

EXHIBIT 47

Case 1:19-cv-00260-CCE-JEP Document 76-47 Filed 12/20/19 Page 1 of 58

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF NORTH CAROLINA

FUMA INTERNATIONAL LLC, an
Ohio limited liability company,

Plaintiff/Counterdefendant,

v.

R.J. REYNOLDS VAPOR COMPANY,
a North Carolina corporation,

Defendant/Counterplaintiff.

Civ. No. 1:19-cv-00260,
consolidated with
Civ. No. 1:19-cv-00660

DECLARATION OF WANG SHANHONG

I, WANG Shanhong, hereby declare:

1. I am a citizen of People's Republic of China, my address is Floor 8, Building E, No. 71-5 Xintian Avenue, Fuyong Street, Shenzhen, Guangdong, China. I have personal knowledge of the matters set forth herein and, if called upon to testify, I have the ability and will be willing to testify competently thereto.
2. I have been involved in the research, development, and manufacture of electronic cigarettes since around 2005.
3. In about 2005, I founded a company called Henan Alading Science & Technology Co. Ltd., located in Zhengzhou, Henan, China to research, develop and manufacture electronic cigarettes.

4. I am also the inventor on a number of electronic cigarette patents, including CN Application Number 200710054948.5, which I will refer to as the 948 Application.

5. The 948 Application was filed with the State Intellectual Property Office of the People's Republic of China on August 13, 2007. The 948 Application was published on February 18, 2009. A true and accurate copy of the 948 Application as published is attached hereto as Exhibit 1.

6. I also own the technical drawings of a two-piece electronic cigarette that is the subject of the 948 Application. Based on my information and belief, the drawings were created on about August 10, 2007. This date is confirmed by the metadata associated with the drawings. A true and accurate copy of those technical drawings and associated metadata is attached hereto as Exhibit 2.

7. I have developed a variety of cartridge designs for two-piece electronic cigarettes. An early version of a cartridge for a two-piece electronic cigarette that I developed earlier is depicted in the document attached hereto as Exhibit 3. This earlier version cartridge is labeled Cartridge 1 (16 mg) in Exhibit 3. I provided Cartridge 1, which is the same as the product I was selling in the timeframe of 2008-2009, to the U.S. attorney(s) for R.J. Reynolds Vapor Company, who I understand had the cartridge scanned with the results of the

scanning reflected in Exhibit 3. The diagrams of Cartridge 1 in Exhibit 3 reflect the design of this earlier cartridge.

8. Beginning at least as early as 2008 and continuing into 2009, I was manufacturing and selling two-piece electronic cigarettes that are disclosed in the 948 Application. My customers included LoongTotem E-cigarette Science & Technology Co., Ltd. (“LoongTotem”), then located in Guangdong, China, and Smoke Anywhere USA, Ltd. (“Smoke Anywhere”), located in the United States.

9. I have a drawing depicting the components of the cartridge for the two-piece electronic cigarette (known as ALD-V9) that I sold to LoongTotem. A true and accurate copy of this drawing is attached hereto as Exhibit 4. The ALD-V9 cartridge covers the invention disclosed in my 948 Application.

10. In operation, the ALD-V9 cartridge is mechanically and electrically connected to a battery unit that supplies power to the heater 4. Although it is not shown in Exhibit 4, the cartridge of the electronic cigarette is connected mechanically and electrically to the battery via screw-on electrode(s), as shown in Figure 4 of my 948 Application. A liquid element 7 along the diameter of the electronic cigarette surrounds a complete central air passageway, in which the heater is positioned. The liquid element contains an absorbent material and a liquid solution. The central air passageway is connected to the central air hole of the inner link 2 and the mouthpiece sealing endcap 9. When the airflow passes

through the air passageway and the heater, the liquid element is aerosolized and mixed in the airflow and taken out of the air hole of the mouthpiece sealing endcap to the smoker's mouth.

11. I also sold two-piece electronic cigarettes to Smoke Anywhere in 2008 and 2009. It is my understanding that Smoke Anywhere called this product the Fifty-One or Fifty-One Duo. The main contact between me and Smoke Anywhere was Kevin Frija. The cartridges were available in different flavors and nicotine levels, but their internal structure was the same. These electronic cigarettes also reflect my invention disclosed in the 948 Application.

12. Diagrams of the cartridge for the Fifty-One two-piece electronic cigarettes are depicted in the attached hereto as Exhibit 3. These cartridges are labeled as Cartridge 2 (Menthol, 8 mg) and Cartridge 3 (Tobacco, 4 mg) in Exhibit 3. I provided Cartridge 2 and Cartridge 3 to the U.S. attorneys for R.J. Reynolds Vapor Company, who had the Cartridge 2 and Cartridge 3 that I provided scanned and the scanned copies are included in Exhibit 3. The diagrams of Cartridge 2 and Cartridge 3 in Exhibit 3 reflect the design of cartridges that I sold to Smoke Anywhere in 2008 and 2009. These cartridges are connected to the battery unit of Fifty-One via screw-on electrode(s). I also sold cartridges of this design to LoongTotem.

13. In Cartridge 1, I used a wick to draw the liquid to the coiled heating wire to be vaporized. In Cartridge 2 and Cartridge 3, I replaced the wick with a fiberglass or woven paper wrapped on the outside of the coiled heating wire. This design change made the products easier to be manufactured, while still providing a material that would draw liquid to the heating wire.

14. Exhibit 5 is a true and accurate copy of an invoice proving that I sold the two-piece electronic cigarettes to Smoke Anywhere in 2008.

15. I understand that Exhibit 6 to this Declaration is a true and accurate copy of an Internet web page that includes posting made by a user identified as “udave” to Internet website at www.e-cigarette-forum.com. These photos are shown to be uploaded on Feb. 20, 2009. The posting is titled labeled “Loongtotem (smoke51, eaze magnum) cartridge.” The inner structure of the cartridge depicted in the photographs of Exhibit 6 is consistent with the inner structure of the cartridges that I was selling to Smoke Anywhere in 2008 and 2009.

I declare under penalty of perjury under the laws of the United States of America that each of the foregoing statements and the Exhibits attached hereto is true and accurate.

Executed on _____

Signature

Address/Contact Information



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Certification

This is to certify that the foregoing translation of the document entitled Shanhong Wang Declaration was made from Chinese to English from the source document by a competent translator well acquainted with both languages, and that, to the best of our knowledge and belief, it is a true and complete rendering into English of the selected text.

Date: September 23, 2019

Donald W. Hanley
CEO

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF NORTH CAROLINA

FUMA INTERNATIONAL LLC, an
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王山红证词

本人，王山红，在此作证：

1. 我是一名中华人民共和国的公民，现地址为广东省深圳市宝安区福永街道新田大道71-5号E栋8楼。我本人对本文件中所涉及的事务亲自知悉，若被传讯佐证，我有能力，并愿意完整的对此事件作证。
2. 大约从2005年开始，我一直从事于电子烟的研究，开发，及生产。
3. 约2005年左右，我在中国河南省郑州市创建了河南阿拉丁科技有限公司（Henan Alading Science & Technology Co., Ltd.），一家专注于电子烟的研究，开发，及生产的公司。
4. 我同时是多个电子烟专利的发明人，包括中国专利申请号为200710054948.5的专利，在此文件中将其简称为948专利申请。

5. 948专利申请于2007年8月13日提交于中国国家知识产权局。948专利申请公开于2009年2月18日。附件1为一份真实准确的948专利申请。
6. 我同时拥有948专利申请中描述的两件式电子烟的设计图纸。我相信并认为这些图纸是2007年8月10日左右创建的。图纸的电子元数据也证实了这个时间点。附件2为一份真实准确的设计图纸，并且包括前述的电子元数据。
7. 我设计发明了多个两件式电子烟的烟弹（cartridge）。附件3描述了一件我早期设计的两件式电子烟的电子烟弹。此早期电子烟的烟弹在附件3中被标注为“烟弹1 (16mg)”（“Cartridge 1 (16mg)”）。我向R.J. Reynolds Vapor Company的美国律师提供了与我在2008-2009年间销售的产品相同的烟弹1。我了解到美国律师将我提供的烟弹1进行了扫描，扫描结果显示于附件3。附件3中标注为烟弹1的图片体现了此早期烟弹的设计。
8. 从至少于2008年开始至2009年期间，我从事于948专利申请中所描述的两件式电子烟的生产及销售。我的客户包括了曾在中国广东设立的LoongTotem E-cigarette Science & Technology Co., Ltd.（“LoongTotem”），及在美国的Smoke Anywhere USA, Ltd.（“Smoke Anywhere”）公司。
9. 我供货给LoongTotem的烟弹中有一款称为ALD-V9，我有一份设计图

