

S641	6	S640 and generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:56
S642	2	("2008/0303286").URPN.	USPAT	OR	OFF	2019/02/18 18:56
S643	2	("2008/0303286").URPN.	USPAT	OR	OFF	2019/02/18 18:56
S644	0	miniature adj turbine same electrical adj generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:56
S645	700	vaporizer and photovoltaic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:56
S646	71	e-cigarette and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:56
S647	1,314	e-cigarette	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:56
S648	4	"13594813"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:56
S649	33	("20070267031" "20080092912" "20080230052" "20080247892" "20080257367" "20080276947" "20090095311" "20090126745" "20100031968" "20100037903" "20100200006" "20100200008" "20100242974" "7832410" "D590988" "D590989" "D590990" "D590991" "D613903" "D613904").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:56
S650	4	"12843917"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:56
S651	4	"12843917"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S652	3	"20090272379"	US-PGPUB; USPAT;	OR	OFF	2019/02/18 18:57

			EPO; JPO; DERWENT			
S653	6,117	cigarette and generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S654	5,386	vaporizer and generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S655	200	S653 and S654	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S656	1,870	generator same breath	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S657	6	electrical adj generator same breath	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S658	19	miniature adj electrical adj generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S659	2	("2008/0303286").URPN.	USPAT	OR	OFF	2019/02/18 18:57
S660	2	("2008/0303286").URPN.	USPAT	OR	OFF	2019/02/18 18:57
S661	9	miniature adj turbine and electrical adj generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S662	0	miniature adj turbine same electrical adj generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S663	700	vaporizer and photovoltaic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S664	152	"392"/\$.ccls. and photovoltaic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57

S665	4	"392"/\$.ccls. and photovoltaic and cigarette	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S666	71	e-cigarette and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S667	1,314	e-cigarette	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S668	6	e-cigarette and photovoltaic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S669	129	e-cigarette and photo	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S670	38,924	vaporizer or (air adj freshener) and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S671	38,924	vaporizer or ((air adj freshener) and solar)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S672	2,105	(vaporizer or (air adj freshener)) and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S673	306	(vaporizer or (air adj freshener)) and solar and photovoltaic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S674	4	("2013/0309102").URPN.	USPAT	OR	OFF	2019/02/18 18:57
S675	92,996	a01b 12/006	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S676	0	(a24f47/008).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57

S677	0	(a24f047/008).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S678	0	(a24f047/008).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S679	0	(a24f47/08).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S680	9,559	(B60H1/22).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S681	0	(A24F47/08).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S682	0	(A24F47/10).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S683	7,167	(f24h3/00).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S684	17,594	(a24f47/00).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S685	15,977	(a61m15/00).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S686	100	S685 and "392"/\$.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57

S687	12	S686 and breath	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S688	17	S686 and generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S689	50	("20050016550" "20060196518" "20110011396" "20110192399" "20110277757" "20110277760" "3200819" "4284089" "4945929" "4966171" "4969476" "5050621" "5115820" "5249586" "5865185" "7412259" "7726320" "8156944").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S690	6	S689 and generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S691	2	("2008/0303286").URPN.	USPAT	OR	OFF	2019/02/18 18:57
S692	2	("2008/0303286").URPN.	USPAT	OR	OFF	2019/02/18 18:57
S693	0	miniature adj turbine same electrical adj generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S694	700	vaporizer and photovoltaic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S695	71	e-cigarette and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S696	1,314	e-cigarette	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S697	83	("3200819" "20100031968" "8156944" "20080230052" "20100037903" "20100242974" "D590988" "D590990" "7412259" "20050016550" "7832410" "D613903" "20080257367" "20100200006" "20110011396" "20110277757" "7726320" "3200819" "20080257367" "20080092912" "20080230052"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57

		"20100200008" "5050621" "20060196518" "20080092912" "20100200008" "D590991" "20090272379" "7726320" "20070267031" "20100200006" "D613904" "4969476" "20110192399" "20050016550" "20060196518" "20080276947" "20090095311" "20090126745" "D590989" "20100242974" "5249586" "5865185" "20080247892" "20100031968" "20080276947" "20110277760" "4284089" "4945929" "4966171" "5115820").PN.				
S698	33	("20070267031" "20080092912" "20080230052" "20080247892" "20080257367" "20080276947" "20090095311" "20090126745" "20100031968" "20100037903" "20100200006" "20100200008" "20100242974" "7832410" "D590988" "D590989" "D590990" "D590991" "D613903" "D613904").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S699	4	"12843917"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S700	4	"12843917"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S701	3	"20090272379"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S702	6,117	cigarette and generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S703	5,386	vaporizer and generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S704	200	S702 and S703	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S705	1,870	generator same breath	US-PGPUB; USPAT;	OR	OFF	2019/02/18 18:57

			EPO; JPO; DERWENT			
S706	6	electrical adj generator same breath	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S707	19	miniature adj electrical adj generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S708	2	("2008/0303286").URPN.	USPAT	OR	OFF	2019/02/18 18:57
S709	2	("2008/0303286").URPN.	USPAT	OR	OFF	2019/02/18 18:57
S710	9	miniature adj turbine and electrical adj generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S711	0	miniature adj turbine same electrical adj generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S712	700	vaporizer and photovoltaic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S713	152	"392"/\$.ccls. and photovoltaic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S714	4	"392"/\$.ccls. and photovoltaic and cigarette	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S715	71	e-cigarette and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S716	1,314	e-cigarette	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S717	6	e-cigarette and photovoltaic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57

S718	129	e-cigarette and photo	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S719	38,924	vaporizer or (air adj freshener) and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S720	38,924	vaporizer or ((air adj freshener) and solar)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S721	2,105	(vaporizer or (air adj freshener)) and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S722	306	(vaporizer or (air adj freshener)) and solar and photovoltaic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S723	4	("2013/0309102").URPN.	USPAT	OR	OFF	2019/02/18 18:57
S724	92,996	a01b 12/006	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S725	0	(a24f47/008).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S726	0	(a24f047/008).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S727	0	(a24f047/008).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S728	0	(a24f47/08).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S729	9,559	(B60H1/22).IPCR.	US-PGPUB; USPAT;	OR	OFF	2019/02/18 18:57

			USOCR; EPO; JPO; DERWENT			
S730	0	(A24F47/08).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S731	0	(A24F47/10).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S732	7,167	(f24h3/00).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S733	17,594	(a24f47/00).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S734	15,977	(a61m15/00).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S735	100	S734 and "392"/\$.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S736	12	S735 and breath	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S737	17	S735 and generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S738	50	("20050016550" "20060196518" "20110011396" "20110192399" "20110277757" "20110277760" "3200819" "4284089" "4945929" "4966171" "4969476" "5050621" "5115820" "5249586" "5865185" "7412259" "7726320" "8156944").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57

S739	6	S738 and generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S740	2	("2008/0303286").URPN.	USPAT	OR	OFF	2019/02/18 18:57
S741	2	("2008/0303286").URPN.	USPAT	OR	OFF	2019/02/18 18:57
S742	0	miniature adj turbine same electrical adj generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S743	700	vaporizer and photovoltaic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S744	71	e-cigarette and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S745	1,314	e-cigarette	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S746	4	"13594813"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S747	33	("20070267031" "20080092912" "20080230052" "20080247892" "20080257367" "20080276947" "20090095311" "20090126745" "20100031968" "20100037903" "20100200006" "20100200008" "20100242974" "7832410" "D590988" "D590989" "D590990" "D590991" "D613903" "D613904").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S748	4	"12843917"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S749	4	"12843917"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S750	3	"20090272379"	US-PGPUB; USPAT;	OR	OFF	2019/02/18 18:57

			EPO; JPO; DERWENT			
S751	6,117	cigarette and generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S752	5,386	vaporizer and generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S753	200	S751 and S752	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S754	1,870	generator same breath	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S755	6	electrical adj generator same breath	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S756	19	miniature adj electrical adj generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S757	2	("2008/0303286").URPN.	USPAT	OR	OFF	2019/02/18 18:57
S758	2	("2008/0303286").URPN.	USPAT	OR	OFF	2019/02/18 18:57
S759	9	miniature adj turbine and electrical adj generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S760	0	miniature adj turbine same electrical adj generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S761	700	vaporizer and photovoltaic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S762	152	"392"/\$.ccls. and photovoltaic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57

S763	4	"392"/\$.ccls. and photovoltaic and cigarette	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S764	71	e-cigarette and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S765	1,314	e-cigarette	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S766	6	e-cigarette and photovoltaic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S767	129	e-cigarette and photo	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S768	38,924	vaporizer or (air adj freshener) and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S769	38,924	vaporizer or ((air adj freshener) and solar)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S770	2,105	(vaporizer or (air adj freshener)) and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S771	306	(vaporizer or (air adj freshener)) and solar and photovoltaic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S772	4	("2013/0309102").URPN.	USPAT	OR	OFF	2019/02/18 18:57
S773	92,996	a01b 12/006	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S774	0	(a24f47/008).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57

S775	0	(a24f047/008).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S776	0	(a24f047/008).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S777	0	(a24f47/08).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S778	9,559	(B60H1/22).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S779	0	(A24F47/08).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S780	0	(A24F47/10).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S781	7,167	(f24h3/00).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S782	17,594	(a24f47/00).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S783	15,977	(a61m15/00).IPCR.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S784	100	S783 and "392"/\$.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57

S785	12	S784 and breath	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S786	17	S784 and generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S787	50	("20050016550" "20060196518" "20110011396" "20110192399" "20110277757" "20110277760" "3200819" "4284089" "4945929" "4966171" "4969476" "5050621" "5115820" "5249586" "5865185" "7412259" "7726320" "8156944").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S788	6	S787 and generator	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S789	2	("2008/0303286").URPN.	USPAT	OR	OFF	2019/02/18 18:57
S790	2	("2008/0303286").URPN.	USPAT	OR	OFF	2019/02/18 18:57
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S792	700	vaporizer and photovoltaic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
S793	71	e-cigarette and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2019/02/18 18:57
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EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S402	9	vaporizer and cartridge and breath and airflow and threaded and battery	US-PGPUB; USPAT	OR	OFF	2016/08/20 13:57
S798	17	vaporizer and cartridge and breath and airflow and threaded and battery	US-PGPUB; USPAT	OR	OFF	2019/02/18 18:57

3/9/2022 4:28:58 PM

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OMB 0651-0031

Substitute for FORM PTO-1449			Attorney Docket Number 269.0003-03000		Customer No. 22882	
INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION			Applicant Gregory D. Conley et al.		Application Number 16/451,483	
<i>(Use several sheets if necessary)</i> Sheet 1 of 1			Filing Date June 25, 2019		Group Art Unit 3761	Examiner T.S. Campbell
U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
U.S. PATENT PUBLICATION DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION (YES/NO)
NON PATENT LITERATURE DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)						
	Transcript of Summary Judgement Motion Hearing dated April 27, 2021, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
	Submission of Defendant's Powerpoint Presentations Published During the Summary Judgement Hearing dated April 29, 2021 and Exhibits A and B.					
	Defendant R.J. Reynolds Vapor Company's Motion to Reconsider Order (DKT. 139) Granting Motion for Summary Judgement dated June 1, 2021, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
	Defendant R.J. Reynolds Vapor Company's Brief in Support of Its Motion for Reconsideration dated June 1, 2021, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
	Plaintiff Fuma International LLC's Opposition to R.J. Reynold's Motion for Reconsideration of the Court's Summary Judgement Order on Infringement dated June 22, 2021, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
	Defendant R.J. Reynolds Vapor Company's Reply in Support of Its Motion for Reconsideration dated July 6, 2021, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
	Order dated July 28, 2021, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
EXAMINER	/THOR S CAMPBELL/ (03/09/2022)		DATE CONSIDERED			
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.						

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /T.S.C/

OMB 0651-0031

Substitute for FORM PTO-1449			Attorney Docket Number 269.0003-03000		Customer No. 22882	
INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION			Applicant Gregory D. Conley et al.		Application Number 16/451,483	
(Use several sheets if necessary) Sheet <u>1</u> of <u>1</u>			Filing Date June 25, 2019		Art Unit 3600	Examiner
U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
U.S. PUBLICATION DOCUMENTS						
NON PATENT LITERATURE DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)						
	Memorandum and Order dated May 24, 2021, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
EXAMINER	/THOR S CAMPBELL/ (03/09/2022)		DATE CONSIDERED			
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.						

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /T.S.C/

Substitute for FORM PTO-1449		Attorney Docket Number 269.0003-03000		Customer No. 22882		
INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION		Applicant Gregory D. Conley et al.		Application Number 16/451,483		
(Use several sheets if necessary) Sheet <u>1</u> of <u>3</u>		Filing Date June 25, 2019		Group Art Unit 3761	Examiner T.S. Campbell	
U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	1,968,509	7/1934	Tiffany			
	6,155,268	12/2000	Takeuchi			
	6,598,607	7/2003	Adiga			
U.S. PATENT PUBLICATION DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION (YES/NO)
	EP0845220	3/2003	EP			
	CN2719043	8/2005	CN			
	CN101366554	2/2009	CN			
	WO2004/095955	11/2004	WIPO			
NON PATENT LITERATURE DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)						
	Fuma International, LLC's Rule 26(f) Report filed on May 28, 2019, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-6600260.					
	Exhibit A to Plaintiff Fuma International LLC's Rule 26(f) Report filed May 28, 2019, Proposed Schedule.					
	Exhibit B to Plaintiff Fuma International LLC's Rule 26(f) Report filed May 28, 2019, Proposed E-Discovery Order.					
	Exhibit C to Plaintiff Fuma International LLC's Rule 26(f) Report filed May 28, 2019, Proposed Protective Order.					
	Exhibit D to Plaintiff Fuma International LLC's Rule 26(f) Report filed May 28, 2019, Proposed Supplemental Protective Order.					
	Defendant R.J. Reynolds Vapor Company's Notice Pursuant to 25 U.S.C. § 282 dated October 15, 2021, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660, with Publications.					
	Electronic cigarette - Wikipedia archival copy, dated February 9, 2010 from https://web.archive.org/ .					
	Joining of Materials and Structures, From Pragmatic Process to Enabling Technology, Robert W. Messler, Jr., 2004 (Exerpt).					
	Smoke Anywhere USA, Inc. to Introduce Its Electronic Cigarette Fifty-One with Comments, August 16, 2008.					

	NEW Electronic Cigarette- Cool 3D! by Smoke51.com with Comments, October 31, 2008.
	Smoke51.com Website Excerpts.
	Smoke 51 User Manual.
	Trans-Power Website Excerpts.
	E-Cig Forum Website (Smoke51).
	Leaford's YouTube Channel, E-8 84mm Disposable Cartomizer E-Cigarette, Leaford's Vacation Special Part 2: The Sensation Micro (E8) From E-Smoke.net, https://www.youtube.com/watch?v=UTBfApJs1c , June 15, 2009.
	Rustylug's YouTube Channel with Comments, September 10, 2008.
	Smoke51Ohio's Smoke 51 Duo Presentation.
	Smoke51Ohio's Smoke 51 Duo Marketing Piece.
	Smoke51Ohio's Press Release Announcing Fifty-One Product.
	Compare Fifty-One to Other Electronic Cigarettes.
	Plaintiff Fuma International LLC's Trial Brief dated October 25, 2021, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.
	Exhibit 1 to Plaintiff Fuma International LLC's Trial Brief dated October 25, 2021, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.
	Defendant R.J. Reynolds Vapor Company's Trial Brief dated October 25, 2021, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.
	Exhibit A to Defendant R.J. Reynolds Vapor Company's Trial Brief dated October 25, 2021, Gregory D. Conley Deposition Transcript Excerpts.
	Exhibit B to Defendant R.J. Reynolds Vapor Company's Trial Brief dated October 25, 2021, Shanhong Wang Compressed Deposition Transcript.
	Exhibit C to Defendant R.J. Reynolds Vapor Company's Trial Brief dated October 25, 2021, Shanhong Wang Deposition Exhibit 5.
	Exhibit D to Defendant R.J. Reynolds Vapor Company's Trial Brief dated October 25, 2021, Publication No. CN101366554 Application in English and Chinese.
	Exhibit E to Defendant R.J. Reynolds Vapor Company's Trial Brief dated October 25, 2021, Publication No. CN201085044 to Fang Xiaolin in English.
	Exhibit F to Defendant R.J. Reynolds Vapor Company's Trial Brief dated October 25, 2021, U.S. Patent Publication No. 2009/0095311 to Li Han.
	Exhibit G to Defendant R.J. Reynolds Vapor Company's Trial Brief dated October 25, 2021, U.S. Patent No. 4,947,874 to Brooks et al.
	Exhibit H to Defendant R.J. Reynolds Vapor Company's Trial Brief dated October 25, 2021, Prosecution History of U.S. Application Serial No. 12/843,917.
	Zoom Videotaped Deposition Transcript (Revised) of Shanhong Wang of September 24, 2021, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.
	Exhibit 1 to Zoom Videotaped Deposition Transcript (Revised) of Shanhong Wang of September 24, 2021.
	Exhibit 2 to Zoom Videotaped Deposition Transcript (Revised) of Shanhong Wang of September 24, 2021.
	Exhibit 3 to Zoom Videotaped Deposition Transcript (Revised) of Shanhong Wang of September 24, 2021.
	Exhibit 4 to Zoom Videotaped Deposition Transcript (Revised) of Shanhong Wang of September 24, 2021.
	Exhibit 5 to Zoom Videotaped Deposition Transcript (Revised) of Shanhong Wang of September 24, 2021.
	Exhibit 6 to Zoom Videotaped Deposition Transcript (Revised) of Shanhong Wang of September 24, 2021.
	Exhibit 7 to Zoom Videotaped Deposition Transcript (Revised) of Shanhong Wang of September 24, 2021.
	Exhibit 8 to Zoom Videotaped Deposition Transcript (Revised) of Shanhong Wang of September 24, 2021.
	Exhibit 9 to Zoom Videotaped Deposition Transcript (Revised) of Shanhong Wang of September 24, 2021.
	Exhibit 10 to Zoom Videotaped Deposition Transcript (Revised) of Shanhong Wang of September 24, 2021.
	Exhibit 11 to Zoom Videotaped Deposition Transcript (Revised) of Shanhong Wang of September 24, 2021.

INFORMATION DISCLOSURE STATEMENT

Application Number: 16/451,483

	Exhibit 12 to Zoom Videotaped Deposition Transcript (Revised) of Shanhong Wang of September 24, 2021.	
EXAMINER	DATE CONSIDERED	
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.		

Electronic Acknowledgement Receipt	
EFS ID:	44997737
Application Number:	16451483
International Application Number:	
Confirmation Number:	5143
Title of Invention:	ELECTRONIC VAPORIZER
First Named Inventor/Applicant Name:	Gregory D. Conley
Customer Number:	22882
Filer:	Wesley Charles Meinerding
Filer Authorized By:	
Attorney Docket Number:	269.0003-03000
Receipt Date:	15-FEB-2022
Filing Date:	25-JUN-2019
Time Stamp:	11:32:26
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment		no			
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This is not an USPTO supplied IDS fillable form					
31	Non Patent Literature	Wang_Deposition_REVISED_.pdf	205151	no	117
			fd0b398ff76e79e41ab386416ed713585621 6de3		
Warnings:					
Information:					
32	Non Patent Literature	Wang_Deposition_Exhibit_1_.pdf	7566584	no	10
			ec12f74225e25c97360924735383e441a23 57bd5		
Warnings:					
Information:					
33	Non Patent Literature	Wang_Deposition_Exhibit_2_.pdf	840784	no	4
			f6625a1833f774a7dde15b272e9b7911412 03662		
Warnings:					
Information:					
34	Non Patent Literature	Wang_Deposition_Exhibit_3_.pdf	972886	no	5
			b88b7d90f10c21796323bde60163f96f6b2 9cb60		
Warnings:					
Information:					
35	Non Patent Literature	Wang_Deposition_Exhibit_4_.pdf	159503	no	1
			54fae5f21d5f66a3b8023f88875e754c6947 344a		
Warnings:					
Information:					
36	Non Patent Literature	Wang_Deposition_Exhibit_5_.pdf	3971939	no	18
			6110052ef14e3bcd44d0794082e69f2afb8e 5498		
Warnings:					
Information:					

37	Non Patent Literature	Wang_Deposition_Exhibit_6_.pdf	168602	no	1
			44dd5306aa0cdc70ee60b1fe56ca4468669f1a7b		
Warnings:					
Information:					
38	Non Patent Literature	Wang_Deposition_Exhibit_7_.pdf	454361	no	2
			9e715d0f76eced6e47f7c80a34bd2cb27d7c1af3		
Warnings:					
Information:					
39	Non Patent Literature	Wang_Deposition_Exhibit_9_.pdf	200034	no	1
			34aa34a07fff2925eee0f41838cf8b68b405ee43d		
Warnings:					
Information:					
40	Non Patent Literature	Wang_Deposition_Exhibit_10_.pdf	130911	no	1
			de316c51d5351cd6a8bc685fb834a7821e53b2e8		
Warnings:					
Information:					
41	Non Patent Literature	Wang_Deposition_Exhibit_11_.pdf	183793	no	1
			6b3f8a9fd9b572c457b998a87ad1b4f49a12016a		
Warnings:					
Information:					
42	Non Patent Literature	Wang_Deposition_Exhibit_12_.pdf	9948627	no	58
			0d54a41e9242548cfe06133521dc605fe3c83ad		
Warnings:					
Information:					
43	Non Patent Literature	215_01_Exhibit_A_.pdf	3252837	no	17
			50fcbca12d41ab515580cb53caf91d87c40fdee8		
Warnings:					
Information:					

44	Non Patent Literature	Section_282_Notice_with_Publication_Materials_.pdf	22001184 6cad539677f5ce719fbc7ea06844b00678a23276	no	258
Warnings:					
Information:					
45	Non Patent Literature	Wang_Deposition_Exhibit_8_.pdf	1135309 90e8f2b8ae1eca761a356d73a31ab3e9a05d2926	no	4
Warnings:					
Information:					
Total Files Size (in bytes):			188273519		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	Confirmation No.: 5143
Gregory D. Conley et al.	)	
Serial No.: 16/451,483	)	Group Art Unit: 3761
Filed: June 25, 2019	)	Examiner: Thor S. Campbell
For: ELECTRONIC VAPORIZER	)	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), Applicant brings to the attention of the Examiner the documents listed on the attached Form PTO/SB/08. This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits for the above-referenced application.

Copies of the listed non-U.S. patent documents are attached. Applicant respectfully requests that the Examiner consider the listed documents and indicate that they were considered by making appropriate notations on the attached form.

Applicant brings to the attention of the Examiner the existence of the now-settled litigation proceeding, i.e., Civil Action No. 19-260 in the U.S. District Court for the Middle District of North Carolina between Plaintiff Fuma International LLC (Fuma) and Defendant R.J. Reynolds Vapor Company (RJR), asserting infringement of U.S. Patent Nos. 9,532,604 and 10,334,881. The '604 patent issued from application serial no.14/510,955, which is the parent of application serial no. 15/377,522 (now the '881 patent), which is the parent of the current pending above-identified application.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claim in the application and Applicant determines

that the cited documents do not constitute "prior art" under United States law, Applicant reserves the right to present to the office the relevant facts and law regarding the appropriate status of such documents.

Applicant further reserves the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 50-1068.

Respectfully submitted,

MARTIN & FERRARO, LLP

Date: February 15, 2022

By: /Thomas H. Martin/
Thomas H. Martin
Registration No. 34,383

1557 Lake O'Pines Street, NE
Hartville, Ohio 44632
Telephone: (330) 877-0700

Substitute for FORM PTO-1449			Attorney Docket Number 269.0003-03000		Customer No. 22882	
INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION			Applicant Gregory D. Conley et al.		Application Number 16/451,483	
(Use several sheets if necessary) Sheet <u>1</u> of <u>1</u>			Filing Date June 25, 2019		Group Art Unit 3761	Examiner T.S. Campbell
U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
U.S. PATENT PUBLICATION DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION (YES/NO)
NON PATENT LITERATURE DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)						
	Transcript of Summary Judgement Motion Hearing dated April 27, 2021, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
	Submission of Defendant's Powerpoint Presentations Published During the Summary Judgement Hearing dated April 29, 2021 and Exhibits A and B.					
	Defendant R.J. Reynolds Vapor Company's Motion to Reconsider Order (DKT. 139) Granting Motion for Summary Judgement dated June 1, 2021, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
	Defendant R.J. Reynolds Vapor Company's Brief in Support of Its Motion for Reconsideration dated June 1, 2021, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
	Plaintiff Fuma International LLC's Opposition to R.J. Reynold's Motion for Reconsideration of the Court's Summary Judgement Order on Infringement dated June 22, 2021, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
	Defendant R.J. Reynolds Vapor Company's Reply in Support of Its Motion for Reconsideration dated July 6, 2021, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
	Order dated July 28, 2021, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
EXAMINER		DATE CONSIDERED				
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.						

Electronic Acknowledgement Receipt	
EFS ID:	43820355
Application Number:	16451483
International Application Number:	
Confirmation Number:	5143
Title of Invention:	ELECTRONIC VAPORIZER
First Named Inventor/Applicant Name:	Gregory D. Conley
Customer Number:	22882
Filer:	Wesley Charles Meinerding
Filer Authorized By:	
Attorney Docket Number:	269.0003-03000
Receipt Date:	21-SEP-2021
Filing Date:	25-JUN-2019
Time Stamp:	13:29:04
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment		no			
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	IDS.pdf	82262	no	2
			70cd9e99adc7b9761405f57748ff86a90fc9e a48		
Warnings:					

Information:					
2	Information Disclosure Statement (IDS) Form (SB08)	SB08.pdf	106618	no	1
			f2f81e34119e080b8aad2c5033ecfe5a2bcf01cb		
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
3	Non Patent Literature	Transcript_Summary_Judgement_Hearing_27APR2021.pdf	245114	no	89
			f5f04b7003434bba7cf8f89d2ccc2d0b3dd74ca4		
Warnings:					
Information:					
4	Non Patent Literature	Submission_Hearing_Materials_29APR2021.pdf	6889647	no	33
			b49166042f1987469a86b084a628ef9505403710		
Warnings:					
Information:					
5	Non Patent Literature	Motion_Reconsideration_01JUN2021.pdf	151918	no	3
			a0bc19aa83d4a4748b81250eb0753631faa698f3		
Warnings:					
Information:					
6	Non Patent Literature	Brief_ISO_Motion_Reconsideration_01JUN2021.pdf	1641008	no	33
			90570a3e6f0dce3f5a2da351501e04258c142ee5		
Warnings:					
Information:					
7	Non Patent Literature	Opposition_Motion_Reconsideration_22JUN2021.pdf	210348	no	17
			dbc30df8f50585d39a541b3b16080bce7114d992		
Warnings:					
Information:					
8	Non Patent Literature	Reply_ISO_Motion_Reconsideration_06JUL2021.pdf	223129	no	14
			4b9297055fa3e26b1b52bbd7bf3762acb5fa72ce		
Warnings:					
Information:					

9	Non Patent Literature	Order_27JUL2021.pdf	178379 b3693868043178dd96c6c60c52edc30291 0b166	no	4
Warnings:					
Information:					
Total Files Size (in bytes):			9728423		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	Confirmation No.: 5143
Gregory D. Conley et al.	)	
Serial No.: 16/451,483	)	Group Art Unit: 3761
Filed: June 25, 2019	)	Examiner: Thor S. Campbell
For: ELECTRONIC VAPORIZER	)	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), Applicant brings to the attention of the Examiner the documents listed on the attached Form PTO/SB/08. This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits for the above-referenced application.

Copies of the listed non-U.S. patent documents are attached. Applicant respectfully requests that the Examiner consider the listed documents and indicate that they were considered by making appropriate notations on the attached form.

Applicant brings to the attention of the Examiner the existence of the litigation proceeding, i.e., Civil Action No. 19-260 in the U.S. District Court for the Middle District of North Carolina between Plaintiff Fuma International LLC (Fuma) and Defendant R.J. Reynolds Vapor Company (RJR), asserting infringement of U.S. Patent Nos. 9,532,604 and 10,334,881. The '604 patent issued from application serial no. 14/510,955, which is the parent of application serial no. 15/377,522 (now the '881 patent), which is the parent of the current pending above-identified application.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claim in the application and Applicant determines

that the cited documents do not constitute "prior art" under United States law, Applicant reserves the right to present to the office the relevant facts and law regarding the appropriate status of such documents.

Applicant further reserves the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 50-1068.

Respectfully submitted,

MARTIN & FERRARO, LLP

Date: September 21, 2021

By: /Thomas H. Martin/
Thomas H. Martin
Registration No. 34,383

1557 Lake O'Pines Street, NE
Hartville, Ohio 44632
Telephone: (330) 877-0700



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
16/451,483	06/25/2019	Gregory D. Conley	269.0003-03000

CONFIRMATION NO. 5143

22882
MARTIN & FERRARO, LLP
1557 LAKE O'PINES STREET, NE
HARTVILLE, OH 44632

PUBLICATION NOTICE



Title:ELECTRONIC VAPORIZER

Publication No.US-2021-0235772-A1

Publication Date:08/05/2021

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publicly available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently <http://www.uspto.gov/patft/>.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Public Records Division. The Public Records Division can be reached by telephone at (571) 272-3150 or (800) 972-6382, by facsimile at (571) 273-3250, by mail addressed to the United States Patent and Trademark Office, Public Records Division, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently <https://portal.uspto.gov/pair/PublicPair>. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

Substitute for FORM PTO-1449			Attorney Docket Number 269.0003-03000		Customer No. 22882	
INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION			Applicant Gregory D. Conley et al.		Application Number 16/451,483	
(Use several sheets if necessary) Sheet <u>1</u> of <u>1</u>			Filing Date June 25, 2019		Art Unit 3600	Examiner
U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
U.S. PUBLICATION DOCUMENTS						
NON PATENT LITERATURE DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)						
	Memorandum and Order dated May 24, 2021, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
EXAMINER		DATE CONSIDERED				
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.						

Electronic Acknowledgement Receipt	
EFS ID:	42852647
Application Number:	16451483
International Application Number:	
Confirmation Number:	5143
Title of Invention:	ELECTRONIC VAPORIZER
First Named Inventor/Applicant Name:	Gregory D. Conley
Customer Number:	22882
Filer:	Wesley Charles Meinerding
Filer Authorized By:	
Attorney Docket Number:	269.0003-03000
Receipt Date:	28-MAY-2021
Filing Date:	25-JUN-2019
Time Stamp:	16:22:49
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment		no			
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	IDS.pdf	82213	no	2
			49f00c024962cca213b82f50a20c91b211a2c003		
Warnings:					

Information:					
2	Information Disclosure Statement (IDS) Form (SB08)	SB08.pdf	102217	no	1
			f49ba7b0aa4dfc9d0d1bacf00ac9cc947ca9b50		
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
3	Non Patent Literature	Memorandum_Opinion_and_Order_24MAY2021.pdf	305061	no	19
			02555c42a5b1441a3cc1b0a3636ffdc46f34b026		
Warnings:					
Information:					
Total Files Size (in bytes):			489491		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	Confirmation No.: 5143
Gregory D. Conley et al.	)	
Serial No.: 16/451,483	)	Group Art Unit: 3600
Filed: June 25, 2019	)	
For: ELECTRONIC VAPORIZER	)	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), Applicant brings to the attention of the Examiner the documents listed on the attached Form PTO/SB/08. This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits for the above-referenced application.

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Applicant brings to the attention of the Examiner the existence of the litigation proceeding, i.e., Civil Action No. 19-260 in the U.S. District Court for the Middle District of North Carolina between Plaintiff Fuma International LLC (Fuma) and Defendant R.J. Reynolds Vapor Company (RJR), asserting infringement of U.S. Patent Nos. 9,532,604 and 10,334,881. The '604 patent issued from application serial no.14/510,955, which is the parent of application serial no. 15/377,522 (now the '881 patent), which is the parent of the current pending above-identified application.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claim in the application and Applicant determines

that the cited documents do not constitute "prior art" under United States law, Applicant reserves the right to present to the office the relevant facts and law regarding the appropriate status of such documents.

Applicant further reserves the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 50-1068.

Respectfully submitted,

MARTIN & FERRARO, LLP

Date: May 28, 2021

By: /Thomas H. Martin/
Thomas H. Martin
Registration No. 34,383

1557 Lake O'Pines Street, NE
Hartville, Ohio 44632
Telephone: (330) 877-0700



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
16/451,483	06/25/2019	Gregory D. Conley	269.0003-03000

22882
MARTIN & FERRARO, LLP
1557 LAKE O'PINES STREET, NE
HARTVILLE, OH 44632

CONFIRMATION NO. 5143

NONPUBLICATION RESCISSION
LETTER



OC000000125117741*

Date Mailed: 04/26/2021

**Communication Regarding Rescission Of
Nonpublication Request and/or Notice of Foreign Filing**

Applicant's rescission of the previously-filed nonpublication request and/or notice of foreign filing is acknowledged. The paper has been reflected in the Patent and Trademark Office's (USPTO's) computer records so that the earliest possible projected publication date can be assigned.

The projected publication date is 08/05/2021.

If applicant rescinded the nonpublication request before or on the date of "foreign filing,"¹ then no notice of foreign filing is required.

If applicant foreign filed the application after filing the above application and before filing the rescission, and the rescission did not also include a notice of foreign filing, then a notice of foreign filing (not merely a rescission) is required to be filed within 45 days of the date of foreign filing. See 35 U.S.C. § 122(b)(2)(B)(iii), and Clarification of the United States Patent and Trademark Office's Interpretation of the Provisions of 35 U.S.C. § 122(b)(2)(B)(ii)-(iv), 1272 Off. Gaz. Pat. Office 22 (July 1, 2003).

If a notice of foreign filing is required and is not filed within 45 days of the date of foreign filing, then the application becomes abandoned pursuant to 35 U.S.C. § 122(b)(2)(B)(iii). In this situation, applicant should either file a petition to revive or notify the Office that the application is abandoned. See 37 CFR 1.137(f). Any such petition to revive will be forwarded to the Office of Petitions for a decision. Note that the filing of the petition will not operate to stay any period of reply that may be running against the application.

Questions regarding petitions to revive should be directed to the Office of Petitions at (571) 272-3282.

¹ Note, for purpose of this notice, that "foreign filing" means "filing an application directed to the same invention in another country, or under a multilateral international agreement, that requires publication of applications 18 months after filing".

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/byemane/

RESCISSION OF PREVIOUS NONPUBLICATION REQUEST (35 U.S.C. 122(b)(2)(B)(ii)) AND, IF APPLICABLE, NOTICE OF FOREIGN FILING (35 U.S.C. 122(b)(2)(B)(iii))	Application Number		16/451,483
	Filing Date		June 25, 2019
	First Named Inventor		Gregory D. Conley
	Title	ELECTRONIC VAPORIZER	
	Atty Docket Number		269.0003-03000
	Art Unit		3600
	Examiner		

Send completed form to:
Mail Stop PG Pub
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
FAX: (571) 273-8300

A request that the above-identified application not be published under 35 U.S.C. 122(b) (nonpublication request) was included with the above-identified application on filing pursuant to 35 U.S.C. 122(b)(2)(B)(i).

I hereby **rescind** the previous nonpublication request.

