CLAIMS

1. A vaporizer comprising:

a reservoir configured to contain a liquid vaporizable material, the reservoir at least partially defined by at least one wall, the reservoir comprising a storage chamber and an overflow volume; and

a collector disposed in the overflow volume, the collector comprising a capillary structure configured to retain a volume of the liquid vaporizable material in fluid contact with the storage chamber, the capillary structure comprising a microfluidic feature configured to prevent air and liquid from bypassing each other during filling and emptying of the collector, wherein the capillary structure comprises a secondary passageway comprising the microfluidic feature, and wherein the secondary passageway comprises a plurality of spaced-apart constriction points having a smaller cross-sectional area than parts of the secondary passageway between the constriction points.

2. The vaporizer of claim 1, further comprising a primary passageway providing a fluid connection between the storage chamber and an atomizer configured to convert the liquid vaporizable material to a gas-phase state.

3. The vaporizer of claim 2, wherein the atomizer comprises a wicking element.

~~3.~~4. The vaporizer of claim 2, wherein the primary passageway is formed through a structure of the collector.

~~4.~~5. The vaporizer of any of ~~claims 2 or 3~~claims 2-4, wherein the primary passageway comprises a first channel configured to allow for the liquid vaporizable material to flow from the storage chamber toward ~~a wicking element in~~ the atomizer, the first channel having a cross-sectional shape with at least one irregularity configured to allow liquid in the first channel to bypass an air bubble blocking a remainder of the first channel.

~~5.~~6. The vaporizer of claim 45, wherein the cross-sectional shape resembles a cross.

~~6.~~7. The vaporizer of any preceding claim, wherein the microfluidic feature is configured to allow the liquid vaporizable material to move along a length of the

secondary passageway only with a meniscus fully covering a cross-sectional area of the secondary passageway.

~~7.~~8. The vaporizer of claim ~~6~~7, wherein the cross-sectional area is sufficiently small that, for a material from which walls of the secondary passageway are formed and a composition of the liquid vaporizable material, the liquid vaporizable material preferentially wets the secondary passageway around an entire perimeter of the secondary passageway.

~~8.~~9. The vaporizer of any preceding claim, wherein the storage chamber and the collector are configured to maintain a continuous column of the liquid vaporizable material in the collector in contact with the liquid vaporizable material in the storage chamber such that a reduction in pressure in the storage chamber relative to ambient pressure causes the continuous column of the liquid vaporizable material in the collector to be at least partially drawn back into the storage chamber.

~~9.~~10. The vaporizer of any preceding claim, wherein the constriction points have a flatter surface directed along the secondary passageway toward the storage chamber and a rounder surface directed along the secondary passageway away from the storage chamber.

~~10.~~11. The vaporizer of any preceding claim, further comprising a microfluidic gate between the collector and the storage chamber, the microfluidic gate comprising a rim of an aperture between the storage chamber and the collector that is flatter on a first side facing the storage chamber than a second, more rounded, side facing the collector.

~~11.~~12. The vaporizer of claim ~~10~~11, wherein the microfluidic gate comprises a plurality of openings connecting the storage chamber and the collector and a pinch-off point between the plurality of openings, the plurality of openings comprising a first channel and a second channel, wherein the first channel has a higher capillary drive than the second channel.

~~12.~~13. The vaporizer of claim ~~11~~12, wherein a meniscus of a liquid vaporizable material-air interface reaching the pinch-off point is routed to the second channel due to the higher capillary drive in the first channel such that an air bubble is formed to escape into the liquid vaporizable material in the storage chamber.

14. The vaporizer of any preceding claim, further comprising the liquid vaporizable material.

~~13.~~15. The vaporizer of ~~any preceding claim~~claim 14, wherein the liquid vaporizable material comprises one or more propylene glycol and vegetable glycerin.