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Counsel for Plaintiff FUMA INTERNATIONAL LLC

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY

FUMA INTERNATIONAL LLC, an Ohio limited liability company, *Plaintiff*, v. **LOGIC TECHNOLOGY DEVELOPMENT LLC**, a Delaware limited liability company, *Defendant*.	Civil Action No. 2:23-cv-04093 **COMPLAINT AND JURY DEMAND**

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Fuma International LLC ("Fuma"), a company with its principal place of business at 879 S. Progress Drive, Medina, Ohio 44256, hereby files this Complaint against Defendant Logic Technology Development LLC. ("Logic"), a limited liability company organized and existing under the laws of the State of

Delaware, having its principal place of business at 300 Frank W Burr Boulevard, Suite 70, Teaneck, New Jersey, 07666. Fuma alleges as follows:

JURISDICTION AND VENUE

1. This is a civil action for patent infringement arising under Title 35 of the United States Code, and in particular 35 U.S.C. §§ 271, 282, 283, 284, and 285.

2. This Court has subject matter jurisdiction over this patent infringement action under 28 U.S.C. §§ 1331 and 1338(a).

3. This Court has personal jurisdiction over Logic because it has a principal place of business and resides in Teaneck, New Jersey in this judicial district, solicits and conducts business in New Jersey, including the provision of goods, derives revenue from goods sold in New Jersey and within this judicial district, and has committed acts of infringement in this judicial district, including, but not limited to, offering to sell and selling the accused products in this judicial district.

4. Venue lies in this judicial district pursuant to 28 U.S.C. §§ 1391(b) and (c), and 1400(b). Defendant is subject to this Court's personal jurisdiction because, *inter alia*, Defendant has committed and continues to commit acts of patent infringement including making, using, offering to sell, and/or selling

Accused Products in this district, and/or importing Accused Products into this district; and Defendant has a principal place of business in this judicial district.

FACTUAL BACKGROUND

THE PLAINTIFF

5. Plaintiff Fuma is a company organized and existing under the laws of the state of Ohio, with its principal place of business at 879 S. Progress Drive, Medina, Ohio 44256. Fuma is in the business of developing and selling innovative products, including electronic cigarettes.

Fuma's Office, Progress Building, Medina Ohio

6. Fuma was founded in 2009 by Greg Conley, his wife, Rebecca Conley, and their friend Daniel Hillenbrandt to develop and commercialize certain of the concepts described in U.S. Patent Nos. 9,532,604 ("the '604 Patent," Ex. A), 10,334,881 ("the '881 Patent," Ex. B), and 11,497,864 ("the '864 Patent," Ex. H), (collectively "the patents-in-suit").

7. Prior to conceiving the inventions described in the patents-in-suit, Mr. Conley worked as a technician and engineer for over 15 years and was employed by Rockwell International and ABB (Asea Brown Boveri), Inc., among others, in technical areas such as industrial control systems, robotics, process control, software development, computer design, and wireless technologies, among others.

8. Prior to forming Fuma, Mr. Conley formed Tri-C Technologies LLC under which he provided engineering and technical services as a consultant.

9. In April of 2009, and still operating under Tri-C Technologies LLC entity, Mr. Conley, Mrs. Conley, and Mr. Hillenbrandt became a distributor in Ohio of e-cigarette devices sold by a company called Smoke Anywhere USA, Inc., a.k.a. "Smoke 51." Those e-cigarette devices are shown in the Wikipedia page that is listed on the first page of the patents-in-suit under the heading "OTHER PUBLICATIONS." Tri-C Technologies LLC terminated its relationship with

Smoke Anywhere USA, Inc. and ceased distribution of the products later that same year.

10. Recognizing that the e-cigarette devices Tri-C Technologies LLC had been distributing under the agreement with Smoke Anywhere USA, Inc. were deficient in numerous ways, Mr. Conley thought of new designs for an e-cigarette device. Mr. Conley enlisted Dan Hillenbrandt, whose background is in precision manufacturing, to help in developing the new e-cigarette designs. Together with Rebecca Conley, they formed Fuma in July of 2009 to further develop and commercialize the concepts described in the patents-in-suit.

11. Mr. Conley and Mr. Hillenbrandt filed Provisional Patent Applications on July 27, 2009 (Provisional Application No. 61/271,819) and July 31, 2009 (Provisional Application No. 61/273,097) in the United States Patent Office that describe some of their concepts for a new e-cigarette design.

12. Mr. Conley and Mr. Hillenbrandt followed up their provisional patent applications with a Regular Patent Application that they filed in the United States Patent Office on July 27, 2010 (Application No. 12/843,917) and that claimed priority to their Provisional Patent Applications.

13. According to U.S. Patent Office Procedures, the contents of Fuma's provisional applications filed in 2009 and the Regular Patent Application Fuma

filed in on July 27, 2010 remained restricted from public access and confidential until the first publication in the Patent family by the U.S. Patent Office on Aug. 29, 2013. (Publication No. US 2013/0220315 A1).

14. The patents-in-suit resulted and issued from the Provisional and Regular patent applications that Mr. Conley and Mr. Hillenbrandt filed in July 2009 and July 2010, as shown under the heading "Related U.S. Application Data" on the first page of the '604, '881, and '864 Patents.

15. During 2009, Mr. Conley and Mr. Hillenbrandt worked to develop their concepts for a new e-cigarette device. Mr. Conley and Mr. Hillenbrandt had prototypes of their new e-cigarette device manufactured by a supplier, Trans-Power International Co., Ltd. ("Trans-Power"), in China under conditions of confidentiality.

16. Fuma introduced its new e-cigarette device to the marketplace in August 12-14, 2009 at the Tri-State Tobacco and Candy Convention held at the Belterra Casino Resort and Spa in Belterra, Indiana. At the convention, Mr. Conley, for the first time, displayed final prototypes of the Fuma e-cigarette.

17. By no later than September 17, 2009, Mr. Conley and Mr. Hillenbrandt received in the United States commercial versions of their new e-cigarette that embodied the patented design of the '604, '881, and '864 Patents and

that had been manufactured by their supplier, Trans-Power, in accordance with design instructions and fabrication details provided by Mr. Conley. (*See*, Ex. C, Trans-Power Invoice dated September 17, 2009.).

18. In September 2009, Fuma began offering for sale and selling their new product in the United States.

19. No later than November 2009, Fuma sold and delivered to customers in the United States their e-cigarette devices ("Fuma e-cigarette") made in accordance with the patents-in-suit. (*See* Ex. D, Invoice from Fuma to Great Midwest Tobacco, Evandale, Ohio dated November 5, 2009; Ex. E, Invoice from Fuma to Adco Distributing, Canton, Ohio dated November 20, 2009).

20. The Fuma e-cigarette is covered by and incorporates the invention defined by the claims of the patents-in-suit that are asserted in this case, specifically claims 4, 6, 12, 13, 14, 15, 16 and 18 of the '604 Patent, claims 1, 3, 5, 6, 8, 9, 11, 13, and 14 of the '881 Patent, and claims 1-3, 5-7, 9-18, 20-23, 25-27, 29-36, 38-43, and 45-47 of the '864 Patent. The Fuma e-cigarette constitutes and establishes an actual reduction to practice, in the United States, of the invention covered by at least the asserted claims of the patents-in-suit no later than September of 2009.

21. The devices that Fuma had manufactured and delivered to its facility in Medina, Ohio in September 2009 meet all the elements of at least the asserted claims of the patents-in-suit. (*See* Ex. F, Nov. 2, 2018 Declaration of G. Conley under 37 C.F.R. § 1.131).

22. Fuma's new e-cigarette devices were met with immediate success in the market. Fuma's sales went from approximately $50,000 in the last quarter of 2009, to $772,524 in 2010, to $2,919,916 in 2011.

23. Fuma's success with its e-cigarette was recognized by others in the relevant field of technology shortly after it was introduced. Specifically, R.J. Reynolds Tobacco Company, through its Senior Vice President of Innovation, Mr. Dennis Potter, requested and was provided samples of Fuma's original versions of its patented e-cigarette in June 2009. After analyzing and testing the Fuma e-cigarettes, Mr. Potter reported to his superiors and co-workers at R.J. Reynolds Tobacco Company that the Fuma patented design was better than any of the e-cigarettes that Mr. Potter had previously analyzed and that it provided a user experience that more closely mimicked regular cigarette use. (*See* Ex. G, D. Potter e-mail dated June 29, 2010, RJRV-F000684464).

24. R.J. Reynolds proceeded to market products that infringe Fuma's patent rights. Fuma sued R.J. Reynolds, and R.J. Reynolds settled the litigations

brought by Fuma in November 2021. R.J. Reynolds paid Fuma a confidential amount to settle the litigations, purchased a license under the Fuma patents-in-suit, and agreed to mark their infringing products with the applicable Fuma patent numbers.

25. The Defendant has also marketed and sold products that infringe Fuma's patent rights, but the Defendant has not been authorized to do so and has not been granted a license to the Fuma patents-in-suit.

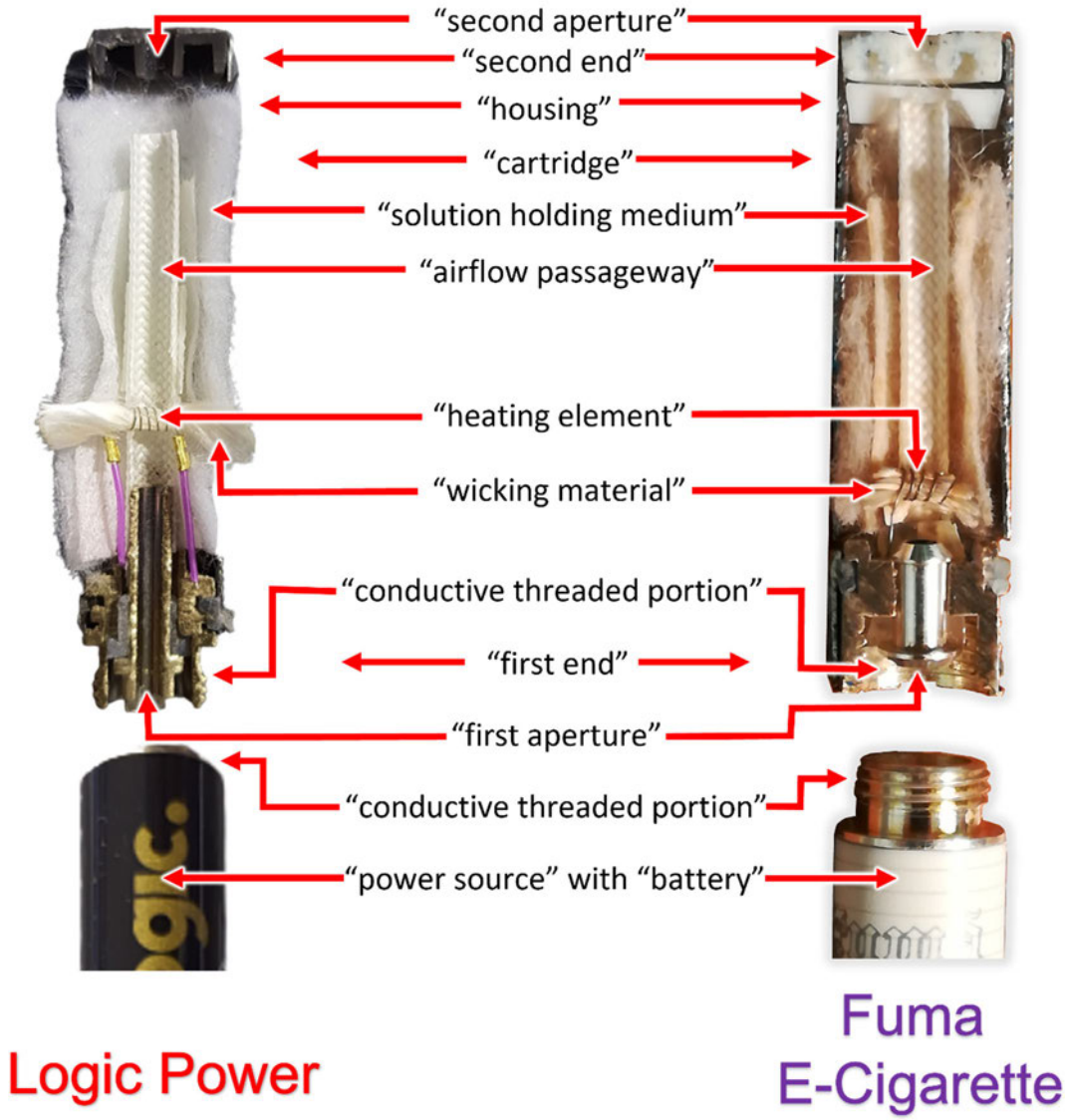
THE DEFENDANT

26. Upon information and belief, Defendant is a limited liability company organized and existing under the laws of the State of Delaware, having its principal place of business at 300 Frank W Burr Boulevard, Suite 70, Teaneck, New Jersey, 07666.

27. Upon information and belief, Logic imports, manufactures, distributes and sells the Logic Power Electronic Cigarette and Logic Pro Electronic Cigarette in the United States of America.

28. The Logic Power Electronic Cigarette and Logic Pro Electronic Cigarette products are all substantial copies of the patented structure of the original Fuma E-Cigarette. Pictured below is one of the devices that Fuma had manufactured and delivered to its facility in Medina, Ohio in September 2009

compared side-by-side with the Logic Power Electronic Cigarette and labeled to identify features of the asserted '604 Patent claims.



THE PATENTS-IN-SUIT

29. On January 3, 2017, the U.S. Patent Office duly and legally issued United States Patent No. 9,532,604 ("the '604 Patent") entitled "Electronic

Vaporizer." Fuma holds all substantial rights, title, and interest to the '604 Patent. A true and correct copy of the '604 Patent is attached as Exhibit A.

30. On July 2, 2019, the U.S. Patent Office duly and legally issued United States Patent No. 10,334,881 ("the '881 Patent") entitled "Electronic Vaporizer." Fuma holds all substantial rights, title, and interest to the '881 Patent. A true and correct copy of the '881 Patent is attached as Exhibit B.

31. On November 15, 2022, the U.S. Patent Office duly and legally issued United States Patent No. 11,497,864 ("the '864 Patent") entitled "Electronic Vaporizer." Fuma holds all substantial rights, title, and interest to the '864 Patent. A true and correct copy of the '864 Patent is attached as Exhibit H.

FIRST CLAIM FOR RELIEF:
INFRINGEMENT OF U.S. PATENT NO. 9,532,604

32. Fuma hereby realleges each allegation set forth in the paragraphs above as though fully set forth herein.

33. Upon information and belief, Defendant had both actual and constructive knowledge of the '604 Patent soon after issuance based on Fuma's marking of its products with the '604 Patent number.

34. Defendant has had actual knowledge that its activities constitute infringement of '604 Patent no later than the notice letter sent to Defendant on June 3, 2022 and/or the filing of this Complaint.

35. Defendant has directly infringed the ’604 Patent in violation of at least 35 U.S.C. § 271(a) by, itself and/or through its agents, unlawfully and wrongfully making, using, importing, offering to sell, and/or selling vaporizing device products embodying one or more of the inventions claimed in the ’604 Patent, within, from and/or into the United States without permission or license from Plaintiff, and will continue to do so unless enjoined by this Court.

36. The vaporizing products that directly infringe the ’604 Patent include the Logic Power Electronic Cigarette.

37. The images of the products set forth herein accurately show the features of those products.

38. The accused products infringe the ’604 patent literally and/or under the doctrine of equivalents.

39. The Logic Power Electronic Cigarette product infringes at least claims 4, 6, 12, 13, 14, 15, 16, and 18 of Fuma’s ’604 Patent.

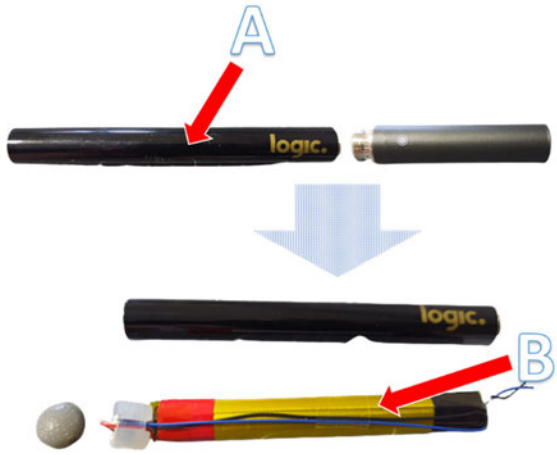
Direct Infringement of '604 Patent: Logic Power

40. Claim 1 of the '604 Patent reads as follows:

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 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 art 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.

41. As shown in the figures set forth in Paragraphs 42 through 52, the Logic Power Electronic Cigarette meets every limitation recited in Claim 1 of the '604 Patent.

42. The Logic Power Electronic Cigarette includes "a power source [A], wherein the power source [A] includes a battery [B]" as recited in Claim 1 of the '604 Patent.

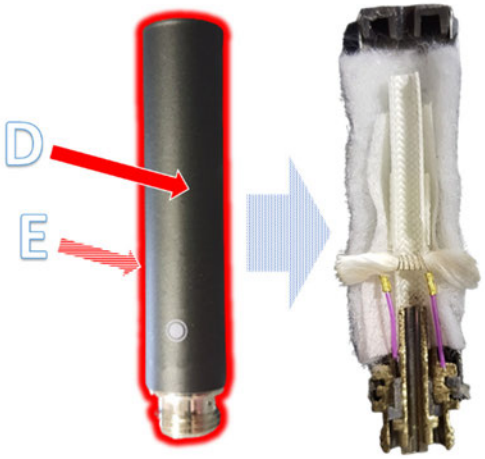


Logic Power Figure 604.1.a.

43. The Logic Power Electronic Cigarette's power source "includes an electrically conductive threaded portion [C]."

Logic Power Figure 604.1.b.

44. The Logic Power Electronic Cigarette includes "a cartridge [D] having a housing [E] that comprises an interior."

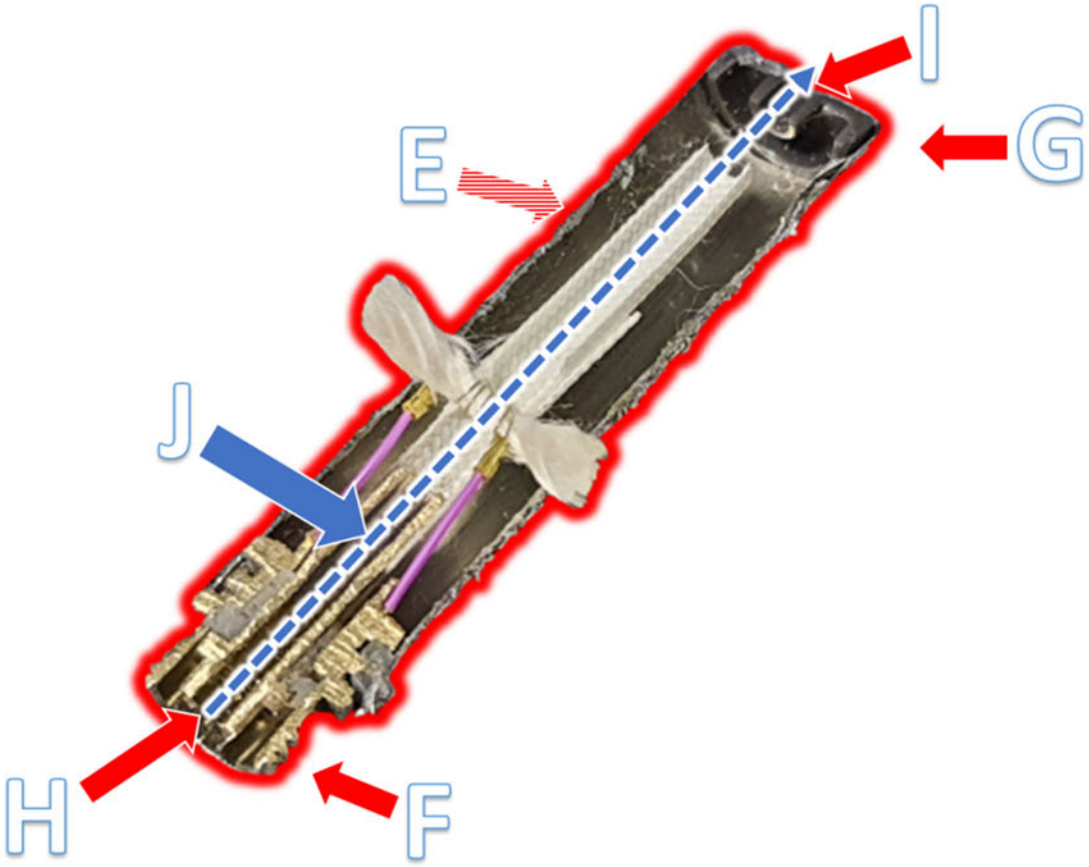


Logic Power Figure 604.1.c.

45. The Logic Power's housing "includes a first end [F] and a second end [G] that is opposite the first end [F], wherein the housing [E] includes a first aperture [H] on the first end [F] and a second aperture [I] on the second end [G]."

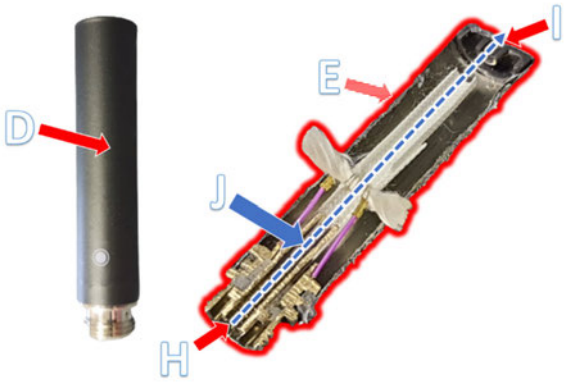
Logic Power Figure 604.1.d.

46. The Logic Power's housing "includes an airflow passageway [J] that extends centrally and axially with respect to the housing [E] intermediate of the first aperture [H] on the first end [F] of the housing and the second aperture [I] on the second end [G] of the housing."



Logic Power Figure 604.1.e.

47. The Logic Power's "airflow passageway [J] is configured to allow art [sic] airflow through the cartridge [D] from the first aperture [H] to the second aperture [I] of the housing [E]."



Logic Power Figure 604.1.f.

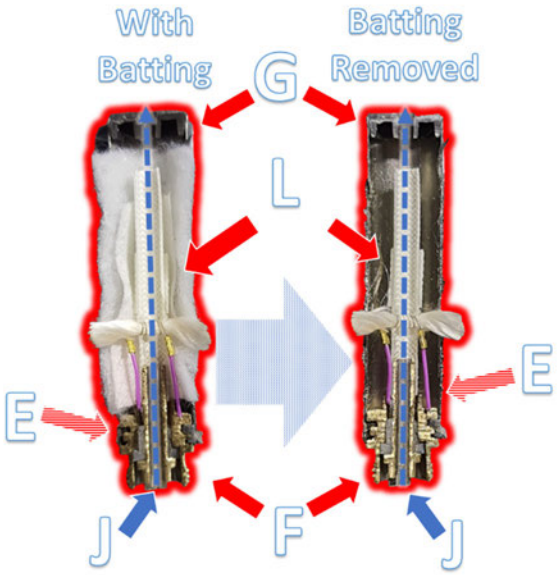
48. The Logic Power has a housing "wherein the first end [F] of the housing [E] includes an electrically conductive threaded portion [K] that is adapted to mechanically and electrically couple to the electrically conductive threaded portion of the power source [C]."

Logic Power Figure 604.1.g.

49. The Logic Power's housing "includes a solution holding medium [L] comprising a solution [M] located in the interior of the housing [E]."

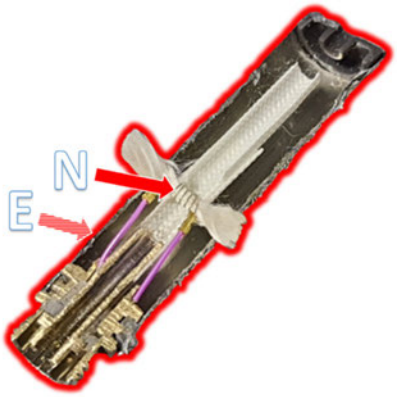
Logic Power Figure 604.1.h.

50. The Logic Power's "solution holding medium [L] surrounds the airflow passageway [J] in the interior of the housing [E] and intermediate of the first end [F] and the second end [G]."



Logic Power Figure 604.1.i.

51. The Logic Power's housing "includes a heating element [N] located in the interior of the housing [E]."



Logic Power Figure 604.1.j.

52. The Logic Power's "heating element [N] 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 [I] responsive to electrical power received from the battery [B] through the electrically conductive threaded portions of the cartridge [K] and power source [C]."

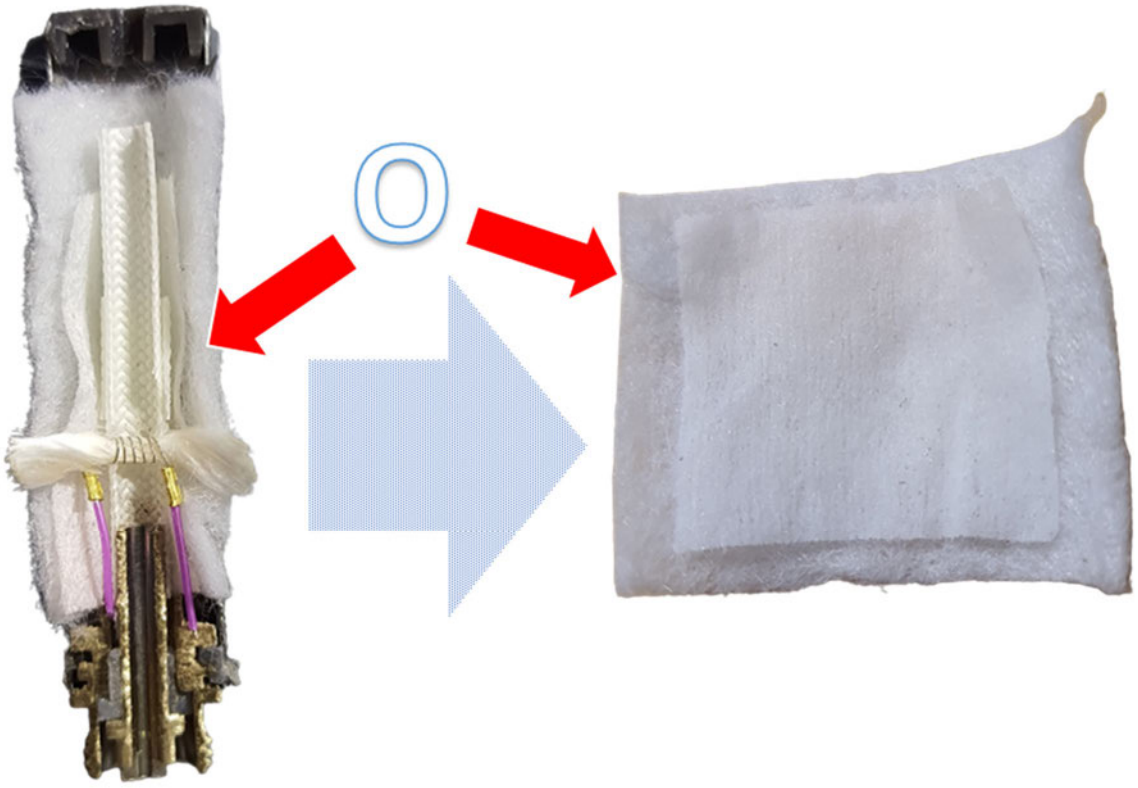
Logic Power Figure 604.1.k.

53. Claim 2 of the ’604 Patent reads as follows:

> **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.

54. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 2 of the ’604 Patent.

55. The Logic Power’s “solution holding medium [L] includes at least one of an absorbent material [O], a chamber, a reservoir, a capsule, or any combination thereof.”



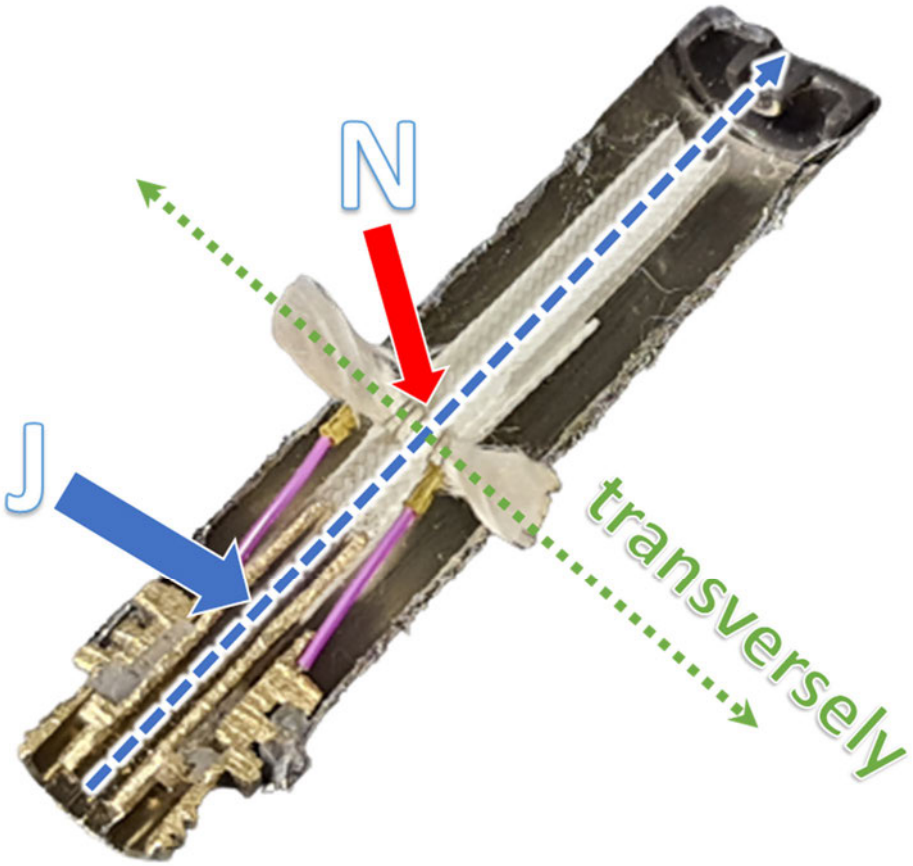
Logic Power Figure 604.2.

56. Claim 4 of the ’604 Patent reads as follows:

> **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.

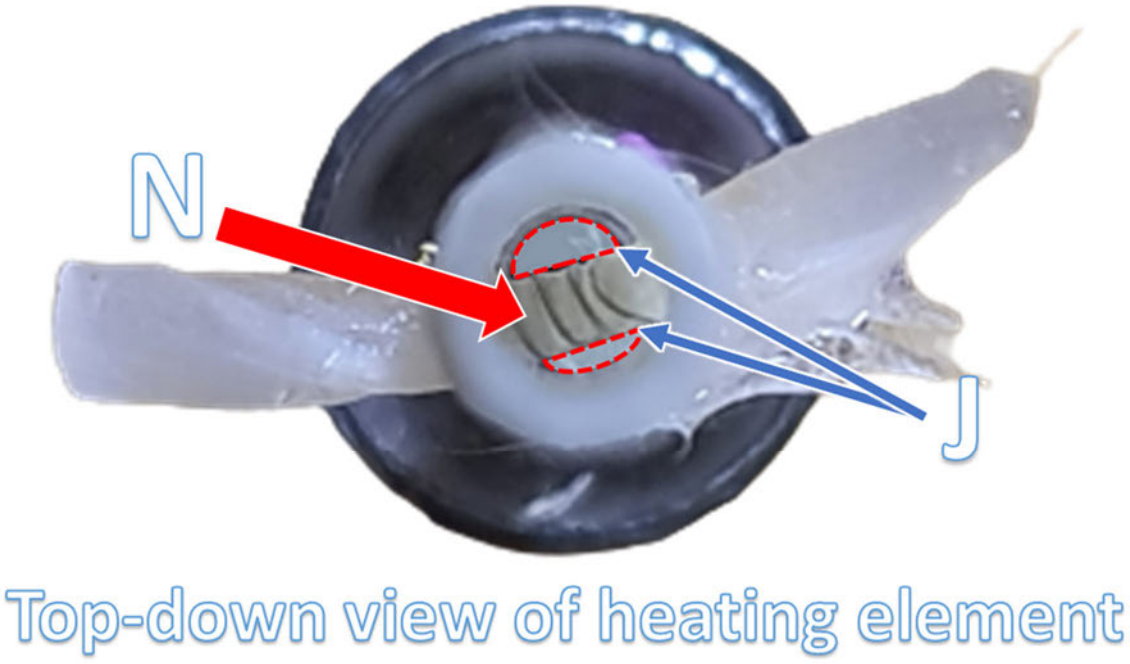
57. As shown in the figures set forth in Paragraphs 58 through 59, the Logic Power meets every limitation recited in Claim 4 of the ’604 Patent.

58. The Logic Power’s “heating element [N] extends transversely across the airflow passageway [J].”



Logic Power Figure 604.4.a.

59. In the Logic Power, "airflow through the passageway [J] passes on both transverse sides of the element [N]."



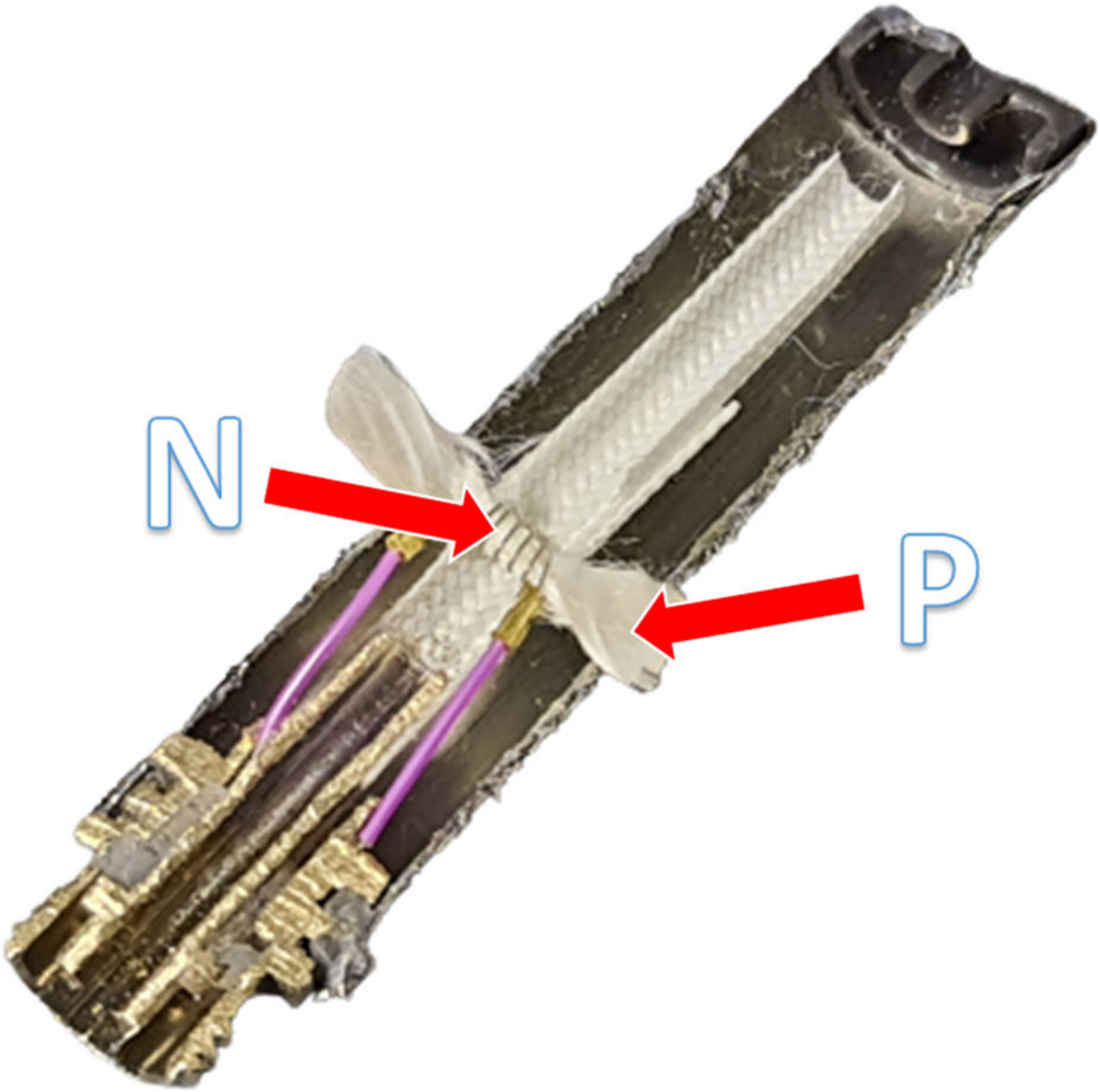
Logic Power Figure 604.4.b.

60. Claim 6 of the '604 Patent reads as follows:

> **6**. The apparatus according to claim **2**, wherein the heating element comprises a wicking material to attract the solution from the solution holding medium to the heating element.

61. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 6 of the '604 Patent.

62. The Logic Power's "heating element [N] comprises a wicking material [P] to attract the solution from the solution holding medium to the heating element [N]."



Logic Power Figure 604.6.

63. Claim 12 of the ’604 Patent reads as follows:

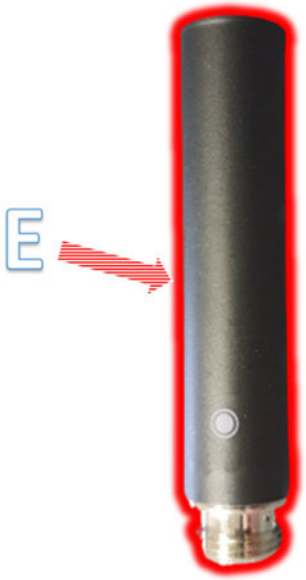
> **12**. An apparatus comprising:
> electronic cigarette cartridge, wherein the electronic cigarette cartridge includes a housing,
> wherein the housing is constructed of a non-metallic material, wherein the housing includes:
> an interior;
> a first end;
> a second end that is opposite the first end;
> a heating element located in the interior of the housing;
> an airflow passageway that extends intermediate of the first end and the second end axially through the interior of the housing along a central longitudinal axis of the housing, 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 threaded portion that is configured to mechanically and electrically couple to a further electrically conductive threaded 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 threaded portion of the cartridge.

64. As shown in the figures set forth in Paragraphs 65 through 76, the Logic Power meets every limitation recited in Claim 12 of the ’604 Patent.

65. The Logic Power has an "electronic cigarette cartridge [D], wherein the electronic cigarette cartridge [D] includes a housing [E]."

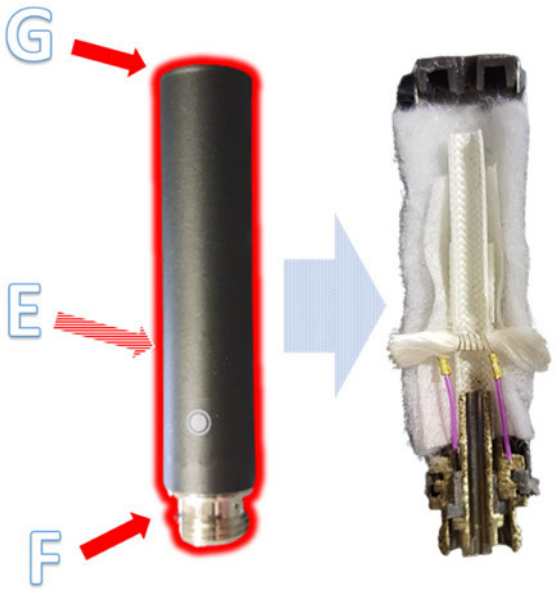
Logic Power Figure 604.12.a.

66. The Logic Power's "housing [E] is constructed of a non-metallic material." The Logic Power has a polymer label and endcap.



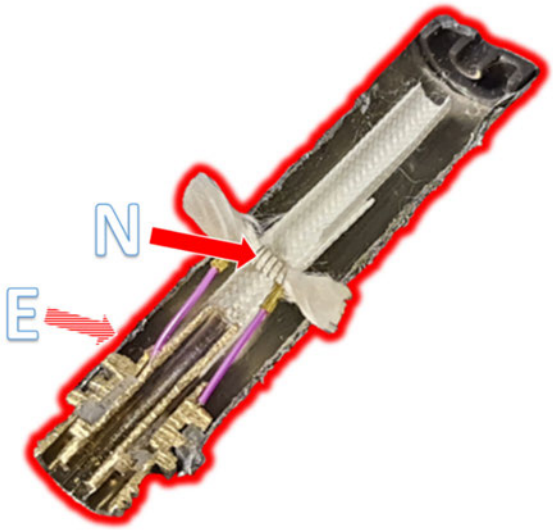
Logic Power Figure 604.12.b.

67. The Logic Power's "housing [E] includes: an interior; a first end [F]; a second end [G] that is opposite the first end [F]."



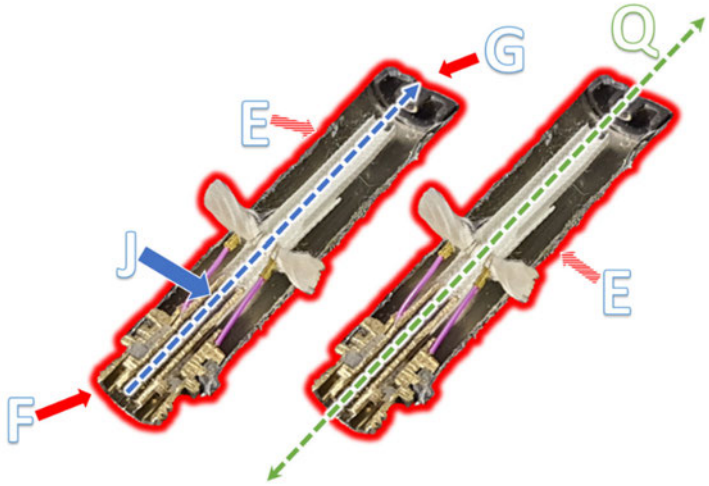
Logic Power Figure 604.12.c.

68. The Logic Power has "a heating element [N] located in the interior of the housing [E]."



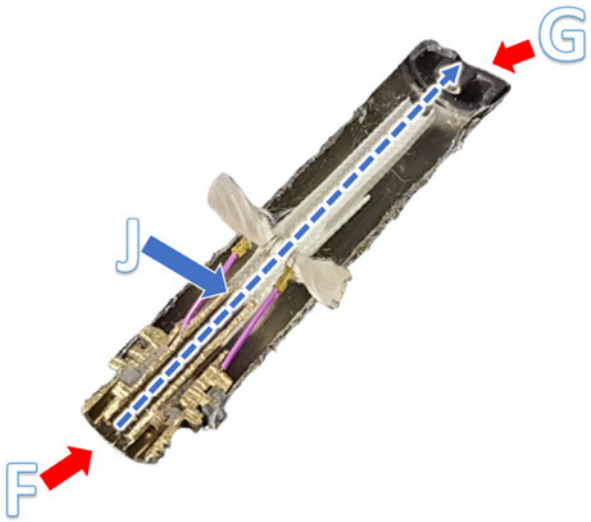
Logic Power Figure 604.12.d.

69. The Logic Power has "an airflow passageway [J] that extends intermediate of the first end [F] and the second end [G] axially through the interior of the housing [E] along a central longitudinal axis [Q] of the housing [E]."



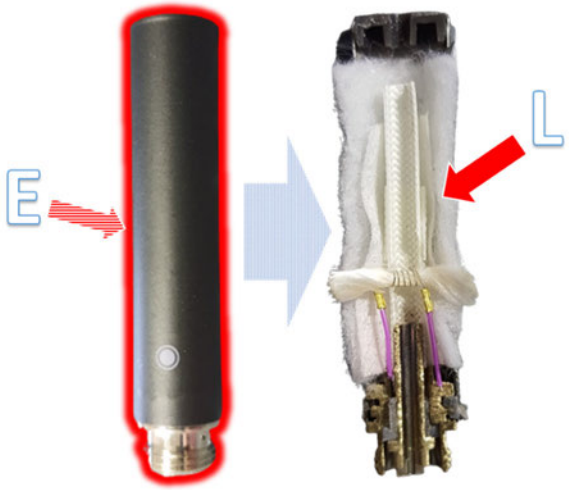
Logic Power Figure 604.12.e.

70. The Logic Power's "airflow passageway [J] enables airflow from the first end [F] to the second end [G]."



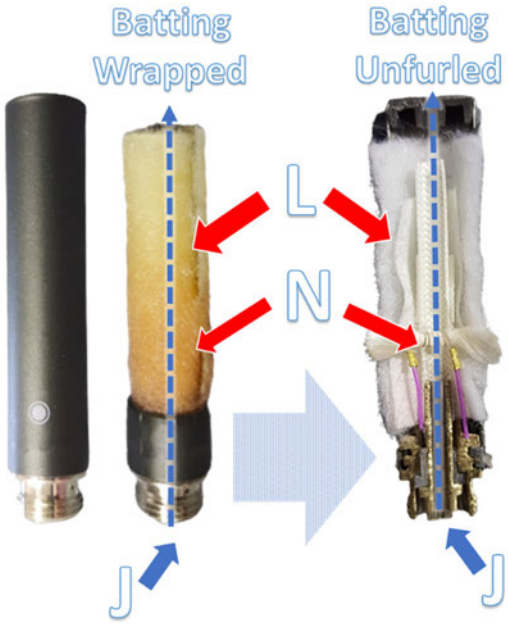
Logic Power Figure 604.12.f.

71. The Logic Power has "a solution holding medium [L] located in the interior of the housing [E]."



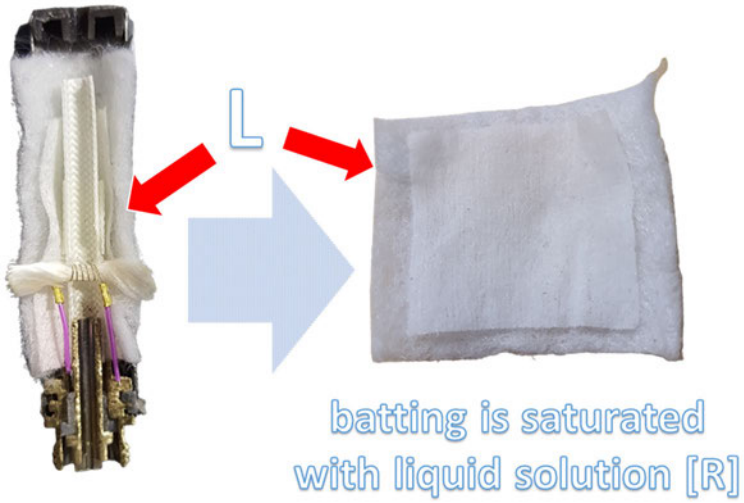
Logic Power Figure 604.12.g.

72. The Logic Power's solution holding "medium [L] extends in surrounding relation of the heating element [N] and the airflow passageway [J]."



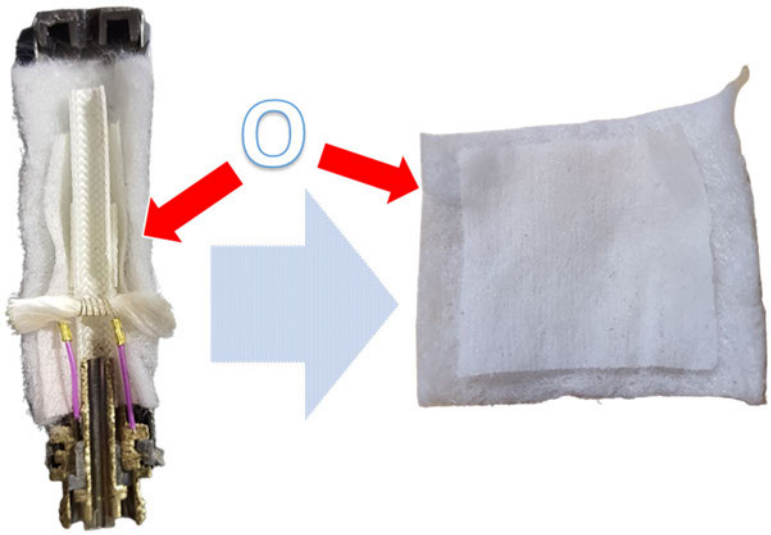
Logic Power Figure 604.12.h.

73. The Logic Power's solution holding "medium [L] includes a liquid solution [R]."



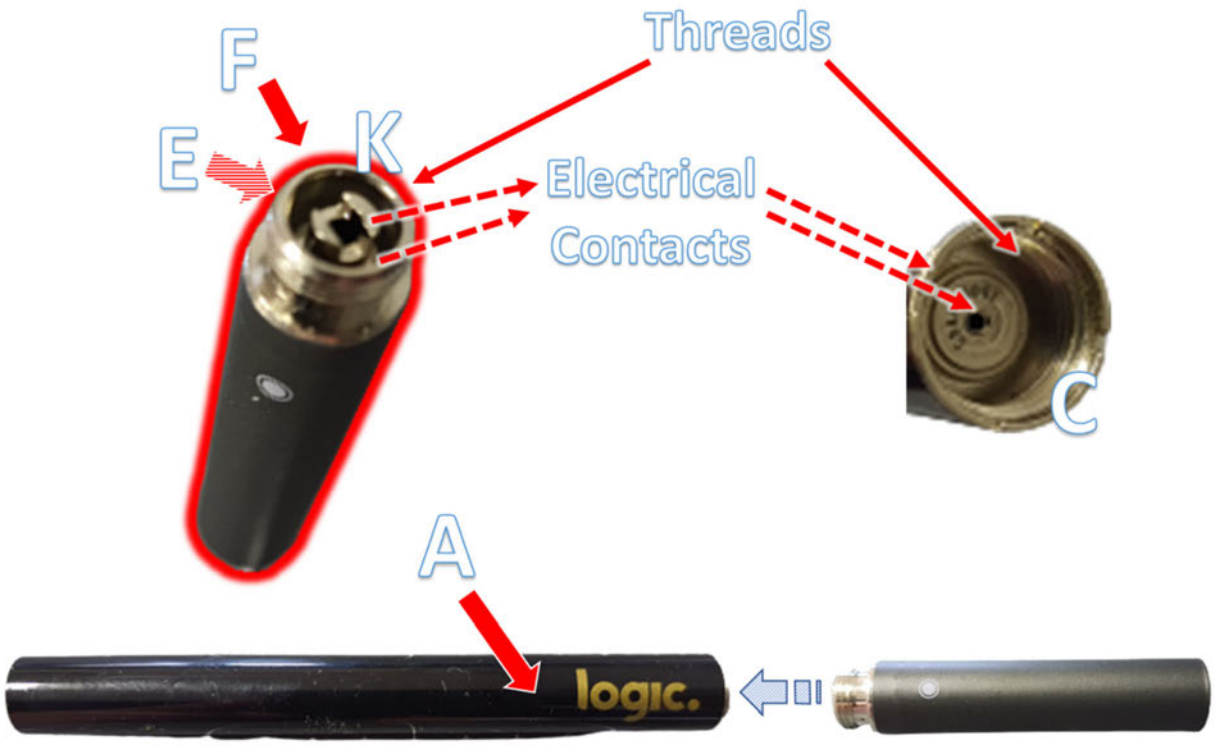
Logic Power Figure 604.12.i.

74. The Logic Power's solution holding "medium includes at least one of an absorbent material [O], a chamber, a reservoir, a capsule, or any combination thereof."



Logic Power Figure 604.12.j.

75. The Logic Power's "first end [F] of the housing [E] includes an electrically conductive threaded portion [K] that is configured to mechanically and electrically couple to a further electrically conductive threaded portion [C] in operative connection with a power source [A]."



Logic Power Figure 604.12.k.

76. The Logic Power's "heating element [N] is configured to vaporize at least a portion of the solution for oral delivery from the second end [G] of the

housing upon receiving current from the power source [A] through the electrically conductive threaded portion of the cartridge [K]."

Logic Power Figure 604.12.l.

77. Claim 13 of the '604 Patent reads as follows:

> **13**. The apparatus according to claim **12**, wherein the solution comprises propylene glycol.

78. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 13 of the '604 Patent.

79. The Logic Power's "solution [M] comprises propylene glycol."

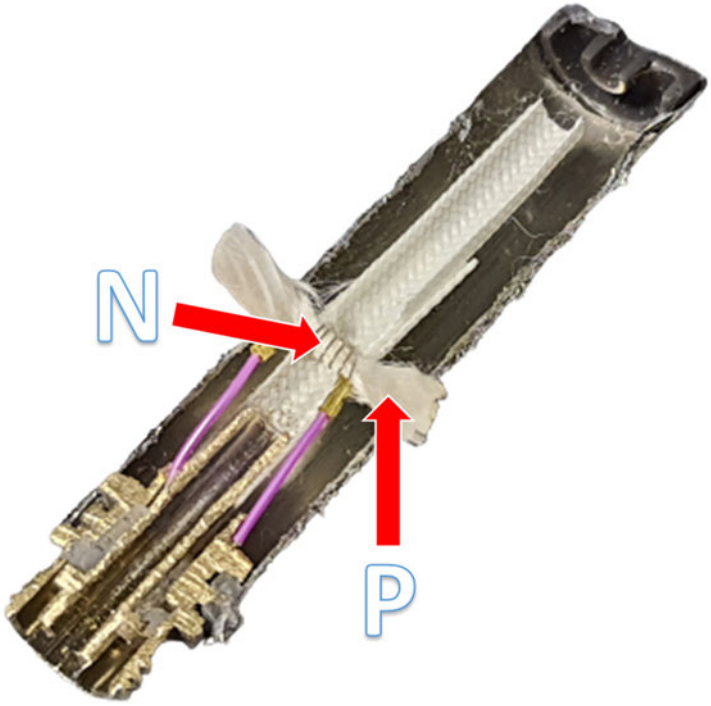
Logic Power Figure 604.13.

80. Claim 14 of the '604 Patent reads as follows:

> **14**. The apparatus according to claim **12**, wherein the heating element comprises a wicking material that is configured to attract the solution from the solution holding medium.

81. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 14 of the '604 Patent.

82. The Logic Power's "heating element [N] comprises a wicking material [P] that is configured to attract the solution from the solution holding medium."



Logic Power Figure 604.14.

83. Claim 15 of the '604 Patent reads as follows:

> **15**. The apparatus according to claim **12**, wherein the non-metallic material is one of a polymer or a ceramic.

84. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 15 of the '604 Patent.

85. The Logic Power's housing [E] is constructed of a non-metallic material "wherein the non-metallic material is one of a polymer or a ceramic." The Logic Power has a polymer label and endcap.

Logic Power Figure 604.15.

86. Claim 16 of the '604 Patent reads as follows:

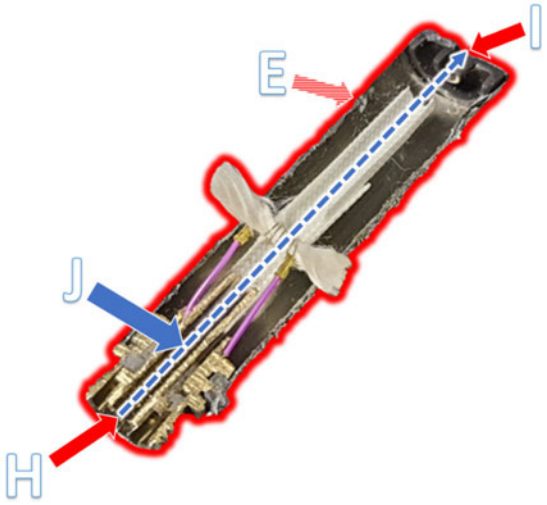
> **16**. The apparatus according to claim **12**, wherein the first end comprises a centrally located first aperture and the second end comprises a centrally located second aperture, wherein the airflow passageway extends between the first aperture and the second aperture axially through the interior 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.

87. As shown in the figures set forth in Paragraphs 88 through 91, the Logic Power meets every limitation recited in Claim 16 of the '604 Patent.

88. The Logic Power's "first end [F] comprises a centrally located first aperture [H] and the second end [G] comprises a centrally located second aperture [I]."

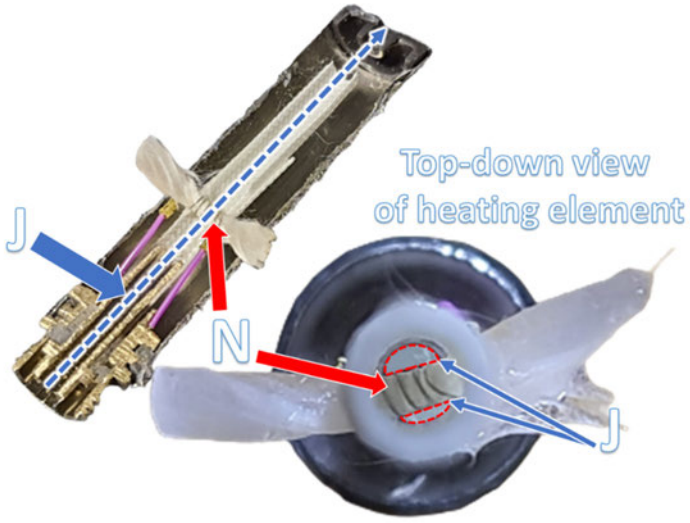
Logic Power Figure 604.16.a.

89. The Logic Power's "airflow passageway [J] extends between the first aperture [H] and the second aperture [I] axially through the interior of the housing [E]."



Logic Power Figure 604.16.b.

90. In the Logic Power, "at least a portion of the heating element [N] extends in the airflow passageway [J]."



Logic Power Figure 604.16.c.

91. In the Logic Power, "no portion of the solution holding medium [L] intersects the central longitudinal axis [Q]."

Logic Power Figure 604.16.d.

92. Claim 18 of the ’604 Patent reads as follows:

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

93. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 18 of the ’604 Patent.

94. The Logic Power further comprises “the power source [A].”

Logic Power Figure 604.18.

SECOND CLAIM FOR RELIEF:
INFRINGEMENT OF U.S. PATENT NO. 10,334,881

95. Fuma hereby realleges each allegation set forth in the paragraphs above as though fully set forth herein.

96. Upon information and belief, Defendant had both actual and constructive knowledge of the ’881 Patent soon after issuance based on Fuma’s marking of its products with the ’881 Patent number.

97. Defendant has had actual knowledge that its activities constitute infringement of the ’881 Patent no later than the notice letter sent to Defendant on June 3, 2022 and/or the filing of this Complaint.

98. Defendant has directly infringed the ’881 Patent in violation of at least 35 U.S.C. § 271(a) by, itself and/or through its agents, unlawfully and wrongfully making, using, importing, offering to sell, and/or selling vaporizing device products embodying one or more of the inventions claimed in the ’881 Patent, within, from and/or into the United States without permission or license from Plaintiff, and will continue to do so unless enjoined by this Court.

99. The vaporizing products that directly infringe the ’881 Patent include the Logic Power Electronic Cigarette.

100. The images of the products set forth herein accurately show the features of those products.

101. The accused products infringe the ’881 patent literally and/or under the doctrine of equivalents.

102. The Logic Power Electronic Cigarette product infringes at least claims 1, 2, 3, 5, 6, 8, 9, 11, 13, 14, 16, 17, 18, 19, 22, 24, 25, and 26 of Fuma’s ’881 Patent.

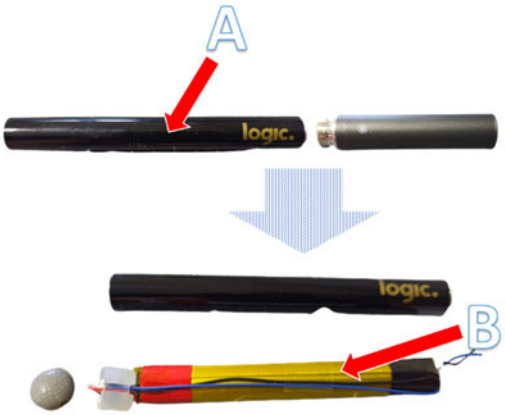
Direct Infringement of '881 Patent: Logic Power

103. Claim 1 of the '881 Patent reads as follows:

> **1**. 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.

104. As shown in the figures set forth in Paragraphs 105 through 117, the Logic Power Electronic Cigarette meets every limitation recited in Claim 1 of the '881 Patent.

105. The Logic Power has "a power source [A], wherein the power source [A] includes a battery [B]."

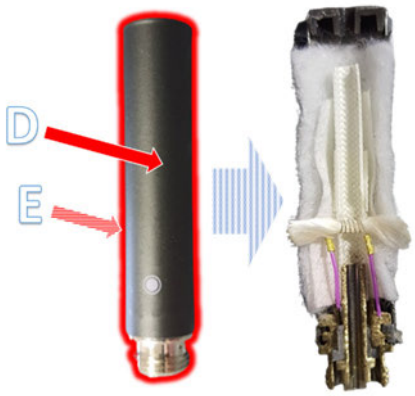


Logic Power Figure 881.1.a.

106. In the Logic Power Electronic Cigarette, "the power source [A] includes an electrically conductive portion [C]."

Logic Power Figure 881.1.b.

107. The Logic Power Electronic Cigarette includes "a cartridge [D] having a housing [E] that comprises an interior."

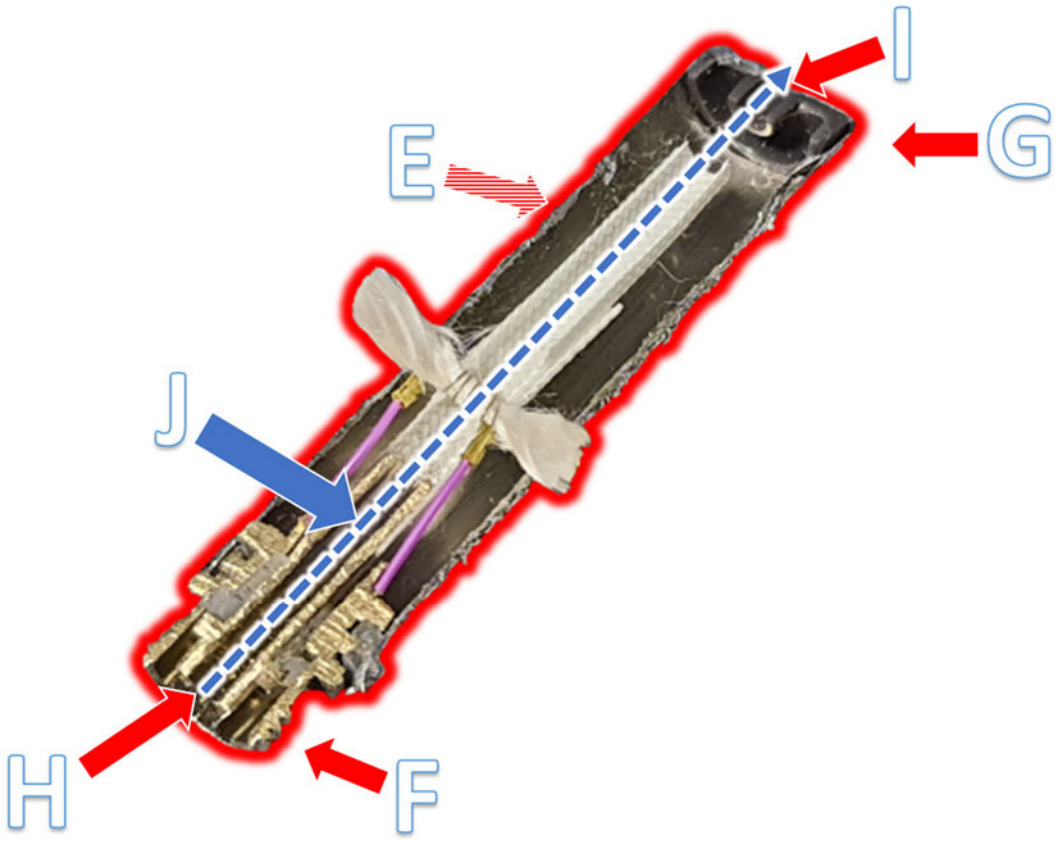


Logic Power Figure 881.1.c.

108. The Logic Power's housing "includes a first end [F] and a second end [G] that is opposite the first end [F], wherein the housing [E] includes a first aperture [H] on the first end [F] and a second aperture [I] on the second end [G]."

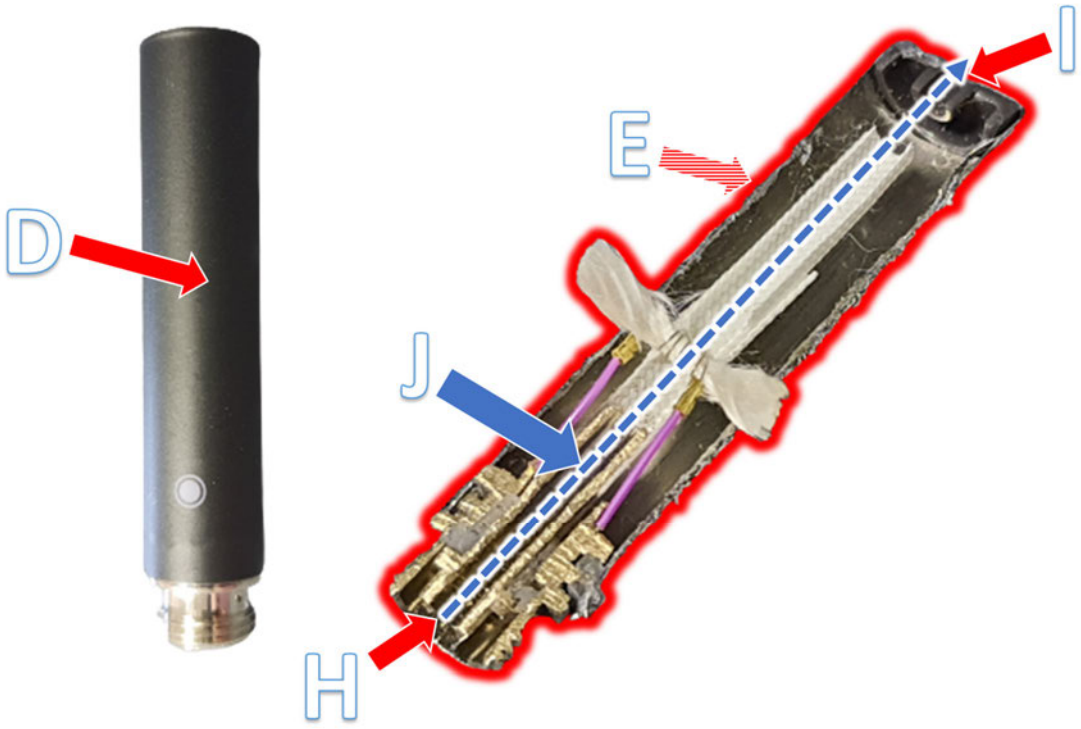
Logic Power Figure 881.1.d.

109. The Logic Power's housing "includes an airflow passageway [J] that extends centrally and axially with respect to the housing [E] intermediate of the first aperture [H] on the first end [F] of the housing and the second aperture [I] on the second end [G] of the housing."



Logic Power Figure 881.1.e.

110. In the Logic Power, "the airflow passageway [J] is configured to allow an airflow through the cartridge [D] from the first aperture [H] to the second aperture [I] of the housing [E]."

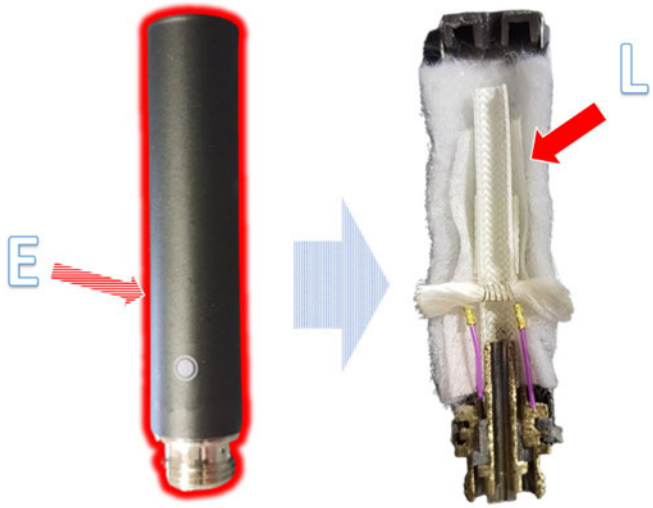


Logic Power Figure 881.1.f.

111. In the Logic Power has a housing "the first end [F] of the housing [E] includes an electrically conductive portion [K] that is adapted to mechanically and electrically couple to the electrically conductive portion of the power source [C]."

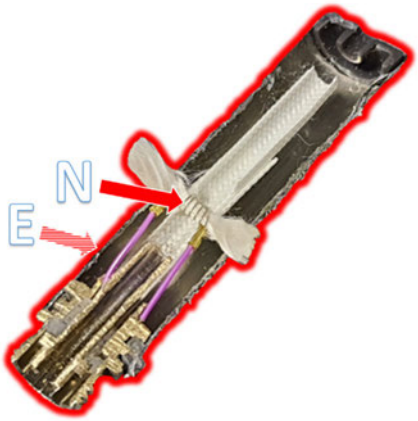
Logic Power Figure 881.1.g.

112. In the Logic Power, "the housing [E] includes a solution holding medium [L] adapted to hold a solution in the interior of the housing".



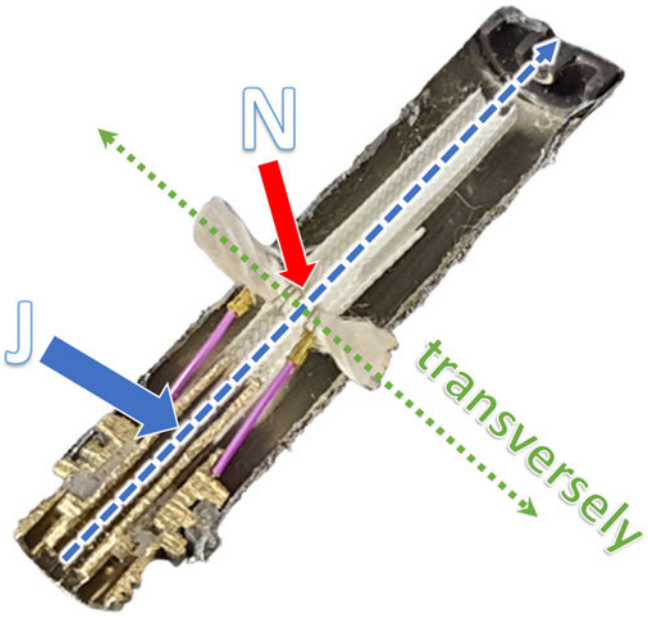
Logic Power Figure 881.1.h.

113. In the Logic Power, "the housing [E] includes a heating element [N] located in the interior of the housing."



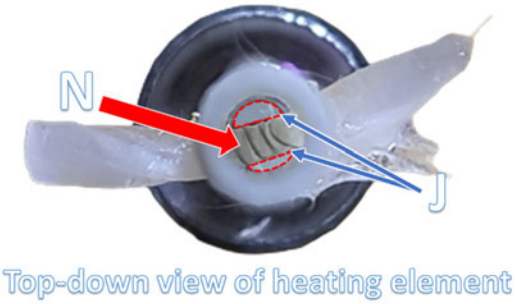
Logic Power Figure 881.1.i.

114. In the Logic Power, "the heating element [N] extends transversely across the airflow passageway [J]."



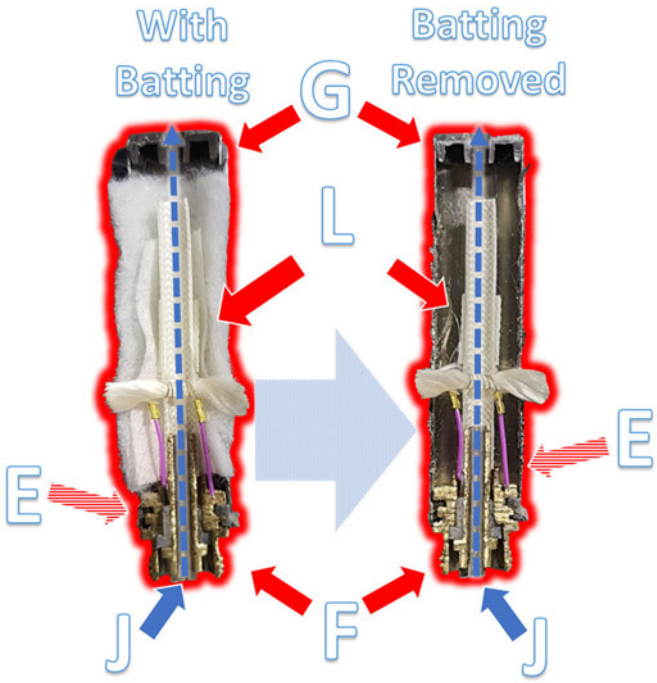
Logic Power Figure 881.1.j.

115. In the Logic Power, "the airflow through the passageway [J] passes on both transverse sides of the element [N]"



Logic Power Figure 881.1.k.

116. In the Logic Power "the solution holding medium [L] surrounds the airflow passageway [J] and the heating element [N] in the interior of the housing [E] and intermediate of the first end [F] and the second end [G]."



Logic Power Figure 881.1.l.

117. In the Logic Power, "the heating element [N] 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 [I] responsive to electrical power received from the battery [B] through the electrically conductive portions of the cartridge [K] and the power source [C]."

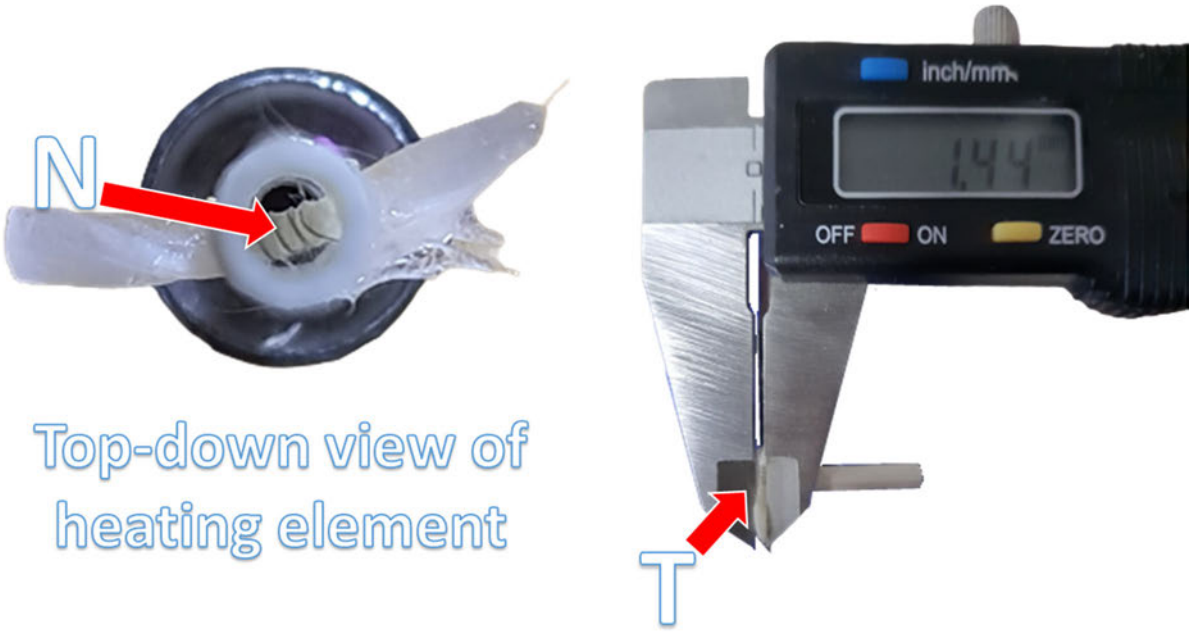
Logic Power Figure 881.1.m.

118. Claim 2 of the ’881 Patent reads as follows:

> **2**. The cartridge of claim **1**, wherein the heating element is a coil having a maximum diameter, the airflow passage-way 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 passage-way.

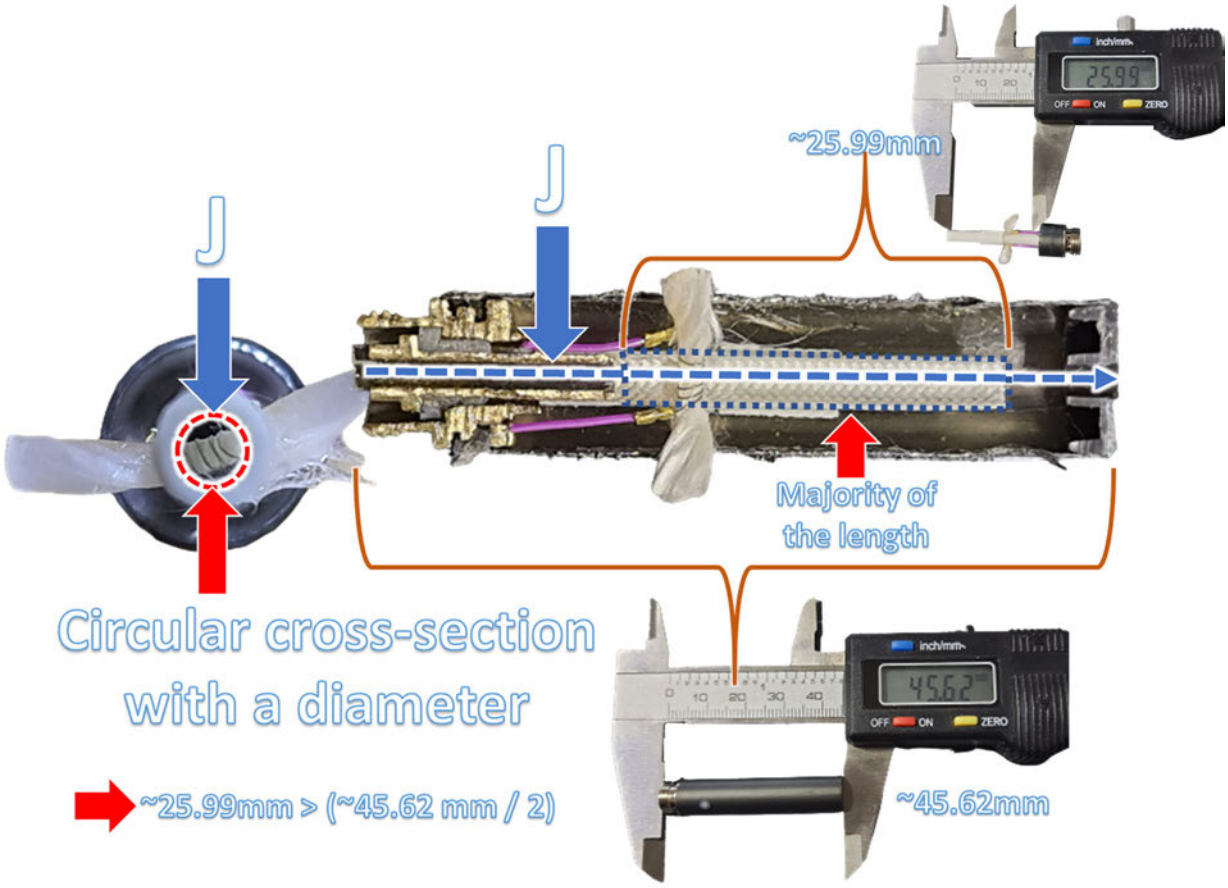
119. As shown in the figures set forth in Paragraphs 120 through 122, the Logic Power meets every limitation recited in Claim 3 of the ’881 Patent.

