some other approach. A puff, as the term is generally used (and also used herein), refers to inhalation by the user in a manner that causes a volume of air to be drawn into the vaporizer device such that the inhalable aerosol is generated by a combination of vaporized vaporizable material with the air.

[0006] A typical approach by which a vaporizer device generates an inhalable aerosol from a vaporizable material involves heating the vaporizable material in a vaporization chamber (or a heater chamber) to cause the vaporizable material to be converted to the gas (or vapor) phase. A vaporization chamber generally refers to an area or volume in the vaporizer device within which a heat source (e.g., conductive, convective, and/or radiative) causes heating of a vaporizable material to produce a mixture of air and vaporized vaporizable material to form a vapor for inhalation by a user of the vaporization device.

[0007] The term vaporizer device, as used herein consistent with the current subject matter, generally refers to portable, self-contained devices that are convenient for personal use. Typically, such devices are controlled by one or more switches, buttons, touch sensitive devices, or other user input functionality or the like (which can be referred to generally as controls) on the vaporizer, although a number of devices that may wirelessly communicate with an external controller (e.g., a smartphone, a smart watch, other wearable electronic devices, etc.) have recently become available. Control, in this context, refers generally to an ability to influence one or more of a variety of operating parameters, which may include without limitation any of causing the heater to be turned on and/or off, adjusting a minimum and/or maximum temperature to which the heater is heated during operation, various games or other interactive features that a user might access on a device, and/or other operations.

[0008] Various vaporizable materials having a variety of contents and proportions of such contents can be contained in the cartridge. Some vaporizable materials, for example, may have a smaller percentage of active ingredients per total volume of vaporizable material, such as due to regulations requiring certain active ingredient percentages. As a result, a user may need to vaporize a large amount of vaporizable material (e.g., compared to the overall volume of vaporizable material that can be stored in a cartridge) to achieve a desired effect.

SUMMARY

[0009] Aspects of the current subject matter relate to a heating element for use in a vaporizer device.

[0009a] According to a first aspect, there is provided a heating element of a vaporizer device including a reservoir containing vaporizable material and a wicking element in fluid communication with the reservoir, the heating element including: a heating portion including at least two tines forming path heating segments spaced apart from one another, the at least two tines including a first side tine portion, a second side tine portion opposing the first side tine portion, and a platform tine portion connecting the first side tine portion with the second side tine portion, with the first side tine portion, the second side tine portion, and the platform tine portion being formed by bending the heating element along fold lines to define a pocket configured to receive the wicking element such that the wicking element is secured and retained by the heating element within the pocket, the heating portion being configured to contact at least two separate surfaces of the wicking element; and at least two legs coupled to the at least two tines and spaced apart from the heating portion, the at least two legs configured to electrically communicate with a power source, wherein power is configured to be supplied to the heating portion from the power source to generate heat, thereby vaporizing the vaporizable material stored within the wicking element.

[0009b] According to a second aspect, there is provided a vaporizer device including: a reservoir containing vaporizable material; a wicking element in fluid communication with the reservoir; and a heating element including: a heating portion including at least two tines forming path heating segments spaced apart from one another, the at least two tines including a first side tine portion, a second side tine portion opposing the first side tine portion, and a platform tine portion connecting the first side tine portion with the second side tine portion, with the first side tine portion, the second side tine portion, and the platform tine portion being formed by bending the heating element along fold lines to define a pocket configured to receive the wicking element such that the wicking element is secured and retained by the heating element within the pocket, the heating portion being configured to contact at least two separate surfaces of the wicking element; and at least two legs coupled to the at least two tines and spaced apart from the heating portion, the at least two legs configured to electrically communicate with a power source, wherein power is configured to be supplied to the heating portion from the power source to generate heat, thereby vaporizing the vaporizable material stored within the wicking element.

