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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/226,819	01/15/2009	Lik Hon	RUYAN-002-US	4464
34055	7590	08/07/2012	EXAMINER	
PERKINS COIE LLP			MAYES, DIONNE WALLS	
POST OFFICE BOX 1208				
SEATTLE, WA 98111-1208			ART UNIT	PAPER NUMBER
			1747	
			NOTIFICATION DATE	DELIVERY MODE
			08/07/2012	ELECTRONIC

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.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentprocurement@perkinscoie.com

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 09 May 2012.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ 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

- 5) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 8) ☒ Claim(s) 65,66,68,89,103 and 130 is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ 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).
- 12) ☐ 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

- 13) ☐ 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) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Continuation of Disposition of Claims: Claims pending in the application are 33,63-68,71-73,76,77,81,86-89,93,94,98,103,107,108,112-114,116,125,126 and 130-134.

Continuation of Disposition of Claims: Claims rejected are 33,63,64,67,71-73,76,77,81,86-88,93,94,98,107,108,112,113,116,125,126 and 131-134.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. 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.

2. Claims 33, 63-68, 71-73, 76-77, 81, 86-89, 93-94, 98 and 103 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Specifically, independent claims 33 and 86 have been amended to currently recite “the battery, the sensor, the first screwthread electrode, and the second end of the battery assembly housing electrically connected to the MOSFET electric circuit board” and “the primary screwthread electrode electrically connected to the circuit board”, respectively. However, the Examiner can find no written disclosure in the instant specification to support such amendments. It is clear that the instant disclosure supports the battery and the MOSFET electric circuit board are connected successively between the primary screwthread electrode and the second end of the battery assembly; and it is also clear that the battery assembly and the atomizer assembly are connected via the first screwthread electrode, but this disclosure does not appear to support the current amendments which seem to suggest that the MOSFET circuit board

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is somehow also connected to the first/primary screwthread electrode as well as the second end of the battery assembly housing - which, according to the instant specification, does not appear to be the case.

3. Claim 33, and those that depend therefrom, are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a second end of the cigarette solution assembly is inserted into the first end of the atomizer assembly housing, does not reasonably provide enablement for “a first end of the cigarette solution assembly is inserted into the first end of the atomizer assembly housing”, as currently recited in claim 33. 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.

4. 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.

5. Claims 33, 63-68, 71-73, 76-77, 81, 86-89, 93-94, 98 and 103 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.

Specifically, regarding independent claim 33 and 86, it is not clear what Applicant intends by reciting “the battery, the sensor, the first screwthread electrode, and the second end of the battery assembly housing electrically connected to the MOSFET electric circuit board” and “the primary screwthread electrode electrically connected to the circuit board”, respectively. First, it is unclear which structural aspect of the “second

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end” or the “primary screwthread electrode” of the battery assembly is electrically connected to the circuit board, and how this is enabled. Clarification is requested.

Regarding claims 81 and 131-132, the "metes and bounds" of these claims are unclear as they depend from cancelled claims 80 and 129, respectively. Hence, these claims will not be further examined on the merits.

Claim Rejections - 35 USC § 103

6. 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 negated by the manner in which the invention was made.

7. 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.

8. Claims 33, 63-64, 67-68, 71-73, 76-77, 86-88, 93-94, 98, 107-108, 112-113, 116, 125-126 and 133-134 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 independent claims 33 and 107, and claim 112, 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 comprising: a battery assembly housing having a first end and a second end; a battery, and a[n] electric circuit board within the battery assembly housing, and a sensor”; the “wherein the sensor is a switch sensor made of at least one of...Hall element” recitation of claims 72 and 94; and the “battery is rechargeable” recitation of claim 76). Additionally, the electronic cigarette includes an atomizer (9) (corresponding to the claimed “an atomizer assembly...comprising: an atomizer assembly housing having a first end and a second end”) which is connected to the mouthpiece which contains a liquid-supplying bottle (11) (corresponding to the claimed “a cigarette bottle assembly comprising a first end and a second end, and a cigarette solution storage area, wherein the first end of the cigarette solution assembly is inserted into the first end of the atomizer assembly housing, thus forming a cigarette or cigar body” and recitation of claims 87 and 108)(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

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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.

Further, the electronic cigarette of CN 2719043 modified by the “TechPowerUp” Internet webpage, differs from claim 33 in that it does not teach a first/external thread electrode (primary screwthread electrode) on a first end of the battery portion of its electronic cigarette, and/or a second/internal screwthread electrode (secondary screwthread 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 claims 63, 64, 88 and 113). 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 the “TechPowerUp” Internet webpage and Paterno et al meets the limitations of the claims.

Regarding claims 67, 86 and 116, it follows that one with ordinary skill in the art would have included a micro controller unit (MCU) to electrically communicate with the

MOSFET electric circuit board as this set-up is conventional in many electronically-controlled devices.

Regarding claim 68, the provision of an indicator cap at the end of the modified electronic cigarette would have been an obvious choice to for having ordinary skill in the art in order to give the appearance of a glowing end of a cigarette. Further providing a “hole” in it which leads to the battery assembly, to provide ventilation to this area, would have been another obvious structural aspect of the modified cigarette.

Regarding claims 71 and 93, providing a display screen on the surface of the battery assembly of the modified electronic cigarette would have been an obvious choice for one having ordinary skill in the art in order to provide important information to the user regarding the operating status of the electronic cigarette.

Regarding claims 73, 86 and 134, since the screwthread electrodes of the modified electronic cigarette are structured to connect the parts of the cigarette together, and are provided at the “ends” of the respective cigarette housing, it follows that such electrodes must necessarily have “a hole through the center” because each housing section, on which the electrodes are attached, also has a bore therethrough to accommodate the electronic structure located within.

Regarding claims 77, 98 and 125-126, it would have been obvious to one having ordinary skill in the art at the time of the invention to have included a “hole” along the exterior surface/or screwthread electrode of the atomizer to enable ambient/dilution air to enter into the atomizer assembly during use, as is conventionally provided in a myriad of smoking devices.

Regarding claim 133, it would have been obvious to one having ordinary skill in the art at the time of the invention to have chosen to enable the primary screwthread electrode to be connected to a charger, as virtually all portable electronic devices are configured in such manner to do so.

Allowable Subject Matter

9. Claims 65-66, 89, 103 and 130 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

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.

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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