Michael Mulvaney

From: Michael Mulvaney
Sent: Thursday, November 19, 2020 10:07 AM
To: aschmeiser@iplawusa.com
Cc: joel.rothman@sriplaw.com; Jamie Christine James
Subject: Notice of Lawsuit and Request for Waiver of Service - VPR Brands, LP v. Jupiter Research, LLC Case No. 2:20-cv-02185-PHX-DJH
Attachments: 2020.11.19. - Notice of a Lawsuit and Request for Waiver (First Defendant).pdf; Waiver of Service of Summons (Jupiter Research) - For Signature.pdf; 2020.11.19. - Letter- Joel to Schmeiser, Olsen & Watts LLP.pdf; VPR Brands v. Jupiter.pdf

Good morning Counsel:

Please find attached to this email correspondence from attorney Joel Rothman along with the accompanying documents listed below. Kindly reply all to acknowledge receipt.

UNITED STATES DISTRICT COURT DISTRICT OF ARIZONA PHOENIX DIVISION **Case No. 2:20-cv-02185-PHX-DJH** **VPR BRANDS, LP v. JUPITER RESEARCH, LLC**	
Complaint filed 2020.11.13.	Delivered 2020.11.19.
Supporting Exhibits 1 and 2	Delivered 2020.11.19.
Notice of a Lawsuit and Request for Waiver of Service	Delivered 2020.11.19.
Waiver of Service of Summons (Jupiter Research) - For Signature	Delivered 2020.11.19.

Kind Regards,

Michael R. Mulvaney
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VPR Exhibit
2010
Page 1

UNITED STATES DISTRICT COURT

for the

District of Arizona

VPR Brands, LP *Plaintiff* v. Jupiter Research, LLC *Defendant*	)	Civil Action No. 2:20-cv-02185-PHX-DJH

NOTICE OF A LAWSUIT AND REQUEST TO WAIVE SERVICE OF A SUMMONS

To: Jupiter Research, LLC

(Name of the defendant or - if the defendant is a corporation, partnership, or association - an officer or agent authorized to receive service)

Why are you getting this?

A lawsuit has been filed against you, or the entity you represent, in this court under the number shown above. A copy of the complaint is attached.

This is not a summons, or an official notice from the court. It is a request that, to avoid expenses, you waive formal service of a summons by signing and returning the enclosed waiver. To avoid these expenses, you must return the signed waiver within 30 days *(give at least 30 days, or at least 60 days if the defendant is outside any judicial district of the United States)* from the date shown below, which is the date this notice was sent. Two copies of the waiver form are enclosed, along with a stamped, self-addressed envelope or other prepaid means for returning one copy. You may keep the other copy.

What happens next?

If you return the signed waiver, I will file it with the court. The action will then proceed as if you had been served on the date the waiver is filed, but no summons will be served on you and you will have 60 days from the date this notice is sent (see the date below) to answer the complaint (or 90 days if this notice is sent to you outside any judicial district of the United States).

If you do not return the signed waiver within the time indicated, I will arrange to have the summons and complaint served on you. And I will ask the court to require you, or the entity you represent, to pay the expenses of making service.

Please read the enclosed statement about the duty to avoid unnecessary expenses.

I certify that this request is being sent to you on the date below.

Date: 11/19/2020

/s/ JOEL BENJAMIN ROTHMAN
Signature of the attorney or unrepresented party

JOEL BENJAMIN ROTHMAN
Printed name
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UNITED STATES DISTRICT COURT

for the

District of Arizona

VPR Brands, LP
Plaintiff

v.

Jupiter Research, LLC
Defendant

Civil Action No. 2:20-cv-02185-PHX-DJH

WAIVER OF THE SERVICE OF SUMMONS

To: Joel Benjamin Rothman
(Name of the plaintiff's attorney or unrepresented plaintiff)

I have received your request to waive service of a summons in this action along with a copy of the complaint, two copies of this waiver form, and a prepaid means of returning one signed copy of the form to you.

I, or the entity I represent, agree to save the expense of serving a summons and complaint in this case.

I understand that I, or the entity I represent, will keep all defenses or objections to the lawsuit, the court's jurisdiction, and the venue of the action, but that I waive any objections to the absence of a summons or of service.

I also understand that I, or the entity I represent, must file and serve an answer or a motion under Rule 12 within 60 days from 11/19/2020, the date when this request was sent (or 90 days if it was sent outside the United States). If I fail to do so, a default judgment will be entered against me or the entity I represent.

Date:

Signature of the attorney or unrepresented party

Jupiter Research, LLC
Printed name of party waiving service of summons

Albert L. Schmeiser
Printed name

Schmeiser, Olsen & Watts LLP
18 East University Drive
Suite 101
Mesa, AZ 85201
Address

aschmeiser@iplawusa.com
E-mail address

(480) 655-0073
Telephone number

Duty to Avoid Unnecessary Expenses of Serving a Summons

Rule 4 of the Federal Rules of Civil Procedure requires certain defendants to cooperate in saving unnecessary expenses of serving a summons and complaint. A defendant who is located in the United States and who fails to return a signed waiver of service requested by a plaintiff located in the United States will be required to pay the expenses of service, unless the defendant shows good cause for the failure.

"Good cause" does *not* include a belief that the lawsuit is groundless, or that it has been brought in an improper venue, or that the court has no jurisdiction over this matter or over the defendant or the defendant's property.

If the waiver is signed and returned, you can still make these and all other defenses and objections, but you cannot object to the absence of a summons or of service.

If you waive service, then you must, within the time specified on the waiver form, serve an answer or a motion under Rule 12 on the plaintiff and file a copy with the court. By signing and returning the waiver form, you are allowed more time to respond than if a summons had been served.

AO 399 (01/09) Waiver of the Service of Summons

UNITED STATES DISTRICT COURT

for the

District of Arizona

VPR Brands, LP
Plaintiff

v.

Jupiter Research, LLC
Defendant

Civil Action No. 2:20-cv-02185-PHX-DJH

WAIVER OF THE SERVICE OF SUMMONS

To: Joel Benjamin Rothman
(Name of the plaintiff's attorney or unrepresented plaintiff)

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I also understand that I, or the entity I represent, must file and serve an answer or a motion under Rule 12 within 60 days from 11/19/2020, the date when this request was sent (or 90 days if it was sent outside the United States). If I fail to do so, a default judgment will be entered against me or the entity I represent.

Date: 12/15/2020

Signature of the attorney or unrepresented party

Jupiter Research, LLC
Printed name of party waiving service of summons

Albert L. Schmeiser
Printed name
Schmeiser, Olsen & Watts LLP
18 East University Drive
Suite 101
Mesa, AZ 85201
Address

aschmeiser@iplawusa.com
E-mail address

(480) 655-0073
Telephone number

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UNITED STATES DISTRICT COURT
DISTRICT OF ARIZONA
PHOENIX DIVISION

CASE NO.:

VPR BRANDS, LP,

Plaintiff,

v.

JUPITER RESEARCH, LLC,

Defendant.

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff VPR BRANDS, LP by and through its undersigned counsel, brings this Complaint against Defendant JUPITER RESEARCH, LLC for Patent Infringement, and in support, alleges as follows:

NATURE OF THE LAWSUIT

1. This action is for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 271, *et seq.*, to enjoin and obtain damages resulting from defendant's unauthorized manufacture, use, sale, offer to sell and/or importation into the United States for subsequent use or sale of products, methods, processes, services and/or systems that infringe one or more claims of United States Patent Number 8,205,622 entitled "Electronic Cigarette." Plaintiff seeks injunctive relief to prevent defendant from continuing to infringe plaintiff's patent and recovery of monetary damages resulting from defendant's past infringement of the patent.

JURISDICTION AND VENUE

2. This Court has original and exclusive subject matter jurisdiction pursuant to 28 U.S.C. § 1331; 28 U.S.C. § 1338; and 35 U.S.C. § 271.

3. This Court has personal jurisdiction over Defendant.

4. Venue is proper in this district pursuant to 28 U.S.C. § 1400(b).

THE PLAINTIFF

5. Plaintiff, VPR Brands, LP ("VPR"), is a Delaware limited partnership authorized to do business in Florida with a principal place of business located at 3001 Griffin Road, Fort Lauderdale, FL 33312.

THE DEFENDANT

6. Jupiter Research, LLC ("Jupiter") is an Arizona limited liability company with its principal place of business at 2801 E Camelback Road, Suite 180, Phoenix, AZ 85016, and can be served by serving its Registered Agent, DCMP Service Co LLC, 6900 East Camelback Road, Suite 250, Scottsdale, AZ 85250.

FACTS

7. VPR is a technology company whose assets include issued U.S. and Chinese patents for atomization-related products, including technology for medical marijuana oil vaporizers, dab pen and flower vaporizer products and components.

8. VPR is engaged in product development for the vapor or vaping market, including e-liquids, vaporizers and electronic cigarettes (also known as e-cigarettes) which are devices which deliver nicotine and or cannabis and cannabidiol (CBD) through atomization or vaping, and without smoke and other chemical constituents typically found in traditional products.

9. VPR is a vaping market leader specializing in vaporizers and accessories for essential oils, cannabis concentrates and extracts (CBD), as well as electronic cigarettes containing nicotine.

10. VPR owns all right, title and interests in, and/or has standing to sue for infringement of United States Patent Number 8,205,622 (the '622 Patent) entitled "Electronic Cigarette."

11. The '622 Patent discloses an electronic cigarette consisting of an electronic inhaler and an electronic atomizer.

12. The electronic inhaler contains a rechargeable or non-rechargeable power source such as a battery, which supplies electric power to the electronic inhaler. In addition to the power source, the inhaler also includes an electric airflow sensor to detect air movement generated by a user's inhaling or puffing act. The sensor's role is to collect an airflow signal that triggers the electronic cigarette to supply electric power to the inhaler and atomizer connected through an electric connector.

13. Inside the electronic atomizer are an electric connector, electric heating wire, liquid container, and atomizer cap with an air-puffing hole. The user inhales through the air puffing hole at an end of the electronic cigarette to create an air inflow, which triggers the atomization process that converts a solution to a gas emulating the smoking process.

14. A copy of the '622 Patent is attached hereto as **Exhibit 1**.

THE PLAINTIFF'S PATENTS

15. VPR owns all right, title and interests in, and/or has standing to sue for infringement of United States Patent Number 8,205,622(the '622 Patent), entitled entitled "Electronic Cigarette." A copy of the '622 Patent is attached hereto as **Exhibit 1**.