纸描述了该两件式电子烟的烟弹的构件。附件4为一份真实准确的前述图纸设计。ALD-V9 电子烟弹包含了我的948专利申请发明。

10.在操作中，ALD-V9电子烟弹机械和电路上连着一个电池，电池提供电力到电热器4。虽然在附件4中没有显示，但电子烟弹机械和电路上通过一个螺丝旋装电极连接着电池，如同我的948专利申请中图4中描述的那样。顺着电子烟弹的直径有一个液体元素7包围着一个完整的中央气流通道，电热器是位于中央气流通道中的。该液体元素含有吸附材料和液体溶液。中央气流通道连接着内部链接2的中心气孔和烟嘴密封端盖9，当气流穿过气流通道和电热器时，液体元素被烟雾化后混合在气流中，被带出烟嘴密封端盖上的气孔到吸烟者口中。

11.我同时在2008-2009年间向Smoke Anywhere销售了两件式电子烟。我理解中，Somke Anywhere称这个产品为Fifty-One 或 Fifty-One Duo。Smoke Anywhere与我的主要联系人是Kevin Frija。虽然烟弹有不同的味道和尼古丁强度，但烟弹的内部结构是一样的。这些电子烟也体现了我在948专利申请中的发明。

12.Fifty-one 两件式电子烟的烟弹的图片在附件3中有被描述。这些烟弹在附件3中被标注为“烟弹2(薄荷醇, 8毫克)” (“Cartridge 2 (Menthol, 8mg)”)和“烟弹3(烟草, 4毫克)” (“Cartridge 3 (Tobacco, 4mg)”)。我向R.J. Reynolds Vapor Company的美国律师提供了烟弹2和烟弹3，

美国律师将我提供的烟弹2和烟弹3进行了扫描，扫描结果显示于附件3。附件3中烟弹2和烟弹3的图片体现了我在2008-2009年间销售给Smoke Anywhere的烟弹的设计。这些烟弹通过螺丝旋装电极连接到Fifty-One的电池单元上。我同时也将代表这个设计的烟弹产品卖给了LoongTotem。

13.在烟弹1中，我使用了一个捻子放在旋装电热丝中心去吸引液体以便加以雾化。在烟弹2和烟弹3中，取代了捻子，转而采取玻璃纤维或吸附纸缠绕在旋装电热丝的外围。这个设计改变有利于生产上的便捷，同时还提供了一种向电热丝吸引液体的材料。

14.附件5为一份真实并准确的供货发票，证明在2008年我向Smoke Anywhere销售了两件式电子烟。

15.我理解这份证词的附件6为一份真实并准确的网页，包含了一名用户名称为“udave”在网址为www.e-cigarette-forum.com的网站上上传的帖子。这些照片显示为2009年2月20日上传。帖子的名称是“LoongTotem (smoke 51, eaze magnum) cartridge”。附件6的照片中的烟弹内部结构与我在2008-2009年期间销售给Smoke Anywhere的烟弹的内部结构是一致的。

我在美国法律禁止伪证的处罚下声明，以上每一条证词和附件中的文件都是真实并且准确的。

日期: 2019.9.19

姓名: 王山红

签字: 

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附件 1
Exhibit 1

[19] 中华人民共和国国家知识产权局

[51] Int. Cl.
A24F 47/00 (2006.01)



[12] 发明专利申请公布说明书

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[21] 申请号 200710054948.5

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代理人 张君燕

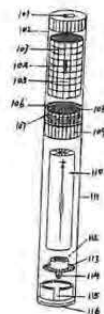
权利要求书1页 说明书5页 附图3页

[54] 发明名称

一种电子纯净香烟

[57] 摘要

本发明公开了一种电子纯净香烟，包括有烟嘴部分和烟杆部分，所述烟杆部分由烟杆壳体、电池、传感器、指示灯、电路控制板、指示灯罩、进气孔、出气孔、输出端等组成，所述烟嘴部分由烟嘴壳体、电热器、烟草提取物、有机纤维、进气孔、出气孔、输入端等组成。本发明的电子纯净香烟普通香烟在使用效果和口味上非常近似的吸烟装置，一种与普通香烟在使用效果和口味上非常近似的烟草替代品，同时发挥电子产品的自动化控制功能，随着吸烟动作控制烟雾的发生和停顿，并配以与普通香烟过滤嘴部分一致的外形和干净卫生的一次性烟嘴，创造一种崭新的电子纯净香烟，从而改善广大吸烟者的身心健康和满足现代文明的需要。



W. Sh. H.
2019. P. 19

1、一种电子纯净香烟，包括有烟嘴部分和烟杆部分，其特征在于：所述烟杆部分由烟杆壳体、电池、传感器、指示灯、电路控制板、指示灯罩、进气孔、出气孔、输出端等组成，所述烟嘴部分由烟嘴壳体、电热器、烟草提取物、有机纤维、进气孔、出气孔、输入端等组成。

2、根据权利要求书1所述的电子纯净香烟，其特征在于：烟嘴为一次性用品，通过输入端与烟杆接装后使用。

3、根据权利要求书1所述的电子纯净香烟，其特征在于：烟嘴结构中，烟草提取物的吸附材料为有机纤维，特别是天然烟草材料制成的纤维。

4、根据权利要求书1所述的电子纯净香烟，其特征在于：烟草提取物与醇类稀释后混入适量的烟碱，定量浸灌在有机纤维里。

5、根据权利要求书1所述的电子纯净香烟，其特征在于：烟杆的输出端也可作为输入端，与有配套输出端的充电器相连，反复充电使用。

6、根据权利要求书1所述的电子纯净香烟，其特征在于：烟杆采用普通香烟烟体部分的较长圆筒外形；烟嘴采用普通香烟过滤嘴部分的较短圆筒外形。二者接装在一起，形成与普通香烟一致的外形。

一种电子纯净香烟

技术领域

本发明涉及一种电子纯净香烟，即一种通过吸烟动作控制电池放电，从而驱动电热器发热，进而将烟草萃取物烟雾化的装置，是一种符合吸烟习惯的烟草替代品。

背景技术

普通卷烟在全球兴盛百年，没有实质性的变化，其基本特点是通过明火直接点燃烟草，烟雾与烟灰同时产生，烟草燃烧过程不能自由控制，吸烟者影响他人、危害自己。特别是在公共场合即不文明又存在火灾隐患，全球禁烟的呼声越来越强烈。另一方面，吸烟者由于长期的身心习惯，很难忍受强制性戒烟的痛苦。虽然出现了各种各样的烟草替代品，但由于其使用效果和口味上与普通香烟相距甚远，不能被广大吸烟者真正接受。

发明内容

本发明的目的在于克服上述现有技术的缺点，提供一种与普通香烟在使用效果和口味上非常近似的吸烟装置，且能随着吸烟动作控制烟雾的发生和停顿，并配以与普通香烟过滤嘴部分一致的外形和干净卫生的一次性烟嘴，从而改善广大吸烟者的身心健康和满足现代文明的需要。

本发明的目的是通过以下技术方案实现的：

一种电子纯净香烟，包括有烟嘴部分和烟杆部分，所述烟杆部分由烟杆壳体、电池、传感器、指示灯、电路控制板、指示灯罩、进气孔、出气孔、输出端等组成，所述烟嘴部分由烟嘴壳体、电热器、烟草提取物、有机纤维、进气孔、出气孔、输入端等组成。

烟嘴为一次性用品，通过输入端与烟杆接装后使用。

烟嘴结构中，烟草提取物的吸附材料为有机纤维，特别是天然烟草材料制成的纤维。

烟草提取物与醇类稀释后混入适量的烟碱，定量浸灌在有机纤维里。

烟杆的输出端也可作为输入端，与有配套输出端的充电器相连，反复充电使用。

烟杆采用普通香烟烟体部分的较长圆筒外形；烟嘴采用普通香烟过滤嘴部分的较短圆筒外形。二者接装在一起，形成与普通香烟一致的外形。

本发明的优点是：

本发明的电子纯净香烟普通香烟在使用效果和口味上非常近似的吸烟置，一种与普通香烟在使用效果和口味上非常近似的烟草替代品，同时发挥电子产品的自动化控制功能，随着吸烟动作控制烟雾的发生和停顿，并配以与普通香烟过滤嘴部分一致的外形和干净卫生的一次性烟嘴，创造一种崭新的电子纯净香烟，从而改善广大吸烟者的身心健康和满足现代文明的需要。

附图说明

图 1 是实施例 1 的结构示意图；

图 2 是图 1 中烟杆部分放大结构示意图；

图 3 是图 1 中烟嘴部分放大结构示意图；

图 4 是图 1 中烟嘴与烟杆连接部分的结构示意图；

图 5 是图 1 中有机纤维结构示意图；

图 6 是实施例 2 烟嘴部分结构示意图；

图 7 是实施例 3 结构示意图。

具体实施方式

实施例：如图 1、2、3 所示：电子纯净香烟包括有烟杆壳体 111、电池 110、传感器 112、指示灯 114、电路控制板 113、指示灯罩 116、进气孔 115、出气孔 108、输出端 109 等组成的烟杆和有烟嘴壳体 102、电热器 104、烟草提取物 103、有机纤维 105、进气孔 106、出气孔 101、输入端 107 等组成的烟嘴。