120. In the Logic Power, “the heating element [N] is a coil [T] having a maximum diameter.”



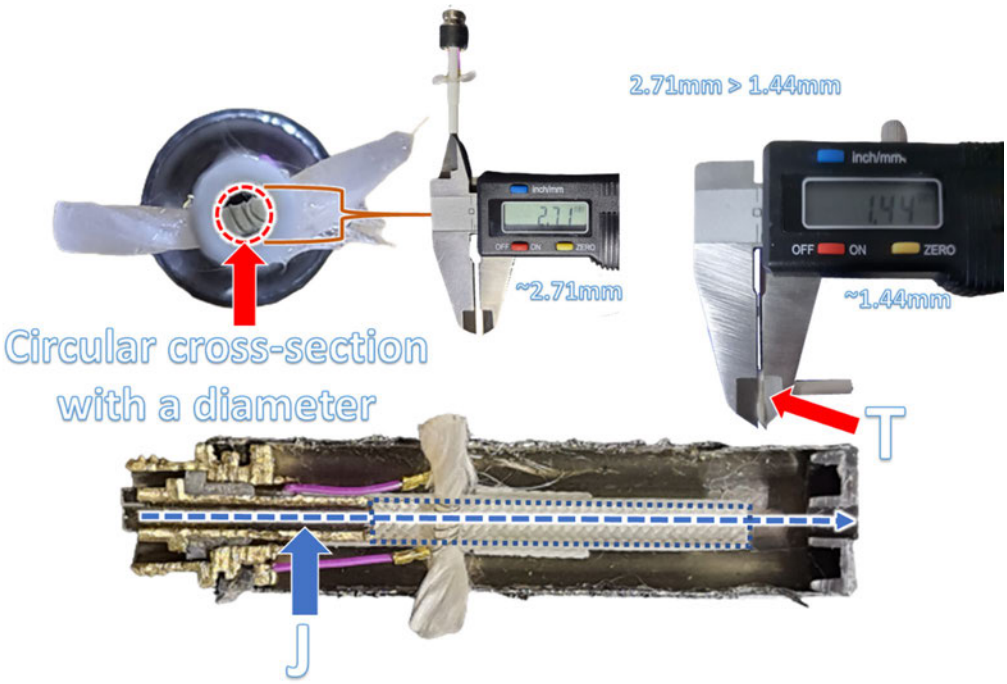
Logic Power Figure 881.2.a.

121. The Logic Power has, "the airflow passageway [J] having a length having a circular cross section having a diameter along a majority of the length."



Logic Power Figure 881.2.b.

122. The Logic Power has "the maximum diameter of the coil [T] being smaller than the diameter of the circular cross section of the length of the airflow passageway [J]."



Logic Power Figure 881.2.c.

123. Claim 3 of the '881 Patent reads as follows:

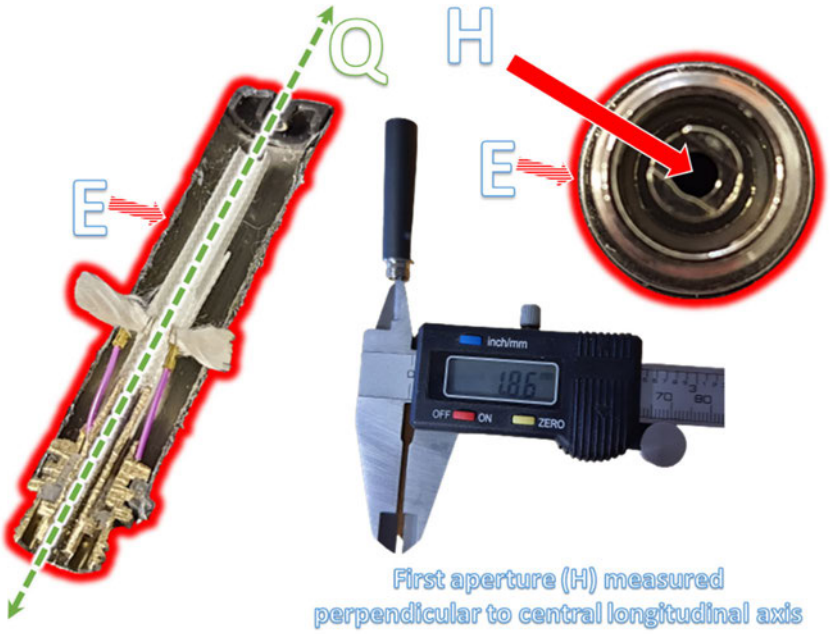
> **3**. The cartridge of claim **2**, wherein the first aperture on the first end is located centrally and axially with respect to the housing, the first aperture having a cross-sectional area measured perpendicular to a central longitudinal axis of the housing, the interior of the airflow passageway between the heating element and the second aperture being no smaller in cross-sectional area than the cross-sectional area of the first aperture.

124. As shown in the figures set forth in Paragraphs 125 through 127, the Logic Power meets every limitation recited in Claim 3 of the '881 Patent.

125. In the Logic Power, "the first aperture [H] on the first end [F] is located centrally and axially with respect to the housing [E]."

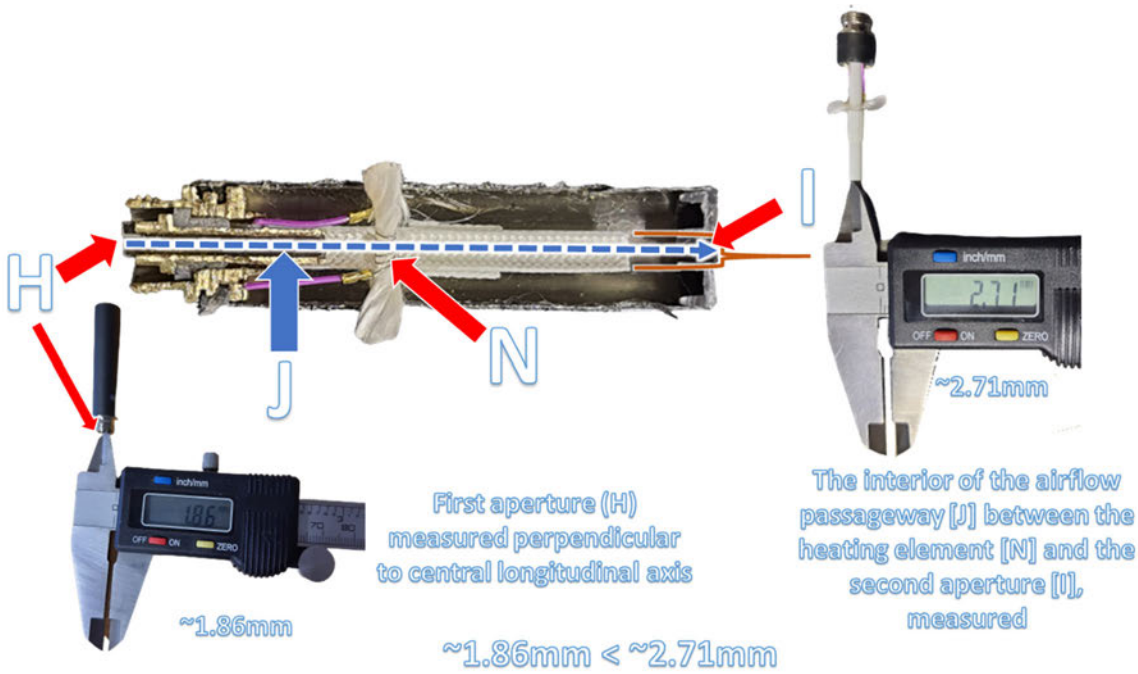
Logic Power Figure 881.3.a.

126. The Logic Power has "the first aperture [H] having a cross-sectional area measured perpendicular to a central longitudinal axis [Q] of the housing."



Logic Power Figure 881.3.b.

127. The Logic Power has "the interior of the airflow passageway [J] between the heating element [N] and the second aperture [I] being no smaller in cross-sectional area than the cross-sectional area of the first aperture [H]."



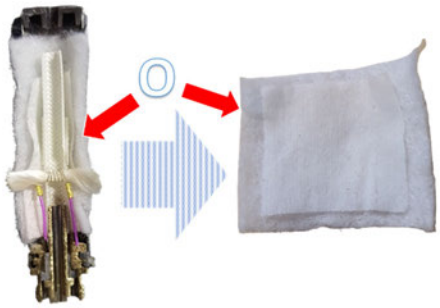
Logic Power Figure 881.3.c.

128. Claim 5 of the '881 Patent reads as follows:

> **5**. The cartridge of claim **1**, wherein the solution holding medium includes at least one of an absorbent material and a reservoir.

129. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 5 of the '881 Patent.

130. In the Logic Power, "the solution holding medium [L] includes at least one of an absorbent material [O] and a reservoir [S]."



Logic Power Figure 881.5.

131. Claim 6 of the '881 Patent reads as follows:

> **6**. The cartridge of claim **1**, further comprising a solution in the solution holding medium, the solution comprising one of propylene glycol and nicotine.

132. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 6 of the '881 Patent.

133. The Logic Power has "a solution [M] in the solution holding medium [L], the solution [M] comprising one of propylene glycol and nicotine."

Logic Power Figure 881.6.

134. Claim 8 of the ’881 Patent reads as follows:

> **8**. 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.

135. As shown in the figures set forth in Paragraphs 136 through 146, the Logic Power meets every limitation recited in Claim 8 of the ’881 Patent.

136. To the extent the preamble of Claim 8 is limiting, the Logic Power has "[a] cartridge [D] configured to mechanically and electrically couple to a power source [A] of an electronic vaporizer."

Logic Power Figure 881.8.pre.

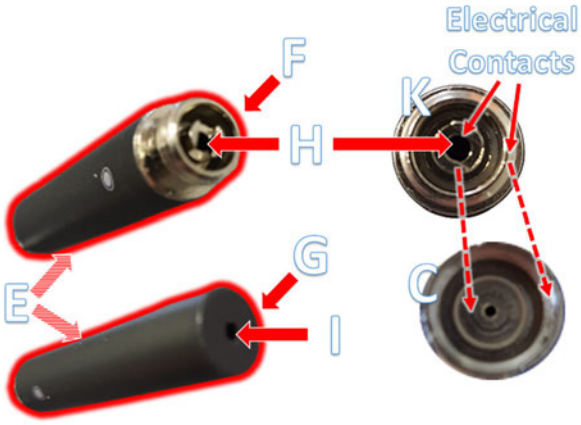
137. The Logic Power has "a housing [E] having an interior and a solution holding medium reservoir [S] adapted to hold a solution [M]."

Logic Power Figure 881.8.a.

138. The Logic Power has "the housing [E] having a first end [F] and a second end [G] that is opposite the first end [F]."

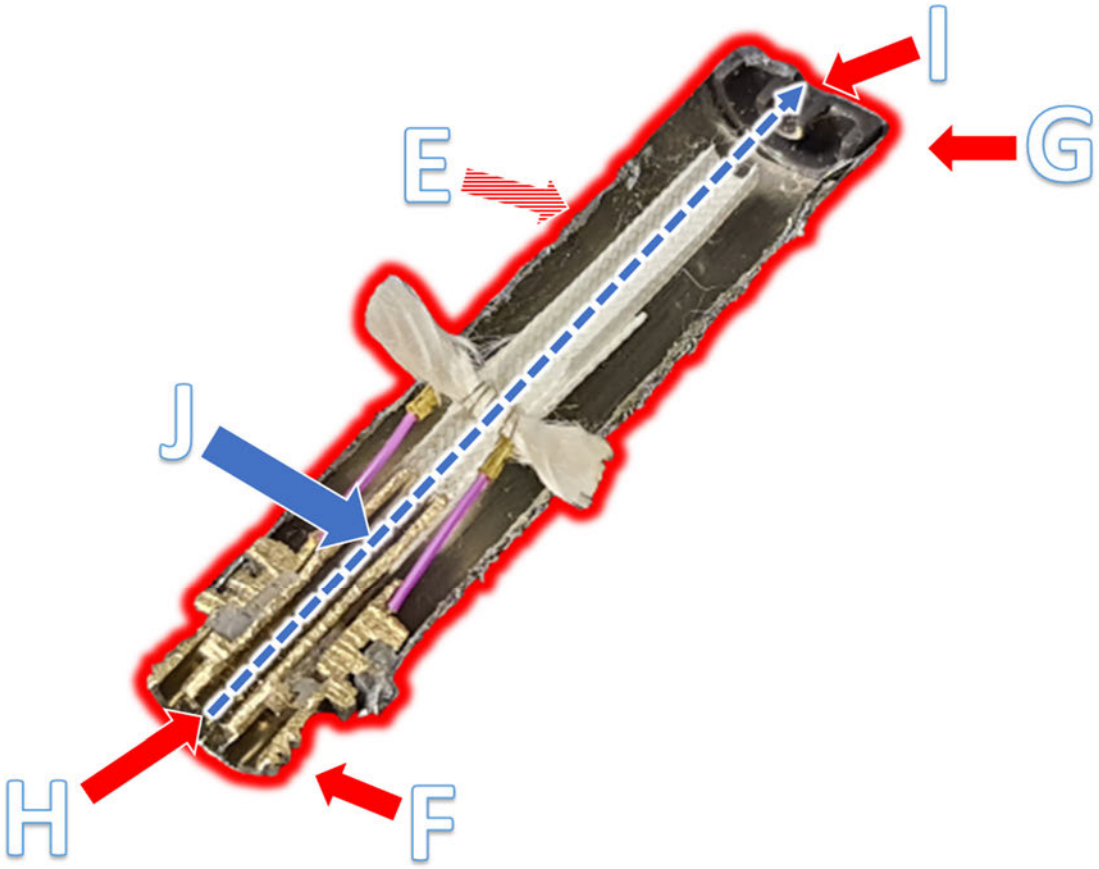
Logic Power Figure 881.8.b.

139. The Logic Power has "the housing [E] having a first aperture [H] on the first end [F] and a second aperture [I] on the second end [G], the first end [F] of the housing [E] having an electrically conductive portion [K] adapted to mechanically and electrically couple to the electrically conductive portion of the power source [C]."



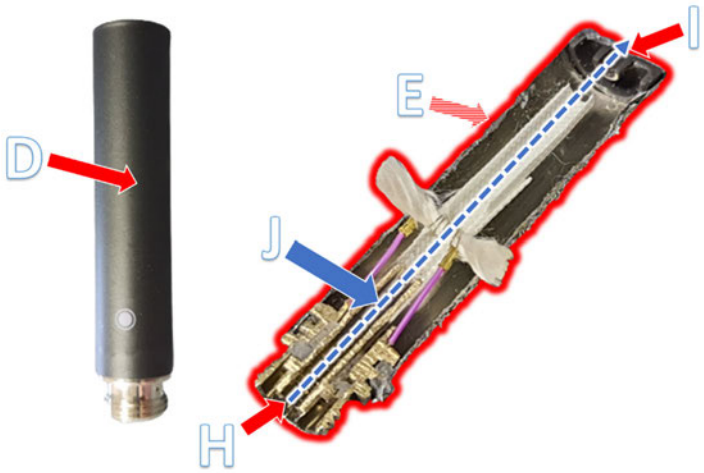
Logic Power Figure 881.8.c.

140. The Logic Power has "an airflow passageway [J] in the interior of the housing [E] extending centrally and axially with respect to the housing [E] intermediate of the first aperture [H] on the first end [F] of the housing [E] and the second aperture [I] on the second end [G] of the housing [E]."



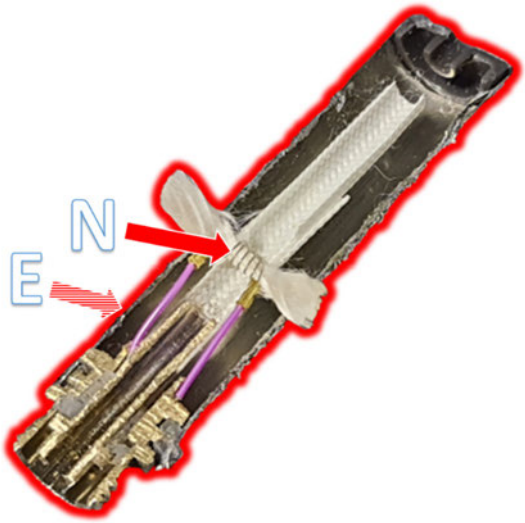
Logic Power Figure 881.8.d.

141. The Logic Power has "the airflow passageway [J] being configured to allow an airflow through the cartridge [D] from the first aperture [H] to the second aperture [I] of the housing [E]."



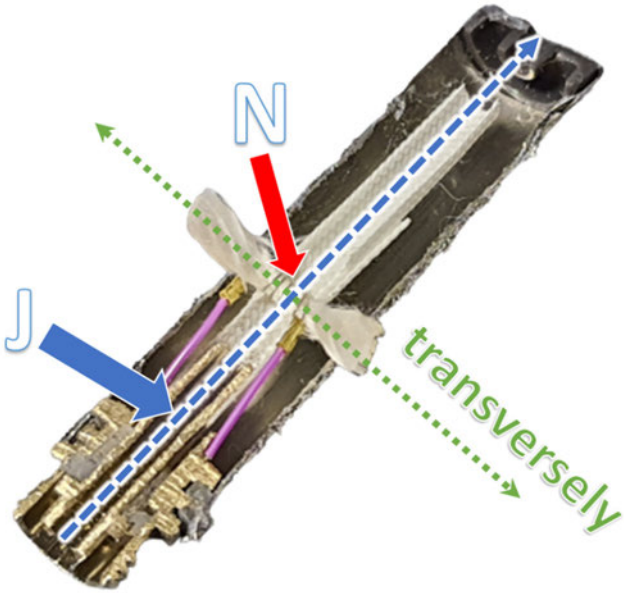
Logic Power Figure 881.8.e.

142. The Logic Power has "a heating element [N] located in the interior of the housing [E]."



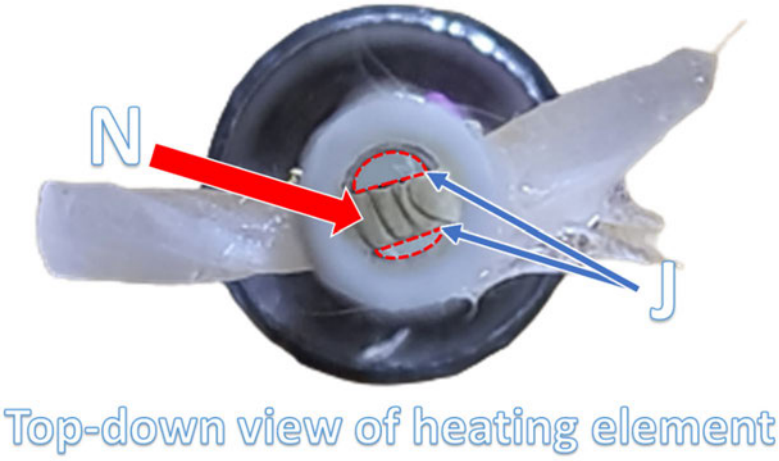
Logic Power Figure 881.8.f.

143. The Logic Power has "the heating element [N] being located within and extending transversely across the airflow passageway [J]."



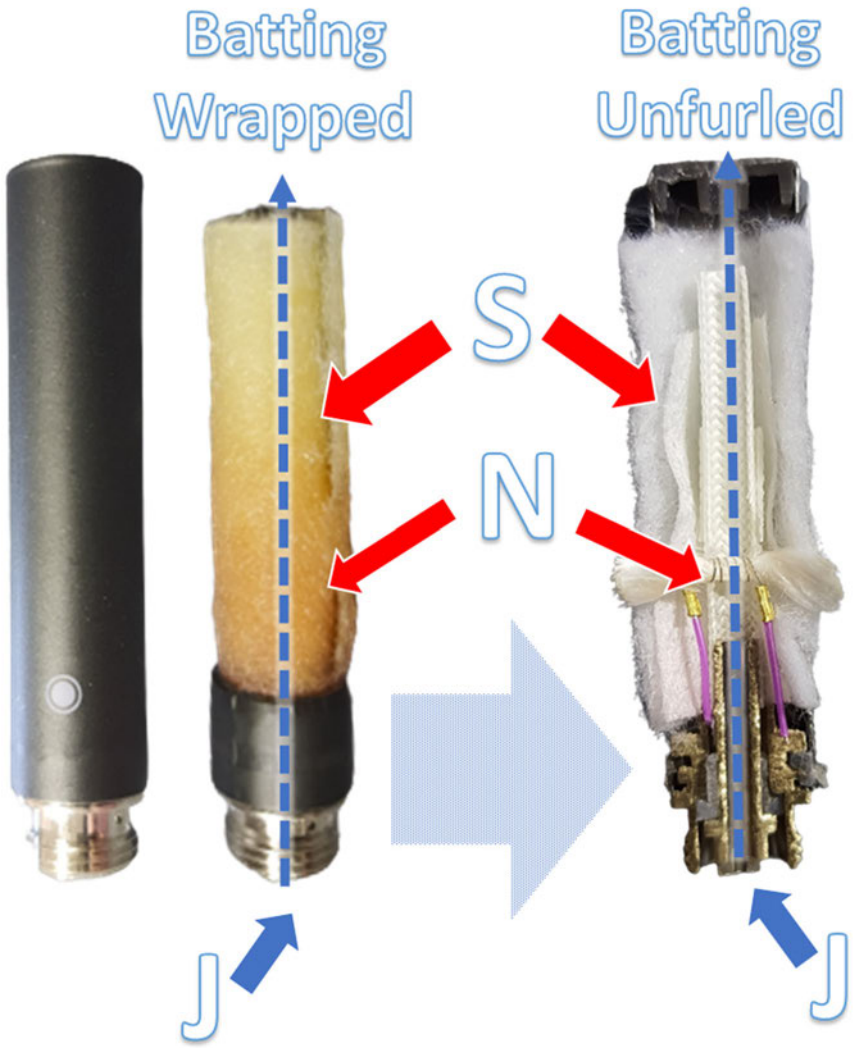
Logic Power Figure 881.8.g.

144. The Logic Power has "the airflow through the passageway [J] passing on both transverse sides of the heating element [N],"



Logic Power Figure 881.8.h.

145. The Logic Power has "both the heating element [N] and the airflow passageway [J] being surrounded by the solution holding medium reservoir [S]."



Logic Power Figure 881.8.i.

146. The Logic Power has "the heating element [N] being electrically configured to vaporize at least a portion of the solution to be contained in the solution holding medium reservoir [S] for oral provision to an individual in an

airflow from the second aperture [I] responsive to electrical power received from the battery [B] through the electrically conductive portions of the cartridge [K] and the power source [C]."

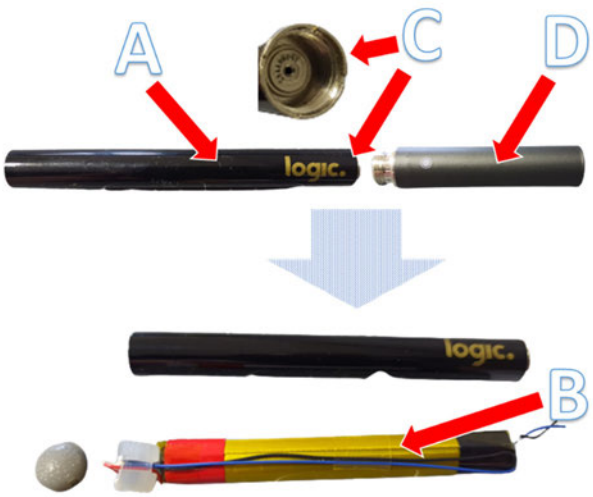
Logic Power Figure 881.8.j.

147. Claim 9 of the '881 Patent reads as follows:

> **9**. The cartridge of claim **8**, 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.

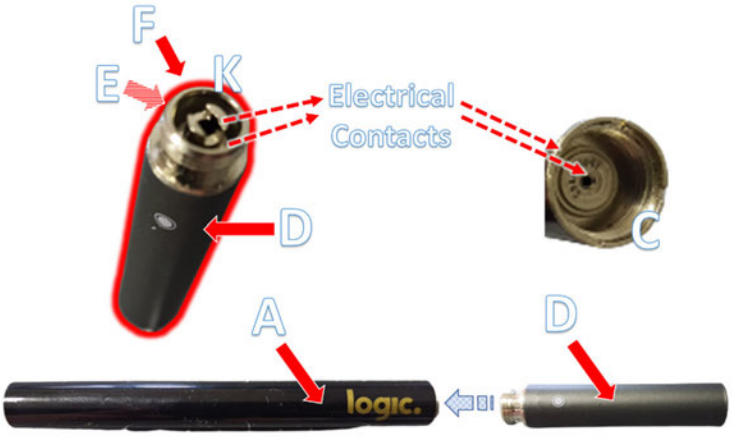
148. As shown in the figures set forth in Paragraphs 149 through 150, the Logic Power meets every limitation recited in Claim 9 of the '881 Patent.

149. The Logic Power has a cartridge [D] "further in combination with the power source [A] including a battery [B] and the electrically conductive portion [C],"



Logic Power Figure 881.9.a.

150. The Logic Power has a cartridge [D] with "the electrically conductive portion [C] of the power source [A] being mechanically and electrically coupled to the electrically conductive portion [K] of the first end [F] of the housing [E]."



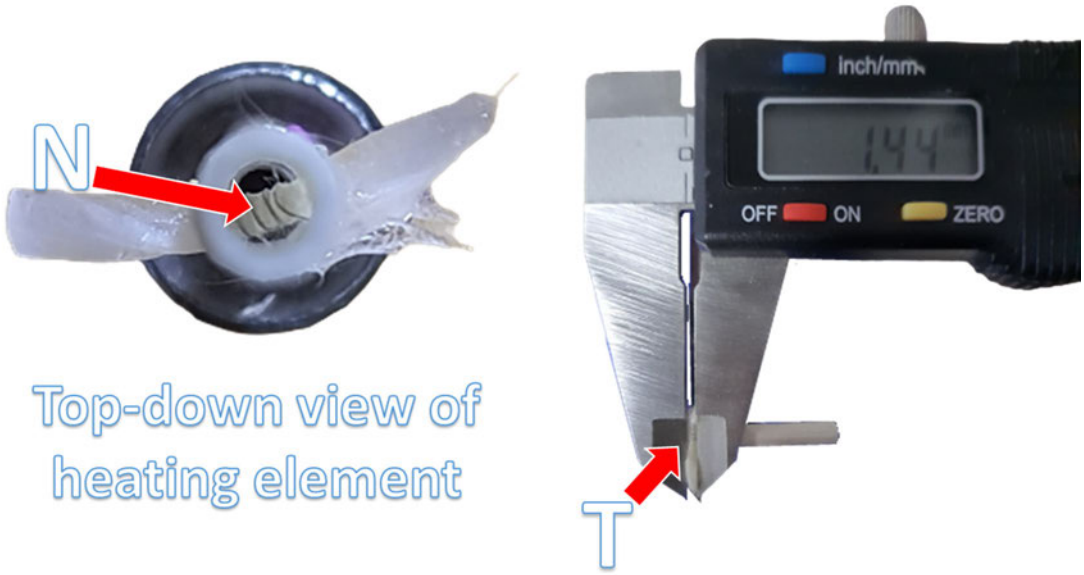
Logic Power Figure 881.9.b.

151. Claim 10 of the ’881 Patent reads as follows:

> **10**. The cartridge of claim **9**, wherein the heating element is a coil having a maximum diameter, the airflow passage-way 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 passage-way.

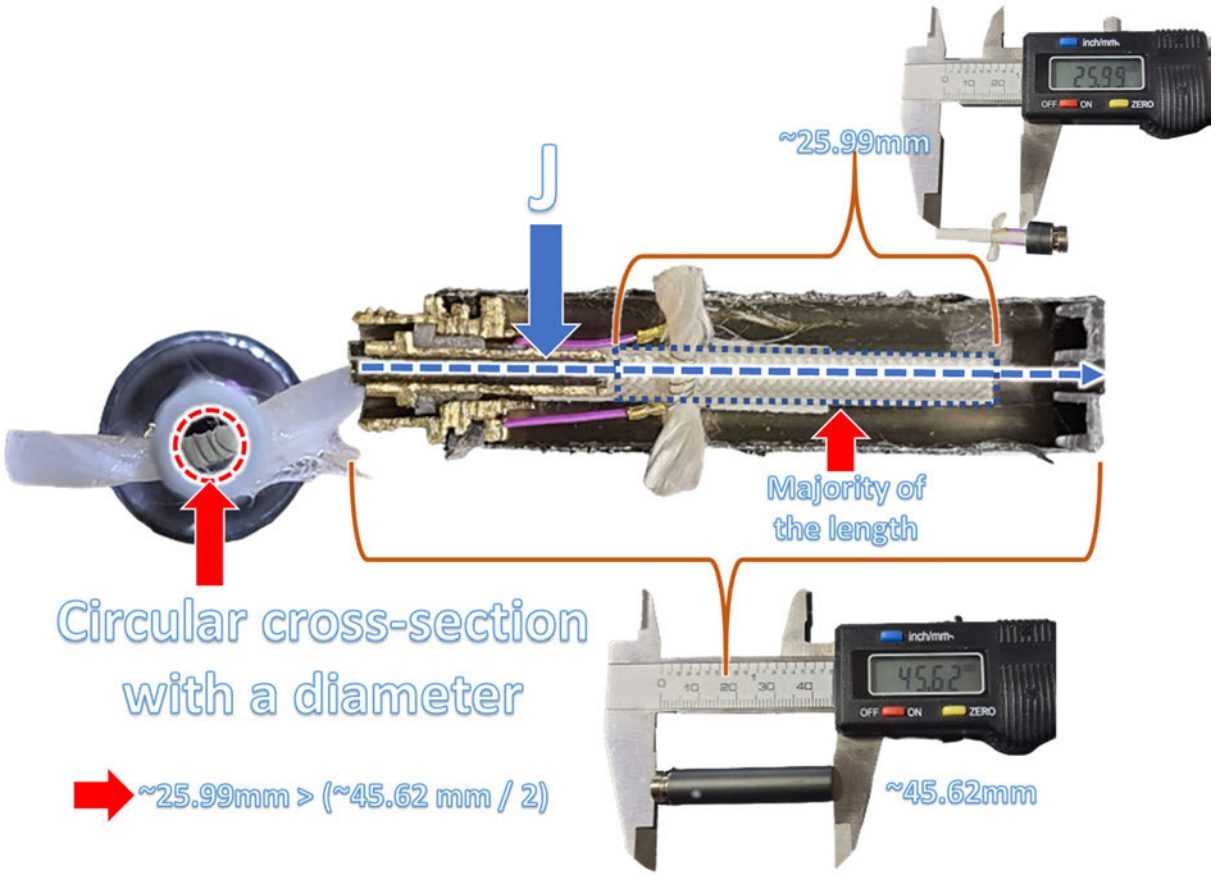
152. As shown in the figures set forth in Paragraphs 153 through 155, the Logic Power meets every limitation recited in Claim 10 of the ’881 Patent.

153. The Logic Power has “[t]he cartridge of claim 9, wherein the heating element [N] is a coil [T] having a maximum diameter” as recited in Claim 10 of the ’881 Patent.



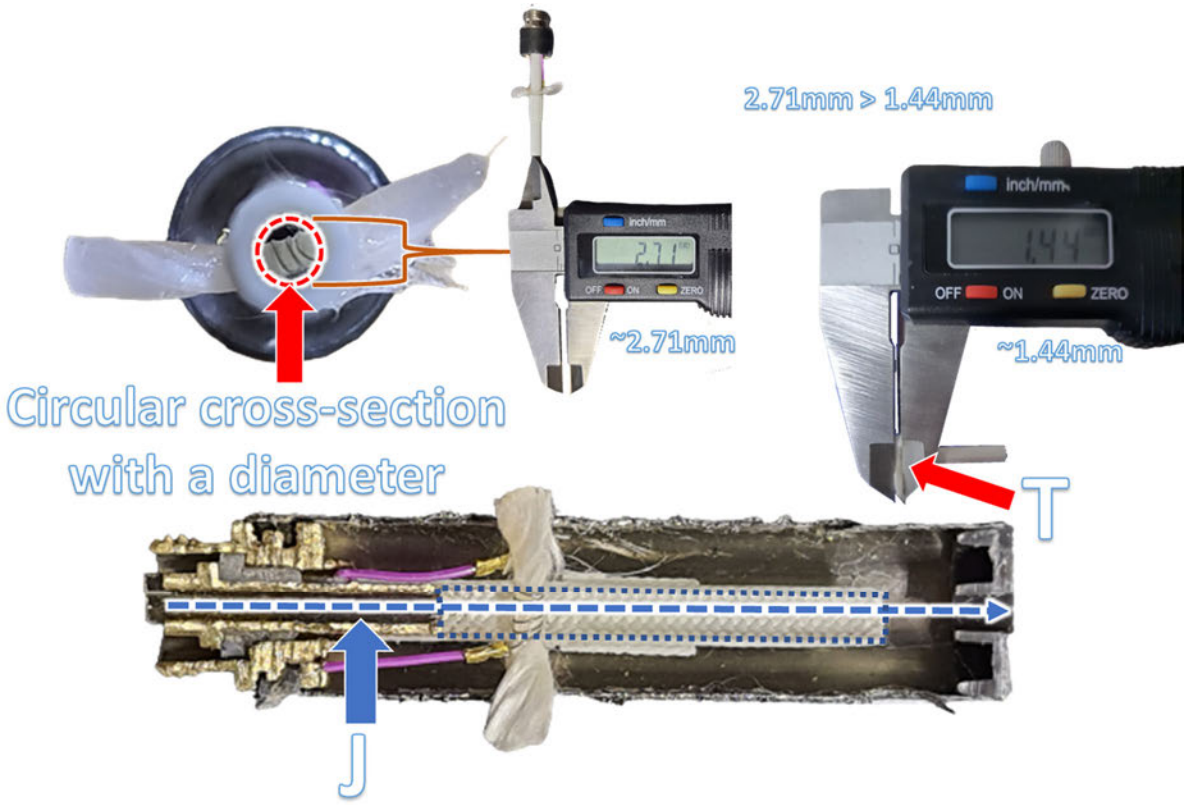
Logic Power Figure 881.10.a.

154. The Logic Power has "the airflow passageway [J] having a length having a circular cross section having a diameter along a majority of the length" as recited in Claim 10 of the '881 Patent.



Logic Power Figure 881.10.b.

155. The Logic Power has "the maximum diameter of the coil [T] being smaller than the diameter of the circular cross section of the length of the airflow passageway [J]" as recited in Claim 10 of the '881 Patent.



Logic Power Figure 881.10.c.

156. Claim 11 of the '881 Patent reads as follows:

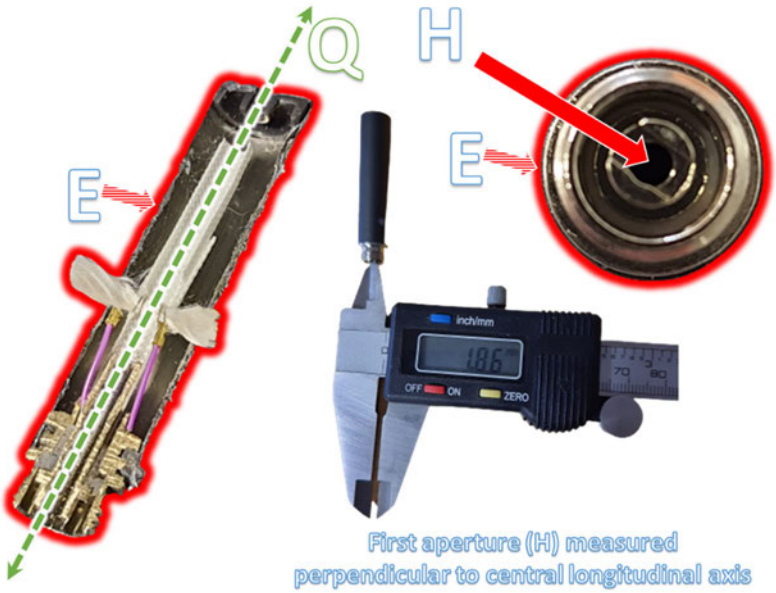
> **11**. The cartridge of claim **10**, wherein the first aperture on the first end is located centrally and axially with respect to the housing, the first aperture having a cross-sectional area measured perpendicular to a central longitudinal axis of the housing, the interior of the airflow passageway between the heating element and the second aperture being no smaller in cross-sectional area than the cross-sectional area of the first aperture.

157. As shown in the figures set forth in Paragraphs 158 through 160, the Logic Power meets every limitation recited in Claim 11 of the ’881 Patent.

158. In the Logic Power, the “the first aperture [H] on the first end [F] is located centrally and axially with respect to the housing [E].”

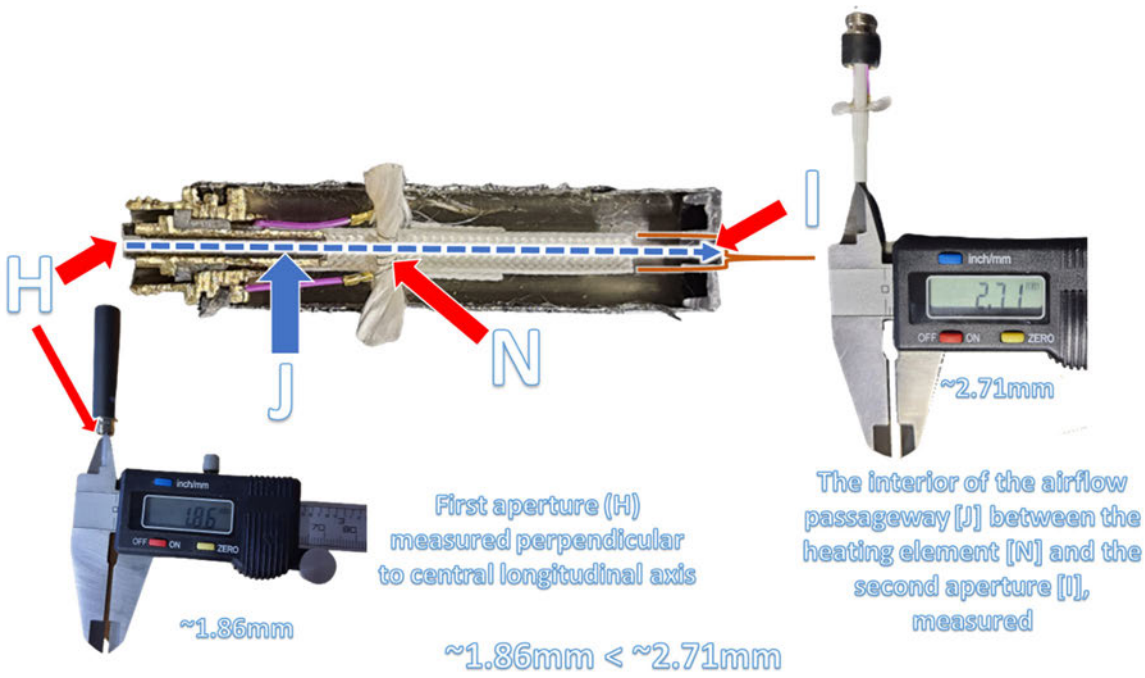
Logic Power Figure 881.11.a.

159. In the Logic Power, the first aperture [H] has “a cross-sectional area measured perpendicular to a central longitudinal axis [Q] of the housing [E].”



Logic Power Figure 881.11.b.

160. The Logic Power has "the interior of the airflow passageway [J] between the heating element [N] and the second aperture [I] being no smaller in cross-sectional area than the cross-sectional area of the first aperture [H]."



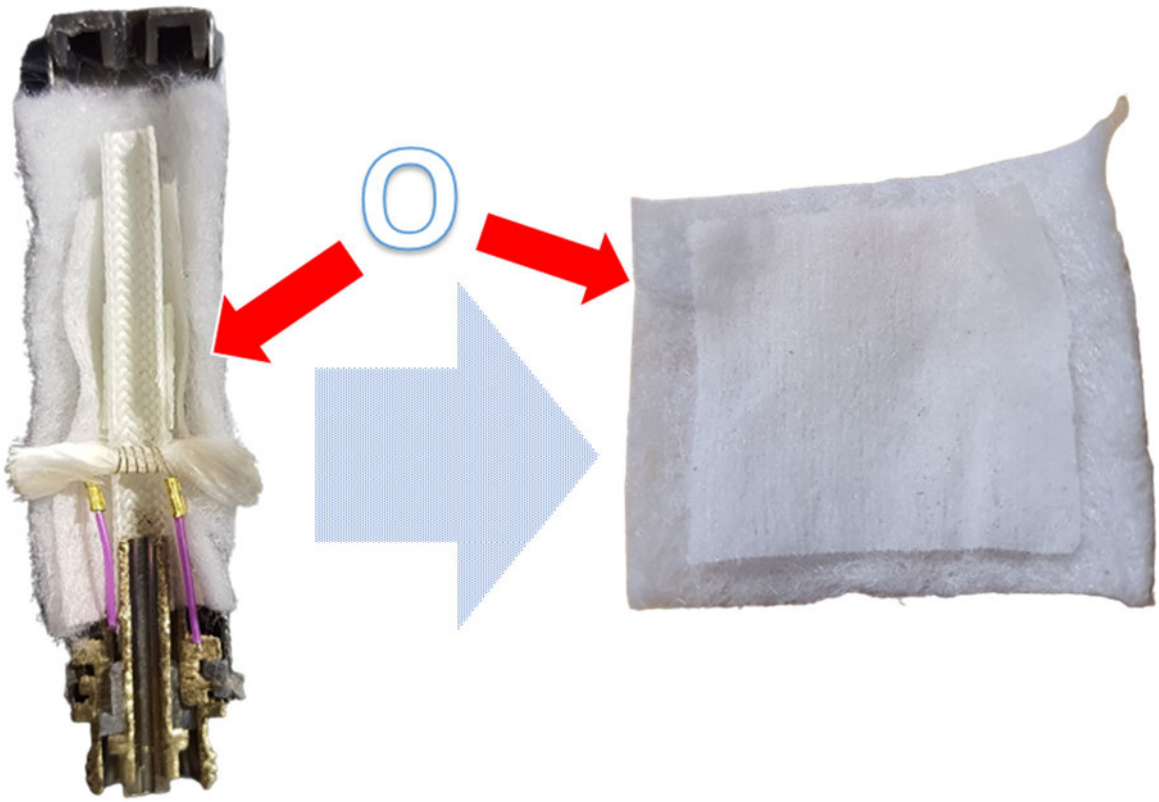
Logic Power Figure 881.11.c.

161. Claim 13 of the '881 Patent reads as follows:

13. The cartridge of claim **8**, wherein the solution holding medium reservoir includes an absorbent material.

162. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 13 of the '881 Patent.

163. In the Logic Power, "the solution holding medium reservoir [L] includes an absorbent material [O]."



Logic Power Figure 881.13.

164. Claim 14 of the '881 Patent reads as follows:

14. The cartridge of claim **8**, further comprising a solution in the solution holding medium reservoir, the solution comprising one of propylene glycol and nicotine.

165. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 14 of the '881 Patent.

166. The Logic Power has "a solution [M] in the solution holding medium reservoir [L], the solution [M] comprising one of propylene glycol and nicotine."

Logic Power Figure 881.14.

167. Claim 16 of the ’881 Patent reads as follows:

16. 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

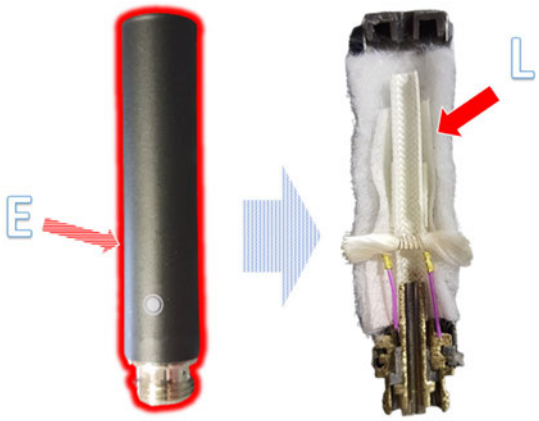
a heating element located in the interior of the housing and extending transversely across the airflow passageway, the airflow through the passageway passing on both transverse sides of the heating element, a plane perpendicular to the central longitudinal axis of the housing passing through the heating 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.

168. As shown in the figures set forth in Paragraphs 169 through 186, the Logic Power meets every limitation recited in Claim 16 of the ’881 Patent.

169. To the extent that the preamble is limiting, the Logic Power has “[a] cartridge [D] configured to mechanically and electrically couple to a power source [A] of an electronic vaporizer” as recited in Claim 16 of the ’881 Patent.

Logic Power Figure 881.16.pre.

170. The Logic Power has "a housing [E] having an interior and a solution holding medium [L] adapted to hold a solution in the interior of the housing [E]" as recited in Claim 16 of the '881 Patent.

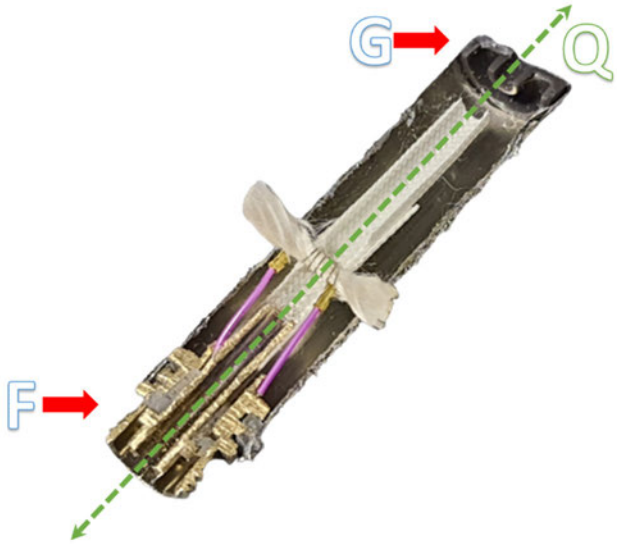


Logic Power Figure 881.16.a.

171. The Logic Power has "the housing [E] having a first end [F] and a second end [G] that is opposite the first end [F]" as recited in Claim 16 of the '881 Patent.

Logic Power Figure 881.16.b.

172. The Logic Power has "the housing [E] having a central longitudinal axis [Q] extending through the first end [F] and the second end [G]" as recited in Claim 16 of the '881 Patent.

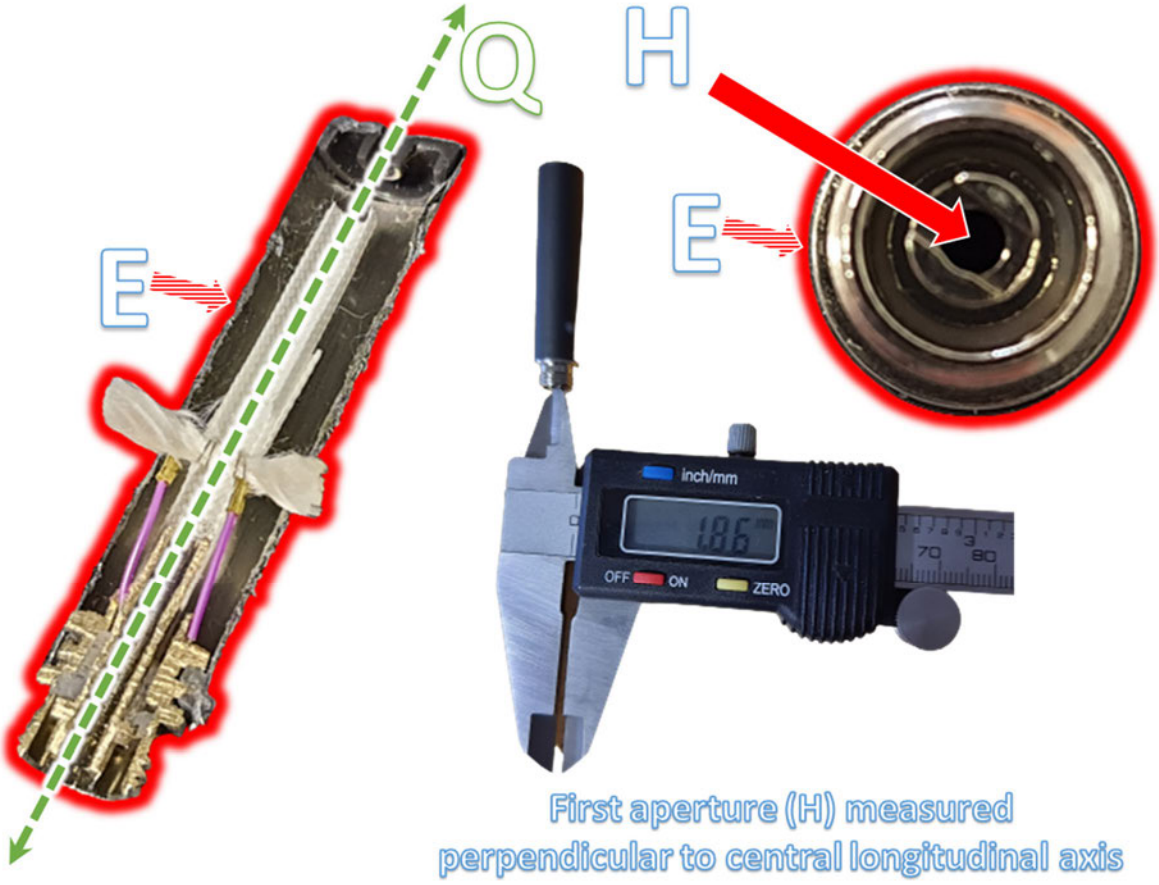


Logic Power Figure 881.16.c.

173. The Logic Power has "the housing [E] having a first aperture [H] on the first end [F] and a second aperture [I] on the second end [G]" as recited in Claim 16 of the '881 Patent.

Logic Power Figure 881.16.d.

174. The Logic Power has "the first aperture [H] having a cross-sectional area measured perpendicular to the central longitudinal axis [Q] of the housing [E]" as recited in Claim 16 of the '881 Patent.



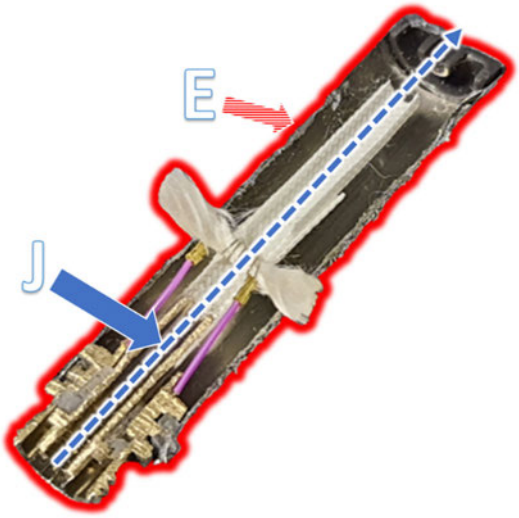
Logic Power Figure 881.16.e.

175. The Logic Power has "the first end [F] of the housing [E] having an electrically conductive portion [K] adapted to mechanically and electrically couple

to an electrically conductive portion of the power source [C]" as recited in Claim 16 of the '881 Patent.

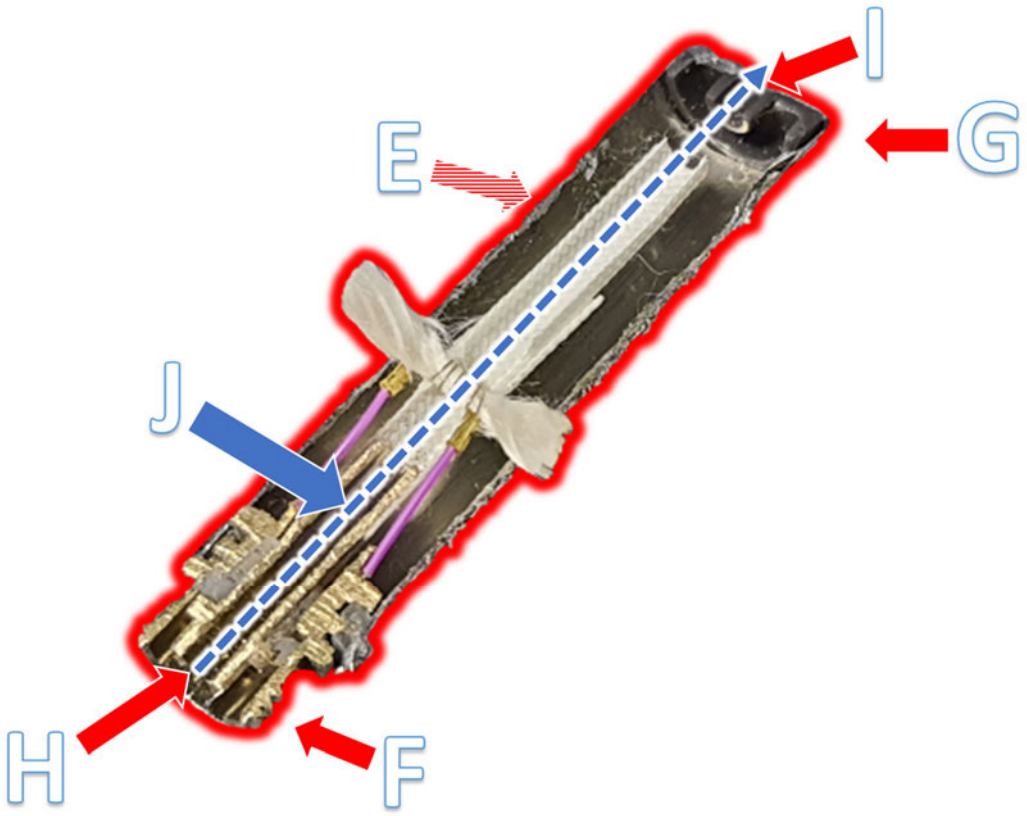
Logic Power Figure 881.16.f.

176. The Logic Power has "an airflow passageway [J] in the interior of the housing [E]," as recited in Claim 16 of the '881 Patent.



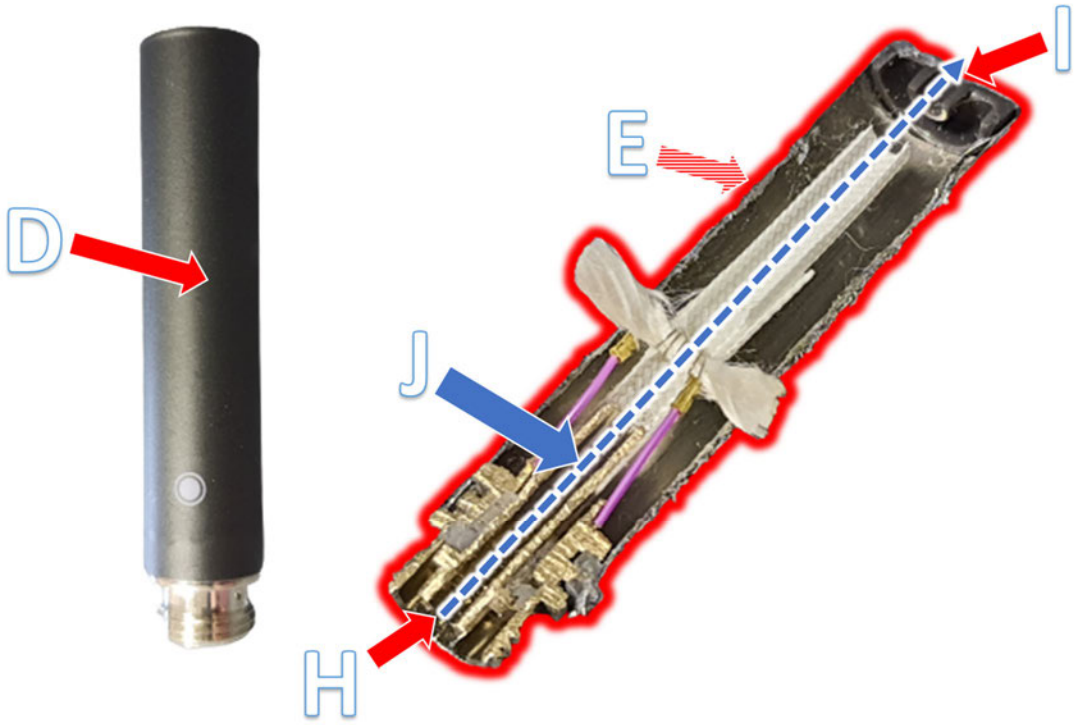
Logic Power Figure 881.16.g.

177. The Logic Power has "the airflow passageway [J] having a length extending centrally and axially with respect to the housing [E] intermediate of the first aperture [H] on the first end [F] of the housing [E] and the second aperture [I] on the second end [G] of the housing [E]" as recited in Claim 16 of the '881 Patent.



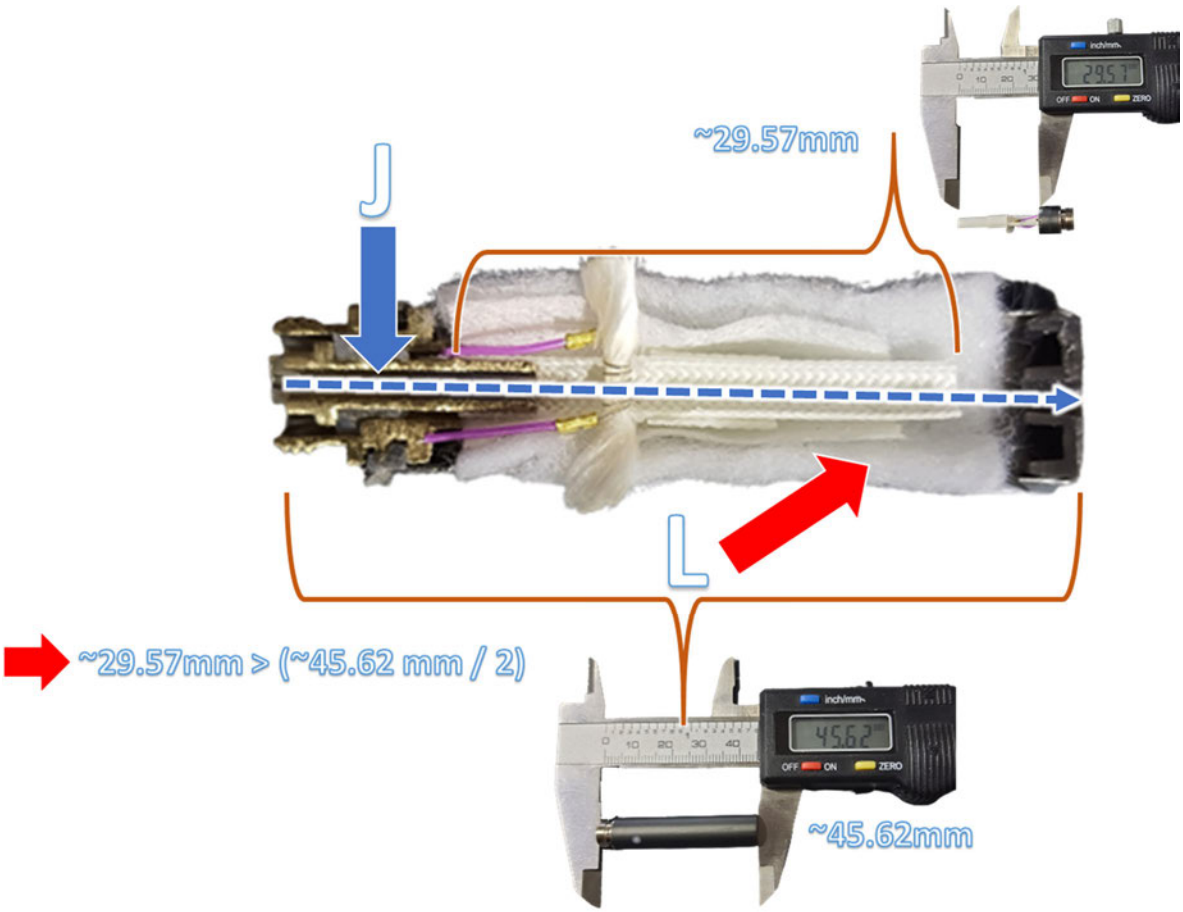
Logic Power Figure 881.16.h.

178. The Logic Power has "the airflow passageway [J] being configured to allow an airflow through the cartridge [D] from the first aperture [H] to the second aperture [I] of the housing [E]" as recited in Claim 16 of the '881 Patent.



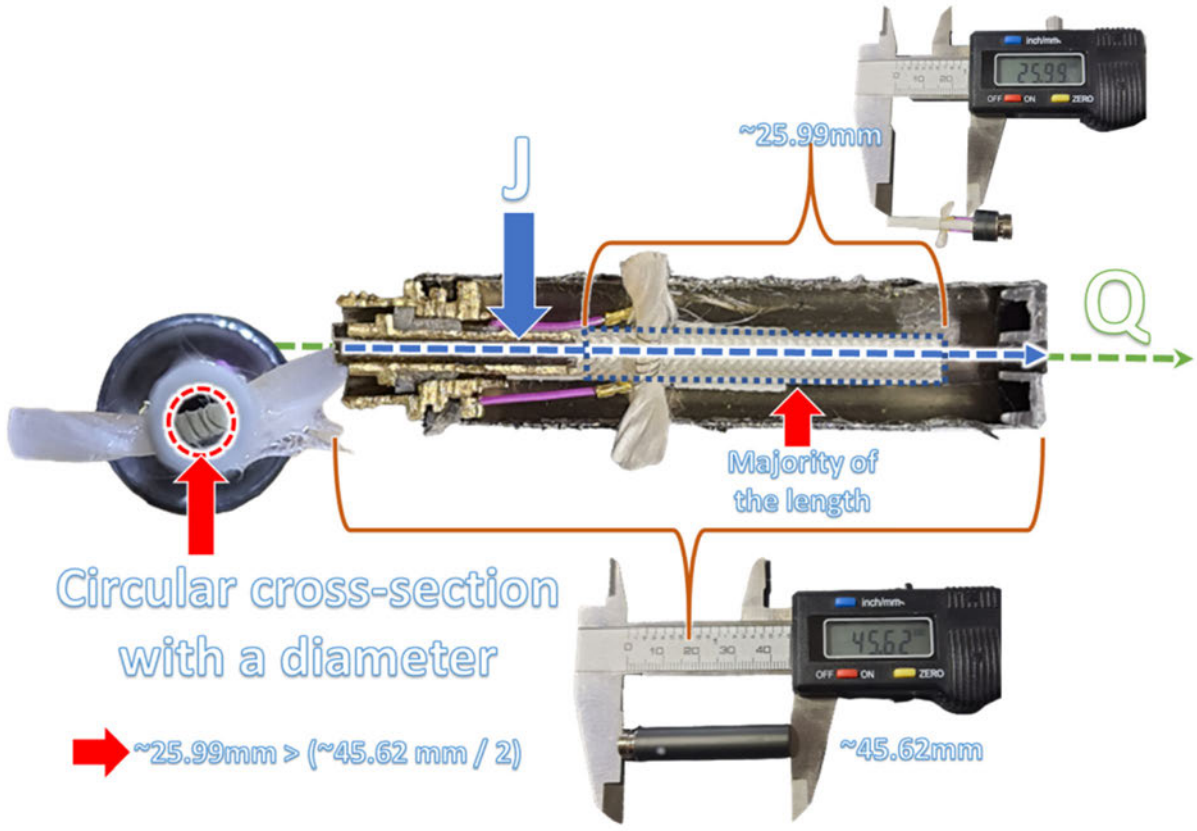
Logic Power Figure 881.16.i.

179. The Logic Power has "the airflow passageway [J] having an exterior adjacent to the solution holding medium [L] along a majority of the length of the airflow passageway [J]" as recited in Claim 16 of the '881 Patent.



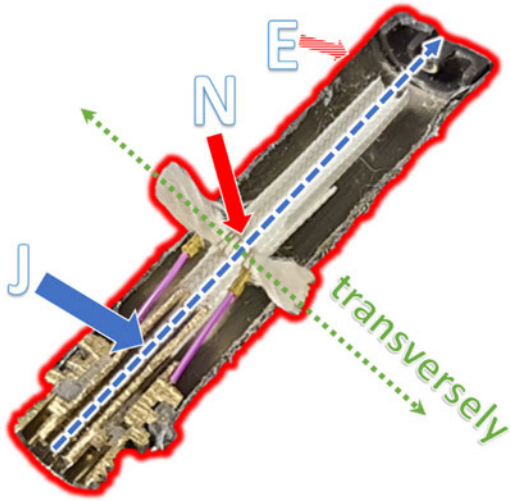
Logic Power Figure 881.16.j.

180. The Logic Power has "the airflow passageway [J] having an interior having a uniform cross-sectional area measured perpendicular to the central longitudinal axis [Q] of the housing [E] and extending continuously along a majority of the length of the airflow passageway [J]" as recited in Claim 16 of the '881 Patent.



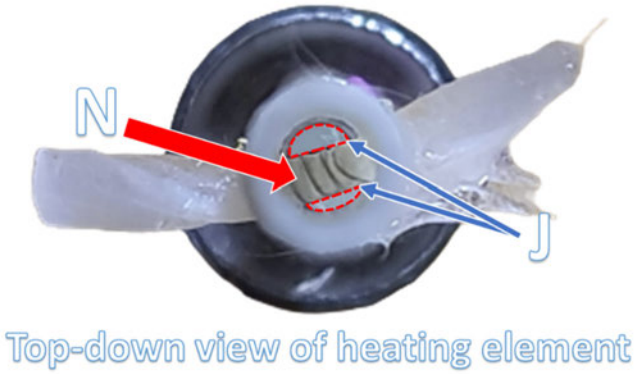
Logic Power Figure 881.16.k.

181. The Logic Power has "a heating element [N] located in the interior of the housing [E] and extending transversely across the airflow passageway [J]" as recited in Claim 16 of the '881 Patent.



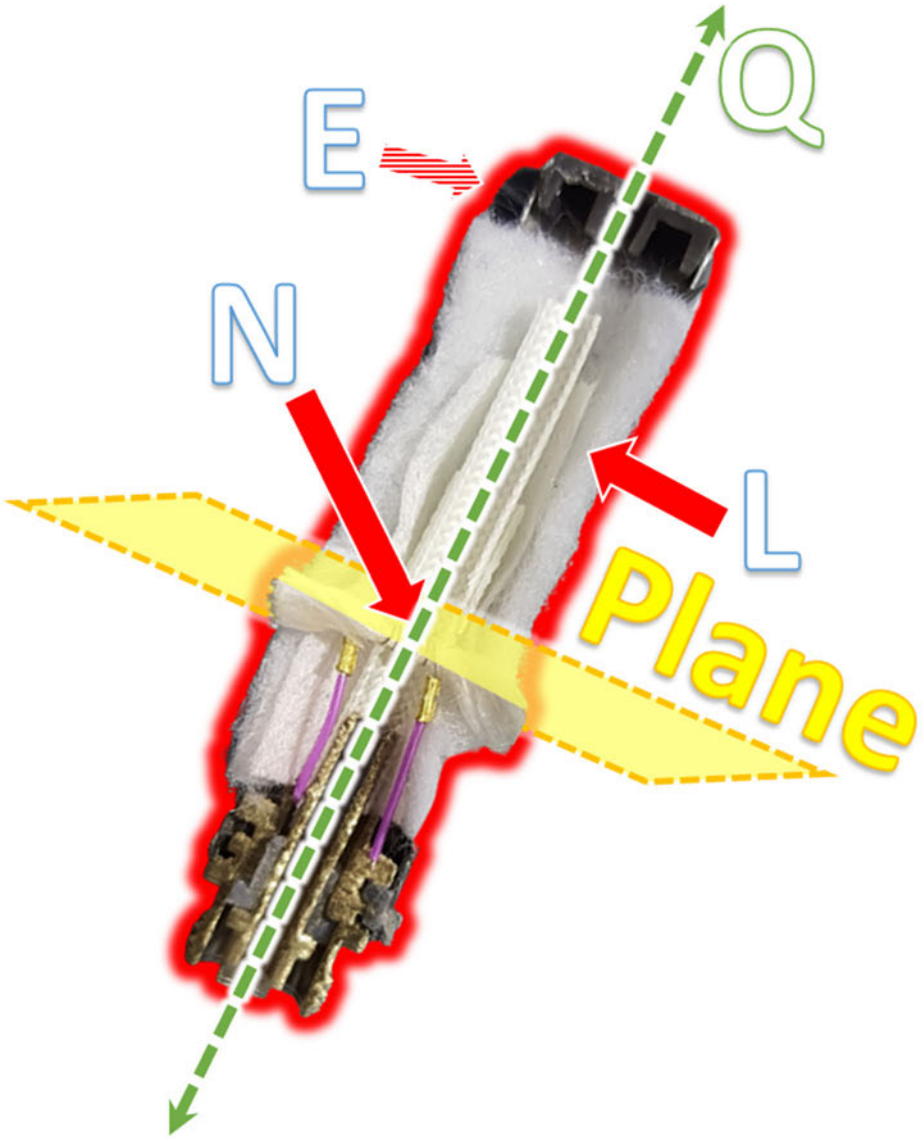
Logic Power Figure 881.16.l.

182. The Logic Power has "the airflow through the passageway [J] passing on both transverse sides of the heating element [N]" as recited in Claim 16 of the '881 Patent.



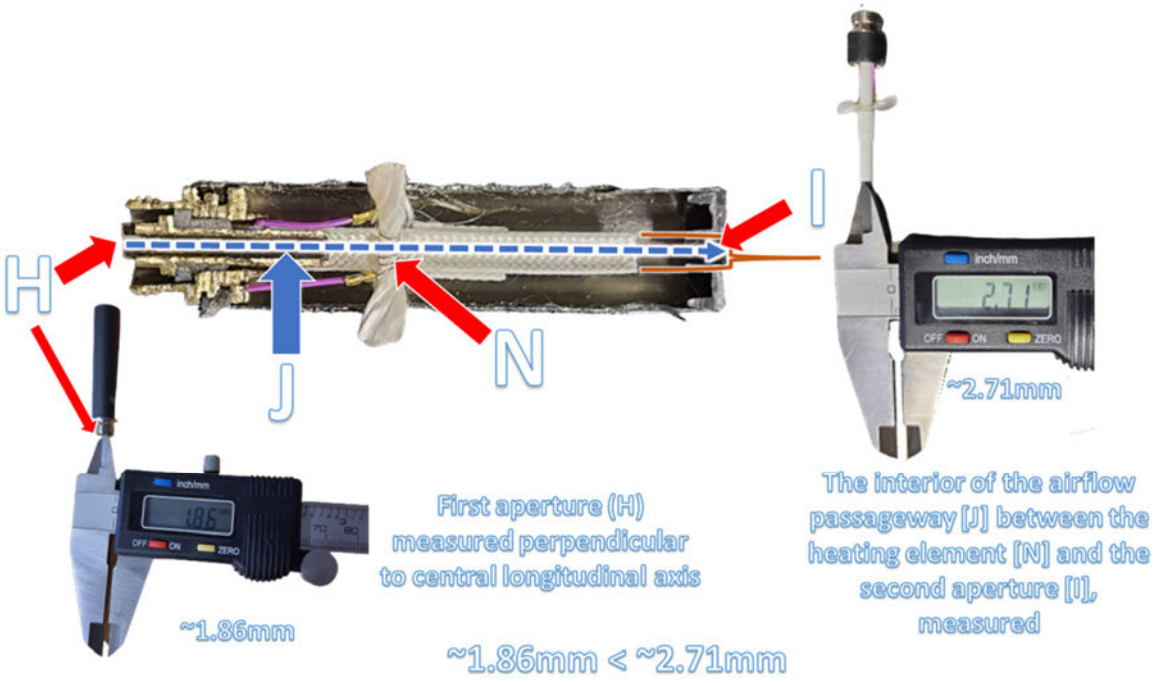
Logic Power Figure 881.16.m.

183. The Logic Power has "a plane perpendicular to the central longitudinal axis [Q] of the housing [E] passing through the heating element [N] and the solution holding medium [L]" as recited in Claim 16 of the '881 Patent.



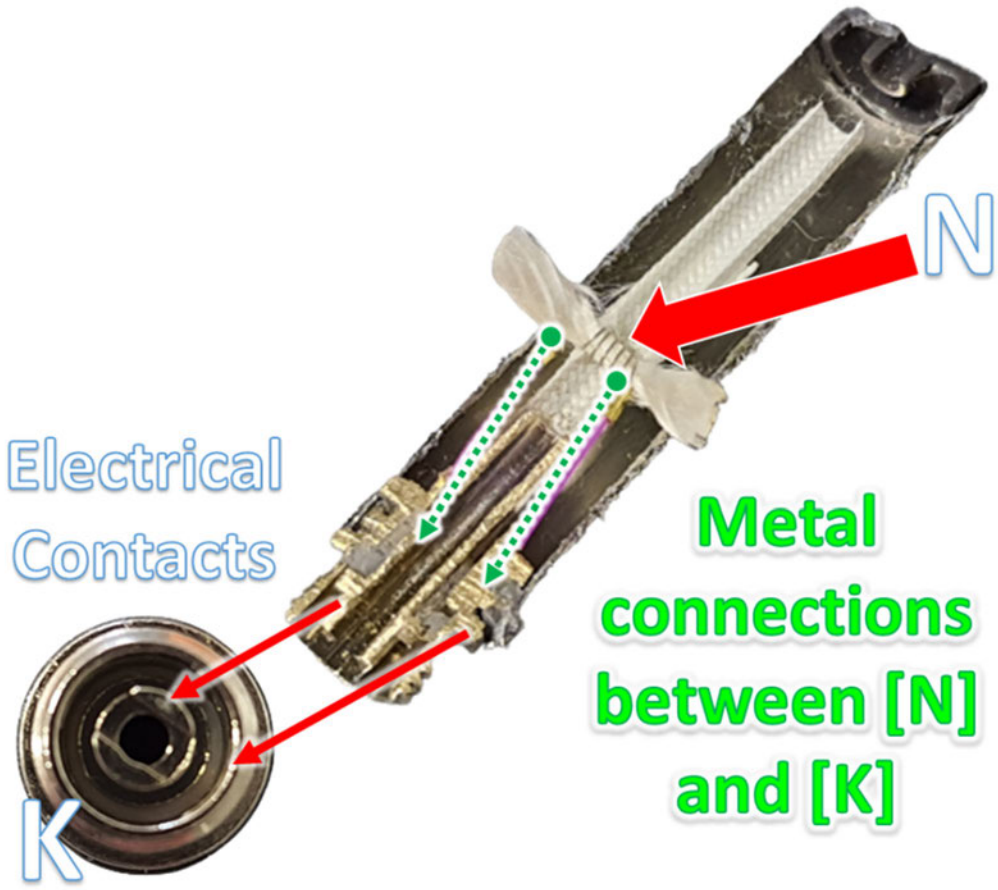
Logic Power Figure 881.16.n.

184. The Logic Power has "the airflow passageway [J] having an interior between the heating element [N] and the second aperture [I] no smaller in cross-sectional area than the cross-sectional area of the first aperture [H]" as recited in Claim 16 of the '881 Patent.



Logic Power Figure 881.16.o.

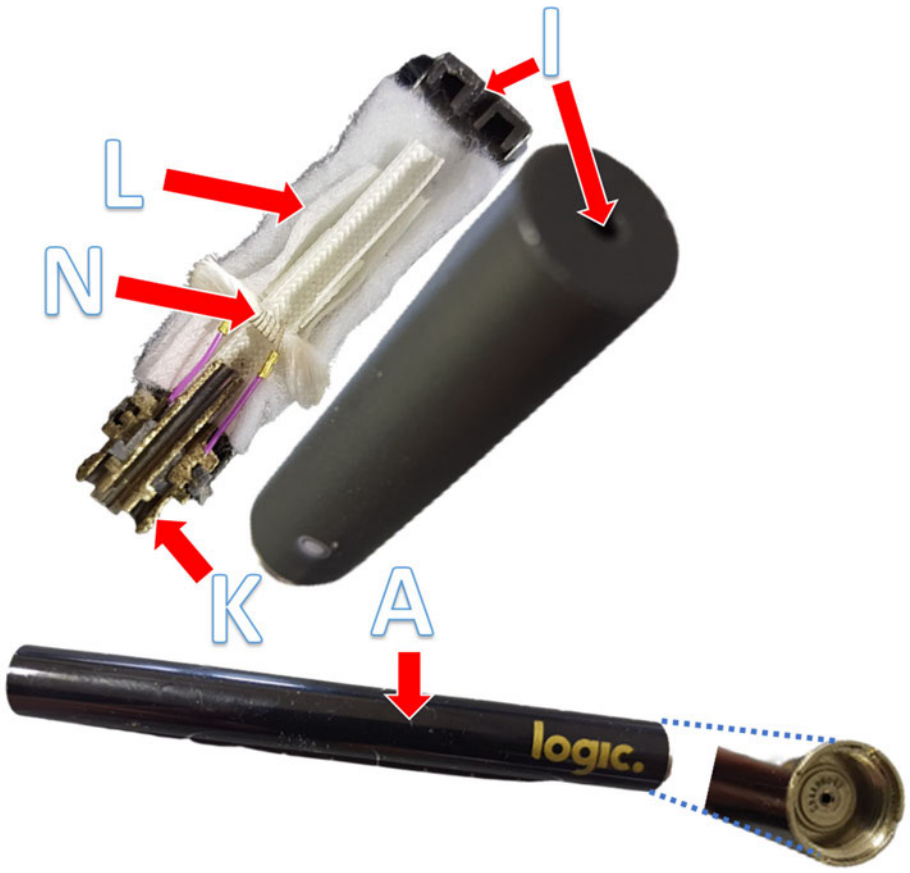
185. The Logic Power has "the heating element [N] being connected to the electrically conductive portion of the first end of the housing [K]" as recited in Claim 16 of the '881 Patent.



Logic Power Figure 881.16.p.

186. The Logic Power has "the heating element [N] being electrically configured to vaporize at least a portion of the solution to be contained in the solution holding medium [L] for oral provision to an individual in an airflow from

the second aperture [I] responsive to electrical power received from the power source [A] through the electrically conductive portion of the cartridge [K]" as recited in Claim 16 of the '881 Patent.



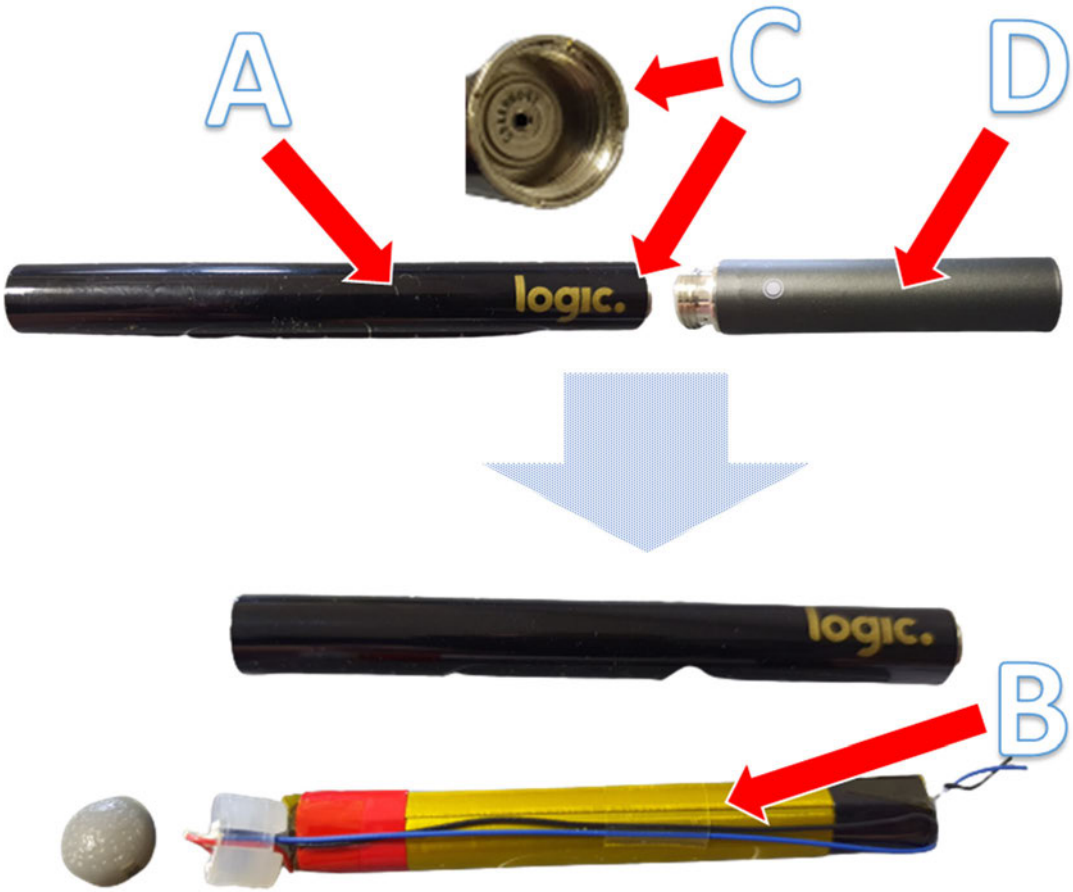
Logic Power Figure 881.16.q.

187. Claim 17 of the '881 Patent reads as follows:

> **17**. The cartridge of claim **16**, 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.

