CLAIMS

What is claimed is:

1. An atomizing unit (2), characterized by comprising:

a tubular heating assembly (100); and

a liquid conducting member (200);

wherein the liquid conducting member (200) is wrapped around an outer periphery of the tubular heating assembly (100) or fitted to an inner peripheral surface of the tubular heating assembly (100);

wherein the tubular heating assembly (100) comprises an annular connecting portion (10), at least two heating portions (20) connected to one end surface of the connecting portion (10) and arranged around the end surface, and electrode portions (30) connected to one end of the heating portions (20) away from the connecting portion (10);

wherein each side of two opposite sides of one heating portion (20) faces to a corresponding side of its adjacent heating portion (20) with a gap (50) therebetween; and

wherein the at least two heating portions (20) are connected in series through the connecting portion (10).

2. The atomizing unit of claim 1, wherein each heating portion (20) is provided with a hollow structure, and

wherein the hollow structure comprises a plurality of through slots (201) and/or a plurality of notches (202) spaced along a length direction of the heating portion (20), to enables the heating portion (20) to form at least one heating trace (21).

3. The atomizing unit of claim 2, wherein the heating trace (21) is in a circuitous bent shape, a polyline shape or a wave shape.

4. The atomizing unit of claim 2, wherein in the length direction of the heating portion (20), the widths of the through slot (201) and/or the notch (202) located in the middle of the heating trace (21) are larger than the widths of the through slot (201) and/or the notch (202) located at two ends of the heating trace (21).

5. The atomizing unit of claim 2, wherein the heating trace (21) is provided with a plurality of spaced through hole (204).

6. The atomizing unit of claim 1, wherein the electrode portions (30) are provided with at least one hollow portion (301).

7. The atomizing unit of claim 1, wherein the tubular heating assembly (100) further comprises electrode leads connected to the electrode portions (30).

8. The atomizing unit of any one of claims 1 to 7, wherein the liquid conducting member (200) comprises a liquid conducting tubular body (210), and an annular step (220) projecting on an outer periphery of one end of the liquid conducting tubular body (210);

wherein the liquid conducting tubular body (210) extends in the tubular heating assembly (100), and the electrode portions (30) of the tubular heating assembly (100) are abutted against the annular step (220) or partially embedded in the annular step (220).

9. The atomizing unit of any one of claims 1 to 7, further comprising:

a supporting assembly (400) supporting the tubular heating assembly (100);

wherein the supporting assembly (400) comprises a supporting base (410) and a supporting member (420),

wherein the supporting base (410) is sleeved on the electrode portions (30) of the tubular heating assembly (100), and the supporting member (420) extends in the tubular heating assembly (100) and is inserted on the supporting base (410); and

wherein the liquid conducting member (200) is wrapped around the outer periphery of the tubular heating assembly (100) and abutted on the supporting base (410).

10. The atomizing unit of claim 9, wherein the supporting base (410) comprises a base body (411),

wherein the base body (411) is provided with a central through hole (421) running through two opposite surfaces thereof, and at least two perforations (413) spaced and surrounding an outer periphery of the central through hole (412); and

wherein one end of the supporting member (420) is inserted in the central through hole (412), and each electrode portion (30) is inserted in the corresponding perforation (413).

11. The atomizing unit of claim 9, wherein the supporting member (420) comprises a barrel body (421) with an open end and a closed end opposite to the open end;

wherein the open end of the barrel body (421) is inserted in the central through hole (412) of the supporting base (410) and is located in the electrode portions (30) of the tubular heating assembly (100);

wherein the closed end of the barrel body (421) is in the tubular heating assembly (100) and faces the heating portions (20), and is located in the junction of the electrode portion (30) and the heating portion (20) or in an end of the heating portion (20);

wherein a side wall of the closed end of the barrel body (421) is provided with at least one vent hole (422) configured to communicate an atomization passage of the tubular heating assembly (100) with an internal passage of the barrel body (421).

12. The atomizing unit of claim 9, further comprising:

a sleeve (500) sleeved around the liquid conducting member (200) and the supporting base (420);

wherein a side wall of the sleeve (500) is provided with at least one liquid conducting hole (510) that runs through an inner wall surface and an outer wall surface thereof.

