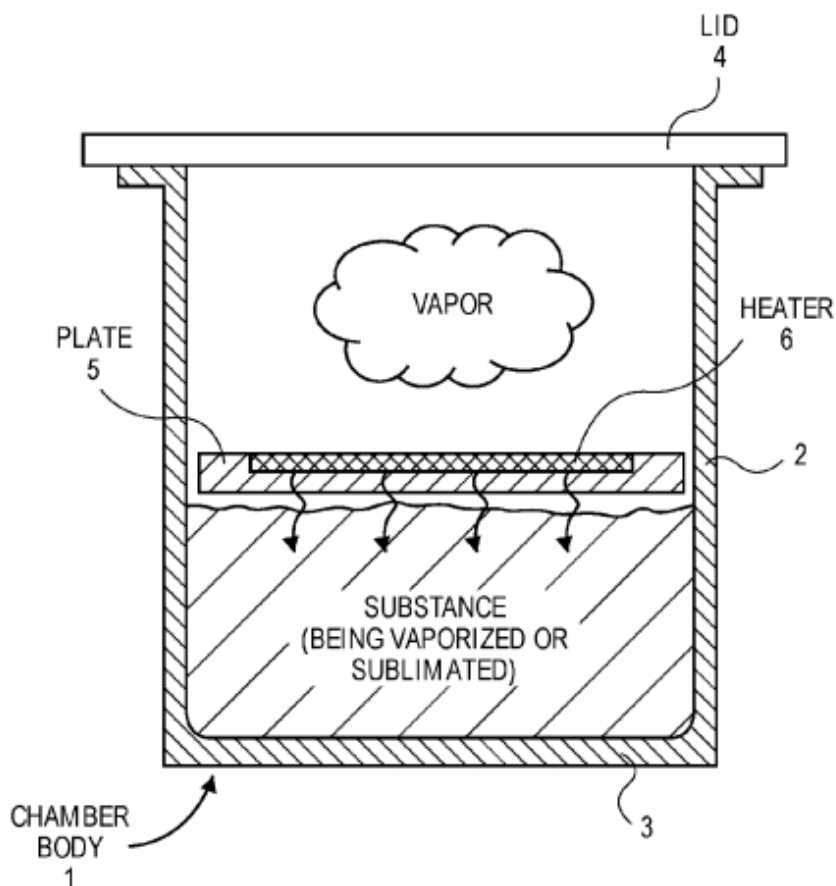


Apple files patent presenting vaporizer concept, tech watchers explore possible use

January 31 2017, by Nancy Owano



Credit: United States Patent Application, 20170023235

(Tech Xplore)—Apple to the core of the public's brand recognition is

primarily phones, laptops, tablets and their varied accessories. So why did Apple file a patent application in July last year, and released on January 26 this year, by the United States Patent and Trademark Office, apparently focused on an apparatus for vaporization?

Some Apple watchers registered amusement as much as surprise. In fact some sites had a grand old time showing pictures of vaping and vaping equipment. The suggestion was that Apple might have sights set on getting involved in some shape or form into the vaping industry. Why would Apple be interested? Is Apple interested?

The [patent application](#) title is straightforward, simply stated as "Sublimator/Vaporizer."

According to the [patent](#), "A chamber body is to receive therein a substance that is to be vaporized or sublimated into a vapor. A plate whose bottom face rests on the substance inside the chamber body is temperature regulated, e.g., using a heater therein, which releases heat directly above the substance that lies below. The plate slides downward as the substance is consumed by vaporization or sublimation. Other embodiments are also described and claimed."

Jake Swearingen in *New York Magazine* described the patent clearly, lifting patent language into words more easily understood:

"The patent describes a device in which a 'substance' is placed underneath a heating plate, where steady temperature allows all of the substance below to either vaporize or sublimate, with the [plate](#) slowly pushing down as more of the substance is consumed."

Would this translate into laptops, tablets, phones? How was the device relevant to Apple? Swearingen saw no ready answer from the patent discussion. He wrote that "just what the device would actually be for is

pretty opaque."

Nonetheless, Swearingen was confident this was worth a guess.

"So what is this patent actually going to be used for?...Most likely, this will be used in semiconductor manufacturing, in which various types of materials are vaporized to be used as a method of applying thin films of substances like silicon to a chip."

MacRumors' Joe Rossignol also believes the patent discussion is more relevant to "a semiconductor device fabrication process Apple uses to create chips for its devices." The application, he noted, "describes a canister that can be used to vaporize or sublimate a substance, which in Apple's case would be for delivering [substances](#) to a substrate during the deposition or etching [process](#)."

Rossignol also observed the person listed as inventor in the patent application as Tetsuya Ishikawa at Apple. Rossignol pointed out that Ishikawa lists photolithography as one of his skills on his LinkedIn profile. (The profile lists [skills](#) including semiconductors, thin films, optics and photolithography. Lithography pertains to the transfer of a pattern on to another surface, and photolithography refers to semiconductor lithography.)

More information: SUBLIMATOR/VAPORIZER, [United States Patent Application, 20170023235](#).

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