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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/692,121	12/03/2012	JAMES EDWARD JENNINGS		7639

82669 7590 12/23/2016

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EXAMINER	
ROSENAU, DEREK JOHN	

ART UNIT	PAPER NUMBER
2837	

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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.

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In re Application of	:	
Jennings	:	
Application No. 13/692,121	:	DECISION ON SECOND RENEWED
Filed: December 3, 2012	:	PETITION UNDER
Attorney Docket No. None	:	37 C.F.R. § 1.181(a)
Title: ATMOSPHERIC TRANSDUCTION SYSTEM	:	

This is a decision on the second renewed petition pursuant to 37 C.F.R. § 1.181, filed on October 4, 2016, requesting that the holding of abandonment in the above-identified application be withdrawn.

As a preliminary matter, it is noted similar petitions have been filed in the following nine applications: 12/903,322, 13/572,672, 13/692,121, 13/724,287, 13/778,476, 13/844,999, 13/970,616, 29/461,909, and 29/477,572.

The second renewed petition pursuant to 37 C.F.R. § 1.181(a) is **DISMISSED.**

BACKGROUND

The above-identified application became abandoned for failure to reply within the meaning of 37 C.F.R § 1.113 in a timely manner to the final Office action mailed February 13, 2015, which set a shortened statutory period for reply of three months. A first after-final amendment was received on February 19, 2015 and an advisory action was mailed on March 10, 2015. A second after-final amendment was received on March 22, 2015 and an advisory action was mailed on April 2, 2015. A third after-final amendment was received on April 13, 2015 and an advisory action was mailed on April 29, 2015. A one-month extension of time was obtained on May 7, 2015. A fourth after-final amendment was received on May 8, 2015 and an advisory action was mailed on May 22, 2015. A fifth after-final amendment was received on May 27, 2015, a two-month extension of time was obtained on June 3, 2015,[1] a sixth after-final amendment was received on June 3, 2015, and an advisory action was mailed on June 12, 2015. No further extensions of time under the provisions of 37 C.F.R §1.136(a) were obtained, and no further responses were received. Accordingly, the above-identified application became abandoned

1 The two-month extension of time was not required. Office records show the $150 was refunded to the appropriate credit card on April 25, 2016.

on June 14, 2015. A notice of abandonment was mailed on September 30, 2015.

RELEVANT STATUTE AND PORTIONS OF THE C.F.R.

35 U.S.C. § 133 sets forth, *in toto*:

> Time for prosecuting application
>
> Upon failure of the applicant to prosecute the application within six months after any action therein, of which notice has been given or mailed to the applicant, or within such shorter time, not less than thirty days, as fixed by the Director in such action, the application shall be regarded as abandoned by the parties thereto.

37 C.F.R. § 1.134 sets forth, *in toto*:

> Time period for reply to an Office action.
>
> An Office action will notify the applicant of any non-statutory or shortened statutory time period set for reply to an Office action. Unless the applicant is notified in writing that a reply is required in less than six months, a maximum period of six months is allowed.

37 C.F.R. § 1.135 sets forth, *in toto*:

> Abandonment for failure to reply within time period.
>
> (a) If an applicant of a patent application fails to reply within the time period provided under §1.134 and §1.136, the application will become abandoned unless an Office action indicates otherwise.
>
> (b) Prosecution of an application to save it from abandonment pursuant to paragraph (a) of this section must include such complete and proper reply as the condition of the application may require. The admission of, or refusal to admit, any amendment after final rejection or any amendment not responsive to the last action, or any related proceedings, will not operate to save the application from abandonment.
>
> (c) When reply by the applicant is a bona fide attempt to advance the application to final action, and is substantially a complete reply to the non-final Office action, but consideration of some matter or compliance with some requirement has been inadvertently omitted, applicant may be given a new time period for reply under §1.134 to supply the omission.

PROCUEDURAL HISTORY AND ANALYSIS

An original petition pursuant to 37 C.F.R. § 1.181 was filed on January 21, 2016, supplemented on April 25, 2016, and dismissed via the mailing of a decision on April 29, 2016.

A renewed petition pursuant to 37 C.F.R. § 1.181 was filed on May 18, 2016 and was dismissed via the mailing of a decision on September 28, 2016.

With this second renewed petition pursuant to 37 C.F.R. § 1.181, Petitioner has requested the withdrawal of the holding of abandonment and has presented arguments directed towards the propriety of the examination of this application. **The propriety of a rejection, objection, or other requirement set forth in an Office action is not relevant to an applicant's burden to timely prosecute the application to avoid abandonment.**[2] Put another way, this application went abandoned due to Petitioner's failure to place the claims in condition for allowance, and Petitioner's contention that the "last claims"[3] should have been entered by the Examiner is not relevant to the abandonment of this application.

It is clear from rules 37 C.F.R. §§ 1.116 and 1.135 that abandonment of an application is risked when the applicant proffers an amendment after the mailing of a final Office action. The rule clearly indicates that the mere filing of an amendment does not relieve applicant of the duty to take appropriate action to save the application from abandonment.

If steps are not taken after final to maintain pendency prior to the expiration of the maximum extendable period for reply, the application will go abandoned. Put another way, the submission of an after final amendment which fails to place the application in condition for allowance will result in the abandonment of the application, unless one of the following four items is filed prior to the maximum extendable period for reply:

- a subsequent amendment which prima facie places the application in condition for

2 *See* 35 U.S.C. § 133 and 37 C.F.R. §§ 1.134 and 1.135(a) and (b), reproduced above.
3 Second renewed petition, page 1. This appears to be a reference to the sixth after-final amendment, received on June 3, 2015.

allowance;
- a Notice of Appeal;
- a Request for a Continuation Application pursuant to 37 C.F.R. § 1.53(b), if applicable;
- a Request for Continued Examination pursuant to 37 C.F.R. § 1.114, or;
- a Terminal Disclaimer, if applicable.

None of these items was submitted prior to the expiration of the maximum extendable period for reply to the final Office action.

As such, this petition must be dismissed.

Any response to this decision must be submitted within **TWO MONTHS** from the mail date of this decision. Extensions of time under 37 C.F.R. § 1.136(a) are permitted. **The reply should include a cover letter entitled "third renewed petition pursuant to 37 C.F.R. § 1.181(a)" and should be signed by either a registered practitioner or the sole inventor.** This is not a final agency action within the meaning of 5 U.S.C § 704.

Alternatively, Petitioner may wish to consider filing a petition pursuant to 37 C.F.R. § 1.137(a) along with the associated fee.[4, 5] *See* MPEP § 711.03(c)(II), a copy of which has been included with this decision. Moreover, Petitioner should include the required reply which consists of either an amendment which prima facie places the application in condition for allowance, a Notice of Appeal along with the associated fee [6, 7], or a Request for a Continuation Application (RCE) along with the associated fee.[8, 9]

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4 The fee that is currently associated with the filing of a petition pursuant to 37 C.F.R. § 1.137(a) is currently set at $1700 at the non-discounted rate and $850 for entities having small entity status, with no additional reduction for entities having micro entity status.
5 A form Petitioner might find useful may be downloaded here: https://www.uspto.gov/sites/default/files/forms/sb0064.pdf.
6 The fee that is currently associated with the filing of a notice of appeal is currently set at $800 at the non-discounted rate, $400 for entities having small entity status, and $200 for entities having micro entity status.
7 A form Petitioner might find useful may be downloaded here: https://www.uspto.gov/sites/default/files/forms/aia0031.pdf.
8 The fee that is currently associated with the filing of a RCE, first request, is currently set at $1200 at the non-discounted rate, $600 for entities having small entity status, and $300 for entities having micro entity status.
9 A form Petitioner might find useful may be downloaded here: https://www.uspto.gov/sites/default/files/documents/sb0030.pdf.

Any response to this decision should indicate in a prominent manner that the attorney handling this matter is Paul Shanoski, and may be submitted by mail,[10] hand-delivery,[11] or facsimile.[12] Registered users of EFS-Web may alternatively submit a response to this decision via EFS-Web.[13]

Telephone inquiries regarding *this decision* should be directed to the undersigned at (571) 272-3225.[14]

/Paul Shanoski/
Paul Shanoski
Attorney Advisor
Office of Petitions

Encl. courtesy copy of MPEP § 711.03(c)(II)

10 Mail Stop Petition, Commissioner for Patents, United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA, 22313-1450.

11 Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA, 22314.

12 (571) 273-8300: please note this is a central facsimile number.

13 https://sportal.uspto.gov/authenticate/authenticateuserlocalepf.html

14 Petitioner will note that all practice before the Office should be in writing, and the action of the Office will be based exclusively on the written record in the Office. See 37 C.F.R. § 1.2. As such, Petitioner is reminded that no telephone discussion may be controlling or considered authority for Petitioner's further action(s).

Office of Petitions: Decision Count Sheet

Mailing Month: 12

Application No.: 13692121

13692121

For US serial numbers: enter number only, no slashes or commas. Ex: 10123456
For PCT: enter "51+single digit of year of filing+last 5 numbers", Ex. for PCT/US05/12345, enter 51512345

Deciding Official: Paul Shanoski

Count (1) - Palm Credit 13/692,121

Decision: DISMISSED

FINANCE WORK NEEDED
☐ Select Check Box for YES

DISMISSED

Decision Type: 525 - 37 CFR 1.181 for W/D HOLDING OF ABANDONMEI

525

Notes:

Count (2)

Decision: n/a

FINANCE WORK NEEDED
☐ Select Check Box for YES

Decision Type: NONE

Notes:

Count (3)

Decision: n/a

FINANCE WORK NEEDED
☐ Select Check Box for YES

Decision Type: NONE

Notes:

Initials of Approving Official (if required)

If more than 3 decisions, attach 2nd count sheet & mark this box ☐

Printed on: 12/17/2016

automatically reduced under the provisions of 37 CFR 1.704(c)(4) in applications subject to the patent term adjustment provisions of the American Inventors Protection Act of 1999 (AIPA) if a petition to withdraw a holding of abandonment is not filed within two months from the mailing date of the notice of abandonment, and if applicant does not receive the notice of abandonment, any patent term adjustment is reduced under the provisions of 37 CFR 1.704(a) by a period equal to the period of time during which the applicant "failed to engage in reasonable efforts to conclude prosecution" (processing or examination) of the application.

II. PETITIONS TO REVIVE AN ABANDONED APPLICATION, OR ACCEPT LATE PAYMENT OF ISSUE FEE

Effective December 18, 2013, the Patent Law Treaties Implementation Act of 2012 (PLTIA), Public Law 112-211, amended the patent laws to implement the provisions of the Patent Law Treaty (PLT) in title II. Notable changes to the law included the restoration of patent rights via the revival of abandoned applications and acceptance of delayed maintenance fee payments. Section 201(b) of the PLTIA specifically added new 35 U.S.C. 27, providing that the Director may establish procedures to revive an unintentionally abandoned application for patent, accept an unintentionally delayed payment of the fee for issuing a patent, or accept an unintentionally delayed response by the patent owner in a reexamination proceeding, upon petition by the applicant for patent or patent owner. The PLTIA eliminated the provisions of the patent statutes relating to revival of abandoned applications or acceptance of delayed maintenance fee payments on the basis of a showing of "unavoidable" delay.

35 U.S.C. 27 Revival of applications; reinstatement of reexamination proceedings.

The Director may establish procedures, including the requirement for payment of the fee specified in section 41(a)(7), to revive an unintentionally abandoned application for patent, accept an unintentionally delayed payment of the fee for issuing each patent, or accept an unintentionally delayed response by the patent owner in a reexamination proceeding, upon petition by the applicant for patent or patent owner.

37 CFR 1.137 provides for the revival of abandoned applications, or terminated or limited reexamination prosecution on the basis of unintentional delay for the failure:

(A) to timely reply to an Office requirement in a provisional application;

(B) to timely prosecute in a nonprovisional application;

(C) to timely pay the issue fee for a design application;

(D) to timely pay the issue fee for a utility or plant application; and

(E) to provide copendency between the abandoned application and a subsequently filed application.

A petition under 37 CFR 1.137(a) requires:

(A) the required reply, unless previously filed;

(B) the petition fee as set forth in 37 CFR 1.17(m);

(C) any terminal disclaimer (and fee as set forth in 37 CFR 1.20(d)) required pursuant to 37 CFR 1.137(d); and

(D) a statement that the entire delay in filing the required reply from the due date for the reply until the filing of a grantable petition pursuant to 37 CFR 1.137 was unintentional.

The Director of the USPTO may require additional information where there is a question whether the delay was unintentional.

A. *Reply Requirement*

Unlike a petition to withdraw the holding of abandonment, a petition to revive under 37 CFR 1.137 must be accompanied by, *inter alia,* the required reply. Generally, the required reply is the reply sufficient to have avoided abandonment, had such reply been timely filed. A petition for an extension of time under 37 CFR 1.136 and a fee for such an extension of time are not required to be included with the reply.

37 CFR 1.137(c) applies to the reply requirement for a petition under 37 CFR 1.137(a). In an application abandoned under 37 CFR 1.57(a), the reply must include a copy of the specification and

any drawings of the previously filed application. In an application or patent abandoned for failure to pay the issue fee or any portion thereof, the required reply must include payment of the issue fee or any outstanding balance. In an application abandoned for failure to pay the publication fee, the required reply must include payment of the publication fee. In a nonprovisional application abandoned for failure to prosecute, the required reply may be met by the filing of a continuing application. In a nonprovisional utility or plant application filed on or after June 8, 1995, abandoned after the close of prosecution as defined in 37 CFR 1.114(b), the required reply may also be met by the filing of a request for continued examination (RCE) in compliance with 37 CFR 1.114. See below for more details on the reply requirement in specific situations of abandonment.

1. **Abandonment for Failure To Timely Submit A Copy of the Specification and Any Drawings In An Application Filed By Reference Under 35 U.S.C. 111(c) and 37 CFR 1.57(a)**

In an application abandoned under 37 CFR 1.57(a), the required reply must include a copy of the specification and any drawings of the previously filed application. Although not required as a condition for revival, a certified copy of the previously filed application may be required for an application filed by reference. If the certified copy is required and is not filed within the later of four months from the filing date of the application or sixteen months from the filing date of the previously filed application, a petition including a showing of good and sufficient cause for the delay and the petition fee set forth in 37 CFR 1.17 are required. For more details regarding an application filed by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a), see MPEP § 601.01(a), subsection III.

2. **Abandonment for Failure To Pay the Issue Fee or Publication Fee**

In an application abandoned for failure to timely pay the issue fee, the required reply must include the issue fee (and any required publication fee).

Section 202(b)(6) of the PLTIA amended 35 U.S.C. 151 to provide that: (1) if it appears that an applicant is entitled to a patent under the law, a written notice of allowance of the application shall be given or mailed to the applicant; (2) the notice of allowance shall specify a sum, constituting the issue fee and any required publication fee, which shall be paid within three months thereafter; and (3) upon payment of this sum, the patent may issue, but if payment is not timely made, the application shall be regarded as abandoned. Under the changes to 35 U.S.C. 151 in the PLTIA, the sum specified in the notice of allowance will constitute the issue fee and any required publication fee, and the Office will proceed to issue a patent when the applicant pays the sum specified in the notice of allowance, regardless of the issue fee and/or publication fee in effect on the date the sum specified in the notice of allowance is paid.

Section 201(b) of the PLTIA specifically added new 35 U.S.C. 27, providing that the Director may establish procedures to revive an unintentionally abandoned application for a patent, accept an unintentionally delayed payment of the fee for issuing a patent, or accept an unintentionally delayed response by the patent owner in a reexamination proceeding, upon petition by the applicant for patent or patent owner.

35 U.S.C. 41(a)(7) authorizes the acceptance of an "unintentionally delayed payment of the fee for issuing each patent." Thus, 35 U.S.C. 41(a)(7) requires payment of the issue fee as a condition of reviving an application abandoned for failure to pay the issue fee. Therefore, the filing of a continuing application without payment of the issue fee is not an acceptable reply in an application abandoned for failure to pay the issue fee.

The issue fee due with the petition to revive is the issue fee specified in the notice of allowance. If the notice of allowance also specified a publication fee, then the publication fee must also be paid in the amount specified on the notice of allowance. An applicant may change the entity status with the filing of the petition to revive, if appropriate, and pay the petition fee in the new entity status amount, but the issue fee (and any publication fee) must be paid in the amount specified in the notice of allowance.

In an application abandoned for failure to pay the publication fee, the required reply must include

payment of the publication fee. Even if an application abandoned for failure to pay the publication fee is being revived solely for purposes of continuity with a continuing application, the petition to revive under 37 CFR 1.137 must include payment of the publication fee.

3. **Abandonment for Failure To Provide Required Drawings**

In an application abandoned for failure to provide required drawings, a petition to revive the application will be dismissed unless the required drawings are filed before or with the petition to revive the application.

4. **Abandonment for Failure To Reply in a Nonprovisional Application**

(a) **Abandonment for Failure To Reply to a Non-Final Action**

The required reply to a non-final action in a nonprovisional application abandoned for failure to prosecute may be either:

(A) an argument or an amendment under 37 CFR 1.111;

(B) the filing of a continuing application under 37 CFR 1.53(b) (or a continued prosecution application (CPA) under 37 CFR 1.53(d) if the application is a design application).

The grant of a petition under 37 CFR 1.137 is not a determination that any reply under 37 CFR 1.111 is complete. Where the proposed reply is to a non-final Office action, the petition may be granted if the reply appears to be *bona fide* . After revival of the application, the patent examiner may, upon more detailed review, determine that the reply is lacking in some respect. In this limited situation, the patent examiner should send out a letter giving a 2-month shortened statutory period under 37 CFR 1.135(c) for correction of the error or omission. Extensions of time under 37 CFR 1.136(a) are permitted. If applicant does not correct the omission within the time period set in the letter (including any extension), the application is again abandoned.

(b) **Abandonment for Failure To Reply to a Final Action**

A reply under 37 CFR 1.113 to a final action must include a request for continued examination (RCE) under 37 CFR 1.114 or cancellation of, or appeal from the rejection of, each claim so rejected. Accordingly, in a nonprovisional application abandoned for failure to reply to a final action, the reply required for consideration of a petition to revive must be:

(A) a Notice of Appeal and appeal fee;

(B) an amendment under 37 CFR 1.116 that cancels all the rejected claims or otherwise *prima facie* places the application in condition for allowance;

(C) the filing of an RCE (accompanied by a submission that meets the reply requirements of 37 CFR 1.111 and the requisite fee) under 37 CFR 1.114 for utility or plant applications filed on or after June 8, 1995 (see paragraph **(d)** below); or

(D) the filing of a continuing application under 37 CFR 1.53(b) (or a CPA under 37 CFR 1.53(d) if the application is a design application).

When a notice of appeal is the reply filed pursuant to 37 CFR 1.137(b)(1), the time period under 37 CFR 41.37 for filing the appeal brief will be set by the Director of the USPTO in the decision granting the petition.

An application subject to a final action in which a proposed amendment under 37 CFR 1.116 is filed as the required reply will normally be routed by the Office of Petitions to the Technology Center (TC) to determine whether a proposed amendment places the application in condition for allowance prior to granting any petition to revive such application. The examiner is instructed that if the reply places the application in condition for allowance, the examiner should use the typewriter tool in Adobe Acrobat to write in the margin of the reply "OK to enter upon revival." If the petition is otherwise grantable and the examiner indicates that the reply places the application in condition for allowance, the petition will be granted. If, on the other hand, the reply would not place the application in condition for allowance, the examiner is instructed to complete form PTOL-303 and return the form to the Office of

Petitions with the application. Form PTOL-303 should not be mailed to the applicant by the examiner. In this situation, the Office of Petitions will not grant the petition. A copy of the form PTOL-303 is marked with the notation "Courtesy Copy" by the Office of Petitions. The courtesy copy is sent as an attachment with the decision on the petition. The advisory form PTOL-303 merely serves as an advisory notice to the Office of Petitions regarding the decision of the examiner on the amendment after final rejection.

(c) **Abandonment for Failure To File an Appeal Brief**

In those situations where abandonment occurred because of the failure to file an appeal brief, the reply required pursuant to 37 CFR 1.137(b)(1) must be either:

(A) an appeal brief in compliance with 37 CFR 41.37(c);

(B) the filing of an RCE accompanied by a submission and the requisite fee in compliance with 37 CFR 1.114 for utility or plant applications filed on or after June 8, 1995, abandoned after the close of prosecution as defined in 37 CFR 1.114(b) (see paragraph **(d)** below); or

(C) the filing of a continuing application under 37 CFR 1.53(b) (or a CPA under 37 CFR 1.53(d) if the application is a design application).

(d) **Filing an RCE as the Required Reply**

For utility or plant applications abandoned for failure to reply to a final Office action or for failure to file an appeal brief, the required reply may be the filing of an RCE accompanied by a submission and the requisite fee. When an RCE is the reply filed pursuant to 37 CFR 1.137(b)(1) to revive such an application, the submission accompanying the RCE must be a reply responsive within the meaning of 37 CFR 1.111 to the last Office action. Consideration of whether the submission is responsive within the meaning of 37 CFR 1.111 to the last Office action is done without factoring in the "final" status of such action. The submission may be a previously filed amendment after final or a statement that incorporates by reference the arguments in a previously filed appeal or reply brief. See MPEP § 706.07(h), subsection II.

The petition may be granted if the submission appears to be a *bona fide* attempt to provide a complete reply to the last Office action. After revival of the application, the examiner may, upon a more detailed review, determine that the reply is lacking in some respect. In this limited situation, the examiner should send out a letter giving a 2-month shortened statutory period under 37 CFR 1.135(c) for correction of the error or omission. Extensions of time under 37 CFR 1.136(a) are permitted. If the applicant does not correct the omission within the time period set in the letter (including any extension), the application is again abandoned.

(e) **A Continuing Application or RCE May Be Required by the Office**

The Office may require the filing of a continuing application or an RCE (if the prosecution prior to abandonment was closed) (or request for further examination pursuant to 37 CFR 1.129(a)) to meet the reply requirement of 37 CFR 1.137(b)(1) where, under the circumstances of the application, treating a reply under 37 CFR 1.111 or 1.113 would place an inordinate burden on the Office. Exemplary circumstances of when treating a reply under 37 CFR 1.111 or 1.113 may place an inordinate burden on the Office are where:

(A) an application has been abandoned for an inordinate period of time;

(B) an application file contains multiple or conflicting replies to the last Office action; or

(C) the reply or replies submitted under 37 CFR 1.137(b)(1)) are questionable as to compliance with 37 CFR 1.111 or 1.113.

5. **Abandonment for Failure To Notify the Office of a Foreign Filing After the Submission of a Non-Publication Request**

If an applicant makes a nonpublication request upon filing with the appropriate certifications, the utility or plant application filed on or after November 29, 2000 will not be published under 35 U.S.C. 122(b)(1). See 35 U.S.C. 122(b)(2)(B)(i). If an applicant makes a nonpublication request and then rescinds, pursuant to 35 U.S.C. 122(b)(2)(B)(ii), the nonpublication request before or on the date a counterpart application is filed in a foreign country,

or under a multilateral international agreement, that requires eighteen-month publication, the nonpublication request will be treated as annulled and the application will be treated as if the nonpublication request were never made. See MPEP §§ 1123 and 1124. An applicant who has made a nonpublication request, but who subsequently files an application directed to the invention disclosed in the U.S. application in a foreign country, or under a multilateral international agreement, that requires eighteen-month publication before the nonpublication request is rescinded, must, in addition to the rescission, notify the Office of such filing within forty-five days after the date of such filing. The requirement in 35 U.S.C. 122(b)(2)(B)(iii) for notice of the foreign filing is in addition to any rescission of the nonpublication request under 35 U.S.C. 122(b)(2)(B)(ii). If an applicant files a counterpart application in a foreign country after having filed an application in the USPTO with a nonpublication request, filing a rescission of the nonpublication request under 35 U.S.C. 122(b)(2)(B)(ii) without also providing a notice of the foreign filing in a timely manner will result in the abandonment of the U.S. application under 35 U.S.C. 122(b)(2)(B)(iii). 37 CFR 1.137(f), however, provides that an application abandoned as a result of the failure to timely provide such a notice to the Office is subject to revival pursuant to 37 CFR 1.137 if the delay in submitting the notice was unintentional.

A nonprovisional application abandoned pursuant to 35 U.S.C. 122(b)(2)(B)(iii) for failure to timely notify the Office of the filing of an application in a foreign country or under a multinational treaty that requires eighteen-month publication may be revived only on the basis of unintentional delay pursuant to 37 CFR 1.137. The reply requirement of 37 CFR 1.137(c) is met by the notification of such filing in a foreign country or under a multinational treaty, but the filing of a petition under 37 CFR 1.137 will not operate to stay any period for reply that may be running against the application. Since the Office cannot ascertain whether an application is abandoned under 35 U.S.C. 122(b)(2)(B)(iii), the Office may continue to process and examine the application until the Office is notified of applicant's failure to meet the forty-five days notice requirement of 35 U.S.C. 122(b)(2)(B)(iii). Therefore, the filing of a petition under 37 CFR 1.137 to revive such an application will not operate to stay any period for reply that may be running against the application. Applicants may use form PTO/SB/64a to file a petition for revival under 37 CFR 1.137.

B. ***Petition Fee Requirement***

35 U.S.C. 41(a)(7) provides that the Office shall charge $1,700.00 on filing each petition for the revival of an abandoned application for a patent, for the delayed payment of the fee for issuing each patent, for the delayed response by the patent owner in any reexamination proceeding, for the delayed payment of the fee for maintaining a patent in force, for the delayed submission of a priority or benefit claim, or for the extension of the 12-month period for filing a subsequent application. 35 U.S.C. 41(a)(7) also provides that the Director may refund any part of the fee, in exceptional circumstances as determined by the Director. This provision permits the Office to refund (or waive) the fee specified in 35 U.S.C. 41(a)(7) in situations in which the failure to take the required action or pay the required fee was due to a widespread disaster, such as a hurricane, earthquake, or flood, in the manner that the Office would waive surcharges that are not required by statute. The "exceptional circumstances" provision does not permit applicants to request a refund on the basis of there being exceptional circumstances.

The phrase "[o]n filing" in 35 U.S.C. 41(a)(7) means that the petition fee is required for the filing (and not merely the grant) of a petition under 37 CFR 1.137. See H.R. Rep. No. 542, 97th Cong., 2d Sess. 6 (1982), *reprinted in* 1982 U.S.C.C.A.N. 770 ("[t]he fees set forth in this section are due on filing the petition"). Therefore, the Office: (A) will not refund the petition fee required by 37 CFR 1.17(m), regardless of whether the petition under 37 CFR 1.137 is dismissed or denied (unless there are exceptional circumstances as determined by the Director); and (B) will not reach the merits of any petition under 37 CFR 1.137 lacking the requisite petition fee.

C. ***Unintentional Delay***

While the Office reserves the authority to require further information concerning the cause of

abandonment and delay in filing a petition to revive, the Office relies upon the applicant's duty of candor and good faith and accepts the statement that "the entire delay in filing the required reply from the due date for the reply until the filing of a grantable petition pursuant to 37 CFR 1.137(a) was unintentional" without requiring further information in the vast majority of petitions under 37 CFR 1.137(a). This is because the applicant is obligated under 37 CFR 11.18 to inquire into the underlying facts and circumstances when a practitioner provides this statement to the Office. In addition, providing an inappropriate statement in a petition under 37 CFR 1.137(a) to revive an abandoned application may have an adverse effect when attempting to enforce any patent resulting from the application. See *Lumenyte Int'l Corp. v. Cable Lite Corp.*, Nos. 96-1011, 96-1077, 1996 U.S. App. LEXIS 16400, 1996 WL 383927 (Fed. Cir. July 9, 1996)(unpublished)(patents held unenforceable due to a finding of inequitable conduct in submitting an inappropriate statement that the abandonment was unintentional).

The Office is almost always satisfied as to whether "the entire delay…was unintentional" on the basis of statement(s) by the applicant or representative explaining the cause of the delay (accompanied at most by copies of correspondence relevant to the period of delay).

The legislative history of Public Law 97-247, § 3, 96 Stat. 317 (1982), reveals that the purpose of 35 U.S.C. 41(a)(7) is to permit the Office to have discretion to revive abandoned applications in appropriate circumstances, but places a limit on this discretion stating that "[u]nder this section a petition accompanied by [the requisite fee] would not be granted where the abandonment or the failure to pay the fee for issuing the patent was intentional as opposed to being unintentional or unavoidable." H.R. Rep. No. 542, 97th Cong., 2d Sess. 6-7 (1982), *reprinted in* 1982 U.S.C.C.A.N. 770-71. A delay resulting from a deliberately chosen course of action on the part of the applicant is not an "unintentional" delay within the meaning of 37 CFR 1.137.

Where the applicant deliberately permits an application to become abandoned (e.g., due to a conclusion that the claims are unpatentable, that a rejection in an Office action cannot be overcome, or that the invention lacks sufficient commercial value to justify continued prosecution), the abandonment of such application is considered to be a deliberately chosen course of action, and the resulting delay cannot be considered as "unintentional" within the meaning of 37 CFR 1.137. See *In re Application of G*, 11 USPQ2d 1378, 1380 (Comm'r Pat. 1989). An intentional course of action is not rendered unintentional when, upon reconsideration, the applicant changes his or her mind as to the course of action that should have been taken. See *In re Maldague*, 10 USPQ2d 1477, 1478 (Comm'r Pat. 1988).

A delay resulting from a deliberately chosen course of action on the part of the applicant does not become an "unintentional" delay within the meaning of 37 CFR 1.137 because:

(A) the applicant does not consider the claims to be patentable over the references relied upon in an outstanding Office action;

(B) the applicant does not consider the allowed or patentable claims to be of sufficient breadth or scope to justify the financial expense of obtaining a patent;

(C) the applicant does not consider any patent to be of sufficient value to justify the financial expense of obtaining the patent;

(D) the applicant does not consider any patent to be of sufficient value to maintain an interest in obtaining the patent; or

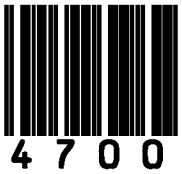
(E) the applicant remains interested in eventually obtaining a patent, but simply seeks to defer patent fees and patent prosecution expenses.

Likewise, a change in circumstances that occurred subsequent to the abandonment of an application does not render "unintentional" the delay resulting from a previous deliberate decision to permit an application to be abandoned. These matters simply confuse the question of whether there was a deliberate decision not to continue the prosecution of an application with why there was a deliberate decision not to continue the prosecution of an application.

In order to expedite treatment, applicants filing a petition under 37 CFR 1.137 to revive an abandoned application are advised to include the statement "the entire delay in filing the required reply from the due date for the reply until the filing of a grantable petition pursuant to 37 CFR 1.137(a) was unintentional," even if applicant chooses to include a statement of the facts concerning the delay. Electronic petitions, that are automatically processed and immediately decided, may be filed using the Web-based ePetition process for the following types of petitions: (1) Petitions to Accept Late Payment of Issue Fee - Unintentional Late Payment (37 CFR 1.137(a)); (2) Petitions for Revival of an Application based on Failure to Notify the Office of a Foreign or International Filing (37 CFR 1.137(f)); (3) Petitions for Revival of an Application for Continuity Purposes Only (37 CFR 1.137(a)); and (4) Petitions for Revival of an Abandoned Patent Application Abandoned Unintentionally (37 CFR 1.137(a)) (For Cases Abandoned After 1st Action and Prior to Notice of Allowance). Applicants may use the forms provided by the Office (PTO/SB/64, PTO/SB/64a, or PTO/SB/64PCT). Additional information regarding the ePetition process is available from: www.uspto.gov/patents-application-process/applying-online/epetition-resource-page.

Applicants may use the forms provided by the Office (PTO/SB/64, PTO/SB/64a, or PTO/SB/64PCT).

Office of Petitions: Routing Sheet



Application No. 13692121

This application is being forwarded to your office for further processing. A decision has been rendered on a petition filed in this application, as indicated below. For details of this decision, please see the document PET.OP.DEC filed on the same date as this document.

- [ ] **GRANTED**
- [x] **DISMISSED**
- [ ] **DENIED**

OCT 04 2016

Second Renewed Petition pursuant to 37 C.F.R. § 1.181(a)

Dear Paul Shanoski, the abandonments are examiner initiated. The challenge is remove CIP abandonments, allow the last claims filed **and issuance of patents. Applicant acknowledges the examiners indifference and utterly lack of interest in the precedent search material.**

3. Case: **13/692,121**

Title: **ATMOSPHERE TRANSDUCTION SYSTEM**

"The examiner was exhibiting non responsive patronize by blanket rejection and culpable jeopardy. Not participating in the allowance of this application, instigates abandonment " The examiner has failed to remedy the acceptance of this application and multiplied the incidence of rejection. Obviously, not actively involved in deliberation or allowance as the remarks aren't line specific, detail word accomplished or deficient for a self limited claim.

THE APPLICANT CONTENDS THE EXAMINER ENGAGED A NEGATIVE PATH BY NON DESCRIPTIVE REPLIES VOID AN APTITUDE OF RECOGNIZANCE PURPOSE.

Lawsuits **15-CV-01248**, **15-CV-01263**, and **15-CV-01914,** were filed against USPTO failing to provide a Free Enterprise Market System and conspiring to create an abandon litigation backlog.

As a preliminary matter, it is noted **precedent** petitions are filed in the following: 12/903,322, 13/572,672, 13/692,121,13/724,287, 13/970,616, 13/778,476, 13/844,999, and 14/023,286

OCT 04 2016

IN ADDITION, DESIGN APPLICATIONS SHOULD BE ISSUED IMMEDIATELY...

29/461,909, and 29/477,572.

APPLICANT ALBEIT WAS ENGAGED IN AN ACTIVE SUBMISSION, AWAITING REPLY DURING SUPPOSED ABANDONMENT AND THROUGH MIS-LEADERSHIP.

Applicant respectfully requests reconsideration of the application and its passage to allowance. Should any impediments to allowance remain, Applicant requests that the Examiner contact the undersigned at the indicated phone number.

Respectfully submitted, James Jennings

Date: 10/06/16 By: /JAMES EDWARD JENNINGS/

PO Box 270081 Louisville, CO 80027

303.664.1829

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.
13/692,121	12/03/2012	JAMES EDWARD JENNINGS		7639

82669 7590 09/28/2016

James Edward Jennings
P.O. Box 270081
Louisville, CO 80027

EXAMINER	
ROSENAU, DEREK JOHN	

ART UNIT	PAPER NUMBER
2837	

MAIL DATE	DELIVERY MODE
09/28/2016	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.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

In re Application of	:	
Jennings	:	
Application No. 13/692,121	:	DECISION ON RENEWED PETITION
Filed: December 3, 2012	:	UNDER 37 C.F.R. § 1.181(a)
Attorney Docket No. None	:	
Title: ATMOSPHERIC TRANSDUCTION SYSTEM	:	

This is a decision on the renewed petition pursuant to 37 C.F.R. § 1.181, filed on May 18, 2016 (and resubmitted on May 20, 2016), requesting that the holding of abandonment in the above-identified application be withdrawn.

As a preliminary matter, it is noted similar petitions have been filed in the following seven applications: 12/903,322, 13/572,672, 13/692,121, 29/461,909, 29/477,572, 13/970,616 and 13/778,476.

The renewed petition pursuant to 37 C.F.R. § 1.181(a) is **DISMISSED.**

The above-identified application became abandoned for failure to reply within the meaning of 37 C.F.R § 1.113 in a timely manner to the final Office action mailed February 13, 2015, which set a shortened statutory period for reply of three months. A first after-final amendment was received on February 19, 2015 and an advisory action was mailed on March 10, 2015. A second after-final amendment was received on March 22, 2015 and an advisory action was mailed on April 2, 2015. A third after-final amendment was received on April 13, 2015 and an advisory action was mailed on April 29, 2015. A one-month extension of time was obtained on May 7, 2015. A fourth after-final amendment was received on May 8, 2015 and an advisory action was mailed on May 22, 2015. A fifth after-final amendment was received on May 27, 2015, a two-month extension of time was obtained on June 3, 2015,[1] a sixth after-final amendment was received on June 3, 2015, and an advisory action was mailed on June 12, 2015. No further extensions of time under the provisions of 37 C.F.R §1.136(a) were obtained, and no further responses were received. Accordingly, the above-identified application became abandoned on June 14, 2015. A notice of abandonment was mailed on September 30, 2015.

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1 The two-month extension of time was not required. Office records show the $150 was refunded to the appropriate credit card on April 25, 2016.

An original petition pursuant to 37 C.F.R. § 1.181 was filed on January 21, 2016, supplemented on April 25, 2016, and dismissed via the mailing of a decision on April 29, 2016.

With this renewed petition, Petitioner has requested the withdrawal of the holding of abandonment, but the undersigned has not located any arguments which contend the application is not in fact abandoned. *See* MPEP § 711.03(c)(I), a copy of which has been included with this decision. It follows the record does not support a finding that the holding of abandonment should be withdrawn and this renewed petition is dismissed accordingly.

Any response to this decision must be submitted within **TWO MONTHS** from the mail date of this decision. Extensions of time under 37 C.F.R. § 1.136(a) are permitted. **The reply should include a cover letter entitled "second renewed petition pursuant to 37 C.F.R. § 1.181(a)" and should be signed by either a registered practitioner or the sole inventor.** This is not a final agency action within the meaning of 5 U.S.C § 704. Any response to this decision should indicate in a prominent manner that the attorney handling this matter is Paul Shanoski, and may be submitted by mail,[2] hand-delivery,[3] or facsimile.[4] Registered users of EFS-Web may alternatively submit a response to this decision via EFS-Web.[5]

Telephone inquiries regarding *this decision* should be directed to the undersigned at (571) 272-3225.[6]

/Paul Shanoski/
Paul Shanoski
Attorney Advisor
Office of Petitions

Encl. courtesy copy of MPEP § 711.03(c)(I)

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2 Mail Stop Petition, Commissioner for Patents, United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA, 22313-1450.

3 Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA, 22314.

4 (571) 273-8300: please note this is a central facsimile number.

5 https://sportal.uspto.gov/authenticate/authenticateuserlocalepf.html

6 Petitioner will note that all practice before the Office should be in writing, and the action of the Office will be based exclusively on the written record in the Office. See 37 C.F.R. § 1.2. As such, Petitioner is reminded that no telephone discussion may be controlling or considered authority for Petitioner's further action(s).

*****

I. PETITION TO WITHDRAW HOLDING OF ABANDONMENT

A petition to revive an abandoned application (discussed below) should not be confused with a petition from an examiner's holding of abandonment. Where an applicant contends that the application is not in fact abandoned (e.g., there is disagreement as to the sufficiency of the reply, or as to controlling dates), a petition under 37 CFR 1.181(a) requesting withdrawal of the holding of abandonment is the appropriate course of action, and such petition does not require a fee. Where there is no dispute as to whether an application is abandoned (e.g., the applicant's contentions merely involve the cause of abandonment), a petition under 37 CFR 1.137 (accompanied by the appropriate petition fee) is necessary to revive the abandoned application.

The procedure available for reviving an application that has become abandoned due to a failure to reply to an Office Action is a petition under 37 CFR 1.137(a) based on unintentional delay.

A. *Petition To Withdraw Holding of Abandonment Based on Failure To Receive Office Action*

In *Delgar v. Schulyer*, 172 USPQ 513 (D.D.C. 1971), the court decided that the Office should mail a new Notice of Allowance in view of the evidence presented in support of the contention that the applicant's representative did not receive the original Notice of Allowance. Under the reasoning of *Delgar*, an allegation that an Office action was never received may be considered in a petition to withdraw the holding of abandonment. If adequately supported, the Office may grant the petition to withdraw the holding of abandonment and remail the Office action. That is, the reasoning of *Delgar* is applicable regardless of whether an application is held abandoned for failure to timely pay the issue fee (35 U.S.C. 151) or for failure to prosecute (35 U.S.C. 133).

The showing required to establish nonreceipt of an Office communication must include a statement from the practitioner describing the system used for recording an Office action received at the correspondence address of record with the USPTO. The statement should establish that the docketing system is sufficiently reliable. It is expected that the record would include, but not be limited to, the application number, attorney docket number, the mail date of the Office action and the due date for the response.

Practitioner must state that the Office action was not received at the correspondence address of record, and that a search of the practitioner's record(s), including any file jacket or the equivalent, and the application contents, indicates that the Office action was not received. A copy of the record(s) used by the practitioner where the non-received Office action would have been entered had it been received is required.

A copy of the practitioner's record(s) required to show non-receipt of the Office action should include the master docket for the firm. That is, if a three month period for reply was set in the nonreceived Office action, a copy of the master docket report showing all replies docketed for a date three months from the mail date of the nonreceived Office action must be submitted as documentary proof of nonreceipt of the Office action. If no such master docket exists, the practitioner should so state and provide other evidence such as, but not limited to, the following: the application file jacket; incoming mail log; calendar; reminder system; or the individual docket record for the application in question.

The showing outlined above may not be sufficient if there are circumstances that point to a conclusion that the Office action may have been lost after receipt rather than a conclusion that the Office action was lost in the mail (e.g., if the practitioner has a history of not receiving Office actions).

Evidence of nonreceipt of an Office communication or action (e.g., Notice of Abandonment or an advisory action) other than that action to which reply was required to avoid abandonment would not warrant withdrawal of the holding of abandonment. Abandonment takes place by operation of law for failure to reply to an Office action or timely pay the issue fee, not by operation of the mailing of a Notice of Abandonment. See *Lorenz v. Finkl*, 333 F.2d 885, 889-90, 142 USPQ 26, 29-30 (CCPA 1964);

Kralm v. Commissioner, 15 USPQ2d 1823, 1824 (E.D. Va. 1990); *In re Application of Fischer,* 6 USPQ2d 1573, 1574 (Comm'r Pat. 1988).

B. ***Petition To Withdraw Holding of Abandonment Based on Evidence That a Reply Was Timely Mailed or Filed***

37 CFR 1.10(c) through 1.10(e) and 1.10(g) set forth procedures for petitioning the Director of the USPTO to accord a filing date to correspondence as of the date of deposit of the correspondence as Priority Mail Express®. A petition to withdraw the holding of abandonment relying upon a timely reply placed in Priority Mail Express® must include an appropriate petition under 37 CFR 1.10(c), (d), (e), or (g) (see MPEP § 513). When a paper is shown to have been mailed to the Office using the "Express Mail" procedures, the paper must be entered in PALM with the Priority Mail Express® date.

Similarly, applicants may establish that a reply was filed with a postcard receipt that properly identifies the reply and provides *prima facie* evidence that the reply was timely filed. See MPEP § 503. For example, if the application has been held abandoned for failure to file a reply to a first Office action, and applicant has a postcard receipt showing that an amendment was timely filed in response to the Office action, then the holding of abandonment should be withdrawn upon the filing of a petition to withdraw the holding of abandonment. When the reply is shown to have been timely filed based on a postcard receipt, the reply must be entered into PALM using the date of receipt of the reply as shown on the post card receipt.

Where a certificate of mailing under 37 CFR 1.8, but not a postcard receipt, is relied upon in a petition to withdraw the holding of abandonment, see 37 CFR 1.8(b) and MPEP § 512. As stated in 37 CFR 1.8(b)(3) the statement that attests to the previous timely mailing or transmission of the correspondence must be on a personal knowledge basis, or to the satisfaction of the Director of the USPTO. If the statement attesting to the previous timely mailing is not made by the person who signed the Certificate of Mailing (i.e., there is no personal knowledge basis), then the statement attesting to the previous timely mailing should include evidence that supports the conclusion that the correspondence was actually mailed (e.g., copies of a mailing log establishing that correspondence was mailed for that application). When the correspondence is shown to have been timely filed based on a certificate of mailing, the correspondence is entered into PALM with the actual date of receipt (i.e., the date that the duplicate copy of the papers was filed with the statement under 37 CFR 1.8).

37 CFR 1.8(b) also permits applicant to notify the Office of a previous mailing or transmission of correspondence and submit a statement under 37 CFR 1.8(b)(3) accompanied by a duplicate copy of the correspondence when a reasonable amount of time (e.g., more than one month) has elapsed from the time of mailing or transmitting of the correspondence. Applicant does not have to wait until the application becomes abandoned before notifying the Office of the previous mailing or transmission of the correspondence. Applicant should check the private Patent Application Information Retrieval (PAIR) system for the status of the correspondence before notifying the Office. See MPEP § 512.

C. ***Treatment of Untimely Petition To Withdraw Holding of Abandonment***

37 CFR 1.181(f) provides that, *inter alia* , except as otherwise provided, any petition not filed within 2 months from the action complained of may be dismissed as untimely. Therefore, any petition (under 37 CFR 1.181) to withdraw the holding of abandonment not filed within 2 months of the mail date of a notice of abandonment (the action complained of) may be dismissed as untimely. 37 CFR 1.181(f).

Rather than dismiss an untimely petition to withdraw the holding of abandonment under 37 CFR 1.181(f), the Office may require a terminal disclaimer as a condition of granting an untimely petition to withdraw the holding of abandonment.

Where the record indicates that the applicant intentionally delayed the filing of a petition to withdraw the holding of abandonment, the Office may simply dismiss the petition as untimely (37 CFR

1.181(f)) solely on the basis of such intentional delay in taking action in the application without further addressing the merits of the petition. Obviously, intentional delay in seeking the revival of an abandoned application precludes relief under 37 CFR 1.137(a) (discussed below).

1. **Design Applications, Utility Applications Filed Before June 8, 1995, and Plant Applications Filed Before June 8, 1995**

(a) **Applicant Receives Notice of Abandonment**

In any design application, any utility application filed before June 8, 1995, or any plant application filed before June 8, 1995, if applicant receives a notice of abandonment, any petition to withdraw the holding of abandonment that is not filed within two months of the mail date of the notice of abandonment will **not** (absent extraordinary circumstances) be treated on its merits **unless** accompanied by a terminal disclaimer under 37 CFR 1.321(a), and the required fee set forth in 37 CFR 1.20(d). The period to be disclaimed is the terminal part of the term of any patent granted on the application, or of any patent granted on any utility or plant application that claims the benefit of the filing date of the application under 35 U.S.C. 120, 121, or 365(c), equivalent to the period between:

(A) the date that is two months after the mail date of the notice of abandonment; and

(B) the filing date of a grantable petition to withdraw the holding of abandonment.

See MPEP § 711.03(c), subsection II.G.

(b) **Applicant Does Not Receive Notice of Abandonment**

In any design application, any utility application filed before June 8, 1995, or any plant application filed before June 8, 1995, if applicant never receives the notice of abandonment, any petition to withdraw the holding of abandonment that is not filed within twelve months from the date of applicant's filing (or date of submission, if the correspondence was never received by the Office) of correspondence with the Office for which further action by the Office can reasonably be expected, will **not** (absent extraordinary circumstances) be treated on its merit **unless** accompanied by a terminal disclaimer under 37 CFR 1.321(a), and the required fee set forth in 37 CFR 1.20(d). The period to be disclaimed is the terminal part of the term of any patent granted thereon, or of any patent granted on any utility or plant application that claims the benefit of the filing date of the application under 35 U.S.C. 120, 121, or 365(c), equivalent to the period between:

(A) the date that is twelve months from the date of applicant's filing or submission of correspondence with the Office, for which further action by the Office can reasonably be expected; and

(B) the filing date of a grantable petition to withdraw the holding of abandonment.

See MPEP § 711.03(c), subsection II.G.

2. **Utility and Plant Applications Filed on or After June 8, 1995 but Before May 29, 2000**

In utility and plant applications filed on or after June 8, 1995, but before May 29, 2000, a terminal disclaimer should **not** be required as a condition of granting an untimely petition to withdraw the holding of abandonment. However, the Office of Patent Legal Administration (OPLA) must be consulted in such situations if the holding of abandonment involves a period during: (A) appellate review by the Patent Trial and Appeal Board; (B) an interference or derivation proceeding under 35 U.S.C. 135, including any suspension due to an interference or derivation proceeding; or (C) which the application was in a sealed condition or prosecution was suspended due to a secrecy order under 35 U.S.C. 181. This is because it is necessary to effect (if appropriate) a reduction of patent term extension under the "due diligence" provisions of 37 CFR 1.701(d)(2).

3. **Utility and Plant Applications Filed on or After May 29, 2000**

In utility and plant applications filed on or after May 29, 2000, a terminal disclaimer should **not** be required as a condition of granting an untimely petition to withdraw the holding of abandonment. This is because any patent term adjustment is

automatically reduced under the provisions of 37 CFR 1.704(c)(4) in applications subject to the patent term adjustment provisions of the American Inventors Protection Act of 1999 (AIPA) if a petition to withdraw a holding of abandonment is not filed within two months from the mailing date of the notice of abandonment, and if applicant does not receive the notice of abandonment, any patent term adjustment is reduced under the provisions of 37 CFR 1.704(a) by a period equal to the period of time during which the applicant "failed to engage in reasonable efforts to conclude prosecution" (processing or examination) of the application.

II. PETITIONS TO REVIVE AN ABANDONED APPLICATION, OR ACCEPT LATE PAYMENT OF ISSUE FEE

Effective December 18, 2013, the Patent Law Treaties Implementation Act of 2012 (PLTIA), Public Law 112-211, amended the patent laws to implement the provisions of the Patent Law Treaty (PLT) in title II. Notable changes to the law included the restoration of patent rights via the revival of abandoned applications and acceptance of delayed maintenance fee payments. Section 201(b) of the PLTIA specifically added new 35 U.S.C. 27, providing that the Director may establish procedures to revive an unintentionally abandoned application for patent, accept an unintentionally delayed payment of the fee for issuing a patent, or accept an unintentionally delayed response by the patent owner in a reexamination proceeding, upon petition by the applicant for patent or patent owner. The PLTIA eliminated the provisions of the patent statutes relating to revival of abandoned applications or acceptance of delayed maintenance fee payments on the basis of a showing of "unavoidable" delay.

35 U.S.C. 27 Revival of applications; reinstatement of reexamination proceedings.

The Director may establish procedures, including the requirement for payment of the fee specified in section 41(a)(7), to revive an unintentionally abandoned application for patent, accept an unintentionally delayed payment of the fee for issuing each patent, or accept an unintentionally delayed response by the patent owner in a reexamination proceeding, upon petition by the applicant for patent or patent owner.

37 CFR 1.137 provides for the revival of abandoned applications, or terminated or limited reexamination prosecution on the basis of unintentional delay for the failure:

(A) to timely reply to an Office requirement in a provisional application;

(B) to timely prosecute in a nonprovisional application;

(C) to timely pay the issue fee for a design application;

(D) to timely pay the issue fee for a utility or plant application; and

(E) to provide copendency between the abandoned application and a subsequently filed application.

A petition under 37 CFR 1.137(a) requires:

(A) the required reply, unless previously filed;

(B) the petition fee as set forth in 37 CFR 1.17(m);

(C) any terminal disclaimer (and fee as set forth in 37 CFR 1.20(d)) required pursuant to 37 CFR 1.137(d); and

(D) a statement that the entire delay in filing the required reply from the due date for the reply until the filing of a grantable petition pursuant to 37 CFR 1.137 was unintentional.

The Director of the USPTO may require additional information where there is a question whether the delay was unintentional.

A. *Reply Requirement*

Unlike a petition to withdraw the holding of abandonment, a petition to revive under 37 CFR 1.137 must be accompanied by, *inter alia,* the required reply. Generally, the required reply is the reply sufficient to have avoided abandonment, had such reply been timely filed. A petition for an extension of time under 37 CFR 1.136 and a fee for such an extension of time are not required to be included with the reply.

37 CFR 1.137(c) applies to the reply requirement for a petition under 37 CFR 1.137(a). In an application abandoned under 37 CFR 1.57(a), the reply must include a copy of the specification and

Office of Petitions: Routing Sheet

Application No. 13/692,121

This application is being forwarded to your office for further processing. A decision has been rendered on a petition filed in this application, as indicated below. For details of this decision, please see the document PET.OP.DEC filed on the same date as this document.

[ ]	**GRANTED**
[X]	**DISMISSED**
[ ]	**DENIED**

Office of Petitions: Decision Count Sheet

Mailing Month

Application No. 13692121

13692121

For US serial numbers: enter number only, no slashes or commas. Ex: 10123456
For PCT: enter "51+single digit of year of filing+last 5 numbers", Ex. for PCT/US05/12345, enter 51512345

Deciding Official: Paul Shanoski

Count (1) - Palm Credit 13/692,121

Decision: DISMISSED

FINANCE WORK NEEDED
☐ Select Check Box for YES

DISMISSED

Decision Type: 525 - 37 CFR 1.181 for W/D HOLDING OF ABANDONMEN

525

Notes: Please change petition filing date in PALM to 05/18/2016.

Count (2)

Decision: n/a

FINANCE WORK NEEDED
☐ Select Check Box for YES

Decision Type: NONE

Notes:

Count (3)

Decision: n/a

FINANCE WORK NEEDED
☐ Select Check Box for YES

Decision Type: NONE

Notes:

Initials of Approving Official (if required)

If more than 3 decisions, attach 2nd count sheet & mark this box

Printed on: *9/25/2016*

RECEIVED
CENTRAL FAX CENTER
MAY 2 0 2016

Renewed Petition pursuant to 37 C.F.R. § 1.181(a)

Dear Paul Shanoski, applicants and consumerist will aggregate toward an electronic-market as opposed to lawsuit means of recourse compensation. **NO POINT OF SALE OR PURCHASE.**

Lawsuits **15-CV-01248, 15-CV-01263**, and **15-CV-01914,** were filed against USPTO failing to provide a Free Enterprise Market System and conspiring to create an abandon litigation backlog.

Micro account number # 82669-845 was not issued a Patent for the year 2015 and 2nd qtr 2016.

3. Case: **13/692,121**

Title: **ATMOSPHERE TRANSDUCTION SYSTEM**

The application **13/692,121** discloses apparatus parts for expediency and search burden relief. The claims piezoelectric material component **Space System** and electronic parts was overlooked.

Applicant looks forward to an overturning of earlier decisions on **System** components elements.

*All above mentioned **UTILITY** applications could have been resolved by **AFCP 2.0** and any rendered assistance.* However, an examiner was not moved to be an assistance or allowance.

APPLICANT ALBEIT WAS ENGAGED IN AN ACTIVE SUBMISSION, AWAITING REPLY DURING SUPPOSED ABANDONMENT AND THROUGH MIS-LEADERSHIP.

Applicant respectfully requests reconsideration of the application and its passage to allowance. Should any impediments to allowance remain, Applicant requests that the Examiner contact the undersigned at the indicated phone number.

Respectfully submitted, James Jennings

Date: 05/21/16 By: /JAMES EDWARD JENNINGS/

PO Box 270081 Louisville, CO 80027

303.664.1829

Renewed Petition pursuant to 37 C.F.R. § 1.181(a)

Dear Paul Shanoski, applicants and consumerist will aggregate toward an electronic-market as opposed to lawsuit means of recourse compensation. **NO POINT OF SALE OR PURCHASE.**

Lawsuits **15-CV-01248**, **15-CV-01263**, and **15-CV-01914,** were filed against USPTO failing to provide a Free Enterprise Market System and conspiring to create an abandon litigation backlog.

Micro account number # 82669-845 was not issued a Patent for the year 2015 and 2nd qtr 2016.

3. Case: **13/692,121**

Title: **ATMOSPHERE TRANSDUCTION SYSTEM**

The application **13/692,121** discloses apparatus parts for expediency and search burden relief. The claims piezoelectric material component **Space System** and electronic parts was overlooked.

Applicant looks forward to an overturning of earlier decisions on **System** components elements.