DEFENDANT'S PRODUCTS

16. Jupiter makes, uses, imports, offers for sale and sells one or more electronic cigarette products that practice all the steps of at least one claim of the '622 Patent.

17. One of Jupiter's electronic cigarette products is known as LIQUID 6.

18. Jupiter's LIQUID 6 is an electronic cigarette that contains a rechargeable battery that functions as a power source which supplies electric power to an electronic inhaler. In addition to the power source, the inhaler also includes an electric airflow sensor to detect air movement generated by a user's inhaling or puffing act.

19. The LIQUID 6 also contains an electronic atomizer with an electric connector, electric heating wire, liquid container, and atomizer cap with an air-puffing hole.

20. The user inhales through the air puffing hole at an end of the LIQUID 6 to create an air inflow, which triggers the atomization process that converts a solution to a gas emulating the smoking process.

21. The electronic cigarette products that Jupiter imports, makes, uses, offers to sell and sells, including but not limited to the LIQUID 6 products, infringe one or more claims of the '622 Patent.

22. At all times during which defendant imported, made, used, offered to sell and sold electronic cigarette products that infringe one or more claims of the '622 Patent, defendant had knowledge of the '622 Patent.

23. Plaintiff has been irreparably harmed by defendant's infringement of VPR's valuable patent rights.

24. Defendant's unauthorized, infringing use of VPR's patented electronic cigarette has threatened the value of their intellectual property because defendant's conduct results in VPR's loss of its lawful patent rights to exclude others from importing, making, using, selling, offering to sell and/or importing the patented inventions.

25. Defendant's disregard for VPR's property rights similarly threatens VPR's relationships with potential licensees of this intellectual property.

26. Defendant will derive a competitive advantage from using VPR's patented technology without paying compensation for such use.

27. Unless and until defendant's continued acts of infringement are enjoined, VPR will suffer further irreparable harm for which there is no adequate remedy at law.

COUNT I
DIRECT INFRINGEMENT OF U.S. PATENT NO. 8,205,622

28. VPR realleges paragraphs 1 through 27 of this Complaint, as fully and completely as if set forth verbatim herein.

29. Within the six years preceding the filing of this Complaint, Jupiter has directly infringed at least one claim of U.S. Patent No. 8,205,622 by the activities referred to in this Complaint in violation of 35 U.S.C. § 271(a).

30. Without limiting the foregoing, Defendant has infringed at least claim 13 of the '622 Patent as described in the Claim Chart attached hereto as **Exhibit 2**.

31. Jupiter's activities alleged in this Count have been without license, permission, or authorization from VPR.

32. The activities of Jupiter as set forth in this Count have been to the injury, detriment and irreparable harm to VPR.

COUNT II
INDIRECT INFRINGEMENT OF U.S. PATENT NO. 8,205,622

33. VPR realleges paragraphs 1 through 27 of this Complaint as fully and completely as if set forth herein verbatim.

34. Within the six years preceding the filing of this Complaint, Jupiter has indirectly infringed at least one claim of U.S. Patent No. 8,205,622, by requesting and encouraging and inducing customers to purchase and use LIQUID 6 in violation of 35 U.S.C. § 271(b).

35. Jupiter's activities alleged in this Count have been without license permission or authorization from VPR.

36. The activities of Jupiter as set forth in this Count have been to the injury, detriment and irreparable harm to VPR.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff VPR Brands, LP demands judgment and relief against Defendant Jupiter Research, LLC and respectfully requests that the Court:

A. Enter a finding of infringement against Defendant under each of the patents asserted in this Compliant;

B. Award in favor of Plaintiff and against Defendant such damages as Plaintiff may have suffered but in no event less than a reasonable royalty pursuant to 35 U.S.C. § 284;

C. Award in favor of Plaintiff and against Defendant an enhancement of damages;

D. Find that this is an exceptional case;

E. Enter an injunction preliminarily and permanently enjoining infringement;

F. Award Plaintiff its attorneys' fees against Defendant under 35 U.S.C. § 285;

G. Award Plaintiff its costs; against Defendant, and

H. Award in favor of Plaintiff and against Defendant such other and further relief as to the Court appears just and proper.

JURY DEMAND

Plaintiff hereby demands a trial by jury of all issues so triable.

DATED: November 13, 2020 Respectfully submitted,

/s/ Joel B. Rothman

JOEL B. ROTHMAN
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Attorneys for Plaintiff VPR Brands, LP

Exhibit

1

US008205622B2

(12) **United States Patent**
Pan

(10) **Patent No.: US 8,205,622 B2**
(45) **Date of Patent: Jun. 26, 2012**

(54) **ELECTRONIC CIGARETTE**

(76) Inventor: **Guocheng Pan**, Cupertino, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 435 days.

(21) Appl. No.: **12/437,511**

(22) Filed: **May 7, 2009**

(65) **Prior Publication Data**

US 2010/0242974 A1 Sep. 30, 2010

(30) **Foreign Application Priority Data**

Mar. 24, 2009 (CN) 2009 1 0080147

(51) **Int. Cl.**
A24F 47/00 (2006.01)

(52) **U.S. Cl.** **131/273**

(58) **Field of Classification Search** 131/273
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,060,671	A *	10/1991	Counts et al.	131/329
2008/0092912	A1 *	4/2008	Robinson et al.	131/200
2009/0283103	A1 *	11/2009	Nielsen et al.	131/273

FOREIGN PATENT DOCUMENTS

CN	201067728	Y	6/2008
CN	201238610	Y	5/2009
CN	201379073	Y	1/2010
EP	0845220	A1	6/1998
EP	845220	A1 *	6/1998
WO	WO 2009/152651	A1	12/2009

OTHER PUBLICATIONS

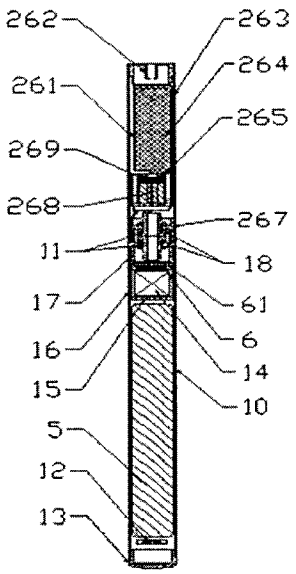
UK Intellectual Property Office, "Combined Search and Examination Report" for Application No. GB0913768.8, report dated Apr. 8, 2010 (5 pages).
* cited by examiner

Primary Examiner — Matthew Daniels
Assistant Examiner — Cynthia Szewczyk
(74) *Attorney, Agent, or Firm* — Squire Sanders (US) LLP

(57) **ABSTRACT**

An electronic cigarette has two tubes that resemble a cigarette: an electronic inhaler and an electronic atomizer. The two tubes are connected through one or more electric connectors to form an electronic cigarette. Inside the inhaler is a rechargeable or non-rechargeable power source such as a battery, which supplies electric power to the electronic inhaler and atomizer and ensures that both work together like a cigarette. In addition to the power source, the inhaler also includes other major components: an electric airflow sensor to detect air movement generated by a user's inhaling or puffing act and a Single Chip Micyoco which controls the atomization process. The sensor's role is to collect an airflow signal that triggers the Single Chip Micyoco, which in turn instructs the electronic cigarette to supply electric power to the inhaler and atomizer connected through an electric connector. Inside the electronic atomizer are an electric connector, electric heating wire, liquid container, and atomizer cap with an air-puffing hole. The user inhales through the air-puffing hole at an end of the electronic cigarette to create an air inflow, which triggers the atomization process. The Single Chip Micyoco driven by a software program controls the electronic cigarette in an on/off manner according to the signal detected by the electric sensor on the airflow and completes a cycle of atomization, which converts a solution of a liquid form inside the liquid container to a gas form. This entire process achieves the emulated smoking process of a user, who is satisfied with scent taste that mimics cigarette smoking.

18 Claims, 7 Drawing Sheets



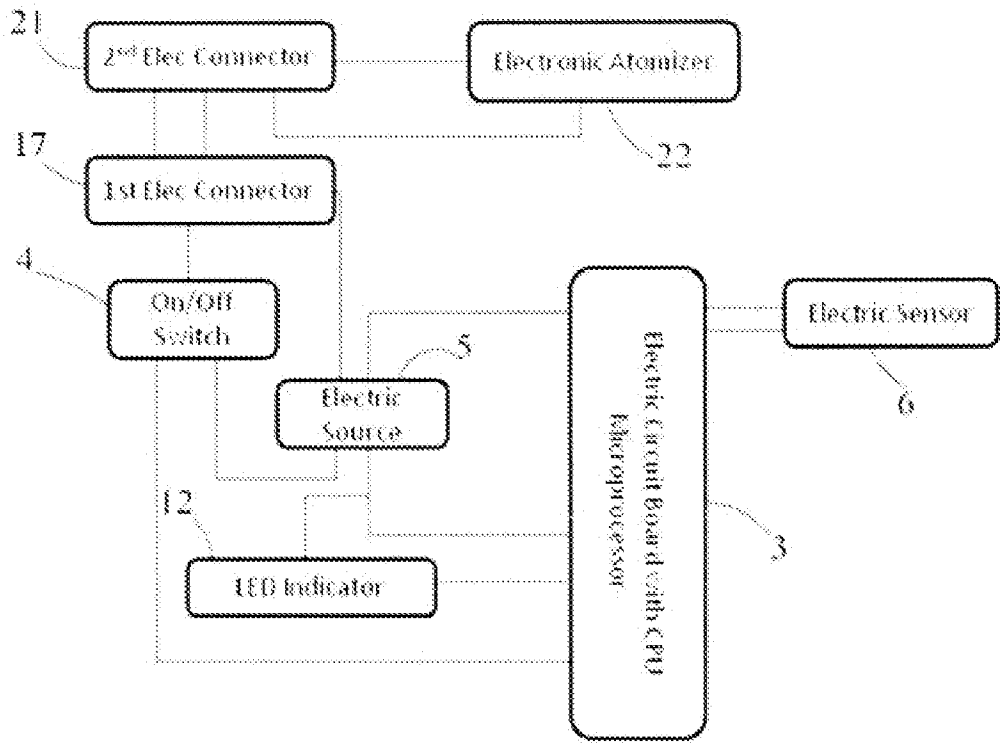

21
2nd Elec Connector
Electronic Atomizer
22
17
1st Elec Connector
4
On/Off Switch
5
Electric Source
12
LED Indicator
Electric Circuit Board with CPU Microprocessor
3
Electric Sensor
6

