hole; a first sealing member, where the first sealing member fixes the inhalation resistance adjustment member on the housing; and
an airflow induction member, where the first sealing member seals the airflow induction member, and the first sealing member is provided with an activation airway for the airflow induction member.

[0007] In one embodiment, a surface of the housing

facing the inhalation resistance adjustment member is provided with a sliding groove, the inhalation resistance adjustment member is slidably mated with the sliding groove, and the first air inlet hole is provided on a bottom wall of the sliding groove in a run-through manner; and the sliding groove is configured to limit sliding of the inhalation resistance adjustment member between a first position and a second position, and as the inhalation resistance adjustment member slides from the first position to the second position, an area in which the second air inlet holes communicate with the first air inlet hole gradually increases.

[0008] In one embodiment, a first convex rib protrudes from the bottom wall of the sliding groove facing the inhalation resistance adjustment member, and the first convex rib is enclosed on an outer periphery of the first air inlet hole, and abuts between the bottom wall of the sliding groove and the inhalation resistance adjustment member.

[0009] In one embodiment, the inhalation resistance adjustment member includes a body and an operating portion protruding from a side of the body, the body is mated with the bottom wall of the sliding groove, and the operating portion is accommodated in the first air inlet hole, and is exposed to an air inlet side of the first air inlet hole; and

a size of the first air inlet hole is greater than a size of the operating portion, and the operating portion is operable to drive the body to slide relative to the bottom wall of the sliding groove.

[0010] In one embodiment, the second air inlet holes are provided on the body, and on a sliding path of the inhalation resistance adjustment member, and the second air inlet holes are distributed on two sides of the operating portion with uneven quantities; and when the operating portion is operable to drive the body to slide relative to the housing, the second air inlet holes located on the side of the operating portion communicate with the first air inlet hole.

[0011] In one embodiment, the atomizer further includes a fixing base, the fixing base is mated with the housing, and is located on an air outlet side of the first air inlet hole, and the first sealing member is sealed between the housing and the fixing base;

the first sealing member is provided with a third air inlet hole, and the fixing base is provided with a fourth air inlet hole communicating with the third air inlet hole; and

the inhalation resistance adjustment member is slidably connected to a side of the first sealing member facing away from the fixing base, and the first air inlet hole, the part of the second air inlet holes communicating with the first air inlet hole, the third air inlet hole, and the fourth air inlet hole sequentially communicate with each other, to form an air inlet channel.

[0012] In one embodiment, a second convex rib pro-

trudes from a surface of the first sealing member facing the inhalation resistance adjustment member, and the second convex rib is enclosed on an edge of an end surface of the third air inlet hole, and abuts against the first sealing member and the inhalation resistance adjustment member.

[0013] In one embodiment, the inhalation resistance adjustment member includes a body, an operating portion, and a support portion, the body is mated with the bottom wall of the sliding groove, the operating portion is accommodated in the first air inlet hole, and is exposed to an air inlet side of the first air inlet hole, and the support portion is mated with a side of the body facing away from the operating portion, and protrudes out of the third air inlet hole to abut against the fixing base; and the support portion slides relative to the fixing base under driving of the operating portion and the body, and is capable of providing the body with a holding force for maintaining the support portion abutting against the housing.

[0014] In one embodiment, the first sealing member is sequentially provided with a first opening, an intermediate opening, and a second opening along a sliding path of the inhalation resistance adjustment member, the intermediate opening enables the first opening to communicate with the second opening, and the first opening, the second opening, and the intermediate opening are jointly constructed to form the third air inlet hole;

the second air inlet holes are provided on the body, and on the sliding path of the inhalation resistance adjustment member, and the second air inlet holes are distributed on two sides of the operating portion with uneven quantities; and

the support portion is slidably accommodated in the intermediate opening, and drives the second air inlet holes located on a side of the operating portion to communicate with the corresponding first opening or the second opening.

[0015] In one embodiments, the housing is provided with an air outlet hole.

[0016] The atomizer further includes:

a central tube, where the central tube is arranged in the housing, and the central tube communicates with the fourth air inlet hole and the air outlet hole.

[0017] In one embodiment, the atomizer further includes a liquid absorbing member, the liquid absorbing member is arranged at a communication position between the central tube and the fourth air inlet hole, the liquid absorbing member is provided with a fifth air inlet hole, and the fifth air inlet hole enables the central tube to communicate with the fourth air inlet hole.

[0018] In one embodiment, the atomizer further includes a second sealing member mated with the fixing base, and the second sealing member is provided with a sixth air inlet hole; and an air inlet end of the central tube fixedly communicates

with an air outlet end of the sixth air inlet hole, and the fourth air inlet hole communicates with an air inlet end of the sixth air inlet hole.

[0019] In one embodiment, a third convex rib protrudes from a surface of the second sealing member facing the fixing base, and the third convex rib is enclosed on an outer periphery of the sixth air inlet hole, and abuts between the fixing base and the second sealing member.

[0020] According to a second aspect of this application, an electronic atomization device is provided, including a power supply assembly and the atomizer in the foregoing embodiment, and the power supply assembly is electrically connected to the atomizer.

[0021] In one embodiment, the power supply assembly includes:

a battery core arranged in the housing; and a support member arranged in the housing, and supported between at least one pole of the battery core and the housing. In one embodiment, the support member includes foam.

[0022] In the atomizer and the electronic atomization device, the housing is provided with the first air inlet hole for air inlet, and the inhalation resistance adjustment member is slidably connected to the housing. The inhalation resistance adjustment member is provided with a plurality of second air inlet holes with the same air inlet areas. When the inhalation resistance adjustment member slides relative to the housing, at least one second air inlet hole is controlled to communicate with the first air inlet hole. During actual use, if a user needs large inhalation resistance, an area in which the second air inlet holes communicate with the first air inlet hole is reduced as much as possible, if a user needs small inhalation resistance, the area in which the second air inlet holes communicate with the first air inlet hole is increased as much as possible. In this way, requirements of the user for different inhalation resistance can be satisfied, so that inhalation experience of the user is improved. In addition, the first sealing member is configured to fix the inhalation resistance adjustment member and seal the airflow induction member, and is provided with the activation airway for the airflow induction member, so that a quantity of sealing members can be reduced, and impact of constructing the activation airway on a structure of the device can be reduced. Therefore, the structure of the device is simplified, a quantity of component parts is reduced, and assembly difficulty is reduced.

BRIEF DESCRIPTION OF THE DRAWINGS

[0023]

FIG. 1 is a schematic structural diagram of an electronic atomization device according to an embodiment of this application;

FIG. 2 is a schematic structural diagram of the electronic atomization device shown in FIG. 1 from another angle of viewing;

FIG. 3 is a schematic structural cross-sectional view of the electronic atomization device shown in FIG. 1;

FIG. 4 is a schematic structural cross-sectional view of the electronic atomization device shown in FIG. 1 from another angle of viewing;

FIG. 5 is a schematic structural diagram of an inhalation resistance adjustment member of the electronic atomization device shown in FIG. 1;

FIG. 6 is a schematic structural diagram of the inhalation resistance adjustment member shown in FIG. 5 from another angle of viewing;

FIG. 7 is a schematic structural diagram of a housing of the electronic atomization device shown in FIG. 1;

FIG. 8 is a schematic structural diagram of a first sealing member of the electronic atomization device shown in FIG. 1;

FIG. 9 is a schematic structural cross-sectional view of the electronic atomization device shown in FIG. 1 from another angle of viewing; and

FIG. 10 is a schematic structural diagram of a second sealing member of the electronic atomization device shown in FIG. 1.

[0024] 1: electronic atomization device; 100: atomizer; 10: housing; 11: first air inlet hole; 12: sliding groove; 13: first convex rib; 14: outlet hole; 20: inhalation resistance adjustment member; 21: second air inlet hole; 22: body; 23: operating portion; 24: support portion; 30: first sealing member; 31: third air inlet hole; 311: first opening; 312: second opening; 313: intermediate opening; 32: second convex rib; 33: fixing groove; 34: activation airway; 40: fixing base; 41: fourth air inlet hole; 50: airflow induction member; 60: central tube; 70: liquid absorbing member; 71: fifth air inlet hole; 80: second sealing member; 81: sixth air inlet hole; 82: third convex rib; 821: sealing horizontal rib; 822: sealing vertical rib; 83: cable hole; 200: power supply assembly; 210: battery core; 220: support member.