*All above mentioned **UTILITY** applications could have been resolved by **AFCP 2.0** and any rendered assistance.* However, an examiner was not moved to be an assistance or allowance.

APPLICANT ALBEIT WAS ENGAGED IN AN ACTIVE SUBMISSION, AWAITING REPLY DURING SUPPOSED ABANDONMENT AND THROUGH MIS-LEADERSHIP.

Applicant respectfully requests reconsideration of the application and its passage to allowance. Should any impediments to allowance remain, Applicant requests that the Examiner contact the undersigned at the indicated phone number.

Respectfully submitted, James Jennings

Date: 05/21/16

By: /JAMES EDWARD JENNINGS/

PO Box 270081 Louisville, CO 80027

303.664.1829

****
*** RX REPORT ***
****

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OFFICE OF PETITIONS

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TX/RX NO	8556
RECIPIENT ADDRESS	3036641829
DESTINATION ID	
ST. TIME	05/20 12:54
TIME USE	01'08
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RESULT	OK

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/692,121	12/03/2012	JAMES EDWARD JENNINGS		7639

82669 7590 04/29/2016

James Edward Jennings
P.O. Box 270081
Louisville, CO 80027

EXAMINER	
ROSENAU, DEREK JOHN	

ART UNIT	PAPER NUMBER
2837	

MAIL DATE	DELIVERY MODE
04/29/2016	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.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
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Alexandria, VA 22313-1450
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In re Application of	:	
Jennings	:	
Application No. 13/692,121	:	DECISION ON PETITION
Filed: December 3, 2012	:	UNDER 37 C.F.R. § 1.181(a)
Attorney Docket No. None	:	
Title: ATMOSPHERIC TRANSDUCTION SYSTEM	:	

This is a decision on the petition pursuant to 37 C.F.R. § 1.181, filed on January 21, 2016, requesting that the holding of abandonment in the above-identified application be withdrawn.

As a preliminary matter, it is noted the petition lists multiple application serial numbers: 12/903,332 (which appears to be a reference to 13/903,322), 13/572,672, 13/692,121, 29/461,909, and 29/477,572.

37 C.F.R. § 1.4(b) sets forth, *in toto*:

> Since each file must be complete in itself, a separate copy of every paper to be filed in a patent application, patent file, or other proceeding must be furnished for each file to which the paper pertains, even though the contents of the papers filed in two or more files may be identical. The filing of duplicate copies of correspondence in the file of an application, patent, or other proceeding should be avoided, except in situations in which the Office requires the filing of duplicate copies. The Office may dispose of duplicate copies of correspondence in the file of an application, patent, or other proceeding.

37 C.F.R. § 1.4(c) sets forth, *in toto*:

> Since different matters may be considered by different branches or sections of the Office, each distinct subject, inquiry, or order must be contained in a separate paper to avoid confusion and delay in answering papers dealing with different subjects. Subjects provided for on a single Office or World Intellectual Property Organization form may be contained in a single paper.

A copy of this paper has been placed into each of the electronic files that is associated with these applications. **This decision pertains solely to Application No. 13/692,121.** Decisions on the petitions filed in Application numbers 12/903,322, 13/572,672, 29/461,909, and 29/477,572 will be mailed in separate papers.

The petition pursuant to 37 C.F.R. § 1.181(a) is **DISMISSED.**

The above-identified application became abandoned for failure to reply within the meaning of 37 C.F.R § 1.113 in a timely manner to the final Office action mailed February 13, 2015, which set a shortened statutory period for reply of three months. A first after-final amendment was received on February 19, 2015 and an advisory action was mailed on March 10, 2015. A second after-final amendment was received on March 22, 2015 and an advisory action was mailed on April 2, 2015. A third after-final amendment was received on April 13, 2015 and an advisory action was mailed on April 29, 2015. A one-month extension of time was obtained on May 7, 2015. A fourth after-final amendment was received on May 8, 2015 and an advisory action was mailed on May 22, 2015. A fifth after-final amendment was received on May 27, 2015, a two-month extension of time was obtained on June 3, 2015,[1] a sixth after-final amendment was received on June 3, 2015, and an advisory action was mailed on June 12, 2015. No further extensions of time under the provisions of 37 C.F.R §1.136(a) were obtained, and no further responses were received. Accordingly, the above-identified application became abandoned on June 14, 2015. A notice of abandonment was mailed on September 30, 2015.

It is noted this petition has not been executed in accordance with 37 C.F.R. § 1.33(b). Specifically, **this petition has not been signed**. 37 C.F.R. § 1.33(b) states, *in toto*:

> ((b) Amendments and other papers. Amendments and other papers, except for written assertions pursuant to §1.27(c)(2)(iii) or (c)(2)(iv), filed in the application must be signed by:
>
> (1) A patent practitioner of record;
>
> (2) A patent practitioner not of record who acts in a representative capacity under the provisions of §1.34; or
>
> (3) The applicant (§1.42). Unless otherwise specified, all papers submitted on behalf of a juristic entity must be signed by a patent practitioner.

37 C.F.R. § 1.42(a) states, *in toto*:

> The word "applicant" when used in this title refers to the inventor or all of the joint inventors, or to the person applying for a patent as provided in §§1.43, 1.45, or 1.46.

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1 The two-month extension of time was not required. Office records show the $150 was refunded to the appropriate credit card on April 25, 2106.

Moreover, Petitioner will note that 37 C.F.R. § 1.31 states, *in toto*:

> An applicant for patent may file and prosecute the applicant's own case, or the applicant may give power of attorney so as to be represented by one or more patent practitioners or joint inventors, except that a juristic entity (e.g., organizational assignee) must be represented by a patent practitioner even if the juristic entity is the applicant. The Office cannot aid in the selection of a patent practitioner.

Since this petition has not been executed in accordance with 37 C.F.R. § 1.33(b)(3) in light of 37 C.F.R. § 1.42(a), it cannot be treated on the merits and must be dismissed.

Any response to this decision must be submitted within **TWO MONTHS** from the mail date of this decision. Extensions of time under 37 C.F.R. § 1.136(a) are permitted. **The reply should include a cover letter entitled "renewed petition pursuant to 37 C.F.R. § 1.181(a)" and should be signed by either a registered practitioner or the sole inventor.** This is not a final agency action within the meaning of 5 U.S.C § 704.

Any response to this decision should indicate in a prominent manner that the attorney handling this matter is Paul Shanoski, and may be submitted by mail,[2] hand-delivery,[3] or facsimile.[4] Registered users of EFS-Web may alternatively submit a response to this decision via EFS-Web.[5]

Telephone inquiries regarding *this decision* should be directed to the undersigned at (571) 272-3225.[6]

/Paul Shanoski/
Paul Shanoski
Attorney Advisor
Office of Petitions

---

2 Mail Stop Petition, Commissioner for Patents, United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA, 22313-1450.

3 Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA, 22314.

4 (571) 273-8300: please note this is a central facsimile number.

5 https://sportal.uspto.gov/authenticate/authenticateuserlocalepf.html

6 Petitioner will note that all practice before the Office should be in writing, and the action of the Office will be based exclusively on the written record in the Office. See 37 C.F.R. § 1.2. As such, Petitioner is reminded that no telephone discussion may be controlling or considered authority for Petitioner's further action(s).

Office of Petitions: Decision Count Sheet

Mailing Month

Application No. 13692121

13692121

For US serial numbers: enter number only, no slashes or commas. Ex: 10123456
For PCT: enter "51+single digit of year of filing+last 5 numbers", Ex. for PCT/US05/12345, enter 51512345

Deciding Official: Paul Shanoski

Count (1) - Palm Credit 13/692,121

Decision: DISMISSED

FINANCE WORK NEEDED
☐ Select Check Box for YES

DISMISSED

Decision Type: 525 - 37 CFR 1.181 for W/D HOLDING OF ABANDONMEN

525

Notes:

Count (2)

Decision: n/a

FINANCE WORK NEEDED
☐ Select Check Box for YES

Decision Type: NONE

Notes:

Count (3)

Decision: n/a

FINANCE WORK NEEDED
☐ Select Check Box for YES

Decision Type: NONE

Notes:

Initials of Approving Official (if required)

If more than 3 decisions, attach 2nd count sheet & mark this box

Printed on: *4/25/2016*

Office of Petitions: Routing Sheet

Application No. 13/692,121

This application is being forwarded to your office for further processing. A decision has been rendered on a petition filed in this application, as indicated below. For details of this decision, please see the document PET.OP.DEC filed on the same date as this document.

[ ]	**GRANTED**
[X]	**DISMISSED**
[ ]	**DENIED**

APR 25 2016

Petition to Withdraw Holding of Abandonment (MPEP 711.03c I and 37 CFR § 1.181)

DEAR SIR/MADAM, applicants and consumerist will aggregate toward an electronic-market as opposed to lawsuit means of recourse compensation. **NO POINT OF SALE OR PURCHASE.**

Lawsuits **15-CV-01248, 15-CV-01263,** and **15-CV-01914,** were filed against USPTO failing to provide a Free Enterprise Market System and conspiring to create an abandon litigation backlog.

Micro account number # 82669-845 was not issued a Patent for the year of 2015 and 1st qtr 2016.

1. Case **12/903,322**
2. **13/572,672**
3. **13/692,121**
4. **13/970,616**
5. **29/477,572**
6. **29/461,909**
7. **13/778,476**
8. **13/970,616**

All above mentioned **UTILITY** applications could have been resolved by **AFCP 2.0** assistance.

THANKS

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PHONE/FAX: 303.664.1829

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

APPLICATION FOR U.S. LETTERS PATENT

TITLE: **ATMOSPHERIC TRANSDUCTION SYSTEM**

INVENTOR: **JENNINGS, James Edward**

CROSS REFERENCE TO RELATED APPLICATIONS

[001] ~~NONE~~ This is a Continuation of Application Serial No. 13/572,679, filed October 25, 2012, now patent No. 8,894,514, granted November 25, 2014.

BACKGROUND OF THE INVENTION

Field of the Invention

[002] Self-propelled travel is a type of recreational adventure travel using human powered transport. This includes non-motorized machines such as a bicycle or skateboard. It is in contrast to traveling in a powered vehicle (such as an automobile) as in that case it is the vehicle which powers itself. Self-propelled travel is used to travel short distances or even for much longer distances such as bicycle touring. Self propelled describes something that moves, progresses or acts on its own power without needing outside help. Leonardo da Vinci's 1478 Self-Propelled Car: It was more than 500 years ago, however -- sometime around the year 1478 to be more or less specific -- when Leonardo drew out his plans for the world's first self-propelled vehicle. Experts originally believed two leaf springs, the simplest form of the spring typically used for automotive suspensions, somehow powered the vehicle. Closer inspection eventually revealed the power came from bigger, coiled springs located in tambours, cylindrical drum-like casings, inside the car's frame. The machine works like a robot or a wind-up toy simply by rotating the wheels opposite of their intended direction, which winds up the springs inside and gives it power. Self propulsion(of a vehicle) provided with its own source of tractive power rather than requiring an external means of propulsion.

[003] In the middle of the 18th century, Benjamin Franklin's experiments showed that electrical phenomena of the atmosphere were not fundamentally different from those produced in the

laboratory. By 1749, Franklin observed lightning to possess almost all the properties observable in electrical machines.

[004] In July 1750, Franklin hypothesized that electricity could be taken from clouds via a tall metal aerial with a sharp point. Before Franklin could carry out his experiment, in 1752 Thomas-François Dalibard erected a 40-foot (12 m) iron rod at Marly-la-Ville, near Paris, drawing sparks from a passing cloud. With ground-insulated aerials, an experimenter could bring a grounded lead with an insulated wax handle close to the aerial, and observe a spark discharge from the aerial to the grounding wire. In May 1752, Dalibard affirmed that Franklin's theory was correct.

Piezoelectric Motor

[005] A piezoelectric motor or piezo motor is a type of electric motor based upon the change in shape of a piezoelectric material when an electric field is applied. Piezoelectric motors make use of the converse piezoelectric effect whereby the material produces acoustic or ultrasonic vibrations in order to produce a linear or rotary motion. In one mechanism, the elongation in a single plane is used to make a series stretches and position holds, similar to the way a caterpillar moves. A transducer is a device that converts one form of energy to another. Energy types include (but are not limited to) electrical, mechanical, electromagnetic (including light), chemical, acoustic or thermal energy. While the term transducer commonly implies the use of a sensor/detector, any device which converts energy can be considered a transducer. Transducers are widely used in measuring instruments. Piezoelectric materials can also be used to harvest low levels of mechanical energy into electrical energy suitable for powering wireless sensors, low power microprocessors or charging batteries. Rotary Uses include rotating machines such as fans, turbines, drills, the wheels on electric cars, locomotives and conveyor

belts. Also, in many vibrating or oscillating machines, an electric motor spins an unbalanced mass, causing the motor (and its mounting structure) to vibrate.

ATMOSPHERIC ELECTRICITY

[006] There is always free atmospheric electricity **313** in the air and in the clouds, which acts by induction on the earth and electromagnetic devices. Experiments have shown that there is always free electricity in the atmosphere, which is sometimes negative and sometimes positive, but most generally positive, and the intensity of this free electricity is greater in the middle of the day than at morning or night and is greater in winter than in summer. In fine weather, the potential increases with altitude at about 30 volts per foot (100 V/m).

Atmospheric layers

[007] The electrical conductivity of the atmosphere increases exponentially with altitude. The amplitudes of the electric and magnetic components depend on season, latitude, and height above the sea level. The greater the altitude the more atmospheric electricity abounds. The exosphere is the uppermost layer of the atmosphere and is estimated to be 500 km to 1000 km above the Earth's surface, and its upper boundary at about 10,000 km. The thermosphere (upper atmosphere) is the layer of the Earth's atmosphere directly above the mesosphere and directly below the exosphere. Within this layer, ultraviolet radiation causes ionization. Theories that have been proposed to explain the phenomenon of the polar aurora, but it has been demonstrated by experiments that it is due to currents of positive electricity passing from the higher regions of the atmosphere to the earth.

[008] The mesosphere (middle atmosphere) is the layer of the Earth's atmosphere that is directly above the stratosphere and directly below the thermosphere. The mesosphere is located about 50-80/85 km above Earth's surface. The stratosphere (middle atmosphere) is a layer of Earth's atmosphere that is stratified in temperature and is situated between about 10 km and 50 km altitude above the surface at moderate latitudes, while at the poles it starts at about 8 km altitude. The stratosphere sits directly above the troposphere and directly below the mesosphere. The troposphere (lower atmosphere) is the densest layer of the atmosphere.

[009] The planetary boundary layer (PBL), also known as the atmospheric boundary layer (ABL), is the lowest part of the atmosphere and its behavior is directly influenced by its contact with the planetary surface. It is also known as the "exchange layer". (see also:p-n junction.)

[0010] There is a potential gradient at ground level ("Atmosphere ground layer") and this vertical field corresponds to the negative charge in and near the Earth's surface. The negative potential gradient falls rapidly as altitude increases from the ground. Most of this potential gradient is in the first few kilometers. The positive potential gradient rises rapidly as altitude increases from the ground. Volta, over two centuries before the 21st century, discovered with some degree of exactitude that the proportions of the ordinates of the curve or gradient of electric potential increased as the distance from the earth increases, and, more recently, Engel has provided data to calculate the increase.

Drum-type generator

[0011] A drum-type homopolar generator has a magnetic field (B) that radiates radially from the center of the drum and induces voltage (V) down the length of the drum. A conducting drum spun from above in the field of a "loudspeaker" type of magnet that has one pole in the center of the drum and the other pole surrounding the drum could use conducting ball bearings at the top and bottom of the drum to pick up the generated current.

Astrophysical unipolar inductors

[0012] Unipolar inductors occur in astrophysics where a conductor rotates through a magnetic field, for example, the movement of the highly conductive plasma in a cosmic body's ionosphere through its magnetic field. In their book, Cosmical Electrodynamics, Hannes Alfvén and Carl-Gunne Fälthammar write:

"Since cosmical clouds of ionized gas are generally magnetized, their motion produces induced electric fields [...] For example the motion of the magnetized interplanetary plasma produces electric fields that are essential for the production of aurora and magnetic storms" [...]

".. the rotation of a conductor in a magnetic field produces an electric field in the system at rest.

[0013] This phenomenon is well known from laboratory experiments and is usually called 'homopolar ' or 'unipolar' induction.

The Faraday disc

[0014] The homopolar generator was developed first by Michael Faraday during his experiments in 1831. It is frequently called the Faraday disc in his honor. It was the beginning of modern dynamos — that is, electrical generators which operate using a magnetic field. It was very inefficient and was

not used as a practical power source, but it showed the possibility of generating electric power using magnetism, and led the way for commutated direct current dynamos and then alternating current alternators.

Boeing 737–800

[0015] The Boeing Fuel Cell Demonstrator Airplane has a Proton Exchange Membrane (PEM) fuel cell/lithium-ion battery hybrid system to power an electric motor, which is coupled to a conventional propeller. The fuel cell provides all power for the cruise phase of flight. During takeoff and climb, the flight segment that requires the most power, the system draws on lightweight lithium-ion batteries.

[0016] The demonstrator aircraft is a Dimona motor glider, built by Diamond Aircraft Industries of Austria, which also carried out structural modifications to the aircraft. With a wing span of 16.3 meters (53.5 feet), the airplane will be able to cruise at approximately 100 kilometers per hour (62 miles per hour) on power from the fuel cell.

[0017] Nikola Tesla explored the wireless transmission of energy through his work with radio and microwaves and his creation of the Tesla coil and the magnifying transmitter. In 1898, Tesla demonstrated his radio-controlled boat, which he was able to control remotely. In the 1930s, Tesla claimed to have invented a particle beam weapon, or, as some called it, a "peace ray." The device was, in theory, capable of generating an intense, targeted beam of energy and sending it across great distances to demolish warplanes, foreign armies, or anything else you'd rather didn't exist.

[0018]"ROY J. MEYERS, BRITISH PATENT NUMBER 1098" This invention relates to improvements in apparatus for the production of electrical currents, and the primary object in view is the production of a commercially serviceable electrical current without the employment of

mechanical or chemical action. To this end the invention comprises means for producing what I believe to be dynamic electricity from the earth and its ambient elements.

[0019] EDWARD LEEDSKALNIN: MAGNETIC CURRENT - is primarily a teaching device but it has many functions including an electromagnet, this is easy enough to see; it is a generator—spin a magnet between the coils it will generate electricity; it functions as a transformer; it demonstrates how permanent magnets are made.

Strategic Defense Initiative

[0020] The Strategic Defense Initiative (SDI) was proposed to use ground and space-based systems to protect the United States from attack by strategic nuclear ballistic missiles.

Description of the Related Art

[0021] The present invention relates to a ball bearing assembly structure, an electromagnetic clutch having the ball bearing assembly structure, and a gas compressor equipped with the electromagnetic clutch.

[0022]When operating the gas compressor , the electromagnet of the electromagnetic clutch is energized to attract or adsorb the follower armature plate to an end surface of the prime-mover pulley and join the prime-mover pulley and the rotor shaft, thereby rotating the rotor shaft.

[0023] The ball bearing of the electromagnetic clutch conventionally has used one having an even number of balls per row. Generally, the ball bearing causes vibration and noise due to rotation. In the case of the ball bearing rotating while undergoing a radial load due to a tension of the belt, vibration and noise considerably occur. Particularly when other vibration and noise levels are

lowered during engine idling, the vibration and noise of the ball bearing transmitted to the vehicular compartment is not negligible.

[0024] The inventor has conducted various experiments and discovered that the one factor of high vibration and noise level is an even number of balls of the ball bearing. In the ball bearing having an even number of balls per one row, the balls are in a facing relation to have linear-symmetry arrangement between the inner race and the outer race. The deformation and vibration at a regular particular frequency is caused in the inner and outer races. It is to be considered that the vibration as a source also increases noise.

[0025]The present invention relates generally and in various embodiments to piezoelectric mechanical systems. More specifically, the present invention relates generally and in various embodiments to atmospheric oscillation transducer apparatuses, systems, and methods.

[0026] Although various implementations of the present invention, among many, may be described herein with reference to the specific illustrative embodiments related to particular applications, those skilled in the art will understand that the invention is not in any way intended to be limited to such embodiments and/or applications. Those having ordinary skill in the art and reference to the description of the embodiments herein will recognize additional modifications, applications, and other embodiments falling within the scope of the claimed invention and additional fields in which the present invention may be practiced.

[0027] Digital Radio (also known as Satellite Radio or Satellite Digital Audio Radio Service (SDARS)) is a subscriber-based digital radio service that is broadcast via satellites. Digital radio

service provides compact-disc (CD) quality programming that may be digitally transmitted via one or more satellites and/or space stations to one or more Earth-based (terrestrial) digital radio stations, receivers, and/or repeaters. In satellite-based direct-broadcast radio services, digitally-encoded audio program material may be broadcast to terrestrial fixed or mobile digital radio receivers. Fixed receivers may include, for example, stand alone digital radio receivers or digital radio receivers connected via computer networks, including for example, the Internet. Mobile receivers may include, for example, digital radio receivers located in automobiles, aircrafts, watercrafts, and the like.

[0028] Satellite-based digital audio radio services such as SDARS, for example, may be broadcast to one or more digital radio receivers either directly from an orbiting satellite, or indirectly from one or more repeater stations. Such repeater stations may be useful where the digital radio receiver is located in a shielded location or where there is no direct line of sight between the radio and the satellite. In other digital audio radio services systems, the audio programs also may be transmitted in digital form by one or more space stations directly to fixed, mobile, and/or portable radio stations. Such systems may comprise, for example, orbiting satellites, complementary repeating terrestrial transmitters, telemetry, tracking, and control facilities.

[0029] Combinations of mechanical devices U.S. Pat. Nos. 4,019,073, 6,615,968 and atmospheric system interaction are disclosed in U.S. Pat. Nos. 1,119,732, 787,412, to Nikola Tesla; 28,793 to Charles Vion; and 1,540,998 to Herman Plauson. Lastly, U.S. Pat. Nos. 8,102,078 and US2008/0009240. Agnoff discloses an Oscillating watch winder in U.S. Pat. Nos. 6,543,929, Jennings further discloses an oscillating smart device in application No. 13,572,679.

[0030] As illustrated by a large body of prior art, including the above-noted patents, and a large number of commercial devices, efforts are continuously being made in an attempt to improve helmets, headsets and their methods of fabrication. Nothing in the prior art, however, suggests the present inventive combination of materials and method steps as herein described and claimed. The present invention achieves its purposes, objects and advantages over the prior art through a new, useful and unobvious combination of components and method steps which improve safety, comfort and noise abatement performance.

[0031] Therefore, it is an object of this invention to provide effectively, the provision of energy such that it meets the needs of the present without compromising the ability of future generations to meet their own needs. ...Sustainable Energy has two key components: renewable energy and energy efficiency.

[0032] It is still a further objection of this invention to promote dynamic harmony between equitable availability of energy-intensive goods and services to all people and the preservation of the earth for future generations." And, "the solution will lie in finding sustainable energy sources and more efficient means of converting and utilizing energy.

[0033] It is a further object of the present invention to produce Green Power Energy: is energy that can be extracted, generated, and/or consumed without any significant negative impact to the environment, green power; as electricity produced from solar, wind, geothermal, biogas, biomass, and low-impact small hydroelectric sources.

[0034] Thus, there is a need for a clean energy system that uses atmospheric electricity.

Prior Art

[0035] Quartz crystals have been in regular use for many years to give an accurate frequency for all radio transmitters, radio receivers and computers. Their accuracy comes from an amazing set of

coincidences: Quartz -- which is silicon dioxide like most sand -- is unaffected by most solvents and remains crystalline to hundreds of degrees Fahrenheit. The property that makes it an electronic miracle is the fact that, when compressed or bent, it generates a charge or voltage on its surface. This is a fairly common phenomenon called the Piezoelectric effect. In the same way, if a voltage is applied, quartz will bend or change its shape very slightly.

[0036] If a bell were shaped by grinding a single crystal of quartz, it would ring for minutes after being tapped. Almost no energy is lost in the material. A quartz bell -- if shaped in the right direction to the crystalline axis -- will have an oscillating voltage on its surface, and the rate of oscillation is unaffected by temperature. If the surface voltage on the crystal is picked off with plated electrodes and amplified by a transistor or integrated circuit, it can be re-applied to the bell to keep it ringing.

[0037] The electronics of the watch initially amplifies noise at the crystal frequency. This builds or regenerates into oscillation -- it starts the crystal ringing. The output of the watch crystal oscillator is then converted to pulses suitable for the digital circuits.

Polymers

[0038] Polyvinylidene fluoride (PVDF): PVDF exhibits piezoelectricity several times greater than quartz. Unlike ceramics, where the crystal structure of the material creates the piezoelectric effect, in polymers the intertwined long-chain molecules attract and repel each other when an electric field is applied.

Near Space

[0039] Solar particles become trapped within the Earth's magnetic field and form radiation belts. The Van Allen radiation belt is a torus of energetic charged particles (i.e. a plasma) around Earth, trapped by Earth's magnetic field.

[0040] At elevations above the clouds, atmospheric electricity forms a continuous and distinct element (called the electrosphere) in which the Earth is surrounded. The electrosphere layer (from tens of kilometers above the surface of the earth to the ionosphere) has a high electrical conductivity and is essentially at a constant electric potential. The ionosphere is the inner edge of the magnetosphere and is the part of the atmosphere that is ionized by solar radiation. (Photoionization is a physical process in which a photon is incident on an atom, ion or molecule, resulting in the ejection of one or more electrons.)

ADVANTAGES/DISADVANTAGES

[0041] Energy in electronic elements: Electric potential energy, or electrostatic potential energy, is a potential energy (measured in joules) that results from conservative Coulomb forces and is associated with the configuration of a particular set of point charges within a defined system. The term "electric potential energy" is used to describe the potential energy in systems with time-variant electric fields, while the term "electrostatic potential energy" is used to describe the potential energy in systems with time-invariant electric fields.

[0042] Capacitance is the ability of a body to store an electrical charge. Any body or structure that is capable of being charged, either with static electricity or by an electric current, exhibits capacitance. A common form of energy storage device is a parallel-plate capacitor. In a parallel plate capacitor, capacitance is directly proportional to the surface area of the conductor plates and inversely proportional to the separation distance between the plates. If the charges on the plates are +q and -q, and V gives the voltage between the plates, then the capacitance C is given by

$$C = q/V.$$

[0043] The capacitance is a function only of the physical dimensions (geometry) of the conductors and the permittivity of the dielectric. It is independent of the potential difference between the conductors and the total charge on them.

[0044] Piezoelectricity is the combined effect of the electrical behavior of the material:

$D = \epsilon E$

where D is the electric charge density displacement (electric displacement), ϵ is permittivity and E is electric field strength, and

Hooke's Law: $S = s T$

where S is strain, s is compliance and T is stress.

[0045] Polyvinylidene fluoride, or polyvinylidene difluoride (PVDF) is a highly non-reactive and pure thermoplastic fluoropolymer produced by the polymerization of vinylidene difluoride. PVDF is a specialty plastic material in the fluoropolymer family; it is used generally in applications requiring the highest purity, strength, and resistance to solvents, acids, bases and heat and low smoke generation during a fire event. Compared to other fluoropolymers, it has an easier melt process because of its relatively low melting point of around 177 ˚C.

[0046] It has a low density (1.78 g/cm3) and low cost compared to the other fluoropolymers. It is available as piping products, sheet, tubing, films, plate and an insulator for premium wire. It can be injected, molded or welded and is commonly used in the chemical, semiconductor, medical and defense industries, as well as in lithium ion batteries. It is also available as a crosslinked closed cell foam, used increasingly in aviation and aerospace. PVDF has a glass transition temperature (Tg) of

about -35 ˚C and is typically 50–60% crystalline. To give the material its piezoelectric properties, it is mechanically stretched to orient the molecular chains and then poled under tension. PVDF exists in several forms: alpha (TGTG'), beta (TTTT), and gamma (TTTGTTTG') phases, depending on the chain conformations as trans (T) or gauche (G) linkages. When poled, PVDF is a ferroelectric polymer, exhibiting efficient piezoelectric and pyroelectric properties. These characteristics make it useful in sensor and battery applications. Thin films of PVDF are used in some newer thermal camera sensors.

[0047] Copolymers: Copolymers of PVDF are also used in piezoelectric and electrostrictive applications. One of the most commonly-used copolymers is P(VDF-trifluoroethylene), usually available in ratios of about 50:50 wt% and 65:35 wt% (equivalent to about 56:44 mol% and 70:30 mol%). Another one is P(VDF-tetrafluoroethylene). They improve the piezoelectric response by improving the crystallinity of the material.

[0048] While the copolymers' unit structures are less polar than that of pure PVDF, the copolymers typically have a much higher crystallinity. This results in a larger piezoelectric response: d33 values for P(VDF-TrFE) have been recorded to be as high as -38 pC/N versus -33 pC/N in pure PVDF.

[0049] APPLICATIONS: The piezoelectric properties of PVDF are used to advantage to manufacture tactile sensor arrays, inexpensive strain gauges and lightweight audio transducers. Piezoelectric panels made of PVDF are used on the Venetia Burney Student Dust Counter, a scientific instrument of the New Horizons space probe that measures dust density in the outer solar system. PVDF is the standard binder material used in the production of composite electrodes for

lithium ion batteries. 1-2% weight solution of PVDF dissolved in N-Methyl-2-pyrrolidone (NMP) is mixed with an active lithium storage material such as graphite, silicon, tin, LiCoO2, LiMn2O4, or LiFePO4 and a conductive additive such as carbon black or carbon nanofibers. This slurry is cast onto a metallic current collector and the NMP is evaporated to form a composite or paste electrode. PVDF is used because it is chemically inert over the potential range used and does not react with the electrolyte or lithium. Piezoelectric elements can be used in laser mirror alignment, where their ability to move a large mass (the mirror mount) over microscopic distances is exploited to electronically align some laser mirrors. By precisely controlling the distance between mirrors, the laser electronics can accurately maintain optical conditions inside the laser cavity to optimize the beam output. Piezoelectric sensors especially are used with high frequency sound in ultrasonic transducers for medical imaging and also industrial nondestructive testing (NDT).

[0050] For many sensing techniques, the sensor can act as both a sensor and an actuator – often the term transducer is preferred when the device acts in this dual capacity, but most piezo devices have this property of reversibility whether it is used or not. Ultrasonic transducers, for example, can inject ultrasound waves into the body, receive the returned wave, and convert it to an electrical signal (a voltage). Most medical ultrasound transducers are piezoelectric.

[0051] Advantageously, Sustainable energy is the sustainable provision of energy that meets the needs of the present without compromising the ability of future generations to meet their needs. Technologies that promote sustainable energy include renewable energy sources, such as hydroelectricity, solar energy, wind energy, wave power, geothermal energy, and tidal power, and also technologies designed to improve energy efficiency.

[0052] This sequence of oscillations causes the rotor within the watch to spin rapidly thereby winding the watch in a manner closely simulating the spinning of the rotor that occurs during normal winding of the watch when the watch is worn by a user. Due to the forces that are exerted, the rotor spins around the watch shaft during the oscillations, as opposed to the partial rotation observed in prior art mechanisms. Therefore, the time required to wind the watch, and the energy required, is substantially reduced. Moreover, since the rotor is spinning about the shaft, as opposed to merely being held in a downward position while the watch is rotated, winding more closely approximating the design mechanism is achieved, thereby putting less wear on the watch.

[0053]This invention relates to satellite communications systems using multiple spot beams from a geosynchronous earth orbit satellite to provide selective coverage of the continental United States and, more particularly, relates to a system having a satellite receiving hub in every spot beam that allows for asynchronous communications between each hub and the satellite for maximizing frequency re-use.

[0054] These purposes, objects and advantages should be construed as merely illustrative of some of the more prominent features and applications of the present invention. Many other beneficial results can be obtained by applying the disclosed invention in a different manner or by modifying the invention within the scope of the disclosure. Accordingly, other purposes, objects and advantages as well as a fuller understanding of the invention may be had by referring to the summary herein mentioned and detailed description describing the preferred embodiments of the invention, in addition to the scope of the invention, as defined by the claims, taken in conjunction with the accompanying drawings.

SUMMARY OF THE INVENTION

[0055] In one general respect, an embodiment of the present invention is directed to a system. The system includes a Power Frequency broadcast station, a receiver, and a network. The Power Frequency broadcast station includes a transmitter and a server. The receiver is in communication with the Power Frequency broadcast transmitter and also includes a user interface for receiving user input commands comprising a request for information from the Power Frequency broadcast station.

[0056] The receiver is configured to establish a two-way communication path between the receiver and the Power Frequency broadcast transmitter. The network is in communication with the server and the receiver for exchanging information therebetween. The request for information is provided to the server via the network and the server is configured to receive the request and transmit a response message to the receiver in accordance with the request.

Continuously outboard recharged electric vehicle (COREV)

[0057] Given suitable infrastructure, permissions and vehicles, BEVs (battery electric vehicles) can be recharged while the user drives. The BEV establishes contact with an electrified rail, plate or overhead wires on the highway via an attached conducting wheel or other similar mechanism (see Conduit current collection). The BEV's batteries are recharged by this process—on the highway—and can then be used normally on other roads until the battery is discharged. Some of battery-electric locomotives used for maintenance trains on the London Underground are capable of this mode of operation. Power is picked up from the electrified rails where possible, switching to battery power where the electricity supply is disconnected.

[0058] The present invention is directed to overcome the disadvantages of the prior art. The invention is a mechanism which taps into the naturally occurring static electricity in the atmosphere. Whereas heretofore, the attempt to garner electricity from the atmosphere has focused exclusively on capturing lightning, the present invention syphons off the static electricity which is generated from any agitated air and voids lightning.

[0059] Lightning is only the final discharge of the static electricity, whether that lightning is intra-cloud lightning, cloud-to-ground lightning, or inter-cloud lightning. Other types of final discharges are known as heat lightning, summer lightning, sheet lightning, ribbon lightning, silent lightning, ball lightning, bead lightning, elves, jets, and sprites. Well before these discharges are observed, as the atmosphere becomes agitated by wind or thermal, static electricity is being generated. The present invention recognizes that this static electricity is being formed and creates a mechanism to capture it.

[0060] In the preferred embodiment, a sensor array is used to monitor the activities both at the base unit (such as electrical flow within the conductor) and in the surrounding locale. A sensor monitoring the electrical flow (i.e. voltage and/or current) within the conductor is used to monitor the electrical activity within the conductor.

[0061] In the preferred embodiment, a lightning sensor monitors for lightning activity within the locale. As noted earlier, the electrical characteristic of lightning is so extreme that ideally this discharge is avoided as it might damage the mechanism of this invention. The sensor array is utilized by a controller, such as microprocessor, programmed to operate the mechanism as outlined herein.

[0062] The controller is programmed to operate or monitor the electrical characteristics of the conductor and to maintain these characteristics within the conductor within a preset range.

[0063] This preset range is established either in the base programming of the controller or is established by an operator of the system. As example, by controlling the amount of current being withdrawn from the atmosphere, the mechanism operates within a safe range and also provides a relatively stable current flow from which a variety of activities can take place (such as DC-AC conversion).

[0064] The controller also utilizes the lightning sensor to protect the mechanism from a lightning strike. Should lightning be detected within a pre-determined range (as established by the software or defined by an operator), then the balloon is pulled down to minimize the risk of damage from a lightning strike.

[0065] Another aspect of the invention relates to the electrical system which accepts the fluctuating atmospheric charge and changes it into an acceptable configuration for either the desired load or for the existing power grid.

[0066] Power grids in the United States operate with a frequency of 60 hertz in an alternating current arrangement. While this basic configuration seems to be universally accepted, the voltage within the grid varies dramatically, such as 15 kv, 34 kv, 69 kv, and even 112 kv.

[0067] Each atmospheric generator is placed proximate to or within easy access to a specific grid; this establishes the required electrical output configuration (i.e. that which is accepted by the power grid). As example, one of the atmospheric electrical collector units as described above collects the atmospheric electrical power as direct current and then supplies the appropriate power grid a specific flow (as example, AC, 60 hertz, at 69 kv).

[0068] The difficulty lies the fact that the DC current being garnered from the atmosphere varies depending on the actual agitation being generated in the atmosphere. This means that the source of DC current is fluctuating.

[0069] The present invention uses a monitoring system which checks the input DC voltage. Depending on the actual voltage being received, the appropriate converter is connected to the input DC voltage so that the desired output is obtained.

[0070] As example, suppose the DC input voltage is 1500 volts, the monitoring system, sensing this input, closes the switch connecting the DC voltage to a converter which accepts DC voltage in the range of 1000-2000 volts which then delivers an AC, 60 hertz 69 kv signal to the power grid. If the DC input voltage increases to 2100 volts, then the monitoring system opens the switch to the first converter (1000-2000 volts) and closes the switch to a second converter (such as 2000-4000 volts) to deliver the desired output of AC (60 hertz, 69 kv) for the power grid.

[0071] In this manner, regardless of the fluctuating input DC voltage, the electrical grid is supplied with a fully configured electrical input conforming to the needs of that specific electrical grid.

[0072] Another aspect of the present invention is the use of a tower or permanent structure instead of an aircraft. In this embodiment, the building or tower is electrically isolated from the ground and a rod (similar to a lightning rod) is extended into the atmosphere. The rod collects the atmospheric charge which is conveyed via an electrical conduit (ideally insulated) where the collected DC charge is reconfigured to meets the need of the locale.

[0073] In this context, for one embodiment of the invention, a tower is placed onto the top of a building. The tower is electrically isolated from the building using such mechanisms well known to those of ordinary skill in the art such as rubber mats. A rod ideally extends from the top of the tower to facilitate the collection of the DC electrical energy.

[0074] Piezoelectricity is a material property that is manifested when voltage is produced by applying mechanical forces, and vice versa, the effect has been described as direct and converse. Piezoelectricity has been described as coupling between a quasi-static electric field and dynamic mechanical motion.

[0075] A piezoelectricity converter mechanism such as described above, is connected to the tower to flow the DC electricity to a converter which modifies the DC current for the specific application. In one application, the DC current is converted to the electrical needs of the building, thereby providing at least some of the electrical requirements of the building itself.

[0076] As noted earlier, the dynamic converter system of the present invention allows a power generator to address a variable voltage in an efficient manner. This makes the dynamic converter system ideal for a variety of alternative energy sources such as the above described atmospheric electrical generator and other alternative energy sources such as wind and wave powered systems.

In these systems, the energy being generated must be converted to a proper electrical configuration for a identified load. This may be a particular motor or connection to the power grid which act as a load to the power generating mechanism.

[0077] For these energy generating systems, the converter assembly of this invention utilizes multiple converters. Each converter is configured to accept a unique range of voltages and from these voltages, create the desired electrical configuration. By using multiple converters, a full range is available, from a minimum voltage input to a maximum voltage input.

[0078] The present invention can include systems and methods for integrating sensors for tracking atmospheric transducer system performance metrics into media devices and accessories therefor, thereby reducing or eliminating the need for additional independent monitoring devices. In one embodiment of the present invention.

[0079] It also is known to provide such transducers with connectors to allow their rechargeable batteries to be charged. In some cases, the connector is a Universal Serial Bus (USB) connector, allowing the transducer to be charged by plugging it into the USB port of a computer, grid circuit or other device.

[0080] These and other objects and advantages of the invention will appear more clearly from the following description in which the preferred embodiment of the invention has been set forth in conjunction with the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0081] FIG. 1 Prior Art depicts perspective view of Electric currents created in sunward ionosphere;

[0082]FIG. 2 is a box flow chart of the propulsion cycle systems present invention;

[0083] FIG. 3 is an top view of the piezoelectric disk cylinder orb of the present invention;

[0084] FIG. 4 is a longitudinal sectional view showing an embodiment of this cylinder invention;

[0085] FIG. 5 is a top view of the (ATS) slip rotor piezoelectric chamber of the present invention;

[0086] FIG. 6 is an alternate top view of the piezoelectric cylinder orb of the present invention;

[0087] FIG.7 - 10 elevation views of spine piezo stacks embodiments of the present invention;

[0088] FIG.11 illustrates one embodiment of a power service (ATS) system architecture;

[0089] FIG. 12 is a block diagram of the ATS charge schematics systems of the present invention;

[0090] FIG. 13 is a block diagram of an ATS charge and recycle schematics of the present invention;

[0091] FIG. 14 is a top view of the piezoelectric ball race cylinder of the present invention;

[0092] FIG. 15 is a side view of the piezoelectric housing and gear of the present invention;

[0093] FIG. 16 is a side view of a multiple piezoelectric ball race cylinder of the present invention;

[0094] FIG. 17 is another embodiment of the piezoelectric stack ball of the present invention;

[0095] FIG. 18 & 19 are antenna rod transmit device embodiments of the (ATS) present invention;

[0096] FIG. 20 illustrates substation embodiment of the power service (ATS) system architecture;

[0097] FIG. 21 illustrates a home embodiment of the power service (ATS) system architecture;

[0098] FIG. 22 illustrates a window embodiment of the power service (ATS) system architecture;

[0099] FIG. 23 is (ATS) shock device in accordance with an embodiment of the present invention;

[00100] FIG. 24 is (ATS) shock device in accordance with an embodiment of the present invention;

[00101] FIG. 25 is (ATS) motorcycle device embodiment of the present invention;

[00102] FIG. 26 is (ATS) axle device in accordance with an embodiment of the present invention;

[00103] FIG. 27 is (ATS) train device in accordance with an embodiment of the present invention;

[00104] FIG. 28 is (ATS) plane device in accordance with an embodiment of the present invention;

[00105] FIG. 29 is (ATS) boat device in accordance with an embodiment of the present invention;

[00106] FIG. 30 is (ATS) solar device in accordance with an embodiment of the present invention;

[00107] FIG.31 a (ATS) turbine device in accordance with an embodiment of the present invention;

[00108] FIG. 32 is (ATS) auto body panel device embodiment of the present invention;

[00109] FIG. 33 is (ATS) motorcycle body fairing panel device in of the present invention; and

[00110] FIG. 34 is (ATS) cross section view of body embed panel device of the present invention.

DETAILED DESCRIPTION

[00111] Oscillations causes the conductive rotor within piezoelectric molded housing device to spin rapidly thereby winding the mechanism in a manner closely simulating the spinning of the conductive rotor that occurs during normal electric activity when the device is activated. Due to the forces that are exerted, the conductive rotor spins around the piezoelectric cylinder device shaft during the oscillations, as opposed to the partial rotation observed in prior art mechanisms. Therefore, the time required to charge the Atmospheric Transduction System (ATS) device, and the energy required, is substantially reduced. Moreover, since the rotor is spinning about the shaft, as opposed to merely being held in a downward position while the ATS device is rotated, recharging more closely approximating the design mechanism is achieved, thereby putting less wear on the ATS chamber device. Innovative Piezoelectric housing and ball bearing, coupler and book spine stacks. There relies the notion of negative ground electricity and positive aerial electricity which is in abundance. This invention substantiates land vehicles recycle recharge by reverse oscillation. Aerial

vehicles recycle recharge by forward oscillation in accumulation of environmental positive and negative electricity. These aforementioned activities are integral or synchronous with frequency.

[00112] PRIOR ART FIG.1 Electric currents created in sunward ionosphere. **Fig.2** is a recycle box flow chart **49** of a self propulsion unit consisting of a battery **27** , engine **29** and piezoelectric transducer **33** unit. **Fig.3** is a multiple disk **31** load part **51** about a 360 degree cylinder **45** and shaft **44**. **Fig.4** is a piezoelectric molded device **100** housing **110** containing a ball bearing race **104**, disk stacks capacitor **102** and conductive rotor **46**. **Fig.5** is a piezoelectric chamber **120** configuration including a counterweights **50**, shaft **44**, conductive slip rotor **106**. **Fig.6** is an alternate part **200** chamber cylinder **201** embodiment containing piezoelectric spine disk stack capacitors **102**. **Fig.7-10** are variations of spine **107,108,109,110** case piezoelectric stack capacitor **102** with plate and ball heads. **Fig.11** Various embodiments of the present invention, among others, will now be described with reference to the accompanying drawings. Accordingly, **FIG. 11** illustrates an embodiment of a Atmospheric Transduction (ATS) System **300** architecture. The system **300** may include, for example, a satellite broadcast station **318** that transmits signals **333** containing frequency content from a geostationary satellite **318** by way of airplane antenna **326**. In turn, the satellite **318** transmits line-of-sight (LOS) signals **333** to one or more ATS terrestrial frequency power receiver farms **314**. The system **300** also may include one or more terrestrial repeaters **316** which receive and retransmit the satellite signals **333** as repeater signals **323** to facilitate reliable reception in geographic areas where LOS reception from the satellite **318** is obstructed by tall buildings, hills, tunnels, and other similar impediments to the signals **333**. The ATS receivers **314** maybe designed to receive one or more signals **333** from the satellite **318** and/or from the terrestrial repeater transceiver **316**. In operation, such ATS receivers **314** may receive both the satellite signals **333** and the repeater signals

323. The receivers **314** also may be located in mobile environments **320, 321**, **322** which include, but are not limited to, land vehicles **321, 322**, aircraft **320**, watercraft **900**, and handheld devices, among others. The receivers **314** also may be fixed in stationary antenna satellites **332** units for residential use (e.g., home **325**,**750** entertainment, etc.) or commercial **309**, use (e.g., business **314**, office **700**, security accentuation **328**, etc.). The power frequency broadcast station **318** also may be in communication with a grid network **342**. Two-way communication between the ATS receivers **314** and the power frequency broadcast station **318** may occur via the network **342**. Furthermore, information feedback from the power frequency broadcast station **318** may be transmitted to the ATS receiver **314** both by way of the network **342** as well as via the satellite antenna **332**. Information also may be transmitted to the power broadcast station **318** wirelessly via a wireless network **342,707** by way of transducer tower **362**.

[00113] Further disclosed in **Fig. 12** and **Fig.13** (in block diagrams **400, 500**) are electrical schematics for handling the static charge from the atmosphere. By maintaining the voltage being collected in a prescribed range, an electrical conversion system is easily designed. While **FIGS. 12**, and **13** illustrate some electrical configurations, those of ordinary skill in the art readily recognize a variety of other configurations which will serve the same function.

[00114] Referencing **FIG. 12**, direct current in (DC IN) **401** is buffered by a gang of capacitors **410** before being communicated to a DC/AC converter **420**. The DC/AC converter **420** converts the direct current into a an alternating current suitable for placement over an existing electrical grid **430** such as normally found from a power-plant. **FIG. 12** Also illustrates an electrical arrangement suitable for use in charging a battery **440**. DC IN **401** is buffered by capacitor **410** bank before

entering into a step down transformer **435**. Step down transformer **435** reduces the voltage so that the voltage can safely be introduced into battery **440** which is connected to ground **450** at the battery's other pole. In **FIG. 12**, DC IN **401** is fed into an adjustable rheostat **460** which is controlled by the controller **465** so that the DC OUT **470** falls within a computer **475** monitored and sensor **480** specified range. **Fig.13** Hypothetically, unused energy may be recycled current **501** and/or recaptured by reversing the oscillated spin rotation of devices **51, 100**, **120** with the use of a rectifier **502** and Step up transformer **503**, returned to grid **430** capacitor **410**. This theory lends itself to the concept of positive and negative frequency. **Fig.14-17** Self charging propulsion embodiment of the invention where Da Vinci's ball race **510,512** is combined with a disk cylinder **45** and **513** stack balls **525,** conductive rotor **46**, **511** tooth gear **515** and piezoelectric molded housing **555**. **Fig.18 & 19** Improvement structures Franklin's lightening rod **600,603** and a molded vibration transducer **601** quasi replicating Vion's tubes and piezoelectric spine stacks capacitor **602** improving Tesla's Atmospheric transmit device. **Fig.20** is an atmospheric receiving building sub station **700** where energy is consumed and excess rendered to the grid **707** by conductive rotor **702** transducer **710,** tower transducer**703**, antenna rod **701** and transducer windows **704**.

[00115] FIG. 12 and **Fig.2** flowchart illustration also includes battery **440**. Battery **440** may provide electrical power to components of ATS devices within **Fig.11**. Charging circuitry may also be provided to charge battery **440** when an external power supply is connected to an ATS device **100**. **Fig.14-17** eliminates one or more steps by presenting a self charge retaining transducers **510,511,512,513** may be configured with an accelerator sensor **480** controller **465** and gears **515,** provide reciprocal power incorporated within piezoelectric molded and ceramic housing **555** along

with stack balls **525** and cylinder **545**. This assembly more resembles a motor by characteristics given power with application.

[00116] In operation, as illustrated in **FIGS. 2-20** and **FIGS. 21-34** , is periodically energized by movement to rotate Orb in either a clockwise or counterclockwise direction. The length of time or activity is energized, and the length of time between the period when the capacitor **31, 102** battery is energized, will depend on the particular ATS device design. As the Orb rotates, the outer end of the disk moves along a 360˚ circular pathway to push against with forward and rearwardly spinning. Upon engagement of the Orb, ATS device disk is rotated until carried to the apex or top of the circular pathway. Upon reaching the apex, the gravitational and vibrational force or counterweight **50** promotes additional oscillation. ATS device movement rapidly rotate on Orb at a rotational speed greater than the speed of rotation of Orb. Counterweight **50** is then carried beyond the bottom or lowest point of the pathway by its momentum to a point near the apex on the opposite side of the pathway. The cycle is repeated through multiple increasing oscillations of the ATS device until counterweight **50** stops at the bottom position, or until once again engages to again move counterweight to the top of its circular pathway.

[00117] FIG. 2 is a flow chart showing generation of energy using a rotor according to one or more of the above-described embodiments. First, battery **27** starts the engine **29** and/or mobile transducer **33** is oscillated. In response to this acceleration, forces are imposed on one or more rotation piezoelectric devices. In response to those forces, the piezoelectric devices output electrical energy, which energy is extracted at a power controller **465**. The power controller **465** sensor **480** then makes this energy available to recharge a capacitor **410** battery **440** and/or to electronic components of the

mobile terminal. Although **FIG.2** shows a serial flow of events, it is to be appreciated that the events of blocks **33**, **27** and **29** occur substantially instantaneously upon acceleration of the mobile terminal.

PREFERRED ALTERNATE EMBODIMENTS

[00118]The present invention (ATS) device in accordance with an embodiment of the present invention overcomes the foregoing problem in the conventional art and provides an electro energy vibration and alternative to gas, oil or fossil fuel consumption in **Fig.21** homes **750** transducer **755, Fig.28** airplane **880** transducer **801**, **Fig.27** train **860** transducer **801**, **Fig.32** auto **950** transducer **910**, **Fig.25** and **Fig.33** motorcycles **960,850** transducers **799, 802, 810**, **910** and **Fig.29** boat **900** transducers **901,910**.

[00119] In order to solve the foregoing problems in the conventional art, the present invention provides an electro transducer having a ball bearing assembly which is compatible with **Fig.26** axle shaft **44** transducer **810** wheel **870** assembly. In order to solve the foregoing problems in the conventional art, the present invention provides an electro transducer having an **Fig.34** housing panel **980** transducer **910** assembly which is compatible with an exterior body assembly. Thereby, an Atmospheric transducer device may be shock **800, 803** integrated as within the **Fig.23** coupler **802,** and **Fig.24** ladder **799,** (vertical friction) piezoelectric absorbers assemblies. In order to solve the foregoing problems in the conventional art, the present invention provides an electro transducer having a capable flat assembly which is compatible with **Fig.22** window **704** disk **31** plate transducer **714**, **Fig.30** solar panel **920** transducer **910**, **Fig.31** wind turbine **930** transducer **910** assembly. This invention provided **Fig.3** piezoelectric plate disks **31**, **Fig.7-10** spine piezoelectric disks stacks **107,108,109,110** capacitor **102**, **Fig.17** piezoelectric stack balls **525** capacitor, the arrangement of

balls **525** will not be in a facing relation. The deformation in the inner and outer races during rotation of the ball bearing while undergoing a radial load is made irregular and complicated. The spine eliminates the deformation and vibration level increased by a combination of ceramic and molded piezoelectric materials at a regular predetermined frequency thereby multiplying the level of vibration and noise reduction.

[00120] Certain modifications and improvements will occur to those skilled in the art upon a reading of the foregoing description. It should be understood that all such modifications and improvements have been deleted herein for the sake of conciseness and readability but are properly within the scope of the following claims.

[00121] Thus it is seen that an atmospheric transducer device may be integrated and/or provided. It will be understood that the foregoing is only illustrative of the principles of the invention, and that various modifications can be made by those skilled in the art without departing from the scope and spirit of the invention, and the present invention is limited only by the claims that follow.

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GAU:2837

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: JENNINGS, James Edward

SERIAL NO.: 13/692,121 FILING DATE: DECEMBER 3, 2012

TITLE: ATMOSPHERIC TRANSDUCTION SYSTEM

GROUP ART UNIT: 2837 EXAMINER: ROSENAU, DEREK

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RESPONSE TO OFFICE ACTION

Dear Examiner Rosenau:

This correspondence is being filed as a Response to the Office Action Summary issued on September 9, 2015. Applicant requests entry of the amendments indicated below and consideration of the appended Remarks.

Remarks begin on Page 2 of this paper.

ARGUMENTS

Not abandoned, examiner has failed to respond to the RCE filed and applicant has filed **AFCP.**

REMARKS

Applicant has amended specification by a relevant and related precedence smart phone.

DRAWINGS: REPLACEMENT SHEETS 10,12, 13, 14 and 15

SPECIFICATION AMENDMENTS: SECTION **(001)** ~~**NONE**~~

This is a Continuation of Application Serial No. 13/572,679, filed October 25, 2012, now patent No. 8,894,514, granted November 25, 2014

CLAIM AMENDMENTS: 1-3 cancelled and **(CURRENTLY AMENDED) 4-6** are presented.

Applicant respectfully requests reconsideration of the application and its passage to allowance. Should any impediments to allowance remain, Applicant requests that the Examiner and/or Supervisor contact the undersigned at the indicated phone number for an interview.

Respectfully submitted, James Jennings

/JAMES EDWARD JENNINGS/

Date: 02/01/2015 By:_____

PO Box 270081 Louisville, CO 80027
303.664.1829

4-6 are **(CURRENTLY AMENDED)**

What is claimed is:I claim

4.(CURRENTLY AMENDED) An atmospheric transduction system comprising:

a smart power grid for energy consumption and recycle;

a piezoelectric laser beam weapon for defense;

a piezoelectric nano-fiber-carbon-silicon vehicle panel for energy harvesting;

a piezoelectric air-ion cylinder-tube-train turbine for polar-frequency-plasma propulsion;

a piezoelectric air-ion-plane-spaceship turbine for polar-frequency-plasma propulsion;

a piezoelectric air-ion motorcycle turbine for polar-frequency-plasma propulsion;

a piezoelectric hydrothermal transducer recycle-boat for polar-frequency-plasma propulsion;

a piezoelectric air-ion-water-aerospace auto turbine for polar-frequency-plasma propulsion;

an electro-kinetic-acoustic antenna-rod-stack transducer for frequency reception;

an electro-kinetic-acoustic mechanical transducer for particle collection;

an antenna electro-kinetic-acoustic satellite transducer for space particle collection;

a smart-piezoelectric-home-building-construct-material for energy harvesting-capacitation;

a smart-piezoelectric-home-building-air-ion-heat turbine for energy harvesting- capacitation;

a piezoelectric air-ion-gas transducer for polar-frequency-plasma propulsion;

a piezoelectric air-silicon-gas transducer for polar-frequency-plasma propulsion; and

a piezoelectric air-carbon-gas transducer for polar-frequency-plasma propulsion.