If a notice of foreign or international filing is or will be required by 35 U.S.C. 122(b)(2)(B)(iii) and 37 CFR 1.213(c), I hereby provide such notice. This notice is being provided no later than forty-five (45) days after the date of such foreign or international filing.

If a notice of subsequent foreign or international filing required by 35 U.S.C. 122(b)(2)(B)(iii) and 37 CFR 1.213(c) was not filed within forty-five (45) days after the date of filing of the foreign or international application, the application is ABANDONED, and a petition to revive under 37 CFR 1.137(b) is required. See 37 CFR 1.137(f).

/Thomas H. Martin/

April 22, 2021

Signature

Date

Thomas H. Martin

34,383

Typed or printed name

Registration Number, if applicable

330-877-0700

Telephone Number

This request must be signed in compliance with 37 CFR 1.33(b).

If information or assistance is needed in completing this form, please contact the Pre-Grant Publication Division at (703)605-4283 or by e-mail at PGPub@USPTO.gov.

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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop PG Pub, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

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This collection of information is required by 37 CFR 1.213(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 6 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop PG Pub, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Electronic Acknowledgement Receipt	
EFS ID:	42522305
Application Number:	16451483
International Application Number:	
Confirmation Number:	5143
Title of Invention:	ELECTRONIC VAPORIZER
First Named Inventor/Applicant Name:	Gregory D. Conley
Customer Number:	22882
Filer:	Wesley Charles Meinerding
Filer Authorized By:	
Attorney Docket Number:	269.0003-03000
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Application Type:	Utility under 35 USC 111(a)

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File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Rescind Nonpublication Request for Pre Grant Pub	Recision_of_Non-Publication.pdf	158110	no	1
			dd5d0098f6fd8e7defc8c655b5bd8fd9401bb0		
Warnings:					

Information:	
Total Files Size (in bytes):	158110
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.	

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	Confirmation No.: 5143
Gregory D. Conley et al.	)	
Serial No.: 16/451,483	)	Group Art Unit: 3600
Filed: June 25, 2019	)	
For: ELECTRONIC VAPORIZER	)	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
Sir:

DECLARATION UNDER 37 C.F.R. § 1.131

I, Gregory D. Conley, declare as follows:

1. I am one of the named inventors of the above-identified application, and the other named inventor and I are the sole inventors of the subject matter described and claimed therein.

2. The present application was filed on June 25, 2019 and claims priority as a continuation of U.S. Application No. 15/377,522 (now U.S. Patent No. 10,334,881), filed on December 13, 2016, which claims priority as continuation of U.S. Application No. 14/510,955 (now U.S. Patent No. 9,532,604), filed on October 9, 2014, which claims priority as continuation of U.S. Application No. 13/594,813 (now U.S. Patent No. 8,897,628), filed on August 25, 2012, which claims priority as continuation in part of U.S. Application No. 12/843,917, filed on July 27, 2010. U.S. Application No. 12/843,917 claims the benefit of U.S. Provisional Application No. 61/273,097, filed on July 31, 2009, and claims the benefit of U.S. Provisional Application No. 61/271,819, filed on July 27, 2009. U.S. Application No. 13/594,813 claims the benefit of U.S. Provisional Application No. 61/527,434, filed on August 25, 2011.

3. Prior to January 13, 2010 (the publication date listed on the face page of CN201379072), the other named inventor and I reduced to practice in this country the invention as described and claimed in the above-identified application. Evidence of our reduction to practice is set forth below and attached hereto as Exhibit A.

4. Exhibit A includes Figs. 1-17 that depict the product and the componentry thereof that embody the reduction to practice of the invention as described and claimed

in the above-identified application. The figures of Exhibit A depict an Electronic Cigarette Starter Kit (including an electronic cigarette having a cartridge (yellow portion of electronic cigarette in Exhibit A)) and replacement Cartridges (sold separately from the Electronic Cigarette Starter Kit). As depicted in Exhibit A, the electronic cigarette is provided to vaporize at least a portion of a vaping liquid contained in a holding medium contained in the cartridge. The vaporization is facilitated using a heating element included in the cartridge responsive to electrical power received from a battery (white portion of electronic cigarette in Exhibit A), and the vaporized liquid is for oral provisioning to an individual in an airflow that travels through the electronic cigarette.

5. The relationship of the subject matter of the claims to the product and the componentry thereof shown in Exhibit A is set forth below.

(a1) Independent claim 41

Preamble: a cartridge configured to couple to a power source (see Fig. 2 of Exhibit A showing a white battery) of an electronic vaporizer (see Fig. 2 of Exhibit A showing an electronic cigarette).

Recitation 1:

a housing (of the cartridge) (see Figs. 2-9 of Exhibit A showing yellow cartridge) having an interior and a solution holding medium adapted to hold a solution (see Figs. 7-12 of Exhibit A showing a batting material that is a solution holding medium on an interior of the housing), the housing having a first end and a second end that is opposite the first end (see Figs. 6, 7, and 15 of Exhibit A showing a first end and a second end of the yellow cartridge), the housing having a first aperture proximate the first end and a second aperture proximate the second end (see Fig. 15 of Exhibit A showing a first aperture at the first end of the yellow cartridge and a second aperture at the second end of the yellow cartridge), the first end of the housing being adapted to electrically couple to the power source (see Figs. 2 and 15 of Exhibit A showing an electrical conductive threaded portion of the yellow cartridge for electrically coupling with an electrical conductive threaded portion on the white battery), the first aperture and the second aperture being in communication with one another to permit an airflow through the housing from the first aperture to the second aperture (see Figs. 5-13

of Exhibit A showing first and second apertures permitting an airflow through the yellow cartridge); and

Recitation 2

a heating element (of the cartridge) located in the interior of the housing (see Figs. 6-14 of Exhibit A showing a heating element), the heating element extending transversely to a central longitudinal axis of the housing and being at least partially exposed to the airflow (see Figs. 6-14 of Exhibit A showing the respective arrangement of the heating element relative to the airflow through the yellow cartridge), the heating element being configured to vaporize at least a portion of the solution for oral provision to an individual in the airflow, the heating element being responsive to electrical power received from the power source (this corresponds to the purpose of the electronic cigarette of Exhibit A).

(b1) Dependent claim 42

Recitation: further in combination with a power source adapted to be electrically coupled to the first end of the housing, the power source including a battery (see Fig. 2 of Exhibit A showing the white battery and the relationship with the first end of the housing).

(c1) Dependent claim 43

Recitation: wherein the cartridge is adapted to permit the airflow to pass on both transverse sides of the heating element during use of the electronic vaporizer (see Figs. 6-14 of Exhibit A showing the respective arrangement of the heating element relative to the airflow through the yellow cartridge).

(d1) Dependent claim 44

Recitation: wherein the heating element includes a wicking material being operative to permit at least a portion of the solution to be held in the solution holding medium to be drawn toward the heating element to be vaporized (see Figs. 6- 14 of Exhibit A show the wicking material passing through the heating element and being operative to attract a portion of the solution from the solution holding medium located immediately adjacent opposite ends of the heating element toward the heating element).

(e1) Dependent claim 45

Recitation: wherein the first aperture proximate the first end is smaller than the second aperture proximate the second end (see Fig. 15 of Exhibit A showing dimensions of the first aperture and the second aperture).

(f1) Dependent claim 46

Recitation: further comprising a solution in the solution holding medium, the solution comprising one of propylene glycol and nicotine (the solution holding medium of Figs. 6 and 12 of Exhibit A held a solution comprising propylene glycol and nicotine).

(g1) Dependent claim 47

Recitation: further comprising an airflow passageway in the housing, at least a portion of the airflow passageway extending centrally and axially with respect to the housing (see Figs. 5-13 and 15-17 of Exhibit A showing the airflow passageway through the yellow cartridge).

(h1) Dependent claim 48

Recitation: wherein a majority of the portion of the airflow passageway has a substantially uniform cross-sectional area measured perpendicular to the central longitudinal axis of the housing between the heating element and the second aperture (see Figs. 6-10 and 15 of Exhibit A for a majority of the airflow passageway having a uniform cross-sectional area between the heating element and the second aperture).

(i1) Dependent claim 49

Recitation: wherein the airflow passageway extends centrally and axially from the first aperture to the second aperture (see Figs. 5-13 and 15-17 of Exhibit A showing the airflow passageway through the yellow cartridge).

(j1) Dependent claim 50

Recitation: wherein the airflow passageway extends in a straight path from the first aperture to the second aperture with only the heating element obstructing a portion of the airflow through the airflow passageway along the central longitudinal axis of the housing (see Figs. 5-17 of Exhibit A showing the airflow passageway through the yellow cartridge, and the location of the heating element).

(k1) Dependent claim 51

Recitation: wherein the heating element includes a coil (see Figs. 6-14 of Exhibit A showing a coil of the heating element).

(l1) Dependent claim 52

Recitation: wherein the housing further comprises an airflow chamber having a length extending intermediate of the heating element and the second aperture, the chamber having an interior between the heating element and the second aperture, the interior having no cross-sectional area measured perpendicular to the central longitudinal axis of the housing smaller in cross-sectional area than a cross-sectional area of the second aperture (see Figs. 6-10 and 15 of Exhibit A showing an airflow chamber having an interior between the heating element and the second aperture, and having the relationship of cross-sectional areas with a cross-sectional area of the second aperture).

(m1) Dependent claim 53

Recitation: wherein the housing further comprises an airflow chamber having a length extending intermediate of the heating element and the second aperture, the length of the chamber having a substantially uniform cross-sectional area along a continuous majority of the length, the substantially uniform cross-sectional area being measured perpendicular to the central longitudinal axis of the housing, no portion of the chamber from immediately adjacent the heating element to the second aperture having a cross-sectional area smaller than a cross-sectional area of the second aperture (see Figs. 6-10 and 15 of Exhibit A showing an airflow chamber between the heating element and the second aperture, having a substantially uniform cross-sectional area along a continuous majority of a length thereof, and having the relationship of cross-sectional areas with a cross-sectional area of the second aperture).

(n1) Dependent claim 54

Recitation: wherein the airflow through the housing follows an airflow path, a first portion of the airflow path proximate the first aperture being defined substantially centrally and axially with respect to the central longitudinal axis of the housing, and a second portion of the airflow path proximate to the second

aperture being defined substantially centrally and axially with respect to the central longitudinal axis of the housing (see Figs. 6-10 and 15 of Exhibit A showing the arrangement of a first portion and a second portion of an airflow path adjacent the first aperture and the second aperture, respectively).

(o1) Dependent claim 55

Recitation: wherein the heating element includes a material that when powered by the power source is adapted to vaporize the solution brought into contact with the heating element (this corresponds to the purpose of the electronic cigarette of Exhibit A).

(a2) Independent claim 56

Preamble: a cartridge configured to couple to a power source (see Fig. 2 of Exhibit A showing a white battery) of an electronic vaporizer (see Fig. 2 of Exhibit A showing an electronic cigarette).

Recitation 1:

a housing (of the cartridge) (see Figs. 2-9 of Exhibit A showing yellow cartridge) having an interior and a solution holding medium adapted to hold a solution (see Figs. 7-12 of Exhibit A showing a batting material that is a solution holding medium on an interior of the housing), the housing having a first end and a second end that is opposite the first end and a central longitudinal axis extending from the first end to the second end (see Figs. 6, 7, and 15 of Exhibit A showing a first end and a second end of the yellow cartridge, and central longitudinal axis extending from the first end to the second end), the housing having a first aperture proximate the first end and a second aperture proximate the second end (see Fig. 15 of Exhibit A showing a first aperture at the first end of the yellow cartridge and a second aperture at the second end of the yellow cartridge), the first end of the housing being adapted to electrically couple to the power source (see Figs. 2 and 15 of Exhibit A showing an electrical conductive threaded portion of the yellow cartridge for electrically coupling with an electrical conductive threaded portion on the white battery), the first aperture and the second aperture being in communication with one another to permit an airflow

through the housing (see Figs. 5-13 of Exhibit A showing first and second apertures permitting an airflow through the yellow cartridge); and

Recitation 2:

a heating element (of the cartridge) located in the interior of the housing (see Figs. 6-14 of Exhibit A showing a heating element), the heating element including a coil extending transversely to the central longitudinal axis of the housing and transversely to a direction of the airflow such that the airflow passes on both transverse sides of the heating element during use of the electronic vaporizer(see Figs. 6-14 of Exhibit A showing a coil of the heating element, and the respective arrangement of the heating element relative to the airflow through the yellow cartridge), the heating element being configured to vaporize at least the portion of the solution drawn to the heating element for oral provision to an individual in the airflow, the heating element being responsive to electrical power received from the power source (this corresponds to the purpose of the electronic cigarette of Exhibit A).

(b2) Dependent claim 57

Recitation: further in combination with a power source adapted to be electrically coupled to the first end of the housing, the power source including a battery (see Fig. 2 of Exhibit A showing the white battery and the relationship with the first end of the housing).

(c2) Dependent claim 58

Recitation: wherein the heating element includes a wicking material being operative to permit at least a portion of the solution to be held in the solution holding medium to be drawn toward the heating element to be vaporized (see Figs. 6- 14 of Exhibit A show the wicking material passing through the heating element and being operative to attract a portion of the solution from the solution holding medium located immediately adjacent opposite ends of the heating element toward the heating element).

(d2) Dependent claim 59

Recitation: wherein the first aperture proximate the first end is smaller than the second aperture proximate the second end (see Fig. 15 of Exhibit A showing dimensions of the first aperture and the second aperture).

(e2) Dependent claim 60

Recitation: further comprising a solution in the solution holding medium, the solution comprising one of propylene glycol and nicotine (the solution holding medium of Figs. 6 and 12 of Exhibit A held a solution comprising propylene glycol and nicotine).

(f2) Dependent claim 61

Recitation: further comprising an airflow passageway in the housing, at least a portion of the airflow passageway extending centrally and axially with respect to the housing (see Figs. 5-13 and 15-17 of Exhibit A showing the airflow passageway through the yellow cartridge).

(g2) Dependent claim 62

Recitation: wherein a majority of the portion of the airflow passageway has a substantially uniform cross-sectional area measured perpendicular to the central longitudinal axis of the housing between the heating element and the second aperture (see Figs. 6-10 and 15 of Exhibit A for a majority of the airflow passageway having a uniform cross-sectional area between the heating element and the second aperture).

(h2) Dependent claim 63

Recitation: wherein the airflow passageway extends centrally and axially from the first aperture to the second aperture (see Figs. 5-13 and 15-17 of Exhibit A showing the airflow passageway through the yellow cartridge).

(i2) Dependent claim 64

Recitation: wherein the airflow passageway extends in a straight path from the first aperture to the second aperture with only the heating element obstructing a portion of the airflow through the airflow passageway along the central longitudinal axis of the housing (see Figs. 5-17 of Exhibit A showing the airflow passageway through the yellow cartridge, and the location of the heating element).

(j2) Dependent claim 65

Recitation: wherein the cartridge is formed as an integrated single assembly (see Figs. 2-12 and 15 showing the yellow cartridge is an integrated single assembly).

(k2) Dependent claim 66

Recitation: wherein the airflow through the housing follows an airflow path, a first portion of the airflow path proximate the first aperture being defined substantially centrally and axially with respect to the central longitudinal axis of the housing, and a second portion of the airflow path proximate to the second aperture being defined substantially centrally and axially with respect to the central longitudinal axis of the housing (see Figs. 6-10 and 15 of Exhibit A showing the arrangement of a first portion and a second portion of an airflow path adjacent the first aperture and the second aperture, respectively).

(l2) Dependent claim 67

Recitation: wherein the housing further comprises an airflow chamber having a length extending intermediate of the heating element and the second aperture, the chamber having an interior between the heating element and the second aperture, the interior having no cross-sectional area measured perpendicular to the central longitudinal axis of the housing smaller in cross-sectional area than a cross-sectional area of the second aperture (see Figs. 6-10 and 15 of Exhibit A showing an airflow chamber having an interior between the heating element and the second aperture, and having the relationship of cross-sectional areas with a cross-sectional area of the second aperture).

(m2) Dependent claim 68

Recitation: wherein the housing further comprises an airflow chamber having a length extending intermediate of the heating element and the second aperture, the length of the chamber having a substantially uniform cross-sectional area along a continuous majority of the length, the substantially uniform cross-sectional area being measured perpendicular to the central longitudinal axis of the housing, no portion of the chamber from immediately adjacent the heating element to the second aperture having a cross-sectional area smaller

than a cross-sectional area of the second aperture (see Figs. 6-10 and 15 of Exhibit A showing an airflow chamber between the heating element and the second aperture, having a substantially uniform cross-sectional area along a continuous majority of a length thereof, and having the relationship of cross-sectional areas with a cross-sectional area of the second aperture).

(a3) Independent claim 69

Preamble: a cartridge configured to couple to a power source (see Fig. 2 of Exhibit A showing a white battery) of an electronic vaporizer (see Fig. 2 of Exhibit A showing an electronic cigarette).

Recitation 1:

a housing (of the cartridge) (see Figs. 2-9 of Exhibit A showing yellow cartridge) having an interior and a solution holding medium adapted to hold a solution (see Figs. 7-12 of Exhibit A showing a batting material that is a solution holding medium on an interior of the housing), the housing having a first end and a second end that is opposite the first end and a central longitudinal axis extending from the first end to the second end (see Figs. 6, 7, and 15 of Exhibit A showing a first end and a second end of the yellow cartridge, and central longitudinal axis extending from the first end to the second end), the housing having a first aperture proximate the first end and a second aperture proximate the second end (see Fig. 15 of Exhibit A showing a first aperture at the first end of the yellow cartridge and a second aperture at the second end of the yellow cartridge), the first end of the housing being adapted to electrically couple to the power source (see Figs. 2 and 15 of Exhibit A showing an electrical conductive threaded portion of the yellow cartridge for electrically coupling with an electrical conductive threaded portion on the white battery), the first aperture and the second aperture being in communication with one another to permit an airflow through the housing (see Figs. 5-13 of Exhibit A showing first and second apertures permitting an airflow through the yellow cartridge); and

Recitation 2:

a heating element (of the cartridge) located in the interior of the housing (see Figs. 6-14 of Exhibit A showing a heating element), the heating element

extending transversely to the central longitudinal axis of the housing and being at least partially exposed to the airflow such that the airflow entering through the first aperture will separate and then pass on both transverse sides of the heating element and then continue along an airflow path co-axial with the central longitudinal axis of the housing toward the second aperture during use of the electronic vaporizer (see Figs. 6-15 of Exhibit A showing the respective arrangement of the heating element relative to the airflow through the yellow cartridge), the heating element being configured to vaporize at least the portion of the solution for oral provision to an individual in the airflow, the heating element being responsive to electrical power received from the power source (this corresponds to the purpose of the electronic cigarette of Exhibit A).

(b3) Dependent claim 70

Recitation: further in combination with a power source adapted to be electrically coupled to the first end of the housing, the power source including a battery (see Fig. 2 of Exhibit A showing the white battery and the relationship with the first end of the housing).

(c3) Dependent claim 71

Recitation: wherein the heating element comprises a material that when powered by the power source is adapted to vaporize the solution brought into contact with the heating element (see Figs. 6-14 of Exhibit A showing a coil of the heating element).

(d3) Dependent claim 72

Recitation: further comprising a solution in the solution holding medium, the solution comprising one of propylene glycol and nicotine (the solution holding medium of Figs. 6 and 12 of Exhibit A held a solution comprising propylene glycol and nicotine).

(e3) Dependent claim 73

Recitation: further comprising an airflow passageway in the housing, at least a portion of the airflow passageway extending centrally and axially with respect to the housing (see Figs. 5-13 and 15-17 of Exhibit A showing the airflow passageway through the yellow cartridge).

(f3) Dependent claim 74

Recitation: wherein a majority of the portion of the airflow passageway has a substantially uniform cross-sectional area measured perpendicular to the central longitudinal axis of the housing between the heating element and the second aperture(see Figs. 6-10 and 15 of Exhibit A for a majority of the airflow passageway having a uniform cross-sectional area between the heating element and the second aperture).

(g3) Dependent claim 75

Recitation: wherein the airflow passageway extends centrally and axially from the first aperture to the second aperture (see Figs. 5-13 and 15-17 of Exhibit A showing the airflow passageway through the yellow cartridge).

(h3) Dependent claim 76

Recitation: wherein the airflow passageway extends in a straight path from the first aperture to the second aperture with only the heating element obstructing a portion of the airflow through the airflow passageway along the central longitudinal axis of the housing (see Figs. 5-17 of Exhibit A showing the airflow passageway through the yellow cartridge, and the location of the heating element).

(i3) Dependent claim 77

Recitation: wherein the cartridge is formed as an integrated single assembly (see Figs. 2-12 and 15 showing the yellow cartridge is an integrated single assembly).

(j3) Dependent claim 78

Recitation: wherein the housing further comprises an airflow chamber having a length extending intermediate of the heating element and the second aperture, the chamber having an interior between the heating element and the second aperture, the interior having no cross-sectional area measured perpendicular to the central longitudinal axis of the housing smaller in cross-sectional area than a cross-sectional area of the second aperture (see Figs. 6-10 and 15 of Exhibit A showing an airflow chamber having an interior between the

heating element and the second aperture, and having the relationship of cross-sectional areas with a cross-sectional area of the second aperture).

(k3) Dependent claim 79

Recitation: wherein the housing further comprises an airflow chamber having a length extending intermediate of the heating element and the second aperture, the length of the chamber having a substantially uniform cross-sectional area along a continuous majority of the length, the substantially uniform cross-sectional area being measured perpendicular to the central longitudinal axis of the housing, no portion of the chamber from immediately adjacent the heating element to the second aperture having a cross-sectional area smaller than a cross-sectional area of the second aperture (see Figs. 6-10 and 15 of Exhibit A showing an airflow chamber between the heating element and the second aperture, having a substantially uniform cross-sectional area along a continuous majority of a length thereof, and having the relationship of cross-sectional areas with a cross-sectional area of the second aperture).

(a4) Independent claim 80

Preamble: a cartridge configured to couple to a power source of an electronic vaporizer.

Recitation 1:

a housing (of the cartridge) (see Figs. 2-9 of Exhibit A showing yellow cartridge) having an interior and a solution holding medium adapted to hold a solution (see Figs. 7-12 of Exhibit A showing a batting material that is a solution holding medium on an interior of the housing), the housing having a first end and a second end that is opposite the first end (see Figs. 6, 7, and 15 of Exhibit A showing a first end and a second end of the yellow cartridge), the housing having a first aperture proximate the first end and a second aperture proximate the second end (see Fig. 15 of Exhibit A showing a first aperture at the first end of the yellow cartridge and a second aperture at the second end of the yellow cartridge), the first end of the housing being adapted to electrically couple to the power source (see Figs. 2 and 15 of Exhibit A showing an electrical conductive threaded portion of the yellow cartridge for electrically coupling with an electrical

conductive threaded portion on the white battery), the first aperture and the second aperture being in communication with one another to permit an airflow through the housing from the first aperture to the second aperture (see Figs. 5-13 of Exhibit A showing first and second apertures permitting an airflow through the yellow cartridge); and

Recitation 2:

a heating element (of the cartridge) located in the interior of the housing, the heating element extending transversely to a central longitudinal axis of the housing and being at least partially exposed to the airflow (see Figs. 6-14 of Exhibit A showing the respective arrangement of the heating element relative to the airflow through the yellow cartridge), the heating element being configured to vaporize at least a portion of the solution for oral provision to an individual in the airflow, the heating element being responsive to electrical power received from the power source (this corresponds to the purpose of the electronic cigarette of Exhibit A);

Recitation 3:

wherein the cartridge is formed as an integrated single assembly (see Figs. 2-12 and 15 showing the yellow cartridge is an integrated single assembly).

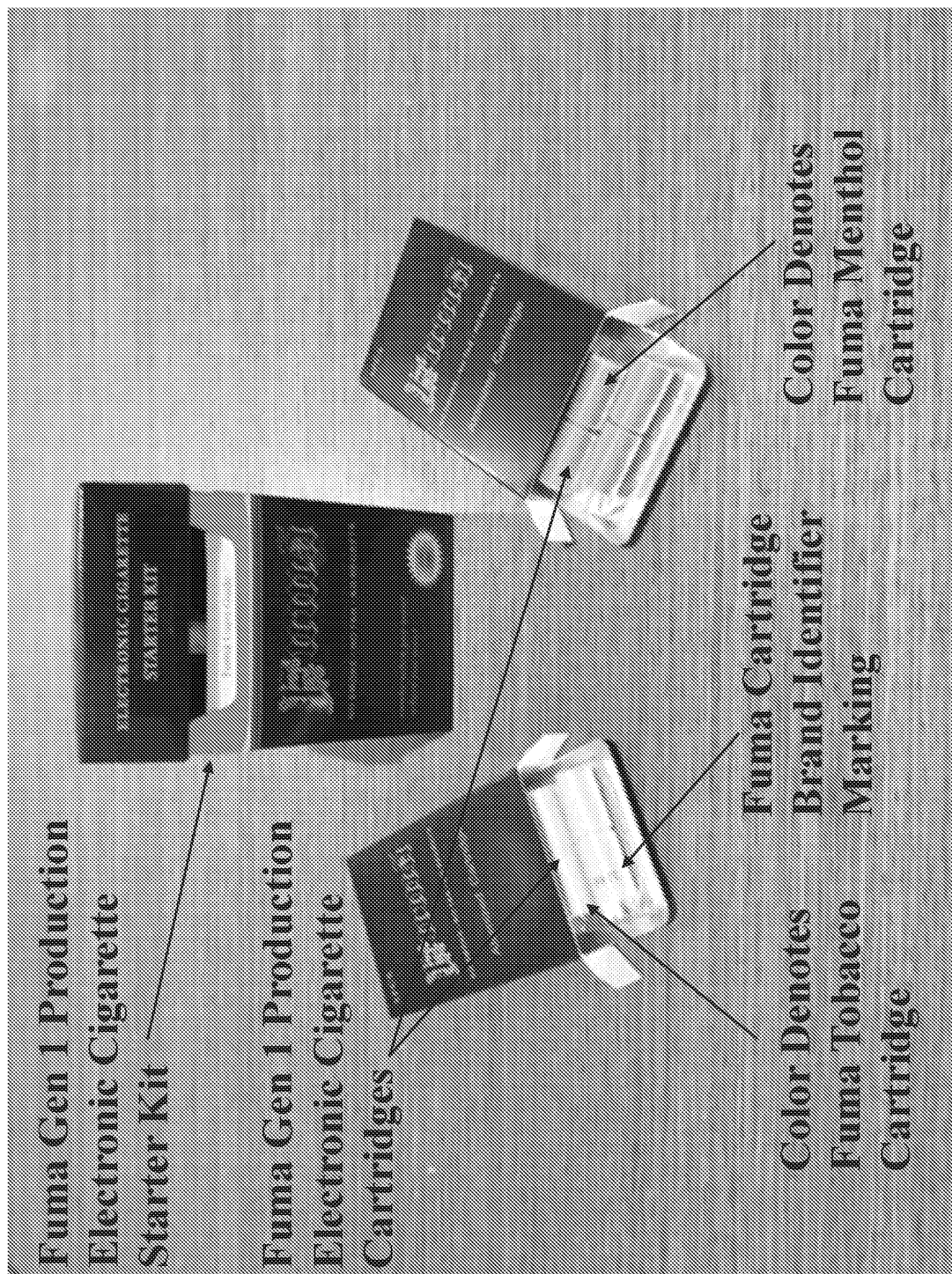
6. The product and the componentry thereof shown in Exhibit A and embodied in independent claims 41, 56, 69, and 80 was sold to customers of Fuma International LLC before January 13, 2010, as evidenced by Exhibit B. To illustrate, page 1 of Exhibit B depicts Invoice No. 41 and shows Deluxe Starter Kits and various Cartridges (corresponding to those shown in Figs. 1-17 of Exhibit A) were sold before January 13, 2010, and page 2 of Exhibit B depicts Invoice No. 44 and shows that Deluxe Starter Kits and various Cartridges (corresponding to those shown in Figs. 1-17 of Exhibit A) also were sold before January 13, 2010.

I declare further that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further, that the statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patents issuing thereon.

Dated: 2/16/2021

By: Gregory D. Conley
Gregory D. Conley

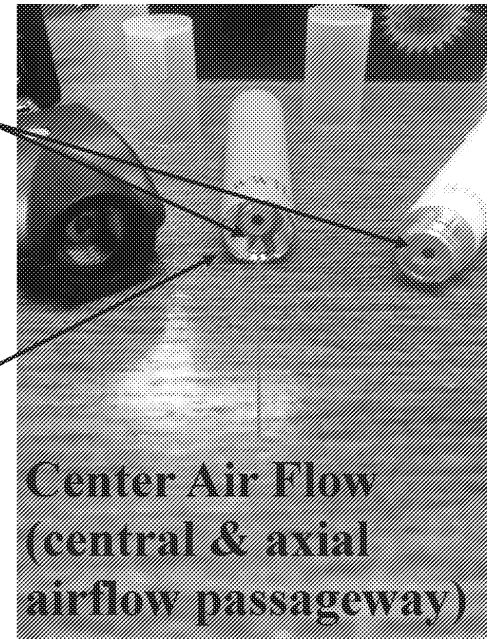
Figure: 1





**Electrical
Conductive
Threaded
Portion**

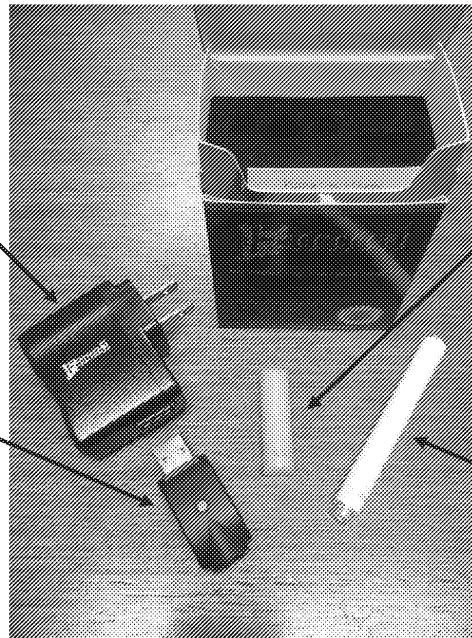
**Fuma Cartridge
Screw (first end of the
Cartridge housing)**



