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(54) **ATOMIZER**

(57) An atomizer includes a glass tube (4) and a cartridge (7). The cartridge is disposed in the glass tube. The cartridge includes a side wall; and the lower end of the side wall includes an air inlet (17) and an air outlet (18).

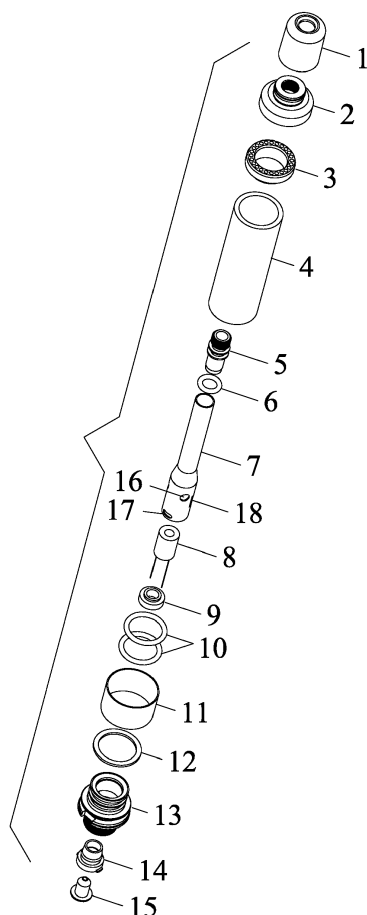


FIG. 1

Description

[0001] The disclosure relates to an atomizer for an atomizer.

[0002] Conventionally, when the e-liquid is injected into the atomizer, the air bubbles are produced. The air bubbles are not easy to be removed, and thus occupy the space of the atomizer and preclude the injection of the e-liquid.

[0003] The disclosure provides an atomizer comprising a glass tube and a cartridge; the cartridge is disposed in the glass tube; the cartridge comprises a side wall; and a lower end of the side wall comprises an air inlet and an air outlet.

[0004] In a class of this embodiment, the heating device further comprises a threaded joint; the threaded joint is detachably embedded in a top opening of the cartridge.

[0005] In a class of this embodiment, the side wall of the cartridge further comprises an e-liquid inlet disposed above the air inlet and the air outlet.

[0006] In a class of this embodiment, the heating device further comprises a heating wire disposed in a lower end of the cartridge.

[0007] In a class of this embodiment, the heating device further comprises a base; a bottom end of the glass tube abuts against the base; the lower end of the cartridge is fixed in the base; the air inlet and the air outlet are covered by a lower end of the base for separation of e-liquid.

[0008] In a class of this embodiment, the heating device further comprises a mouthpiece, a support pad, and a silicone seal; the mouthpiece is disposed on the support pad; the silicone seal is disposed on a lower end of the support pad to seal a top opening of the glass tube; a top end of the glass tube abuts against the silicone seal and the threaded joint is in threaded connection to the support pad.

FIG. 1 is an exploded view of an atomizer in accordance with one embodiment of the disclosure;

FIG. 2 is a schematic diagram of an atomizer in accordance with one embodiment of the disclosure;

FIG. 3 is a sectional view of an atomizer in accordance with one embodiment of the disclosure;

FIG. 4 is a schematic diagram of a cartridge of an atomizer in accordance with one embodiment of the disclosure; and

FIG. 5 shows an airflow direction of an atomizer in accordance with another embodiment of the disclosure.

[0009] To further illustrate, embodiments detailing an atomizer are described below. It should be noted that the following embodiments are intended to describe and not

to limit the disclosure.

[0010] As shown in FIGS. 1-5, the disclosure provides an atomizer comprising a mouthpiece 1, a support pad 2, a silicone seal 3, a glass tube 4, a threaded joint 5, a silicone seal ring 6, a cartridge 7, a heating wire 8, a silicone ring 9, a seal ring 10, a decorative ring 11, a silicone gasket 12, a base 13, an insulation ring 14, and an electrode core 15. The cartridge 7 comprises an e-liquid inlet 16, an air inlet 17, and an air outlet 18. The threaded joint 5 comprises a notch and the silicone seal ring 6 is disposed in the notch. One end of the threaded joint 5 is detachably embedded in the top opening of the cartridge 7. The silicone ring 9 is disposed around the lower end of the heating wire 8. The heating wire 8 is disposed in the bottom opening of the cartridge 7. The silicone gasket 12 is disposed in the base 13. The seal ring 10 is disposed around the upper end of the base 13. The electrode core 15 is disposed in the insulation ring 14. The insulation ring 14 is disposed in the cavity of the lower end of the base 13. The decorative ring 11 is disposed around the upper end of the base 13. The lower end of the cartridge 7 is fixed in the base 13. The bottom end of the glass tube 4 abuts against the base 13, and the cartridge 7 is disposed in the glass tube. The mouthpiece 1 is disposed on the support pad 2. The silicone seal 3 is disposed in the lower end of the support pad 2 to seal the top opening of the glass tube 4. The top end of the glass tube 4 abuts against the silicone seal 3 and the threaded joint 5 is in threaded connection to the support pad 2.