烟杆壳体 111 采用普通香烟烟体部分的较长圆筒外形，通过喷涂、印刷或者外贴等方法制造出与普通香烟烟体部分一致的外观效果，烟杆壳体为中空圆筒体，为电池 110、传感器 112、指示灯 114、电路控制板 113 以及焊接它们的电线提供了空间。壳体一端为出气孔 108 的一端，连同输出端 109 与烟嘴的输入端接装。另一端为指示灯罩 116 上的进气孔 115 一端，连同壳体 111 内部的间隙共同构成一个不间断的气流通道。

烟杆的电池 110 为可反复充电的锂离子电池、聚合物电池或其他高能电池，也可特制为中间留有通气孔的中空型电池，从而简省了烟杆的外壳 111。

烟杆的传感器 112 为驱动电路控制板 113 进而驱动电池 110 放电输出的开关

装置,用于实时采集吸烟动作所产生的气流和压力变化,可采用通过判别阻值变化方法,也可通过特制的膜片装置感应通断信号。

烟杆的指示灯 114 为低功耗的发光二极管,使用时配以适量的电阻,红光或者黄光通过指示灯罩 116 辉映出来,与普通香烟燃烧的烟头效果非常近似,然后进行适当的延时处理,随着吸烟动作营造若明若暗的吸烟效果。指示灯 114 和与其相匹配的电阻既可以与电路控制板 113 合成,也可以单独制作为灯板。

烟杆的电路控制板 113 的核心是嵌入式芯片或者烧录式芯片,也可以简单化为普通的比较器,配以相应的周边电路组成工作状态控制系统和电池管理系统。电路控制板通过传感器 112 判别开关信号,从而对输出端 109 和指示灯 114 供电,对电池 110 进行电压和电流管理,并通过指示灯 114 给予相应的提示,也可负载特别设计的声音或者显示输出。

烟杆的指示灯罩 116 嵌在壳体 111 的进气孔 115 一端,起到保护壳体 111 内部结构、辉映发光二极管 114、提供气流通道等作用。

烟杆的进气孔 115 可以置于指示灯罩 116 中部或侧部,也可开启于壳体 111 侧部,用于驱动传感器 112 和提供气流通道。

烟杆的出气孔 108 置于烟杆输出端 109 的中部或侧部,在烟杆的输出端 109 与烟嘴的输入端 107 接装在一起的状态下,烟杆的出气孔 108 与烟嘴的进气孔 106 也自然对接在一起。

烟杆的输出端 109 与烟嘴的输入端 106 相匹配,两极之间有绝缘材料隔离,分别与烟嘴的输入端 107,从而连接烟嘴的电热器 104。同时起到与烟嘴固定为一体的作用。

烟杆的输出端 109 也可作为输入端,与有配套输出端的家用 AC 充电器相连,也可与配套输出端的车载 DC 充电器相连,也可与配套输出端的蓄电充电器相连,反复充电使用。

烟嘴壳体 102 采用普通香烟过滤嘴部分的较短圆筒外形,通过喷涂、印刷或者外贴等方法制造出与普通香烟过滤嘴部分一致的外观效果,烟嘴壳体 102 为中空圆筒体,一端为进气孔 106 的一端,连同输入端 107 与烟杆的输出端 109 接装。另一端为出气孔 101 的一端,连同壳体 102 外侧用于吸烟者含嘴,如同嘴住普通香烟的过滤嘴。壳体 102 内部为电热器 104 和缠绕在其周围的烟草提取物 103 和有机纤维 105 提供了空间,也为有机纤维 105 中的烟草提取物 103

被电热器 104 加热时所生产的烟雾提供了空间。

烟嘴的电热器 104 的阻值和功率与烟杆的电池 110 相匹配, 可通过电热丝、金属镀膜、炭膜等方式实现。电热器 104 的两极分别与输入端 106 的两极连接。由于吸烟者的动作可以控制传感器 112, 因此电热器 104 的工作与停顿时间也随着吸烟者的动作断断续续地变化, 从而将其周围的烟草提取物 103 断断续续地烟雾化。

烟嘴的烟草提取物 103 为天然烟草净油, 与醇类按一定比例混合稀释后, 混入一定比例的烟碱, 然后定量浸灌在有机纤维 105 里。由于烟草提取物 103 是液体或将体状态, 在被加热时, 烟草提取物 103 首先被蒸发成烟雾。

烟嘴的有机纤维 105 为天然木材纤维或者天然吸附纸, 特别是采用由天然烟草制成的纤维, 不仅能够满足吸附烟草提取物 103 的需要, 同时能够提供天然的烟香, 达到与普通香烟非常近似的口味。

烟嘴的进气孔 106 置于烟嘴输入端 107 的中部或侧部, 在烟嘴的输入端 107 和烟杆的输出端 109 接装在一起的状态下, 烟嘴的进气孔 106 与烟杆的出气孔 108 也自然对接在一起。

烟嘴的出气孔 101 置于烟嘴进气孔 106 的另一端, 是最终吸出烟雾的通道, 烟嘴的出气孔 101 可以是与烟嘴壳体 102 一体的, 也可以是分体的。

烟杆进气孔 115、烟杆内部间隙、烟杆出气孔 108、烟嘴进气孔 106、烟嘴内部间隙、烟嘴出气孔 101 组成一个完整的气流通道。其工作顺序为: 吸烟动作引发气流通过烟杆进气孔 115 进入烟杆内部, 驱动传感器 112 传递开关信号给控制电路板 113, 控制电路板 113 驱动通过端子连接在一起的加热器 104 工作, 同时气流通过烟杆出气孔 108、烟嘴进气孔 106 到达烟嘴内部间隙, 将被加热器 104 烟瞬间加热的烟草提取物 103 所生成的烟雾部分从烟嘴出气孔 101 吸出。随时吸随时发烟、随时停随时断电。

如图 5 所示: 烟嘴的输入端与烟杆的输出端相匹配, 两极之间有绝缘材料隔离, 分别与烟杆的输出端相连, 即两极分别相连, 电极 117 与电极 107 对接, 电极 107 和电极 119 对接, 进气孔 106 和出气孔 108 也对接在一起, 起到烟嘴与烟杆固定为一体的作用。烟嘴的输入端与烟杆的输出端可以是旋装配合结构, 也可以是插拔配合结构。

实施例 2: 图 6 所示, 本实施例的结构与实施例基本相同, 其不同之处是烟

嘴部分为由胶囊外套和胶囊蒸发器组成,所述胶囊外套由壳体 201、过滤棒 202、软胶囊 204 以及定量罐装在其中的烟草提取物 203 构成了一次性胶囊烟嘴的外套。由于过滤棒 202 具有透气作用,代替了出气孔 101 的作用,软胶囊 204 以及定量罐装在其中的烟草提取物 203 部分嵌入滤棒 202 中,部分暴露在壳体 201 里,由于壳体 201 的固定作用,形成一个相对独立应用单元。所述胶囊蒸发器由壳体 205、有机纤维 208、顶针 206、电热器 207、进气孔 209、输入端 210 构成了一次性胶囊烟嘴的蒸发器,电热器 207 的两极分别与输入端 210 的两极连接,由于壳体 205 的作用,也形成一个相对独立应用单元。

上述的一次性胶囊烟嘴的外套的直径大于胶囊烟嘴的蒸发器的直径,两者套装在一起,形成了一个功能完整的胶囊烟嘴。由于顶针 206 的穿刺作用,可以刺穿软胶囊 204,使软胶囊 204 中的烟草提取物 203 流入吸附纤维 208 内,随着电热器 207 的启动,将烟草提取物 206 雾化,通过过滤棒 202 的细微间隙吸入口中。

所述蒸发器可为一次性用品也可多次使用,所述胶囊外套为一次性用品,它可起到为一次性胶囊烟嘴的蒸发器补充烟草提取物 203 作用。由于一次性胶囊烟嘴的外套在使用中随时更换,因此具有的保持卫生的作用。

由于一次性胶囊烟嘴的蒸发器可多次使用,因此也可以与实施例 1 中的烟杆制作为一体。由于它们是不可拆卸,因此在指示灯罩 116 底部开设一充电接口,也将充电接口可以开在烟杆壳体 111 的侧面。

实施例 3:如图 7 所示,在实际应用中,为了使用更大能量的电池,可以为电子纯净香烟 301 配置烟盒形状的外接电池 303,外接电池 303 即可以为电子纯净香烟 301 充电,也可以直接使用,由于体积较大,可配置电量显示屏 302 和太阳能板 304。