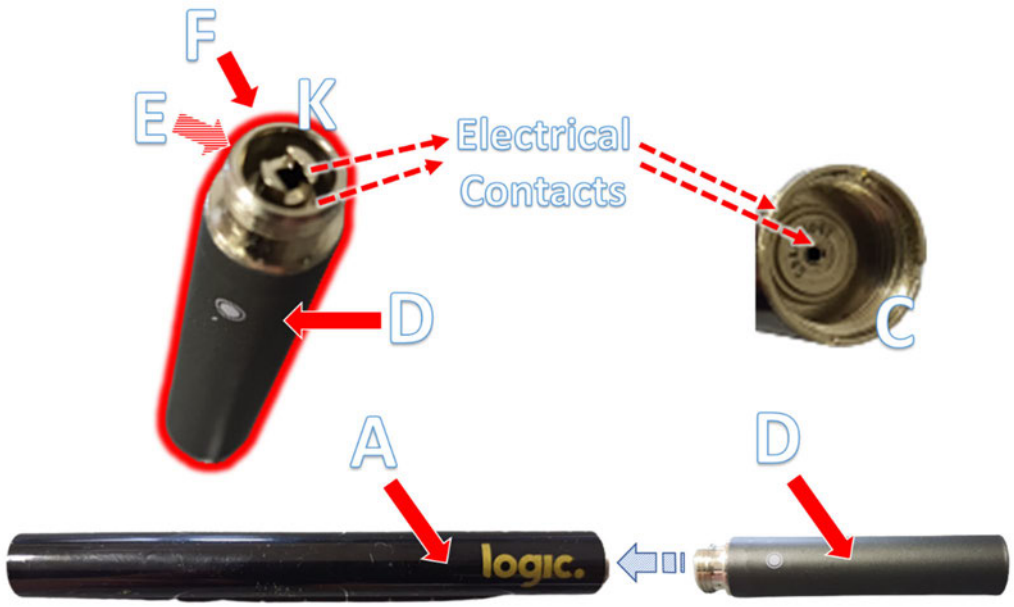
188. As shown in the figures set forth in Paragraphs 189 through 190, the Logic Power meets every limitation recited in Claim 17 of the '881 Patent.

189. In the Logic Power, the cartridge [D] is "further in combination with the power source [A] including a battery [B] and the electrically conductive portion [C]."



Logic Power Figure 881.17.a.

190. The Logic Power has "the electrically conductive portion [C] of the power source [A] being mechanically and electrically coupled to the electrically conductive portion [K] of the first end [F] of the housing [E]."



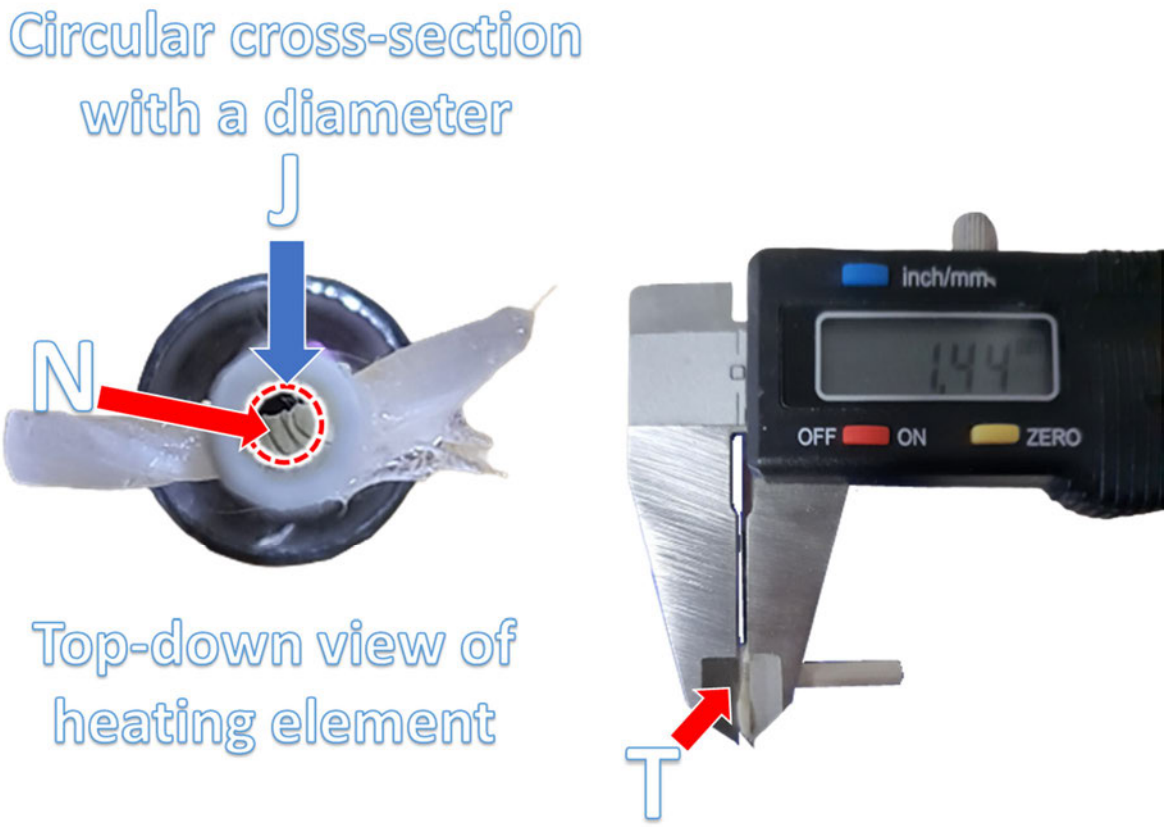
Logic Power Figure 881.17.b.

191. Claim 18 of the '881 Patent reads as follows:

> **18**. The cartridge of claim **16**, 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.

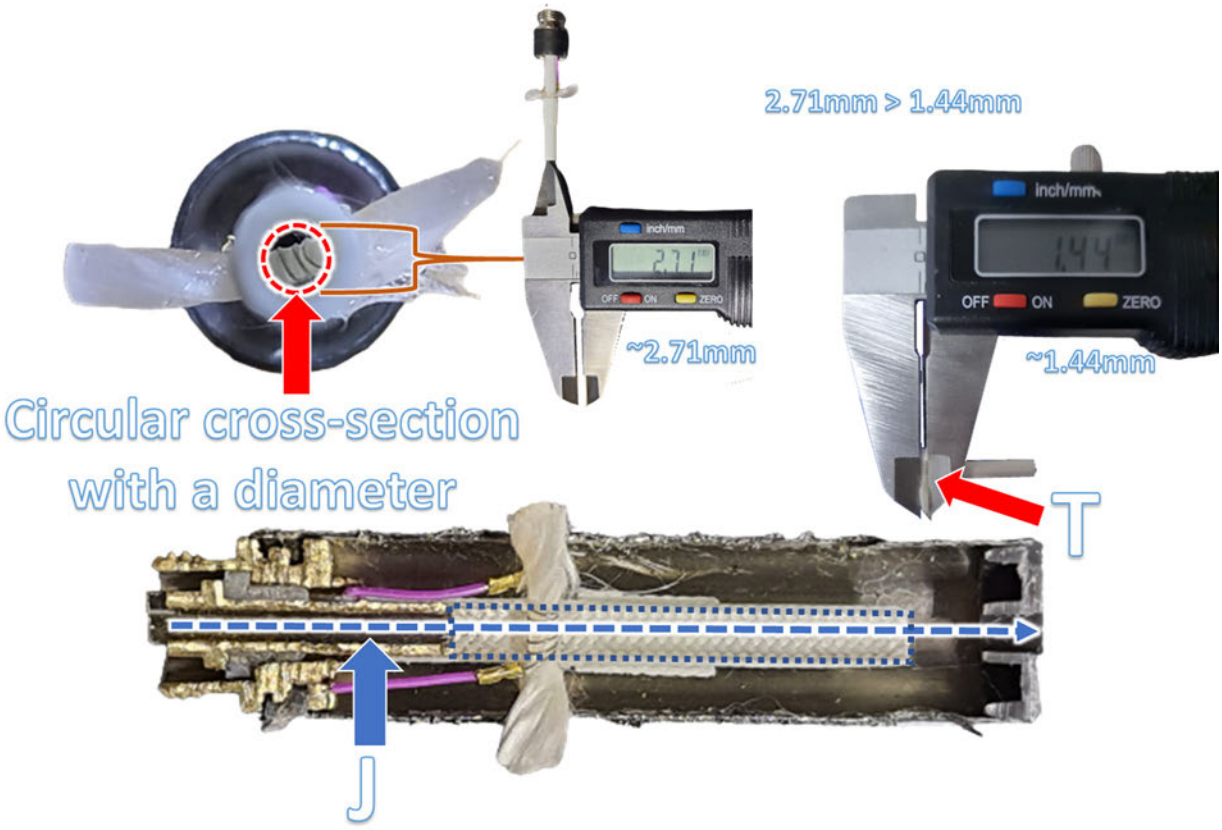
192. As shown in the figures set forth in Paragraphs 193 through 194, the Logic Power meets every limitation recited in Claim 18 of the '881 Patent.

193. In the Logic Power, "the heating element [N] is a coil [T] having a maximum diameter and the uniform cross-sectional area of the airflow passageway [J] is a circle having a diameter."



Logic Power Figure 881.18.a.

194. The Logic Power has "the maximum diameter of the coil [T] being smaller than the diameter of the circle of the uniform cross-sectional area of the airflow passageway [J]."



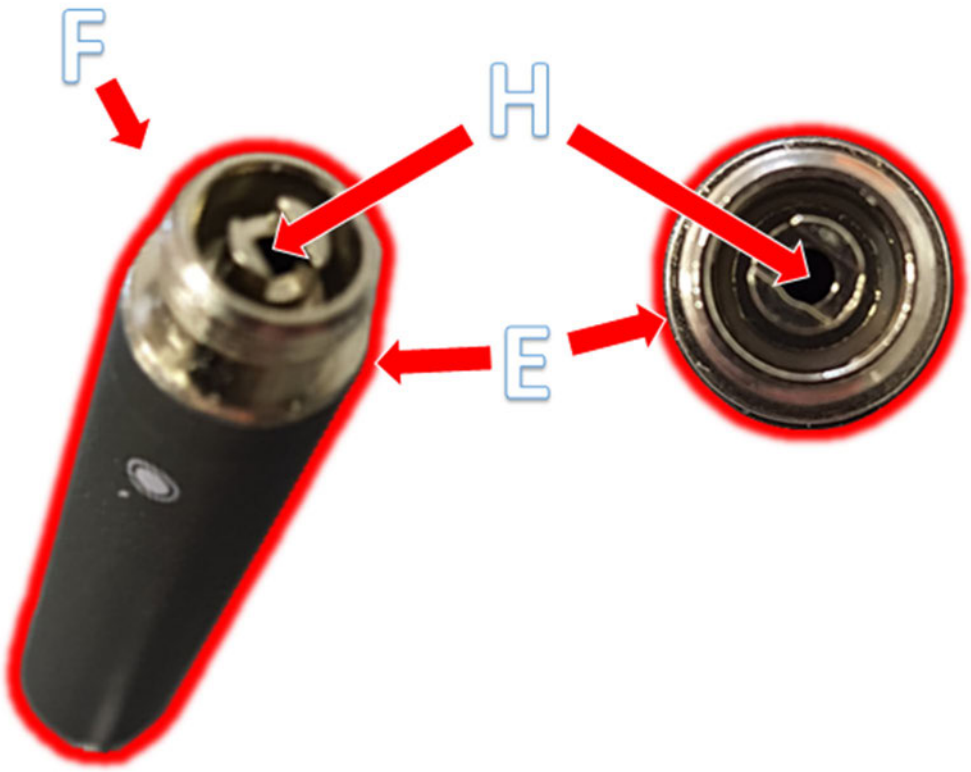
Logic Power Figure 881.18.b.

195. Claim 19 of the '881 Patent reads as follows:

> **19**. The cartridge of claim **18**, wherein the first aperture on the first end is located centrally and axially with respect to the housing.

196. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 19 of the '881 Patent.

197. In the Logic Power, "the first aperture [H] on the first end [F] is located centrally and axially with respect to the housing [E]."



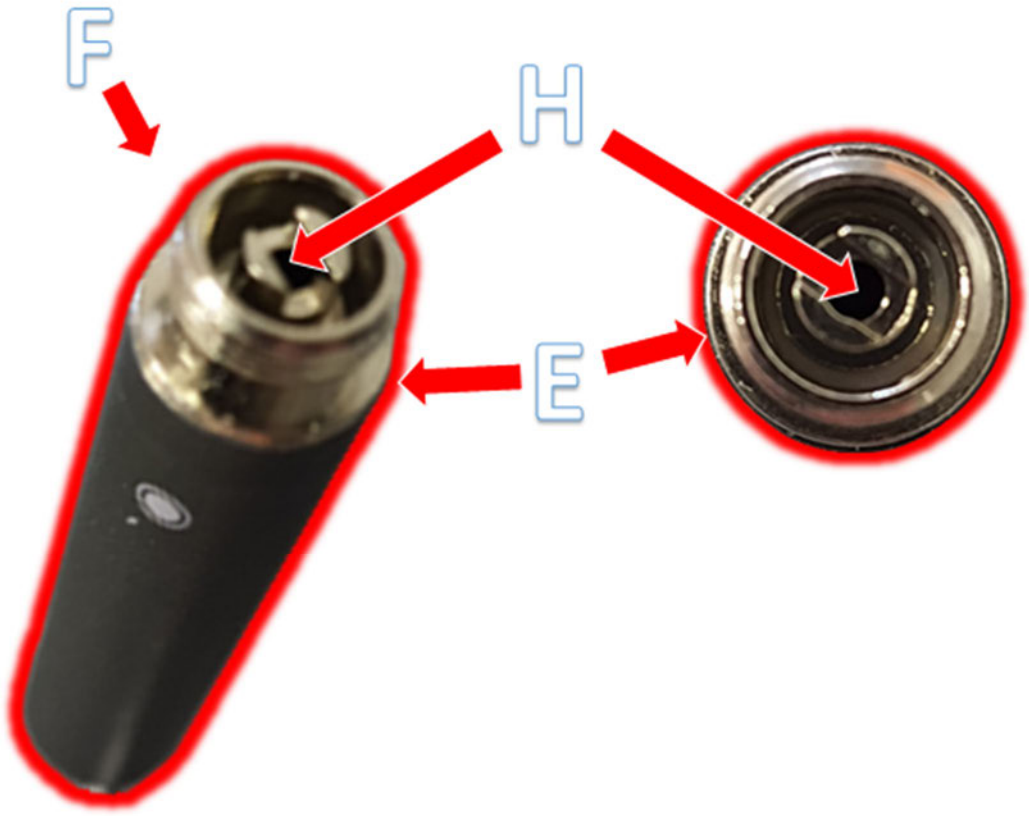
Logic Power Figure 881.19.

198. Claim 22 of the '881 Patent reads as follows:

> **22**. The cartridge of claim **16**, wherein the first aperture on the first end is located centrally and axially with respect to the housing.

199. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 22 of the '881 Patent.

200. The Logic Power has "[t]he cartridge of Claim 16, wherein the first aperture [H] on the first end [F] is located centrally and axially with respect to the housing [E]" as recited in Claim 22 of the '881 Patent.



Logic Power Figure 881.22.

201. Claim 24 of the '881 Patent reads as follows:

> **24**. The cartridge of claim **16**, wherein the solution holding medium includes at least one of an absorbent material and a reservoir.

202. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 24 of the '881 Patent.

203. In the Logic Power, "solution holding medium [L] includes at least one of an absorbent material [O] and a reservoir."

Logic Power Figure 881.24.

204. Claim 25 of the '881 Patent reads as follows:

> **25**. The cartridge of claim **16**, further comprising a solution, wherein the solution comprises one of propylene glycol and nicotine.

205. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 25 of the '881 Patent.

206. The Logic Power has "a solution [M], wherein the solution [M] comprises one of propylene glycol and nicotine."

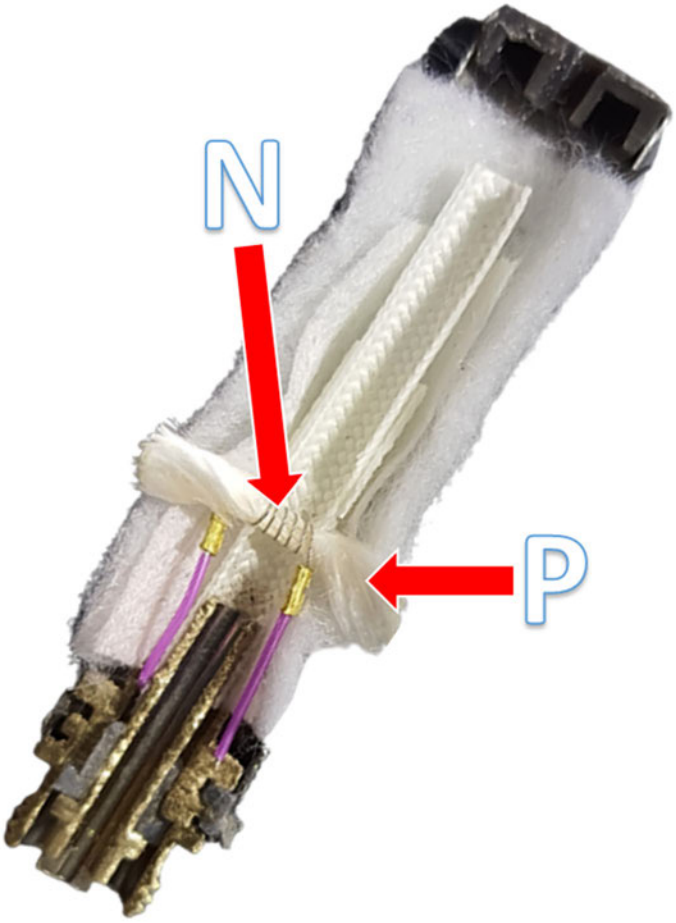
Logic Power Figure 881.25.

207. Claim 26 of the '881 Patent reads as follows:

> **26**. The cartridge of claim **16**, wherein the heating element is in operative connection with a wicking material, and the wicking material is 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.

208. As shown in the figures set forth in the following two paragraphs, the Logic Power meets every limitation recited in Claim 26 of the '881 Patent.

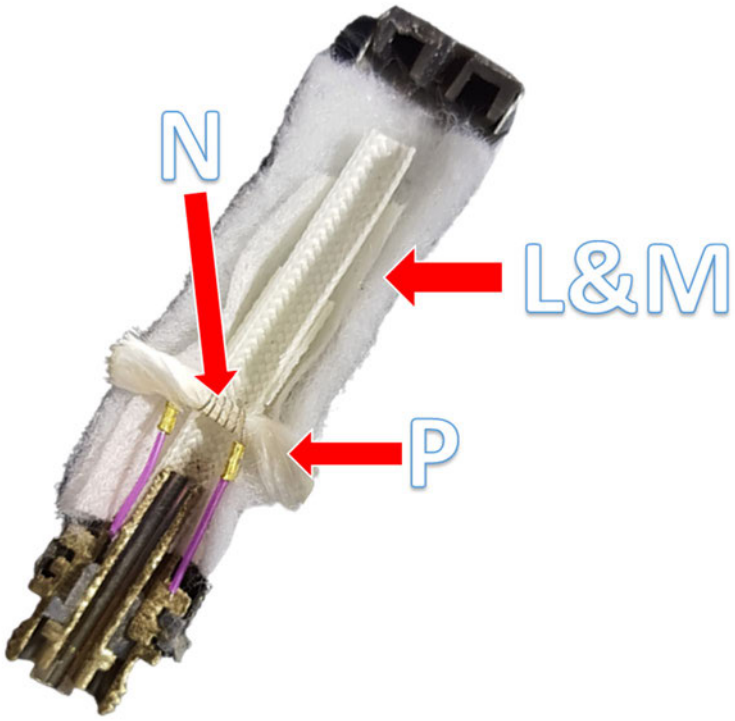
209. The Logic Power has "[t]he cartridge of Claim 16, wherein the heating element [N] is in operative connection with a wicking material [P]" as recited in Claim 26 of the '881 Patent.



Logic Power Figure 881.26.a.

210. In the Logic Power, "the wicking material [P] is operative to attract a portion of the solution [M] from the solution holding medium [L] located

immediately adjacent opposite ends of the heating element [N] toward the heating element [N]" as recited in Claim 26 of the '881 Patent.



Logic Power Figure 881.26.b.

THIRD CLAIM FOR RELIEF:
INFRINGEMENT OF U.S. PATENT NO. 11,497,864

211. Fuma hereby realleges each allegation set forth in the paragraphs above as though fully set forth herein.

212. Upon information and belief, Defendant had both actual and constructive knowledge of the '864 Patent soon after issuance based on Fuma's marking of its products with the '864 Patent number.

213. Defendant has had actual knowledge that its activities constitute infringement of ’864 Patent no later than the notice letter sent to Defendant on June 3, 2022 and/or the filing of this Complaint.

214. Fuma’s June 3, 2022 notice letter also put Defendant on actual notice of U.S. Patent Publication No. 2021/0235772 (“the ’772 Publication”). The invention as claimed in the ’864 Patent is substantially identical to the invention as claimed in the ’772 Publication that issued as the ’864 Patent. As such, Fuma has a right to obtain damages by way of a reasonable royalty from Defendant starting no later than June 3, 2022.

215. Defendant has directly infringed the ’864 Patent in violation of at least 35 U.S.C. § 271(a) by, themselves and/or through their agents, unlawfully and wrongfully making, using, importing, offering to sell, and/or selling vaporizing device products embodying one or more of the inventions claimed in the ’864 Patent, within, from and/or into the United States without permission or license from Plaintiff.

216. The vaporizing products that directly infringe the ’864 Patent include the Logic Power and the Logic Pro.

217. The images of the products set forth herein accurately show the features of the Logic Power and Logic Pro.

218. The accused products infringe the ’864 patent literally and/or under the doctrine of equivalents.

219. The Logic Power product infringes claims 1-3, 5-7, 9-12, 14-18, 20-23, 25-27, 29-31, 33-36, 38-43, and 45-47 of Fuma’s ’864 Patent.

220. The Logic Pro product infringes claims 1, 2, 5, 6, 9-17, 20-22, 25, 26, 29-35, 38-42, 45, and 46 of Fuma’s ’864 Patent.

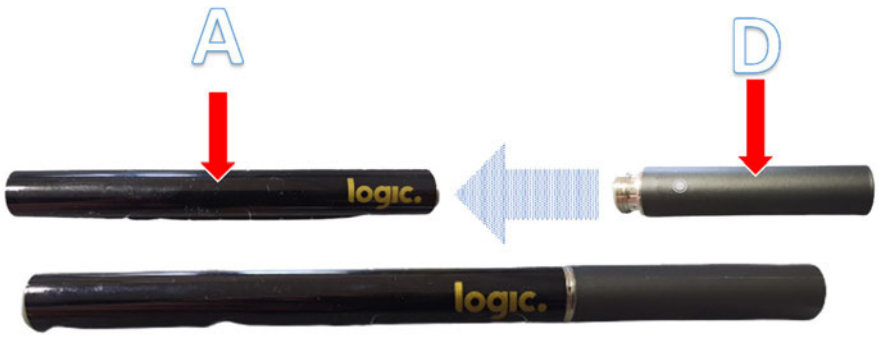
Direct Infringement of ’864 Patent: Logic Power

221. Claim 1 of the ’864 Patent reads as follows:

> **1**. 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;
> 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; and
> an airflow passageway in the housing, at least a portion of the airflow passageway extending centrally and axially with respect to the housing,
> wherein the airflow passageway extends centrally and axially from the first aperture to the second aperture.

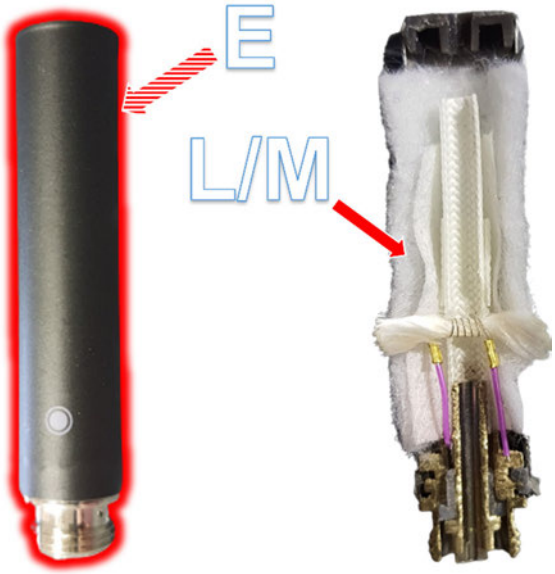
222. As shown in the figures set forth in Paragraphs 223 through 235, the Logic Power meets every limitation recited in Claim 1 of the ’864 Patent.

223. To the extent that the preamble is limiting, the Logic Power has "A cartridge [A] configured to couple to a power source [D] of an electronic vaporizer, the cartridge comprising"



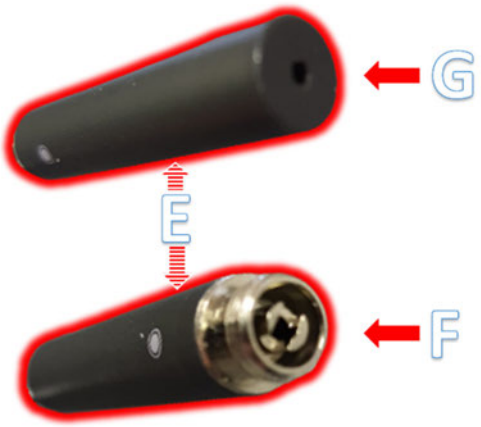
Logic Power Figure 864.1.pre.

224. The Logic Power includes "a housing [E] having an interior and a solution holding medium [L] adapted to hold a solution [M]."



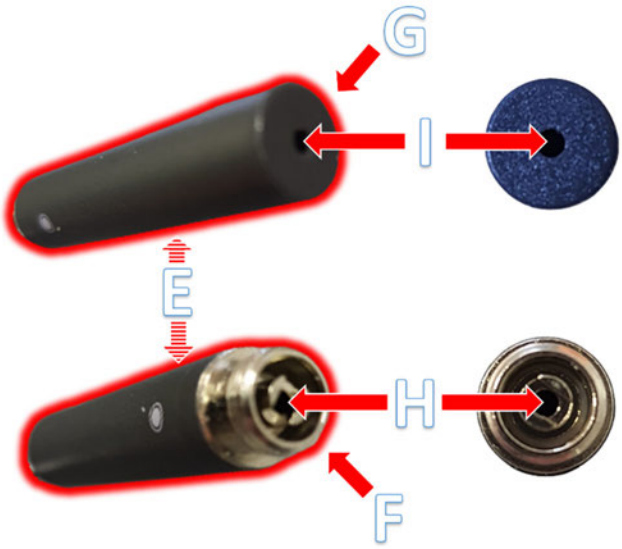
Logic Power Figure 864.1.a.

225. The Logic Power includes a "housing [E] having a first end [F] and a second end [G] that is opposite the first end [F]."



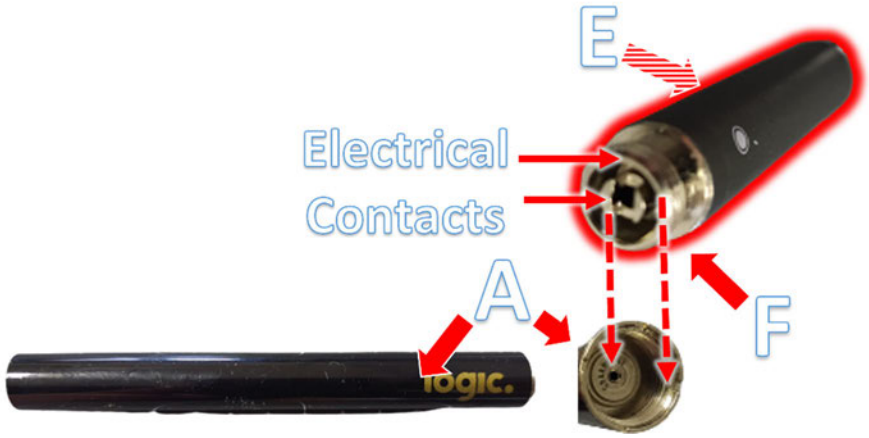
Logic Power Figure 864.1.b.

226. The Logic Power includes a "housing [E] having a first aperture [H] proximate the first end [F] and a second aperture [I] proximate the second end [G]."



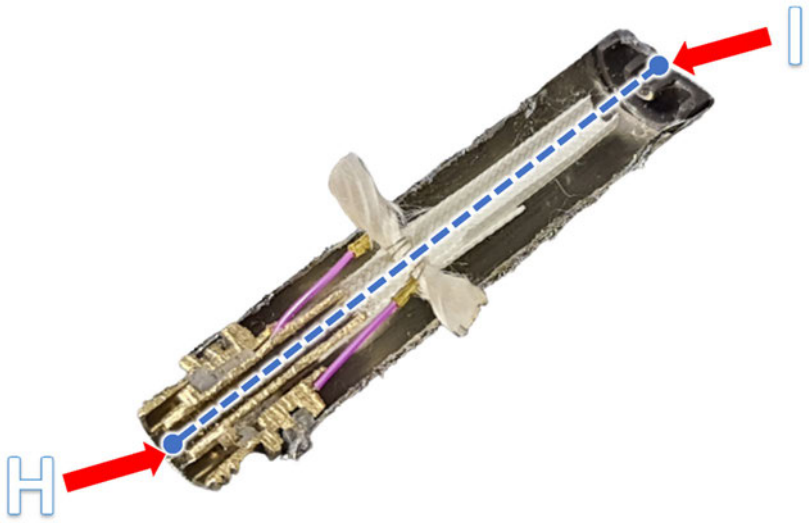
Logic Power Figure 864.1.c.

227. The Logic Power includes a housing with "the first end [F] of the housing [E] being adapted to electrically couple to the power source [A]."



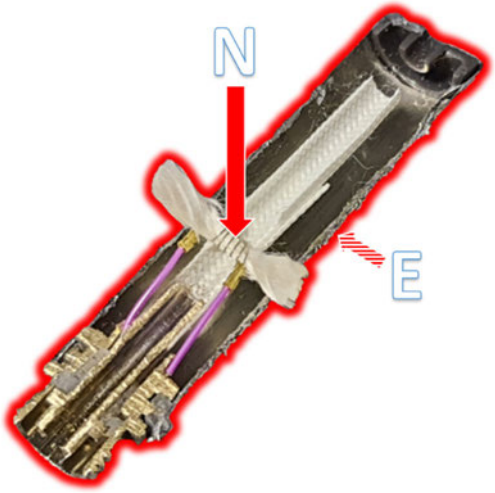
Logic Power Figure 864.1.d.

228. The Logic Power includes a housing with "the first aperture [H] and the second aperture [I] being in communication with one another to permit an airflow through the housing from the first aperture [H] to the second aperture [I]."



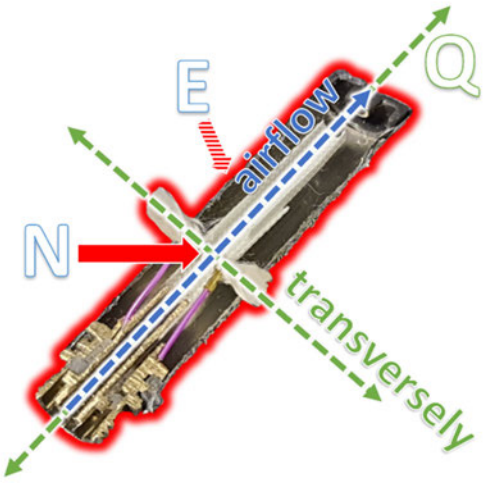
Logic Power Figure 864.1.e.

229. The Logic Power includes "a heating element [N] located in the interior of the housing [E]."



Logic Power Figure 864.1.f.

230. The Logic Power includes a heating element with "the heating element [N] extending transversely to a central longitudinal axis [Q] of the housing [E] and being at least partially exposed to the airflow."

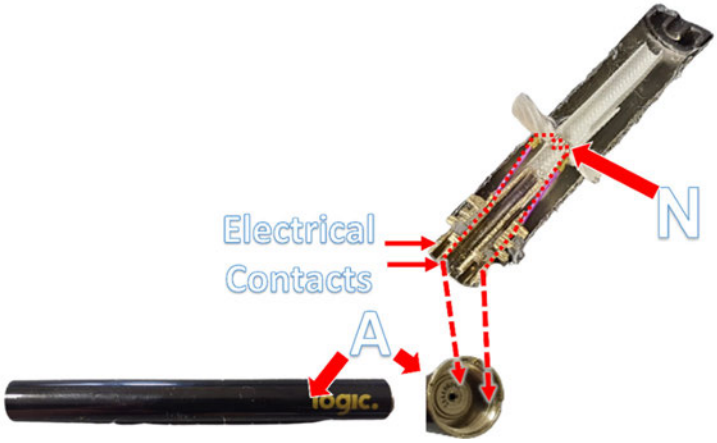


Logic Power Figure 864.1.g.

231. The Logic Power includes a heating element with "the heating element [N] being configured to vaporize at least a portion of the solution [M] for oral provision to an individual in the airflow."

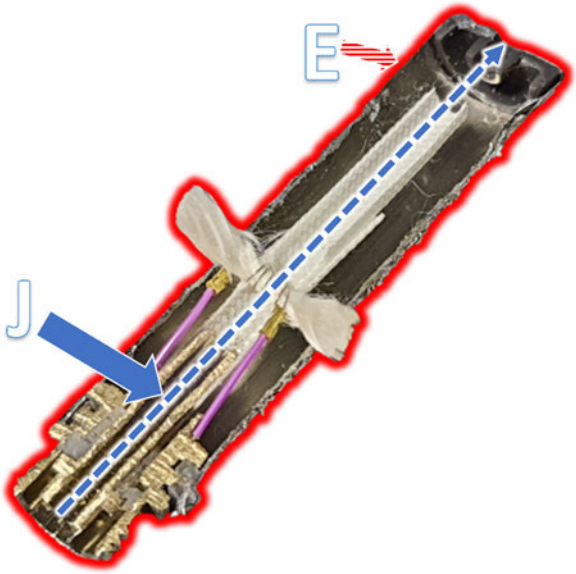
Logic Power Figure 864.1.h.

232. The Logic Power includes a heating element with "the heating element [N] being responsive to electrical power received from the power source [A]."



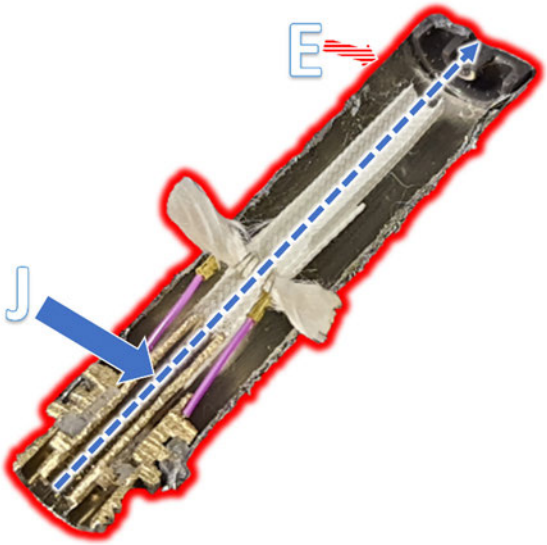
Logic Power Figure 864.1.i.

233. The Logic Power has "an airflow passageway [J] in the housing [E]."



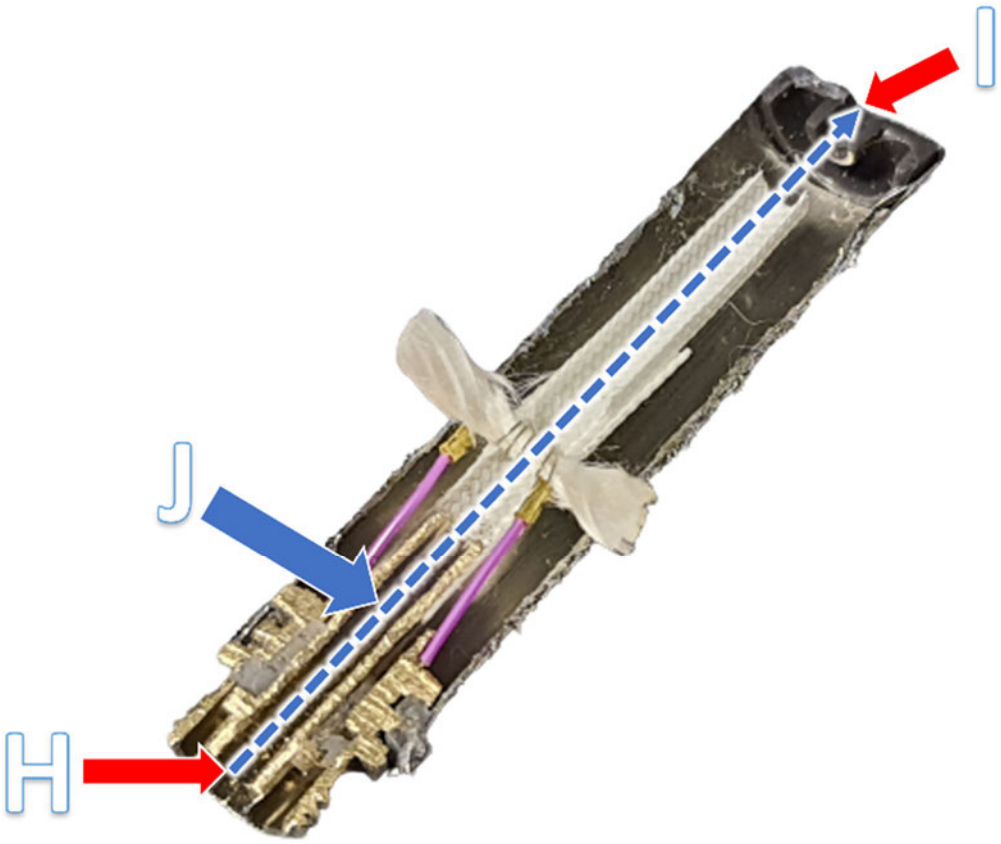
Logic Power Figure 864.1.j.

234. The Logic Power has, "at least a portion of the airflow passageway [J] extending centrally and axially with respect to the housing [E]."



Logic Power Figure 864.1.k.

235. In the Logic Power, "the airflow passageway [J] extends centrally and axially from the first aperture [H] to the second aperture [I]."



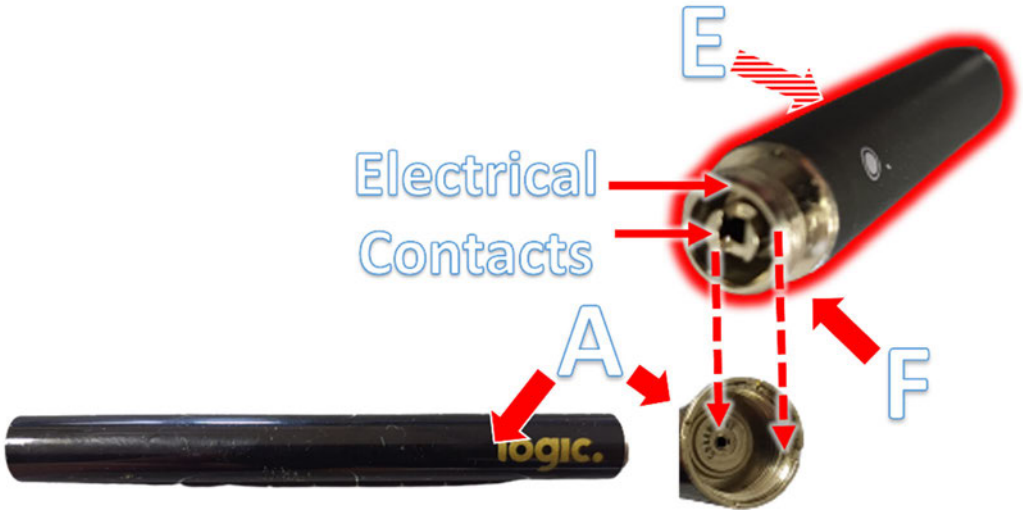
Logic Power Figure 864.1.l.

236. Claim 2 of the '864 Patent reads as follows:

> **2**. The cartridge of claim **1**, 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.

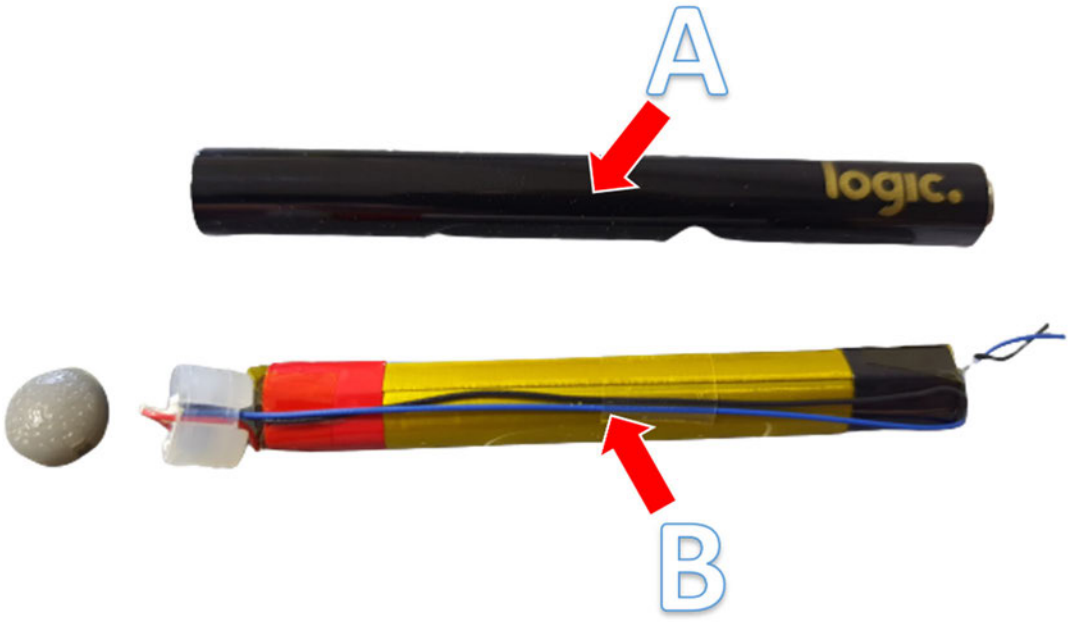
237. As shown in the figures set forth in Paragraphs 238 through 239, the Logic Power meets every limitation recited in Claim 2 of the '864 Patent.

238. The Logic Power has "a power source [A] adapted to be electrically coupled to the first end [F] of the housing [E]."



Logic Power Figure 864.2.a.

239. The Logic Power has a "power source [A] including a battery [B]."



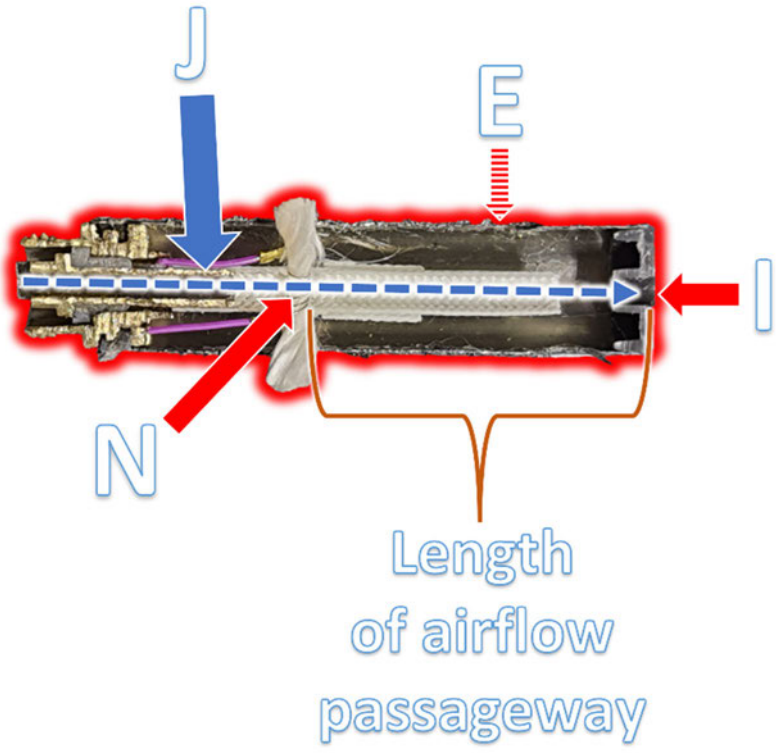
Logic Power Figure 864.2.b.

240. Claim 3 of the ’864 Patent reads as follows:

> **3**. The cartridge of claim **1**, wherein the airflow passageway has a length extending intermediate of the heating element and the second aperture, the airflow passageway 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.

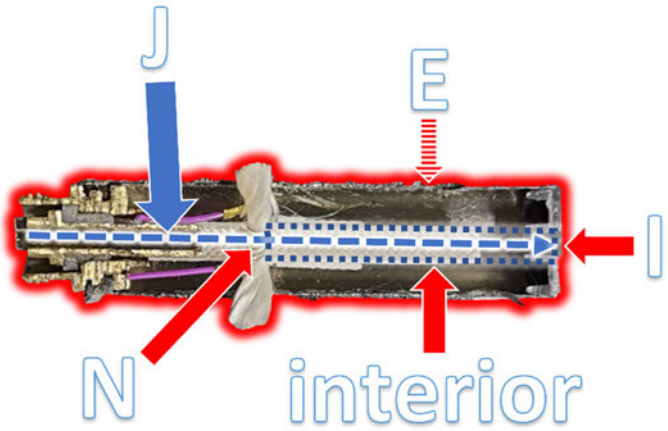
241. As shown in the figures set forth in Paragraphs 242 through 244, the Logic Power meets every limitation recited in Claim 3 of the ’864 Patent.

242. In the Logic Power “the airflow passageway [J] has a length extending intermediate of the heating element [N] and the second aperture [I].”



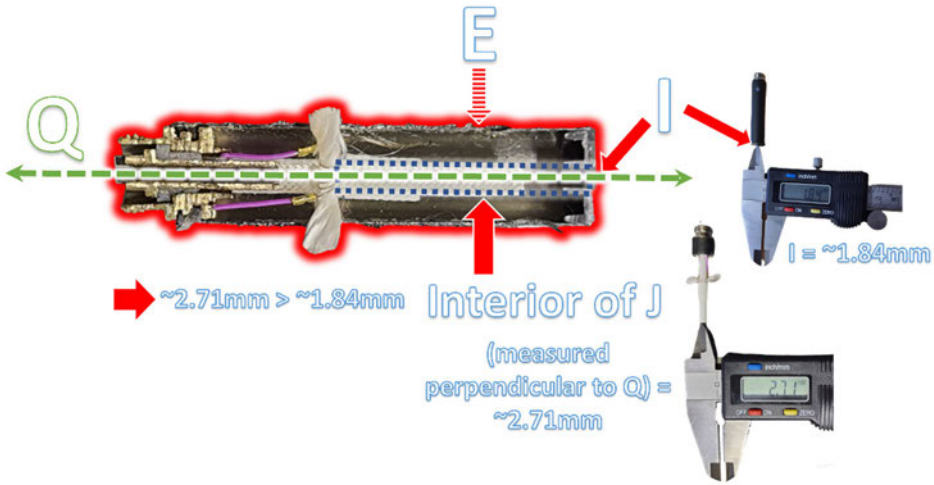
Logic Power Figure 864.3.a.

243. The Logic Power has an "airflow passageway [J] having an interior between the heating element [N] and the second aperture [I]."



Logic Power Figure 864.3.b.

244. The Logic Power has an airflow passageway [J] with "the interior having no cross-sectional area measured perpendicular to the central longitudinal axis [Q] of the housing [E] smaller in cross-sectional area than a cross-sectional area of the second aperture [I]."



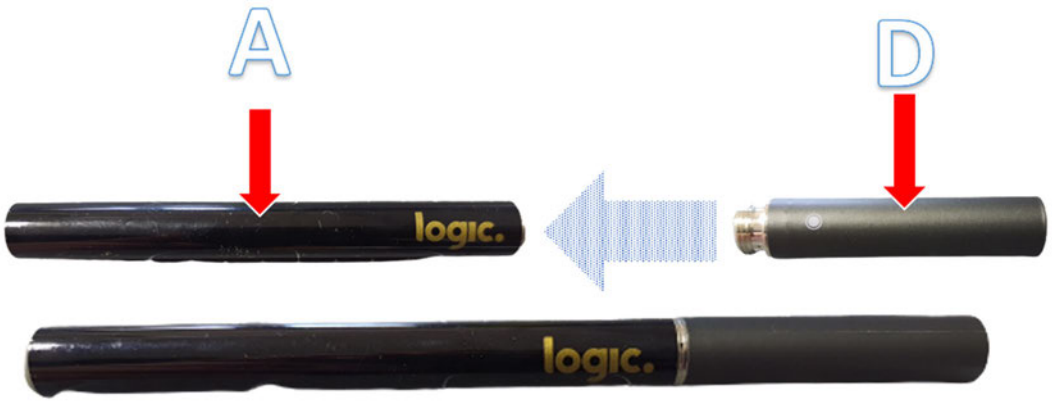
Logic Power Figure 864.3.c.

245. Claim 5 of the ’864 Patent reads as follows:

> **5**. 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;
>
> 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; and
>
> an airflow passageway in the housing, at least a portion of the airflow passageway extending centrally and axially with respect to the housing,
>
> 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.

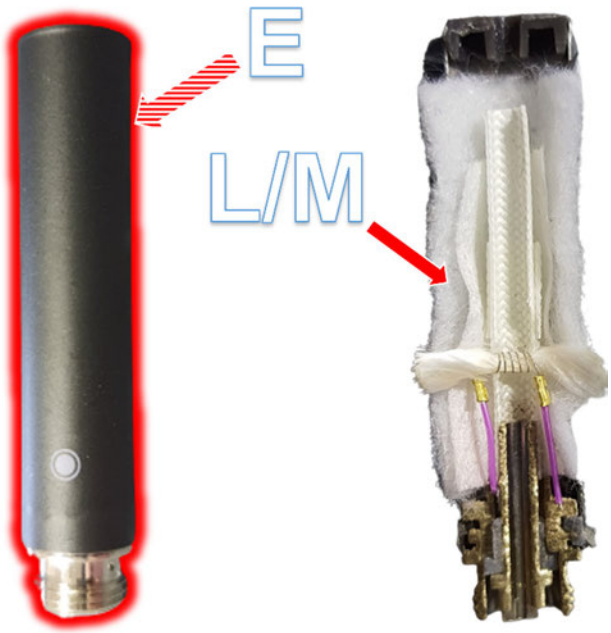
246. As shown in the figures set forth in Paragraphs 247 through 259, the Logic Power meets every limitation recited in Claim 5 of the ’864 Patent.

247. To the extent that the preamble is limiting, the Logic Power has "A cartridge configured to couple to a power source of an electronic vaporizer."



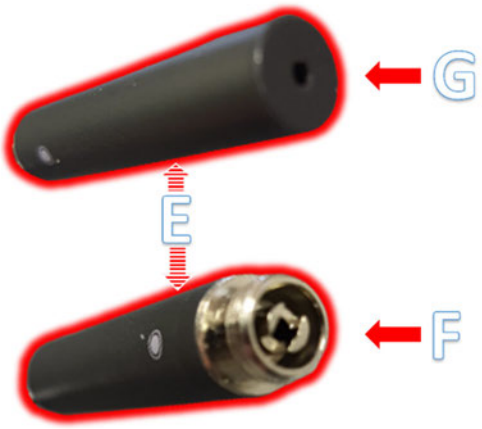
Logic Power Figure 864.5.pre.

248. The Logic Power includes "a housing [E] having an interior and a solution holding medium [L] adapted to hold a solution [M]."



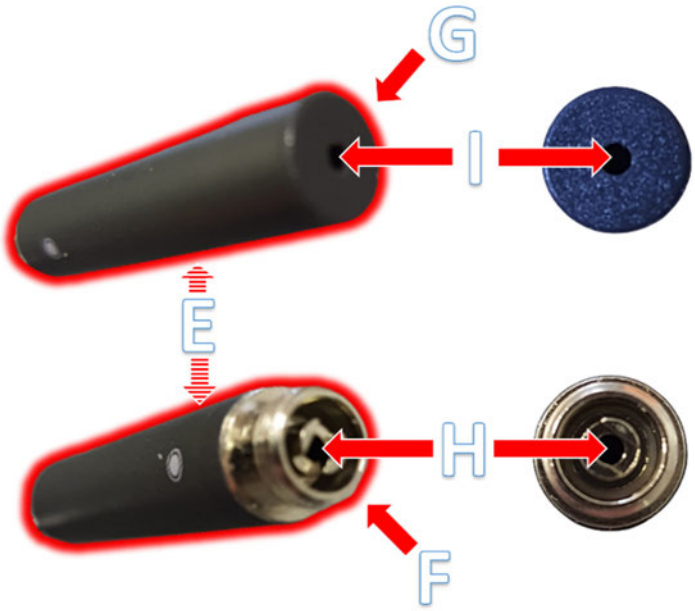
Logic Power Figure 864.5.a.

249. The Logic Power includes a "housing [E] having a first end [F] and a second end [G] that is opposite the first end [F]."



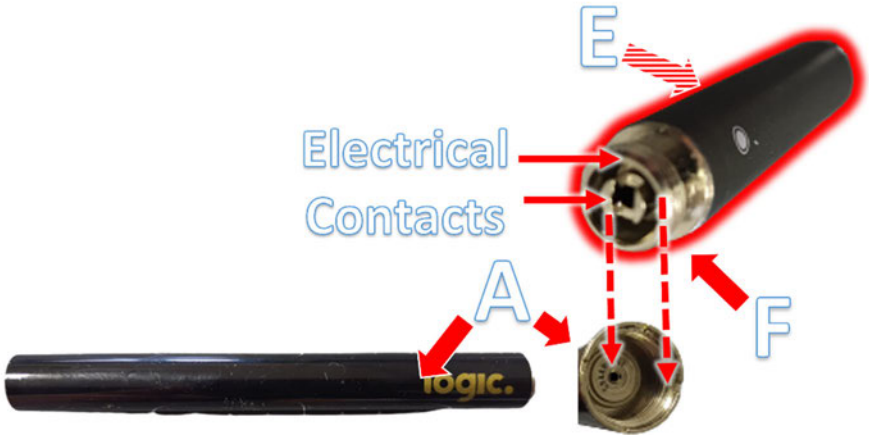
Logic Power Figure 864.5.b.

250. The Logic Power includes a "housing [E] having a first aperture [H] proximate the first end [F] and a second aperture [I] proximate the second end [G]."



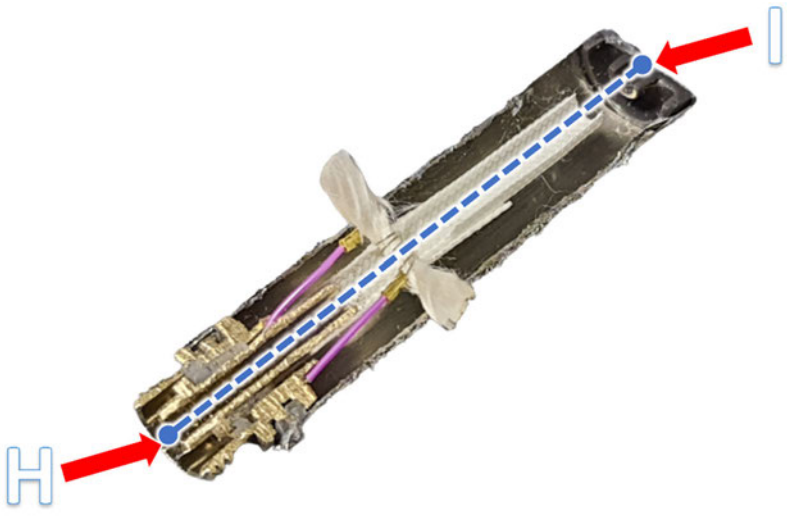
Logic Power Figure 864.5.c.

251. The Logic Power includes a housing with "the first end [F] of the housing [E] being adapted to electrically couple to the power source [A]."



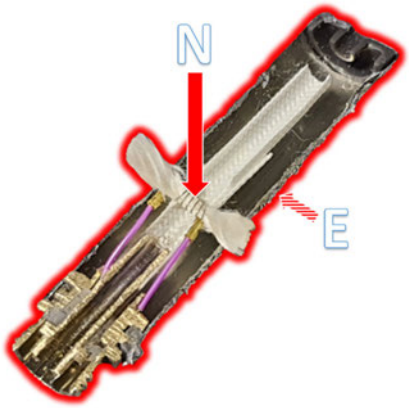
Logic Power Figure 864.5.d.

252. The Logic Power includes a housing with "the first aperture [H] and the second aperture [I] being in communication with one another to permit an airflow through the housing from the first aperture [H] to the second aperture [I]."



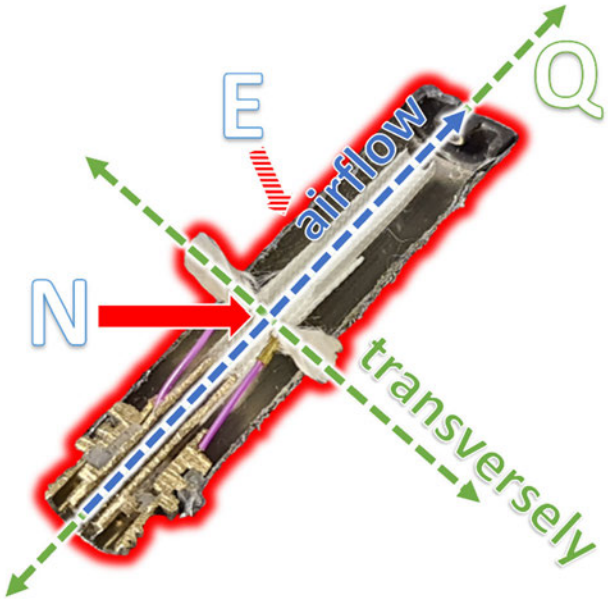
Logic Power Figure 864.5.e.

253. The Logic Power includes "a heating element [N] located in the interior of the housing [E]."



Logic Power Figure 864.5.f.

254. The Logic Power includes a heating element with "the heating element [N] extending transversely to a central longitudinal axis [Q] of the housing [E] and being at least partially exposed to the airflow."

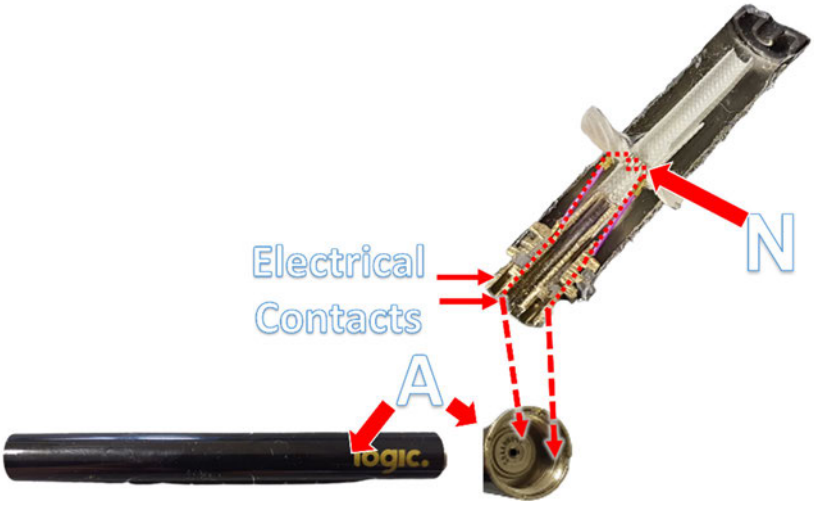


Logic Power Figure 864.5.g.

255. The Logic Power includes a heating element with "the heating element [N] being configured to vaporize at least a portion of the solution [M] for oral provision to an individual in the airflow."

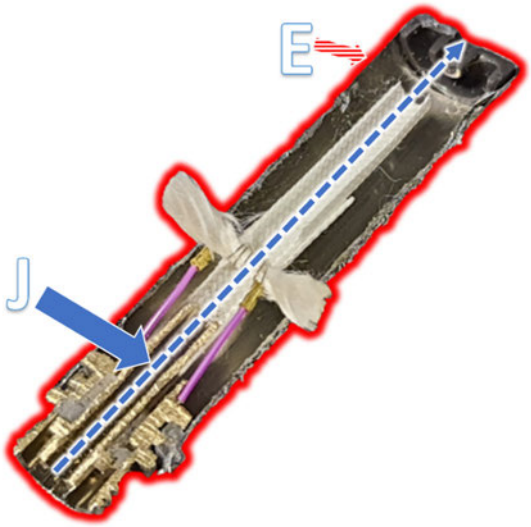
Logic Power Figure 864.5.h.

256. The Logic Power includes a heating element with "the heating element [N] being responsive to electrical power received from the power source [A]."



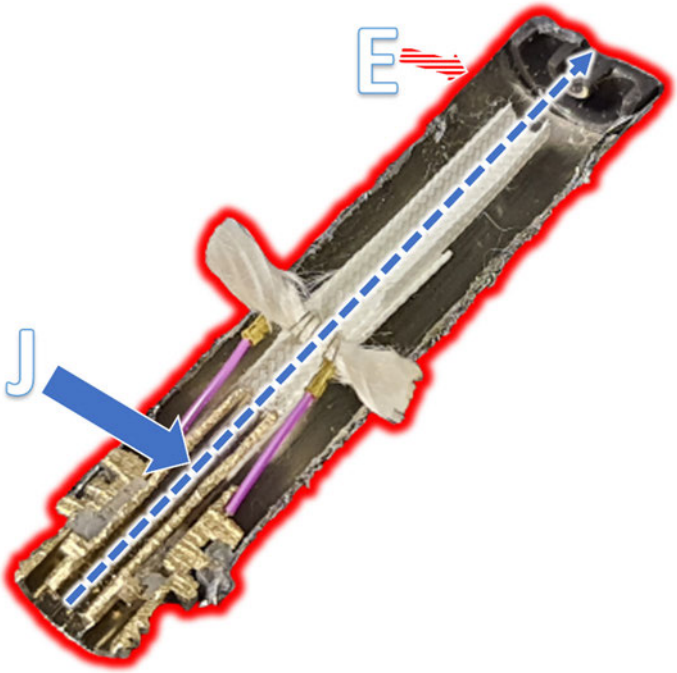
Logic Power Figure 864.5.i.

257. The Logic Power has "an airflow passageway [J] in the housing [E]."



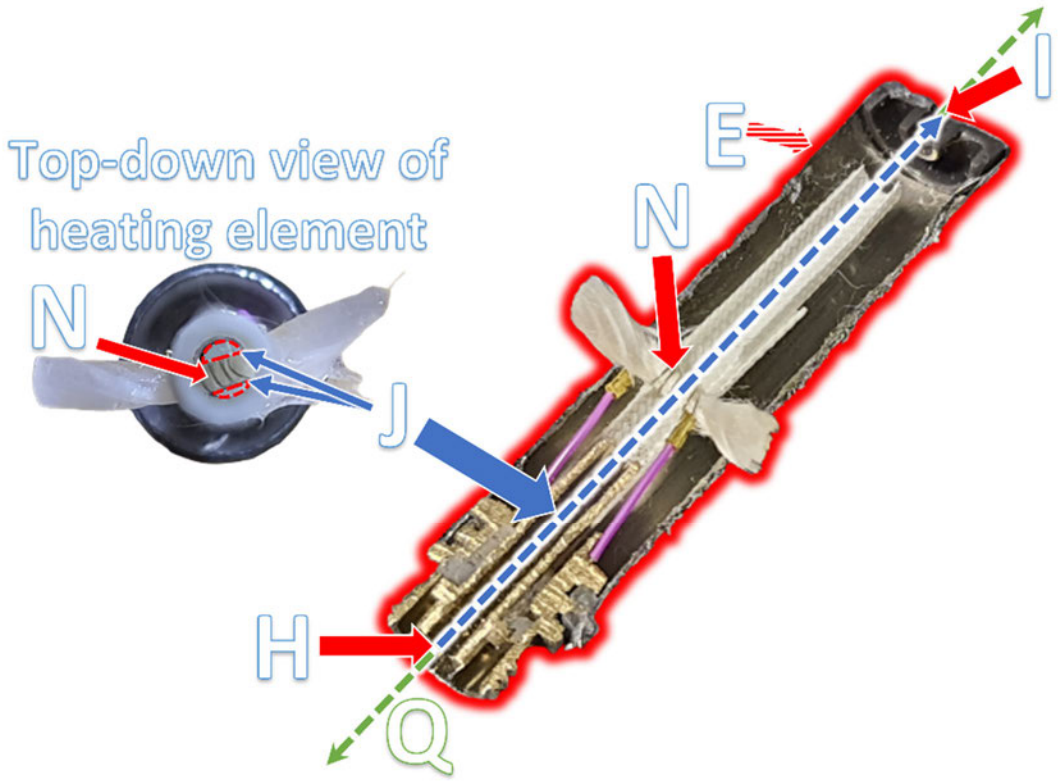
Logic Power Figure 864.5.j.

258. The Logic Power has, "at least a portion of the airflow passageway [J] extending centrally and axially with respect to the housing [E]."



Logic Power Figure 864.5.k.

259. In the Logic Power, "the airflow passageway [J] extends in a straight path from the first aperture [H] to the second aperture [I] with only the heating element [N] obstructing a portion of the airflow through the airflow passageway [J] along the central longitudinal axis [Q] of the housing [E]."



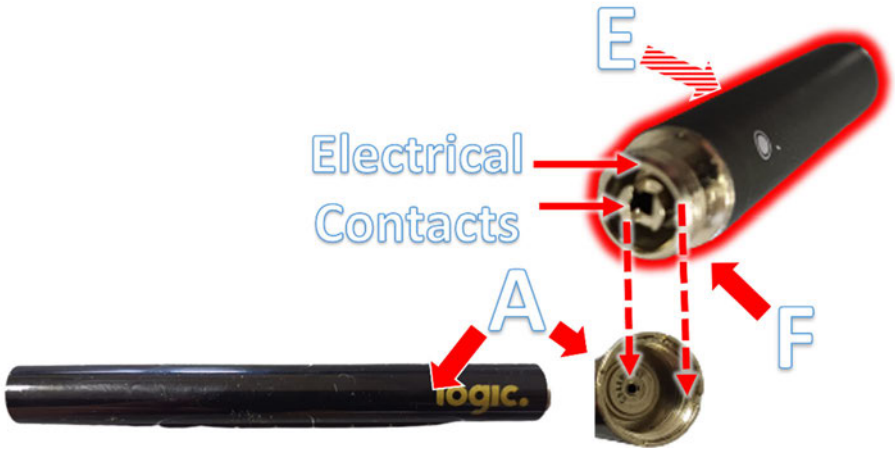
Logic Power Figure 864.5.l.

260. Claim 6 of the '864 Patent reads as follows:

> **6**. The cartridge of claim **5**, 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.

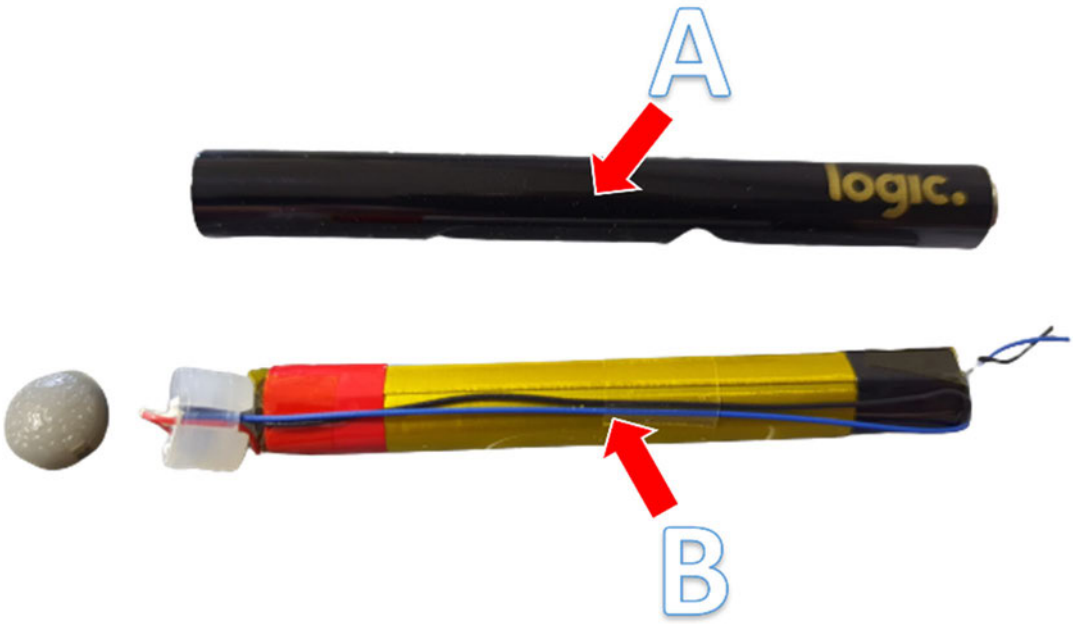
261. As shown in the figures set forth in Paragraphs 262 through 263, the Logic Power meets every limitation recited in Claim 6 of the '864 Patent.

262. The Logic Power has "a power source [A] adapted to be electrically coupled to the first end [F] of the housing [E]."



Logic Power Figure 864.6.a.

263. The Logic Power has a "power source [A] including a battery [B]."



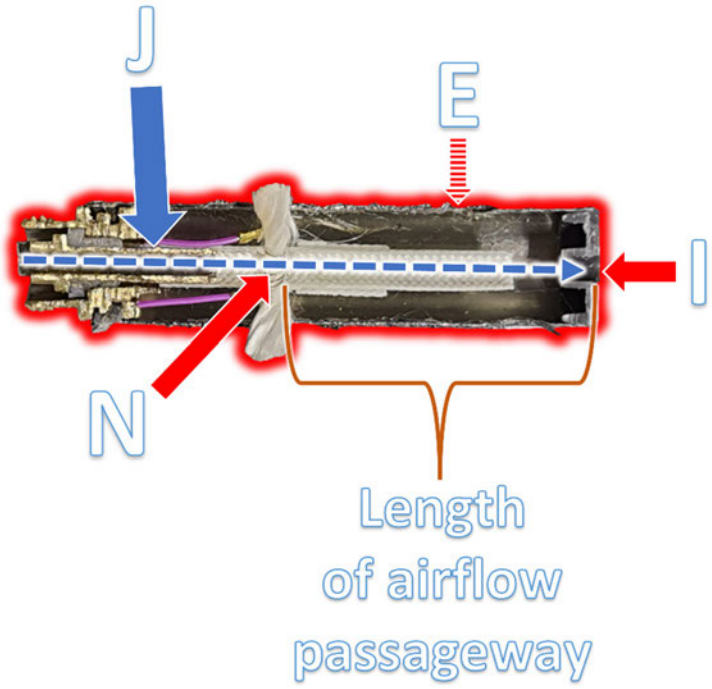
Logic Power Figure 864.6.b.

264. Claim 7 of the ’864 Patent reads as follows:

> **7**. The cartridge of claim **5**, wherein the airflow passageway having a length extending intermediate of the heating element and the second aperture, the airflow passageway 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.

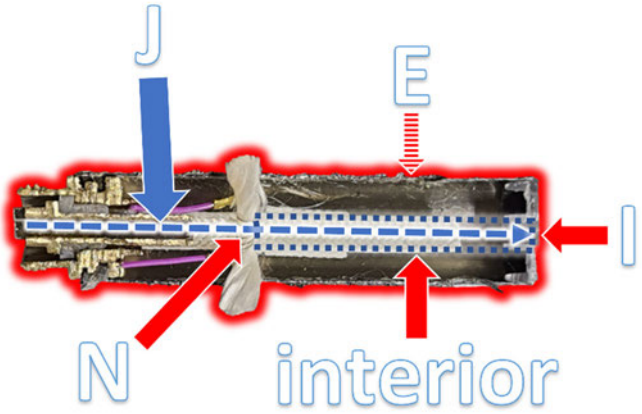
265. As shown in the figures set forth in Paragraphs 266 through 268, the Logic Power meets every limitation recited in Claim 7 of the ’864 Patent.

266. The Logic Power has an “airflow passageway [J] having a length extending intermediate of the heating element [N] and the second aperture [I].”



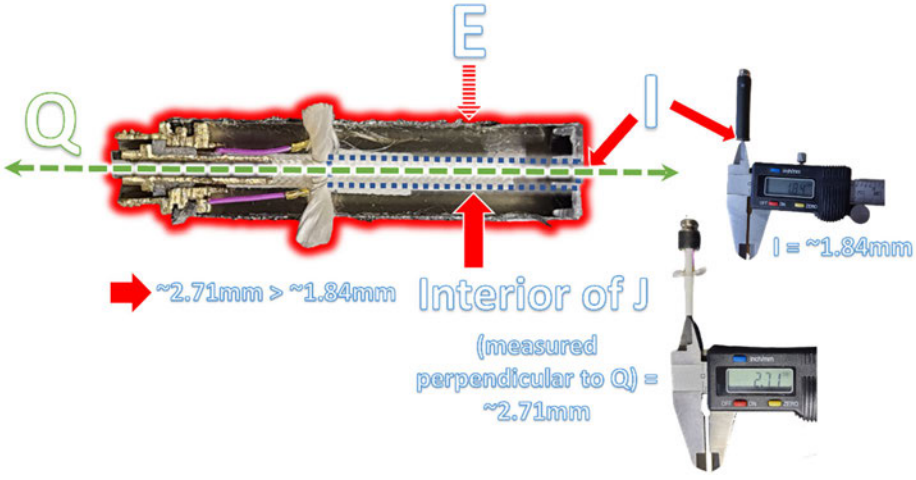
Logic Power Figure 864.7.a.

267. The Logic Power has an "airflow passageway [J] having an interior between the heating element [N] and the second aperture [I]."



Logic Power Figure 864.7.b.

268. The Logic Power has an airflow passageway [J] with "the interior having no cross-sectional area measured perpendicular to the central longitudinal axis [Q] of the housing [E] smaller in cross-sectional area than a cross-sectional area of the second aperture [I]."



Logic Power Figure 864.7.c.

269. Claim 9 of the ’864 Patent reads as follows:

> **9**. 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 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.

270. As shown in the figures set forth in Paragraphs 271 through 283, the Logic Power meets every limitation recited in Claim 9 of the ’864 Patent.

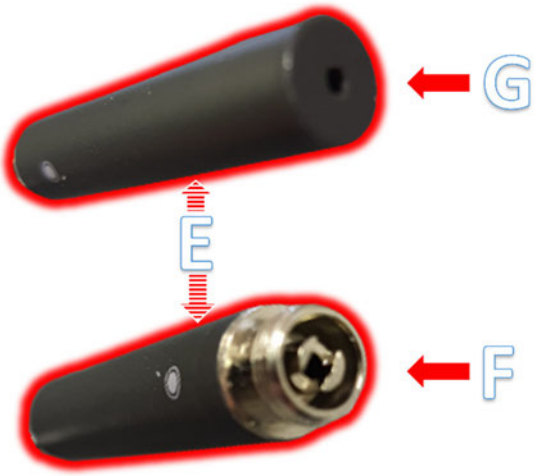
271. To the extent that the preamble is limiting, the Logic Power has "A cartridge [A] configured to couple to a power source [D] of an electronic vaporizer."

Logic Power Figure 864.9.pre.

272. The Logic Power includes "a housing [E] having an interior and a solution holding medium [L] adapted to hold a solution [M]."

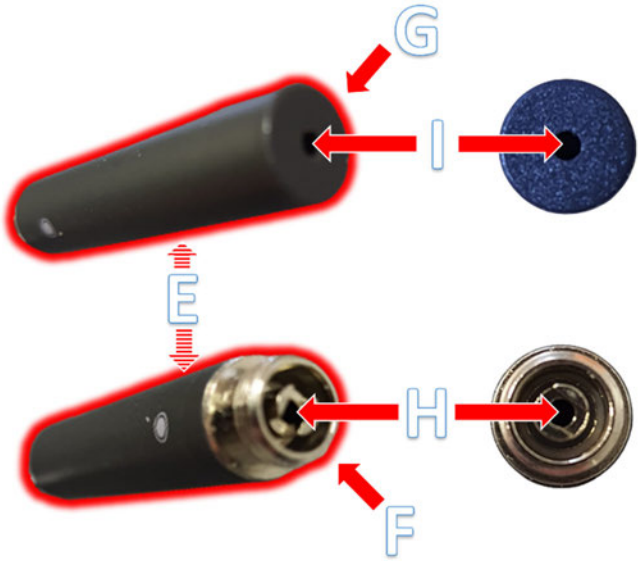
Logic Power Figure 864.9.a.

273. The Logic Power includes a "housing [E] having a first end [F] and a second end [G] that is opposite the first end [F]."



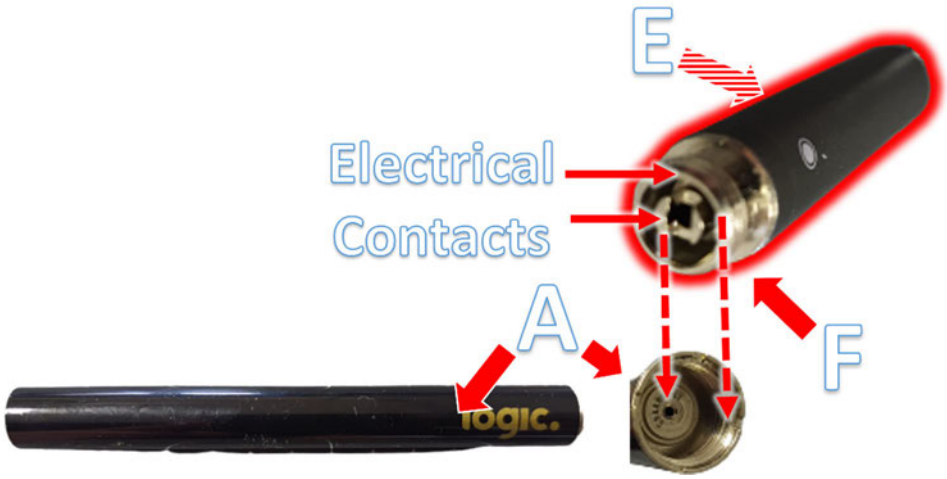
Logic Power Figure 864.9.b.

274. The Logic Power includes a "housing [E] having a first aperture [H] proximate the first end [F] and a second aperture [I] proximate the second end [G]."



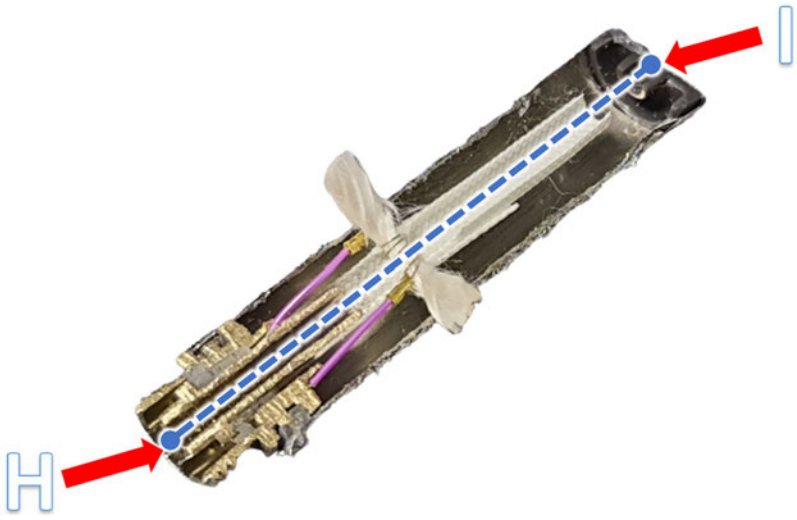
Logic Power Figure 864.9.c.

275. The Logic Power includes a housing with "the first end [F] of the housing [E] being adapted to electrically couple to the power source [A]."



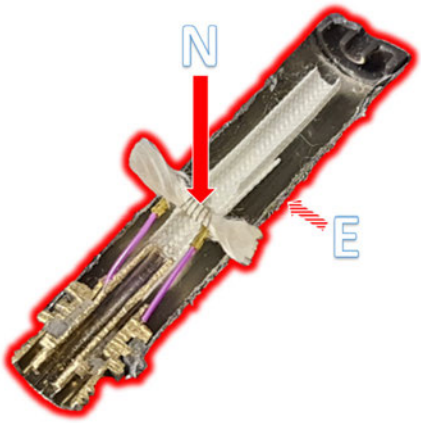
Logic Power Figure 864.9.d.