**Center Air Flow
(central & axial
airflow passageway)**

Fuma Wall Charger

Fuma USB Charger



Fuma Cartridge

Fuma Battery

Figure: 2

Figure: 3



Figure: 4



Figure: 5



Figure: 6

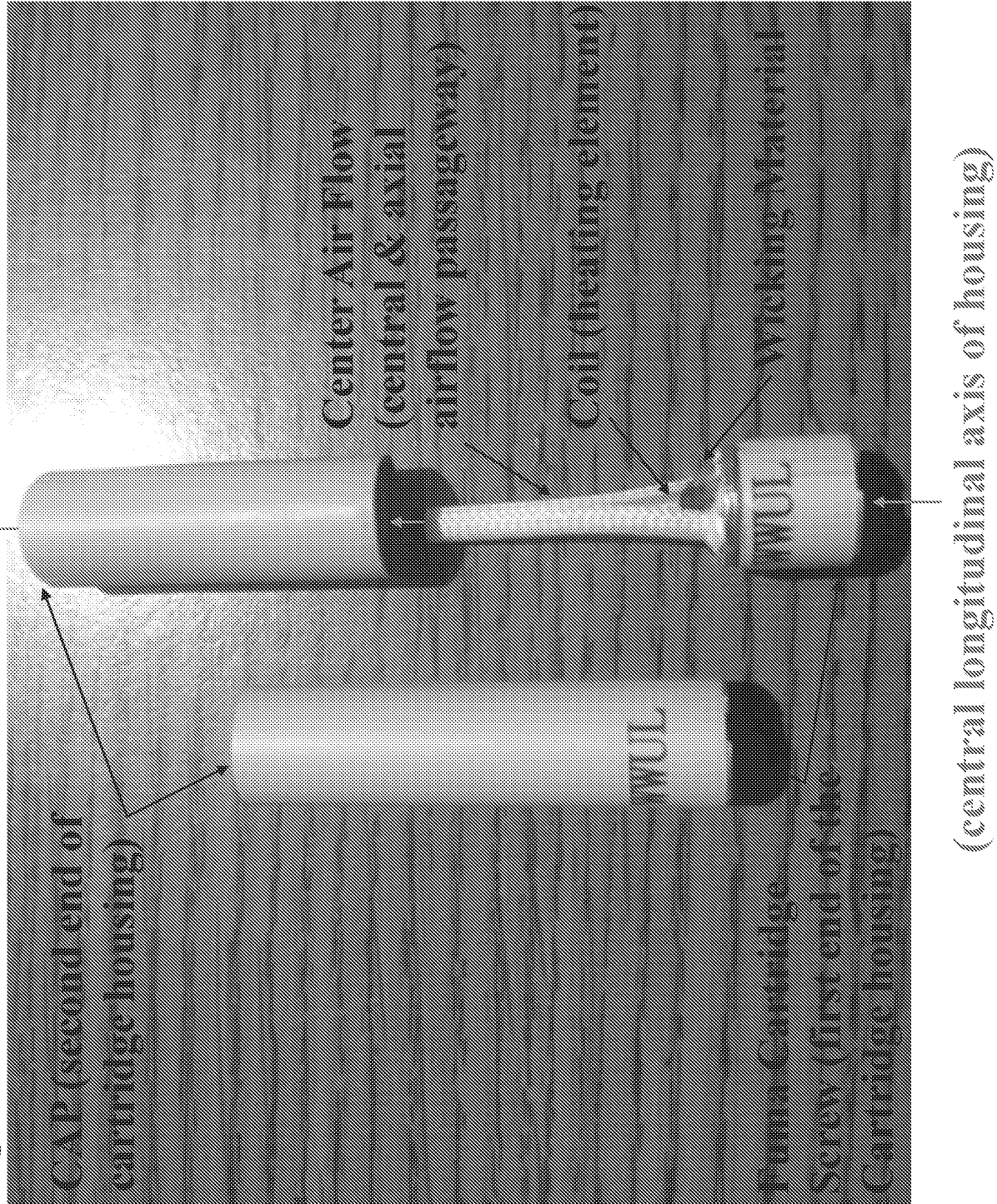


Figure: 7

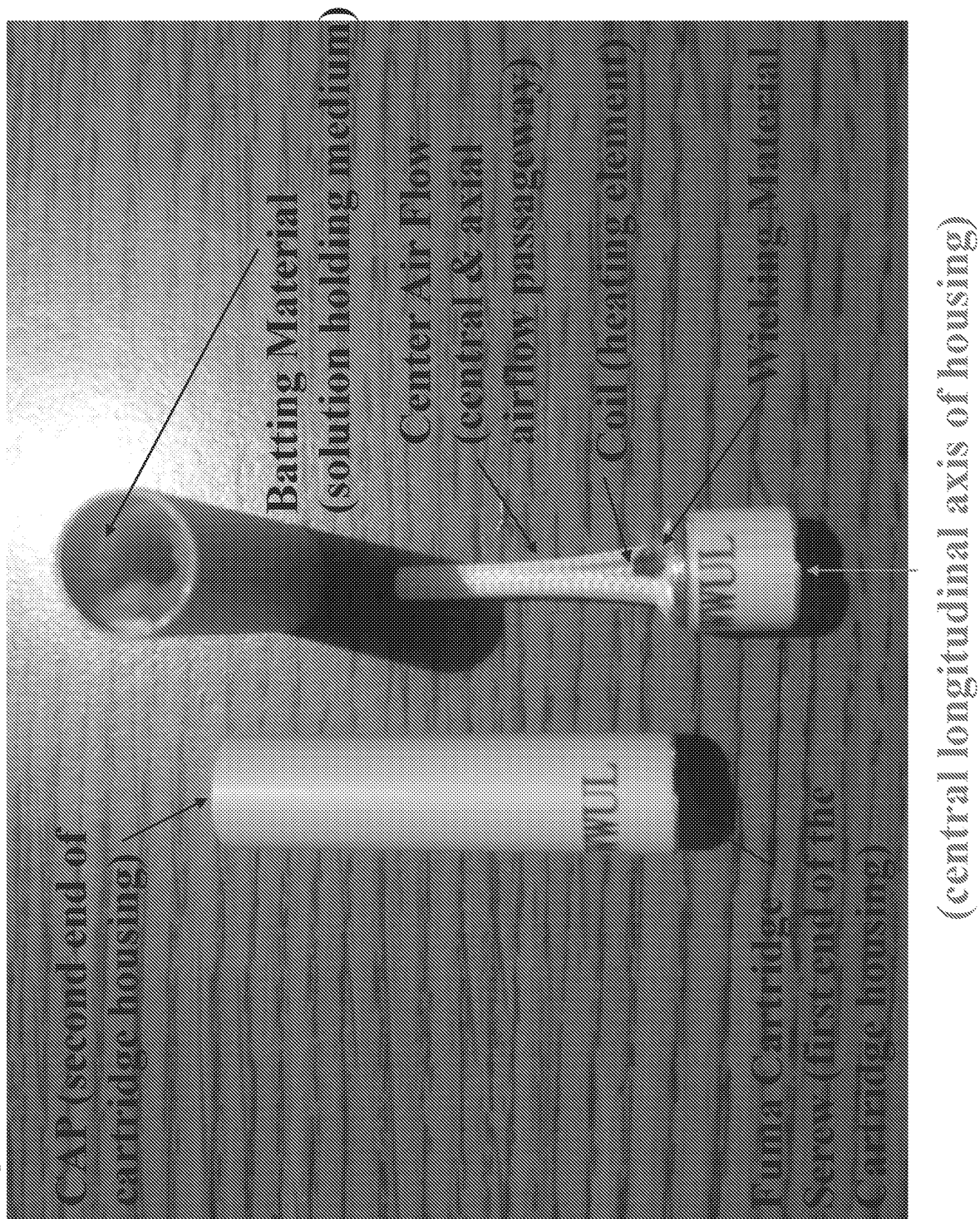
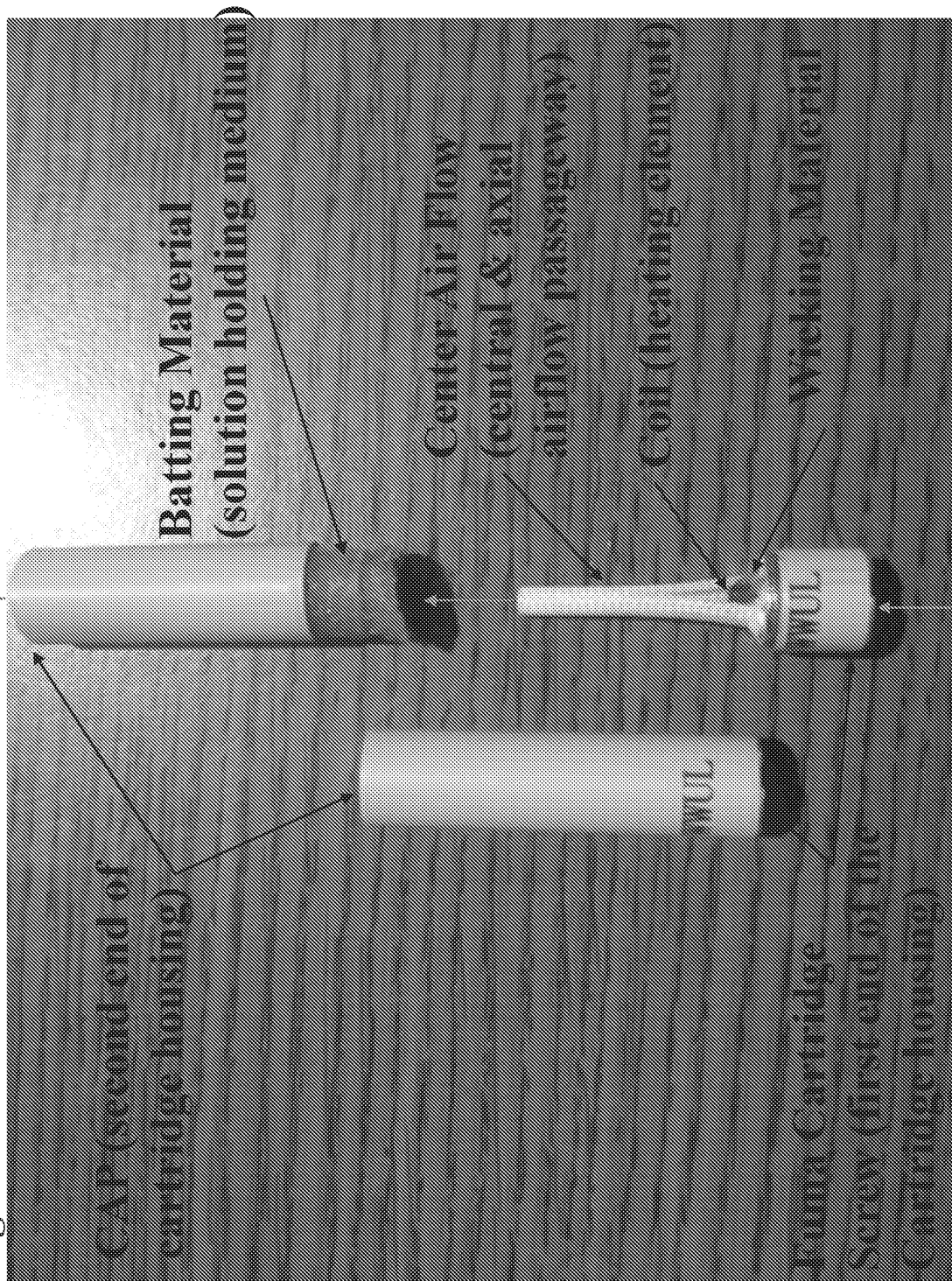


Figure: 8



(central longitudinal axis of housing)

Figure: 9

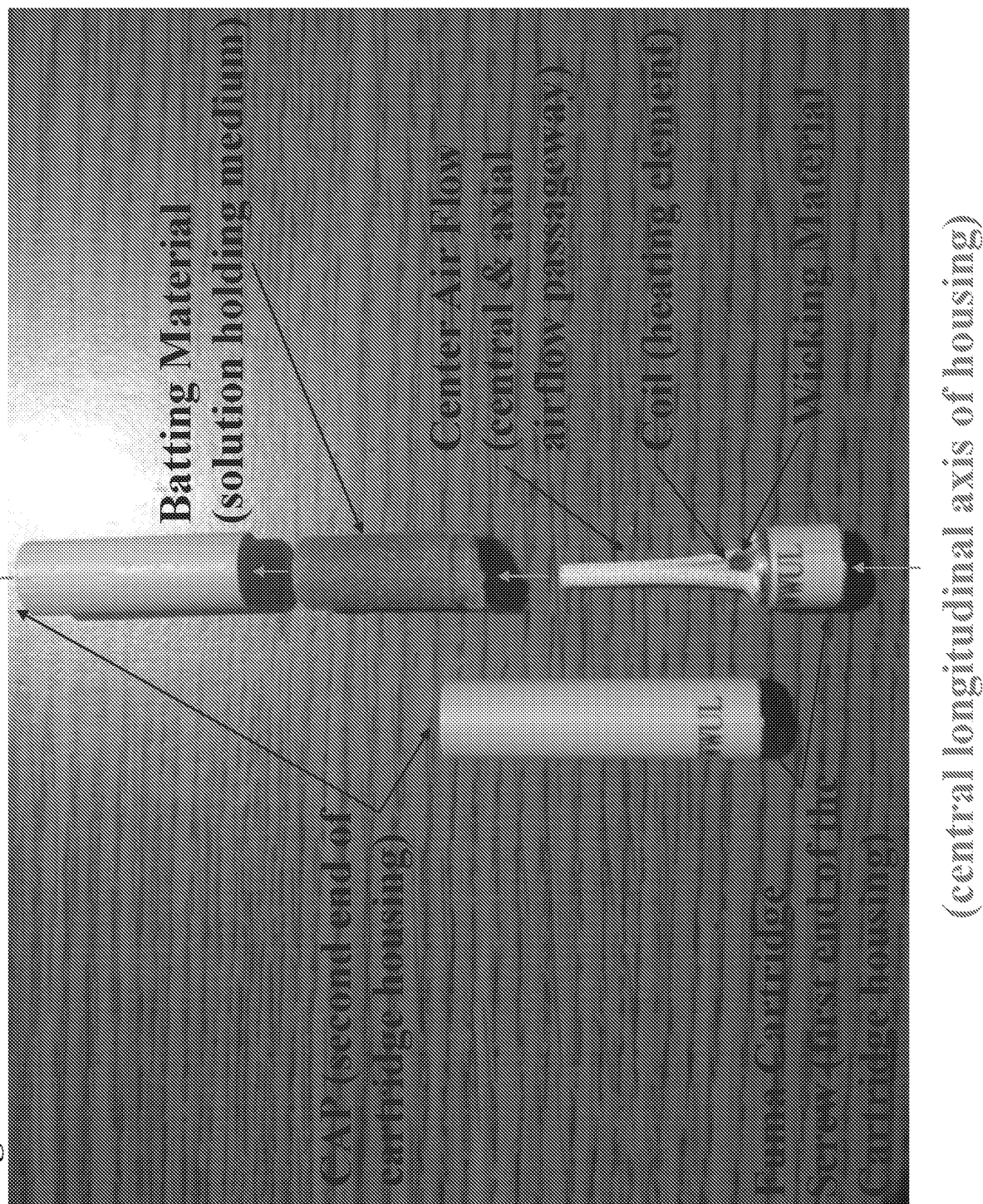


Figure: 10

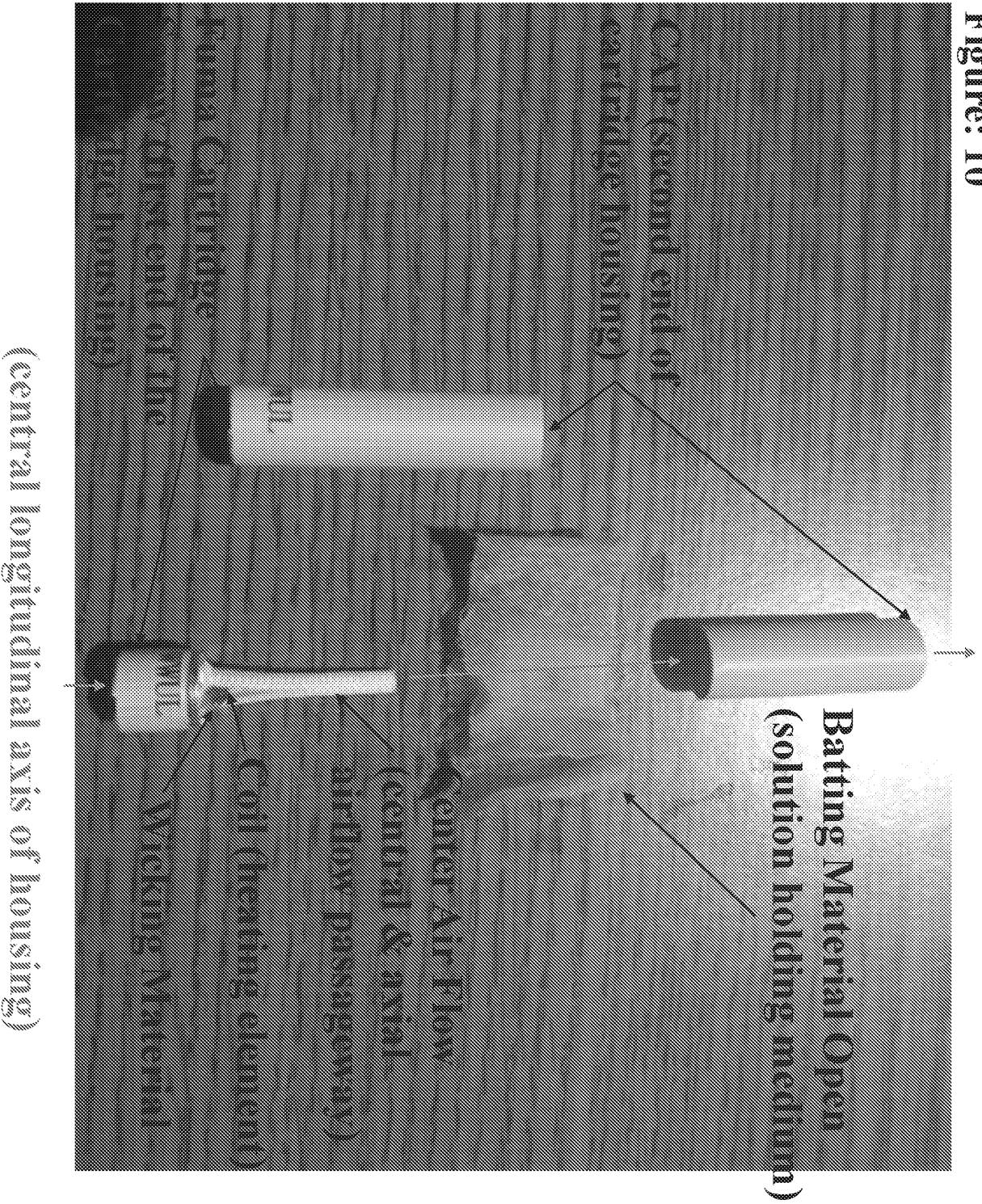


Figure: 11

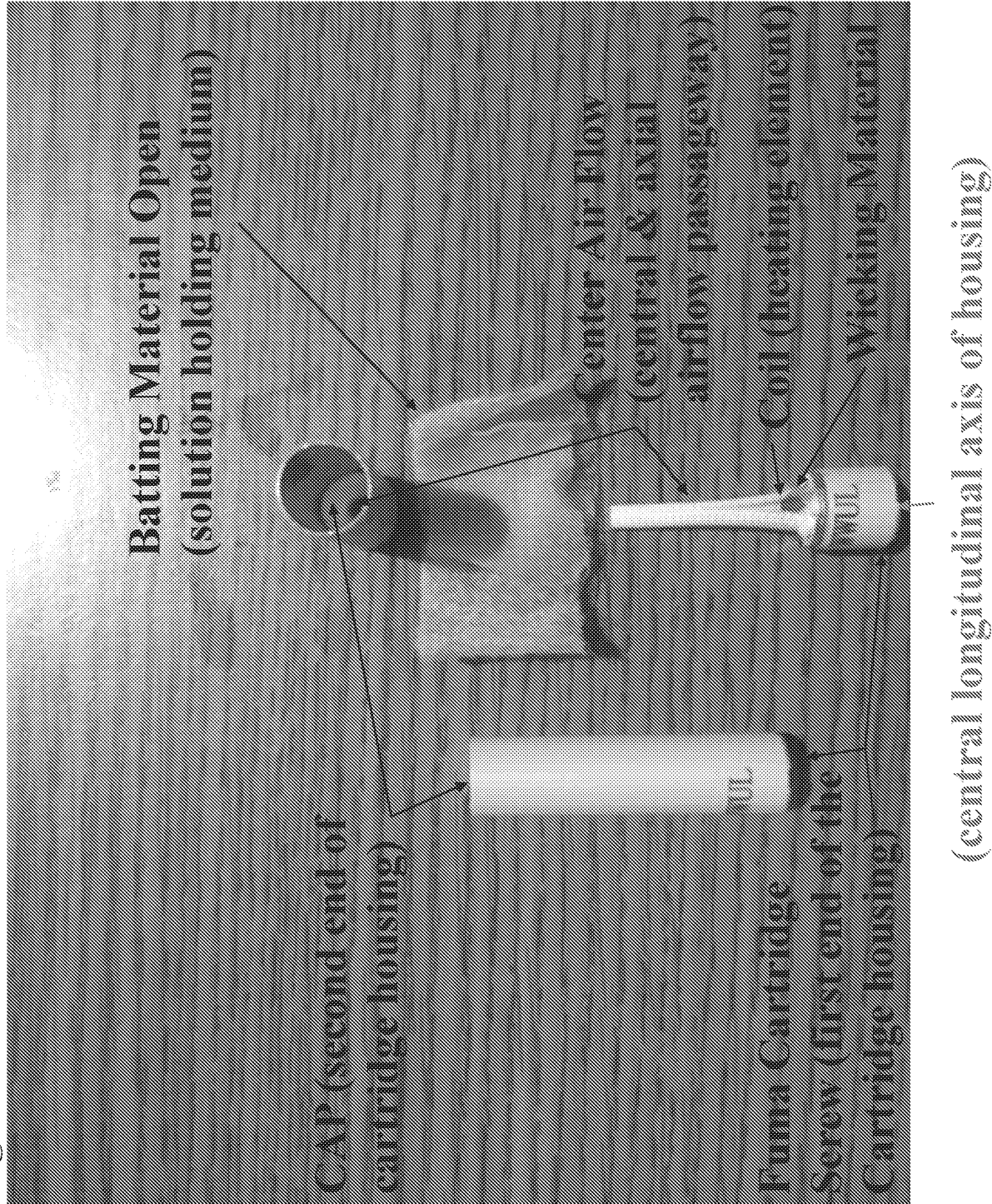
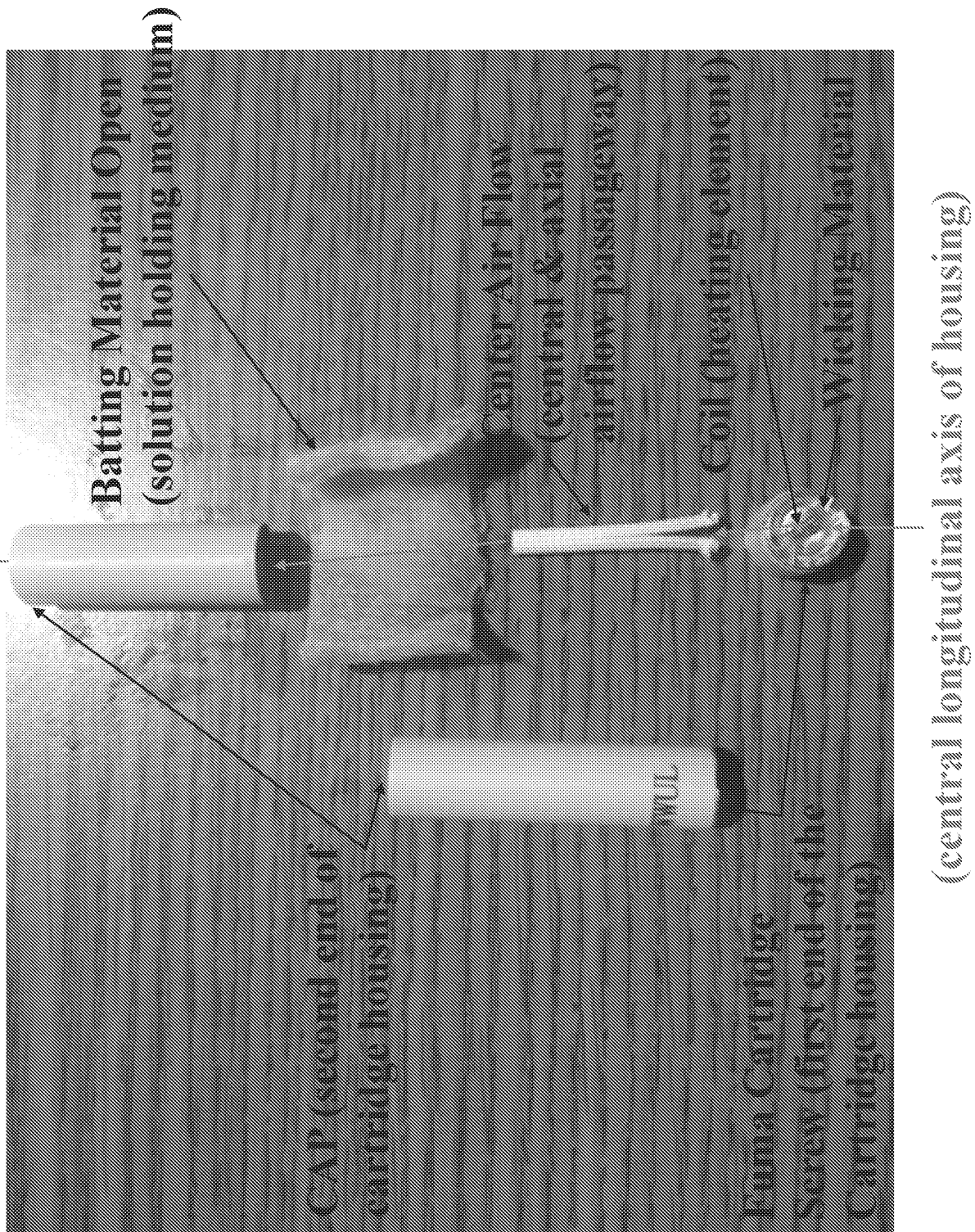


Figure: 12



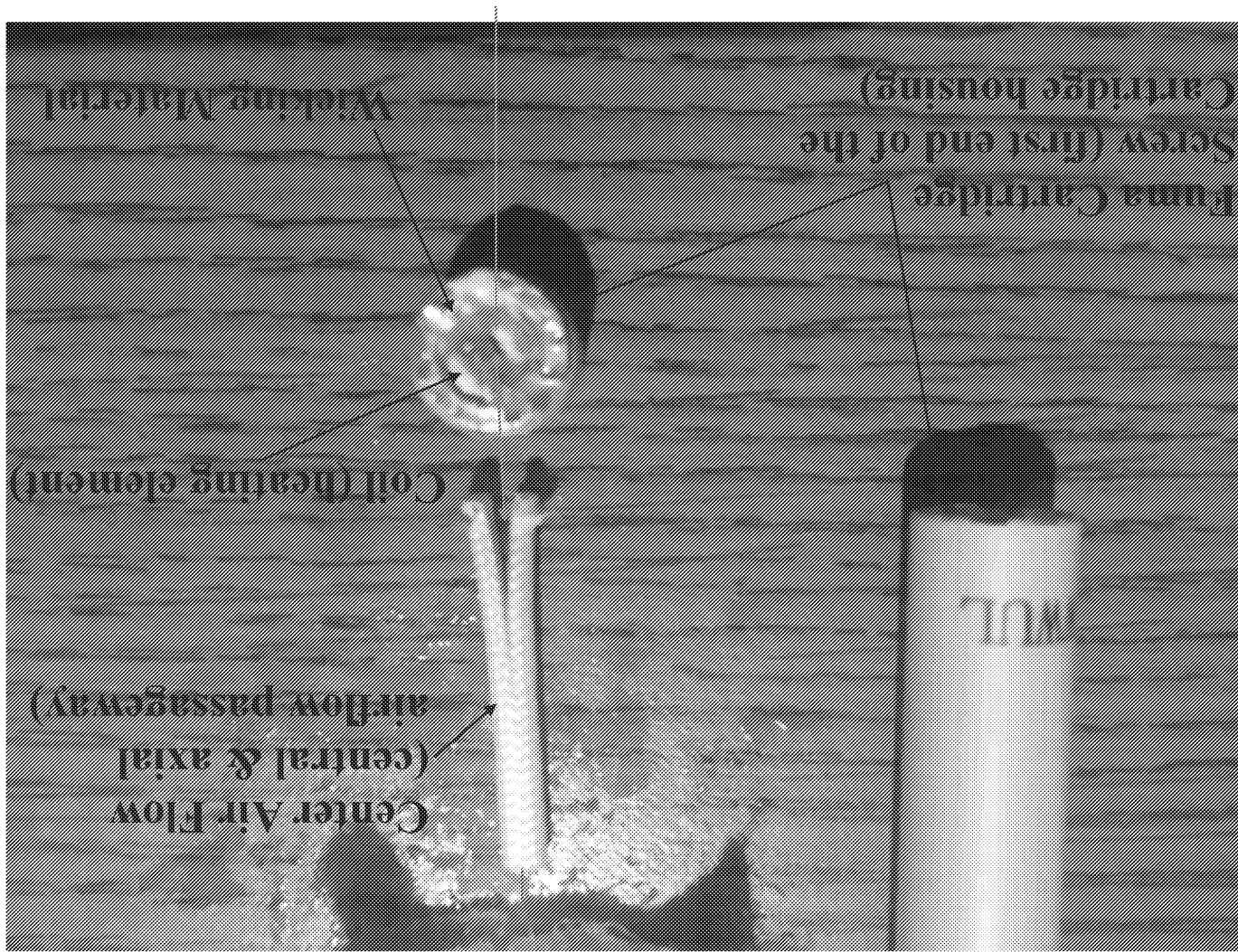


Figure: 13

Figure: 14

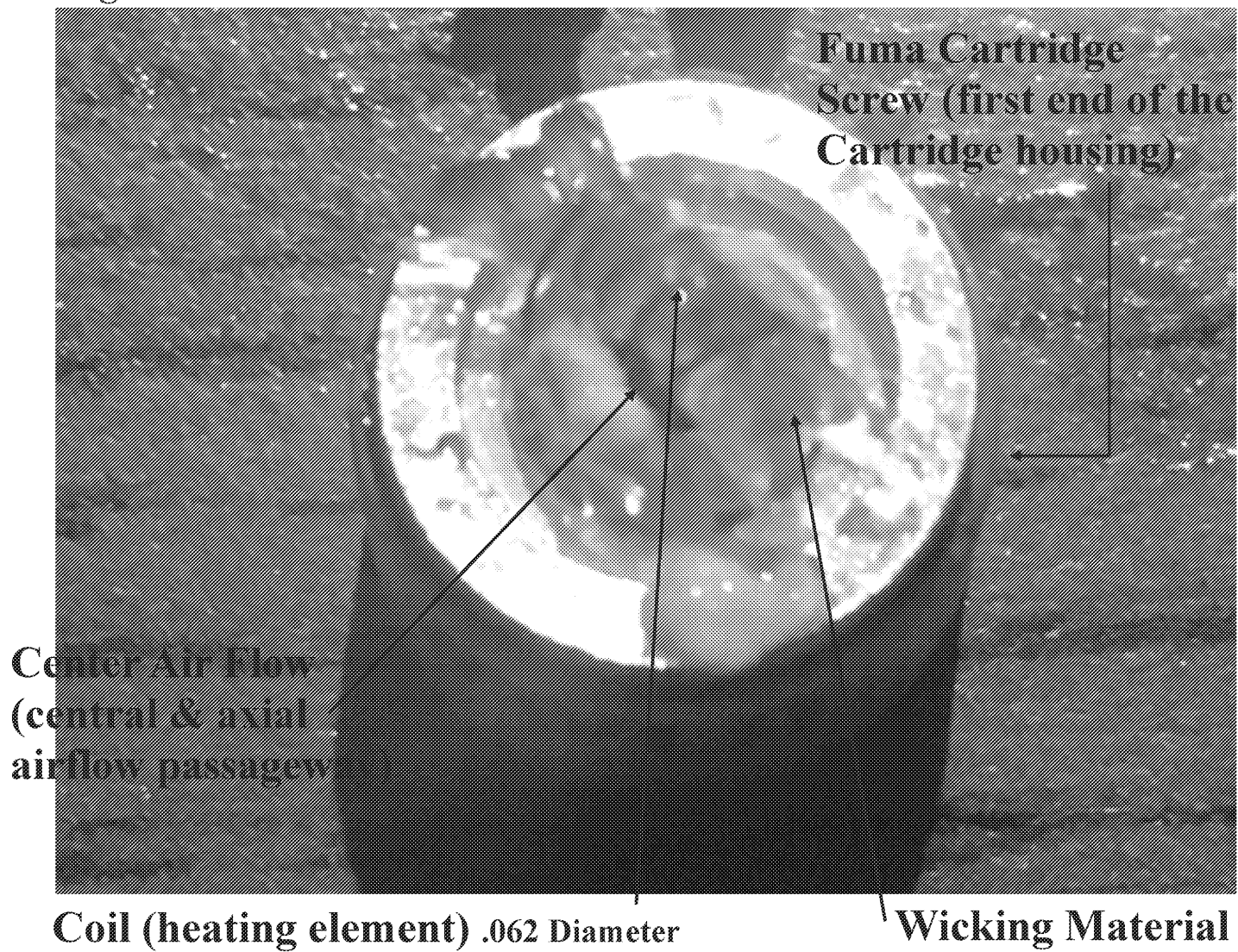


Figure: 15

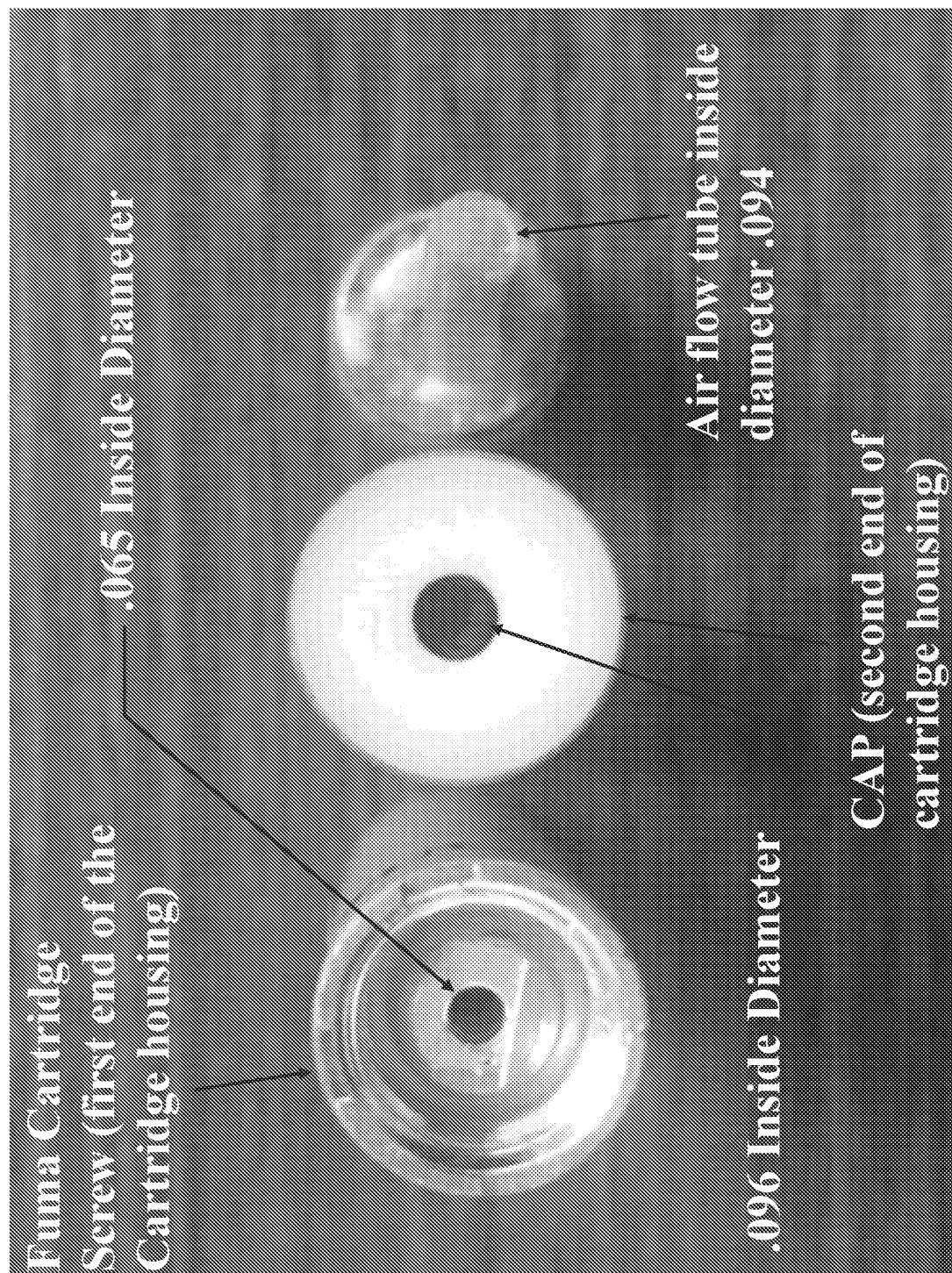


Figure: 16

Measurement from the top of the coil to the top of air flow tube is approximately .798

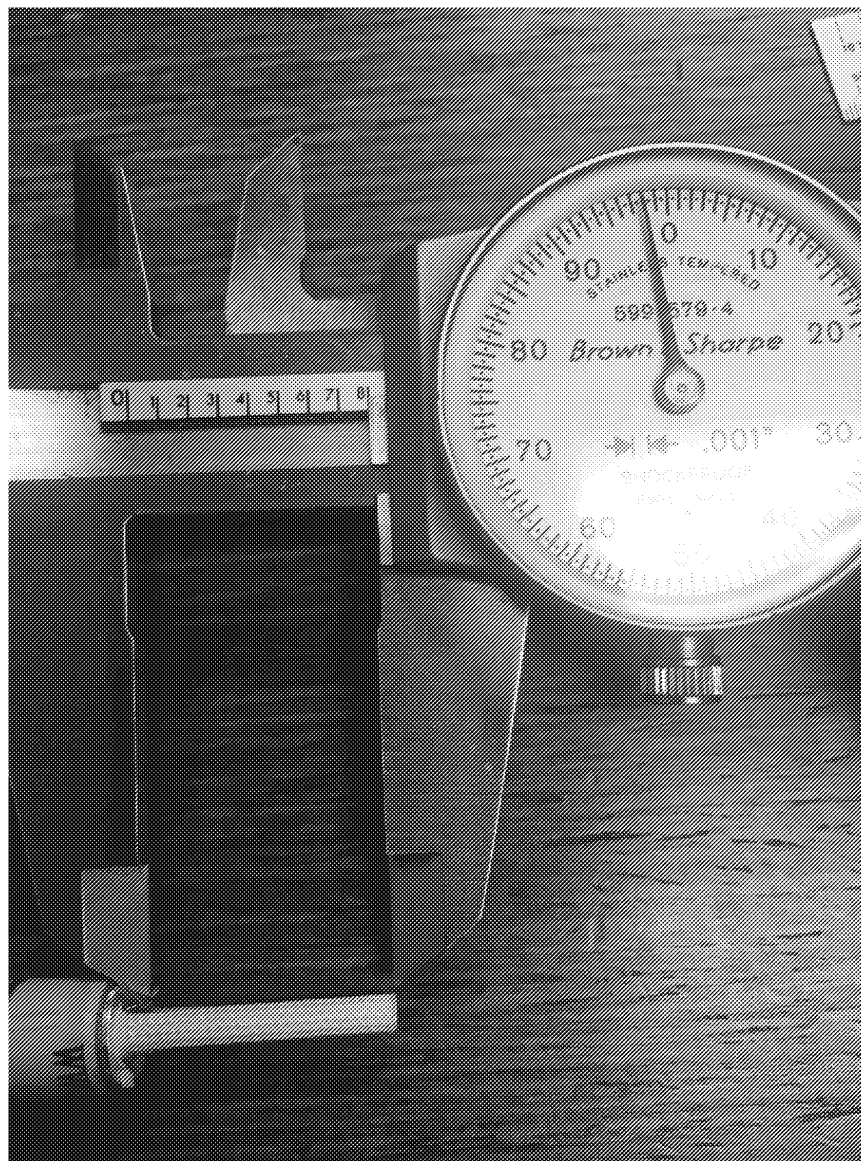


Figure: 17

Measurement from the top of the air flow tube to the edge of the slit is approximately .414