5.(CURRENTLY AMENDED) An atmospheric transduction system comprising: a plurality of piezoelectric apparatus that communicate using an energy grid for a power access; a transducer for propulsion; a power broadcast for networking; an electronic circuit to manage; and a polar hub transceiver for sending and receiving data; a transducer rotor apparatus comprising: a stack bearing(s) which oscillates, distributes power and recharges a battery;

a wind-earth-solar and smart-window transducer for a multiplying of frequency vibration levels;

a piezoelectric housing panel transducer for a multiplying of frequency vibration levels;

an aerial grid for transceiver atmospheric positive frequency current;

an atopic ground grid for transceiver atmospheric negative frequency current;

a piezoelectric ion gas shock absorber and sensor accelerator for capacitating and controlling;

an ion interconnected antenna-rod-spine-disk-stack battery-capacitor for energy storage;

a piezoelectric particle laser beam satellite transducer for polar-frequency-plasma propulsion;

a piezoelectric-frequency-plasma transducer for a production of silicon-Si-gas;

a piezoelectric-frequency-plasma transducer for a reduction of carbon-CO_2-gas; and

an electro-acoustic electronic broadcast for transmitting to a network piezogrid subscribers.

6.(CURRENTLY AMENDED) An atmospheric transduction system method of energy comprising: oscillating a piezoelectric rotor, counterweight transducer and stack ball bearing; charging a capacitor-battery; starting an engine; accelerating a rotation; controlling energy levels; applying force to a sensor; networking solar, wind, geothermal, hydroelectric sources; harvesting an earth, tidal wave, space vibrations; mobilizing electro-kinetic mechanicals, electronic circuitry and a direct laser beam; recycling electromagnetism to a receiving grid; transmitting an electroacoustic broadcast; and effecting active piezoelectricity to an electrochemical change.

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GAU:2837

1-3 (CANCELED) AND 4-6 (CURRENTLY AMENDED)

4.(CURRENTLY AMENDED) An atmospheric transduction system comprising:

~~a~~ transducer recycle recharge by oscillation and frequency ~~in accumulation of environmental~~ positive and negative ~~electricity, maintaining a voltage being collected in a prescribed range, providing an electrical conversion~~ broadcast network;

~~a transducer mechanism for collecting an atmospheric electrical power as direct current, supplies an appropriate power grid, transceiver and capacitates a charge~~;

~~a self charging transducer propulsion provides motor characteristics, and piezoelectric frequency engine~~;

~~a piezoelectric transducer production of direct current energy frequency~~;

~~a piezoelectric transducer transmittal of direct current energy frequency~~;

~~a piezoelectric transducer, receiving of direct current energy frequency~~;

~~a piezoelectric transducer molded device(s), disk rotor, spine ball bearing, coupler and book spine stack transducers, for recycle recharge by oscillation and frequency in accumulation of environmental~~ positive and negative ~~electricity, maintaining a voltage being collected in a prescribed range, providing an electrical conversion broadcast server network circuit~~;

~~a~~ piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna~~, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and disc orbs~~, stack rods~~, power frequency broadcast, for collecting an atmospheric electrical power as direct~~

~~current and then supplies an appropriate~~ power grid, transceiver and capacitates a charge;

~~a~~ sensor accelerator~~,~~ disk ~~rotor/gear,~~ battery/capacitor~~,~~ controller, antenna~~, means for self~~ ~~charge~~ propulsion ~~comprise motor characteristics, thereby an engine of power frequency~~;

~~a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna,~~ stack ball ~~means for self~~ charge propulsion ~~comprise a transceiver, thereby power~~ frequency satellite;

~~a piezoelectric accelerator,~~ disk rotor/gear~~,~~ battery/capacitor~~, controller, antenna, stack ball means for self charge propulsion and security comprise a~~ transceiver~~, laser, mirrors, coupler, frequency thereby a direct current energy laser beam~~;

~~a piezoelectric~~ transducer ~~producing direct current energy frequency~~;

~~a piezoelectric~~ transducer ~~transmitting direct current energy frequency~~;

~~a~~ piezoelectric transducer receiving ~~direct current energy frequency~~;

~~a~~ transducer frequency energy ~~production comprising piezoelectric oscillation circuit~~;

~~a~~ transducer frequency energy ~~production comprising piezoelectric oscillator and electronic circuitry~~;

~~a piezoelectric~~ transducer ~~energy networking comprising~~ grids~~, antenna, cylinders,~~ transceivers~~, transmitters, receivers,~~ satellites~~, chamber rotors and engines~~;

~~a piezoelectric~~ transducer ~~energy comprising chamber, communication, and~~ antenna;

~~a~~ transducer ~~energy comprising piezoelectric chamber, communication, and~~ antenna;

~~a~~ transducer ~~current comprising piezoelectric chamber, communication, and~~ antenna**;**

~~a counterweight mechanism~~**;**

an electro energy vibration ~~and alternative to gas, oil or fossil fuel consumption~~;

~~a spine eliminates a deformation and~~ vibration level ~~increased by a combination of ceramic and molded~~ piezoelectric ~~materials at a regular predetermined~~ frequency ~~thereby~~

multiplying a level of vibration ~~and noise reduction~~;

~~a transducer use in~~ auto, motorcycle, airplane, train, boat~~, home,~~ turbine, ~~tower,~~ window~~,~~ panel~~, building and~~ wind, water, solar~~, renewable energy; and~~

~~an optical~~ laser beam ~~directed energy~~ defense~~, to use~~ ground and space-based ~~systems, to protect from attack by strategic nuclear ballistic missiles~~.

4.(CURRENTLY AMENDED) An atmospheric transduction system comprising:

a smart power grid for energy consumption and recycle;

a piezoelectric laser beam weapon for defense;

a piezoelectric nano-fiber-carbon-silicon vehicle panel for energy harvesting;

a piezoelectric air-ion cylinder-tube-train turbine for polar-frequency-plasma propulsion;

a piezoelectric air-ion-plane-spaceship turbine for polar-frequency-plasma propulsion;

a piezoelectric air-ion motorcycle turbine for polar-frequency-plasma propulsion;

a piezoelectric hydrothermal transducer recycle-boat for polar-frequency-plasma propulsion;

a piezoelectric air-ion-water-aerospace auto turbine for polar-frequency-plasma propulsion;

an electro-kinetic-acoustic antenna-rod-stack transducer for frequency reception;

an electro-kinetic-acoustic mechanical transducer for particle collection;

an antenna electro-kinetic-acoustic satellite transducer for space particle collection;

a smart-piezoelectric-home-building-construct-material for energy harvesting-capacitation;

a smart-piezoelectric-home-building-air-ion-heat turbine for energy harvesting- capacitation;

a piezoelectric air-ion-gas transducer for polar-frequency-plasma propulsion;

a piezoelectric air-silicon-gas transducer for polar-frequency-plasma propulsion; and

a piezoelectric air-carbon-gas transducer for polar-frequency-plasma propulsion.

5.(CURRENTLY AMENDED) ~~The atmospheric transduction system in accordance with claim 4, wherein said means for recycle recharge by oscillation and frequency in accumulation of environmental~~ positive and negative ~~electricity, maintaining a voltage being collected in a prescribed range, an electrical conversion~~ broadcast network circuit ~~comprises piezoelectric transducer molded device housing, disk rotor, stack ball bearing, coupler, counterweight, book~~ spine stacks~~,~~ laser and antenna rod stacks;

~~wherein said means for collecting an atmospheric electrical power as direct current and then supplies an appropriate power grid and capacitates a charge comprises a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and orbs, power frequency broadcast~~;

~~wherein said means for charging providing~~ motor ~~characteristics, said power frequency engine comprises a~~ sensor accelerator~~, rotor/gear,~~ battery/capacitor, antenna, controller~~, for~~ propulsion;

~~wherein said means for charging providing~~ satellite ~~characteristics, said power~~ frequency ~~satellite comprises a piezoelectric~~ accelerator~~,~~ disk ~~rotor/gear,~~ battery/capacitor~~,~~ controller~~,~~ antenna, stack ~~ball and~~ transceiver;

~~wherein said means for charging providing security characteristics, said frequency laser comprises a~~ piezoelectric accelerator~~, disk rotor/gear,~~ battery/capacitor~~, controller,~~ antenna, stack ~~ball, mirrors, coupler, counterweight, beam and laser~~;

~~wherein said means of producing, transmittal, and receiving direct current energy comprising frequency comprises piezoelectric molded parts and circuitry; and~~

~~wherein said means of deformation in an inner and outer races during rotation of a ball bearing while undergoing a radial load is made irregular and complicated, is eliminated by a spine; and~~

~~wherein said means of transduction and an~~ electro energy vibration ~~is an alternative~~;

5.(CURRENTLY AMENDED) An atmospheric transduction system comprising: a plurality of piezoelectric apparatus that communicate using an energy grid for a power access; a transducer for propulsion; a power broadcast for networking; an electronic circuit to manage; and a polar hub transceiver for sending and receiving data;

a transducer rotor apparatus comprising: a stack bearing(s) which oscillates, distributes power and recharges a battery;

a wind-earth-solar and smart-window transducer for a multiplying of frequency vibration levels;

a piezoelectric housing panel transducer for a multiplying of frequency vibration levels;

an aerial grid for transceiver atmospheric positive frequency current;

an atopic ground grid for transceiver atmospheric negative frequency current;

a piezoelectric ion gas shock absorber and sensor accelerator for capacitating and controlling;

an ion interconnected antenna-rod-spine-disk-stack battery-capacitor for energy storage;

a piezoelectric particle laser beam satellite transducer for polar-frequency-plasma propulsion;

a piezoelectric-frequency-plasma transducer for a production of silicon-Si-gas;

a piezoelectric-frequency-plasma transducer for a reduction of carbon-CO_2-gas; and

an electro-acoustic electronic broadcast for transmitting to a network piezogrid subscribers.

6.(CURRENTLY AMENDED) ~~An atmospheric transduction system method for generation of green energy using a rotor, comprising the steps of~~:

~~providing a battery, a engine starts and/or a mobile counterweight transducer is oscillated~~;

~~providing acceleration, forces are imposed on one or more rotation piezoelectric devices;~~

~~providing response to counterweight forces, piezoelectric devices output electrical energy;~~

~~providing a power controller energy is extracted~~;

~~providing a spine eliminates a deformation and vibration level increased by a combination of ceramic and molded piezoelectric materials at a regular predetermined frequency thereby multiplying a level of vibration and noise reduction~~;

~~providing a power controller and sensor, energy available to recharge a~~ capacitor/ battery ~~by~~ electronic ~~components of a~~ mobile ~~terminal~~;

~~providing a serial flow of events, it is to be appreciated that the events of blocks start, battery, engine, and counterweight transducer occur substantially instantaneously~~;

~~providing a battery charge when an external power supply is connected to an ATS device~~;

~~providing reciprocal power incorporated within piezoelectric molded and ceramic housing along with~~ stack balls ~~and cylinder~~;

~~providing one or more steps by presenting a self charge retaining transducers may be configured with an~~ accelerator sensor controller ~~and gears~~;

~~providing propulsion upon acceleration of a mobile terminal~~;

providing an ~~electro~~ energy ~~vibration and alternative to gas, oil or fossil fuel consumption;~~ and providing an ~~optical~~ laser beam directed energy defense~~.~~

6.(CURRENTLY AMENDED) An atmospheric transduction system method of energy comprising: oscillating a piezoelectric rotor, counterweight transducer and stack ball bearing; charging a capacitor-battery; starting an engine; accelerating a rotation; controlling energy levels; applying force to a sensor; networking solar, wind, geothermal, hydroelectric sources; harvesting an earth, tidal wave, space vibrations; mobilizing electro-kinetic mechanicals, electronic circuitry and a direct laser beam; recycling electromagnetism to a receiving grid; transmitting an electroacoustic broadcast; and effecting active piezoelectricity to an electrochemical change.

Electronic Acknowledgement Receipt

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First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
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Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Drawings-only black and white line drawings	AERO_DRAWINGS.pdf	387033 dab09d6c7be193ffc1cced07f4e10fe12420bcc1	no	5

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2	Abstract	ATS_ABSTRACT.pdf	17066 3eefc6f3da8a36220ef895fabc5fafa574c74cef	no	1
Warnings:					
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3	Specification	ATS_AFCP_SPEC.pdf	144171 35e26489a2aff870c2f04fb44db6449d81d27fce	no	31
Warnings:					
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4	Supplemental Response or Supplemental Amendment	ATS_AFCP_SPEC_ANNO.pdf	144582 abc2b7db21d553358ccf2f608f5d4588921c84bf	no	31
Warnings:					
Information:					
5	Applicant Arguments/Remarks Made in an Amendment	ATS_AFCP2_LETTER.pdf	30537 da78fe7899717dd71beea15327467d7856f0f844	no	2
Warnings:					
Information:					
6	Claims	ATS_CLAIMS_AFCP2.pdf	27900 208ae762d4b790442d32635b8fb6bf53d33d46d1	no	2
Warnings:					
Information:					
7	Amendment Copy Claims/Response to Suggested Claims	ATS_CLAIMS_AFCP2_CANCEL.pdf	47011 4acf7ea48877fefc4d80b60e97a4b7f05fbd3691	no	7
Warnings:					
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National Stage of an International Application under 35 U.S.C. 371

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New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

ABSTRACT

Atmospheric Transduction System including a Power Frequency broadcast station, a receiver, and a network. The Power Frequency broadcast station includes a transmitter and a computer server. The receiver is in communication with the Power Frequency broadcast transmitter and also includes a user interface for receiving user input commands comprising a request for information from the Power Frequency broadcast station. The receiver is configured to establish a two-way communication path between the receiver and the Power Frequency broadcast transmitter. The network is in communication with the transducer, controller and the receiver for exchanging information therebetween. In response to oscillation translation and/or rotation of the electronic transducer, portions of forces induced by the mass are transferred to the piezoelectric elements. Electrical energy output by these piezoelectric elements is received in a power controller and can be applied to the battery as self charging. The piezoelectric transducer includes a conductive rotor and bearings, at least one of them incorporating a vibrator of mechanical oscillation, having a piezoelectric transducer converting mechanical vibration into electric power.

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

APPLICATION FOR U.S. LETTERS PATENT

TITLE: **ATMOSPHERIC TRANSDUCTION SYSTEM**

INVENTOR: **JENNINGS, James Edward**

CROSS REFERENCE TO RELATED APPLICATIONS

[001] This is a Continuation of Application Serial No. 13/572,679, filed October 25, 2012, now patent No. 8,894,514, granted November 25, 2014.

BACKGROUND OF THE INVENTION

Field of the Invention

[002] Self-propelled travel is a type of recreational adventure travel using human powered transport. This includes non-motorized machines such as a bicycle or skateboard. It is in contrast to traveling in a powered vehicle (such as an automobile) as in that case it is the vehicle which powers itself. Self-propelled travel is used to travel short distances or even for much longer distances such as bicycle touring. Self propelled describes something that moves, progresses or acts on its own power without needing outside help. Leonardo da Vinci's 1478 Self-Propelled Car: It was more than 500 years ago, however -- sometime around the year 1478 to be more or less specific -- when Leonardo drew out his plans for the world's first self-propelled vehicle. Experts originally believed two leaf springs, the simplest form of the spring typically used for automotive suspensions, somehow powered the vehicle. Closer inspection eventually revealed the power came from bigger, coiled springs located in tambours, cylindrical drum-like casings, inside the car's frame. The machine works like a robot or a wind-up toy simply by rotating the wheels opposite of their intended direction, which winds up the springs inside and gives it power. Self propulsion(of a vehicle) provided with its own source of tractive power rather than requiring an external means of propulsion.

[003] In the middle of the 18th century, Benjamin Franklin's experiments showed that electrical phenomena of the atmosphere were not fundamentally different from those produced in the

laboratory. By 1749, Franklin observed lightning to possess almost all the properties observable in electrical machines.

[004] In July 1750, Franklin hypothesized that electricity could be taken from clouds via a tall metal aerial with a sharp point. Before Franklin could carry out his experiment, in 1752 Thomas-François Dalibard erected a 40-foot (12 m) iron rod at Marly-la-Ville, near Paris, drawing sparks from a passing cloud. With ground-insulated aerials, an experimenter could bring a grounded lead with an insulated wax handle close to the aerial, and observe a spark discharge from the aerial to the grounding wire. In May 1752, Dalibard affirmed that Franklin's theory was correct.

Piezoelectric Motor

[005] A piezoelectric motor or piezo motor is a type of electric motor based upon the change in shape of a piezoelectric material when an electric field is applied. Piezoelectric motors make use of the converse piezoelectric effect whereby the material produces acoustic or ultrasonic vibrations in order to produce a linear or rotary motion. In one mechanism, the elongation in a single plane is used to make a series stretches and position holds, similar to the way a caterpillar moves. A transducer is a device that converts one form of energy to another. Energy types include (but are not limited to) electrical, mechanical, electromagnetic (including light), chemical, acoustic or thermal energy. While the term transducer commonly implies the use of a sensor/detector, any device which converts energy can be considered a transducer. Transducers are widely used in measuring instruments. Piezoelectric materials can also be used to harvest low levels of mechanical energy into electrical energy suitable for powering wireless sensors, low power microprocessors or charging batteries. Rotary Uses include rotating machines such as fans, turbines, drills, the wheels on electric cars, locomotives and conveyor

belts. Also, in many vibrating or oscillating machines, an electric motor spins an unbalanced mass, causing the motor (and its mounting structure) to vibrate.

ATMOSPHERIC ELECTRICITY

[006] There is always free atmospheric electricity **313** in the air and in the clouds, which acts by induction on the earth and electromagnetic devices. Experiments have shown that there is always free electricity in the atmosphere, which is sometimes negative and sometimes positive, but most generally positive, and the intensity of this free electricity is greater in the middle of the day than at morning or night and is greater in winter than in summer. In fine weather, the potential increases with altitude at about 30 volts per foot (100 V/m).

Atmospheric layers

[007] The electrical conductivity of the atmosphere increases exponentially with altitude. The amplitudes of the electric and magnetic components depend on season, latitude, and height above the sea level. The greater the altitude the more atmospheric electricity abounds. The exosphere is the uppermost layer of the atmosphere and is estimated to be 500 km to 1000 km above the Earth's surface, and its upper boundary at about 10,000 km. The thermosphere (upper atmosphere) is the layer of the Earth's atmosphere directly above the mesosphere and directly below the exosphere. Within this layer, ultraviolet radiation causes ionization. Theories that have been proposed to explain the phenomenon of the polar aurora, but it has been demonstrated by experiments that it is due to currents of positive electricity passing from the higher regions of the atmosphere to the earth.

[008] The mesosphere (middle atmosphere) is the layer of the Earth's atmosphere that is directly above the stratosphere and directly below the thermosphere. The mesosphere is located about 50-80/85 km above Earth's surface. The stratosphere (middle atmosphere) is a layer of Earth's atmosphere that is stratified in temperature and is situated between about 10 km and 50 km altitude above the surface at moderate latitudes, while at the poles it starts at about 8 km altitude. The stratosphere sits directly above the troposphere and directly below the mesosphere. The troposphere (lower atmosphere) is the densest layer of the atmosphere.

[009] The planetary boundary layer (PBL), also known as the atmospheric boundary layer (ABL), is the lowest part of the atmosphere and its behavior is directly influenced by its contact with the planetary surface. It is also known as the "exchange layer". (see also:p-n junction.)

[0010] There is a potential gradient at ground level ("Atmosphere ground layer") and this vertical field corresponds to the negative charge in and near the Earth's surface. The negative potential gradient falls rapidly as altitude increases from the ground. Most of this potential gradient is in the first few kilometers. The positive potential gradient rises rapidly as altitude increases from the ground. Volta, over two centuries before the 21st century, discovered with some degree of exactitude that the proportions of the ordinates of the curve or gradient of electric potential increased as the distance from the earth increases, and, more recently, Engel has provided data to calculate the increase.

Drum-type generator

[0011] A drum-type homopolar generator has a magnetic field (B) that radiates radially from the center of the drum and induces voltage (V) down the length of the drum. A conducting drum spun from above in the field of a "loudspeaker" type of magnet that has one pole in the center of the drum and the other pole surrounding the drum could use conducting ball bearings at the top and bottom of the drum to pick up the generated current.

Astrophysical unipolar inductors

[0012] Unipolar inductors occur in astrophysics where a conductor rotates through a magnetic field, for example, the movement of the highly conductive plasma in a cosmic body's ionosphere through its magnetic field. In their book, Cosmical Electrodynamics, Hannes Alfvén and Carl-Gunne Fälthammar write:

"Since cosmical clouds of ionized gas are generally magnetized, their motion produces induced electric fields. For example the motion of the magnetized interplanetary plasma produces electric fields that are essential for the production of aurora and magnetic storms."

".. the rotation of a conductor in a magnetic field produces an electric field in the system at rest.

[0013] This phenomenon is well known from laboratory experiments and is usually called 'homopolar ' or 'unipolar' induction.

The Faraday disc

[0014] The homopolar generator was developed first by Michael Faraday during his experiments in 1831. It is frequently called the Faraday disc in his honor. It was the beginning of modern dynamos — that is, electrical generators which operate using a magnetic field. It was very inefficient and was

not used as a practical power source, but it showed the possibility of generating electric power using magnetism, and led the way for commutated direct current dynamos and then alternating current alternators.

Boeing 737–800

[0015] The Boeing Fuel Cell Demonstrator Airplane has a Proton Exchange Membrane (PEM) fuel cell/lithium-ion battery hybrid system to power an electric motor, which is coupled to a conventional propeller. The fuel cell provides all power for the cruise phase of flight. During takeoff and climb, the flight segment that requires the most power, the system draws on lightweight lithium-ion batteries.

[0016] The demonstrator aircraft is a Dimona motor glider, built by Diamond Aircraft Industries of Austria, which also carried out structural modifications to the aircraft. With a wing span of 16.3 meters (53.5 feet), the airplane will be able to cruise at approximately 100 kilometers per hour (62 miles per hour) on power from the fuel cell.

[0017] Nikola Tesla explored the wireless transmission of energy through his work with radio and microwaves and his creation of the Tesla coil and the magnifying transmitter. In 1898, Tesla demonstrated his radio-controlled boat, which he was able to control remotely. In the 1930s, Tesla claimed to have invented a particle beam weapon, or, as some called it, a "peace ray." The device was, in theory, capable of generating an intense, targeted beam of energy and sending it across great distances to demolish warplanes, foreign armies, or anything else you'd rather didn't exist.

[0018]"ROY J. MEYERS, BRITISH PATENT NUMBER 1098" This invention relates to improvements in apparatus for the production of electrical currents, and the primary object in view is the production of a commercially serviceable electrical current without the employment of

mechanical or chemical action. To this end the invention comprises means for producing what I believe to be dynamic electricity from the earth and its ambient elements.

[0019] EDWARD LEEDSKALNIN: MAGNETIC CURRENT - is primarily a teaching device but it has many functions including an electromagnet, this is easy enough to see; it is a generator—spin a magnet between the coils it will generate electricity; it functions as a transformer; it demonstrates how permanent magnets are made.

Strategic Defense Initiative

[0020] The Strategic Defense Initiative (SDI) was proposed to use ground and space-based systems to protect the United States from attack by strategic nuclear ballistic missiles.

Description of the Related Art

[0021] The present invention relates to a ball bearing assembly structure, an electromagnetic clutch having the ball bearing assembly structure, and a gas compressor equipped with the electromagnetic clutch.

[0022]When operating the gas compressor , the electromagnet of the electromagnetic clutch is energized to attract or adsorb the follower armature plate to an end surface of the prime-mover pulley and join the prime-mover pulley and the rotor shaft, thereby rotating the rotor shaft.

[0023] The ball bearing of the electromagnetic clutch conventionally has used one having an even number of balls per row. Generally, the ball bearing causes vibration and noise due to rotation. In the case of the ball bearing rotating while undergoing a radial load due to a tension of the belt, vibration and noise considerably occur. Particularly when other vibration and noise levels are

lowered during engine idling, the vibration and noise of the ball bearing transmitted to the vehicular compartment is not negligible.

[0024] The inventor has conducted various experiments and discovered that the one factor of high vibration and noise level is an even number of balls of the ball bearing. In the ball bearing having an even number of balls per one row, the balls are in a facing relation to have linear-symmetry arrangement between the inner race and the outer race. The deformation and vibration at a regular particular frequency is caused in the inner and outer races. It is to be considered that the vibration as a source also increases noise.

[0025]The present invention relates generally and in various embodiments to piezoelectric mechanical systems. More specifically, the present invention relates generally and in various embodiments to atmospheric oscillation transducer apparatuses, systems, and methods.

[0026] Although various implementations of the present invention, among many, may be described herein with reference to the specific illustrative embodiments related to particular applications, those skilled in the art will understand that the invention is not in any way intended to be limited to such embodiments and/or applications. Those having ordinary skill in the art and reference to the description of the embodiments herein will recognize additional modifications, applications, and other embodiments falling within the scope of the claimed invention and additional fields in which the present invention may be practiced.

[0027] Digital Radio (also known as Satellite Radio or Satellite Digital Audio Radio Service (SDARS)) is a subscriber-based digital radio service that is broadcast via satellites. Digital radio

service provides compact-disc (CD) quality programming that may be digitally transmitted via one or more satellites and/or space stations to one or more Earth-based (terrestrial) digital radio stations, receivers, and/or repeaters. In satellite-based direct-broadcast radio services, digitally-encoded audio program material may be broadcast to terrestrial fixed or mobile digital radio receivers. Fixed receivers may include, for example, stand alone digital radio receivers or digital radio receivers connected via computer networks, including for example, the Internet. Mobile receivers may include, for example, digital radio receivers located in automobiles, aircrafts, watercrafts, and the like.

[0028] Satellite-based digital audio radio services such as SDARS, for example, may be broadcast to one or more digital radio receivers either directly from an orbiting satellite, or indirectly from one or more repeater stations. Such repeater stations may be useful where the digital radio receiver is located in a shielded location or where there is no direct line of sight between the radio and the satellite. In other digital audio radio services systems, the audio programs also may be transmitted in digital form by one or more space stations directly to fixed, mobile, and/or portable radio stations. Such systems may comprise, for example, orbiting satellites, complementary repeating terrestrial transmitters, telemetry, tracking, and control facilities.

[0029] Combinations of mechanical devices U.S. Pat. Nos. 4,019,073, 6,615,968 and atmospheric system interaction are disclosed in U.S. Pat. Nos. 1,119,732, 787,412, to Nikola Tesla; 28,793 to Charles Vion; and 1,540,998 to Herman Plauson. Lastly, U.S. Pat. Nos. 8,102,078 and US2008/0009240. Agnoff discloses an Oscillating watch winder in U.S. Pat. Nos. 6,543,929, Jennings further discloses an oscillating smart device in application No. 13,572,679.

[0030] As illustrated by a large body of prior art, including the above-noted patents, and a large number of commercial devices, efforts are continuously being made in an attempt to improve helmets, headsets and their methods of fabrication. Nothing in the prior art, however, suggests the present inventive combination of materials and method steps as herein described and claimed. The present invention achieves its purposes, objects and advantages over the prior art through a new, useful and unobvious combination of components and method steps which improve safety, comfort and noise abatement performance.

[0031] Therefore, it is an object of this invention to provide effectively, the provision of energy such that it meets the needs of the present without compromising the ability of future generations to meet their own needs. ...Sustainable Energy has two key components: renewable energy and energy efficiency.

[0032] It is still a further objection of this invention to promote dynamic harmony between equitable availability of energy-intensive goods and services to all people and the preservation of the earth for future generations." And, "the solution will lie in finding sustainable energy sources and more efficient means of converting and utilizing energy.

[0033] It is a further object of the present invention to produce Green Power Energy: is energy that can be extracted, generated, and/or consumed without any significant negative impact to the environment, green power; as electricity produced from solar, wind, geothermal, biogas, biomass, and low-impact small hydroelectric sources.

[0034] Thus, there is a need for a clean energy system that uses atmospheric electricity.

Prior Art

[0035] Quartz crystals have been in regular use for many years to give an accurate frequency for all radio transmitters, radio receivers and computers. Their accuracy comes from an amazing set of

coincidences: Quartz -- which is silicon dioxide like most sand -- is unaffected by most solvents and remains crystalline to hundreds of degrees Fahrenheit. The property that makes it an electronic miracle is the fact that, when compressed or bent, it generates a charge or voltage on its surface. This is a fairly common phenomenon called the Piezoelectric effect. In the same way, if a voltage is applied, quartz will bend or change its shape very slightly.

[0036] If a bell were shaped by grinding a single crystal of quartz, it would ring for minutes after being tapped. Almost no energy is lost in the material. A quartz bell -- if shaped in the right direction to the crystalline axis -- will have an oscillating voltage on its surface, and the rate of oscillation is unaffected by temperature. If the surface voltage on the crystal is picked off with plated electrodes and amplified by a transistor or integrated circuit, it can be re-applied to the bell to keep it ringing.

[0037] The electronics of the watch initially amplifies noise at the crystal frequency. This builds or regenerates into oscillation -- it starts the crystal ringing. The output of the watch crystal oscillator is then converted to pulses suitable for the digital circuits.

Polymers

[0038] Polyvinylidene fluoride (PVDF): PVDF exhibits piezoelectricity several times greater than quartz. Unlike ceramics, where the crystal structure of the material creates the piezoelectric effect, in polymers the intertwined long-chain molecules attract and repel each other when an electric field is applied.

Near Space

[0039] Solar particles become trapped within the Earth's magnetic field and form radiation belts. The Van Allen radiation belt is a torus of energetic charged particles (i.e. a plasma) around Earth, trapped by Earth's magnetic field.

[0040] At elevations above the clouds, atmospheric electricity forms a continuous and distinct element (called the electrosphere) in which the Earth is surrounded. The electrosphere layer (from tens of kilometers above the surface of the earth to the ionosphere) has a high electrical conductivity and is essentially at a constant electric potential. The ionosphere is the inner edge of the magnetosphere and is the part of the atmosphere that is ionized by solar radiation. (Photoionization is a physical process in which a photon is incident on an atom, ion or molecule, resulting in the ejection of one or more electrons.)

ADVANTAGES/DISADVANTAGES

[0041] Energy in electronic elements: Electric potential energy, or electrostatic potential energy, is a potential energy (measured in joules) that results from conservative Coulomb forces and is associated with the configuration of a particular set of point charges within a defined system. The term "electric potential energy" is used to describe the potential energy in systems with time-variant electric fields, while the term "electrostatic potential energy" is used to describe the potential energy in systems with time-invariant electric fields.

[0042] Capacitance is the ability of a body to store an electrical charge. Any body or structure that is capable of being charged, either with static electricity or by an electric current, exhibits capacitance. A common form of energy storage device is a parallel-plate capacitor. In a parallel plate capacitor, capacitance is directly proportional to the surface area of the conductor plates and inversely proportional to the separation distance between the plates. If the charges on the plates are +q and -q, and V gives the voltage between the plates, then the capacitance C is given by

$$C = q/V.$$

[0043] The capacitance is a function only of the physical dimensions (geometry) of the conductors and the permittivity of the dielectric. It is independent of the potential difference between the conductors and the total charge on them.

[0044] Piezoelectricity is the combined effect of the electrical behavior of the material:

$D = \epsilon E$

where D is the electric charge density displacement (electric displacement), ϵ is permittivity and E is electric field strength, and

Hooke's Law: $S = s T$

where S is strain, s is compliance and T is stress.

[0045] Polyvinylidene fluoride, or polyvinylidene difluoride (PVDF) is a highly non-reactive and pure thermoplastic fluoropolymer produced by the polymerization of vinylidene difluoride. PVDF is a specialty plastic material in the fluoropolymer family; it is used generally in applications requiring the highest purity, strength, and resistance to solvents, acids, bases and heat and low smoke generation during a fire event. Compared to other fluoropolymers, it has an easier melt process because of its relatively low melting point of around 177 ˚C.

[0046] It has a low density (1.78 g/cm3) and low cost compared to the other fluoropolymers. It is available as piping products, sheet, tubing, films, plate and an insulator for premium wire. It can be injected, molded or welded and is commonly used in the chemical, semiconductor, medical and defense industries, as well as in lithium ion batteries. It is also available as a crosslinked closed cell foam, used increasingly in aviation and aerospace. PVDF has a glass transition temperature (Tg) of

about -35 ˚C and is typically 50–60% crystalline. To give the material its piezoelectric properties, it is mechanically stretched to orient the molecular chains and then poled under tension. PVDF exists in several forms: alpha (TGTG'), beta (TTTT), and gamma (TTTGTTTG') phases, depending on the chain conformations as trans (T) or gauche (G) linkages. When poled, PVDF is a ferroelectric polymer, exhibiting efficient piezoelectric and pyroelectric properties. These characteristics make it useful in sensor and battery applications. Thin films of PVDF are used in some newer thermal camera sensors.

[0047] Copolymers: Copolymers of PVDF are also used in piezoelectric and electrostrictive applications. One of the most commonly-used copolymers is P(VDF-trifluoroethylene), usually available in ratios of about 50:50 wt% and 65:35 wt% (equivalent to about 56:44 mol% and 70:30 mol%). Another one is P(VDF-tetrafluoroethylene). They improve the piezoelectric response by improving the crystallinity of the material.

[0048] While the copolymers' unit structures are less polar than that of pure PVDF, the copolymers typically have a much higher crystallinity. This results in a larger piezoelectric response: d33 values for P(VDF-TrFE) have been recorded to be as high as -38 pC/N versus -33 pC/N in pure PVDF.

[0049] APPLICATIONS: The piezoelectric properties of PVDF are used to advantage to manufacture tactile sensor arrays, inexpensive strain gauges and lightweight audio transducers. Piezoelectric panels made of PVDF are used on the Venetia Burney Student Dust Counter, a scientific instrument of the New Horizons space probe that measures dust density in the outer solar system. PVDF is the standard binder material used in the production of composite electrodes for

lithium ion batteries. 1-2% weight solution of PVDF dissolved in N-Methyl-2-pyrrolidone (NMP) is mixed with an active lithium storage material such as graphite, silicon, tin, LiCoO2, LiMn2O4, or LiFePO4 and a conductive additive such as carbon black or carbon nanofibers. This slurry is cast onto a metallic current collector and the NMP is evaporated to form a composite or paste electrode. PVDF is used because it is chemically inert over the potential range used and does not react with the electrolyte or lithium. Piezoelectric elements can be used in laser mirror alignment, where their ability to move a large mass (the mirror mount) over microscopic distances is exploited to electronically align some laser mirrors. By precisely controlling the distance between mirrors, the laser electronics can accurately maintain optical conditions inside the laser cavity to optimize the beam output. Piezoelectric sensors especially are used with high frequency sound in ultrasonic transducers for medical imaging and also industrial nondestructive testing (NDT).

[0050] For many sensing techniques, the sensor can act as both a sensor and an actuator – often the term transducer is preferred when the device acts in this dual capacity, but most piezo devices have this property of reversibility whether it is used or not. Ultrasonic transducers, for example, can inject ultrasound waves into the body, receive the returned wave, and convert it to an electrical signal (a voltage). Most medical ultrasound transducers are piezoelectric.

[0051] Advantageously, Sustainable energy is the sustainable provision of energy that meets the needs of the present without compromising the ability of future generations to meet their needs. Technologies that promote sustainable energy include renewable energy sources, such as hydroelectricity, solar energy, wind energy, wave power, geothermal energy, and tidal power, and also technologies designed to improve energy efficiency.

[0052] This sequence of oscillations causes the rotor within the watch to spin rapidly thereby winding the watch in a manner closely simulating the spinning of the rotor that occurs during normal winding of the watch when the watch is worn by a user. Due to the forces that are exerted, the rotor spins around the watch shaft during the oscillations, as opposed to the partial rotation observed in prior art mechanisms. Therefore, the time required to wind the watch, and the energy required, is substantially reduced. Moreover, since the rotor is spinning about the shaft, as opposed to merely being held in a downward position while the watch is rotated, winding more closely approximating the design mechanism is achieved, thereby putting less wear on the watch.

[0053]This invention relates to satellite communications systems using multiple spot beams from a geosynchronous earth orbit satellite to provide selective coverage of the continental United States and, more particularly, relates to a system having a satellite receiving hub in every spot beam that allows for asynchronous communications between each hub and the satellite for maximizing frequency re-use.

[0054] These purposes, objects and advantages should be construed as merely illustrative of some of the more prominent features and applications of the present invention. Many other beneficial results can be obtained by applying the disclosed invention in a different manner or by modifying the invention within the scope of the disclosure. Accordingly, other purposes, objects and advantages as well as a fuller understanding of the invention may be had by referring to the summary herein mentioned and detailed description describing the preferred embodiments of the invention, in addition to the scope of the invention, as defined by the claims, taken in conjunction with the accompanying drawings.

SUMMARY OF THE INVENTION

[0055] In one general respect, an embodiment of the present invention is directed to a system. The system includes a Power Frequency broadcast station, a receiver, and a network. The Power Frequency broadcast station includes a transmitter and a server. The receiver is in communication with the Power Frequency broadcast transmitter and also includes a user interface for receiving user input commands comprising a request for information from the Power Frequency broadcast station.

[0056] The receiver is configured to establish a two-way communication path between the receiver and the Power Frequency broadcast transmitter. The network is in communication with the server and the receiver for exchanging information therebetween. The request for information is provided to the server via the network and the server is configured to receive the request and transmit a response message to the receiver in accordance with the request.

Continuously outboard recharged electric vehicle (COREV)

[0057] Given suitable infrastructure, permissions and vehicles, BEVs (battery electric vehicles) can be recharged while the user drives. The BEV establishes contact with an electrified rail, plate or overhead wires on the highway via an attached conducting wheel or other similar mechanism (see Conduit current collection). The BEV's batteries are recharged by this process—on the highway—and can then be used normally on other roads until the battery is discharged. Some of battery-electric locomotives used for maintenance trains on the London Underground are capable of this mode of operation. Power is picked up from the electrified rails where possible, switching to battery power where the electricity supply is disconnected.

[0058] The present invention is directed to overcome the disadvantages of the prior art. The invention is a mechanism which taps into the naturally occurring static electricity in the atmosphere. Whereas heretofore, the attempt to garner electricity from the atmosphere has focused exclusively on capturing lightning, the present invention syphons off the static electricity which is generated from any agitated air and voids lightning.

[0059] Lightning is only the final discharge of the static electricity, whether that lightning is intra-cloud lightning, cloud-to-ground lightning, or inter-cloud lightning. Other types of final discharges are known as heat lightning, summer lightning, sheet lightning, ribbon lightning, silent lightning, ball lightning, bead lightning, elves, jets, and sprites. Well before these discharges are observed, as the atmosphere becomes agitated by wind or thermal, static electricity is being generated. The present invention recognizes that this static electricity is being formed and creates a mechanism to capture it.

[0060] In the preferred embodiment, a sensor array is used to monitor the activities both at the base unit (such as electrical flow within the conductor) and in the surrounding locale. A sensor monitoring the electrical flow (i.e. voltage and/or current) within the conductor is used to monitor the electrical activity within the conductor.

[0061] In the preferred embodiment, a lightning sensor monitors for lightning activity within the locale. As noted earlier, the electrical characteristic of lightning is so extreme that ideally this discharge is avoided as it might damage the mechanism of this invention. The sensor array is utilized by a controller, such as microprocessor, programmed to operate the mechanism as outlined herein.

[0062] The controller is programmed to operate or monitor the electrical characteristics of the conductor and to maintain these characteristics within the conductor within a preset range.

[0063] This preset range is established either in the base programming of the controller or is established by an operator of the system. As example, by controlling the amount of current being withdrawn from the atmosphere, the mechanism operates within a safe range and also provides a relatively stable current flow from which a variety of activities can take place (such as DC-AC conversion).

[0064] The controller also utilizes the lightning sensor to protect the mechanism from a lightning strike. Should lightning be detected within a pre-determined range (as established by the software or defined by an operator), then the balloon is pulled down to minimize the risk of damage from a lightning strike.

[0065] Another aspect of the invention relates to the electrical system which accepts the fluctuating atmospheric charge and changes it into an acceptable configuration for either the desired load or for the existing power grid.

[0066] Power grids in the United States operate with a frequency of 60 hertz in an alternating current arrangement. While this basic configuration seems to be universally accepted, the voltage within the grid varies dramatically, such as 15 kv, 34 kv, 69 kv, and even 112 kv.

[0067] Each atmospheric generator is placed proximate to or within easy access to a specific grid; this establishes the required electrical output configuration (i.e. that which is accepted by the power grid). As example, one of the atmospheric electrical collector units as described above collects the atmospheric electrical power as direct current and then supplies the appropriate power grid a specific flow (as example, AC, 60 hertz, at 69 kv).

[0068] The difficulty lies the fact that the DC current being garnered from the atmosphere varies depending on the actual agitation being generated in the atmosphere. This means that the source of DC current is fluctuating.

[0069] The present invention uses a monitoring system which checks the input DC voltage. Depending on the actual voltage being received, the appropriate converter is connected to the input DC voltage so that the desired output is obtained.

[0070] As example, suppose the DC input voltage is 1500 volts, the monitoring system, sensing this input, closes the switch connecting the DC voltage to a converter which accepts DC voltage in the range of 1000-2000 volts which then delivers an AC, 60 hertz 69 kv signal to the power grid. If the DC input voltage increases to 2100 volts, then the monitoring system opens the switch to the first converter (1000-2000 volts) and closes the switch to a second converter (such as 2000-4000 volts) to deliver the desired output of AC (60 hertz, 69 kv) for the power grid.

[0071] In this manner, regardless of the fluctuating input DC voltage, the electrical grid is supplied with a fully configured electrical input conforming to the needs of that specific electrical grid.

[0072] Another aspect of the present invention is the use of a tower or permanent structure instead of an aircraft. In this embodiment, the building or tower is electrically isolated from the ground and a rod (similar to a lightning rod) is extended into the atmosphere. The rod collects the atmospheric charge which is conveyed via an electrical conduit (ideally insulated) where the collected DC charge is reconfigured to meets the need of the locale.

[0073] In this context, for one embodiment of the invention, a tower is placed onto the top of a building. The tower is electrically isolated from the building using such mechanisms well known to those of ordinary skill in the art such as rubber mats. A rod ideally extends from the top of the tower to facilitate the collection of the DC electrical energy.

[0074] Piezoelectricity is a material property that is manifested when voltage is produced by applying mechanical forces, and vice versa, the effect has been described as direct and converse. Piezoelectricity has been described as coupling between a quasi-static electric field and dynamic mechanical motion.

[0075] A piezoelectricity converter mechanism such as described above, is connected to the tower to flow the DC electricity to a converter which modifies the DC current for the specific application. In one application, the DC current is converted to the electrical needs of the building, thereby providing at least some of the electrical requirements of the building itself.

[0076] As noted earlier, the dynamic converter system of the present invention allows a power generator to address a variable voltage in an efficient manner. This makes the dynamic converter system ideal for a variety of alternative energy sources such as the above described atmospheric electrical generator and other alternative energy sources such as wind and wave powered systems.

In these systems, the energy being generated must be converted to a proper electrical configuration for a identified load. This may be a particular motor or connection to the power grid which act as a load to the power generating mechanism.

[0077] For these energy generating systems, the converter assembly of this invention utilizes multiple converters. Each converter is configured to accept a unique range of voltages and from these voltages, create the desired electrical configuration. By using multiple converters, a full range is available, from a minimum voltage input to a maximum voltage input.

[0078] The present invention can include systems and methods for integrating sensors for tracking atmospheric transducer system performance metrics into media devices and accessories therefor, thereby reducing or eliminating the need for additional independent monitoring devices. In one embodiment of the present invention.

[0079] It also is known to provide such transducers with connectors to allow their rechargeable batteries to be charged. In some cases, the connector is a Universal Serial Bus (USB) connector, allowing the transducer to be charged by plugging it into the USB port of a computer, grid circuit or other device.

[0080] These and other objects and advantages of the invention will appear more clearly from the following description in which the preferred embodiment of the invention has been set forth in conjunction with the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0081] FIG. 1 Prior Art depicts perspective view of Electric currents created in sunward ionosphere;

[0082]FIG. 2 is a box flow chart of the propulsion cycle systems present invention;

[0083] FIG. 3 is an top view of the piezoelectric disk cylinder orb of the present invention;

[0084] FIG. 4 is a longitudinal sectional view showing an embodiment of this cylinder invention;

[0085] FIG. 5 is a top view of the (ATS) slip rotor piezoelectric chamber of the present invention;

[0086] FIG. 6 is an alternate top view of the piezoelectric cylinder orb of the present invention;

[0087] FIG.7 - 10 elevation views of spine piezo stacks embodiments of the present invention;

[0088] FIG.11 illustrates one embodiment of a power service (ATS) system architecture;

[0089] FIG. 12 is a block diagram of the ATS charge schematics systems of the present invention;

[0090] FIG. 13 is a block diagram of an ATS charge and recycle schematics of the present invention;

[0091] FIG. 14 is a top view of the piezoelectric ball race cylinder of the present invention;

[0092] FIG. 15 is a side view of the piezoelectric housing and gear of the present invention;

[0093] FIG. 16 is a side view of a multiple piezoelectric ball race cylinder of the present invention;

[0094] FIG. 17 is another embodiment of the piezoelectric stack ball of the present invention;

[0095] FIG. 18 & 19 are antenna rod transmit device embodiments of the (ATS) present invention;

[0096] FIG. 20 illustrates substation embodiment of the power service (ATS) system architecture;

[0097] FIG. 21 illustrates a home embodiment of the power service (ATS) system architecture;

[0098] FIG. 22 illustrates a window embodiment of the power service (ATS) system architecture;

[0099] FIG. 23 is (ATS) shock device in accordance with an embodiment of the present invention;

[00100] FIG. 24 is (ATS) shock device in accordance with an embodiment of the present invention;

[00101] FIG. 25 is (ATS) motorcycle device embodiment of the present invention;

[00102] FIG. 26 is (ATS) axle device in accordance with an embodiment of the present invention;

[00103] FIG. 27 is (ATS) train device in accordance with an embodiment of the present invention;

[00104] FIG. 28 is (ATS) plane device in accordance with an embodiment of the present invention;

[00105] FIG. 29 is (ATS) boat device in accordance with an embodiment of the present invention;

[00106] FIG. 30 is (ATS) solar device in accordance with an embodiment of the present invention;

[00107] FIG.31 a (ATS) turbine device in accordance with an embodiment of the present invention;

[00108] FIG. 32 is (ATS) auto body panel device embodiment of the present invention;

[00109] FIG. 33 is (ATS) motorcycle body fairing panel device in of the present invention; and

[00110] FIG. 34 is (ATS) cross section view of body embed panel device of the present invention.

DETAILED DESCRIPTION

[00111] Oscillations causes the conductive rotor within piezoelectric molded housing device to spin rapidly thereby winding the mechanism in a manner closely simulating the spinning of the conductive rotor that occurs during normal electric activity when the device is activated. Due to the forces that are exerted, the conductive rotor spins around the piezoelectric cylinder device shaft during the oscillations, as opposed to the partial rotation observed in prior art mechanisms. Therefore, the time required to charge the Atmospheric Transduction System (ATS) device, and the energy required, is substantially reduced. Moreover, since the rotor is spinning about the shaft, as opposed to merely being held in a downward position while the ATS device is rotated, recharging more closely approximating the design mechanism is achieved, thereby putting less wear on the ATS chamber device. Innovative Piezoelectric housing and ball bearing, coupler and book spine stacks. There relies the notion of negative ground electricity and positive aerial electricity which is in abundance. This invention substantiates land vehicles recycle recharge by reverse oscillation. Aerial

vehicles recycle recharge by forward oscillation in accumulation of environmental positive and negative electricity. These aforementioned activities are integral or synchronous with frequency.

[00112] PRIOR ART FIG.1 Electric currents created in sunward ionosphere. **Fig.2** is a recycle box flow chart **49** of a self propulsion unit consisting of a battery **27** , engine **29** and piezoelectric transducer **33** unit. **Fig.3** is a multiple disk **31** load part **51** about a 360 degree cylinder **45** and shaft **44**. **Fig.4** is a piezoelectric molded device **100** housing **110** containing a ball bearing race **104**, disk stacks capacitor **102** and conductive rotor **46**. **Fig.5** is a piezoelectric chamber **120** configuration including a counterweights **50**, shaft **44**, conductive slip rotor **106**. **Fig.6** is an alternate part **200** chamber cylinder **201** embodiment containing piezoelectric spine disk stack capacitors **102**. **Fig.7-10** are variations of spine **107,108,109,110** case piezoelectric stack capacitor **102** with plate and ball heads. **Fig.11** Various embodiments of the present invention, among others, will now be described with reference to the accompanying drawings. Accordingly, **FIG. 11** illustrates an embodiment of a Atmospheric Transduction (ATS) System **300** architecture. The system **300** may include, for example, a satellite broadcast station **318** that transmits signals **333** containing frequency content from a geostationary satellite **318** by way of airplane antenna **326**. In turn, the satellite **318** transmits line-of-sight (LOS) signals **333** to one or more ATS terrestrial frequency power receiver farms **314**. The system **300** also may include one or more terrestrial repeaters **316** which receive and retransmit the satellite signals **333** as repeater signals **323** to facilitate reliable reception in geographic areas where LOS reception from the satellite **318** is obstructed by tall buildings, hills, tunnels, and other similar impediments to the signals **333**. The ATS receivers **314** maybe designed to receive one or more signals **333** from the satellite **318** and/or from the terrestrial repeater transceiver **316**. In operation, such ATS receivers **314** may receive both the satellite signals **333** and the repeater signals

323. The receivers **314** also may be located in mobile environments **320, 321**, **322** which include, but are not limited to, land vehicles **321, 322**, aircraft **320**, watercraft **900**, and handheld devices, among others. The receivers **314** also may be fixed in stationary antenna satellites **332** units for residential use (e.g., home **325**,**750** entertainment, etc.) or commercial **309**, use (e.g., business **314**, office **700**, security accentuation **328**, etc.). The power frequency broadcast station **318** also may be in communication with a grid network **342**. Two-way communication between the ATS receivers **314** and the power frequency broadcast station **318** may occur via the network **342**. Furthermore, information feedback from the power frequency broadcast station **318** may be transmitted to the ATS receiver **314** both by way of the network **342** as well as via the satellite antenna **332**. Information also may be transmitted to the power broadcast station **318** wirelessly via a wireless network **342,707** by way of transducer tower **362**.

[00113] Further disclosed in **Fig. 12** and **Fig.13** (in block diagrams **400, 500**) are electrical schematics for handling the static charge from the atmosphere. By maintaining the voltage being collected in a prescribed range, an electrical conversion system is easily designed. While **FIGS. 12**, and **13** illustrate some electrical configurations, those of ordinary skill in the art readily recognize a variety of other configurations which will serve the same function.

[00114] Referencing **FIG. 12**, direct current in (DC IN) **401** is buffered by a gang of capacitors **410** before being communicated to a DC/AC converter **420**. The DC/AC converter **420** converts the direct current into a an alternating current suitable for placement over an existing electrical grid **430** such as normally found from a power-plant. **FIG. 12** Also illustrates an electrical arrangement suitable for use in charging a battery **440**. DC IN **401** is buffered by capacitor **410** bank before

entering into a step down transformer **435**. Step down transformer **435** reduces the voltage so that the voltage can safely be introduced into battery **440** which is connected to ground **450** at the battery's other pole. In **FIG. 12**, DC IN **401** is fed into an adjustable rheostat **460** which is controlled by the controller **465** so that the DC OUT **470** falls within a computer **475** monitored and sensor **480** specified range. **Fig.13** Hypothetically, unused energy may be recycled current **501** and/or recaptured by reversing the oscillated spin rotation of devices **51, 100**, **120** with the use of a rectifier **502** and Step up transformer **503**, returned to grid **430** capacitor **410**. This theory lends itself to the concept of positive and negative frequency. **Fig.14-17** Self charging propulsion embodiment of the invention where Da Vinci's ball race **510,512** is combined with a disk cylinder **45** and **513** stack balls **525,** conductive rotor **46**, **511** tooth gear **515** and piezoelectric molded housing **555**. **Fig.18 & 19** Improvement structures Franklin's lightening rod **600,603** and a molded vibration transducer **601** quasi replicating Vion's tubes and piezoelectric spine stacks capacitor **602** improving Tesla's Atmospheric transmit device. **Fig.20** is an atmospheric receiving building sub station **700** where energy is consumed and excess rendered to the grid **707** by conductive rotor **702** transducer **710,** tower transducer**703**, antenna rod **701** and transducer windows **704**.

[00115] FIG. 12 and **Fig.2** flowchart illustration also includes battery **440**. Battery **440** may provide electrical power to components of ATS devices within **Fig.11**. Charging circuitry may also be provided to charge battery **440** when an external power supply is connected to an ATS device **100**. **Fig.14-17** eliminates one or more steps by presenting a self charge retaining transducers **510,511,512,513** may be configured with an accelerator sensor **480** controller **465** and gears **515,** provide reciprocal power incorporated within piezoelectric molded and ceramic housing **555** along

with stack balls **525** and cylinder **545**. This assembly more resembles a motor by characteristics given power with application.

[00116] In operation, as illustrated in **FIGS. 2-20** and **FIGS. 21-34** , is periodically energized by movement to rotate Orb in either a clockwise or counterclockwise direction. The length of time or activity is energized, and the length of time between the period when the capacitor **31, 102** battery is energized, will depend on the particular ATS device design. As the Orb rotates, the outer end of the disk moves along a 360˚ circular pathway to push against with forward and rearwardly spinning. Upon engagement of the Orb, ATS device disk is rotated until carried to the apex or top of the circular pathway. Upon reaching the apex, the gravitational and vibrational force or counterweight **50** promotes additional oscillation. ATS device movement rapidly rotate on Orb at a rotational speed greater than the speed of rotation of Orb. Counterweight **50** is then carried beyond the bottom or lowest point of the pathway by its momentum to a point near the apex on the opposite side of the pathway. The cycle is repeated through multiple increasing oscillations of the ATS device until counterweight **50** stops at the bottom position, or until once again engages to again move counterweight to the top of its circular pathway.

[00117] FIG. 2 is a flow chart showing generation of energy using a rotor according to one or more of the above-described embodiments. First, battery **27** starts the engine **29** and/or mobile transducer **33** is oscillated. In response to this acceleration, forces are imposed on one or more rotation piezoelectric devices. In response to those forces, the piezoelectric devices output electrical energy, which energy is extracted at a power controller **465**. The power controller **465** sensor **480** then makes this energy available to recharge a capacitor **410** battery **440** and/or to electronic components of the

mobile terminal. Although **FIG.2** shows a serial flow of events, it is to be appreciated that the events of blocks **33**, **27** and **29** occur substantially instantaneously upon acceleration of the mobile terminal.

PREFERRED ALTERNATE EMBODIMENTS

[00118]The present invention (ATS) device in accordance with an embodiment of the present invention overcomes the foregoing problem in the conventional art and provides an electro energy vibration and alternative to gas, oil or fossil fuel consumption in **Fig.21** homes **750** transducer **755, Fig.28** airplane **880** transducer **801**, **Fig.27** train **860** transducer **801**, **Fig.32** auto **950** transducer **910**, **Fig.25** and **Fig.33** motorcycles **960,850** transducers **799, 802, 810**, **910** and **Fig.29** boat **900** transducers **901,910**.

