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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
MAYES, DIONNE WALLS	
ART UNIT	**PAPER NUMBER**
1747	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	12/226,819	HON, LIK	
	Examiner	Art Unit	
	DIONNE WALLS MAYES	1747	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 March 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *33-62* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *33-62* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The substitute specification filed on March 30, 2011 has been entered.

2. The disclosure is objected to because of the following informalities:

On page 3, line 2, the phrase "Metallic Oxide Semiconductor Field Effect Tube (MOSFET)" should be changed to - - Metallic Oxide Semiconductor Field Effect Transistor (MOSFET) - -.

Appropriate correction is requested.

Double Patenting

3. Applicant is advised that should claim 42 be found allowable, claim 43 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Objections

4. Claim 33 is objected to because of the following informalities: In line 3, the phrase "Metallic Oxide Semiconductor Field Effect Tube (MOSFET)" should be changed to - - Metallic Oxide Semiconductor Field Effect Transistor (MOSFET) - -.

Appropriate correction is requested.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 41 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for "one end of the cigarette liquid bottle (401)…inserted into the secondary shell (306)" of the atomizer (see para. [0031] and claim 50), does not reasonably provide enablement for "the atomizer assembly includes a secondary shell, wherein the first end of the secondary shell is inserted into the cigarette bottle assembly", as currently recited in claim 41. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with this claim. Correction is required.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 33, and those that depend therefrom, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 33 recites a "primary screwthread electrode", in line 4, and also recites a "primary shell with an external thread electrode", in line 5 – which suggests that these two electrodes are different structural features. However, according to the instant written disclosure, it appears that these two features are actually the SAME structural element,

represented by the element number (209) (see instant para. [0026], which states “an external thread electrode (209) is located in one end of the batter assembly”, and instant para. [0027], which states, “the battery assembly includes…primary screwthread electrode (209)”). Therefore, the instant claim recitation is confusing, since it appears to suggest that the “primary screwthread electrode” and the “external thread electrode” are two different things. For Examination purposes, the Examiner’s reading of the instant specification - which appears to suggest that both features are actually the same structural element - will be the manner in which the claims are examined. Correction is requested.

Claim 34, recites “wherein an external thread electrode is located in one end of the battery assembly” (emphasis added). However, if this “external thread electrode” is the same as that which is recited in claim 33, then the recitation suggests that Applicant is referring to an "external thread electrode" that has not already been presented in the claims. According to a reading of the instant written disclosure, this particular “external thread electrode” is, in fact, the same as that which is recited in claim 33. Therefore, for examination purposes, the claim will be Examined as if it were worded as follows: “wherein the [an] external thread electrode is located in one end of the batter assembly, and an internal thread electrode is located in one end of the atomizer assembly and wherein the battery assembly and atomizer assembly are connected through the [a screwthread] electrodes.” Correction is requested.

Claim 35, recites “wherein the battery assembly further includes a silica gel corrugated membrane…having a primary negative pressure cavity…” (emphasis

added). However, if this “primary negative pressure cavity” is the same as that which is recited in claim 33, then the recitation suggests that Applicant is referring to a "primary negative pressure cavity" that has not already been presented in the claims. According to a reading of the instant written disclosure, this particular “primary negative pressure cavity” is, in fact, the same as that which is recited in claim 33. Therefore, for examination purposes, the claim will be Examined as if it were worded as follows: “wherein the battery assembly further includes a silica gel corrugated membrane…which includes the [having a] primary negative pressure cavity…”. Correction is requested.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 33-34, 38 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over CN 2719043 (US. English equivalent of which is 2007/0267031) in

view of the "TechPowerUp" Internet Webpage and Paterno et al (US. Pat. App. Pub. 2008/0257367).

Regarding claim 33, CN 2719043 discloses nearly all that is recited in the claims since it teaches an electronic atomization cigarette which includes a shell and a mouthpiece which is detachable. Within its shell, the electronic cigarette includes a rechargeable Lithium ion battery cell (2), an electronic switching circuit/circuit board (3), a negative pressure cavity (8), a Reed switch-activated (Hall device) sensor (6) (corresponding to the claimed "a battery assembly including a battery, a…electric circuit board, a sensor located on the…electric circuit board,…a primary negative pressure cavity…and the battery and…electronic circuit board connected successively on a second end"; the "wherein the sensor is a switch sensor made of at least one of…Hall element" recitation of claim 38; and the "battery is at least one of…a rechargeable lithium ion battery" recitation of claim 40). Additionally, the electronic cigarette includes an atomizer (9) (corresponding to the claimed "an atomizer assembly including an atomizer") which is connected to the mouthpiece which contains a liquid-supplying bottle (11) (corresponding to the claimed "a cigarette bottle assembly including a cigarette liquid bottle, wherein the cigarette bottle assembly is inserted into one end of the atomizer assembly, thus forming a cigarette or cigar body")(see English equivalent 2007/0267031, paras. [0009], [0026]-[0027], abstract and Fig.1). CN 2719043 may not specifically state that its electronic circuit board is of the MOSFET type; however, as it is well known in the electronic arts, and as evidenced by the "TechPowerUp" Internet webpage, MOSFETs are popular devices used in converting voltage in electronic

devices. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to have incorporated a MOSFET-driven circuit board to control the voltage of the electronic cigarette of CN 2719043 since the use of such is already well-known.

The electronic cigarette of CN 2719043 differs from claim 33 in that it may not teach of an external thread electrode (primary screwthread electrode) on a first end of the battery portion of its electronic cigarette, and/or an internal thread electrode on a respective end of the atomizer/liquid-supplying bottle assembly, wherein the battery assembly and the atomizer/cigarette bottle assembly are connected through the electrodes (per claim 34). However, the Paterno et al reference would have given one having ordinary skill in the art motivation to have provided these external/internal electrodes on the electronic cigarette of CN 2719043 in order to render the device separable at this battery/atomizer junction that would enable the “battery assembly” - which includes the circuit board (microprocessor) - to be removed from the atomizer/liquid-carrying bottle assembly so that just the necessary electronic circuitry could be recharged at a remote docking station while being monitored by the microprocessor (see para. [0017]). Hence, the electronic cigarette of CN 2719043 modified by Paterno et al meets the limitations of the claims.

Regarding claim 40, it follows that one with ordinary skill in the art would have fabricated the external thread electrodes of CN modified by Paterno et al of gold or brass parts since these metals are well-known for their high-electrical-conductivity

characteristics and, therefore, would have made for superior materials of construction for a threaded electrode.

Allowable Subject Matter

12. Claims 35-37, 39 and 41-62 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

13. Applicant's arguments with respect to the new claims of record have been considered but are moot in view of the new grounds of rejection which were necessitated by the claim amendments filed, by Applicant, on March 07, 2011.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIONNE WALLS MAYES whose telephone number is (571)272-5836. The examiner can normally be reached on Monday thru Friday, 8:30A - 5:00P EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DIONNE WALLS MAYES/
Examiner, Art Unit 1747

/Richard Crispino/
Supervisory Patent Examiner, Art Unit 1747