SUMMARY

[**0007**] Aspects of the current subject matter relate to vaporizer devices and/or apparatus that include one or more absorbent pads or members oriented to prevent leakage without disrupting the airflow or formation of vapor within the devices and/or apparatus. In general, moisture and particles from the vapor can be deposited on a filter pad that is off-axis relative to the vapor path.

[**0008**] According to a first aspect of the present invention, there is provided a vaporizer device including: a device body having a proximal body end and a distal body end opposite the proximal body end; a back piece comprising a proximal portion and a distal portion opposite the proximal portion, the proximal portion configured to be inserted into the distal body end of the device body; a reservoir configured to contain a vaporizable material within an internal volume of the reservoir, the internal volume being at least partially defined by the device body and the proximal portion of the back piece; a mouthpiece configured to deliver an aerosol comprising the vaporizable material to a user; an air flow path having an air flow path axis; a heating element configured to heat and cause vaporization of the vaporizable material into air drawn into the vaporizer device along the air flow path, the air flow path connecting an air inlet via which air from outside the vaporizer device enters the vaporizer device and the mouthpiece, the air flow path passing proximate to the heating element; a pad positioned within or proximate to the mouthpiece and away from the air flow axis; and a bottom cover forming a distal end of the vaporizer device opposite the mouthpiece, the bottom cover configured to be coupled to the distal portion of the back piece, the bottom cover comprising the air inlet.

[**0008a**] According to a second aspect of the present invention, there is provided a method including: heating and causing vaporization of a vaporizable material into air drawn into a vaporizer device along an air flow path having an air flow axis, the air flow path connecting an air inlet via which air from outside the vaporizer device enters the vaporizer device and a mouthpiece configured to deliver an aerosol comprising the vaporizable material to a user, wherein the vaporizer device includes: a device body having a proximal body end

and a distal body end opposite the proximal body end; a back piece comprising a proximal portion and a distal portion opposite the proximal portion, the proximal portion configured to be inserted into the distal body end of the device body; a reservoir configured to contain a vaporizable material within an internal volume of the reservoir, the internal volume being at least partially defined by the device body and the proximal portion of the back piece; and a bottom cover forming a distal end of the vaporizer device opposite the mouthpiece, the bottom cover configured to be coupled to the distal portion of the back piece, the bottom cover comprising the air inlet; passing the air over a pad positioned within or proximate to the mouthpiece, the pad configured to capture deposited and/or condensed liquid from the air without requiring the air to pass through the pad.

[**0008b**] According to a third aspect of the present invention, there is provided a cartridge device including: an elongate and flattened tubular body having: a distal to proximal axis; a width and a diameter that are each transverse to the distal to proximal axis; and a proximal body end and a distal body end opposite the proximal body end; a back piece comprising a proximal portion and a distal portion opposite the proximal portion, the proximal portion configured to be inserted into the distal body end of the elongate and flattened tubular body; a tank configured to hold a vaporizable material within an internal volume of the tank, the internal volume being at least partially defined by the elongate and flattened tubular body and the proximal portion of the back piece; a mouthpiece coupled to the elongate and flattened tubular body; an overflow leak chamber positioned distally relative to the tank; an air path extending from the overflow leak chamber through the tank to the mouthpiece; a heater comprising a wick and a heating coil extending within the air path; an opening into the overflow leak chamber from an external surface of the cartridge device, wherein the opening is fluidly connected with the air path; one or more absorbent pads within the overflow leak chamber; and a bottom cover forming a distal end of the cartridge device opposite the mouthpiece, the bottom cover configured to be coupled to the distal portion of the back piece, the bottom cover comprising the external surface of the cartridge device.

[**0008c**] According to a fourth aspect of the present invention, there is provided cartridge device including: an elongate and flattened tubular body having: a distal to proximal axis; a width and diameter that are transverse to the distal to proximal axis, wherein the diameter is 1.2 times or greater than the width; and a proximal body end and a distal body end opposite the proximal body end; a back piece comprising a proximal portion and a distal portion opposite the proximal portion, the proximal portion configured to be inserted into the distal body end of the elongate and flattened tubular body; a tank configured to hold a liquid vaporizable material, the tank being at least partially defined by the elongate and flattened tubular body and the proximal portion of the back piece; a mouthpiece; one or more mouthpiece absorbent pads within the mouthpiece; an overflow leak chamber positioned distally relative to the tank, wherein a length of the overflow leak chamber along the distal to proximal axis is between 0.5 and 2 times a length of the tank along the distal to proximal axis; an air path extending proximally from the overflow leak chamber through the tank to the mouthpiece; a heater extending within the air path; an opening into the overflow leak chamber from an external surface of the cartridge device, wherein the opening is fluidly connected with the air path; one or more absorbent pads within the overflow leak chamber; and a bottom cover forming a distal end of the cartridge device opposite the mouthpiece, the bottom cover configured to be coupled to the distal portion of the back piece, the bottom cover comprising the external surface of the cartridge device.