DETAILED DESCRIPTION

[0025] To make the foregoing objects, features and advantages of this application more comprehensible, detailed descriptions are made to specific implementations of this application below with reference to the accompanying drawings. In the following descriptions, many specific details are described for thorough under-

standing of this application. However, this application may be implemented in many other manners different from those described herein. A person skilled in the art may make similar improvements without departing from the connotation of this application. Therefore, this application is not limited to the specific embodiments disclosed below.

[0026] In the descriptions of this application, it should be understood that, orientations or position relationships indicated by terms such as "central", "vertical", "horizontal", "length", "width", "thickness", "above", "below", "front", "rear", "left", "right", "vertical", "horizontal", "top", "bottom", "inside", "outside", "clockwise" and "counterclockwise" are orientations or position relationships indicated based on the accompanying drawings, and are merely used for describing this application and simplifying the descriptions, rather than indicating or implying that the mentioned apparatus or element needs to have a particular orientation or needs to be constructed and operated in a particular orientation. Therefore, such terms should not be construed as limiting of this application.

[0027] In addition, the terms "first" and "second" are merely used merely for the purpose of descriptions, and should not be construed as indicating or implying relative importance or implying a number of indicated technical features. Therefore, features defined with "first" or "second" may explicitly or implicitly include at least one of such features. In the descriptions of this application, unless otherwise explicitly defined, "a plurality of" means at least two, such as two and three.

[0028] In this application, unless otherwise clearly stipulated and limited, the terms "mount", "connect", "couple", and "fix" should be understood in a generalized manner, for example, may be understood as a fixed connection, a detachable connection, or integration; or may be understood as a mechanical connection or an electrical connection; or may be understood as a direct connection, an indirect connection via a medium, an internal communication of two elements, or a mutual relationship between two elements. A person of ordinary skill in the art may understand specific meanings of the terms in this application according to specific situations.

[0029] In this application, unless otherwise explicitly specified and defined, a first feature "on" or "under" a second feature may mean that the first feature and the second feature are in direct contact, or the first feature and the second feature are in indirect contact through an intermediary. In addition, that the first feature is "above", "over", or "on" the second feature may be that the first feature is directly above or obliquely above the second feature, or may merely indicate that the horizontal position of the first feature is higher than the horizontal position of the second feature. That the first feature is "below", "under", or "beneath" the second feature may be that the first feature is directly below or obliquely below the second feature, or may merely indicate that the horizontal position of the first feature is lower than the horizontal

position of the second feature.

[0030] It should be noted that, when an element is referred to as "being fixed to" or "being arranged on" another element, the element may be directly on another element, or there may be an intermediate element. When an element is considered to be "connected to" another element, the element may be directly connected to another element, or an intervening element may be present. The terms "vertical", "horizontal", "upper", "lower", "left", "right", and similar expressions used in this specification are merely used for an illustrative purpose, and do not indicate a unique implementation.

[0031] An atomizer and an electronic atomization device in this application are described below with reference to the accompanying drawings. For ease of description, the accompanying drawings only show structures related to this application.

[0032] Referring to FIG. 1 to FIG. 4, an electronic atomization device 1 disclosed in at least one embodiment of this application includes a power supply assembly 200 and an atomizer 100. The power supply assembly 200 is electrically connected to the atomizer 100. The atomizer 100 is configured to atomize an atomizable medium under an action of electric energy provided by the power supply assembly 200 and form an aerosol for a user to inhale.

[0033] The atomizer 100 includes a housing 10. The power supply assembly 200 includes a battery core 210 arranged in the housing 10. The battery core 210 is configured to provide electrical energy for the atomizer 100 to atomize the atomizable medium. It should be understood that, generally, a main control board configured to control turning on or turning off of the atomizer 100 and a lamp board configured to remind the user are further arranged in the housing 10. The battery core 210 is extremely prone to shaking during use. When the battery core 210 shakes, there is a risk that a tab of the battery core 210 is in contact with the main control board and the lamp board, resulting in a short circuit.

[0034] To prevent the battery core 210 from shaking inside the housing 10 and prevent the tab of the battery core 210 from being in mis-contact with the main control board and the lamp board, the power supply assembly 200 further includes a support member 220 arranged in the housing 10. The support member 220 performs support between at least one pole of the battery core 210 and the housing 10. Specifically, the support member 220 performs support between two poles of the battery core 210 and the housing 10, to support the battery core 210, so as to prevent the battery core 210 from shaking in the housing 10. More specifically, the support member 220 includes foam, and the foam is adhered to the two poles of the battery core 210 through an adhesive paper.

[0035] Referring to FIG. 5 and FIG. 6, the housing 10 of the atomizer 100 is provided with a first air inlet hole 11, and external air may enter the housing 10 through the first air inlet hole 11. To adjust inhalation resistance to satisfy a user requirement, the atomizer 100 further includes an

inhalation resistance adjustment member 20 arranged in the housing 10, and the inhalation resistance adjustment member 20 is slidably connected to the housing 10. The inhalation resistance adjustment member 20 is provided with a plurality of second air inlet holes 21 with the same air inlet areas. When the inhalation resistance adjustment member 20 is operable to slide relative to the housing 10, at least part of the second air inlet holes 21 are controlled to communicate with the first air inlet hole 11.

[0036] During actual use, if the user needs large inhalation resistance, an area in which the second air inlet holes 21 communicate with the first air inlet hole 11 is reduced as much as possible. Alternatively, if the user needs small inhalation resistance, an area in which the second air inlet holes 21 communicate with the first air inlet hole 11 is increased as much as possible. In this way, requirements of the user for different inhalation resistance can be satisfied, so that inhalation experience of the user is improved.

[0037] Referring to FIG. 7, in some embodiments, a surface of the housing 10 facing the inhalation resistance adjustment member 20 is provided with a sliding groove 12, the inhalation resistance adjustment member 20 is slidably mated with the sliding groove 12, and the first air inlet hole 11 is provided on a bottom wall of the sliding groove 12 in a run-through manner. Specifically, the size of the sliding groove 12 along a sliding path of the inhalation resistance adjustment member 20 is larger than the size of the inhalation resistance adjustment member 20, so that the inhalation resistance adjustment member 20 is slidable.

[0038] Further, the sliding groove 12 is configured to limit sliding of the inhalation resistance adjustment member 20 between a first position and a second position, and as the inhalation resistance adjustment member 20 slides from the first position to the second position, the area in which the second air inlet holes 21 communicate with the first air inlet hole 11 gradually increases. Specifically, groove walls of the sliding groove 12 located at two opposite ends of the inhalation resistance adjustment member 20 along a sliding direction of the inhalation resistance adjustment member 20 can limit the inhalation resistance adjustment member 20 to the first position and the second position, respectively. Specifically, when the inhalation resistance adjustment member 20 is located at the first position, the area in which the second air inlet holes 21 communicate with the first air inlet hole 11 is the smallest, so that the inhalation resistance is the largest, when the inhalation resistance adjustment member 20 is located at the second position, the area in which the second air inlet holes 21 communicate with the first air inlet hole 11 is the largest, so that the inhalation resistance is the smallest.

[0039] In some embodiments, a first convex rib 13 protrudes from the bottom wall of the sliding groove 12 facing the inhalation resistance adjustment member 20. The first convex rib 13 is enclosed on an outer periphery

of the first air inlet hole 11, and abuts between the bottom wall of the sliding groove 12 and the inhalation resistance adjustment member 20. Specifically, the first convex rib 13 and the bottom wall of the sliding groove 12 are integrally formed. During actual use, the first convex rib 13 may support the inhalation resistance adjustment member 20. In addition, compared with that the inhalation resistance adjustment member 20 directly slides on the bottom wall of the sliding groove 12, the arrangement of the first convex rib 13 can reduce a contact area between the inhalation resistance adjustment member 20 and the bottom wall of the sliding groove 12, so that the user slides smoother, and use comfort of the user is improved.