276. The Logic Power includes a housing with "the first aperture [H] and the second aperture [I] being in communication with one another to permit an airflow through the housing from the first aperture [H] to the second aperture [I]."



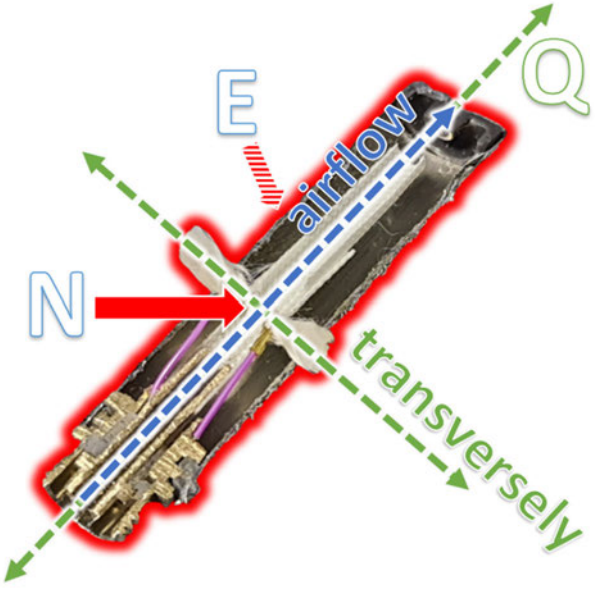
Logic Power Figure 864.9.e.

277. The Logic Power includes "a heating element [N] located in the interior of the housing [E]."



Logic Power Figure 864.9.f.

278. The Logic Power includes a heating element with "the heating element [N] extending transversely to a central longitudinal axis [Q] of the housing [E] and being at least partially exposed to the airflow."

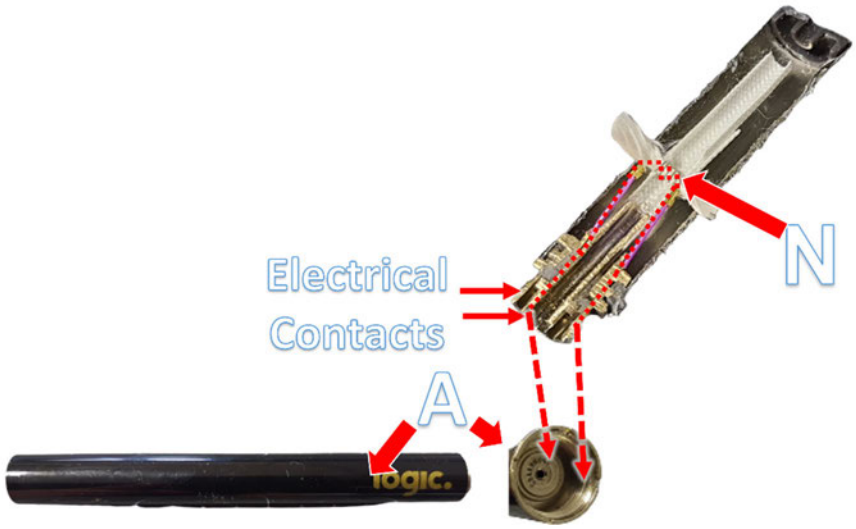


Logic Power Figure 864.9.g.

279. The Logic Power includes a heating element with "the heating element [N] being configured to vaporize at least a portion of the solution [M] for oral provision to an individual in the airflow."

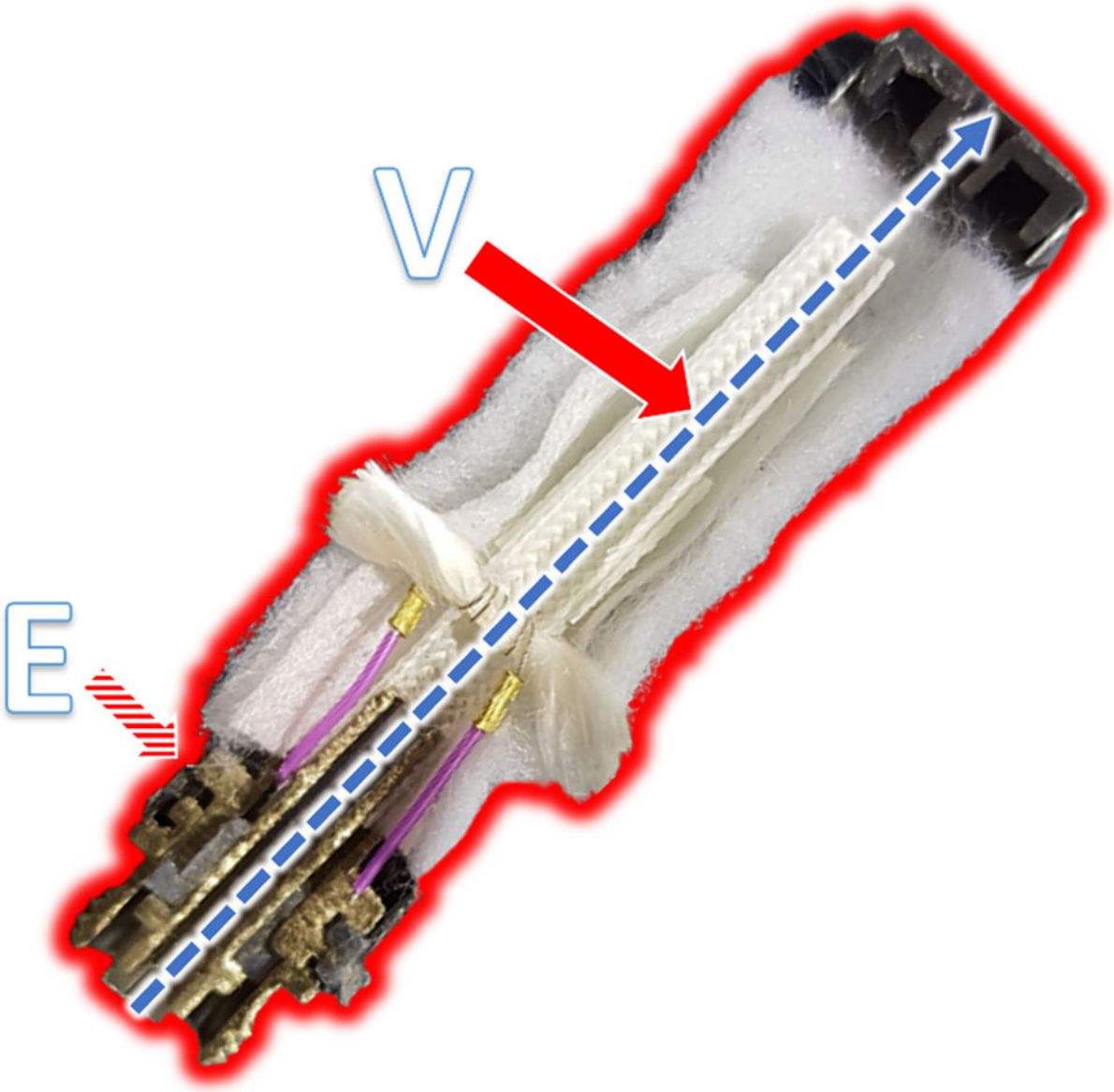
Logic Power Figure 864.9.h.

280. The Logic Power includes a heating element with "the heating element [N] being responsive to electrical power received from the power source [A]."



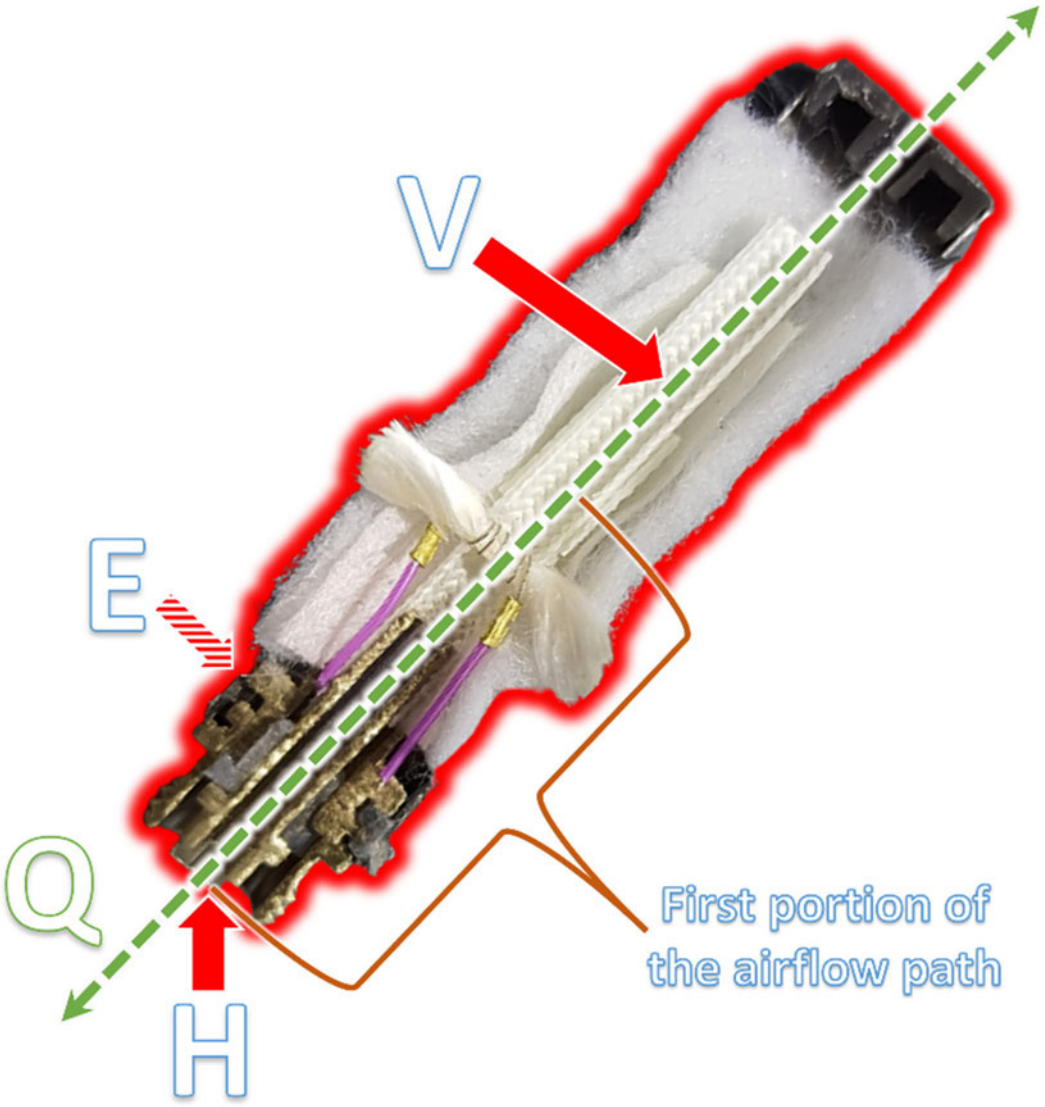
Logic Power Figure 864.9.i.

281. In the Logic Power, "the airflow through the housing [E] follows an airflow path [V]."



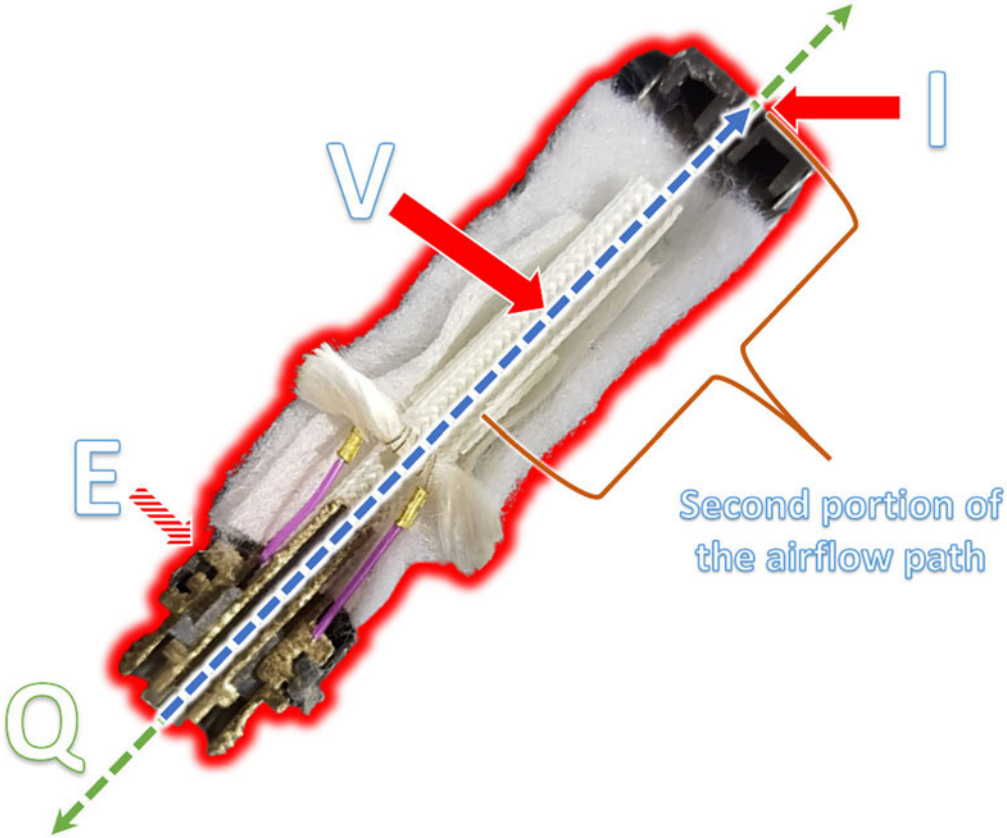
Logic Power Figure 864.9.j.

282. The Logic Power has "a first portion of the airflow path [V] proximate the first aperture [H] being defined substantially centrally and axially with respect to the central longitudinal axis [Q] of the housing [E]."



Logic Power Figure 864.9.k.

283. The Logic Power has "a second portion of the airflow path [V] proximate to the second aperture [I] being defined substantially centrally and axially with respect to the central longitudinal axis [Q] of the housing [E]."



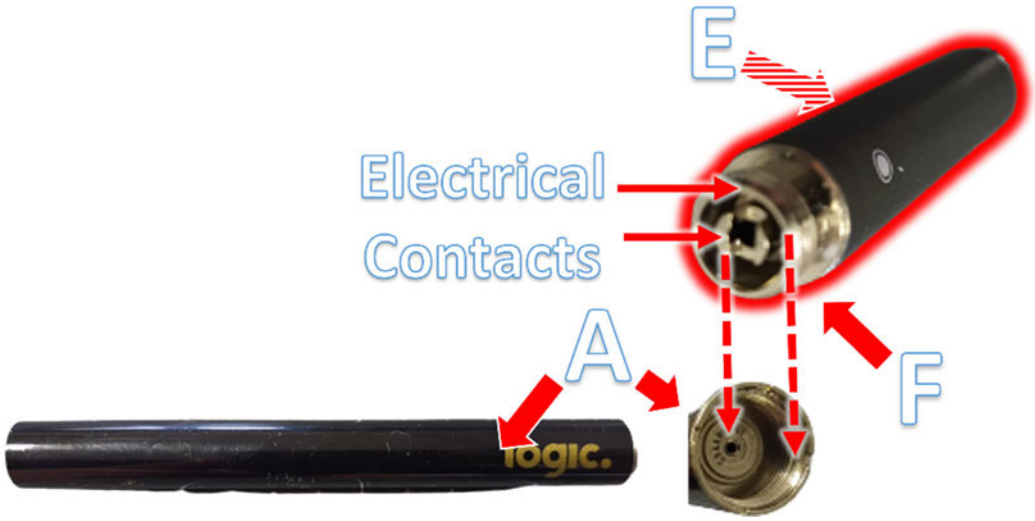
Logic Power Figure 864.9.l.

284. Claim 10 of the '864 Patent reads as follows:

> **10**. The cartridge of claim **9**, 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.

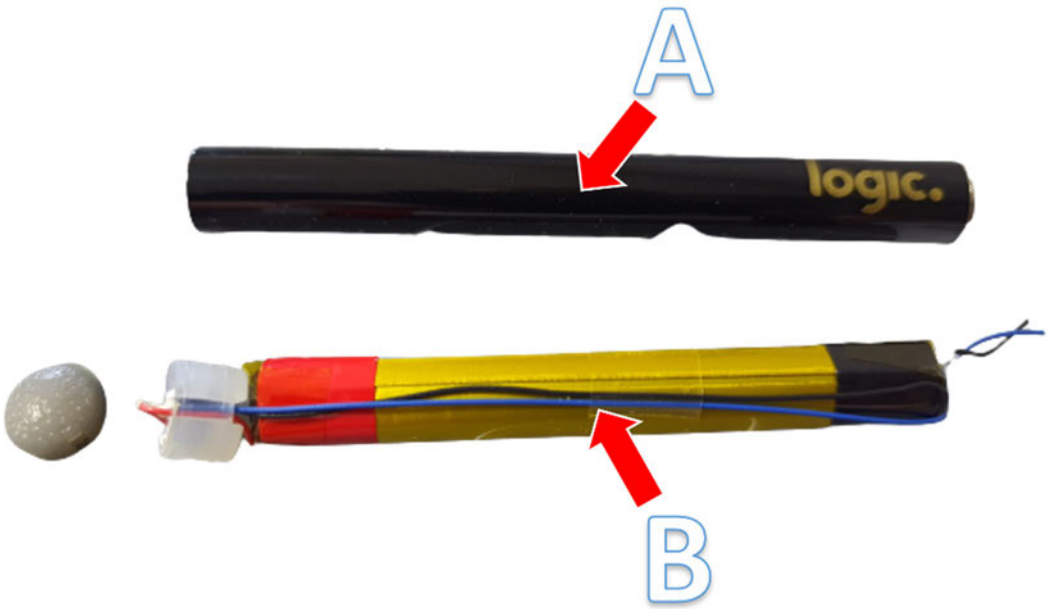
285. As shown in the figures set forth in Paragraphs 286 through 287, the Logic Power meets every limitation recited in Claim 10 of the '864 Patent.

286. The Logic Power has "a power source [A] adapted to be electrically coupled to the first end [F] of the housing [E]."



Logic Power Figure 864.10.a.

287. The Logic Power has a "power source [A] including a battery [B]."



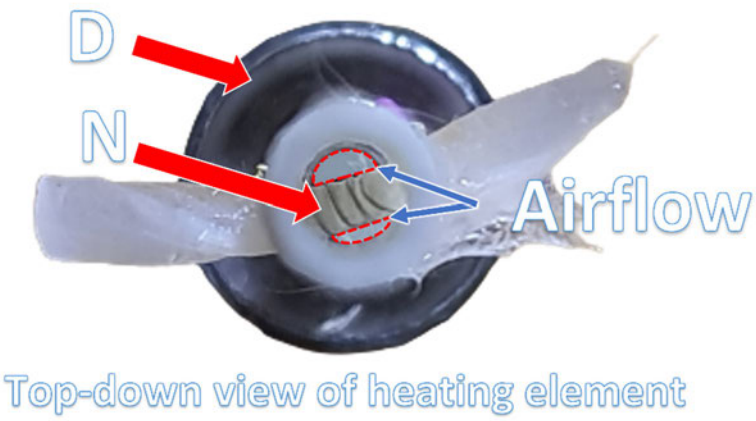
Logic Power Figure 864.10.b.

288. Claim 11 of the ’864 Patent reads as follows:

> **11**. The cartridge of claim **9**, 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.

289. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 11 of the ’864 Patent.

290. In the Logic Power, “the cartridge [D] is adapted to permit the airflow to pass on both transverse sides of the heating element [N] during use of the electronic vaporizer.”



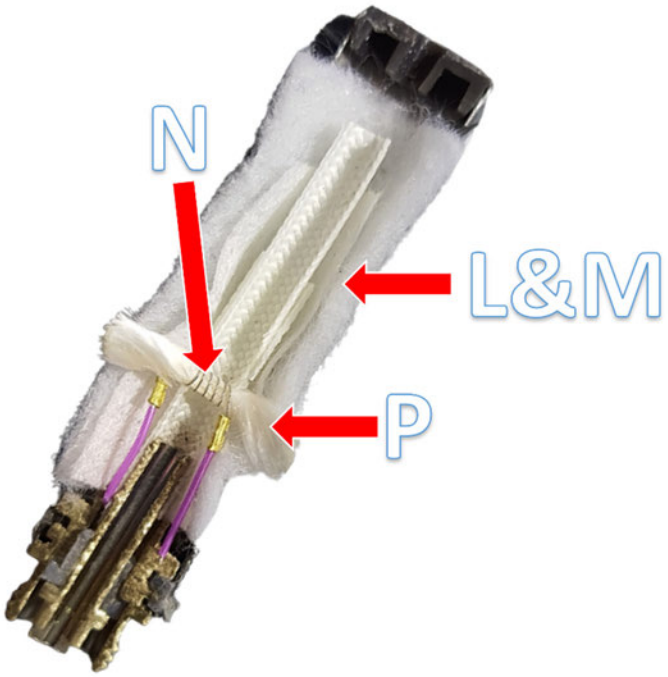
Logic Power Figure 864.11.

291. Claim 12 of the ’864 Patent reads as follows:

> **12**. The cartridge of claim **9**, 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.

292. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 12 of the ’864 Patent.

293. In the Logic Power, "the heating element [N] includes a wicking material [P] being operative to permit at least a portion of the solution [M] to be held in the solution holding medium [L] to be drawn toward the heating element [N] to be vaporized."



Logic Power Figure 864.12.

294. Claim 14 of the '864 Patent reads as follows:

> **14**. The cartridge of claim **9**, further comprising a solution in the solution holding medium, the solution comprising one of propylene glycol and nicotine.

295. As shown in the figures set forth in Paragraphs 296 through 297, the Logic Power meets every limitation recited in Claim 14 of the '864 Patent.

296. The Logic Power has "a solution [M] in the solution holding medium [L]."

Logic Power Figure 864.14.a.

297. The Logic Power has a "solution [M] comprising one of propylene glycol and nicotine."

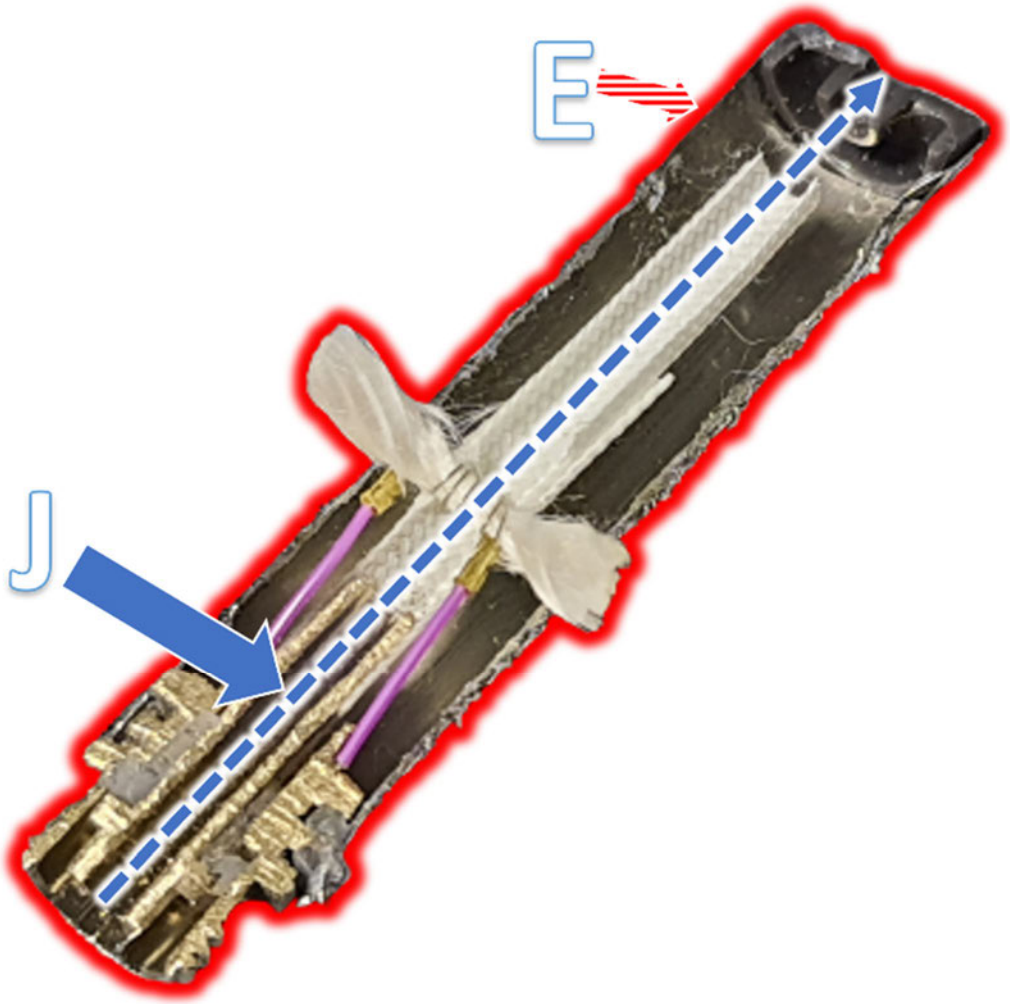
Logic Power Figure 864.14.b.

298. Claim 15 of the ’864 Patent reads as follows:

> **15**. The cartridge of claim **9**, 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.

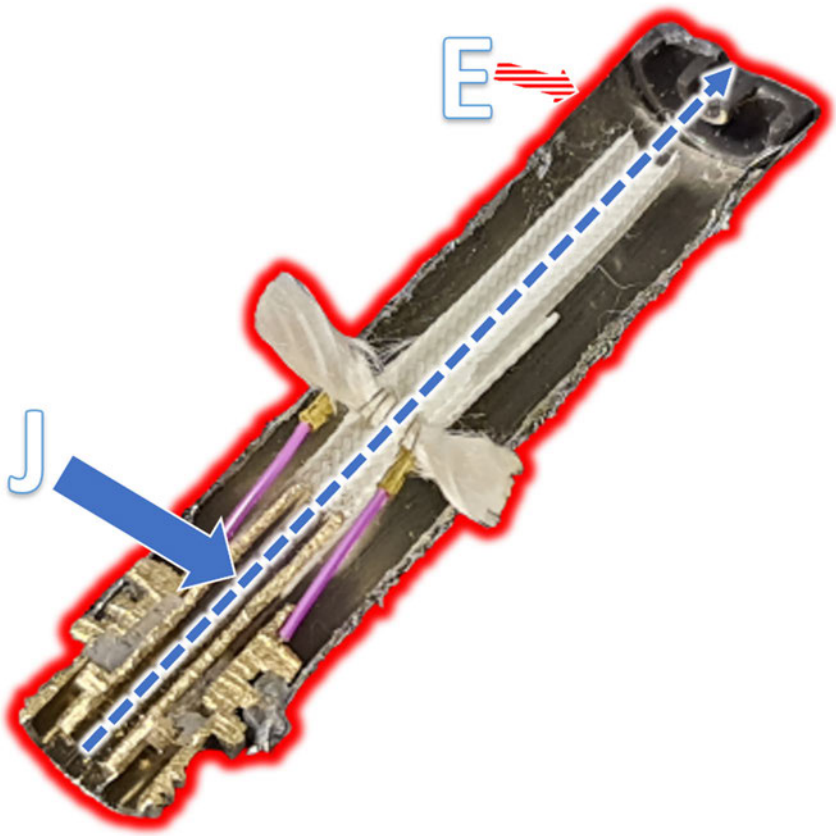
299. As shown in the figures set forth in Paragraphs 300 through 301, the Logic Power meets every limitation recited in Claim 15 of the ’864 Patent.

300. The Logic Power has “an airflow passageway [J] in the housing [E].”



Logic Power Figure 864.15.a.

301. The Logic Power has, "at least a portion of the airflow passageway [J] extending centrally and axially with respect to the housing [E]."



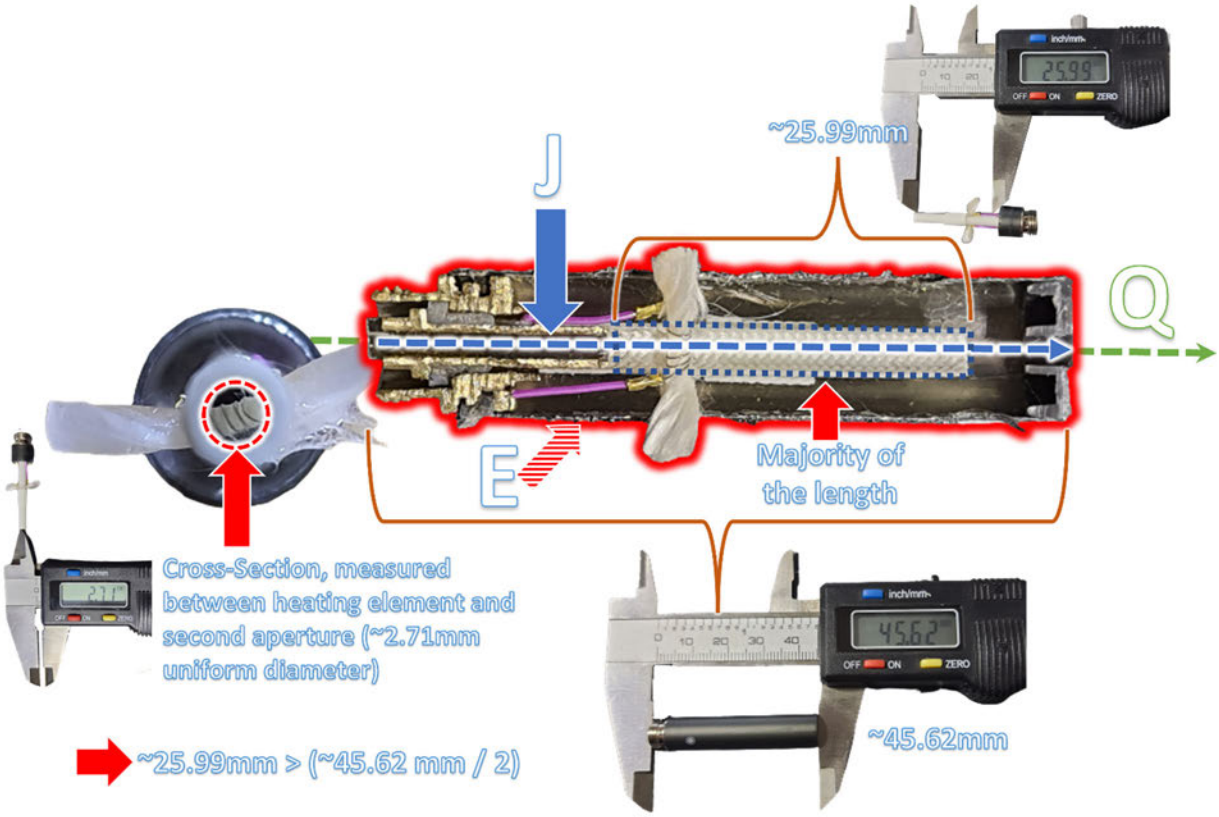
Logic Power Figure 864.15.b.

302. Claim 16 of the '864 Patent reads as follows:

> **16**. The cartridge of claim **15**, 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.

303. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 16 of the '864 Patent.

304. In the Logic Power, "a majority of the portion of the airflow passageway [J] has a substantially uniform cross-sectional area measured perpendicular to the central longitudinal axis [Q] of the housing [E] between the heating element [N] and the second aperture [I]."



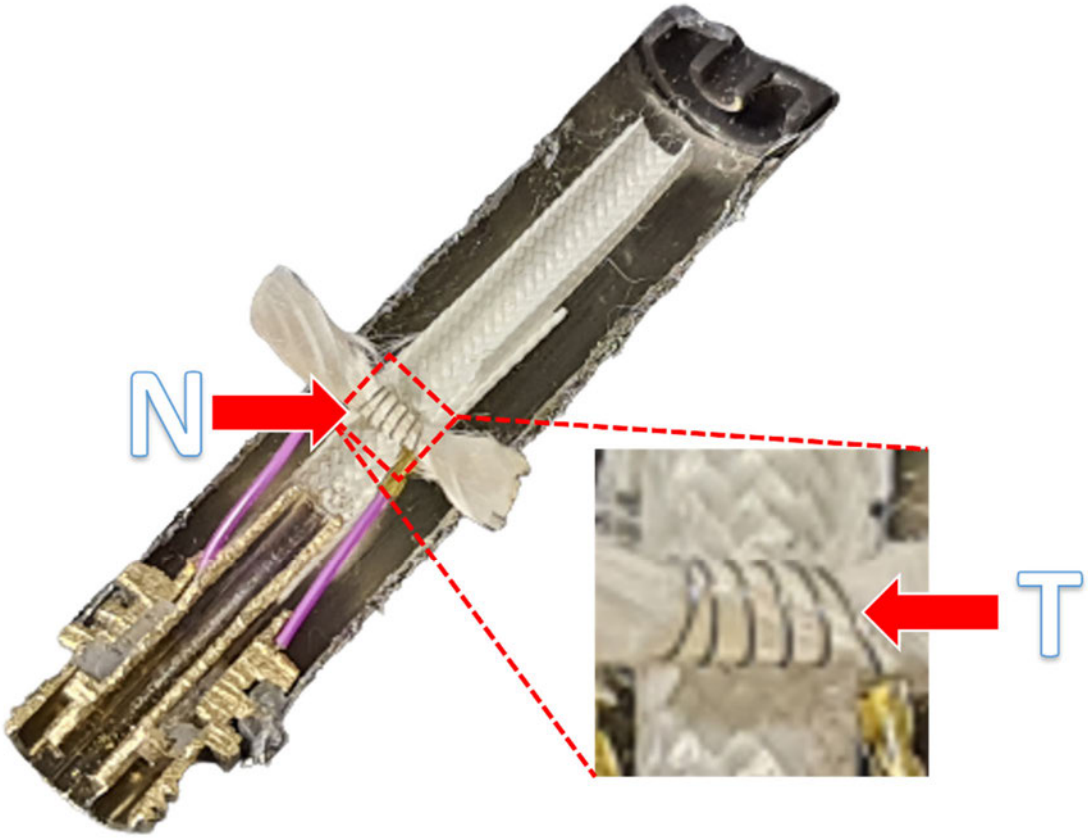
Logic Power Figure 864.16.

305. Claim 17 of the '864 Patent reads as follows:

> **17**. The cartridge of claim **9**, wherein the heating element includes a coil.

306. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 17 of the '864 Patent.

307. In the Logic Power, "the heating element [N] includes a coil [T]."



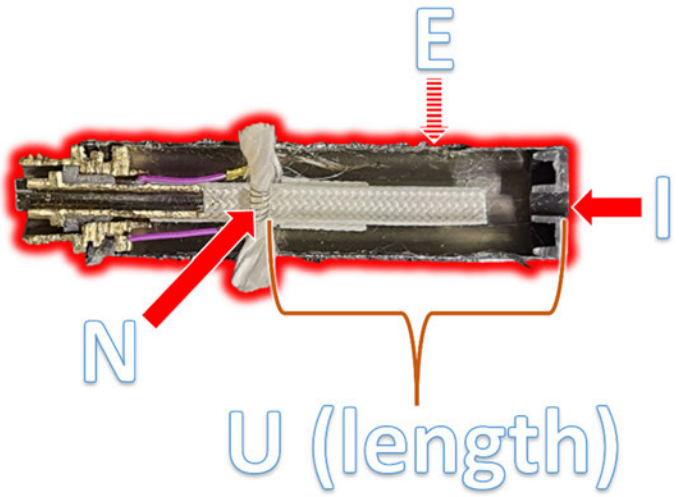
Logic Power Figure 864.17.

308. Claim 18 of the '864 Patent reads as follows:

> **18**. The cartridge of claim **9**, 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.

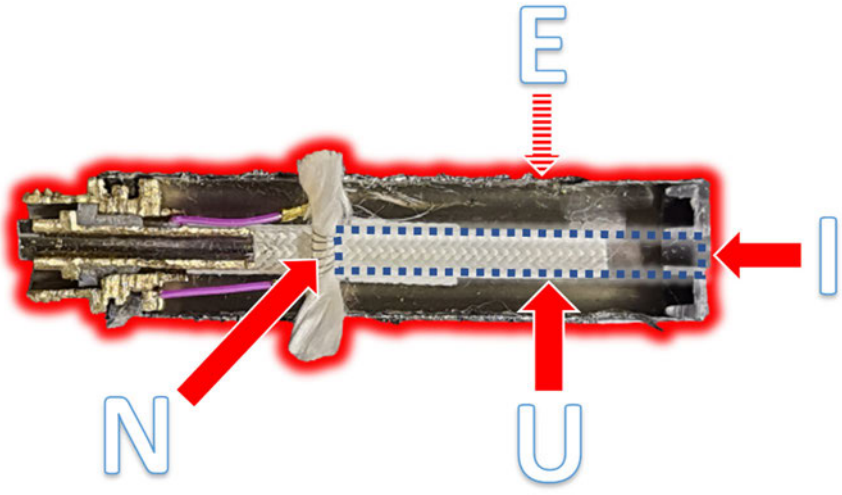
309. As shown in the figures set forth in Paragraphs 310 through 312, the Logic Power meets every limitation recited in Claim 18 of the '864 Patent.

310. In the Logic Power, "the housing [E] further comprises an airflow chamber [U] having a length extending intermediate of the heating element [N] and the second aperture [I]."



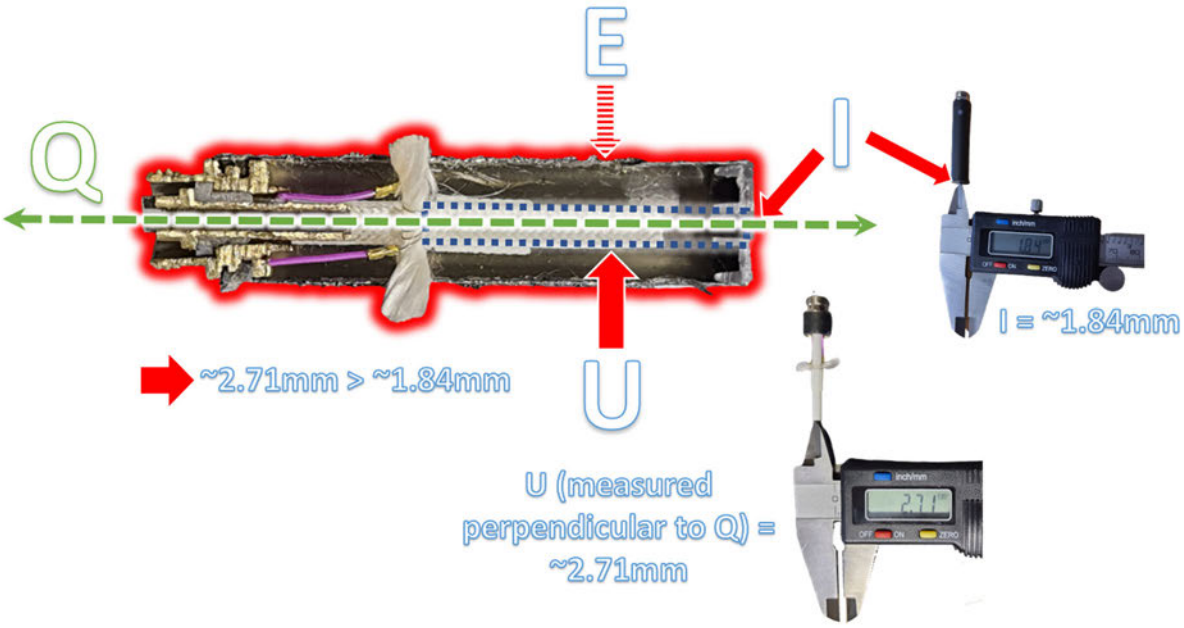
Logic Power Figure 864.18.a.

311. The Logic Power has a "chamber [U] having an interior between the heating element [N] and the second aperture [I]."



Logic Power Figure 864.18.b.

312. The Logic Power has a chamber [U] with "the interior having no cross-sectional area measured perpendicular to the central longitudinal axis [Q] of the housing [E] smaller in cross-sectional area than a cross-sectional area of the second aperture [I]."



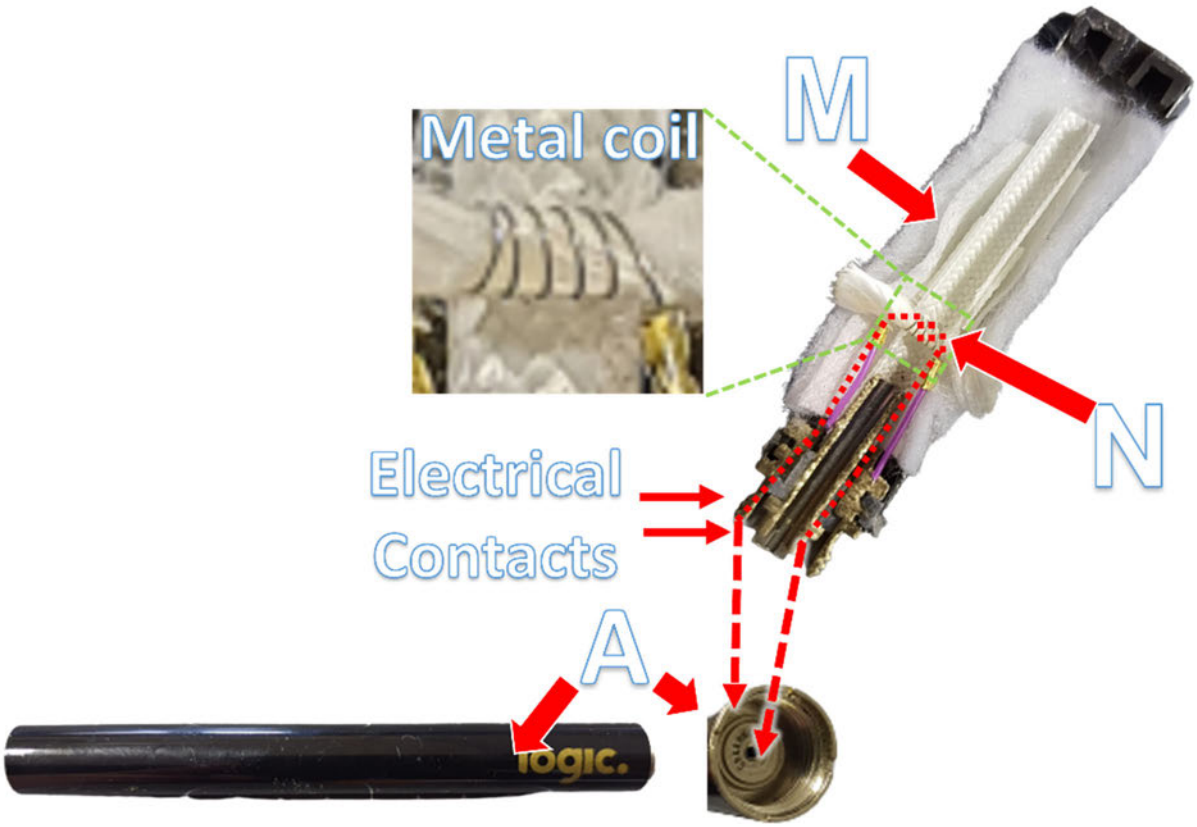
Logic Power Figure 864.18.c.

313. Claim 20 of the '864 Patent reads as follows:

> **20**. The cartridge of claim **9**, 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.

314. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 20 of the '864 Patent.

315. In the Logic Power, "the heating element [N] includes a material that when powered by the power source [A] is adapted to vaporize the solution [M] brought into contact with the heating element [N]."



Logic Power Figure 864.20.

316. Claim 21 of the ’864 Patent reads as follows:

> **21**. 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; and
>
> an airflow passageway in the housing, at least a portion of the airflow passageway extending centrally and axially with respect to the housing,
>
> wherein the airflow passageway extends centrally and axially from the first aperture to the second aperture.

317. As shown in the figures set forth in Paragraphs 318 through 330, the Logic Power meets every limitation recited in Claim 21 of the ’864 Patent.

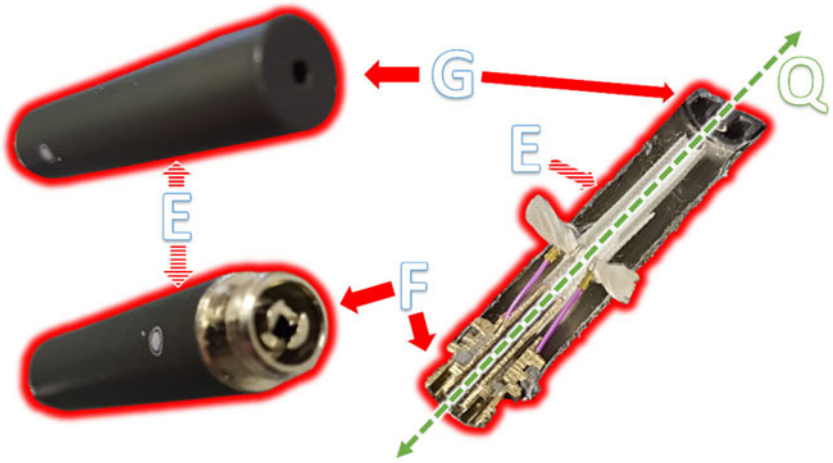
318. To the extent that the preamble is limiting, the Logic Power has a "cartridge [D] configured to couple to a power source [A] of an electronic vaporizer."

Logic Power Figure 864.21.pre.

319. The Logic Power has "a housing [E] having an interior and a solution holding medium [L] adapted to hold a solution [M]."

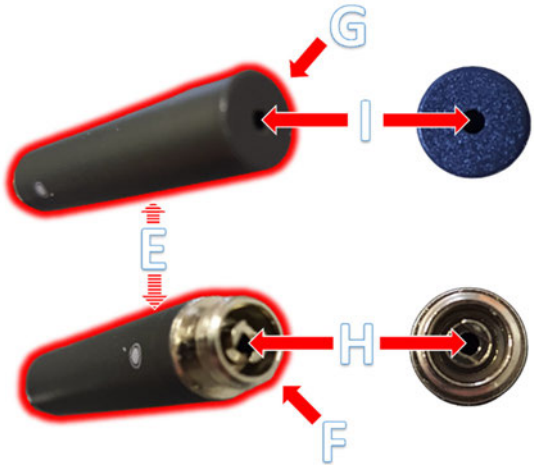
Logic Power Figure 864.21.a.

320. The Logic Power has a "housing [E] having a first end [F] and a second end [G] that is opposite the first end [F] and a central longitudinal axis [Q] extending from the first end [F] to the second end [G]."



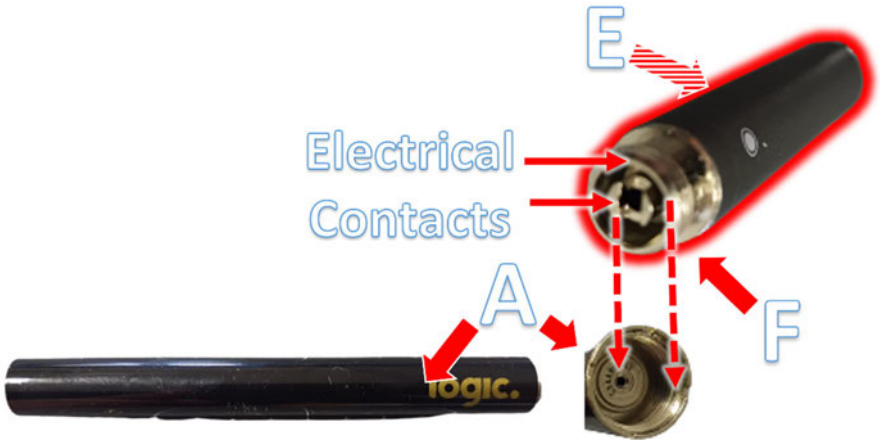
Logic Power Figure 864.21.b.

321. The Logic Power has a "housing [E] having a first aperture [H] proximate the first end [F] and a second aperture [I] proximate the second end [G]."



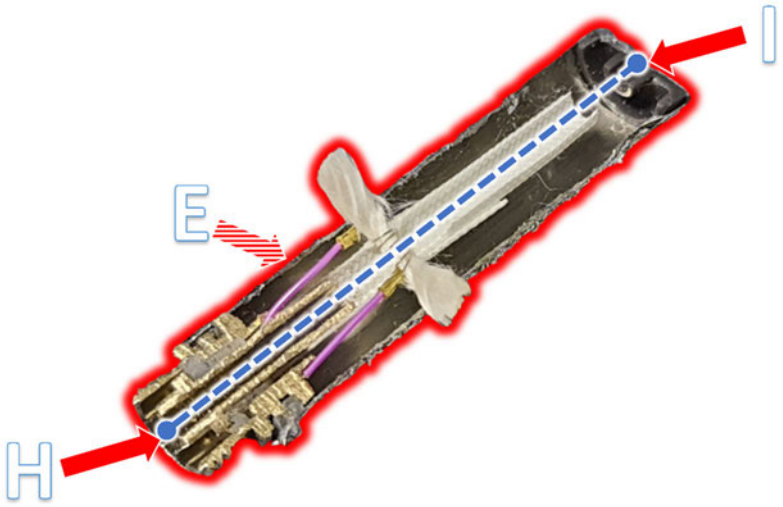
Logic Power Figure 864.21.c.

322. The Logic Power has a "first end [F] of the housing [E] being adapted to electrically couple to the power source [A]."



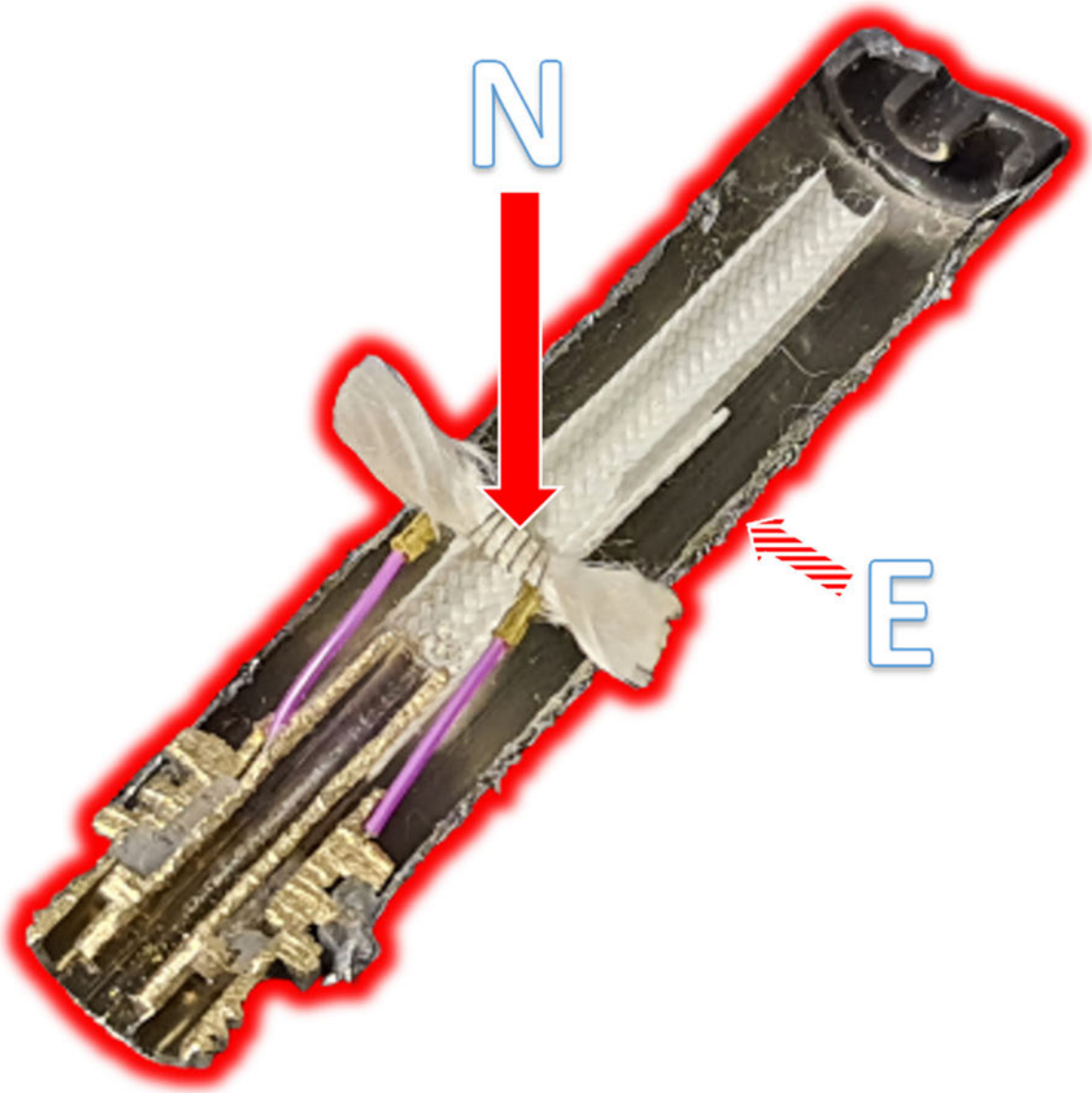
Logic Power Figure 864.21.d.

323. The Logic Power has a "first aperture [H] and the second aperture [I] being in communication with one another to permit an airflow through the housing [E]."



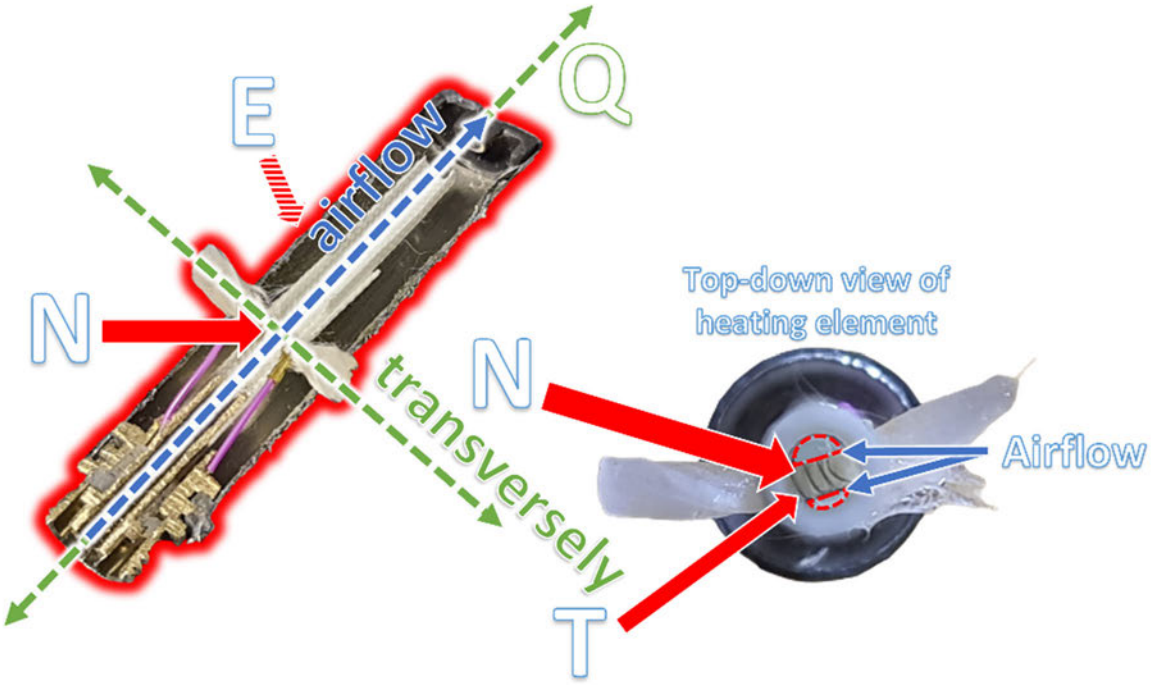
Logic Power Figure 864.21.e.

324. The Logic Power has "a heating element [N] located in the interior of the housing [E]."



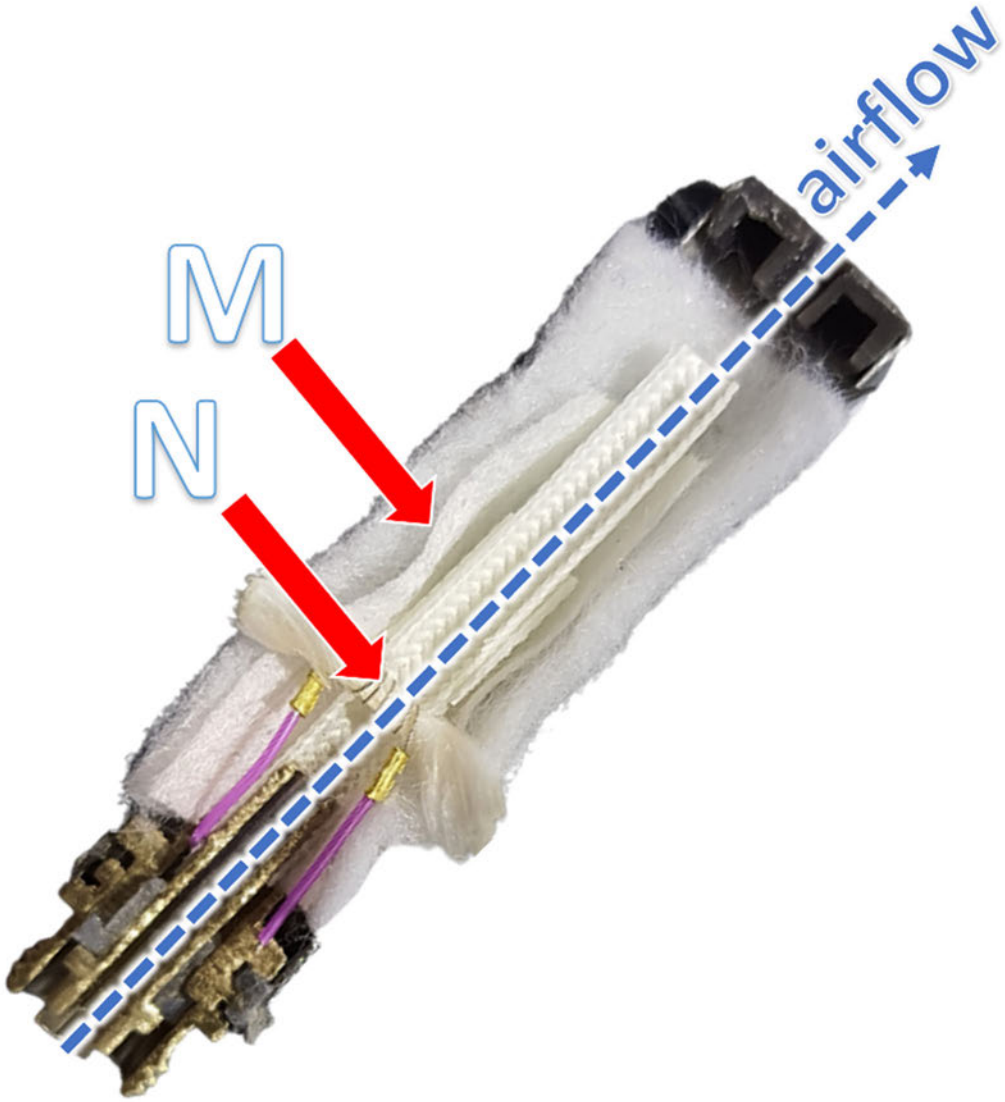
Logic Power Figure 864.21.f.

325. The Logic Power has a "heating element [N] including a coil [T] extending transversely to the central longitudinal axis [Q] of the housing [E] and transversely to a direction of the airflow such that the airflow passes on both transverse sides of the heating element [N] during use of the electronic vaporizer."



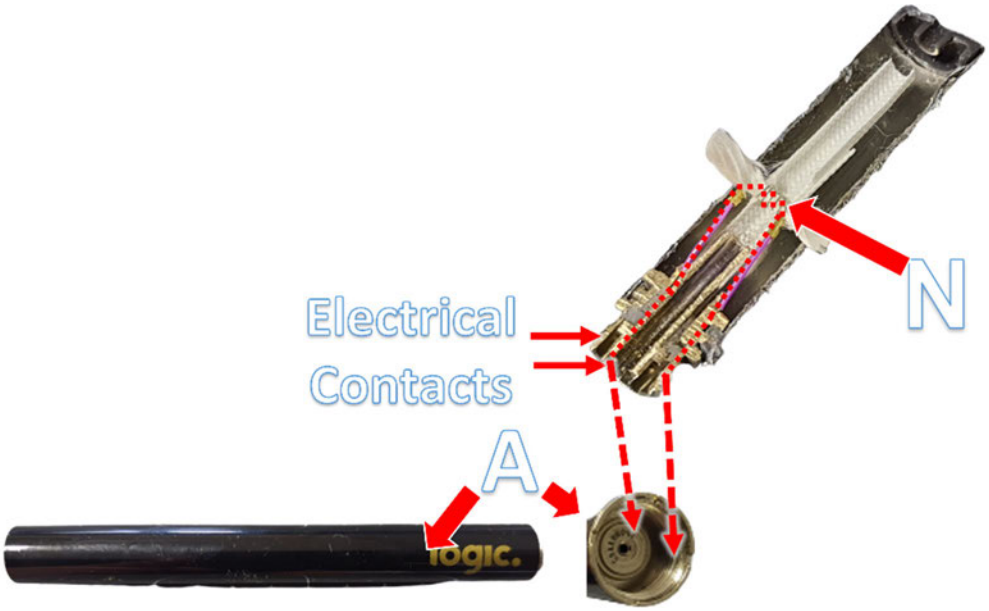
Logic Power Figure 864.21.g.

326. The Logic Power has a "heating element [N] being configured to vaporize at least the portion of the solution [M] drawn to the heating element [N] for oral provision to an individual in the airflow."



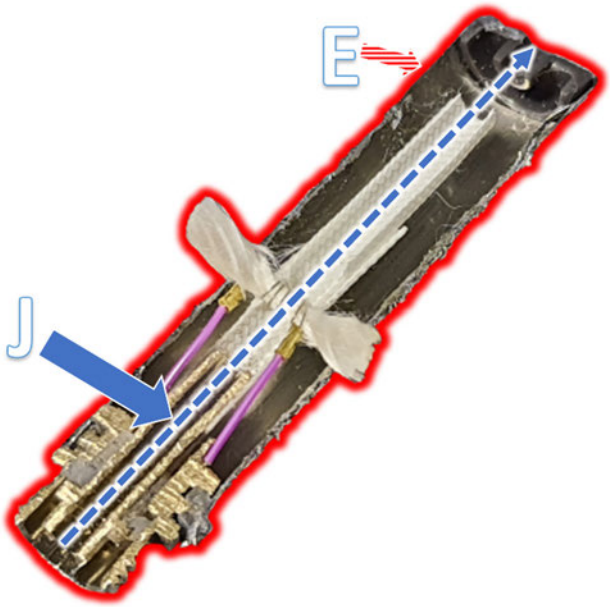
Logic Power Figure 864.21.h.

327. The Logic Power has a "heating element [N] being responsive to electrical power received from the power source [A]."



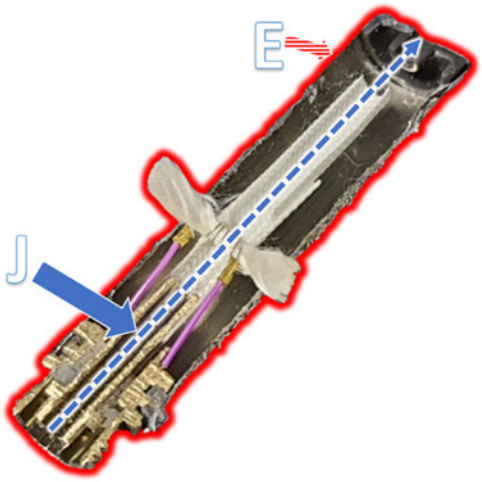
Logic Power Figure 864.21.i.

328. The Logic Power has "an airflow passageway [J] in the housing [E]."



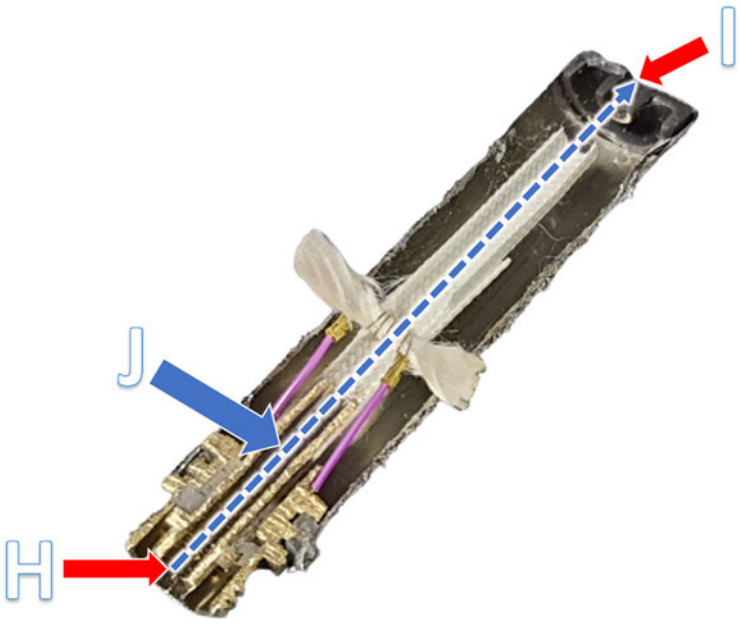
Logic Power Figure 864.21.j.

329. In the Logic Power "at least a portion of the airflow passageway [J] extending centrally and axially with respect to the housing [E]."



Logic Power Figure 864.21.k.

330. In the Logic Power, "the airflow passageway [J] extends centrally and axially from the first aperture [H] to the second aperture [I]."



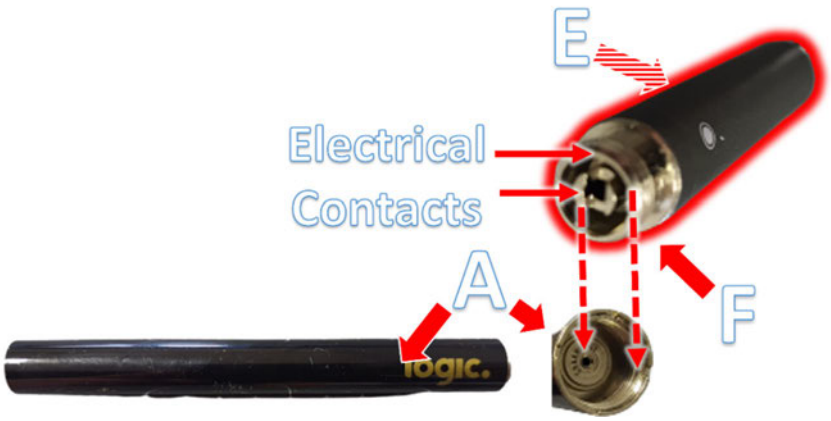
Logic Power Figure 864.21.l.

331. Claim 22 of the ’864 Patent reads as follows:

> **22**. The cartridge of claim **21**, 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.

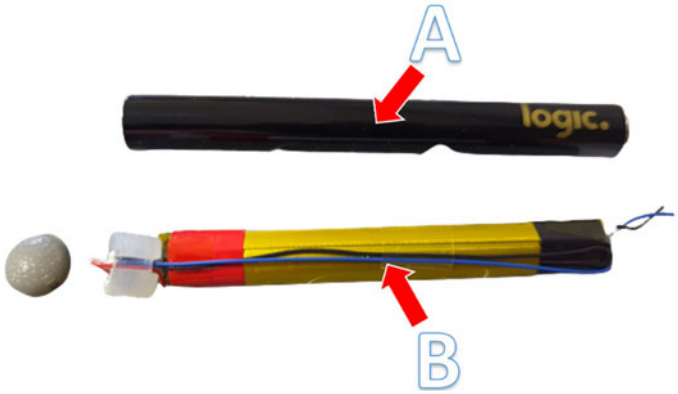
332. As shown in the figures set forth in Paragraphs 333 through 334, the Logic Power meets every limitation recited in Claim 22 of the ’864 Patent.

333. The Logic Power has “a power source [A] adapted to be electrically coupled to the first end [F] of the housing [E].”



Logic Power Figure 864.22.a.

334. The Logic Power has a “power source [A] including a battery [B].”



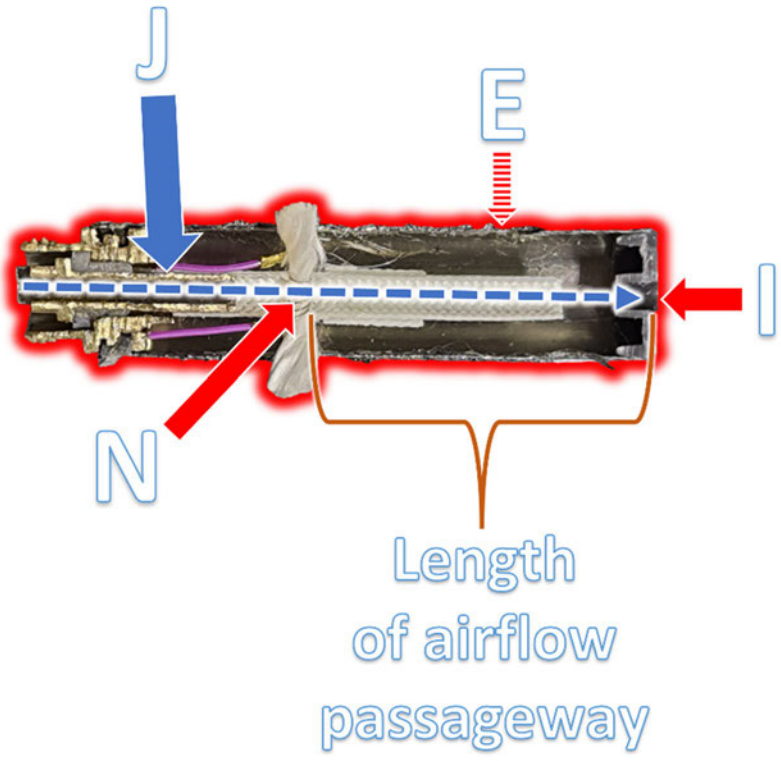
Logic Power Figure 864.22.b.

335. Claim 23 of the ’864 Patent reads as follows:

> **23**. The cartridge of claim **21**, wherein the airflow passageway has a length extending intermediate of the heating element and the second aperture, the airflow passageway 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.

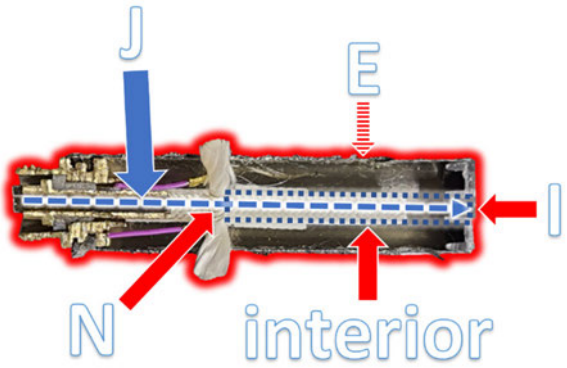
336. As shown in the figures set forth in Paragraphs 337 through 339, the Logic Power meets every limitation recited in Claim 23 of the ’864 Patent.

337. In the Logic Power, “the airflow passageway [J] has a length extending intermediate of the heating element [N] and the second aperture [I].”



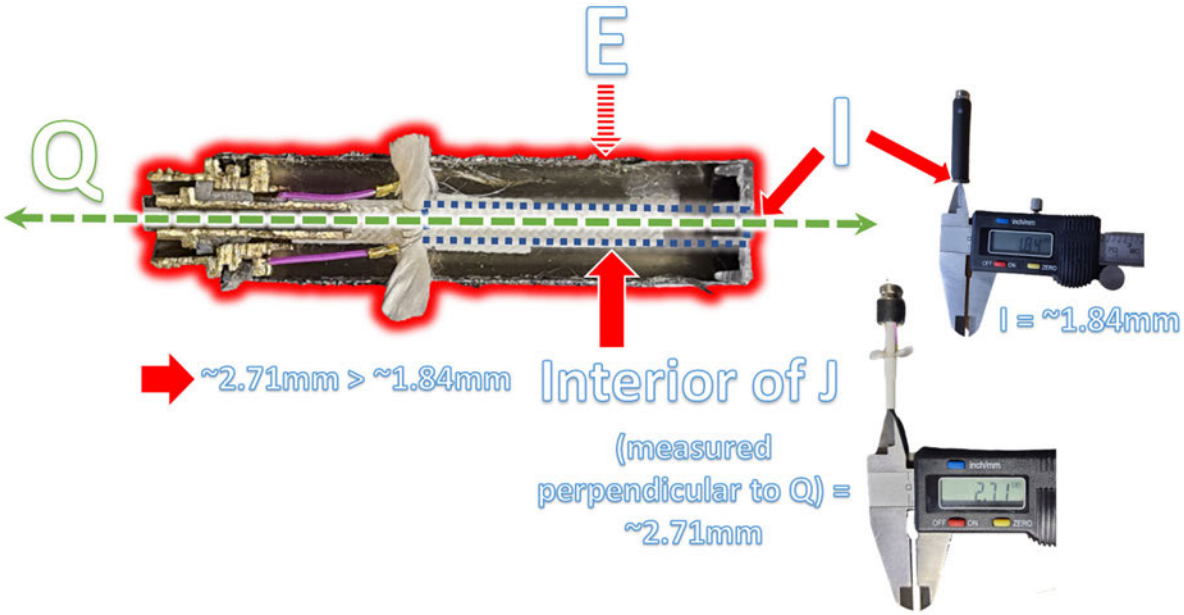
Logic Power Figure 864.23.a.

338. The Logic Power has an "airflow passageway [J] having an interior between the heating element [N] and the second aperture [I]."



Logic Power Figure 864.23.b.

339. The Logic Power has an airflow passageway [J] with "the interior having no cross-sectional area measured perpendicular to the central longitudinal axis [Q] of the housing [E] smaller in cross-sectional area than a cross-sectional area of the second aperture [I]."



Logic Power Figure 864.23.c.

340. Claim 25 of the ’864 Patent reads as follows:

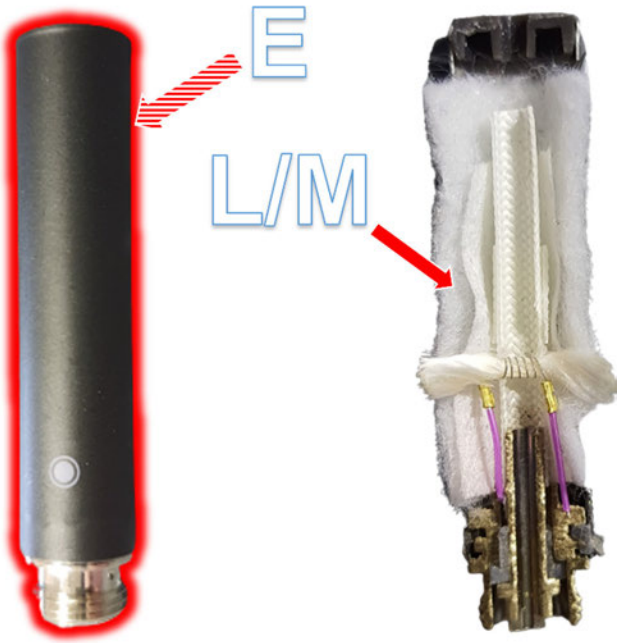
> **25**. A cartridge configured to couple to a power source of an electronic vaporizer, the cartridge comprising:
>
> a housing having an interior and a solution holding medium adapted to hold a solution, the housing having a first end and a second end that is opposite the first end and a central longitudinal 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; and
>
> an airflow passageway in the housing, at least a portion of the airflow passageway extending centrally and axially with respect to the housing,
>
> 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.

341. As shown in the figures set forth in Paragraphs 342 through 354, the Logic Power meets every limitation recited in Claim 25 of the ’864 Patent.

342. To the extent that the preamble is limiting, the Logic Power has a "cartridge [D] configured to couple to a power source [A] of an electronic vaporizer."

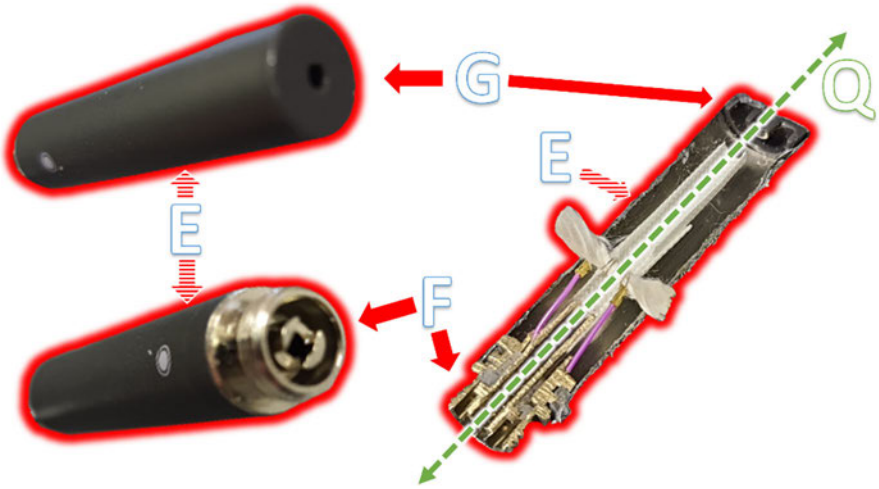
Logic Power Figure 864.25.pre.

343. The Logic Power has "a housing [E] having an interior and a solution holding medium [L] adapted to hold a solution [M]."



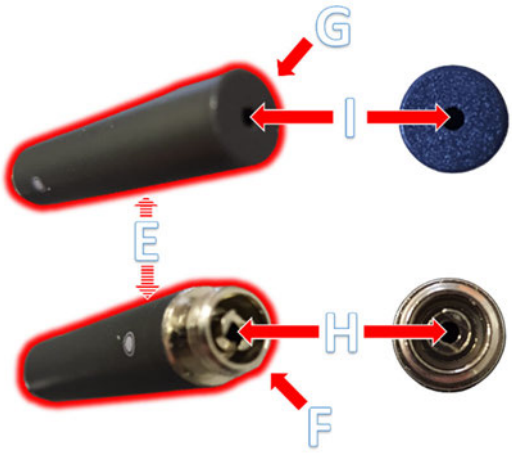
Logic Power Figure 864.25.a.

344. The Logic Power has a "housing [E] having a first end [F] and a second end [G] that is opposite the first end [F] and a central longitudinal axis [Q] extending from the first end [F] to the second end [G]."



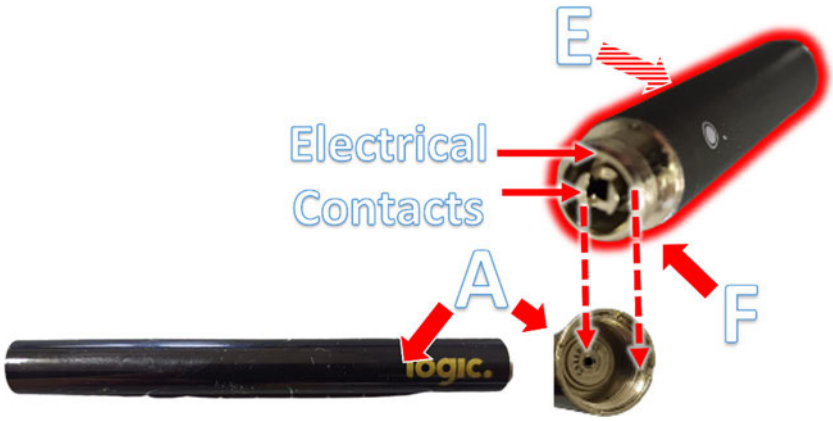
Logic Power Figure 864.25.b.

345. The Logic Power has a "housing [E] having a first aperture [H] proximate the first end [F] and a second aperture [I] proximate the second end [G]."