Figure 1

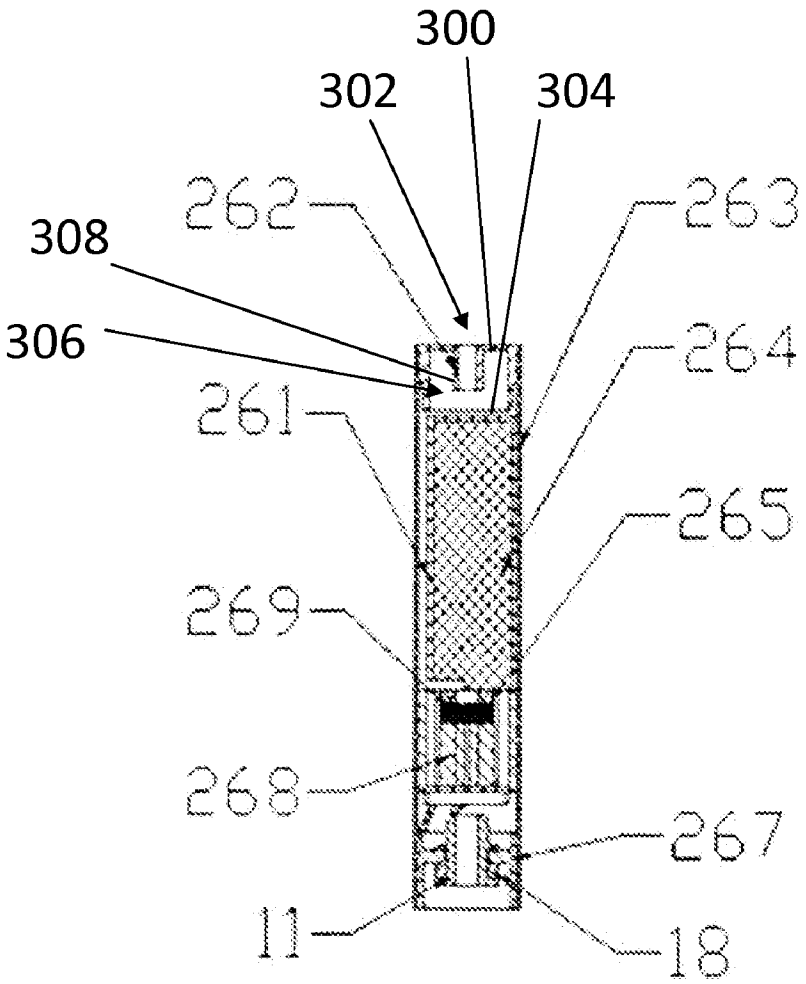


Figure 2

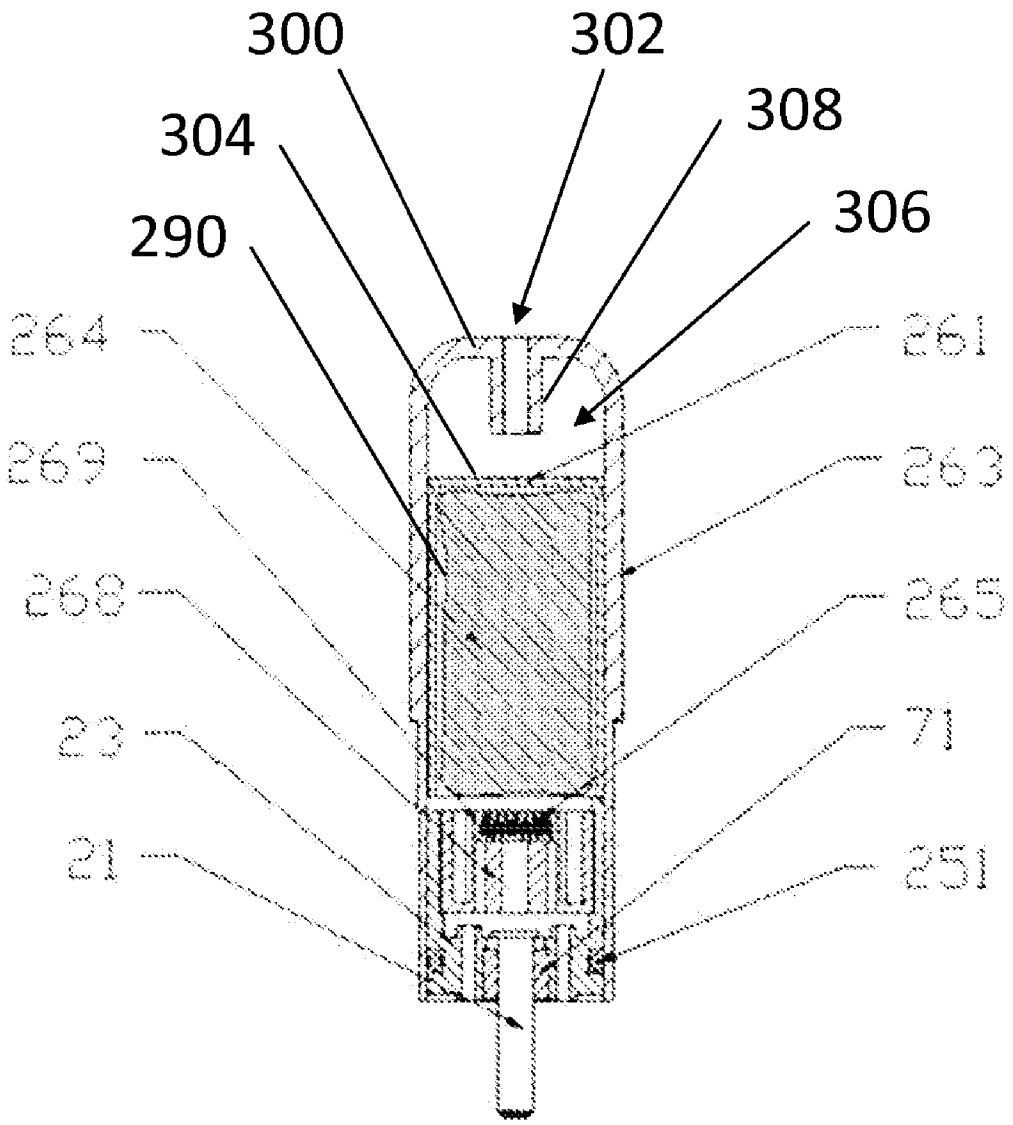


Figure 3

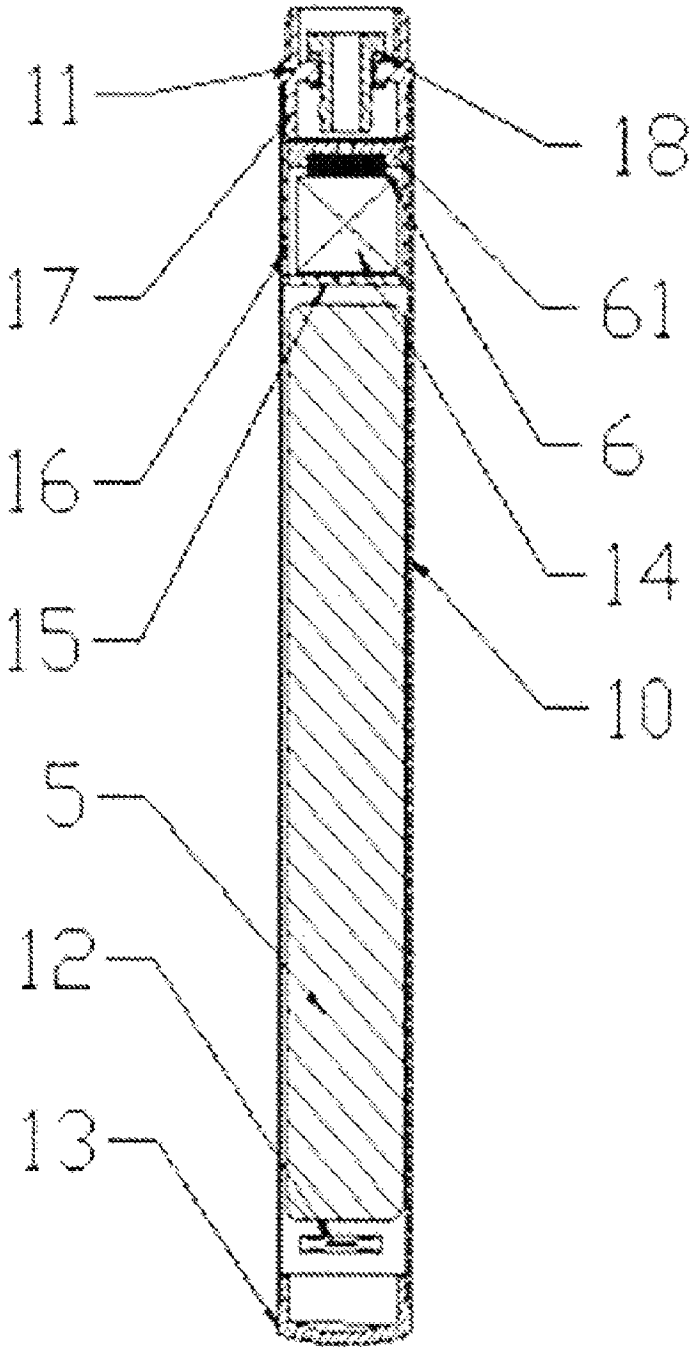


Figure 4

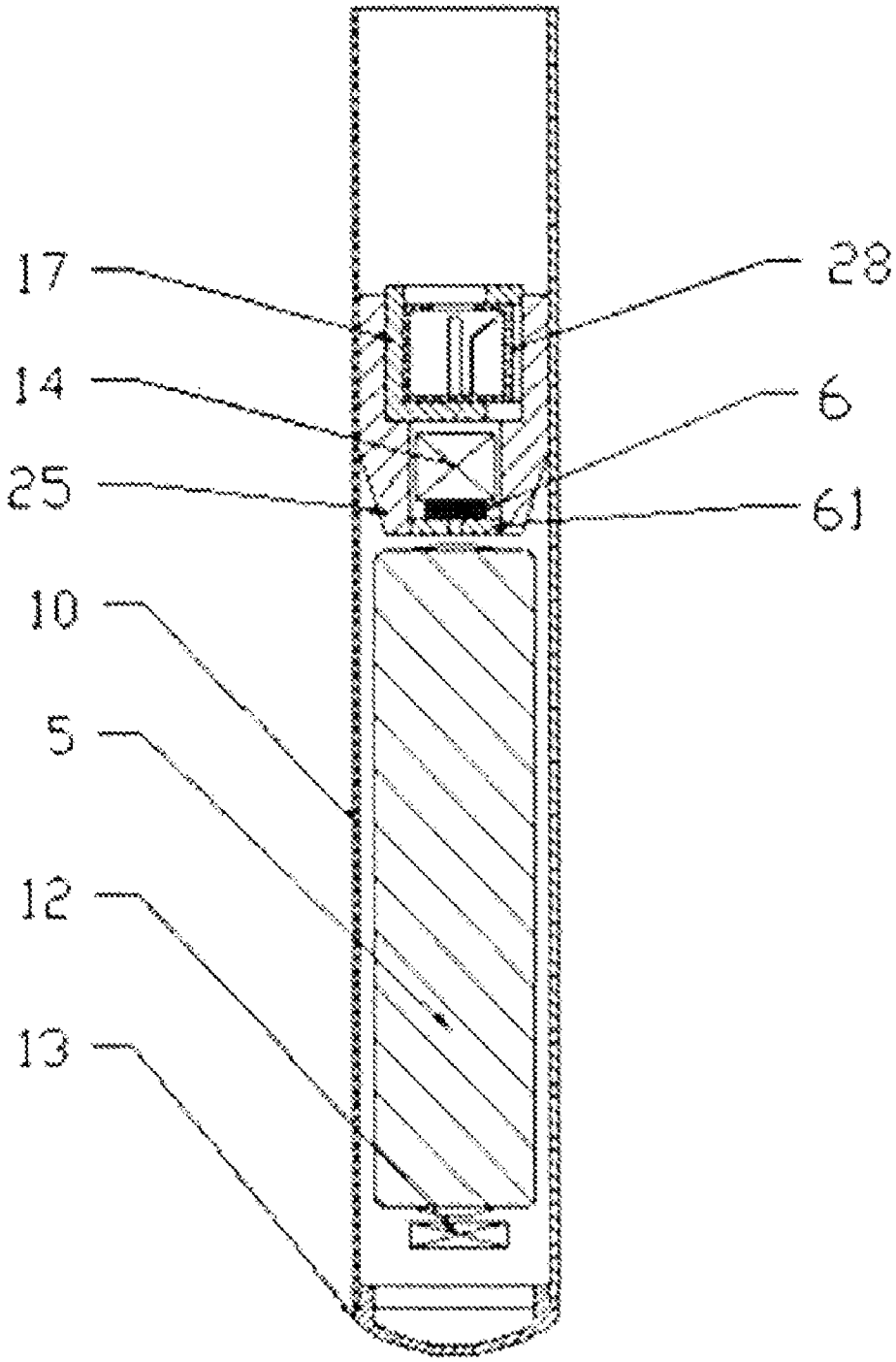


Figure 5

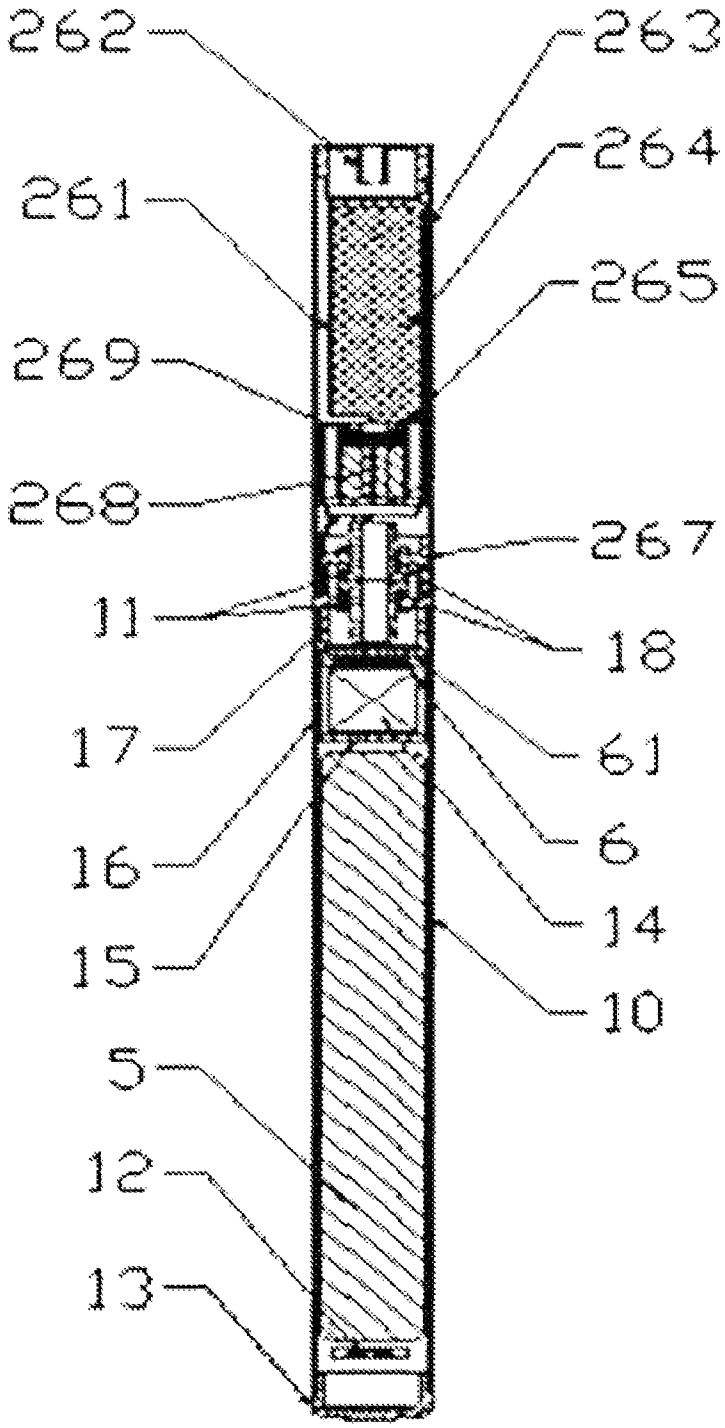


Figure 6

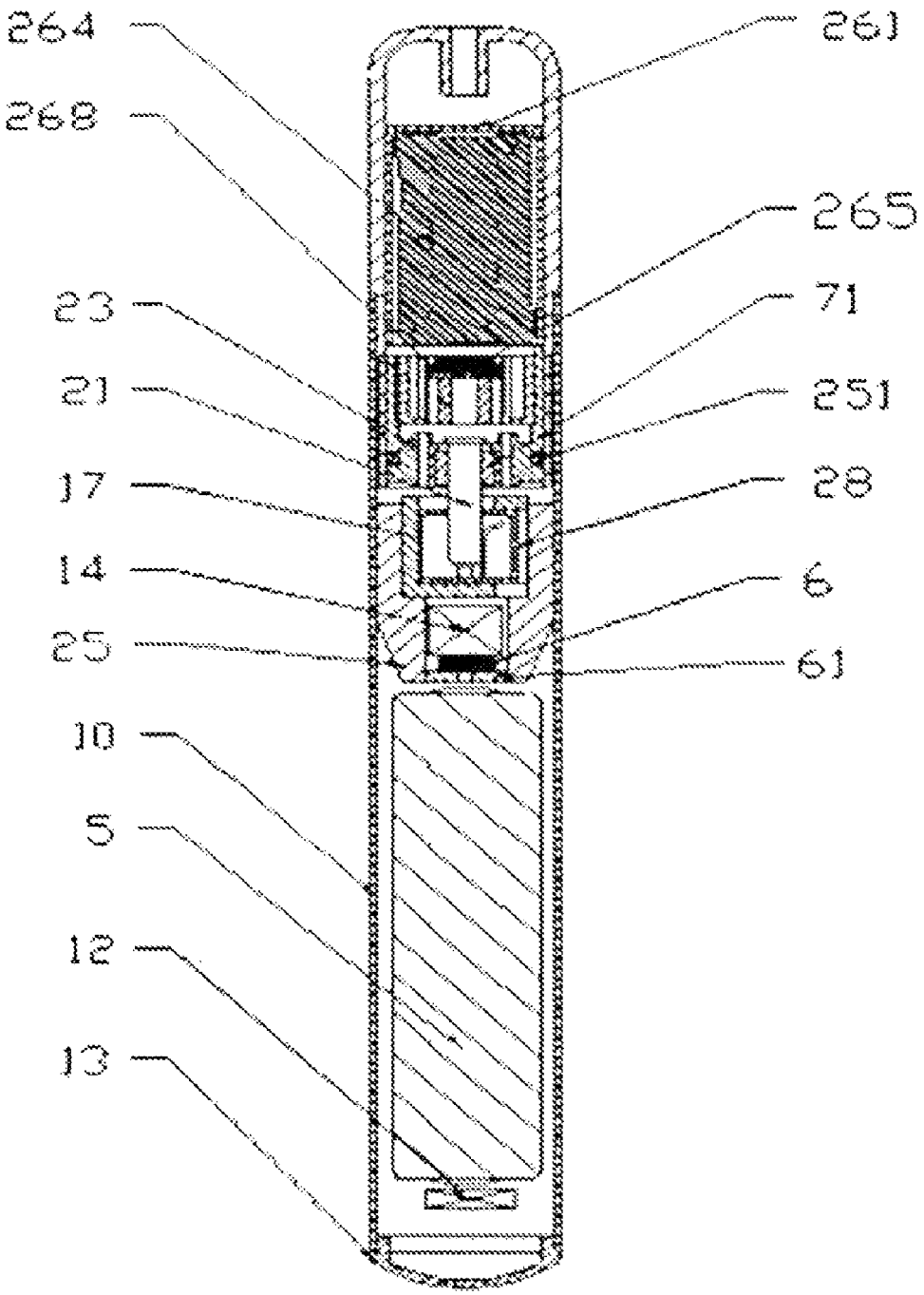


Figure 7

ELECTRONIC CIGARETTE

This application claims the priority of Chinese Patent Application No. 200910080147.5, filed Mar. 24, 2009, the entire disclosure of which is incorporated herein by reference.

TECHNICAL FIELD

The present invention relates to an electronic cigarette.