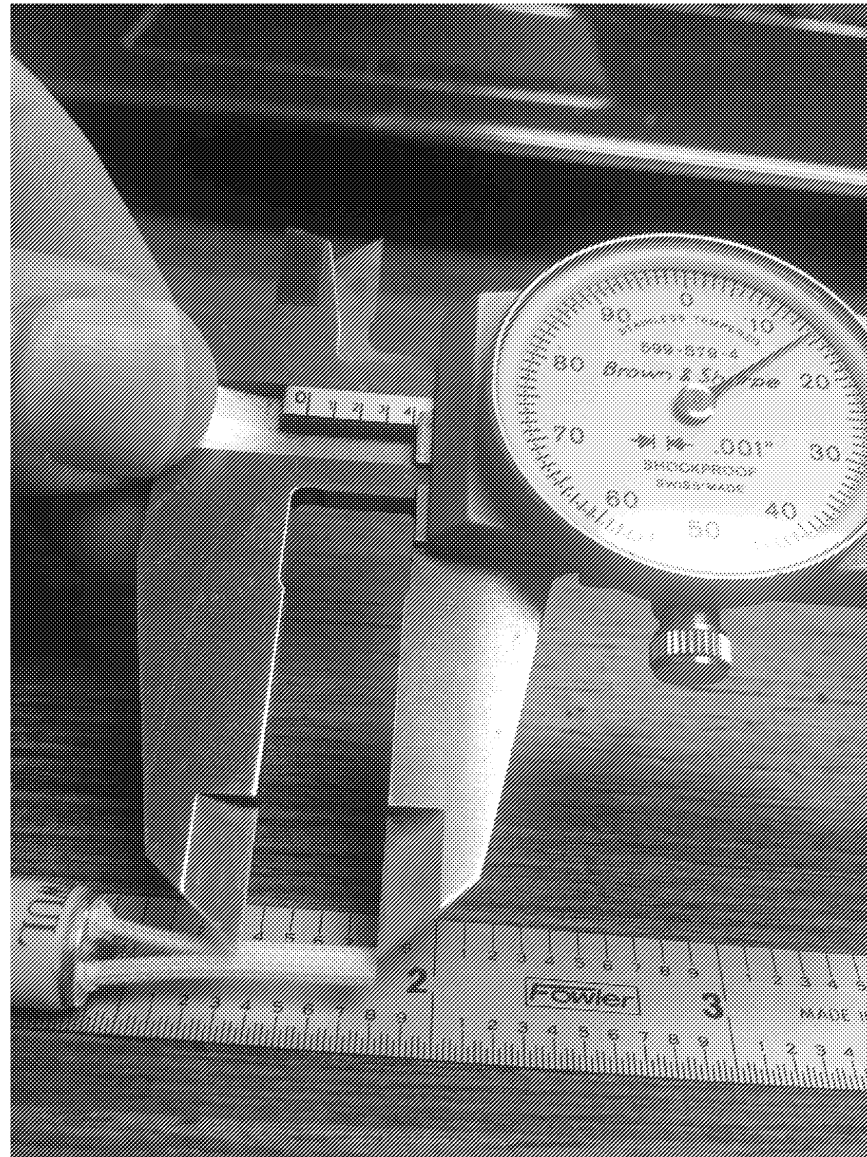


EXHIBIT B

PAID

Fuma International LLC

879 S. Progress Drive
Suite D
Medina, OH 44256

Invoice

Date	Invoice #
11/20/2009	41

Bill To
Adco Distributing 221 Cherry Ave. NE Canton, Ohio 44702

Ship To

P.O. Number	Terms	Rep	Ship	Via	F.O.B.	Project
adco-2	Due on receipt		11/20/2009			
Quantity	Item Code	Description			Price Each	Amount
2	Deluxe SK WWTL	Deluxe Starter Kit WWTL			18.54	37.08
2	Deluxe SK MCBL	Deluxe Starter Kit MCBL			18.54	37.08
3	Cartridges-WWTF	Wild West Tobacco Full Cartridges 5 pack			6.85	20.55
7	Cartridges-WWTL	Wild West Tobacco Lights Cartridges 5 pack			6.85	47.95
6	Cartridges-WWTUL	Wild West Ultra Lights Cartridges 5 pack			6.85	41.10
1	Cartridges-MFF	Menthol Full Freeze Cartridges 5 pack			6.85	6.85
1	Cartridges-MCBUL	Menthol Clean Breeze Ultra Lights Cartridges 5 pack			6.85	6.85
4	X-Car Charger	Car Charger			5.00	20.00
1	X-Travel Charger ...	Travel Charger Carrying Case			19.95	19.95
1	Shipping	Shipping & Handling Charge			0.00	0.00

PAID
11/11/09
107011 received
check # 1269.05

PAID

International LLC
S. Progress Drive
Suite D
Medina, OH 44256

Invoice

Date	Invoice #
11/5/2009	44

Bill To
Great Midwest Tobacco 10825 Meridian Dr. Evendale, Ohio 45241

Ship To

P.O. Number	Terms	Rep	Ship	Via	F.O.B.	Project
GMT-1	Due on receipt		11/30/2009	Fuma Truck		
Quantity	Item Code	Description			Price Each	Amount
313	Deluxe SK WWTL	Deluxe Starter Kit WWTL			18.2619	5,715.97
159	Deluxe SK MCBL	Deluxe Starter Kit MCBL			18.2619	2,903.64
500	Cartridges-WWTF	Wild West Tobacco Full Cartridges 5 pack			6.74725	3,373.63
500	Cartridges-WWTL	Wild West Tobacco Lights Cartridges 5 pack			6.74725	3,373.63
400	Cartridges-WWTL/L	Wild West Ultra Lights Cartridges 5 pack			6.74725	2,698.90
400	Cartridges-MFF	Menthol Full Freeze Cartridges 5 pack			6.74725	2,698.90
500	Cartridges-MCBL	Menthol Clean Breeze Lights Cartridges 5 pack			6.74725	3,373.63

Electronic Acknowledgement Receipt	
EFS ID:	41964830
Application Number:	16451483
International Application Number:	
Confirmation Number:	5143
Title of Invention:	ELECTRONIC VAPORIZER
First Named Inventor/Applicant Name:	Gregory D. Conley
Customer Number:	22882
Filer:	Wesley Charles Meinerding
Filer Authorized By:	
Attorney Docket Number:	269.0003-03000
Receipt Date:	19-FEB-2021
Filing Date:	25-JUN-2019
Time Stamp:	09:53:35
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment			no		
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Warnings:					

Information:	
Total Files Size (in bytes):	3451705
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.	

Substitute for FORM PTO-1449			Attorney Docket Number 269.0003-03000		Customer No. 22882	
INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION			Applicant Gregory D. Conley et al.		Application Number 16/451,483	
(Use several sheets if necessary) Sheet <u>1</u> of <u>4</u>			Filing Date June 25, 2019		Art Unit 3600	Examiner
U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
U.S. PUBLICATION DOCUMENTS						
NON PATENT LITERATURE DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)						
	Defendant R.J. Reynolds Vapor Company's Invalidity Expert Report of Dr. John M. Collins dated July 23, 2020 (REDACTED), U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
	Exhibit A to Defendant R.J. Reynolds Vapor Company's Invalidity Expert Report of Dr. John M. Collins dated July 23, 2020, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
	Exhibit B to Defendant R.J. Reynolds Vapor Company's Invalidity Expert Report of Dr. John M. Collins dated July 23, 2020, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
	Plaintiff Fuma International LLC's Rebuttal Expert Report of Glenn Vallee, Ph.D. Regarding Validity of the '604 and '881 Patents dated August 21, 2020, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
	Exhibit A to Plaintiff Fuma International LLC's Rebuttal Expert Report of Glenn Vallee, Ph.D. Regarding Validity of the '604 and '881 Patents dated August 21, 2020, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
	Defendant R.J. Reynolds Vapor Company's Reply Expert Report of Dr. John M. Collins dated September 4, 2020, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
	Exhibit A to Defendant R.J. Reynolds Vapor Company's Reply Expert Report of Dr. John M. Collins dated September 4, 2020, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
	Exhibit B to Defendant R.J. Reynolds Vapor Company's Reply Expert Report of Dr. John M. Collins dated September 4, 2020, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260 (lead case) and 19-cv-660.					
	Plaintiff Fuma International LLC's Motion for Summary Judgment of Infringement dated October 20, 2020, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260(lead case) and 19-cv-660.					
	Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment of: (I) Infringement of the '881 Patent by Defendant's Vuse Solo and Vuse Ciro Products, and (II) Infringement of the '604 Patent by Defendant's Vuse Ciro Product dated October 20, 2020, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260(lead case) and 19-cv-660.					
	Exhibit A to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Responsive Expert Report of Dr. John M. Collins (Redacted).					

	Exhibit A (John Collins CV) of Exhibit A to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Responsive Expert Report of Dr. John M. Collins.
	Exhibit B (Material Considered List) of Exhibit A to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Responsive Expert Report of Dr. John M. Collins.
	Exhibit B to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Vuse Solo G2 Final Infringement Contentions Claim Chart for U.S. Patent No. 10,334,881.
	Exhibit C to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Vuse Solo G1 Final Infringement Contentions Claim Chart for U.S. Patent No. 10,334,881.
	Exhibit D to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Expert Report of Glenn Vallee, Ph.D. on Infringement.
	Exhibit A (Glenn Vallee CV and Testimony History) of Exhibit D to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Expert Report of Glenn Vallee, Ph.D. on Infringement.
	Exhibit B (Documents Considered) of Exhibit D to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Expert Report of Glenn Vallee, Ph.D. on Infringement.
	Exhibit C (Declaration under 37 C.F.R. § 1.131 in U.S. Serial No. 15/377,522) of Exhibit D to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Expert Report of Glenn Vallee, Ph.D. on Infringement.
	Exhibit D (Vuse Solo G1 Infringement Claim Chart for U.S. Patent No. 9,532,604 for Fuma Expert Report on Infringement) of Exhibit D to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Expert Report of Glenn Vallee, Ph.D. on Infringement.
	Exhibit E (Vuse Solo G2 Infringement Claim Chart for U.S. Patent No. 9,532,604 for Fuma Expert Report on Infringement) of Exhibit D to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Expert Report of Glenn Vallee, Ph.D. on Infringement.
	Exhibit J (Fuma's Embodying Products) of Exhibit D to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Expert Report of Glenn Vallee, Ph.D. on Infringement.
	Exhibit E to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Vuse Solo G1 Infringement Claim Chart for U.S. Patent No. 10,334,881 for Fuma Expert Report on Infringement.
	Exhibit F to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Vuse Solo G2 Infringement Claim Chart for U.S. Patent No. 10,334,881 for Fuma Expert Report on Infringement.
	Exhibit G to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Expert Report of Glenn Vallee, Ph.D. on Infringement in Reply to August 21, 2020 Rebuttal Report of Dr. Collins (Redacted).
	Exhibit A ("Shigley's Mechanical Engineering Design" Excerpt) of Exhibit G to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Expert Report of Glenn Vallee, Ph.D. on Infringement in Reply to August 21, 2020 Rebuttal Report of Dr. Collins.
	Exhibit B (Hibbeler, "Engineering Mechanics, Statics and Dynamics" Excerpt) of Exhibit G to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Expert Report of Glenn Vallee, Ph.D. on Infringement in Reply to August 21, 2020 Rebuttal Report of Dr. Collins.
	Exhibit H to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Vuse Solo Final Infringement Contentions Claim Chart for U.S. Patent No. 9,532,604.

	Exhibit I to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Vuse Ciro Final Infringement Contentions Claim Chart for U.S. Patent No. 10,334,881.
	Exhibit J to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Vuse Ciro Claim Chart for U.S. Patent No. 9,532,604 for Fuma Expert Report on Infringement (Redacted).
	Exhibit K to Plaintiff Fuma International LLC's Memorandum of Law in Support of Plaintiff's Motion for Summary Judgment dated October 20, 2020, Vuse Ciro Claim Chart for U.S. Patent No. 10,334,881 for Fuma Expert Report on Infringement (Redacted).
	Defendant R.J. Reynolds Vapor Company's Motion for Summary Judgment of Non-Infringement dated October 20, 2020, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260(lead case) and 19-cv-660.
	Defendant R.J. Reynolds Vapor Company's [Proposed] Order Granting R.J. Reynolds Vapor Company's Motion for Summary Judgment of Noninfringement, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260(lead case) and 19-cv-660.
	Defendant R.J. Reynolds Vapor Company's Memorandum in Support of Its Motion for Summary Judgment of Non-Infringement dated October 20, 2020, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260(lead case) and 19-cv-660.
	Exhibit 1 to Defendant R.J. Reynolds Vapor Company's Memorandum in Support of Its Motion for Summary Judgment of Non-Infringement dated October 20, 2020, Vuse Solo PMTA Letter, Sec. H Excerpts.
	Exhibit 2 to Defendant R.J. Reynolds Vapor Company's Memorandum in Support of Its Motion for Summary Judgment of Non-Infringement dated October 20, 2020, Vuse Ciro PMTA Letter, Sec. H Excerpts.
	Exhibit 3 to Defendant R.J. Reynolds Vapor Company's Memorandum in Support of Its Motion for Summary Judgment of Non-Infringement dated October 20, 2020, Expert Report of Glenn Vallee, Ph.D. on Infringement in Reply to August 21, 2020 Rebuttal Report of Dr. Collins with Exhibit A Excerpts.
	Exhibit 4 to Defendant R.J. Reynolds Vapor Company's Memorandum in Support of Its Motion for Summary Judgment of Non-Infringement dated October 20, 2020, Expert Report of Glenn Vallee, Ph.D. on Infringement with Exhibits E, F, H, I, Excerpts (Redacted).
	Exhibit 5 to Defendant R.J. Reynolds Vapor Company's Memorandum in Support of Its Motion for Summary Judgment of Non-Infringement dated October 20, 2020, U.S. Application No. 12/843,917 Certified Application File History Excerpts.
	Exhibit 6 to Defendant R.J. Reynolds Vapor Company's Memorandum in Support of Its Motion for Summary Judgment of Non-Infringement dated October 20, 2020, U.S. Application No. 14/510,995 (U.S. Patent No. 9,532,604) Certified Application File History Excerpts.
	Exhibit 7 to Defendant R.J. Reynolds Vapor Company's Memorandum in Support of Its Motion for Summary Judgment of Non-Infringement dated October 20, 2020, U.S. Application No. 15/337,522 (U.S. Patent No. 10,334,881) Certified Application File History Excerpts.
	Exhibit 8 to Defendant R.J. Reynolds Vapor Company's Memorandum in Support of Its Motion for Summary Judgment of Non-Infringement dated October 20, 2020, Responsive Expert Report of Dr. John M. Collins with Exhibits A and B.
	Plaintiff Fuma International LLC's Opposition to Defendant's Motion for Summary Judge of Non-Infringement dated November 11, 2020, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260(lead case) and 19-cv-660.
	Exhibit L to Plaintiff Fuma International LLC's Opposition to Defendant's Motion for Summary Judge of Non-Infringement dated November 11, 2020, Vuse Solo G2 Final Infringement Contentions Claim Chart for U.S. Patent No. 9,532,604.
	Exhibit M to Plaintiff Fuma International LLC's Opposition to Defendant's Motion for Summary Judge of Non-Infringement dated November 11, 2020, Vuse Solo G1 Final Infringement Contentions Claim Chart for U.S. Patent No. 9,532,604.

	Exhibit N to Plaintiff Fuma International LLC's Opposition to Defendant's Motion for Summary Judge of Non-Infringement dated November 11, 2020, Vuse Solo G1 Claim Chart for Expert Report of Glenn Vallee, Ph.D. on Infringement of U.S. Patent No. 9,532,604.
	Exhibit O to Plaintiff Fuma International LLC's Opposition to Defendant's Motion for Summary Judge of Non-Infringement dated November 11, 2020, Vuse Solo G2 Claim Chart for Expert Report of Glenn Vallee, Ph.D. on Infringement of U.S. Patent No. 9,532,604.
	Various Screenshots of Exhibit P to Plaintiff Fuma International LLC's Opposition to Defendant's Motion for Summary Judge of Non-Infringement dated November 11, 2020, Fig. 2 of U.S. Patent No. 9,532,604 Animation.
	Defendant R.J. Reynolds Vapor Company's Opposition to Fuma's Motion for Summary Judgment of Literal Infringement dated November 11, 2020, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260(lead case) and 19-cv-660.
	Plaintiff Fuma International LLC's Reply in Support of Its Motion for Summary Judgment of (I) Infringement of the '881 Patent by Defendant's Vuse Solo and Vuse Ciro Products, and (II) Infringement of the '604 Patent by Defendant's Vuse Ciro Product dated November 25, 2020, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260(lead case) and 19-cv-660.
	Defendant R.J. Reynolds Vapor Company's Reply in Support of Its Motion for Summary Judgment of Non-Infringement dated November 25, 2020, U.S. District Court for the Middle District of North Carolina, Civil Action Nos. 19-cv-260(lead case) and 19-cv-660.
	Exhibit 9 to Defendant R.J. Reynolds Vapor Company's Reply in Support of Its Motion for Summary Judgment of Non-Infringement dated November 25, 2020, File History Receipt for U.S. Serial No. 12/843,917.
	Exhibit 10 to Defendant R.J. Reynolds Vapor Company's Reply in Support of Its Motion for Summary Judgment of Non-Infringement dated November 25, 2020, Defendant/Counterplaintiff R.J. Reynolds Vapor Company's Fourth Supplemental Objections and Responses to Plaintiff's Second Set of Interrogatories (Nos. 6-13) (Redacted).
	Exhibit 11 to Defendant R.J. Reynolds Vapor Company's Reply in Support of Its Motion for Summary Judgment of Non-Infringement dated November 25, 2020, Excerpts of Deposition Of Nicholas Gilley.
	Exhibit 12 to Defendant R.J. Reynolds Vapor Company's Reply in Support of Its Motion for Summary Judgment of Non-Infringement dated November 25, 2020, Vuse Advertising Samples.
	Exhibit 13 to Defendant R.J. Reynolds Vapor Company's Reply in Support of Its Motion for Summary Judgment of Non-Infringement dated November 25, 2020, U.S. Patent No. 9,609,893.
EXAMINER	DATE CONSIDERED
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.	

Electronic Acknowledgement Receipt	
EFS ID:	41970795
Application Number:	16451483
International Application Number:	
Confirmation Number:	5143
Title of Invention:	ELECTRONIC VAPORIZER
First Named Inventor/Applicant Name:	Gregory D. Conley
Customer Number:	22882
Filer:	Wesley Charles Meinerding
Filer Authorized By:	
Attorney Docket Number:	269.0003-03000
Receipt Date:	19-FEB-2021
Filing Date:	25-JUN-2019
Time Stamp:	15:09:43
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment		no			
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Information:					
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Warnings:					
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Warnings:					
Information:					
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21	Non Patent Literature	122_04_Ex_4_2020_07_23_Vallee_Ex_Rpt_Infr_604_and_881_Pats_Exs_Excerpts.pdf	22882935	no	109
			a8d903bcfb839d2eb45a328330448c0436cd3948		
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22	Non Patent Literature	122_05_Ex_5_917_Certified_Application_FH_Excerpts.pdf	19117975	no	68
			b0d7a7e779572d65798959d7e355e033fd190c27		
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23	Non Patent Literature	122_06_Ex_6_604_Patent_955_Certified_FH_Excerpts.pdf	22466389	no	60
			0b99335dba78e17830be22425e172ffd508261c9		
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24	Non Patent Literature	122_07_Ex_7_522_Certified_Application_FH_881_Patent_Excerpts.pdf	26012439	no	26
			ff92824294f267b6ec3eaaa079cca62755724fee		
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25	Non Patent Literature	122_08_Ex_8_2020_08_21_Final_Collins_Responsive_Report_Exs_A_B.pdf	20015477	no	128
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26	Non Patent Literature	122_RJR_Memo_ISO_Motion_for_SJ_of_Non_Infringement.pdf	16701080	no	52
			23a49221e5818d0fd6aa1f3f3d22ad1ff8c60b3f		
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27	Non Patent Literature	130_01_Ex_L_604_Solo_G2_Final_Infr_Cont.pdf	5889778	no	39
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28	Non Patent Literature	130_02_Ex_M_604_Solo_G1_Final_Infr_Cont.pdf	7095502	no	38
			37384ee42bee640da26b72d137adb38364c1ae55		
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29	Non Patent Literature	130_03_Ex_N_Vallee_604_Solo_G1_Claim_Chart.pdf	10489726	no	97
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30	Non Patent Literature	130_04_Ex_O_Vallee_604_Solo_G2_Claim_Chart.pdf	8488216	no	108
			506edd99a56a366822ae58ab38d8497d3d1c0f3d		
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31	Non Patent Literature	130_05_Ex_P_Fig_2_Screen_Shots_of_Animation.pdf	1342500	no	8
			083819190cbc2dbc5be134b83c4dda7bacda97bc		
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Information:					
32	Non Patent Literature	130_Fuma_Opp_to_RJR_Mot_for_SJ_of_Non_Infr.pdf	1631354	no	33
			f00b9239e814b7414f6357c55eef5e438587b723		
Warnings:					
Information:					
33	Non Patent Literature	131_RJR_Opp_to_Fuma_Mot_for_SJ_of_Infr.pdf	5734875	no	52
			9415456bc77f0ace9cd92284eb90baeddde7f05		
Warnings:					
Information:					
34	Non Patent Literature	133_Fuma_Reply_ISO_Mot_for_SJ_of_Infr.pdf	1774174	no	23
			c6794f256e5bbd0350bbd60aefb718c959a9af9		
Warnings:					
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35	Non Patent Literature	134_01_Ex_9_FH_Receipt.pdf	1767587	no	4
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36	Non Patent Literature	134_02_Ex_10_RJR_4th_Supp_Rog_Responses_6_13.pdf	284956	no	4
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Information:					

37	Non Patent Literature	134_03_Ex_11_Gilley_Tr_Exc pts.pdf	3548471	no	5
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38	Non Patent Literature	134_04_Ex_12_Vuse_Advertisi ng_Samples.pdf	16228459	no	19
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39	Non Patent Literature	134_RJR_Reply_ISO_Mot_for_S J_of_Non_Infr.pdf	893431	no	25
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40	Non Patent Literature	134_05_Ex_13_893_Patent.pdf	1938524	no	37
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41	Non Patent Literature	Ex_A_Shigley_Textbook.pdf	3845983	no	5
			50862ddc9be052320f5802eb38c4a7b2685 dda70		
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Information:					
42	Non Patent Literature	Ex_A_Vallee_CV_and_Testimo ny_History.pdf	296328	no	14
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Warnings:					
Information:					
43	Non Patent Literature	Ex_B_Documents_Considered. pdf	146340	no	8
			7fd394ed35322d000b03310e9558fdbed70 7e4ee		
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Information:					

44	Non Patent Literature	Ex_B_Hibbeler_Wedge.pdf	2699993	no	4
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45	Non Patent Literature	Ex_C_131_Declaration.pdf	9474131	no	32
			96d93c4c0029306bffa773dbb95252862471f89fb		
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Information:					
46	Non Patent Literature	Ex_D_604_Vuse_Solo_G1_Claim_Chart.pdf	10169761	no	97
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47	Non Patent Literature	Ex_E_604_Vuse_Solo_G2_Claim_Chart.pdf	8865768	no	108
			31fa31274c38636f856b94bf503057a257d99115		
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48	Non Patent Literature	Ex_J_Fuma_Embodying_Products.pdf	1450873	no	14
			c73ef958a77ab65a88f1305bb1b76652b187526f		
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Information:					
49	Non Patent Literature	Exhibit_A_Collins__CV.pdf	852284	no	8
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Information:					
50	Non Patent Literature	Exhibit_A_Collins__CV.pdf	776678	no	8
			b5494b8cd0d761c857907a9ec73ce7f6fc23110c0		
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51	Non Patent Literature	Exhibit_A_Collins_CV.pdf	776672	no	8
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52	Non Patent Literature	Exhibit_B_Collins_Materials_Considered_List.pdf	8890250	no	22
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Warnings:					
Information:					
53	Non Patent Literature	Exhibit_B_Collins_Materials_Considered_List_Responsive_Report.pdf	8548536	no	21
			b37006d744fb501dc6ee06267541b3d6d933e0da		
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54	Non Patent Literature	Exhibit_B_Considered_List.pdf	7169941	no	17
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55	Non Patent Literature	FINAL_Collins_Burden_Expert_Report_REDACTED.pdf	9755515	no	273
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Warnings:					
Information:					
56	Non Patent Literature	FINAL_Collins_Invalidity_Reply_Report.pdf	9622065	no	218
			eb846951c5b1cae3fb849e3a9ff8c5de035050cf		
Warnings:					
Information:					
57	Non Patent Literature	Vallee_CV_and_Testimony_History.pdf	296527	no	14
			8cdc056842d34612db6026c96b58aeb58a68899e		
Warnings:					
Information:					

58	Non Patent Literature	Vallee_Rebuttal_Report_on_Validity_of_604_and_881_Patents.pdf	10331676 de2dc1412d469a5fed6e494f917e40bc2bc92dc4	no	239
Warnings:					
Information:					
Total Files Size (in bytes):			412168056		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	Confirmation No.: 5143
Gregory D. Conley et al.	)	
Serial No.: 16/451,483	)	Group Art Unit: 3600
Filed: June 25, 2019	)	
For: ELECTRONIC VAPORIZER	)	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), Applicant brings to the attention of the Examiner the documents listed on the attached Form PTO/SB/08. This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits for the above-referenced application.

Copies of the listed non-U.S. patent documents are attached. Applicant respectfully requests that the Examiner consider the listed documents and indicate that they were considered by making appropriate notations on the attached form.

Applicant brings to the attention of the Examiner the existence of the litigation proceeding, i.e., Civil Action No. 19-260 in the U.S. District Court for the Middle District of North Carolina between Plaintiff Fuma International LLC (Fuma) and Defendant R.J. Reynolds Vapor Company (RJR), asserting infringement of U.S. Patent Nos. 9,532,604 and 10,334,881. The '604 patent issued from application serial no. 14/510,955, which is the parent of application serial no. 15/377,522 (now the '881 patent), which is the parent of the current pending above-identified application.

In addition to the other documents being submitted herewith, Fuma is submitting the expert reports in the above-discussed litigation between Fuma and RJR that address the validity of the asserted claims in the '604 and '881 patents. The Rebuttal report by Fuma's expert, Dr. Vallee, is submitted in its entirety, and RJR has confirmed

that they do not assert confidentiality on any of the material in Dr. Vallee's report. The Opening report by RJR's expert, Dr. Collins, has been redacted to remove specific materials that RJR informed Fuma it still considered confidential and that RJR requested be removed from copies of this report when submitting this IDS. The Reply report by RJR's expert, Dr. Collins, has not been redacted.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claim in the application and Applicant determines that the cited documents do not constitute "prior art" under United States law, Applicant reserves the right to present to the office the relevant facts and law regarding the appropriate status of such documents.

Applicant further reserves the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 50-1068.

Respectfully submitted,

MARTIN & FERRARO, LLP

Date: February 19, 2021

By: /Thomas H. Martin/
Thomas H. Martin
Registration No. 34,383

1557 Lake O'Pines Street, NE
Hartville, Ohio 44632
Telephone: (330) 877-0700

Electronic Patent Application Fee Transmittal				
Application Number:		16451483		
Filing Date:		25-Jun-2019		
Title of Invention:		ELECTRONIC VAPORIZER		
First Named Inventor/Applicant Name:		Gregory D. Conley		
Filer:		Wesley Charles Meinerding		
Attorney Docket Number:		269.0003-03000		
Filed as Large Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
CLAIMS IN EXCESS OF 20	1202	20	100	2000
INDEPENDENT CLAIMS IN EXCESS OF 3	1201	1	480	480
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				2480

Electronic Acknowledgement Receipt	
EFS ID:	41479166
Application Number:	16451483
International Application Number:	
Confirmation Number:	5143
Title of Invention:	ELECTRONIC VAPORIZER
First Named Inventor/Applicant Name:	Gregory D. Conley
Customer Number:	22882
Filer:	Wesley Charles Meinerding
Filer Authorized By:	
Attorney Docket Number:	269.0003-03000
Receipt Date:	23-DEC-2020
Filing Date:	25-JUN-2019
Time Stamp:	14:13:57
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$ 2480
RAM confirmation Number	E2020BME14258498
Deposit Account	501068
Authorized User	Wesley Meinerding
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.21 (Miscellaneous fees and charges) 37 CFR 1.20 (Post Issuance fees)	

37 CFR 1.19 (Document supply fees) 37 CFR 1.17 (Patent application and reexamination processing fees) 37 CFR 1.16 (National application filing, search, and examination fees)					
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Preliminary Amendment	Amendment.pdf	99135	no	10
			9c38f92ef4716739a0065aa904a7995fbc70bee1		
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	31967	no	2
			cb378a201a5ae02979fcb80820ecf50feb6b07a1d		
Warnings:					
Information:					
Total Files Size (in bytes):			131102		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	Confirmation No.: 5143
Gregory D. Conley et al.	)	
Serial No.: 16/451,483	)	Group Art Unit: 3600
Filed: June 25, 2019	)	
For: ELECTRONIC VAPORIZER	)	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

AMENDMENT

Prior to the examination of the above-identified application, the following amendments and remarks are submitted:

Amendments to the Claims are reflected in the listing of claims, which begins on page 2 of this paper.

Remarks begin on page 10 of this paper.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-20 (cancelled).

Claims 21-40 (cancelled).

41. (new) A cartridge configured to couple to a power source of an electronic vaporizer, the cartridge comprising:
- a housing having an interior and a solution holding medium adapted to hold a solution, the housing having a first end and a second end that is opposite the first end, the housing having a first aperture proximate the first end and a second aperture proximate the second end, the first end of the housing being adapted to electrically couple to the power source, the first aperture and the second aperture being in communication with one another to permit an airflow through the housing from the first aperture to the second aperture; and
 - a heating element located in the interior of the housing, the heating element extending transversely to a central longitudinal axis of the housing and being at least partially exposed to the airflow, the heating element being configured to vaporize at least a portion of the solution for oral provision to an individual in the airflow, the heating element being responsive to electrical power received from the power source.
42. (new) The cartridge of claim 41, further in combination with a power source adapted to be electrically coupled to the first end of the housing, the power source including a battery.
43. (new) The cartridge of claim 41, wherein the cartridge is adapted to permit the airflow to pass on both transverse sides of the heating element during use of the electronic vaporizer.
44. (new) The cartridge of claim 41, wherein the heating element includes a wicking material being operative to permit at least a portion of the solution to be held in

the solution holding medium to be drawn toward the heating element to be vaporized.

45. (new) The cartridge of claim 41, wherein the first aperture proximate the first end is smaller than the second aperture proximate the second end.
46. (new) The cartridge of claim 41, further comprising a solution in the solution holding medium, the solution comprising one of propylene glycol and nicotine.
47. (new) The cartridge of claim 41, further comprising an airflow passageway in the housing, at least a portion of the airflow passageway extending centrally and axially with respect to the housing.
48. (new) The cartridge of claim 47, wherein a majority of the portion of the airflow passageway has a substantially uniform cross-sectional area measured perpendicular to the central longitudinal axis of the housing between the heating element and the second aperture.
49. (new) The cartridge of claim 47, wherein the airflow passageway extends centrally and axially from the first aperture to the second aperture.
50. (new) The cartridge of claim 47, wherein the airflow passageway extends in a straight path from the first aperture to the second aperture with only the heating element obstructing a portion of the airflow through the airflow passageway along the central longitudinal axis of the housing.
51. (new) The cartridge of claim 41, wherein the heating element includes a coil.
52. (new) The cartridge of claim 41, wherein the housing further comprises an airflow chamber having a length extending intermediate of the heating element and the second aperture, the chamber having an interior between the heating element and the second aperture, the interior having no cross-sectional area measured perpendicular to the central longitudinal axis of the housing smaller in cross-sectional area than a cross-sectional area of the second aperture.
53. (new) The cartridge of claim 41, wherein the housing further comprises an airflow chamber having a length extending intermediate of the heating element and the second aperture, the length of the chamber having a substantially uniform cross-sectional area along a continuous majority of the length, the

substantially uniform cross-sectional area being measured perpendicular to the central longitudinal axis of the housing, no portion of the chamber from immediately adjacent the heating element to the second aperture having a cross-sectional area smaller than a cross-sectional area of the second aperture.

54. (new) The cartridge of claim 41, wherein the airflow through the housing follows an airflow path, a first portion of the airflow path proximate the first aperture being defined substantially centrally and axially with respect to the central longitudinal axis of the housing, and a second portion of the airflow path proximate to the second aperture being defined substantially centrally and axially with respect to the central longitudinal axis of the housing.
55. (new) The cartridge of claim 41, wherein the heating element includes a material that when powered by the power source is adapted to vaporize the solution brought into contact with the heating element.
56. (new) A cartridge configured to couple to a power source of an electronic vaporizer, the cartridge comprising:

a housing having an interior and a solution holding medium adapted to hold a solution, the housing having a first end and a second end that is opposite the first end and a central longitudinal axis extending from the first end to the second end, the housing having a first aperture proximate the first end and a second aperture proximate the second end, the first end of the housing being adapted to electrically couple to the power source, the first aperture and the second aperture being in communication with one another to permit an airflow through the housing; and

a heating element located in the interior of the housing, the heating element including a coil extending transversely to the central longitudinal axis of the housing and transversely to a direction of the airflow such that the airflow passes on both transverse sides of the heating element during use of the electronic vaporizer, the heating element being configured to vaporize at least the portion of the solution drawn to the heating element for oral provision to an

individual in the airflow, the heating element being responsive to electrical power received from the power source.

57. (new) The cartridge of claim 56, further in combination with a power source adapted to be electrically coupled to the first end of the housing, the power source including a battery.
58. (new) The cartridge of claim 56, wherein the heating element includes a wicking material being operative to permit at least a portion of the solution to be held in the solution holding medium to be drawn toward the heating element to be vaporized.
59. (new) The cartridge of claim 56, wherein the first aperture proximate the first end is smaller than the second aperture proximate the second end.
60. (new) The cartridge of claim 56, further comprising a solution in the solution holding medium, the solution comprising one of propylene glycol and nicotine.
61. (new) The cartridge of claim 56, further comprising an airflow passageway in the housing, at least a portion of the airflow passageway extending centrally and axially with respect to the housing.
62. (new) The cartridge of claim 61, wherein a majority of the portion of the airflow passageway has a substantially uniform cross-sectional area measured perpendicular to the central longitudinal axis of the housing between the heating element and the second aperture.
63. (new) The cartridge of claim 61, wherein the airflow passageway extends centrally and axially from the first aperture to the second aperture.
64. (new) The cartridge of claim 61, wherein the airflow passageway extends in a straight path from the first aperture to the second aperture with only the heating element obstructing a portion of the airflow through the airflow passageway along the central longitudinal axis of the housing.
65. (new) The cartridge of claim 56, wherein the cartridge is formed as an integrated single assembly.
66. (new) The cartridge of claim 56, wherein the airflow through the housing follows an airflow path, a first portion of the airflow path proximate the first aperture being

defined substantially centrally and axially with respect to the central longitudinal axis of the housing, and a second portion of the airflow path proximate to the second aperture being defined substantially centrally and axially with respect to the central longitudinal axis of the housing.