13. An atomizing device, characterized by comprising:

the atomizing unit (2) of any one of claims 1 to 12;

a shell (1) that is hollow; and

a base (3);

wherein one end of the shell (1) is provided with an air outlet (110), and another opposite end of the shell (1) is opened to form an open end;

wherein the base (3) is fitted to the open end of the shell (1), and the atomizing unit (2) is disposed in the shell (1) and inserted on the base (3);

wherein the shell (1) is provided therein with an air duct (120) communicated between the air outlet (110) and the atomizing unit (2), and a liquid storage chamber (130) located on an outer periphery of the air duct (120) and in fluid communication with the liquid conducting member (200) of the atomizing unit (2).

14. The atomizing device of claim 13, wherein the base (3) comprises a foundation base (320) that is hard and a sealing base (330) matched with the foundation base (320);

wherein the foundation base (320) is provided with an installation slot (321) that is inward concave, and an air inlet (310) penetrating a bottom surface of the installation slot (321);

wherein the atomizing unit (2) is inserted in the installation slot (321);

wherein the sealing base (330) is sleeved on the foundation base (320), and

wherein a side surface of the sealing base (330) located in the installation slot (321) is provided with at least one protruding first sealing rib (331), and a side surface of the sealing

~~base (330) located at an outer circumference of the foundation base (320) is provided with at least one protruding second sealing rib (332).~~

~~15. The atomizing device of claim 13, further comprising:~~

~~a sealing seat (4);~~

~~wherein an end of the air duct (120) facing the atomizing unit (2) is inserted on an end of the atomizing unit (2) facing the air outlet (110), and~~

~~wherein the sealing seat (4) is fitted to the end of the atomizing unit (2) facing the air outlet (110), and seals a matching gap between the atomizing unit (2) and the air duct (120).~~

~~16. The atomizing device of claim 13, further comprising:~~

~~a bottom case (5);~~

~~wherein the bottom case (5) is sleeved outside the base (3) and connected with the shell (1), to form an integral housing together with the shell (1).~~

~~17. The atomizing device of any one of claims 13 to 16, further comprising:~~

~~two electrodes (6) inserted on the base (3);~~

~~wherein the electrodes (6) are electrically connected with the electrode portions (30) of the atomizing unit (2).~~

1. An atomizing unit (2), characterized by comprising:

a tubular heating assembly (100); and

a liquid conducting member (200);

wherein the liquid conducting member (200) is wrapped around an outer periphery of the tubular heating assembly (100) or fitted to an inner peripheral surface of the tubular heating assembly (100);

wherein the tubular heating assembly (100) comprises an annular connecting portion (10), characterized in that the tabular heating assembly further comprises

at least two heating portions (20) connected to one end surface of the connecting portion (10) and arranged around the end surface, and electrode portions (30) connected to one end of the heating portions (20) away from the connecting portion (10);

wherein each side of two opposite sides of one heating portion (20) faces to a corresponding side of its adjacent heating portion (20) with a gap (50) therebetween; and

wherein the at least two heating portions (20) are connected in series through the connecting portion (10).

2. The atomizing unit of claim 1, wherein each heating portion (20) is provided with a hollow structure, and

wherein the hollow structure comprises a plurality of through slots (201) and/or a plurality of notches (202) spaced along a length direction of the heating portion (20), to enables the heating portion (20) to form at least one heating trace (21).

3. The atomizing unit of claim 2, wherein the heating trace (21) is in a circuitous bent shape, a polyline shape or a wave shape.

4. The atomizing unit of claim 2, wherein in the length direction of the heating portion (20), the widths of the through slot (201) and/or the notch (202) located in the middle of the heating trace (21) are larger than the widths of the through slot (201) and/or the notch (202) located at two ends of the heating trace (21).

5. The atomizing unit of claim 2, wherein the heating trace (21) is provided with a plurality of spaced through hole (204).

6. The atomizing unit of claim 1, wherein the electrode portions (30) are provided with at least one hollow portion (301).