[0011] When in use, the e-liquid flows to the heating wire 8 via the e-liquid inlet 16 of the cartridge 7. The e-liquid is heated by the heating wire 8 to produce vapor and meanwhile bubbles are produced. The bubbles are discharged from the air outlet 18, thus preventing the bubbles from occupying the cavity of the atomizer so that the e-liquid can flow into the atomizer freely. The base 13 comprises an air hole. The air enters the base 13 via the air hole, and then flows into the cartridge 7 via the air inlet 17 on the lower end of the cartridge 7, to drive the vapor produced by the heating wire 8 to flow from the top opening of the cartridge 7 to the mouthpiece 1 for user's inhaling.

[0012] The following advantages are associated with the atomizer of an atomizer of the disclosure:

1. The bubbles are discharged from the air outlet, thus preventing the bubbles from occupying the cavity of the atomizer so that the e-liquid can flow into the atomizer freely.

2. The threaded joint is detachably embedded in the top opening of the cartridge, thus simplifying the assembly of the atomizer.

3. The air inlet and the air outlet are covered by the lower end of the base for separation of e-liquid, thus ensuring the air passage is clear, and the bubbles

can be removed through the air outlet.

Claims

1. An atomizer, comprising a glass tube (4) and a cartridge (7), wherein the cartridge (7) is disposed in the glass tube (4); the cartridge comprises a side wall; and a lower end of the side wall comprises an air inlet (17) and an air outlet (18).

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2. The atomizer of claim 1, further comprising a threaded joint (5), wherein the threaded joint (5) is detachably embedded in a top opening of the cartridge (7).

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3. The atomizer of claim 1, wherein the side wall of the cartridge (7) further comprises an e-liquid inlet (16) disposed above the air inlet (17) and the air outlet (18).

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4. The atomizer of claim 1, further comprising a heating wire (8) disposed in a lower end of the cartridge (7).

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5. The atomizer of claim 4, further comprising a base (13); wherein a bottom end of the glass tube (4) abuts against the base (13); the lower end of the cartridge (7) is fixed in the base (13); the air inlet (17) and the air outlet (18) are covered by a lower end of the base (13) for separation of e-liquid.

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6. The atomizer of claim 5, wherein the base (13) comprises an air hole.

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7. The atomizer of any one of claims 1-6, further comprising a mouthpiece (1), a support pad (2), and a silicone seal (3); wherein the mouthpiece (1) is disposed on the support pad (2); the silicone seal (3) is disposed on a lower end of the support pad (2) to seal a top opening of the glass tube (4); a top end of the glass tube (4) abuts against the silicone seal (3) and the threaded joint (5) is in threaded connection to the support pad (2).