BACKGROUND OF THE INVENTION

Tobacco smoking creates one of the most serious health threats to the mankind. Although people have used tobacco for centuries, cigarettes did not appear in the mass-manufactured form until the 19th century. Today, the number of smokers has grown to over 1.3 billion worldwide. In the high-income countries, smoking has been in overall decline for decades, although it continues to rise in some groups. In low- and middle-income countries, by contrast, cigarette consumption has been increasing. Death directly related to the use of tobacco is estimated to be at least 5 million people annually. If every tobacco user smoked one pack a day, there would be a total of 1.3 billion packs of cigarettes smoked each day, emitting a large amount of harmful tar, CO and other more than 400 gas contents to homes and offices, causing significant second-hand smoking damages to human health.

Nicotine is highly addictive. Tar in cigarettes increases smoker's risk of lung cancer, emphysema, and bronchial disorders. The carbon monoxide in smoke increases the chance of cardiovascular diseases. Secondhand smoke causes lung cancer in adults and greatly increases the risk of respiratory illnesses in children. It is hard to quit smoking. In order to overcome these problems, people have invented many new technologies and products, such as nicotine patches, nicotine gum, etc. Recently, several new inventions have been made, including a Japanese patent (#3-232481), which proposes a simulated cigarette device with an insulated tube, inside which a heated generator and solid scent media are stored. Through an electric power source, the heat generator supplies heat to the scent media to generate an odor which is then absorbed to ease smokers' need for cigarette smoking. However, this simulated cigarette device requires a long time to reach a temperature high enough to generate the scent odor for users. Hence, this tool does not meet smokers' need.

A Chinese patent (#03111582.9) proposes a non-flammable atomizing electronic cigarette, which is intended to be a smoking cessation device and a replacement for conventional cigarettes. This product includes a shell, battery, high-frequency generator, nicotine-fluid chamber, controlling circuit, display screen, electronic inductor, body-contact transducer, piezoelectricity supersonic atomizer, and high-temperature air emitter. It also includes an electrically-controlled pump, metering valve, unidirectional injection valve, etc. Due to its extreme complexity in structure and very high manufacturing cost, this kind of electronic cigarettes is difficult to commercialize.

Another Chinese patent (#ZL200410048792.6) proposes an electronic cigarette, which has a stick-like shell, air-puffing hole, emitting device, pressure-modifying driver, control device, detection device, and smoke generator. This invention uses the control device to drive the emitting device to eject liquid drops generated from scent media outside of the shell. This invention also contains an atomizing device inside the shell, which vaporizes the liquid drops into vapor mists to be inhaled by the user by puffing through the smoke-flow hole at an end of the shell. This inhaling allows the user to absorb the scent-media in a vapor form together with the airflow inside the shell. In this way, the user is satisfied with a scent taste that mimics cigarette smoking.

In sum, the existing electronic cigarette devices have several major drawbacks: (1) too complex to be implemented as an ordinary consuming product and too costly for manufacturing and maintenance; (2) all having problems such as fluid leaking, reversal, nicotine-liquid exposing, discontinuous vaporizing, hard inhaling, and sub-standard sanitation; (3) all using mechanical devices as an airflow detector, which has a short life and is too sensitive to outside temperature and humidity changes.

SUMMARY OF THE INVENTION

An electronic cigarette described and claimed in this patent application overcomes at least some of the above-described problems associated with the prior art.

An object of this invention is to provide a green alternative to harmful, polluting conventional cigarettes and to overcome at least some of the above-described problems associated with prior electronic cigarettes.

This invention adopts a brand new technical solution to create a device that highly resembles a conventional cigarette and the cigarette smoking process. An electronic cigarette of the present invention preferably is comprised of two parts, one being an electronic inhaler and the other being an integrated electronic atomizer. Each part may have a metal or plastic tube, and the two tubes may have an identical or similar diameter. The inhaler preferably includes one or more of an electric power source, electric sensor, single chip micyoco, and LED indicator. The electric power source, which can be a rechargeable or non-rechargeable battery, supplies electricity to the atomizer to vaporize a liquid inside an atomizer chamber. On the first end of the inhaler tube may be a cigarette cap with a small hole for airflow. On the second end of the tube may be an electric connector with either outskirt screw thread or a DC socket.

The electronic atomizer may include a liquid-container or a chamber inside the atomizer tube, which preferably also includes a heat equalizer that has an electric heat wire, a supporting piece which holds up the heat equalizer, and an electric connector. On the first end of the atomizer tube may be a cap with an air-puffing hole for the user to draw an airflow and for the emission of vapor mist. On the second of the atomizer tube may be an electric connector with either internal screw thread or a DC plug.

In a preferred embodiment, the connection between the electronic inhaler and electronic atomizer through the connectors on both parts forms an entire electronic cigarette. When the user puffs on the electronic cigarette through the air-puffing hole on the first end of the atomizer, the electronic sensor detects an airflow and converts it to a signal, which then wakes up the single chip micyoco to record the signal. The single chip micyoco guided by its embedded software instructions may turn on the electric power source to supply an electricity current with a predefined time length. This electric current preferably flows through the electric heat wire inside the atomizer tube, which then heats up the heat equalizer with absorbed liquid from the liquid-container. The heated equalizer converts the liquid into a form of vapor mist, which is finally drawn into the month of the user. This completes an entire cycle of vaporizing process from which the user gets satisfaction of "smoking."

One of the unique technical advances in this invention is the integrated atomizer technology. Previous atomizing units are directly embedded into the inhaler tubes, while the liquid

chamber is made as a separate piece, which must be inserted into the atomizing chamber before the electronic cigarette can be used. This old technology has several major drawbacks: (1) inconvenient in using the electronic cigarette, (2) insanitary and even unsafe to users due to the direct exposure of liquids, and (3) a short life for the atomizing unit. The integrated atomizer of the present invention is an integrated and disposable part, which overcomes some or all of the problems stated above. In addition, the integrated atomizer technology has also minimized the likelihood of a liquid leak, liquid reversal to the month when the user puffs on the electronic cigarette, and discontinuous vaporizing problems.

Another technical advance of the integrated atomizer is the material of the heat equalizer, which plays the key role in ensuring of large vapor volumes and the elimination of the disconnected vaporization problem. This material of the heat equalizer, which may be made of a non-toxic inorganic material, is required to withstand a high temperature up to 2000 degrees centigrade.

The electronic inhaler of the present invention represents the state-of-the-art electronic cigarette technology in both structural design and microelectronic devices. One of the new technologies that may be used with an electronic cigarette of the present invention is the use of an electric airflow sensor instead of a mechanical device in detecting an airflow generated by the user's puffing and creating a signal for the microprocessor to activate the electric circuit. Once the circuit is activated, the electric power source sends an electric current to the system and the connected integrated atomizer, and the vaporizing process begins. When the puffing stops, the microprocessor instructs the electric power source to stop supplying the electricity current, and the vaporizing process stops.

This new technology provides a solution to the problems of the current inhaling technology by eliminating aging and short-life drawbacks of the current mechanical device technology. Moreover, the new technology also makes the puffing of users on the cigarette much easier and smoother. It is more sensitive in turning on and off the vaporizing process than the conventional mechanical system. The life of an electric sensor can last for five years, many times longer than the mechanical device.

The new electronic inhaler may also adopt a new technology of a protection board, which protects the inhaler from damage of a short-circuit event. Since use of electric connectors between the inhaler and atomizing units, there is always a likelihood of a short-circuit, which usually destroys some of the electric components on the circuit board, and sometime even destroys the electric power source—the battery. Incorporation of the protection unit completely eliminates short-circuit problems, and extends the life of the electronic inhaler.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** illustrates an electric circuit structure of an embodiment of the present invention.

FIG. **2** is a section view of an integrated electronic atomizer of the present invention.

FIG. **3** is a section view of another integrated electronic atomizer of the present invention.

FIG. **4** is a section view of an electronic inhaler of the present invention.

FIG. **5** is a section view of another electronic inhaler of the present invention.

FIG. **6** is a section view of an electronic cigarette of the present invention.

FIG. **7** is a section view of another electronic cigarette of the present invention.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Referring to FIG. **1**, the electric power source **5** supplies an electric current to the electronic atomizer **22** and other electric units to heat up the heat equalizer through the connected electronic inhaler and atomizer **22** through the first electric connector **17** of the inhaler and the second electric connector **21** of atomizer **22**. The electric sensor **6** plays the role of detecting the airflow resulted from the puffing action of a user, and wakes up the single chip micyoco **3** to turn on the electricity on/off switch **4** and generate an electric current form the electric power source **5** to the electronic atomizer **22** for vaporizing of a liquid inside the liquid chamber inside the atomizer **22**. The single chip micyoco **3** instructs the electric power source **5** to supply electricity to the system by its embedded computer programs when a signal is generated through the airflow detected by the electric sensor **6** from the user's puffing action.

The LED indicator **12**, which is connected to both the CPU processor **3** and electric power source **5**, lights up when the electric current flows and it is turned off when the electric current stops flowing. The magnitude of the electric current supplied from the electric power source **5** depends on the magnitude of signal detected from the airflow proportional to the strength of user's puffing action. This, in turn, controls the temperature and heat generated through the electric heating wire and heat equalizer. This process closely mimics the process of cigarette smoking.

FIG. **2** shows a section view of one integrated electronic atomizer of the present invention with the second electric connector being of the screw thread type. The electronic atomizer includes an atomizer tube **263** and, inside the atomizer tube **263**, a second electric connector **267** with an internal screw thread with a rush pith **11** surrounded by a silica-gel insulator **18**, supporting piece **268**, heat equalizer **269** twined with electric heating wire **265**, liquid container **261** inside which liquid-storing media **264** being filled with liquids is inserted, and an atomizer cap **262** with an air-puffing hole in the center. Between the liquid container **261** and the liquid media **264** there preferably is a side-space **290** (FIG. **3**) for airflow. The second electric connector **267** may be inserted inside the atomizer tube **264**.

The atomizer tube **263** is preferably made of a metallic or plastic material. The liquid-storing media **264** is preferably made of specially-designed cotton, while the supporting piece **268** is preferably made of a ceramic or plastic material in the shape of a cylinder or another configuration, which may be able to sustain a high temperature up to 1000 degrees centigrade. The heat equalizer **269** is preferably made of a special fiber which can withstand temperature as high as 2000 degrees centigrade. The electric heating wire **265** twined on the heat equalizer **269** can be made from tungsten or another electric heating material, which produces heat when the electric current flows therethrough. The two ends of the electric heating wire **265** are going through the small holes of the supporting piece **268** and connected to the second electric connector **267** to supply heat for atomization or vaporization of the liquid inside the liquid-storing media **264**.