7. The atomizing unit of claim 1, wherein the tubular heating assembly (100) further comprises electrode leads connected to the electrode portions (30).

8. The atomizing unit of any one of claims 1 to 7, wherein the liquid conducting member (200) comprises a liquid conducting tubular body (210), and an annular step (220) projecting on an outer periphery of one end of the liquid conducting tubular body (210);

wherein the liquid conducting tubular body (210) extends in the tubular heating assembly (100), and the electrode portions (30) of the tubular heating assembly (100) are abutted against the annular step (220) or partially embedded in the annular step (220).

9. The atomizing unit of any one of claims 1 to 7, further comprising:

a supporting assembly (400) supporting the tubular heating assembly (100);

wherein the supporting assembly (400) comprises a supporting base (410) and a supporting member (420),

wherein the supporting base (410) is sleeved on the electrode portions (30) of the tubular heating assembly (100), and the supporting member (420) extends in the tubular heating assembly (100) and is inserted on the supporting base (410); and

wherein the liquid conducting member (200) is wrapped around the outer periphery of the tubular heating assembly (100) and abutted on the supporting base (410).

10. The atomizing unit of claim 9, wherein the supporting base (410) comprises a base body (411),

wherein the base body (411) is provided with a central through hole (421) running through two opposite surfaces thereof, and at least two perforations (413) spaced and surrounding an outer periphery of the central through hole (412); and

wherein one end of the supporting member (420) is inserted in the central through hole (412), and each electrode portion (30) is inserted in the corresponding perforation (413).

11. The atomizing unit of claim 9, wherein the supporting member (420) comprises a barrel body (421) with an open end and a closed end opposite to the open end;

wherein the open end of the barrel body (421) is inserted in the central through hole (412) of the supporting base (410) and is located in the electrode portions (30) of the tubular heating assembly (100);

wherein the closed end of the barrel body (421) is in the tubular heating assembly (100) and faces the heating portions (20), and is located in the junction of the electrode portion (30) and the heating portion (20) or in an end of the heating portion (20);

wherein a side wall of the closed end of the barrel body (421) is provided with at least one vent hole (422) configured to communicate an atomization passage of the tubular heating assembly (100) with an internal passage of the barrel body (421).

12. The atomizing unit of claim 9, further comprising:

a sleeve (500) sleeved around the liquid conducting member (200) and the supporting base (420);

wherein a side wall of the sleeve (500) is provided with at least one liquid conducting hole (510) that runs through an inner wall surface and an outer wall surface thereof.

13. An atomizing device, characterized by comprising:

the atomizing unit (2) of any one of claims 1 to 12;

a shell (1) that is hollow; and

a base (3);

wherein one end of the shell (1) is provided with an air outlet (110), and another opposite end of the shell (1) is opened to form an open end;

wherein the base (3) is fitted to the open end of the shell (1), and the atomizing unit (2) is disposed in the shell (1) and inserted on the base (3);

wherein the shell (1) is provided therein with an air duct (120) communicated between the air outlet (110) and the atomizing unit (2), and a liquid storage chamber (130) located on an outer periphery of the air duct (120) and in fluid communication with the liquid conducting member (200) of the atomizing unit (2).

14. The atomizing device of claim 13, wherein the base (3) comprises a foundation base (320) that is hard and a sealing base (330) matched with the foundation base (320);

wherein the foundation base (320) is provided with an installation slot (321) that is inward concave, and an air inlet (310) penetrating a bottom surface of the installation slot (321);

wherein the atomizing unit (2) is inserted in the installation slot (321);

wherein the sealing base (330) is sleeved on the foundation base (320), and

wherein a side surface of the sealing base (330) located in the installation slot (321) is provided with at least one protruding first sealing rib (331), and a side surface of the sealing base (330) located at an outer circumference of the foundation base (320) is provided with at least one protruding second sealing rib (332).

15. The atomizing device of any one of claims 13 to 14, further comprising:

two electrodes (6) inserted on the base (3);

wherein the electrodes (6) are electrically connected with the electrode portions (30) of the atomizing unit (2).