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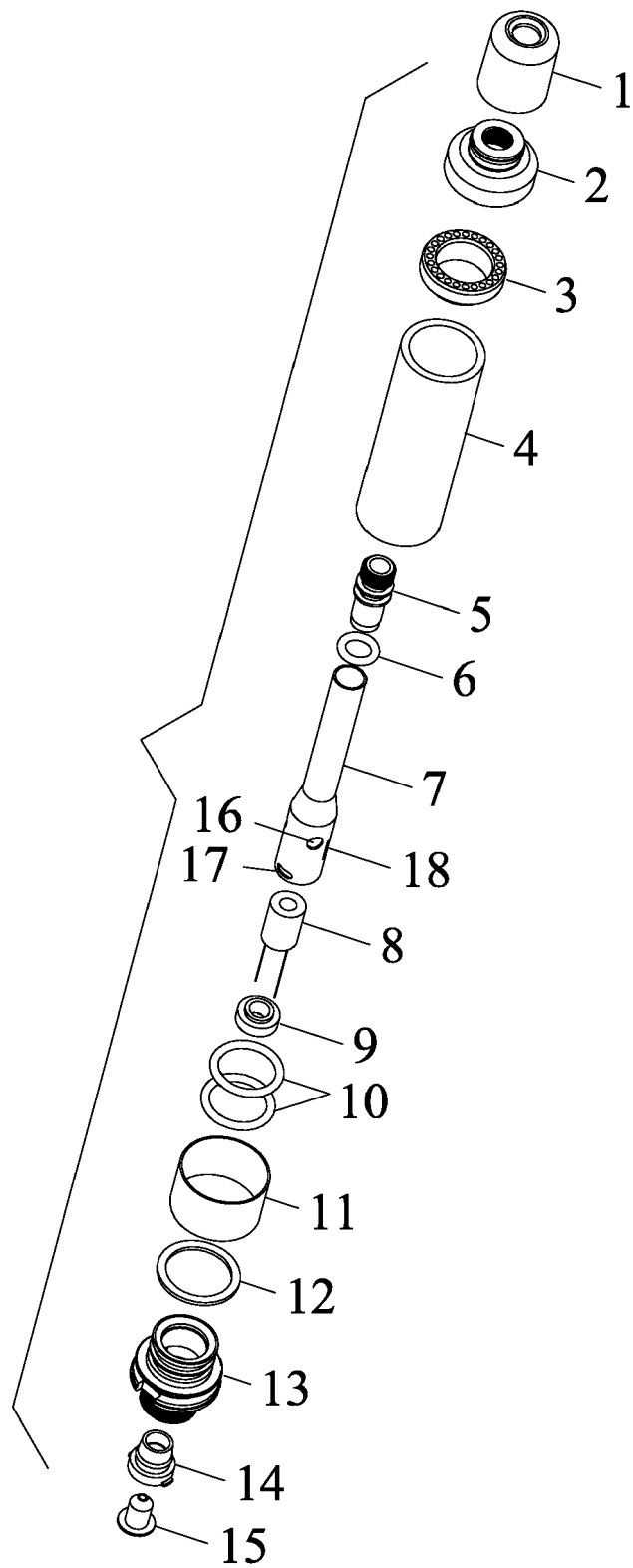