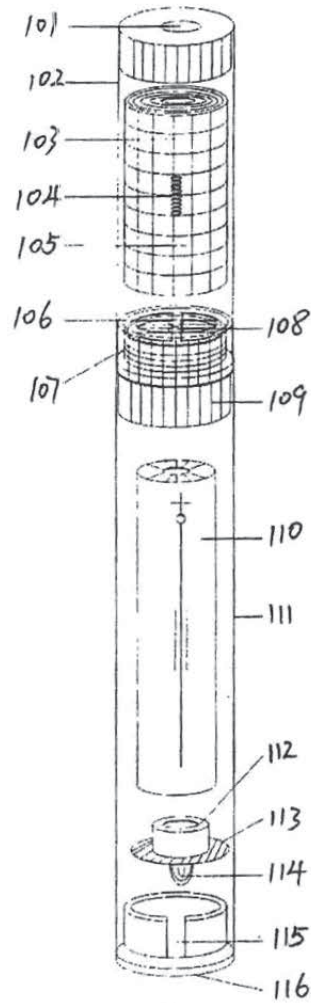
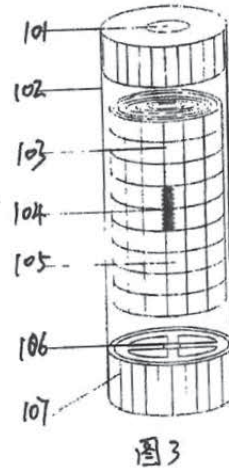
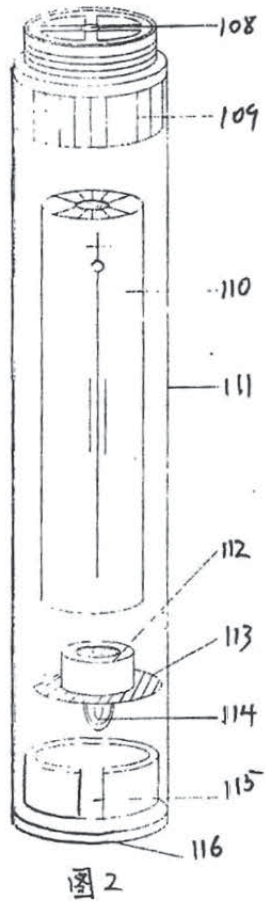


图1



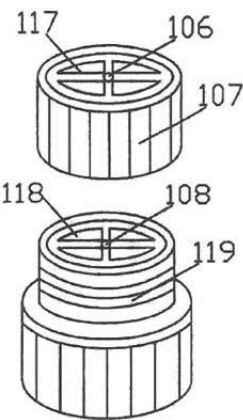


图 4

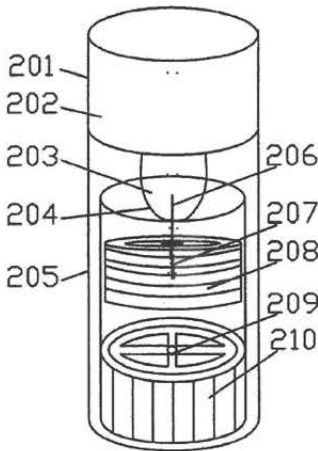


图 6

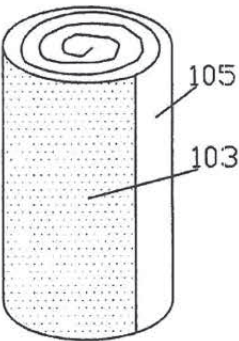


图 5

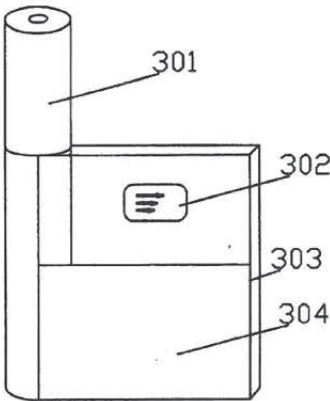
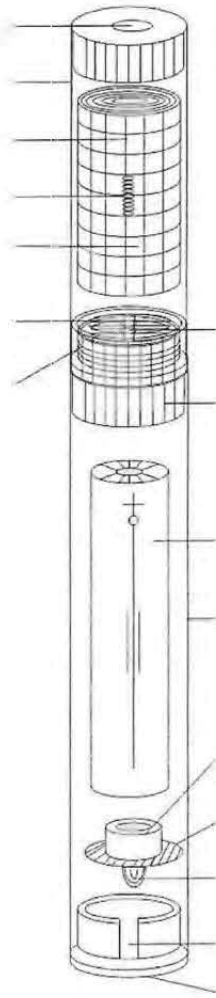
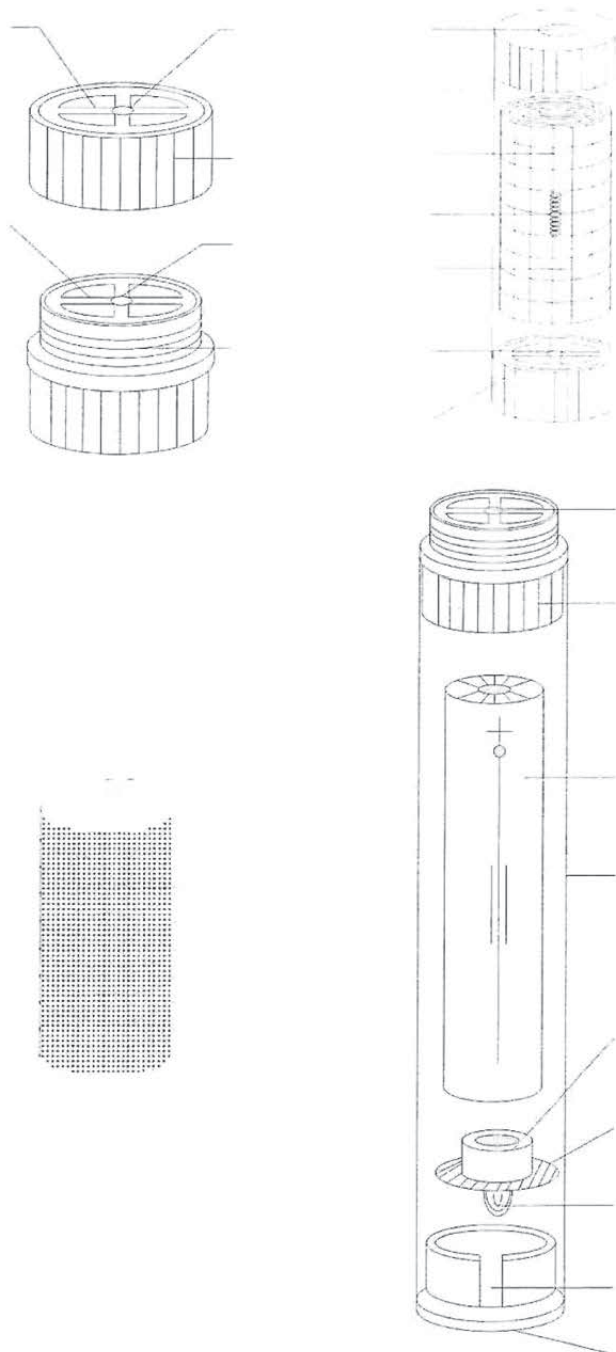


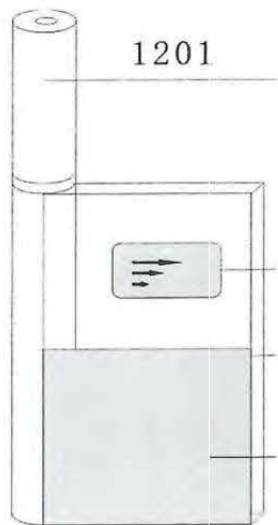
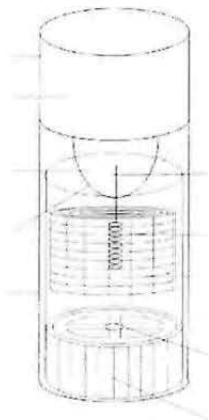
图 7

附件 2
Exhibit 2



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Properties ~

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附件 3
Exhibit 3



CT Analysis of Cartridges:

September 16, 2019

1906956.EX0 - 8737

[Handwritten signature]
2019.9.19



Outline

- Objective
- Cartridge 1
- Cartridge 2
- Cartridge 3

1906956.EX0 - 8737



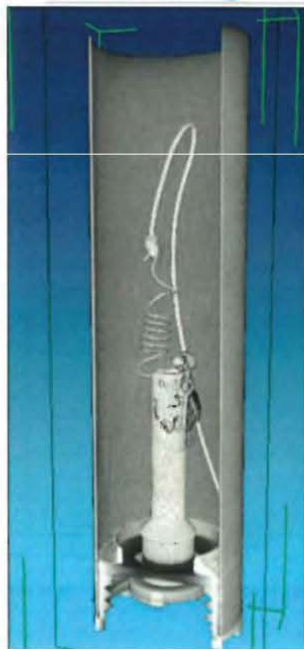
Objective

Assess the internal structure of the cartridges provided.

1906956.EX0 - 8737



Cartridge 1 : No Box, Yellow, 16mg

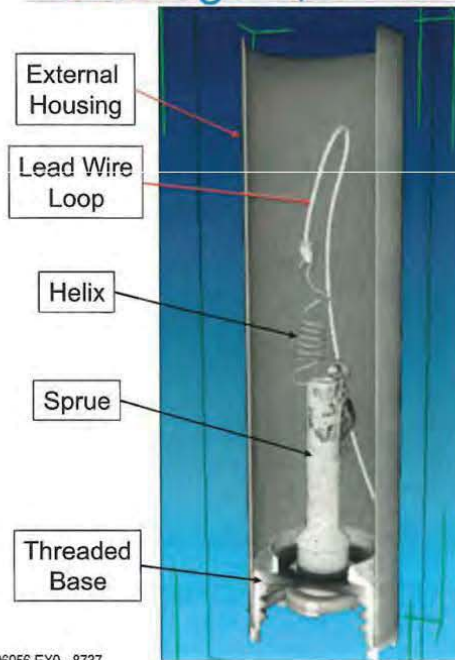


1906956.EX0 - 8737





Cartridge 1, No Box, Yellow, 16mg



There are central openings/apertures at opposing ends of the cartridge.