[**0009**] The details of one or more variations of the subject matter described herein are set forth in the accompanying drawings and the description below. Other features and advantages of the subject matter described herein will be apparent from the description and drawings, and from the claims.

DESCRIPTION OF DRAWINGS

[**0010**] The accompanying drawings, which are incorporated in and constitute a part of this specification, show certain aspects of the subject matter disclosed herein and, together with the description, help explain some of the principles associated with the disclosed implementations. In the drawings:

CLAIMS

1. A vaporizer device comprising:

a device body having a proximal body end and a distal body end opposite the proximal body end;

a back piece comprising a proximal portion and a distal portion opposite the proximal portion, the proximal portion configured to be inserted into the distal body end of the device body;

a reservoir configured to contain a vaporizable material within an internal volume of the reservoir, the internal volume being at least partially defined by the device body and the proximal portion of the back piece;

a mouthpiece configured to deliver an aerosol comprising the vaporizable material to a user;

an air flow path having an air flow path axis;

a heating element configured to heat and cause vaporization of the vaporizable material into air drawn into the vaporizer device along the air flow path, the air flow path connecting an air inlet via which air from outside the vaporizer device enters the vaporizer device and the mouthpiece, the air flow path passing proximate to the heating element;

a pad positioned within or proximate to the mouthpiece and away from the air flow axis; and

a bottom cover forming a distal end of the vaporizer device opposite the mouthpiece, the bottom cover configured to be coupled to the distal portion of the back piece, the bottom cover comprising the air inlet.

2. The vaporizer device of claim 1, wherein the pad is configured to capture deposited and/or condensed liquid from the air without requiring the air to pass through the pad.

3. The vaporizer device of any of claims 1-2, wherein the pad is biased against an interior wall of the mouthpiece.

4. The vaporizer device of any of claims 1-3, further comprising an overflow leak chamber at a distal end of the reservoir, opposite the mouthpiece.

5. The vaporizer device of claim 4, wherein the overflow leak chamber is formed between the back piece and the bottom cover.

6. The vaporizer device of claim 4, wherein the air flow path extends from the overflow leak chamber through the reservoir to the mouthpiece.

7. The vaporizer device of claim 4, further comprising one or more absorbent pads within the overflow leak chamber and away from the air flow axis.

8. The vaporizer device of claim 7, wherein the one or more absorbent pads is biased against a respective sidewall of the vaporizer device.

9. The vaporizer device of any of claims 1-8, further comprising an air tube that defines at least a part of the air flow path, the air tube extending from the reservoir to the mouthpiece.

10. A method comprising:

heating and causing vaporization of a vaporizable material into air drawn into a vaporizer device along an air flow path having an air flow axis, the air flow path connecting an air inlet via which air from outside the vaporizer device enters the vaporizer device and a mouthpiece

configured to deliver an aerosol comprising the vaporizable material to a user, wherein the vaporizer device comprises:

a device body having a proximal body end and a distal body end opposite the proximal body end;

a back piece comprising a proximal portion and a distal portion opposite the proximal portion, the proximal portion configured to be inserted into the distal body end of the device body;

a reservoir configured to contain a vaporizable material within an internal volume of the reservoir, the internal volume being at least partially defined by the device body and the proximal portion of the back piece; and

a bottom cover forming a distal end of the vaporizer device opposite the mouthpiece, the bottom cover configured to be coupled to the distal portion of the back piece, the bottom cover comprising the air inlet;

passing the air over a pad positioned within or proximate to the mouthpiece, the pad configured to capture deposited and/or condensed liquid from the air without requiring the air to pass through the pad.

11. The method of claim 10, wherein the pad is configured to capture deposited and/or condensed liquid from the air without requiring the air to pass through the pad.

12. The method of any of claims 10-11, further comprising passing the air through an overflow leak chamber formed between the back piece and the bottom cover.

13. The method of claim 12, wherein the overflow leak chamber comprises one or more absorbent pads away from the air flow axis.