FIG. **3** is a section view of another integrated electronic atomizer with the second electric connector **21** being of a DC plug-socket type. The electronic atomizer includes an atomizer tube **263** and, inside the atomizer tube **263**, a second electric connector comprised of a DC plug **21** located on a

plug seat **71**, leak-proof piece **23**, seal washer **251**, supporting piece **268**, heat equalizer **269** twined with an electric heating wire **265**, liquid container **261** inside which liquid-storing media **264** being filled with liquids is inserted, and an air-puffing hole in the center of one end of the atomizer tube **263**. In FIG. **3**, the air-puffing hole is placed atop the atomizer tube **263**.

FIG. **4** is a section view of one electronic inhaler having a first electric connector of a screw thread type. The electronic inhaler includes an inhaler tube **10**, cigarette cap **13** with small holes for air inflow, LED indicator **12**, electric power source **5**, annular tube **16** with its cap **15**, integrated circuit board with a CPU processor **14**, electric airflow sensor **6**, sensor supporter **61**, and first electric connector **17** with an inserted rush pith **11** surrounded by a silica-gel insulator **18**.

The electric power source **5** connects to the circuit board **14**, which connects to the first electric connector **17** and the electric airflow sensor **6**. The LED **12** is connected to both electric power source **5** and the circuit board **14**. The electric airflow sensor **6** is assembled onto the sensor supporter **61**. The first electric connector **17** with an outskirt screw thread is partially embedded in the inhaler tube **10**, which can be connected to the second electric connector of the electric atomizer to form an electronic cigarette.

The inhaler tube **10** is made of either a metal or a plastic. The electric power source **5** may be a battery of rechargeable or non-rechargeable type. The first electric connector is generally made of copper or another metal conductor.

FIG. **5** is a section view of another electronic inhaler having a first electric connector **17** of a DC plug-socket type. The electronic inhaler includes an inhaler tube **10**, cigarette cap **13** with small holes for air inflow, LED indicator **12**, electric power source **5**, seal piece **25**, sensor supporter **61**, electric airflow sensor **6**, integrated circuit board with a CPU processor **14**, and the first electric connector **17** located on the DC socket seat **28**.

The electric power source **5** connects to the circuit board **14**, which connects to the first electric connector **17** and the electric airflow sensor **6**. The LED **12** is connected to both electric power source **5** and the circuit board **14**. The electric airflow sensor **6** is assembled onto the sensor supporter **61**. The first electric connector **17** with the socket seat **28** is completely embedded in the inhaler tube **10**, which can be connected to the second electric connector of the electric atomizer to form an electronic cigarette.

The inhaler tube **10** is made of either a metal or a plastic. The electric power source **5** may be a battery of rechargeable or non-rechargeable type. The first electric connector is generally made of copper or another metal conductor.

FIG. **6** is a section view of one electronic cigarette when the electronic inhaler and electronic atomizer are connected via their respective electric connectors of the screw thread type. The electronic inhaler and the integrated electronic atomizer are fit together through their connectors of the same type to form the electronic cigarette. The connection is done via the first electric connector **17** of the electronic inhaler and the second electric connector **267** of the integrated electronic atomizer. The connection achieves the electric combination of the inhaler tube and the atomizer tube, each of which has a circular cross section in this embodiment, wherein the diameter is the inhaler is the same as or similar to that of the atomize. The user puffs on the end of the electronic cigarette with the air-puffing hole to activate the CPU processor through detection of an airflow signal and generate an electric current flowing through the electric heating wire, which achieves vaporization of the solution inside the liquid container.

FIG. **7** is a section view of another electronic cigarette when the electronic inhaler and electronic atomizer are connected via the electric connectors of the DC plug-socket type. The electronic inhaler and the integrated electronic atomizer are fit together through their connectors of the same type to form the electronic cigarette. The connection is done through the first electric connector socket **28** of the electronic inhaler and the second electric connector plug **21** of the integrated electronic atomizer. The connection achieves the electric combination of the inhaler tube and the atomizer tube, each of which has a circular cross section in this embodiment, wherein the diameter is the inhaler is the same as or similar to that of the atomizer. The user puffs on the end of the electronic cigarette with the air-puffing hole to activate the CPU processor through detection of an airflow signal and generate an electric current flowing through the electric heating wire, which achieves vaporization of the solution inside the liquid container.

Referring to FIGS. **2** and **3**, the tubular electronic atomizer includes exterior wall **300** having air-puffing hole **302** formed therethrough. Liquid container **261** includes a container wall **304**. Chamber **306** is disposed between exterior wall **300** and container wall **304**. Tube **308** extends from air-puffing hole **302** and into chamber **306**.

The invention claimed is:

1. An electronic cigarette comprising a tubular electronic inhaler and a tubular electronic atomizer that is detachably attached to the electronic inhaler, wherein the electronic inhaler includes an electric power source that provides an electric current to the electronic atomizer, and wherein the tubular electronic atomizer includes a container and media within the container, the media is soaked with a solution to be atomized, and between the container and the media there is a side-space for airflow tubular electronic, and wherein the tubular electronic inhaler includes an electric airflow sensor configured to turn on and off the electric power source by way of detecting an airflow, and the airflow sensor is a diaphragm microphone.

2. The electronic cigarette of claim **1**, wherein the electronic inhaler includes a first electric connector disposed at a second end of the electronic inhaler, wherein the electronic atomizer includes a second electric connector disposed at a first end of the electronic atomizer, and wherein the first electric connector is connected to the second electric connector so that the electronic inhaler and the electronic atomizer form the electronic cigarette.

3. The electronic cigarette of claim **1**, wherein the liquid container prevents or reduces liquid leak and reverse flow.

4. The electronic cigarette of claim **3**, wherein the electronic atomizer includes an electric heating wire which generates heat for atomization of the solution soaked in the media inside the liquid container, a heat equalizer onto which the electric heating wire is wired and is made of fibers that can withstand a temperature up to 2000 degrees centigrade, wherein the heat equalizer ensures that the heat generated by the electric wire is uniform, and a supporting piece that is disposed next to the heat equalizer and is made of a plastic or ceramic material that can withstand a temperature up to 2000 degrees centigrade.

5. The electronic cigarette of claim **4**, wherein the electronic atomizer includes a leak-proof member, wherein the leak-proof member and a second electric connector are closer to the first end of the electronic atomizer than the heat equalizer.

6. The electronic cigarette of claim **5**, where the first electric connector is a DC socket and the second electric connector is a DC plug, wherein the DC plug is embedded onto the

leak-proof piece through a plug seat, which is connected to the electric heating wire, and wherein the first end of the electronic atomizer is connected to the second of the electronic inhaler by placing the DC plug to the DC socket.

7. The electronic cigarette of claim **6**, wherein the first electric connector is a cylinder terminal, and its outskirt is tightly embedded into the second end of the electric inhaler tube and its exposed portion has a screw thread, wherein the second electric connector is a cylinder terminal, which is tightly embedded into the first end of the electronic atomizer and has a screw thread inside the inhaler tube, and wherein the first electric connector and second electric connector are connected through the screw threads.

8. The electronic cigarette of claim **1**, wherein the electronic atomizer includes, in sequence, a second electric connector, a leak-proof piece, a supporting piece, a heat equalizer coupled with an electric heating wire, the container filled with the media, and an atomizer cap with an air-puffing hole.

9. The electronic cigarette of claim **1**, wherein the electric power source is inside the electronic inhaler.

10. The electronic cigarette of claim **1**, wherein the tubular electronic atomizer includes an exterior wall having an air-puffing hole formed therethrough, wherein the liquid container includes a container wall, there being a chamber disposed between the exterior wall and the container wall, and wherein the tubular electronic atomizer includes a tube extending from the air-puffing hole and into the chamber.

11. The electronic cigarette of claim **1**, wherein the media comprises cotton.

12. An electronic cigarette comprising a tubular electronic inhaler and a tubular electronic atomizer, wherein the electronic inhaler includes an electric power source that provides an electric current to the electronic atomizer, the electronic cigarette further comprising an integrated circuit board that has a Single Chip Micyoco that controls atomization of a liquid solution.

13. An electronic cigarette comprising a tubular electronic inhaler and a tubular electronic atomizer, wherein the electronic inhaler includes an electric power source that provides an electric current to the electronic atomizer, the electronic cigarette further comprising an electric airflow sensor that is used to turn on and off the electric power source by way of detecting an airflow and sending a signal to a Single Chip Micyoco, wherein the Single Chip Micyoco receives the signal from the electric airflow sensor, instructs the electric power source to send an electric current to the electronic atomizer, and a time period and a magnitude of the electric current.

14. The electronic cigarette of claim **13**, wherein the electric airflow sensor is a diaphragm microphone.

15. The electronic cigarette of claim **13**, further comprising an LED indicator inside the electronic inhaler, wherein the LED indicator is connected to the Single Chip Micyoco and the electric power source, and wherein the on time of the LED indicator is controlled by the Single Chip Micyoco.

16. An electronic cigarette comprising a tubular electronic inhaler and a tubular electronic atomizer, wherein the electronic inhaler includes an electric power source that provides an electric current to the electronic atomizer, wherein the electronic inhaler includes, sequentially from a first end of the electronic inhaler to the second end, a cigarette cap, an LED indicator, the electric power source, an electric airflow sensor, a circuit board for a Single Chip Micyoco, and a first electric connector.

17. An electronic cigarette comprising:

a tubular electronic inhaler; and

a tubular electronic atomizer that is detachably attached to the electronic inhaler,

wherein the electronic inhaler includes an electric power source that provides an electric current to the electronic atomizer,

wherein the tubular electronic atomizer includes a container and media within the container, the media is soaked with a solution to be atomized,

wherein the tubular electronic atomizer includes an exterior wall having an air-puffing hole formed therethrough, wherein the liquid container includes a container wall, there being a chamber disposed between the exterior wall and the container wall,

wherein the tubular electronic atomizer includes a tube extending from the air-puffing hole and into the chamber, and

wherein the tubular electronic inhaler includes an electric airflow sensor configured to turn on and off the electric power source by way of detecting an airflow, and the airflow sensor is a diaphragm microphone.