Threaded connector/electrode allows docking to the power pack.

Central metallic sprue rises mid-level in the cartridge and provides anchoring/soldering point for the lead wire loop.

The heating helix is thinner wire compared to the lead wires. The heating helix is connected to the thicker gage wires via solders.

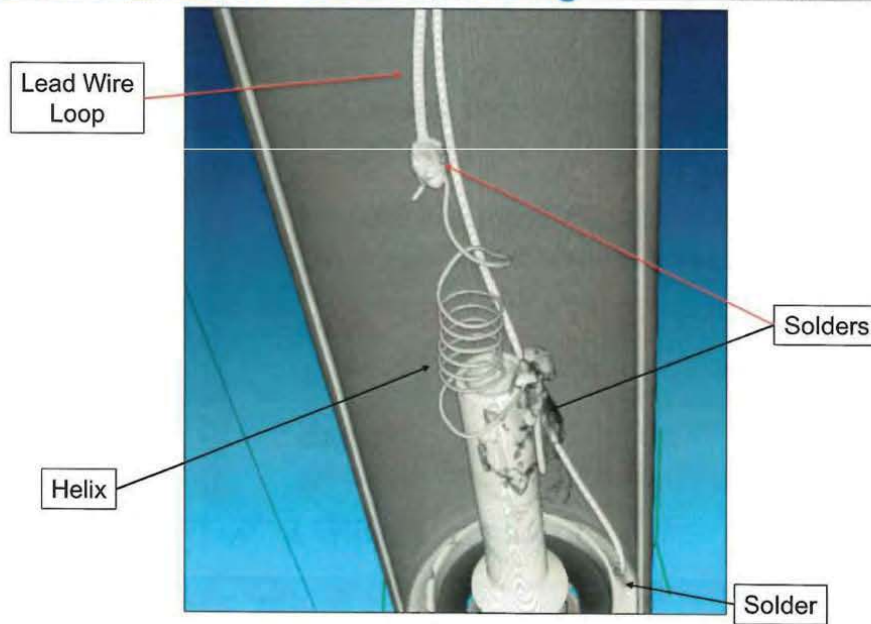
The other end of the lead wire loop is soldered to the threaded connector/base.

An insulator separating the sprue from the threaded base is expected.

Exponent

6

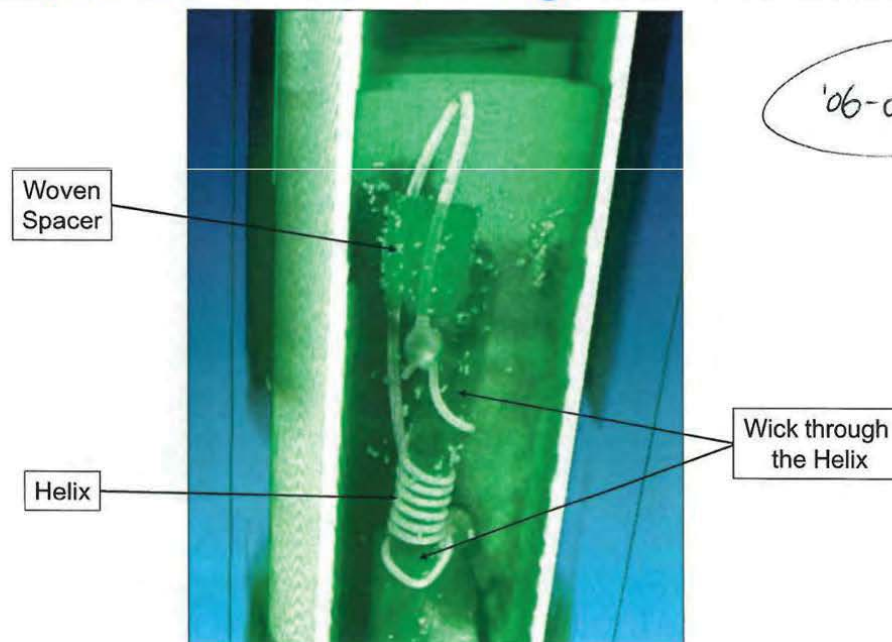
Cartridge 1, No Box, Yellow, 16mg



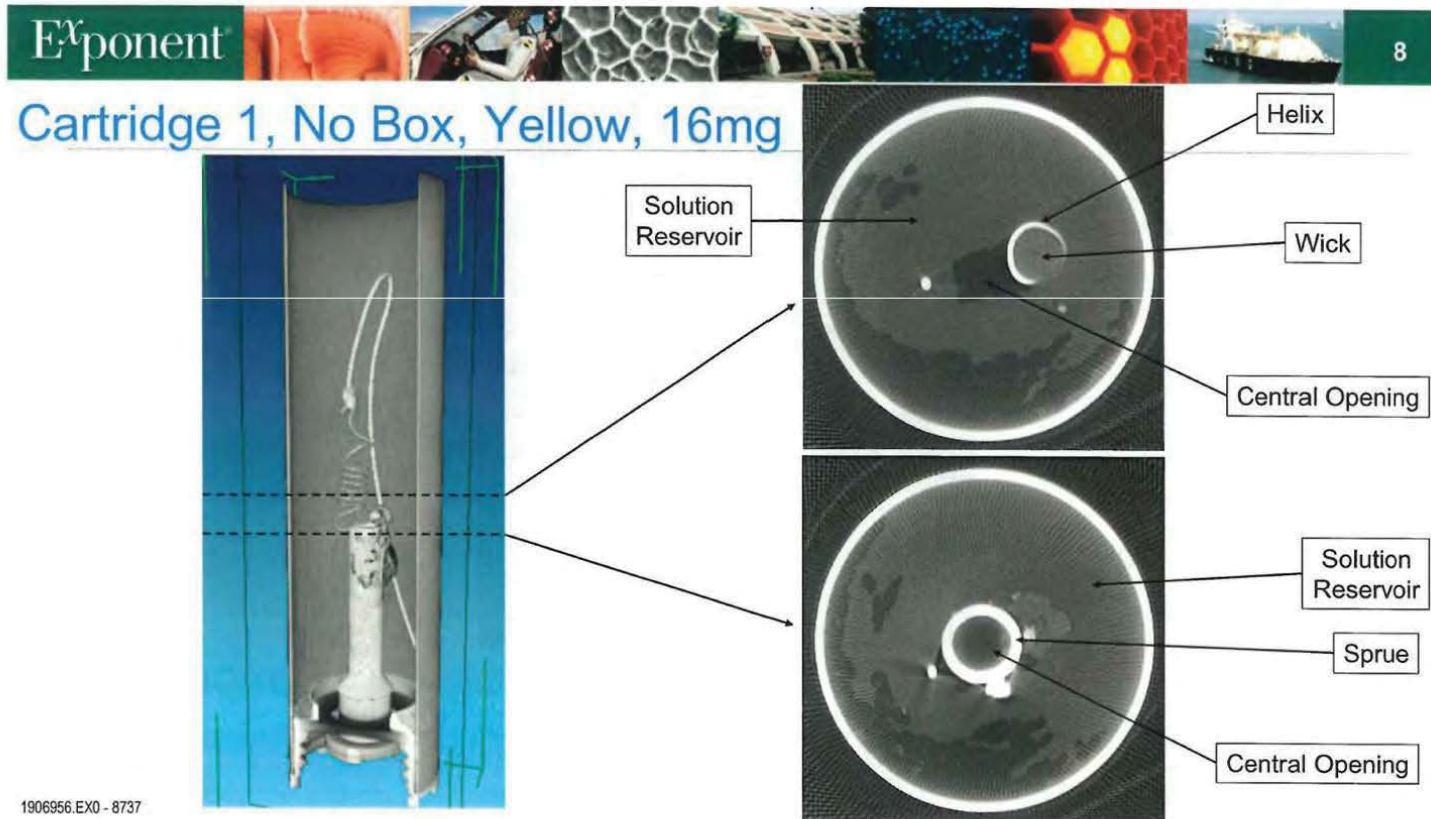
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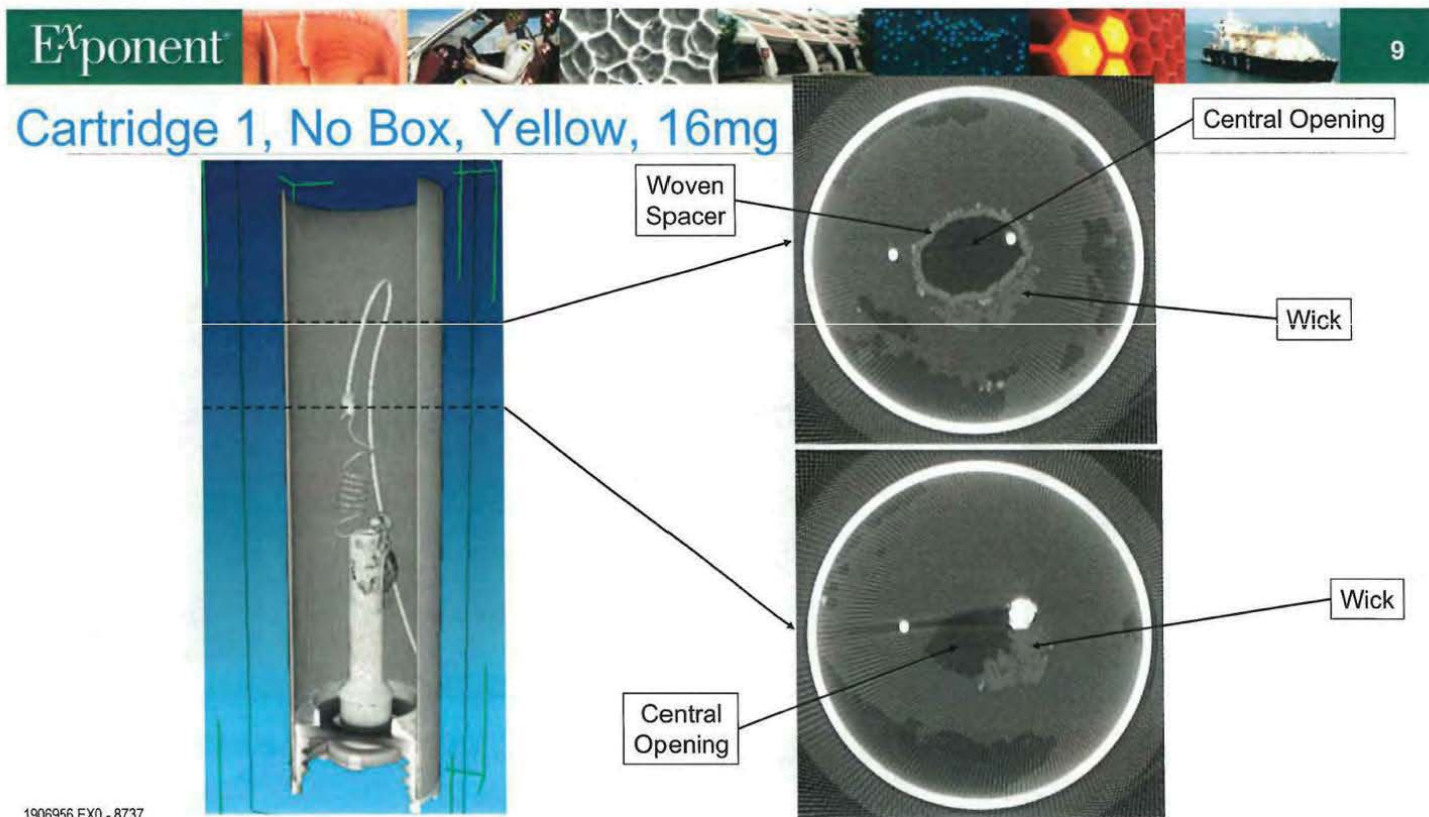