[00119] In order to solve the foregoing problems in the conventional art, the present invention provides an electro transducer having a ball bearing assembly which is compatible with **Fig.26** axle shaft **44** transducer **810** wheel **870** assembly. In order to solve the foregoing problems in the conventional art, the present invention provides an electro transducer having an **Fig.34** housing panel **980** transducer **910** assembly which is compatible with an exterior body assembly. Thereby, an Atmospheric transducer device may be shock **800, 803** integrated as within the **Fig.23** coupler **802,** and **Fig.24** ladder **799,** (vertical friction) piezoelectric absorbers assemblies. In order to solve the foregoing problems in the conventional art, the present invention provides an electro transducer having a capable flat assembly which is compatible with **Fig.22** window **704** disk **31** plate transducer **714**, **Fig.30** solar panel **920** transducer **910**, **Fig.31** wind turbine **930** transducer **910** assembly. This invention provided **Fig.3** piezoelectric plate disks **31**, **Fig.7-10** spine piezoelectric disks stacks **107,108,109,110** capacitor **102**, **Fig.17** piezoelectric stack balls **525** capacitor, the arrangement of

balls **525** will not be in a facing relation. The deformation in the inner and outer races during rotation of the ball bearing while undergoing a radial load is made irregular and complicated. The spine eliminates the deformation and vibration level increased by a combination of ceramic and molded piezoelectric materials at a regular predetermined frequency thereby multiplying the level of vibration and noise reduction.

[00120] Certain modifications and improvements will occur to those skilled in the art upon a reading of the foregoing description. It should be understood that all such modifications and improvements have been deleted herein for the sake of conciseness and readability but are properly within the scope of the following claims.

[00121] Thus it is seen that an atmospheric transducer device may be integrated and/or provided. It will be understood that the foregoing is only illustrative of the principles of the invention, and that various modifications can be made by those skilled in the art without departing from the scope and spirit of the invention, and the present invention is limited only by the claims that follow.

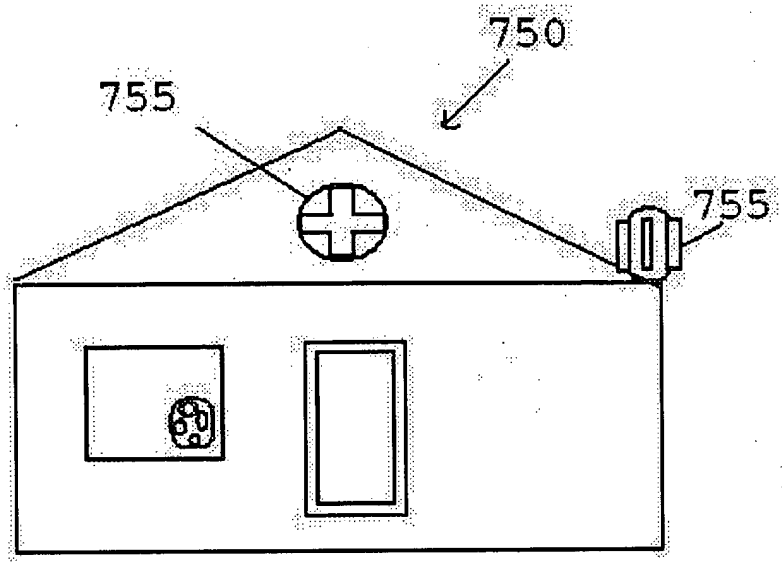


FIG.21

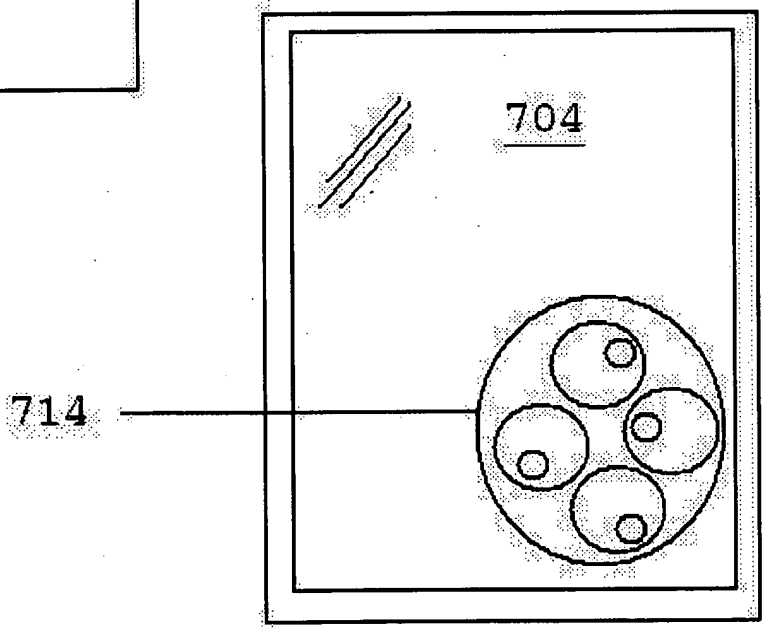


FIG.22

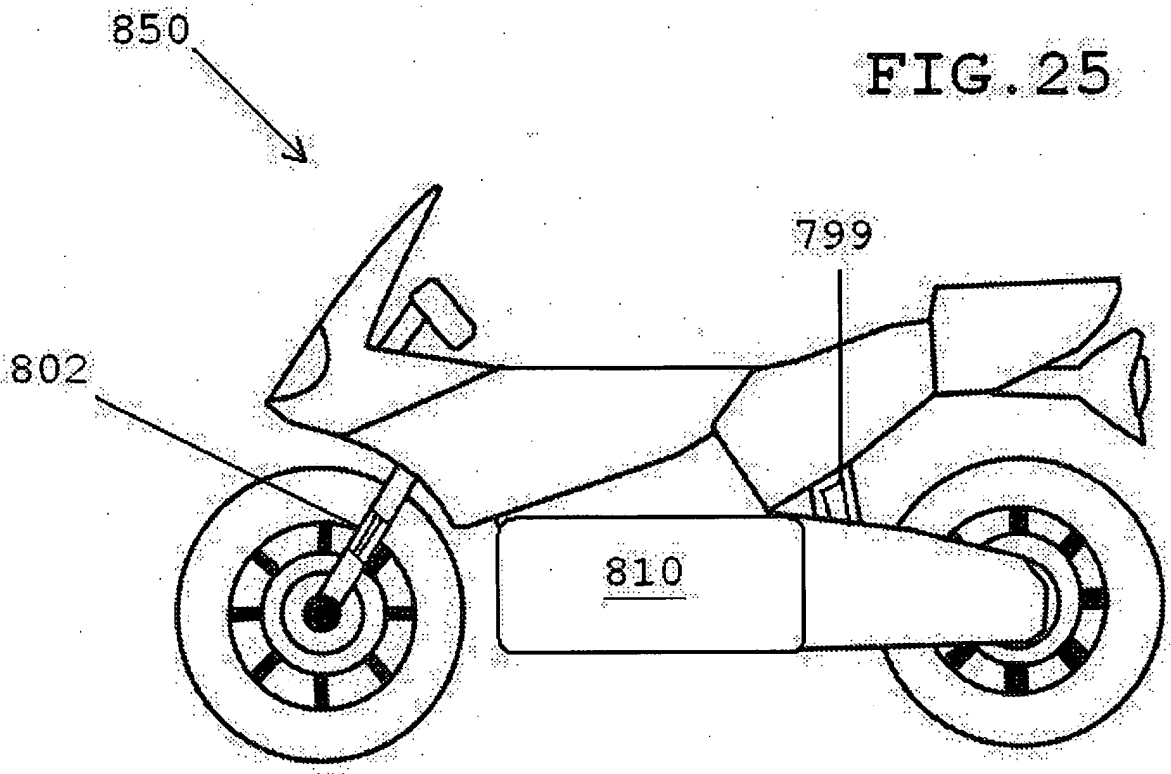


FIG.25

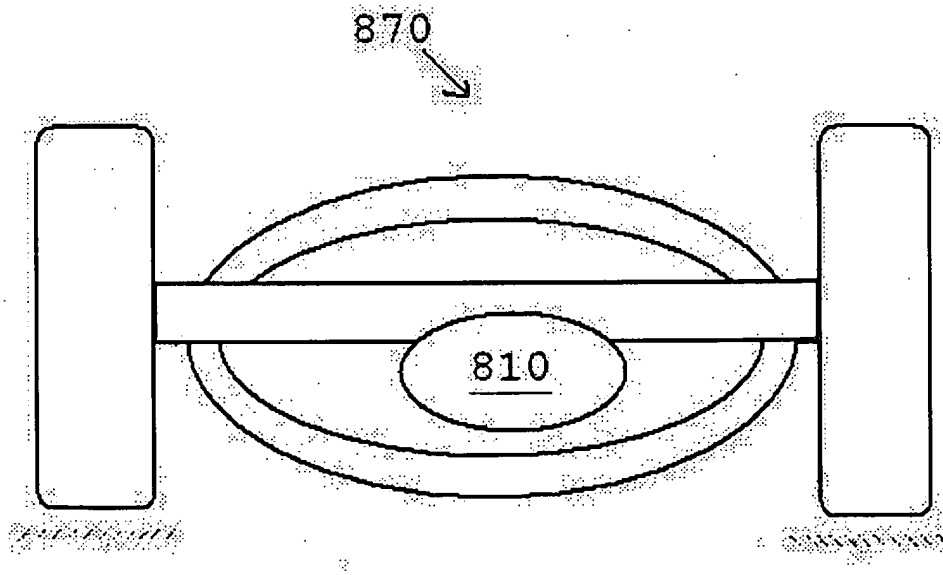


FIG.26

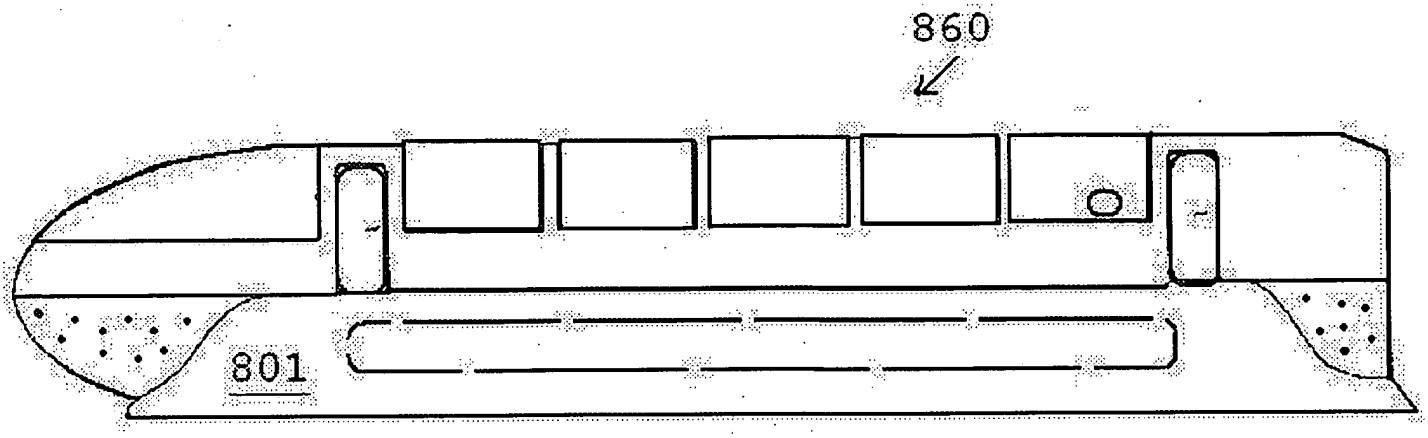


FIG.27

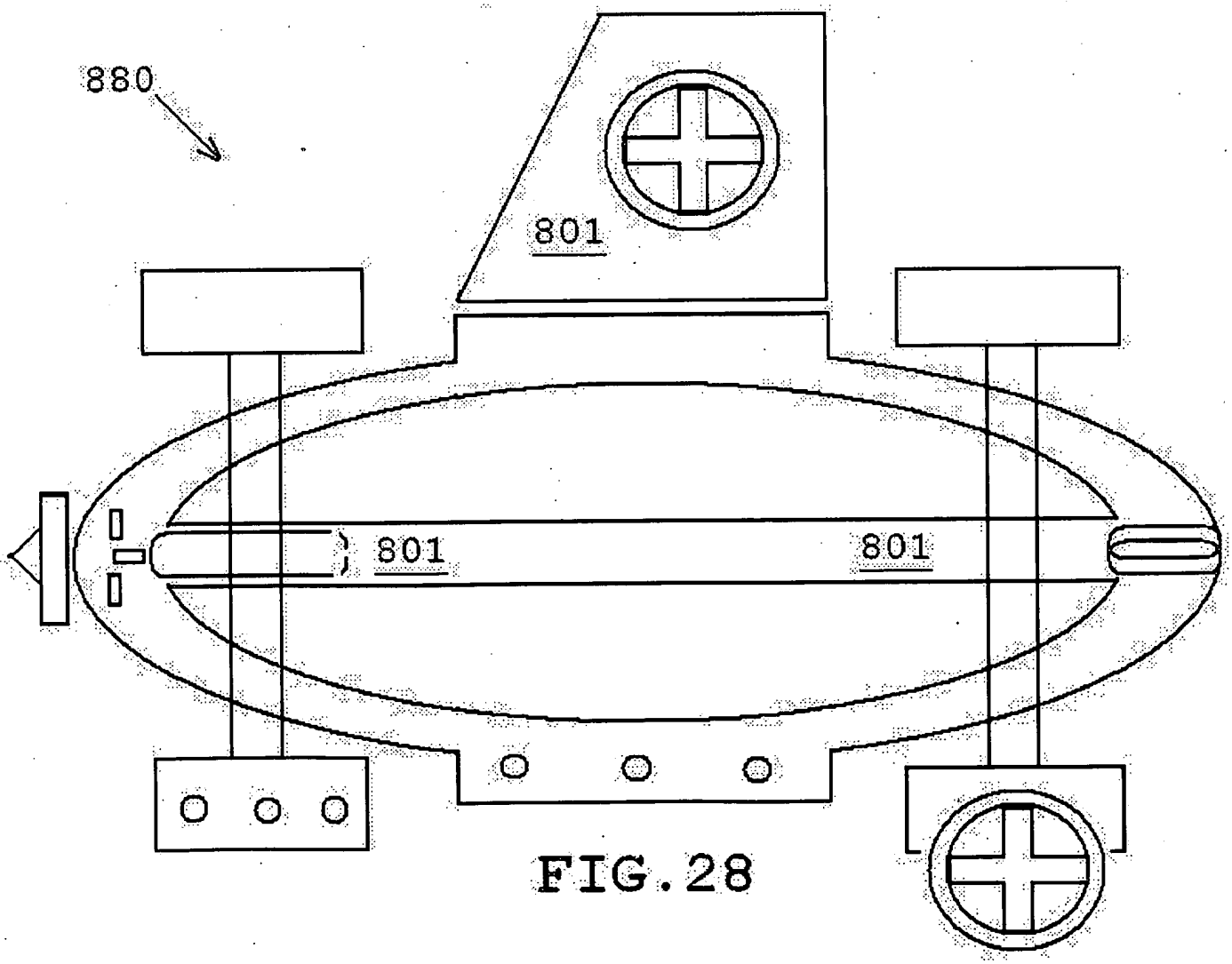


FIG.28

FIG.29

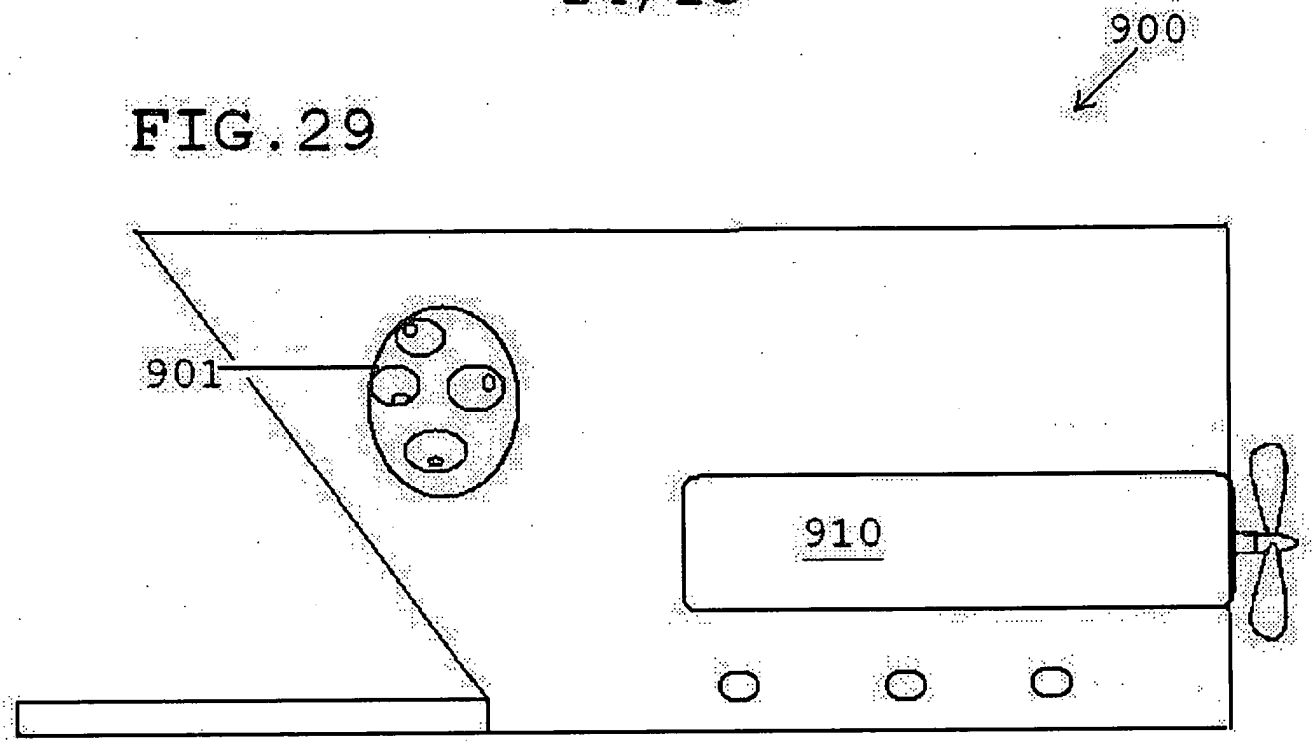


FIG.30

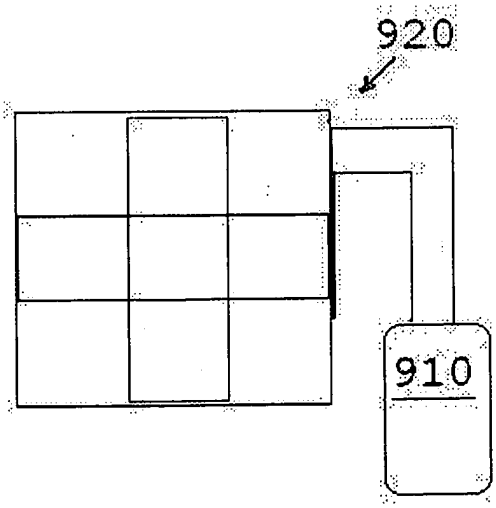
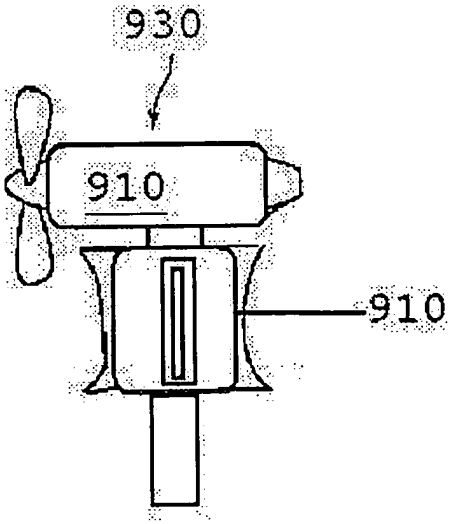


FIG.31



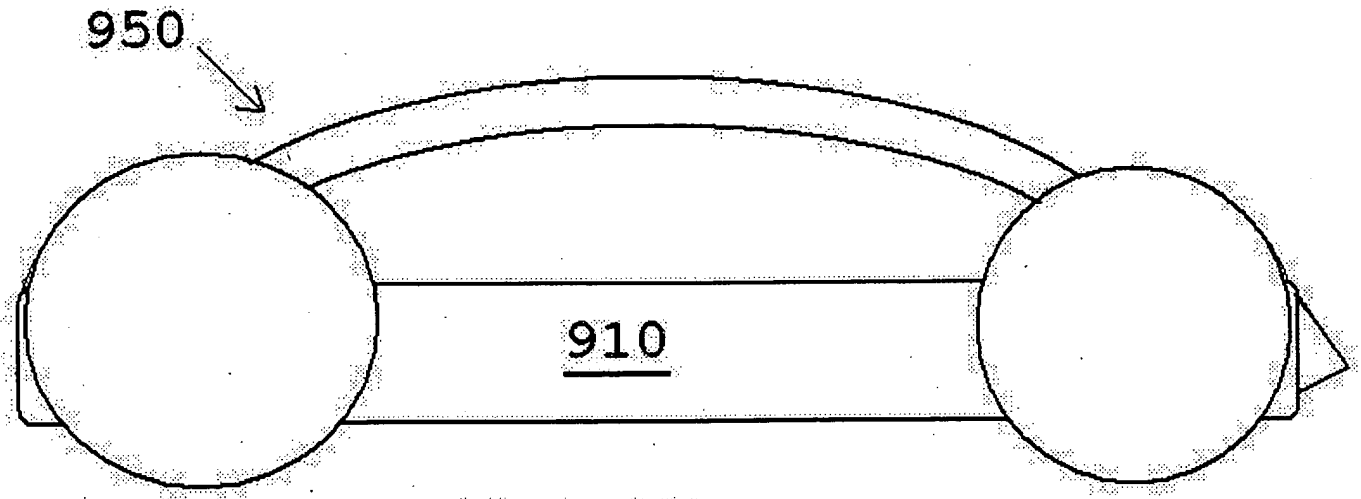


FIG.32

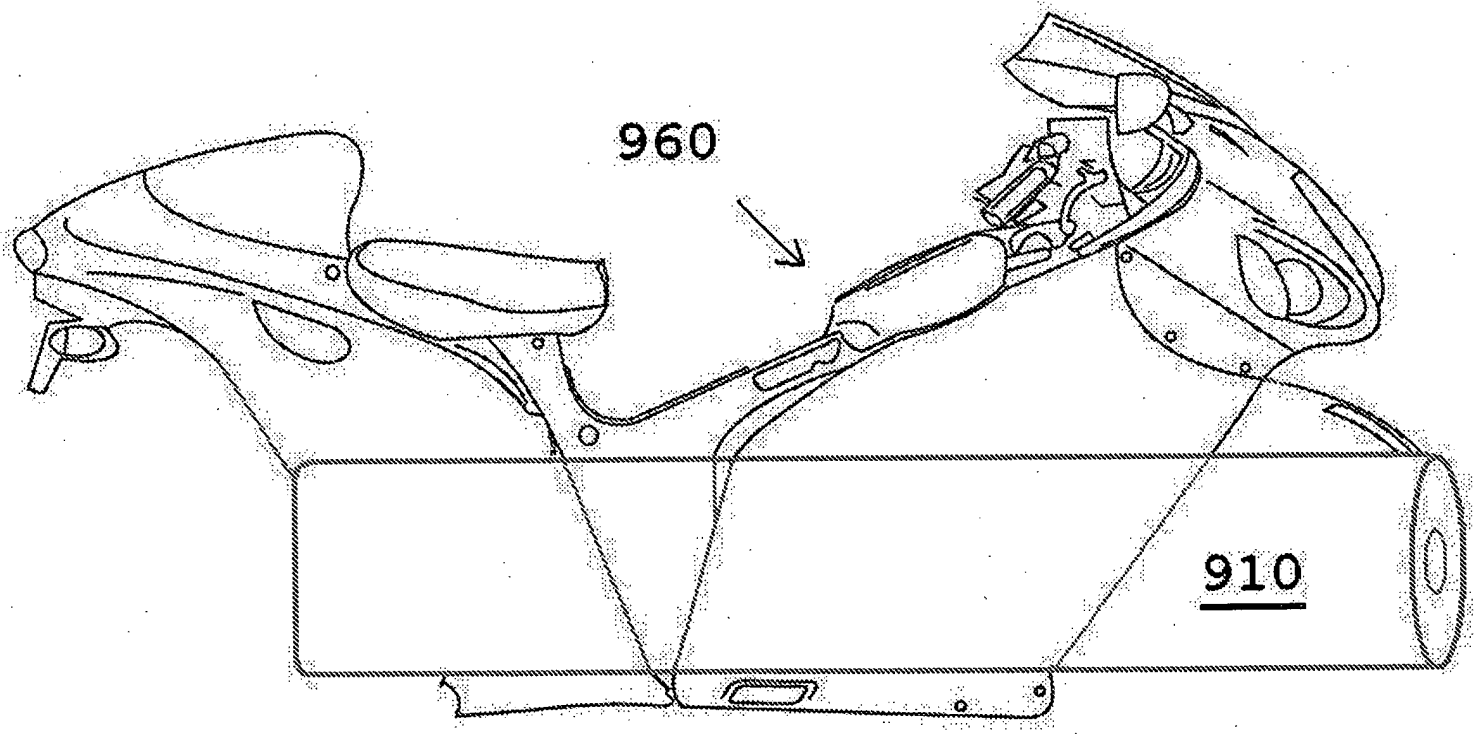


FIG.33

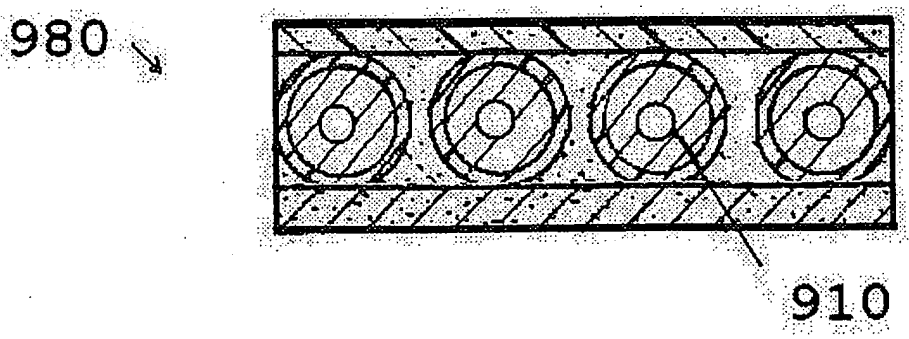


FIG.34

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 13/692,121	Filing Date 12/03/2012	☐ To be Mailed

ENTITY: ☐ LARGE ☐ SMALL ☒ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	02/01/2016	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 3	Minus	** 20	= 0	X $20 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X $105 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	0

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/LAJUAN HICKSON/

Petition to Withdraw Holding of Abandonment (MPEP 711.03c I and 37 CFR § 1.181)

DEAR SIR/MADAM, I request a refund for RCE and REVIVAL FEES AND ALLOWANCE. Micro entity fee filer account number # 82669 for the application **12/903,332**. Figure 3 specific. The prosecution of this application has gone beyond 5 years, placing undue burden on inventor.

Further, application **13/572,672** from the same unit 3765 issued a premature final objection after suggesting the claims be moved from method to apparatus for his expediency and search burden relief. I presented an abbreviated set of claims and he was not moved to assistance or allowance. I amended the claims disclosing pages of claim material, overlooked by the examiner?

Again, I would like to suggest application **13/692,121** in addendum, likewise final circumstance. THE EXAMINERS, NEVER RESPONDED IN KIND TO **RCE** OR OFFERED ASSISTANCE.

Once again, application **29/477,572** receives an abandonment when fees have been previous paid.

Most recently, application **29/461,909** abandonment failure to properly reply **11/30** response **12/7**

All above mentioned **UTILITY** applications could have been resolved by **AFCP 2.0** assistance.

THANKS

JAMES E. JENNINGS
P.O. BOX 270081
LOUISVILLE, CO 80027

PHONE/FAX: 303.664.1829

Serial No.: 13/692,121
Filing Date: 12/03/2012
Confirmation No.: 7639
GAU:2837

4-6 (CANCELED)

4.(CANCELED) ~~An atmospheric transduction system comprising~~:

~~a transducer recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining a voltage being collected in a prescribed range, providing an electrical conversion broadcast network~~;

~~a transducer mechanism for collecting an atmospheric electrical power as direct current, supplies an appropriate power grid, transceiver and capacitates a charge~~;

~~a self charging transducer propulsion provides motor characteristics, and piezoelectric frequency engine~~;

~~a piezoelectric transducer production of direct current energy frequency~~;

~~a piezoelectric transducer transmittal of direct current energy frequency~~;

~~a piezoelectric transducer, receiving of direct current energy frequency~~;

~~a piezoelectric transducer molded device(s), disk rotor, spine ball bearing, coupler and book spine stack transducers, for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining a voltage being collected in a prescribed range, providing an electrical conversion broadcast server network circuit~~;

~~a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and disc orbs~~,

stack rods, power frequency broadcast, for collecting an atmospheric electrical power as direct current and then supplies an appropriate power grid, transceiver and capacitates a charge;

a sensor accelerator, disk rotor/gear, battery/capacitor, controller, antenna, means for self charge propulsion comprise motor characteristics, thereby an engine of power frequency;

a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball means for self charge propulsion comprise a transceiver, thereby power frequency satellite;

a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball means for self charge propulsion and security comprise a transceiver, laser, mirrors, coupler, frequency thereby a direct current energy laser beam;

a piezoelectric transducer producing direct current energy frequency;

a piezoelectric transducer transmitting direct current energy frequency;

a piezoelectric transducer receiving direct current energy frequency;

a transducer frequency energy production comprising piezoelectric oscillation circuit;

a transducer frequency energy production comprising piezoelectric oscillator and electronic circuitry;

a piezoelectric transducer energy networking comprising grids, antenna, cylinders, transceivers, transmitters, receivers, satellites, chamber rotors and engines;

a piezoelectric transducer energy comprising chamber, communication, and antenna;

a transducer energy comprising piezoelectric chamber, communication, and antenna;

a transducer current comprising piezoelectric chamber, communication, and antenna;

~~a counterweight mechanism~~;

~~an electro energy vibration and alternative to gas, oil or fossil fuel consumption;~~

~~a spine eliminates a deformation and vibration level increased by a combination of ceramic and molded piezoelectric materials at a regular predetermined frequency thereby multiplying a level of vibration and noise reduction;~~

~~a transducer use in auto, motorcycle, airplane, train, boat, home, turbine, tower, window, panel, building and wind, water, solar, renewable energy; and~~

~~an optical laser beam directed energy defense, to use ground and space-based systems, to protect from attack by strategic nuclear ballistic missiles~~.

5.(CANCELED) ~~The atmospheric transduction system in accordance with claim 4, wherein said means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining a voltage being collected in a prescribed range, an electrical conversion broadcast network circuit comprises piezoelectric transducer molded device housing, disk rotor, stack ball bearing, coupler, counterweight, book spine stacks, laser and antenna rod stacks~~;

~~wherein said means for collecting an atmospheric electrical power as direct current and then supplies an appropriate power grid and capacitates a charge comprises a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and orbs, power frequency broadcast~~;

wherein said means for charging providing motor characteristics, said power frequency engine comprises a sensor accelerator, rotor/gear, battery/capacitor, antenna, controller, for propulsion;

wherein said means for charging providing satellite characteristics, said power frequency satellite comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball and transceiver;

wherein said means for charging providing security characteristics, said frequency laser comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball, mirrors, coupler, counterweight, beam and laser;

wherein said means of producing, transmittal, and receiving direct current energy comprising frequency comprises piezoelectric molded parts and circuitry; and

wherein said means of deformation in an inner and outer races during rotation of a ball bearing while undergoing a radial load is made irregular and complicated, is eliminated by a spine; and

wherein said means of transduction and an electro energy vibration is an alternative;

6.(CANCELED) An atmospheric transduction system method for generation of green energy using a rotor, comprising the steps of:

providing a battery, a engine starts and/or a mobile counterweight transducer is oscillated;

providing acceleration, forces are imposed on one or more rotation piezoelectric devices;

providing response to counterweight forces, piezoelectric devices output electrical energy;

providing a power controller energy is extracted;

providing a spine eliminates a deformation and vibration level increased by a combination of ceramic and molded piezoelectric materials at a regular predetermined frequency thereby multiplying a level of vibration and noise reduction;

providing a power controller and sensor, energy available to recharge a capacitor/ battery by electronic components of a mobile terminal;

providing a serial flow of events, it is to be appreciated that the events of blocks start, battery, engine, and counterweight transducer occur substantially instantaneously;

providing a battery charge when an external power supply is connected to an ATS device;

providing reciprocal power incorporated within piezoelectric molded and ceramic housing along with stack balls and cylinder;

providing one or more steps by presenting a self charge retaining transducers may be configured with an accelerator sensor controller and gears;

providing propulsion upon acceleration of a mobile terminal;

providing an electro energy vibration and alternative to gas, oil or fossil fuel consumption; and

providing an optical laser beam directed energy defense.

Serial No.: 13/692,121
Filing Date: 12/03/2012
Confirmation No.: 7639
GAU:2837

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: JENNINGS, James Edward

SERIAL NO.: 13/692,121 FILING DATE: DECEMBER 3, 2012

TITLE: ATMOSPHERIC TRANSDUCTION SYSTEM

GROUP ART UNIT: 2837 EXAMINER: ROSENAU, DEREK

Box AAF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

RESPONSE TO OFFICE ACTION

Dear Examiner Rosenau:

This correspondence is being filed as a Response to the Office Action Summary issued on September 9, 2015. Applicant requests entry of the amendments indicated below and consideration of the appended Remarks.

Remarks begin on Page 2 of this paper.

ARGUMENTS and REMARKS

Not abandoned, examiner has failed to respond to the RCE filed and applicant has filed AFCP.

There is even a presumption that a patented invention is commercially successful for purposes of non-obviousness "when a patentee can demonstrate commercial success, usually shown by significant sales in a relevant market, and that the successful product is the invention disclosed and claimed in the patent" Ecolochem, supra, 227 F.3d at 1377; citing J.T. Eaton & Co. v. Atlantic Paste & Glue Co., 106 F.3d 1563, 1571 (Fed. Cir. 1997).

The examiners were informed my inventions were being **NASA** reviewed and manufactured, yet demonstrated an indifference (Satellite future release date). Filed non black and white photos.

DRAWINGS: NONE

SPECIFICATION AMENDMENTS: **NONE**

CLAIM AMENDMENTS: 1-6 are cancelled and **(NEW) 7-9** are presented.

Applicant respectfully requests reconsideration of the application and its passage to allowance.

Respectfully submitted, James Jennings

/JAMES EDWARD JENNINGS/

Date: 11/21/2015 By:_____

PO Box 270081 Louisville, CO 80027
303.664.1829

Doc Code: A.NE.AFCP
Document Description: After Final Consideration Pilot Program Request

PTO/SB/434 (05-13)

CERTIFICATION AND REQUEST FOR CONSIDERATION UNDER THE AFTER FINAL CONSIDERATION PILOT PROGRAM 2.0

Practitioner Docket No.:	Application No.:	Filing Date:
	13/692,121	12/03/12
First Named Inventor:	Title:	
JAMES EDWARD JENNINGS	ATMOSPHERIC TRANSDUCTION SYSTEM	

APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS CONSIDERATION UNDER THE AFTER FINAL CONSIDERATION PILOT PROGRAM 2.0 (AFCP 2.0) OF THE ACCOMPANYING RESPONSE UNDER 37 CFR 1.116.

1. The above-identified application is (i) an original utility, plant, or design nonprovisional application filed under 35 U.S.C. 111(a) [a continuing application (*e.g.*, a continuation or divisional application) is filed under 35 U.S.C. 111(a) and is eligible under (i)], or (ii) an international application that has entered the national stage in compliance with 35 U.S.C. 371(c).
2. The above-identified application contains an outstanding final rejection.
3. Submitted herewith is a response under 37 CFR 1.116 to the outstanding final rejection. The response includes an amendment to at least one independent claim, and the amendment does not broaden the scope of the independent claim in any aspect.
4. This certification and request for consideration under AFCP 2.0 is the only AFCP 2.0 certification and request filed in response to the outstanding final rejection.
5. Applicant is willing and available to participate in any interview requested by the examiner concerning the present response.
6. This certification and request is being filed electronically using the Office's electronic filing system (EFS-Web).
7. Any fees that would be necessary consistent with current practice concerning responses after final rejection under 37 CFR 1.116, *e.g.*, extension of time fees, are being concurrently filed herewith. [There is no additional fee required to request consideration under AFCP 2.0.]
8. By filing this certification and request, applicant acknowledges the following:

- Reissue applications and reexamination proceedings are not eligible to participate in AFCP 2.0.
- The examiner will verify that the AFCP 2.0 submission is compliant, *i.e.*, that the requirements of the program have been met (see items 1 to 7 above). For compliant submissions:
  - The examiner will review the response under 37 CFR 1.116 to determine if additional search and/or consideration (i) is necessitated by the amendment and (ii) could be completed within the time allotted under AFCP 2.0. If additional search and/or consideration is required but cannot be completed within the allotted time, the examiner will process the submission consistent with current practice concerning responses after final rejection under 37 CFR 1.116, *e.g.*, by mailing an advisory action.
  - If the examiner determines that the amendment does not necessitate additional search and/or consideration, or if the examiner determines that additional search and/or consideration is required and could be completed within the allotted time, then the examiner will consider whether the amendment places the application in condition for allowance (after completing the additional search and/or consideration, if required). If the examiner determines that the amendment does not place the application in condition for allowance, then the examiner will contact the applicant and request an interview.
    - The interview will be conducted by the examiner, and if the examiner does not have negotiation authority, a primary examiner and/or supervisory patent examiner will also participate.
    - If the applicant declines the interview, or if the interview cannot be scheduled within ten (10) calendar days from the date that the examiner first contacts the applicant, then the examiner will proceed consistent with current practice concerning responses after final rejection under 37 CFR 1.116.

Signature	Date
/JAMES EDWARD JENNINGS/	11/21/2015
Name (Print/Typed) JAMES EDWARD JENNINGS	Practitioner Registration No.

***Note**: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.*

☐ * Total of _____ forms are submitted.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Serial No.: 13/692,121
Filing Date: 12/03/2012
Confirmation No.: 7639
GAU:2837

4-6 are **CANCELLED**

What is claimed is:

I claim

7.(NEW) An atmospheric transduction system comprising:

a piezoelectric laser beam weapon for defense;

a nano-fiber silicon vehicle panel for energy harvesting; and

an electro-kinetic-acoustic mechanical transducer for particle collection.

8.(NEW) An atmospheric transduction system comprising: a plurality of piezoelectric apparatus that communicate using an energy grid for access; a transducer for propulsion; a power broadcast for networking; an electronic circuit to manage; and a transceiver for sending and receiving data;

a transducer rotor apparatus comprising: a stack bearing(s) oscillates, distributes power and recharges a battery; and

a satellite defends with a beam laser and an electro-acoustic broadcast to network subscribers.

9.(NEW) An atmospheric transduction system method of energy comprising: oscillating a piezoelectric rotor, counterweight transducer and stack ball bearing; charging a capacitor/battery; starting an engine; accelerating a rotation; controlling energy levels; applying force to a sensor; networking solar, wind, geothermal, hydroelectric sources; harvesting an earth, tidal wave, space vibrations; mobilizing electro-kinetic mechanicals, electronic circuitry and an optical laser beam; recycling electromagnetism to a receiving grid; and transmitting an electroacoustic broadcast.

Electronic Acknowledgement Receipt

EFS ID:	24160617
Application Number:	13692121
International Application Number:	
Confirmation Number:	7639
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
Filer:	James Edward Jennings
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	23-NOV-2015
Filing Date:	03-DEC-2012
Time Stamp:	13:27:05
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Supplemental Response or Supplemental Amendment	ATS_CLAIMS_456_CANCEL.pdf	35164 9affdb559f9b461604b9e736fc5ef3f1384e2c6d	no	5

Warnings:	
Information:	

2	Applicant Arguments/Remarks Made in an Amendment	ATS_AFCP_LETTER.pdf	30855 6fd84120dd5460e0ddb96d0c3ae4a5074c29db58	no	2
Warnings:					
Information:					
3	After Final Consideration Program Request	sb0434_ATS.pdf	225478 47846230b2bdd3fdca723f119f5dd89799437f4e	no	2
Warnings:					
Information:					
4	Amendment Copy Claims/Response to Suggested Claims	ATS_CLAIMS_AFCP.pdf	22788 5841431172178a01af38a67d27a0f542d1a1f85f	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	314285		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/692,121	12/03/2012	JAMES EDWARD JENNINGS		7639

82669 7590 09/30/2015

James Edward Jennings
P.O. Box 270081
Louisville, CO 80027

EXAMINER	
ROSENAU, DEREK JOHN	

ART UNIT	PAPER NUMBER
2837	

MAIL DATE	DELIVERY MODE
09/30/2015	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.

Notice of Abandonment	Application No.	Applicant(s)
	13/692,121	JENNINGS, JAMES EDWARD
	Examiner	Art Unit
	Derek Rosenau	2837

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

This application is abandoned in view of:

1. ☒ Applicant's failure to timely file a proper reply to the Office letter mailed on *13 February 2015*.
   (a) ☐ A reply was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply (including a total extension of time of _____ month(s)) which expired on _____.
   (b) ☐ A proposed reply was received on _____, but it does not constitute a proper reply under 37 CFR 1.113 to the final rejection.
   (A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) if this is utility or plant application, a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. Note that RCEs are not permitted in design applications.)
   (c) ☐ A reply was received on _____ but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
   (d) ☒ No reply has been received.

2. ☐ Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
   (a) ☐ The issue fee and publication fee, if applicable, was received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
   (b) ☐ The submitted fee of $_____ is insufficient. A balance of $_____ is due.
   The issue fee required by 37 CFR 1.18 is $_____. The publication fee, if required by 37 CFR 1.18(d), is $_____.
   (c) ☐ The issue fee and publication fee, if applicable, has not been received.

3. ☐ Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
   (a) ☐ Proposed corrected drawings were received on _____ (with a Certificate of Mailing or Transmission dated _____), which is after the expiration of the period for reply.
   (b) ☐ No corrected drawings have been received.

4. ☐ The letter of express abandonment which is signed by the attorney or agent of record or other party authorized under 37 CFR 1.33(b). See 37 CFR 1.138(b).

5. ☐ The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34) upon the filing of a continuing application.

6. ☐ The decision by the Board of Patent Appeals and Interference rendered on _____ and because the period for seeking court review of the decision has expired and there are no allowed claims.

7. ☒ The reason(s) below:

While fees were paid for a request for continued examination on 3 July 2015, no response was made to the advisory action mailed 12 June 2015, and no response was made before the expiration of 6-month deadline from the mailing of the Final Office Action, which was mailed 13 February 2015.

	/Derek Rosenau/ Primary Examiner, Art Unit 2837

Petitions to revive under 37 CFR 1.137, or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.

Electronic Patent Application Fee Transmittal

Application Number:	13692121
Filing Date:	03-Dec-2012
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Filer:	James Edward Jennings
Attorney Docket Number:	

Filed as Micro Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
RCE - 1st Request	3801	1	300	300
		Total in USD ($)		**300**

Electronic Acknowledgement Receipt

EFS ID:	22822250
Application Number:	13692121
International Application Number:	
Confirmation Number:	7639
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
Filer:	James Edward Jennings
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	03-JUL-2015
Filing Date:	03-DEC-2012
Time Stamp:	12:05:12
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$300
RAM confirmation Number	8523
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Fee Worksheet (SB06)	fee-info.pdf	30186 773ba87df487a0b8a62edba4e1f88fb8ff703940	no	2

Warnings:

Information:

Total Files Size (in bytes):	30186

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/692,121	12/03/2012	JAMES EDWARD JENNINGS		7639

82669 7590 06/12/2015

James Edward Jennings
P.O. Box 270081
Louisville, CO 80027

EXAMINER	
ROSENAU, DEREK JOHN	

ART UNIT	PAPER NUMBER
2837	

MAIL DATE	DELIVERY MODE
06/12/2015	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.

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 13/692,121	**Applicant(s)** JENNINGS, JAMES EDWARD	
	Examiner Derek Rosenau	**Art Unit** 2837	**AIA (First Inventor to File) Status** No

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

THE REPLY FILED 03 June 2015 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

NO NOTICE OF APPEAL FILED

1. ☐ The reply was filed after a final rejection. No Notice of Appeal has been filed. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114 if this is a utility or plant application. Note that RCEs are not permitted in design applications. The reply must be filed within one of the following time periods:
   a) ☒ The period for reply expires *3* months from the mailing date of the final rejection.
   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action; or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
   c) ☐ A prior Advisory Action was mailed more than 3 months after the mailing date of the final rejection in response to a first after-final reply filed within 2 months of the mailing date of the final rejection. The current period for reply expires months from the mailing date of *the prior Advisory Action* or SIX MONTHS from the mailing date of the final rejection, whichever is earlier.

   Examiner Note: If box 1 is checked, check either box (a), (b) or (c). ONLY CHECK BOX (b) WHEN THIS ADVISORY ACTION IS THE FIRST RESPONSE TO APPLICANT'S FIRST AFTER-FINAL REPLY WHICH WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. ONLY CHECK BOX (c) IN THE LIMITED SITUATION SET FORTH UNDER BOX (c). See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) or (c) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendments filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
   b) ☐ They raise the issue of new matter (see NOTE below);
   c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: *See Continuation Sheet*. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): (a) ☐ will not be entered, or (b) ☐ will be entered, and an explanation of how the new or amended claims would be rejected is provided below or appended.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
9. ☐ The affidavit or other evidence filed after final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
10. ☐ The affidavit or other evidence filed after the date of filing the Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
11. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

12. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
13. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
14. ☐ Other: _____.

STATUS OF CLAIMS

15. The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: .
Claim(s) objected to: .
Claim(s) rejected: 4-6.
Claim(s) withdrawn from consideration: .

/Derek Rosenau/
Primary Examiner, Art Unit 2837

Continuation of 3. NOTE: The amended claims contain subject matter that has not been previously presented and that would require further search and/or consideration.

Continuation of 12. does NOT place the application in condition for allowance because: Applicant's amendments and arguments filed 3 June 2015 have been fully considered but they are not persuasive. Neither the amendments to the claims, nor the arguments, address the rejections under 35 USC 112, 1st and 2nd paragraphs. Applicant makes arguments related to commercial success. However, no evidence of such is presented, and even if such evidence were presented, such arguments are relevant only to rejections under 35 USC 103 and are not relevant to rejections under 35 USC 112. Applicant also makes comments related to an air defense system for the Israeli Defense Forces known as the "Iron Beam". It is completely unclear what the Iron Beam system has to do with the current application or the pending rejections.

Serial No.: 13/692,121
Filing Date: 12/03/2012
Confirmation No.: 7639
GAU:2837

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: JENNINGS, James Edward

SERIAL NO.: 13/692,121 FILING DATE: DECEMBER 3, 2012

TITLE: ATMOSPHERIC TRANSDUCTION SYSTEM

GROUP ART UNIT: 2837 EXAMINER: ROSENAU, DEREK

Box AAF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

DO NOT ENTER: /D.R./
06/10/2015

RESPONSE TO OFFICE ACTION

Dear Examiner Rosenau:

This correspondence is being filed as a Response to the Office Action Summary issued on May 22, 2015. Applicant requests entry of the amendments indicated below and consideration of the appended Remarks. Remarks begin on Page 2 of this paper.

WIKIPEDIA: Iron Beam (Hebrew: keren barzel) is an air defense system currently in development by Israeli defense contractor Rafael Advanced Defense Systems. Unveiled at the 2014 Singapore Air Show on February 11 and expected to enter service with the Israel Defense Forces in 2015.

Iron Beam will use a "directed high energy laser beam" to destroy hostile targets with ranges of up to 7 kilometres (4.3 mi). Iron Beam will constitute the fifth element of Israel's integrated air defense system, in addition to Arrow 2, Arrow 3, David's Sling and Iron Dome. However, Iron Beam is also a stand-alone system.

Iron Beam uses a fiber optic laser to destroy an airborne target within 4-5 seconds of firing. Whether acting as a stand-alone system or with external cuing as part of an air-defense system, a threat is detected by a surveillance system and tracked by vehicle platforms in order to engage. The main benefits of using a directed energy weapon over conventional missile interceptors are lower costs per shot, an unlimited magazine, lower operational costs, and less manpower.

INQUISTR: The Israel Defense Forces (IDF) is expected to deploy the world's first laser-based air defense system. The new system, known as "Iron Beam," was developed by Israeli defense contractor Rafael Advanced Defense Systems Ltd.

The weapon system will extend the ability of the IDF to protect Israeli civilians from Palestinian Hamas militants rocket attacks by using a laser to target and "bring down like flies" short-range rockets, artillery shells, and mortar bombs with trajectories too small for Israel's famed Iron Dome anti-rocket batteries to engage and intercept effectively.

Both the Iron Dome interceptor and the new Iron Beam system are manufactured by the state-owned Rafael Advanced Defense Systems Ltd. in a project funded by the Israeli Ministry of Defense and extensively underwritten by the U.S.

4.(CURRENTLY AMENDED) An atmospheric transduction system comprising:

a transducer recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining a voltage being collected in a prescribed range, providing an electrical conversion broadcast network;

a transducer mechanism for collecting an atmospheric electrical power as direct current, supplies an appropriate power grid, transceiver and capacitates a charge;

a self charging transducer propulsion provides motor characteristics, and piezoelectric frequency engine;

a piezoelectric transducer production of direct current energy frequency;

a piezoelectric transducer transmittal of direct current energy frequency;

a piezoelectric transducer, receiving of direct current energy frequency;

a piezoelectric transducer molded device(s), disk rotor, spine ball bearing, coupler and book spine stack transducers, for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining a voltage being collected in a prescribed range, providing an electrical conversion broadcast server network circuit;

a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and disc orbs, stack rods, power frequency broadcast, for collecting an atmospheric electrical power as direct current and then supplies an appropriate power grid, transceiver and capacitates a charge;

a sensor accelerator, disk rotor/gear, battery/capacitor, controller, antenna, means for self charge propulsion comprise motor characteristics, thereby an engine of power frequency;

a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball means for self charge propulsion comprise a transceiver, thereby power frequency satellite;

a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball means for self charge propulsion and security comprise a transceiver, laser, mirrors, coupler, frequency thereby a direct current energy laser beam;

a piezoelectric transducer producing direct current energy frequency;

a piezoelectric transducer transmitting direct current energy frequency;

a piezoelectric transducer receiving direct current energy frequency;

a transducer frequency energy production comprising piezoelectric oscillation circuit;

a transducer frequency energy production comprising piezoelectric oscillator and electronic circuitry;

a piezoelectric transducer energy networking comprising grids, antenna, cylinders, transceivers, transmitters, receivers, satellites, chamber rotors and engines;

a piezoelectric transducer energy comprising chamber, communication, and antenna;

a transducer energy comprising piezoelectric chamber, communication, and antenna;

a transducer current comprising piezoelectric chamber, communication, and antenna;

a counterweight mechanism;

an electro energy vibration and alternative to gas, oil or fossil fuel consumption;

a spine eliminates a deformation and vibration level increased by a combination of ceramic and molded piezoelectric materials at a regular predetermined frequency thereby multiplying a level of vibration and noise reduction;

a transducer use in auto, motorcycle, airplane, train, boat, home, turbine, tower, window, panel, building and wind, water, solar, renewable energy; and

an optical laser beam directed energy defense, to use ground and space-based systems, to protect from attack by strategic nuclear ballistic missiles.

5.(CURRENTLY AMENDED) The atmospheric transduction system in accordance with claim 4, wherein said means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining a voltage being collected in a prescribed range, an electrical conversion broadcast network circuit comprises piezoelectric transducer molded device housing, disk rotor, stack ball bearing, coupler, counterweight, book spine stacks, laser and antenna rod stacks;

wherein said means for collecting an atmospheric electrical power as direct current and then supplies an appropriate power grid and capacitates a charge comprises a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and orbs, power frequency broadcast;

wherein said means for charging providing motor characteristics, said power frequency engine comprises a sensor accelerator, rotor/gear, battery/capacitor, antenna, controller, for propulsion;

wherein said means for charging providing satellite characteristics, said power frequency satellite comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball and transceiver;

wherein said means for charging providing security characteristics, said frequency laser comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball, mirrors, coupler, counterweight, beam and laser;

wherein said means of producing, transmittal, and receiving direct current energy comprising frequency comprises piezoelectric molded parts and circuitry; and

wherein said means of deformation in an inner and outer races during rotation of a ball bearing while undergoing a radial load is made irregular and complicated, is eliminated by a spine; and

wherein said means of transduction and an electro energy vibration is an alternative;

6.(CURRENTLY AMENDED) An atmospheric transduction system method for generation of green energy using a rotor, comprising the steps of:

providing a battery**,** a engine starts and/or a mobile counterweight transducer is oscillated;
providing acceleration, forces are imposed on one or more rotation piezoelectric devices;
providing response to counterweight forces, piezoelectric devices output electrical energy;
providing a power controller energy is extracted;

providing a spine eliminates a deformation and vibration level increased by a combination of ceramic and molded piezoelectric materials at a regular predetermined frequency thereby multiplying a level of vibration and noise reduction;

providing a power controller and sensor, energy available to recharge a capacitor/ battery by electronic components of a mobile terminal;

providing a serial flow of events, it is to be appreciated that the events of blocks start, battery, engine, and counterweight transducer occur substantially instantaneously;

providing a battery charge when an external power supply is connected to an ATS device;

providing reciprocal power incorporated within piezoelectric molded and ceramic housing along with stack balls and cylinder;

providing one or more steps by presenting a self charge retaining transducers may be configured with an accelerator sensor controller and gears;

providing propulsion upon acceleration of a mobile terminal;

providing an electro energy vibration and alternative to gas, oil or fossil fuel consumption; and providing an optical laser beam directed energy defense.

Serial No.: 13/692,121
Filing Date: 12/03/2012
Confirmation No.: 7639
GAU:2837

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: JENNINGS, James Edward

SERIAL NO.: 13/692,121 FILING DATE: DECEMBER 3, 2012

TITLE: ATMOSPHERIC TRANSDUCTION SYSTEM

GROUP ART UNIT: 2837 EXAMINER: ROSENAU, DEREK

Box AAF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

RESPONSE TO OFFICE ACTION

Dear Examiner Rosenau:

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ARGUMENTS and REMARKS

There is even a presumption that a patented invention is commercially successful for purposes of nonobviousness "when a patentee can demonstrate commercial success, usually shown by significant sales in a relevant market, and that the successful product is the invention disclosed and claimed in the patent" Ecolochem, supra, 227 F.3d at 1377; citing J.T. Eaton & Co. v. Atlantic Paste & Glue Co., 106 F.3d 1563, 1571 (Fed. Cir. 1997).

The examiners were informed my inventions were being **NASA** reviewed and manufactured, yet demonstrated an indifference (Satellite future release date). Filed non black and white photos.

DRAWINGS: Non black and white depicting Direct Energy Weapon element as SECURITY**.**

SPECIFICATION AMENDMENTS: **NONE**

CLAIM AMENDMENTS: 4-6 were amended to reflect sections **0020, 00115** and **0049.**

IDS: Applicant submits revised IDS of the inventions indicated utility and requests entry by repeal of the final rejection, comprehension and consideration of the innovation facts.

Applicant respectfully requests reconsideration of the application and its passage to allowance.