CLAIMS

1. A heating element of a vaporizer device comprising a reservoir containing vaporizable material and a wicking element in fluid communication with the reservoir, the heating element comprising:

a heating portion comprising at least two tines forming path heating segments spaced apart from one another, the at least two tines comprising a first side tine portion, a second side tine portion opposing the first side tine portion, and a platform tine portion connecting the first side tine portion with the second side tine portion, with the first side tine portion, the second side tine portion, and the platform tine portion being formed by bending the heating element along fold lines to define a pocket configured to receive the wicking element such that the wicking element is secured and retained by the heating element within the pocket, the heating portion being configured to contact at least two separate surfaces of the wicking element; and

at least two legs coupled to the at least two tines and spaced apart from the heating portion, the at least two legs configured to electrically communicate with a power source,

wherein power is configured to be supplied to the heating portion from the power source to generate heat, thereby vaporizing the vaporizable material stored within the wicking element.

2. The heating element of claim 1, wherein the at least two legs includes four legs.

3. The heating element of any of the preceding claims, wherein the heating portion is configured to contact three separate surfaces of the wicking element.

4. The heating element of any of the preceding claims, wherein

the platform tine portion is positioned approximately perpendicular to a portion of the first side tine portion and the second side tine portion.

5. The heating element of any of the preceding claims, wherein the at least two legs are located away from the heating portion by a bridge.

6. The heating element of any of claims 1 to 4, wherein each of the at least two legs include a bridge, formed by bending portions of the legs along fold lines, the bridges locating portions of the at least two legs away from the heating portion.

7. The heating element of any of the preceding claims, wherein each of the at least two legs includes a cartridge contact positioned at an end of each of the at least two legs, the cartridge contact configured to electrically communicate with the power source, the cartridge contact being angled and extending away from the heating portion.

8. The heating element of any of the preceding claims, wherein the at least two tines includes a first pair of tines and a second pair of tines.

9. The heating element of any of the preceding claims, wherein the tines of the first pair of tines are evenly spaced from one another.

10. The heating element of claim 8 or 9, wherein the tines of the first pair of tines are spaced apart by a width.

11. The heating element of claim 10, wherein the width is greater at an inner region of the heating element adjacent the platform tine portion than the width at an outer region of the heating element adjacent an outer edge of the first side tine portion opposite the inner region.

12. The heating element of claim 2, wherein the vaporizer device is configured to measure a resistance of the heating element at each of the four legs to control a temperature of the heating element.

13. The heating element of any of the preceding claims, further comprising a heat shield configured to insulate the heating portion from a body of the vaporizer device.

14. The heating element of any of the preceding claims, wherein the vaporizer device further comprises a heat shield configured to surround at least a portion of the heating element and insulate

the heating portion from a body of a wick housing configured to surround at least a portion of the wicking element and the heating element.

15. The heating element of any of the preceding claims, wherein the wicking element that the pocket is shaped to receive is formed as an at least approximately flat pad that is configured to contact the heating element and/or be secured between at least two portions of the heating element, the at least approximately flat pad having a first pair of opposing sides that are approximately parallel to one another.

16. A vaporizer device comprising:

a reservoir containing vaporizable material;

a wicking element in fluid communication with the reservoir; and

a heating element comprising:

a heating portion comprising at least two tines forming path heating segments spaced apart from one another, the at least two tines comprising a first side tine portion, a second side tine portion opposing the first side tine portion, and a platform tine portion connecting the first side tine portion with the second side tine portion, with the first side tine portion, the second side tine portion, and the platform tine portion being formed by bending the heating element along fold lines to define a pocket configured to receive the wicking element such that the wicking element is secured and retained by the heating element within the pocket, the heating portion being configured to contact at least two separate surfaces of the wicking element; and

at least two legs coupled to the at least two tines and spaced apart from the heating portion, the at least two legs configured to electrically communicate with a power source,

wherein power is configured to be supplied to the heating portion from the power source to generate heat, thereby vaporizing the vaporizable material stored within the wicking element.