Cartridge 1, No Box, Yellow, 16mg



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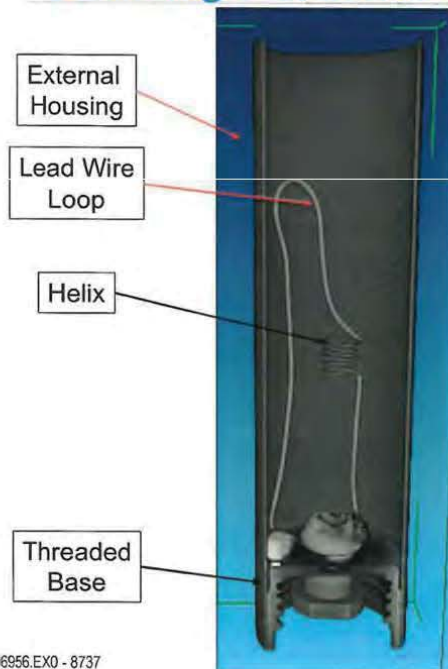
10

Cartridge 2, Boxed, Green, 8mg





Cartridge 2, Boxed, Green, 8mg



There are central openings/apertures at opposing ends of the cartridge.

Threaded connector/electrode allows docking to the power pack.

One end of the lead wire loop is soldered to the sprue.

The heating helix and lead wire loop are made from the same wire, no reason for solder transitions.

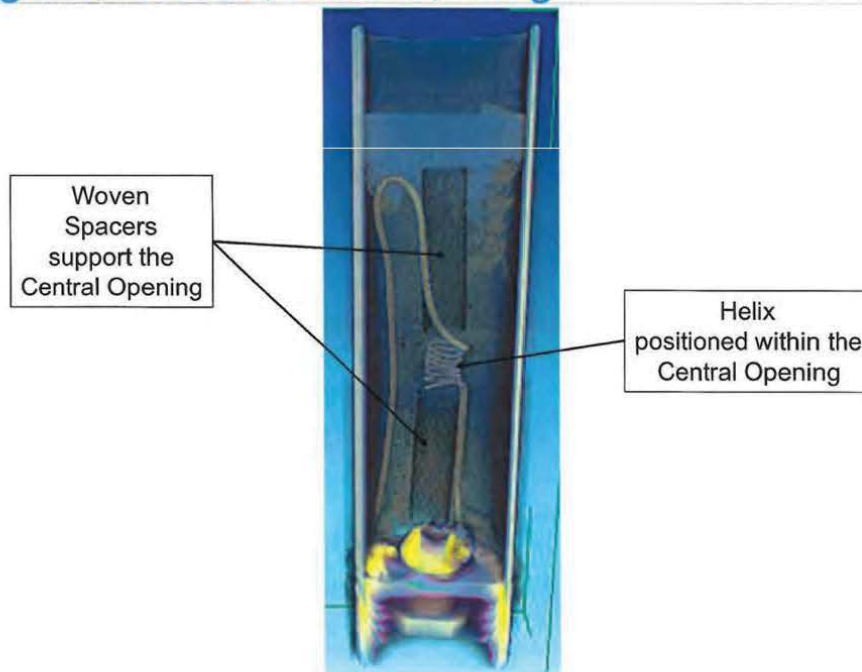
The other end of the lead wire loop is soldered to the threaded connector/base.

An insulator separating the sprue from the threaded base is expected.