[0040] In some embodiments, the inhalation resistance adjustment member 20 includes a body 22 and an operating portion 23 protruding from the side of the body 22. The body 22 is mated with the bottom wall of the sliding groove 12. The operating portion 23 is accommodated in the first air inlet hole 11, and is exposed to an air inlet side of the first air inlet hole 11. On the sliding path of the inhalation resistance adjustment member 20, the size of the first air inlet hole 11 is greater than the size of the operating portion 23, and the operating portion 23 is operable to drive the body 22 to slide relative to the bottom wall of the sliding groove 12.

[0041] During actual use, the user may push the operating portion 23 with a finger, so that the operating portion 23 moves in the first air inlet hole 11, and drives the body 22 to slide relative to the housing 10. In this way, it is convenient to adjust the quantity or the area in which the second air inlet holes 21 communicate with the first air inlet hole 11, to improve use experience of the user.

[0042] To adjust the area in which the second air inlet holes 21 communicate with the first air inlet hole 11, in some embodiments, all of the second air inlet holes 21 are provided on the body 22, and on the sliding path of the inhalation resistance adjustment member 20, all of the second air inlet holes 21 are distributed on two sides of the operating portion 23 with uneven quantities. The operating portion 23 is operable to drive the body 22 to slide relative to the bottom wall of the sliding groove 12, and the second air inlet holes 21 located on one side of the operating portion 23 communicate with the first air inlet hole 11. Specifically, there are five second air inlet holes 21. Two of the second air inlet holes 21 are distributed on one side of the operating portion 23, and the remaining three of the second air inlet holes 21 are distributed on the other side of the operating portion 23. When the operating portion 23 drives the body 22 to slide, two second air inlet holes 21 located on one side of the operating portion 23 communicate with the first air inlet hole 11, and three second air inlet holes 21 on the other side of the operating portion 23 are blocked by the bottom wall of the sliding groove 12; or three second air inlet holes 21 located on one side of the operating portion 23 communicate with the first air inlet hole 11, and two second air inlet holes 21 on the other side of the operating portion 23 are blocked by the bottom wall of the sliding

groove 12.

[0043] It may be understood that, the foregoing descriptions are merely examples for description, and should not be understood as a limitation to this application. For example, there may alternatively be seven second air inlet holes 21, including three second air inlet holes 21 and four second air inlet holes 21 provided on two sides of the operating portion 23 respectively, which can also achieve a purpose of changing the area in which the second air inlet holes 21 communicate with the first air inlet hole 11 and adjusting the inhalation resistance.

[0044] Referring to FIG. 8 and FIG. 9, in some embodiments, the atomizer 100 further includes a first sealing member 30, and the first sealing member 30 includes a sealing silicone. The atomizer 100 further includes an airflow induction member 50 sealed by the first sealing member 30. The first sealing member 30 is provided with an activation airway for the airflow induction member 50. Specifically, the first sealing member 30 is provided with a fixing groove 33. The airflow induction member 50 is engaged and sealed in the fixing groove 33. The activation airway 34 enables the fourth air inlet hole 41 to communicate with the airflow induction member 50. More specifically, the airflow induction member 50 may be a microphone that can sense a negative pressure, so as to determine whether to turn on the battery core 210 to supply power to a heating element. The first sealing member 30 can seal the airflow induction member 50, to construct the activation airway 34; and fix the inhalation resistance adjustment member on the housing, so that a quantity of component parts is reduced, assembly difficulty is reduced, and costs are saved.

[0045] The atomizer 100 further includes a fixing base 40. The fixing base 40 is mated with the housing 10, and is located on an air outlet side of the first air inlet hole 11. The first sealing member 30 is sealed between the housing 10 and the fixing base 40. The first sealing member 30 is provided with a third air inlet hole 31, and the fixing base 40 is provided with a fourth air inlet hole 41 communicating with the third air inlet hole 31. The body 22 of the inhalation resistance adjustment member 20 is slidably connected to the side of the first sealing member 30 away from the fixing base 40, and the first air inlet hole 11, the part of the second air inlet holes 21 communicating with the first air inlet hole 11, the third air inlet hole 31, and the fourth air inlet hole 41 sequentially communicate with each other, to form an air inlet channel.

[0046] Further, a second convex rib 32 protrudes from the surface of the first sealing member 30 facing the body 22 of the inhalation resistance adjustment member 20. The second convex rib 32 is enclosed on the edge of the end surface of the third air inlet hole 31, and abuts against the first sealing member 30 and the body 22. Specifically, the second convex rib 32 and the first sealing member 30 may be integrally injection molded. During actual use, the second convex rib 32 can seal a gap between the third air inlet hole 31 and the second air inlet holes 21 currently communicating with the first air inlet hole 11, so as to

prevent a problem of poor inhalation resistance consistency caused by air leakage. In addition to a sealing function, the second convex rib 32 can support the body 22. Compared with a manner that the first sealing member 30 directly supports the body 22, a contact area between the body 22 and the first sealing member 30 can be reduced, so that sliding of the body 22 is smoother, thereby improving the user experience.

[0047] In some embodiments, the first sealing member 30 is sequentially provided with a first opening 311, an intermediate opening 313, and a second opening 312 along the sliding path of the inhalation resistance adjustment member 20. The intermediate opening 313 enables the first opening 311 to communicate with the second opening 312, and the first opening 311, the second opening 312, and the intermediate opening 313 are jointly constructed to form the third air inlet hole 31. The support portion 24 is slidably accommodated in the intermediate opening 313, and drives the second air inlet holes 21 located on one side of the operating portion 23 to communicate with the corresponding first opening 311 or the second opening 312.

[0048] Specifically, when the inhalation resistance adjustment member 20 is located at the first position, two second air inlet holes 21 on one side of the operating portion 23 of the inhalation resistance adjustment member 20 communicate with the first opening 311, air inlet ends of three second air inlet holes 21 on the other side of the operating portion 23 are blocked by the bottom wall of the sliding groove 12, and air outlet ends are blocked by the surface of the first sealing member 30. When the inhalation resistance adjustment member 20 is located at the second position, three second air inlet holes 21 on one side of the operating portion 23 of the inhalation resistance adjustment member 20 communicate with the second opening 312, air inlet ends of two second air inlet holes 21 on the other side of the operating portion 23 are blocked by the bottom wall of the sliding groove 12, and air outlet ends are blocked by the surface of the first sealing member 30.

[0049] In some embodiments, the housing 10 is provided with an air outlet hole 14. The atomizer 100 further includes a central tube 60 arranged in the housing 10. The central tube 60 enables the fourth air inlet hole 41 to communicate with the air outlet hole 14. During actual use, the user inhales through the air outlet hole 14, external air can enter from the first air inlet hole 11 under an action of an inhalation force, is sequentially transmitted through the air inlet channel and the central tube 60 to the air outlet hole 14, and enter the mouth of the user.

[0050] In some embodiments, the atomizer 100 further includes a liquid absorbing member 70. The liquid absorbing member 70 is provided with a fifth air inlet hole 71. The fifth air inlet hole 71 enables the central tube 60 to communicate with the fourth air inlet hole 41. Specifically, the liquid absorbing member 70 is mounted directly above the fourth air inlet hole 41 of the fixing base 40.

When airflow exits from the fourth air inlet hole 41, the airflow enters the liquid absorbing member 70, and the liquid absorbing member 70 may perform velocity reduction and noise reduction processing on the airflow. The liquid absorbing member 70 includes liquid absorbing cotton. The liquid absorbing cotton is in a porous structure, and has a strong liquid absorbing capacity and a strong liquid storage capacity. Further, a flow guide groove is further formed on the surface of the fixing base 40, and condensate can be flow guided by the flow guide groove to the liquid absorbing member 70, and is absorbed, to prevent leakage.