Respectfully submitted, James Jennings

/JAMES EDWARD JENNINGS/

Date: 06/03/2015 By:_____

PO Box 270081 Louisville, CO 80027
303.664.1829

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	13692121
Filing Date	2012-12-03
First Named Inventor	JAMES EDWARD JENNINGS
Art Unit	2637
Examiner Name	ROSENAU, DEREK
Attorney Docket Number	

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	7489057		2009-02-10	ZHOU	ROTOR
	2	8894514		2014-11-25	JENNINGS	PIEZOELECTRICITY
	3	2509913		1950-05-30	ESPENSCHIED	POWER SOURCE
	4	3239678		1966-03-08	KOLM	PIEZOELECTRIC SYSTEM
	5	4467236		1984-08-21	KOLM	PIEZOELECTRIC GENERATOR
	6	7629918		2009-12-08	BROWN	FREQUENCY DIRECTED ENERGY
	7	6704543		2004-03-09	SHARON	MULTI BEAM SATELLITE

If you wish to add additional U.S. Patent citation information please click the Add button. Add

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Attorney Docket Number	

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20070284953		2007-12-13	LYONS	ROTOR
	2	20130181511		2013-07-18	STEWART	BATTERY/CONTROLLER

If you wish to add additional U.S. Published Application citation information please click the Add button. Add

FOREIGN PATENT DOCUMENTS Remove

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐

If you wish to add additional Foreign Patent Document citation information please click the Add button Add

NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	http://en.wikipedia.org/wiki/Iron_Beam LASER AIR DEFENSE SYSTEM	☐
	2	http://www.inquisitr.com/1745217/israel-to-deploy-iron-beam-worlds-first-laser-air-defense-system-in-2015/	☐
	3	http://www.jpost.com/Defense/Israeli-Iron-Beam-laser-air-defense-brings-down-mortars-like-flies-creator-says-347282	☐

If you wish to add additional non-patent literature document citation information please click the Add button Add

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	13692121
	Filing Date	2012-12-03
	First Named Inventor	JAMES EDWARD JENNINGS
	Art Unit	2637
	Examiner Name	ROSENAU, DEREK
	Attorney Docket Number	

EXAMINER SIGNATURE			
Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	13692121
Filing Date	2012-12-03
First Named Inventor	JAMES EDWARD JENNINGS
Art Unit	2637
Examiner Name	ROSENAU, DEREK
Attorney Docket Number	

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☒ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☒ See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☐ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/JAMES EDWARD JENNINGS/	Date (YYYY-MM-DD)	2015-06-03
Name/Print	JAMES EDWARD JENNINGS	Registration Number	82669

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

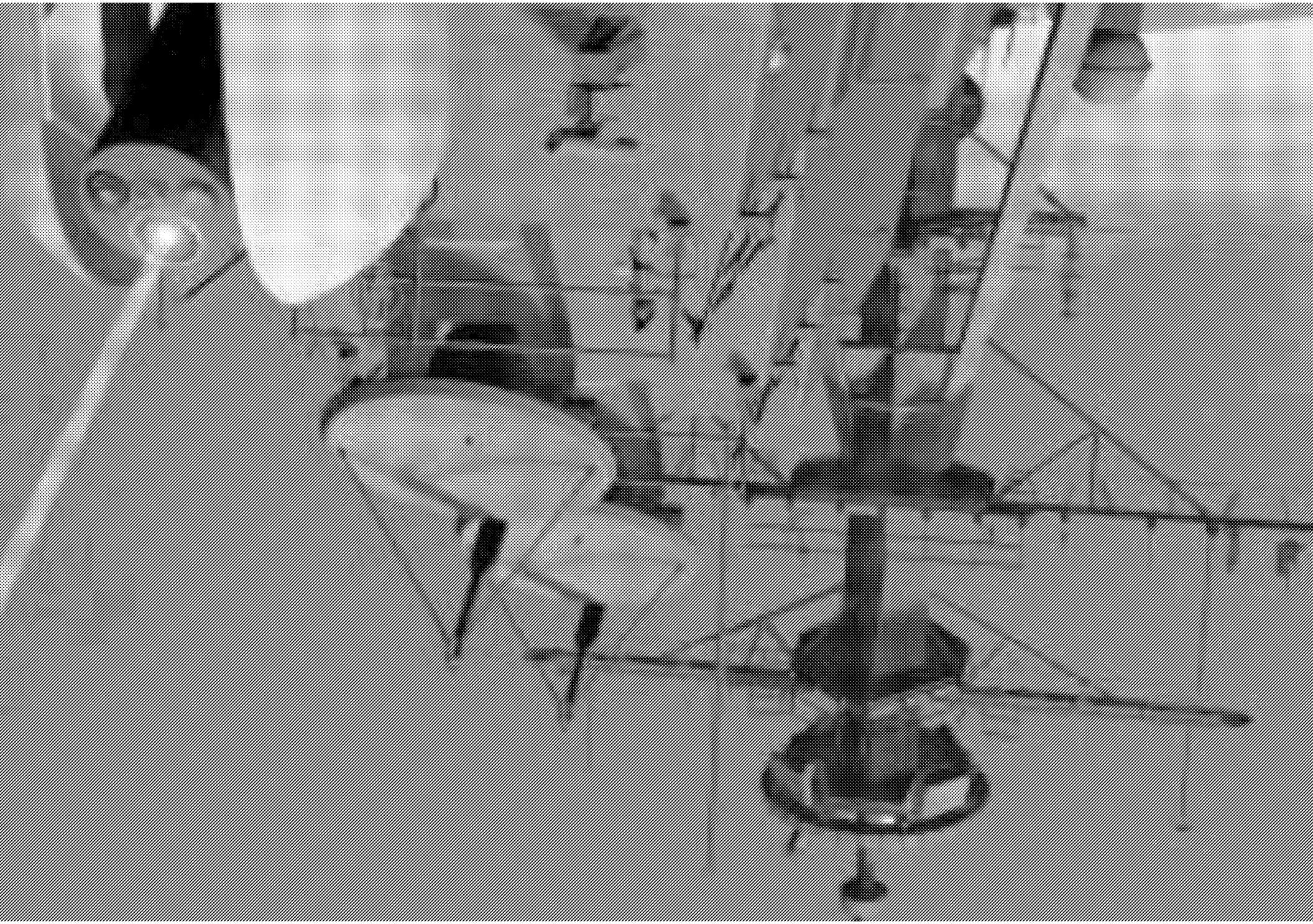
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

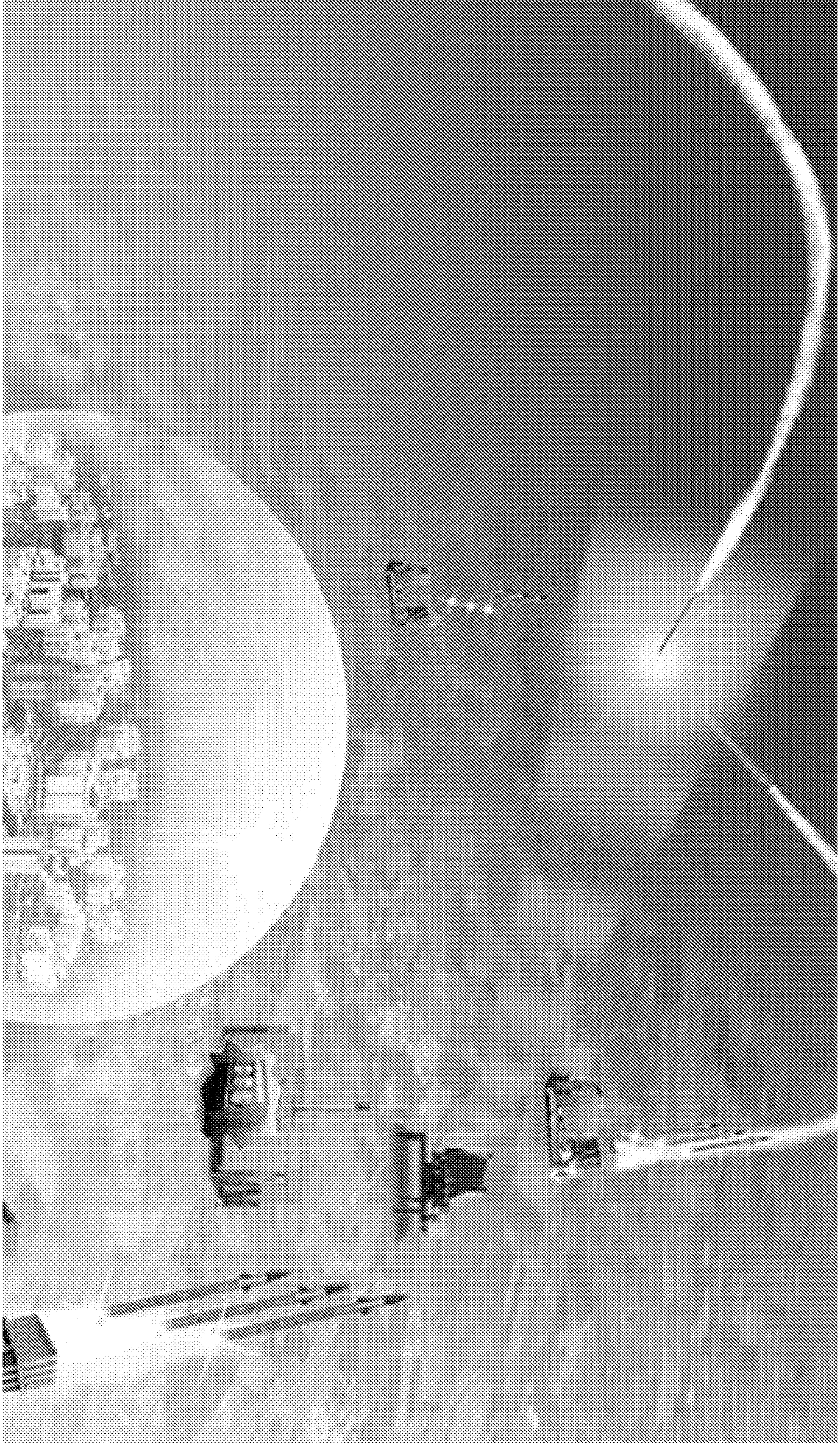
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

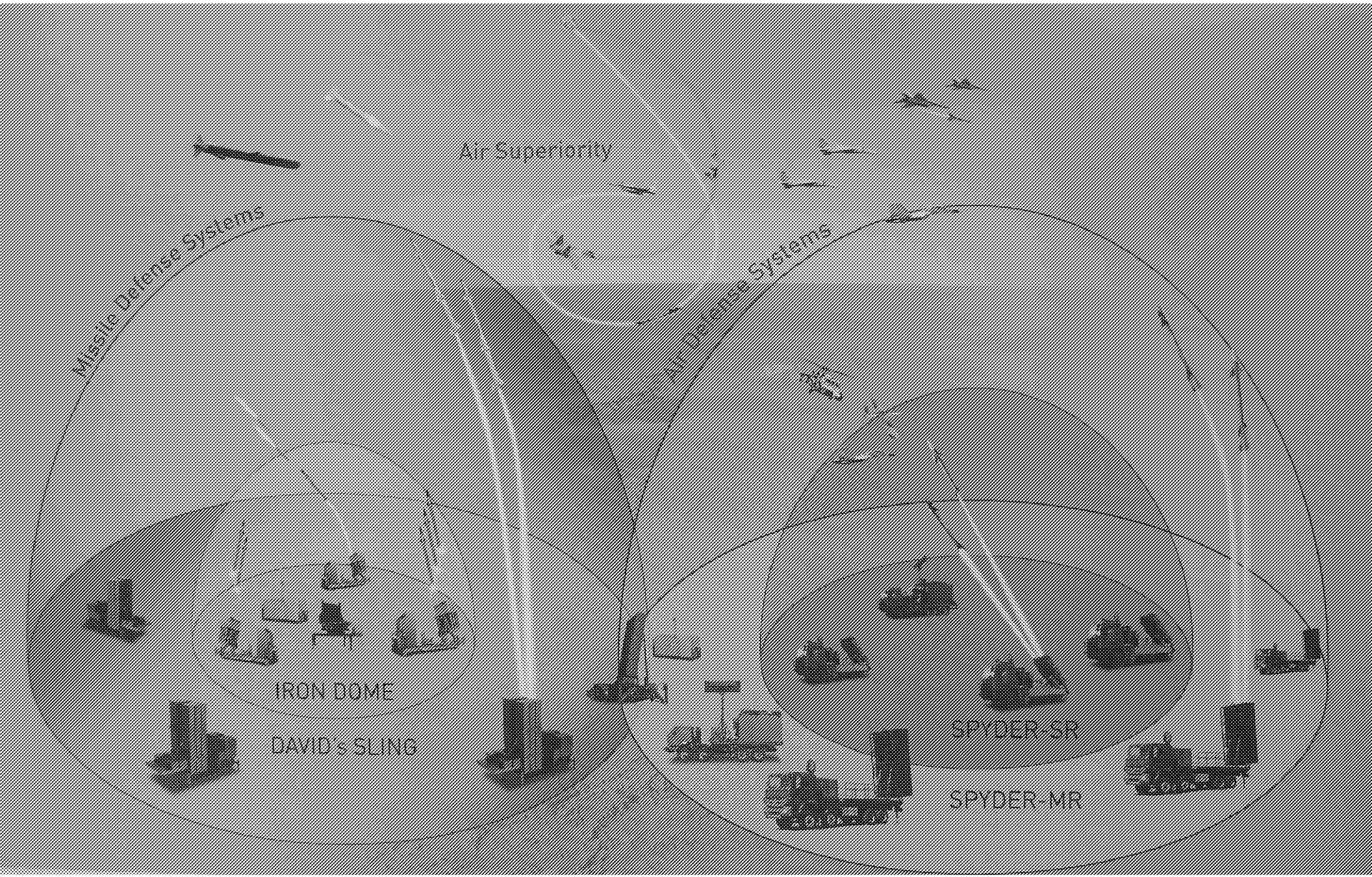
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.






Air Superiority
Missile Defense Systems
Missile Defense Systems
IRON DOME
DAVID's SLING
SPYDER-SR
SPYDER-MR

Electronic Patent Application Fee Transmittal

Application Number:	13692121
Filing Date:	03-Dec-2012
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Filer:	James Edward Jennings
Attorney Docket Number:	

Filed as Micro Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension - 2 months with $0 paid	3252	1	150	150
Miscellaneous:				
			Total in USD ($)	**150**

Electronic Acknowledgement Receipt

EFS ID:	22518235
Application Number:	13692121
International Application Number:	
Confirmation Number:	7639
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
Filer:	James Edward Jennings
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	03-JUN-2015
Filing Date:	03-DEC-2012
Time Stamp:	00:47:01
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$150
RAM confirmation Number	7696
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment Copy Claims/Response to Suggested Claims	ATS_CLAIMS_456_rev333.pdf	34071 75636848a855b45744c707fbac52375dfbae61c0	no	5
Warnings:					
Information:					
2	Applicant Arguments/Remarks Made in an Amendment	ATS_CLAIMS_LETTER_333.pdf	41413 df1349b3409359a2ce86a005bcf1af6e6752a5b9	no	3
Warnings:					
Information:					
3	Information Disclosure Statement (IDS) Form (SB08)	13692121_IDS_3.pdf	612935 34812606e3877d14740128ea202febf45667c6f4	no	5
Warnings:					
Information:					
4	Drawings-other than black and white line drawings	13692121_AFTER_ART_DS.pdf	441557 2372584a5dc9af16539d982dd6e77636658713fb	no	3
Warnings:					
Information:					
5	Fee Worksheet (SB06)	fee-info.pdf	30387 1835471c7ad881eedbdb68ac15312c80e35b2463	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	1160363		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

DocCode – SCORE

SCORE Placeholder Sheet for IFW Content

Application Number: 13692121 Document Date: 06/03/2015

The presence of this form in the IFW record indicates that the following document type was received in electronic format on the date identified above. This content is stored in the SCORE database.

Since this was an electronic submission, there is no physical artifact folder, no artifact folder is recorded in PALM, and no paper documents or physical media exist. The TIFF images in the IFW record were created from the original documents that are stored in SCORE.

- Drawing

At the time of document entry (noted above):

- USPTO employees may access SCORE content via eDAN using the Supplemental Content tab, or via the SCORE web page.
- External customers may access SCORE content via PAIR using the Supplemental Content tab.

Form Revision Date: August 26, 2013

4.(CURRENTLY AMENDED) An atmospheric transduction system comprising:

a transducer recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, providing an electrical conversion broadcast network;

a transducer mechanism for collecting the atmospheric electrical power as direct current, supplies the appropriate power grid, transceiver and capacitates a charge;

a self charging transducer propulsion provides motor characteristics, and piezoelectric frequency engine;

a piezoelectric transducer production of direct current energy frequency;

a piezoelectric transducer transmittal of direct current energy frequency;

a piezoelectric transducer, receiving of direct current energy frequency;

a piezoelectric transducer molded device(s), disk rotor, spine ball bearing, coupler and book spine stack transducers, for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, providing an electrical conversion broadcast server network circuit;

a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and disc orbs, stack rods, power frequency broadcast, for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid, transceiver and capacitates a charge;

a sensor accelerator, disk rotor/gear, battery/capacitor, controller, antenna, means for self charge propulsion comprise motor characteristics, thereby an engine of power frequency;

a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball means for self charge propulsion comprise a transceiver, thereby power frequency satellite;

a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball means for self charge propulsion and security comprise a transceiver, laser, mirrors, coupler, frequency thereby a direct current energy laser beam;

a piezoelectric transducer producing direct current energy frequency;

a piezoelectric transducer transmitting direct current energy frequency;

a piezoelectric transducer receiving direct current energy frequency;

a transducer frequency energy production comprising piezoelectric oscillation circuit;

a transducer frequency energy production comprising piezoelectric oscillator and electronic circuitry;

a piezoelectric transducer energy networking comprising grids, antenna, cylinders, transceivers, transmitters, receivers, satellites, chamber rotors and engines;

a piezoelectric transducer energy comprising chamber, communication, and antenna;

a transducer energy comprising piezoelectric chamber, communication, and antenna;

a transducer current comprising piezoelectric chamber, communication, and antenna;

a counterweight mechanism;

an electro energy vibration and alternative to gas, oil or fossil fuel consumption;

a spine eliminates the deformation and vibration level increased by a combination of ceramic and molded piezoelectric materials at a regular predetermined frequency thereby multiplying the level of vibration and noise reduction; and

an use in auto, motorcycle, airplane, train, boat, home, turbine, tower, window, panel, building and wind, water, solar, renewable energy.

5.(CURRENTLY AMENDED) The atmospheric transduction system in accordance with claim 4, wherein said means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, an electrical conversion broadcast network circuit comprises piezoelectric transducer molded device housing, disk rotor, stack ball bearing, coupler, counterweight, book spine stacks, laser and antenna rod stacks;

wherein said means for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid and capacitates a charge comprises a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and orbs, power frequency broadcast;

wherein said means for charging providing motor characteristics, said power frequency engine comprises a sensor accelerator, rotor/gear, battery/capacitor, antenna, controller, for propulsion;

wherein said means for charging providing satellite characteristics, said power frequency satellite

comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball and transceiver;

wherein said means for charging providing security characteristics, said frequency laser comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball, mirrors, coupler, counterweight, beam and laser;

wherein said means of producing, transmittal, and receiving direct current energy comprising frequency comprises piezoelectric molded parts and circuitry; and

wherein said means of deformation in the inner and outer races during rotation of the ball bearing while undergoing a radial load is made irregular and complicated, is eliminated by a spine; and

wherein said means of transduction and an electro energy vibration is an alternative;

6.(CURRENTLY AMENDED) An atmospheric transduction system method for generation of green energy using a rotor, comprising the steps of:

providing a battery**,** a engine starts and/or a mobile counterweight transducer is oscillated;

providing acceleration, forces are imposed on one or more rotation piezoelectric devices;

providing response to counterweight forces, piezoelectric devices output electrical energy;

providing a spine eliminates the deformation and vibration level increased by a combination of ceramic and molded piezoelectric materials at a regular predetermined frequency thereby multiplying the level of vibration and noise reduction;

providing a power controller energy is extracted;

providing a power controller and sensor, energy available to recharge a capacitor/ battery by electronic components of the mobile terminal;

providing a serial flow of events, it is to be appreciated that the events of blocks start, battery, engine, and counterweight transducer occur substantially instantaneously;

providing a battery charge when an external power supply is connected to an ATS device;

providing reciprocal power incorporated within piezoelectric molded and ceramic housing along with stack balls and cylinder;

providing one or more steps by presenting a self charge retaining transducers may be configured with an accelerator sensor controller and gears;

providing propulsion upon acceleration of the mobile terminal; and

providing an electro energy vibration and alternative to gas, oil or fossil fuel consumption.

Electronic Acknowledgement Receipt

EFS ID:	22456850
Application Number:	13692121
International Application Number:	
Confirmation Number:	7639
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
Filer:	James Edward Jennings
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	27-MAY-2015
Filing Date:	03-DEC-2012
Time Stamp:	13:06:59
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Applicant Arguments/Remarks Made in an Amendment	ATS_CLAIMS_LETTER_456_rev33.pdf	34080 e96e97adb276d67094e19c31104fd69a89c2834d	no	2

Warnings:	
Information:	

2	Amendment Copy Claims/Response to Suggested Claims	ATS_CLAIMS_456_rev33.pdf	33563 f131154e8f3f93564ec2ae669114be1d8e5b7819	no	5

Warnings:	
Information:	
Total Files Size (in bytes):	67643

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Serial No.: 13/692,121
Filing Date: 12/03/2012
Confirmation No.: 7639
GAU:2837

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: JENNINGS, James Edward

SERIAL NO.: 13/692,121 FILING DATE: DECEMBER 3, 2012

TITLE: ATMOSPHERIC TRANSDUCTION SYSTEM

GROUP ART UNIT: 2837 EXAMINER: ROSENAU, DEREK

Box AAF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

RESPONSE TO SUGGESTED CLAIMS /AMENDMENT

Dear Examiner Rosenau:

This correspondence is being filed as a Response to the Office Action Summary issued on May 22, 2015. Applicant requests entry of the amendments indicated below and consideration of the appended Remarks. Remarks begin on Page 2 of this paper.

I feel an additional search would be acrimonious at this juncture. Congratulate Derek, on his thorough search based on the specification. Mr. Rosenau is well versed and tenured.

I foresee no additional qualms presented by additional search prior to allowance.

ARGUMENTS and REMARKS

112 "The uncertainties of claim scope should be removed, as much as possible, during the examination process." The claims are precise, clear, correct, and unambiguous.

NOVEL SYSTEM INVENTION -MINOR 112 ISSUES -do not require additional searches.

CLAIMS PREVIOUSLY AMENDED/ BURDEN RELIEF - Thus far, I have only claimed the apparatus antenna/stack/ball bearing power, satellite/security and method. Yet, to further list applicative use in auto, motorcycle, airplane, train, boat, home, turbine, tower, and building.

DRAWINGS AMENDED: NONE

SPECIFICATION AMENDMENTS: NONE

CLAIM AMENDMENTS: 4-6 were amended to reflect sections **00118, 00115** and **00119.**

Applicant respectfully requests reconsideration of the application and its passage to allowance. Should any impediments to allowance remain, Applicant requests that the Examiner contact the undersigned at the indicated phone number.

Respectfully submitted, James Jennings

/JAMES EDWARD JENNINGS/

Date: 05/27/2015 By:_____

PO Box 270081 Louisville, CO 80027
303.664.1829

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.
13/692,121	12/03/2012	JAMES EDWARD JENNINGS		7639

82669 7590 05/22/2015

James Edward Jennings
P.O. Box 270081
Louisville, CO 80027

EXAMINER	
ROSENAU, DEREK JOHN	

ART UNIT	PAPER NUMBER
2837	

MAIL DATE	DELIVERY MODE
05/22/2015	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.

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 13/692,121	**Applicant(s)** JENNINGS, JAMES EDWARD	
	Examiner Derek Rosenau	**Art Unit** 2837	**AIA (First Inventor to File) Status** No

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

THE REPLY FILED 08 May 2015 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

NO NOTICE OF APPEAL FILED

1. ☐ The reply was filed after a final rejection. No Notice of Appeal has been filed. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114 if this is a utility or plant application. Note that RCEs are not permitted in design applications. The reply must be filed within one of the following time periods:
   a) ☒ The period for reply expires *3* months from the mailing date of the final rejection.
   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action; or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
   c) ☐ A prior Advisory Action was mailed more than 3 months after the mailing date of the final rejection in response to a first after-final reply filed within 2 months of the mailing date of the final rejection. The current period for reply expires months from the mailing date of *the prior Advisory Action* or SIX MONTHS from the mailing date of the final rejection, whichever is earlier.
   Examiner Note: If box 1 is checked, check either box (a), (b) or (c). ONLY CHECK BOX (b) WHEN THIS ADVISORY ACTION IS THE FIRST RESPONSE TO APPLICANT'S FIRST AFTER-FINAL REPLY WHICH WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. ONLY CHECK BOX (c) IN THE LIMITED SITUATION SET FORTH UNDER BOX (c). See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) or (c) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendments filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
   b) ☐ They raise the issue of new matter (see NOTE below);
   c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.
   NOTE: *See Continuation Sheet*. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): (a) ☒ will not be entered, or (b) ☐ will be entered, and an explanation of how the new or amended claims would be rejected is provided below or appended.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
9. ☐ The affidavit or other evidence filed after final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
10. ☐ The affidavit or other evidence filed after the date of filing the Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
11. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

12. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
13. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
14. ☐ Other: _____.

STATUS OF CLAIMS

15. The status of the claim(s) is (or will be) as follows:
    Claim(s) allowed: .
    Claim(s) objected to: .
    Claim(s) rejected: 4-6.
    Claim(s) withdrawn from consideration: .

/Derek Rosenau/
Primary Examiner, Art Unit 2837

Continuation of 3. NOTE: The amendments to the claims contain subject matter that has not been previously presented and would require further search and/or consideration.

Continuation of 12. does NOT place the application in condition for allowance because: Applicant's amendments and arguments filed 8 May 2015 have been fully considered but they are not persuasive. Neither the amendments to the claims, nor the arguments, address the rejections under 25 USC 112, 1st and 2nd paragraphs.

UNITED STATES PATENT AND TRADEMARK OFFICE

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

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/692,121	12/03/2012	JAMES EDWARD JENNINGS		7639

82669 7590 05/15/2015

James Edward Jennings
P.O. Box 270081
Louisville, CO 80027

EXAMINER	
ROSENAU, DEREK JOHN	

ART UNIT	PAPER NUMBER
2837	

MAIL DATE	DELIVERY MODE
05/15/2015	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.

Applicant-Initiated Interview Summary	Application No.	Applicant(s)	
	13/692,121	JENNINGS, JAMES EDWARD	
	Examiner	Art Unit	
	Derek Rosenau	2837	

All participants (applicant, applicant's representative, PTO personnel):

(1) *Derek Rosenau*. (3)_____.

(2) *James Jennings*. (4)_____.

Date of Interview: *07 May 2015*.

Type: ☒ Telephonic ☐ Video Conference
☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☒ No.
If Yes, brief description: _____.

Issues Discussed ☐101 ☒112 ☐102 ☐103 ☐Others
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: *4-6*.

Identification of prior art discussed: *None*.

Substance of Interview
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

The examiner attempted to clarify what was required to overcome the rejections under 35 USC 112 and also sought clarification on the intended meanings of some of the ambiguous claim terminology. No agreement was reached with respect to amendments to overcome the current rejections.

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

☐ Attachment

/Derek Rosenau/ Primary Examiner, Art Unit 2837	

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record
A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews
Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.
All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:
- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:
1) A brief description of the nature of any exhibit shown or any demonstration conducted,
2) an identification of the claims discussed,
3) an identification of the specific prior art discussed,
4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
5) a brief identification of the general thrust of the principal arguments presented to the examiner,
   (The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
6) a general indication of any other pertinent matters discussed, and
7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

4.(CURRENTLY AMENDED) An atmospheric transduction system comprising:

a transducer recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, providing an electrical conversion broadcast network;

a transducer mechanism for collecting the atmospheric electrical power as direct current, supplies the appropriate power grid, transceiver and capacitates a charge;

a self charging transducer propulsion provides motor characteristics, and piezoelectric frequency engine;

a piezoelectric transducer production of direct current energy frequency;

a piezoelectric transducer transmittal of direct current energy frequency;

a piezoelectric transducer, receiving of direct current energy frequency;

a piezoelectric transducer molded device(s), disk rotor, spine ball bearing, coupler and book spine stack transducers, for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, providing an electrical conversion broadcast server network circuit;

a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and disc orbs, stack rods, power frequency broadcast, for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid, transceiver and capacitates a charge;

a sensor accelerator, disk rotor/gear, battery/capacitor, controller, antenna, means for self charge propulsion comprise motor characteristics, thereby an engine of power frequency;

a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball means for self charge propulsion comprise a transceiver, thereby power frequency satellite;

a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball means for self charge propulsion and security comprise a transceiver, laser, mirrors, coupler, frequency thereby a direct current energy laser beam;

a piezoelectric transducer producing direct current energy frequency;

a piezoelectric transducer transmitting direct current energy frequency;

a piezoelectric transducer receiving direct current energy frequency;

a transducer frequency energy production comprising piezoelectric oscillation circuit;

a transducer frequency energy production comprising piezoelectric oscillator and electronic circuitry;

a piezoelectric transducer energy networking comprising grids, antenna, cylinders, transceivers, transmitters, receivers, satellites, chamber rotors and engines;

a piezoelectric transducer energy comprising chamber, communication, and antenna;

a transducer energy comprising piezoelectric chamber, communication, and antenna;

a transducer current comprising piezoelectric chamber, communication, and antenna;

a counterweight mechanism;

an electro energy vibration and alternative to gas, oil or fossil fuel consumption; and

a spine eliminates the deformation and vibration level increased by a combination of ceramic and molded piezoelectric materials at a regular predetermined frequency thereby multiplying the level of vibration and noise reduction.

5.(CURRENTLY AMENDED) The atmospheric transduction system in accordance with claim 4, wherein said means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, an electrical conversion broadcast network circuit comprises piezoelectric transducer molded device housing, disk rotor, stack ball bearing, coupler, counterweight, book spine stacks, laser and antenna rod stacks;

wherein said means for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid and capacitates a charge comprises a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and orbs, power frequency broadcast;

wherein said means for charging providing motor characteristics, said power frequency engine comprises a sensor accelerator, rotor/gear, battery/capacitor, antenna, controller, for propulsion;

wherein said means for charging providing satellite characteristics, said power frequency satellite comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball and transceiver;

wherein said means for charging providing security characteristics, said frequency laser comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball, mirrors, coupler, counterweight, beam and laser;

wherein said means of producing, transmittal, and receiving direct current energy comprising frequency comprises piezoelectric molded parts and circuitry; and

wherein said means of deformation in the inner and outer races during rotation of the ball bearing while undergoing a radial load is made irregular and complicated, is eliminated by a spine; and

wherein said means of transduction and an electro energy vibration is an alternative;

6.(CURRENTLY AMENDED) A method for generation of energy using a rotor, comprising the steps of:

providing a battery**,** a engine starts and/or a mobile counterweight transducer is oscillated;

providing acceleration, forces are imposed on one or more rotation piezoelectric devices;

providing response to counterweight forces, piezoelectric devices output electrical energy;

providing a spine eliminates the deformation and vibration level increased by a combination of ceramic and molded piezoelectric materials at a regular predetermined frequency thereby multiplying the level of vibration and noise reduction;

providing a power controller energy is extracted;

providing a power controller and sensor, energy available to recharge a capacitor/ battery by electronic components of the mobile terminal;

providing a serial flow of events, it is to be appreciated that the events of blocks start, battery, engine, and counterweight transducer occur substantially instantaneously;

providing propulsion upon acceleration of the mobile terminal; and

providing an electro energy vibration and alternative to gas, oil or fossil fuel consumption.

4.(CURRENTLY AMENDED) An atmospheric transduction system comprising:

a ~~frequency and current mechanism means for~~ transducer recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, providing an electrical conversion broadcast network;

a ~~frequency and current~~ transducer mechanism means for collecting the atmospheric electrical power as direct current, supplies the appropriate power grid, transceiver and capacitates a charge;

a ~~frequency and current mechanism means for~~ self charging transducer propulsion provides motor characteristics, and piezoelectric frequency engine;

a ~~frequency and current mechanism means for~~ piezoelectric transducer production of direct current energy ~~comprising~~ frequency;

a ~~frequency and current mechanism means for~~ piezoelectric transducer transmittal of direct current energy ~~comprising~~ frequency;

a ~~frequency and current mechanism means for~~ piezoelectric transducer, receiving of direct current energy ~~comprising~~ frequency;

a piezoelectric transducer molded device(s), disk rotor, spine ball bearing, coupler and book spine stack transducers, for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, providing an electrical conversion broadcast server network circuit;

a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and disc orbs, stack rods, power frequency broadcast, for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid, transceiver and capacitates a charge;

a sensor accelerator, disk rotor/gear, battery/capacitor, controller, antenna, means for self charge propulsion comprise motor characteristics, thereby an engine of power frequency;

a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball means for self charge propulsion comprise a transceiver, thereby power frequency satellite;

a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball means for self charge propulsion and security comprise a transceiver, laser, mirrors, coupler, frequency thereby a direct current energy laser beam;

a piezoelectric transducer ~~means of~~ producing direct current energy ~~comprising~~ frequency;

a piezoelectric transducer ~~means of~~ transmitting direct current energy ~~comprising~~ frequency;

a piezoelectric transducer ~~means of~~ receiving direct current energy ~~comprising~~ frequency;

a ~~frequency and current mechanism means of~~ transducer frequency energy production comprising piezoelectric oscillation circuit;

a ~~frequency and current mechanism means of~~ transducer frequency energy production

comprising piezoelectric transducer oscillator and electronic circuitry;

a ~~frequency and current mechanism means of~~ piezoelectric transducer energy networking comprising grids, antenna, cylinders, transceivers, transmitters, receivers, satellites, chamber rotors and engines;

a ~~frequency and current mechanism means of~~ piezoelectric transducer energy comprising chamber, communication, and antenna;

a ~~frequency and current mechanism means of~~ transducer energy comprising piezoelectric chamber, communication, and antenna;

a ~~frequency and current mechanism means of~~ transducer current comprising piezoelectric chamber, communication, and antenna**;**

a ~~frequency derived from a~~ counterweight transducer mechanism, ~~frequency and current~~**;**

an electro energy vibration and alternative to gas, oil or fossil fuel consumption; and

a spine eliminates the deformation and vibration level increased by a combination of ceramic and molded piezoelectric materials at a regular predetermined frequency thereby multiplying the level of vibration and noise reduction.

5.(CURRENTLY AMENDED) The atmospheric transduction system in accordance with claim 4, wherein said means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, an electrical conversion broadcast network circuit comprises piezoelectric transducer molded device housing, disk rotor, stack ball bearing, coupler, counterweight, book spine stacks, laser and antenna rod stacks;

wherein said means for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid and capacitates a charge comprises a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and orbs, power frequency broadcast;

wherein said means for charging providing motor characteristics, said power frequency engine comprises a sensor accelerator, rotor/gear, battery/capacitor, antenna, controller, for propulsion;

wherein said means for charging providing satellite characteristics, said power frequency satellite comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball and transceiver;

wherein said means for charging providing security characteristics, said frequency laser comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball, mirrors, coupler, counterweight, beam and laser;

wherein said means of producing, transmittal, and receiving direct current energy comprising frequency comprises piezoelectric molded parts and circuitry; and

wherein said means of deformation in the inner and outer races during rotation of the ball bearing while undergoing a radial load is made irregular and complicated, is eliminated by a spine; and

wherein said means of transduction and an electro energy vibration is an alternative;

6.(CURRENTLY AMENDED) A method for generation of energy using a rotor, comprising the steps of:

providing a battery**,** a engine starts and/or a mobile counterweight transducer is oscillated;

providing acceleration, forces are imposed on one or more rotation piezoelectric devices;

providing response to counterweight forces, piezoelectric devices output electrical energy;

providing a spine eliminates the deformation and vibration level increased by a combination of ceramic and molded piezoelectric materials at a regular predetermined frequency thereby multiplying the level of vibration and noise reduction;

providing a power controller energy is extracted;

providing a power controller and sensor**,** energy available to recharge a capacitor/ battery by electronic components of the mobile terminal;

providing a serial flow of events, it is to be appreciated that the events of blocks start, battery, engine, and counterweight transducer occur substantially instantaneously;

providing propulsion upon acceleration of the mobile terminal; and

providing an electro energy vibration and alternative to gas, oil or fossil fuel consumption.

Serial No.: 13/692,121
Filing Date: 12/03/2012
Confirmation No.: 7639
GAU:2837

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: JENNINGS, James Edward

SERIAL NO.: 13/692,121 FILING DATE: DECEMBER 3, 2012

TITLE: ATMOSPHERIC TRANSDUCTION SYSTEM

GROUP ART UNIT: 2837 EXAMINER: ROSENAU, DEREK

Box AAF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

RESPONSE TO SUGGESTED CLAIMS /AMENDMENT

Dear Examiner Rosenau:

This correspondence is being filed as a Response to the Office Action Summary issued on April 29, 2015. Applicant requests entry of the amendments indicated below and consideration of the appended Remarks. Remarks begin on Page 2 of this paper.

CLAIMS PREVIOUSLY AMENDED

Applicant amends claims by "frequency to current mechanism and counterweight **50**." No new matter has been entered by way of these amendments.

DRAWINGS AMENDED: REPLACEMENT SHEET 8/15

SPECIFICATION AMENDMENTS: NONE

CLAIM AMENDMENTS: 4-6 were amended to reflect sections **00118** and **00119.**

REMARKS: Following our May 7, 2015 conversation, the ombudsman program does not assist in the writing of claims. However, I did call the inventors assistance center, thanks.

Conditional Request For Constructive Assistance

If for any reason this application is not believed to be in full condition for allowance, applicant respectfully request the constructive assistance and suggestions of the examiner pursuant to M.P.E.P.§ 2173.02 and § 707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Applicant respectfully requests reconsideration of the application and its passage to allowance. Should any impediments to allowance remain, Applicant requests that the Examiner contact the undersigned at the indicated phone number.

Respectfully submitted, James Jennings

/JAMES EDWARD JENNINGS/

Date: 05/08/2015 By:_____

PO Box 270081 Louisville, CO 80027
303.664.1829

Electronic Acknowledgement Receipt

EFS ID:	22294261
Application Number:	13692121
International Application Number:	
Confirmation Number:	7639
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
Filer:	James Edward Jennings
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	08-MAY-2015
Filing Date:	03-DEC-2012
Time Stamp:	14:36:37
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Drawings-only black and white line drawings	ATS_AMEND_DRAW_2.pdf	36862 b4c6a2b4e625e54428a1a15a8530f86a0958e06c	no	1

Warnings:	
Information:	

2	Amendment Copy Claims/Response to Suggested Claims	ATS_CLAIMS_456_rev3.pdf	34806 d6f0cb7b4dd643907550329ac6ffeff278ecd9dd	no	5
Warnings:					
Information:					
3	Supplemental Response or Supplemental Amendment	ATS_CLAIMS_456_rev_ANNO.pdf	36699 fa9c6c1d5aae9cdd77e347a133744fac4577ba09	no	6
Warnings:					
Information:					
4	Applicant Arguments/Remarks Made in an Amendment	ATS_CLAIMS_LETTER_456_rev2.pdf	35624 6daed1d6b9c85425dee16d1eb2904445ae1beb21	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	143991		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

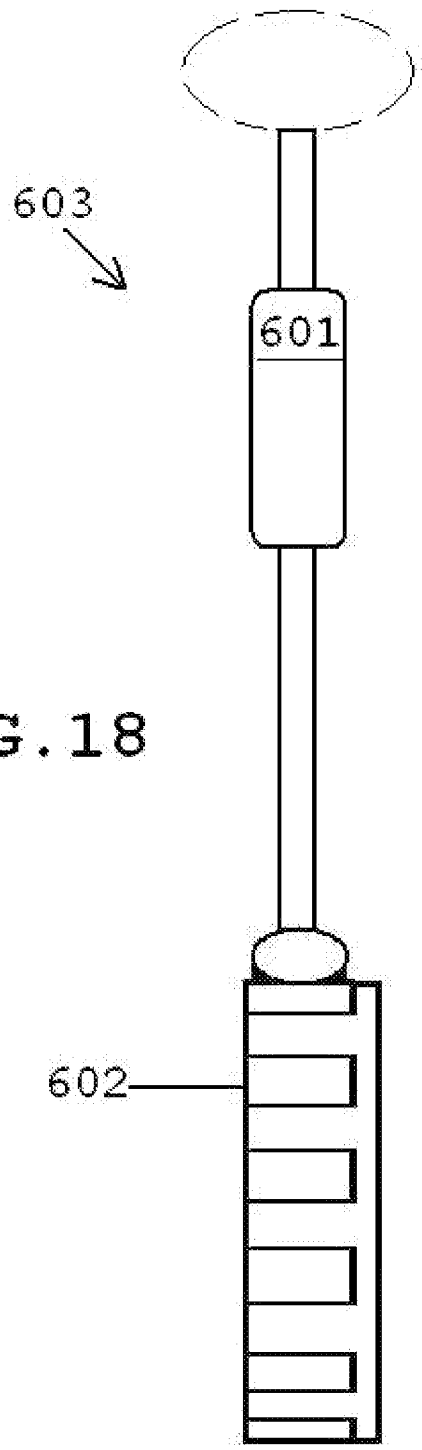

FIG.18

FIG.19

Electronic Patent Application Fee Transmittal

Application Number:	13692121
Filing Date:	03-Dec-2012
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Filer:	James Edward Jennings
Attorney Docket Number:	

Filed as Micro Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension - 1 month with $0 paid	3251	1	50	50
Miscellaneous:				
			Total in USD ($)	**50**

Electronic Acknowledgement Receipt

EFS ID:	22287960
Application Number:	13692121
International Application Number:	
Confirmation Number:	7639
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
Filer:	James Edward Jennings
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	07-MAY-2015
Filing Date:	03-DEC-2012
Time Stamp:	19:53:15
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$50
RAM confirmation Number	5034
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Fee Worksheet (SB06)	fee-info.pdf	30387 b488db3b9ae4024973626d014704d1891e2b677e	no	2

Warnings:

Information:

Total Files Size (in bytes):	30387

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
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National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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.
13/692,121	12/03/2012	JAMES EDWARD JENNINGS		7639

82669 7590 04/29/2015

James Edward Jennings
P.O. Box 270081
Louisville, CO 80027

EXAMINER	
ROSENAU, DEREK JOHN	

ART UNIT	PAPER NUMBER
2837	

MAIL DATE	DELIVERY MODE
04/29/2015	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.

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 13/692,121	**Applicant(s)** JENNINGS, JAMES EDWARD	
	Examiner Derek Rosenau	**Art Unit** 2837	**AIA (First Inventor to File) Status** No

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

THE REPLY FILED 13 April 2015 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

NO NOTICE OF APPEAL FILED

1. ☐ The reply was filed after a final rejection. No Notice of Appeal has been filed. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114 if this is a utility or plant application. Note that RCEs are not permitted in design applications. The reply must be filed within one of the following time periods:
   a) ☒ The period for reply expires *3* months from the mailing date of the final rejection.
   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action; or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
   c) ☐ A prior Advisory Action was mailed more than 3 months after the mailing date of the final rejection in response to a first after-final reply filed within 2 months of the mailing date of the final rejection. The current period for reply expires months from the mailing date of *the prior Advisory Action* or SIX MONTHS from the mailing date of the final rejection, whichever is earlier.
   Examiner Note: If box 1 is checked, check either box (a), (b) or (c). ONLY CHECK BOX (b) WHEN THIS ADVISORY ACTION IS THE FIRST RESPONSE TO APPLICANT'S FIRST AFTER-FINAL REPLY WHICH WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. ONLY CHECK BOX (c) IN THE LIMITED SITUATION SET FORTH UNDER BOX (c). See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) or (c) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendments filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
   b) ☐ They raise the issue of new matter (see NOTE below);
   c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.
   NOTE: *See Continuation Sheet*. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): (a) ☒ will not be entered, or (b) ☐ will be entered, and an explanation of how the new or amended claims would be rejected is provided below or appended.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
9. ☐ The affidavit or other evidence filed after final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
10. ☐ The affidavit or other evidence filed after the date of filing the Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
11. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

12. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
13. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
14. ☐ Other: _____.

STATUS OF CLAIMS

15. The status of the claim(s) is (or will be) as follows:
    Claim(s) allowed: .
    Claim(s) objected to: .
    Claim(s) rejected: 4-6.
    Claim(s) withdrawn from consideration: .

/Derek Rosenau/
Primary Examiner, Art Unit 2837

Continuation of 3. NOTE: The amended claims include subject matter that has not been previously presented and would require further search and/or consideration, including limitations directed to a counterweight element.

Continuation of 12. does NOT place the application in condition for allowance because: Applicant's arguments based on alleged commercial success are not found persuasive because such arguments are only relevant to obviousness rejections and are not applicable to rejections based on 35 USC 112. In addition, applicant's amendments to the claims do not address the rejections based on 35 USC 112.

Serial No.: 13/692,121
Filing Date: 12/03/2012
Confirmation No.: 7639
GAU:2837

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: JENNINGS, James Edward

SERIAL NO.: 13/692,121 FILING DATE: DECEMBER 3, 2012

TITLE: ATMOSPHERIC TRANSDUCTION SYSTEM

GROUP ART UNIT: 2837 EXAMINER: ROSENAU, DEREK

Box AAF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

DO NOT ENTER: /D.R./
04/27/2015

RESPONSE TO FINAL OBJECTION

Dear Examiner Rosenau:

This correspondence is being filed as a Response to the Office Action Summary issued on April 2, 2015. The examiner completely ignored the critical "frequency, counterweight and current" elements, without admitting that he was completely wrong in issuing the rejection in the first place. The addition limits the scope of the claim in a manner that is patentably distinguishing. However, the claims have not been rejected and only requires a specification word search before allowance.Applicant submits IDS of the inventions indicated utility and requests entry by repeal of the final rejection, comprehension and consideration of the innovation facts.

4.(CURRENTLY AMENDED) An atmospheric transduction system comprising:

a frequency and current mechanism means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, providing an electrical conversion broadcast network;

a frequency and current mechanism means for collecting the atmospheric electrical power as direct current, supplies the appropriate power grid, transceiver and capacitates a charge;

a frequency and current mechanism means for self charging propulsion provides motor characteristics, and piezoelectric frequency engine;

a frequency and current mechanism means for piezoelectric production of direct current energy comprising frequency;

a frequency and current mechanism means for piezoelectric transmittal of direct current energy comprising frequency;

a frequency and current mechanism means for piezoelectric, receiving of direct current energy comprising frequency;

a piezoelectric transducer molded device(s), disk rotor, spine ball bearing, coupler and book spine stack transducers, for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, providing an electrical conversion broadcast server network circuit;

a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and disc orbs, stack rods, power frequency broadcast, for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid, transceiver and capacitates a charge;

a sensor accelerator, disk rotor/gear, battery/capacitor, controller, antenna, means for self charge propulsion comprise motor characteristics, thereby an engine of power frequency;

a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball means for self charge propulsion comprise a transceiver, thereby power frequency satellite;

a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball means for self charge propulsion and security comprise a transceiver, laser, mirrors, coupler, frequency thereby a direct current energy laser beam;

a piezoelectric means of producing direct current energy comprising frequency;

a piezoelectric means of transmitting direct current energy comprising frequency;

a piezoelectric means of receiving direct current energy comprising frequency;

a frequency and current mechanism means of frequency energy production comprising piezoelectric oscillation circuit;

a frequency and current mechanism means of frequency energy production comprising piezoelectric transducer oscillator and electronic circuitry;

a frequency and current mechanism means of piezoelectric energy networking comprising grids, antenna, cylinders, transceivers, transmitters, receivers, satellites, chamber rotors and

engines;

a frequency and current mechanism means of piezoelectric energy comprising chamber, communication, and antenna;

a frequency and current mechanism means of energy comprising piezoelectric chamber, communication, and antenna;

a frequency and current mechanism means of current comprising piezoelectric chamber, communication, and antenna**;** and

a frequency derived from a counterweight mechanism, frequency and current**.**

5.(CURRENTLY AMENDED) The atmospheric transduction system in accordance with claim 4, wherein said means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, an electrical conversion broadcast network circuit comprises piezoelectric transducer molded device housing, disk rotor, stack ball bearing, coupler, counterweight, book spine stacks, laser and antenna rod stacks;

wherein said means for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid and capacitates a charge comprises a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and orbs, power frequency broadcast;

wherein said means for charging providing motor characteristics, said power frequency engine comprises a sensor accelerator, rotor/gear, battery/capacitor, antenna, controller, for propulsion;

wherein said means for charging providing satellite characteristics, said power frequency satellite comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball and transceiver;

wherein said means for charging providing security characteristics, said frequency laser comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball, mirrors, coupler, counterweight, beam and laser; and

wherein said means of producing, transmittal, and receiving direct current energy comprising frequency comprises piezoelectric molded parts and circuitry.

6.(CURRENTLY AMENDED) A method for generation of energy using a rotor, comprising the steps of:

providing a battery**,** a engine starts and/or a mobile counterweight transducer is oscillated;

providing acceleration, forces are imposed on one or more rotation piezoelectric devices;

providing response to counterweight forces, piezoelectric devices output electrical energy;

providing a power controller energy is extracted;

providing a power controller and sensor**,** energy available to recharge a capacitor/ battery by electronic components of the mobile terminal;

providing a serial flow of events, it is to be appreciated that the events of blocks start, battery, engine, and counterweight transducer occur substantially instantaneously; and

providing propulsion upon acceleration of the mobile terminal.

Electronic Acknowledgement Receipt

EFS ID:	22036117
Application Number:	13692121
International Application Number:	
Confirmation Number:	7639
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
Filer:	James Edward Jennings
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	13-APR-2015
Filing Date:	03-DEC-2012
Time Stamp:	01:32:50
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Applicant Arguments/Remarks Made in an Amendment	FINAL_REJECTION_LETTER_ATS_2.pdf	34994 4300e5fb5c3d01051c7aae4659401f0daf883ab3	no	2

Warnings:	
Information:	

2	Drawings-other than black and white line drawings	13692121_AFTER_ART.pdf	490559 60222d772d8a39c76c2e9f829ed530da2bbb7254	no	5
Warnings:					
Information:					
3	Information Disclosure Statement (IDS) Form (SB08)	13692121_IDS_2.pdf	612666 6862c9a136cf9013e0a40b46ef60a72199db5d42	no	5
Warnings:					
Information:					
4	Amendment Copy Claims/Response to Suggested Claims	ATS_CLAIMS_456_rev.pdf	30553 b2a0a807ee1fcbf80015275136dbdc0540d9fa75	no	4
Warnings:					
Information:					
		Total Files Size (in bytes):	1168772		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Serial No.: 13/692,121
Filing Date: 12/03/2012
Confirmation No.: 7639
GAU:2837

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: JENNINGS, James Edward

SERIAL NO.: 13/692,121 FILING DATE: DECEMBER 3, 2012

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Dear Examiner Rosenau:

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DRAWINGS: Non black and white depicting Direct Energy Weapon element as SECURITY.

CLAIMS 4-6 REVISED: changed and from to.

ARGUMENTS AND REMARKS

There is even a presumption that a patented invention is commercially successful for purposes of nonobviousness "when a patentee can demonstrate commercial success, usually shown by significant sales in a relevant market, and that the successful product is the invention disclosed and claimed in the patent" Ecolochem, supra, 227 F.3d at 1377; citing J.T. Eaton & Co. v. Atlantic Paste & Glue Co., 106 F.3d 1563, 1571 (Fed. Cir. 1997).

The examiners were informed my inventions were being NASA reviewed and manufactured, yet demonstrated an indifference (Satellite future release date). Filed non black and white photos.

Examiners are receiving incentive pay based upon the number of applications that they dispose of during the year. Issuing a final rejection is an acceptable way of disposing of an application, and most patent examiners now issue only a first rejection, and then a final rejection.

Arguments filed, "NO GROUNDS" Rules 706.07 (a)(b) the reciprocal effect of the incentive is price gouging and/or rules 706.07 (b) (c) premature final objection, Systemic Prejudicial Pattern. Applicant respectfully requests reconsideration of the application and its passage to allowance.