67. (new) The cartridge of claim 56, wherein the housing further comprises an airflow chamber having a length extending intermediate of the heating element and the second aperture, the chamber having an interior between the heating element and the second aperture, the interior having no cross-sectional area measured perpendicular to the central longitudinal axis of the housing smaller in cross-sectional area than a cross-sectional area of the second aperture.
68. (new) The cartridge of claim 56, wherein the housing further comprises an airflow chamber having a length extending intermediate of the heating element and the second aperture, the length of the chamber having a substantially uniform cross-sectional area along a continuous majority of the length, the substantially uniform cross-sectional area being measured perpendicular to the central longitudinal axis of the housing, no portion of the chamber from immediately adjacent the heating element to the second aperture having a cross-sectional area smaller than a cross-sectional area of the second aperture.
69. (new) A cartridge configured to couple to a power source of an electronic vaporizer, the cartridge comprising:
- a housing having an interior and a solution holding medium adapted to hold a solution, the housing having a first end and a second end that is opposite the first end and a central longitudinal axis extending from the first end to the second end, the housing having a first aperture proximate the first end and a second aperture proximate the second end, the first end of the housing being adapted to electrically couple to the power source, the first aperture and the second aperture being in communication with one another to permit an airflow through the housing; and
 - a heating element located in the interior of the housing, the heating element extending transversely to the central longitudinal axis of the housing and

being at least partially exposed to the airflow such that the airflow entering through the first aperture will separate and then pass on both transverse sides of the heating element and then continue along an airflow path co-axial with the central longitudinal axis of the housing toward the second aperture during use of the electronic vaporizer, the heating element being configured to vaporize at least the portion of the solution for oral provision to an individual in the airflow, the heating element being responsive to electrical power received from the power source.

- 70. (new) The cartridge of claim 69, further in combination with a power source adapted to be electrically coupled to the first end of the housing, the power source including a battery.
- 71. (new) The cartridge of claim 69, wherein the heating element comprises a material that when powered by the power source is adapted to vaporize the solution brought into contact with the heating element.
- 72. (new) The cartridge of claim 69, further comprising a solution in the solution holding medium, the solution comprising one of propylene glycol and nicotine.
- 73. (new) The cartridge of claim 69, further comprising an airflow passageway in the housing, at least a portion of the airflow passageway extending centrally and axially with respect to the housing.
- 74. (new) The cartridge of claim 73, wherein a majority of the portion of the airflow passageway has a substantially uniform cross-sectional area measured perpendicular to the central longitudinal axis of the housing between the heating element and the second aperture.
- 75. (new) The cartridge of claim 73, wherein the airflow passageway extends centrally and axially from the first aperture to the second aperture.
- 76. (new) The cartridge of claim 73, wherein the airflow passageway extends in a straight path from the first aperture to the second aperture with only the heating element obstructing a portion of the airflow through the airflow passageway along the central longitudinal axis of the housing.

77. (new) The cartridge of claim 69, wherein the cartridge is formed as an integrated single assembly.
78. (new) The cartridge of claim 69, wherein the housing further comprises an airflow chamber having a length extending intermediate of the heating element and the second aperture, the chamber having an interior between the heating element and the second aperture, the interior having no cross-sectional area measured perpendicular to the central longitudinal axis of the housing smaller in cross-sectional area than a cross-sectional area of the second aperture.
79. (new) The cartridge of claim 69, wherein the housing further comprises an airflow chamber having a length extending intermediate of the heating element and the second aperture, the length of the chamber having a substantially uniform cross-sectional area along a continuous majority of the length, the substantially uniform cross-sectional area being measured perpendicular to the central longitudinal axis of the housing, no portion of the chamber from immediately adjacent the heating element to the second aperture having a cross-sectional area smaller than a cross-sectional area of the second aperture.
80. (new) A cartridge configured to couple to a power source of an electronic vaporizer, the cartridge comprising:
- a housing having an interior and a solution holding medium adapted to hold a solution, the housing having a first end and a second end that is opposite the first end, the housing having a first aperture proximate the first end and a second aperture proximate the second end, the first end of the housing being adapted to electrically couple to the power source, the first aperture and the second aperture being in communication with one another to permit an airflow through the housing from the first aperture to the second aperture; and
 - a heating element located in the interior of the housing, the heating element extending transversely to a central longitudinal axis of the housing and being at least partially exposed to the airflow, the heating element being configured to vaporize at least a portion of the solution for oral provision to an

individual in the airflow, the heating element being responsive to electrical power received from the power source;

wherein the cartridge is formed as an integrated single assembly.

REMARKS

Applicant cancelled claims 21-40 without prejudice or disclaimer of their subject matter, and added new claims 41-80.

Entry and consideration of this Amendment prior to the examination of the above-identified application is respectfully requested.

If there are any fees due in connection with the filing of this Amendment, please charge the fee to our Deposit Account No. 50-1068.

Respectfully submitted,

MARTIN & FERRARO, LLP

Dated: December 23, 2020

By: /Thomas H. Martin/
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Registration No. 34,383

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PATENT APPLICATION FEE DETERMINATION RECORD				Application or Docket Number 16/451,483	Filing Date 06/25/2019	☐ To be Mailed
Substitute for Form PTO-875						
ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO						
APPLICATION AS FILED - PART I						
FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE (\$)	FEE (\$)	
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A		
☐ SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A		N/A		
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A		
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x \$50 =		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x \$230 =		
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).					
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))						
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL		
APPLICATION AS AMENDED - PART II						
AMENDMENT	(Column 1)	(Column 2)	(Column 3)		RATE (\$)	ADDITIONAL FEE (\$)
	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA			
	Total (37 CFR 1.16(i))	* Minus **	=		x \$0 =	
	Independent (37 CFR 1.16(h))	* Minus ***	=		x \$0 =	
	☐ Application Size Fee (37 CFR 1.16(s))					
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
				TOTAL ADD'L FEE		
AMENDMENT	(Column 1)	(Column 2)	(Column 3)		RATE (\$)	ADDITIONAL FEE (\$)
	12/23/2020 CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA			
	Total (37 CFR 1.16(i))	* 40 Minus ** 20	= 20		x \$50 =	1000
	Independent (37 CFR 1.16(h))	* 4 Minus *** 3	= 1		x \$240 =	240
	☐ Application Size Fee (37 CFR 1.16(s))					
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
				TOTAL ADD'L FEE	1240	
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.				LDRC		
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".				/EVA V GILLIS/		
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".						
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.						

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Electronic Acknowledgement Receipt	
EFS ID:	39547061
Application Number:	16451483
International Application Number:	
Confirmation Number:	5143
Title of Invention:	ELECTRONIC VAPORIZER
First Named Inventor/Applicant Name:	Gregory D. Conley
Customer Number:	22882
Filer:	Thomas H. Martin/Sandra Blackmon
Filer Authorized By:	Thomas H. Martin
Attorney Docket Number:	269.0003-03000
Receipt Date:	28-MAY-2020
Filing Date:	25-JUN-2019
Time Stamp:	09:43:26
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment		no			
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Electronic Acknowledgement Receipt	
EFS ID:	39550873
Application Number:	16451483
International Application Number:	
Confirmation Number:	5143
Title of Invention:	ELECTRONIC VAPORIZER
First Named Inventor/Applicant Name:	Gregory D. Conley
Customer Number:	22882
Filer:	Thomas H. Martin/Sandra Blackmon
Filer Authorized By:	Thomas H. Martin
Attorney Docket Number:	269.0003-03000
Receipt Date:	28-MAY-2020
Filing Date:	25-JUN-2019
Time Stamp:	09:42:17
Application Type:	Utility under 35 USC 111(a)

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19	Non Patent Literature	076-Exhibit_40- ExhibitUFromOhioProceedings. pdf	1891620	no	9
			cd6f659f5a3e39423b7158672b0406beae1e80d0		
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20	Non Patent Literature	076-Exhibit_32- FUMA00063611-672.pdf	7215884	no	63
			d5a68df3a55c8e42c80259bcd442fa9fbdbe7841		
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21	Non Patent Literature	076-Exhibit_41- CampbellTranscript.pdf	15053151	no	143
			84ff34e681a36bac07f5f258e7d011dabidd1c83		
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22	Non Patent Literature	076-Exhibit_42- CampbellDeclaration.pdf	3288600	no	11
			5c135df8f5bf1433bd71effe86f7dfdc0218f85f		
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23	Non Patent Literature	076-Exhibit_43- FUMA00082521-528.pdf	5632386	no	9
			7f902c3bca046efdeb5096cc513a644ceae71bfb86		
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24	Non Patent Literature	076-Exhibit_44- FUMA00077839-844.pdf	4260765	no	7
			49461886ffd5974210ffb278283ed6a766c71aca		
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25	Non Patent Literature	076-Exhibit_45- FUMA00000228-234.pdf	5156309	no	8
			7b8180846a6f05498e5a2c20a1e69b85cfdad6b4		
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26	Non Patent Literature	076-Exhibit_46- FUMA00000503-509.pdf	7254878	no	9
			9494e58d9ea6d9e315ed4b330a5d56e5ebb0080a		
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27	Non Patent Literature	076-Exhibit_47- WangDeclaration.pdf	10647397	no	58
			ef4de503d6ccddf66bdf0e5876f451b7d52536a2		
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Information:					
28	Non Patent Literature	076-Exhibit_48-RJRV- F000694624-433.pdf	2556134	no	11
			c561c02d088b2cce5425ade7c077a70d136863091		
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29	Non Patent Literature	076-Exhibit_49- FUMA00082588.pdf	348577	no	2
			da28435fd13a8b0e0df9234160411df797e80e26		
Warnings:					
Information:					

30	Non Patent Literature	076-Exhibit_50- FUMA00000419-422_469-74_4 86-87_542_608.pdf	4148392	no	15
			93805e46b5b685793c8a49ed669e82230af590ec		
Warnings:					
Information:					
31	Non Patent Literature	076-Exhibit_51- FUMA00000714-19_739_742-4 5_761-65_788-92.pdf	6155522	no	22
			7e388adf719e1d0029ee116ab1d3f07fcb1fd9f		
Warnings:					
Information:					
32	Non Patent Literature	076-Exhibit_52- FUMA00063914-19_64051-54- 64093.pdf	3932268	no	12
			48b75b740a35367fd7be627bac4f80512a7c4fdd		
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33	Non Patent Literature	076-Exhibit_53- FUMA00007750.pdf	2314451	no	2
			ce3cbe577b05e56e3ae299f3fa7d483836b35d53		
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34	Non Patent Literature	076-Exhibit_54- CollinsDeclaration.pdf	18015051	no	188
			aedc5ceeb7cfbe8baba8fc91d0263e405d1c3fe		
Warnings:					
Information:					
35	Non Patent Literature	082- RJRsOpeningClaimConstructio nBrief.pdf	1141049	no	42
			6c125b5041b3b9cd9adac69b57321e259df4c58b		
Warnings:					
Information:					
36	Non Patent Literature	082-Exhibit_1- EmailChainBbetweenDirkThom asAndLauraBethMiller.pdf	4432225	no	7
			7e6a712f02f3dd8e614a7976cf9ae97f7ca21397		
Warnings:					
Information:					

37	Non Patent Literature	082-Exhibit_2-ShorterOxfordEnglishDictionary-6thEdition-ExcerptForCouple.pdf	1177314	no	7
			ecf44bcc27a0edc7a0087ff59889609698c992d3		
Warnings:					
Information:					
38	Non Patent Literature	082-Exhibit_3-Merriam-WebstersCollegiateDictionary-10thEdition-ExcerptForCoupleFastenAndLink.pdf	1488879	no	7
			175c6307b9b89f8a8dd24ab42ac88408173d94a7		
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Information:					
39	Non Patent Literature	082-Exhibit_4-CertifiedFileHistoryForUSApplication12843917.pdf	1338574	no	13
			d0db6626af468ef1d817845cd9f82edb2e2885fc		
Warnings:					
Information:					
40	Non Patent Literature	082-Exhibit_5-EmailChainBetweenRalphJockeyAndGregConley.pdf	305652	no	3
			20acf0248ce4333729a808ca9e92983628023b49		
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Information:					
41	Non Patent Literature	082-Exhibit_6-CertifiedFileHistoryForUSApp14510955-Excerpts.pdf	2856913	no	26
			7b6f5ee993f842fb654f8bfc89ff8d6087c90d16		
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Information:					
42	Non Patent Literature	082-Exhibit_8-15OCT2013-EmailFromGregConleyToRalphJockey.pdf	223483	no	2
			d2ddeb7a68d5f277a8a158a35b5c3ef8429d9cf8		
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43	Non Patent Literature	082-Exhibit_9-CertifiedFileHistoryForUSApplication12843917.pdf	1608476	no	10
			1b9d8425588b64961c3c3aa9cad5085a71af21fe		
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Information:					

44	Non Patent Literature	082-Exhibit_10- EmailChainBetweenGregConle yAndRalphJocke.pdf	671067	no	3
			a8e4c1ee249e7523b42d265d12c6b5909ab5a460		
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Information:					
45	Non Patent Literature	082-Exhibit_11- ExcerptsFromRalphJockeDepos itionTranscript.pdf	84637	no	12
			18aa0ba59b78d4fda7cd246f3f1f3c358648d8fb		
Warnings:					
Information:					
46	Non Patent Literature	082- Exhibit_7-11OCT2013_EmailFro mRalphJockeToGregConley.pdf	696595	no	3
			42c52b8620f21ce84f3211347378373b1a89abdc		
Warnings:					
Information:					
47	Non Patent Literature	083- FumasOpeningClaimConstructi onBrief.pdf	532005	no	32
			1074db39d170aaa029ca3ff1da7e174703a07009		
Warnings:					
Information:					
48	Non Patent Literature	083-Ex_A- TableOfIndependenClaims.pdf	1272680	no	6
			2fadd5797fd2b41be85d78146d1da9f38ca8f1a4		
Warnings:					
Information:					
49	Non Patent Literature	084- RJRsOppositionToFumasMotio nForSummaryJudgmentRelneq uitableConduct.pdf	319812	no	39
			9afcca90fa0e473403bc60869dc98134dec4e2a5		
Warnings:					
Information:					
50	Non Patent Literature	084-Exhibit_1- ExcerptFromMay2016OhioProc eedingsTranscript.pdf	418755	no	13
			6893adb6a445a88fa47bf16fd4a57ba9cb69a26c		
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51	Non Patent Literature	084-Exhibit_2- ExcerptFromHillenbrandTrans cript.pdf	108442	no	14
			e4be77a53f18ee977a9d0fea656ba015aff446d4		
Warnings:					
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52	Non Patent Literature	084-Exhibit_3- ArticleReSchoolThatAwardedM BAtoCatSued.pdf	124805	no	2
			1be4a81fd1e0d31f91258951aea16e62643a5825		
Warnings:					
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53	Non Patent Literature	084-Exhibit_4- DeclarationOfYardimci.pdf	12991809	no	125
			5ce8c0c17b79355fd67792a2f0ea927c5edd7d03		
Warnings:					
Information:					
54	Non Patent Literature	084-Exhibit_5- Collins2ndDecl21JAN20.pdf	13851331	no	72
			4f51e6923f9b1b0cbe8b87fb953c70f1b2dc2c5c		
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Information:					
55	Non Patent Literature	084-Exhibit_6- FumaMarketingMaterials.pdf	1819389	no	10
			3041dab37b052ab96cb42b825da2c3bc1e7bac2a		
Warnings:					
Information:					
56	Non Patent Literature	084-Exhibit_7-ReynoldsPPT.pdf	1602307	no	15
			8530ef9233a2b3896f163664eeef6f37dcdd29c50		
Warnings:					
The page size in the PDF is too large. The pages should be 8.5 x 11 or A4. If this PDF is submitted, the pages will be resized upon entry into the Image File Wrapper and may affect subsequent processing					
Information:					
57	Non Patent Literature	085- FumasOppositionToRJRsMotio nForSummaryJudgmentOfIneq uitableConduct.pdf	275672	no	27
			f45ee8a6c6cc8c5688042deb543092f7c9680544		

Warnings:					
Information:					
58	Non Patent Literature	085- Exhibit_A-19JUL2010_EmailFromDPotterToGConley.pdf	2715452 da622c720f78f6df4ade07d5d0f6e2eacecff e4	no	4
Warnings:					
Information:					
59	Non Patent Literature	085- Exhibit_B-17JAN2020_DeclarationOfGValleePhD.pdf	17714261 da9a2b01d1197639e39505ef130f0e7ebda 6ea68	no	40
Warnings:					
Information:					
Total Files Size (in bytes):			215748081		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

Substitute for FORM PTO-1449			Attorney Docket Number 269.0003-03000		Customer No. 22882	
INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION			Applicant Gregory D. Conley et al.		Application Number 16/451,483	
(Use several sheets if necessary) Sheet <u>1</u> of <u>7</u>			Filing Date June 25, 2019		Art Unit 3761	Examiner I. Abraham
U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
**	4,284,089	8/1981	Ray			
**	5,249,586	10/1993	Morgan et al.			
*	8,910,639	12/2014	Chang et al.			
U.S. PUBLICATION DOCUMENTS						
**	2009/0272379	11/2009	Thorens			
*	2014/0060554	3/2014	Collett et al.			
NON PATENT LITERATURE DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)						
	Defendant R.J. Reynolds Vapor Company's Preliminary Invalidity Contentions as filed 26SEP2019; United States District Court for the Middle District of North Carolina; Civil Action Nos. 19-cv-00260 and 19-cv-660.					
	Defendant's 26SEP2019 Preliminary Invalidity Contentions Exhibit A, Claim Chart of U.S. Patent No. 9,532,604 with CN101366554A to Wang.					
	Defendant's 26SEP2019 Preliminary Invalidity Contentions Exhibit B, Claim Chart of U.S. Patent No. 10,334,881 with CN101366554A to Wang.					
	Defendant's 26SEP2019 Preliminary Invalidity Contentions Exhibit C, Claim Chart of U.S. Patent No. 9,532,604 with CN201379072Y to Han.					
	Defendant's 26SEP2019 Preliminary Invalidity Contentions Exhibit D, Claim Chart of U.S. Patent No. 10,334,881 with CN201379072Y to Han.					
	Defendant's 26SEP2019 Preliminary Invalidity Contentions Exhibit E, Claim Chart of U.S. Patent No. 9,532,604 with US2009/0126745 to Hon.					
	Defendant's 26SEP2019 Preliminary Invalidity Contentions Exhibit F, Claim Chart of U.S. Patent No. 10,334,881 with US2009/0126745 to Hon.					
	Defendant's 26SEP2019 Preliminary Invalidity Contentions Exhibit G, Claim Chart of U.S. Patent No. 9,532,604 with CN201085044Y to Fang.					
	Defendant's 26SEP2019 Preliminary Invalidity Contentions Exhibit H, Claim Chart of U.S. Patent No. 10,334,881 with CN201085044Y to Fang.					
	Defendant's 26SEP2019 Preliminary Invalidity Contentions Exhibit I, Claim Chart of U.S. Patent No. 9,532,604 with Fifty-One.					
	Defendant's 26SEP2019 Preliminary Invalidity Contentions Exhibit J, Claim Chart of U.S. Patent No. 10,334,881 with Fifty-One.					
	Defendant's 26SEP2019 Preliminary Invalidity Contentions Exhibit K, Claim Chart of U.S. Patent No. 9,532,604 with KR808D.					
	Defendant's 26SEP2019 Preliminary Invalidity Contentions Exhibit L, Claim Chart of U.S. Patent No. 10,334,881 with KR808D.					
	Defendant's 26SEP2019 Preliminary Invalidity Contentions Exhibit M, Claim Chart of U.S. Patent No. 9,532,604 with US2009/0095311 to Han.					

	Defendant's 26SEP2019 Preliminary Invalidity Contentions Exhibit N, Claim Chart of U.S. Patent No. 10,334,881 with US2009/0095311 to Han.
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	Defendant R.J. Reynolds Vapor Company's Amended and Consolidated Affirmative Defenses and Amended and Consolidated Counterclaims to Complaints for Patent Infringement as filed 10OCT2019; United States District Court for the Middle District of North Carolina; Civil Action Nos. 19-cv-00260 and 19-cv-660; Document 53.
	Plaintiff Fuma International LLC's Responses to Defendant R.J. Reynolds Vapor Company's Amended and Consolidated Counterclaims to Complaints for Patent Infringement; Demand for Jury Trial; as filed 24OCT2019; United States District Court for the Middle District of North Carolina; Civil Action Nos. 19-cv-00260 and 19-cv-660; Document 55.
	R.J. Reynolds Vapor Company's Motion for Summary Judgment of Patent Unenforceability as filed 20DEC2019; United States District Court for the Middle District of North Carolina; Civil Action Nos. 1:19-cv-00260 and 1:19-cv-660; Document; Document 73.
	Plaintiff Fuma International LLC's Motion for Summary Judgment on Defendant R.J. Reynolds Vapor Company's Inequitable Conduct Counterclaims as filed 20DEC2019; United States District Court for the Middle District of North Carolina; Civil Action Nos. 19-cv-00260 and 19-cv-660; Document 74.
	Plaintiff Fuma International LLC's Memorandum of Law in Support of Motion for Summary Judgment on Defendant R.J. Reynolds Vapor Company's Inequitable Conduct Counterclaims as filed 20DEC2019; United States District Court for the Middle District of North Carolina; Civil Action Nos. 19-cv-00260 and 19-cv-660; Document 75; with Exhibits (listed separately).
	Plaintiff's 20DEC2019 Memorandum Ex. 1, Examiner Search Notes at FUMA00000489, -546, -610
	Plaintiff's 20DEC2019 Memorandum Ex. 2, Comparison of Norton and Campbell Office Actions.
	Plaintiff's 20DEC2019 Memorandum Ex. 3, Chart depicting the sequence and relationship of the various applications in the subject patent family.
	Plaintiff's 20DEC2019 Memorandum Ex. 4, RJRV-F000045828 (noting entries of 11/01/2016 and 11/03/2016).
	Plaintiff's 20DEC2019 Memorandum Ex. 5, Fuma Supplemental Response to Interrogatory 12, p. 10.
	Plaintiff's 20DEC2019 Memorandum Ex. 6, December 4, 2019 Deposition Transcript of G. Conley.
	Plaintiff's 20DEC2019 Memorandum Ex. 7, December 9, 2019 Deposition Transcript of M. Medley.
	Plaintiff's 20DEC2019 Memorandum Ex. 8, May 29, 2014 Email from Conley to Jocke (FUMA00082651-53 at - 52).
	Plaintiff's 20DEC2019 Memorandum Ex. 9, Wikipedia Article at FUMA00000504 (describing "Heating Element ('atomizer)').
	Plaintiff's 20DEC2019 Memorandum Ex. 10, Fuma's Response to Interrogatory 15 at p. 5-6.
	Plaintiff's 20DEC2019 Memorandum Ex. 11, July 31, 2009 Sketches (FUMA00007752).
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	Plaintiff's 20DEC2019 Memorandum Ex. 13, RJRV-F000154458-72 at -71, -64, "Horizon 3 Vapor, The Open Innovation Solution"; Id. at - RJRV-F000154460 ("Open Innovation (Proudly Found Elsewhere)").
	Plaintiff's 20DEC2019 Memorandum Ex. 14, June 29, 2010 Email from Dennis Potter (RJRV-F000685773).
	Plaintiff's 20DEC2019 Memorandum Ex. 15, Sept. 19, 2019 Declaration of Wang Shanhong ("Wang Declaration").
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	Defendant's Memorandum in Support of Motion for Summary Judgment of Patent Unenforceability as filed 20DEC2019; United States District Court for the Middle District of North Carolina; Civil Action Nos. 19-cv-00260 and 19-cv-660; Document 76; with Exhibits (listed separately).
	Defendant's 20DEC2019 Memorandum Ex. 1, Updated 9,532,604 Patent Family Tree.
	Defendant's 20DEC2019 Memorandum Ex. 2, Deposition Exhibit No. DX 3; Production No. FUMA00000019-37; 9,532,604 Patent issued 03JAN2017 to Conley et al. (Certified on 08FEB2019).
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	Defendant's 20DEC2019 Memorandum Ex. 5. FUMA0000302-36 12/843,917 Application filed on 27JUL2010 to Conley et al. (Certified on 07FEB2019).
	Defendant's 20DEC2019 Memorandum Ex. 6, Fuma's Second Supplemental Response to Third Set of Interrogatories dated 12DEC2019, Interrogatory 12.
	Defendant's 20DEC2019 Memorandum Ex. 7, Excerpts from G. Conley Deposition Transcript.
	Defendant's 20DEC2019 Memorandum Ex. 8, Excerpts from D. Hillenbrandt Deposition Transcript.
	Defendant's 20DEC2019 Memorandum Ex. 9, Excerpts from R. Conley Deposition Transcript.
	Defendant's 20DEC2019 Memorandum Ex. 10, Excerpts from M. Medley Deposition Transcript.
	Defendant's 20DEC2019 Memorandum Ex. 11, Excerpts from R. Jocke Deposition Transcript.
	Defendant's 20DEC2019 Memorandum Ex. 12, Excerpts from T. Martin Deposition Transcript.
	Defendant's 20DEC2019 Memorandum Ex. 13, Deposition Exhibit No. DX 24; Production No. FUMA00012195; Press release announcing Fifty-One product.
	Defendant's 20DEC2019 Memorandum Ex. 14, Deposition Exhibit No. DX 25; Production No. FUMA00010920; Advertising of Fifty-One product.
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**	Defendant's 20DEC2019 Memorandum Ex. 17, Production No. RJRV-F000061285-92; US Publication No. 2009/0272379A1 issued 05NOV2009 to Thorens.
**	Defendant's 20DEC2019 Memorandum Ex. 18, Production No. RJRV-F000061357-67; US Patent No. 4,284,089 issued 18AUG1981 to Ray.
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	Defendant's 20DEC2019 Memorandum Ex. 48, Production No. RJRV-F000694624-33; Top Down View of Cartridges 1-3.
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	Defendant's 20DEC2019 Memorandum Ex. 53, Deposition Exhibit No. DX2A; Production No. FUMA00007750-MODIFIED; Sketch of Fifty-One Duo with location of batting material identified by Conley.
	Defendant's 20DEC2019 Memorandum Ex. 54, Declaration of John Collins with Exhibits A-J.

	Opening Claim Construction Brief of Defendant R.J. Reynolds Vapor Company as filed 13JAN2020; United States District Court for the Middle District of North Carolina; Civil Action Nos. 1:19-cv-00260 and 1:19-cv-660; Document 82; with Exhibits (listed separately).
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	Defendant's 13JAN2020 Brief Ex. 2, Production No. RJRVF900000037-42; Shorter Oxford English Dictionary (6th Edition), Excerpt for "couple," "fasten," and "link".
	Defendant's 13JAN2020 Brief Ex. 3, Production No. RJRVF900000043-48; Merriam-Webster's Collegiate Dictionary (10 th Edition), Excerpt for "couple," "fasten," and "link".
	Defendant's 13JAN2020 Brief Ex. 4, Production No. FUMA00000581-92; Certified File History for U.S. Application No. 12/843,917; March 28, 2014 Amendment Filed with a Request for Continued Examination (RCE) and Remarks.
	Defendant's 13JAN2020 Brief Ex. 5, Production No. RJRVF000044605-06; Email Chain between Ralph Jocke and Greg Conley regarding Patent Application Response, dated January 31, 2014 and February 3, 2014.
	Defendant's 13JAN2020 Brief Ex. 6, Production No. FUMA00000151-75; Certified File History for U.S. App. No. 14/510,955 (excerpts), including: July 11, 2016 Amendments and Response.
	Defendant's 13JAN2020 Brief Ex. 7, Production No. RJRVF000044766-67; October 11, 2013 Email from Ralph Jocke to Greg Conley regarding Draft of Response to Office Action for '917 Application.
	Defendant's 13JAN2020 Brief Ex. 8, Production No. RJRVF000044768; October 15, 2013 Email from Greg Conley to Ralph Jocke regarding Draft Response to Office Action for '917 Application.
	Defendant's 13JAN2020 Brief Ex. 9, Production No. FUMA00000599-607; Certified File History for U.S. Application No. 12/843,917; May 6, 2014 Non-Final Rejection.
	Defendant's 13JAN2020 Brief Ex. 10, Deposition Exhibit No. 33; Production No. FUMA00082651-52; Email Chain between Greg Conley and Ralph Jocke regarding the '813 and '917 Applications, dated May 29, 2014 and June 4, 2014.
	Defendant's 13JAN2020 Brief Ex. 11, Excerpts from Ralph Jocke Deposition Transcript.
	Plaintiff Fuma International LLC's Opening Claim Construction Brief as filed 13JAN2020; United States District Court for the Middle District of North Carolina; Civil Action Nos. 1:19-cv-00260 and 1:19-cv-660; Document 83; with Exhibit (listed separately)
	Plaintiff's 13JAN2020 Brief Ex. A, (showing independent claims with highlighted terms RJR has proposed for construction).
	Reynolds's Memorandum in Opposition to Plaintiff's Motion for Summary Judgment as filed 21JAN2020; United States District Court for the Middle District of North Carolina; Civil Action Nos. 1:19-cv-00260 and 1:19-cv-660; Document 84; with Exhibits (listed separately).
	Defendant's 21JAN2020 Memorandum Ex. 1, Production No. FUMA00006410, FUMA00006487-88; Excerpt from Transcript of Proceedings, Steiger v. Conley, No. 14CIV-0386 (State of Ohio, Medina County Common Pleas Court, May 16, 2016).
	Defendant's 21JAN2020 Memorandum Ex. 2, Excerpt from D. Hillenbrandt Deposition Transcript.
	Defendant's 21JAN2020 Memorandum Ex. 3, School that Awarded MBA to Cat Sued, NBCNEWS.COM, http://www.nbcnews.com/id/6664906/ns/us_news-crime_and_courts/t/school-awarded-mba-cat-sued/#.XiCJ4MhKiUk (last updated Dec. 7, 2004).
	Defendant's 21JAN2020 Memorandum Ex. 4, Declaration of Atif Yardimici, dated January 21, 2020.
	Defendant's 21JAN2020 Memorandum Ex. 5, Second Declaration of John Collins, dated January 21, 2020.
	Defendant's 21JAN2020 Memorandum Ex. 6, Production No. FUMA00004119-127; Fuma International LLC's Marketing Material.
	Defendant's 21JAN2020 Memorandum Ex. 7, "Slideshow" View Excerpts of Horizon 3 Vapor PowerPoint.
	Plaintiff Fuma International LLC's Memorandum in Opposition to Defendant's Motion for Summary Judgment of Patent Unenforceability as filed 21JAN2020; United States District Court for the Middle District of North Carolina; Civil Action Nos. 1:19-cv-00260 and 1:19-cv-660; Document 85; with Exhibits (listed separately).
	Plaintiff's 21JAN2020 Memorandum Ex. A, July 19, 2010 Email from D. Potter to G. Conley.
	Plaintiff's 21JAN2020 Memorandum Ex. B, January 17, 2020 Declaration of Dr. Glen Vallee.

	Plaintiff's 21JAN2020 Memorandum Ex. C, Smoke Anywhere Assurance of Voluntary Compliance, State of Florida.
*	Plaintiff's 21JAN2020 Memorandum Ex. D, U.S. Patent No. 8,910,639 issued 16DEC2014 to Chang et al.
	Plaintiff's 21JAN2020 Memorandum Ex. E, January 9, 2011 ARD Test Memo - Blu (RJR-V-F000051001-14, Redacted).
	Plaintiff's 21JAN2020 Memorandum Ex. F, May 11, 2006 Memo (RJR-V-F000051785-90, Redacted).
	Plaintiff's 21JAN2020 Memorandum Ex. G, January 6, 2012 ARD Test Memo - Njoy (RJR-V-F000051791-800, Redacted).
	Plaintiff's 21JAN2020 Memorandum Ex. H, RJR Ruyan Photos (RJR-V-F000051919-976).
	Plaintiff's 21JAN2020 Memorandum Ex. I, January 6, 2012 ARD Test Memo - Finiti (RJR-V-F000052015-018, Redacted).
	Plaintiff's 21JAN2020 Memorandum Ex. J, September 14, 2006 Memo - Ruyan (RJR-V-F000053225, Redacted).
	Plaintiff's 21JAN2020 Memorandum Ex. K, January 24, 2012 ARD Test Memo - Bloog (RJR-V-F0000535930-38, Redacted).
	Plaintiff's 21JAN2020 Memorandum Ex. L, August 25, 2009 Meeting Minutes, Reynolds Innovations, Inc. (RJR-V-F000053359-62, Redacted).
*	Plaintiff's 21JAN2020 Memorandum Ex. M, U.S. Patent Publication No. 2014/0060554A1 published 06MAR2014 to Collett et al.
**	Plaintiff's 21JAN2020 Memorandum Ex. N, U.S. Patent No. 4,284,089 issued 18AUG1981 to Ray.
	Plaintiff's 21JAN2020 Memorandum Ex. O, Renewed Request for Correction of Inventorship (FUMA00063955,69).
	Plaintiff's 21JAN2020 Memorandum Ex. P, Excerpted December 6, 2019 Transcript of Rebecca Conely.
	Plaintiff's 21JAN2020 Memorandum Ex. Q, Excerpted December 11, 2019 Deposition Transcript of T. Martin.
	Responsive Claim Construction Brief of Defendant R.J. Reynolds Vapor Company as filed 05FEB2020; United States District Court for the Middle District of North Carolina; Civil Action Nos. 1:19-cv-00260 and 1:19-cv-660; Document 89; with Exhibits (listed separately).
	Defendant's 05FEB2020 Brief Ex. 1, Excerpts from Merriam-Webster's Collegiate Dictionary (10 th Edition, 1996).
	Defendant's 05FEB2020 Brief Ex. 2, Excerpt from Cambridge Dictionary of American English (2000).
	Plaintiff Fuma International LLC's Responsive Claim Construction Brief as filed 05FEB2020; United States District Court for the Middle District of North Carolina; Civil Action Nos. 1:19-cv-00260 and 1:19-cv-660; Document 90; with Exhibit (listed separately).
**	Plaintiff's 05FEB2020 Brief Ex. A, U.S. Patent No. 5,249,586 issued 5OCT1993 to Morgan et al.
	Order as issued 06MAR2020; United States District Court for the Middle District of North Carolina; Civil Action Nos. 1:19-cv-00260 and 1:19-cv-660; Document 92.
	R.J. Reynolds Vapor Company's Motion to Reconsider Order (Dkt.92) Granting Motion for Summary Judgment as filed 20MAR2020; United States District Court for the Middle District of North Carolina; Civil Action Nos. 1:19-cv-00260 and 1:19-cv-660; Document 93.
	Defendant R.J. Reynolds Vapor Company's Brief in Support of Its Motion for Reconsideration as filed 20MAR2020; United States District Court for the Middle District of North Carolina; Civil Action Nos. 1:19-cv-00260 and 1:19-cv-660; Document 94.
	Claim Construction Order issued 23MAR2020; United States District Court for the Middle District of North Carolina; Civil Action Nos. 1:19-cv-00260 and 1:19-cv-660; Document 95.
	Defendant R.J. Reynolds Vapor Company's Final Invalidity Contentions with Exhibits as filed 24APR2020; United States District Court for the Middle District of North Carolina; Civil Action Nos. 19-cv-00260 and 19-cv-660.
	Defendant's 24APR2020 Final Invalidity Contentions Exhibit 1, Claim Chart of U.S. Patent No. 9,532,604 with CN101366554A to Wang.
	Defendant's 24APR2020 Final Invalidity Contentions Exhibit 2, Claim Chart of U.S. Patent No. 10,334,881 with CN101366554A to Wang.