[0051] Referring to FIG. 10, in some embodiments, the atomizer 100 further includes a second sealing member 80 mated with the fixing base 40, and the second sealing member 80 is provided with a sixth air inlet hole 81. An air inlet end of the central tube 60 fixedly communicates with an air outlet end of the sixth air inlet hole 81, and the fourth air inlet hole 41 communicates with an air inlet end of the sixth air inlet hole 81. Specifically, the second sealing member 80 includes a sealing silicone, to prevent leakage of the atomizable medium and affect the inhalation experience.

[0052] Further, a third convex rib 82 protrudes from the surface of the second sealing member 80 facing the fixing base 40. The third convex rib 82 is enclosed on an outer periphery of the sixth air inlet hole 81, and abuts between the fixing base 40 and the second sealing member 80. Specifically, the third convex rib 82 and the second sealing member 80 are integrally injection molded. During actual use, the third convex rib 82 can seal a gap between the fixing base 40 and the second sealing member 80, to prevent external air from entering. More specifically, the second sealing member 80 is further provided with a cable hole 83, and the cable hole 83 is spaced apart from the sixth air inlet hole 81. The third convex rib 82 includes a sealing horizontal rib 821 and a sealing vertical rib 822. The sealing horizontal rib 821 is configured to prevent external air from entering the sixth air inlet hole 81. The sealing vertical rib 822 is configured to isolate the sixth air inlet hole 81 from the cable hole 83, to prevent air in the cable hole 83 from entering the sixth air inlet hole 81. In this way, insensitive activation and unstable inhalation resistance caused by air leakage can be avoided.

[0053] The technical features of the foregoing embodiments can be described in any combination. For ease of description, not all possible combinations of the technical features in the foregoing embodiments are described herein. However, as long as there is no contradiction between the combinations of the technical features, all the combinations should be within the recorded scope in this specification.

[0054] The foregoing embodiments only describe several implementations of this application. The descriptions are specific and detailed, but should not be understood as limitations of the patent scope of this application. A person of ordinary skill in the art can further make several improvements and refinements without departing from

the concept of this application, and the modifications and improvements shall fall within the protection scope of this application. Therefore, the protection scope of this application shall be subject to the attached claims.

Claims

1. An atomizer, comprising:

a housing provided with a first air inlet hole;
 an inhalation resistance adjustment member arranged in the housing, and slidably connected to the housing, wherein the inhalation resistance adjustment member is provided with a plurality of second air inlet holes, the inhalation resistance adjustment member is operable to slide relative to the housing, and at least part of the second air inlet holes are controlled to communicate with the first air inlet hole;
 a first sealing member, wherein the first sealing member fixes the inhalation resistance adjustment member on the housing; and
 an airflow induction member, wherein the first sealing member seals the airflow induction member, and the first sealing member is provided with an activation airway for the airflow induction member.

2. The atomizer of claim 1, wherein a surface of the housing facing the inhalation resistance adjustment member is provided with a sliding groove, the inhalation resistance adjustment member is slidably mated with the sliding groove, and the first air inlet hole is provided on a bottom wall of the sliding groove in a run-through manner;
 wherein the sliding groove is configured to limit sliding of the inhalation resistance adjustment member between a first position and a second position, and as the inhalation resistance adjustment member slides from the first position to the second position, an area in which the second air inlet holes communicate with the first air inlet hole gradually increases.

3. The atomizer of claim 2, wherein a first convex rib protrudes from the bottom wall of the sliding groove facing the inhalation resistance adjustment member, the first convex rib is enclosed on an outer periphery of the first air inlet hole, and abuts between the bottom wall of the sliding groove and the inhalation resistance adjustment member.

4. The atomizer of claim 2, wherein the inhalation resistance adjustment member comprises a body and an operating portion protruding from a side of the body, the body is mated with the bottom wall of the sliding groove, and the operating portion is accommodated in the first air inlet hole, and is exposed to an

air inlet side of the first air inlet hole;
 wherein a size of the first air inlet hole is greater than a size of the operating portion, and the operating portion is operable to drive the body to slide relative to the bottom wall of the sliding groove.

5. The atomizer of claim 4, wherein the second air inlet holes are provided on the body, and on a sliding path of the inhalation resistance adjustment member, the second air inlet holes are distributed on two sides of the operating portion with uneven quantities;
 wherein when the operating portion is operable to drive the body to slide relative to the housing, the second air inlet holes located on the side of the operating portion communicate with the first air inlet hole.

6. The atomizer of claim 1, further comprising a fixing base, wherein the fixing base is mated with the housing and is located on an air outlet side of the first air inlet hole, and the first sealing member is sealed between the housing and the fixing base;

wherein the first sealing member is provided with a third air inlet hole, and the fixing base is provided with a fourth air inlet hole communicating with the third air inlet hole;
 wherein the inhalation resistance adjustment member is slidably connected to a side of the first sealing member away from the fixing base, and the first air inlet hole, the part of the second air inlet holes communicating with the first air inlet hole, the third air inlet hole, and the fourth air inlet hole sequentially communicate with each other to form an air inlet channel.

7. The atomizer of claim 6, wherein a second convex rib protrudes from a surface of the first sealing member facing the inhalation resistance adjustment member, and the second convex rib is enclosed on an edge of an end surface of the third air inlet hole, and abuts against the first sealing member and the inhalation resistance adjustment member.

8. The atomizer of claim 6, wherein the inhalation resistance adjustment member comprises a body, an operating portion, and a support portion, the body is mated with the bottom wall of the sliding groove, the operating portion is accommodated in the first air inlet hole, and is exposed to an air inlet side of the first air inlet hole, and the support portion is mated with a side of the body away from the operating portion, and protrudes out of the third air inlet hole to abut against the fixing base;
 wherein the support portion slides relative to the fixing base under driving of the operating portion and the body, and is capable of providing the body with a holding force for maintaining the support por-

tion abutting against the housing.

9. The atomizer of claim 8, wherein the first sealing member is sequentially provided with a first opening, an intermediate opening, and a second opening along a sliding path of the inhalation resistance adjustment member, the intermediate opening enables the first opening to communicate with the second opening, and the first opening, the second opening, and the intermediate opening are jointly constructed to form the third air inlet hole;

wherein the second air inlet holes are provided on the body, and on the sliding path of the inhalation resistance adjustment member, the second air inlet holes are distributed on two sides of the operating portion with uneven quantities;

wherein the support portion is slidably accommodated in the intermediate opening, and drives the second air inlet holes located on a side of the operating portion to communicate with the corresponding first opening or the second opening.
10. The atomizer of claim 6, wherein the housing is provided with an air outlet hole; and the atomizer further comprises:

a central tube arranged in the housing, wherein the central tube communicates with the fourth air inlet hole and the air outlet hole.
11. The atomizer of claim 10, further comprising a liquid absorbing member, wherein the liquid absorbing member is arranged at a communication position between the central tube and the fourth air inlet hole, the liquid absorbing member is provided with a fifth air inlet hole, and the fifth air inlet hole enables the central tube to communicate with the fourth air inlet hole.
12. The atomizer of claim 10, further comprising a second sealing member mated with the fixing base, wherein the second sealing member is provided with a sixth air inlet hole;

wherein an air inlet end of the central tube fixedly communicates with an air outlet end of the sixth air inlet hole, and the fourth air inlet hole communicates with an air inlet end of the sixth air inlet hole.
13. The atomizer of claim 12, wherein a third convex rib protrudes from a surface of the second sealing member facing the fixing base, and the third convex rib is enclosed on an outer periphery of the sixth air inlet hole, and abuts between the fixing base and the second sealing member.
14. An electronic atomization device, comprising a power supply assembly and the atomizer of any

one of claims 1 to 13, wherein the power supply assembly is electrically connected to the atomizer.

15. The atomization device of claim 14, wherein the power supply assembly comprises:

a battery core arranged in the housing; and
a support member arranged in the housing, and supported between at least one pole of the battery core and the housing.
16. The atomization device of claim 15, wherein the support member comprises foam.