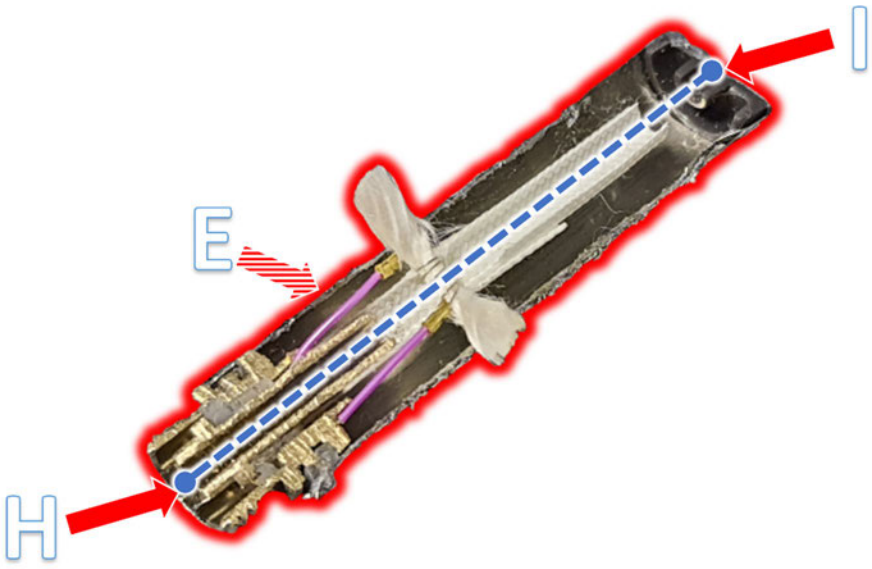
Logic Power Figure 864.25.c.

346. The Logic Power has a "first end [F] of the housing [E] being adapted to electrically couple to the power source [A]."



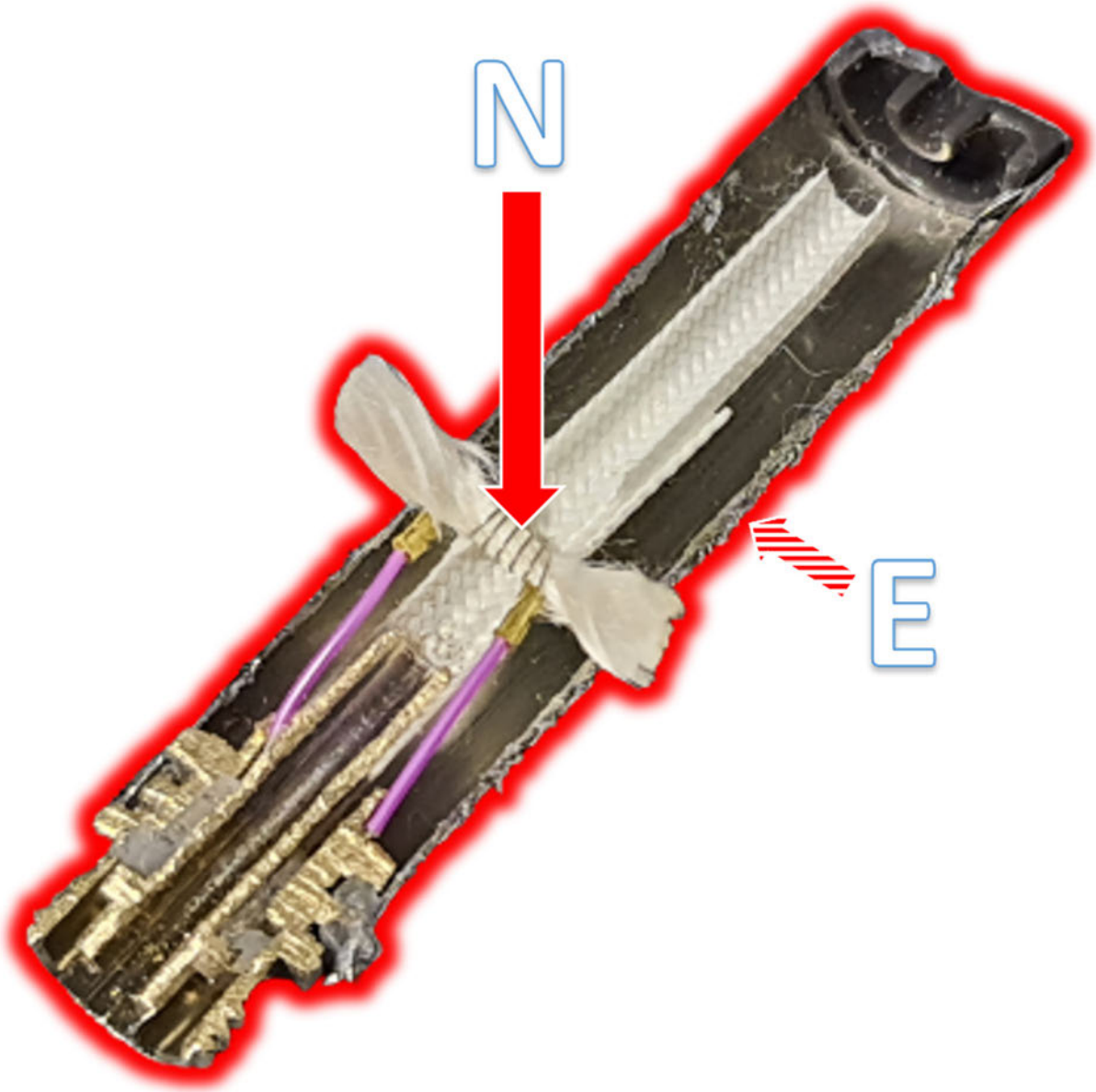
Logic Power Figure 864.25.d.

347. The Logic Power has a "first aperture [H] and the second aperture [I] being in communication with one another to permit an airflow through the housing [E]."



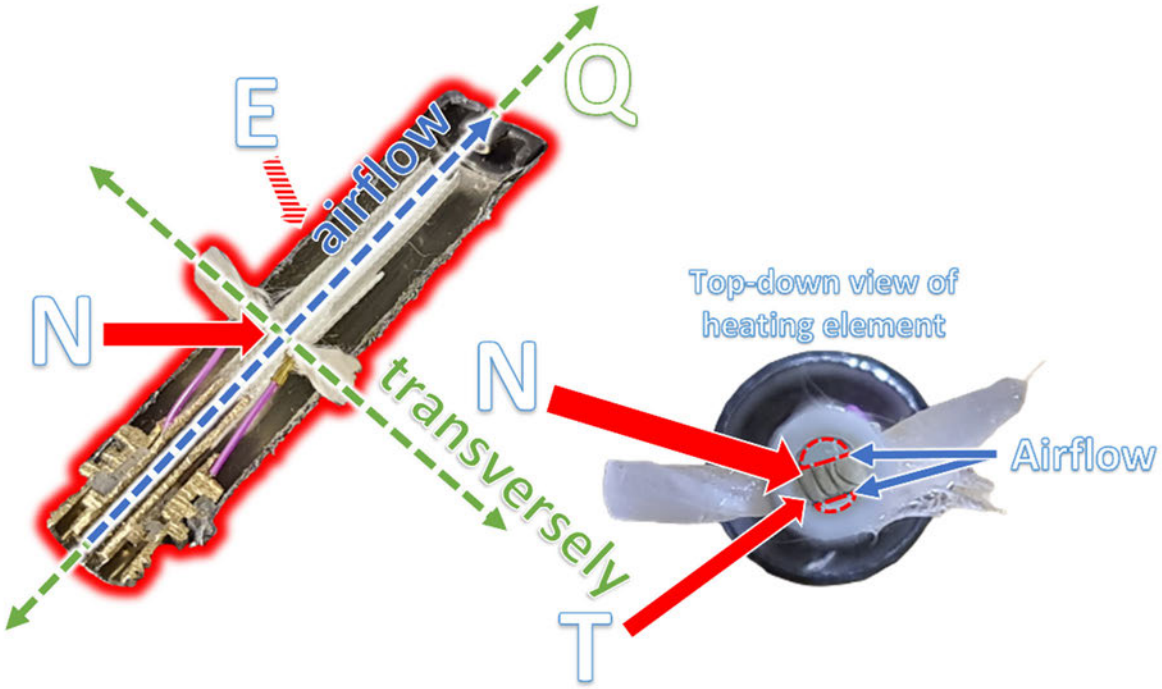
Logic Power Figure 864.25.e.

348. The Logic Power has "a heating element [N] located in the interior of the housing [E]."



Logic Power Figure 864.25.f.

349. The Logic Power has a "heating element [N] including a coil [T] extending transversely to the central longitudinal axis [Q] of the housing [E] and transversely to a direction of the airflow such that the airflow passes on both transverse sides of the heating element [N] during use of the electronic vaporizer."

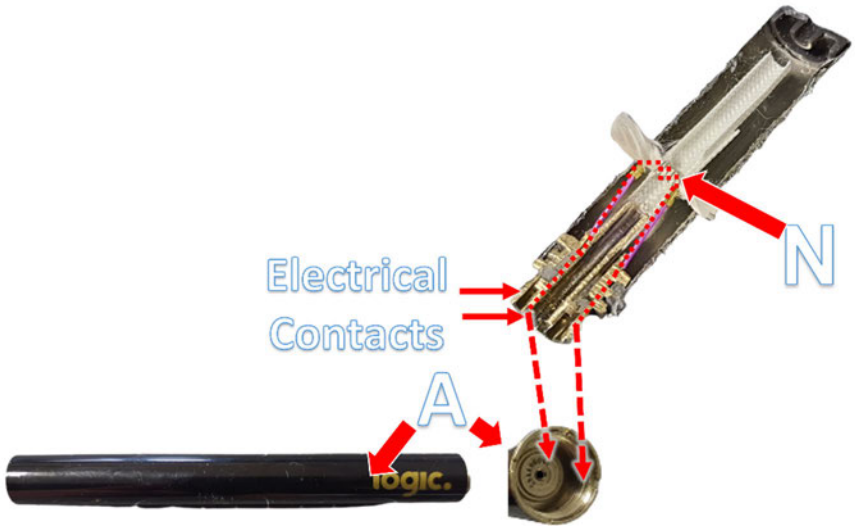


Logic Power Figure 864.25.g.

350. The Logic Power has a "heating element [N] being configured to vaporize at least the portion of the solution [M] drawn to the heating element [N] for oral provision to an individual in the airflow."

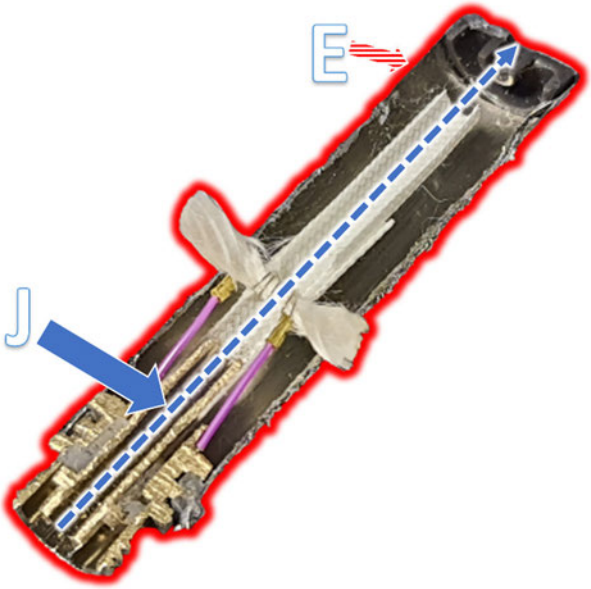
Logic Power Figure 864.25.h.

351. The Logic Power has a "heating element [N] being responsive to electrical power received from the power source [A]."



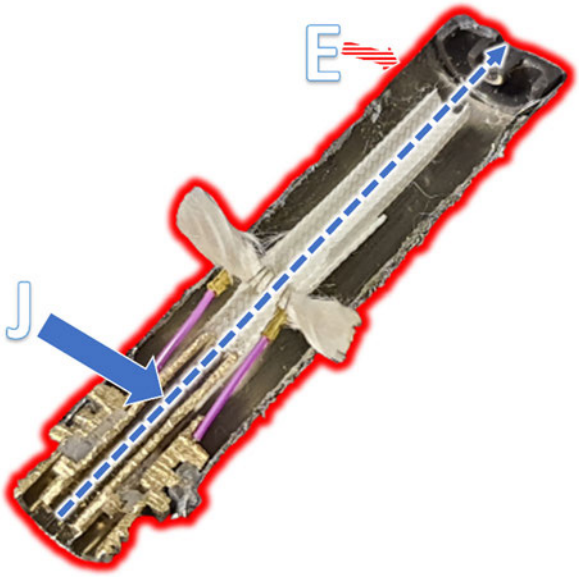
Logic Power Figure 864.25.i.

352. The Logic Power has "an airflow passageway [J] in the housing [E]."



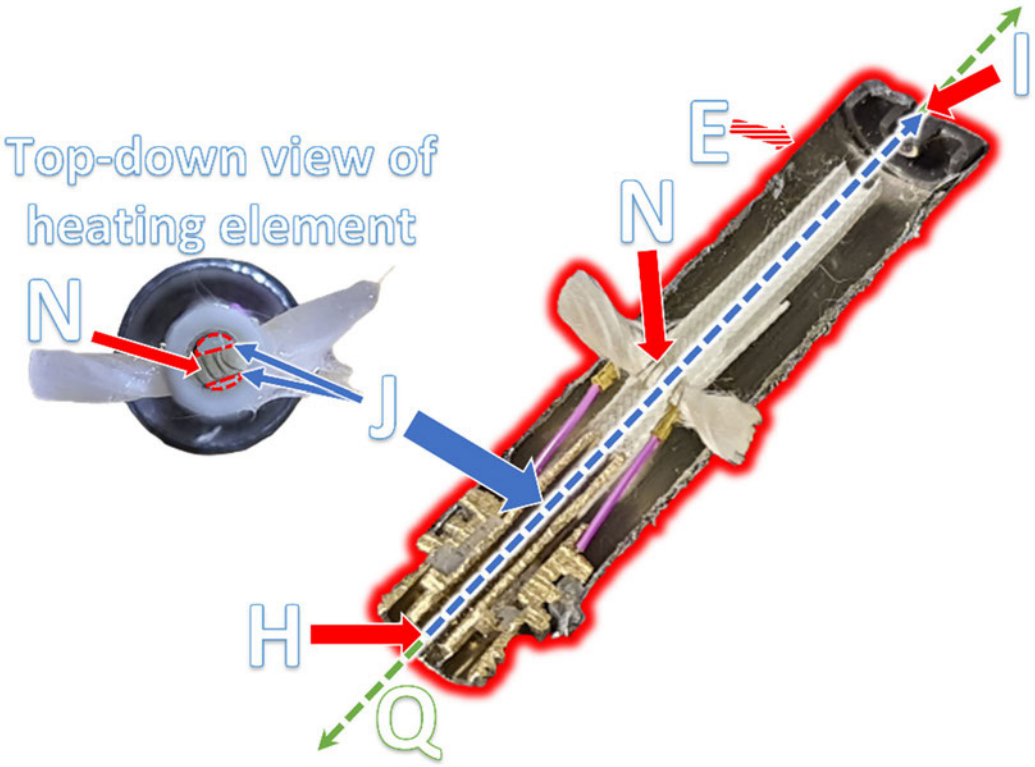
Logic Power Figure 864.25.j.

353. In the Logic Power "at least a portion of the airflow passageway [J] extending centrally and axially with respect to the housing [E]."



Logic Power Figure 864.25.k.

354. In the Logic Power, "the airflow passageway [J] extends in a straight path from the first aperture [H] to the second aperture [I] with only the heating element [N] obstructing a portion of the airflow through the airflow passageway [J] along the central longitudinal axis [Q] of the housing [E]."



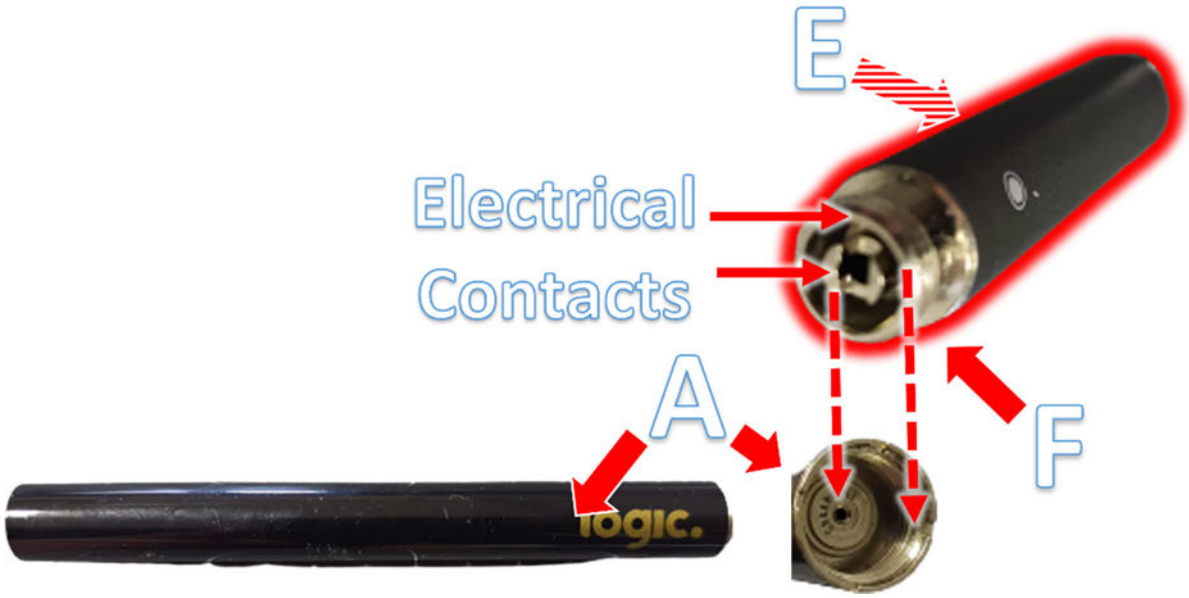
Logic Power Figure 864.25.l.

355. Claim 26 of the '864 Patent reads as follows:

> **26**. The cartridge of claim **25**, 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.

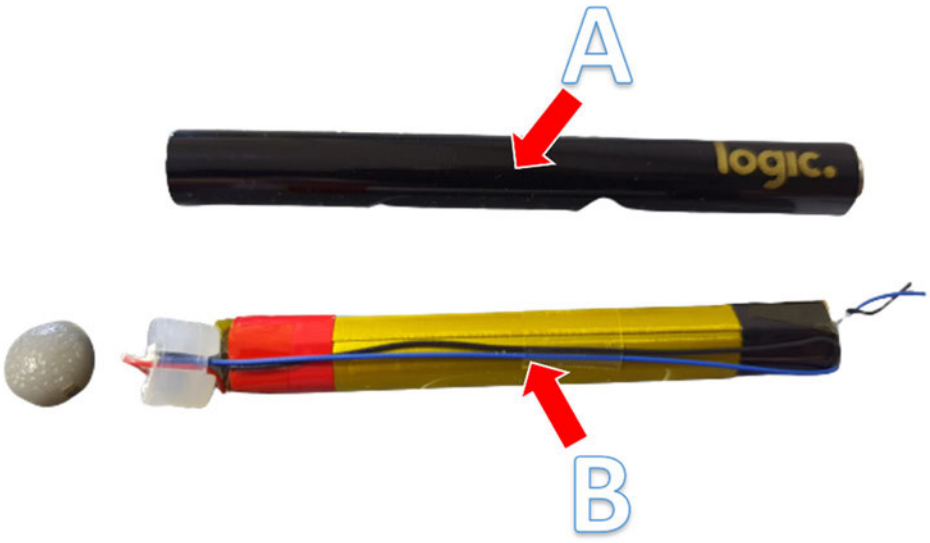
356. As shown in the figures set forth in Paragraphs 357 through 358, the Logic Power meets every limitation recited in Claim 26 of the '864 Patent.

357. The Logic Power has "a power source [A] adapted to be electrically coupled to the first end [F] of the housing [E]."



Logic Power Figure 864.26.a.

358. The Logic Power has a "power source [A] including a battery [B]."



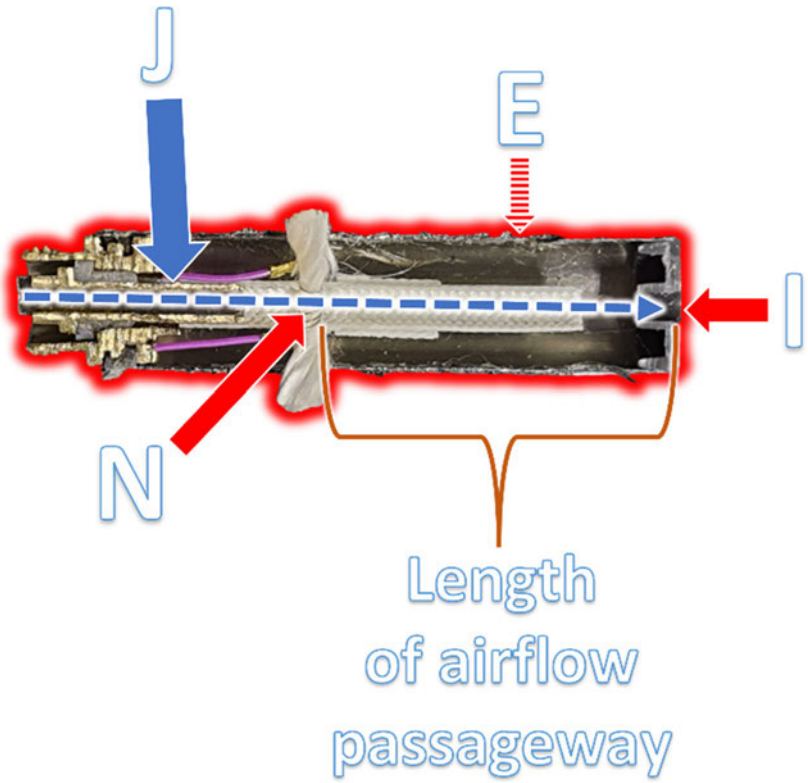
Logic Power Figure 864.26.b.

359. Claim 27 of the ’864 Patent reads as follows:

> **27**. The cartridge of claim **25**, wherein the airflow passageway has a length extending intermediate of the heating element and the second aperture, the airflow passageway 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.

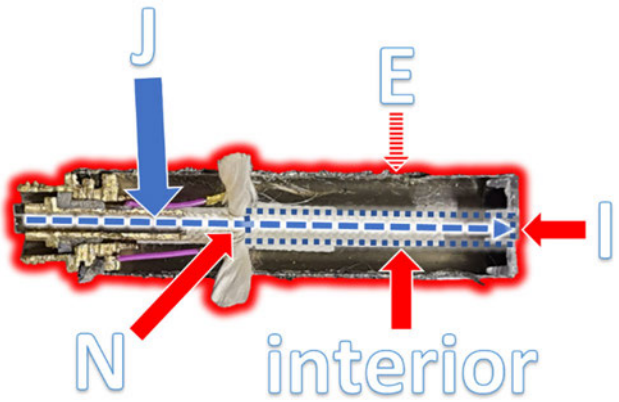
360. As shown in the figures set forth in Paragraphs 361 through 363, the Logic Power meets every limitation recited in Claim 27 of the ’864 Patent.

361. In the Logic Power, “the airflow passageway [J] has a length extending intermediate of the heating element [N] and the second aperture [I].”



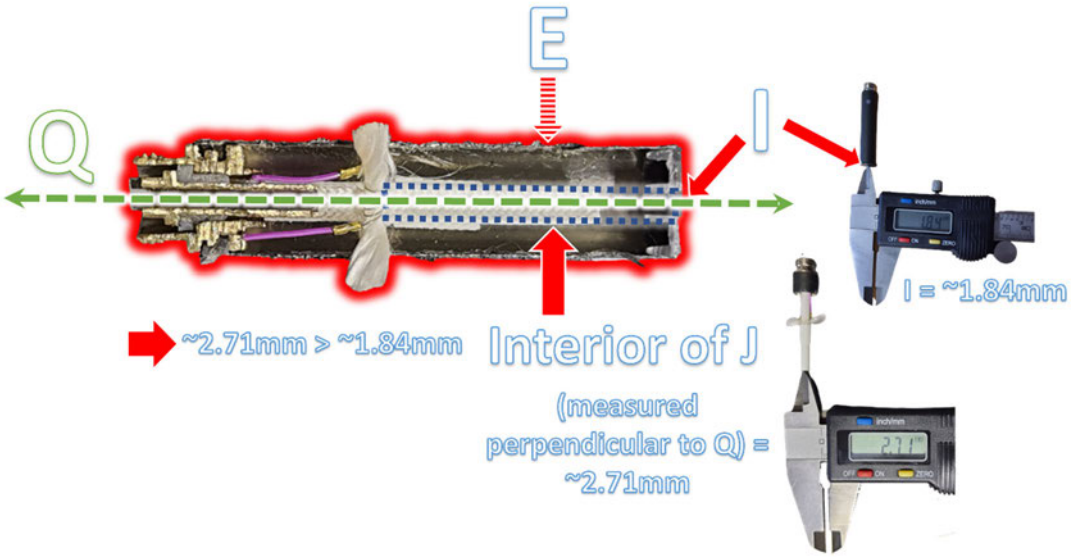
Logic Power Figure 864.27.a.

362. The Logic Power has an "airflow passageway [J] having an interior between the heating element [N] and the second aperture [I]."



Logic Power Figure 864.27.b.

363. The Logic Power has an airflow passageway [J] with "the interior having no cross-sectional area measured perpendicular to the central longitudinal axis [Q] of the housing [E] smaller in cross-sectional area than a cross-sectional area of the second aperture [I]."



Logic Power Figure 864.27.c.

364. Claim 29 of the ’864 Patent reads as follows:

> **29**. 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,
>
> 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.

365. As shown in the figures set forth in Paragraphs 366 through 378, the Logic Power meets every limitation recited in Claim 29 of the ’864 Patent.

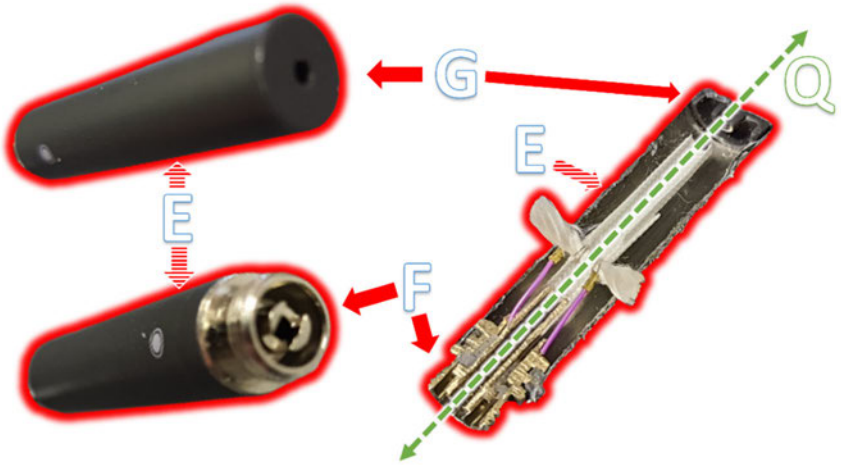
366. To the extent that the preamble is limiting, the Logic Power has a “cartridge [D] configured to couple to a power source [A] of an electronic vaporizer.”

Logic Power Figure 864.29.pre.

367. The Logic Power has “a housing [E] having an interior and a solution holding medium [L] adapted to hold a solution [M].”

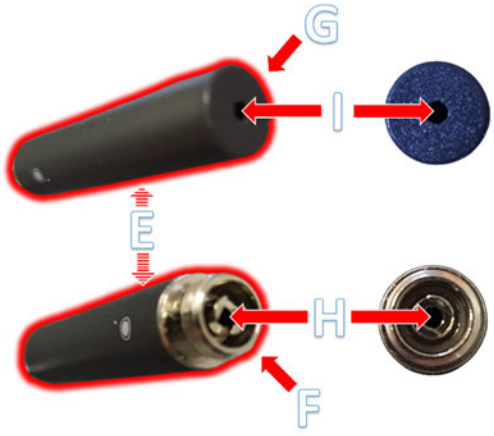
Logic Power Figure 864.29.a.

368. The Logic Power has a "housing [E] having a first end [F] and a second end [G] that is opposite the first end [F] and a central longitudinal axis [Q] extending from the first end [F] to the second end [G]."



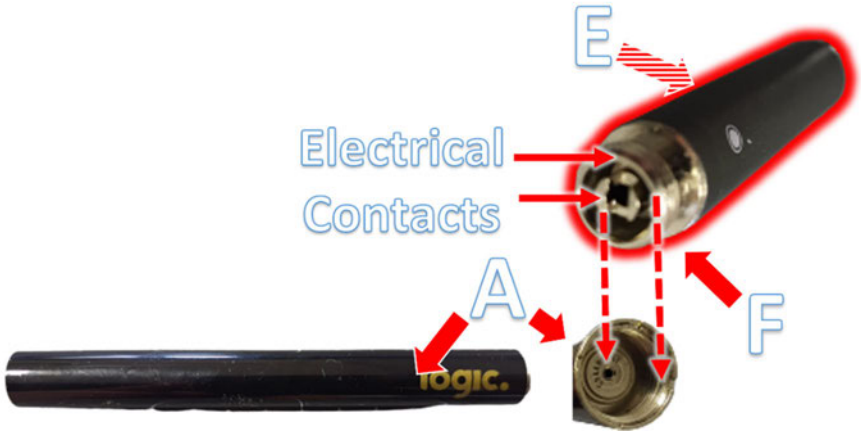
Logic Power Figure 864.29.b.

369. The Logic Power has a "housing [E] having a first aperture [H] proximate the first end [F] and a second aperture [I] proximate the second end [G]."



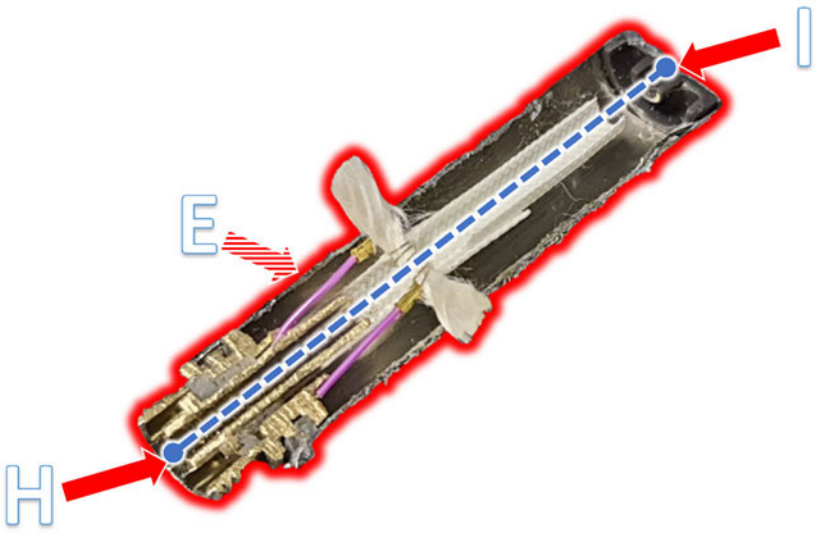
Logic Power Figure 864.29.c.

370. The Logic Power has a "first end [F] of the housing [E] being adapted to electrically couple to the power source [A]."



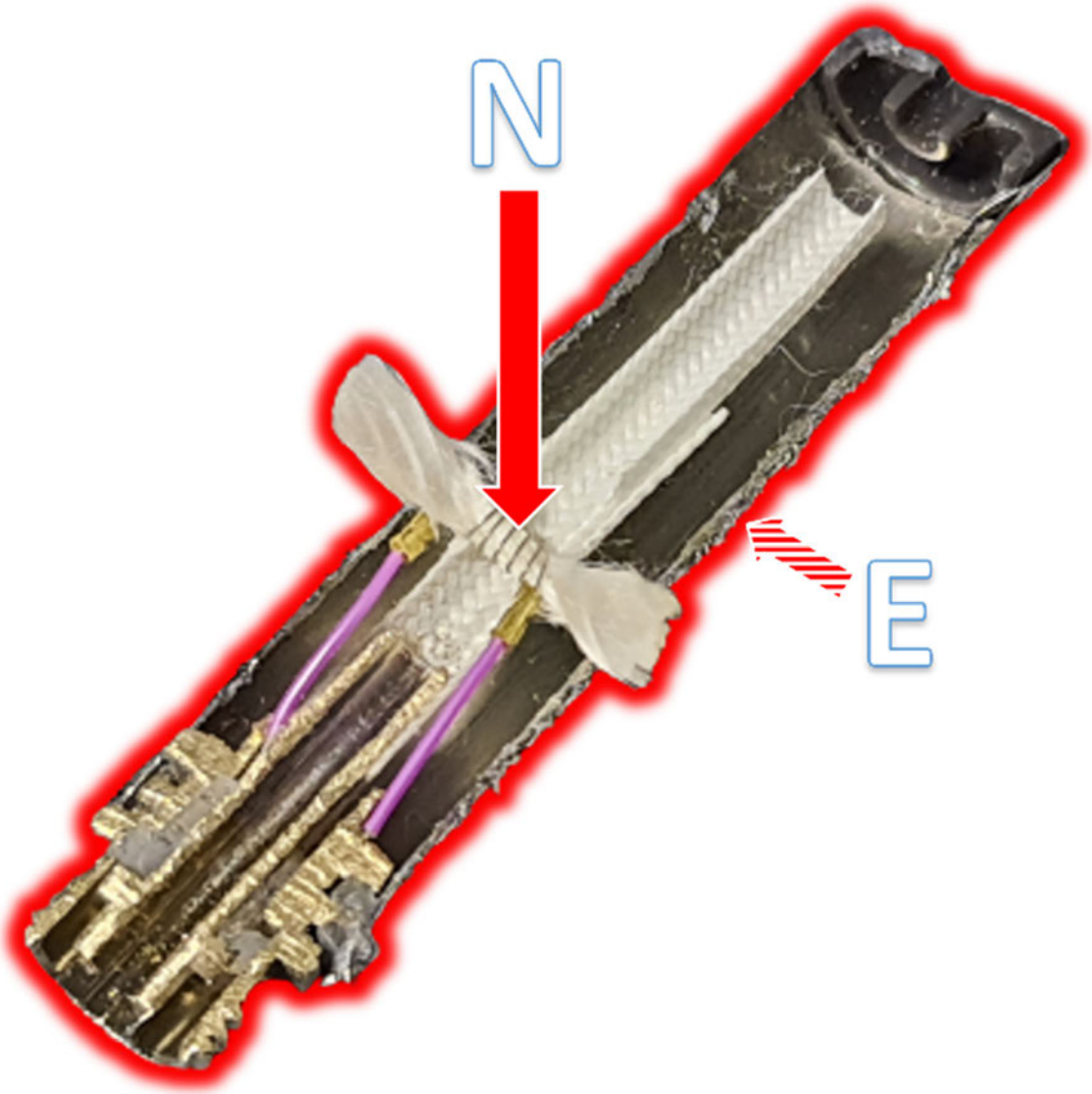
Logic Power Figure 864.29.d.

371. The Logic Power has a "first aperture [H] and the second aperture [I] being in communication with one another to permit an airflow through the housing [E]."



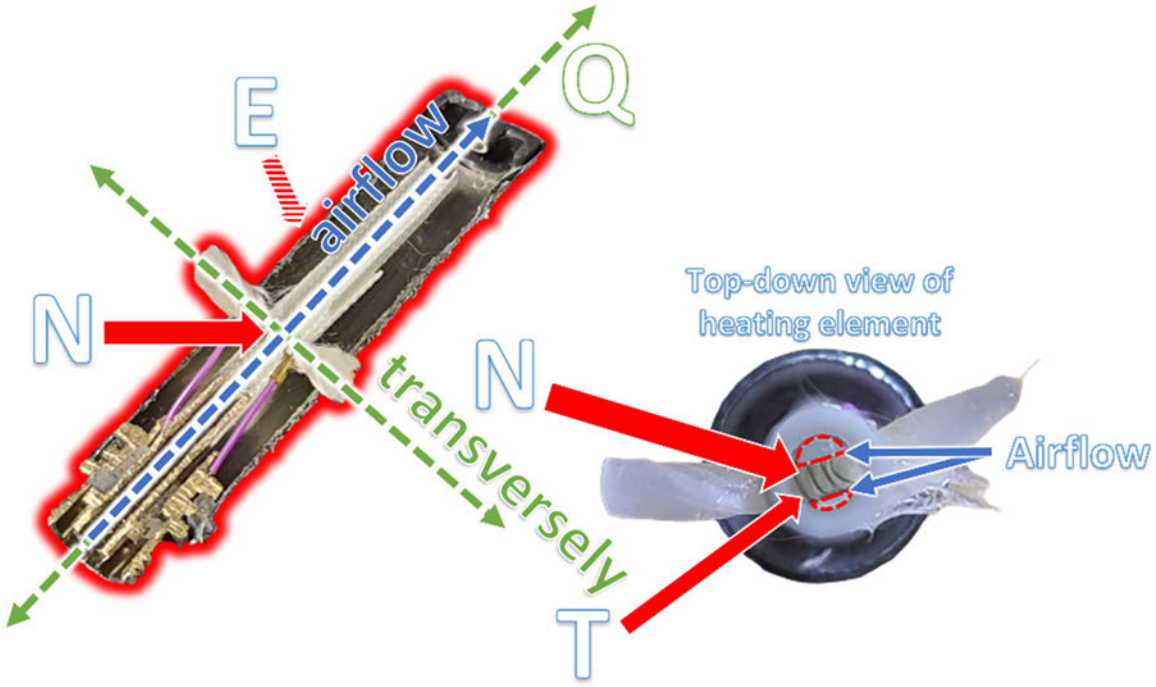
Logic Power Figure 864.29.e.

372. The Logic Power has "a heating element [N] located in the interior of the housing [E]."



Logic Power Figure 864.29.f.

373. The Logic Power has a "heating element [N] including a coil [T] extending transversely to the central longitudinal axis [Q] of the housing [E] and transversely to a direction of the airflow such that the airflow passes on both transverse sides of the heating element [N] during use of the electronic vaporizer."

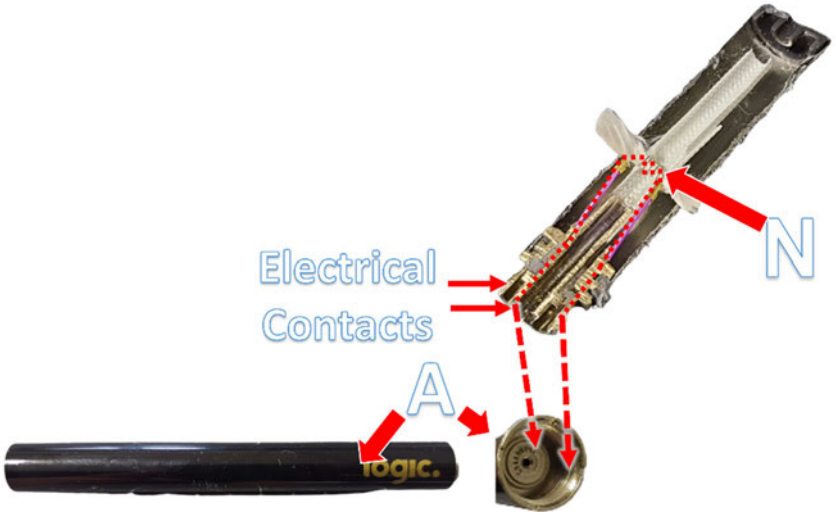


Logic Power Figure 864.29.g.

374. The Logic Power has a "heating element [N] being configured to vaporize at least the portion of the solution [M] drawn to the heating element [N] for oral provision to an individual in the airflow."

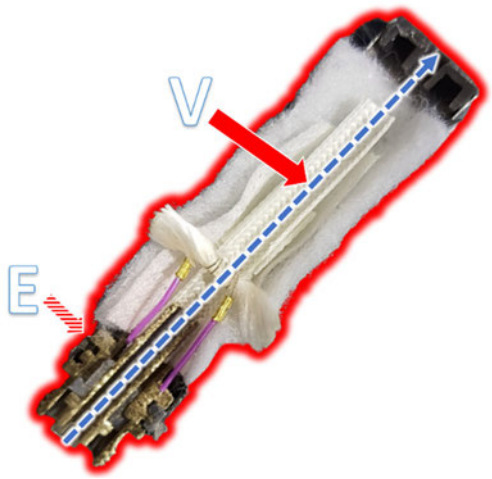
Logic Power Figure 864.29.h.

375. The Logic Power has a "heating element [N] being responsive to electrical power received from the power source [A]."



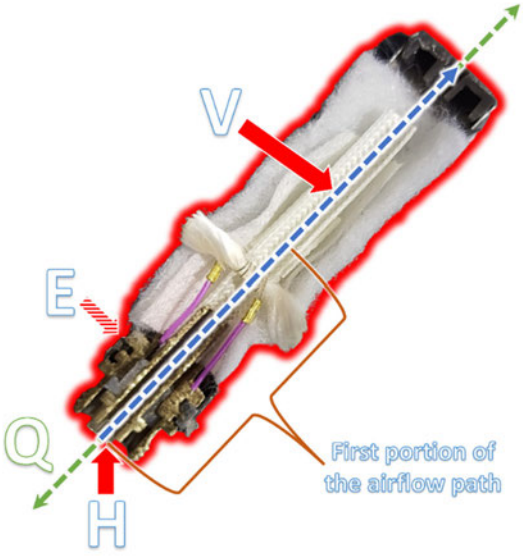
Logic Power Figure 864.29.i.

376. In the Logic Power, "the airflow through the housing [E] follows an airflow path [V]."



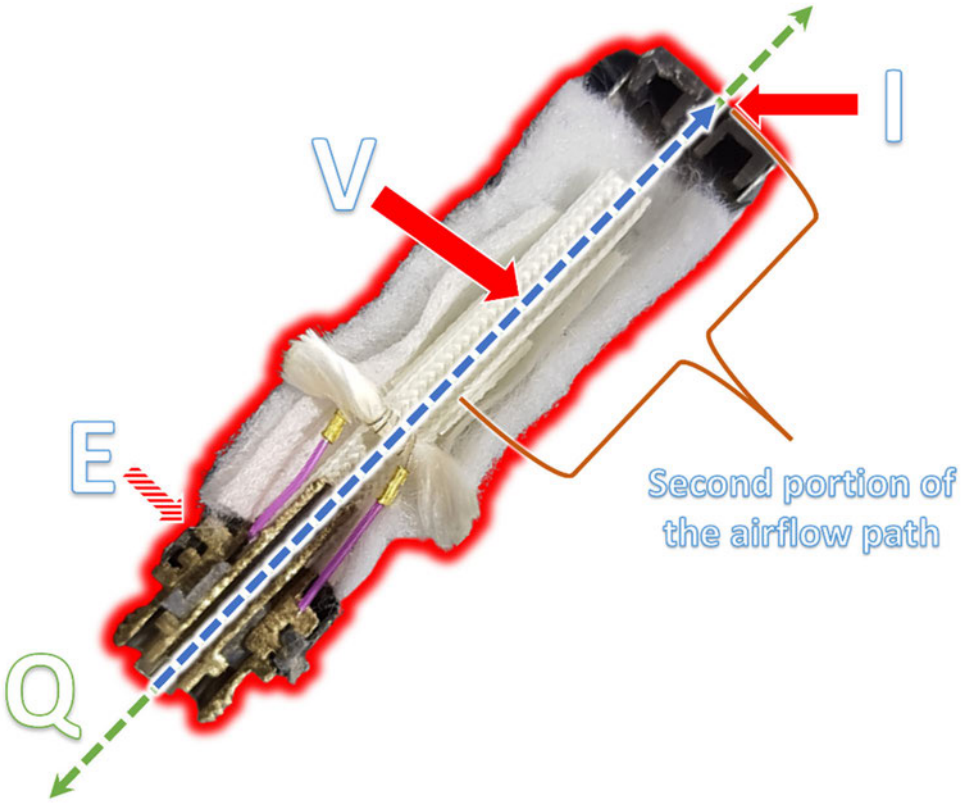
Logic Power Figure 864.29.j.

377. The Logic Power has "a first portion of the airflow path [V] proximate the first aperture [H] being defined substantially centrally and axially with respect to the central longitudinal axis [Q] of the housing [E]."



Logic Power Figure 864.29.k.

378. The Logic Power has "a second portion of the airflow path [V] proximate to the second aperture [I] being defined substantially centrally and axially with respect to the central longitudinal axis [Q] of the housing [E]."



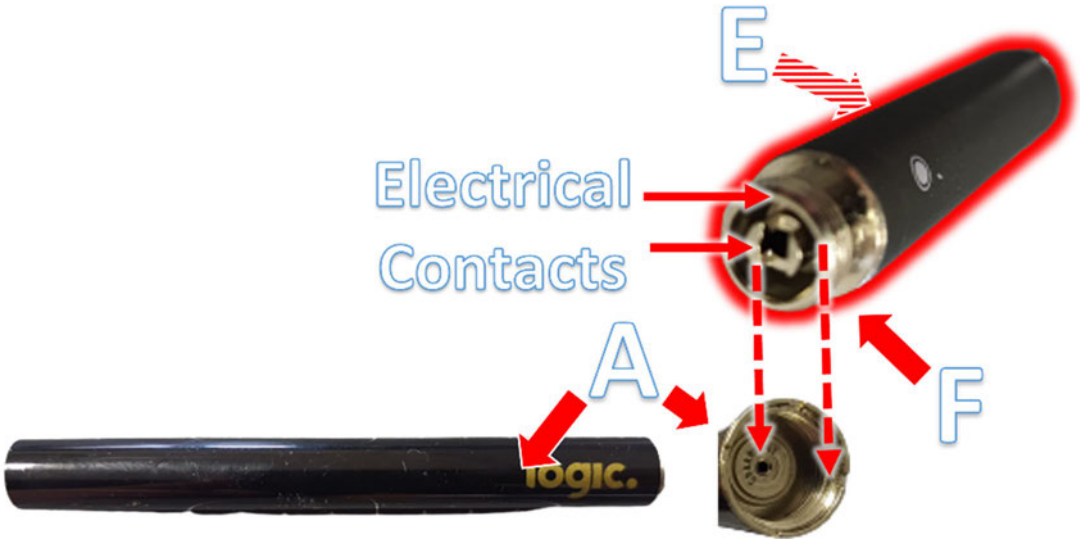
Logic Power Figure 864.29.l.

379. Claim 30 of the '864 Patent reads as follows:

> **30**. The cartridge of claim **29**, 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.

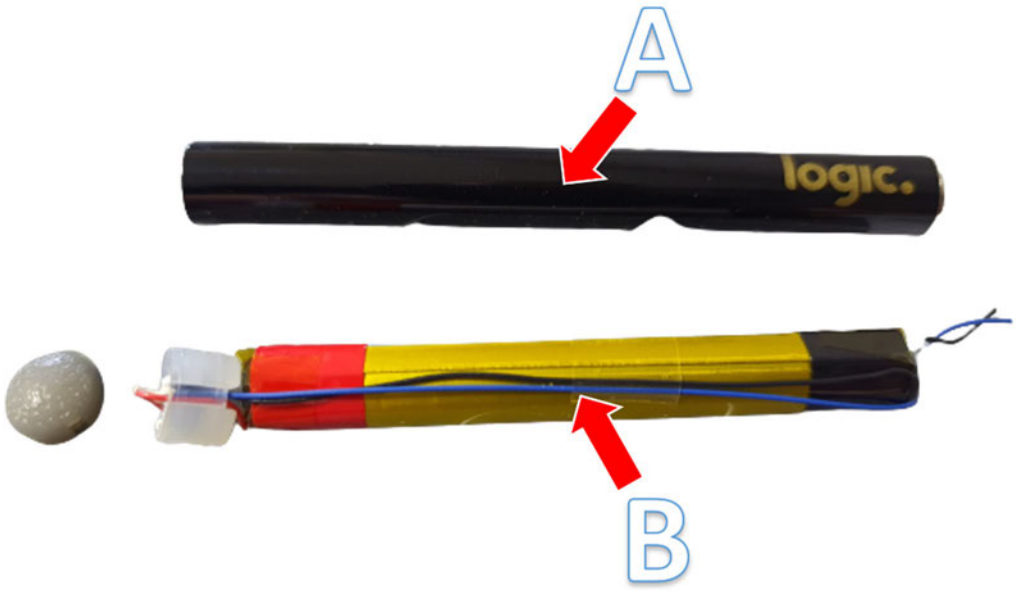
380. As shown in the figures set forth in Paragraphs 381 through 382, the Logic Power meets every limitation recited in Claim 30 of the '864 Patent.

381. The Logic Power has "a power source [A] adapted to be electrically coupled to the first end [F] of the housing [E]."



Logic Power Figure 864.30.a.

382. The Logic Power has a "power source [A] including a battery [B]."



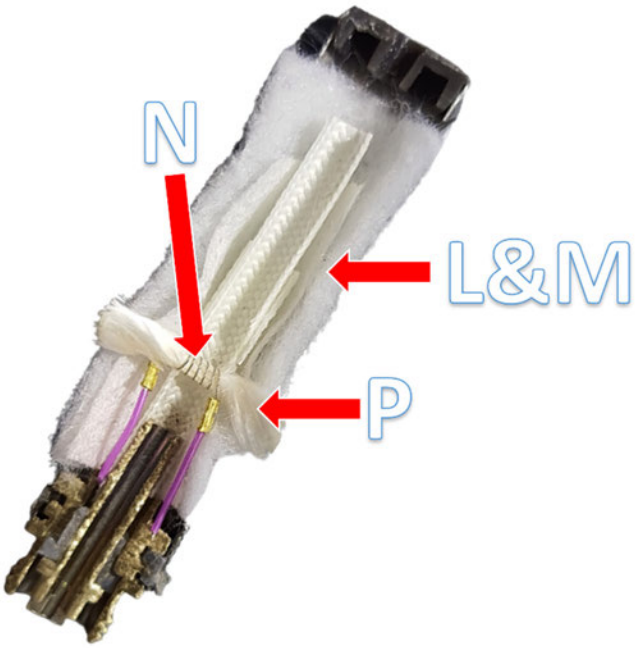
Logic Power Figure 864.30.b.

383. Claim 31 of the ’864 Patent reads as follows:

> **31**. The cartridge of claim **29**, 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.

384. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 31 of the ’864 Patent.

385. In the Logic Power “the heating element [N] includes a wicking material [P] being operative to permit at least a portion of the solution [M] to be held in the solution holding medium [L] to be drawn toward the heating element [N] to be vaporized.”



Logic Power Figure 864.31.

386. Claim 33 of the ’864 Patent reads as follows:

> **33**. The cartridge of claim **29**, further comprising a solution in the solution holding medium, the solution comprising one of propylene glycol and nicotine.

387. As shown in the figures set forth in Paragraphs 388 through 389, the Logic Power meets every limitation recited in Claim 33 of the ’864 Patent.

388. The Logic Power has “a solution [M] in the solution holding medium [L].”

Logic Power Figure 864.33.a.

389. The Logic Power has a "solution [M] comprising one of propylene glycol and nicotine."

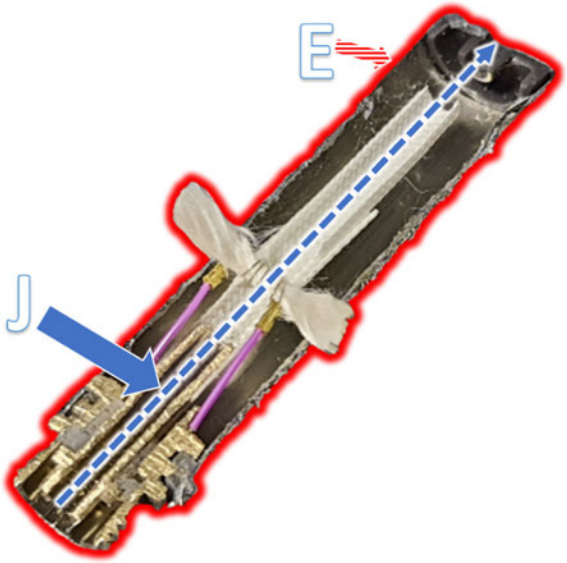
Logic Power Figure 864.33.b.

390. Claim 34 of the '864 Patent reads as follows:

> **34**. The cartridge of claim **29**, 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.

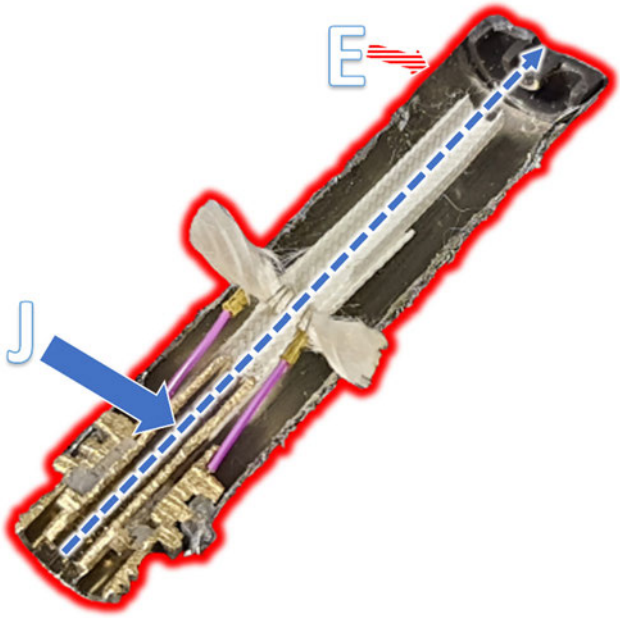
391. As shown in the figures set forth in Paragraphs 392 through 393, the Logic Power meets every limitation recited in Claim 34 of the '864 Patent.

392. The Logic Power has "an airflow passageway [J] in the housing [E]."



Logic Power Figure 864.34.a.

393. In the Logic Power "at least a portion of the airflow passageway [J] extending centrally and axially with respect to the housing [E]."



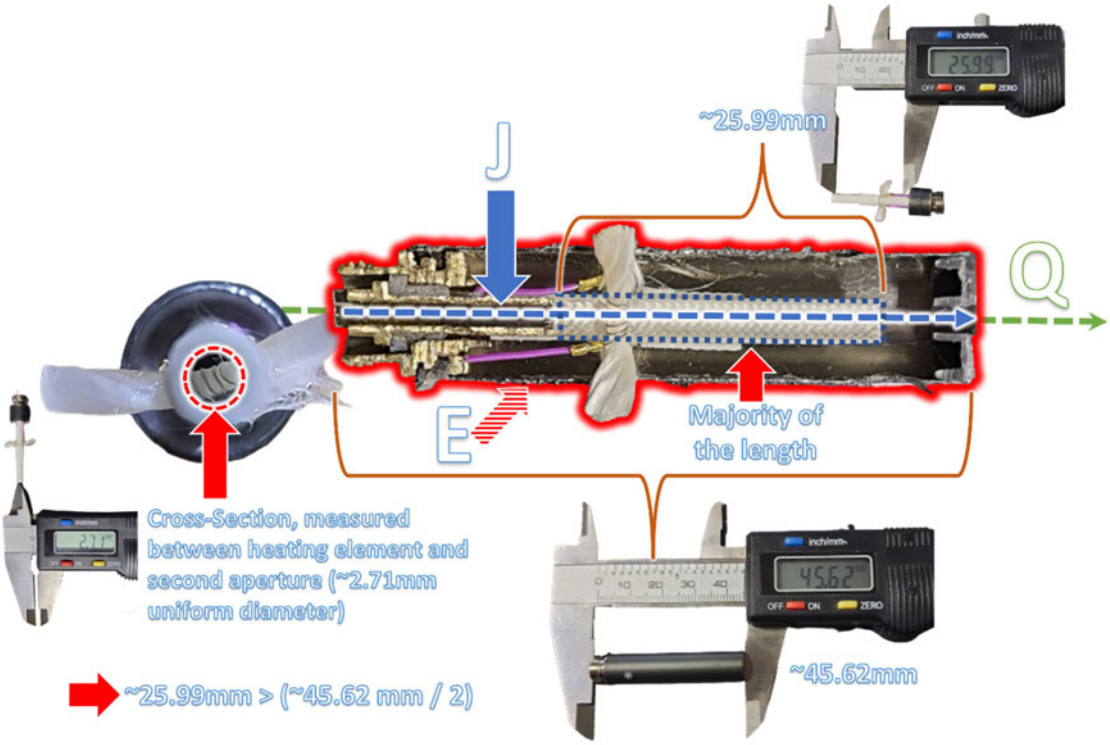
Logic Power Figure 864.34.b.

394. Claim 35 of the '864 Patent reads as follows:

> **35**. The cartridge of claim **34**, 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.

395. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 35 of the '864 Patent.

396. In the Logic Power "a majority of the portion of the airflow passageway [J] has a substantially uniform cross-sectional area measured perpendicular to the central longitudinal axis [Q] of the housing [E] between the heating element [N] and the second aperture [I]."



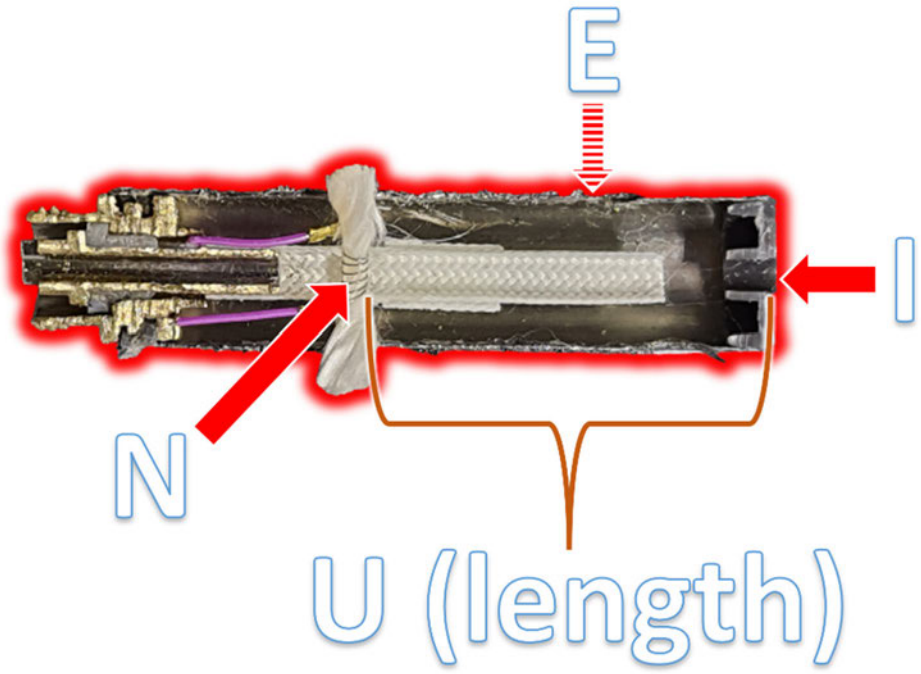
Logic Power Figure 864.35.

397. Claim 36 of the ’864 Patent reads as follows:

> **36**. The cartridge of claim **29**, 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.

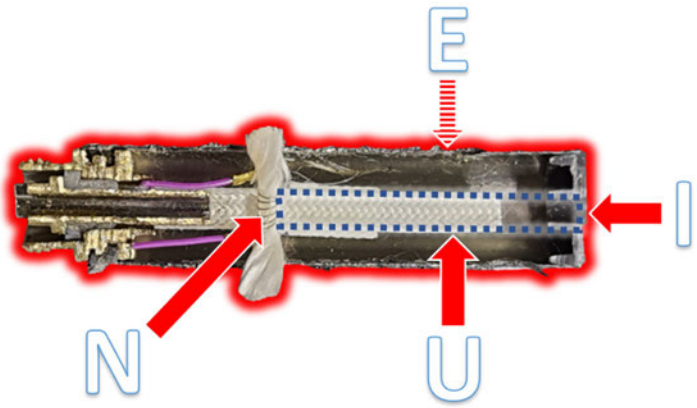
398. As shown in the figures set forth in Paragraphs 399 through 401, the Logic Power meets every limitation recited in Claim 36 of the ’864 Patent.

399. In the Logic Power, “the housing [E] further comprises an airflow chamber [U] having a length extending intermediate of the heating element [N] and the second aperture [I].”



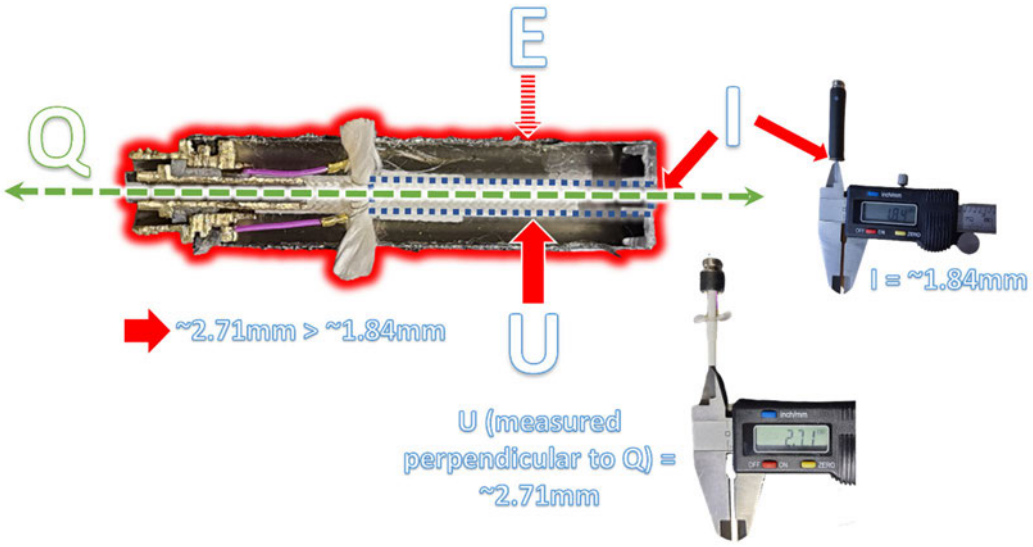
Logic Power Figure 864.36.a.

400. The Logic Power has a "chamber [U] having an interior between the heating element [N] and the second aperture [I]."



Logic Power Figure 864.36.b.

401. The Logic Power has a chamber [U] with "the interior having no cross-sectional area measured perpendicular to the central longitudinal axis [Q] of the housing [E] smaller in cross-sectional area than a cross-sectional area of the second aperture [I].



Logic Power Figure 864.36.c.

402. Claim 38 of the ’864 Patent reads as follows:

> **38**. 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 coaxial 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; and
>
> an airflow passageway in the housing, at least a portion of the airflow passageway extending centrally and axially with respect to the housing,
>
> wherein the airflow passageway extends centrally and axially from the first aperture to the second aperture.

403. As shown in the figures set forth in Paragraphs 404 through 416, the Logic Power meets every limitation recited in Claim 38 of the ’864 Patent.

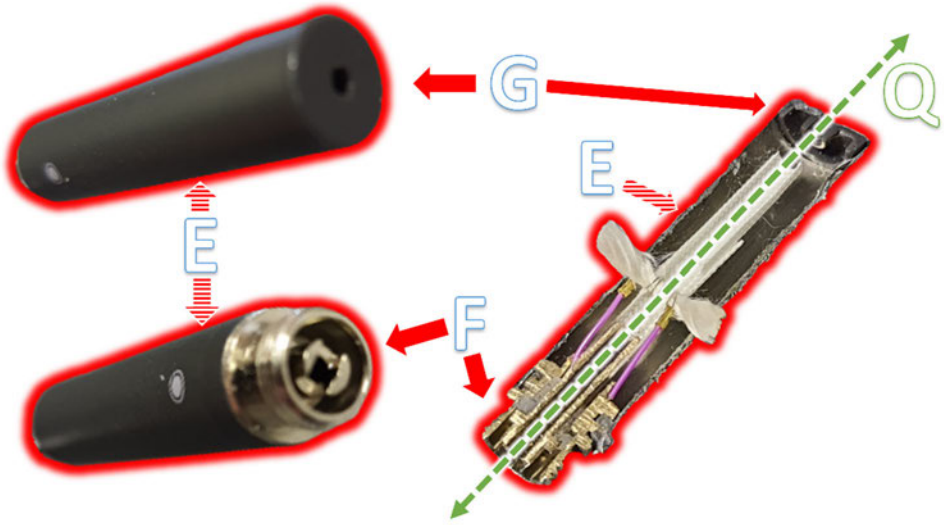
404. To the extent that the preamble is limiting, the Logic Power has a "cartridge [D] configured to couple to a power source [A] of an electronic vaporizer."

Logic Power Figure 864.38.pre.

405. The Logic Power has "a housing [E] having an interior and a solution holding medium [L] adapted to hold a solution [M]."

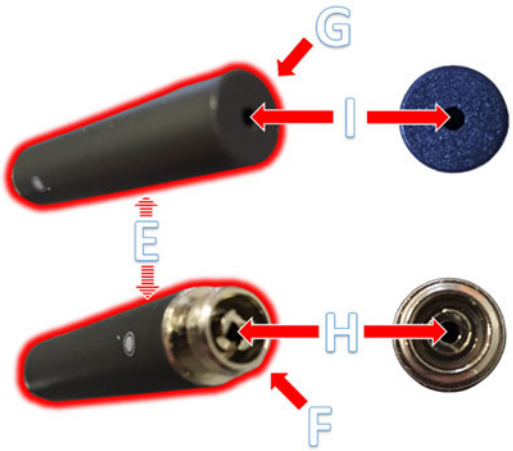
Logic Power Figure 864.38.a.

406. The Logic Power has "the housing [E] having a first end [F] and a second end [G] that is opposite the first end [F] and a central longitudinal axis [Q] extending from the first end [F] to the second end [G]."



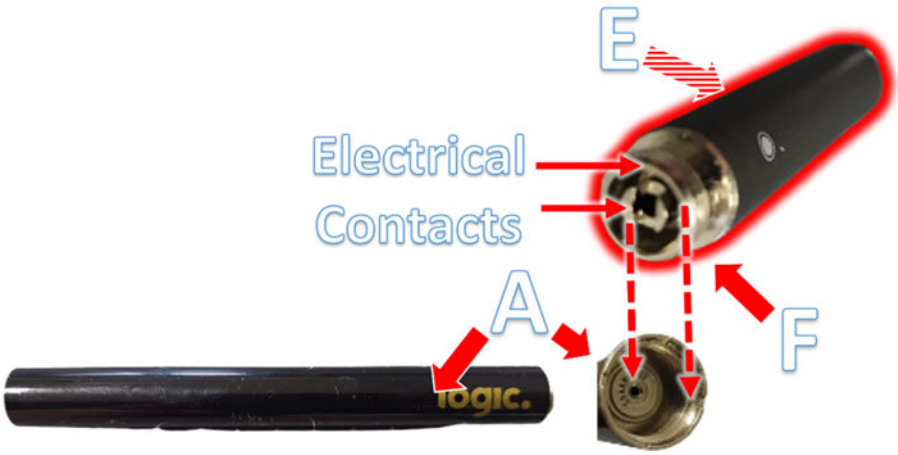
Logic Power Figure 864.38.b.

407. The Logic Power has "the housing [E] having a first aperture [H] proximate the first end [F] and a second aperture [I] proximate the second end [G]."



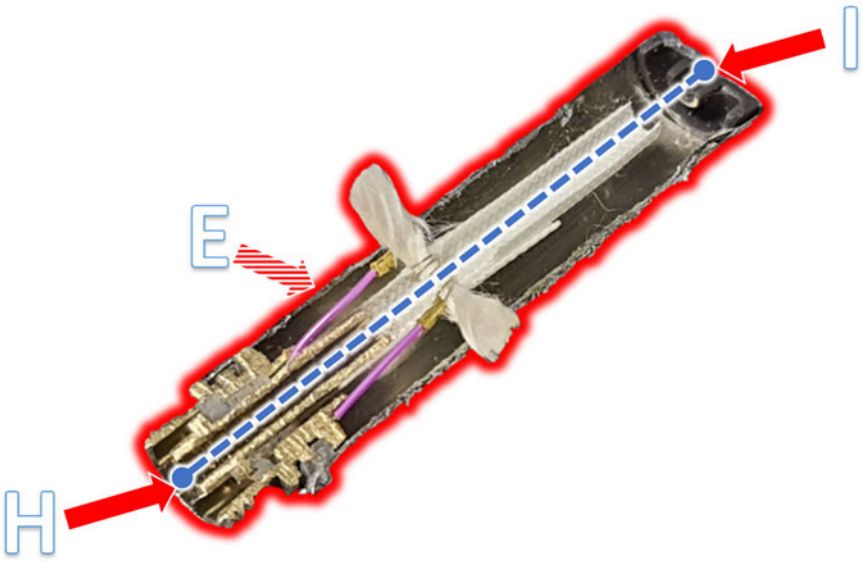
Logic Power Figure 864.38.c.

408. The Logic Power has "the first end [F] of the housing [E] being adapted to electrically couple to the power source [A]."



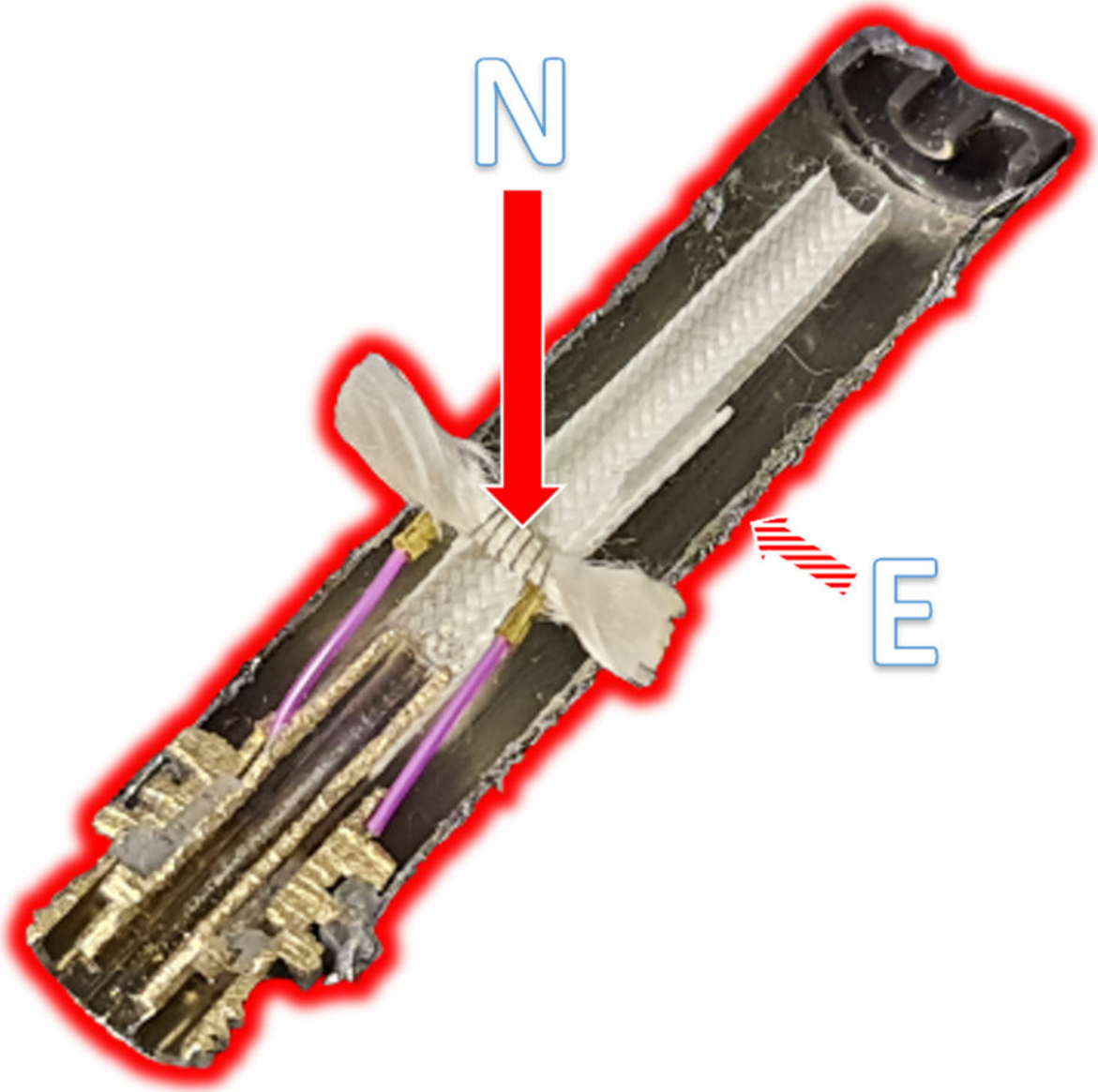
Logic Power Figure 864.38.d.

409. The Logic Power has "the first aperture [H] and the second aperture [I] being in communication with one another to permit an airflow through the housing [E]."



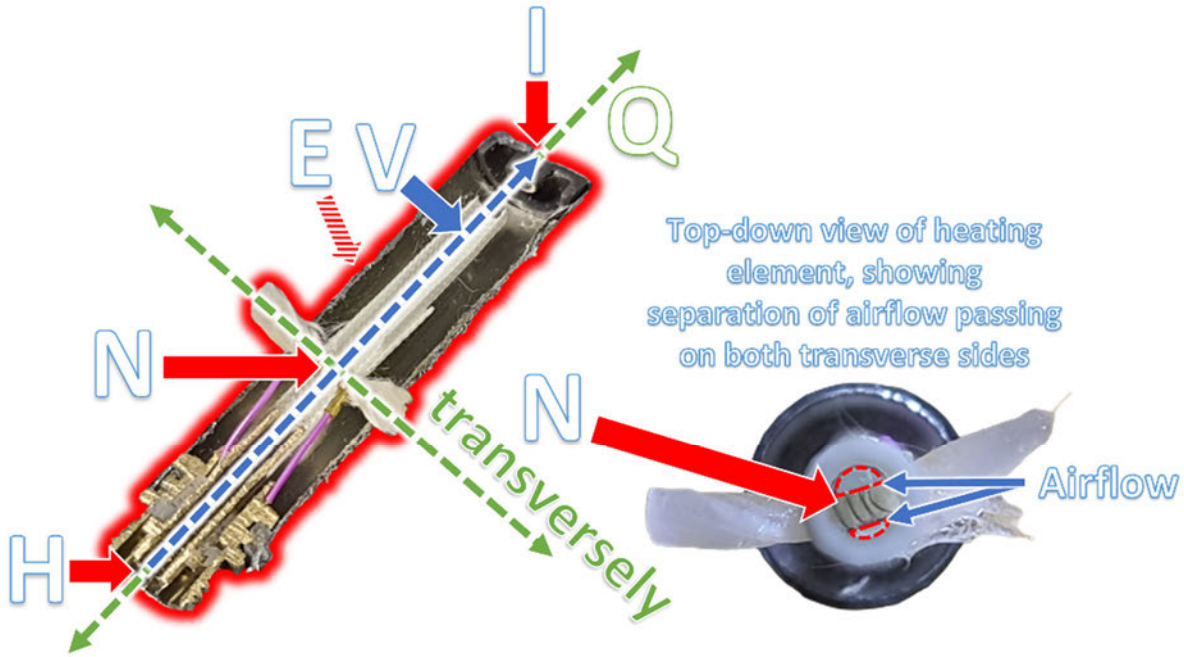
Logic Power Figure 864.38.e.

410. The Logic Power has "a heating element [N] located in the interior of the housing [E]."



Logic Power Figure 864.38.f.

411. The Logic Power has a "heating element [N] extending transversely to the central longitudinal axis [Q] of the housing [E] and being at least partially exposed to the airflow such that the airflow entering through the first aperture [H] will separate and then pass on both transverse sides of the heating element [N] and then continue along an airflow path [V] co-axial with the central longitudinal axis [Q] of the housing [E] toward the second aperture [I] during use of the electronic vaporizer."

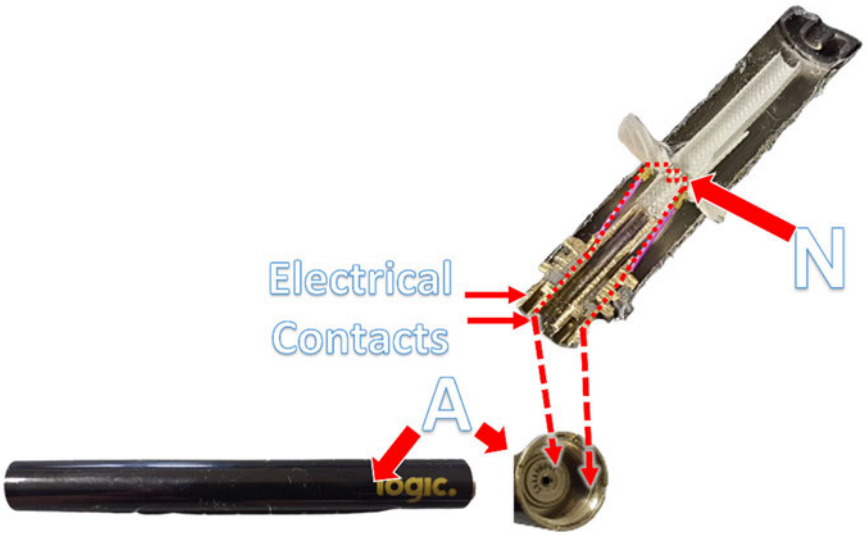


Logic Power Figure 864.38.g.

412. The Logic Power has a "heating element [N] being configured to vaporize at least the portion of the solution [M] for oral provision to an individual in the airflow."

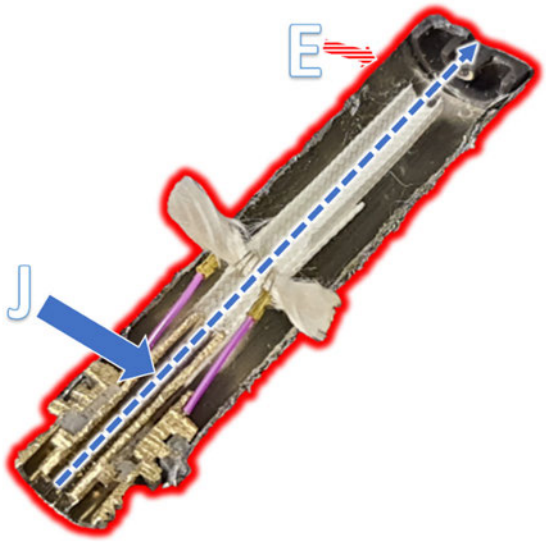
Logic Power Figure 864.38.h.

413. The Logic Power has a "heating element [N] being responsive to electrical power received from the power source [A]."



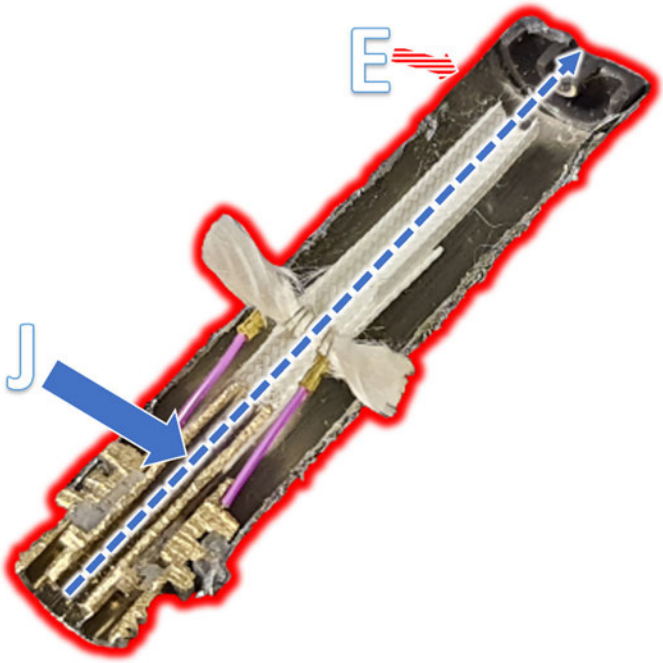
Logic Power Figure 864.38.i.