INFORMATION DISCLOSURE STATEMENT

Application Number: 16/451,483

	Defendant's 24APR2020 Final Invalidity Contentions Exhibit 3, Claim Chart of U.S. Patent No. 9,532,604 with CN201085044Y to Fang.
	Defendant's 24APR2020 Final Invalidity Contentions Exhibit 4, Claim Chart of U.S. Patent No. 10,334,881 with CN201085044Y to Fang.
	Defendant's 24APR2020 Final Invalidity Contentions Exhibit 5, Claim Chart of U.S. Patent No. 9,532,604 with Fifty-One.
	Defendant's 24APR2020 Final Invalidity Contentions Exhibit 6, Claim Chart of U.S. Patent No. 10,334,881 with Fifty-One.
	Defendant's 24APR2020 Final Invalidity Contentions Exhibit 7, Claim Chart of U.S. Patent No. 9,532,604 with US2009/0095311 to Han.
	Defendant's 24APR2020 Final Invalidity Contentions Exhibit 8, Claim Chart of U.S. Patent No. 10,334,881 with US2009/0095311 to Han.
	Defendant's 24APR2020 Final Invalidity Contentions Exhibit 9, Claim Chart of U.S. Patent No. 9,532,604 with US2009/0272379 to Thorens et al.
	Order as issued 19MAY2020; United States District Court for the Middle District of North Carolina; Civil Action Nos. 1:19-cv-00260; Document 100.
EXAMINER	DATE CONSIDERED
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.	

Electronic Acknowledgement Receipt	
EFS ID:	39553452
Application Number:	16451483
International Application Number:	
Confirmation Number:	5143
Title of Invention:	ELECTRONIC VAPORIZER
First Named Inventor/Applicant Name:	Gregory D. Conley
Customer Number:	22882
Filer:	Thomas H. Martin/Sandra Blackmon
Filer Authorized By:	Thomas H. Martin
Attorney Docket Number:	269.0003-03000
Receipt Date:	28-MAY-2020
Filing Date:	25-JUN-2019
Time Stamp:	09:40:50
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment		no			
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Non Patent Literature	085-Exhibit_C-SmokeAnywhereAssuranceOfVoluntaryCompliance-StateOfFlorida.pdf	7022805	no	13
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8	Non Patent Literature	085-Exhibit_K-24JAN2012_ARDTestMemo-Bloog_RJRV-F000535930-38_Redacted.pdf	13557565	no	10
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9	Non Patent Literature	085-Exhibit_L-25AUG2009_Meeting MinutesReynoldsInnovationsInc_RJRV-F000.pdf	1094076	no	5
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15	Non Patent Literature	085-Exhibit_H-RJR_RuyanPhotos_RJRV-F000051919-976.pdf	6054743	no	59
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22	Non Patent Literature	093- RJRMotForReconsiderationOfIn equitableConductSJDissmissal. pdf	146950	no	4
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Information:					
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Warnings:					
Information:					

37	Information Disclosure Statement (IDS) Form (SB08)	SB08.pdf	142327 d2a44a1f53fff22f91a5ba609054a3978e12e6bf	no	7
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
Total Files Size (in bytes):			187576814		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	Confirmation No.: 5143
Gregory D. Conley et al.	)	
Serial No.: 16/451,483	)	Group Art Unit: 3761
Filed: June 25, 2019	)	Examiner: Ibrahime A. Abraham
For: ELECTRONIC VAPORIZER	)	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), Applicant brings to the attention of the Examiner the documents listed on the attached Form PTO/SB/08. This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits for the above-referenced application.

Copies of the listed non-U.S. patent documents are attached. Applicant respectfully requests that the Examiner consider the listed documents and indicate that they were considered by making appropriate notations on the attached form.

Applicant brings to the attention of the Examiner the existence of the litigation proceeding, i.e., Civil Action No. 19-260 in the U.S. District Court for the Middle District of North Carolina, asserting infringement of U.S. Patent Nos. 9,532,604 and 10,334,881. The '604 patent issued from application serial no. 14/510,955, which is the parent of application serial no. 15/377,522 (now the '881 patent), which is the parent of the current pending above-identified application. Applicant is providing a copy of the recently filed Final Invalidity Contentions (with Exhibits) with the present IDS. Applicant brings to the Examiner's attention at least the references identified by the defendant at pages 9 and 13 of the Final Invalidity Contentions as being allegedly pertinent. Applicant notes that a number of the listed references on pages 11 through 13 are identified by reference to particular identified websites or YouTube Channels allegedly

available prior to particularly noted dates. Applicant encourages the Examiner to consider the references identified in the Final Invalidity Contentions even if not listed on form PTO/SB/08.

Applicant notes for the Examiner on the attached Form PTO/SB/08 in the column for the Examiner's initials those items marked with "*" are listed both as a U.S. patent/publication and as an Exhibit in the non-patent literature section; and those items marked with "**" have been previously cited in a prior Information Disclosure Statement with respect to the above-identified application, but are being cited again for being designated as an Exhibit in the non-patent literature section.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claim in the application and Applicant determines that the cited documents do not constitute "prior art" under United States law, Applicant reserves the right to present to the office the relevant facts and law regarding the appropriate status of such documents.

Applicant further reserves the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 50-1068.

Respectfully submitted,

MARTIN & FERRARO, LLP

Date: May 28, 2020

By: /Thomas H. Martin/
Thomas H. Martin
Registration No. 34,383

1557 Lake O'Pines Street, NE
Hartville, Ohio 44632
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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY DOCKET NO	TOT CLAIMS	IND CLAIMS
16/451,483	06/25/2019		785	269.0003-03000	20	3

CONFIRMATION NO. 5143

FILING RECEIPT

22882
MARTIN & FERRARO, LLP
1557 LAKE O'PINES STREET, NE
HARTVILLE, OH 44632



Date Mailed: 07/23/2019

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a corrected Filing Receipt, including a properly marked-up ADS showing the changes with strike-through for deletions and underlining for additions. If you received a "Notice to File Missing Parts" or other Notice requiring a response for this application, please submit any request for correction to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections provided that the request is grantable.

Inventor(s)

Gregory D. Conley, Medina, OH;
Daniel C. Hillenbrandt, Brunswick, OH;

Applicant(s)

FUMA INTERNATIONAL, LLC, Medina, OH;

Assignment For Published Patent Application

FUMA INTERNATIONAL, LLC

Power of Attorney: The patent practitioners associated with Customer Number 22882

Domestic Priority data as claimed by applicant

This application is a CON of 15/377,522 12/13/2016 PAT 10334881
which is a CON of 14/510,955 10/09/2014 PAT 9532604
which is a CON of 13/594,813 08/25/2012 PAT 8897628
which is a CIP of 12/843,917 07/27/2010 ABN
and claims benefit of 61/527,434 08/25/2011
and said 12/843,917 07/27/2010
claims benefit of 61/273,097 07/31/2009
and claims benefit of 61/271,819 07/27/2009

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <http://www.uspto.gov> for more information.) - None.

Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 07/22/2019

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 16/451,483**

Projected Publication Date: Request for Non-Publication Acknowledged

Non-Publication Request: Yes

Early Publication Request: No

**** SMALL ENTITY ****

Title

ELECTRONIC VAPORIZER

Preliminary Class

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

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Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

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Title 37, Code of Federal Regulations, 5.11 & 5.15

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Application or Docket Number 16/451,483			
APPLICATION AS FILED - PART I									
(Column 1)		(Column 2)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY			
FOR	NUMBER FILED	NUMBER EXTRA	RATE(\$)	FEE(\$)		RATE(\$)	FEE(\$)		
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	75		N/A			
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	330		N/A			
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	380		N/A			
TOTAL CLAIMS (37 CFR 1.16(i))	20	minus 20 = *	x 50 =	0.00	OR				
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3	minus 3 = *	x 230 =	0.00					
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			0.00					
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				0.00					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL		TOTAL			
APPLICATION AS AMENDED - PART II									
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY	
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)	
	Total (37 CFR 1.16(i))	*	Minus **	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus ***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))					OR			
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					OR			
				TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE		
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)	
	Total (37 CFR 1.16(i))	*	Minus **	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus ***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))					OR			
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					OR			
				TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE		
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.									

TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

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Application Number	(Cont. of 15/377,522)
Filing Date	June 25, 2019
First Named Inventor	Gregory D. Conley
Title	ELECTRONIC VAPORIZER
Art Unit	(3761)
Examiner Name	(Thor S. Campbell)
Attorney Docket Number	269.0003-03000

SIGNATURE of Applicant or Patent Practitioner			
Signature	/Thomas H. Martin/	Date (Optional)	2019-06-25
Name	Thomas H. Martin	Registration Number	34383
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)			
NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.			
☒	*Total of <u>1</u> forms are submitted.		

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I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(c).

I hereby appoint:



Practitioners associated with Customer Number: 22882

OR



Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

As attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignment documents attached to this form in accordance with 37 CFR 3.73(c).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(c) to:



The address associated with Customer Number: 22882

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Address

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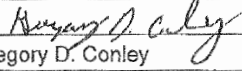
Assignee name and address: FUMA INTERNATIONAL, LLC
879 South Progress Drive, Suite C
Medina, Ohio 44256

A copy of this form, together with a statement under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(c) may be completed by one of the practitioners appointed in this form, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee.

Signature



Date

May 31st, 2018

Name Gregory D. Conley

Telephone

330-321-1711

Title

President

This collection of information is required by 37 CFR 1.31, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public, which is to update (and by the USPTO to process) the file of a patent or reexamination proceeding. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 18 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: FUMA INTERNATIONAL, LLC
Application No./Patent No.: (Cont. of 15/377,522) Filed/Issue Date: June 25, 2019
Titled: ELECTRONIC VAPORIZER
FUMA INTERNATIONAL, LLC, a limited liability company
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. ☒ The assignee of the entire right, title, and interest.
2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):
- ☐ The extent (by percentage) of its ownership interest is ____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.
- ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (e.g., bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 047383, Frame 0752, or for which a copy thereof is attached.
- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:
1. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.
2. From: _____ To: _____
The document was recorded in the United States Patent and Trademark Office at
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[Page 1 of 2]

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____

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5. From: _____ To: _____

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6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
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☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☒ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Thomas H. Martin/

Signature

Thomas H. Martin

Printed or Typed Name

2019-06-25

Date

34383

Title or Registration Number

[Page 2 of 2]

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Title: ELECTRONIC VAPORIZER

CONTINUATION DATA

This Application is a continuation of U.S. Application No. 14/510,955 filed October 9, 2014, which is a continuation of U.S. Application No. 13/594,813 filed August 25, 2012, which is a non-provisional of U.S. Provisional Application No. 61/527,434 filed August 25, 2011 and which is a continuation-in-part of U.S. Application No. 12/843,917 filed July 27, 2010, which is a non-provisional of U.S. Provisional Application Nos. 61/273,097 filed July 31, 2009 and 61/271,819 filed July 27, 2009. All these Applications are hereby incorporated herein by reference in their entirety.

BACKGROUND

[0001] Electronic cigarettes (also referred to as e-cigarettes or personal vaporizers) are generally battery-powered devices that are configured to deliver a vapour that comprises nicotine to an individual. Conventional electronic cigarette designs generally include a battery, a heating element, and a mouthpiece. The mouthpiece includes a liquid solution that comprises nicotine, and the battery provides power to the heating element, which in turn operates to vaporize the solution. Accordingly, when the user places the mouthpiece in her mouth and draws from the mouthpiece, the user receives vaporized nicotine. Due to the ever-increasing taxes on tobacco products, popularity of electronic cigarettes is expected to continue to correspondingly increase.

SUMMARY

[0002] The following is a brief summary of subject matter that is described in greater detail herein. This summary is not intended to be limiting as to the scope of the claims.

[0003] Described herein are various aspects generally pertaining to electronic vaporizers, and more particularly pertaining to cartridges that comprise heating elements configured to vaporize a solution. In an exemplary embodiment, a cartridge configured for utilization in connection with an electronic vaporizer comprises a housing that has an interior, a first end, and a second end. The housing is constructed of one of a polymer, wood, ceramic or any combination thereof. The cartridge can also include a heating element that resides in the interior of the housing. The cartridge can be manufactured as a single assembly or can be designed so that the cartridge can be manufactured as a multi-piece assembly. The cartridge also comprises a solution that is positioned proximate to the heating element. The heating element is configured to vaporize the solution responsive to receiving power from a power source (e.g., a battery). Pursuant to an example, the cartridge can be designed for utilization as a portion of an electronic cigarette. Accordingly, the solution may comprise nicotine or other components. Furthermore, the solution can be configured such that the vapor has a flavor when received by a user as well as other ingredients.

[0004] Additionally, an adapter is described herein, wherein the adapter is configured to electrically or electronically couple a power source (such as a battery) having a first configuration with a heating element having a second configuration. Specifically, manufacturers of vaporizers generally manufacture a power source and a heating element in a proprietary manner, such that only a heating element provided by the manufacturer can be electrically or electronically coupled to a power source provided by the manufacturer. Typically, the power source (battery) is significantly more expensive than associated cartridges, and once a user purchases a power source they may not wish to purchase a different power source from a different manufacturer even if the tastes of the user change over time. The adapters described

herein are configured to electrically or electronically couple power sources from a first manufacturer with a heating element from a second manufacturer.

[0005] The aforementioned adapter can provide for air flow (both direct and indirect), electrical and or electronic connection, data connections as well as power or an external heating source. The adapter may also incorporate onboard circuitry and/or sensors for collecting data from the adapter.

[0006] Other aspects will be appreciated upon reading and understanding the attached figures and description.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] Fig. 1 is a functional block diagram of an exemplary electronic vaporizer.

[0008] Fig. 2 is an exemplary configuration of a cartridge for utilization in an electronic vaporizer.

[0009] Fig. 3 is an exemplary configuration of a cartridge for utilization in an electronic vaporizer.

[0010] Fig. 4 is a functional block diagram of an exemplary electronic vaporizer.

[0011] Fig. 5 is a functional block diagram of an exemplary package of cartridges.

[0012] Fig. 6 is a flow diagram illustrating an exemplary methodology for manufacturing a cartridge for employment in an electronic vaporizer.

[0013] Fig. 7 is a functional block diagram of an exemplary adaptor.

[0014] Fig. 8 is a functional block diagram of an exemplary adaptor.

[0015] Fig. 9 is a functional block diagram of an exemplary electronic vaporizer that includes a power harvesting device.

DETAILED DESCRIPTION

[0016] Various technologies pertaining to electronic vaporizers will now be described with reference to the drawings, where like reference numerals represent like elements throughout. In addition, several functional block diagrams of exemplary electronic vaporizers, cartridges, and/or adapters are illustrated and described herein for purposes of explanation; however, it is to be understood that functionality that is described as being carried out by certain components of the electronic vaporizers may be performed by multiple separate components. Similarly, for instance, a component may be configured to perform functionality that is described as being carried out by multiple components.

[0017] With reference to Fig. 1, an exemplary electronic vaporizer 100 is illustrated. Pursuant to an example, the electronic vaporizer 100 may be an electronic cigarette that is configured to deliver a vaporized nicotine solution to a user thereof. It is to be understood, however, that the electronic vaporizer 100 may be utilized for other purposes, including deliverance of various vaporized solutions to the user for recreational or medicinal purposes.

[0018] The electronic vaporizer 100 comprises a power source 102 and a cartridge 104. The power source 102 and the cartridge 104 are configured to be mechanically and electrically coupled to one another. For example, the cartridge 104 may comprise an electrically conductive threaded fastener, and the power source 102 may comprise an electrically conductive threaded receiver. The threaded fastener and the threaded receiver can be coupled to one another, thereby mechanically and electrically coupling the power source 102 with the cartridge 104. Of course, other types of connection mechanisms that can mechanically and electrically couple the power source 102 with the cartridge 104 are contemplated and are intended to fall under the scope of the hereto-appended claims. These include magnetic connection mechanisms, snaps, twist caps,

push on connections, gasketed connections, quick connection mechanisms, turn lock mechanisms, t-bar connections, etc.

[0019] The power source 102 comprises a housing 106, which may be manufactured from a metal, a polymer, a ceramic, or some other suitable material. As used herein, a “polymer” can refer to a formulation of manufactured materials comprising plastics, PVC, and/or some other compound that derives from the classification of a polymer or polymer derivative. A “ceramic” refers to a compound that is classified or derivative of such compound that are derived from clay or man-made materials that are listed in a suitable classification scheme as being a ceramic, which may include compounds that are derived with some portion of the compound being ceramic in nature that is a blended or compounded material.

[0020] In the example shown and described with respect to Fig. 1, the housing 106 is cylindrical in nature. It is to be understood, however, that the housing 106 may be any suitable shape. As shown, the housing 106 comprises a first end 108 and a second end 110 that is opposite the first end 108, and also includes an interior. While not shown, the second end 110 can comprise an aperture, wherein the aperture is configured to receiver airflow from a user. A switch/sensor 112 resides on the interior of the housing 106. The power source 102 also includes a process controller 114 that is in electrical communication with the switch/sensor 112. The process controller 114, for example, can be a microchip that is configured to cause the power source 102 to operate as desired when the electronic vaporizer 100 is utilized by a user. A light emitting diode (LED) 116 is positioned proximate to the first end 108 of the housing 106. A battery 118 resides in the interior of the housing 106, and is electrically coupled to the LED 116, the process controller 114, and the switch/sensor 112. The process controller 114 controls operation of the LED 116 based at least in part upon output of the switch/sensor 112.

[0021] The cartridge 104 comprises a housing 120 that has an interior. The cartridge 104 also comprises a first end 122 and a second end 124, which may be considered as a portion of the housing 120 or apart from the housing 120. The housing 120 of the cartridge is manufactured from a non-metallic material, such as a polymer material or a ceramic material. In an example, the polymer may be a conductive polymer. As shown, the housing 120 is cylindrical in shape. It is to be understood, however, that the housing 120 may be of some other suitable shape. Moreover, the housing 120 may comprise only a cartridge wall (that can be cylindrical as well as other shapes). In another example, the housing 120 may comprise the cylindrical wall and two end-caps, all constructed of the polymer material or the ceramic material. In still yet another embodiment, the housing 120 may comprise the cartridge wall and a single end-cap. One or more end-caps described herein may be constructed from conductive material, such as metal, a conductive polymer, or the like.

[0022] A heating element 126 resides in the interior of the housing 120. The heating element 126 may be or include any suitable technology for outputting heat, including resistive heating, laser-based heating, flame, etc. It is to be understood that other technologies can be utilized other than heat to vaporize a liquid solution, including but not limited to ultrasonic technologies, ultraviolet technologies, chemical technologies, etc. Therefore, another state-changing apparatus may be substituted for the heating element 126.

[0023] A liquid, gelatin, frozen or solid solution (solution) 128 also resides in the interior of the housing 120, wherein the solution can be suspended in an absorbent material, capsule, or reservoir, wherein such devices may act as the holding medium for the solution 128. The solution 128 may be a mixture that is configured to deliver a particular substance in vaporized form to the user when the solution 128 changes state to a gaseous solution (e.g., subsequent to a

sufficient amount of heat being provided to the solution 128). In an example, such substance can be nicotine. In another example, the substance may be tobacco, THC, and/or any derivative thereof. Other substances are also contemplated, such as but not limited to caffeine, vitamins, herbal substances, and any other substance deemed necessary to achieve intended goals, including those that may be desirably delivered to a user for medicinal purposes. In other examples, the substances may include various pharmaceuticals or medications. Thus, as used herein a solution can refer to an element, compound, or substance that is blended, formulated or compounded to be used in the vaporizer 100 in order to deliver the user desired effects and or taste. The solution 128 may be in liquid state, gaseous state, gelatin state, frozen state or solid state.

[0024] The first end 122 of the cartridge 104 comprises a first aperture 130 that is located at approximately the center of the first end 122 of the cartridge 104. The second end 124 comprises a second aperture 132 that is located at approximately the center of the second end 124 of the cartridge 104. An airflow passageway 134 extends between the first aperture 130 and the second aperture 132 axially proximate to the center of the housing 120.

[0025] In operation, the user mechanically and electrically couples the power source 102 with the cartridge 104. Specifically, the battery 118 is electrically coupled to the heating element 126 when the power source 102 is mechanically coupled to the cartridge 104. The user places the second end 124 of the cartridge 104 in her mouth, and draws air through the airflow passageway 134. The switch/sensor 112 in the power source 106 is configured to detect the drawing of air through the airflow passageway 134, and an electric circuit is closed between the battery 118 and the heating element 126. The process controller 114 controls an amount of voltage/current to be received by the heating element 126 from the battery 118, such that the

heating element 126 receives an appropriate amount of electrical current/voltage. The heating element 126 outputs a sufficient amount of heat to vaporize at least a portion of the solution 128, and the user receives the vaporized solution orally. When the user ceases to draw air by way of the air passageway 134, the sensor/switch 112 detects the lack of airflow in the air passageway 134, and the electric circuit between the battery 118 and the heating element 126 is opened (e.g., directly by the sensor/switch 112 or responsive to receipt of instructions from the process controller 114) with or without delay circuitry built into the control. Manual switching or activation of the power source is also an option.

[0026] With respect to the power source 102, the battery 118 may be any suitable disposable, replaceable and/or rechargeable battery, including but not limited to a alkaline, lead acid battery, gel, a nickel cadmium battery, a nickel metal hydride battery, a lithium ion battery, a lithium ion polymer battery, amongst others. Other power sources may also be used in place of a battery such as direct power from any DC, AC or alternative energy source including inductive, solar, chemical, perpetual motion, etc. that can be used to power a heating source. Indirect or direct flame may also be used as a power source as appropriate to trigger the state change of the solution 128 from an initial state to a gaseous aerosol state. As mentioned previously, the process controller 114 can be a microchip or microcontroller that operates as desired when used (or not used) by an individual in regards to the electronic vaporizer 100. Thus, the process controller 114 can receive readings from the switch/sensor 112, and can cause the voltage/current to be supplied to the heating element 126 in the cartridge 104 as a function of such readings. The switch/sensor 112 can be a switch, a sensor, or a combination of a switch and sensor. For instance, the switch/sensor 112 may comprise an electronic airflow sensor, wherein the electronic airflow sensor senses when the user is drawing on the electronic cigarette 100.

Additionally or alternatively, the switch/sensor 112 may comprise a tactile sensor that is configured to sense that the user has depressed a tactile button on the cartridge 104 and/or the power source 102. That is, the user depresses a button to activate the heating element and draw the vaporized solution from the electronic vaporizer 100. Still further, the switch/sensor 112 may comprise a timed switch that opens the circuit between the battery 118 and the heating element 126 after the circuit has been closed for a threshold amount of time. There are a variety of switches and sensor that can be used to detect air flow and/or pressure that can be utilized to activate the heating element.

[0027] With respect to the cartridge 104, as mentioned previously, the main body of the housing 120 is constructed of a polymer. The first end 122 and the second end 124 may be or include end caps, wherein such end caps may be constructed of the polymer. In an exemplary embodiment, an end cap coupled to the first end 122 may at least be partially constructed of a conductive material, such as a conductive metal or a conductive polymer. Furthermore, a wood tip may be positioned upon the second end 124, wherein the wood tip is configured to be received orally by the user. In alternative embodiments, the second end 124 may include a tip comprised of a soft, malleable and/or a flexible polymer. Also in alternative embodiments, the second end 124 may include a paper wrapping around the tip of the second end in order to more closely simulate the tip of a conventional cigarette. Such a paper wrapping may further include flavorings capable of being tasted by a user (e.g., mint, tobacco, candy, fruit, or any other types of flavorings and/or aromas).

[0028] Additionally, as described above, the solution 128 may be placed in an absorbent material, such as cotton, wool, polyester, a batting material, or some other suitable absorbent material. A wicking material may be used in order to channel the liquid or gel to the heating

element. Pursuant to an example, the solution 128 may include a primary substance, such as propylene glycol, glycerin (both vegetable and manmade), glycerol and/or any combination thereof. Additionally, the solution 128 may comprise a portion of amount of a particular drug, such as nicotine, caffeine, THC, other stimulants or medicinal substance. Further, the solution 128 may comprise some amount of flavoring, such as tobacco flavoring, menthol flavoring, other suitable flavoring or any combination thereof.

[0029] Now turning to Fig. 2, a cutaway diagram of an exemplary cartridge 200 for utilization in an electronic personal vaporizer is illustrated. The cartridge 200 comprises a housing 202, which is constructed of a non-metallic material, such as a polymer, wood, ceramic, and/or any combination thereof. The housing 202 comprises an absorbent material 204 that has a liquid solution absorbed therein in a measured dose. The cartridge 200 includes a first end 206 and a second end 208 that is opposite the first end 206, wherein the first and second ends 206 and 208 can be removable caps, respectively. In an example, the first end 206 is formed of a polymer, and the second end 208 is formed of a conductive material, such as a conductive polymer or a conductive metal.

[0030] The first end 206 comprises a first aperture 210, and the second end 208 comprises a second aperture 212. As shown, the first aperture 210 and the second aperture 212 are positioned at approximately the centers of the first and second ends 206 and 208, respectively, such that a central axis of the cartridge 200 passes through both apertures 210 and 212. Both or either the first end 206 or second end 208 can be integrated into a single assembly as part of the housing 202. Additionally, the resulting assembly may or may not be able to be unassembled by the end user. An air passageway 214 begins at the first aperture 210 and extends to the second aperture 212 approximately along the central axis of the cartridge 200. For

example, the wall of the air passageway 214 may be constructed from a polymer or other suitable material.

[0031] The cartridge 200 further comprises a conductive element 216, at least a portion of which resides in the interior of the housing 202. For instance, the conductive element may be metallic threads that facilitate mechanically and electrically coupling the cartridge 200 with a power source (battery). The cartridge further comprises a center post 218 that extends from the second end 208 of the cartridge 202 to the airflow passageway 214, wherein the center post 218 is hollow to allow the airflow passageway 214 to extend through the center post 218 to the second aperture 212. In an example, the center post 218 can be formed of a conductive material, and may be constructed as being a portion of an end cap. An electrical isolator 220 is coupled to the center post 218 and extends outward from the center post 218. For instance, the electrical isolator 220 may be an O-ring or other suitable isolator.

[0032] The cartridge 200 further comprises a heating element 222 that is coupled to the electrical isolator 220 and the conductive element 216 in the interior of the housing 202 by way of conductive lines 224 and 226. The heating element 222 can comprise wicking material that draws the liquid solution from the absorbent material 204 towards the heating element 222. When the cartridge 200 is coupled to a power source, the conductive element 216 is electrically coupled to a negative terminal of the power source and the center post 218 (and thus the electrical isolator 220) is electrically coupled to a positive terminal of the power source. When a user draws a breath by way of the airflow passageway 214, a circuit is closed, thereby providing current to the heating element 222. The heating element 222 acts to vaporize the liquid solution in the absorbent material 204, and the resulting vapor is received by the user. Additionally, as shown, a gap 228 may exist between the first end 206 of the cartridge 200 and the absorbent

material 204. This gap 228 can be utilized to mix air and the vaporized liquid solution to provide the user with an appropriate amount of vaporized solution.

[0033] While the heating element 222 is shown as residing solely in the airflow passageway 214, it is to be understood that various other configurations of the heating element 222 with respect to the airflow passageway are contemplated and are intended to fall under the scope of the hereto-appended claims. In a first example, the heating element 222 may reside on the exterior of the airflow passageway 214, such that the heating element 222 heats the airflow passageway 214 by heating the wall of the airflow passageway 214. In a second example, the heating element 222 may reside on the interior and the exterior of the airflow passageway 214. In yet another example, as will be shown in greater detail below, the heating element 222 can be helical in nature and may wrap around the airflow passageway 214, which may be constructed of a ceramic. In such a design, the wall of the airflow passageway 214 may have apertures, be permeable, or be conductive to heat such that the vaporized liquid solution may be provided to the user. Furthermore, the airflow passageway 214 itself may act as a heating element, wherein the airflow passageway 214 is constructed from an electrically conductive and a thermally conductive material, such as a conductive ceramic. Accordingly, it is readily recognized that airflow may pass directly over the heating element, through a chamber that is proximate to the heating element, or other suitable configuration.

[0034] It is to be understood that the cartridge design shown in Fig. 2 is merely but one example of a cartridge design, and numerous other designs that cause a heating element to reside in a non-metallic housing together with a liquid solution that is desirably vaporized are contemplated.

[0035] Also, an alternative embodiment of a cartridge (adapted to mount to the described power source) may be configured to receive one or more capsules or pellets. Such capsules or pellets may be comprised of one or more medicines, vitamins, a tobacco, and/or other chemical(s) that the end user may desire to taste/consume. In such an embodiment, when the cartridge with a capsules is mounted to a power source (e.g. such as the power source 104 discussed above), the mechanical connection of the cartridge and power source may cause the capsule to open and release the contents therein. The end user may then provide a suction on the tip of the cartridge with his/her mouth in order to draw the released contents of the capsule into his/her mouth. In examples of this described embodiment, the capsule may be included in the cartridge during the manufacturing of the cartridge. However, it should be appreciated that in other embodiments, the cartridge may be designed to accept one or more capsules therein via a pharmacist and/or an end user prior to mounting the cartridge to a power source. Also it should be appreciated that this described example of the cartridge may also include a heating element therein that is configured to heat a capsule (or a pellet) to cause release of the contents of the capsule/pellet when the cartridge is mounted to the power source or when other actions are detected (e.g. a button press, suction through the cartridge).

[0036] Referring now to Fig. 3, another cutaway diagram of an exemplary cartridge 300 for utilization in an electronic personal vaporizer is illustrated. In this exemplary cartridge 300, the center post 218 may be of a conductive material, such as a conductive ceramic or a metallic material, and may act as a heating element. Thus, walls of the airflow passageway 214 may become heated when a user draws on the cartridge, thereby altering the state of the liquid solution in the absorbent material 204 to a vapor for provision to the user. Similar to the previously described exemplary cartridge 200 (Fig. 2), the gap 228 may exist to facilitate mixing

of vaporized solution with air. This gap is optional, as other designs may call for the walls of the airflow passageway 214 to be permeable or have apertures therein, to allow for vaporized solution to mix with air in the airflow passageway 214.

[0037] In another exemplary embodiment, a heating element 302 may be helical in nature and may wrap around the exterior of the airflow chamber 214. The heating element in this case may also be an integrated material as part of the airflow chamber. The air flow chamber in all cases may be solid or porous in nature or have ventilation to allow for aerosol and air stream blending. The walls of the airflow chamber may be constructed of a thermally conductive material, such as a ceramic, which causes the walls of the heating element to generate a sufficient amount of heat to vaporize the liquid solution in the absorbent material 204. In such a design, the conductive lines 224 and 226 may be coupled to the center post 218 and the conductive element 216, respectively, thereby electrically coupling the heating element 302 to negative and positive terminals of a power source. When the user draws on the cartridge, current is provided to the heating element 302 by way of the conductive lines 224 and 226 from the power source. The heating element 302 then heats the walls of the airflow passageway 214 to a temperature that is sufficient to alter the state of the liquid solution in the absorbent material 204 when the user draws on the cartridge 300. Again, these designs are merely exemplary in nature, and various other designs are contemplated by the inventors and are intended to fall under the scope of the hereto-appended claims.

[0038] With reference now to Fig. 4, another exemplary electronic vaporizer 400 is illustrated. The exemplary electronic vaporizer 400 comprises three separate portions: 1) the power source 102; 2) a first cartridge 402 that comprises the heating element 126; and 3) a

second cartridge 404 (a mouthpiece cartridge) that comprises the solution 128. Operation of the power source 102 has been described above, and is not repeated here for sake of brevity.

[0039] The first cartridge 402 can comprise a housing 406 that is cylindrical in nature, wherein the housing 406 can be constructed from a non-metallic material such as a polymer or ceramic. The housing 406, of course, may be manufactured to be in a shape other than a cylinder. The first cartridge 402 includes a first end 408 and a second end 410 that is opposite the first end 408. The first end 408 of the first cartridge 402 is configured to be mechanically coupled to the second end 110 of the first cartridge 402. Mechanical coupling of the power source 102 and the first cartridge 402 causes the battery 118 to be electrically coupled to the heating element 126 as described above. The heating element 126 can be positioned proximate to the second end 310 of the first cartridge 402, and thus proximate to the solution 128 in the second cartridge 404.

[0040] The second cartridge 404 comprises a housing 412, wherein the housing 412 can be constructed of a pliable plastic material. The second cartridge 404 can comprise a first end 414 and a second end 416 that is opposite the first end 414, wherein the first end 414 is configured to be mated with the second end 410 of the first cartridge 402, and the second end 414 is configured to be received orally by a user. The first cartridge 402 and the second cartridge 404 may have airflow passageways (not shown) extending axially there through, such that the switch/sensor 112 can determine when the user is drawing air through the airflow passageways. The process controller 114 can cause an appropriate current/voltage to be provided to the heating element 126 by way of the battery 118, and the heating element 126 can vaporize the solution 128 in the third cartridge 404, thus providing the user with a vaporized substance.

[0041] While the designs of the electronic vaporizer described above include an internal direct heating element, it is to be understood that alternative designs are contemplated, wherein the heating element is reusable or disposable and is located exterior to the housing. In such a design, the heating element transfers heat to the solution in order to vaporize the solution for oral provision to a user.

[0042] Referring now to Fig. 5, an exemplary package 500 is illustrated, wherein the package 500 is configured for sale to consumers. The package 500 comprises a plurality of first cartridges 402 and a corresponding plurality of second cartridges 404, which have been described in detail above with respect to Fig. 4. The package 500 may be a tamper-proof package, with each combination of first and second cartridges sharing a compartment in the package 500.

[0043] With reference now to Fig. 6, an exemplary methodology is illustrated and described. While the methodology is described as being a series of acts that are performed in a sequence, it is to be understood that the methodology is not limited by the order of the sequence. For instance, some acts may occur in a different order than what is described herein. In addition, an act may occur concurrently with another act. Furthermore, in some instances, not all acts may be required to implement a methodology described herein.

[0044] With more specificity pertaining to Fig. 6, a methodology 600 that facilitates constructing a cartridge for utilization in connection with an electronic vaporizer is illustrated. The methodology 600 begins at 602, and at 604 a polymer-injection manufacturing technique is utilized to generate a housing for the cartridge. The polymer-injection manufacturing technique may be a multi-step polymer injection. Other manufacturing techniques are also contemplated

(but not limited to), including chemical bonding, thermal molding, thermal bonding, molding through utilization of metal molds, form casting, roll forming, machining, amongst others.

[0045] At 606, a heating element and liquid solution (e.g., placed in an absorbent material) are caused to be included in the housing. For instance, the housing can be cylindrical in nature with a size approximately the size of a filter on a cigarette. The heating element and the liquid solution reside in the interior of the housing. The methodology 600 completes at 608.