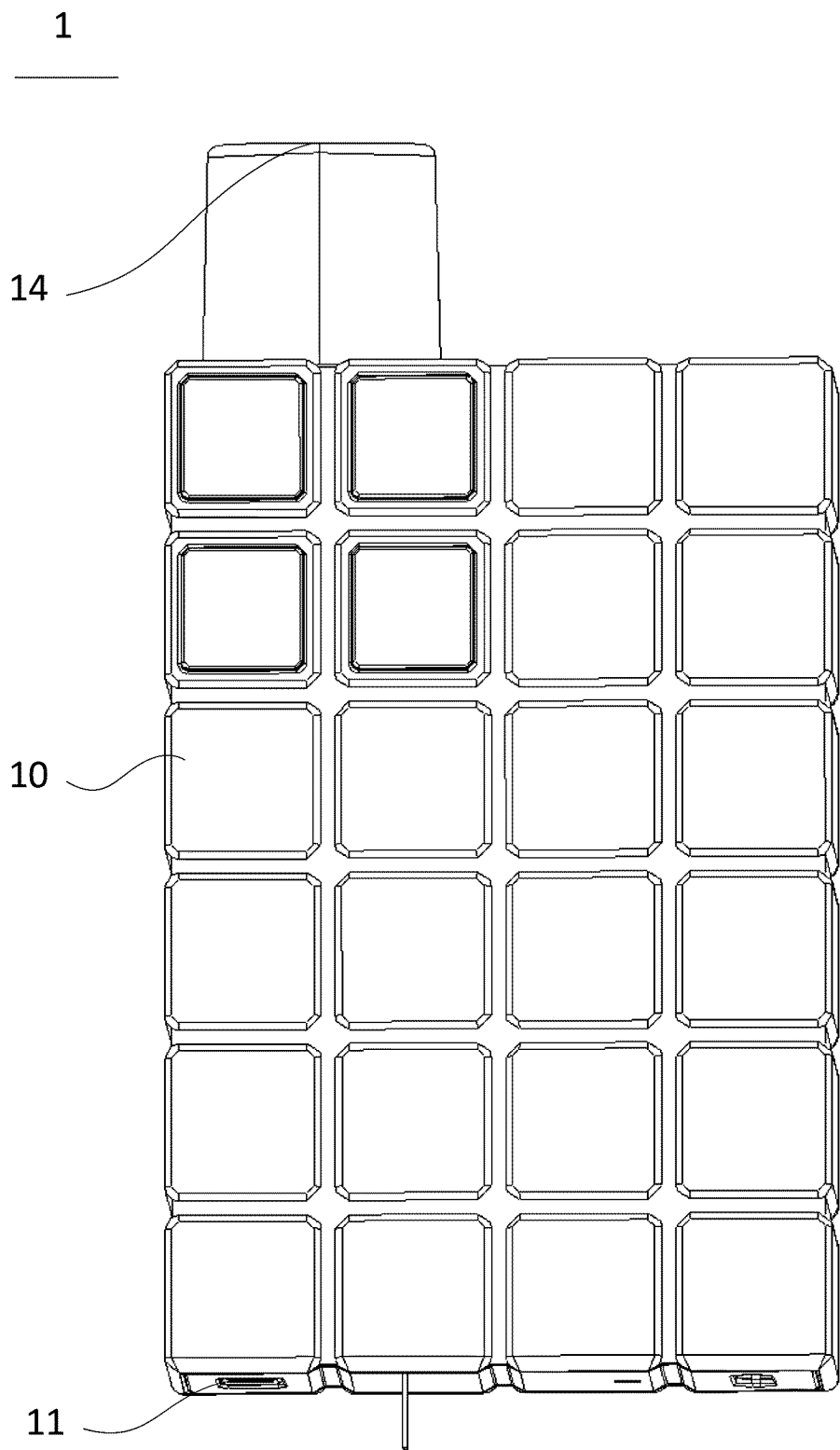


FIG. 1

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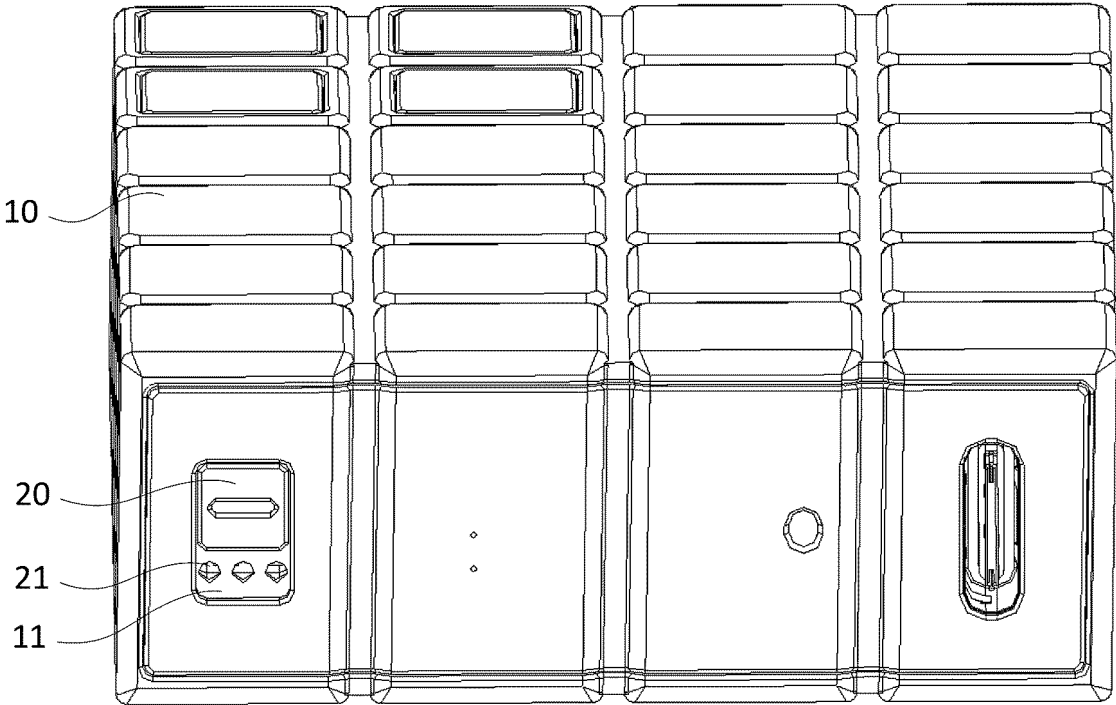