414. The Logic Power has "an airflow passageway [J] in the housing [E]."



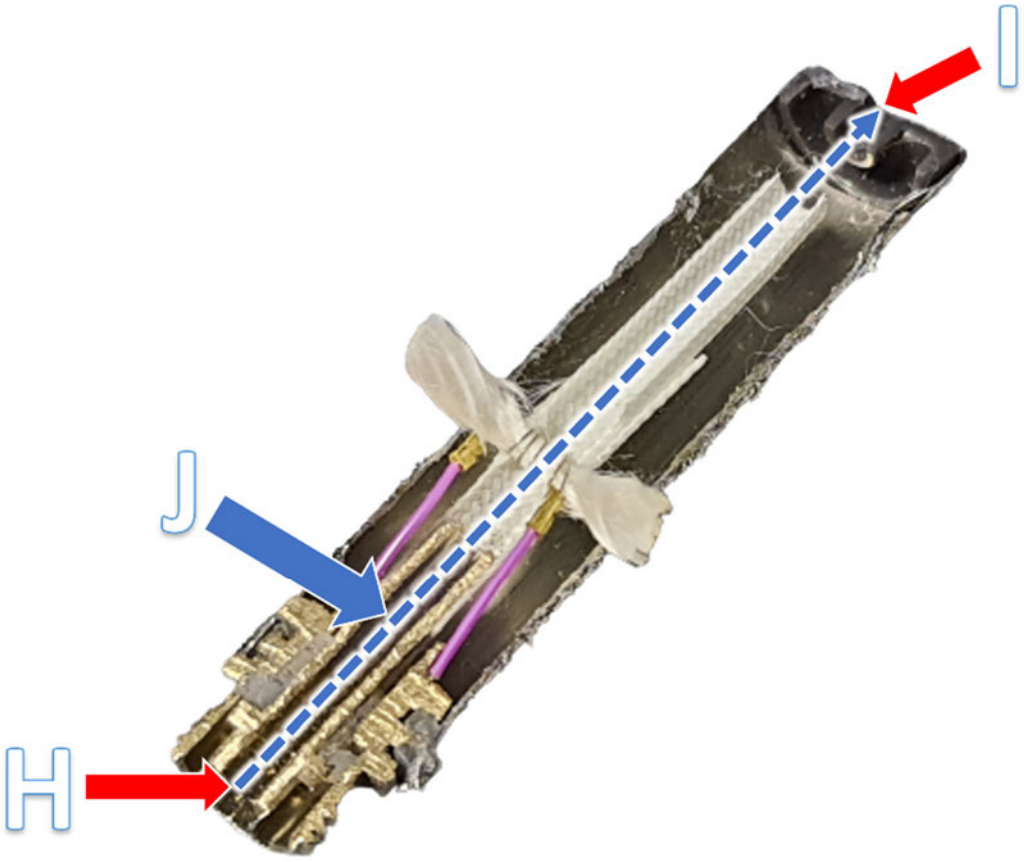
Logic Power Figure 864.38.j.

415. The Logic Power has "at least a portion of the airflow passageway [J] extending centrally and axially with respect to the housing [E]."



Logic Power Figure 864.38.k.

416. In the Logic Power, "the airflow passageway [J] extends centrally and axially from the first aperture [H] to the second aperture [I]."



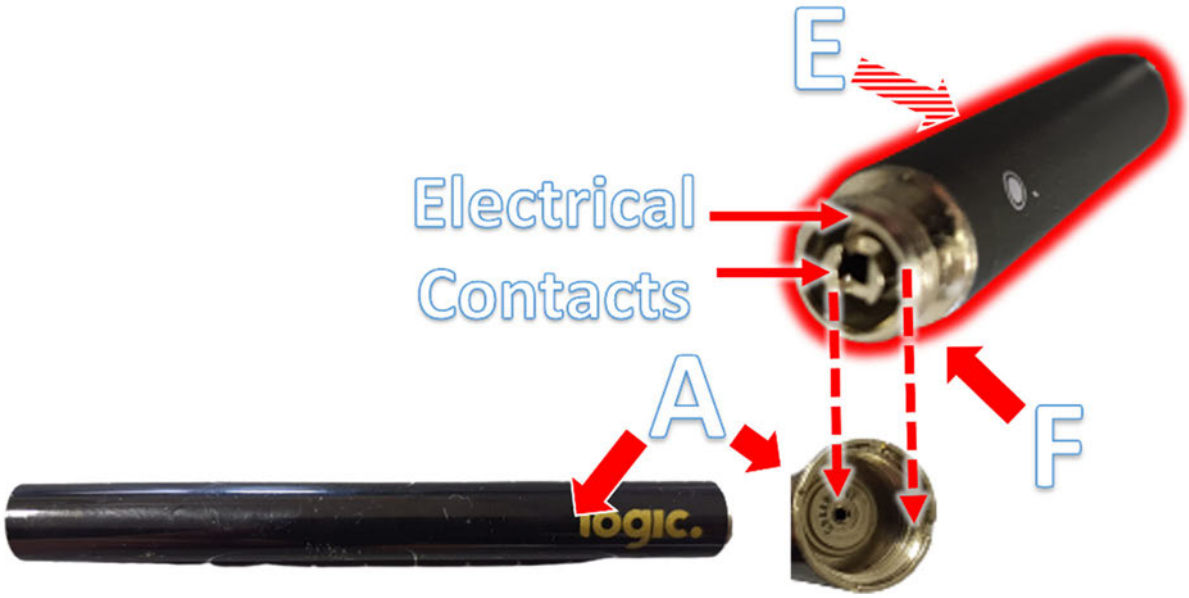
Logic Power Figure 864.38.l.

417. Claim 39 of the '864 Patent reads as follows:

> **39**. The cartridge of claim **3**, 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.

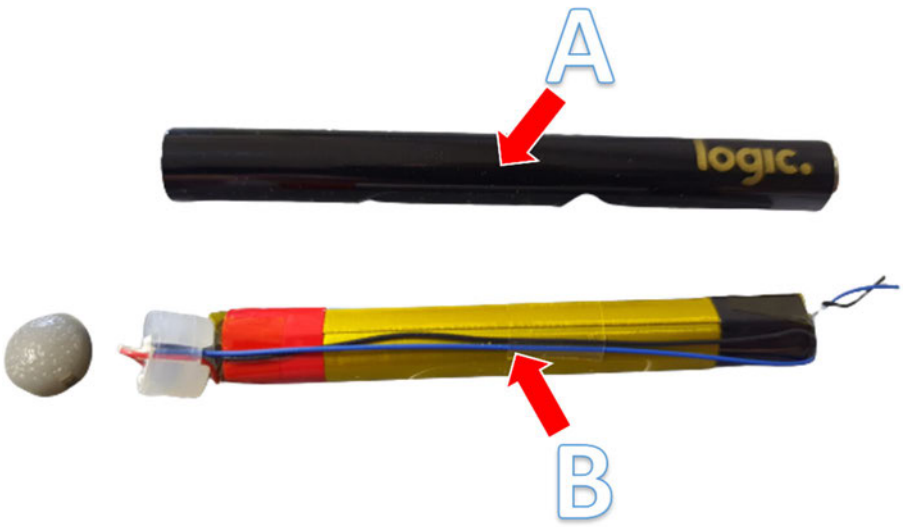
418. As shown in the figures set forth in Paragraphs 419 through 420, the Logic Power meets every limitation recited in Claim 39 of the '864 Patent.

419. The Logic Power has "a power source [A] adapted to be electrically coupled to the first end [F] of the housing [E]."



Logic Power Figure 864.39.a.

420. The Logic Power has a "power source [A] including a battery [B]."



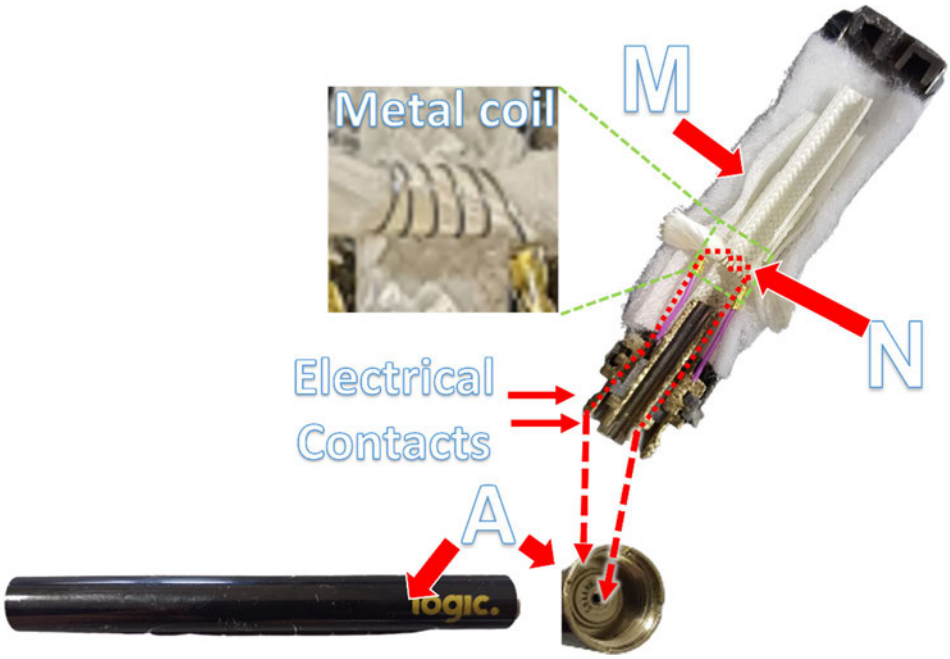
Logic Power Figure 864.39.b.

421. Claim 40 of the ’864 Patent reads as follows:

> **40**. The cartridge of claim **38**, 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.

422. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 40 of the ’864 Patent.

423. In the Logic Power “the heating element [N] comprises a material that when powered by the power source [A] is adapted to vaporize the solution [M] brought into contact with the heating element [N].”



Logic Power Figure 864.40.

424. Claim 41 of the ’864 Patent reads as follows:

> **41**. The cartridge of claim **38**, further comprising a solution in the solution holding medium, the solution comprising one of propylene glycol and nicotine.

425. As shown in the figures set forth in Paragraphs 426 through 427, the Logic Power meets every limitation recited in Claim 41 of the ’864 Patent.

426. The Logic Power has “a solution [M] in the solution holding medium [L].”

Logic Power Figure 864.41.a.

427. The Logic Power has "the solution [M] comprising one of propylene glycol and nicotine."

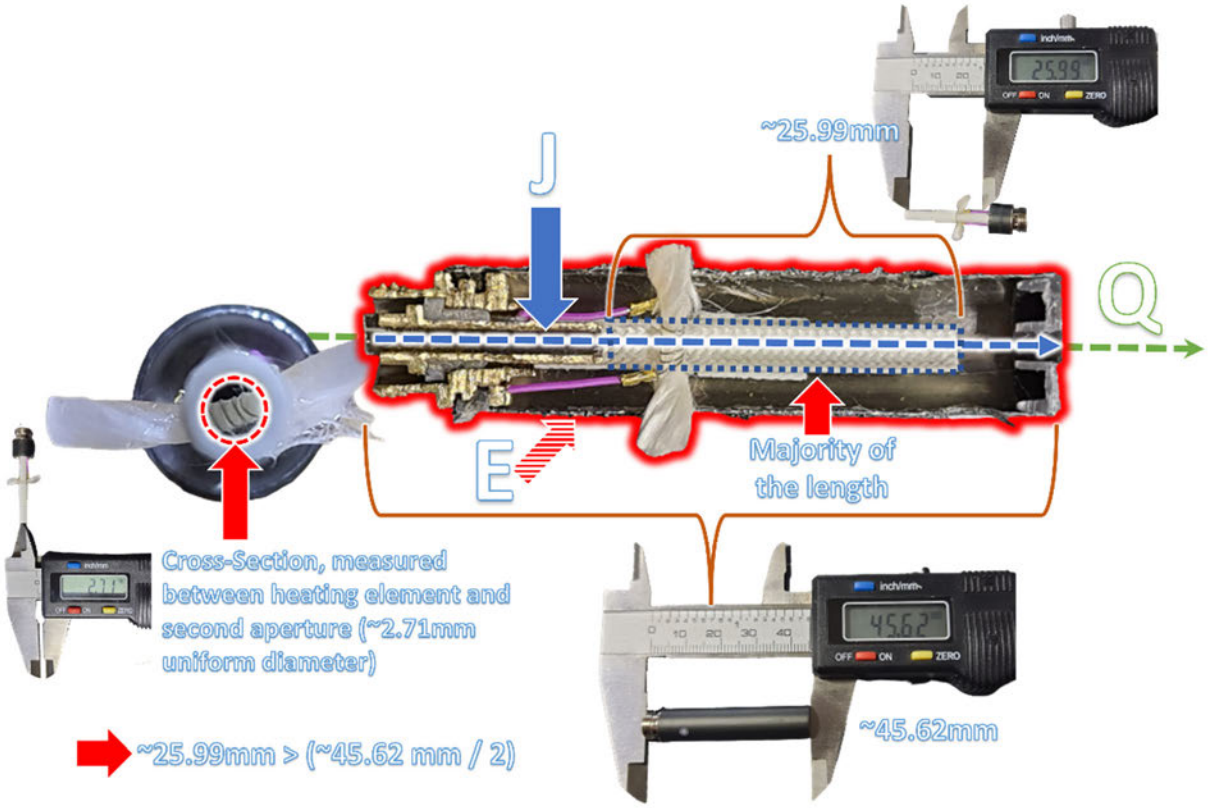
Logic Power Figure 864.41.b.

428. Claim 42 of the '864 Patent reads as follows:

> **42**. The cartridge of claim **38**, 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.

429. As shown in the figure set forth in the following paragraph, the Logic Power meets every limitation recited in Claim 42 of the '864 Patent.

430. In the Logic Power, "a majority of the portion of the airflow passageway [J] has a substantially uniform cross-sectional area measured perpendicular to the central longitudinal axis [Q] of the housing [E] between the heating element [N] and the second aperture [I]."



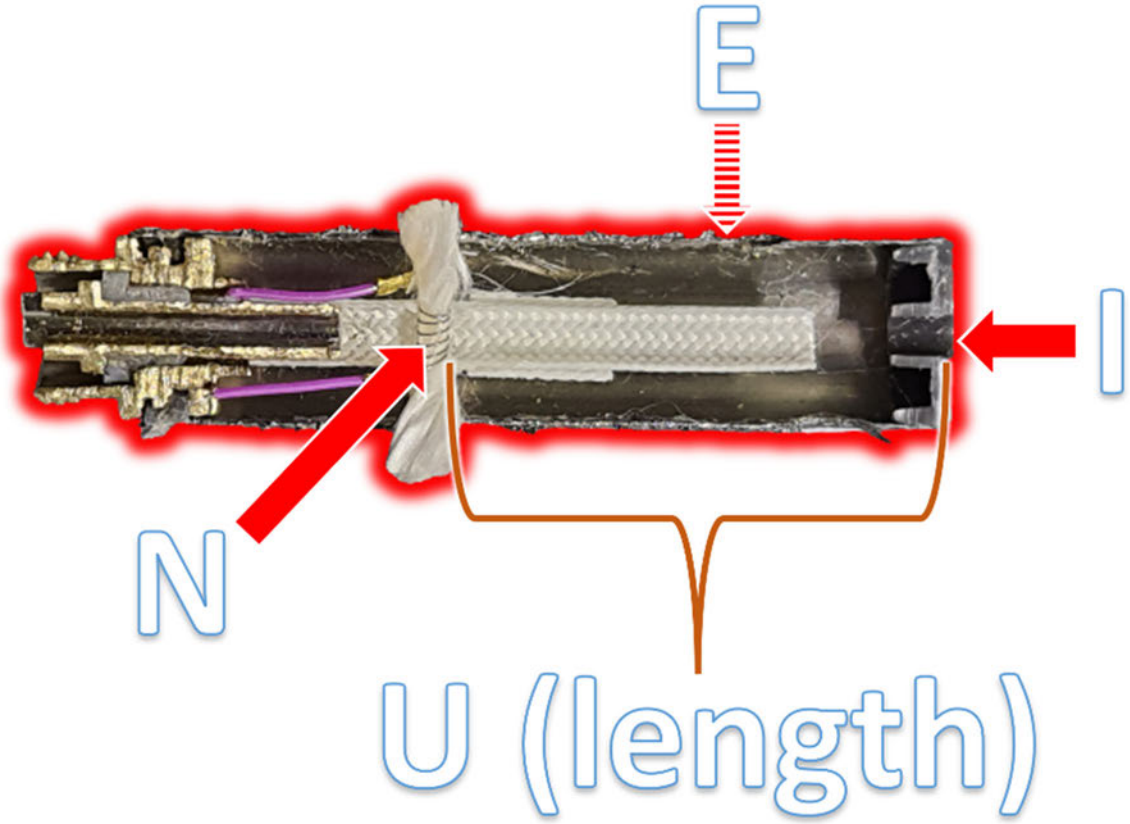
Logic Power Figure 864.42.

431. Claim 43 of the '864 Patent reads as follows:

> **43**. The cartridge of claim **38**, 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.

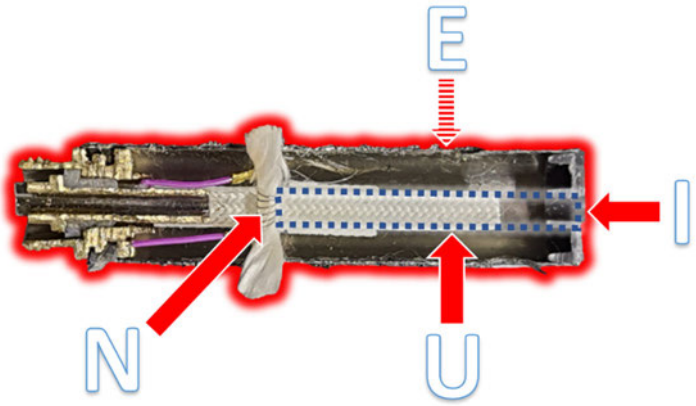
432. As shown in the figures set forth in Paragraphs 433 through 435, the Logic Power meets every limitation recited in Claim 43 of the ’864 Patent.

433. In the Logic Power, “the housing [E] further comprises an airflow chamber [U] having a length extending intermediate of the heating element [N] and the second aperture [I].”



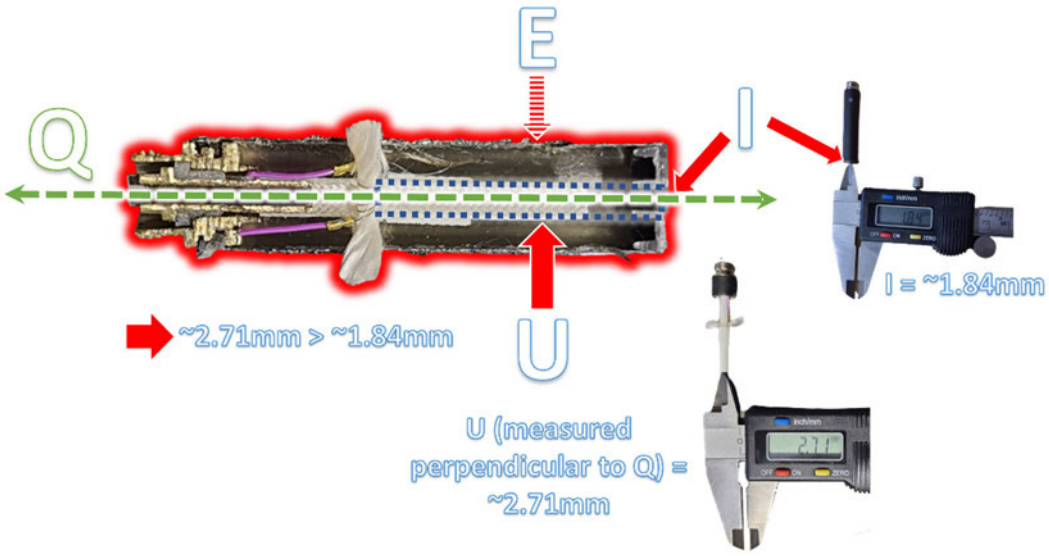
Logic Power Figure 864.43.a.

434. The Logic Power has "the chamber [U] having an interior between the heating element [N] and the second aperture [I]."



Logic Power Figure 864.43.b.

435. The Logic Power has "the interior having no cross-sectional area measured perpendicular to the central longitudinal axis [Q] of the housing [E] smaller in cross-sectional area than a cross-sectional area of the second aperture [I]."



Logic Power Figure 864.43.c.

436. Claim 45 of the ’864 Patent reads as follows:

> **45**. 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 coaxial 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; and
>
> an airflow passageway in the housing, at least a portion of the airflow passageway extending centrally and axially with respect to the housing,
>
> 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.

437. As shown in the figures set forth in Paragraphs 438 through 450, the Logic Power meets every limitation recited in Claim 45 of the ’864 Patent.

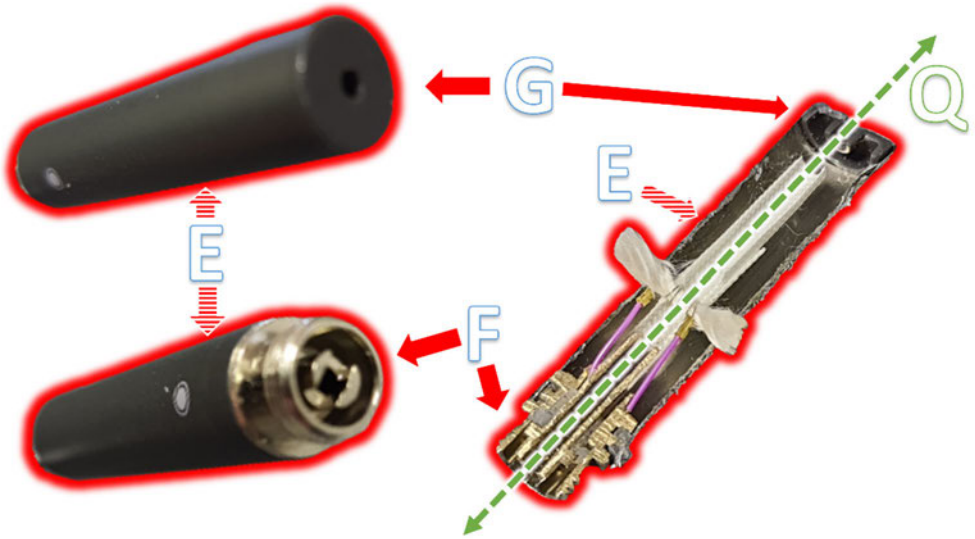
438. To the extent that the preamble is limiting, the Logic Power has a "cartridge [D] configured to couple to a power source [A] of an electronic vaporizer."

Logic Power Figure 864.45.pre.

439. The Logic Power has "a housing [E] having an interior and a solution holding medium [L] adapted to hold a solution [M]."

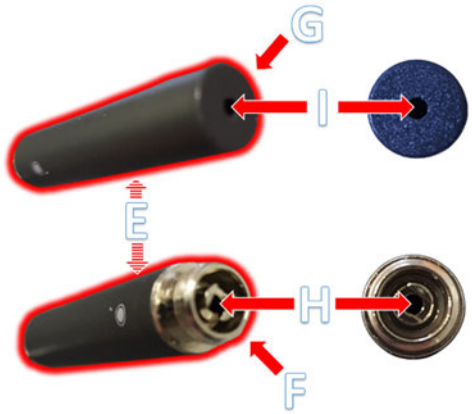
Logic Power Figure 864.45.a.

440. The Logic Power has "the housing [E] having a first end [F] and a second end [G] that is opposite the first end [F] and a central longitudinal axis [Q] extending from the first end [F] to the second end [G]."



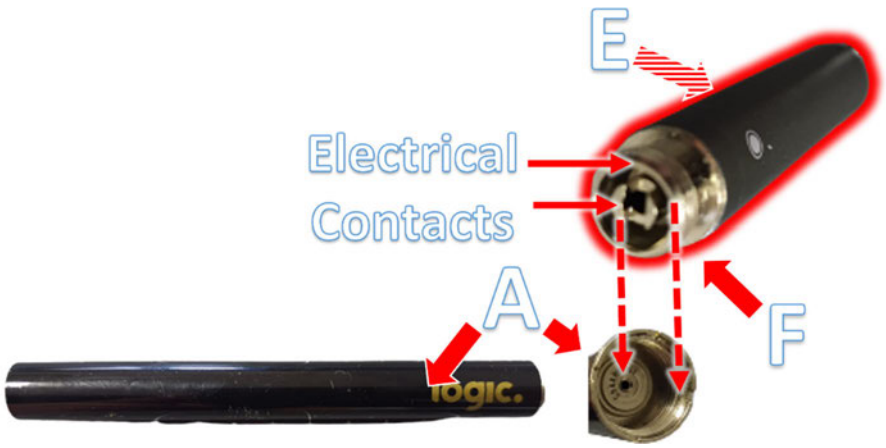
Logic Power Figure 864.45.b.

441. The Logic Power has "the housing [E] having a first aperture [H] proximate the first end [F] and a second aperture [I] proximate the second end [G]."



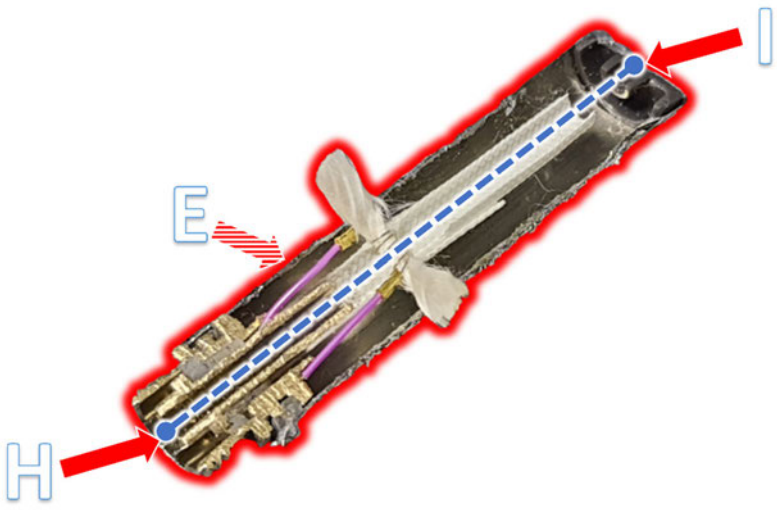
Logic Power Figure 864.45.c.

442. The Logic Power has "the first end [F] of the housing [E] being adapted to electrically couple to the power source [A]."



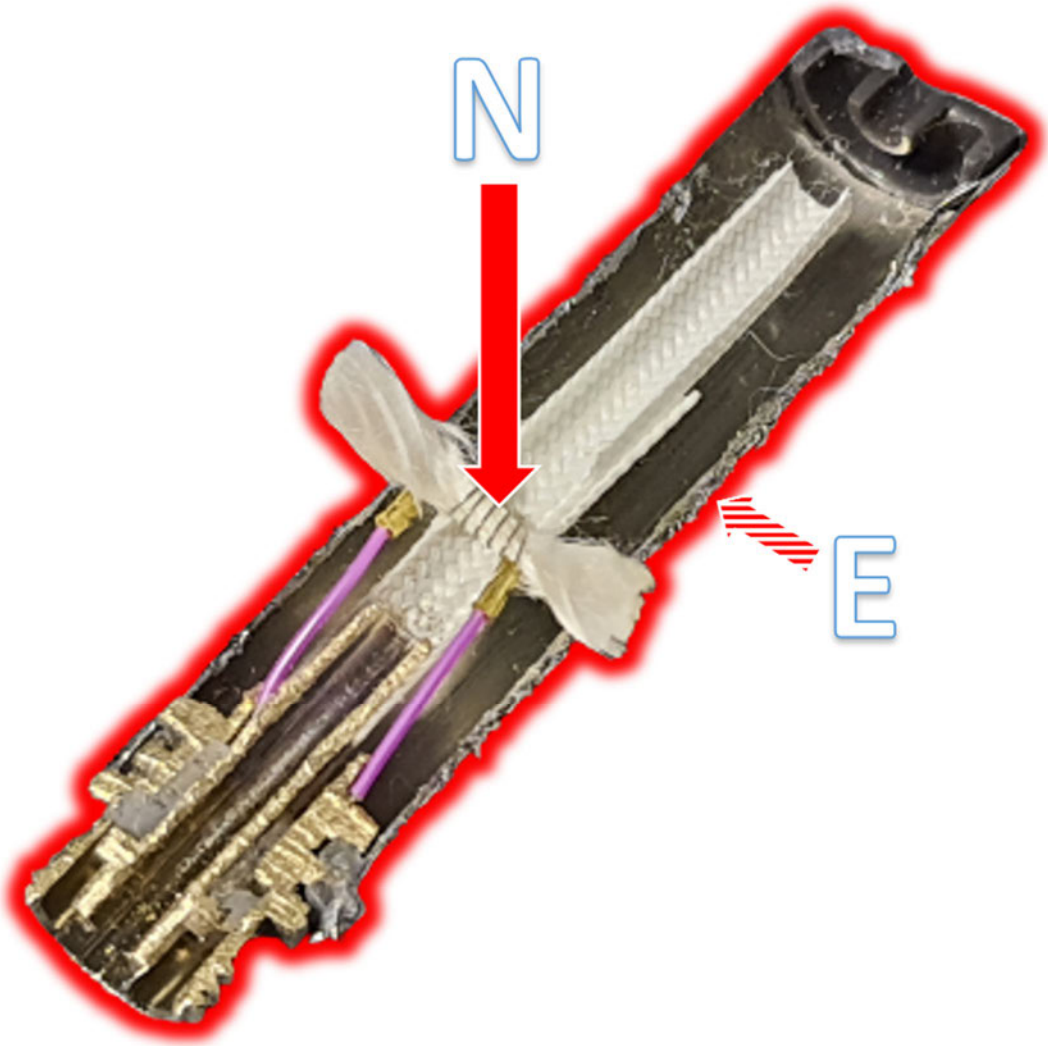
Logic Power Figure 864.45.d.

443. The Logic Power has "the first aperture [H] and the second aperture [I] being in communication with one another to permit an airflow through the housing [E]."



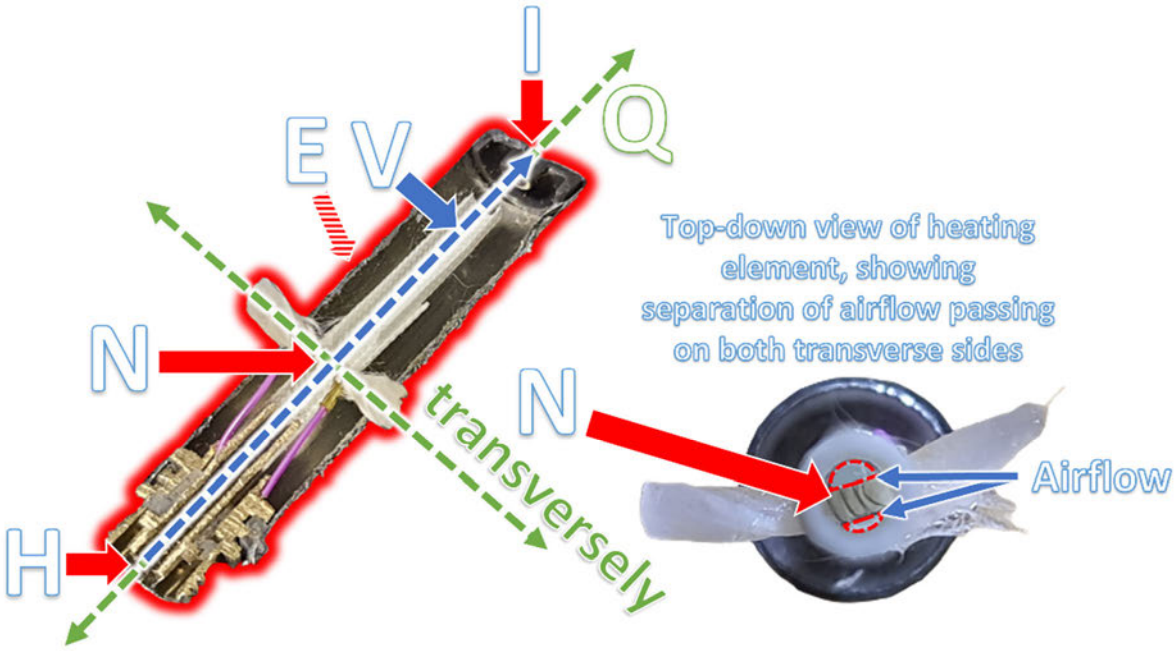
Logic Power Figure 864.45.e.

444. The Logic Power has "a heating element [N] located in the interior of the housing [E]."



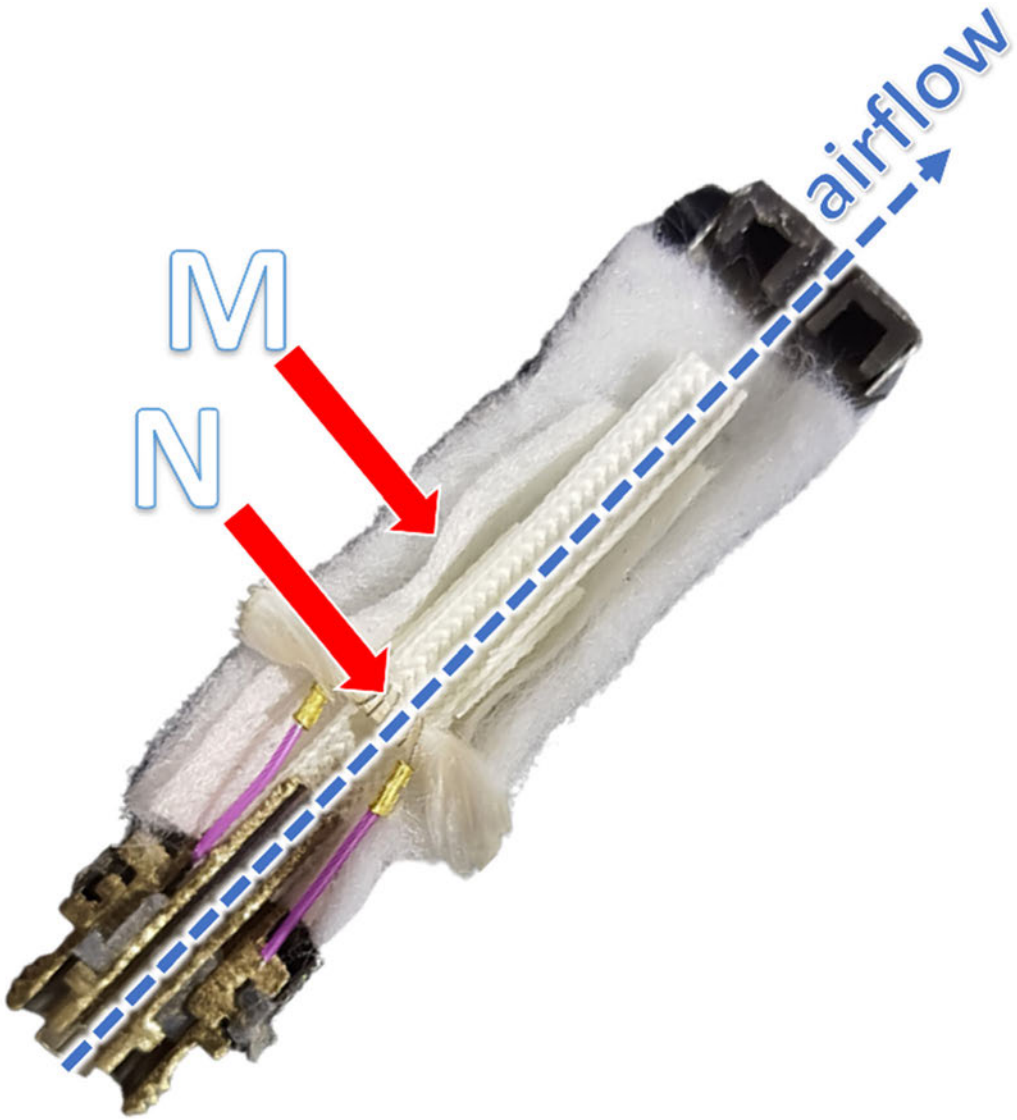
Logic Power Figure 864.45.f.

445. The Logic Power has a "heating element [N] extending transversely to the central longitudinal axis [Q] of the housing [E] and being at least partially exposed to the airflow such that the airflow entering through the first aperture [H] will separate and then pass on both transverse sides of the heating element [N] and then continue along an airflow path [V] co-axial with the central longitudinal axis [Q] of the housing [E] toward the second aperture [I] during use of the electronic vaporizer."



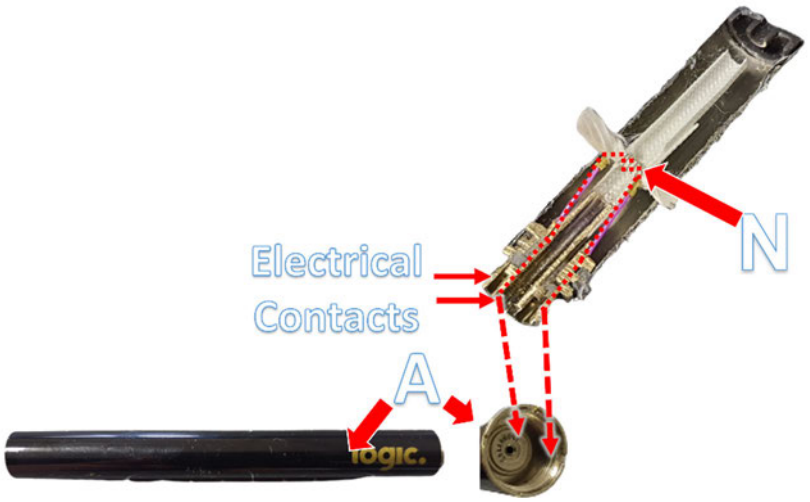
Logic Power Figure 864.45.g.

446. The Logic Power has a "heating element [N] being configured to vaporize at least the portion of the solution [M] for oral provision to an individual in the airflow."



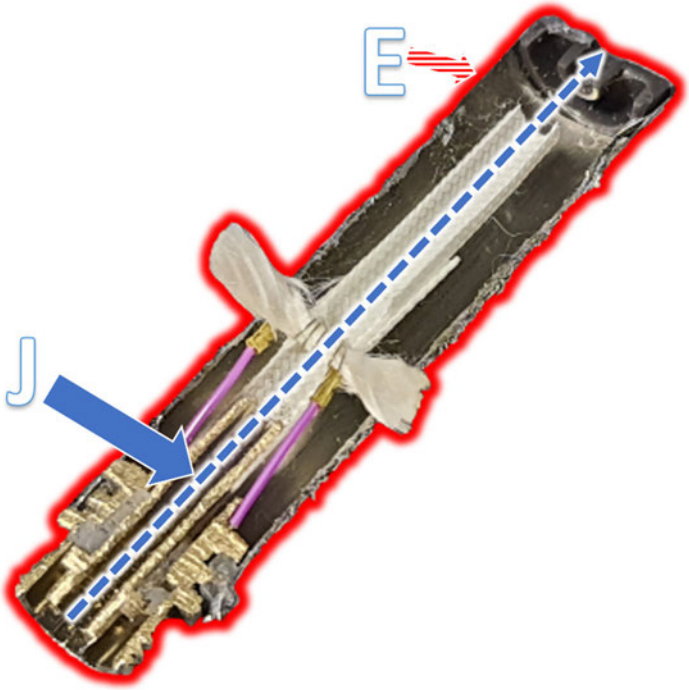
Logic Power Figure 864.45.h.

447. The Logic Power has a "heating element [N] being responsive to electrical power received from the power source [A]."



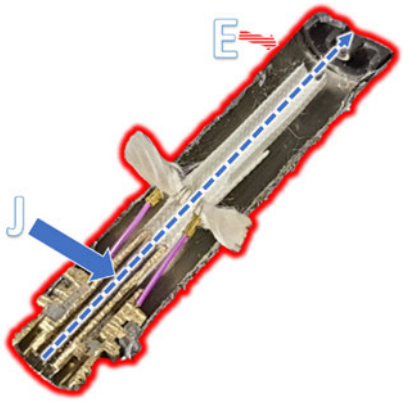
Logic Power Figure 864.45.i.

448. The Logic Power has "an airflow passageway [J] in the housing [E]."



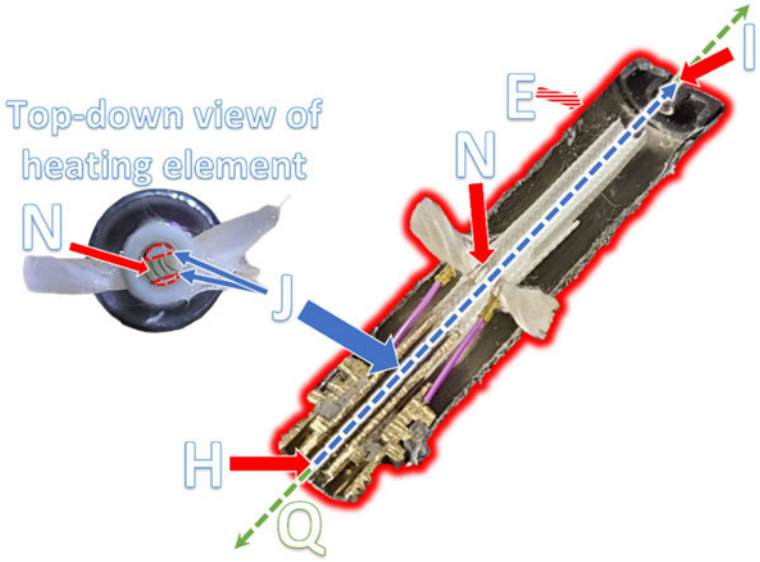
Logic Power Figure 864.45.j.

449. The Logic Power has "at least a portion of the airflow passageway [J] extending centrally and axially with respect to the housing [E]."



Logic Power Figure 864.45.k.

450. In the Logic Power, "the airflow passageway [J] extends in a straight path from the first aperture [H] to the second aperture [I] with only the heating element [N] obstructing a portion of the airflow through the airflow passageway [J] along the central longitudinal axis [Q] of the housing [E]."



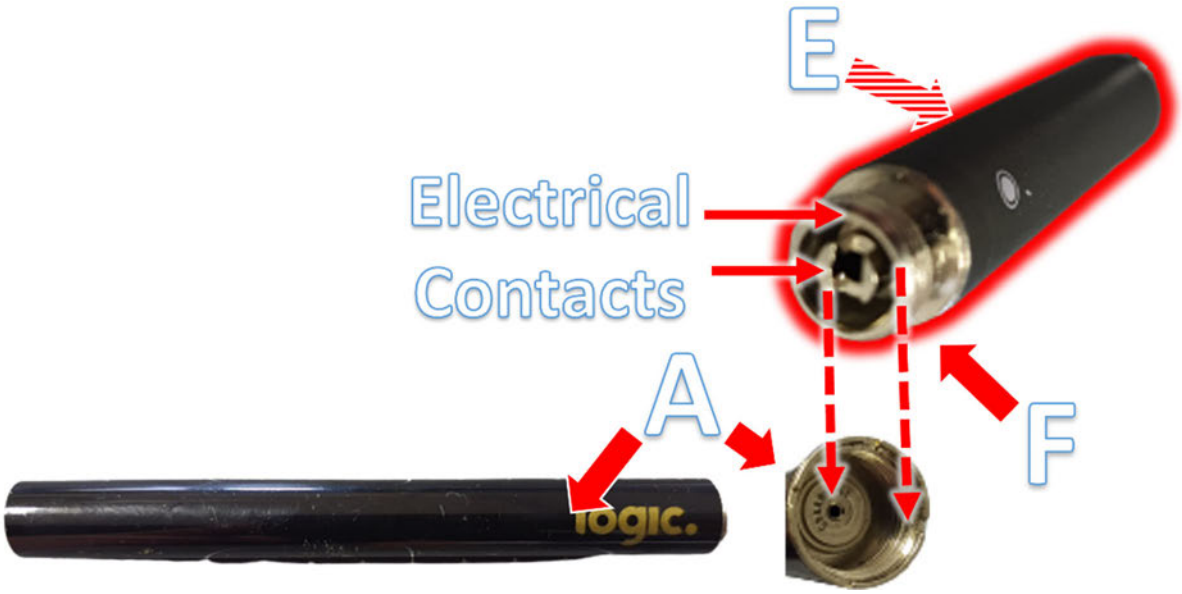
Logic Power Figure 864.45.l

451. Claim 46 of the ’864 Patent reads as follows:

> **46**. The cartridge of claim **45**, 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.

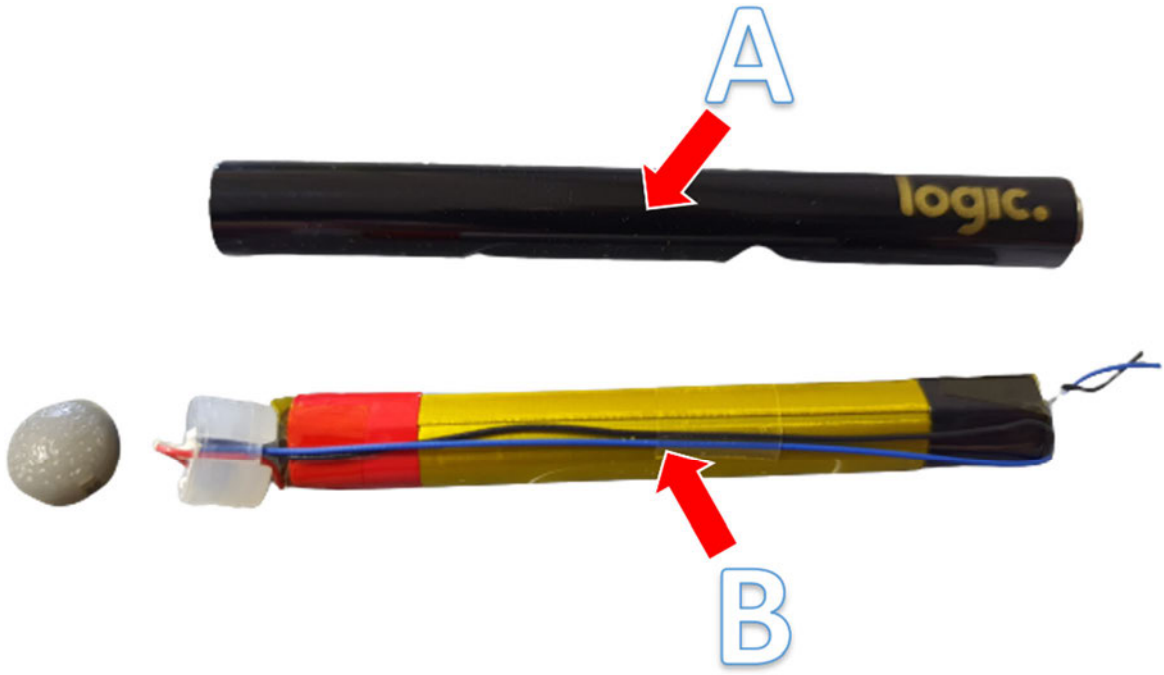
452. As shown in the figures set forth in Paragraphs 453 through 454, the Logic Power meets every limitation recited in Claim 46 of the ’864 Patent.

453. The Logic Power has “a power source [A] adapted to be electrically coupled to the first end [F] of the housing [E].”



Logic Power Figure 864.46.a.

454. The Logic Power has a "power source [A] including a battery [B]."



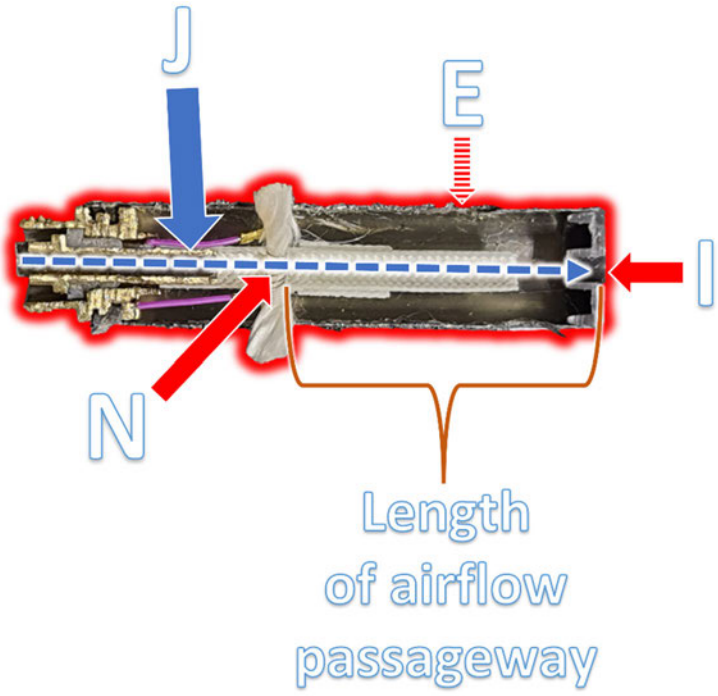
Logic Power Figure 864.46.b.

455. Claim 47 of the '864 Patent reads as follows:

> **47**. The cartridge of claim **45**, wherein the airflow passageway has a length extending intermediate of the heating element and the second aperture, the airflow passageway 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.

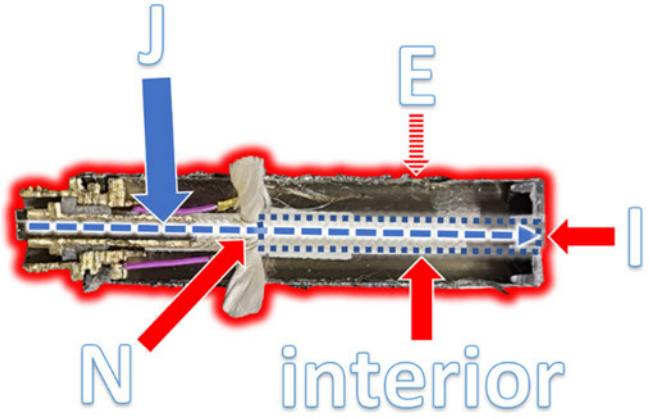
456. As shown in the figures set forth in Paragraphs 457 through 459, the Logic Power meets every limitation recited in Claim 47 of the '864 Patent.

457. In the Logic Power, "the airflow passageway [J] has a length extending intermediate of the heating element [N] and the second aperture [I]."



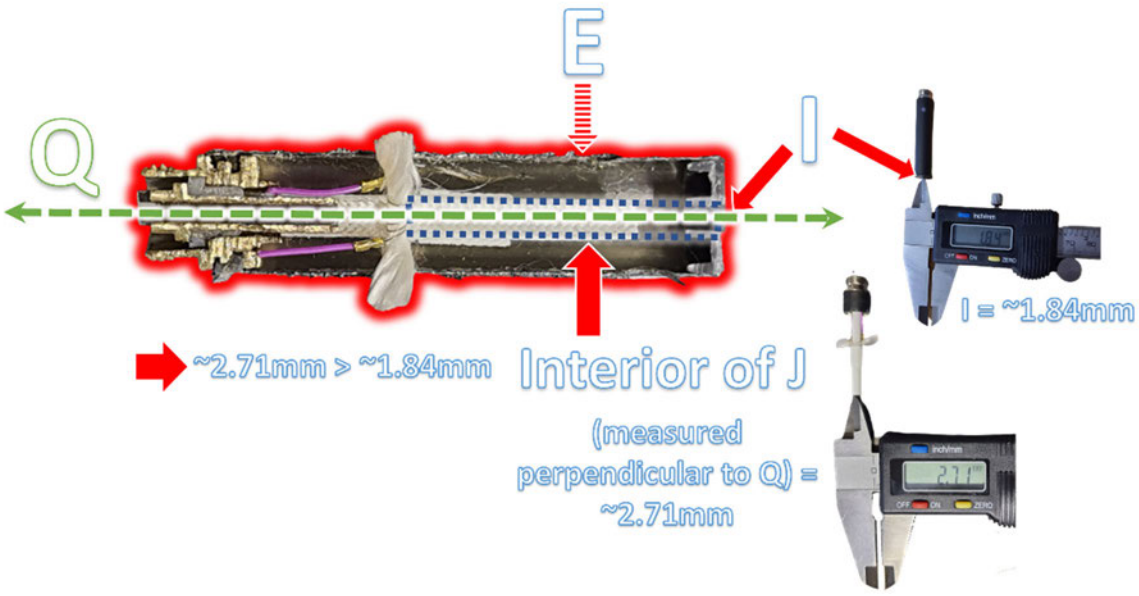
Logic Power Figure 864.47.a.

458. The Logic Power has an "airflow passageway [J] having an interior between the heating element [N] and the second aperture [I]."



Logic Power Figure 864.47.b.

459. The Logic Power has an airflow passageway [J] with "the interior having no cross-sectional area measured perpendicular to the central longitudinal axis [Q] of the housing [E] smaller in cross-sectional area than a cross-sectional area of the second aperture [I]."

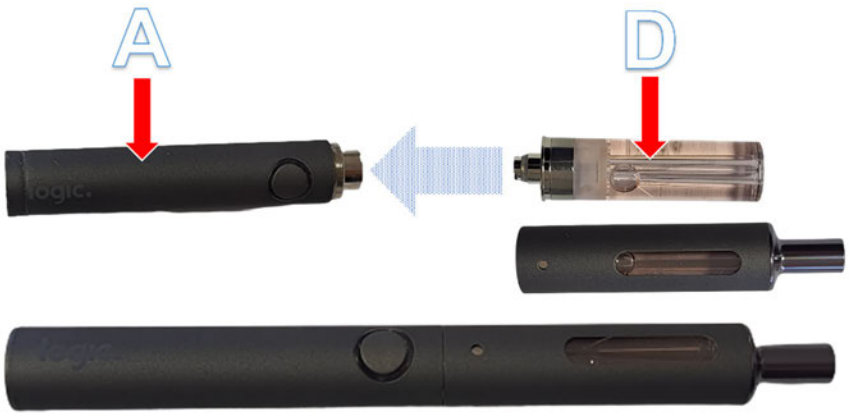


Logic Power Figure 864.47.c.

Direct Infringement of '864 Patent: Logic Pro

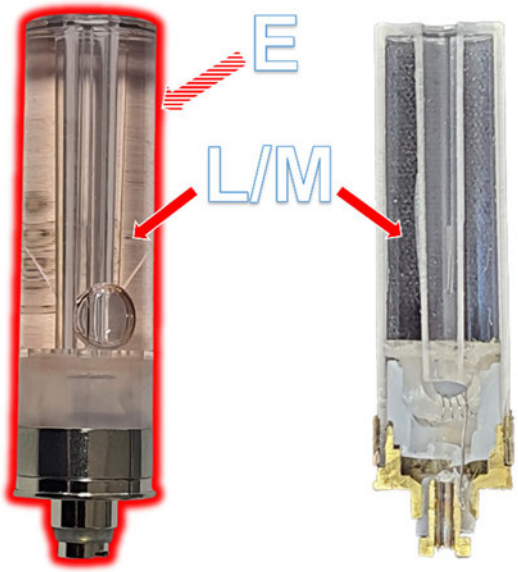
460. As shown in the figures set forth in Paragraphs 461 through 473, the Logic Pro meets every limitation recited in Claim 1 of the '864 Patent.

461. To the extent that the preamble is limiting, the Logic Pro has "A cartridge [D] configured to couple to a power source [A] of an electronic vaporizer"



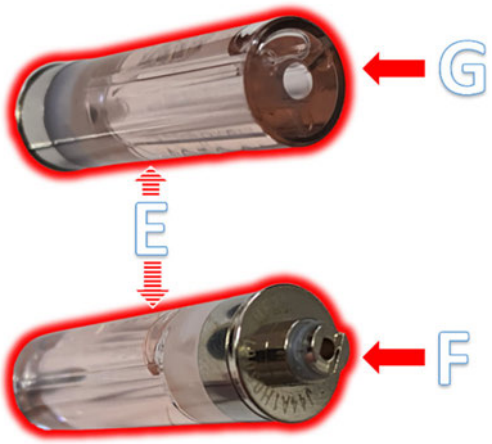
Logic Pro Figure 864.1.pre.

462. The Logic Pro includes "a housing [E] having an interior and a solution holding medium [L] adapted to hold a solution [M]."



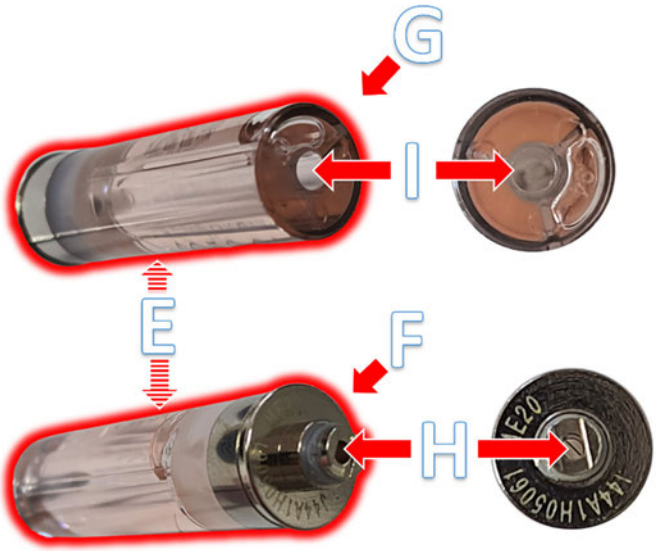
Logic Pro Figure 864.1.a.

463. The Logic Pro includes a "housing [E] having a first end [F] and a second end [G] that is opposite the first end [F]."



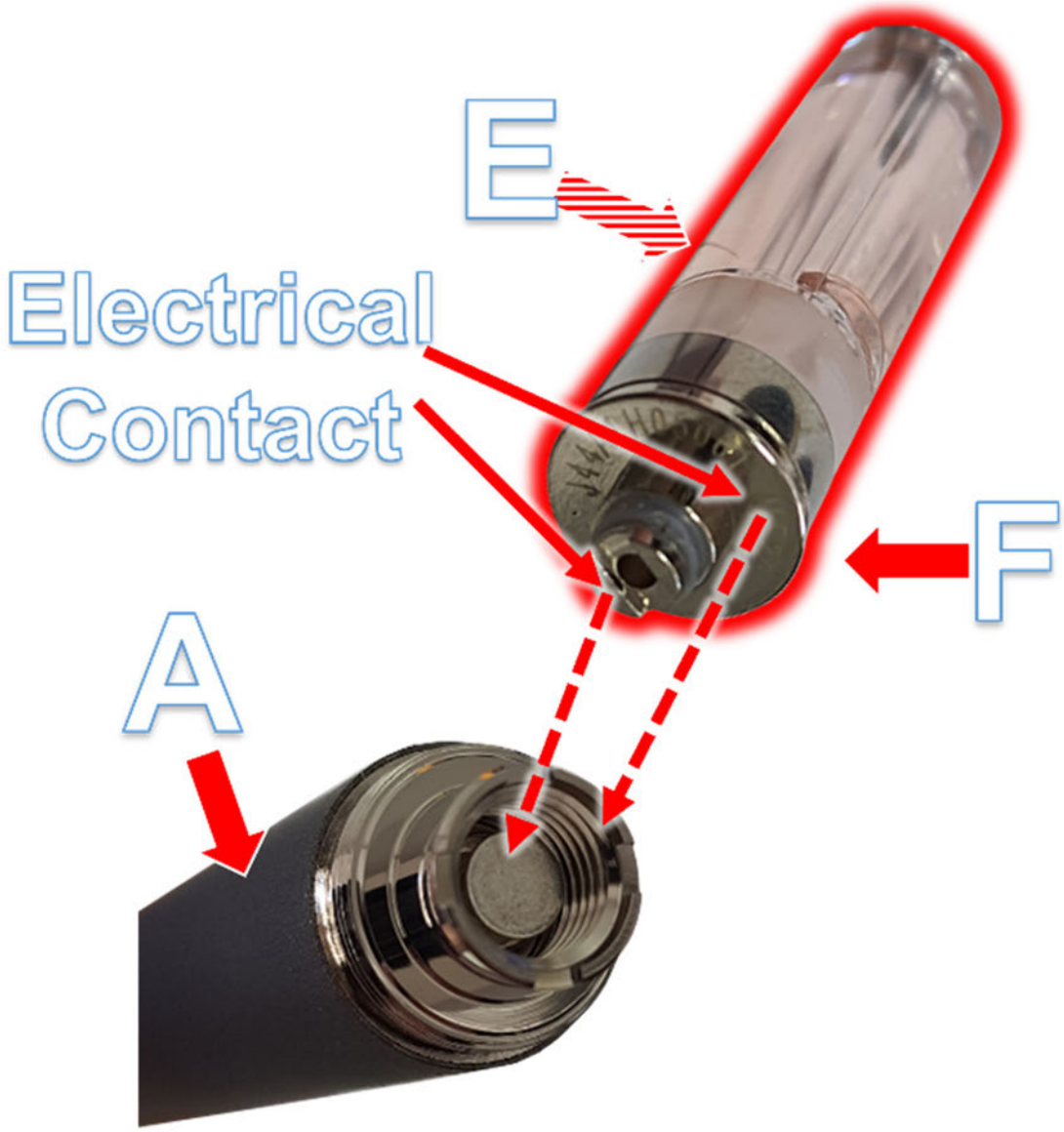
Logic Pro Figure 864.1.b.

464. The Logic Pro includes a "housing [E] having a first aperture [H] proximate the first end [F] and a second aperture [I] proximate the second end [G]."



Logic Pro Figure 864.1.c.

465. The Logic Pro includes a housing with "the first end [F] of the housing [E] being adapted to electrically couple to the power source [A]."

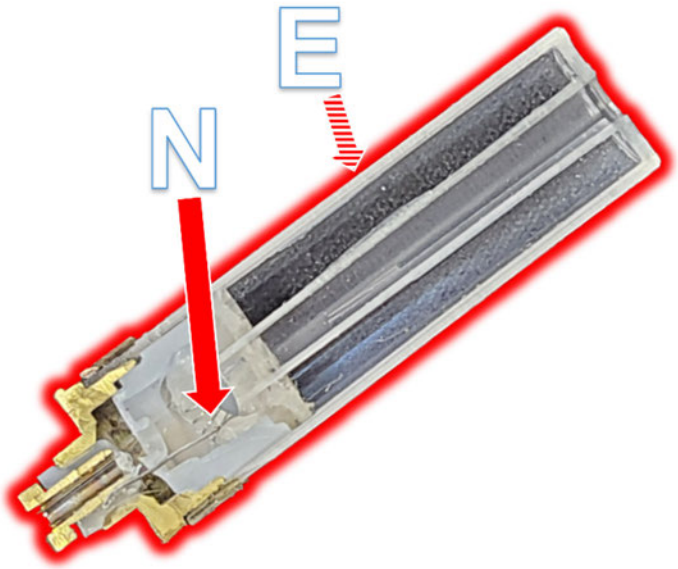


Logic Pro Figure 864.1.d.

466. The Logic Pro includes a housing with "the first aperture [H] and the second aperture [I] being in communication with one another to permit an airflow through the housing from the first aperture [H] to the second aperture [I]."

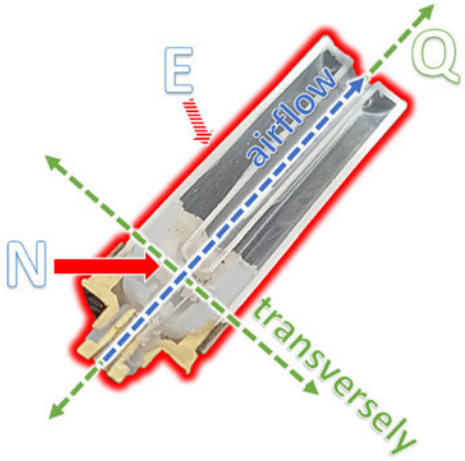
Logic Pro Figure 864.1.e.

467. The Logic Pro includes "a heating element [N] located in the interior of the housing [E]."



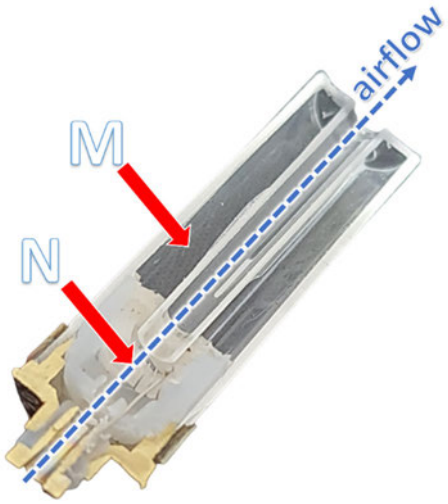
Logic Pro Figure 864.1.f.

468. The Logic Pro includes a heating element with "the heating element [N] extending transversely to a central longitudinal axis [Q] of the housing [E] and being at least partially exposed to the airflow."



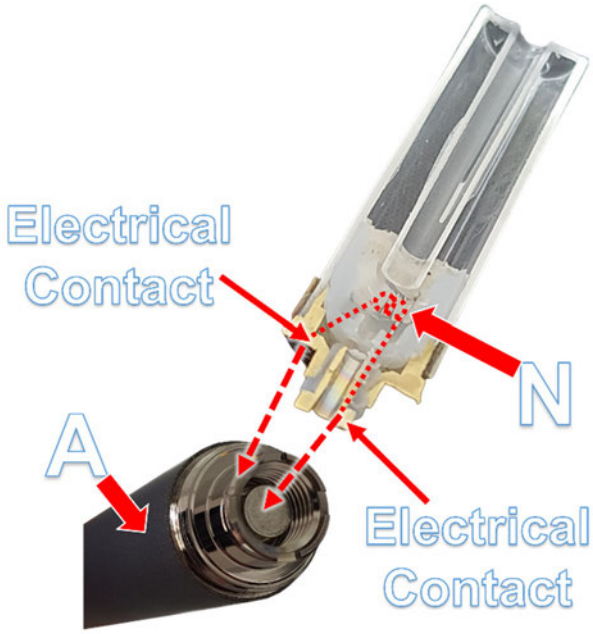
Logic Pro Figure 864.1.g.

469. The Logic Pro includes a heating element with "the heating element [N] being configured to vaporize at least a portion of the solution [M] for oral provision to an individual in the airflow."



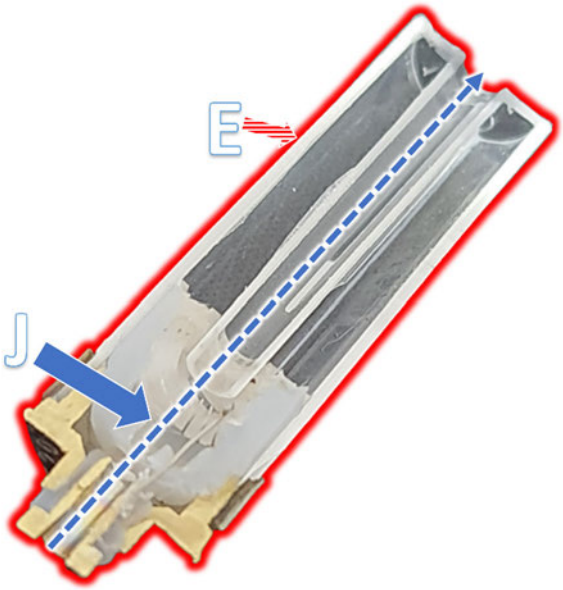
Logic Pro Figure 864.1.h.

470. The Logic Pro includes a heating element with "the heating element [N] being responsive to electrical power received from the power source [A]."



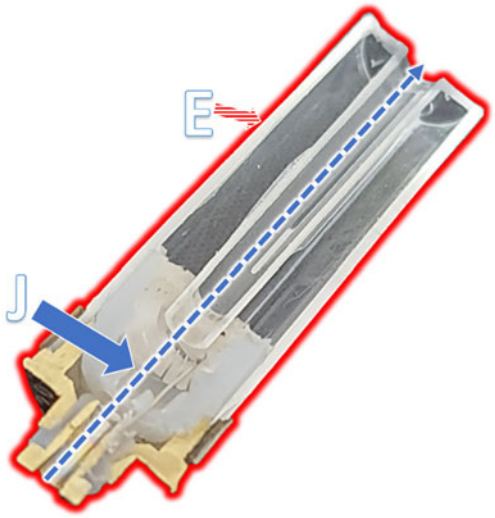
Logic Pro Figure 864.1.i.

471. The Logic Pro has "an airflow passageway [J] in the housing [E]."



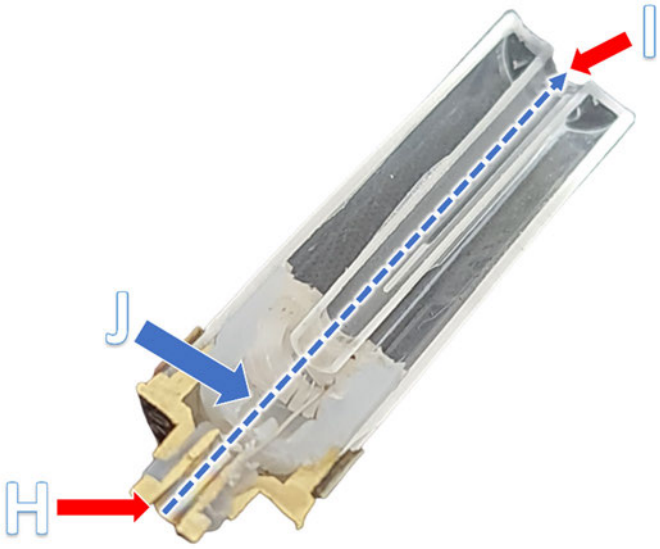
Logic Pro Figure 864.1.j.

472. The Logic Pro has, "at least a portion of the airflow passageway [J] extending centrally and axially with respect to the housing [E]."



Logic Pro Figure 864.1.k.

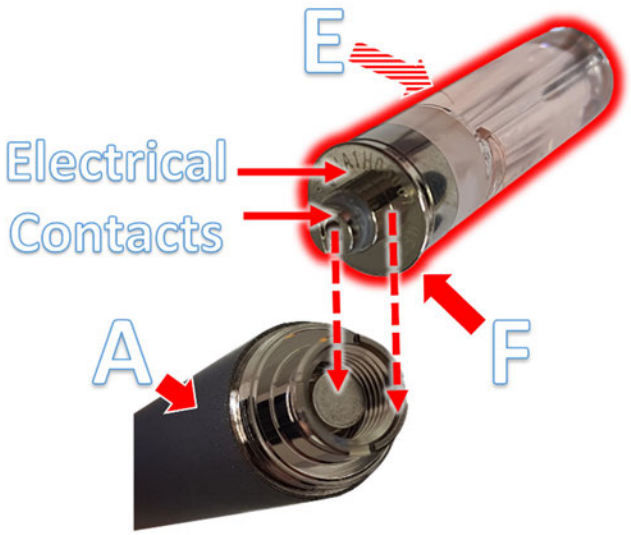
473. In the Logic Pro, "the airflow passageway [J] extends centrally and axially from the first aperture [H] to the second aperture [I]."



Logic Pro Figure 864.1.l.

474. As shown in the figures set forth in Paragraphs 475 through 476, the Logic Pro meets every limitation recited in Claim 2 of the '864 Patent.

475. The Logic Pro has "a power source [A] adapted to be electrically coupled to the first end [F] of the housing [E]."



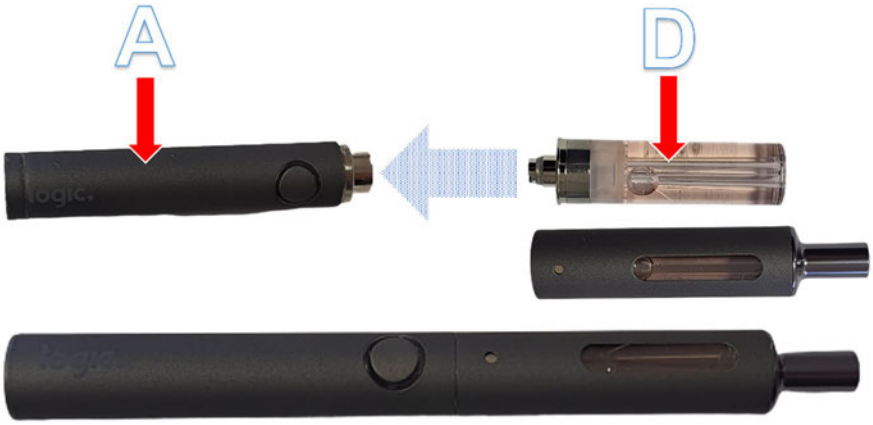
Logic Pro Figure 864.2.a.

476. The Logic Pro has a "power source [A] including a battery [B]."

Logic Pro Figure 864.2.b.

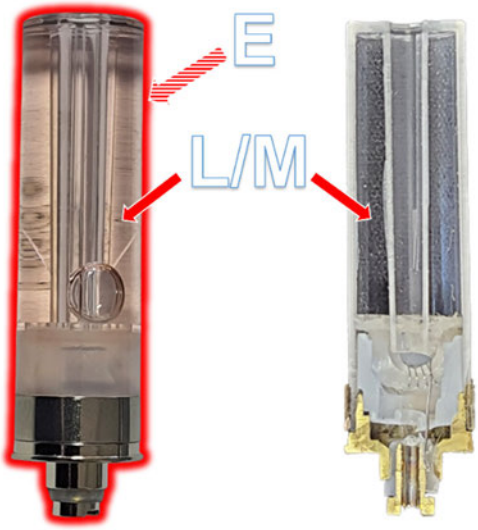
477. As shown in the figures set forth in Paragraphs 478 through 490, the Logic Pro meets every limitation recited in Claim 5 of the ’864 Patent.

478. To the extent that the preamble is limiting, the Logic Pro has “A cartridge configured to couple to a power source of an electronic vaporizer.”



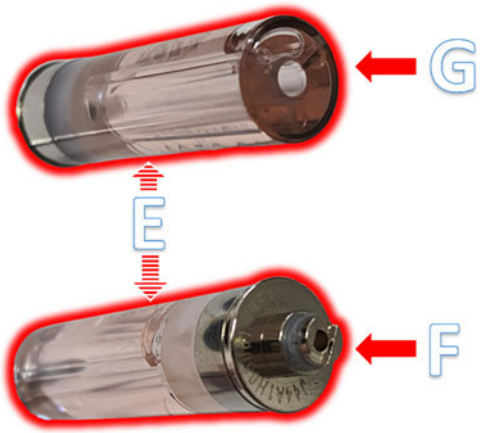
Logic Pro Figure 864.5.pre.

479. The Logic Pro includes “a housing [E] having an interior and a solution holding medium [L] adapted to hold a solution [M].”



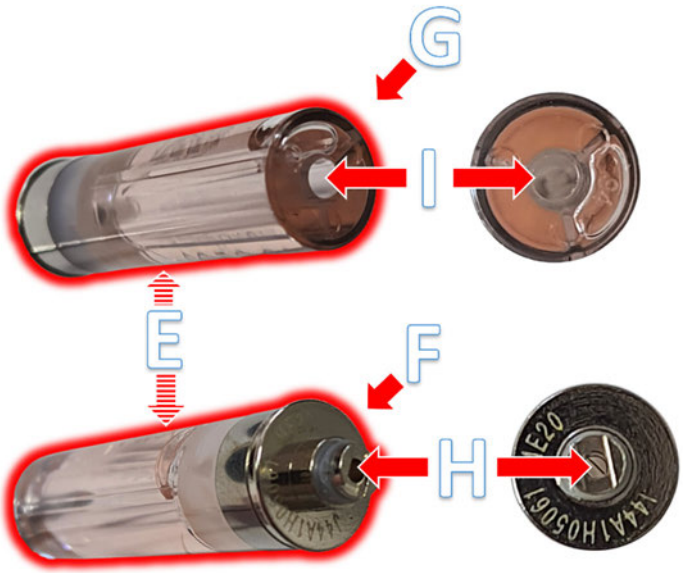
Logic Pro Figure 864.5.a.

480. The Logic Pro includes a "housing [E] having a first end [F] and a second end [G] that is opposite the first end [F]."



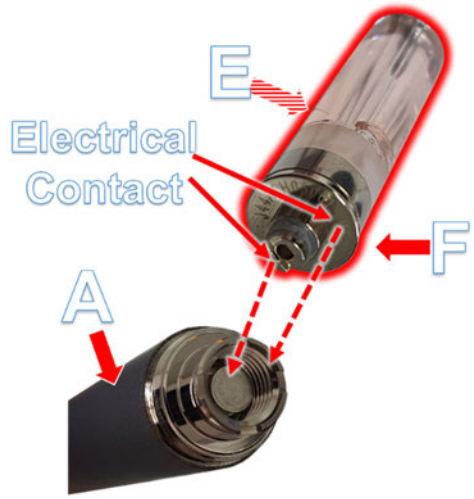
Logic Pro Figure 864.5.b.

481. The Logic Pro includes a "housing [E] having a first aperture [H] proximate the first end [F] and a second aperture [I] proximate the second end [G]."



Logic Pro Figure 864.5.c.

482. The Logic Pro includes a housing with "the first end [F] of the housing [E] being adapted to electrically couple to the power source [A]."

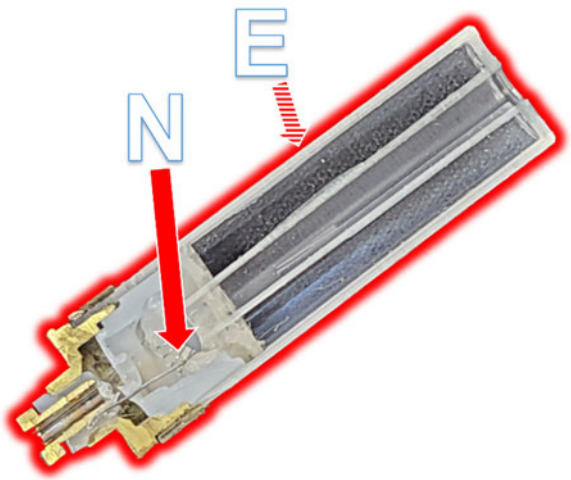


Logic Pro Figure 864.5.d.

483. The Logic Pro includes a housing with "the first aperture [H] and the second aperture [I] being in communication with one another to permit an airflow through the housing from the first aperture [H] to the second aperture [I]."

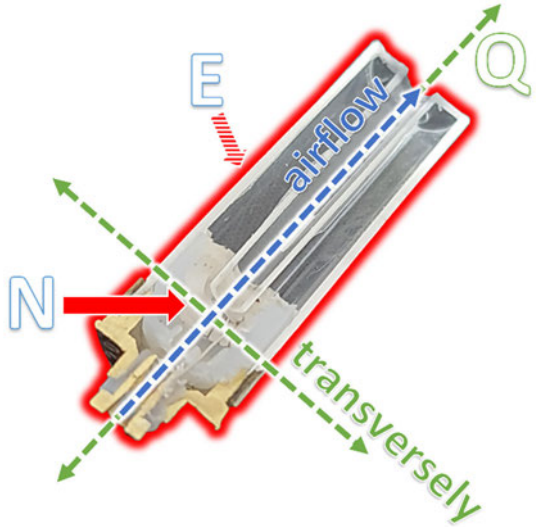
Logic Pro Figure 864.5.e.

484. The Logic Pro includes "a heating element [N] located in the interior of the housing [E]."



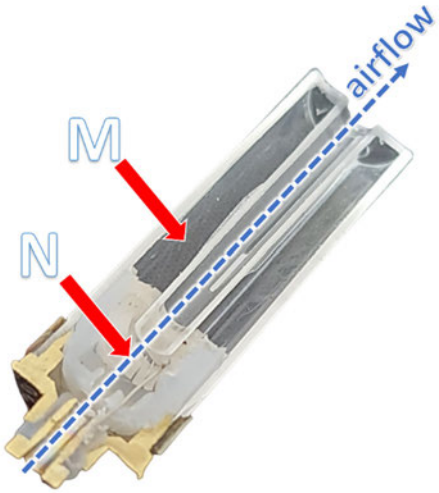
Logic Pro Figure 864.5.f.

485. The Logic Pro includes a heating element with "the heating element [N] extending transversely to a central longitudinal axis [Q] of the housing [E] and being at least partially exposed to the airflow."



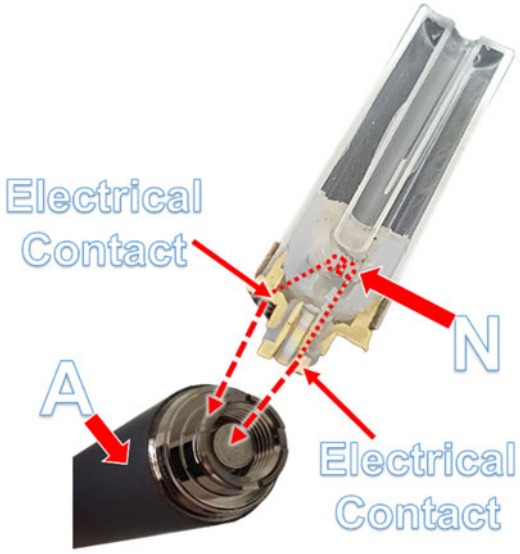
Logic Pro Figure 864.5.g.