FIG. 1

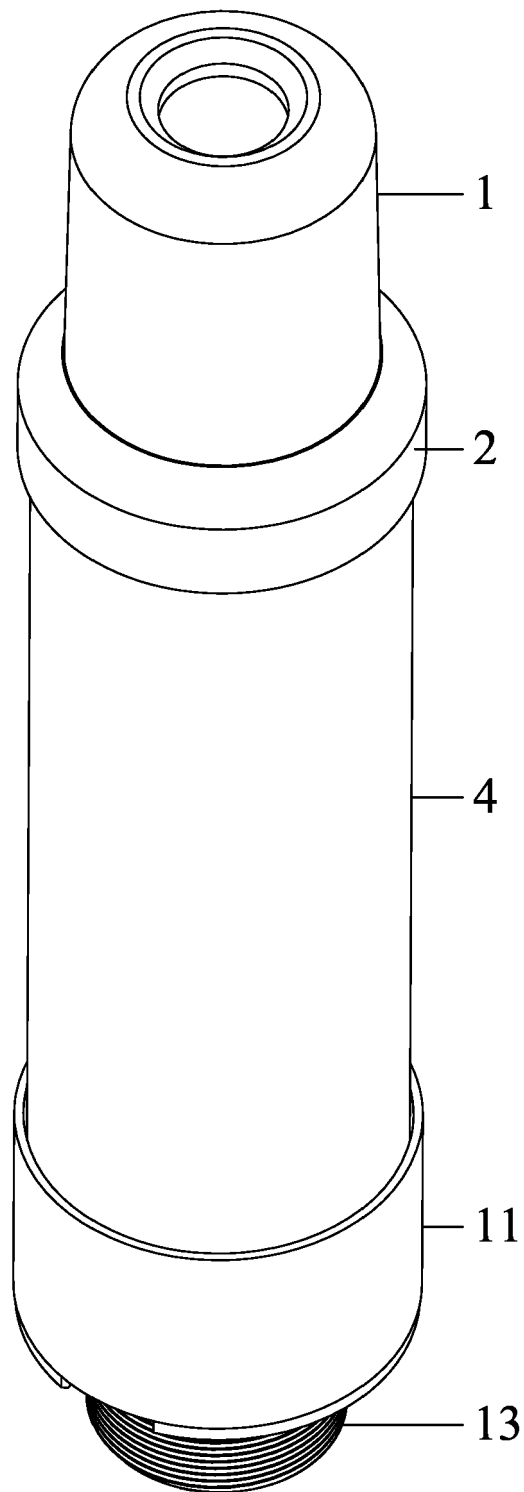


FIG. 2

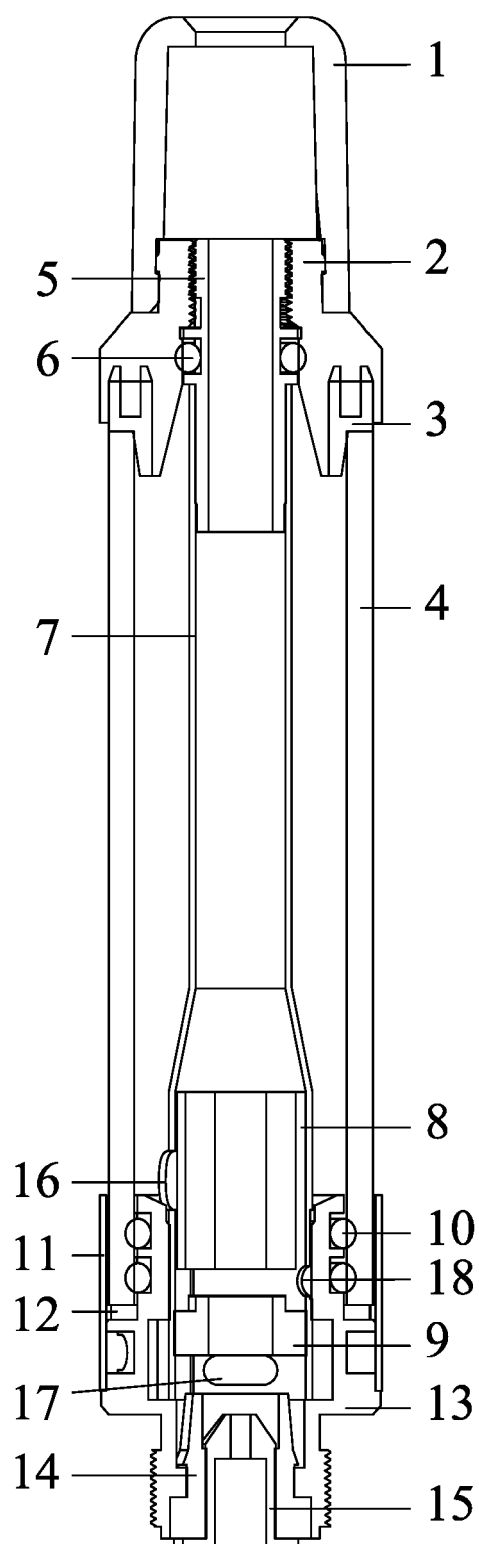


FIG. 3

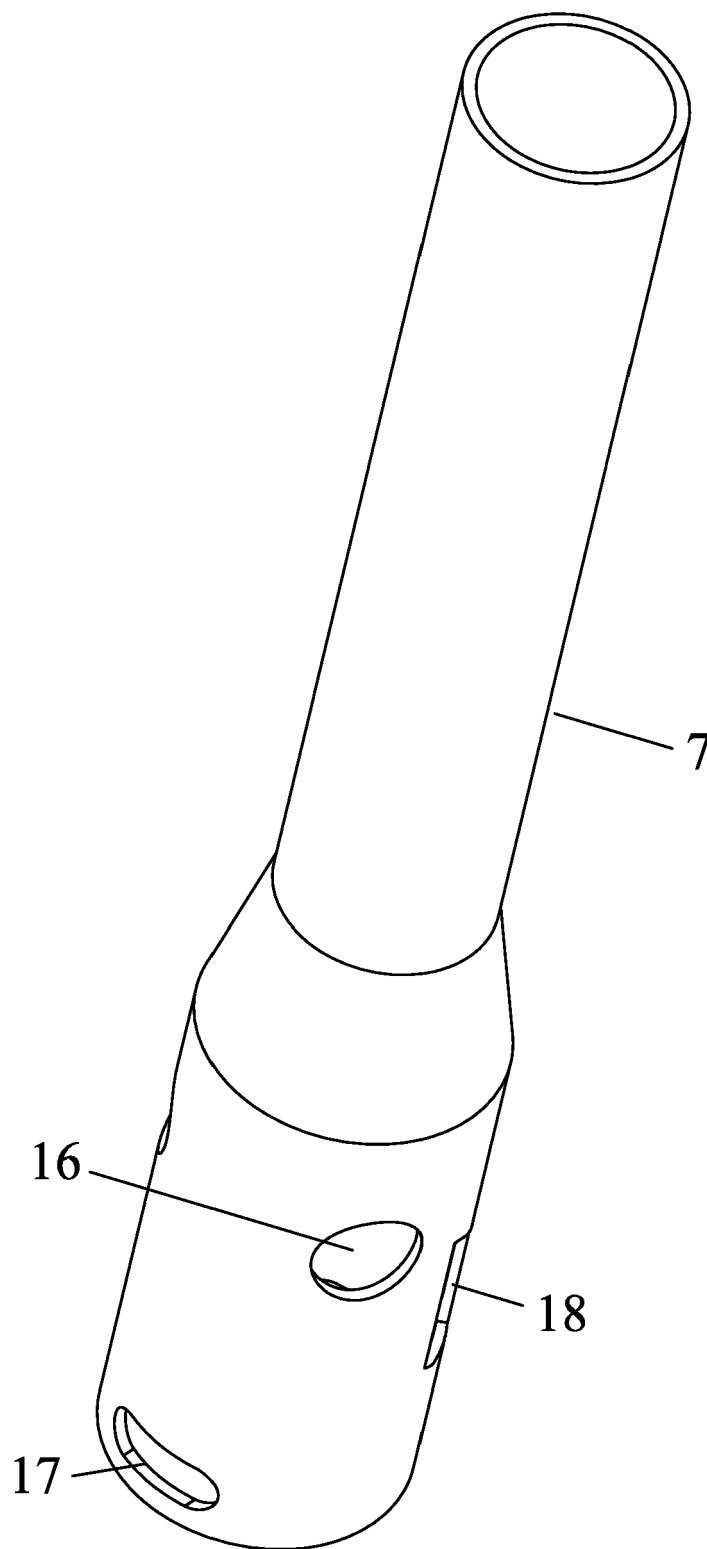