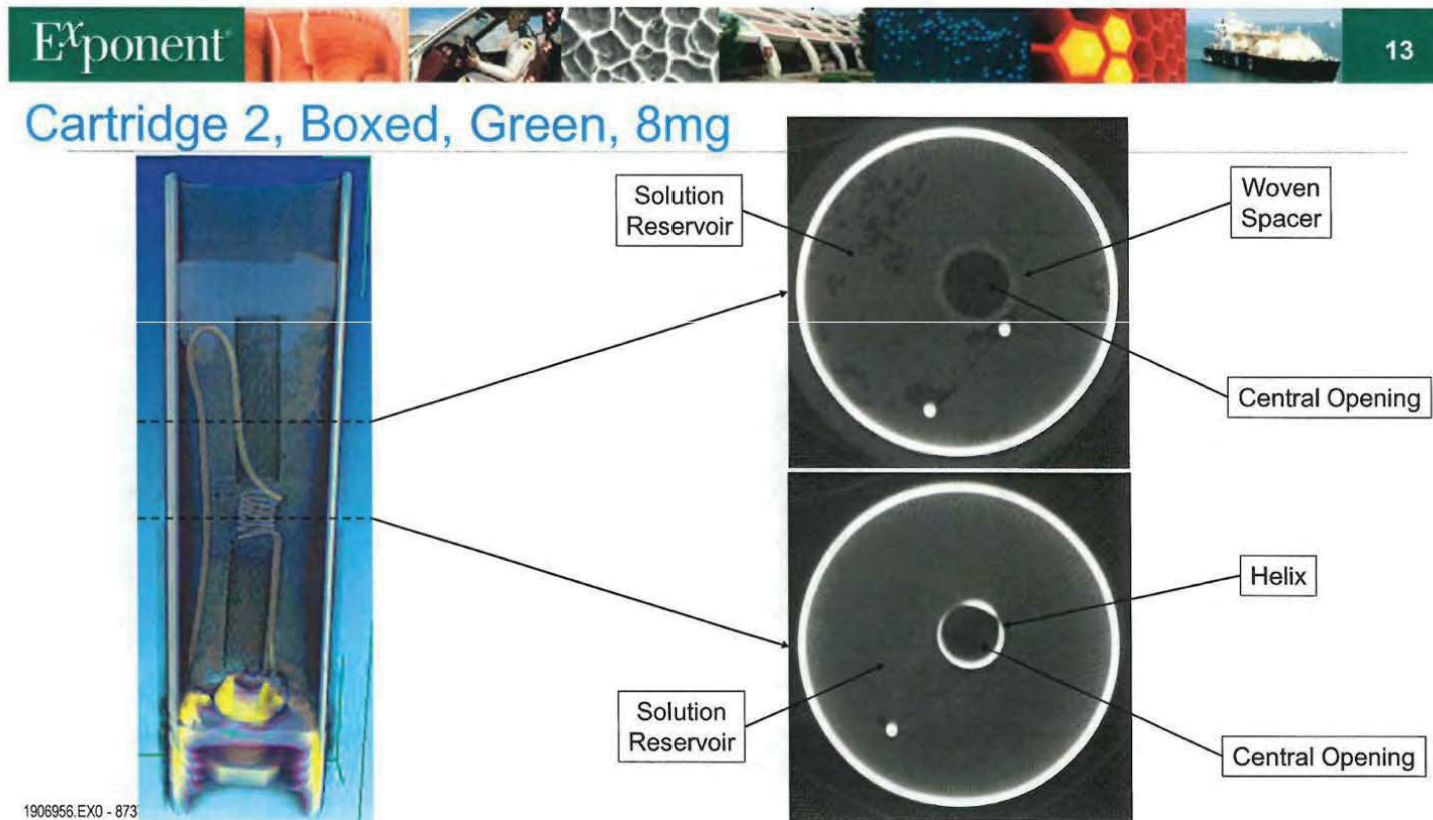
Exponent

12

Cartridge 2, Boxed, Green, 8mg



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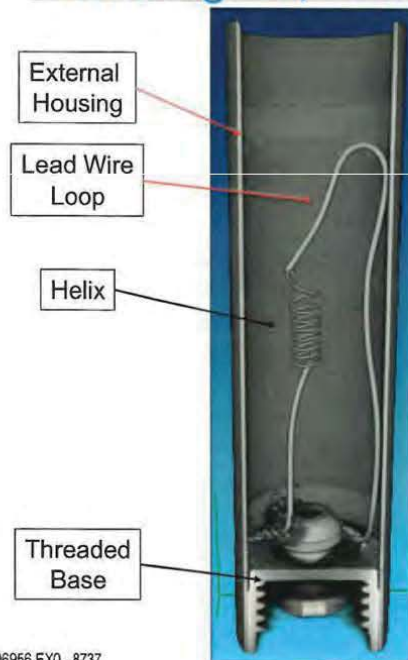


Cartridge 3, Boxed, Yellow, 4mg





Cartridge 3, Boxed, Yellow, 4mg



1906956.EX0 - 8737

There are central openings/apertures at opposing ends of the cartridge.

Threaded connector/electrode allows docking to the power pack.

One end of the lead wire loop is soldered to the sprue.

The heating helix and lead wire loop are made from separate wires, with soldering connections.

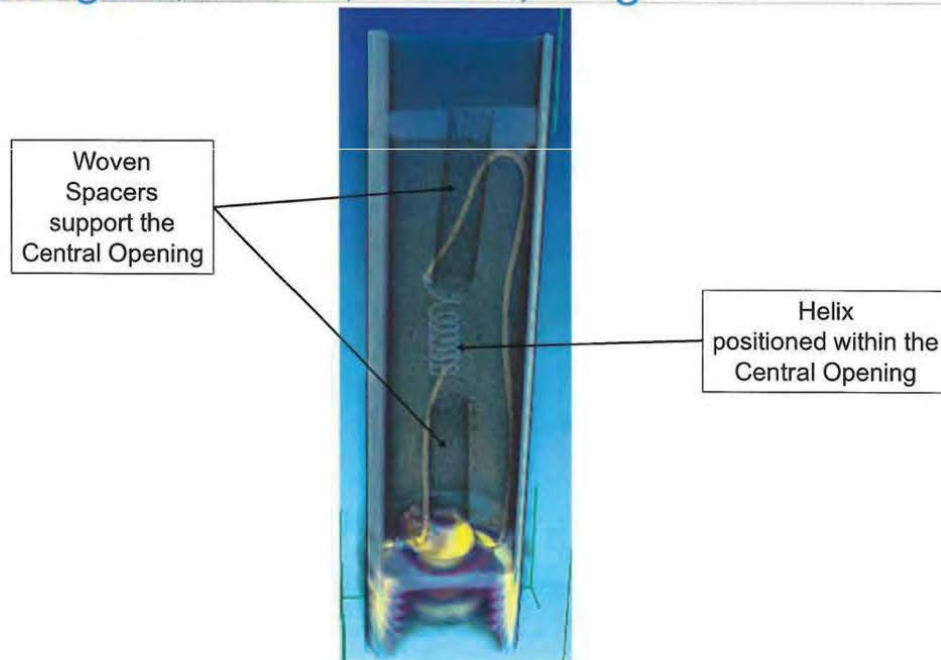
The other end of the lead wire loop is soldered to the threaded connector/base.

An insulator separating the sprue from the threaded base is expected.