486. The Logic Pro includes a heating element with "the heating element [N] being configured to vaporize at least a portion of the solution [M] for oral provision to an individual in the airflow."



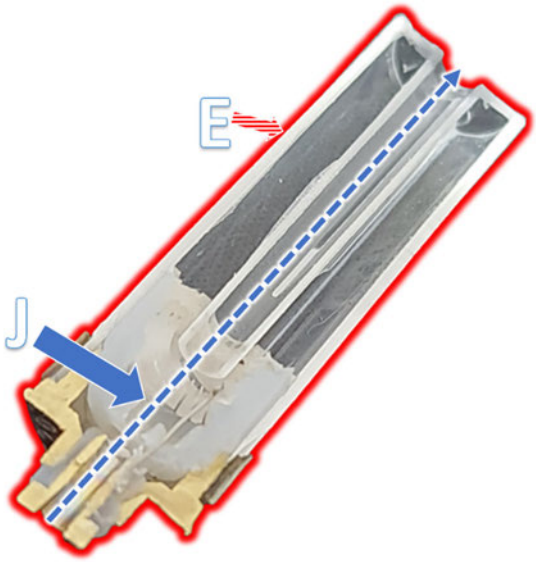
Logic Pro Figure 864.5.h.

487. The Logic Pro includes a heating element with "the heating element [N] being responsive to electrical power received from the power source [A]."



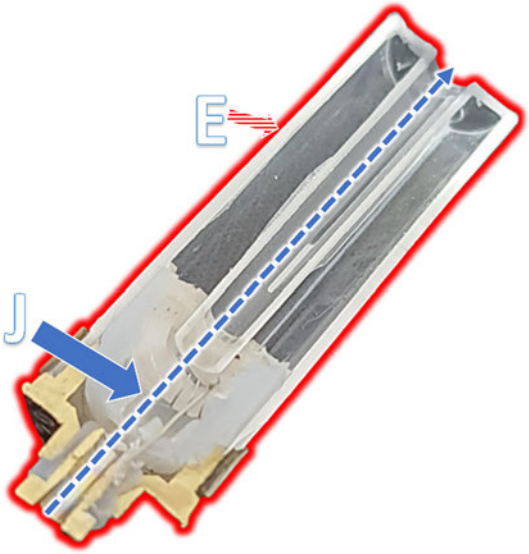
Logic Pro Figure 864.5.i.

488. The Logic Pro has "an airflow passageway [J] in the housing [E]."



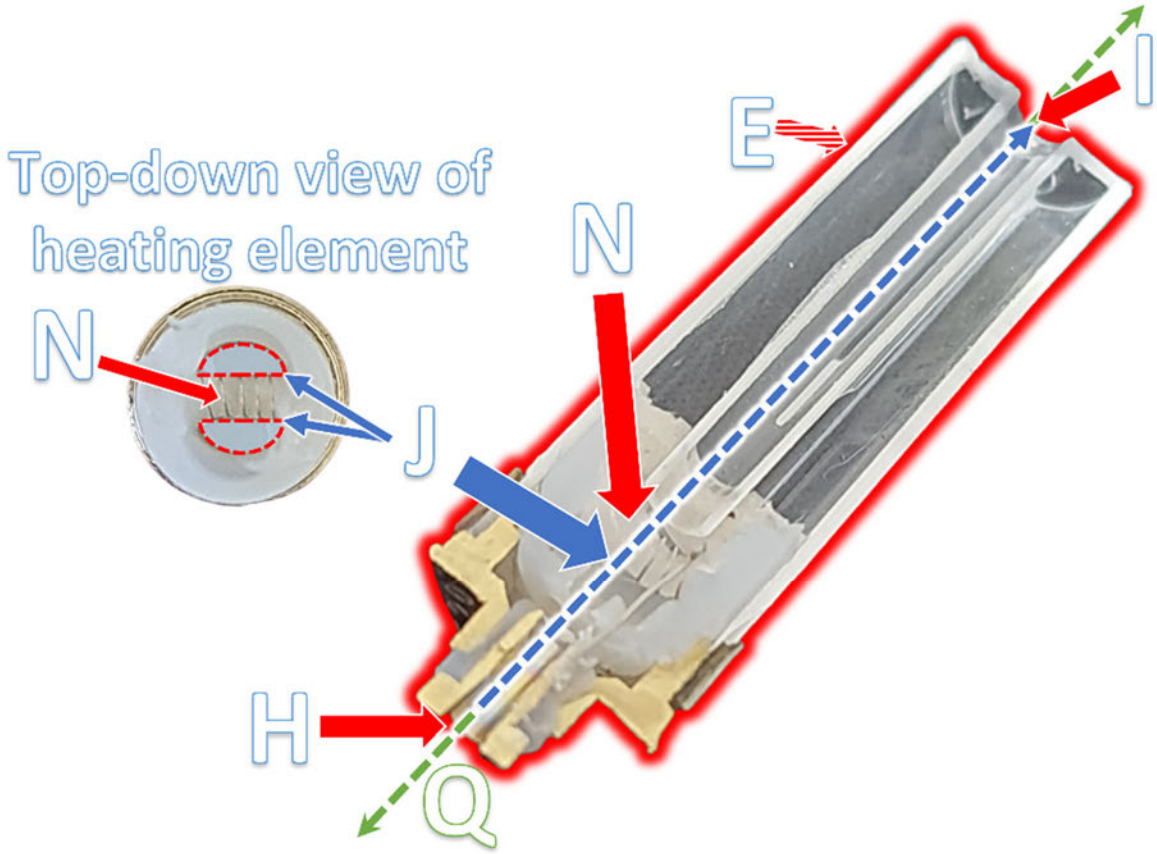
Logic Pro Figure 864.5.j.

489. The Logic Pro has, "at least a portion of the airflow passageway [J] extending centrally and axially with respect to the housing [E]."



Logic Pro Figure 864.5.k.

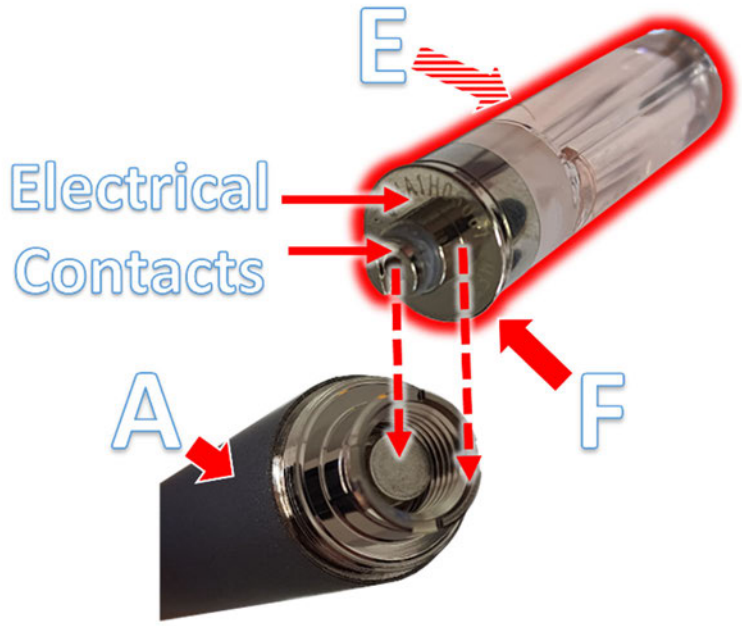
490. In the Logic Pro, "the airflow passageway [J] extends in a straight path from the first aperture [H] to the second aperture [I] with only the heating element [N] obstructing a portion of the airflow through the airflow passageway [J] along the central longitudinal axis [Q] of the housing [E]."



Logic Pro Figure 864.5.l.

491. As shown in the figures set forth in Paragraphs 492 through 493, the Logic Pro meets every limitation recited in Claim 6 of the '864 Patent.

492. The Logic Pro has "a power source [A] adapted to be electrically coupled to the first end [F] of the housing [E]."



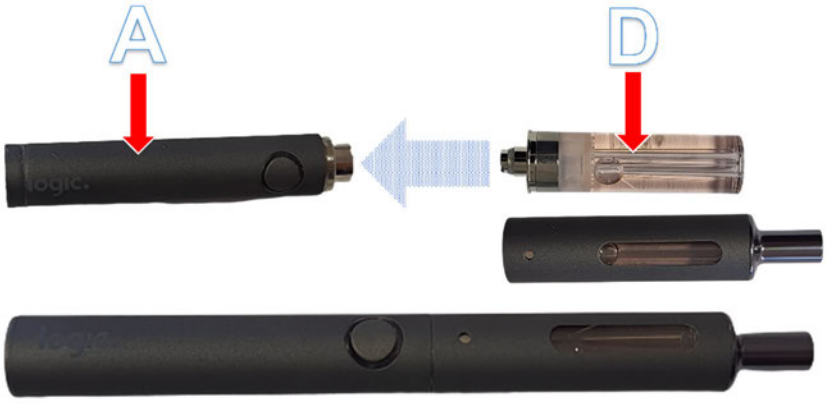
Logic Pro Figure 864.6.a.

493. The Logic Pro has a "power source [A] including a battery [B]."

Logic Pro Figure 864.6.b.

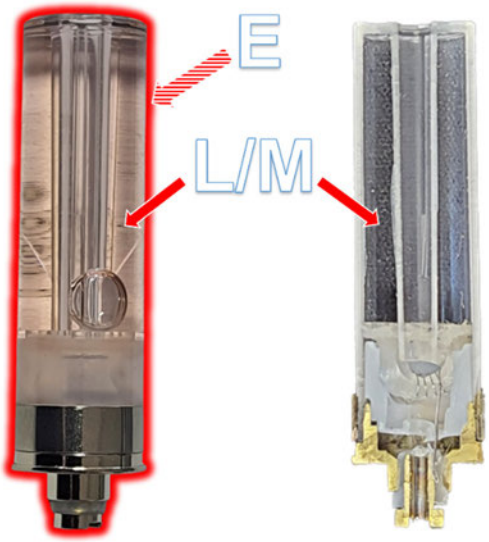
494. As shown in the figures set forth in Paragraphs 495 through 507, the Logic Pro meets every limitation recited in Claim 9 of the ’864 Patent.

495. To the extent that the preamble is limiting, the Logic Pro has “A cartridge configured to couple to a power source of an electronic vaporizer.”



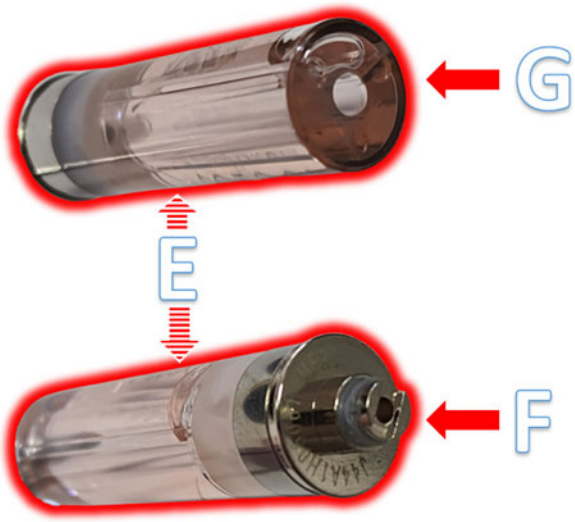
Logic Pro Figure 864.9.pre.

496. The Logic Pro includes “a housing [E] having an interior and a solution holding medium [L] adapted to hold a solution [M].”



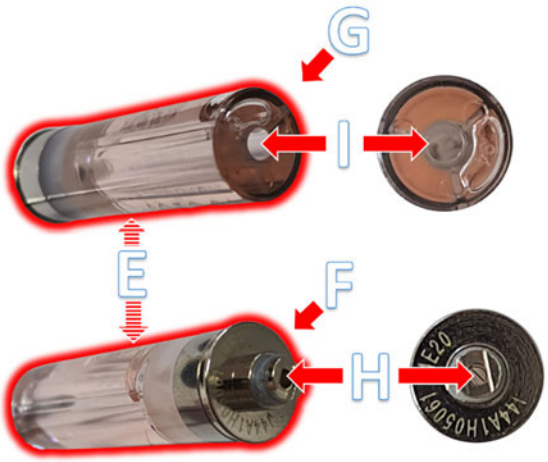
Logic Pro Figure 864.9.a.

497. The Logic Pro includes a "housing [E] having a first end [F] and a second end [G] that is opposite the first end [F]."



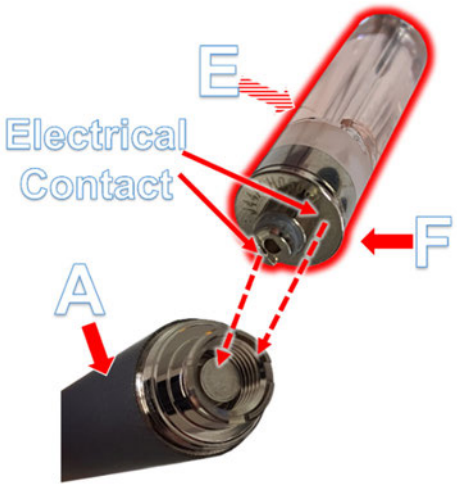
Logic Pro Figure 864.9.b.

498. The Logic Pro includes a "housing [E] having a first aperture [H] proximate the first end [F] and a second aperture [I] proximate the second end [G]."



Logic Pro Figure 864.9.c.

499. The Logic Pro includes a housing with "the first end [F] of the housing [E] being adapted to electrically couple to the power source [A]."

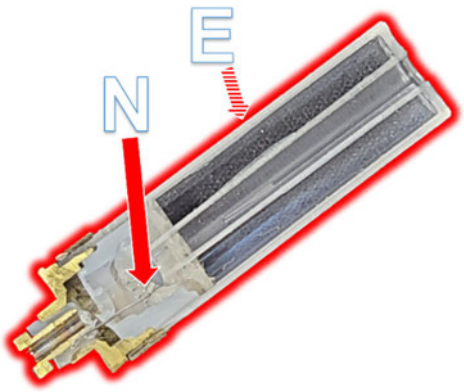


Logic Pro Figure 864.9.d.

500. The Logic Pro includes a housing with "the first aperture [H] and the second aperture [I] being in communication with one another to permit an airflow through the housing from the first aperture [H] to the second aperture [I]."

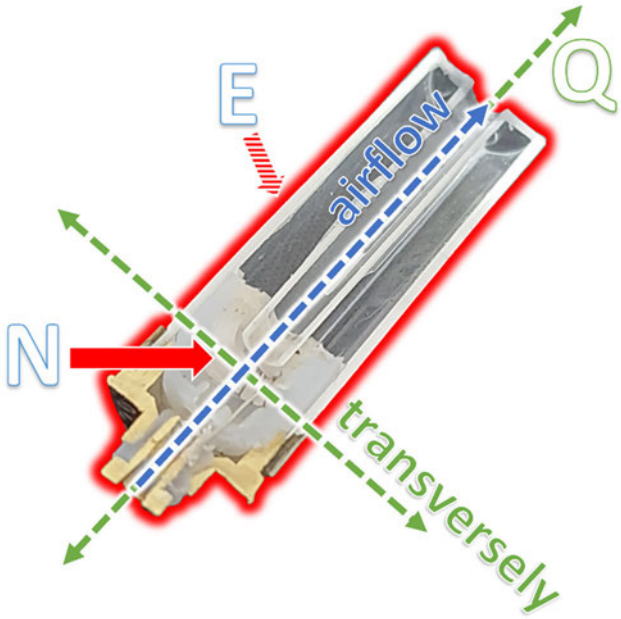
Logic Pro Figure 864.9.e.

501. The Logic Pro includes "a heating element [N] located in the interior of the housing [E]."



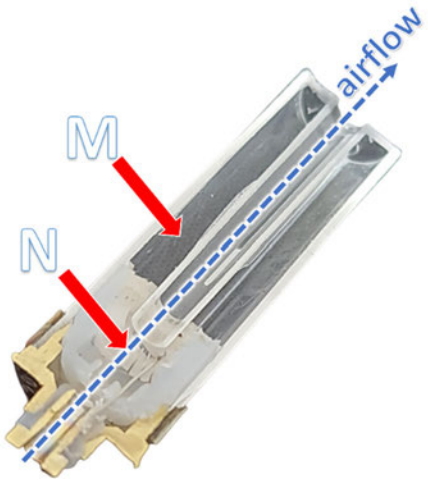
Logic Pro Figure 864.9.f.

502. The Logic Pro includes a heating element with "the heating element [N] extending transversely to a central longitudinal axis [Q] of the housing [E] and being at least partially exposed to the airflow."



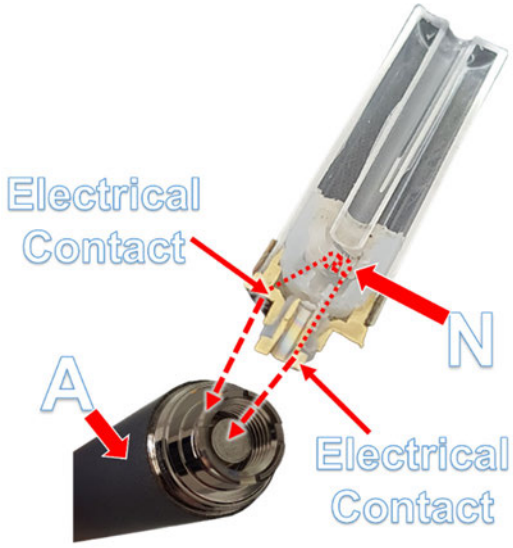
Logic Pro Figure 864.9.g.

503. The Logic Pro includes a heating element with "the heating element [N] being configured to vaporize at least a portion of the solution [M] for oral provision to an individual in the airflow."



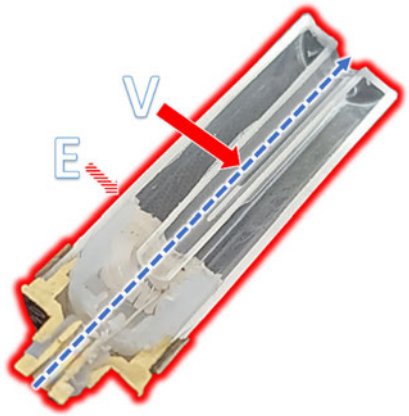
Logic Pro Figure 864.9.h.

504. The Logic Pro includes a heating element with "the heating element [N] being responsive to electrical power received from the power source [A]."



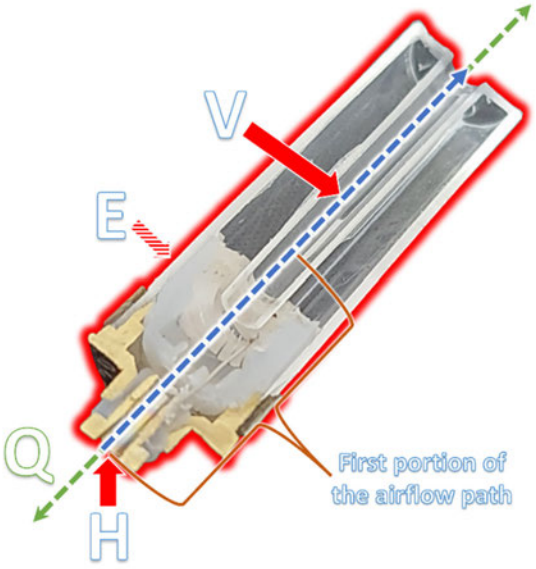
Logic Pro Figure 864.9.i.

505. In the Logic Pro, "the airflow through the housing [E] follows an airflow path [V]."



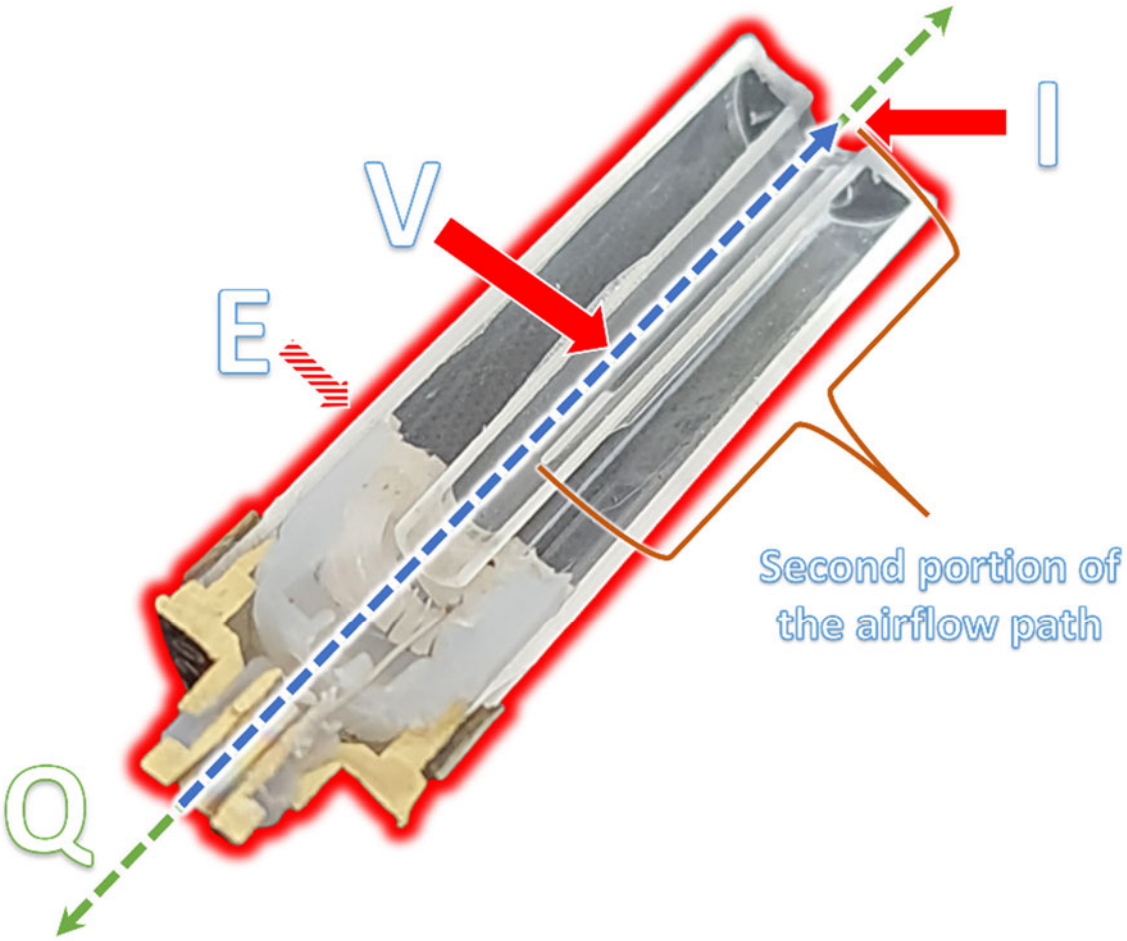
Logic Pro Figure 864.9.j.

506. The Logic Pro has "a first portion of the airflow path [V] proximate the first aperture [H] being defined substantially centrally and axially with respect to the central longitudinal axis [Q] of the housing [E]."



Logic Pro Figure 864.9.k.

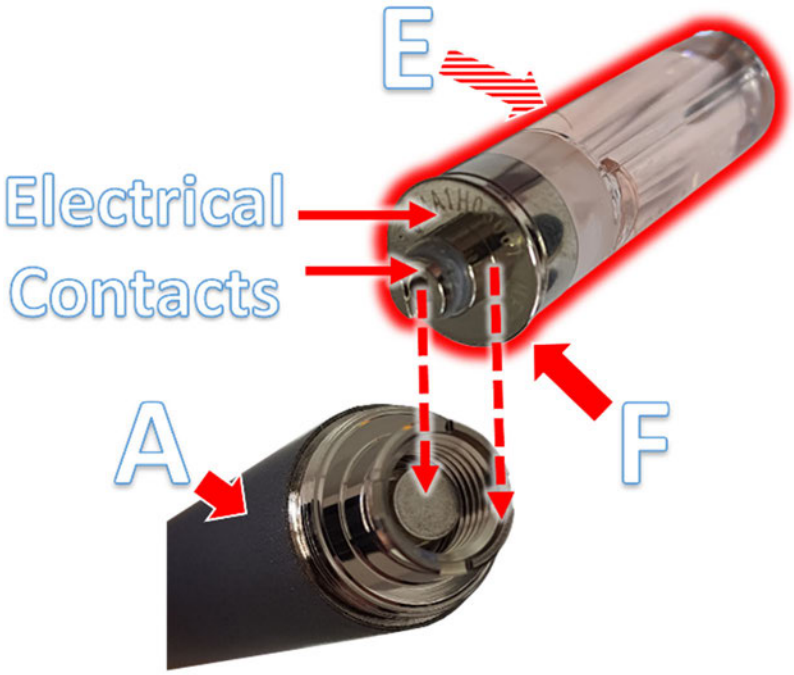
507. The Logic Pro has "a second portion of the airflow path [V] proximate to the second aperture [I] being defined substantially centrally and axially with respect to the central longitudinal axis [Q] of the housing [E]."



Logic Pro Figure 864.9.l.

508. As shown in the figures set forth in Paragraphs 509 through 510, the Logic Pro meets every limitation recited in Claim 10 of the '864 Patent.

509. The Logic Pro has "a power source [A] adapted to be electrically coupled to the first end [F] of the housing [E]."



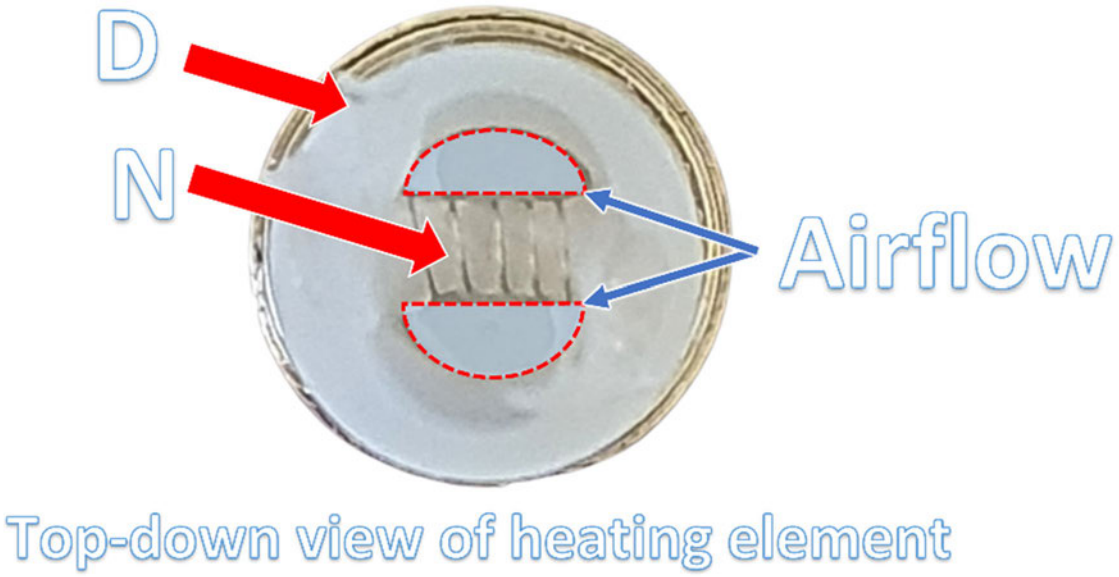
Logic Pro Figure 864.10.a.

510. The Logic Pro has a "power source [A] including a battery [B]."

Logic Pro Figure 864.10.b.

511. As shown in the figure set forth in the following paragraph, the Logic Pro meets every limitation recited in Claim 11 of the ’864 Patent.

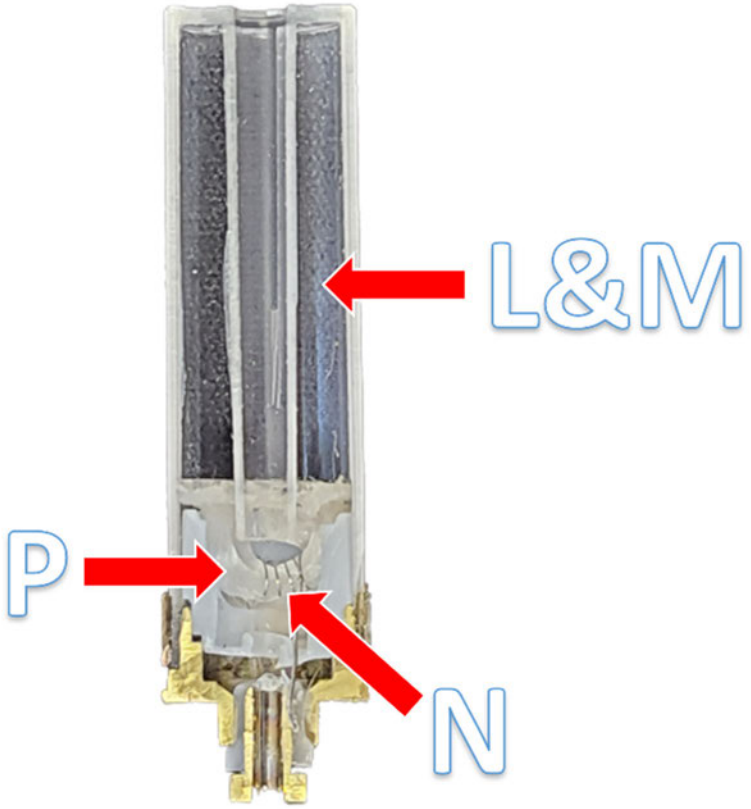
512. In the Logic Pro, “the cartridge [D] is adapted to permit the airflow to pass on both transverse sides of the heating element [N] during use of the electronic vaporizer.”



Logic Pro Figure 864.11.

513. As shown in the figure set forth in the following paragraph, the Logic Pro meets every limitation recited in Claim 12 of the ’864 Patent.

514. In the Logic Pro, "the heating element [N] includes a wicking material [P] being operative to permit at least a portion of the solution [M] to be held in the solution holding medium [L] to be drawn toward the heating element [N] to be vaporized."



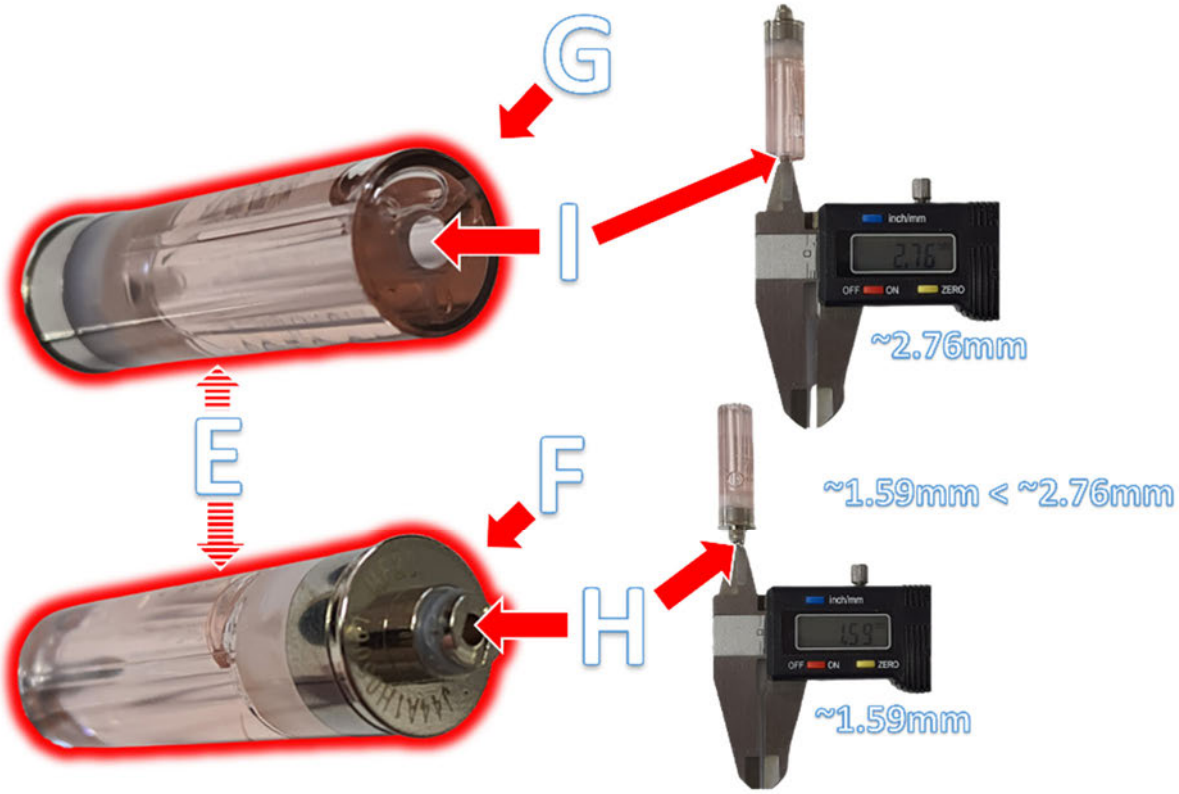
Logic Pro Figure 864.12.

515. Claim 13 of the '864 Patent reads as follows:

> **13**. The cartridge of claim **9**, wherein the first aperture proximate the first end is smaller than the second aperture proximate the second end.

516. As shown in the figure set forth in the following paragraph, the Logic Pro meets every limitation recited in Claim 13 of the '864 Patent.

517. In the Logic Pro, "the first aperture [H] proximate the first end [F] is smaller than the second aperture [I] proximate the second end [G]."



Logic Pro Figure 864.13.

518. As shown in the figures set forth in Paragraphs 519 through 520, the Logic Pro meets every limitation recited in Claim 14 of the '864 Patent.

519. The Logic Pro has "a solution [M] in the solution holding medium [L]."

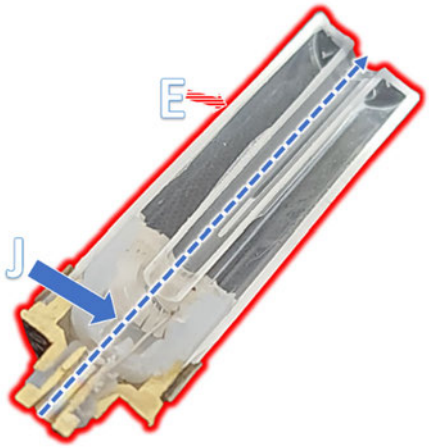
Logic Pro Figure 864.14.a.

520. The Logic Pro has a "solution [M] comprising one of propylene glycol and nicotine."

Logic Pro Figure 864.14.b.

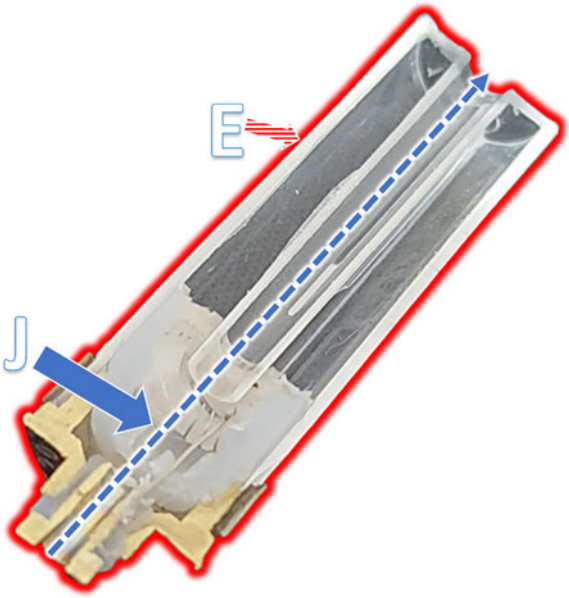
521. As shown in the figures set forth in Paragraphs 522 through 523, the Logic Pro meets every limitation recited in Claim 15 of the ’864 Patent.

522. The Logic Pro has “an airflow passageway [J] in the housing [E].”



Logic Pro Figure 864.15.a.

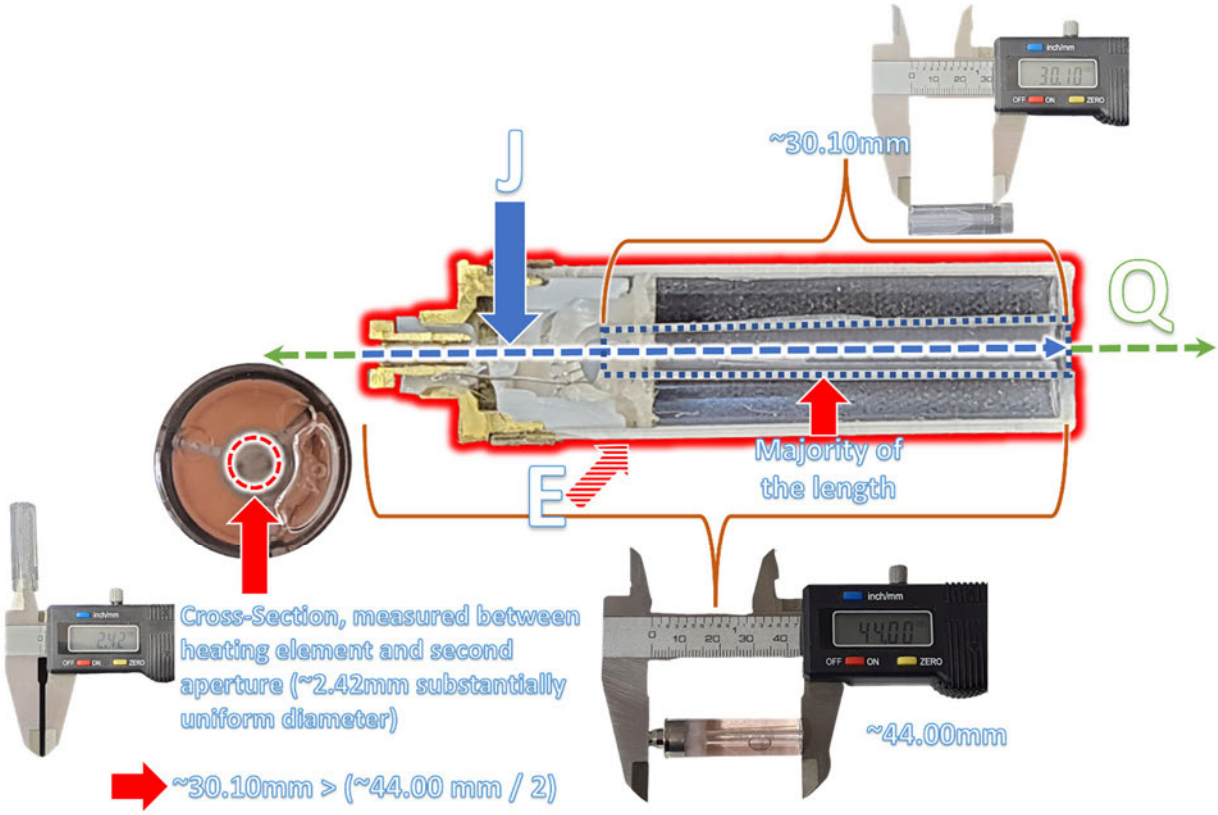
523. The Logic Pro has, “at least a portion of the airflow passageway [J] extending centrally and axially with respect to the housing [E].”



Logic Pro Figure 864.15.b.

524. As shown in the figure set forth in the following paragraph, the Logic Pro meets every limitation recited in Claim 16 of the '864 Patent.

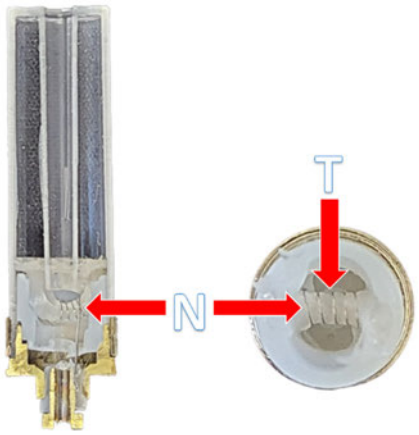
525. In the Logic Pro, "a majority of the portion of the airflow passageway [J] has a substantially uniform cross-sectional area measured perpendicular to the central longitudinal axis [Q] of the housing [E] between the heating element [N] and the second aperture [I]."



Logic Pro Figure 864.16.

526. As shown in the figure set forth in the following paragraph, the Logic Pro meets every limitation recited in Claim 17 of the '864 Patent.

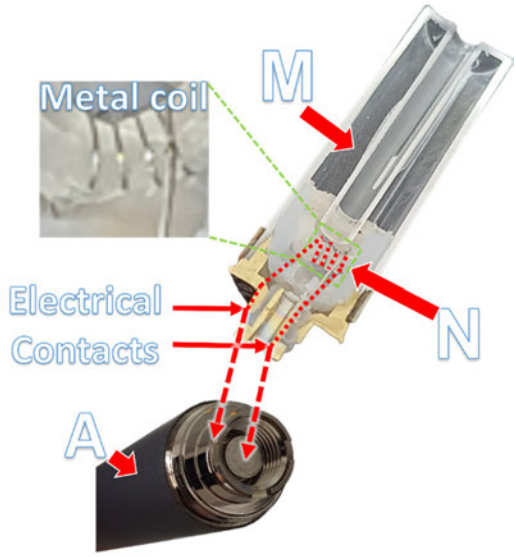
527. In the Logic Pro, "the heating element [N] includes a coil [T]."



Logic Pro Figure 864.17.

528. As shown in the figure set forth in the following paragraph, the Logic Pro meets every limitation recited in Claim 20 of the '864 Patent.

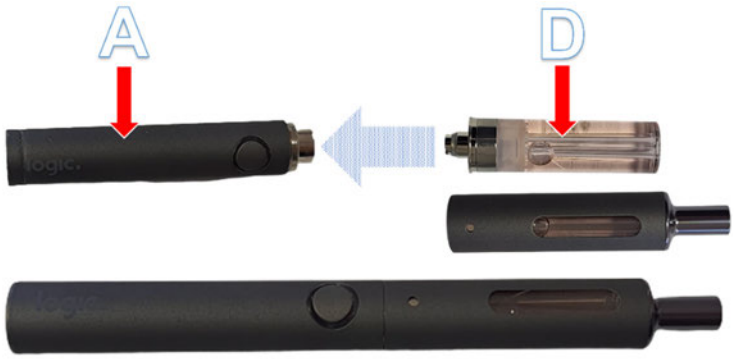
529. In the Logic Pro, "the heating element [N] includes a material that when powered by the power source [A] is adapted to vaporize the solution [M] brought into contact with the heating element [N]."



Logic Pro Figure 864.20.

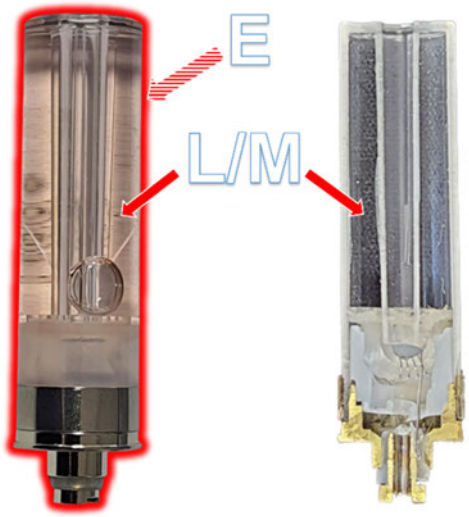
530. As shown in the figures set forth in Paragraphs 531 through 543, the Logic Pro meets every limitation recited in Claim 21 of the ’864 Patent.

531. To the extent that the preamble is limiting, the Logic Pro has a “cartridge [D] configured to couple to a power source [A] of an electronic vaporizer.”



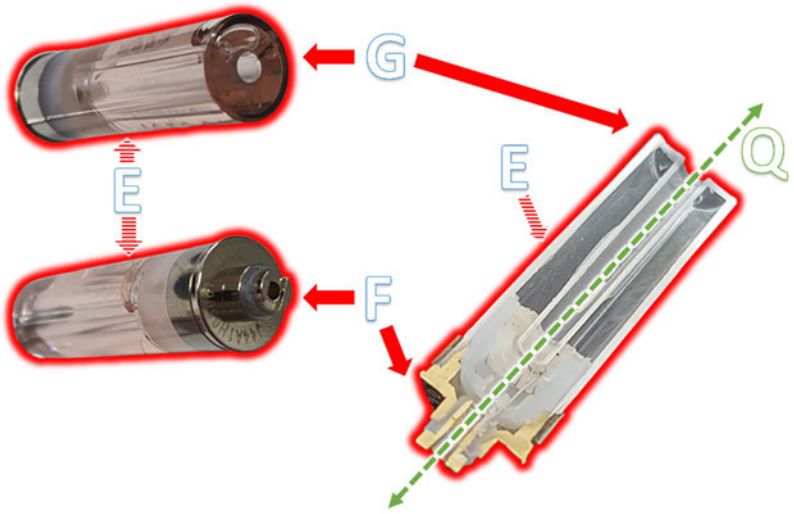
Logic Pro Figure 864.21.pre.

532. The Logic Pro has “a housing [E] having an interior and a solution holding medium [L] adapted to hold a solution [M].”



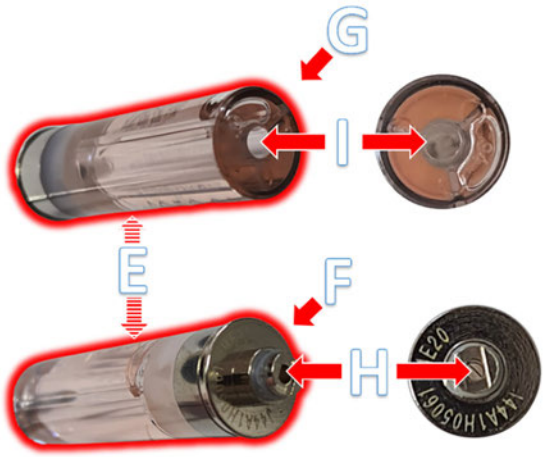
Logic Pro Figure 864.21.a.

533. The Logic Pro has a "housing [E] having a first end [F] and a second end [G] that is opposite the first end [F] and a central longitudinal axis [Q] extending from the first end [F] to the second end [G]."



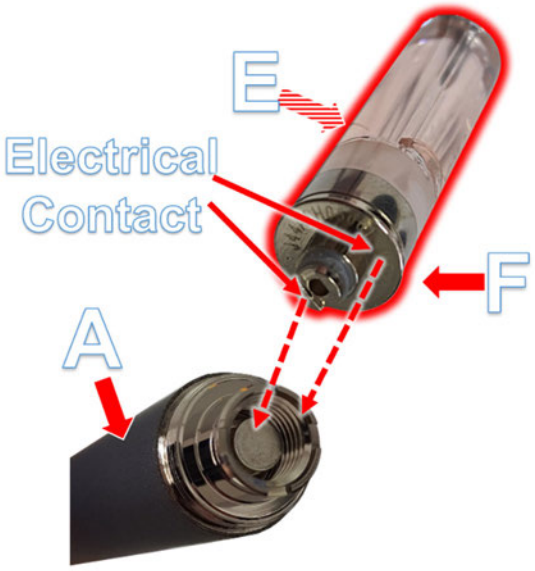
Logic Pro Figure 864.21.b.

534. The Logic Pro has a "housing [E] having a first aperture [H] proximate the first end [F] and a second aperture [I] proximate the second end [G]."



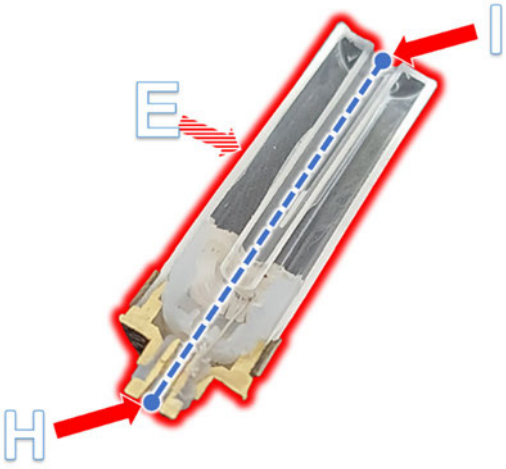
Logic Pro Figure 864.21.c.

535. The Logic Pro has a "first end [F] of the housing [E] being adapted to electrically couple to the power source [A]."



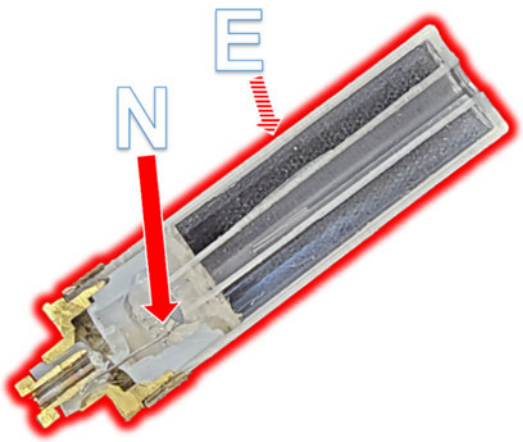
Logic Pro Figure 864.21.d.

536. The Logic Pro has a "first aperture [H] and the second aperture [I] being in communication with one another to permit an airflow through the housing [E]."



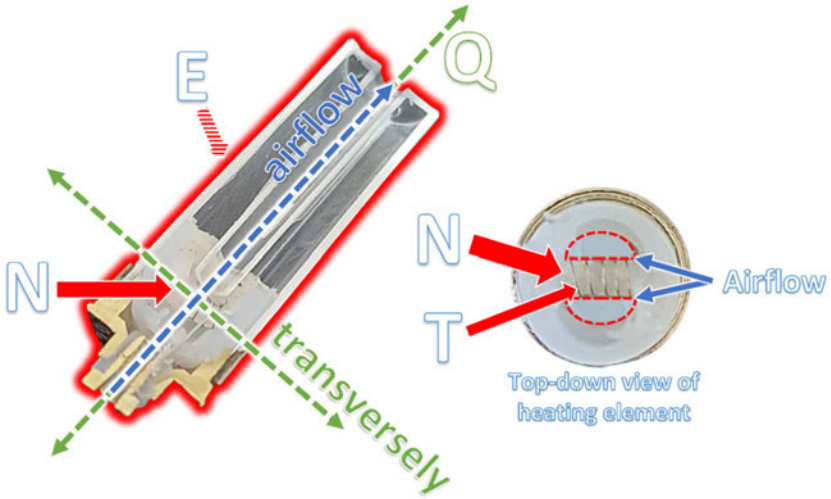
Logic Pro Figure 864.21.e.

537. The Logic Pro has "a heating element [N] located in the interior of the housing [E]."



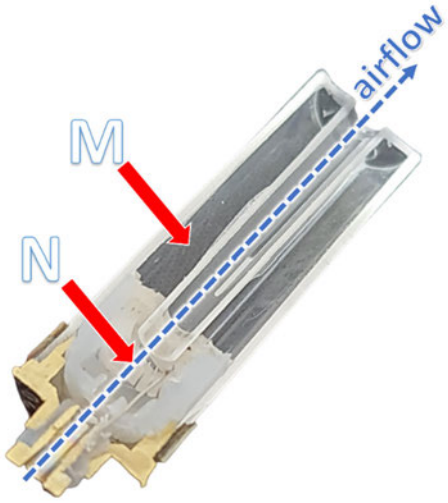
Logic Pro Figure 864.21.f.

538. The Logic Pro has a "heating element [N] including a coil [T] extending transversely to the central longitudinal axis [Q] of the housing [E] and transversely to a direction of the airflow such that the airflow passes on both transverse sides of the heating element [N] during use of the electronic vaporizer."



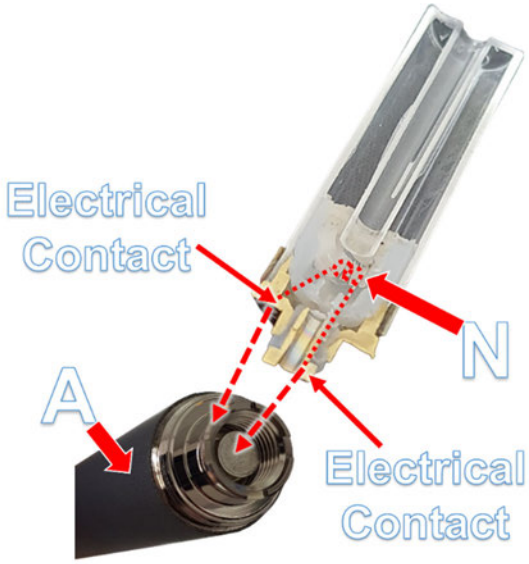
Logic Pro Figure 864.21.g.

539. The Logic Pro has a "heating element [N] being configured to vaporize at least the portion of the solution [M] drawn to the heating element [N] for oral provision to an individual in the airflow."



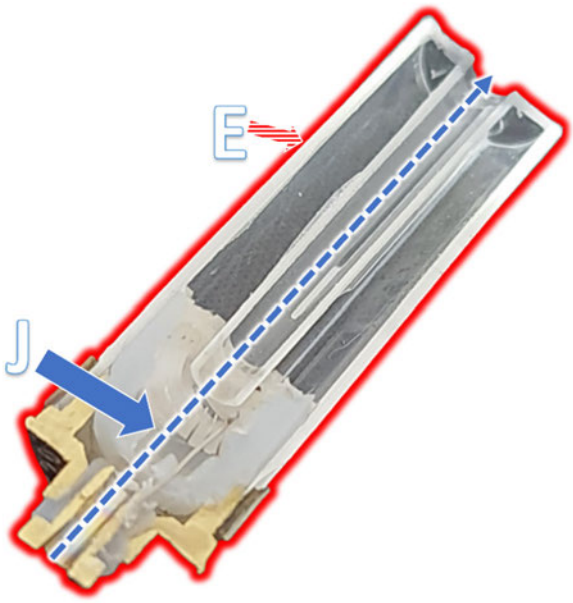
Logic Pro Figure 864.21.h.

540. The Logic Pro has a "heating element [N] being responsive to electrical power received from the power source [A]."



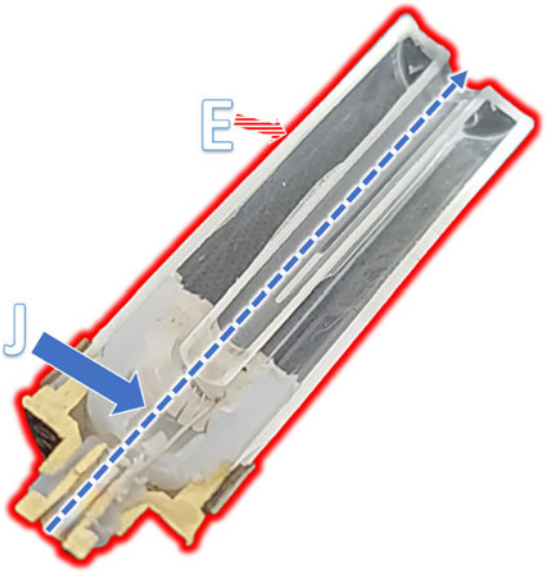
Logic Pro Figure 864.21.i.

541. The Logic Pro has "an airflow passageway [J] in the housing [E]."



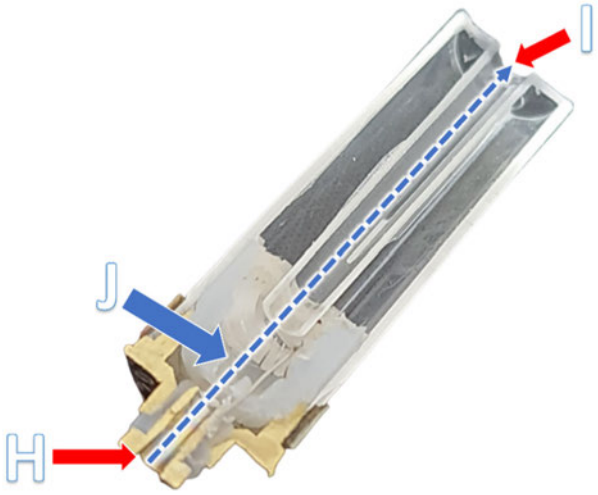
Logic Pro Figure 864.21.j.

542. In the Logic Pro "at least a portion of the airflow passageway [J] extending centrally and axially with respect to the housing [E]."



Logic Pro Figure 864.21.k.

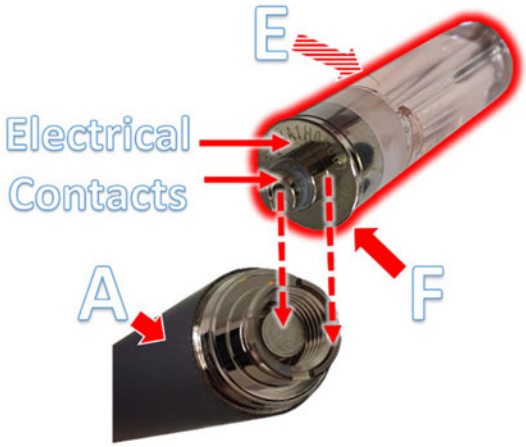
543. In the Logic Pro, "the airflow passageway [J] extends centrally and axially from the first aperture [H] to the second aperture [I]."



Logic Pro Figure 864.21.l.

544. As shown in the figures set forth in Paragraphs 545 through 546, the Logic Pro meets every limitation recited in Claim 22 of the '864 Patent.

545. The Logic Pro has "a power source [A] adapted to be electrically coupled to the first end [F] of the housing [E]."



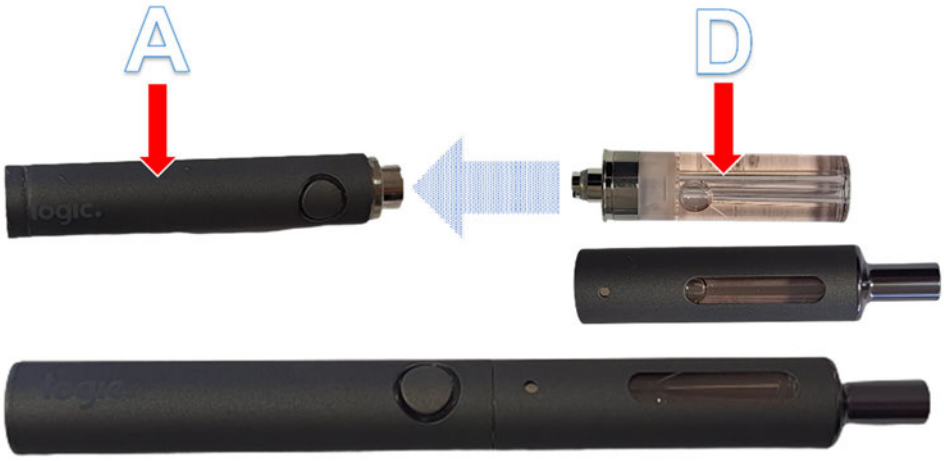
Logic Pro Figure 864.22.a.

546. The Logic Pro has a "power source [A] including a battery [B]."

Logic Pro Figure 864.22.b.

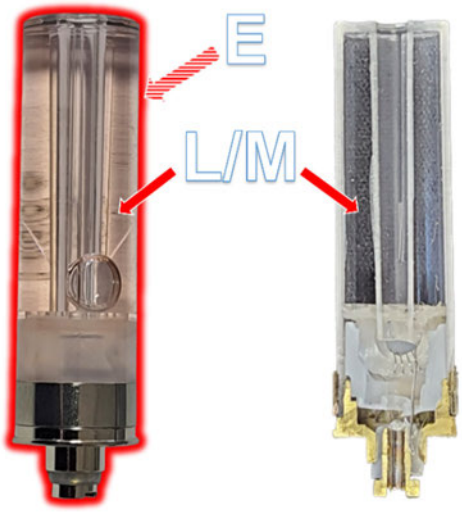
547. As shown in the figures set forth in Paragraphs 548 through 560, the Logic Pro meets every limitation recited in Claim 25 of the '864 Patent.

548. To the extent that the preamble is limiting, the Logic Pro has a "cartridge [D] configured to couple to a power source [A] of an electronic vaporizer."



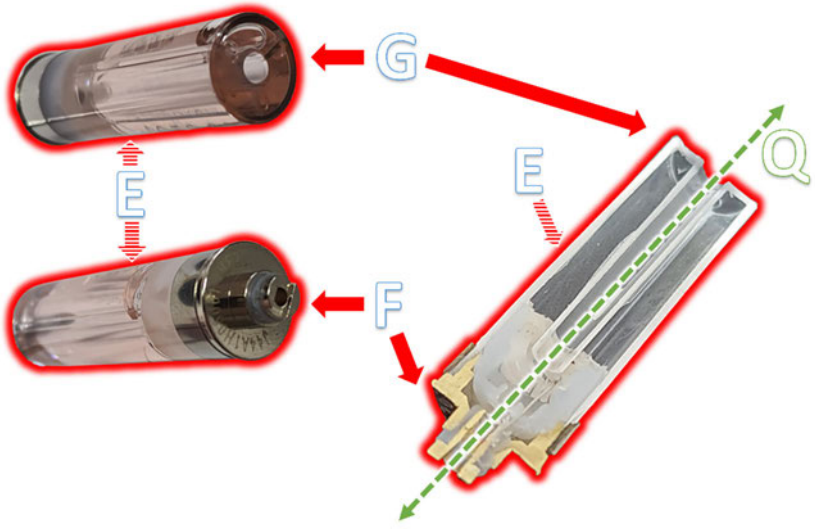
Logic Pro Figure 864.25.pre.

549. The Logic Pro has "a housing [E] having an interior and a solution holding medium [L] adapted to hold a solution [M]."



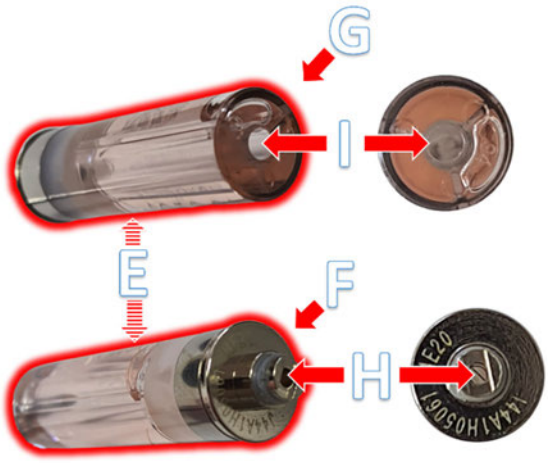
Logic Pro Figure 864.25.a.

550. The Logic Pro has a "housing [E] having a first end [F] and a second end [G] that is opposite the first end [F] and a central longitudinal axis [Q] extending from the first end [F] to the second end [G]."



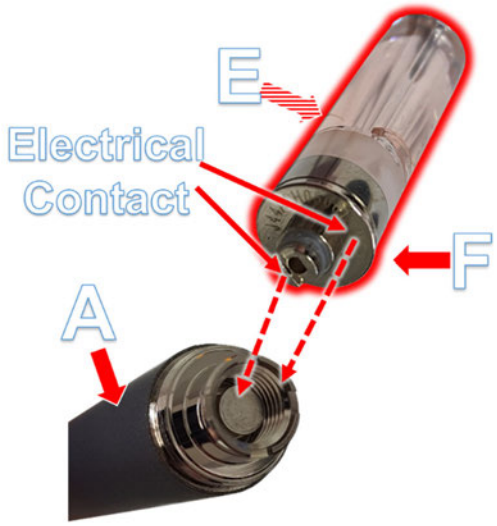
Logic Pro Figure 864.25.b.

551. The Logic Pro has a "housing [E] having a first aperture [H] proximate the first end [F] and a second aperture [I] proximate the second end [G]."



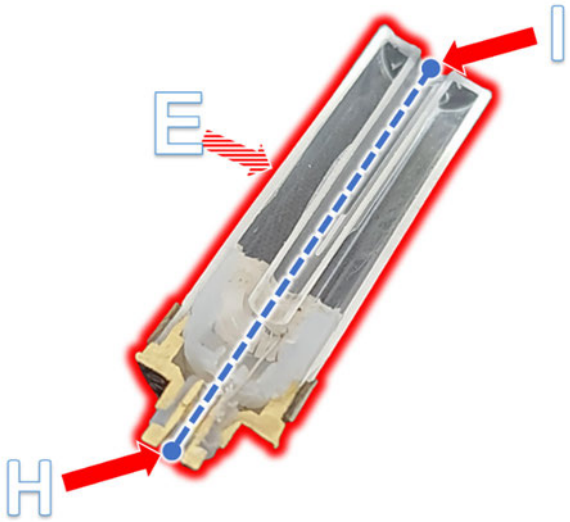
Logic Pro Figure 864.25.c.

552. The Logic Pro has a "first end [F] of the housing [E] being adapted to electrically couple to the power source [A]."



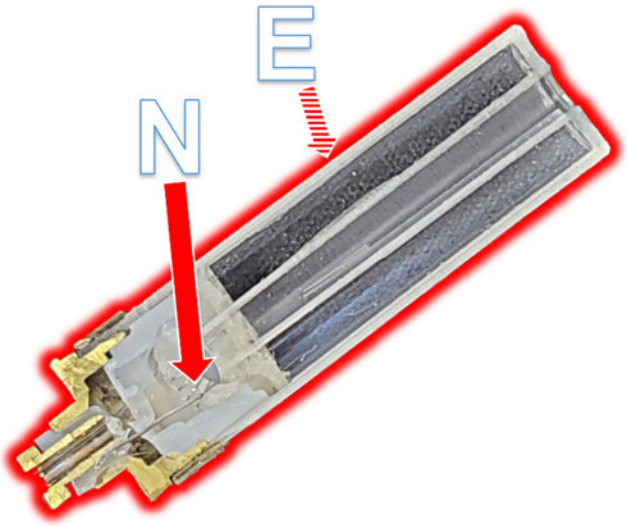
Logic Pro Figure 864.25.d.

553. The Logic Pro has a "first aperture [H] and the second aperture [I] being in communication with one another to permit an airflow through the housing [E]."



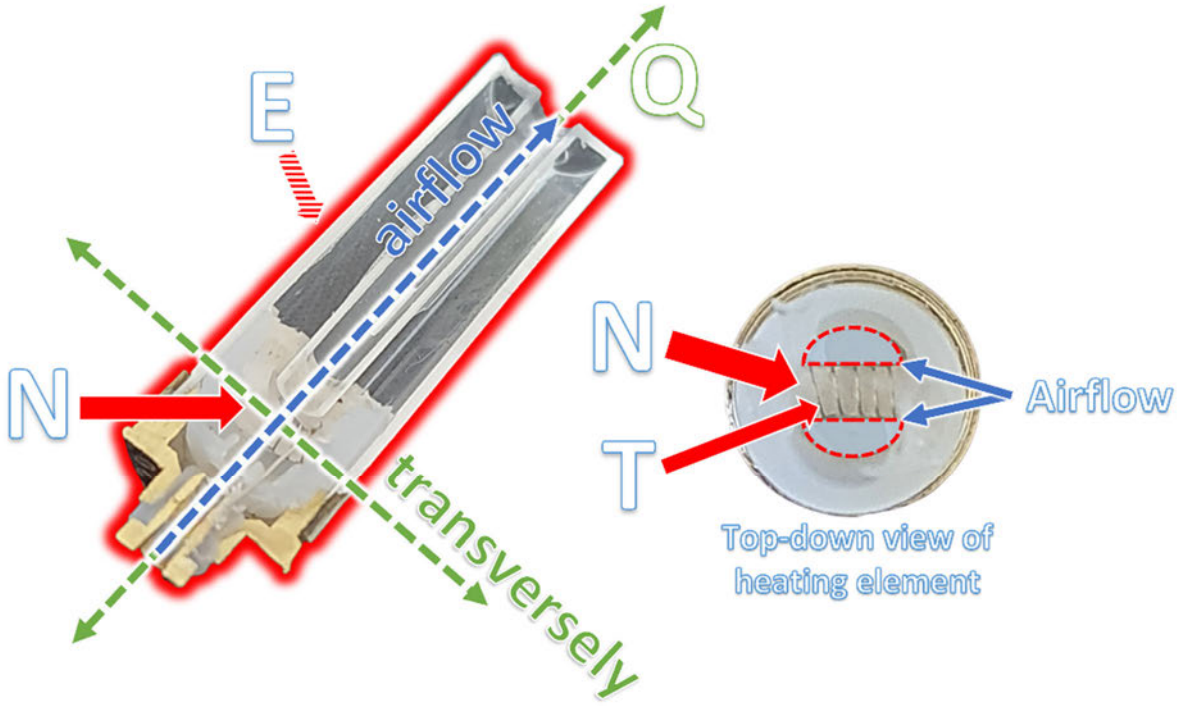
Logic Pro Figure 864.25.e.

554. The Logic Pro has "a heating element [N] located in the interior of the housing [E]."



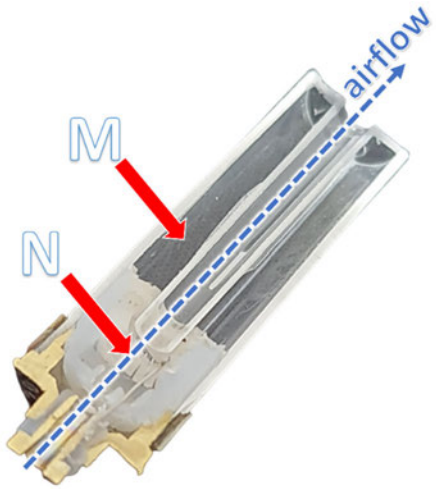
Logic Pro Figure 864.25.f.

555. The Logic Pro has a "heating element [N] including a coil [T] extending transversely to the central longitudinal axis [Q] of the housing [E] and transversely to a direction of the airflow such that the airflow passes on both transverse sides of the heating element [N] during use of the electronic vaporizer."



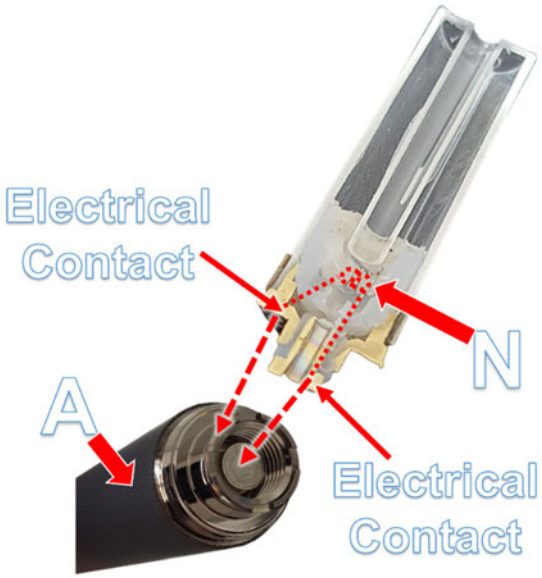
Logic Pro Figure 864.25.g.

556. The Logic Pro has a "heating element [N] being configured to vaporize at least the portion of the solution [M] drawn to the heating element [N] for oral provision to an individual in the airflow."



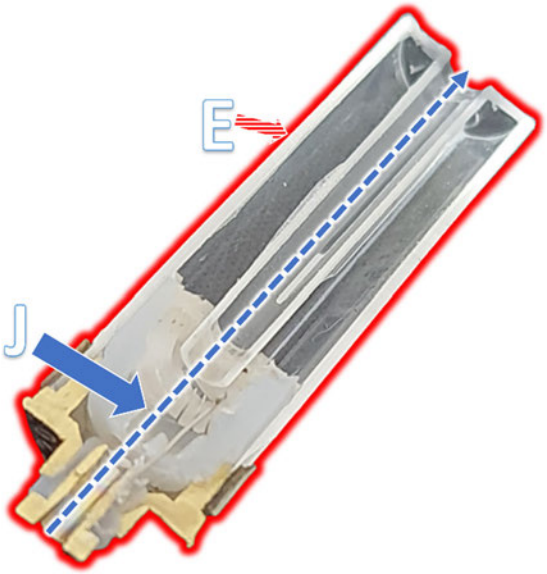
Logic Pro Figure 864.25.h.

557. The Logic Pro has a "heating element [N] being responsive to electrical power received from the power source [A]."



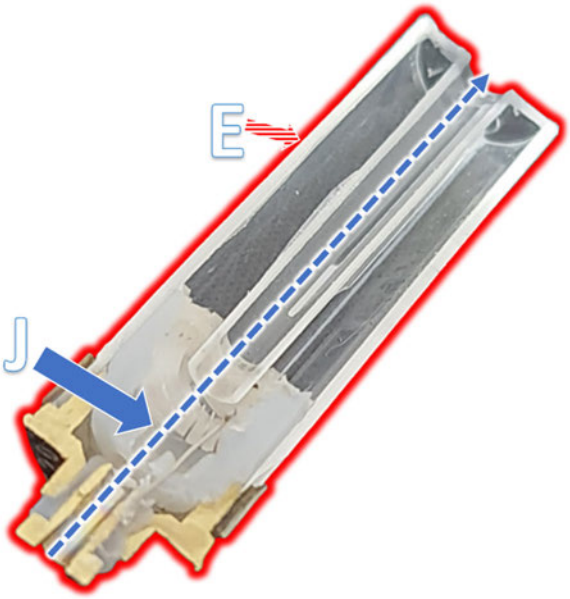
Logic Pro Figure 864.25.i.

558. The Logic Pro has "an airflow passageway [J] in the housing [E]."



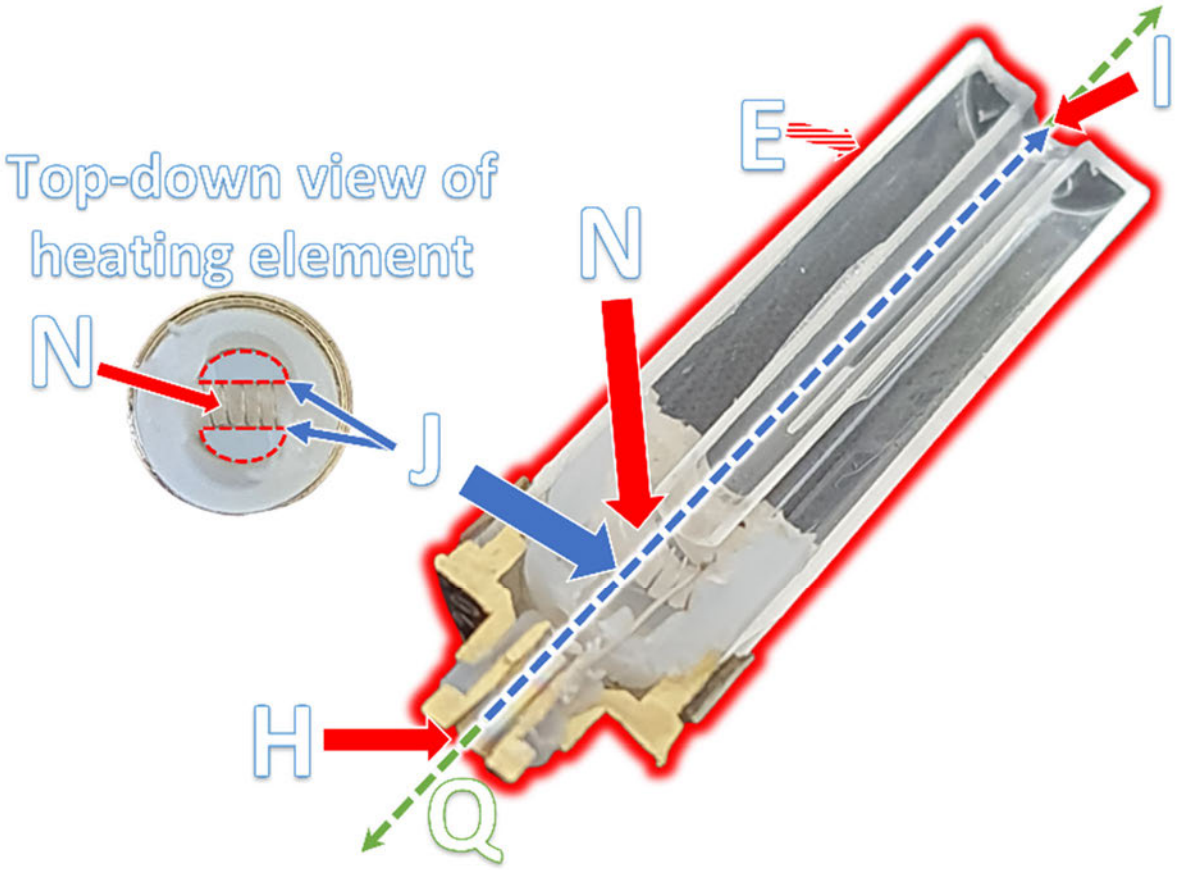
Logic Pro Figure 864.25.j.

559. In the Logic Pro "at least a portion of the airflow passageway [J] extending centrally and axially with respect to the housing [E]."



Logic Pro Figure 864.25.k.

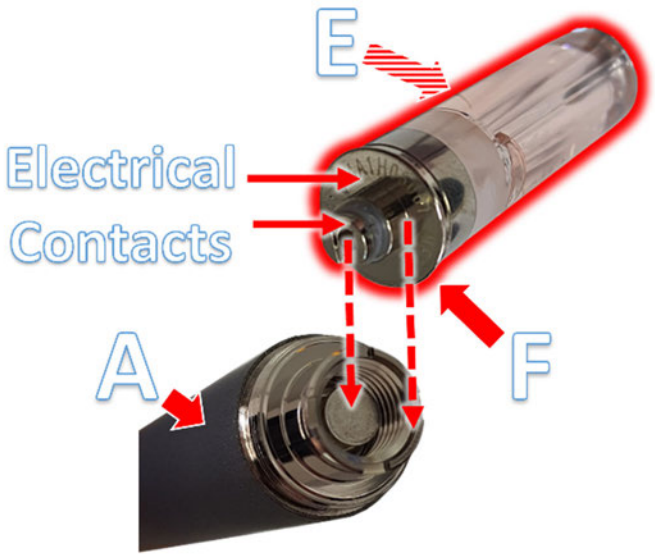
560. In the Logic Pro, "the airflow passageway [J] extends in a straight path from the first aperture [H] to the second aperture [I] with only the heating element [N] obstructing a portion of the airflow through the airflow passageway [J] along the central longitudinal axis [Q] of the housing [E]."



Logic Pro Figure 864.25.l.

561. As shown in the figures set forth in Paragraphs 562 through 563, the Logic Pro meets every limitation recited in Claim 26 of the '864 Patent.

562. The Logic Pro has "a power source [A] adapted to be electrically coupled to the first end [F] of the housing [E]."



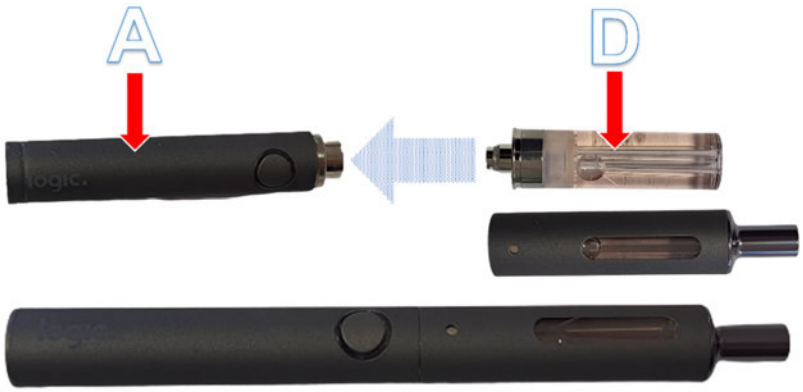
Logic Pro Figure 864.26.a.

563. The Logic Pro has a "power source [A] including a battery [B]."

Logic Pro Figure 864.26.b.

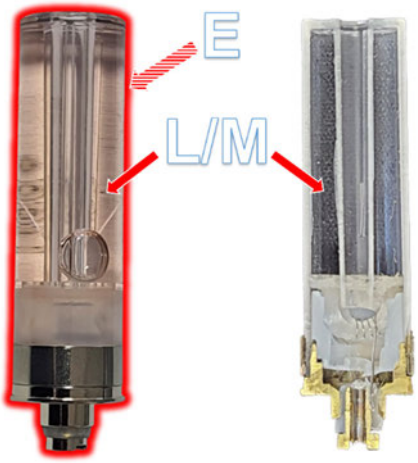
564. As shown in the figures set forth in Paragraphs 565 through 577, the Logic Pro meets every limitation recited in Claim 29 of the ’864 Patent.