FIG. 2

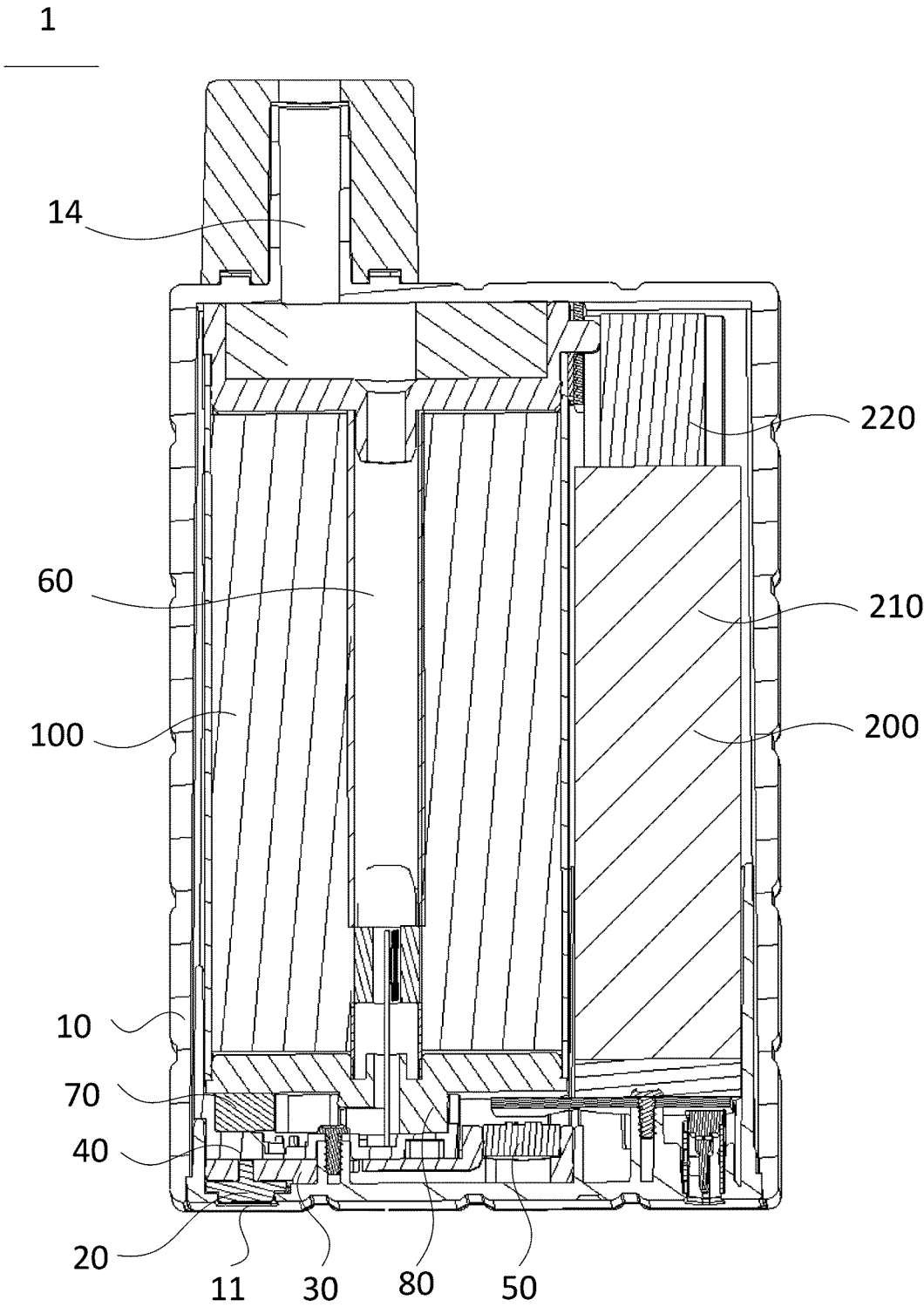


FIG. 3

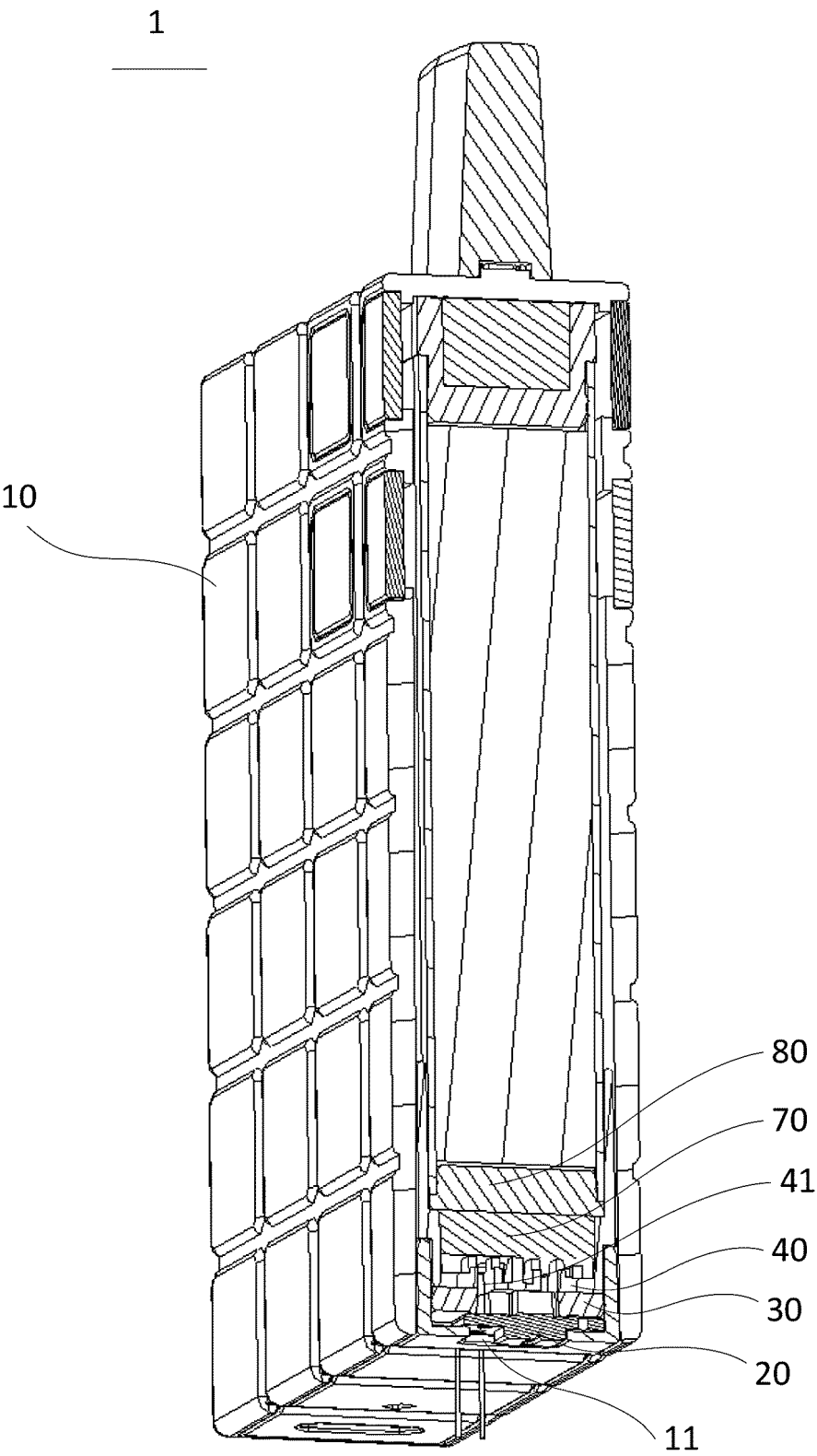


FIG. 4

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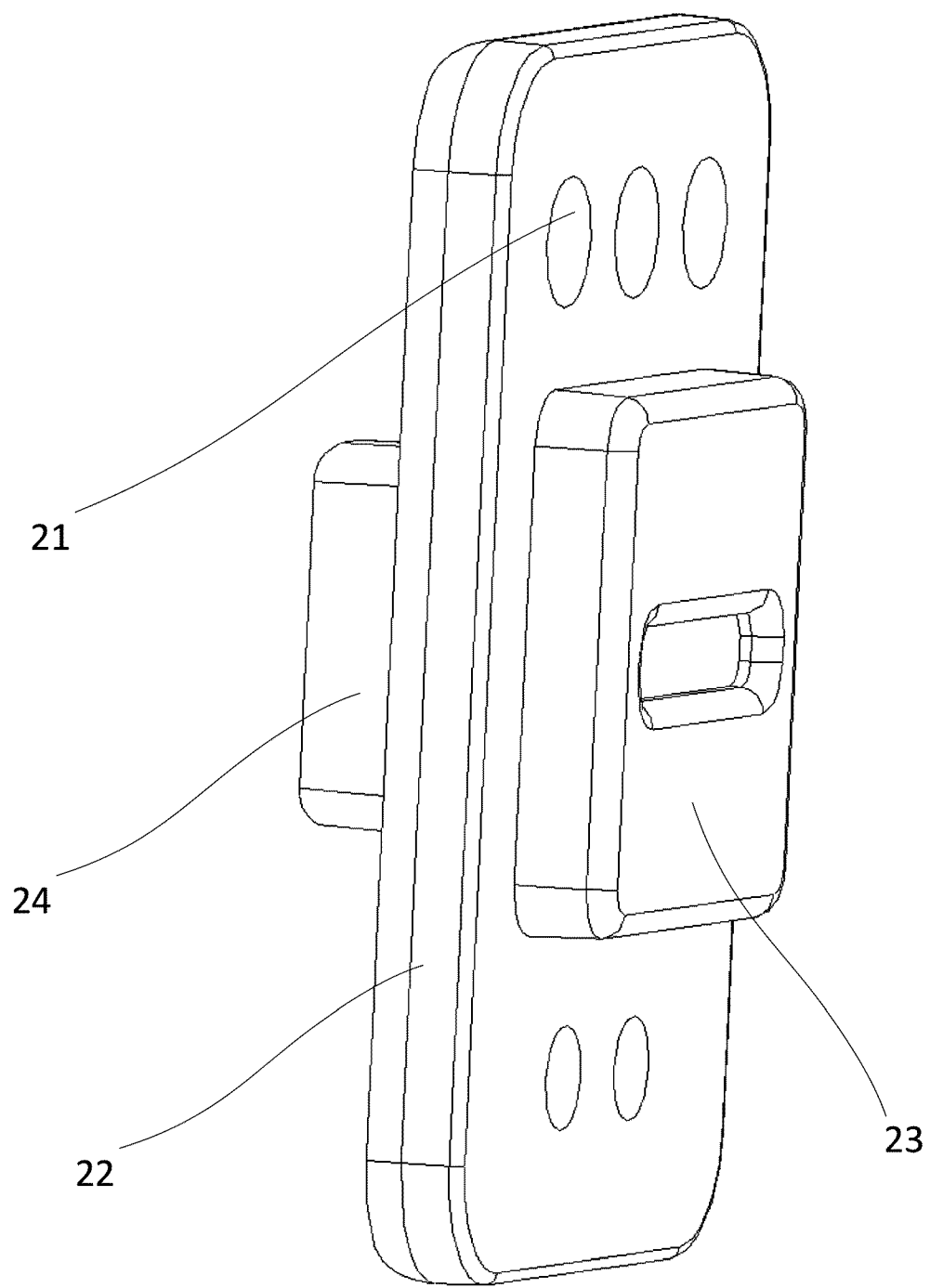