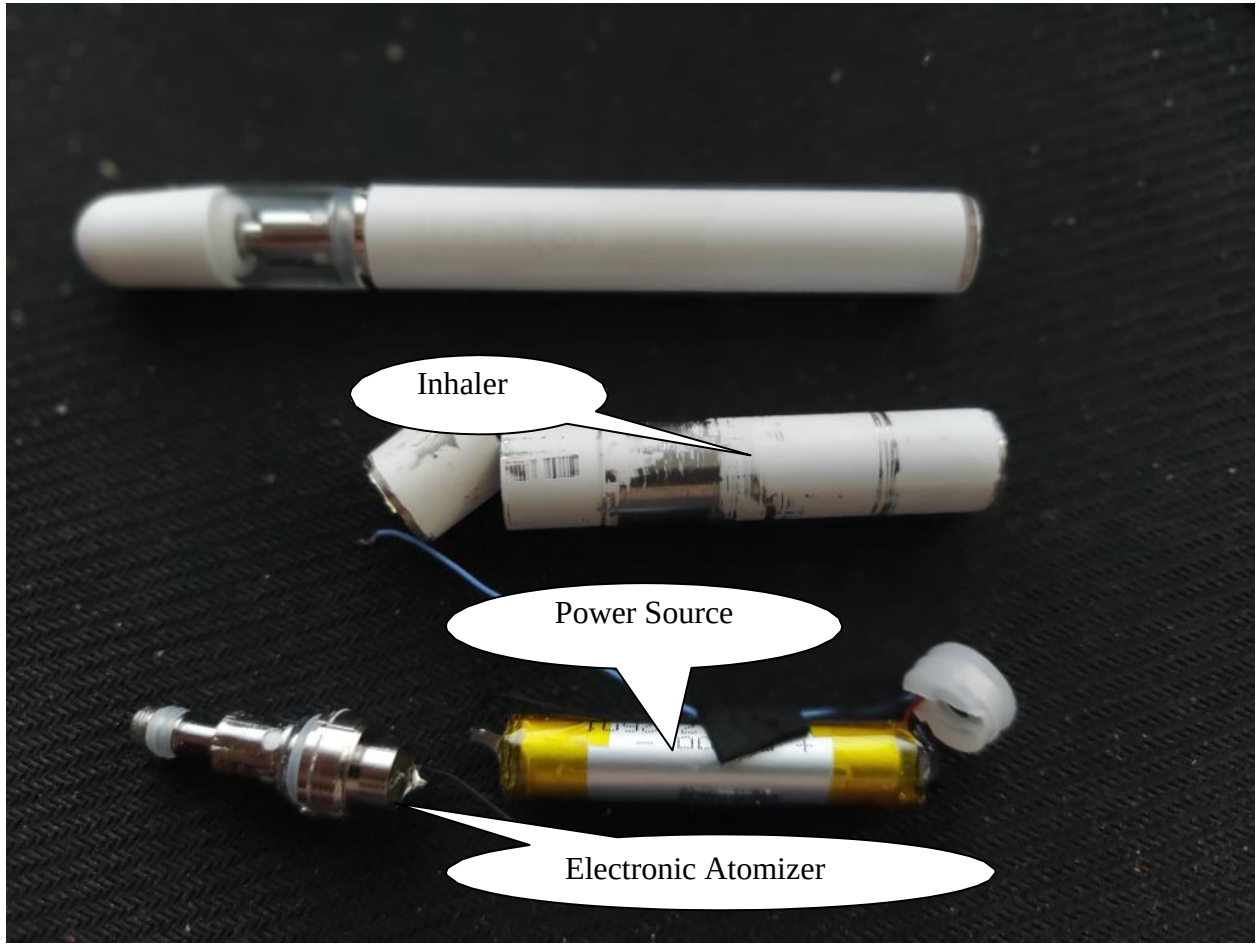
18. The electronic cigarette of claim **17**, wherein the tubular electronic atomizer includes, in sequence, an electric connector, a leak-proof piece, a supporting piece, a heat equalizer coupled with an electric heating wire, the container filled with the media, and the air-puffing hole.

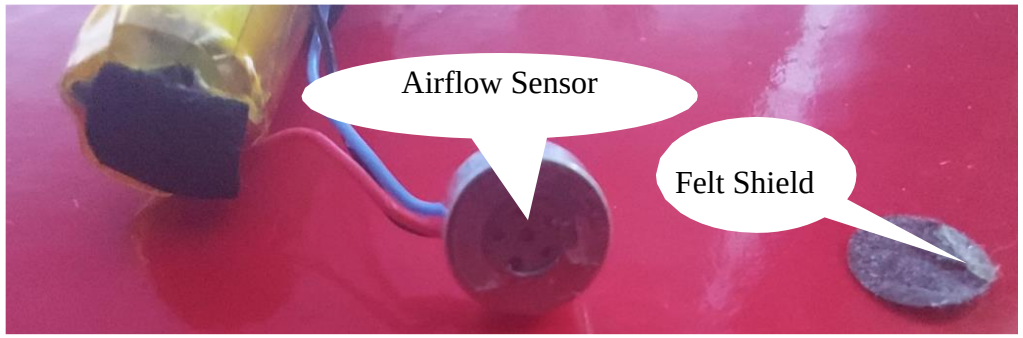
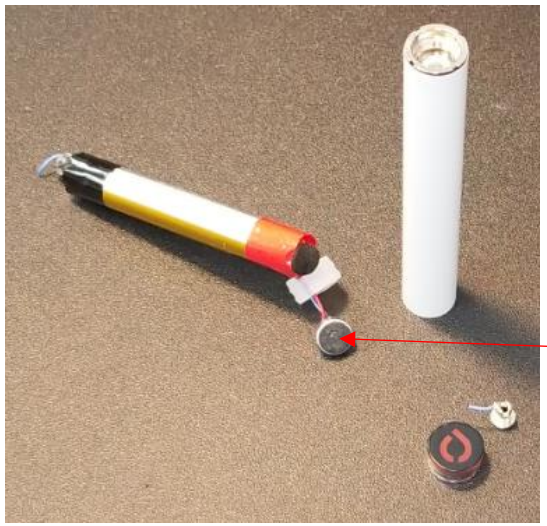
* * * * *

Exhibit

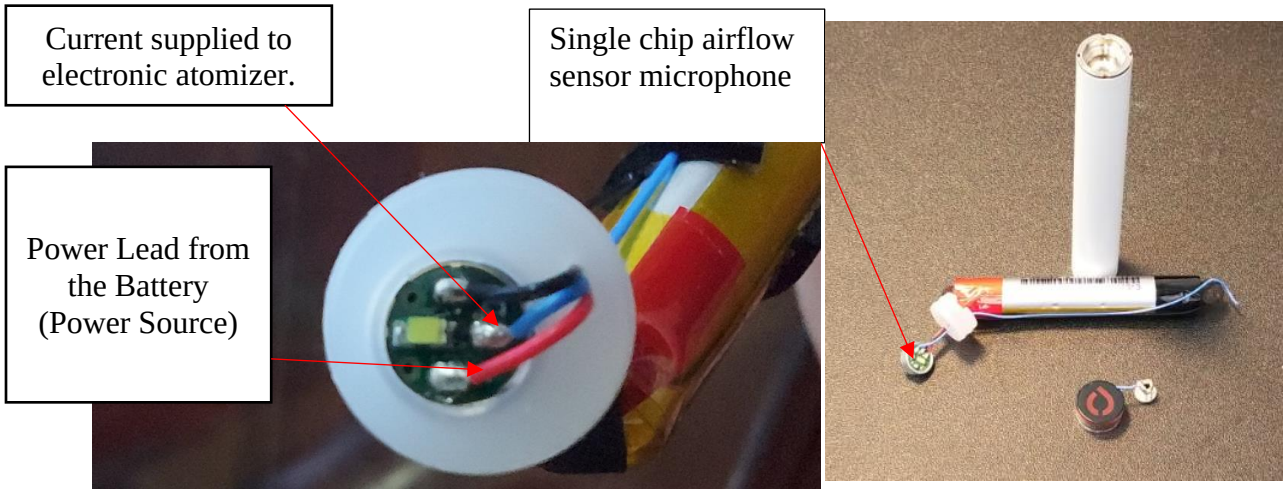
2

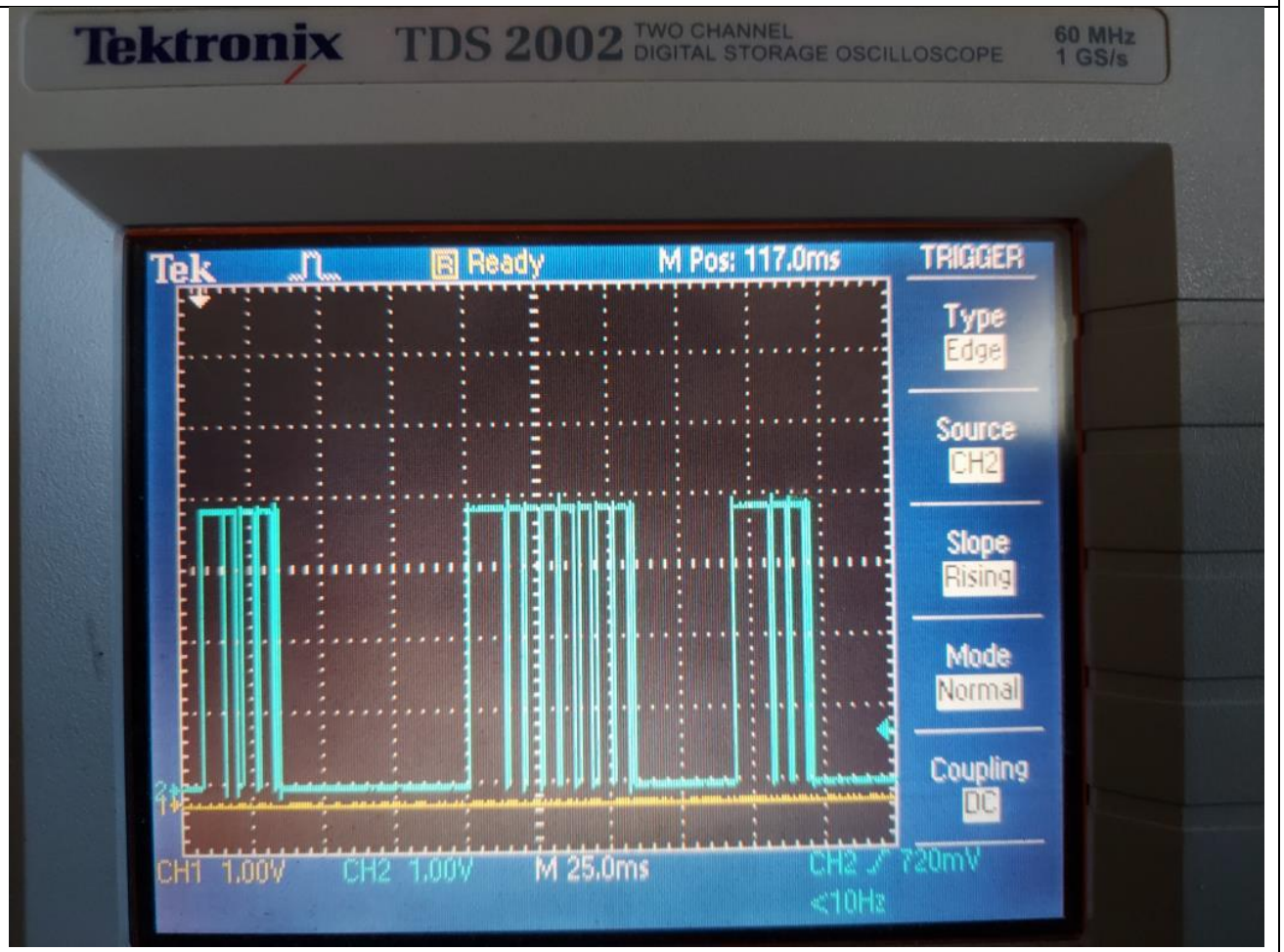
Claim 13 of Patent No. 8205622	Infringement
An electronic cigarette	