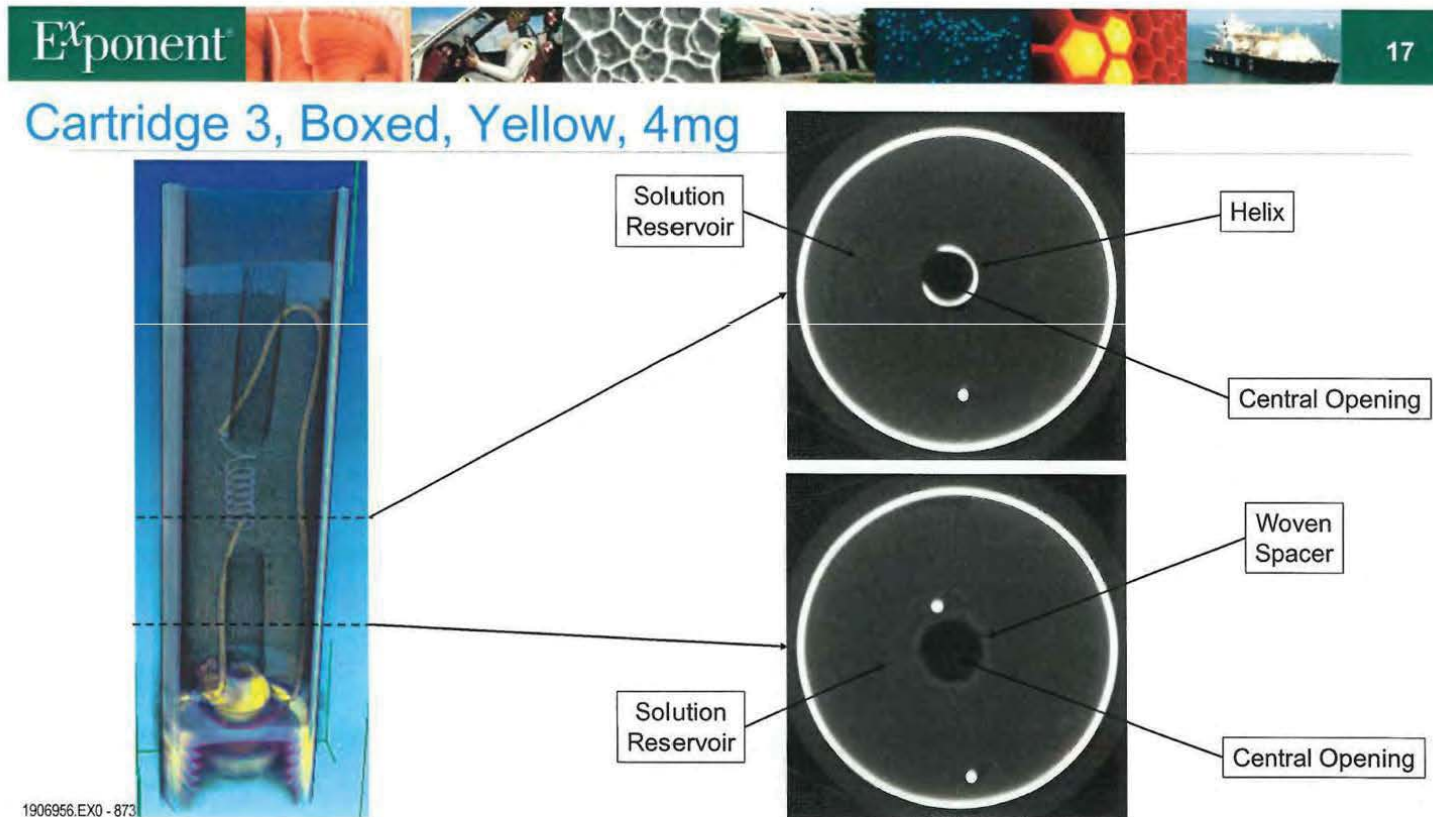
Exponent

16

Cartridge 3, Boxed, Yellow, 4mg



1906956.EXO - 8737



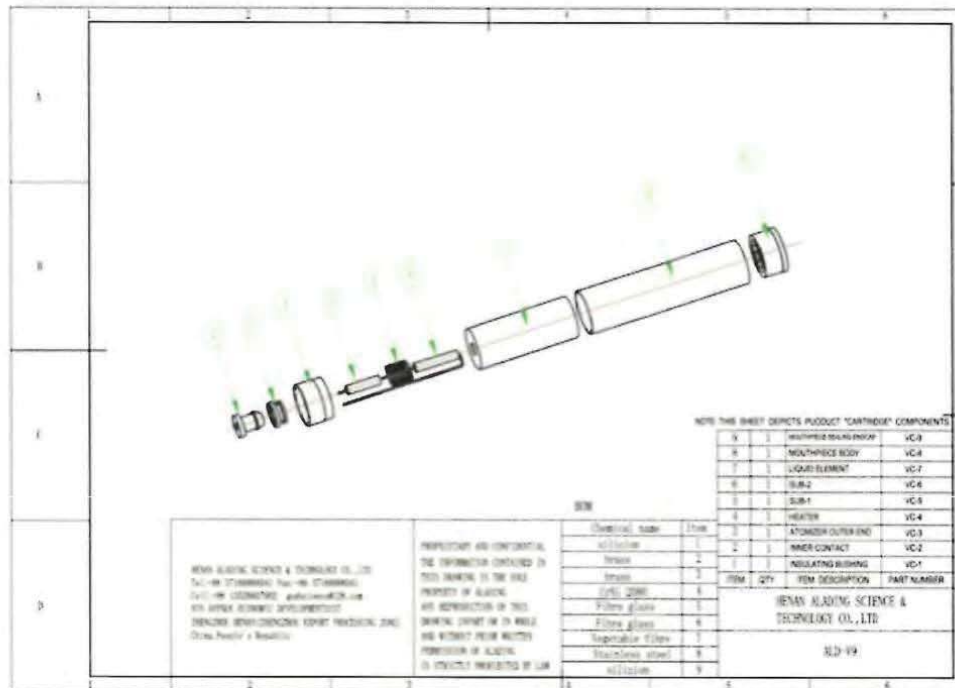


Discussion

- In all of the three cartridges, there is a central air passageway surrounded by absorbent material.
- In all of the three cartridges, there are central openings at opposing ends of the product. The central air passageway allows air to travel from first aperture to the second aperture.
- In all of the three cartridges, the heating helix is positioned in the central air passageway.
- In all of the three cartridges, there is a threaded and electrically conductive connector/electrode that allows electrical current to be delivered to the lead wire loop and allows mechanical attachment to the power-pack.

1906956.EX0 - 8737

附件 4
Exhibit 4



2-1-18 2018.8.18

附件 5
Exhibit 5

COMMERCIAL INVOICE

TO: Smoke Anywhere USA, Inc.

INVOICE: ALD 006

2704 South Park Rd. Pembroke Park, FL 33009 USA DATE: July 12, 2008

ETN: 26-2294239 Mobile: 1 888 7665351

SHIPPED FROM: ZHENGZHOU, CHINA: TO Fort Lauderdale, FL, USA BY AIR

MARKS&NOS 唛头	DESCRIPTION 品名	UNIT PRICE 单价	AMOUNT 金额
N/M	Electronic smoking device 1100/set	US\$32/set	USD35200.00
	TOTAL		USD35200.00

FOR AND ON BEHALF
HENAN ALDING SCIENCE&TECHNOLOGY CO., LTD

(Authorized Signature)



2019. 8. 18

附件 6
Exhibit 6



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loongtotem (smoke51, eaze magnum) cartridge

photos of a cartridge I took apart without destroying it. The cartridge still worked, but had that nasty burnt taste.

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all pieces

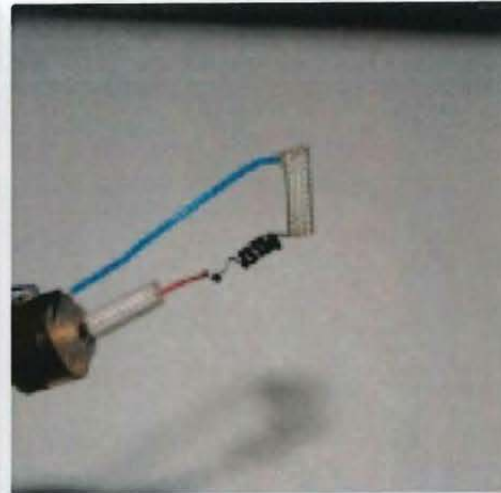


194



0

20 Feb 2009



coil is charred



155



0

20 Feb 2009



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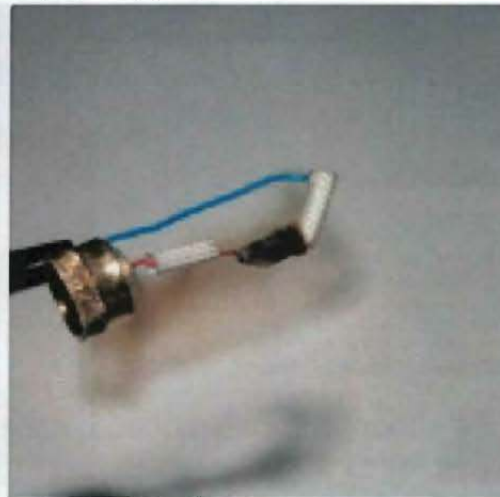


udave
loongtotem (smoke51, eaze magnum) cartridge
0 x ★

burnt wrap around atomizer coil

0 240 0 0

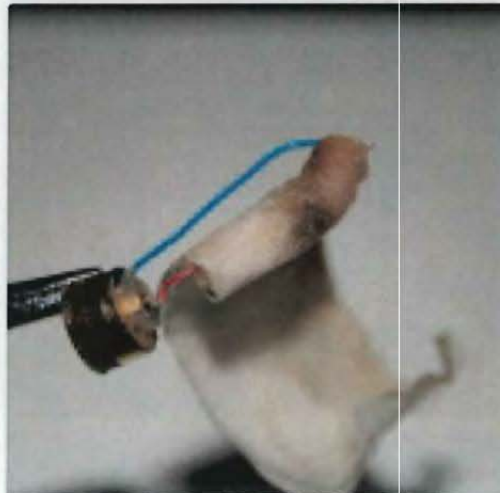
20 Feb 2009



coil is actually wrapped with separate piece

0 139 0 0

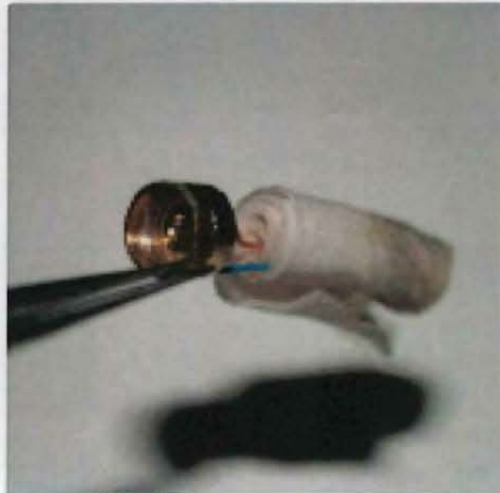
20 Feb 2009



unrolling the main filling

0 303 0 0

20 Feb 2009



atomizer wires wrapped

0 184 0 0

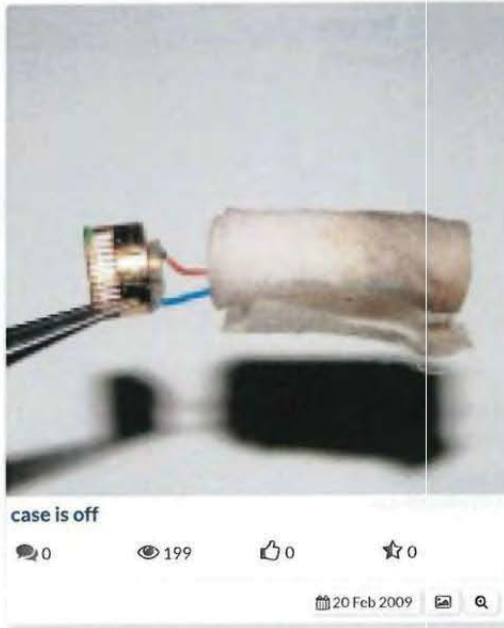
20 Feb 2009

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2/4



udave, Feb 20, 2009

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Owner:	udave
Items:	7
Create Date:	Feb 20, 2009
Last Update:	Jan 1, 1970
Views:	430
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Hyperventilating after...
bombastinator replied 6 minutes ago



Apparently some guys lungs...
Baditude replied 11 minutes ago



Hi vapers.
stols001 replied 19 minutes ago



Sweet Sophia
stols001 replied 20 minutes ago



THIS IS THE BEST MTL VAPE
stols001 replied 21 minutes ago

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MD5 hash version	v3
URL	https://www.e-cigarette-forum.com/media/albums/loongtotem-smoke51-eaze-magnum-cartridge.84/
Page Title	loongtotem (smoke51, eaze magnum) cartridge E-Cigarette Forum