FIG. 5

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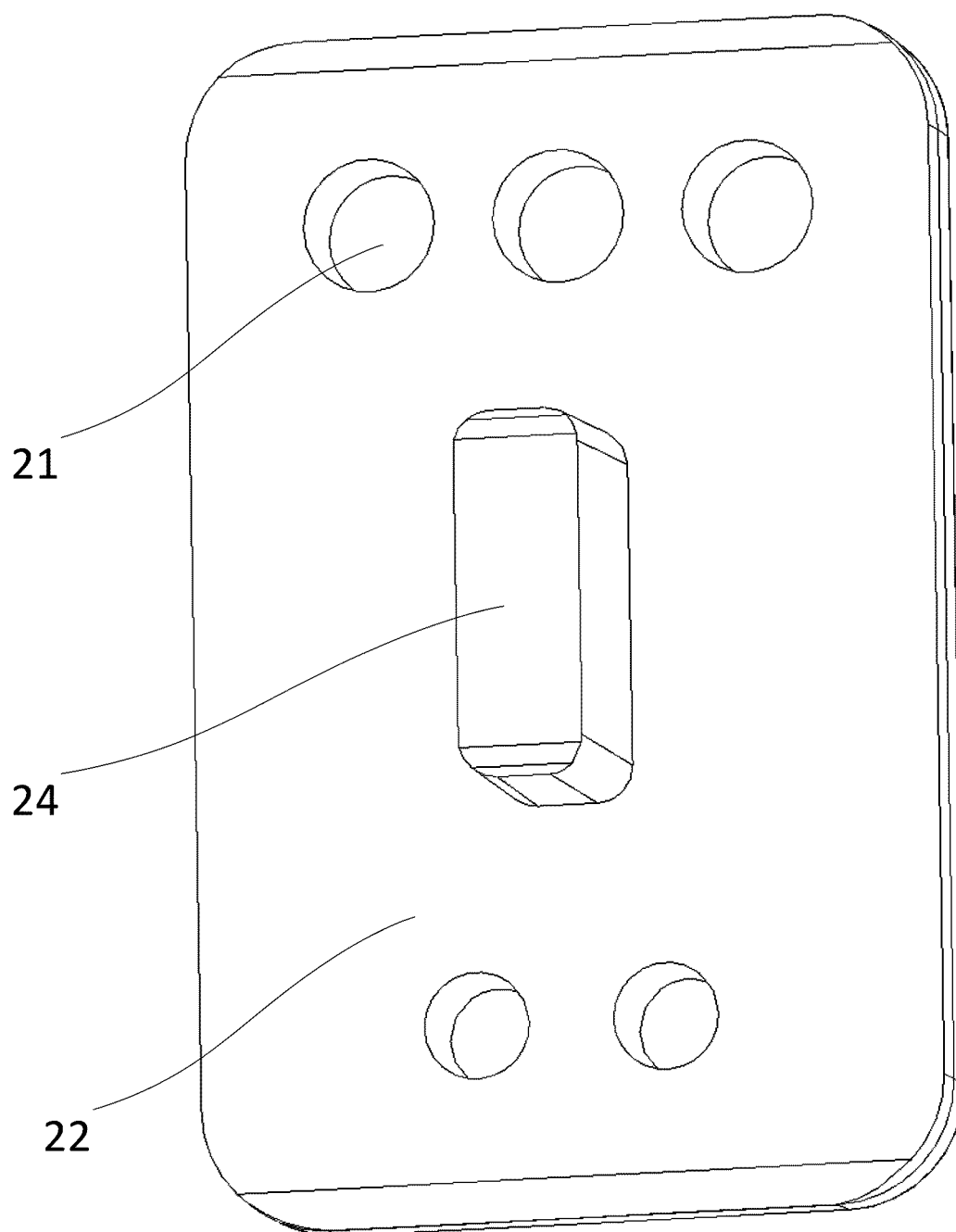


FIG. 6

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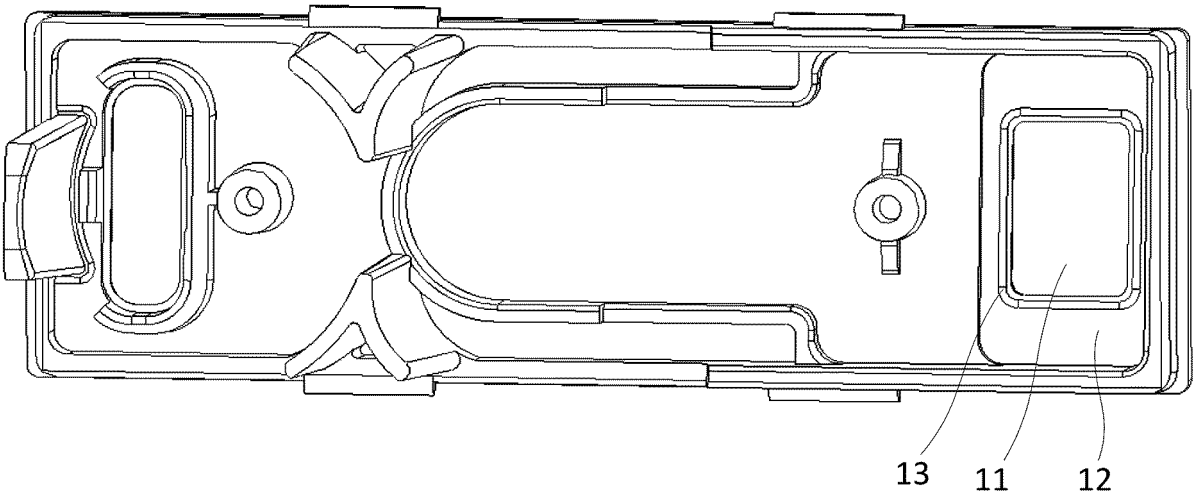