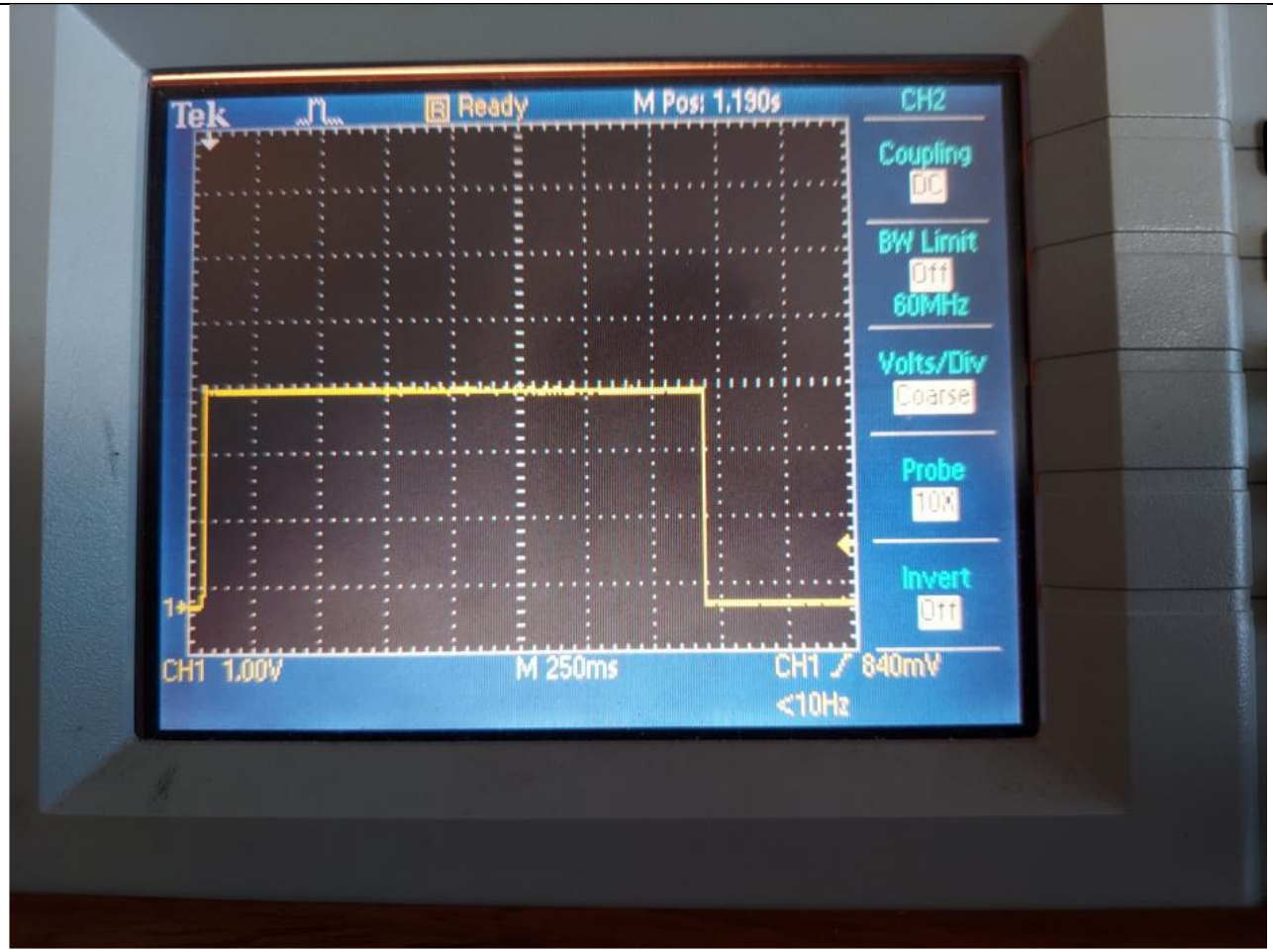
Claim 13 of Patent No. 8205622	Infringement
comprising a tubular electronic inhaler and a tubular electronic atomizer wherein the electronic inhaler includes an electric power source that provides an electric current to the electronic atomizer,	

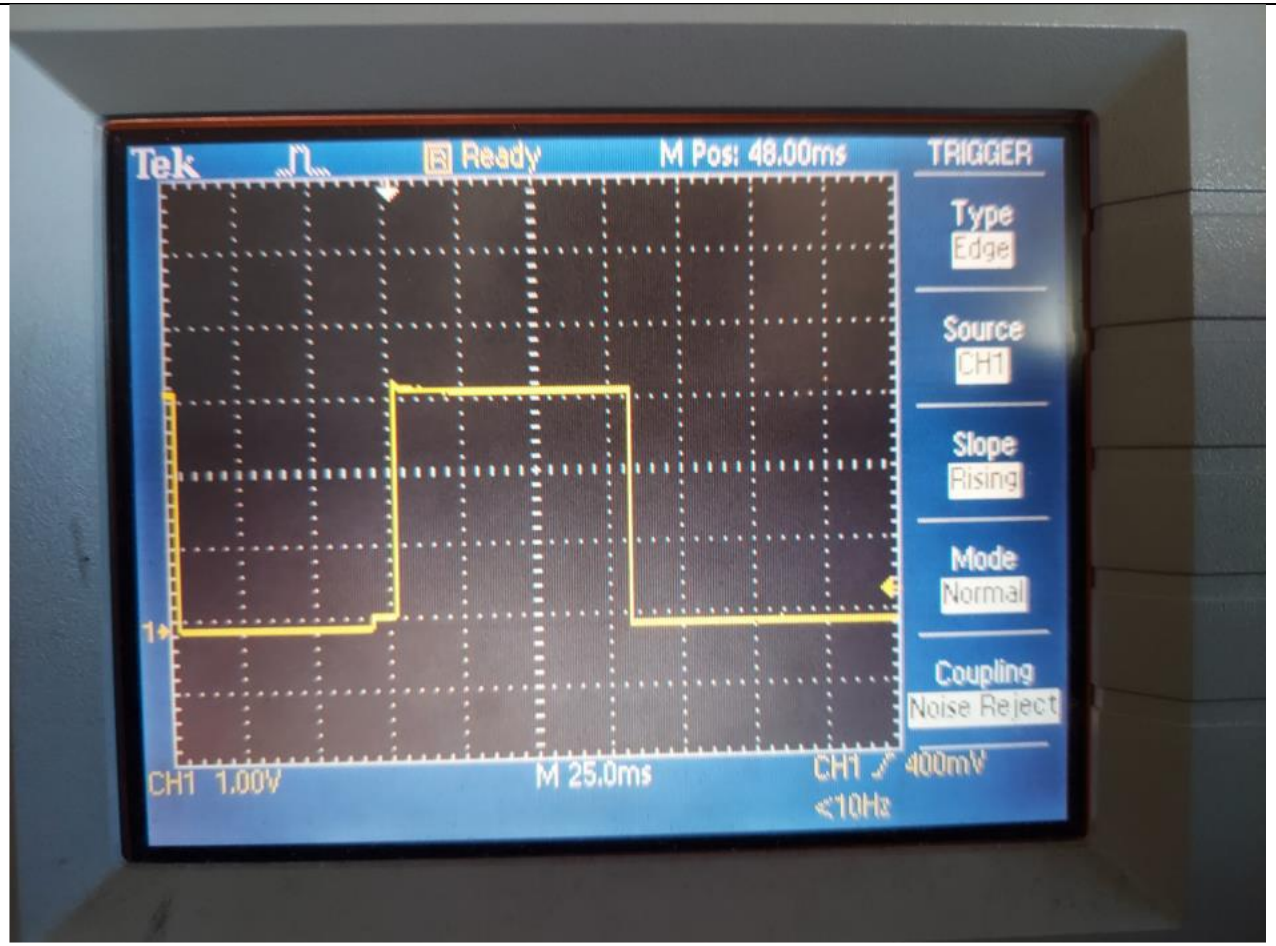
Claim 13 of Patent No. 8205622	Infringement
the electronic cigarette further comprising an electric airflow sensor that is used to turn on and off the electric power source by way of detecting an airflow	  Airflow Sensor & Felt Shield together

Claim 13 of Patent No. 8205622	Infringement
and sending a signal to a Single Chip Micyoco,	 Signal is received on the indicated pin.

Claim 13 of Patent No. 8205622	Infringement
wherein the Single Chip Micyoco receives the signal from the electric airflow sensor, instructs the electric power source to send an electric current to the electronic atomizer,	 The blue lead supplies the current to the heating element of the atomizer.

Claim 13 of Patent No. 8205622	Infringement
and a time period and a magnitude of the electric current.	 This waveform recorded above was in response to the airflow drawn through the inhaler as a result of the signal from the airflow sensor/microphone. The waveform shows a time period and magnitude c/o electric current.

Claim 13 of Patent No. 8205622	Infringement
	 This waveform resulted from a strong puffing action. The current produced was the maximum value for a length just under 2 second.

Claim 13 of Patent No. 8205622	Infringement
	 This waveform resulted from a short and weaker puffer action than that for the strong puffer action shown above. The current was approximately 50% of the maximum value for approximately 2/10th of a second.