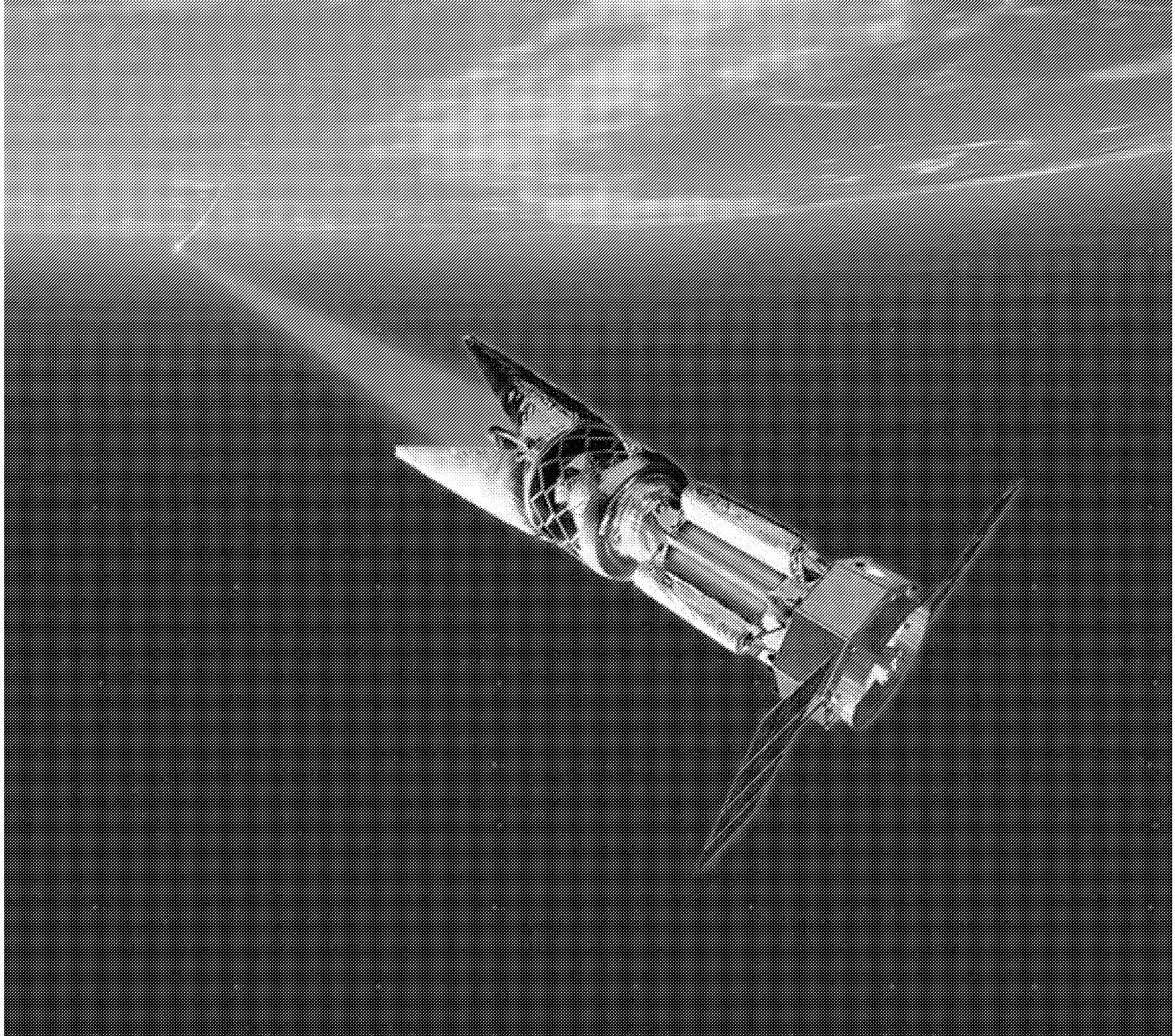
Respectfully submitted, James Jennings

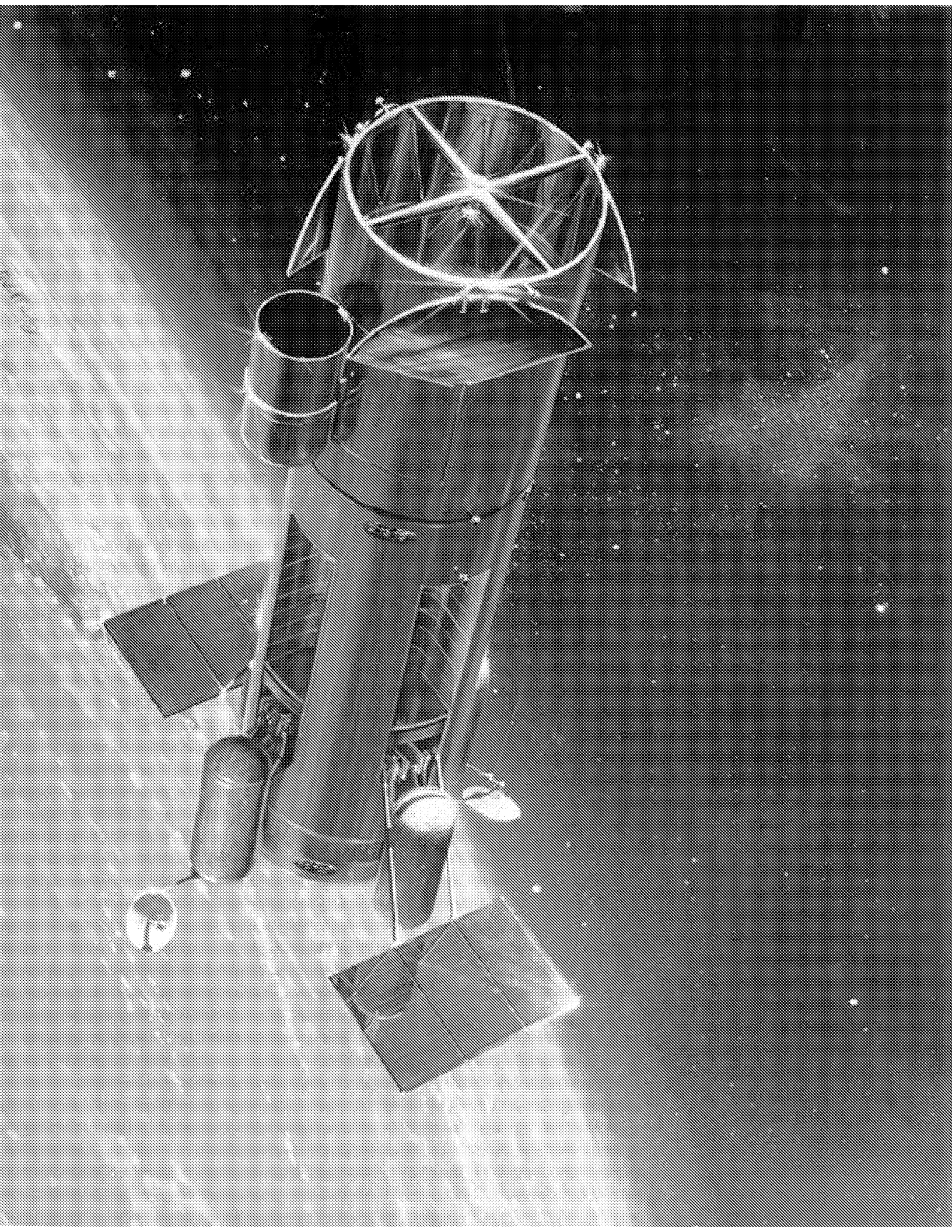
/JAMES EDWARD JENNINGS/

Date: 04/13/2015 By:_____

PO Box 270081 Louisville, CO 80027
303.664.1829

USA






U.S. AIR FORCE

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	13692121
Filing Date	2012-12-03
First Named Inventor	JAMES EDWARD JENNINGS
Art Unit	2637
Examiner Name	ROSENAU, DEREK
Attorney Docket Number	

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	7489057		2009-02-10	ZHOU	ROTOR
	2	8894514		2014-11-25	JENNINGS	PIEZOELECTRICITY
	3	2509913		1950-05-30	ESPENSCHIED	POWER SOURCE
	4	3239678		1966-03-08	KOLM	PIEZOELECTRIC SYSTEM
	5	4467236		1984-08-21	KOLM	PIEZOELECTRIC GENERATOR
	6	7629918		2009-12-08	BROWN	FREQUENCY DIRECTED ENERGY
	7	6704543		2004-03-09	SHARON	MULTI BEAM SATELLITE

If you wish to add additional U.S. Patent citation information please click the Add button. Add

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Attorney Docket Number	

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20070284953		2007-12-13	LYONS	ROTOR
	2	20130181511		2013-07-18	STEWART	BATTERY/CONTROLLER

If you wish to add additional U.S. Published Application citation information please click the Add button. Add

FOREIGN PATENT DOCUMENTS Remove

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐

If you wish to add additional Foreign Patent Document citation information please click the Add button Add

NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1		☐

If you wish to add additional non-patent literature document citation information please click the Add button Add

EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	13692121
Filing Date	2012-12-03
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Art Unit	2637
Examiner Name	ROSENAU, DEREK
Attorney Docket Number	

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	13692121
	Filing Date	2012-12-03
	First Named Inventor	JAMES EDWARD JENNINGS
	Art Unit	2637
	Examiner Name	ROSENAU, DEREK
	Attorney Docket Number	

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☒ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☒ See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☐ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/JAMES EDWARD JENNINGS/	Date (YYYY-MM-DD)	2015-04-13
Name/Print	JAMES EDWARD JENNINGS	Registration Number	82669

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

DocCode – SCORE

SCORE Placeholder Sheet for IFW Content

Application Number: 13692121 Document Date: 04/13/2015

The presence of this form in the IFW record indicates that the following document type was received in electronic format on the date identified above. This content is stored in the SCORE database.

Since this was an electronic submission, there is no physical artifact folder, no artifact folder is recorded in PALM, and no paper documents or physical media exist. The TIFF images in the IFW record were created from the original documents that are stored in SCORE.

- Drawing

At the time of document entry (noted above):

- USPTO employees may access SCORE content via eDAN using the Supplemental Content tab, or via the SCORE web page.
- External customers may access SCORE content via PAIR using the Supplemental Content tab.

Form Revision Date: August 26, 2013

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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 13/692,121	Filing Date 12/03/2012	☐ To be Mailed

ENTITY: ☐ LARGE ☐ SMALL ☒ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT **04/13/2015**

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 3	Minus	** 20	= 0	X $20 =	0
Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $105 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/TAMIE JARRETT/

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.
13/692,121	12/03/2012	JAMES EDWARD JENNINGS		7639

82669 7590 04/02/2015

James Edward Jennings
P.O. Box 270081
Louisville, CO 80027

EXAMINER	
ROSENAU, DEREK JOHN	

ART UNIT	PAPER NUMBER
2837	

MAIL DATE	DELIVERY MODE
04/02/2015	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.

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 13/692,121	**Applicant(s)** JENNINGS, JAMES EDWARD	
	Examiner Derek Rosenau	**Art Unit** 2837	**AIA (First Inventor to File) Status** No

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

THE REPLY FILED 22 March 2015 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

NO NOTICE OF APPEAL FILED

1. ☒ The reply was filed after a final rejection. No Notice of Appeal has been filed. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114 if this is a utility or plant application. Note that RCEs are not permitted in design applications. The reply must be filed within one of the following time periods:
   a) ☒ The period for reply expires *3* months from the mailing date of the final rejection.
   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action; or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
   c) ☐ A prior Advisory Action was mailed more than 3 months after the mailing date of the final rejection in response to a first after-final reply filed within 2 months of the mailing date of the final rejection. The current period for reply expires months from the mailing date of *the prior Advisory Action* or SIX MONTHS from the mailing date of the final rejection, whichever is earlier.
   Examiner Note: If box 1 is checked, check either box (a), (b) or (c). ONLY CHECK BOX (b) WHEN THIS ADVISORY ACTION IS THE FIRST RESPONSE TO APPLICANT'S FIRST AFTER-FINAL REPLY WHICH WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. ONLY CHECK BOX (c) IN THE LIMITED SITUATION SET FORTH UNDER BOX (c). See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) or (c) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendments filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
   b) ☐ They raise the issue of new matter (see NOTE below);
   c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.
   NOTE: *See Continuation Sheet*. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): (a) ☒ will not be entered, or (b) ☐ will be entered, and an explanation of how the new or amended claims would be rejected is provided below or appended.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
9. ☐ The affidavit or other evidence filed after final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
10. ☐ The affidavit or other evidence filed after the date of filing the Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
11. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

12. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
13. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
14. ☐ Other: _____.

STATUS OF CLAIMS

15. The status of the claim(s) is (or will be) as follows:
    Claim(s) allowed: .
    Claim(s) objected to: .
    Claim(s) rejected: 4-6.
    Claim(s) withdrawn from consideration: .

/Derek Rosenau/
Primary Examiner, Art Unit 2837

Continuation of 3. NOTE: The amended claims, which were received on 19 February 2015, contain subject matter that has not been previously considered, and such subject matter would require further search and/or consideration.

Continuation of 12. does NOT place the application in condition for allowance because: Applicant's arguments filed 22 March 2015 have been fully considered but they are not persuasive. Applicant argues that the finality of the office action mailed 13 February 2015 was not proper. Applicant cites the portions of the MPEP that discuss when finality is proper on the first action, as well as on the second action. The Final Office Action mailed 13 February 2015 was on a second action, which was in response to the amendments and arguments that applicant made in response to the Non-final Office Action mailed 10 November 2014. The finality of the 13 February 2015 Office Action was proper, as all objections and rejections were either sustained from the Non-final Office Action of 10 November 2014 or were made in response to amendments to the claims, drawings, and specification that were made by applicant in the response received 26 December 2014, and acted upon by the examiner in the 13 February 2015 Final Office Action. To better clarify the rejections and objections that were sustained or newly added as a result of applicant's amendments, a description of the rejections and objections of the Final Office Action of 13 February 2015 follows. The objections to the drawings found in paragraphs 2-4 of the Final Office Action of 13 February 2015 are the same as the objections to the drawings in paragraphs 9-11 of the Non-final Office Action of 10 November 2014. As these objections were made in the firtst action, the finality on these objections is proper on the second action. The objections to the drawings in paragraphs 5-7 of the Final Office Action were in response to applicant's amendments to the drawings and the specification. While these were attempts to correct previous objections to the drawings, the amendments raised new objections to the drawings, making finality on these matters proper. The objections to the specification at paragraphs 8-11 of the Final Office Action were made in response to applicant's amendments to the specification (see marked up copy of the amendments to the specification received 26 December 2014). As these objections were made in response to applicant's amendments, finality on the second action is proper. The objection to the specification at paragraph 12 of the Final Office Action is the same as the objection to the specification at paragraph 21 of the first action, making finality on this objection proper on the second action. The objections to the claims at paragraphs 13 and 14 of the Final Office Action are the same as the objections to the claims at paragraphs 22 and 23 of the first office action, making the finality of these objections proper on the second office action. The objection to the claims at paragraph 15 of the Final Office Action is in response to applicant's amendment to the claims, making finality on the second action proper. The objections to the claims at paragraphs 16-20 of the Final Office Action were made in response to a completely re-written claim 6 made by applicant's amendment. As the language of claim 6 was newly presented, all of these objections to the claim were proper on the second action. The rejections of all claims under the first paragraph of 35 USC 112 found at paragraph 22 of the Final Office Action, these rejections remained the same as those provided at paragraph 25 of the first office action, making finality on these rejections proper on the second action. The rejections under the second paragraph of 35 USC 112 found at paragraphs 25-27 of the Final Office Action are the same as the rejections found at paragraphs 28-30 of the first office action, making finality on the second action proper. The rejections under the second paragraph of 35 USC 112 found at paragraphs 28-30 of the Final Office Action were made in response to the language added to the claims by applicant's amendment, making finality on these rejections proper. The rejections under the second paragraph of 35 USC 112 found at paragraphs 31-35 of the Final Office Action are the same as the rejections found at paragraphs 31-35 of the first office action, making finality on these rejections proper in the second office action. The rejections of claim 6 under the second paragraph of 35 USC 112 found at paragraphs 36-42 of the Final Office Action were made in response to a completely re-written claim 6 made by applicant's amendment. As the language of claim 6 was newly presented, all of these rejections to the claim were proper on the second action. The rejections to the claims under the second paragraph of 35 USC 112 found at paragraphs 43 and 44 of the Final Office Action are the same as the rejections found at paragraphs 43 and 44 of the first action, making finality of these rejections on the second action proper. Therefore, the finality of all objections and rejections have been accounted for, and applicant's arguments that the finality was improper is not found persuasive.

In applicant's response on 26 December 2014, some minor issues were corrected, but several new issues were raised, which led to the new objections and rejection, discussed above. However, the rejections to the claims were not corrected by the amendments, and barely addressed in the arguments. These issues need to be corrected in order to advance prosecution. As the rejections under first and second paragraphs of 35 USC 112 were not corrected, or sufficiently addressed, the examiner has been unable to make a meaningful comparison of the claims to the prior art. In order for such a comparison to be made, the examiner must have an understanding of what it is applicant intends to claim as the invention. The applicant makes a conditional request for constructive assistance. It appears that a discussion between the applicant and the examiner would be helpful in a better mutual understanding of the issues at hand. It is noted that applicant attempted to contact the examiner multiple times. However, all such attempts were after normal business hours. The examiner attempted to respond at the phone number provided, multiple times, but was not able to reach the inventor to discuss the numerous issues remaining in this application. Should applicant desire to discuss the remaining issues, the applicant is encouraged to contact the examiner during normal business hours. The normal hours of the examiner are Monday through Thursday, from 8 am to 6 pm Pacific Time. If the examiner is not available when an attempt at reaching him is made, it is suggested that the inventor leave a voice message to propose a time when he would be available for a discussion, and if the time is acceptable to the examiner, the examiner will call back to confirm, and leave a voice message if the inventor is unavailable.

Serial No.: 13/692,121
Filing Date: 12/03/2012
Confirmation No.: 7639
GAU:2837

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: JENNINGS, James Edward

SERIAL NO.: 13/692,121 FILING DATE: DECEMBER 3, 2012

TITLE: ATMOSPHERIC TRANSDUCTION SYSTEM

GROUP ART UNIT: 2837 EXAMINER: ROSENAU, DEREK

Box AAF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

RESPONSE TO FINAL OBJECTION

Dear Examiner Rosenau:

This correspondence is being filed as a Response to the Office Action Summary issued on February 13, 2015. Applicant requests entry of the amendments indicated below and consideration of "NO GROUNDS FOR FINAL REJECTION."

706.07(b) Final Rejection, When Proper on First Action

The claims of a new application may be finally rejected in the first Office action in those situations where (A) the new application is a continuing application of, or a substitute for, an

earlier application, and (B) all claims of the new application (1) are drawn to the same invention claimed in the earlier application, and (2) would have been properly finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application.

706.07(a) Final Rejection, When Proper on Second Action

Second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims..

A second or any subsequent action on the merits in any application or patent involved in reexamination proceedings should not be made final if it includes a rejection, on prior art not of record, of any claim amended to include limitations which should reasonably have been expected to be claimed. See MPEP § 904 et seq. However, note that an examiner cannot be expected to foresee whether or how an applicant will amend a claim to overcome a rejection except in very limited circumstances (e.g., where the examiner suggests how applicant can overcome a rejection under 35 U.S.C. 112(b) or pre-AIA 35 U.S.C. 112, second paragraph.

A second or any subsequent action on the merits in any application or patent involved in reexamination proceedings may not be made final if it contains a new ground of rejection

necessitated by the amendments to pre-AIA 35 U.S.C. 102(e) by the Intellectual Property and High Technology Technical Amendments Act of 2002 (Pub. L. 107-273, 116 Stat. 1758 (2002)), unless the new ground of rejection was necessitated by an amendment to the claims or as a result of information submitted in an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p).

Conditional Request For Constructive Assistance

If for any reason this application is not believed to be in full condition for allowance, applicant respectfully request the constructive assistance and suggestions of the examiner pursuant to M.P.E.P.§ 2173.02 and § 707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Applicant respectfully requests reconsideration of the application and its passage to allowance. Should any impediments to allowance remain, Applicant requests that the Examiner contact the undersigned at the indicated phone number.

Respectfully submitted, James Jennings

/JAMES EDWARD JENNINGS/

Date: 03/23/2015 By:_____

PO Box 270081 Louisville, CO 80027
303.664.1829

Electronic Acknowledgement Receipt

EFS ID:	21841238
Application Number:	13692121
International Application Number:	
Confirmation Number:	7639
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
Filer:	James Edward Jennings
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	22-MAR-2015
Filing Date:	03-DEC-2012
Time Stamp:	00:57:49
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Supplemental Response or Supplemental Amendment	FINAL_REJECTION_LETTER_ATS.pdf	36663 72a31a0e625b0b1dc38960481c44a631ae4e6993	no	3

Warnings:	
Information:	

Total Files Size (in bytes):	36663

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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.
13/692,121	12/03/2012	JAMES EDWARD JENNINGS		7639

82669 7590 03/10/2015

James Edward Jennings
P.O. Box 270081
Louisville, CO 80027

EXAMINER	
ROSENAU, DEREK JOHN	

ART UNIT	PAPER NUMBER
2837	

MAIL DATE	DELIVERY MODE
03/10/2015	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.

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 13/692,121	**Applicant(s)** JENNINGS, JAMES EDWARD	
	Examiner Derek Rosenau	**Art Unit** 2837	**AIA (First Inventor to File) Status** No

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

THE REPLY FILED 19 February 2015 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

NO NOTICE OF APPEAL FILED

1. ☒ The reply was filed after a final rejection. No Notice of Appeal has been filed. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114 if this is a utility or plant application. Note that RCEs are not permitted in design applications. The reply must be filed within one of the following time periods:
   a) ☐ The period for reply expires _____months from the mailing date of the final rejection.
   b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action; or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
   c) ☐ A prior Advisory Action was mailed more than 3 months after the mailing date of the final rejection in response to a first after-final reply filed within 2 months of the mailing date of the final rejection. The current period for reply expires months from the mailing date of *the prior Advisory Action* or SIX MONTHS from the mailing date of the final rejection, whichever is earlier.

   Examiner Note: If box 1 is checked, check either box (a), (b) or (c). ONLY CHECK BOX (b) WHEN THIS ADVISORY ACTION IS THE FIRST RESPONSE TO APPLICANT'S FIRST AFTER-FINAL REPLY WHICH WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. ONLY CHECK BOX (c) IN THE LIMITED SITUATION SET FORTH UNDER BOX (c). See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) or (c) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendments filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
   b) ☐ They raise the issue of new matter (see NOTE below);
   c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: *See Continuation Sheet*. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): (a) ☒ will not be entered, or (b) ☐ will be entered, and an explanation of how the new or amended claims would be rejected is provided below or appended.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
9. ☐ The affidavit or other evidence filed after final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
10. ☐ The affidavit or other evidence filed after the date of filing the Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
11. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

12. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
13. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
14. ☐ Other: _____.

STATUS OF CLAIMS

15. The status of the claim(s) is (or will be) as follows:
    Claim(s) allowed: .
    Claim(s) objected to: .
    Claim(s) rejected: 4-6.
    Claim(s) withdrawn from consideration: .

/Derek Rosenau/
Primary Examiner, Art Unit 2837

Continuation of 3. NOTE: The amended claims contain subject matter that has not been previously considered, and would require further search and/or consideration.

Continuation of 12. does NOT place the application in condition for allowance because: Neither the arguments nor amendments in the response have addressed the rejections made under 35 USC 1st paragraph or 35 USC 2nd paragraph, as the amendments made to the claims were not related to the issues raised in the rejections of the claims under 35 USC 112 1st and 2nd paragraph.

Serial No.: 13/692,121
Filing Date: 12/03/2012
Confirmation No.: 7639
GAU:2837

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: JENNINGS, James Edward

SERIAL NO.: 13/692,121 FILING DATE: DECEMBER 3, 2012

TITLE: ATMOSPHERIC TRANSDUCTION SYSTEM

GROUP ART UNIT: 2837 EXAMINER: ROSENAU, DEREK

Box AAF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

RESPONSE TO SUGGESTED CLAIMS /AMENDMENT

Dear Examiner Rosenau:

This correspondence is being filed as a Response to the Office Action Summary issued on February 13, 2015. Applicant requests entry of the amendments indicated below and consideration of the appended Remarks. Remarks begin on Page 2 of this paper.

CLAIMS CURRENTLY AMENDED

Applicant amends claims by "frequency to current mechanism and counterweight **50**." No new matter has been entered by way of these amendments.

DO NOT ENTER: /D.R./
03/04/2015

4.(CURRENTLY AMENDED) An atmospheric transduction system comprising:

a frequency to current mechanism means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, providing an electrical conversion broadcast network;

a frequency to current mechanism means for collecting the atmospheric electrical power as direct current, supplies the appropriate power grid, transceiver and capacitates a charge;

a frequency to current mechanism means for self charging propulsion provides motor characteristics, and piezoelectric frequency engine;

_____a frequency to current mechanism means for piezoelectric production of direct current energy comprising frequency;

_____a frequency to current mechanism means for piezoelectric transmittal of direct current energy comprising frequency; and

_____a frequency to current mechanism means for piezoelectric, receiving of direct current energy comprising frequency.

a piezoelectric transducer molded device(s), disk rotor, spine ball bearing, coupler and book spine stack transducers, for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, providing an electrical conversion broadcast server network circuit; and

a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric

transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and disc orbs, stack rods, power frequency broadcast, for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid, transceiver and capacitates a charge; and

a sensor accelerator, disk rotor/gear, battery/capacitor, controller, antenna, means for self charge propulsion comprise motor characteristics, thereby an engine of power frequency;

a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball means for self charge propulsion comprise a transceiver, thereby power frequency satellite;

_____a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball means for self charge propulsion and security comprise a transceiver, laser, mirrors, coupler, frequency thereby a direct current energy laser beam;

_____a piezoelectric means of producing direct current energy comprising frequency;

a piezoelectric means of transmitting direct current energy comprising frequency;

a piezoelectric means of receiving direct current energy comprising frequency.

a frequency to current mechanism means of frequency energy production comprising piezoelectric oscillation circuit;

_____a frequency to current mechanism means of frequency energy production comprising piezoelectric transducer oscillator and electronic circuitry; and

_____a frequency to current mechanism means of piezoelectric energy networking comprising grids, antenna, cylinders, transceivers, transmitters, receivers, satellites, chamber rotors and

engines.

a frequency to current mechanism means of piezoelectric energy comprising chamber, communication, and antenna;

a frequency to current mechanism means of energy comprising piezoelectric chamber, communication, and antenna; and

a frequency to current mechanism means of current comprising piezoelectric chamber, communication, and antenna**;** and

a frequency derived from a counterweight mechanism and converted to current**.**

5.(CURRENTLY AMENDED) The atmospheric transduction system in accordance with claim 4, wherein said means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, an electrical conversion broadcast network circuit comprises piezoelectric transducer molded device housing, disk rotor, stack ball bearing, coupler, counterweight, book spine stacks, laser and antenna rod stacks;

wherein said means for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid and capacitates a charge comprises a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and orbs, power frequency broadcast; and

wherein said means for charging providing motor characteristics, said power frequency engine comprises a sensor accelerator, rotor/gear, battery/capacitor, antenna, controller, for propulsion.

wherein said means for charging providing satellite characteristics, said power frequency satellite comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball and transceiver;

wherein said means for charging providing security characteristics, said frequency laser comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball, mirrors, coupler, counterweight, beam and laser; and

wherein said means of producing, transmittal, and receiving direct current energy comprising frequency comprises piezoelectric molded parts and circuitry.

6.(CURRENTLY AMENDED) A method for generation of energy using a rotor, comprising the steps of:

providing a battery**,** a engine starts and/or a mobile counterweight transducer is oscillated;

providing acceleration, forces are imposed on one or more rotation piezoelectric devices;

providing response to counterweight forces, piezoelectric devices output electrical energy;

providing a power controller energy is extracted;

providing a power controller and sensor**,** energy available to recharge a capacitor/ battery by electronic components of the mobile terminal;

providing a serial flow of events, it is to be appreciated that the events of blocks start, battery, engine, and counterweight transducer occur substantially instantaneously; and

providing propulsion upon acceleration of the mobile terminal.

Serial No.: 13/692,121
Filing Date: 12/03/2012
Confirmation No.: 7639
GAU:2837

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: JENNINGS, James Edward

SERIAL NO.: 13/692,121 FILING DATE: DECEMBER 3, 2012

TITLE: ATMOSPHERIC TRANSDUCTION SYSTEM

GROUP ART UNIT: 2837 EXAMINER: ROSENAU, DEREK

Box AAF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

RESPONSE TO SUGGESTED CLAIMS /AMENDMENT

Dear Examiner Rosenau:

This correspondence is being filed as a Response to the Office Action Summary issued on February 13, 2015. Applicant requests entry of the amendments indicated below and consideration of the appended Remarks. Remarks begin on Page 2 of this paper.

CLAIMS CURRENTLY AMENDED

Applicant amends claims by "frequency to current mechanism and counterweight **50**." No new matter has been entered by way of these amendments.

DRAWINGS AMENDED figure 20 was annotated with element **309.**

SPECIFICATION AMENDMENTS 360 references a circular degree**, 309** references business use or end consumer**,** a satellite **318** is a frequency broadcast station. Further, paragraph 112 accentuation is not capitalized, 111 is capitalized. Application is complete as presented.

REMARKS a rotor infers accentuation action**, figures 4 & 5** rotation. Paragraph **0049** asserts the application of lasers and mirrors. The invention is a frequency derived from a mechanism converted to current. Figure **11** illustrates transmittal and receipt of power frequency by antenna.

Conditional Request For Constructive Assistance

If for any reason this application is not believed to be in full condition for allowance, applicant respectfully request the constructive assistance and suggestions of the examiner pursuant to M.P.E.P.§ 2173.02 and § 707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Applicant respectfully requests reconsideration of the application and its passage to allowance. Should any impediments to allowance remain, Applicant requests that the Examiner contact the undersigned at the indicated phone number.

Respectfully submitted, James Jennings

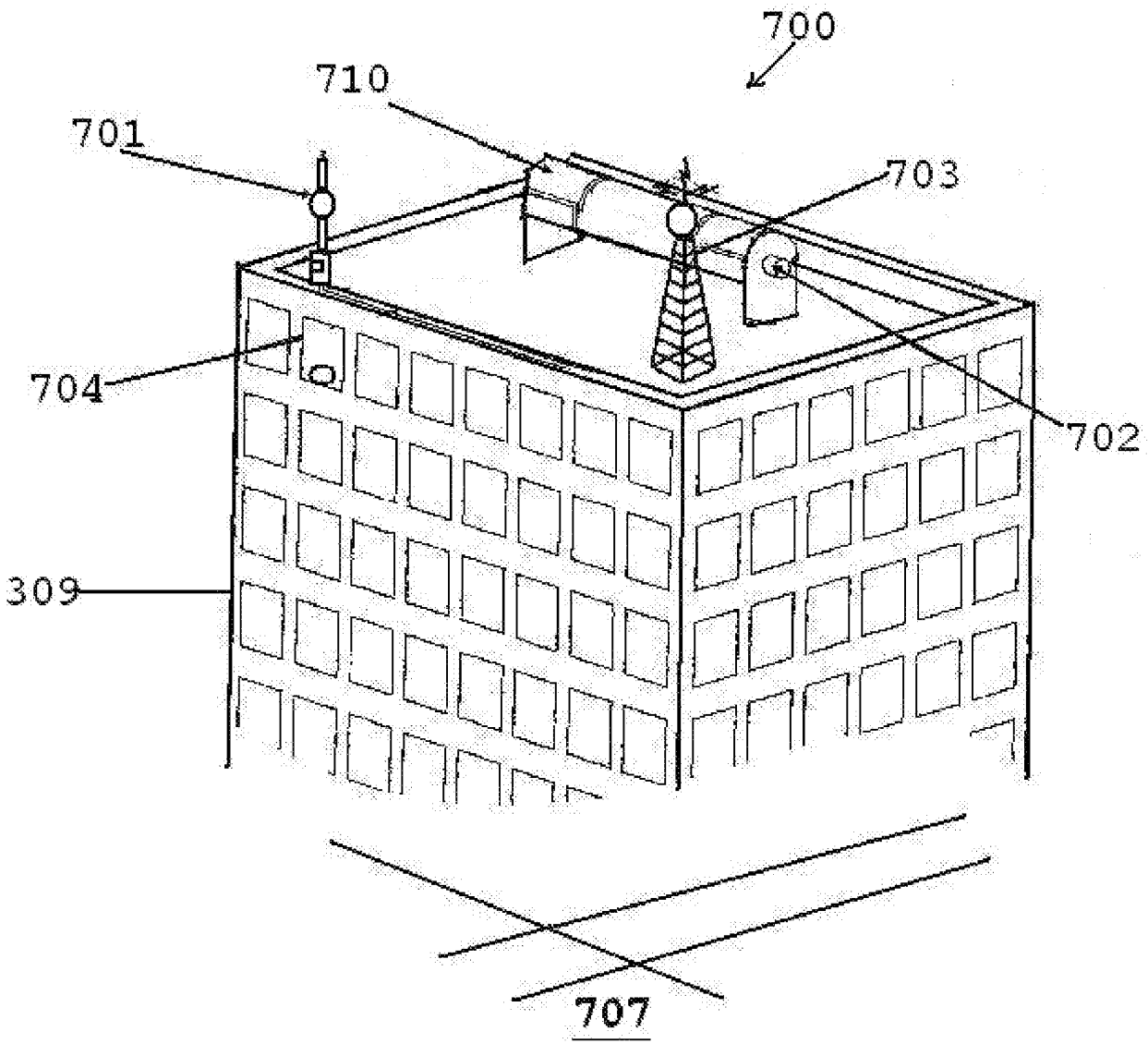
/JAMES EDWARD JENNINGS/

Date: 02/19/2015 By:_____

PO Box 270081 Louisville, CO 80027
303.664.1829

REPLACEMENT SHEET

FIG.20



PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	13692121
Filing Date	2012-12-03
First Named Inventor	JAMES EDWARD JENNINGS
Art Unit	2637
Examiner Name	ROSENAU, DEREK
Attorney Docket Number	

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	7489057		2009-02-10	ZHOU	ROTOR
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	13692121
Filing Date	2012-12-03
First Named Inventor	JAMES EDWARD JENNINGS
Art Unit	2637
Examiner Name	ROSENAU, DEREK
Attorney Docket Number	

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CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

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Signature	/JAMES EDWARD JENNINGS/	Date (YYYY-MM-DD)	2015-02-19
Name/Print	JAMES EDWARD JENNINGS	Registration Number	82669

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EFS ID:	21538282
Application Number:	13692121
International Application Number:	
Confirmation Number:	7639
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
Filer:	James Edward Jennings
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	19-FEB-2015
Filing Date:	03-DEC-2012
Time Stamp:	11:55:38
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Specification	ATS_456_SPEC.pdf	143355 21cc39e83b2e9c4a89e91252e4b72ce89da1272d	no	30

Warnings:	
Information:	

2	Amendment Copy Claims/Response to Suggested Claims	ATS_CLAIMS_456.pdf	30639 0290f54c3a54dd8bfee1fbe66e6359429e886d73	no	4
Warnings:					
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3	Applicant Arguments/Remarks Made in an Amendment	ATS_CLAIMS_LETTER_456.pdf	36071 5961d047093857ce751a042821766bbb76a0370b	no	2
Warnings:					
Information:					
4	Drawings-only black and white line drawings	ATS_AMEND_DRAW9.pdf	109795 98f5cb53bdc95890d2f99fc317eff50b27bea4e3	no	1
Warnings:					
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5	Information Disclosure Statement (IDS) Form (SB08)	13692121_IDS.pdf	612294 513b12d4c62da19f3783e126396e495d501f3f84	no	4
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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

APPLICATION FOR U.S. LETTERS PATENT

TITLE: **ATMOSPHERIC TRANSDUCTION SYSTEM**

INVENTOR: **JENNINGS, James Edward**

CROSS REFERENCE TO RELATED APPLICATIONS

[001] NONE

BACKGROUND OF THE INVENTION

Field of the Invention

[002] Self-propelled travel is a type of recreational adventure travel using human powered transport. This includes non-motorized machines such as a bicycle or skateboard. It is in contrast to traveling in a powered vehicle (such as an automobile) as in that case it is the vehicle which powers itself. Self-propelled travel is used to travel short distances or even for much longer distances such as bicycle touring. Self propelled describes something that moves, progresses or acts on its own power without needing outside help. Leonardo da Vinci's 1478 Self-Propelled Car: It was more than 500 years ago, however -- sometime around the year 1478 to be more or less specific -- when Leonardo drew out his plans for the world's first self-propelled vehicle. Experts originally believed two leaf springs, the simplest form of the spring typically used for automotive suspensions, somehow powered the vehicle. Closer inspection eventually revealed the power came from bigger, coiled springs located in tambours, cylindrical drum-like casings, inside the car's frame. The machine works like a robot or a wind-up toy simply by rotating the wheels opposite of their intended direction, which winds up the springs inside and gives it power. Self propulsion(of a vehicle) provided with its own source of tractive power rather than requiring an external means of propulsion.

[003] In the middle of the 18th century, Benjamin Franklin's experiments showed that electrical phenomena of the atmosphere were not fundamentally different from those produced in the

laboratory. By 1749, Franklin observed lightning to possess almost all the properties observable in electrical machines.

[004] In July 1750, Franklin hypothesized that electricity could be taken from clouds via a tall metal aerial with a sharp point. Before Franklin could carry out his experiment, in 1752 Thomas-François Dalibard erected a 40-foot (12 m) iron rod at Marly-la-Ville, near Paris, drawing sparks from a passing cloud. With ground-insulated aerials, an experimenter could bring a grounded lead with an insulated wax handle close to the aerial, and observe a spark discharge from the aerial to the grounding wire. In May 1752, Dalibard affirmed that Franklin's theory was correct.

Piezoelectric Motor

[005] A piezoelectric motor or piezo motor is a type of electric motor based upon the change in shape of a piezoelectric material when an electric field is applied. Piezoelectric motors make use of the converse piezoelectric effect whereby the material produces acoustic or ultrasonic vibrations in order to produce a linear or rotary motion. In one mechanism, the elongation in a single plane is used to make a series stretches and position holds, similar to the way a caterpillar moves. A transducer is a device that converts one form of energy to another. Energy types include (but are not limited to) electrical, mechanical, electromagnetic (including light), chemical, acoustic or thermal energy. While the term transducer commonly implies the use of a sensor/detector, any device which converts energy can be considered a transducer. Transducers are widely used in measuring instruments. Piezoelectric materials can also be used to harvest low levels of mechanical energy into electrical energy suitable for powering wireless sensors, low power microprocessors or charging batteries. Rotary Uses include rotating machines such as fans, turbines, drills, the wheels on electric cars, locomotives and conveyor

belts. Also, in many vibrating or oscillating machines, an electric motor spins an unbalanced mass, causing the motor (and its mounting structure) to vibrate.

ATMOSPHERIC ELECTRICITY

[006] There is always free atmospheric electricity **313** in the air and in the clouds, which acts by induction on the earth and electromagnetic devices. Experiments have shown that there is always free electricity in the atmosphere, which is sometimes negative and sometimes positive, but most generally positive, and the intensity of this free electricity is greater in the middle of the day than at morning or night and is greater in winter than in summer. In fine weather, the potential increases with altitude at about 30 volts per foot (100 V/m).

Atmospheric layers

[007] The electrical conductivity of the atmosphere increases exponentially with altitude. The amplitudes of the electric and magnetic components depend on season, latitude, and height above the sea level. The greater the altitude the more atmospheric electricity abounds. The exosphere is the uppermost layer of the atmosphere and is estimated to be 500 km to 1000 km above the Earth's surface, and its upper boundary at about 10,000 km. The thermosphere (upper atmosphere) is the layer of the Earth's atmosphere directly above the mesosphere and directly below the exosphere. Within this layer, ultraviolet radiation causes ionization. Theories that have been proposed to explain the phenomenon of the polar aurora, but it has been demonstrated by experiments that it is due to currents of positive electricity passing from the higher regions of the atmosphere to the earth.

[008] The mesosphere (middle atmosphere) is the layer of the Earth's atmosphere that is directly above the stratosphere and directly below the thermosphere. The mesosphere is located about

50-80/85 km above Earth's surface. The stratosphere (middle atmosphere) is a layer of Earth's atmosphere that is stratified in temperature and is situated between about 10 km and 50 km altitude above the surface at moderate latitudes, while at the poles it starts at about 8 km altitude. The stratosphere sits directly above the troposphere and directly below the mesosphere. The troposphere (lower atmosphere) is the densest layer of the atmosphere.

[009] The planetary boundary layer (PBL), also known as the atmospheric boundary layer (ABL), is the lowest part of the atmosphere and its behavior is directly influenced by its contact with the planetary surface. It is also known as the "exchange layer". (see also:p-n junction.)

[0010] There is a potential gradient at ground level ("Atmosphere ground layer") and this vertical field corresponds to the negative charge in and near the Earth's surface. The negative potential gradient falls rapidly as altitude increases from the ground. Most of this potential gradient is in the first few kilometers. The positive potential gradient rises rapidly as altitude increases from the ground. Volta, over two centuries before the 21st century, discovered with some degree of exactitude that the proportions of the ordinates of the curve or gradient of electric potential increased as the distance from the earth increases, and, more recently, Engel has provided data to calculate the increase.

Drum-type generator

[0011] A drum-type homopolar generator has a magnetic field (B) that radiates radially from the center of the drum and induces voltage (V) down the length of the drum. A conducting drum spun from above in the field of a "loudspeaker" type of magnet that has one pole in the center of the drum

and the other pole surrounding the drum could use conducting ball bearings at the top and bottom of the drum to pick up the generated current.

Astrophysical unipolar inductors

[0012] Unipolar inductors occur in astrophysics where a conductor rotates through a magnetic field, for example, the movement of the highly conductive plasma in a cosmic body's ionosphere through its magnetic field. In their book, Cosmical Electrodynamics, Hannes Alfvén and Carl-Gunne Fälthammar write:

"Since cosmical clouds of ionized gas are generally magnetized, their motion produces induced electric fields [..] For example the motion of the magnetized interplanetary plasma produces electric fields that are essential for the production of aurora and magnetic storms" [..]

".. the rotation of a conductor in a magnetic field produces an electric field in the system at rest.

[0013] This phenomenon is well known from laboratory experiments and is usually called 'homopolar ' or 'unipolar' induction.

The Faraday disc

[0014] The homopolar generator was developed first by Michael Faraday during his experiments in 1831. It is frequently called the Faraday disc in his honor. It was the beginning of modern dynamos — that is, electrical generators which operate using a magnetic field. It was very inefficient and was not used as a practical power source, but it showed the possibility of generating electric power using magnetism, and led the way for commutated direct current dynamos and then alternating current alternators.

Boeing 737–800

[0015] The Boeing Fuel Cell Demonstrator Airplane has a Proton Exchange Membrane (PEM) fuel cell/lithium-ion battery hybrid system to power an electric motor, which is coupled to a conventional propeller. The fuel cell provides all power for the cruise phase of flight. During takeoff and climb, the flight segment that requires the most power, the system draws on lightweight lithium-ion batteries.

[0016] The demonstrator aircraft is a Dimona motor glider, built by Diamond Aircraft Industries of Austria, which also carried out structural modifications to the aircraft. With a wing span of 16.3 meters (53.5 feet), the airplane will be able to cruise at approximately 100 kilometers per hour (62 miles per hour) on power from the fuel cell.

[0017] Nikola Tesla explored the wireless transmission of energy through his work with radio and microwaves and his creation of the Tesla coil and the magnifying transmitter. In 1898, Tesla demonstrated his radio-controlled boat, which he was able to control remotely. In the 1930s, Tesla claimed to have invented a particle beam weapon, or, as some called it, a "peace ray." The device was, in theory, capable of generating an intense, targeted beam of energy and sending it across great distances to demolish warplanes, foreign armies, or anything else you'd rather didn't exist.

[0018]"ROY J. MEYERS, BRITISH PATENT NUMBER 1098" This invention relates to improvements in apparatus for the production of electrical currents, and the primary object in view is the production of a commercially serviceable electrical current without the employment of mechanical or chemical action. To this end the invention comprises means for producing what I believe to be dynamic electricity from the earth and its ambient elements.

[0019] EDWARD LEEDSKALNIN: MAGNETIC CURRENT - is primarily a teaching device but it has many functions including an electromagnet, this is easy enough to see; it is a

generator—spin a magnet between the coils it will generate electricity; it functions as a transformer; it demonstrates how permanent magnets are made.

Strategic Defense Initiative

[0020] The Strategic Defense Initiative (SDI) was proposed to use ground and space-based systems to protect the United States from attack by strategic nuclear ballistic missiles.

Description of the Related Art

[0021] The present invention relates to a ball bearing assembly structure, an electromagnetic clutch having the ball bearing assembly structure, and a gas compressor equipped with the electromagnetic clutch.

[0022]When operating the gas compressor , the electromagnet of the electromagnetic clutch is energized to attract or adsorb the follower armature plate to an end surface of the prime-mover pulley and join the prime-mover pulley and the rotor shaft, thereby rotating the rotor shaft.

[0023] The ball bearing of the electromagnetic clutch conventionally has used one having an even number of balls per row. Generally, the ball bearing causes vibration and noise due to rotation. In the case of the ball bearing rotating while undergoing a radial load due to a tension of the belt, vibration and noise considerably occur. Particularly when other vibration and noise levels are lowered during engine idling, the vibration and noise of the ball bearing transmitted to the vehicular compartment is not negligible.

[0024] The inventor has conducted various experiments and discovered that the one factor of high vibration and noise level is an even number of balls of the ball bearing. In the ball bearing having

an even number of balls per one row, the balls are in a facing relation to have linear-symmetry arrangement between the inner race and the outer race. The deformation and vibration at a regular particular frequency is caused in the inner and outer races. It is to be considered that the vibration as a source also increases noise.

[0025]The present invention relates generally and in various embodiments to piezoelectric mechanical systems. More specifically, the present invention relates generally and in various embodiments to atmospheric oscillation transducer apparatuses, systems, and methods.

[0026] Although various implementations of the present invention, among many, may be described herein with reference to the specific illustrative embodiments related to particular applications, those skilled in the art will understand that the invention is not in any way intended to be limited to such embodiments and/or applications. Those having ordinary skill in the art and reference to the description of the embodiments herein will recognize additional modifications, applications, and other embodiments falling within the scope of the claimed invention and additional fields in which the present invention may be practiced.

[0027] Digital Radio (also known as Satellite Radio or Satellite Digital Audio Radio Service (SDARS)) is a subscriber-based digital radio service that is broadcast via satellites. Digital radio service provides compact-disc (CD) quality programming that may be digitally transmitted via one or more satellites and/or space stations to one or more Earth-based (terrestrial) digital radio stations, receivers, and/or repeaters. In satellite-based direct-broadcast radio services, digitally-encoded audio program material may be broadcast to terrestrial fixed or mobile digital radio receivers. Fixed receivers may include, for example, stand alone digital radio receivers or digital radio receivers

connected via computer networks, including for example, the Internet. Mobile receivers may include, for example, digital radio receivers located in automobiles, aircrafts, watercrafts, and the like.

[0028] Satellite-based digital audio radio services such as SDARS, for example, may be broadcast to one or more digital radio receivers either directly from an orbiting satellite, or indirectly from one or more repeater stations. Such repeater stations may be useful where the digital radio receiver is located in a shielded location or where there is no direct line of sight between the radio and the satellite. In other digital audio radio services systems, the audio programs also may be transmitted in digital form by one or more space stations directly to fixed, mobile, and/or portable radio stations. Such systems may comprise, for example, orbiting satellites, complementary repeating terrestrial transmitters, telemetry, tracking, and control facilities.

[0029] Combinations of mechanical devices U.S. Pat. Nos. 4,019,073, 6,615,968 and atmospheric system interaction are disclosed in U.S. Pat. Nos. 1,119,732, 787,412, to Nikola Tesla; 28,793 to Charles Vion; and 1,540,998 to Herman Plauson. Lastly, U.S. Pat. Nos. 8,102,078 and US2008/0009240. Agnoff discloses an Oscillating watch winder in U.S. Pat. Nos. 6,543,929, Jennings further discloses an oscillating smart device in application No. 13,572,679.

[0030] As illustrated by a large body of prior art, including the above-noted patents, and a large number of commercial devices, efforts are continuously being made in an attempt to improve helmets, headsets and their methods of fabrication. Nothing in the prior art, however, suggests the present inventive combination of materials and method steps as herein described and claimed. The present invention achieves its purposes, objects and advantages over the prior art through a new,

useful and unobvious combination of components and method steps which improve safety, comfort and noise abatement performance.

[0031] Therefore, it is an object of this invention to provide effectively, the provision of energy such that it meets the needs of the present without compromising the ability of future generations to meet their own needs. ...Sustainable Energy has two key components: renewable energy and energy efficiency.

[0032] It is still a further objection of this invention to promote dynamic harmony between equitable availability of energy-intensive goods and services to all people and the preservation of the earth for future generations." And, "the solution will lie in finding sustainable energy sources and more efficient means of converting and utilizing energy.

[0033] It is a further object of the present invention to produce Green Power Energy: is energy that can be extracted, generated, and/or consumed without any significant negative impact to the environment, green power; as electricity produced from solar, wind, geothermal, biogas, biomass, and low-impact small hydroelectric sources.

[0034] Thus, there is a need for a clean energy system that uses atmospheric electricity.

Prior Art

[0035] Quartz crystals have been in regular use for many years to give an accurate frequency for all radio transmitters, radio receivers and computers. Their accuracy comes from an amazing set of coincidences: Quartz -- which is silicon dioxide like most sand -- is unaffected by most solvents and remains crystalline to hundreds of degrees Fahrenheit. The property that makes it an electronic miracle is the fact that, when compressed or bent, it generates a charge or voltage on its surface. This is a fairly common phenomenon called the Piezoelectric effect. In the same way, if a voltage is applied, quartz will bend or change its shape very slightly.

[0036] If a bell were shaped by grinding a single crystal of quartz, it would ring for minutes after being tapped. Almost no energy is lost in the material. A quartz bell -- if shaped in the right direction to the crystalline axis -- will have an oscillating voltage on its surface, and the rate of oscillation is unaffected by temperature. If the surface voltage on the crystal is picked off with plated electrodes and amplified by a transistor or integrated circuit, it can be re-applied to the bell to keep it ringing.

[0037] The electronics of the watch initially amplifies noise at the crystal frequency. This builds or regenerates into oscillation -- it starts the crystal ringing. The output of the watch crystal oscillator is then converted to pulses suitable for the digital circuits.

Polymers

[0038] Polyvinylidene fluoride (PVDF): PVDF exhibits piezoelectricity several times greater than quartz. Unlike ceramics, where the crystal structure of the material creates the piezoelectric effect, in polymers the intertwined long-chain molecules attract and repel each other when an electric field is applied.

Near Space

[0039] Solar particles become trapped within the Earth's magnetic field and form radiation belts. The Van Allen radiation belt is a torus of energetic charged particles (i.e. a plasma) around Earth, trapped by Earth's magnetic field.

[0040] At elevations above the clouds, atmospheric electricity forms a continuous and distinct element (called the electrosphere) in which the Earth is surrounded. The electrosphere layer (from tens of kilometers above the surface of the earth to the ionosphere) has a high electrical conductivity and is essentially at a constant electric potential. The ionosphere is the inner edge of the magnetosphere and is the part of the atmosphere that is ionized by solar radiation. (Photoionisation

is a physical process in which a photon is incident on an atom, ion or molecule, resulting in the ejection of one or more electrons.)

ADVANTAGES/DISADVANTAGES

[0041] Energy in electronic elements: Electric potential energy, or electrostatic potential energy, is a potential energy (measured in joules) that results from conservative Coulomb forces and is associated with the configuration of a particular set of point charges within a defined system. The term "electric potential energy" is used to describe the potential energy in systems with time-variant electric fields, while the term "electrostatic potential energy" is used to describe the potential energy in systems with time-invariant electric fields.

[0042] Capacitance is the ability of a body to store an electrical charge. Any body or structure that is capable of being charged, either with static electricity or by an electric current, exhibits capacitance. A common form of energy storage device is a parallel-plate capacitor. In a parallel plate capacitor, capacitance is directly proportional to the surface area of the conductor plates and inversely proportional to the separation distance between the plates. If the charges on the plates are +q and -q, and V gives the voltage between the plates, then the capacitance C is given by

$$C = q/V.$$

[0043] The capacitance is a function only of the physical dimensions (geometry) of the conductors and the permittivity of the dielectric. It is independent of the potential difference between the conductors and the total charge on them.

[0044] Piezoelectricity is the combined effect of the electrical behavior of the material:

$D = \epsilon E$

where D is the electric charge density displacement (electric displacement), ϵ is permittivity and E is electric field strength, and

Hooke's Law: $S = s T$

where S is strain, s is compliance and T is stress.

[0045] Polyvinylidene fluoride, or polyvinylidene difluoride (PVDF) is a highly non-reactive and pure thermoplastic fluoropolymer produced by the polymerization of vinylidene difluoride. PVDF is a specialty plastic material in the fluoropolymer family; it is used generally in applications requiring the highest purity, strength, and resistance to solvents, acids, bases and heat and low smoke generation during a fire event. Compared to other fluoropolymers, it has an easier melt process because of its relatively low melting point of around 177 ˚C.

[0046] It has a low density (1.78 g/cm3) and low cost compared to the other fluoropolymers. It is available as piping products, sheet, tubing, films, plate and an insulator for premium wire. It can be injected, molded or welded and is commonly used in the chemical, semiconductor, medical and defense industries, as well as in lithium ion batteries. It is also available as a crosslinked closed cell foam, used increasingly in aviation and aerospace. PVDF has a glass transition temperature (Tg) of about -35 ˚C and is typically 50–60% crystalline. To give the material its piezoelectric properties, it is mechanically stretched to orient the molecular chains and then poled under tension. PVDF exists in several forms: alpha (TGTG'), beta (TTTT), and gamma (TTTGTTTG') phases, depending on the chain conformations as trans (T) or gauche (G) linkages. When poled, PVDF is a ferroelectric polymer, exhibiting efficient piezoelectric and pyroelectric properties. These characteristics make

it useful in sensor and battery applications. Thin films of PVDF are used in some newer thermal camera sensors.

[0047] Copolymers: Copolymers of PVDF are also used in piezoelectric and electrostrictive applications. One of the most commonly-used copolymers is P(VDF-trifluoroethylene), usually available in ratios of about 50:50 wt% and 65:35 wt% (equivalent to about 56:44 mol% and 70:30 mol%). Another one is P(VDF-tetrafluoroethylene). They improve the piezoelectric response by improving the crystallinity of the material.

[0048] While the copolymers' unit structures are less polar than that of pure PVDF, the copolymers typically have a much higher crystallinity. This results in a larger piezoelectric response: d33 values for P(VDF-TrFE) have been recorded to be as high as -38 pC/N versus -33 pC/N in pure PVDF.

[0049] APPLICATIONS: The piezoelectric properties of PVDF are used to advantage to manufacture tactile sensor arrays, inexpensive strain gauges and lightweight audio transducers. Piezoelectric panels made of PVDF are used on the Venetia Burney Student Dust Counter, a scientific instrument of the New Horizons space probe that measures dust density in the outer solar system. PVDF is the standard binder material used in the production of composite electrodes for lithium ion batteries. 1-2% weight solution of PVDF dissolved in N-Methyl-2-pyrrolidone (NMP) is mixed with an active lithium storage material such as graphite, silicon, tin, LiCoO2, LiMn2O4, or LiFePO4 and a conductive additive such as carbon black or carbon nanofibers. This slurry is cast onto a metallic current collector and the NMP is evaporated to form a composite or paste electrode. PVDF is used because it is chemically inert over the potential range used and does not react with the electrolyte or lithium. Piezoelectric elements can be used in laser mirror alignment, where their

ability to move a large mass (the mirror mount) over microscopic distances is exploited to electronically align some laser mirrors. By precisely controlling the distance between mirrors, the laser electronics can accurately maintain optical conditions inside the laser cavity to optimize the beam output. Piezoelectric sensors especially are used with high frequency sound in ultrasonic transducers for medical imaging and also industrial nondestructive testing (NDT).

[0050] For many sensing techniques, the sensor can act as both a sensor and an actuator – often the term transducer is preferred when the device acts in this dual capacity, but most piezo devices have this property of reversibility whether it is used or not. Ultrasonic transducers, for example, can inject ultrasound waves into the body, receive the returned wave, and convert it to an electrical signal (a voltage). Most medical ultrasound transducers are piezoelectric.

[0051] Advantageously, Sustainable energy is the sustainable provision of energy that meets the needs of the present without compromising the ability of future generations to meet their needs. Technologies that promote sustainable energy include renewable energy sources, such as hydroelectricity, solar energy, wind energy, wave power, geothermal energy, and tidal power, and also technologies designed to improve energy efficiency.

[0052] This sequence of oscillations causes the rotor within the watch to spin rapidly thereby winding the watch in a manner closely simulating the spinning of the rotor that occurs during normal winding of the watch when the watch is worn by a user. Due to the forces that are exerted, the rotor spins around the watch shaft during the oscillations, as opposed to the partial rotation observed in prior art mechanisms. Therefore, the time required to wind the watch, and the energy required, is substantially reduced. Moreover, since the rotor is spinning about the shaft, as opposed to merely

being held in a downward position while the watch is rotated, winding more closely approximating the design mechanism is achieved, thereby putting less wear on the watch.

[0053]This invention relates to satellite communications systems using multiple spot beams from a geosynchronous earth orbit satellite to provide selective coverage of the continental United States and, more particularly, relates to a system having a satellite receiving hub in every spot beam that allows for asynchronous communications between each hub and the satellite for maximizing frequency re-use.

[0054] These purposes, objects and advantages should be construed as merely illustrative of some of the more prominent features and applications of the present invention. Many other beneficial results can be obtained by applying the disclosed invention in a different manner or by modifying the invention within the scope of the disclosure. Accordingly, other purposes, objects and advantages as well as a fuller understanding of the invention may be had by referring to the summary herein mentioned and detailed description describing the preferred embodiments of the invention, in addition to the scope of the invention, as defined by the claims, taken in conjunction with the accompanying drawings.

SUMMARY OF THE INVENTION

[0055] In one general respect, an embodiment of the present invention is directed to a system. The system includes a Power Frequency broadcast station, a receiver, and a network. The Power Frequency broadcast station includes a transmitter and a server. The receiver is in communication with the Power Frequency broadcast transmitter and also includes a user interface for receiving user input commands comprising a request for information from the Power Frequency broadcast station.