[0046] Turning now to Fig. 7, an exemplary personal electronic vaporizer 700 is illustrated. In a first embodiment, the electronic vaporizer 700 may be an electronic cigarette. In another embodiment, the electronic vaporizer 700 may be a drug delivery device for utilization in a medical field. The electronic vaporizer 700 comprises a power source 702 that is of a particular type. For example, the power source 702 may be manufactured by a particular manufacturer. In another example, the power source 702 may be a particular model of power source. Accordingly, the power source 702 has a connector 704 corresponding thereto that is of a first type that is associated with the particular type of the power source 702. Pursuant to an example, the power source 702 may be a battery that is commonly utilized in electronic cigarettes. In another example, the power source 702 may be an automobile battery, a AA battery, a portable telephone, a 9 volt battery, a personal computer, an AC outlet, a generator, or some other suitable power source.

[0047] The electronic vaporizer 700 also comprises a heating element 706 that is of a type that is different than the type associated with the power source 702. For example, the heating element 706 may be manufactured by a manufacturer that is different from the manufacturer of the power source 702. Thus, the heating element 706 can have a connector 708 that is of a second type that is different than the type of the connector 704 on the power source

702. Pursuant to an example, the first connector type may be a threaded connector, a magnetic connector, a push-on connector, a snap-on connector, a turn-lock connector, or other suitable connector type. The second connector type may be some connector type that is different from the first connector type.

[0048] The electronic vaporizer 700 also comprises an adapter 710 that is configured to mechanically mate the power source 702 with the heating element 706 by way of the adapter 710. Additionally, the adapter 710 is configured to electrically couple the power source 702 with the heating element 706. Thus, the adapter 710 comprises a first connector 712 that is of the first type (the same type as the connector 704 of the power source 702) and a second connector 714 that is of the second type (the same type as the connector 708 of the heating element 706). In an example, if the connector 704 is a threaded connector, the first connector 712 on the adapter 710 may be a threaded connector that is configured to receive or screw into the connector 704 of the power source 702. Additionally, while not shown, the adapter 710 may comprise an airflow passageway that allows airflow to reach the power source 702 when a user draws on the electronic vaporizer 700. Accordingly, the adapter 700 may be at least partially constructed of a conductive material, such as a conductive metal or a conductive polymer.

[0049] With reference now to Fig. 8, an exemplary adapter 800 that facilitates mechanically mating and electronically coupling a power source and a heating element in an electronic vaporizer having dissimilar connection mechanisms is illustrated. The adapter 800 comprises a first connector 802 of a first type and a second connector 804 of a second type. The first connector 802 is configured to mechanically and electrically mate with a power source and the second connector 804 is configured to mechanically and electrically mate with a heating

element. Accordingly, the power source is electrically and mechanically coupled to the heating element by way of the adapter 800.

[0050] The adapter 800 also comprises circuitry 806, which can be or include microchip, a voltage regulator, an AC/DC converter, an amplifier, circuitry that is configured to step up or step down voltage received from the power source, or some other suitable circuitry that can allow for power delivered from the power source to properly operate the heating element to cause vapor to be provided to a user as desired. Accordingly, while not shown, the adapter 800 can comprise an airflow passageway that allows air to flow between the heating element and the power source by way of the adapter.

[0051] As mentioned previously, the connectors 804 and 806 may be of dissimilar type. Therefore, for instance, the first connector 804 may be one of a threaded fastener, a magnetic connector, a twist cap connector, a push-on connector, a quick-lock connector, a t-bar connector, a half-turn lock, amongst other type of connectors, and the second connector 806 may be of a type that is dissimilar from the type of the first connector 804.

[0052] As discussed previously with respect to Figure 7, an example embodiment of a personal electronic vaporizer may include a power source 702 that corresponds to a generator. Such a generator may correspond to a power harvesting device operative to generate electricity from energy in the environment associated with the personal electronic vaporizer. Fig. 9 shows an example 900 of a personal electronic vaporizer that includes a power harvesting device such as a generator 902 as the power source. In this example, the generator 902 is mounted in a housing 904 of the electronic vaporizer. The housing 904 also includes an airflow passageway 906 that extends adjacent at least portions of the generator.

[0053] The generator may include at least one actuator device 908 such as an blade, impeller, fan, turbine, propeller, airfoil, squirrel-cage impeller, electron mass inductor, plasma accelerator and/or other type of device that is responsive to airflow through the airflow passageway 906 to urge a shaft 910 of the generator to rotate and generate an electrical current. There may also be a venturi, air duct, air ram or other channelling and/or funnelling technologies used in order to increase or decrease the speed and/or volume of the airflow. The generated electrical current may be directed via a controller 912 (e.g., a microprocessor and/or analog circuitry) included in the electronic vaporizer to power a heating element 914 sufficiently to vaporize a portion of a liquid solution 916. As described in previous embodiments, the heating element 914 and the liquid solution 916 may be integrated into a second housing 918 that is adapted to removably connect to the first housing 904.

[0054] As can be appreciated, the amount of electrical energy generated by the generator 902 will vary depending on the amount of air drawn through the airflow passageway 906 by a user inhaling and/or exhaling through the electronic vaporizer. In an example embodiment, the controller may be capable of regulating electricity generated from one or more inhales/exhales through the airflow passageway in order to provide the heating element with sufficient power to vaporize a portion of the liquid solution 916. For example, the controller 912 may be in operative connection with a storage device 920 such as one or more capacitors and/or a battery. Electrical energy generated by the generator from several inhales/exhales through the airflow passageways may be stored in the storage device 920. When a sufficient amount of energy is accumulated, the controller 912 may be operative to direct power to the heating element from the storage device in order to vaporize the liquid solution.

[0055] In order to ensure that the heating element is activated at a time desirable by a user, power to the heating element may be triggered by the controller responsive to information available to the controller (such as an air flow indication provided by a dedicated airflow sensor). However, rather than using a dedicated air flow sensor, in some embodiments, electricity generated from the generator itself may instead serve as a sensor indicating when a user is actively inhaling through the electronic vaporizer. The detection of inhaling coupled with a detection of a sufficient amount of energy in the storage device may cause the controller to power the heating element.

[0056] However, it should be appreciated that in other embodiments, additional or other information may be used to trigger the power of the heating element. For example, wind or other external air source may also be operative to urge the actuator device to turn the shaft of the generator. In order to prevent wind from activating the heating element at undesirable times, the electronic vaporizer may include at least one further sensor 922 adapted to sense that a user is holding and/or is ready for the electronic vaporizer to operate. Such a further sensor may correspond to a button or a switch, which is activated in order for the heating element to be powered.

[0057] In this described embodiment, the generator corresponds to a power harvesting device operative to acquire energy from airflows. However, it should be appreciated that in alternative embodiments of the electronic vaporizer, other types of power harvesting devices may be used. For example, an embodiment may include an induction device operative to acquire electrical power for charging a battery wirelessly via induction from an induction source near the electronic vaporizer. In another example, the power harvesting device may correspond to an inductive jet that is operative to generate electricity responsive to airflow through the inductive

jet, venturi or any other mechanism that directs a air or gas flow (including air) that could or may increase or decrease the gas speed and/or volume. Furthermore this may be used as an induction system pulling gases or vapors from a secondary stream for more flow mass/speed or to use as a mixing and/or blending mechanism.

[0058] In further embodiments, the electronic vaporize may include a power harvesting device in the form of a radio frequency (RF) power receiver device that is operative to acquire electrical power from RF signals transmitted by an RF power transmitter device. In further embodiments, the power receiver may be operative to harvest power from other RF sources in the environment such as wireless network signals and/or mobile phone communication signals. Examples of RF power harvesting devices include the power harvester modules sold by Powercast Corporation in Pittsburgh, PA.

[0059] Also, in further example embodiments, the electronic vaporizer may include a power harvesting device in the form of a vibration power receiver which is operative to convert mechanical vibrations (e.g., accelerations caused by movement of the electronic vaporizer) to electrical energy. Power harvesting devices may also include solar cells, static electricity harvesters, or any other type of device capable of harvesting power from energy sources in the vicinity of the detection device.

[0060] In these described embodiments, the power harvesting device may be operative to charge a rechargeable battery with the acquired electrical energy. The other components of the electronic vaporizer (e.g., the controller and heating element) may be powered via the battery. However, it is to be understood that example embodiments of some of the described harvesting devices may directly provide power to the controller and heating element without using a battery.

[0061] In example embodiments that include a generator, the controller may be operative to estimate an amount of airflow being drawn through the airflow passageway responsive to the electrical output from the generator. The controller may also be operative to determine when such an air flow includes a vaporized solution caused by the powering of the heating element by the controller. With such information, an example embodiment of the controller may be operative to estimate an amount of the vaporized solution that is likely being inhaled by the user. The controller may be operative to use this information to regulate and control the dosage of the vaporized solution received by the user. In this embodiment, the electronic vaporizer may correspond to a metered dosage inhaler (MDI) for nicotine, medications (e.g., for treatment of an asthma attack or other condition), and/or other chemicals.

[0062] For example, as illustrated in Figure 9, the controller may include a data store 924 such as a flash memory device or other non-volatile memory in which the controller is operative to store information regarding the amounts of vaporized solution that a user may have inhaled. The controller may also be operative to store time and/or date information in association with the measured amounts of inhaled vaporized solution. An example embodiment of the controller may be operative to operate the heating element responsive to the information stored in the data store. The controller may be operative to limit the amount of the vaporized solution that a user is able to inhale over a given predetermined (and/or configurable) period of time. This may be accomplished by the controller monitoring the amount of vaporized solution that is likely inhaled via the device for a predetermined period of time. When the monitored amount reaches a predetermined threshold, the controller may be operative to prevent the heater element from vaporizing additional solution, until after a predetermined amount of time, and/or until after the controller receives a manual reset signal (via a button, or other sensor device) included in the

electronic vaporizer. These described predetermined periods of time and predetermined thresholds may be stored in the data 924.

[0063] In one or more of the previously described embodiments (e.g., embodiments with either a battery or a power harvesting device), the described controller 912 (and/or a controller 928 in the housing 918 with the solution 916) may be operative to prevent the heater element from operating to vaporize a solution unless a specific user is detected by the electronic vaporizer. For example, in cases where the solution includes a prescription medication, a pain killer, a pharmaceutical, a narcotic, a controlled substance and/or other chemical, which is intended to be used by a specific person, the electronic vaporizer may include a sensor (e.g., such as sensor 922 in Figure 9) that corresponds to a fingerprint reader or other type of biometric device. Such a biometric device may acquire data from a user which is used by the controller 912 and/or 926 to verify that a predetermined user is currently holding the electronic vaporizer prior to vaporizing the solution.

[0064] In this described embodiment (with reference to Figure 9), a further data store 926 (e.g., a non volatile memory) may be included in the particular housing 918 that holds the solution (e.g., a prescription medication). This further data store 926 and/or data store 924 may be programmed (e.g., via a pharmacist) to include the biometric data associated with the user being treated with the prescription medication). The biometric data couples one or both of the housings 904, 918 to a particular user. Prior to causing the heater element to vaporize the solution with the prescription medication, the controller 912 and/or 928 may require the coupled user to provide (through a sensor 922) a biometric input that corresponds to the biometric data programmed into the data store 924 and/or 926.

[0065] In another example, the electronic vaporizer may be capable of having a data store be programmed (with the biometric data) by the owner of the device. In this embodiment, the electronic vaporizer may include one or more input devices through which the data store 924 or 926 can be updated with biometric data usable to couple the vaporizer to a specific user. Also, in an embodiment, the electronic vaporizer may include a communication device (e.g. a USB port, Bluetooth, Wireless Ethernet) capable of connecting to an external computing device (PC, mobile phone, or other computing device) through a wired or wireless connection. The external computing device may be operative to execute software capable of updating the data store 924 or 926 in the electronic vaporizer to included biometric data that couples the device to a specific user. Coupling an electronic vaporizer to a particular user may minimize the opportunity for children or other people from using the electronic vaporizer without permission.

[0066] It should also be appreciated that further embodiments may include other features for coupling an electronic vaporizer to a particular user. For example, the sensor 922 may correspond to an RFID, Bluetooth, and/or NFC reader that is operative to wirelessly read an RFID chip or other circuit (Bluetooth, NFC) integrated into an article associated with the user. Such an RFID chip or other circuit may be integrated into an article such as a ring, bracelet, necklace, card, mobile phone, clothing, or other article worn and/or carried by the user. The RFID chip or other circuit may include a unique code that corresponds to data stored in the data store 924 and/or 926. The controller 912 and/or, 928 may be operative to verify that the data stored in the data store 924 and/or 926 corresponds to code recently or currently being read by the RFID reader or other reader from the RFID chip or other circuit of the user's article, before causing the heater element to vaporize the solution. As described previously with respect to the embodiment with biometric data, a pharmacist and/or an end user may include computing

devices capable of interfacing with one or both controllers 912, 928 and storing data associated with the user's article in the data store 926 and/or 924.

[0067] To enhance security and to minimize unauthorized access to the electronic vaporizer or housings included therein, read only memory may be used as a data store for storing serial numbers, public keys, or other data that is intended to remain constant. Furthermore, updateable data (e.g. biometric data, RFID/Bluetooth/NFC data) which are programmed into a data store 924 and/or 926 by a pharmacist or other authorized person (to carry out the previously described data couplings), may be digitally signed in a manner that can be authenticated by one or more of the controllers 912, 928 in the electronic vaporizer prior to allowing the heater element to vaporize the solution.

[0068] For example, data stored in a data store 924 and/or 926 that couples the electronic vaporizer to a particular RFID chip or other circuit enabled article (e.g. a ring) may correspond to a digitally signed certificate that specifies the code that is transmitted by the article. Prior to enabling the heater element to vaporize the liquid solution, at least one of the controllers 912, 928 may require the detection of a code from an article which matches the code stored in the certificate, as well as requiring that the signature of the certificate be cryptographically authenticated. Further, the controller 912 and/or 928 may verify that the certificate includes serial number(s) associated with one or more of the housings 904, 918.

[0069] Such validly signed certificates may only be generated and stored on the electronic vaporizer by a pharmacist or other person that has access to a server with the particular private key that can sign the certificate in a manner that can be authenticated using the public key securely stored in the electronic vaporizer. Thus, an unauthorized user would not be

able to reprogram the electronic vaporizer (or the housing 918 that contains the solution 916) to work with other RFID articles by installing a fake certificate in the data store 924 and/or 926.

[0070] In addition, it should also be understood that in some embodiments a handshaking protocol may take place between controllers in different housings of the electronic vaporizer to establish encrypted communications. Such encrypted communications may minimize a man-in-the-middle attack or other hacks which may be attempted to gain unauthorized usage of the electronic vaporizer and/or associated housings/cartridges. For example, the controllers in different housings maybe able to carry out an SSL protocol to form an encrypted communication channel between the controllers through which certificates, RFID readings, biometric inputs, housing serial numbers, and/or other data may be passed therebetween. Also, it should be understood that embodiments that include an RFID/Bluetooth/NFC reader may be operative to carry out a handshaking protocol with an article. Such a handshaking protocol may establish encrypted communications with the article. The handshaking protocol may also include authentication of the article using digital certificates or other cryptographic processes.

[0071] In addition, in the previously described embodiments, the data store 924 and/or 926 may be programmed when manufactured, by a pharmacist, and/or by another authorized user to include usage and dosage information that correspond to the previously described predetermined periods of time and predetermined thresholds used to limit the amount of vaporized solution inhaled by a user. For such embodiments, the controller 912 and/or 928 may include or be in operative connection with a clock that can provide time information usable to control when to enable and/or prevent usage of the electronic vaporizer between the time intervals specified by the dosage information stored in the data store 924 and/or 926.

[0072] It should also be appreciated that one or more of the previously described embodiments of the electronic vaporizer may include a communication device for additional or other purposes besides programming the data store 926. For example, an embodiment of the electronic vaporizer may use a communication device to communicate data stored in the data store 924 associated with monitored usage of the device to an external computing device such as a remote server. The computing device may also communicate a unique identifier (e.g., a serial number, user account number, userID) to the remote server. The remote server may compile statistics regarding use of the electronic vaporizer (associated with the unique identifier) for use by a doctor or other person to evaluate and/or monitor its use. Also, the remote server may provide usage and/or dosage data to the electronic vaporizer to activate and/or modify future limits on the operation of the electronic vaporizer. In order to connect to the remote server, the communication device (e.g. a USB port, Bluetooth, NFC, Wireless Ethernet) of the electronic vaporizer may be connected to a corresponding communication device of a mobile phone, PC, or other computing device which has access to the Internet.

[0073] In addition, it should be understood that in some embodiments, in which a generator serves as a sensor (to monitor the intake of vaporized solution), the generator may not be used to provide electrical energy to power the heater element. Rather the generator may only correspond to an air flow meter. For example, the generator may be of a size that is adapted for monitoring airflow and may not be capable of timely generating a sufficient amount of energy to power the heater element. In such cases, the electronic vaporizer may include a battery as described in previous embodiments and/or some other type of power source or power harvesting device.

[0074] Also, it should be appreciated that one or more of the embodiments described herein may be operative to carry out and/or facilitate analyzing and/or capturing information about the user of the electronic vaporizer. For example in a further embodiment, the electronic vaporizer may include one or more sensors that are operative to analyze breath, saliva, skin, sweat, tissue, and/or cells of the user using the electronic vaporizer. Such sensors may be operative to acquire data from such substances, which data is stored in one or more data stores in the electronic vaporizer. Such data may be downloadable to a remote system (via a wired or wireless connection with the electronic vaporizer) in order for medical conditions and/or other characteristics of the user to be determined and evaluated by the user themselves, caregivers, and/or medical professionals.

[0075] Also in a further embodiment, the electronic vaporizer may be operative to acquire and store substances from a user (e.g., breath, saliva, skin, sweat, tissue, and/or cells) in a storage chamber within the electronic vaporizer during use of the electronic vaporizer. The electronic vaporizer and/or the storage chamber may then be connected to one or more instruments capable of extracting and analyzing the contents of the storage chamber for medical conditions or other characteristics (e.g., cancer, vitamin deficiencies, drug use).

[0076] As discussed previously the power source used in one or more embodiments described herein may correspond to a rechargeable battery. Such a rechargeable battery may be capable of being rapidly charged in a relatively fast time period (e.g., < 1 hour, < 30 minutes, or other time period that is less than 2 hours to charge a battery from <10% of a full charge to >90% of a full charge). In the embodiment, a rapid charger that is used to rapidly charge a battery in an electronic vaporizer in this described manner, may be capable of being plugged into any other power sources such as an AC outlet, a USB port or a DC power source.

[0077] In addition, it should be appreciated that one or more embodiments described herein may include an epinephrine auto injector or other type of auto injector that is capable of being used by a user to inject a medication capable of treating an allergic reaction, anaphylactic shock or other condition that requires an injection of a medication into the bloodstream of a user. Such an auto injector may be included in an additional housing/cartridge removably mountable to one of the other housings/cartridges described herein and/or may be integrated into one of the housings/cartridges described herein. Such an auto injector may be capable of being activated by placing an end of the housing/cartridge with the auto injector adjacent a user's body (e.g. a muscle) and pressing a button which causes a spring loaded needle in the auto injector to enter tissue of the user and inject a medication stored in the housing into the body of the person.

[0078] Further, it should be noted that any of the chemical delivery examples described herein (vaporizer, capsule, pellet, auto injector) may be operative to deliver any type of desirable substance to a user, including but not limited to: medications, antibiotics, pain killers, pharmaceuticals, narcotics, nicotine, tobacco, THC, marijuana, caffeine, vitamins, herbal substances, food, steroids, epinephrine, insulin, and/or any other substances that may be desirable by an end user of the described embodiments. Also, it should be appreciated that that one or more example embodiments may correspond to a cartridge that comprises of a housing, heating element located in the center airflow and a storage mechanism for holding the active and inert ingredients. In addition one or more embodiments may correspond to a cartridge that comprises of a housing, heating element surrounding the center of the airflow for the purpose of vaporization of ingredient or ingredients. Further one or more embodiments may correspond to a heating element that directly or indirectly contacts a solution, solid or powder to be transferred in a gaseous, liquid, powder or solid state either directly or indirectly through a carrier medium of

any kind in order to be inhaled through breath or artificial breathing mechanism to be delivered either directly or indirectly to the user or subject. Also, one or more embodiments may correspond to a heating element made from metallic substance such as nichrome, nickel chromium, gaseous heating element, ceramic, ceramic composite, carbon, carbon hybrid, carbon fiber, polymer, hybrid polymer or any other material that are capable of heating a solution, solid or powder to a gaseous state for the purpose of delivering a desired substance or combination of substances in order to deliver flavors, nicotine, medicines, recreational consumables, tobacco, marijuana, vitamins or any other substance or combination of substances for consumption by humans or animals of any kind. In addition one or more embodiments may correspond to a device or group of devices that use software and/or hardware that can also use artificial intelligence to singularly or collectively and can be linked either wirelessly or through other hard connection mechanisms to allow for the devices and user to collaborate or share collective data either knowingly or unknowingly directly or through a medium such as a server, internet or data bank locally or remotely for data collection as well as collaboration.

[0079] It is noted that several examples have been provided for purposes of explanation. These examples are not to be construed as limiting the hereto-appended claims. Additionally, it may be recognized that the examples provided herein may be permuted while still falling under the scope of the claims.

CLAIMS

We claim:

1. An apparatus comprising:

a power source,

wherein the power source includes a battery,

wherein the power source includes an electrically conductive threaded
portion; and

a cartridge having a housing that comprises an interior,

wherein the housing includes a first end and a second end that is opposite the first
end, wherein the housing includes a first aperture on the first end and a second
aperture on the second end,

wherein the housing includes an airflow passageway that extends with respect to
the housing intermediate of the first aperture on the first end of the housing and
the second aperture on the second end of the housing,

wherein the airflow passageway is configured to allow airflow through the cartridge from the first aperture to the second aperture of the housing,

wherein the first end of the housing includes an electrically conductive threaded portion that is adapted to mechanically and electrically couple to the electrically conductive threaded portion of the power source,

wherein the housing includes a solution holding medium comprising a solution located in the interior of the housing,

wherein the solution holding medium surrounds the airflow passageway in the interior of the housing and intermediate of the first end and the second end,

wherein the housing includes a heating element located in the interior of the housing,

wherein the heating element is electrically configured to vaporize at least a portion of the solution for oral provision to an individual in the airflow from the second aperture responsive to electrical power received from the battery through the electrically conductive threaded portions of the cartridge and power source.

2. The apparatus according to claim 1, wherein the solution holding medium includes at least one of an absorbent material, a chamber, a reservoir, a capsule, or any combination thereof.
3. The apparatus according to claim 2, wherein the housing has a cylindrically shaped outer wall, wherein the housing has a central longitudinal axis that extends between the first and second apertures, wherein the airflow passageway extends coaxially with central longitudinal axis, wherein the solution holding medium surrounds the airflow passageway and the central longitudinal axis and no portion of the solution holding medium intersects the central longitudinal axis.
4. The apparatus according to claim 1, wherein the heating element extends transversely across the airflow passageway, whereby airflow through the passageway passes on both transverse sides of the element.
5. The apparatus according to claim 1, wherein the heating element extends in surrounding relation of the airflow passageway.
6. The apparatus according to claim 1, wherein the heating element is in operative connection with a wicking material, wherein the wicking material is operative to attract the solution from the solution holding medium toward the heating element.

7. The apparatus according to claim 1, wherein the solution comprises propylene glycol, nicotine, caffeine, THC, antibiotics, pain killers, vitamins, insulin, epinephrine, or any combination thereof.
8. The apparatus according to claim 1, wherein the heating element includes electrically conductive and ceramic material positioned in surrounding relation of the airflow passageway.
9. The apparatus according to claim 1, wherein the second end is at least partially covered by a wood tip.
10. The apparatus according to claim 1, wherein the housing is comprised of wood, a ceramic, or a combination thereof.
11. The apparatus according to claim 1, wherein the housing includes an outer cylindrical wall comprised at least in part of a polymer.
12. An apparatus comprising:

electronic cigarette cartridge, wherein the electronic cigarette cartridge includes a housing,

wherein the housing includes:

an interior;

a first end;

a second end that is opposite the first end;

a heating element located in the interior of the housing;

an airflow passageway that extends intermediate of the first end and the second end through the interior of the housing along an axial direction, wherein the airflow passageway enables airflow from the first end to the second end;

a solution holding medium located in the interior of the housing, wherein the medium extends in surrounding relation of the heating element and the airflow passageway, wherein the medium includes a liquid solution, wherein the medium includes at least one of an absorbent material, a chamber, a reservoir, a capsule, or any combination thereof,

wherein the first end of the housing includes an electrically conductive engageable portion that is configured to mechanically and electrically couple to a further electrically conductive engageable portion in operative connection with a power source, wherein the heating element is

configured to vaporize at least a portion of the solution for oral delivery from the second end of the housing upon receiving current from the power source through the electrically conductive engageable portion of the cartridge.

13. The apparatus according to claim 12, wherein the solution comprises propylene glycol, nicotine, caffeine, THC, antibiotics, pain killers, vitamins, insulin, epinephrine, or any combination thereof.

14. The apparatus according to claim 12, wherein the heating element is in operative connection with a wicking material that is configured to attract the solution from the solution holding medium toward the heating element.

15. The apparatus according to claim 12, wherein the housing is comprised of at least one of a polymer or a ceramic.

16. The apparatus according to claim 12, wherein the first end comprises a first aperture and the second end comprises a second aperture, wherein the airflow passageway extends along an axial direction between the first aperture and the second aperture through the interior of the housing, and wherein at least a portion of the heating element extends in the airflow passageway, and wherein no portion of the solution holding medium intersects the central longitudinal axis.

17. The apparatus according to claim 12, wherein the first end comprises a first aperture and the second end comprises a second aperture, wherein the airflow passageway extends along an axial direction between the first aperture and the second aperture, and wherein the heating element is helical and extends in surrounding relation of the airflow passageway.

18. The apparatus according to claim 12, and further comprising the power source.

19. The apparatus according to claim 12 and further comprising:

at least one sensor operative to sense at least one property corresponding to an amount of air flow through the airflow passageway,

a controller in operative connection with the at least one sensor, wherein the controller is operative to cause a change in current delivered to the heating element responsive to the at least one sensed property.

20. An apparatus comprising:

an electrical power source including a positive terminal and a negative terminal;

a housing, wherein the housing is configured to releasibly electrically and physically couple to the power source, wherein the housing comprises:

an interior area, wherein the interior area extends along a central longitudinal axis of the housing;

a first end, wherein the first end comprises a first aperture;

a second end that is opposite the first end, wherein the second end comprises a second aperture;

an airflow passageway that extends along an axial direction intermediate of the first aperture and the second aperture,

a first conductive element extending in the interior area of the housing adjacent the first end, the first conductive element configured to be electrically in operative connection with the negative terminal of the power source;

a second conductive element extending in the interior area of the housing adjacent the first end, the second conductive element configured to be electrically in operative connection with the positive terminal of the power source;

a heating element within the interior area of the housing, the heating element configured to be electrically coupled to the power source by way of the first conductive element and the second conductive element; and

a solution holding element located in the interior area of the housing, wherein the solution holding element includes at least one of an absorbent material, a chamber, a reservoir, capsule, or any combination thereof, wherein the solution holding element holds a liquid solution, wherein the solution includes at least one of nicotine, caffeine, or THC, antibiotics, pain killers, vitamins, insulin, epinephrine or combinations thereof,

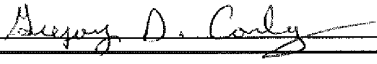
wherein the heating element and airflow passageway extend within the solution holding element, and wherein the heating element is configured to vaporize at least a portion of the solution responsive to receiving power from the power source such that the vaporized solution passes into the airflow passageway.

ABSTRACT

An electronic vaporizer is provided. The electronic vaporizer includes a cartridge that facilitates provision of a vaporized solution to an individual. The cartridge includes a housing that includes an interior, wherein the housing is one of a polymer housing or a ceramic housing. The cartridge also includes a heating element located in the interior of the housing, wherein the heating element is configured to vaporize a solution for oral provision to the individual. The vaporizer may also include a power harvesting device operative to acquire energy from the environment for use with powering the heating element.

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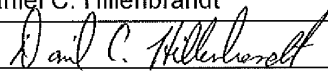
**DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN
APPLICATION DATA SHEET (37 CFR 1.76)**

Title of Invention	ELECTRONIC VAPORIZER
As the below named inventor, I hereby declare that: This declaration is directed to: ☐ The attached application, or ☒ United States application or PCT international application number <u>15/377,522</u> filed on <u>December 13, 2016</u>. The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed invention in the application. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both. WARNING: Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available. LEGAL NAME OF INVENTOR Inventor: <u>Gregory D. Conley</u> Date (Optional): <u>2019-02-26</u> Signature: <u></u> Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.	

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	ELECTRONIC VAPORIZER
As the below named inventor, I hereby declare that: This declaration is directed to: ☐ The attached application, or ☒ United States application or PCT international application number <u>15/377,522</u> filed on <u>December 13, 2016</u>. The above-identified application was made or authorized to be made by me. I believe that I am the original inventor or an original joint inventor of a claimed invention in the application. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both. WARNING: Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.	
LEGAL NAME OF INVENTOR Inventor: <u>Daniel C. Hillenbrandt</u> Date (Optional): <u>2019-02-26</u> Signature: <u></u>	
Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.	

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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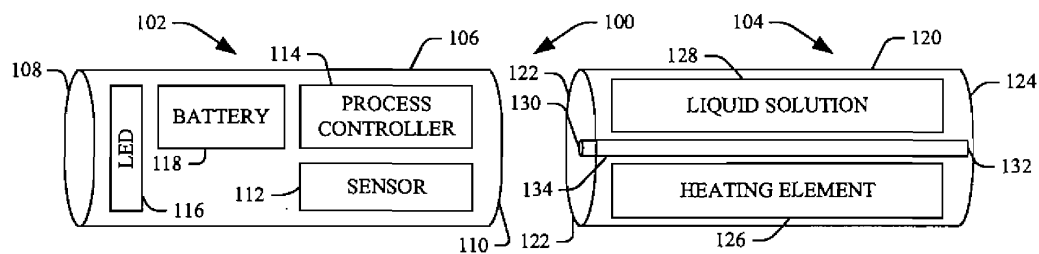


FIG. 1

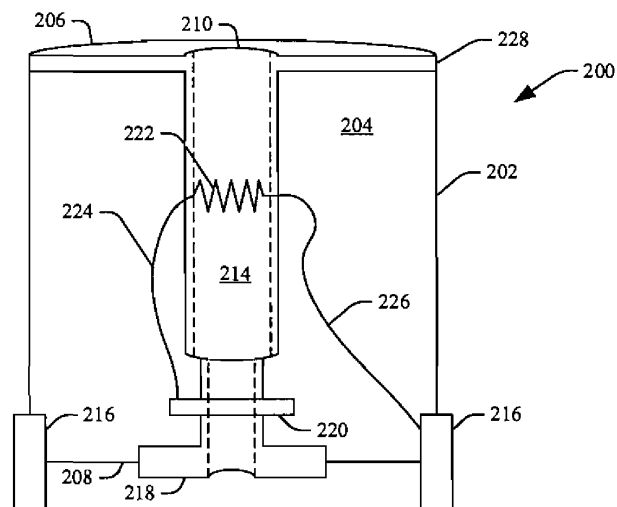


FIG. 2

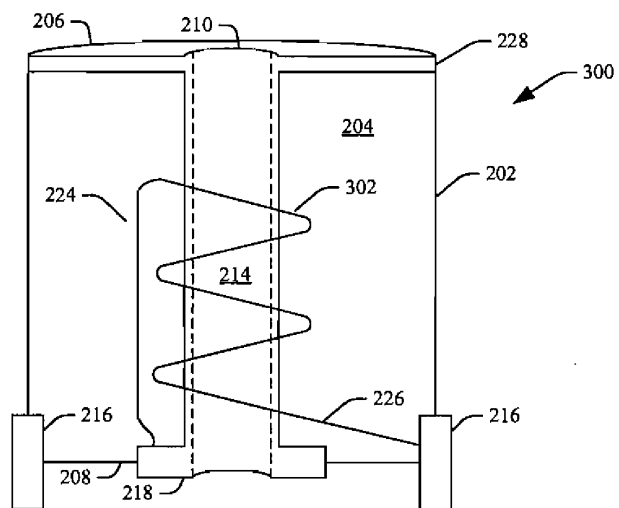


FIG. 3

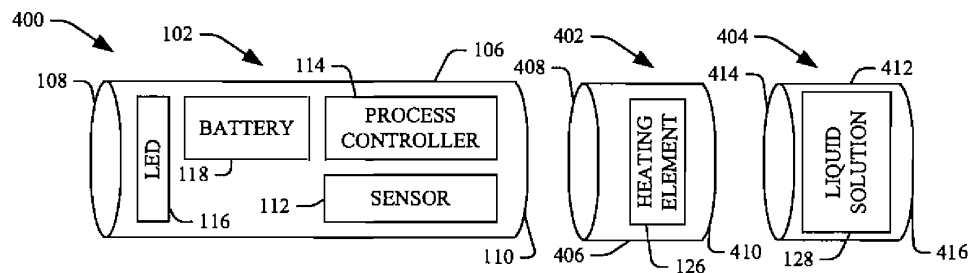


FIG. 4

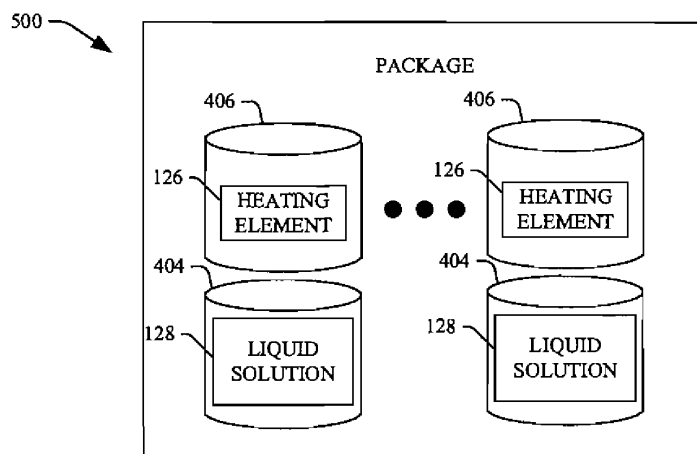


FIG. 5

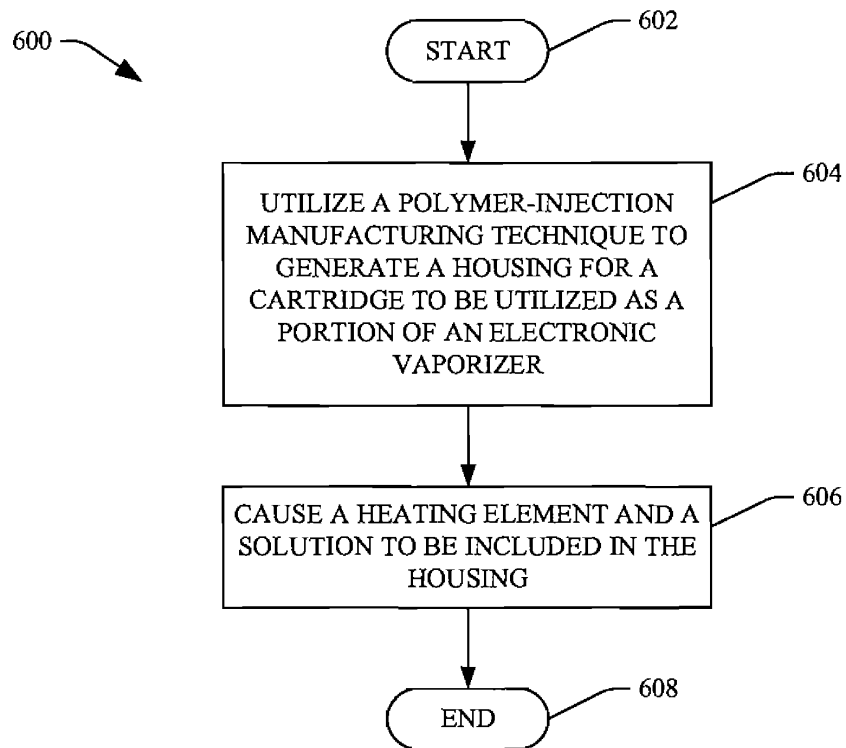


FIG. 6

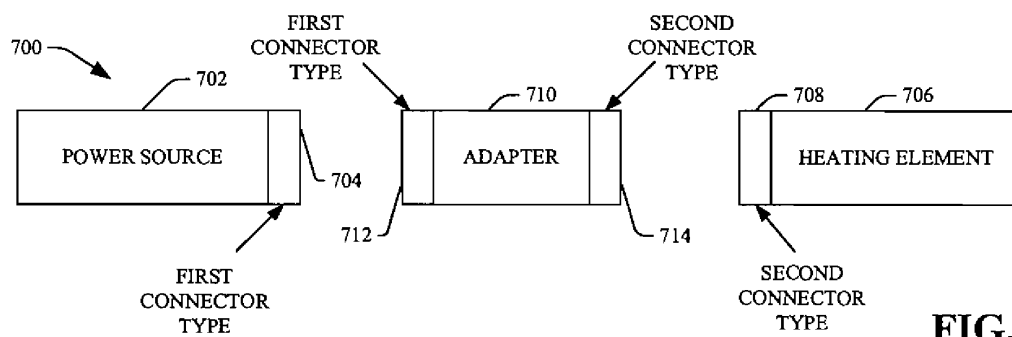


FIG. 7

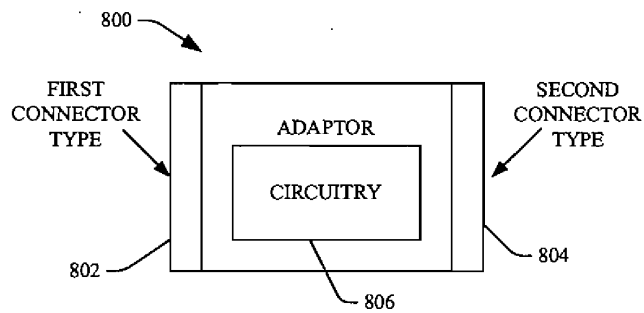


FIG. 8

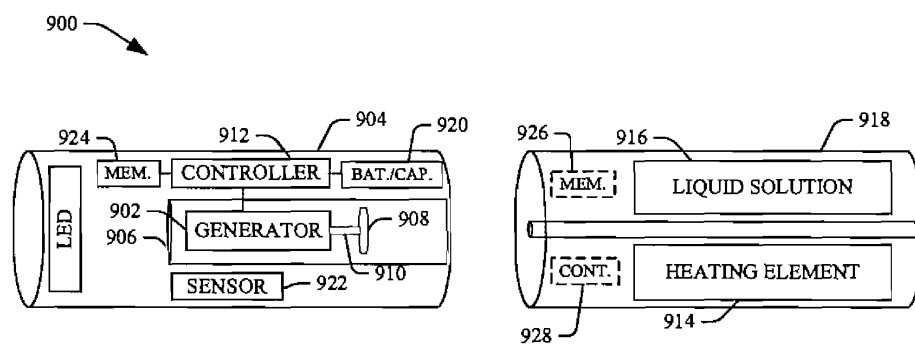


FIG. 9

Electronic Patent Application Fee Transmittal				
Application Number:				
Filing Date:				
Title of Invention:		ELECTRONIC VAPORIZER		
First Named Inventor/Applicant Name:		Gregory D. Conley		
Filer:		Thomas H. Martin/Sandra Blackmon		
Attorney Docket Number:		269.0003-03000		
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
UTILITY FILING FEE (ELECTRONIC FILING)	4011	1	75	75
UTILITY SEARCH FEE	2111	1	330	330
UTILITY EXAMINATION FEE	2311	1	380	380
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				785