FIG. 4

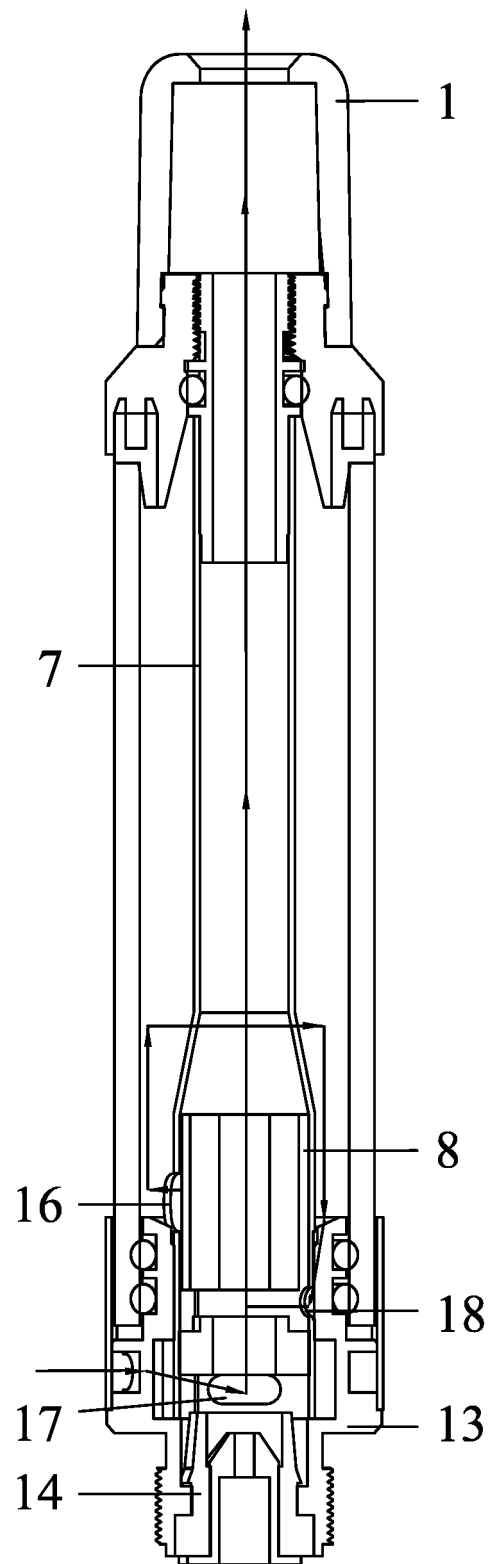


FIG. 5



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