[0056] The receiver is configured to establish a two-way communication path between the receiver and the Power Frequency broadcast transmitter. The network is in communication with the server and the receiver for exchanging information therebetween. The request for information is provided to the server via the network and the server is configured to receive the request and transmit a response message to the receiver in accordance with the request.

Continuously outboard recharged electric vehicle (COREV)

[0057] Given suitable infrastructure, permissions and vehicles, BEVs (battery electric vehicles) can be recharged while the user drives. The BEV establishes contact with an electrified rail, plate or overhead wires on the highway via an attached conducting wheel or other similar mechanism (see Conduit current collection). The BEV's batteries are recharged by this process—on the highway—and can then be used normally on other roads until the battery is discharged. Some of battery-electric locomotives used for maintenance trains on the London Underground are capable of this mode of operation. Power is picked up from the electtrified rails where possible, switching to battery power where the electricity supply is disconnected.

[0058] The present invention is directed to overcome the disadvantages of the prior art. The invention is a mechanism which taps into the naturally occurring static electricity in the atmosphere. Whereas heretofore, the attempt to garner electricity from the atmosphere has focused exclusively on capturing lightning, the present invention syphons off the static electricity which is generated from any agitated air and voids lightning.

[0059] Lightning is only the final discharge of the static electricity, whether that lightning is intra-cloud lightning, cloud-to-ground lightning, or inter-cloud lightning. Other types of final discharges are known as heat lightning, summer lightning, sheet lightning, ribbon lightning, silent lightning, ball lightning, bead lightning, elves, jets, and sprites. Well before these discharges are observed, as the atmosphere becomes agitated by wind or thermal, static electricity is being generated. The present invention recognizes that this static electricity is being formed and creates a mechanism to capture it.

[0060] In the preferred embodiment, a sensor array is used to monitor the activities both at the base unit (such as electrical flow within the conductor) and in the surrounding locale. A sensor monitoring the electrical flow (i.e. voltage and/or current) within the conductor is used to monitor the electrical activity within the conductor.

[0061] In the preferred embodiment, a lightning sensor monitors for lightning activity within the locale. As noted earlier, the electrical characteristic of lightning is so extreme that ideally this discharge is avoided as it might damage the mechanism of this invention. The sensor array is utilized by a controller, such as microprocessor, programmed to operate the mechanism as outlined herein.

[0062] The controller is programmed to operate or monitor the electrical characteristics of the conductor and to maintain these characteristics within the conductor within a preset range.

[0063] This preset range is established either in the base programming of the controller or is established by an operator of the system. As example, by controlling the amount of current being withdrawn from the atmosphere, the mechanism operates within a safe range and also provides a relatively stable current flow from which a variety of activities can take place (such as DC-AC conversion).

[0064] The controller also utilizes the lightning sensor to protect the mechanism from a lightning strike. Should lightning be detected within a pre-determined range (as established by the software or defined by an operator), then the balloon is pulled down to minimize the risk of damage from a lightning strike.

[0065] Another aspect of the invention relates to the electrical system which accepts the fluctuating atmospheric charge and changes it into an acceptable configuration for either the desired load or for the existing power grid.

[0066] Power grids in the United States operate with a frequency of 60 hertz in an alternating current arrangement. While this basic configuration seems to be universally accepted, the voltage within the grid varies dramatically, such as 15 kv, 34 kv, 69 kv, and even 112 kv.

[0067] Each atmospheric generator is placed proximate to or within easy access to a specific grid; this establishes the required electrical output configuration (i.e. that which is accepted by the power grid). As example, one of the atmospheric electrical collector units as described above collects the atmospheric electrical power as direct current and then supplies the appropriate power grid a specific flow (as example, AC, 60 hertz, at 69 kv).

[0068] The difficulty lies the fact that the DC current being garnered from the atmosphere varies depending on the actual agitation being generated in the atmosphere. This means that the source of DC current is fluctuating.

[0069] The present invention uses a monitoring system which checks the input DC voltage. Depending on the actual voltage being received, the appropriate converter is connected to the input DC voltage so that the desired output is obtained.

[0070] As example, suppose the DC input voltage is 1500 volts, the monitoring system, sensing this input, closes the switch connecting the DC voltage to a converter which accepts DC voltage in the range of 1000-2000 volts which then delivers an AC, 60 hertz 69 kv signal to the power grid. If the DC input voltage increases to 2100 volts, then the monitoring system opens the switch to the first converter (1000-2000 volts) and closes the switch to a second converter (such as 2000-4000 volts) to deliver the desired output of AC (60 hertz, 69 kv) for the power grid.

[0071] In this manner, regardless of the fluctuating input DC voltage, the electrical grid is supplied with a fully configured electrical input conforming to the needs of that specific electrical grid.

[0072] Another aspect of the present invention is the use of a tower or permanent structure instead of an aircraft. In this embodiment, the building or tower is electrically isolated from the ground and a rod (similar to a lightning rod) is extended into the atmosphere. The rod collects the atmospheric charge which is conveyed via an electrical conduit (ideally insulated) where the collected DC charge is reconfigured to meets the need of the locale.

[0073] In this context, for one embodiment of the invention, a tower is placed onto the top of a building. The tower is electrically isolated from the building using such mechanisms well known to

those of ordinary skill in the art such as rubber mats. A rod ideally extends from the top of the tower to facilitate the collection of the DC electrical energy.

[0074] Piezoelectricity is a material property that is manifested when voltage is produced by applying mechanical forces, and vice versa, the effect has been described as direct and converse. Piezoelectricity has been described as coupling between a quasi-static electric field and dynamic mechanical motion.

[0075] A piezoelectricity converter mechanism such as described above, is connected to the tower to flow the DC electricity to a converter which modifies the DC current for the specific application. In one application, the DC current is converted to the electrical needs of the building, thereby providing at least some of the electrical requirements of the building itself.

[0076] As noted earlier, the dynamic converter system of the present invention allows a power generator to address a variable voltage in an efficient manner. This makes the dynamic converter system ideal for a variety of alternative energy sources such as the above described atmospheric electrical generator and other alternative energy sources such as wind and wave powered systems. In these systems, the energy being generated must be converted to a proper electrical configuration for a identified load. This may be a particular motor or connection to the power grid which act as a load to the power generating mechanism.

[0077] For these energy generating systems, the converter assembly of this invention utilizes multiple converters. Each converter is configured to accept a unique range of voltages and from these voltages, create the desired electrical configuration. By using multiple converters, a full range is available, from a minimum voltage input to a maximum voltage input.

[0078] The present invention can include systems and methods for integrating sensors for tracking atmospheric transducer system performance metrics into media devices and accessories therefor, thereby reducing or eliminating the need for additional independent monitoring devices. In one embodiment of the present invention.

[0079] It also is known to provide such transducers with connectors to allow their rechargeable batteries to be charged. In some cases, the connector is a Universal Serial Bus (USB) connector, allowing the transducer to be charged by plugging it into the USB port of a computer, grid circuit or other device.

[0080] These and other objects and advantages of the invention will appear more clearly from the following description in which the preferred embodiment of the invention has been set forth in conjunction with the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0081] FIG. 1 Prior Art depicts perspective view of Electric currents created in sunward ionosphere;

[0082]FIG. 2 is a box flow chart of the propulsion cycle systems present invention;

[0083] FIG. 3 is an top view of the piezoelectric disk cylinder orb of the present invention;

[0084] FIG. 4 is a longitudinal sectional view showing an embodiment of this cylinder invention;

[0085] FIG. 5 is a top view of the (ATS) slip rotor piezoelectric chamber of the present invention;

[0086] FIG. 6 is an alternate top view of the piezoelectric cylinder orb of the present invention;

[0087] FIG.7 - 10 elevation views of spine piezo stacks embodiments of the present invention;

[0088] FIG.11 illustrates one embodiment of a power service (ATS) system architecture;

[0089] FIG. 12 is a block diagram of the ATS charge schematics systems of the present invention;

[0090] FIG. 13 is a block diagram of an ATS charge and recycle schematics of the present invention;

[0091] FIG. 14 is a top view of the piezoelectric ball race cylinder of the present invention;

[0092] FIG. 15 is a side view of the piezoelectric housing and gear of the present invention;

[0093] FIG. 16 is a side view of a multiple piezoelectric ball race cylinder of the present invention;

[0094] FIG. 17 is another embodiment of the piezoelectric stack ball of the present invention;

[0095] FIG. 18 & 19 are antenna rod transmit device embodiments of the (ATS) present invention;

[0096] FIG. 20 illustrates substation embodiment of the power service (ATS) system architecture;

[0097] FIG. 21 illustrates a home embodiment of the power service (ATS) system architecture;

[0098] FIG. 22 illustrates a window embodiment of the power service (ATS) system architecture;

[0099] FIG. 23 is (ATS) shock device in accordance with an embodiment of the present invention;

[00100] FIG. 24 is (ATS) shock device in accordance with an embodiment of the present invention;

[00101] FIG. 25 is (ATS) motorcycle device embodiment of the present invention;

[00102] FIG. 26 is (ATS) axle device in accordance with an embodiment of the present invention;

[00103] FIG. 27 is (ATS) train device in accordance with an embodiment of the present invention;

[00104] FIG. 28 is (ATS) plane device in accordance with an embodiment of the present invention;

[00105] FIG. 29 is (ATS) boat device in accordance with an embodiment of the present invention;

[00106] FIG. 30 is (ATS) solar device in accordance with an embodiment of the present invention;

[00107] FIG.31 a (ATS) turbine device in accordance with an embodiment of the present invention;

[00108] FIG. 32 is (ATS) auto body panel device embodiment of the present invention;

[00109] FIG. 33 is (ATS) motorcycle body fairing panel device in of the present invention; and

[00110] FIG. 34 is (ATS) cross section view of body embed panel device of the present invention.

DETAILED DESCRIPTION

[00111] Oscillations causes the conductive rotor within piezoelectric molded housing device to spin rapidly thereby winding the mechanism in a manner closely simulating the spinning of the conductive rotor that occurs during normal electric activity when the device is activated. Due to the forces that are exerted, the conductive rotor spins around the piezoelectric cylinder device shaft during the oscillations, as opposed to the partial rotation observed in prior art mechanisms. Therefore, the time required to charge the Atmospheric Transduction System (ATS) device, and the energy required, is substantially reduced. Moreover, since the rotor is spinning about the shaft, as opposed to merely being held in a downward position while the ATS device is rotated, recharging more closely approximating the design mechanism is achieved, thereby putting less wear on the ATS chamber device. Innovative Piezoelectric housing and ball bearing, coupler and book spine stacks. There relies the notion of negative ground electricity and positive aerial electricity which is in abundance. This invention substantiates land vehicles recycle recharge by reverse oscillation. Aerial vehicles recycle recharge by forward oscillation in accumulation of environmental positive and negative electricity. These aforementioned activities are integral or synchronous with frequency.

[00112] PRIOR ART FIG.1 Electric currents created in sunward ionosphere. **Fig.2** is a recycle box flow chart **49** of a self propulsion unit consisting of a battery **27** , engine **29** and piezoelectric transducer **33** unit. **Fig.3** is a multiple disk **31** load part **51** about a 360 degree cylinder **45** and shaft **44**. **Fig.4** is a piezoelectric molded device **100** housing **110** containing a ball bearing race **104**, disk stacks capacitor **102** and conductive rotor **46**. **Fig.5** is a piezoelectric chamber **120** configuration including a counterweights **50**, shaft **44**, conductive slip rotor **106**. **Fig.6** is an alternate part **200** chamber cylinder **201** embodiment containing piezoelectric spine disk stack capacitors **102**. **Fig.7-**

10 are variations of spine **107,108,109,110** case piezoelectric stack capacitor **102** with plate and ball heads. **Fig.11** Various embodiments of the present invention, among others, will now be described with reference to the accompanying drawings. Accordingly, **FIG. 11** illustrates an embodiment of a Atmospheric Transduction (ATS) System **300** architecture. The system **300** may include, for example, a satellite broadcast station **318** that transmits signals **333** containing frequency content from a geostationary satellite **318** by way of airplane antenna **326**. In turn, the satellite **318** transmits line-of-sight (LOS) signals **333** to one or more ATS terrestrial frequency power receiver farms **314**. The system **300** also may include one or more terrestrial repeaters **316** which receive and retransmit the satellite signals **333** as repeater signals **323** to facilitate reliable reception in geographic areas where LOS reception from the satellite **318** is obstructed by tall buildings, hills, tunnels, and other similar impediments to the signals **333**. The ATS receivers **314** maybe designed to receive one or more signals **333** from the satellite **318** and/or from the terrestrial repeater transceiver **316**. In operation, such ATS receivers **314** may receive both the satellite signals **333** and the repeater signals **323**. The receivers **314** also may be located in mobile environments **320, 321**, **322** which include, but are not limited to, land vehicles **321, 322**, aircraft **320**, watercraft **900**, and handheld devices, among others. The receivers **314** also may be fixed in stationary antenna satellites **332** units for residential use (e.g., home **325**,**750** entertainment, etc.) or commercial **309**, use (e.g., business **314**, office **700**, security accentuation **328**, etc.). The power frequency broadcast station **318** also may be in communication with a grid network **342**. Two-way communication between the ATS receivers **314** and the power frequency broadcast station **318** may occur via the network **342**. Furthermore, information feedback from the power frequency broadcast station **318** may be transmitted to the ATS receiver **314** both by way of the network **342** as well as via the satellite antenna **332**. Information

also may be transmitted to the power broadcast station **318** wirelessly via a wireless network **342,707** by way of transducer tower **362**.

[00113] Further disclosed in **Fig. 12** and **Fig.13** (in block diagrams **400, 500**) are electrical schematics for handling the static charge from the atmosphere. By maintaining the voltage being collected in a prescribed range, an electrical conversion system is easily designed. While **FIGS. 12**, and **13** illustrate some electrical configurations, those of ordinary skill in the art readily recognize a variety of other configurations which will serve the same function.

[00114] Referencing **FIG. 12**, direct current in (DC IN) **401** is buffered by a gang of capacitors **410** before being communicated to a DC/AC converter **420**. The DC/AC converter **420** converts the direct current into a an alternating current suitable for placement over an existing electrical grid **430** such as normally found from a power-plant. **FIG. 12** Also illustrates an electrical arrangement suitable for use in charging a battery **440**. DC IN **401** is buffered by capacitor **410** bank before entering into a step down transformer **435**. Step down transformer **435** reduces the voltage so that the voltage can safely be introduced into battery **440** which is connected to ground **450** at the battery's other pole. In **FIG. 12**, DC IN **401** is fed into an adjustable rheostat **460** which is controlled by the controller **465** so that the DC OUT **470** falls within a computer **475** monitored and sensor **480** specified range. **Fig.13** Hypothetically, unused energy may be recycled current **501** and/or recaptured by reversing the oscillated spin rotation of devices **51, 100, 120** with the use of a rectifier **502** and Step up transformer **503**, returned to grid **430** capacitor **410**. This theory lends itself to the concept of positive and negative frequency. **Fig.14-17** Self charging propulsion embodiment of the invention where Da Vinci's ball race **510,512** is combined with a disk cylinder **45** and **513** stack balls **525,** conductive rotor **46**, **511** tooth gear **515** and piezoelectric molded housing **555**. **Fig.18 & 19** Improvement structures Franklin's lightening rod **600,603** and a molded vibration transducer **601**

quasi replicating Vion's tubes and piezoelectric spine stacks capacitor **602** improving Tesla's Atmospheric transmit device. **Fig.20** is an atmospheric receiving building sub station **700** where energy is consumed and excess rendered to the grid **707** by conductive rotor **702** transducer **710,** tower transducer**703**, antenna rod **701** and transducer windows **704**.

[00115] FIG. 12 and **Fig.2** flowchart illustration also includes battery **440**. Battery **440** may provide electrical power to components of ATS devices within **Fig.11**. Charging circuitry may also be provided to charge battery **440** when an external power supply is connected to an ATS device **100**. **Fig.14-17** eliminates one or more steps by presenting a self charge retaining transducers **510,511,512,513** may be configured with an accelerator sensor **480** controller **465** and gears **515,** provide reciprocal power incorporated within piezoelectric molded and ceramic housing **555** along with stack balls **525** and cylinder **545**. This assembly more resembles a motor by characteristics given power with application.

[00116] In operation, as illustrated in **FIGS. 2-20** and **FIGS. 21-34** , is periodically energized by movement to rotate Orb in either a clockwise or counterclockwise direction. The length of time or activity is energized, and the length of time between the period when the capacitor **31, 102** battery is energized, will depend on the particular ATS device design. As the Orb rotates, the outer end of the disk moves along a 360˚ circular pathway to push against with forward and rearwardly spinning. Upon engagement of the Orb, ATS device disk is rotated until carried to the apex or top of the circular pathway. Upon reaching the apex, the gravitational and vibrational force or counterweight **50** promotes additional oscillation. ATS device movement rapidly rotate on Orb at a rotational speed greater than the speed of rotation of Orb. Counterweight **50** is then carried beyond the bottom or lowest point of the pathway by its momentum to a point near the apex on the opposite side of the pathway. The cycle is repeated through multiple increasing oscillations of the ATS device until

counterweight **50** stops at the bottom position, or until once again engages to again move counterweight to the top of its circular pathway.

[00117] FIG. 2 is a flow chart showing generation of energy using a rotor according to one or more of the above-described embodiments. First, battery **27** starts the engine **29** and/or mobile transducer **33** is oscillated. In response to this acceleration, forces are imposed on one or more rotation piezoelectric devices. In response to those forces, the piezoelectric devices output electrical energy, which energy is extracted at a power controller **465**. The power controller **465** sensor **480** then makes this energy available to recharge a capacitor **410** battery **440** and/or to electronic components of the mobile terminal. Although **FIG.2** shows a serial flow of events, it is to be appreciated that the events of blocks **33**, **27** and **29** occur substantially instantaneously upon acceleration of the mobile terminal.

PREFERRED ALTERNATE EMBODIMENTS

[00118]The present invention (ATS) device in accordance with an embodiment of the present invention overcomes the foregoing problem in the conventional art and provides an electro energy vibration and alternative to gas, oil or fossil fuel consumption in **Fig.21** homes **750** transducer **755, Fig.28** airplane **880** transducer **801**, **Fig.27** train **860** transducer **801**, **Fig.32** auto **950** transducer **910**, **Fig.25** and **Fig.33** motorcycles **960,850** transducers **799, 802, 810**, **910** and **Fig.29** boat **900** transducers **901,910**.

[00119] In order to solve the foregoing problems in the conventional art, the present invention provides an electro transducer having a ball bearing assembly which is compatible with **Fig.26** axle shaft **44** transducer **810** wheel **870** assembly. In order to solve the foregoing problems in the

conventional art, the present invention provides an electro transducer having an **Fig.34** housing panel **980** transducer **910** assembly which is compatible with an exterior body assembly. Thereby, an Atmospheric transducer device may be shock **800, 803** integrated as within the **Fig.23** coupler **802,** and **Fig.24** ladder **799,** (vertical friction) piezoelectric absorbers assemblies. In order to solve the foregoing problems in the conventional art, the present invention provides an electro transducer having a capable flat assembly which is compatible with **Fig.22** window **704** disk **31** plate transducer **714**, **Fig.30** solar panel **920** transducer **910**, **Fig.31** wind turbine **930** transducer **910** assembly. This invention provided **Fig.3** piezoelectric plate disks **31**, **Fig.7-10** spine piezoelectric disks stacks **107,108,109,110** capacitor **102**, **Fig.17** piezoelectric stack balls **525** capacitor, the arrangement of balls **525** will not be in a facing relation. The deformation in the inner and outer races during rotation of the ball bearing while undergoing a radial load is made irregular and complicated. The spine eliminates the deformation and vibration level increased by a combination of ceramic and molded piezoelectric materials at a regular predetermined frequency thereby multiplying the level of vibration and noise reduction.

[00120] Certain modifications and improvements will occur to those skilled in the art upon a reading of the foregoing description. It should be understood that all such modifications and improvements have been deleted herein for the sake of conciseness and readability but are properly within the scope of the following claims.

[00121] Thus it is seen that an atmospheric transducer device may be integrated and/or provided. It will be understood that the foregoing is only illustrative of the principles of the invention, and that various modifications can be made by those skilled in the art without departing from the scope and spirit of the invention, and the present invention is limited only by the claims that follow.

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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
13/692,121	12/03/2012	

ENTITY: ☐ LARGE ☐ SMALL ☒ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT **02/19/2015**

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 3	Minus	** 20	= 0	X $20 =	0
Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $105 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

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Office Action Summary	Application No. 13/692,121	Applicant(s) JENNINGS, JAMES EDWARD	
	Examiner Derek Rosenau	Art Unit 2837	AIA (First Inventor to File) Status No

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Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTHS 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 *26 December 2014*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

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) *4-6* 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) *4-6* is/are rejected.

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

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

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☒ The specification is objected to by the Examiner.

11)☒ The drawing(s) filed on *26 December 2014* 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).

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).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

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) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

DETAILED ACTION

1. The present application is being examined under the pre-AIA first to invent provisions.

Drawings

2. The drawings are objected to because figures 4 and 5 purport to show a "piezoelectric molded device" and "piezoelectric module," but is unclear from the drawings, and their accompanying description, which element is the piezoelectric element. 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. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. 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.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the piezoelectric features (e.g., “means for piezoelectric production of direct current energy comprising frequency”, “means for piezoelectric transmittal of direct current energy comprising frequency”, “means for piezoelectric receivable of direct current energy comprising frequency”, each of the elements in the lists in claims 5 and 6, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

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. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. 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.

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, each element of every list in the claims must be shown or the feature(s) canceled from the claim(s). The claims include several lists that correspond to the various features of the claims, including many elements in those lists that are simply generically stated elements. Each element in every list must be shown in the drawings, including how each of those elements is connected with the remaining elements of the device. No new matter should be entered.

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. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. 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.

5. 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: 309. 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.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 360. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) 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.

7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “318” has been used to designate both a satellite and a frequency broadcast station. 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.

Specification

8. The disclosure is objected to because of the following informalities. Paragraph 46 includes a numerical value for a density without the appropriate units The amendment includes the unit “mils”; however, this is a unit for a length, not a density.

Appropriate correction is required.

9. The disclosure is objected to because of the following informalities: the amended language of paragraph 62 is grammatically incorrect.

Appropriate correction is required.

10. The disclosure is objected to because of the following informalities: the first word of paragraph 111 is not capitalized.

Appropriate correction is required.

11. The disclosure is objected to because of the following informalities: in paragraph 112, it is not clear what is meant by the term “security ACCENTUATION”. As it is unclear what the meaning of this term is intended to be, it is also unclear whether or not the entire word should be capitalized.

Appropriate correction is required.

12. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

13. Claim 4 is objected to because of the following informalities: the phrase “means for piezoelectric receivable” is grammatically incorrect. Appropriate correction is required.

14. Claim 4 is objected to because of the following informalities: the phrase “means for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid” is grammatically incorrect. Appropriate correction is required.

15. Claim 5 is objected to because of the following informalities: it appears that “Wherein” should not be capitalized. Appropriate correction is required.

16. Claim 6 is objected to because of the following informalities: the claim should not include reference numerals in order to maintain consistency with the previous claims. Appropriate correction is required.

17. Claim 6 is objected to because of the following informalities: the language “starts the engine and/or mobile transducer is oscillated” is grammatically incorrect. Appropriate correction is required.

18. Claim 6 is objected to because of the following informalities: the language “providing energy is extracted at a power controller” is grammatically incorrect. Appropriate correction is required.

19. Claim 6 is objected to because of the following informalities: the language "providing the power controller, sensor, then makes this energy available to recharge capacitor battery and/or to electronic components" is grammatically incorrect. Appropriate correction is required.

20. Claim 6 is objected to because of the following informalities: the language “it is to be appreciated that the events of blocks 33, 27, and 29 occur substantially instantaneously propulsion upon acceleration of the mobile terminal” is grammatically incorrect. Appropriate correction is required.

Claim Rejections - 35 USC § 112

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

> (a) IN GENERAL.—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 or joint inventor of carrying out the invention.

The following is a quotation of the first paragraph of pre-AIA 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.

22. Claims 4-6 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims each require some combination of piezoelectric features and the atmospheric transduction system. However, the discussion of the piezoelectric features in the specification is very limited, and includes no discussion of how these features are interconnected with the atmospheric transduction system. There appears to be no discussion of means for "piezoelectric transmittal" or "piezoelectric receivable" at all. There is some discussion of the theory of piezoelectric devices, and some very brief references to piezoelectric elements that are allegedly shown in the drawings. However, there is not sufficient detail in the drawings or in the specification such that one of ordinary skill in the art to be able to identify which feature or features are piezoelectric, how they are used, and how they are connected and used with the remaining elements of the device, such as the atmospheric transduction system.

23. The following is a quotation of 35 U.S.C. 112(b):

> (b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

> The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:
> 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.

24. Claims 4-6 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

25. With respect to claim 4, it is unclear what is meant by both "means for piezoelectric transmittal" and "means for piezoelectric receivable". In both cases, it is unclear what is meant by these phrases, as piezoelectric elements do not transmit or receive electrical energy in the standard meaning of the terms. Piezoelectric elements may be components of circuits/components that transit or receive electrical energy, but do not transmit or receive electrical energy themselves.

26. With respect to claim 4, it is unclear what is meant by “means for self-charging propulsion provides motor characteristics, and frequency engine”

27. With respect to claim 4, it is unclear what is meant by “means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity”.

28. With respect to claim 4, it is unclear what is meant by the phrase "frequency energy production", as it is not known what "frequency energy" is or to what it might be intended to refer.

29. With respect to claim 4, it is unclear what is meant by “a frequency mechanism means of piezoelectric energy networking comprising grids”.

30. With respect to claim 4, it is unclear what is meant by “direct current comprising frequency”.

31. With respect to claim 5, it is unclear what is meant by “wherein said means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, an electrical conversion broadcast network circuit comprises piezoelectric transducer molded device housing, disk rotor, stack ball bearing, coupler, book spine stacks, laser and antenna rod stacks” as it is not clear to which feature the “comprises” is intended to refer.

32. With respect to claim 5, it is not clear what is meant by piezoelectric oscillation circuit. The circuitry itself is not piezoelectric. If applicant intends to refer to circuitry for a piezoelectric element(s), this should be clarified.

33. With respect to claim 5, it is unclear what is meant by "where said means for charging providing satellite characteristics, said power frequency satellite comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball and transceiver". This language does not make any sense. It is unclear what “providing satellite characteristics” could mean. It is unclear what a “power frequency satellite” is, much less how it could include any of the various elements in the list. It is unclear what a “stack ball” is.

34. With respect to claim 5, it is unclear what is meant by “wherein said means for charging providing security characteristics, said frequency laser comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack

ball, mirrors, coupler, beam and laser". Again, this does not make any sense. It is unclear what "providing security characteristics" could mean. It is also unclear what a "a frequency laser" is, and how it could include any of the various elements in the list.

35. With respect to claim 5, it is unclear what is meant by "for propulsion". It is unclear if there is a typographical error regarding the words "for propulsion," as they do not appear to logically correspond to the preceding portion of the claim.

36. With respect to claim 6, it appears that applicant has completely cancelled the original claim 6 and replaced it with an entirely new claim. As such, this new claim should have been submitted as such, with the old claim 6 being cancelled, and the new claim 6 being provided as a new claim 7.

37. With respect to claim 6, it is unclear what is meant by "starts the engine and or mobile transducer is oscillated" and what, if anything this has to do with the claimed battery.

38. With respect to claim 6, it is unclear what is meant by "providing energy is extracted at a power controller".

39. With respect to claim 6, it is unclear what is meant by "providing the power controller, sensor, then makes this energy available to recharge capacitor battery and/or to electronic components".

40. With respect to claim 6, it is unclear what it meant by "it is to be appreciated that the events of blocks 33, 27, and 29 occur substantially instantaneously propulsion upon acceleration of the mobile terminal".

41. With respect to claim 6, the claim recites the limitation "blocks". There is insufficient antecedent basis for this limitation in the claim. The claim previously refers to a battery, engine, and mobile transducer with the same reference numerals as the claimed blocks. It is unclear if the blocks are intended to refer to the same components identified with these reference numerals.

42. With respect to claim 6, it is unclear how the language “it is to be appreciated” is intended to further limit the claims. This is merely an asserted benefit of the claimed invention and not a reference to any further structural elements.

43. With respect to claims 4-6, the claims include many words, terms, and phrases that are unknown to the examiner, in addition to those discussed above, that do not appear to be standard terminology in any field related to the claimed invention. Examples of such words, terms, and phrases are: "capacitates a charge", "self charging propulsion", "frequency engine", "antenna rod stacks", "piezoelectric spine stack antenna", "piezoelectric transmitters", "piezoelectric receivers", "power frequency broadcast", “sensor accelerator”, “power frequency satellite”, “piezoelectric accelerator, “stack ball”, “frequency laser”, and “book spine stacks”. In addition to these terms, there are numerous other terms in the specification that are not adequately described, or are stated so generically, such that one of ordinary skill in the art would understand to what applicant intends to refer. Example of these terms are: “disc rotor", "stack ball bearing", "coupler", “piezoelectric network”, “piezoelectric grid”, “piezoelectric devices”, “piezoelectric cylinders and orbs”, "controller”, “rotor/gear", "disk rotor/gear".

44. With respect to claims 4-6, the language is sufficiently unclear, that no meaningful comparison with the prior art can be made, as the examiner cannot adequately determine what the intended meaning of the applicant is. Due to the extensive use of non-standard terminology, and the lack of claimed relationships between the various components (the claims are a mere listing of separate components, without an adequate description of how the separate components are connected and used with each other), as well as numerous grammatical errors, the examiner is unable to make a comparison with the prior art other than to point to references that appear to be related to various portions of the claims, as the language of the claims is incomprehensible.

Response to Arguments

45. Applicant's arguments filed 26 December 2014 have been fully considered but they are not persuasive. Applicant provides a list of remedies for objections from the previous office action, and in that list argues that certain features of the claim do not have to be shown in the drawings, as applicant argues that drawings are not required in an application. However, this is not the case if drawings are necessary to understand the nature of the claimed invention. In the case of the features of the claims that are objected to for not being illustrated, drawings are necessary such that one of ordinary skill in the art would be able to understand the construction of the device as claimed. In addition, applicant responds to one of the objections with the alleged remedy simply listed as “ACCENTUATION”. It is unclear what this intended to mean.

46. In addition, the applicant makes a conditional request for constructive assistance. It is noted that applicant attempted to contact the examiner after business hours multiple times. The examiner attempted to respond at the phone number provided, but was not able to reach the inventor to discuss the numerous issues remaining in this application. Should applicant desire to discuss the remaining issues, the applicant is encouraged to contact the examiner during normal business hours (listed below).

Conclusion

47. An examination of this application reveals that applicant is unfamiliar with patent prosecution procedure. While an applicant may prosecute the application (except that a juristic entity must be represented by a patent practitioner, 37 CFR 1.31), lack of skill in this field usually acts as a liability in affording the maximum protection for the invention disclosed. Applicant is advised to secure the services of a registered patent attorney or agent to prosecute the application, since the value of a patent is largely dependent upon skilled preparation and prosecution. The Office cannot aid in selecting an attorney or agent.

A listing of registered patent attorneys and agents is available at https://oedci.uspto.gov/OEDCI/. Applicants may also obtain a list of registered patent attorneys and agents located in their area by writing to the Mail Stop OED, Director of the U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450.

48. 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 Derek Rosenau whose telephone number is (571)272-8932. The examiner can normally be reached on Monday thru Thursday 7:00-5:30 Pacific Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shawki Ismail can be reached on (571) 272-3985. 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.

/Derek Rosenau/
Primary Examiner, Art Unit 2837

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13692121	JENNINGS, JAMES EDWARD
	Examiner	Art Unit
	DEREK ROSENAU	2837

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	03/04/2014	11/03/2014	02/05/2015						
	1	÷	-	-						
	2	÷	-	-						
	3	÷	-	-						
	4		✓	✓						
	5		✓	✓						
	6		✓	✓						

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13692121	JENNINGS, JAMES EDWARD
	Examiner	Art Unit
	DEREK ROSENAU	2837

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
310	339	4/11/2014	DJR
200	48R	5/21/2014	DJR

SEARCH NOTES		
Search Notes	Date	Examiner
EAST Search History	10/31/2014	DJR
Inventor name search	10/31/2014	DJR

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

4.(CURRENTLY AMENDED) An ~~method of~~ atmospheric transduction system comprising:

a frequency mechanism means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, providing an electrical conversion broadcast network;

a frequency mechanism means for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid, transceiver and capacitates a charge;

a frequency mechanism means for self charging propulsion provides motor characteristics, and frequency engine;

a frequency mechanism means for piezoelectric production of direct current energy comprising frequency;

a frequency mechanism means for piezoelectric transmittal of direct current energy comprising frequency; and

a frequency mechanism means for piezoelectric receivable of direct current energy comprising frequency.

a piezoelectric transducer molded device(s), disk rotor, spine ball bearing, coupler and book spine stack transducers, for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, providing an electrical conversion broadcast server network circuit; and

a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and disc orbs, stack rods, power frequency broadcast, for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid, transceiver and capacitates a charge; and

a sensor accelerator, disk rotor/gear, battery/capacitor, controller, antenna, means for self charge propulsion comprise motor characteristics, thereby an engine of power frequency;

a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball means for self charge propulsion comprise a transceiver, thereby power frequency satellite;

a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball means for self charge propulsion and security comprise a transceiver, laser, mirrors, coupler, frequency thereby a direct current energy laser beam;

a piezoelectric means of producing direct current energy comprising frequency;

a piezoelectric means of transmitting direct current energy comprising frequency;

a piezoelectric means of receiving direct current energy comprising frequency.

a frequency mechanism means of frequency energy production comprising piezoelectric oscillation circuit;

a frequency mechanism means of frequency energy production comprising piezoelectric transducer oscillator and electronic circuitry; and

a frequency mechanism means of piezoelectric energy networking comprising grids,

antenna, cylinders, transceivers, transmitters, receivers, satellites, chamber rotors and engines.

a frequency mechanism means of piezoelectric energy comprising chamber, communication, and antenna;

a frequency mechanism means of energy comprising piezoelectric chamber, communication, and antenna; and

a frequency mechanism means of current comprising piezoelectric chamber, communication, and antenna.

5.(PREVIOUSLY PRESENTED) The ~~method of~~ atmospheric transduction system in accordance with claim 1, wherein said means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, an electrical conversion broadcast network circuit comprises piezoelectric transducer molded device housing, disk rotor, stack ball bearing, coupler, book spine stacks, laser and antenna rod stacks;

wherein said means for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid and capacitates a charge comprises a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and orbs, power frequency broadcast; and

wherein said means for charging providing motor characteristics, said power frequency engine comprises a sensor accelerator, rotor/gear, battery/capacitor, antenna, controller, for propulsion.

wherein said means for charging providing satellite characteristics, said power frequency satellite comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball and transceiver;

wherein said means for charging providing security characteristics, said frequency laser comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball, mirrors, coupler, beam and laser; and

Wherein said means of producing, transmittal, and receiving direct current energy comprising frequency comprises piezoelectric molded parts and circuitry.

6.(CURRENTLY AMENDED) A method for generation of energy using a rotor , comprising the steps of:

providing a battery **27,** starts the engine **29** and/or mobile transducer **33** is oscillated;

providing acceleration, forces are imposed on one or more rotation piezoelectric devices;

providing response to those forces, the piezoelectric devices output electrical energy;

providing energy is extracted at a power controller **465**;

providing the power controller **465,** sensor **480,** then makes this energy available to recharge a capacitor **410** battery **440** and/or to electronic components of the mobile terminal; and

providing a serial flow of events, it is to be appreciated that the events of blocks **33**, **27** and **29** occur substantially instantaneously propulsion upon acceleration of the mobile terminal.

Electronic Acknowledgement Receipt

EFS ID:	21101677
Application Number:	13692121
International Application Number:	
Confirmation Number:	7639
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
Filer:	James Edward Jennings
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	31-DEC-2014
Filing Date:	03-DEC-2012
Time Stamp:	15:45:04
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Applicant Arguments/Remarks Made in an Amendment	ATS_CLAIMS_LETTER.pdf	33609 2770bd01c0cfa1e74fec598eb05fa75651c95c78	no	2

Warnings:	
Information:	

2	Amendment Copy Claims/Response to Suggested Claims	ATS_CLAIMS.pdf	33438 7dc7432878d58d50e44c2727fbb94cffca594cd7	no	4

Warnings:	
Information:	
Total Files Size (in bytes):	67047

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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

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If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

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Serial No.: 13/692,121
Filing Date: 12/03/2012
Confirmation No.: 7639
GAU:2837

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: JENNINGS, James Edward

SERIAL NO.: 13/692,121 FILING DATE: DECEMBER 3, 2012

TITLE: ATMOSPHERIC TRANSDUCTION SYSTEM

GROUP ART UNIT: 2837 EXAMINER: ROSENAU, DEREK

Box AAF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

RESPONSE TO SUGGESTED CLAIMS /AMENDMENT

Dear Examiner Rosenau:

This correspondence is being filed as a Response to the Office Action Summary issued on March 3, 2014. Applicant requests entry of the amendments indicated below and consideration of the appended Remarks. Amendments to the CLAIMS begin on Page 2 of this paper.

REMARKS

Applicant claims the invention to be obvious variants. No new matter has been entered by way of these amendments.

CLAIMS CANCELLED 1-3

REPLACEMENT CLAIMS (6), (4) CURRENTLY AMENDED <u>frequency mechanism</u>

Conditional Request For Constructive Assistance

If for any reason this application is not believed to be in full condition for allowance, applicant respectfully request the constructive assistance and suggestions of the examiner pursuant to M.P.E.P.§ 2173.02 and § 707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Applicant respectfully requests reconsideration of the application and its passage to allowance. Should any impediments to allowance remain, Applicant requests that the Examiner contact the undersigned at the indicated phone number.

Respectfully submitted, James Jennings

/JAMES EDWARD JENNINGS/

Date: 12/31/2014 By:_____

PO Box 270081 Louisville, CO 80027
303.664.1829

PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 13/692,121	Filing Date 12/03/2012	☐ To be Mailed

ENTITY: ☐ LARGE ☐ SMALL ☒ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	12/31/2014	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 3	Minus	** 20	= 0	X $20 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X $105 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	0

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

SLIE
/HELENA PAYTON/

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

APPLICATION FOR U.S. LETTERS PATENT

TITLE: **ATMOSPHERIC TRANSDUCTION SYSTEM**

INVENTOR: **JENNINGS, James Edward**

CROSS REFERENCE TO RELATED APPLICATIONS

[001] NONE

BACKGROUND OF THE INVENTION

Field of the Invention

[002] Self-propelled travel is a type of recreational adventure travel using human powered transport. This includes non-motorized machines such as a bicycle or skateboard. It is in contrast to traveling in a powered vehicle (such as an automobile) as in that case it is the vehicle which powers itself. Self-propelled travel is used to travel short distances or even for much longer distances such as bicycle touring. Self propelled describes something that moves, progresses or acts on its own power without needing outside help. Leonardo da Vinci's 1478 Self-Propelled Car: It was more than 500 years ago, however -- sometime around the year 1478 to be more or less specific -- when Leonardo drew out his plans for the world's first self-propelled vehicle. Experts originally believed two leaf springs, the simplest form of the spring typically used for automotive suspensions, somehow powered the vehicle. Closer inspection eventually revealed the power came from bigger, coiled springs located in tambours, cylindrical drum-like casings, inside the car's frame. The machine works like a robot or a wind-up toy simply by rotating the wheels opposite of their intended direction, which winds up the springs inside and gives it power. Self propulsion(of a vehicle) provided with its own source of tractive power rather than requiring an external means of propulsion.

[003] In the middle of the 18th century, Benjamin Franklin's experiments showed that electrical phenomena of the atmosphere were not fundamentally different from those produced in the

laboratory. By 1749, Franklin observed lightning to possess almost all the properties observable in electrical machines.

[004] In July 1750, Franklin hypothesized that electricity could be taken from clouds via a tall metal aerial with a sharp point. Before Franklin could carry out his experiment, in 1752 Thomas-François Dalibard erected a 40-foot (12 m) iron rod at Marly-la-Ville, near Paris, drawing sparks from a passing cloud. With ground-insulated aerials, an experimenter could bring a grounded lead with an insulated wax handle close to the aerial, and observe a spark discharge from the aerial to the grounding wire. In May 1752, Dalibard affirmed that Franklin's theory was correct.

Piezoelectric Motor

[005] A piezoelectric motor or piezo motor is a type of electric motor based upon the change in shape of a piezoelectric material when an electric field is applied. Piezoelectric motors make use of the converse piezoelectric effect whereby the material produces acoustic or ultrasonic vibrations in order to produce a linear or rotary motion. In one mechanism, the elongation in a single plane is used to make a series stretches and position holds, similar to the way a caterpillar moves. A transducer is a device that converts one form of energy to another. Energy types include (but are not limited to) electrical, mechanical, electromagnetic (including light), chemical, acoustic or thermal energy. While the term transducer commonly implies the use of a sensor/detector, any device which converts energy can be considered a transducer. Transducers are widely used in measuring instruments. Piezoelectric materials can also be used to harvest low levels of mechanical energy into electrical energy suitable for powering wireless sensors, low power microprocessors or charging batteries. Rotary Uses include rotating machines such as fans, turbines, drills, the wheels on electric cars, locomotives and conveyor

belts. Also, in many vibrating or oscillating machines, an electric motor spins an unbalanced mass, causing the motor (and its mounting structure) to vibrate.

ATMOSPHERIC ELECTRICITY

[006] There is always free atmospheric electricity **313** in the air and in the clouds, which acts by induction on the earth and electromagnetic devices. Experiments have shown that there is always free electricity in the atmosphere, which is sometimes negative and sometimes positive, but most generally positive, and the intensity of this free electricity is greater in the middle of the day than at morning or night and is greater in winter than in summer. In fine weather, the potential increases with altitude at about 30 volts per foot (100 V/m).

Atmospheric layers

[007] The electrical conductivity of the atmosphere increases exponentially with altitude. The amplitudes of the electric and magnetic components depend on season, latitude, and height above the sea level. The greater the altitude the more atmospheric electricity abounds. The exosphere is the uppermost layer of the atmosphere and is estimated to be 500 km to 1000 km above the Earth's surface, and its upper boundary at about 10,000 km. The thermosphere (upper atmosphere) is the layer of the Earth's atmosphere directly above the mesosphere and directly below the exosphere. Within this layer, ultraviolet radiation causes ionization. Theories that have been proposed to explain the phenomenon of the polar aurora, but it has been demonstrated by experiments that it is due to currents of positive electricity passing from the higher regions of the atmosphere to the earth.

[008] The mesosphere (middle atmosphere) is the layer of the Earth's atmosphere that is directly above the stratosphere and directly below the thermosphere. The mesosphere is located about

50-80/85 km above Earth's surface. The stratosphere (middle atmosphere) is a layer of Earth's atmosphere that is stratified in temperature and is situated between about 10 km and 50 km altitude above the surface at moderate latitudes, while at the poles it starts at about 8 km altitude. The stratosphere sits directly above the troposphere and directly below the mesosphere. The troposphere (lower atmosphere) is the densest layer of the atmosphere.

[009] The planetary boundary layer (PBL), also known as the atmospheric boundary layer (ABL), is the lowest part of the atmosphere and its behavior is directly influenced by its contact with the planetary surface. It is also known as the "exchange layer". (see also:p-n junction.)

[0010] There is a potential gradient at ground level ("Atmosphere ground layer") and this vertical field corresponds to the negative charge in and near the Earth's surface. The negative potential gradient falls rapidly as altitude increases from the ground. Most of this potential gradient is in the first few kilometers. The positive potential gradient rises rapidly as altitude increases from the ground. Volta, over two centuries before the 21st century, discovered with some degree of exactitude that the proportions of the ordinates of the curve or gradient of electric potential increased as the distance from the earth increases, and, more recently, Engel has provided data to calculate the increase. ~~(Image to the right)~~.

Drum-type generator

[0011] A drum-type homopolar generator has a magnetic field (B) that radiates radially from the center of the drum and induces voltage (V) down the length of the drum. A conducting drum spun from above in the field of a "loudspeaker" type of magnet that has one pole in the center of the drum

and the other pole surrounding the drum could use conducting ball bearings at the top and bottom of the drum to pick up the generated current.

Astrophysical unipolar inductors

[0012] Unipolar inductors occur in astrophysics where a conductor rotates through a magnetic field, for example, the movement of the highly conductive plasma in a cosmic body's ionosphere through its magnetic field. In their book, Cosmical Electrodynamics, Hannes Alfvén and Carl-Gunne Fälthammar write:

"Since cosmical clouds of ionized gas are generally magnetized, their motion produces induced electric fields [..] For example the motion of the magnetized interplanetary plasma produces electric fields that are essential for the production of aurora and magnetic storms" [..]

".. the rotation of a conductor in a magnetic field produces an electric field in the system at rest.

[0013] This phenomenon is well known from laboratory experiments and is usually called 'homopolar ' or 'unipolar' induction.

The Faraday disc

[0014] The homopolar generator was developed first by Michael Faraday during his experiments in 1831. It is frequently called the Faraday disc in his honor. It was the beginning of modern dynamos — that is, electrical generators which operate using a magnetic field. It was very inefficient and was not used as a practical power source, but it showed the possibility of generating electric power using magnetism, and led the way for commutated direct current dynamos and then alternating current alternators.

Boeing 737–800

[0015] The Boeing Fuel Cell Demonstrator Airplane has a Proton Exchange Membrane (PEM) fuel cell/lithium-ion battery hybrid system to power an electric motor, which is coupled to a conventional propeller. The fuel cell provides all power for the cruise phase of flight. During takeoff and climb, the flight segment that requires the most power, the system draws on lightweight lithium-ion batteries.

[0016] The demonstrator aircraft is a Dimona motor glider, built by Diamond Aircraft Industries of Austria, which also carried out structural modifications to the aircraft. With a wing span of 16.3 meters (53.5 feet), the airplane will be able to cruise at approximately 100 kilometers per hour (62 miles per hour) on power from the fuel cell.

[0017] Nikola Tesla explored the wireless transmission of energy through his work with radio and microwaves and his creation of the Tesla coil and the magnifying transmitter. In 1898, Tesla demonstrated his radio-controlled boat, which he was able to control remotely. In the 1930s, Tesla claimed to have invented a particle beam weapon, or, as some called it, a "peace ray." The device was, in theory, capable of generating an intense, targeted beam of energy and sending it across great distances to demolish warplanes, foreign armies, or anything else you'd rather didn't exist.

[0018]"ROY J. MEYERS, BRITISH PATENT NUMBER 1098" This invention relates to improvements in apparatus for the production of electrical currents, and the primary object in view is the production of a commercially serviceable electrical current without the employment of mechanical or chemical action. To this end the invention comprises means for producing what I believe to be dynamic electricity from the earth and its ambient elements.

[0019] EDWARD LEEDSKALNIN: MAGNETIC CURRENT - ~~The Perpetual Motion Holder~~ is primarily a teaching device but it has many functions including an electromagnet, this is easy

enough to see; it is a generator—spin a magnet between the coils it will generate electricity; it functions as a transformer; it demonstrates how permanent magnets are made, ~~and is a holder of perpetual motion.~~

Strategic Defense Initiative

[0020] The Strategic Defense Initiative (SDI) was proposed to use ground and space-based systems to protect the United States from attack by strategic nuclear ballistic missiles.

Description of the Related Art

[0021] The present invention relates to a ball bearing assembly structure, an electromagnetic clutch having the ball bearing assembly structure, and a gas compressor equipped with the electromagnetic clutch.

[0022]When operating the gas compressor , the electromagnet of the electromagnetic clutch is energized to attract or adsorb the follower armature plate to an end surface of the prime-mover pulley and join the prime-mover pulley and the rotor shaft, thereby rotating the rotor shaft.

[0023] The ball bearing of the electromagnetic clutch conventionally has used one having an even number of balls per row. Generally, the ball bearing causes vibration and noise due to rotation. In the case of the ball bearing rotating while undergoing a radial load due to a tension of the belt, vibration and noise considerably occur. Particularly when other vibration and noise levels are lowered during engine idling, the vibration and noise of the ball bearing transmitted to the vehicular compartment is not negligible.

[0024] The inventor has conducted various experiments and discovered that the one factor of high vibration and noise level is an even number of balls of the ball bearing. In the ball bearing having an even number of balls per one row, the balls are in a facing relation to have linear-symmetry arrangement between the inner race and the outer race. The deformation and vibration at a regular particular frequency is caused in the inner and outer races. It is to be considered that the vibration as a source also increases noise.

[0025]The present invention relates generally and in various embodiments to piezoelectric mechanical systems. More specifically, the present invention relates generally and in various embodiments to atmospheric oscillation transducer apparatuses, systems, and methods.

[0026] Although various implementations of the present invention, among many, may be described herein with reference to the specific illustrative embodiments related to particular applications, those skilled in the art will understand that the invention is not in any way intended to be limited to such embodiments and/or applications. Those having ordinary skill in the art and reference to the description of the embodiments herein will recognize additional modifications, applications, and other embodiments falling within the scope of the claimed invention and additional fields in which the present invention may be practiced.

[0027] Digital Radio (also known as Satellite Radio or Satellite Digital Audio Radio Service (SDARS)) is a subscriber-based digital radio service that is broadcast via satellites. Digital radio service provides compact-disc (CD) quality programming that may be digitally transmitted via one or more satellites and/or space stations to one or more Earth-based (terrestrial) digital radio stations, receivers, and/or repeaters. In satellite-based direct-broadcast radio services, digitally-encoded audio

program material may be broadcast to terrestrial fixed or mobile digital radio receivers. Fixed receivers may include, for example, stand alone digital radio receivers or digital radio receivers connected via computer networks, including for example, the Internet. Mobile receivers may include, for example, digital radio receivers located in automobiles, aircrafts, watercrafts, and the like.

[0028] Satellite-based digital audio radio services such as SDARS, for example, may be broadcast to one or more digital radio receivers either directly from an orbiting satellite, or indirectly from one or more repeater stations. Such repeater stations may be useful where the digital radio receiver is located in a shielded location or where there is no direct line of sight between the radio and the satellite. In other digital audio radio services systems, the audio programs also may be transmitted in digital form by one or more space stations directly to fixed, mobile, and/or portable radio stations. Such systems may comprise, for example, orbiting satellites, complementary repeating terrestrial transmitters, telemetry, tracking, and control facilities.

[0029] Combinations of mechanical devices U.S. Pat. Nos. 4,019,073, 6,615,968 and atmospheric system interaction are disclosed in U.S. Pat. Nos. 1,119,732, 787,412, ~~6,902,513~~ to Nikola Tesla; 28,793 to Charles Vion; and 1,540,998 to Herman Plauson. Lastly, U.S. Pat. Nos. 8,102,078 and US2008/0009240. Agnoff discloses an Oscillating watch winder in U.S. Pat. Nos. 6,543,929, Jennings further discloses an oscillating smart device in application No. 13,572,679.

[0030] As illustrated by a large body of prior art, including the above-noted patents, and a large number of commercial devices, efforts are continuously being made in an attempt to improve helmets, headsets and their methods of fabrication. Nothing in the prior art, however, suggests the present inventive combination of materials and method steps as herein described and claimed. The

present invention achieves its purposes, objects and advantages over the prior art through a new, useful and unobvious combination of components and method steps which improve safety, comfort and noise abatement performance.

[0031] Therefore, it is an object of this invention to provide effectively, the provision of energy such that it meets the needs of the present without compromising the ability of future generations to meet their own needs. ...Sustainable Energy has two key components: renewable energy and energy efficiency.

[0032] It is still a further objection of this invention to promote dynamic harmony between equitable availability of energy-intensive goods and services to all people and the preservation of the earth for future generations." And, "the solution will lie in finding sustainable energy sources and more efficient means of converting and utilizing energy.

[0033] It is a further object of the present invention to produce Green Power Energy: is energy that can be extracted, generated, and/or consumed without any significant negative impact to the environment, green power; as electricity produced from solar, wind, geothermal, biogas, biomass, and low-impact small hydroelectric sources.

[0034] Thus, there is a need for a clean energy system that uses atmospheric electricity.

Prior Art

[0035] Quartz crystals have been in regular use for many years to give an accurate frequency for all radio transmitters, radio receivers and computers. Their accuracy comes from an amazing set of coincidences: Quartz -- which is silicon dioxide like most sand -- is unaffected by most solvents and remains crystalline to hundreds of degrees Fahrenheit. The property that makes it an electronic miracle is the fact that, when compressed or bent, it generates a charge or voltage on its surface. This

is a fairly common phenomenon called the Piezoelectric effect. In the same way, if a voltage is applied, quartz will bend or change its shape very slightly.

[0036] If a bell were shaped by grinding a single crystal of quartz, it would ring for minutes after being tapped. Almost no energy is lost in the material. A quartz bell -- if shaped in the right direction to the crystalline axis -- will have an oscillating voltage on its surface, and the rate of oscillation is unaffected by temperature. If the surface voltage on the crystal is picked off with plated electrodes and amplified by a transistor or integrated circuit, it can be re-applied to the bell to keep it ringing.

[0037] The electronics of the watch initially amplifies noise at the crystal frequency. This builds or regenerates into oscillation -- it starts the crystal ringing. The output of the watch crystal oscillator is then converted to pulses suitable for the digital circuits.

Polymers

[0038] Polyvinylidene fluoride (PVDF): PVDF exhibits piezoelectricity several times greater than quartz. Unlike ceramics, where the crystal structure of the material creates the piezoelectric effect, in polymers the intertwined long-chain molecules attract and repel each other when an electric field is applied.

Near Space

[0039] Solar particles become trapped within the Earth's magnetic field and form radiation belts. The Van Allen radiation belt is a torus of energetic charged particles (i.e. a plasma) around Earth, trapped by Earth's magnetic field.

[0040] At elevations above the clouds, atmospheric electricity forms a continuous and distinct element (called the electrosphere) in which the Earth is surrounded. The electrosphere layer (from tens of kilometers above the surface of the earth to the ionosphere) has a high electrical conductivity

and is essentially at a constant electric potential. The ionosphere is the inner edge of the magnetosphere and is the part of the atmosphere that is ionized by solar radiation. (Photoionisation is a physical process in which a photon is incident on an atom, ion or molecule, resulting in the ejection of one or more electrons.)

ADVANTAGES/DISADVANTAGES

[0041] Energy in electronic elements: Electric potential energy, or electrostatic potential energy, is a potential energy (measured in joules) that results from conservative Coulomb forces and is associated with the configuration of a particular set of point charges within a defined system. The term "electric potential energy" is used to describe the potential energy in systems with time-variant electric fields, while the term "electrostatic potential energy" is used to describe the potential energy in systems with time-invariant electric fields.

[0042] Capacitance is the ability of a body to store an electrical charge. Any body or structure that is capable of being charged, either with static electricity or by an electric current, exhibits capacitance. A common form of energy storage device is a parallel-plate capacitor. In a parallel plate capacitor, capacitance is directly proportional to the surface area of the conductor plates and inversely proportional to the separation distance between the plates. If the charges on the plates are +q and -q, and V gives the voltage between the plates, then the capacitance C is given by

$$C = q/V.$$

[0043] The capacitance is a function only of the physical dimensions (geometry) of the conductors and the permittivity of the dielectric. It is independent of the potential difference between the conductors and the total charge on them.

[0044] Piezoelectricity is the combined effect of the electrical behavior of the material:

$D = \epsilon E$

where D is the electric charge density displacement (electric displacement), ϵ is permittivity and E is electric field strength, and

Hooke's Law: $S = s T$

where S is strain, s is compliance and T is stress.

