UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/566,593	09/24/2009	Nicholas A. Sims	P8103US1	2675

65015 7590 09/04/2012

Treyz Law Group
870 Market Street, Suite 984
SAN FRANCISCO, CA 94102

EXAMINER	
VALONE, THOMAS F	
ART UNIT	PAPER NUMBER
2858	

MAIL DATE	DELIVERY MODE
09/04/2012	PAPER

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)	
	12/566,593	SIMS ET AL.	
	Examiner	Art Unit	
	THOMAS F. VALONE	2858	

-- 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 *19 July 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) *22-43* 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5a) Of the above claim(s) _____ is/are withdrawn from consideration.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) *22-43* is/are rejected.

8)☐ Claim(s) _____ 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 *24 September 2009* 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) ☒ 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

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: The path “56” is referred to at least four times in the instant specification (p. 19-20) but seems to be missing from Figure 1 or any other appropriate drawing. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. 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.

3. Claims 22, 24, 29, 37 and by dependence claims 23-28, 30-36, 38-43 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.

Regarding claim 22, it is not clear how two stages of a power converter are both "coupled to an output of the power converter" as claimed. Furthermore, the first stage claims TWO outputs: "an output to deliver" and "an output of the power converter" as if they are separate and distinct. Furthermore, the second stage also claims TWO outputs: "an output coupled to the output" which also makes the independent claim indefinite since it is not clear which of the two previous outputs are the output finally claimed to be coupled to an output.

Regarding claim 24, it is not clear what the metes and bounds of the "amount" of substance, characteristic or quantity that is being claimed "when the output of the power converter is less than a predetermined amount".

In view of the multiple indefiniteness, claims 22-28 have not been further examined on their merits.

Regarding claim 29, the claimed method establishes the "providing output power" by one AC/DC means and apparently at the same time without any modification or interruption claimed, another "providing output power" by another regulated means, which conflicts with the first means if they are both hooked to the same output power terminals. For examination purposes, it is assumed that an unclaimed switch for detachment is responsible for a behind the scene decision-making as to which source provides output power at what particular time, which would be necessary to prevent an immanent circuit failure to one of ordinary skill, as already patented (#8,164,932) by the applicant with numerous claims addressing a switching circuit for the same purpose.

Regarding claim 37, the claimed "power converter for converting AC line voltage to DC voltage" apparently bifurcates into TWO separate entities without any definition of the distinctive qualities between them. It is therefore not clear how a current sensing resistor can have only one terminal connected to the DC output (which could be the + or – terminal) and also to some unknown power converter terminal not defined (perhaps + or – terminal) which, with four connection options according to logic and probability, has only a 25% chance of linking to the intended terminals. Furthermore, the terminals of the power converter in the preamble appear to include the AC/DC converter terminals. It is also not clear how the claimed voltage regulator and a controller can also be possibly connected in the same mysterious manner as above when the power converter includes the AC/DC converter.

In view of the extensive indefiniteness, claims 37-43 have not been further examined on their merits.

Claim Rejections - 35 USC § 103

4. 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.

5. Claims 29-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eastlack (8,232,775) in view of Koenck (4,553,081) of record.

Regarding claim 29, Eastlack teaches a method for controlling and providing output power from a power converter with an AC to DC converter (col. 4, line 1-60), storing energy in an energy storage device with the output power (battery, col. 5, line 1-20), and measuring load current delivered by the power converter to a load (sense resistor and detection module, col. 6, line 1-25 and Fig. 4). Eastlack further teaches transitioning the power converter to a standby "decoupling" state when the load current is less than a first load current threshold (col. 3, line 1-20 and col. 6, line 1-10), using a sense resistor to measure load current (438, Fig. 4) and a detection module to measure the voltage across the sense resistor (Fig. 4) for sensing the cut off voltage threshold for current draw (col. 8, line 35-50). Eastlack also teaches using a voltage regulator for output power (Fig. 1, 2, 4, and col. 4, line 1-20).

Eastlack does not teach the voltage regulator being powered by the energy storage device.

Koenck from the same field of endeavor teaches the voltage regulator being powered by the battery energy storage device (col. 5, line 40-60 and Fig. 5, Fig. 2 and col. 10, line 5-10 and col. 18, line 10-20) with a battery current series resistance element (131, col. 9, line 55-65 and col. 10, line 5-15) and a low power standby mode (col. 12, line 60-67) in the same manner as the applicant.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied the Eastlack voltage regulator in an electronic device powered by an energy storage device as taught by Koenck for the benefit of

maintaining a continuous operating voltage of a portable device as suggested by Koenck (col. 5, line 45-55).

Regarding claims 30-32, 34, Eastlack teaches monitoring stored energy and transitioning the AC/DC converter from standby to active when the stored energy is less than a predetermined threshold and back to an isolating, standby mode, “self disconnect” when exceeded (col. 5, line 1-30).

Regarding claim 33, Eastlack also teaches a switch (col. 5, line 30-50) for the same intended use as claimed.

Regarding claim 35, Eastlack further teaches periodically measuring a voltage output of the power converter with a comparator circuit (col. 6, line 40-67).

Regarding claim 36, Eastlack teaches providing no output power for the power converter when the measured load is greater than a second load current threshold (col. 5, line 15-25).

Response to Arguments

6. Applicant's arguments filed 7/19/12 have been fully considered but they are moot in view of cancellation of all of the previous claims being argued and the newly introduced claims requiring new grounds of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sims ‘932, Sims ‘153, Sims ‘823, Terlizzi and Christophe teach power converters with standby and load detection.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS F. VALONE whose telephone number is (571)272-8896. The examiner can normally be reached on M-Tu-W-Th, 9:30-8:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Assouad can be reached on 571-272-2210. 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.

/THOMAS F VALONE/
Primary Examiner, Art Unit 2858

Thomas Valone
Patent Examiner
Art Unit 2858
571-272-8896