565. To the extent that the preamble is limiting, the Logic Pro has a “cartridge [D] configured to couple to a power source [A] of an electronic vaporizer.”



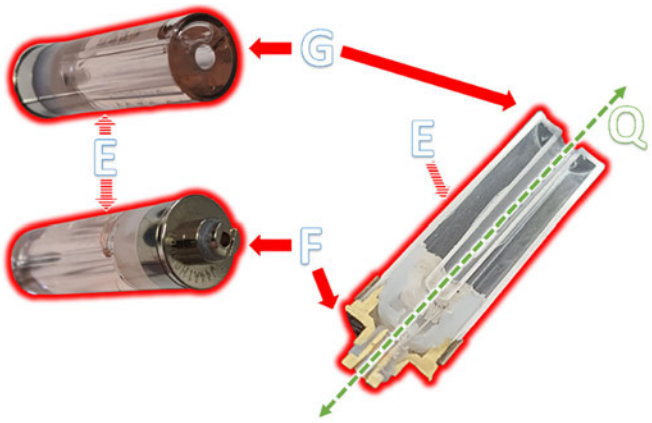
Logic Pro Figure 864.29.pre.

566. The Logic Pro has “a housing [E] having an interior and a solution holding medium [L] adapted to hold a solution [M].”



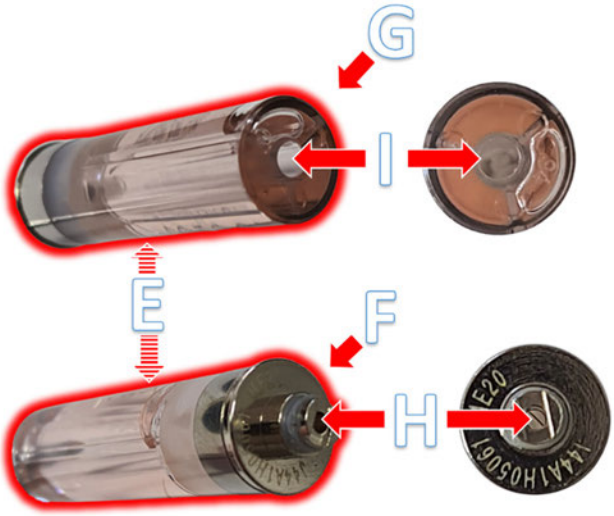
Logic Pro Figure 864.29.a.

567. The Logic Pro has a "housing [E] having a first end [F] and a second end [G] that is opposite the first end [F] and a central longitudinal axis [Q] extending from the first end [F] to the second end [G]."



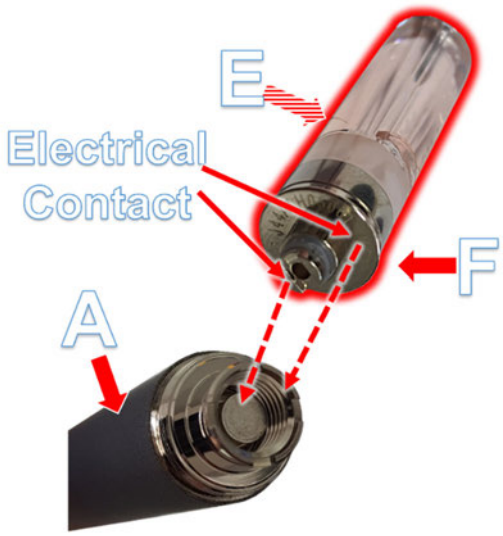
Logic Pro Figure 864.29.b.

568. The Logic Pro has a "housing [E] having a first aperture [H] proximate the first end [F] and a second aperture [I] proximate the second end [G]."



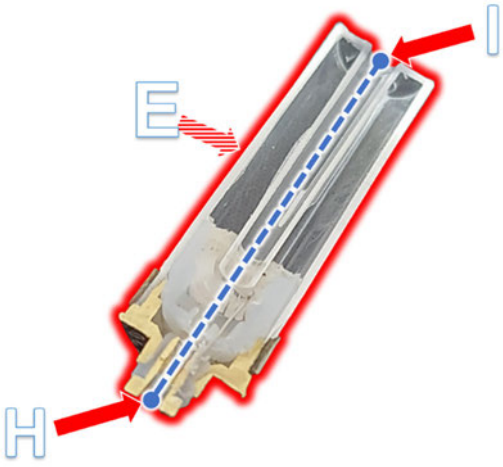
Logic Pro Figure 864.29.c.

569. The Logic Pro has a "first end [F] of the housing [E] being adapted to electrically couple to the power source [A]."



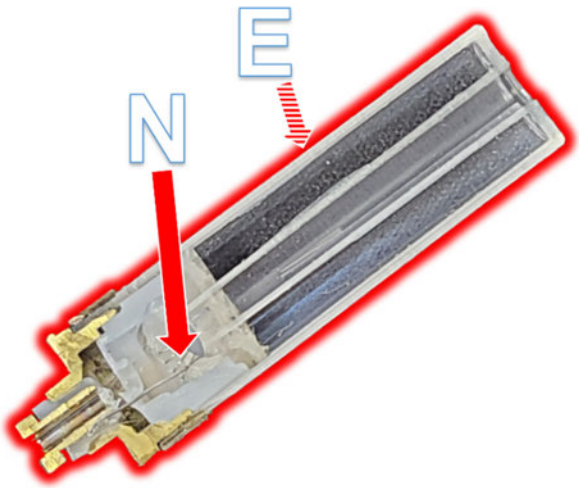
Logic Pro Figure 864.29.d.

570. The Logic Pro has a "first aperture [H] and the second aperture [I] being in communication with one another to permit an airflow through the housing [E]."



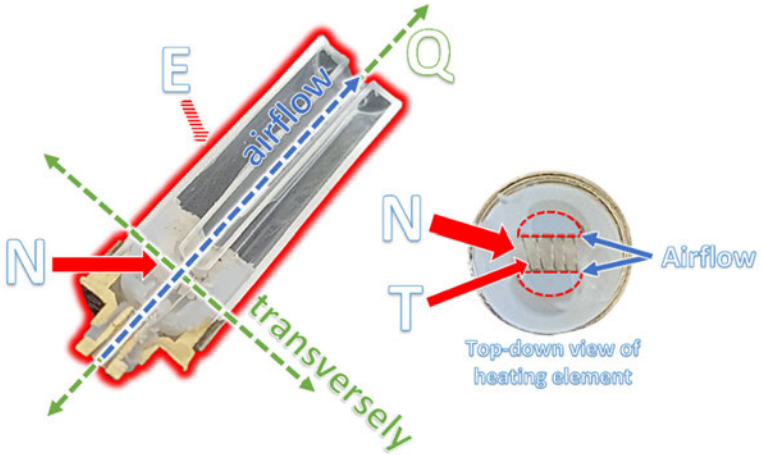
Logic Pro Figure 864.29.e.

571. The Logic Pro has "a heating element [N] located in the interior of the housing [E]."



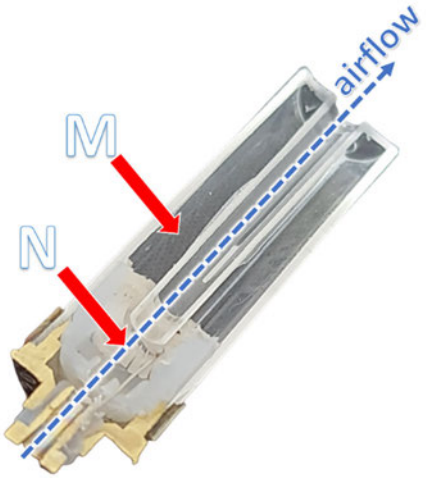
Logic Pro Figure 864.29.f.

572. The Logic Pro has a "heating element [N] including a coil [T] extending transversely to the central longitudinal axis [Q] of the housing [E] and transversely to a direction of the airflow such that the airflow passes on both transverse sides of the heating element [N] during use of the electronic vaporizer."



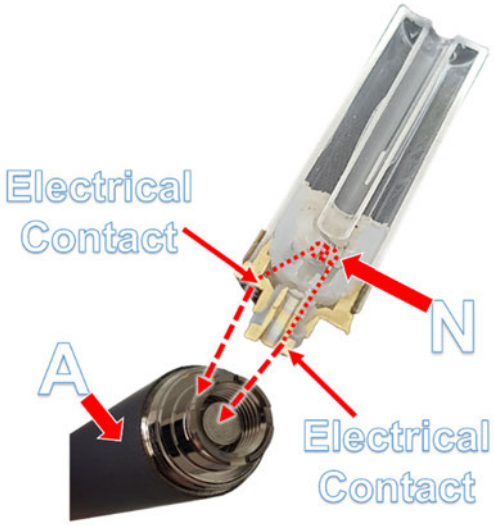
Logic Pro Figure 864.29.g.

573. The Logic Pro has a "heating element [N] being configured to vaporize at least the portion of the solution [M] drawn to the heating element [N] for oral provision to an individual in the airflow."



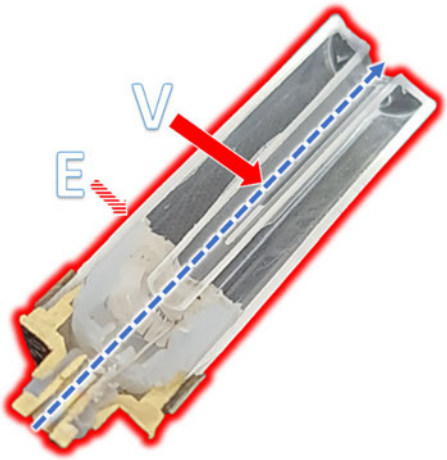
Logic Pro Figure 864.29.h.

574. The Logic Pro has a "heating element [N] being responsive to electrical power received from the power source [A]."



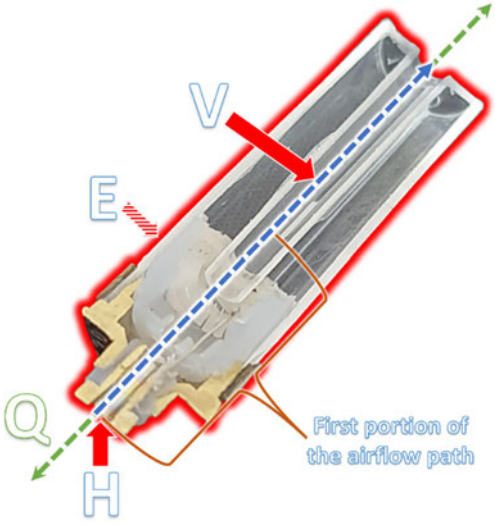
Logic Pro Figure 864.29.i.

575. In the Logic Pro, "the airflow through the housing [E] follows an airflow path [V]."



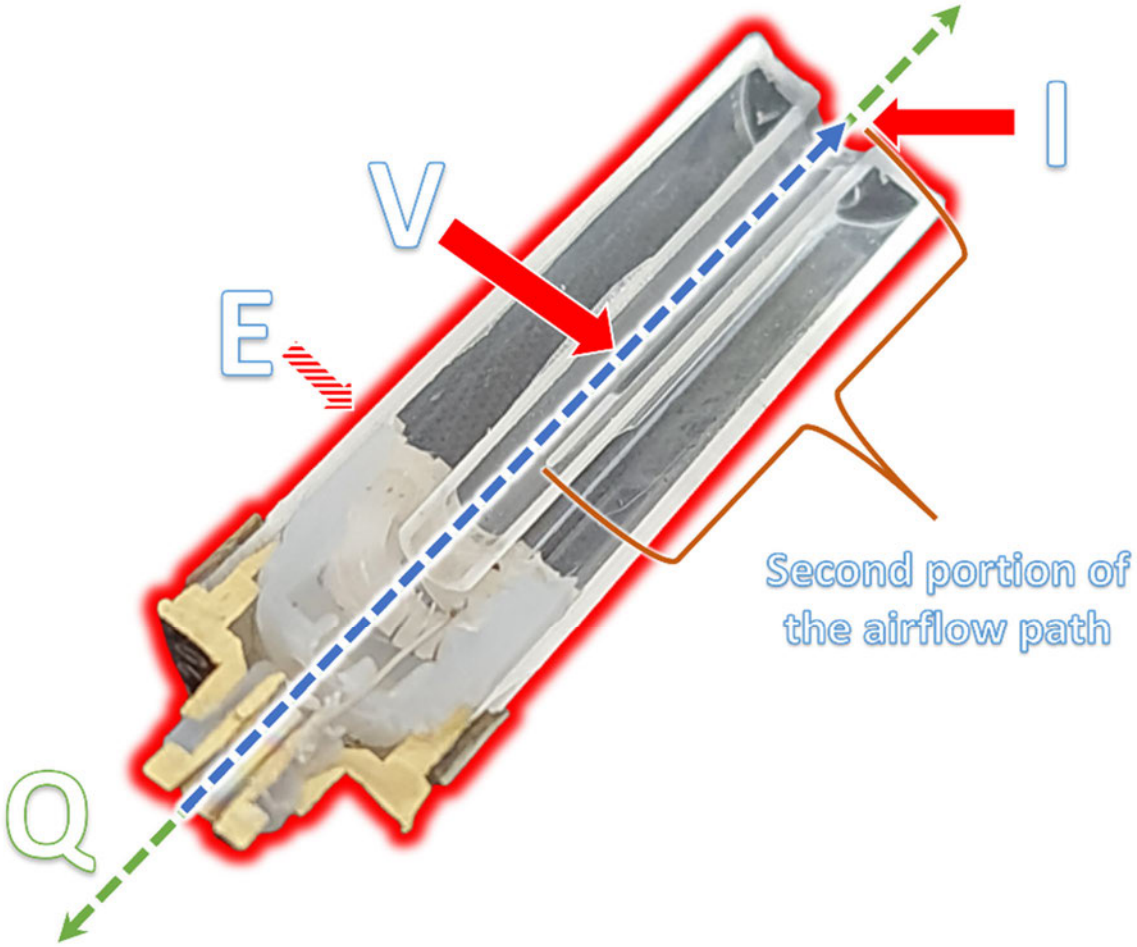
Logic Pro Figure 864.29.j.

576. The Logic Pro has "a first portion of the airflow path [V] proximate the first aperture [H] being defined substantially centrally and axially with respect to the central longitudinal axis [Q] of the housing [E]."



Logic Pro Figure 864.29.k.

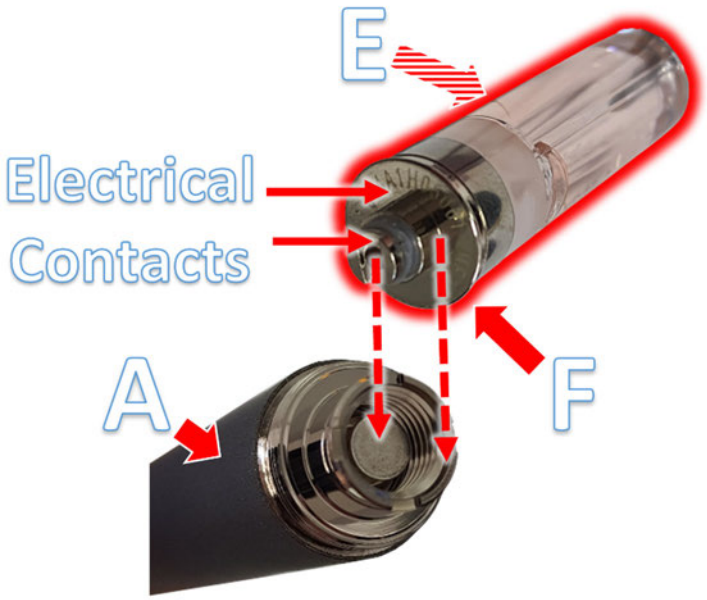
577. The Logic Pro has "a second portion of the airflow path [V] proximate to the second aperture [I] being defined substantially centrally and axially with respect to the central longitudinal axis [Q] of the housing [E]."



Logic Pro Figure 864.29.l.

578. As shown in the figures set forth in Paragraphs 579 through 580, the Logic Pro meets every limitation recited in Claim 30 of the '864 Patent.

579. The Logic Pro has "a power source [A] adapted to be electrically coupled to the first end [F] of the housing [E]."



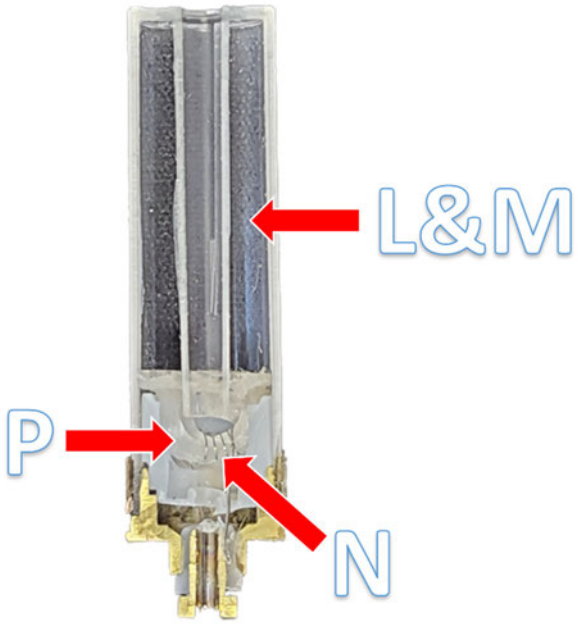
Logic Pro Figure 864.30.a.

580. The Logic Pro has a "power source [A] including a battery [B]."

Logic Pro Figure 864.30.b.

581. As shown in the figure set forth in the following paragraph, the Logic Pro meets every limitation recited in Claim 31 of the '864 Patent.

582. In the Logic Pro "the heating element [N] includes a wicking material [P] being operative to permit at least a portion of the solution [M] to be held in the solution holding medium [L] to be drawn toward the heating element [N] to be vaporized."



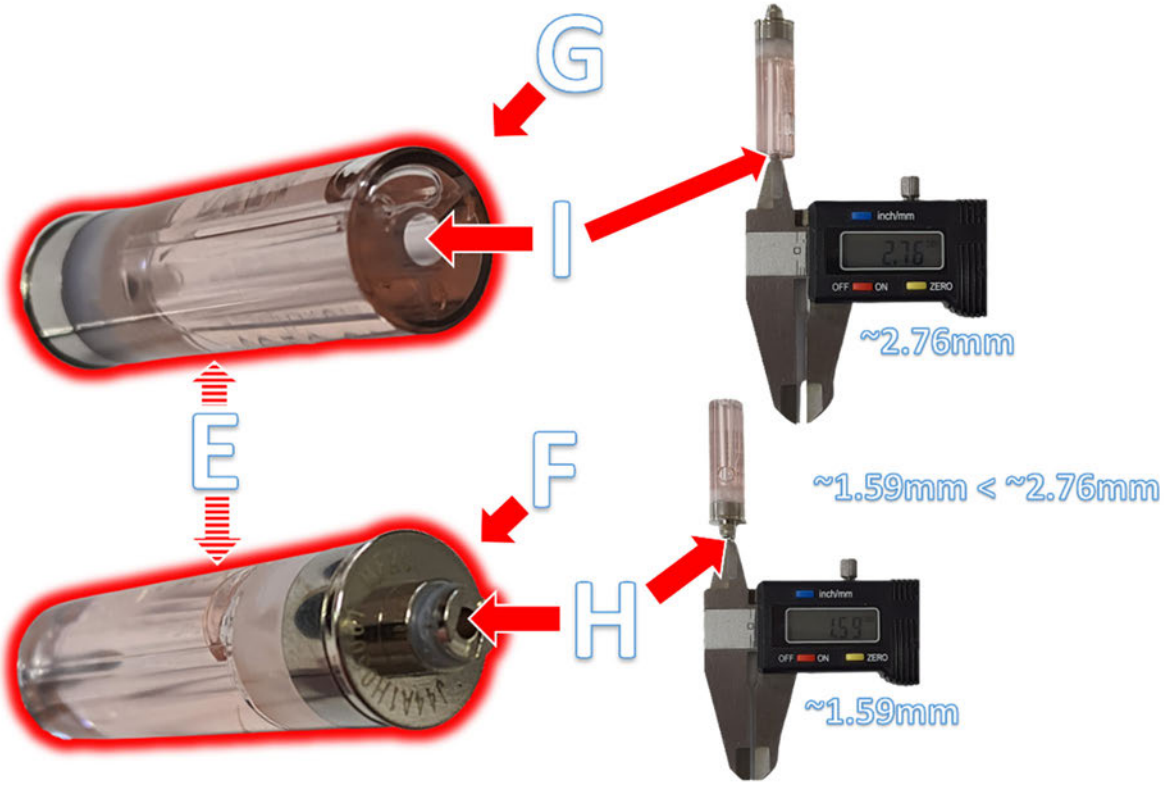
Logic Pro Figure 864.31.

583. Claim 32 of the '864 Patent reads as follows:

> **32**. The cartridge of claim **29**, wherein the first aperture proximate the first end is smaller than the second aperture proximate the second end.

584. As shown in the figure set forth in the following paragraph, the Logic Pro meets every limitation recited in Claim 32 of the '864 Patent.

585. In the Logic Pro "the first aperture [H] proximate the first end [F] is smaller than the second aperture [I] proximate the second end [G]."



Logic Pro Figure 864.32.

586. As shown in the figures set forth in Paragraphs 587 through 588, the Logic Pro meets every limitation recited in Claim 33 of the '864 Patent.

587. The Logic Pro has "a solution [M] in the solution holding medium [L]."

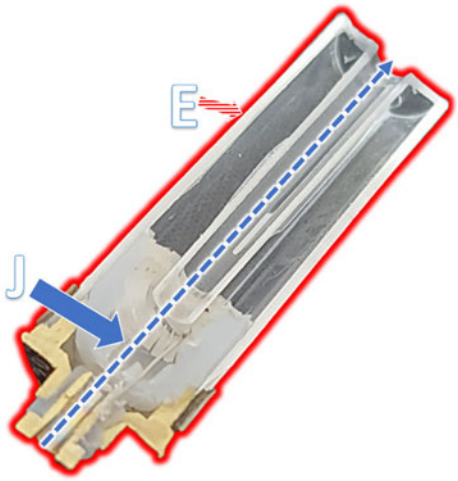
Logic Pro Figure 864.33.a.

588. The Logic Pro has a "solution [M] comprising one of propylene glycol and nicotine."

Logic Pro Figure 864.33.b.

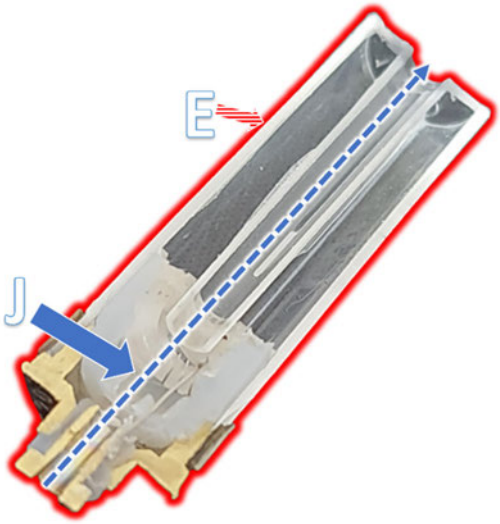
589. As shown in the figures set forth in Paragraphs 590 through 591, the Logic Pro meets every limitation recited in Claim 34 of the ’864 Patent.

590. The Logic Pro has “an airflow passageway [J] in the housing [E].”



Logic Pro Figure 864.34.a.

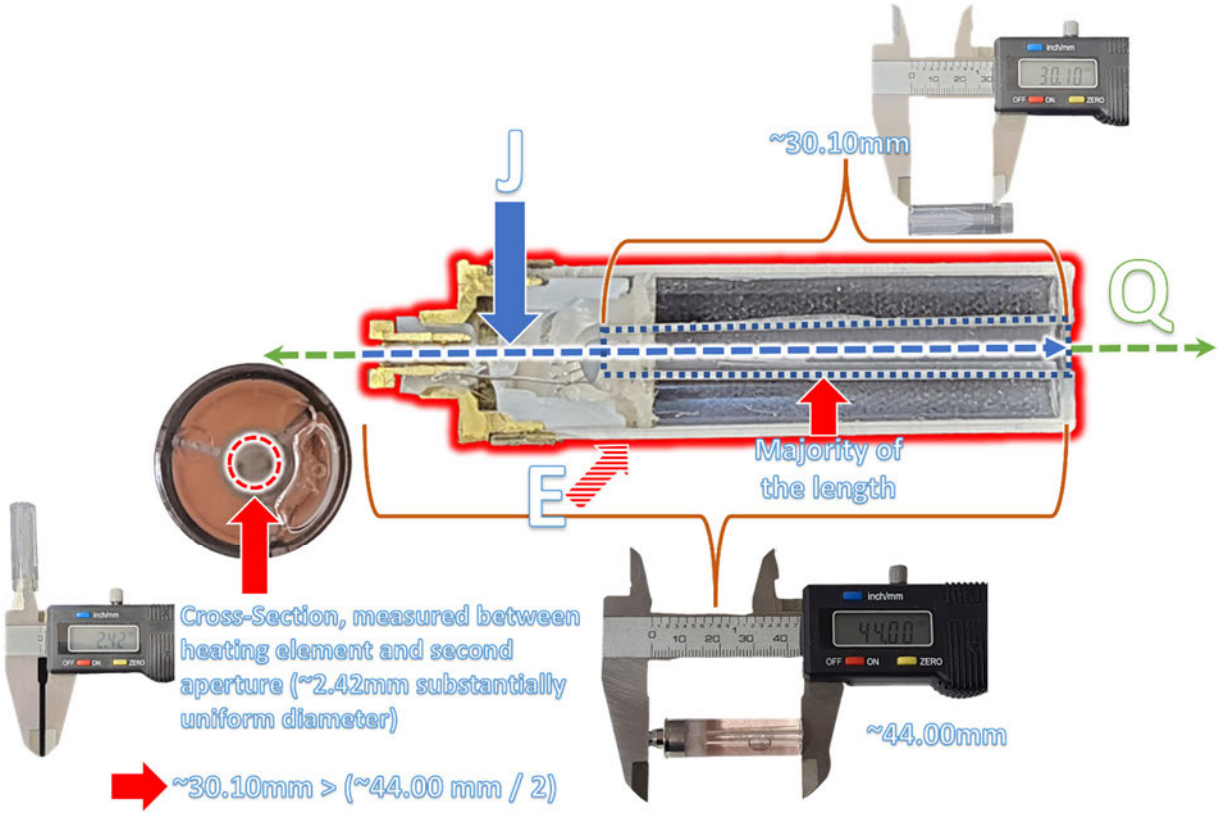
591. In the Logic Pro “at least a portion of the airflow passageway [J] extending centrally and axially with respect to the housing [E].”



Logic Pro Figure 864.34.b.

592. As shown in the figure set forth in the following paragraph, the Logic Pro meets every limitation recited in Claim 35 of the '864 Patent.

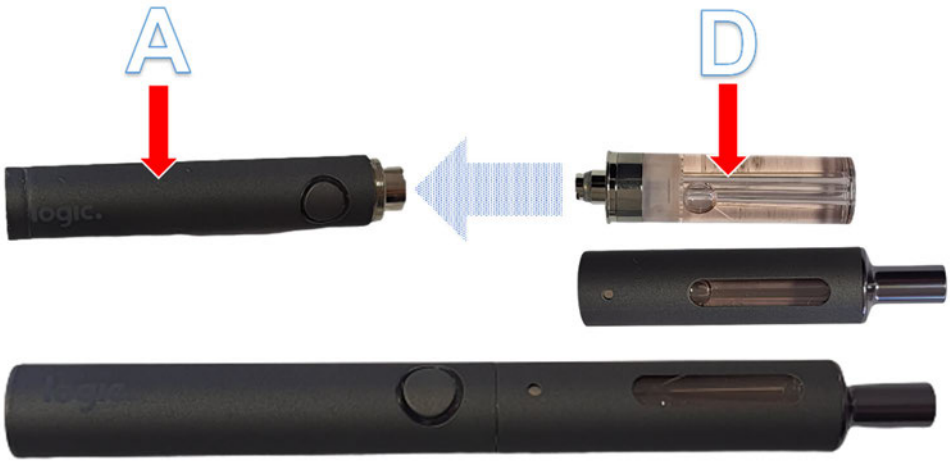
593. In the Logic Pro "a majority of the portion of the airflow passageway [J] has a substantially uniform cross-sectional area measured perpendicular to the central longitudinal axis [Q] of the housing [E] between the heating element [N] and the second aperture [I]."



Logic Pro Figure 864.35.

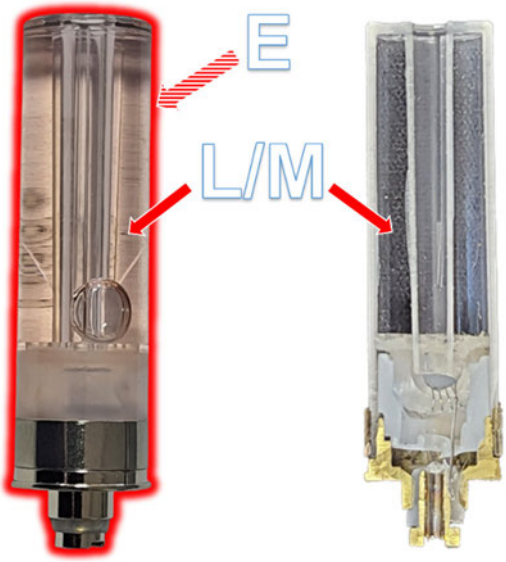
594. As shown in the figures set forth in Paragraphs 595 through 607, the Logic Pro meets every limitation recited in Claim 38 of the '864 Patent.

595. To the extent that the preamble is limiting, the Logic Pro has a "cartridge [D] configured to couple to a power source [A] of an electronic vaporizer."



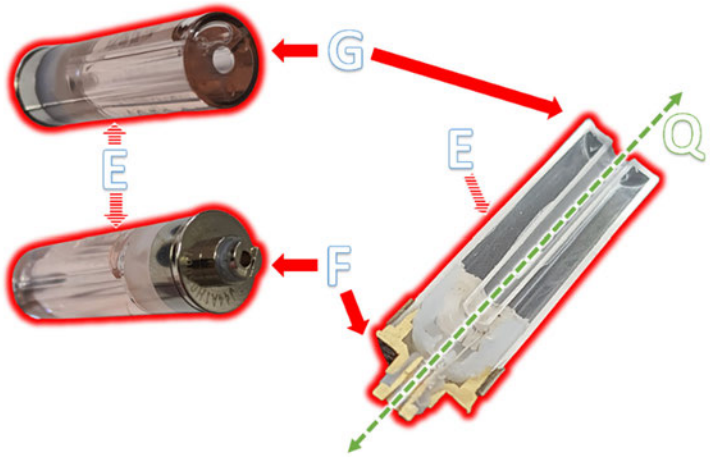
Logic Pro Figure 864.38.pre.

596. The Logic Pro has "a housing [E] having an interior and a solution holding medium [L] adapted to hold a solution [M]."



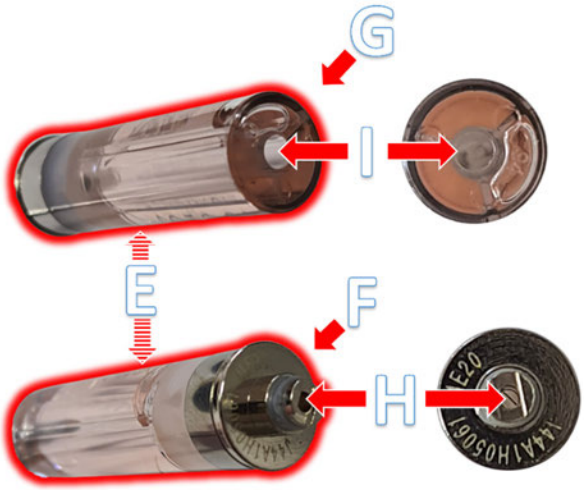
Logic Pro Figure 864.38.a.

597. The Logic Pro has "the housing [E] having a first end [F] and a second end [G] that is opposite the first end [F] and a central longitudinal axis [Q] extending from the first end [F] to the second end [G]."



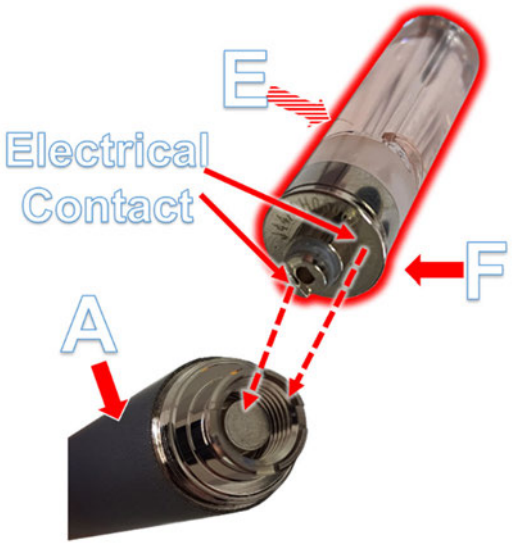
Logic Pro Figure 864.38.b.

598. The Logic Pro has "the housing [E] having a first aperture [H] proximate the first end [F] and a second aperture [I] proximate the second end [G]."



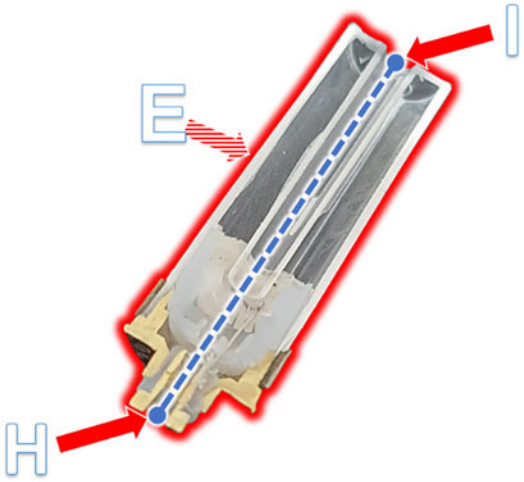
Logic Pro Figure 864.38.c.

599. The Logic Pro has "the first end [F] of the housing [E] being adapted to electrically couple to the power source [A]."



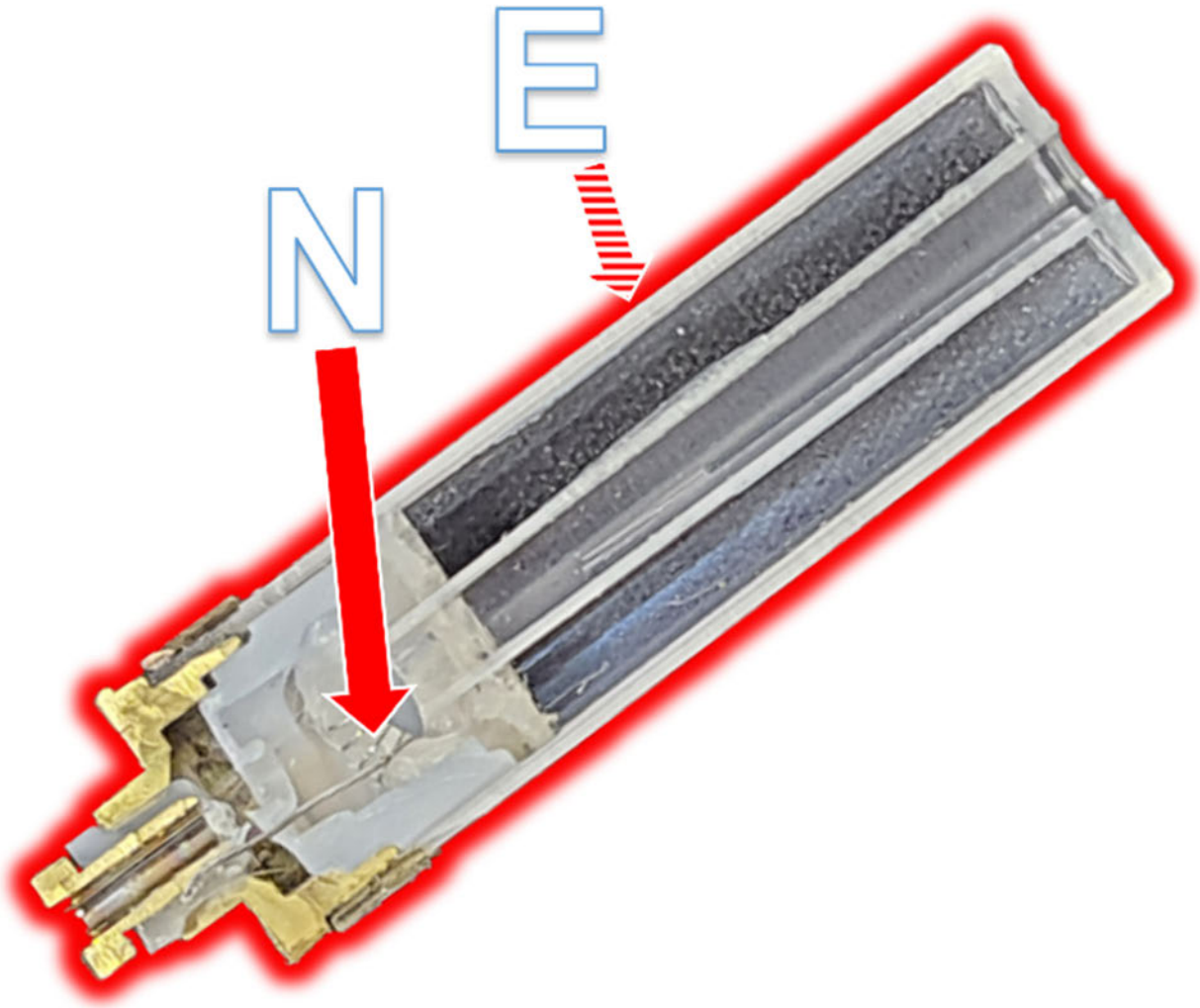
Logic Pro Figure 864.38.d.

600. The Logic Pro has "the first aperture [H] and the second aperture [I] being in communication with one another to permit an airflow through the housing [E]."



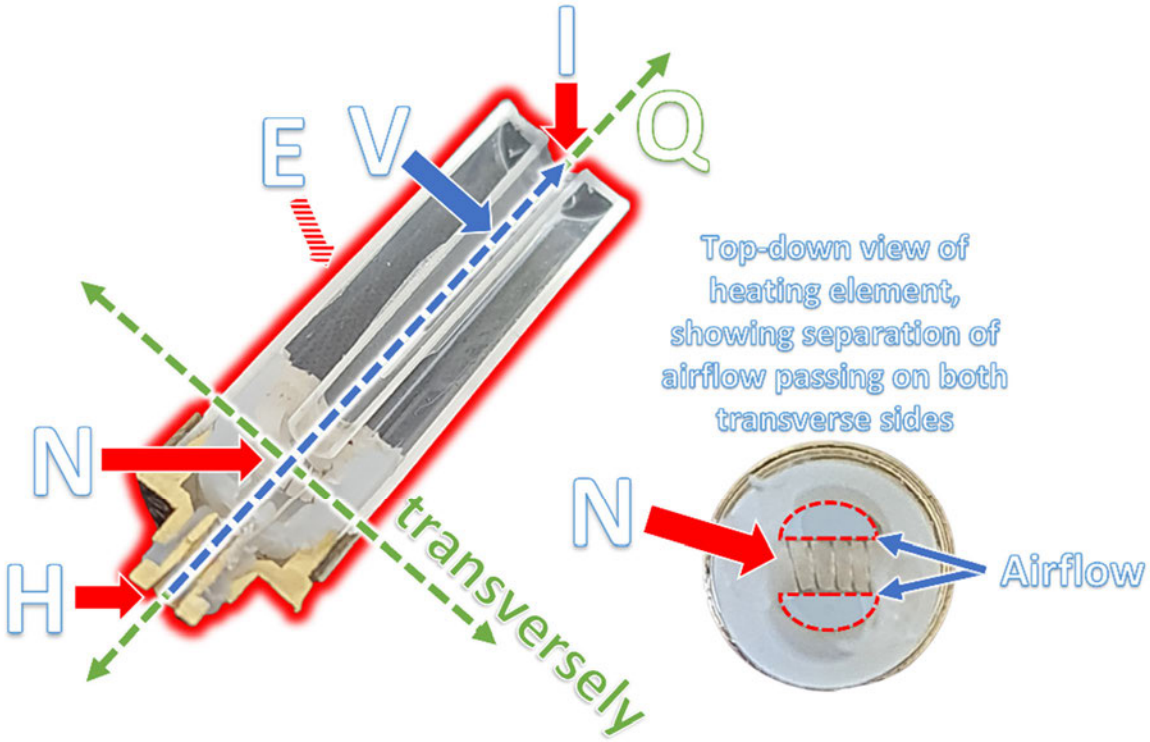
Logic Pro Figure 864.38.e.

601. The Logic Pro has "a heating element [N] located in the interior of the housing [E]."



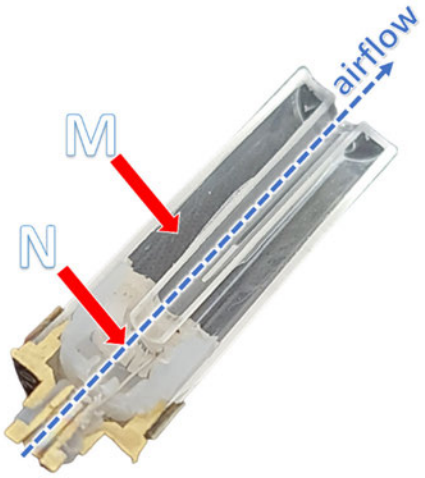
Logic Pro Figure 864.38.f.

602. The Logic Pro has a "heating element [N] extending transversely to the central longitudinal axis [Q] of the housing [E] and being at least partially exposed to the airflow such that the airflow entering through the first aperture [H] will separate and then pass on both transverse sides of the heating element [N] and then continue along an airflow path [V] co-axial with the central longitudinal axis [Q] of the housing [E] toward the second aperture [I] during use of the electronic vaporizer."



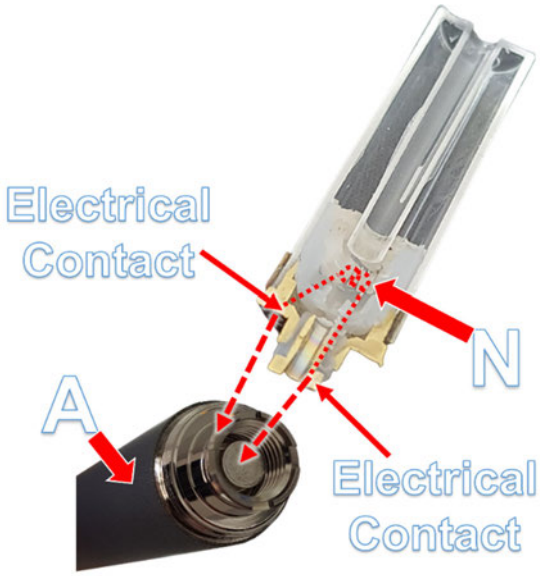
Logic Pro Figure 864.38.g.

603. The Logic Pro has a "heating element [N] being configured to vaporize at least the portion of the solution [M] for oral provision to an individual in the airflow."



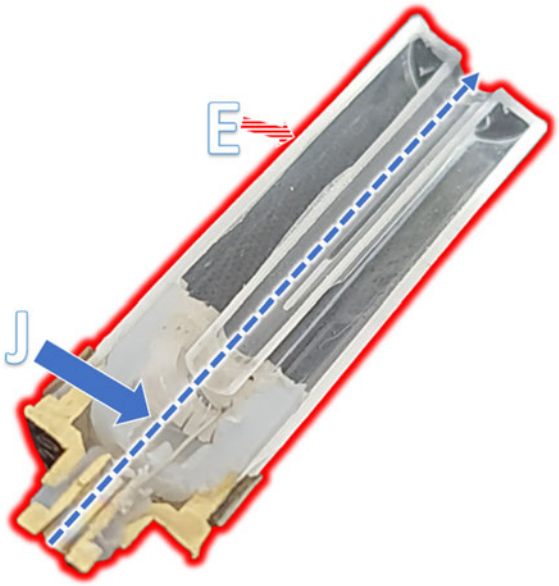
Logic Pro Figure 864.38.h.

604. The Logic Pro has a "heating element [N] being responsive to electrical power received from the power source [A]."



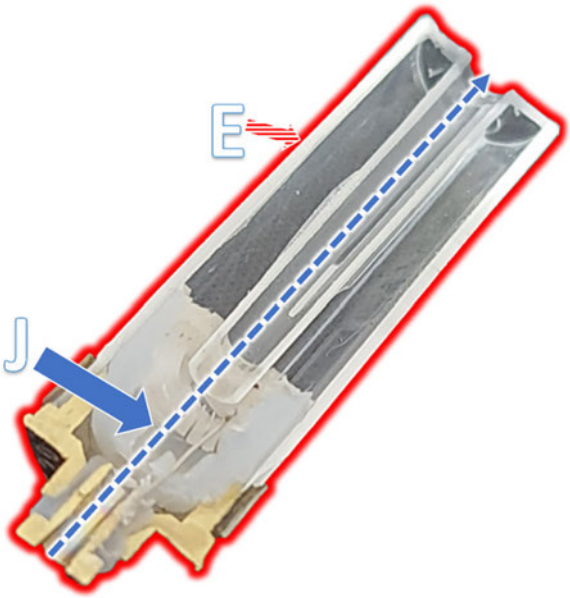
Logic Pro Figure 864.38.i.

605. The Logic Pro has "an airflow passageway [J] in the housing [E]."



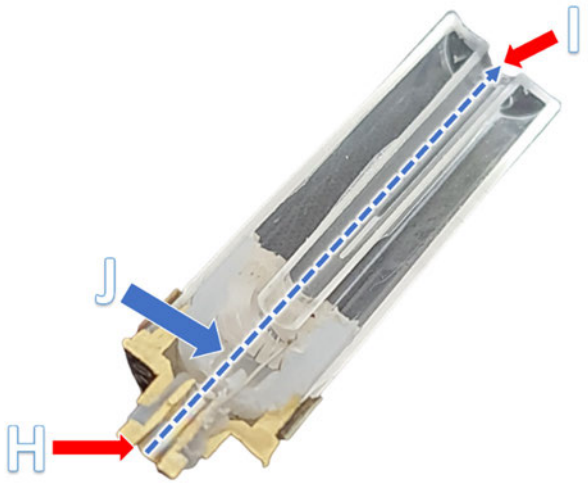
Logic Pro Figure 864.38.j.

606. The Logic Pro has "at least a portion of the airflow passageway [J] extending centrally and axially with respect to the housing [E]."



Logic Pro Figure 864.38.k.

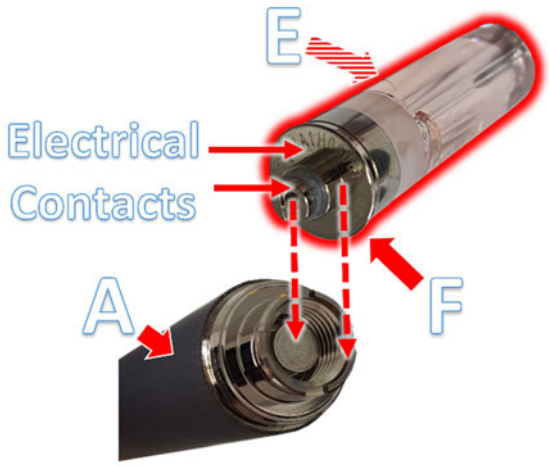
607. In the Logic Pro, "the airflow passageway [J] extends centrally and axially from the first aperture [H] to the second aperture [I]."



Logic Pro Figure 864.38.l.

608. As shown in the figures set forth in Paragraphs 609 through 610, the Logic Pro meets every limitation recited in Claim 39 of the '864 Patent.

609. The Logic Pro has "a power source [A] adapted to be electrically coupled to the first end [F] of the housing [E]."



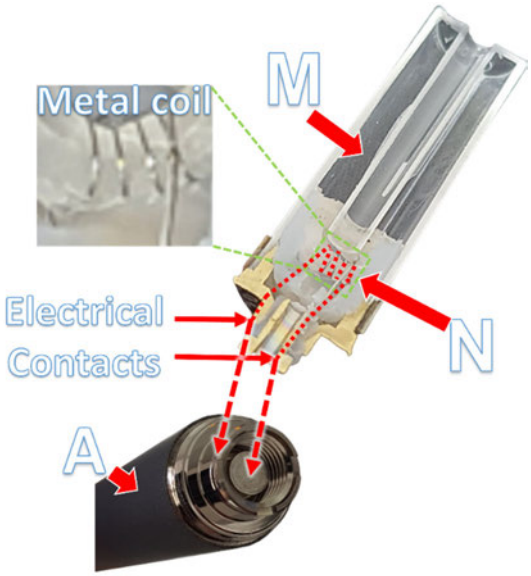
Logic Pro Figure 864.39.a.

610. The Logic Pro has a "power source [A] including a battery [B]."

Logic Pro Figure 864.39.b.

611. As shown in the figure set forth in the following paragraph, the Logic Pro meets every limitation recited in Claim 40 of the '864 Patent.

612. In the Logic Pro "the heating element [N] comprises a material that when powered by the power source [A] is adapted to vaporize the solution [M] brought into contact with the heating element [N]."



Logic Pro Figure 864.40.

613. As shown in the figures set forth in Paragraphs 614 through 615, the Logic Pro meets every limitation recited in Claim 41 of the ’864 Patent.

614. The Logic Pro has “a solution [M] in the solution holding medium [L].”

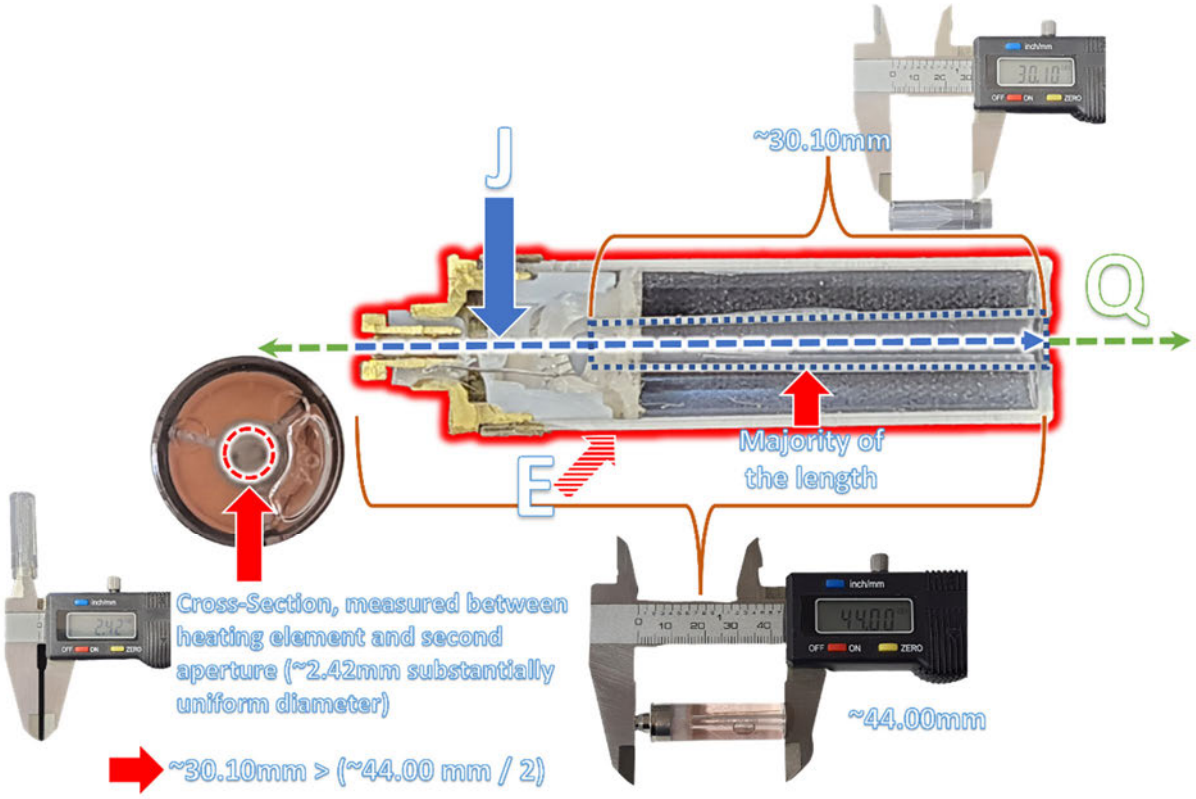
Logic Pro Figure 864.41.a.

615. The Logic Pro has “the solution [M] comprising one of propylene glycol and nicotine.”

Logic Pro Figure 864.41.b.

616. As shown in the figure set forth in the following paragraph, the Logic Pro meets every limitation recited in Claim 42 of the '864 Patent.

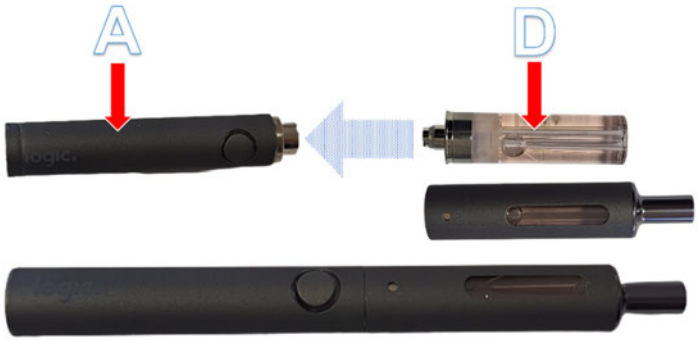
617. In the Logic Pro, "a majority of the portion of the airflow passageway [J] has a substantially uniform cross-sectional area measured perpendicular to the central longitudinal axis [Q] of the housing [E] between the heating element [N] and the second aperture [I]."



Logic Pro Figure 864.42.

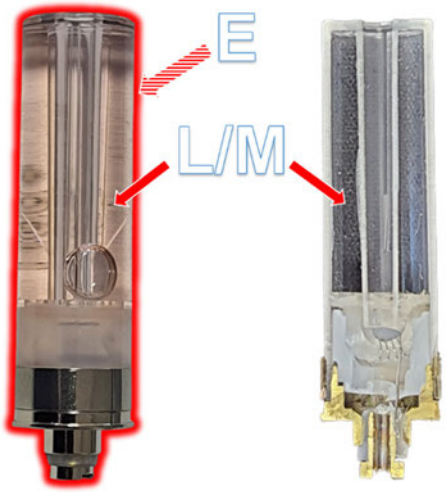
618. As shown in the figures set forth in Paragraphs 619 through 631, the Logic Pro meets every limitation recited in Claim 45 of the ’864 Patent.

619. To the extent that the preamble is limiting, the Logic Pro has a “cartridge [D] configured to couple to a power source [A] of an electronic vaporizer.”



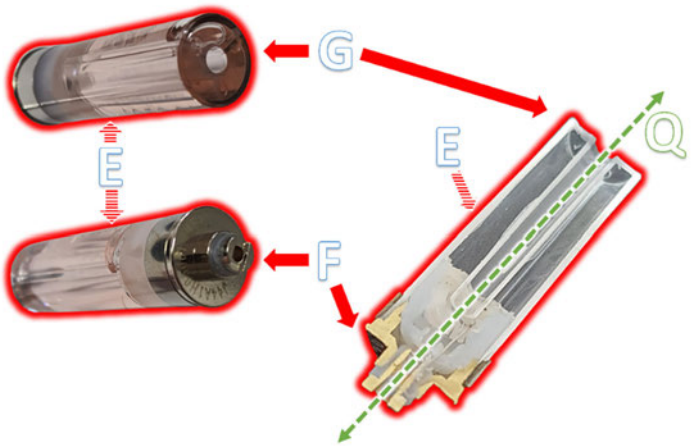
Logic Pro Figure 864.45.pre.

620. The Logic Pro has “a housing [E] having an interior and a solution holding medium [L] adapted to hold a solution [M].”



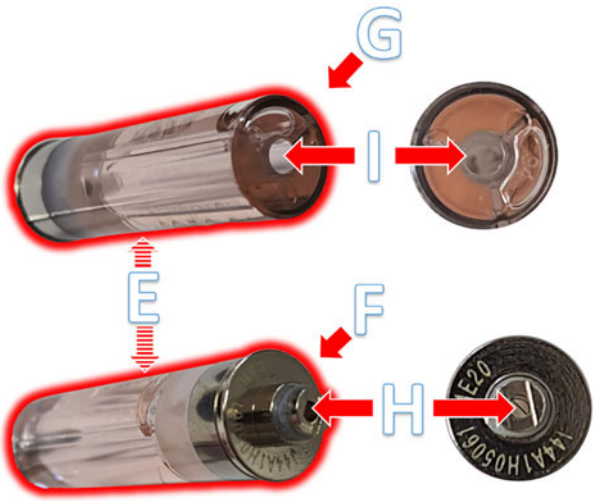
Logic Pro Figure 864.45.a.

621. The Logic Pro has "the housing [E] having a first end [F] and a second end [G] that is opposite the first end [F] and a central longitudinal axis [Q] extending from the first end [F] to the second end [G]."



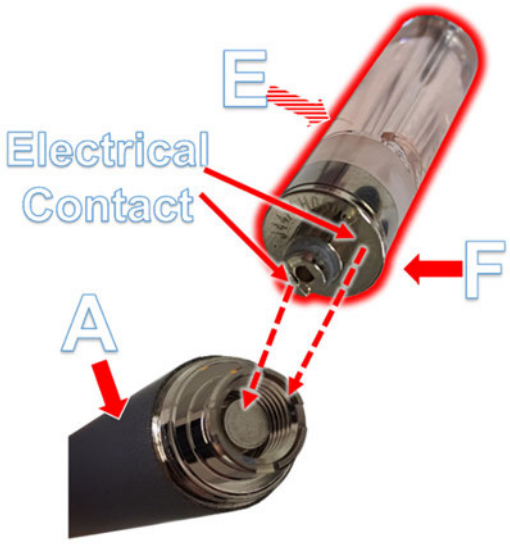
Logic Pro Figure 864.45.b.

622. The Logic Pro has "the housing [E] having a first aperture [H] proximate the first end [F] and a second aperture [I] proximate the second end [G]."



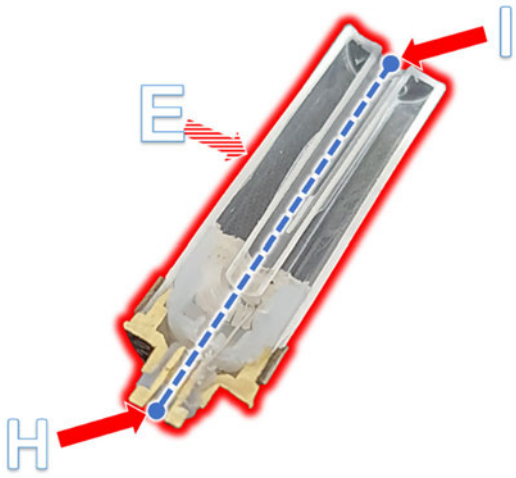
Logic Pro Figure 864.45.c.

623. The Logic Pro has "the first end [F] of the housing [E] being adapted to electrically couple to the power source [A]."



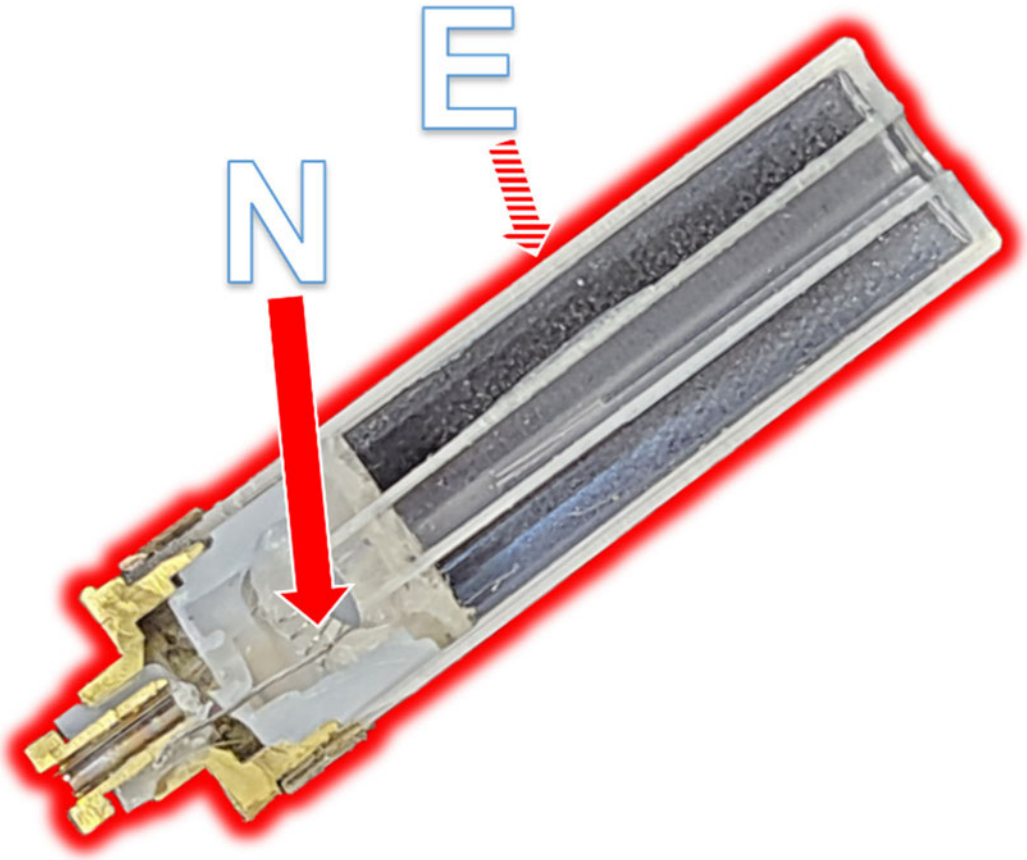
Logic Pro Figure 864.45.d.

624. The Logic Pro has "the first aperture [H] and the second aperture [I] being in communication with one another to permit an airflow through the housing [E]."



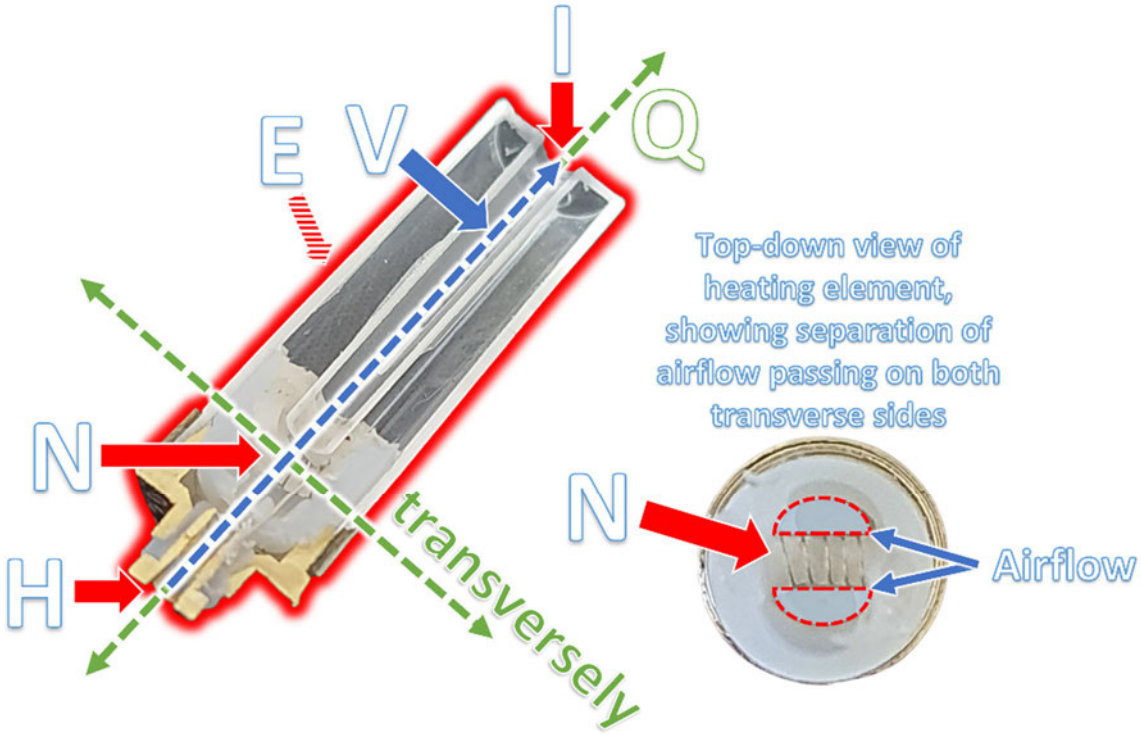
Logic Pro Figure 864.45.e.

625. The Logic Pro has "a heating element [N] located in the interior of the housing [E]."



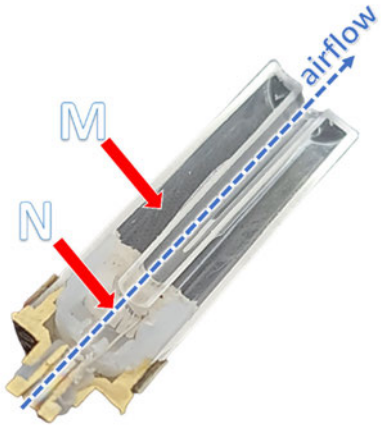
Logic Pro Figure 864.45.f.

626. The Logic Pro has a "heating element [N] extending transversely to the central longitudinal axis [Q] of the housing [E] and being at least partially exposed to the airflow such that the airflow entering through the first aperture [H] will separate and then pass on both transverse sides of the heating element [N] and then continue along an airflow path [V] co-axial with the central longitudinal axis [Q] of the housing [E] toward the second aperture [I] during use of the electronic vaporizer."



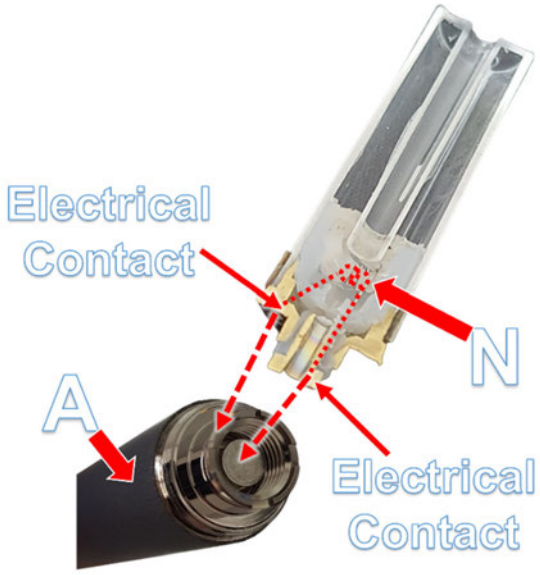
Logic Pro Figure 864.45.g.

627. The Logic Pro has a "heating element [N] being configured to vaporize at least the portion of the solution [M] for oral provision to an individual in the airflow."



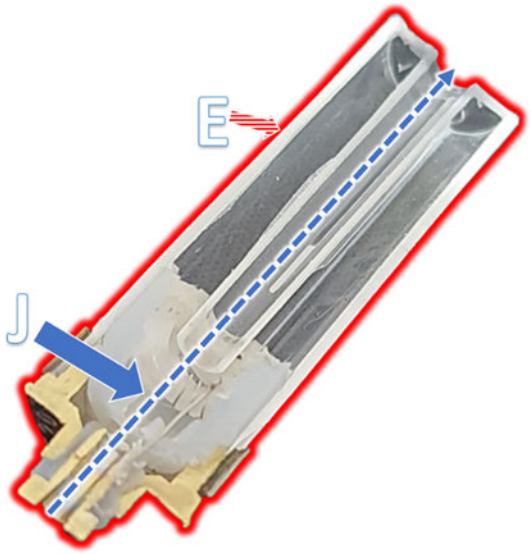
Logic Pro Figure 864.45.h.

628. The Logic Pro has a "heating element [N] being responsive to electrical power received from the power source [A]."



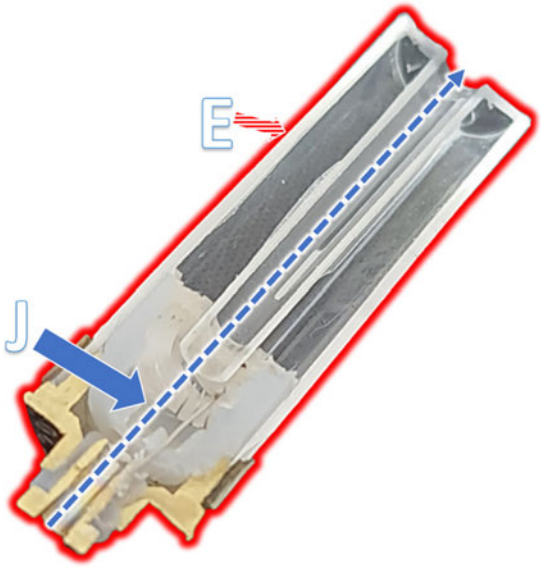
Logic Pro Figure 864.45.i.

629. The Logic Pro has "an airflow passageway [J] in the housing [E]."



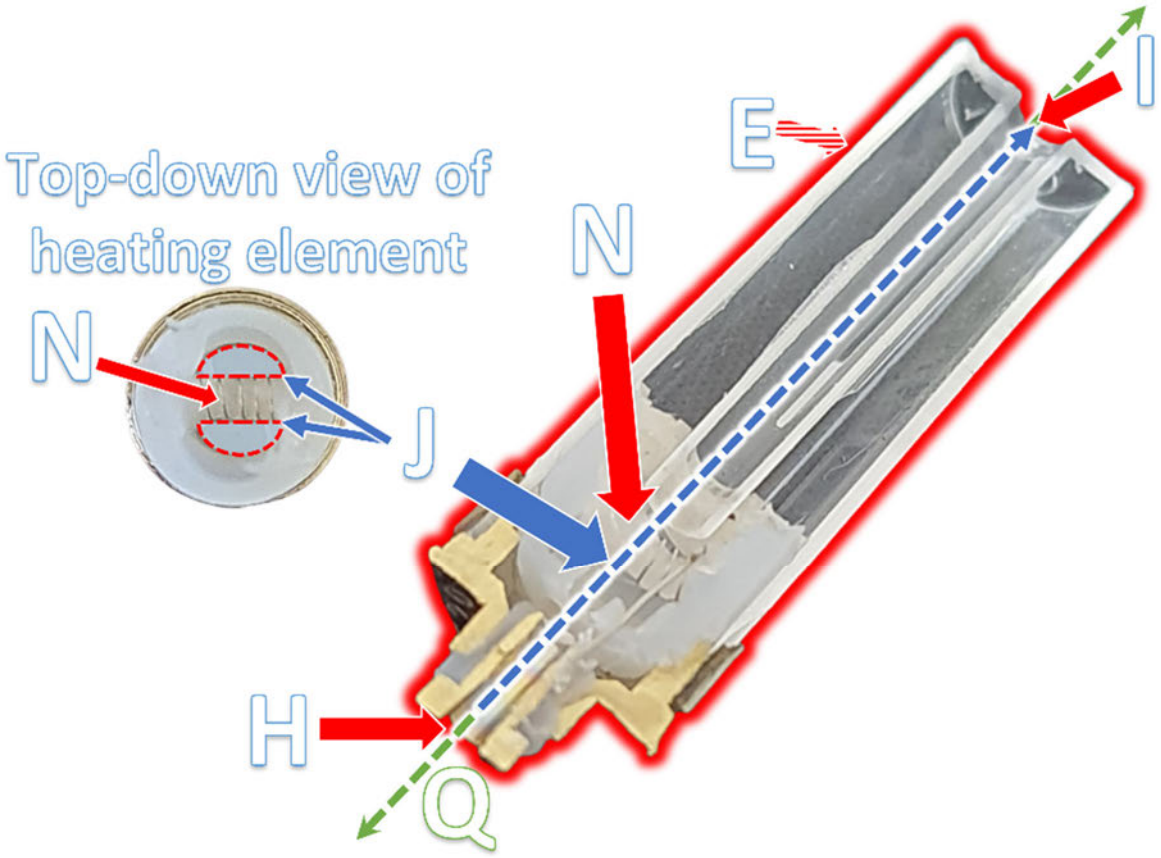
Logic Pro Figure 864.45.j.

630. The Logic Pro has "at least a portion of the airflow passageway [J] extending centrally and axially with respect to the housing [E]."



Logic Pro Figure 864.45.k.

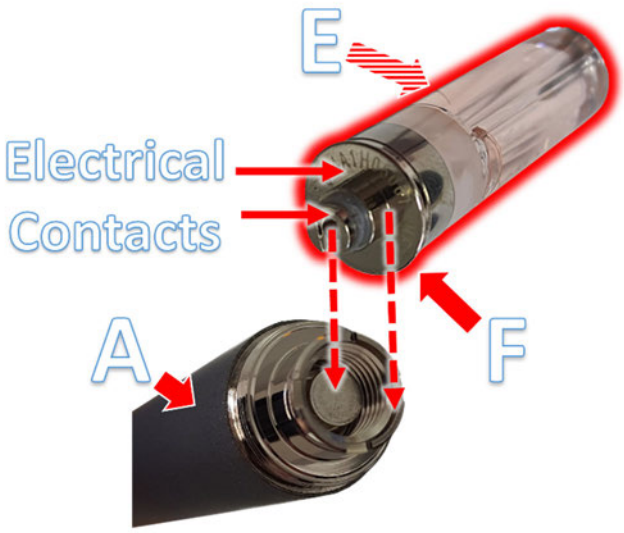
631. In the Logic Pro, "the airflow passageway [J] extends in a straight path from the first aperture [H] to the second aperture [I] with only the heating element [N] obstructing a portion of the airflow through the airflow passageway [J] along the central longitudinal axis [Q] of the housing [E]."



Logic Pro Figure 864.45.l.

632. As shown in the figures set forth in Paragraphs 633 through 634, the Logic Pro meets every limitation recited in Claim 46 of the '864 Patent.

633. The Logic Pro has "a power source [A] adapted to be electrically coupled to the first end [F] of the housing [E]."



Logic Pro Figure 864.46.a.

634. The Logic Pro has a "power source [A] including a battery [B]."

Logic Pro Figure 864.46.b.

Indirect Infringement of the Patents-In-Suit

635. Defendant has also contributorily infringed the patents in-suit in violation of 35 U.S.C. § 271(c) by, itself and/or through its agents, contributing to the direct infringement of the patents-in-suit by their customers by making, using, importing, offering to sell, and/or selling vaporizing device components that constitute a material part of the asserted claims of the patents-in-suit and that have no substantial non-infringing use, which, when used by its customers as instructed by Defendant, result in direct infringement of the asserted claims of the patents-in-suit by its customers, in this judicial district and within, from, and/or into the United States, without permission or license from Fuma.

636. Examples of vaporizing device components that constitute a material part of the invention of the asserted claims of the patents-in-suit that have no substantial non-infringing uses, and that contribute to the direct infringement of the asserted claims include the Logic Power cartridges, Logic Pro cartridges, the Logic Power starter kit, and the Logic Pro Capsule Tank System.

637. Defendant knows and knew of the patents-in-suit. First, upon information and belief, Defendant regularly surveys the patent literature—and especially that of their competitors—for relevant patents and have encountered the patents-in-suit. Second, Defendant was informed of the patents-in-suit by

Plaintiff's letter of June 3, 2022. Third, this complaint informs Defendant about the patents-in-suit.

638. Upon information and belief, having knowledge of the patents-in-suit, Defendant is aware that the purchase and use of the accused products, and components of the accused products, by Defendant's customers results in direct infringement of the patents-in-suit by those customers when used as intended, as designed, and as instructed by Defendant.

639. Defendant instructs users on how to use the Logic Power and Logic Pro products and components of the same.

640. Defendant instructs users to purchase and use replacement Logic Power and Logic Pro e-liquid capsules.

641. Furthermore, Defendant instructs users that the Logic Power and Logic Pro cartridges are only meant for use with Logic Power battery units and Logic Pro battery units, respectively.

642. The Logic Power and Logic Pro cartridges contributorily infringe the asserted claims of the patents-in-suit because they meet every element of the asserted claims except those requiring a power source.

643. The Logic Power battery units and Logic Pro battery units contributorily infringe the asserted claims of the patents-in-suit because they meet

those elements of the asserted claims requiring a power source. The Logic Power battery units and Logic Pro battery units can only be used with Logic Power and Logic Pro cartridges, respectively, and the Logic Power and Logic Pro battery units, when used with the Logic Power and Logic Pro cartridges, meet every limitation of the asserted claims. Thus, the Logic Power and Logic Pro battery units have no substantial non-infringing use and contribute to the direct infringement of the patents-in-suit.

644. As such, Defendant knows that the Logic Power and Logic Pro products and components of the Logic Power and Logic Pro, including, but not limited to, the Logic Power and Logic Pro cartridge and the Logic Power and Logic Pro power unit, when sold separately, have no substantial non-infringing uses other than to provide users with the ability to assemble and use a vaporizing device that directly infringes the patents-in-suit, and, therefore, that they are especially made or adapted for use in direct infringement of the patents-in-suit.

645. The cartridge and battery of the respective accused products are components of a single assembly or parts of a complete machine that together constitute a functional unit. As such, Fuma is entitled to damages for sales of the accused products, whether the cartridge and power units are sold separately or together, either as direct infringement, indirect infringement, or as convoyed sales.

646. As a direct and proximate result of the infringing acts of Defendant, Plaintiff has suffered, and is entitled to, monetary damages that adequately compensate Fuma for Defendant's infringement, which, by law, cannot be less than a reasonable royalty, together with interest and costs as fixed by this Court under 35 U.S.C. § 284.

647. As of July 2017, substantially all products sold by Fuma that embody the '604 patent were marked with the '604 patent number and Fuma has met all requirements of 35 U.S.C. § 287. As of July 2019, substantially all products sold by Fuma that embody the '881 patent were marked with the '881 patent number and Fuma has met all requirements of 35 U.S.C. § 287. Fuma's monetary damages are therefore not limited by 35 U.S.C. § 287 during any period after that date.

FOURTH CLAIM FOR RELIEF:
WILLFUL INFRINGEMENT

648. Fuma hereby realleges each allegation set forth in the paragraphs above as if fully set forth herein.

649. As set forth above, Defendant knows and knew of the '604, '881, and the '772 Publication, which issued as the '864 Patent. Fuma informed Logic that it infringed the '604, '881, and '864 Patents in June of 2022 via a letter from counsel, as set forth above. Defendant proceeded to infringe the patents-in-suit despite a high probability that its actions constituted infringement of valid claims of the

patents-in-suit. Thus, Defendant's infringement of the patents-in-suit is and was willful and deliberate. That egregious infringement behavior entitles Plaintiff to increased damages under 35 U.S.C. § 284, and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

PRAYER FOR RELIEF

WHEREFORE, Fuma prays for the following relief:

650. A judgment that Defendant directly and/or indirectly infringes the '604 Patent;

651. A judgment that Defendant directly and/or indirectly infringes the '881 Patent;

652. A judgment that Defendant directly and/or indirectly infringes the '864 Patent;

653. A permanent injunction preventing Defendant and its respective officers, directors, agents, servants, employees, attorneys, licensees, successors, and assigns, and those in active concert or participation with any of them, from engaging in infringing activities with respect to the patents-in-suit;

654. A ruling that this case is exceptional under 35 U.S.C. § 285;

655. A judgment and order requiring Defendant to pay Fuma damages under 35 U.S.C. § 284, including supplemental damages for any continuing post-

verdict infringement up until entry of judgment, with an accounting, as needed, as well as treble damages for willful infringement under 35 U.S.C. §285;

656. A judgment and order requiring Defendant to pay Fuma pre-issuance damages under 35 U.S.C. § 154(d) for infringement of the '864 Patent;

657. A judgment and order requiring Defendant to pay Fuma's costs of this action (including all disbursements);

658. A judgment and order requiring Defendant to pay pre-judgment and post-judgment interest on damages awarded; and

659. Such other and further relief as the Court may deem just and proper.

DEMAND FOR JURY TRIAL

Plaintiff Fuma International LLC hereby demands a trial by jury on all issues triable by a jury.

Dated: July 31, 2023

Respectfully submitted,

By: *s/Rayna E. Kessler*

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