FIG. 7

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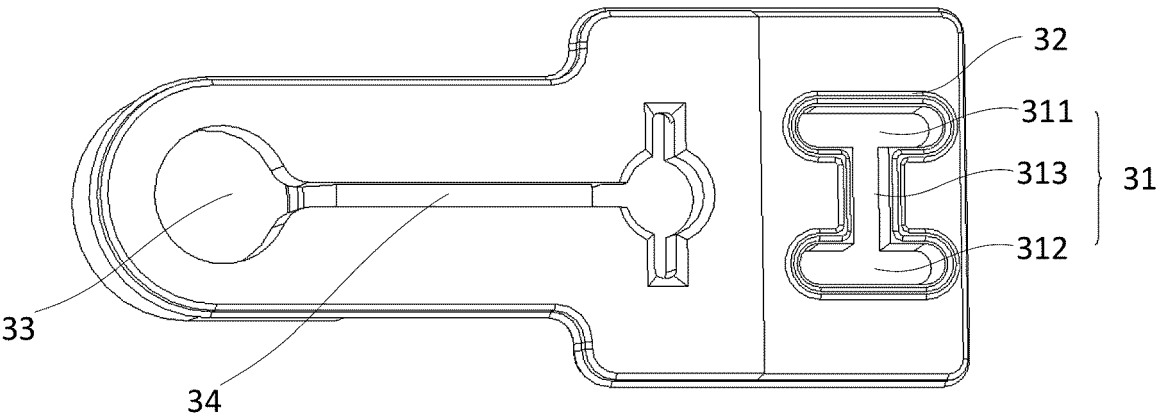


FIG. 8

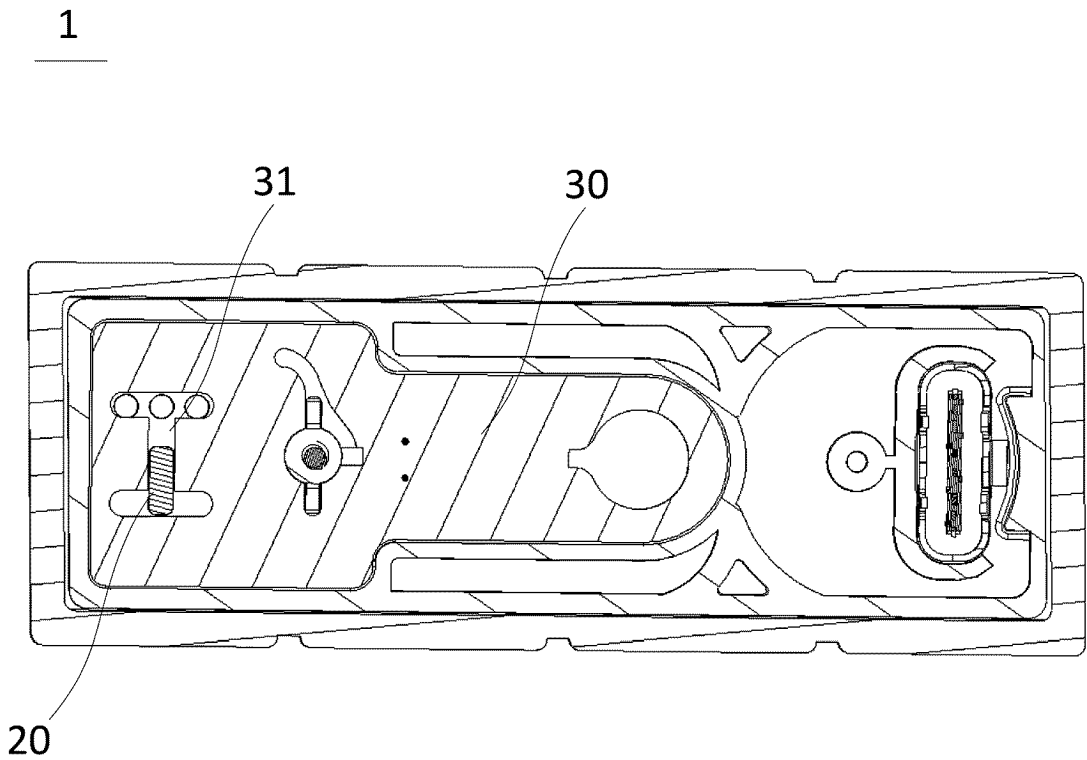


FIG. 9

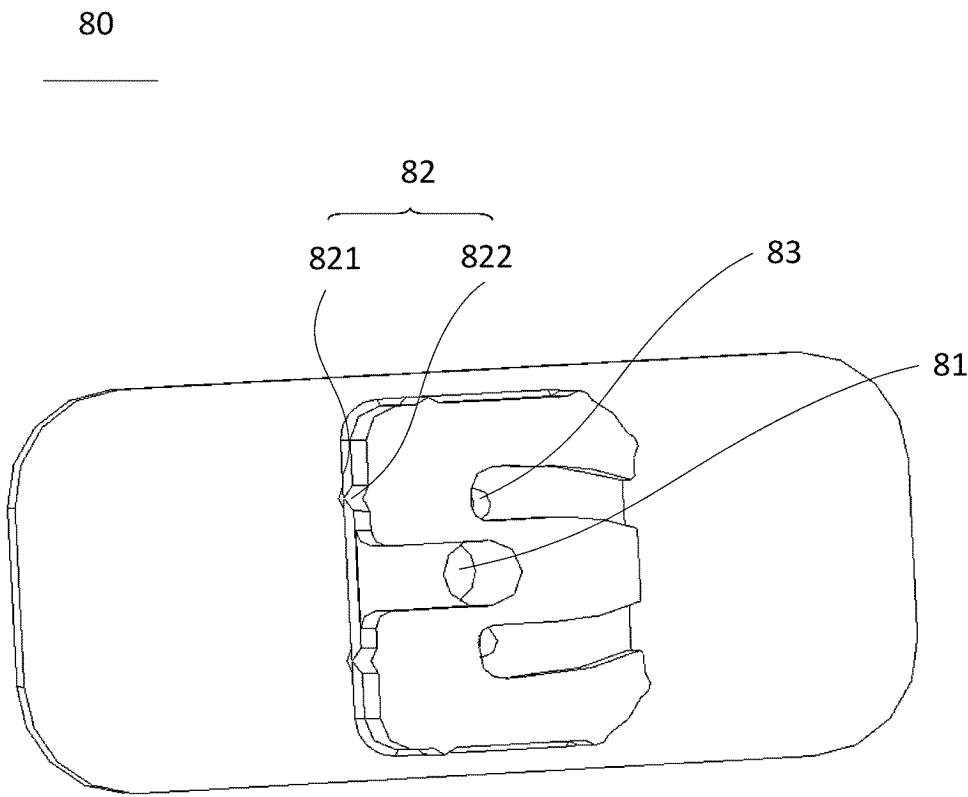


FIG. 10

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2022/107502

A. CLASSIFICATION OF SUBJECT MATTER

A24F40/46(2020.01)i;A24F40/10(2020.01)i;A24F40/40(2020.01)i;A24F40/42(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:A24F

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; CNKI; VEN; ENTXT; ENTXTC; WPABSC: 深圳麦克韦尔科技, 雾化器, 雾化装置, 电子烟, 调节, 拨动, 拨块, 滑动, 滑块, 进气, 气道, 气孔, 气流, 面积, 大小, 气流感应, 气流传感, atomiz+, aerosol generat+, adjust+, slid+, air inle

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	CN 216701649 U (JOYTECH (SHENZHEN) ELECTRONICS CO., LTD.) 10 June 2022 (2022-06-10) description, paragraphs [0043]-[0058], and figures 1-9	1-16
Y	WO 2022089328 A1 (SHENZHEN SMOORE TECHNOLOGY LTD.) 05 May 2022 (2022-05-05) description, pages 5-6, and figures 1-6	1-16
A	CN 112401321 A (SHENZHEN IVPS TECHNOLOGY CO., LTD.) 26 February 2021 (2021-02-26) entire document	1-16
A	CN 112568496 A (SHENZHEN WOODY VAPES TECHNOLOGY CO., LTD.) 30 March 2021 (2021-03-30) entire document	1-16
A	CN 112617286 A (SHENZHEN IVPS TECHNOLOGY CO., LTD.) 09 April 2021 (2021-04-09) entire document	1-16

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

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“P” document published prior to the international filing date but later than the priority date claimed

“T” later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

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“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

“&” document member of the same patent family

Date of the actual completion of the international search

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Date of mailing of the international search report

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Name and mailing address of the ISA/CN

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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/CN2022/107502

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WO	2022089328	A1	05 May 2022	None	
CN	112401321	A	26 February 2021	None	
CN	112568496	A	30 March 2021	None	
CN	112617286	A	09 April 2021	None	