14. A cartridge device comprising:

an elongate and flattened tubular body having:

a distal to proximal axis;

a width and a diameter that are each transverse to the distal to proximal axis; and

a proximal body end and a distal body end opposite the proximal body end;

a back piece comprising a proximal portion and a distal portion opposite the proximal portion, the proximal portion configured to be inserted into the distal body end of the elongate and flattened tubular body;

a tank configured to hold a vaporizable material within an internal volume of the tank, the internal volume being at least partially defined by the elongate and flattened tubular body and the proximal portion of the back piece;

a mouthpiece coupled to the elongate and flattened tubular body;

an overflow leak chamber positioned distally relative to the tank;

an air path extending from the overflow leak chamber through the tank to the mouthpiece;

a heater comprising a wick and a heating coil extending within the air path;

an opening into the overflow leak chamber from an external surface of the cartridge device, wherein the opening is fluidly connected with the air path;

one or more absorbent pads within the overflow leak chamber; and

a bottom cover forming a distal end of the cartridge device opposite the mouthpiece, the bottom cover configured to be coupled to the distal portion of the back piece, the bottom cover comprising the external surface of the cartridge device.

15. The device of claim 14, wherein the opening is through the bottom cover.

16. The device of any of claims 14-15, wherein the opening is surrounded by a lip within the overflow leak chamber.

17. The device of any of claims 14-16, wherein the one or more absorbent pads are positioned within the overflow leak chamber along the diameter, away from the distal to proximal axis through the overflow leak chamber from the opening to the air path.

18. The device of any of claims 14-17, further comprising a pair of electrical contacts accessible through the bottom cover, the pair of electrical contacts being in electrical communication with the heater.

19. The device of any of claims 14-18, wherein the mouthpiece is configured to fit over the proximal body end.

20. The device of any of claims 14-19, further comprising one or more mouthpiece absorbent pads within the mouthpiece.

21. The device of claim 20, wherein the one or more mouthpiece absorbent pads are positioned within the mouthpiece between a proximal end of the mouthpiece and the proximal body end of the elongate and flattened tubular body.

22. The device of claim 20, wherein the one or more mouthpiece absorbent pads are positioned away from the distal to proximal axis.

23. The device of any of claims 14-22, further comprising a cannula extending through the tank.

24. The device of any of claims 14-23, wherein the one or more absorbent pads comprises a pair of flat absorbent pads arranged in parallel with respect to one another.

25. The device of any of claims 14-24, wherein the heater extends across the air path in a transverse direction.

26. The device of any of claims 14-25, wherein the overflow leak chamber is enclosed within the elongate and flattened tubular body.

27. The device of any of claims 14-26, further comprising a plug between a proximal end of the mouthpiece and the proximal body end of the elongate and flattened tubular body, wherein the plug closes off the tank of the elongate and flattened tubular body.

28. The device of any of claims 14-27, wherein the elongate and flattened tubular body is configured to be secured by a friction fit within a vaporizer body.

29. The device of any of claims 14-28, wherein the elongate and flattened tubular body comprises a lip or rim configured to snap into a vaporizer body.

30. A cartridge device comprising:

an elongate and flattened tubular body having:

a distal to proximal axis;

a width and diameter that are transverse to the distal to proximal axis, wherein the diameter is 1.2 times or greater than the width; and

a proximal body end and a distal body end opposite the proximal body end;

a back piece comprising a proximal portion and a distal portion opposite the proximal portion, the proximal portion configured to be inserted into the distal body end of the elongate and flattened tubular body;

a tank configured to hold a liquid vaporizable material, the tank being at least partially defined by the elongate and flattened tubular body and the proximal portion of the back piece;

a mouthpiece;

one or more mouthpiece absorbent pads within the mouthpiece;

an overflow leak chamber positioned distally relative to the tank, wherein a length of the overflow leak chamber along the distal to proximal axis is between 0.5 and 2 times a length of the tank along the distal to proximal axis;

an air path extending proximally from the overflow leak chamber through the tank to the mouthpiece;

a heater extending within the air path;

an opening into the overflow leak chamber from an external surface of the cartridge device, wherein the opening is fluidly connected with the air path;

one or more absorbent pads within the overflow leak chamber; and

a bottom cover forming a distal end of the cartridge device opposite the mouthpiece, the bottom cover configured to be coupled to the distal portion of the back piece, the bottom cover comprising the external surface of the cartridge device.