Electronic Acknowledgement Receipt	
EFS ID:	36402928
Application Number:	16451483
International Application Number:	
Confirmation Number:	5143
Title of Invention:	ELECTRONIC VAPORIZER
First Named Inventor/Applicant Name:	Gregory D. Conley
Customer Number:	22882
Filer:	Thomas H. Martin/Sandra Blackmon
Filer Authorized By:	Thomas H. Martin
Attorney Docket Number:	269.0003-03000
Receipt Date:	25-JUN-2019
Filing Date:	
Time Stamp:	14:02:54
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$ 785
RAM confirmation Number	062619INTEFSW14034601
Deposit Account	501068
Authorized User	Sandra Blackmon
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.16 (National application filing, search, and examination fees) 37 CFR 1.17 (Patent application and reexamination processing fees)	

37 CFR 1.21 (Miscellaneous fees and charges)					
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal of New Application	Transmittal.pdf	311365	no	2
			4b23ff0c2029e5067ce7971c8262d9a521e1c119		
Warnings:					
Information:					
2	Application Data Sheet	ADS.pdf	1256646	no	9
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3	Transmittal Letter	IDS.pdf	240590	no	2
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4	Information Disclosure Statement (IDS) Form (SB08)	SB08.pdf	821041	no	4
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5	Preliminary Amendment	Amendment.pdf	961822	no	10
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Information:					
6	Drawings-only black and white line drawings	ReplacementSheets.pdf	489928	no	2
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7	Power of Attorney	POA.pdf	614089	no	2
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Warnings:					
Information:					
8	Assignee showing of ownership per 37 CFR 3.73	373cStatement.pdf	117911	no	3
			2fa30ffa9e3970af6107ecaff64b137e6310e340		
Warnings:					
Information:					
9		Application.pdf	1560608	yes	41
			c9c2848585f2e18448f796f323efd37cbbca1d		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Specification		1	31	
	Claims		32	40	
	Abstract		41	41	
Warnings:					
Information:					
10	Oath or Declaration filed	Declarations.pdf	156917	no	2
			5df2eaabda24d4fd4daabbea31d88c09574e68eac		
Warnings:					
Information:					
11	Drawings-only black and white line drawings	Drawings.pdf	55440	no	6
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Warnings:					
Information:					
12	Fee Worksheet (SB06)	fee-info.pdf	35300	no	2
			362c216ebdbd5f5292fd4bda9dbc89f5a6e79545		

Warnings:	
Information:	
Total Files Size (in bytes):	6621657
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.	

Substitute for FORM PTO-1449		Attorney Docket Number 269.0003-03000		Customer No. 22882		
INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION		Applicant Gregory D. Conley et al.		Application Number (Cont. of 15/377,522)		
(Use several sheets if necessary) Sheet <u>1</u> of <u>4</u>		Filing Date June 25, 2019		Art Unit (3742)		Examiner (T.S. Campbell)
U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	2057353	9/1935	Whittemore, Jr.			
	3200819	08/1965	Gilbert			
	4284089	08/1981	Ray			
	4945929	08/1990	Egilmex			
	4947874	8/1990	Brooks			
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INFORMATION DISCLOSURE STATEMENT

Application Number: (Cont. of 15/377,522)

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	9259035	2/2016	Terry et al.			
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	D752727	3/2016	Tracey			
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	20140305450	10/2014	Xiang			
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INFORMATION DISCLOSURE STATEMENT

Application Number: (Cont. of 15/377,522)

	20150090281	4/2015	Chen			
	20150128966	5/2015	Lord			
	20150189916	7/2015	Wu			
	20150215439	7/2015	Stanimirovic et al.			
	20150258289	9/2015	Henry, Jr. et al.			
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FOREIGN PATENT DOCUMENTS						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION (YES/NO)
	CN200966824	10/2007	CN			Yes
	CN201018927	02/2008	CN			Yes
	CN201085044	07/2008	CN			Yes
	201238610	5/2009	CN			Abstract Only
	CN201379072	1/2010	CN			Abstract Only
	20090033311	4/2009	KR			Abstract Only
	WO2000/028843	5/2000	WIPO			Yes
	WO2007131450	11/2007	WIPO			Abstract Only
	WO2005099494	10/2005	WIPO			Abstract Only
	WO2007/131449	11/2007	WIPO			Yes
	WO2007/078273	7/2007	WIPO			N/A
	WO2010/091593	8/2010	WIPO			Abstract Only
NON PATENT LITERATURE DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)						
	Wikipedia; Electronic cigarette – Wikipedia, the free encyclopedia; Feb. 9, 2010; http://web.archive.org/web/20100209122659/http://en.wikipedia.org/wiki/Electronic_cigarette					
	Complaint for Patent Infringement with exhibits as filed 06MAR2019; United States District Court for the Middle District of North Carolina; Civil Action No. 1:19-cv-00260.					
	Defendant R.J. Reynolds Vapor Company's Answer, Affirmative Defenses and Counterclaim to Complaint for Patent Infringement with exhibits as filed 29APR2019; United States District Court for the Middle District of North Carolina; Civil Action No. 1:19-cv-00260.					
	Crown 7 HYDRO device; https://www.youtube.com/watch?v=tQNFFw8A_DI (YouTube video published on 10DEC2008).					
	NJOY NPRO device; https://www.youtube.com/watch?v=TBdX24ALpLY (YouTube video published on 5DEC2008).					
	Smoke 51 Devices as disclosed on page 53 and listed on page 54 of the 29APR2019 Defendant's Answer in Civil Action No. 1:19-cv-00260.					
EXAMINER		DATE CONSIDERED				
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.						

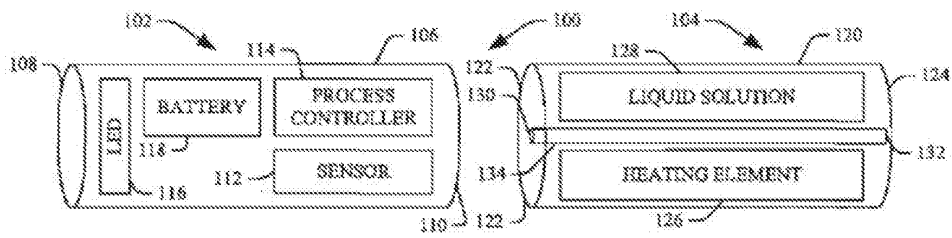


FIG. 1

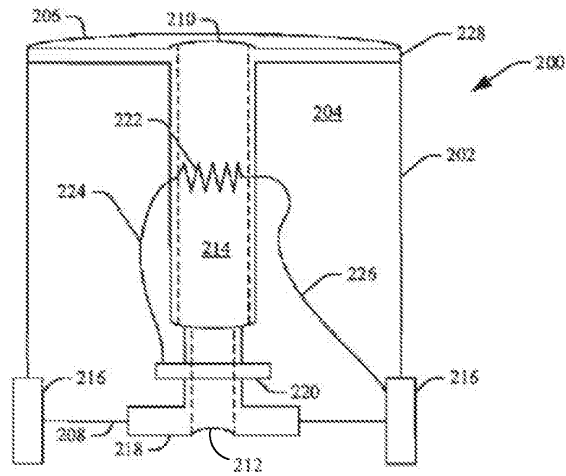


FIG. 2

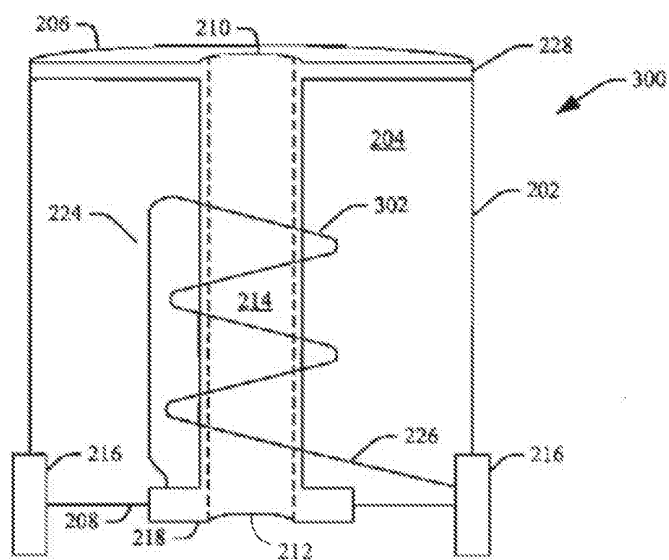


FIG. 3

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Gregory D. Conley et al.)
Serial No.: (Cont. of 15/377,522)) (Group Art Unit: 3742)
Filed: June 25, 2019) (Examiner: Thor S. Campbell)
For: ELECTRONIC VAPORIZER)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

AMENDMENT

Prior to the examination of the above-identified application, the following amendments and remarks are submitted:

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Claims are reflected in the listing of claims, which begins on page 3 of this paper.

Amendments to the Drawings begin on page 9 of this paper and include both an attached replacement sheet and an annotated sheet showing changes.

Remarks begin on page 10 of this paper.

An **Appendix** including amended drawing figures is attached following page 10 of this paper.

Amendments to the Specification:

Please replace the opening Continuation Data paragraph on page 1 with the following paragraph:

--This Application is a continuation of U.S. Application No. 15/377,522 filed December 13, 2016, which is a continuation of U.S. Application No. 14/510,955 filed October 9, 2014, which is a continuation of U.S. Application No. 13/594,813, filed August 25, 2012, which is a non-provisional of U.S. Provisional Application No. 61/527,434 filed August 25, 2011 and which is a continuation-in-part of U.S. Application No. 12/843,917 filed July 27, 2010, which is a non-provisional of U.S. Provisional Application Nos. 61,273,097 filed July 31, 2009 and 61/271,819 filed July 27, 2009. All these applications are hereby incorporated herein by reference in their entirety.--

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-20. (cancelled)

21. An apparatus comprising:

a power source,

wherein the power source includes a battery,

wherein the power source includes an electrically conductive portion; and

a cartridge having a housing that comprises an interior,

wherein the housing includes a first end and a second end that is opposite the first end, wherein the housing includes a first aperture on the first end and a second aperture on the second end,

wherein the housing includes an airflow passageway that extends centrally and axially with respect to the housing intermediate of the first aperture on the first end of the housing and the second aperture on the second end of the housing,

wherein the airflow passageway is configured to allow an airflow through the cartridge from the first aperture to the second aperture of the housing,

wherein the first end of the housing includes an electrically conductive portion that is adapted to mechanically and electrically couple to the electrically conductive portion of the power source,

wherein the housing includes a solution holding medium adapted to hold a solution in the interior of the housing,

wherein the housing includes a heating element located in the interior of the housing, wherein the heating element extends transversely

across the airflow passageway, wherein the airflow through the passageway passes on both transverse sides of the element,

wherein the solution holding medium surrounds the airflow passageway and the heating element in the interior of the housing and intermediate of the first end and the second end,

wherein the heating element is electrically configured to vaporize at least a portion of the solution to be contained in the solution holding medium for oral provision to an individual in an airflow from the second aperture responsive to electrical power received from the battery through the electrically conductive portions of the cartridge and the power source.

22. The cartridge of claim 21, wherein the heating element is a coil having a maximum diameter, the airflow passageway having a length having a circular cross section having a diameter along a majority of the length, the maximum diameter of the coil being smaller than the diameter of the circular cross section of the length of the airflow passageway.
23. The cartridge of claim 22, wherein the first aperture on the first end is located centrally and axially with respect to the housing, the first aperture having a cross-sectional area measured perpendicular to a central longitudinal axis of the housing, the interior of the airflow passageway between the heating element and the second aperture being no smaller in cross-sectional area than the cross-sectional area of the first aperture.
24. The cartridge of claim 23, wherein the first aperture on the first end is smaller than the second aperture on the second end.
25. The cartridge of claim 21, wherein the solution holding medium includes at least one of an absorbent material and a reservoir.
26. The cartridge of claim 21, further comprising a solution in the solution holding medium, the solution comprising one of propylene glycol and nicotine.
27. The cartridge of claim 21, wherein the airflow passageway has a uniform cross-sectional area measured perpendicular to a central longitudinal axis of the housing between the heating element and the second aperture.

28. A cartridge configured to mechanically and electrically couple to a power source of an electronic vaporizer, the cartridge comprising:

a housing having an interior and a solution holding medium reservoir adapted to hold a solution, the housing having a first end and a second end that is opposite the first end, the housing having a first aperture on the first end and a second aperture on the second end, the first end of the housing having an electrically conductive portion adapted to mechanically and electrically couple to the electrically conductive portion of the power source;

an airflow passageway in the interior of the housing extending centrally and axially with respect to the housing intermediate of the first aperture on the first end of the housing and the second aperture on the second end of the housing, the airflow passageway being configured to allow an airflow through the cartridge from the first aperture to the second aperture of the housing; and

a heating element located in the interior of the housing, the heating element being located within and extending transversely across the airflow passageway, the airflow through the passageway passing on both transverse sides of the heating element, both the heating element and the airflow passageway being surrounded by the solution holding medium reservoir, the heating element being electrically configured to vaporize at least a portion of the solution to be contained in the solution holding medium reservoir for oral provision to an individual in an airflow from the second aperture responsive to electrical power received from the battery through the electrically conductive portions of the cartridge and the power source.

29. The cartridge of claim 28, further in combination with the power source including a battery and the electrically conductive portion, the electrically conductive portion of the power source being mechanically and electrically coupled to the electrically conductive portion of the first end of the housing.

30. The cartridge of claim 29, wherein the heating element is a coil having a maximum diameter, the airflow passageway having a length having a circular cross section having a diameter along a majority of the length, the maximum diameter of the coil being smaller than the diameter of the circular cross section of the length of the airflow passageway.
31. The cartridge of claim 30, wherein the first aperture on the first end is located centrally and axially with respect to the housing, the first aperture having a cross-sectional area measured perpendicular to a central longitudinal axis of the housing, the interior of the airflow passageway between the heating element and the second aperture being no smaller in cross-sectional area than the cross-sectional area of the first aperture.
32. The cartridge of claim 31, wherein the first aperture on the first end is smaller than the second aperture on the second end.
33. The cartridge of claim 28, wherein the solution holding medium reservoir includes an absorbent material.
34. The cartridge of claim 28, further comprising a solution in the solution holding medium reservoir, the solution comprising one of propylene glycol and nicotine.
35. The cartridge of claim 28, wherein the airflow passageway has a uniform cross-sectional area measured perpendicular to a central longitudinal axis of the housing between the heating element and the second aperture.
36. A cartridge configured to mechanically and electrically couple to a power source of an electronic vaporizer, the cartridge comprising:
 - a housing having an interior and a solution holding medium adapted to hold a solution in the interior of the housing, the housing having a first end and a second end that is opposite the first end, the housing having a central longitudinal axis extending through the first end and the second end, the housing having a first aperture on the first end and a second aperture on the second end, the first aperture having a cross-sectional area measured perpendicular to the central longitudinal axis of the housing, the first end of the housing having an

electrically conductive portion adapted to mechanically and electrically couple to an electrically conductive portion of the power source;

an airflow passageway in the interior of the housing, the airflow passageway having a length extending centrally and axially with respect to the housing intermediate of the first aperture on the first end of the housing and the second aperture on the second end of the housing, the airflow passageway being configured to allow an airflow through the cartridge from the first aperture to the second aperture of the housing, the airflow passageway having an exterior adjacent to the solution holding medium along a majority of the length of the airflow passageway, the airflow passageway having an interior having a uniform cross-sectional area measured perpendicular to the central longitudinal axis of the housing and extending continuously along a majority of the length of the airflow passageway; and

a heating element located in the interior of the housing and extending transversely across the airflow passageway, the airflow through the passageway passing on both transverse sides of the heating element, a plane perpendicular to the central longitudinal axis of the housing passing through the heating element and the solution holding medium, the airflow passageway having an interior between the heating element and the second aperture no smaller in cross-sectional area than the cross-sectional area of the first aperture, the heating element being connected to the electrically conductive portion of the first end of the housing, the heating element being electrically configured to vaporize at least a portion of the solution to be contained in the solution holding medium for oral provision to an individual in an airflow from the second aperture responsive to electrical power received from the power source through the electrically conductive portion of the cartridge.

37. The cartridge of claim 36, further in combination with the power source including a battery and the electrically conductive portion, the electrically conductive portion of the power source being mechanically and electrically coupled to the electrically conductive portion of the first end of the housing.

38. The cartridge of claim 36, wherein the heating element is a coil having a maximum diameter and the uniform cross-sectional area of the airflow passageway is a circle having a diameter, the maximum diameter of the coil being smaller than the diameter of the circle of the uniform cross-sectional area of the airflow passageway.
39. The cartridge of claim 38, wherein the first aperture on the first end is located centrally and axially with respect to the housing.
40. The cartridge of claim 39, wherein the first aperture on the first end is smaller than the second aperture on the second end.

Amendments to the Drawings:

The attached replacement sheets of drawings include changes to Figs. 2 and 3, which add previously omitted element 212.

Attachment: Replace Sheets

REMARKS

Applicant amended the continuity data, cancelled claims 1-20 and added new claims 21-40, and amended Figs. 2 and 3 to add previously omitted element 212 to further define applicants invention.

Entry and consideration of this Amendment prior to the examination of the above-identified application is respectfully requested.

If there are any fees due in connection with the filing of this Amendment, please charge the fee to our Deposit Account No. 50-1068.

Respectfully submitted,

MARTIN & FERRARO, LLP

Dated: June 25, 2019

By: 
Thomas H. Martin
Registration No. 34,383

1557 Lake O'Pines Street, NE
Hartville, Ohio 44632
Telephone: (330) 877-0700

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Gregory D. Conley et al.

Serial No: (Cont. of 15/377,522)

Filed: June 25, 2019

For: ELECTRONIC VAPORIZER

Prior Application Information:

Group Art Unit: 3761

Examiner: Thor S. Campbell

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

CONTINUING APPLICATION TRANSMITTAL

Transmitted herewith for filing is a ☒ Continuation ☐ Divisional ☐ Continuation-In-Part application under 37 C.F.R. § 1.53(b) of prior patent Application No. 15/377,522, filed December 13, 2016.

- ☒ Applicant claims small entity status under 37 C.F.R. §§ 1.9 and 1.27.
- ☒ Application Data Sheet 37 CFR 1.76 is enclosed.
- ☒ 41 total application pages including specification, claims (20 total and 3 independent), and abstract are enclosed.
- ☐ A newly executed Declaration ☐ is enclosed ☐ will follow.
- ☒ A copy of the Declaration from the prior application is enclosed.
The entire disclosure of the prior application, from which an oath or declaration is supplied, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference.
- ☒ 6 sheets of drawings (8.5 x 11; Figs. 1-9) are enclosed.
- ☒ An Assignment to FUMA INTERNATIONAL, LLC is being electronically filed concurrently herewith via EPAS.
- ☒ The power of attorney in the prior application is to at least one of the following: MARTIN & FERRARO, LLP; Thomas H. Martin, Reg. No. 34,383; and Amedeo F. Ferraro, Reg. No. 37,129.
 - ☐ A new Power of Attorney along with the requisite Transmittal is enclosed.
 - ☒ A copy of the Power of Attorney and corresponding Statement Under 3.73(c) in the prior application is enclosed along with the requisite Transmittal.
- ☐ A certified copy of _____ Patent Application No. _____ filed _____ from which priority is claimed under 35 U.S.C. § 119 is enclosed.
- ☒ Information Disclosure Statement (IDS) with Form PTO/SB/08 is enclosed.
- ☐ Amend the specification by rewriting paragraph 1 on page 1 to read as follows:
--This is a ☐ continuation ☐ divisional of application Serial No. _____, filed _____, and claims benefit of U.S. Provisional application No. _____, filed _____, all of which are incorporated herein by reference.--.
- ☐ Cancel Claims _____.
- ☒ An Amendment is enclosed.

Transmittal for Continuing Application

CALCULATION OF FEES								
ITEM		TOTAL NO. OF CLAIMS		NO. OF CLAIMS OVER BASE	LG/SM \$ ENTITY FEE			\$ FEE
A	TOTAL CLAIMS FEE	20	-20	0	LG=\$100 SM=\$50	\$50	\$ 0	
B	INDEPENDENT CLAIMS FEE*	3	-3	0	LG=\$460 SM=\$230	\$230	\$ 0	
C	SUBTOTAL - ADDITIONAL CLAIMS FEE (ADD FINAL COLUMN IN LINES A + B)							\$ 0
D	MULTIPLE-DEPENDENT CLAIMS FEE				LARGE ENTITY FEE = \$820 SMALL ENTITY FEE = \$410		\$ 0	
E	BASIC FEE				LARGE ENTITY FEE = \$300 SMALL ENTITY FEE = \$150 EFS SMALL ENTITY FEE = \$75		\$ 75	
F	SEARCH FEE				LARGE ENTITY FEE = \$660 SMALL ENTITY FEE = \$330		\$ 330	
G	EXAMINATION FEE				LARGE ENTITY FEE = \$760 SMALL ENTITY FEE = \$380		\$ 380	
H	TOTAL BASIC, SEARCH & EXAMINATION FEES (ADD TOTALS FOR LINES D-G)							\$ 785
ITEM	TOTAL SHEETS Application and Drawings	Disc. for Filing Via EFS	TOTAL EXTRA SHEETS	NO. OF ADD'L 50 OR FRACTION THEREOF	LG/SM \$ ENTITY FEE			
I	APPLICATION SIZE	57	*.75	0	- 100 = 0 / 50 = 0	LG=\$400 SM=\$200	\$400	\$ 0
J	NON-ELECTRONIC FILING FEE (additional fee for applications filed in paper)					LG=\$400 SM=\$200	\$400	\$ 0
K	TOTAL FILING FEES (ADD TOTALS FOR LINES C, H, I AND J)							\$ 785

☒ The total amount of **\$785** to cover the above fees is being paid via EFS.

☒ Correspondence Address: Customer No. 22882
Martin & Ferraro, LLP
1557 Lake O'Pines Street, NE
Hartville, Ohio 44632
Telephone: (330) 877-0700

☒ The Commissioner is hereby authorized to charge any deficiency for the following fees associated with this communication or credit any overpayment to Deposit Account No. 50-1068.

☒ Any additional filing fees required under 37 C.F.R. § 1.16

☒ Any patent application processing fees under 37 C.F.R. § 1.17

PETITION FOR EXTENSION. If any extension of time is necessary for the filing of this application, including any extension in the parent application, Serial No. 15/377,522, filed December 13, 2016, for the purpose of maintaining copendency between the parent application and this application, and such extension has not otherwise been requested, such an extension is hereby requested, and the Commissioner is authorized to charge necessary fees for such an extension to our Deposit Account No. 50-1068.

Respectfully submitted,
MARTIN & FERRARO, LLP

Date: June 25, 2019

1557 Lake O'Pines Street, NE
Hartville, Ohio 44632
Telephone: (330) 877-0700

By: 
Thomas H. Martin
Registration No. 34,383

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	269.0003-03000
		Application Number	
Title of Invention	ELECTRONIC VAPORIZER		
The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76. This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.			

Secrecy Order 37 CFR 5.2:

☐	Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)
--------------------------	---

Inventor Information:

Inventor	1				Remove
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Gregory	D.	Conley		
Residence Information (Select One) • US Residency Non US Residency Active US Military Service					
City	Medina	State/Province	OH	Country of Residence	US
Mailing Address of Inventor:					
Address 1		664 Tremain Place			
Address 2					
City	Medina	State/Province	OH		
Postal Code	44256	Country	US		
Inventor	2				Remove
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Daniel	C.	Hillenbrandt		
Residence Information (Select One) • US Residency Non US Residency Active US Military Service					
City	Brunswick	State/Province	OH	Country of Residence	US
Mailing Address of Inventor:					
Address 1		1920 George Drive			
Address 2					
City	Brunswick	State/Province	OH		
Postal Code	44212	Country	US		
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the Add button.					Add

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below. For further information see 37 CFR 1.33(a).

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	269.0003-03000
		Application Number	
Title of Invention	ELECTRONIC VAPORIZER		

☐ An Address is being provided for the correspondence information of this application.

Customer Number	22882		
Email Address	USPTO-docketing@martinferraro.com	Add Email	Remove Email

Application Information:

Title of the Invention	ELECTRONIC VAPORIZER		
Attorney Docket Number	269.0003-03000	Small Entity Status Claimed	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	6	Suggested Figure for Publication (if any)	1

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☒ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.			
Please Select One:	☒ Customer Number	US Patent Practitioner	☐ Limited Recognition (37 CFR 11.9)
Customer Number	22882		

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	269.0003-03000
		Application Number	
Title of Invention	ELECTRONIC VAPORIZER		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.

When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending				Remove
Application Number	Continuity Type		Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)	
	Continuation of		15/377522	2016-12-13	
Prior Application Status	Patented				Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
15/377522	Continuation of	14/510955	2014-10-09	9532604	2017-01-03
Prior Application Status	Patented				Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
14/510955	Continuation of	13/594813	2012-08-25	8897628	2014-11-25
Prior Application Status	Abandoned				Remove
Application Number	Continuity Type		Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)	
13/594813	Continuation in part of		12/843917	2010-07-27	
Prior Application Status	Expired				Remove
Application Number	Continuity Type		Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)	
13/594813	Claims benefit of provisional		61/527434	2011-08-25	
Prior Application Status	Expired				Remove
Application Number	Continuity Type		Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)	
12/843917	Claims benefit of provisional		61/273097	2009-07-31	
Prior Application Status	Expired				Remove
Application Number	Continuity Type		Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)	
12/843917	Claims benefit of provisional		61/271819	2009-07-27	
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button.					Add

Foreign Priority Information:

EFS Web 2.2.13

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	269.0003-03000
		Application Number	
Title of Invention	ELECTRONIC VAPORIZER		

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)ⁱ the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Application Number	Country ⁱ	Filing Date (YYYY-MM-DD)	Access Code ⁱ (if applicable)

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button.

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013. ☐ NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.
--

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	269.0003-03000
		Application Number	
Title of Invention	ELECTRONIC VAPORIZER		

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. Search Results from U.S. Application to EPO - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	269.0003-03000
		Application Number	
Title of Invention	ELECTRONIC VAPORIZER		

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.			
Applicant	1		Remove
If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.			
Clear			
☒ Assignee	Legal Representative under 35 U.S.C. 117		Joint Inventor
Person to whom the inventor is obligated to assign.		Person who shows sufficient proprietary interest	
If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:			
Name of the Deceased or Legally Incapacitated Inventor:			
If the Applicant is an Organization check here. ☒			
Organization Name	FUMA INTERNATIONAL, LLC		
Mailing Address Information For Applicant:			
Address 1	879 Progress Drive, Suite C		
Address 2			
City	Medina	State/Province	OH
Country	US	Postal Code	44256
Phone Number		Fax Number	
Email Address			
Additional Applicant Data may be generated within this form by selecting the Add button. Add			

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	269.0003-03000
		Application Number	
Title of Invention	ELECTRONIC VAPORIZER		

Assignee 1				
Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.				
Remove				
If the Assignee or Non-Applicant Assignee is an Organization check here. ☐				
Prefix	Given Name	Middle Name	Family Name	Suffix
Mailing Address Information For Assignee including Non-Applicant Assignee:				
Address 1				
Address 2				
City		State/Province		
Country ⁱ		Postal Code		
Phone Number		Fax Number		
Email Address				
Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button. Add				

Signature:					Remove
NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).					
This Application Data Sheet must be signed by a patent practitioner if one or more of the applicants is a juristic entity (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, all joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of all joint inventor-applicants.					
See 37 CFR 1.4(d) for the manner of making signatures and certifications.					
Signature	/Thomas H. Martin/			Date (YYYY-MM-DD)	2019-06-25
First Name	Thomas	Last Name	Martin	Registration Number	34383
Additional Signature may be generated within this form by selecting the Add button. Add					

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	269.0003-03000
		Application Number	
Title of Invention	ELECTRONIC VAPORIZER		

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Gregory D. Conley et al.)
Serial No.: (Cont. of 15/377,522)) (Group Art Unit: 3761)
Filed: June 25, 2019) (Examiner: Thor S. Campbell)
For: ELECTRONIC VAPORIZER)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), Applicant brings to the attention of the Examiner the documents listed on the attached Form PTO/SB/08. This Information Disclosure Statement is being filed concurrently with the above-referenced continuation application.

Copies of the listed non-U.S. patent documents were previously submitted in a prior application, Serial No. 15/377,522 filed December 13, 2016, Serial No. 14/510,955 filed October 9, 2014 (now U.S. Patent No. 9,532,604), Serial No. 13/594,813 filed August 25, 2012 (now U.S. Patent No. 8,897,628), and/or Serial No. 12/843,917 filed July 27, 2010 (now abandoned); upon which Applicant relies for the benefits provided in 35 U.S.C. § 120. Applicant also brings to the attention of the Examiner the file history (the Office Actions and responses) of each of the above-referenced patents and applications. While the individual Office Actions and responses are not attached hereto, they are available in each of the file wrappers in the Patent Office, through PAIR, or will be provided by the Applicant at the Examiner's request.

Applicant respectfully requests that the Examiner consider the listed documents and indicate that they were considered by making appropriate notations on the attached form.

Applicant brings to the attention of the Examiner the existence of a recently filed litigation proceeding, i.e., Civil Action No. 19-260 in the U.S. District Court for the Middle District of North Carolina, asserting infringement of U.S. Patent No. 9,532,604. The '604 patent issued from application serial no.14/510,955, which is the parent of application serial no. 15/377,522.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claim in the application and Applicant determines that the cited documents do not constitute "prior art" under United States law, Applicant reserves the right to present to the office the relevant facts and law regarding the appropriate status of such documents.

Applicant further reserves the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 50-1068.

Respectfully submitted,

MARTIN & FERRARO, LLP

Date: June 25, 2019

By: 
Thomas H. Martin
Registration No. 34,383

1557 Lake O'Pines Street, NE
Hartville, Ohio 44632
Telephone: (330) 877-0700

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875				Application or Docket Number 16/451,483	Filing Date 06/25/2019	☐ To be Mailed	
ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO							
APPLICATION AS FILED - PART I							
FOR		(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE (\$)	FEE (\$)	
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A	N/A		N/A		
☐ SEARCH FEE (37 CFR 1.16(k), (l), or (m))		N/A	N/A		N/A		
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))		N/A	N/A		N/A		
TOTAL CLAIMS (37 CFR 1.16(i))		minus 20 =	*		x \$50 =		
INDEPENDENT CLAIMS (37 CFR 1.16(h))		minus 3 =	*		x \$230 =		
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))		If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).					
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
* If the difference in column 1 is less than zero, enter "0" in column 2.					TOTAL		
APPLICATION AS AMENDED - PART II							
AMENDMENT	06/25/2019	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	x \$50 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0	x \$230 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	0
AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	x \$0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x \$0 =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.						LDRC	
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".						/EVA V GILLIS/	
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".							
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.							

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.