[0045] Polyvinylidene fluoride, or polyvinylidene difluoride (PVDF) is a highly non-reactive and pure thermoplastic fluoropolymer produced by the polymerization of vinylidene difluoride. PVDF is a specialty plastic material in the fluoropolymer family; it is used generally in applications requiring the highest purity, strength, and resistance to solvents, acids, bases and heat and low smoke generation during a fire event. Compared to other fluoropolymers, it has an easier melt process because of its relatively low melting point of around 177 ˚C.

[0046] It has a low density (1.78 mil) and low cost compared to the other fluoropolymers. It is available as piping products, sheet, tubing, films, plate and an insulator for premium wire. It can be injected, molded or welded and is commonly used in the chemical, semiconductor, medical and defense industries, as well as in lithium ion batteries. It is also available as a crosslinked closed cell foam, used increasingly in aviation and aerospace. PVDF has a glass transition temperature (Tg) of about -35 ˚C and is typically 50–60% crystalline. To give the material its piezoelectric properties, it is mechanically stretched to orient the molecular chains and then poled under tension. PVDF exists in several forms: alpha (TGTG'), beta (TTTT), and gamma (TTTGTTTG') phases, depending on the chain conformations as trans (T) or gauche (G) linkages. When poled, PVDF is a ferroelectric

polymer, exhibiting efficient piezoelectric and pyroelectric properties. These characteristics make it useful in sensor and battery applications. Thin films of PVDF are used in some newer thermal camera sensors.

[0047] Copolymers: Copolymers of PVDF are also used in piezoelectric and electrostrictive applications. One of the most commonly-used copolymers is P(VDF-trifluoroethylene), usually available in ratios of about 50:50 wt% and 65:35 wt% (equivalent to about 56:44 mol% and 70:30 mol%). Another one is P(VDF-tetrafluoroethylene). They improve the piezoelectric response by improving the crystallinity of the material.

[0048] While the copolymers' unit structures are less polar than that of pure PVDF, the copolymers typically have a much higher crystallinity. This results in a larger piezoelectric response: d33 values for P(VDF-TrFE) have been recorded to be as high as -38 pC/N versus -33 pC/N in pure PVDF.

[0049] APPLICATIONS: The piezoelectric properties of PVDF are used to advantage to manufacture tactile sensor arrays, inexpensive strain gauges and lightweight audio transducers. Piezoelectric panels made of PVDF are used on the Venetia Burney Student Dust Counter, a scientific instrument of the New Horizons space probe that measures dust density in the outer solar system. PVDF is the standard binder material used in the production of composite electrodes for lithium ion batteries. 1-2% weight solution of PVDF dissolved in N-Methyl-2-pyrrolidone (NMP) is mixed with an active lithium storage material such as graphite, silicon, tin, $LiCoO_2$, $LiMn_2O_4$, or $LiFePO_4$ and a conductive additive such as carbon black or carbon nanofibers. This slurry is cast onto a metallic current collector and the NMP is evaporated to form a composite or paste electrode. PVDF is used because it is chemically inert over the potential range used and does not react with the

electrolyte or lithium. Piezoelectric elements can be used in laser mirror alignment, where their ability to move a large mass (the mirror mount) over microscopic distances is exploited to electronically align some laser mirrors. By precisely controlling the distance between mirrors, the laser electronics can accurately maintain optical conditions inside the laser cavity to optimize the beam output. Piezoelectric sensors especially are used with high frequency sound in ultrasonic transducers for medical imaging and also industrial nondestructive testing (NDT).

[0050] For many sensing techniques, the sensor can act as both a sensor and an actuator – often the term transducer is preferred when the device acts in this dual capacity, but most piezo devices have this property of reversibility whether it is used or not. Ultrasonic transducers, for example, can inject ultrasound waves into the body, receive the returned wave, and convert it to an electrical signal (a voltage). Most medical ultrasound transducers are piezoelectric.

[0051] Advantageously, Sustainable energy is the sustainable provision of energy that meets the needs of the present without compromising the ability of future generations to meet their needs. Technologies that promote sustainable energy include renewable energy sources, such as hydroelectricity, solar energy, wind energy, wave power, geothermal energy, and tidal power, and also technologies designed to improve energy efficiency.

[0052] This sequence of oscillations causes the rotor within the watch to spin rapidly thereby winding the watch in a manner closely simulating the spinning of the rotor that occurs during normal winding of the watch when the watch is worn by a user. Due to the forces that are exerted, the rotor spins around the watch shaft during the oscillations, as opposed to the partial rotation observed in prior art mechanisms. Therefore, the time required to wind the watch, and the energy required, is

substantially reduced. Moreover, since the rotor is spinning about the shaft, as opposed to merely being held in a downward position while the watch is rotated, winding more closely approximating the design mechanism is achieved, thereby putting less wear on the watch.

[0053]This invention relates to satellite communications systems using multiple spot beams from a geosynchronous earth orbit satellite to provide selective coverage of the continental United States and, more particularly, relates to a system having a satellite receiving hub in every spot beam that allows for asynchronous communications between each hub and the satellite for maximizing frequency re-use.

[0054] These purposes, objects and advantages should be construed as merely illustrative of some of the more prominent features and applications of the present invention. Many other beneficial results can be obtained by applying the disclosed invention in a different manner or by modifying the invention within the scope of the disclosure. Accordingly, other purposes, objects and advantages as well as a fuller understanding of the invention may be had by referring to the summary herein mentioned and detailed description describing the preferred embodiments of the invention, in addition to the scope of the invention, as defined by the claims, taken in conjunction with the accompanying drawings.

SUMMARY OF THE INVENTION

[0055] In one general respect, an embodiment of the present invention is directed to a system. The system includes a Power Frequency broadcast station, a receiver, and a network. The Power Frequency broadcast station includes a transmitter and a server. The receiver is in communication with the Power Frequency broadcast transmitter and also includes a user interface for receiving user input commands comprising a request for information from the Power Frequency broadcast station.

[0056] The receiver is configured to establish a two-way communication path between the receiver and the Power Frequency broadcast transmitter. The network is in communication with the server and the receiver for exchanging information therebetween. The request for information is provided to the server via the network and the server is configured to receive the request and transmit a response message to the receiver in accordance with the request.

Continuously outboard recharged electric vehicle (COREV)

[0057] Given suitable infrastructure, permissions and vehicles, BEVs (battery electric vehicles) can be recharged while the user drives. The BEV establishes contact with an electrified rail, plate or overhead wires on the highway via an attached conducting wheel or other similar mechanism (see Conduit current collection). The BEV's batteries are recharged by this process—on the highway—and can then be used normally on other roads until the battery is discharged. Some of battery-electric locomotives used for maintenance trains on the London Underground are capable of this mode of operation. Power is picked up from the electtrified rails where possible, switching to battery power where the electricity supply is disconnected.

[0058] The present invention is directed to overcome the disadvantages of the prior art. The invention is a mechanism which taps into the naturally occurring static electricity in the atmosphere. Whereas heretofore, the attempt to garner electricity from the atmosphere has focused exclusively on capturing lightning, the present invention syphons off the static electricity which is generated from any agitated air and voids lightning.

[0059] Lightning is only the final discharge of the static electricity, whether that lightning is intra-cloud lightning, cloud-to-ground lightning, or inter-cloud lightning. Other types of final discharges are known as heat lightning, summer lightning, sheet lightning, ribbon lightning, silent lightning, ball lightning, bead lightning, elves, jets, and sprites. Well before these discharges are observed, as the atmosphere becomes agitated by wind or thermal, static electricity is being generated. The present invention recognizes that this static electricity is being formed and creates a mechanism to capture it.

[0060] In the preferred embodiment, a sensor array is used to monitor the activities both at the base unit (such as electrical flow within the conductor) and in the surrounding locale. A sensor monitoring the electrical flow (i.e. voltage and/or current) within the conductor is used to monitor the electrical activity within the conductor.

[0061] In the preferred embodiment, a lightning sensor monitors for lightning activity within the locale. As noted earlier, the electrical characteristic of lightning is so extreme that ideally this discharge is avoided as it might damage the mechanism of this invention. The sensor array is utilized by a controller, such as microprocessor, programmed to operate the mechanism as outlined herein.

[0062] The controller operates ~~the winch~~ motor ~~to extend or withdraw the conductive line and by extension the altitude of the balloon~~. The controller is programmed to operate ~~the winch by~~ monitoring the electrical characteristics of the conductor and ~~adjusting the balloon's altitude~~ to maintain these characteristics within the conductor within a preset range.

[0063] This preset range is established either in the base programming of the controller or is established by an operator of the system. As example, by controlling the amount of current being withdrawn from the atmosphere, the mechanism operates within a safe range and also provides a

relatively stable current flow from which a variety of activities can take place (such as DC-AC conversion).

[0064] The controller also utilizes the lightning sensor to protect the mechanism from a lightning strike. Should lightning be detected within a pre-determined range (as established by the software or defined by an operator), then the balloon is pulled down to minimize the risk of damage from a lightning strike.

[0065] Another aspect of the invention relates to the electrical system which accepts the fluctuating atmospheric charge and changes it into an acceptable configuration for either the desired load or for the existing power grid.

[0066] Power grids in the United States operate with a frequency of 60 hertz in an alternating current arrangement. While this basic configuration seems to be universally accepted, the voltage within the grid varies dramatically, such as 15 kv, 34 kv, 69 kv, and even 112 kv.

[0067] Each atmospheric generator is placed proximate to or within easy access to a specific grid; this establishes the required electrical output configuration (i.e. that which is accepted by the power grid). As example, one of the atmospheric electrical collector units as described above collects the atmospheric electrical power as direct current and then supplies the appropriate power grid a specific flow (as example, AC, 60 hertz, at 69 kv).

[0068] The difficulty lies the fact that the DC current being garnered from the atmosphere varies depending on the actual agitation being generated in the atmosphere. This means that the source of DC current is fluctuating.

[0069] The present invention uses a monitoring system which checks the input DC voltage. Depending on the actual voltage being received, the appropriate converter is connected to the input DC voltage so that the desired output is obtained.

[0070] As example, suppose the DC input voltage is 1500 volts, the monitoring system, sensing this input, closes the switch connecting the DC voltage to a converter which accepts DC voltage in the range of 1000-2000 volts which then delivers an AC, 60 hertz 69 kv signal to the power grid. If the DC input voltage increases to 2100 volts, then the monitoring system opens the switch to the first converter (1000-2000 volts) and closes the switch to a second converter (such as 2000-4000 volts) to deliver the desired output of AC (60 hertz, 69 kv) for the power grid.

[0071] In this manner, regardless of the fluctuating input DC voltage, the electrical grid is supplied with a fully configured electrical input conforming to the needs of that specific electrical grid.

[0072] Another aspect of the present invention is the use of a tower or permanent structure instead of an aircraft. In this embodiment, the building or tower is electrically isolated from the ground and a rod (similar to a lightning rod) is extended into the atmosphere. The rod collects the atmospheric charge which is conveyed via an electrical conduit (ideally insulated) where the collected DC charge is reconfigured to meets the need of the locale.

[0073] In this context, for one embodiment of the invention, a tower is placed onto the top of a building. The tower is electrically isolated from the building using such mechanisms well known to those of ordinary skill in the art such as rubber mats. A rod ideally extends from the top of the tower to facilitate the collection of the DC electrical energy.

[0074] Piezoelectricity is a material property that is manifested when voltage is produced by applying mechanical forces, and vice versa, the effect has been described as direct and converse. Piezoelectricity has been described as coupling between a quasi-static electric field and dynamic mechanical motion.

[0075] A piezoelectricity converter mechanism such as described above, is connected to the tower to flow the DC electricity to a converter which modifies the DC current for the specific application. In one application, the DC current is converted to the electrical needs of the building, thereby providing at least some of the electrical requirements of the building itself.

[0076] As noted earlier, the dynamic converter system of the present invention allows a power generator to address a variable voltage in an efficient manner. This makes the dynamic converter system ideal for a variety of alternative energy sources such as the above described atmospheric electrical generator and other alternative energy sources such as wind and wave powered systems. In these systems, the energy being generated must be converted to a proper electrical configuration for a identified load. This may be a particular motor or connection to the power grid which act as a load to the power generating mechanism.

[0077] For these energy generating systems, the converter assembly of this invention utilizes multiple converters. Each converter is configured to accept a unique range of voltages and from these

voltages, create the desired electrical configuration. By using multiple converters, a full range is available, from a minimum voltage input to a maximum voltage input.

[0078] The present invention can include systems and methods for integrating sensors for tracking atmospheric transducer system performance metrics into media devices and accessories therefor, thereby reducing or eliminating the need for additional independent monitoring devices. In one embodiment of the present invention.

[0079] It also is known to provide such transducers with connectors to allow their rechargeable batteries to be charged. In some cases, the connector is a Universal Serial Bus (USB) connector, allowing the transducer to be charged by plugging it into the USB port of a computer, grid circuit or other device.

[0080] These and other objects and advantages of the invention will appear more clearly from the following description in which the preferred embodiment of the invention has been set forth in conjunction with the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0081] FIG. 1 Prior Art depicts perspective view of Electric currents created in sunward ionosphere;

[0082]FIG. 2 is a box flow chart of the propulsion cycle systems present invention;

[0083] FIG. 3 is an top view of the piezoelectric disk cylinder orb of the present invention;

[0084] FIG. 4 is a longitudinal sectional view showing an embodiment of this cylinder invention;

[0085] FIG. 5 is a top view of the (ATS) slip rotor piezoelectric chamber of the present invention;

[0086] FIG. 6 is an alternate top view of the piezoelectric cylinder orb of the present invention;

[0087] FIG.7 - 10 elevation views of spine piezo stacks embodiments of the present invention;

[0088] FIG.11 illustrates one embodiment of a power service (ATS) system architecture;

[0089] FIG. 12 is a block diagram of the ATS charge schematics systems of the present invention;

[0090] FIG. 13 is a block diagram of an ATS charge and recycle schematics of the present invention;

[0091] FIG. 14 is a top view of the piezoelectric ball race cylinder of the present invention;

[0092] FIG. 15 is a side view of the piezoelectric housing and gear of the present invention;

[0093] FIG. 16 is a side view of a multiple piezoelectric ball race cylinder of the present invention;

[0094] FIG. 17 is another embodiment of the piezoelectric stack ball of the present invention;

[0095] FIG. 18 & 19 are antenna rod transmit device embodiments of the (ATS) present invention;

[0096] FIG. 20 illustrates substation embodiment of the power service (ATS) system architecture;

[0097] FIG. 21 illustrates a home embodiment of the power service (ATS) system architecture;

[0098] FIG. 22 illustrates a window embodiment of the power service (ATS) system architecture;

[0099] FIG. 23 is (ATS) shock device in accordance with an embodiment of the present invention;

[00100] FIG. 24 is (ATS) shock device in accordance with an embodiment of the present invention;

[00101] FIG. 25 is (ATS) motorcycle device embodiment of the present invention;

[00102] FIG. 26 is (ATS) axle device in accordance with an embodiment of the present invention;

[00103] FIG. 27 is (ATS) train device in accordance with an embodiment of the present invention;

[00104] FIG. 28 is (ATS) plane device in accordance with an embodiment of the present invention;

[00105] FIG. 29 is (ATS) boat device in accordance with an embodiment of the present invention;

[00106] FIG. 30 is (ATS) solar device in accordance with an embodiment of the present invention;

[00107] FIG.31 a (ATS) turbine device in accordance with an embodiment of the present invention;

[00108] FIG. 32 is (ATS) auto body panel device embodiment of the present invention;

[00109] FIG. 33 is (ATS) motorcycle body fairing panel device in of the present invention; and

[00110] FIG. 34 is (ATS) cross section view of body embed panel device of the present invention.

DETAILED DESCRIPTION

[00111] ~~This sequence of~~ oscillations causes the conductive rotor within piezoelectric molded housing device to spin rapidly thereby winding the mechanism in a manner closely simulating the spinning of the conductive rotor that occurs during normal electric activity when the device is activated. Due to the forces that are exerted, the conductive rotor spins around the piezoelectric cylinder device shaft during the oscillations, as opposed to the partial rotation observed in prior art mechanisms. Therefore, the time required to charge the Atmospheric Transduction System (ATS) device, and the energy required, is substantially reduced. Moreover, since the rotor is spinning about the shaft, as opposed to merely being held in a downward position while the ATS device is rotated, recharging more closely approximating the design mechanism is achieved, thereby putting less wear on the ATS chamber device. Innovative Piezoelectric housing and ball bearing, coupler and book spine stacks. There relies the notion of negative ground electricity and positive aerial electricity which is in abundance. This invention substantiates land vehicles recycle recharge by reverse oscillation. Aerial vehicles recycle recharge by forward oscillation in accumulation of environmental positive and negative electricity. These aforementioned activities are integral or synchronous with frequency.

[00112] PRIOR ART FIG.1 Electric currents created in sunward ionosphere. **Fig.2** is a recycle box flow chart **49** of a self propulsion unit consisting of a battery **27** , engine **29** and piezoelectric transducer **33** unit. **Fig.3** is a multiple disk **31** load part **51** about a 360 degree cylinder **45** and shaft **44**. **Fig.4** is a piezoelectric molded device **100** housing **110** containing a ball bearing race **104**, disk stacks capacitor **102** and conductive rotor **46**. **Fig.5** is a piezoelectric chamber **120** configuration including a counterweights **50**, shaft **44**, conductive slip rotor **106**. **Fig.6** is an alternate part **200**

chamber cylinder **201** embodiment containing piezoelectric spine disk stack capacitors **102**. **Fig.7-10** are variations of spine **107,108,109,110** case piezoelectric stack capacitor **102** with plate and ball heads. **Fig.11** Various embodiments of the present invention, among others, will now be described with reference to the accompanying drawings. Accordingly, **FIG. 11** illustrates an embodiment of a Atmospheric Transduction (ATS) System **300** architecture. The system **300** may include, for example, a satellite broadcast station **318** that transmits signals **333** containing frequency content from a geostationary satellite **318** by way of airplane antenna **326**. In turn, the satellite **318** transmits line-of-sight (LOS) signals **333** to one or more ATS terrestrial frequency power receiver farms **314**. The system **300** also may include one or more terrestrial repeaters **316** which receive and retransmit the satellite signals **333** as repeater signals **323** to facilitate reliable reception in geographic areas where LOS reception from the satellite **318** is obstructed by tall buildings, hills, tunnels, and other similar impediments to the signals **333**. The ATS receivers **314** maybe designed to receive one or more signals **333** from the satellite **318** and/or from the terrestrial repeater transceiver **316**. In operation, such ATS receivers **314** may receive both the satellite signals **333** and the repeater signals **323**. The receivers **314** also may be located in mobile environments **320, 321**, **322** which include, but are not limited to, land vehicles **321, 322**, aircraft **320**, watercraft **900**, and handheld devices, among others. The receivers **314** also may be fixed in stationary antenna satellites **332** units for residential use (e.g., home **325**,**750** entertainment, etc.) or commercial **309**,~~**314, 328, 360**~~ use (e.g., business **314**, office **700**, security ACCENTUATION **328**, etc.). The power frequency broadcast station **318** also may be in communication with a grid network **342**. Two-way communication between the ATS receivers **314** and the power frequency broadcast station **318** may occur via the network **342**. Furthermore, information feedback from the power frequency broadcast station **318** may be transmitted to the ATS receiver **314** both by way of the network **342** as well as via the

satellite **antenna 332.** Information also may be transmitted to the power broadcast station **318** wirelessly via a wireless network **342,707** by way of transducer tower **362**.

[00113] Further disclosed in **Fig. 12** and **Fig.13** (in block diagrams **400, 500**) are electrical schematics for handling the static charge from the atmosphere. By maintaining the voltage being collected in a prescribed range, an electrical conversion system is easily designed. While **FIGS. 12**, and **13** illustrate some electrical configurations, those of ordinary skill in the art readily recognize a variety of other configurations which will serve the same function.

[00114] Referencing **FIG. 12**, direct current in (DC IN) **401** is buffered by a gang of capacitors **410** before being communicated to a DC/AC converter **420**. The DC/AC converter **420** converts the direct current into a an alternating current suitable for placement over an existing electrical grid **430** such as normally found from a power-plant. **FIG. 12** Also illustrates an electrical arrangement suitable for use in charging a battery **440**. DC IN **401** is buffered by capacitor **410** bank before entering into a step down transformer **435**. Step down transformer **435** reduces the voltage so that the voltage can safely be introduced into battery **440** which is connected to ground **450** at the battery's other pole. In **FIG. 12**, DC IN **401** is fed into an adjustable rheostat **460** which is controlled by the controller **465** so that the DC OUT **470** falls within a computer **475** monitored and sensor **480** specified range. **Fig.13** Hypothetically, unused energy may be recycled current **501** and/or recaptured by reversing the oscillated spin rotation of devices **51, 100, 120** with the use of a rectifier **502** and Step up transformer **503**, returned to grid **430** capacitor **410**. This theory lends itself to the concept of positive and negative frequency. **Fig.14-17** Self charging propulsion embodiment of the invention where Da Vinci's ball race **510,512** is combined with a disk cylinder **45** and **513** stack balls **525,** conductive rotor **46**, **511** tooth gear **515** and piezoelectric molded housing **555**. **Fig.18 & 19** Improvement structures Franklin's lightening rod **600,603** and a molded vibration transducer **601**

quasi replicating Vion's tubes and piezoelectric spine stacks capacitor **602** improving Tesla's Atmospheric transmit device. **Fig.20** is an atmospheric receiving building sub station **700** where energy is consumed and excess rendered to the grid **707** by conductive rotor **702** transducer **710,** tower transducer**703**, antenna rod **701** and transducer windows **704**.

[00115] FIG. 12 and **Fig.2** flowchart illustration also includes battery **440**. Battery **440** may provide electrical power to components of ATS devices within **Fig.11**. Charging circuitry may also be provided to charge battery **440** when an external power supply is connected to an ATS device **100**. **Fig.14-17** eliminates one or more steps by presenting a self charge retaining transducers **510,511,512,513** may be configured with an accelerator sensor **480** controller **465** and gears **515,** provide reciprocal power incorporated within piezoelectric molded and ceramic housing **555** along with stack balls **525** and cylinder **545**. This assembly more resembles a motor by characteristics given power with application.

[00116] In operation, as illustrated in **FIGS. 2-20** and **FIGS. 21-34** , is periodically energized by movement to rotate Orb in either a clockwise or counterclockwise direction. The length of time or activity is energized, and the length of time between the period when the capacitor **31, 102** battery is energized, will depend on the particular ATS device design. As the Orb rotates, the outer end of the disk moves along a 360˚ circular pathway to push against with forward and rearwardly spinning. Upon engagement of the Orb, ATS device disk is rotated until carried to the apex or top of the circular pathway. Upon reaching the apex, the gravitational and vibrational force or counterweight **50** promotes additional oscillation. ATS device movement rapidly rotate on Orb at a rotational speed greater than the speed of rotation of Orb. Counterweight **50** is then carried beyond the bottom or lowest point of the pathway by its momentum to a point near the apex on the opposite side of the pathway. The cycle is repeated through multiple increasing oscillations of the ATS device until

counterweight **50** stops at the bottom position, or until once again engages to again move counterweight to the top of its circular pathway.

[00117] FIG. 2 is a flow chart showing generation of energy using a rotor according to one or more of the above-described embodiments. First, battery **27** starts the engine **29** and/or mobile transducer **33** is oscillated. In response to this acceleration, forces are imposed on one or more rotation piezoelectric devices. In response to those forces, the piezoelectric devices output electrical energy, which energy is extracted at a power controller **465**. The power controller **465** sensor **480** then makes this energy available to recharge a capacitor **410** battery **440** and/or to electronic components of the mobile terminal. Although **FIG.2** shows a serial flow of events, it is to be appreciated that the events of blocks **33**, **27** and **29** occur substantially instantaneously upon acceleration of the mobile terminal.

PREFERRED ALTERNATE EMBODIMENTS

[00118]The present invention (ATS) device in accordance with an embodiment of the present invention overcomes the foregoing problem in the conventional art and provides an electro energy vibration and alternative to gas, oil or fossil fuel consumption in **Fig.21** homes **750** transducer **755, Fig.28** airplane **880** transducer **801**, **Fig.27** train **860** transducer **801**, **Fig.32** auto **950** transducer **910**, **Fig.25** and **Fig.33** motorcycles **960,850** transducers **799, 802, 810**, **910** and **Fig.29** boat **900** transducers **901,910**.

[00119] In order to solve the foregoing problems in the conventional art, the present invention provides an electro transducer having a ball bearing assembly which is compatible with **Fig.26** axle shaft **44** transducer **810** wheel **870** assembly. In order to solve the foregoing problems in the

conventional art, the present invention provides an electro transducer having an **Fig.34** housing panel **980** transducer **910** assembly which is compatible with an exterior body assembly. Thereby, an Atmospheric transducer device may be shock **800, 803** integrated as within the **Fig.23** coupler **802,** and **Fig.24** ladder **799,** (vertical friction) piezoelectric absorbers assemblies. In order to solve the foregoing problems in the conventional art, the present invention provides an electro transducer having a capable flat assembly which is compatible with **Fig.22** window **704** disk **31** plate transducer **714**, **Fig.30** solar panel **920** transducer **910**, **Fig.31** wind turbine **930** transducer **910** assembly. This invention provided **Fig.3** piezoelectric plate disks **31**, **Fig.7-10** spine piezoelectric disks stacks **107,108,109,110** capacitor **102**, **Fig.17** piezoelectric stack balls **525** capacitor, the arrangement of balls **525** will not be in a facing relation. The deformation in the inner and outer races during rotation of the ball bearing while undergoing a radial load is made irregular and complicated. The spine eliminates the deformation and vibration level increased by a combination of ceramic and molded piezoelectric materials at a regular predetermined frequency thereby multiplying the level of vibration and noise reduction.

[00120] Certain modifications and improvements will occur to those skilled in the art upon a reading of the foregoing description. It should be understood that all such modifications and improvements have been deleted herein for the sake of conciseness and readability but are properly within the scope of the following claims.

[00121] Thus it is seen that an atmospheric transducer device may be integrated and/or provided. It will be understood that the foregoing is only illustrative of the principles of the invention, and that various modifications can be made by those skilled in the art without departing from the scope and spirit of the invention, and the present invention is limited only by the claims that follow.

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

APPLICATION FOR U.S. LETTERS PATENT

TITLE: **ATMOSPHERIC TRANSDUCTION SYSTEM**

INVENTOR: **JENNINGS, James Edward**

CROSS REFERENCE TO RELATED APPLICATIONS

[001] NONE

BACKGROUND OF THE INVENTION

Field of the Invention

[002] Self-propelled travel is a type of recreational adventure travel using human powered transport. This includes non-motorized machines such as a bicycle or skateboard. It is in contrast to traveling in a powered vehicle (such as an automobile) as in that case it is the vehicle which powers itself. Self-propelled travel is used to travel short distances or even for much longer distances such as bicycle touring. Self propelled describes something that moves, progresses or acts on its own power without needing outside help. Leonardo da Vinci's 1478 Self-Propelled Car: It was more than 500 years ago, however -- sometime around the year 1478 to be more or less specific -- when Leonardo drew out his plans for the world's first self-propelled vehicle. Experts originally believed two leaf springs, the simplest form of the spring typically used for automotive suspensions, somehow powered the vehicle. Closer inspection eventually revealed the power came from bigger, coiled springs located in tambours, cylindrical drum-like casings, inside the car's frame. The machine works like a robot or a wind-up toy simply by rotating the wheels opposite of their intended direction, which winds up the springs inside and gives it power. Self propulsion(of a vehicle) provided with its own source of tractive power rather than requiring an external means of propulsion.

[003] In the middle of the 18th century, Benjamin Franklin's experiments showed that electrical phenomena of the atmosphere were not fundamentally different from those produced in the

laboratory. By 1749, Franklin observed lightning to possess almost all the properties observable in electrical machines.

[004] In July 1750, Franklin hypothesized that electricity could be taken from clouds via a tall metal aerial with a sharp point. Before Franklin could carry out his experiment, in 1752 Thomas-François Dalibard erected a 40-foot (12 m) iron rod at Marly-la-Ville, near Paris, drawing sparks from a passing cloud. With ground-insulated aerials, an experimenter could bring a grounded lead with an insulated wax handle close to the aerial, and observe a spark discharge from the aerial to the grounding wire. In May 1752, Dalibard affirmed that Franklin's theory was correct.

Piezoelectric Motor

[005] A piezoelectric motor or piezo motor is a type of electric motor based upon the change in shape of a piezoelectric material when an electric field is applied. Piezoelectric motors make use of the converse piezoelectric effect whereby the material produces acoustic or ultrasonic vibrations in order to produce a linear or rotary motion. In one mechanism, the elongation in a single plane is used to make a series stretches and position holds, similar to the way a caterpillar moves. A transducer is a device that converts one form of energy to another. Energy types include (but are not limited to) electrical, mechanical, electromagnetic (including light), chemical, acoustic or thermal energy. While the term transducer commonly implies the use of a sensor/detector, any device which converts energy can be considered a transducer. Transducers are widely used in measuring instruments. Piezoelectric materials can also be used to harvest low levels of mechanical energy into electrical energy suitable for powering wireless sensors, low power microprocessors or charging batteries. Rotary Uses include rotating machines such as fans, turbines, drills, the wheels on electric cars, locomotives and conveyor

belts. Also, in many vibrating or oscillating machines, an electric motor spins an unbalanced mass, causing the motor (and its mounting structure) to vibrate.

ATMOSPHERIC ELECTRICITY

[006] There is always free atmospheric electricity **313** in the air and in the clouds, which acts by induction on the earth and electromagnetic devices. Experiments have shown that there is always free electricity in the atmosphere, which is sometimes negative and sometimes positive, but most generally positive, and the intensity of this free electricity is greater in the middle of the day than at morning or night and is greater in winter than in summer. In fine weather, the potential increases with altitude at about 30 volts per foot (100 V/m).

Atmospheric layers

[007] The electrical conductivity of the atmosphere increases exponentially with altitude. The amplitudes of the electric and magnetic components depend on season, latitude, and height above the sea level. The greater the altitude the more atmospheric electricity abounds. The exosphere is the uppermost layer of the atmosphere and is estimated to be 500 km to 1000 km above the Earth's surface, and its upper boundary at about 10,000 km. The thermosphere (upper atmosphere) is the layer of the Earth's atmosphere directly above the mesosphere and directly below the exosphere. Within this layer, ultraviolet radiation causes ionization. Theories that have been proposed to explain the phenomenon of the polar aurora, but it has been demonstrated by experiments that it is due to currents of positive electricity passing from the higher regions of the atmosphere to the earth.

[008] The mesosphere (middle atmosphere) is the layer of the Earth's atmosphere that is directly above the stratosphere and directly below the thermosphere. The mesosphere is located about

50-80/85 km above Earth's surface. The stratosphere (middle atmosphere) is a layer of Earth's atmosphere that is stratified in temperature and is situated between about 10 km and 50 km altitude above the surface at moderate latitudes, while at the poles it starts at about 8 km altitude. The stratosphere sits directly above the troposphere and directly below the mesosphere. The troposphere (lower atmosphere) is the densest layer of the atmosphere.

[009] The planetary boundary layer (PBL), also known as the atmospheric boundary layer (ABL), is the lowest part of the atmosphere and its behavior is directly influenced by its contact with the planetary surface. It is also known as the "exchange layer". (see also:p-n junction.)

[0010] There is a potential gradient at ground level ("Atmosphere ground layer") and this vertical field corresponds to the negative charge in and near the Earth's surface. The negative potential gradient falls rapidly as altitude increases from the ground. Most of this potential gradient is in the first few kilometers. The positive potential gradient rises rapidly as altitude increases from the ground. Volta, over two centuries before the 21st century, discovered with some degree of exactitude that the proportions of the ordinates of the curve or gradient of electric potential increased as the distance from the earth increases, and, more recently, Engel has provided data to calculate the increase.

Drum-type generator

[0011] A drum-type homopolar generator has a magnetic field (B) that radiates radially from the center of the drum and induces voltage (V) down the length of the drum. A conducting drum spun from above in the field of a "loudspeaker" type of magnet that has one pole in the center of the drum

and the other pole surrounding the drum could use conducting ball bearings at the top and bottom of the drum to pick up the generated current.

Astrophysical unipolar inductors

[0012] Unipolar inductors occur in astrophysics where a conductor rotates through a magnetic field, for example, the movement of the highly conductive plasma in a cosmic body's ionosphere through its magnetic field. In their book, Cosmical Electrodynamics, Hannes Alfvén and Carl-Gunne Fälthammar write:

"Since cosmical clouds of ionized gas are generally magnetized, their motion produces induced electric fields [..] For example the motion of the magnetized interplanetary plasma produces electric fields that are essential for the production of aurora and magnetic storms" [..]

".. the rotation of a conductor in a magnetic field produces an electric field in the system at rest.

[0013] This phenomenon is well known from laboratory experiments and is usually called 'homopolar ' or 'unipolar' induction.

The Faraday disc

[0014] The homopolar generator was developed first by Michael Faraday during his experiments in 1831. It is frequently called the Faraday disc in his honor. It was the beginning of modern dynamos — that is, electrical generators which operate using a magnetic field. It was very inefficient and was not used as a practical power source, but it showed the possibility of generating electric power using magnetism, and led the way for commutated direct current dynamos and then alternating current alternators.

Boeing 737–800

[0015] The Boeing Fuel Cell Demonstrator Airplane has a Proton Exchange Membrane (PEM) fuel cell/lithium-ion battery hybrid system to power an electric motor, which is coupled to a conventional propeller. The fuel cell provides all power for the cruise phase of flight. During takeoff and climb, the flight segment that requires the most power, the system draws on lightweight lithium-ion batteries.

[0016] The demonstrator aircraft is a Dimona motor glider, built by Diamond Aircraft Industries of Austria, which also carried out structural modifications to the aircraft. With a wing span of 16.3 meters (53.5 feet), the airplane will be able to cruise at approximately 100 kilometers per hour (62 miles per hour) on power from the fuel cell.

[0017] Nikola Tesla explored the wireless transmission of energy through his work with radio and microwaves and his creation of the Tesla coil and the magnifying transmitter. In 1898, Tesla demonstrated his radio-controlled boat, which he was able to control remotely. In the 1930s, Tesla claimed to have invented a particle beam weapon, or, as some called it, a "peace ray." The device was, in theory, capable of generating an intense, targeted beam of energy and sending it across great distances to demolish warplanes, foreign armies, or anything else you'd rather didn't exist.

[0018]"ROY J. MEYERS, BRITISH PATENT NUMBER 1098" This invention relates to improvements in apparatus for the production of electrical currents, and the primary object in view is the production of a commercially serviceable electrical current without the employment of mechanical or chemical action. To this end the invention comprises means for producing what I believe to be dynamic electricity from the earth and its ambient elements.

[0019] EDWARD LEEDSKALNIN: MAGNETIC CURRENT - is primarily a teaching device but it has many functions including an electromagnet, this is easy enough to see; it is a

generator—spin a magnet between the coils it will generate electricity; it functions as a transformer; it demonstrates how permanent magnets are made.

Strategic Defense Initiative

[0020] The Strategic Defense Initiative (SDI) was proposed to use ground and space-based systems to protect the United States from attack by strategic nuclear ballistic missiles.

Description of the Related Art

[0021] The present invention relates to a ball bearing assembly structure, an electromagnetic clutch having the ball bearing assembly structure, and a gas compressor equipped with the electromagnetic clutch.

[0022]When operating the gas compressor , the electromagnet of the electromagnetic clutch is energized to attract or adsorb the follower armature plate to an end surface of the prime-mover pulley and join the prime-mover pulley and the rotor shaft, thereby rotating the rotor shaft.

[0023] The ball bearing of the electromagnetic clutch conventionally has used one having an even number of balls per row. Generally, the ball bearing causes vibration and noise due to rotation. In the case of the ball bearing rotating while undergoing a radial load due to a tension of the belt, vibration and noise considerably occur. Particularly when other vibration and noise levels are lowered during engine idling, the vibration and noise of the ball bearing transmitted to the vehicular compartment is not negligible.

[0024] The inventor has conducted various experiments and discovered that the one factor of high vibration and noise level is an even number of balls of the ball bearing. In the ball bearing having

an even number of balls per one row, the balls are in a facing relation to have linear-symmetry arrangement between the inner race and the outer race. The deformation and vibration at a regular particular frequency is caused in the inner and outer races. It is to be considered that the vibration as a source also increases noise.

[0025]The present invention relates generally and in various embodiments to piezoelectric mechanical systems. More specifically, the present invention relates generally and in various embodiments to atmospheric oscillation transducer apparatuses, systems, and methods.

[0026] Although various implementations of the present invention, among many, may be described herein with reference to the specific illustrative embodiments related to particular applications, those skilled in the art will understand that the invention is not in any way intended to be limited to such embodiments and/or applications. Those having ordinary skill in the art and reference to the description of the embodiments herein will recognize additional modifications, applications, and other embodiments falling within the scope of the claimed invention and additional fields in which the present invention may be practiced.

[0027] Digital Radio (also known as Satellite Radio or Satellite Digital Audio Radio Service (SDARS)) is a subscriber-based digital radio service that is broadcast via satellites. Digital radio service provides compact-disc (CD) quality programming that may be digitally transmitted via one or more satellites and/or space stations to one or more Earth-based (terrestrial) digital radio stations, receivers, and/or repeaters. In satellite-based direct-broadcast radio services, digitally-encoded audio program material may be broadcast to terrestrial fixed or mobile digital radio receivers. Fixed receivers may include, for example, stand alone digital radio receivers or digital radio receivers

connected via computer networks, including for example, the Internet. Mobile receivers may include, for example, digital radio receivers located in automobiles, aircrafts, watercrafts, and the like.

[0028] Satellite-based digital audio radio services such as SDARS, for example, may be broadcast to one or more digital radio receivers either directly from an orbiting satellite, or indirectly from one or more repeater stations. Such repeater stations may be useful where the digital radio receiver is located in a shielded location or where there is no direct line of sight between the radio and the satellite. In other digital audio radio services systems, the audio programs also may be transmitted in digital form by one or more space stations directly to fixed, mobile, and/or portable radio stations. Such systems may comprise, for example, orbiting satellites, complementary repeating terrestrial transmitters, telemetry, tracking, and control facilities.

[0029] Combinations of mechanical devices U.S. Pat. Nos. 4,019,073, 6,615,968 and atmospheric system interaction are disclosed in U.S. Pat. Nos. 1,119,732, 787,412, to Nikola Tesla; 28,793 to Charles Vion; and 1,540,998 to Herman Plauson. Lastly, U.S. Pat. Nos. 8,102,078 and US2008/0009240. Agnoff discloses an Oscillating watch winder in U.S. Pat. Nos. 6,543,929, Jennings further discloses an oscillating smart device in application No. 13,572,679.

[0030] As illustrated by a large body of prior art, including the above-noted patents, and a large number of commercial devices, efforts are continuously being made in an attempt to improve helmets, headsets and their methods of fabrication. Nothing in the prior art, however, suggests the present inventive combination of materials and method steps as herein described and claimed. The present invention achieves its purposes, objects and advantages over the prior art through a new,

useful and unobvious combination of components and method steps which improve safety, comfort and noise abatement performance.

[0031] Therefore, it is an object of this invention to provide effectively, the provision of energy such that it meets the needs of the present without compromising the ability of future generations to meet their own needs. ...Sustainable Energy has two key components: renewable energy and energy efficiency.

[0032] It is still a further objection of this invention to promote dynamic harmony between equitable availability of energy-intensive goods and services to all people and the preservation of the earth for future generations." And, "the solution will lie in finding sustainable energy sources and more efficient means of converting and utilizing energy.

[0033] It is a further object of the present invention to produce Green Power Energy: is energy that can be extracted, generated, and/or consumed without any significant negative impact to the environment, green power; as electricity produced from solar, wind, geothermal, biogas, biomass, and low-impact small hydroelectric sources.

[0034] Thus, there is a need for a clean energy system that uses atmospheric electricity.

Prior Art

[0035] Quartz crystals have been in regular use for many years to give an accurate frequency for all radio transmitters, radio receivers and computers. Their accuracy comes from an amazing set of coincidences: Quartz -- which is silicon dioxide like most sand -- is unaffected by most solvents and remains crystalline to hundreds of degrees Fahrenheit. The property that makes it an electronic miracle is the fact that, when compressed or bent, it generates a charge or voltage on its surface. This is a fairly common phenomenon called the Piezoelectric effect. In the same way, if a voltage is applied, quartz will bend or change its shape very slightly.

[0036] If a bell were shaped by grinding a single crystal of quartz, it would ring for minutes after being tapped. Almost no energy is lost in the material. A quartz bell -- if shaped in the right direction to the crystalline axis -- will have an oscillating voltage on its surface, and the rate of oscillation is unaffected by temperature. If the surface voltage on the crystal is picked off with plated electrodes and amplified by a transistor or integrated circuit, it can be re-applied to the bell to keep it ringing.

[0037] The electronics of the watch initially amplifies noise at the crystal frequency. This builds or regenerates into oscillation -- it starts the crystal ringing. The output of the watch crystal oscillator is then converted to pulses suitable for the digital circuits.

Polymers

[0038] Polyvinylidene fluoride (PVDF): PVDF exhibits piezoelectricity several times greater than quartz. Unlike ceramics, where the crystal structure of the material creates the piezoelectric effect, in polymers the intertwined long-chain molecules attract and repel each other when an electric field is applied.

Near Space

[0039] Solar particles become trapped within the Earth's magnetic field and form radiation belts. The Van Allen radiation belt is a torus of energetic charged particles (i.e. a plasma) around Earth, trapped by Earth's magnetic field.

[0040] At elevations above the clouds, atmospheric electricity forms a continuous and distinct element (called the electrosphere) in which the Earth is surrounded. The electrosphere layer (from tens of kilometers above the surface of the earth to the ionosphere) has a high electrical conductivity and is essentially at a constant electric potential. The ionosphere is the inner edge of the magnetosphere and is the part of the atmosphere that is ionized by solar radiation. (Photoionisation

is a physical process in which a photon is incident on an atom, ion or molecule, resulting in the ejection of one or more electrons.)

ADVANTAGES/DISADVANTAGES

[0041] Energy in electronic elements: Electric potential energy, or electrostatic potential energy, is a potential energy (measured in joules) that results from conservative Coulomb forces and is associated with the configuration of a particular set of point charges within a defined system. The term "electric potential energy" is used to describe the potential energy in systems with time-variant electric fields, while the term "electrostatic potential energy" is used to describe the potential energy in systems with time-invariant electric fields.

[0042] Capacitance is the ability of a body to store an electrical charge. Any body or structure that is capable of being charged, either with static electricity or by an electric current, exhibits capacitance. A common form of energy storage device is a parallel-plate capacitor. In a parallel plate capacitor, capacitance is directly proportional to the surface area of the conductor plates and inversely proportional to the separation distance between the plates. If the charges on the plates are +q and -q, and V gives the voltage between the plates, then the capacitance C is given by

$$C = q/V.$$

[0043] The capacitance is a function only of the physical dimensions (geometry) of the conductors and the permittivity of the dielectric. It is independent of the potential difference between the conductors and the total charge on them.

[0044] Piezoelectricity is the combined effect of the electrical behavior of the material:

$D = \epsilon E$

where D is the electric charge density displacement (electric displacement), ϵ is permittivity and E is electric field strength, and

Hooke's Law: $S = s T$

where S is strain, s is compliance and T is stress.

[0045] Polyvinylidene fluoride, or polyvinylidene difluoride (PVDF) is a highly non-reactive and pure thermoplastic fluoropolymer produced by the polymerization of vinylidene difluoride. PVDF is a specialty plastic material in the fluoropolymer family; it is used generally in applications requiring the highest purity, strength, and resistance to solvents, acids, bases and heat and low smoke generation during a fire event. Compared to other fluoropolymers, it has an easier melt process because of its relatively low melting point of around 177 ˚C.

[0046] It has a low density (1.78 mil) and low cost compared to the other fluoropolymers. It is available as piping products, sheet, tubing, films, plate and an insulator for premium wire. It can be injected, molded or welded and is commonly used in the chemical, semiconductor, medical and defense industries, as well as in lithium ion batteries. It is also available as a crosslinked closed cell foam, used increasingly in aviation and aerospace. PVDF has a glass transition temperature (Tg) of about -35 ˚C and is typically 50–60% crystalline. To give the material its piezoelectric properties, it is mechanically stretched to orient the molecular chains and then poled under tension. PVDF exists in several forms: alpha (TGTG'), beta (TTTT), and gamma (TTTGTTTG') phases, depending on the chain conformations as trans (T) or gauche (G) linkages. When poled, PVDF is a ferroelectric polymer, exhibiting efficient piezoelectric and pyroelectric properties. These characteristics make

it useful in sensor and battery applications. Thin films of PVDF are used in some newer thermal camera sensors.

[0047] Copolymers: Copolymers of PVDF are also used in piezoelectric and electrostrictive applications. One of the most commonly-used copolymers is P(VDF-trifluoroethylene), usually available in ratios of about 50:50 wt% and 65:35 wt% (equivalent to about 56:44 mol% and 70:30 mol%). Another one is P(VDF-tetrafluoroethylene). They improve the piezoelectric response by improving the crystallinity of the material.

[0048] While the copolymers' unit structures are less polar than that of pure PVDF, the copolymers typically have a much higher crystallinity. This results in a larger piezoelectric response: d33 values for P(VDF-TrFE) have been recorded to be as high as -38 pC/N versus -33 pC/N in pure PVDF.

[0049] APPLICATIONS: The piezoelectric properties of PVDF are used to advantage to manufacture tactile sensor arrays, inexpensive strain gauges and lightweight audio transducers. Piezoelectric panels made of PVDF are used on the Venetia Burney Student Dust Counter, a scientific instrument of the New Horizons space probe that measures dust density in the outer solar system. PVDF is the standard binder material used in the production of composite electrodes for lithium ion batteries. 1-2% weight solution of PVDF dissolved in N-Methyl-2-pyrrolidone (NMP) is mixed with an active lithium storage material such as graphite, silicon, tin, LiCoO2, LiMn2O4, or LiFePO4 and a conductive additive such as carbon black or carbon nanofibers. This slurry is cast onto a metallic current collector and the NMP is evaporated to form a composite or paste electrode. PVDF is used because it is chemically inert over the potential range used and does not react with the electrolyte or lithium. Piezoelectric elements can be used in laser mirror alignment, where their

ability to move a large mass (the mirror mount) over microscopic distances is exploited to electronically align some laser mirrors. By precisely controlling the distance between mirrors, the laser electronics can accurately maintain optical conditions inside the laser cavity to optimize the beam output. Piezoelectric sensors especially are used with high frequency sound in ultrasonic transducers for medical imaging and also industrial nondestructive testing (NDT).

[0050] For many sensing techniques, the sensor can act as both a sensor and an actuator – often the term transducer is preferred when the device acts in this dual capacity, but most piezo devices have this property of reversibility whether it is used or not. Ultrasonic transducers, for example, can inject ultrasound waves into the body, receive the returned wave, and convert it to an electrical signal (a voltage). Most medical ultrasound transducers are piezoelectric.

[0051] Advantageously, Sustainable energy is the sustainable provision of energy that meets the needs of the present without compromising the ability of future generations to meet their needs. Technologies that promote sustainable energy include renewable energy sources, such as hydroelectricity, solar energy, wind energy, wave power, geothermal energy, and tidal power, and also technologies designed to improve energy efficiency.

[0052] This sequence of oscillations causes the rotor within the watch to spin rapidly thereby winding the watch in a manner closely simulating the spinning of the rotor that occurs during normal winding of the watch when the watch is worn by a user. Due to the forces that are exerted, the rotor spins around the watch shaft during the oscillations, as opposed to the partial rotation observed in prior art mechanisms. Therefore, the time required to wind the watch, and the energy required, is substantially reduced. Moreover, since the rotor is spinning about the shaft, as opposed to merely

being held in a downward position while the watch is rotated, winding more closely approximating the design mechanism is achieved, thereby putting less wear on the watch.

[0053]This invention relates to satellite communications systems using multiple spot beams from a geosynchronous earth orbit satellite to provide selective coverage of the continental United States and, more particularly, relates to a system having a satellite receiving hub in every spot beam that allows for asynchronous communications between each hub and the satellite for maximizing frequency re-use.

[0054] These purposes, objects and advantages should be construed as merely illustrative of some of the more prominent features and applications of the present invention. Many other beneficial results can be obtained by applying the disclosed invention in a different manner or by modifying the invention within the scope of the disclosure. Accordingly, other purposes, objects and advantages as well as a fuller understanding of the invention may be had by referring to the summary herein mentioned and detailed description describing the preferred embodiments of the invention, in addition to the scope of the invention, as defined by the claims, taken in conjunction with the accompanying drawings.

SUMMARY OF THE INVENTION

[0055] In one general respect, an embodiment of the present invention is directed to a system. The system includes a Power Frequency broadcast station, a receiver, and a network. The Power Frequency broadcast station includes a transmitter and a server. The receiver is in communication with the Power Frequency broadcast transmitter and also includes a user interface for receiving user input commands comprising a request for information from the Power Frequency broadcast station.

[0056] The receiver is configured to establish a two-way communication path between the receiver and the Power Frequency broadcast transmitter. The network is in communication with the server and the receiver for exchanging information therebetween. The request for information is provided to the server via the network and the server is configured to receive the request and transmit a response message to the receiver in accordance with the request.

Continuously outboard recharged electric vehicle (COREV)

[0057] Given suitable infrastructure, permissions and vehicles, BEVs (battery electric vehicles) can be recharged while the user drives. The BEV establishes contact with an electrified rail, plate or overhead wires on the highway via an attached conducting wheel or other similar mechanism (see Conduit current collection). The BEV's batteries are recharged by this process—on the highway—and can then be used normally on other roads until the battery is discharged. Some of battery-electric locomotives used for maintenance trains on the London Underground are capable of this mode of operation. Power is picked up from the electtrified rails where possible, switching to battery power where the electricity supply is disconnected.

[0058] The present invention is directed to overcome the disadvantages of the prior art. The invention is a mechanism which taps into the naturally occurring static electricity in the atmosphere. Whereas heretofore, the attempt to garner electricity from the atmosphere has focused exclusively on capturing lightning, the present invention syphons off the static electricity which is generated from any agitated air and voids lightning.

[0059] Lightning is only the final discharge of the static electricity, whether that lightning is intra-cloud lightning, cloud-to-ground lightning, or inter-cloud lightning. Other types of final discharges are known as heat lightning, summer lightning, sheet lightning, ribbon lightning, silent lightning, ball lightning, bead lightning, elves, jets, and sprites. Well before these discharges are observed, as the atmosphere becomes agitated by wind or thermal, static electricity is being generated. The present invention recognizes that this static electricity is being formed and creates a mechanism to capture it.

[0060] In the preferred embodiment, a sensor array is used to monitor the activities both at the base unit (such as electrical flow within the conductor) and in the surrounding locale. A sensor monitoring the electrical flow (i.e. voltage and/or current) within the conductor is used to monitor the electrical activity within the conductor.

[0061] In the preferred embodiment, a lightning sensor monitors for lightning activity within the locale. As noted earlier, the electrical characteristic of lightning is so extreme that ideally this discharge is avoided as it might damage the mechanism of this invention. The sensor array is utilized by a controller, such as microprocessor, programmed to operate the mechanism as outlined herein.

[0062] The controller operates ~~the winch~~ motor ~~to extend or withdraw the conductive line and by extension the altitude of the balloon~~. The controller is programmed to operate ~~the winch by~~ monitoring the electrical characteristics of the conductor and ~~adjusting the balloon's altitude~~ to maintain these characteristics within the conductor within a preset range.

[0063] This preset range is established either in the base programming of the controller or is established by an operator of the system. As example, by controlling the amount of current being withdrawn from the atmosphere, the mechanism operates within a safe range and also provides a

relatively stable current flow from which a variety of activities can take place (such as DC-AC conversion).

[0064] The controller also utilizes the lightning sensor to protect the mechanism from a lightning strike. Should lightning be detected within a pre-determined range (as established by the software or defined by an operator), then the balloon is pulled down to minimize the risk of damage from a lightning strike.

[0065] Another aspect of the invention relates to the electrical system which accepts the fluctuating atmospheric charge and changes it into an acceptable configuration for either the desired load or for the existing power grid.

[0066] Power grids in the United States operate with a frequency of 60 hertz in an alternating current arrangement. While this basic configuration seems to be universally accepted, the voltage within the grid varies dramatically, such as 15 kv, 34 kv, 69 kv, and even 112 kv.

[0067] Each atmospheric generator is placed proximate to or within easy access to a specific grid; this establishes the required electrical output configuration (i.e. that which is accepted by the power grid). As example, one of the atmospheric electrical collector units as described above collects the atmospheric electrical power as direct current and then supplies the appropriate power grid a specific flow (as example, AC, 60 hertz, at 69 kv).

[0068] The difficulty lies the fact that the DC current being garnered from the atmosphere varies depending on the actual agitation being generated in the atmosphere. This means that the source of DC current is fluctuating.

[0069] The present invention uses a monitoring system which checks the input DC voltage. Depending on the actual voltage being received, the appropriate converter is connected to the input DC voltage so that the desired output is obtained.

[0070] As example, suppose the DC input voltage is 1500 volts, the monitoring system, sensing this input, closes the switch connecting the DC voltage to a converter which accepts DC voltage in the range of 1000-2000 volts which then delivers an AC, 60 hertz 69 kv signal to the power grid. If the DC input voltage increases to 2100 volts, then the monitoring system opens the switch to the first converter (1000-2000 volts) and closes the switch to a second converter (such as 2000-4000 volts) to deliver the desired output of AC (60 hertz, 69 kv) for the power grid.

[0071] In this manner, regardless of the fluctuating input DC voltage, the electrical grid is supplied with a fully configured electrical input conforming to the needs of that specific electrical grid.

[0072] Another aspect of the present invention is the use of a tower or permanent structure instead of an aircraft. In this embodiment, the building or tower is electrically isolated from the ground and a rod (similar to a lightning rod) is extended into the atmosphere. The rod collects the atmospheric charge which is conveyed via an electrical conduit (ideally insulated) where the collected DC charge is reconfigured to meets the need of the locale.

[0073] In this context, for one embodiment of the invention, a tower is placed onto the top of a building. The tower is electrically isolated from the building using such mechanisms well known to those of ordinary skill in the art such as rubber mats. A rod ideally extends from the top of the tower to facilitate the collection of the DC electrical energy.

[0074] Piezoelectricity is a material property that is manifested when voltage is produced by applying mechanical forces, and vice versa, the effect has been described as direct and converse. Piezoelectricity has been described as coupling between a quasi-static electric field and dynamic mechanical motion.

[0075] A piezoelectricity converter mechanism such as described above, is connected to the tower to flow the DC electricity to a converter which modifies the DC current for the specific application. In one application, the DC current is converted to the electrical needs of the building, thereby providing at least some of the electrical requirements of the building itself.

[0076] As noted earlier, the dynamic converter system of the present invention allows a power generator to address a variable voltage in an efficient manner. This makes the dynamic converter system ideal for a variety of alternative energy sources such as the above described atmospheric electrical generator and other alternative energy sources such as wind and wave powered systems. In these systems, the energy being generated must be converted to a proper electrical configuration for a identified load. This may be a particular motor or connection to the power grid which act as a load to the power generating mechanism.

[0077] For these energy generating systems, the converter assembly of this invention utilizes multiple converters. Each converter is configured to accept a unique range of voltages and from these

voltages, create the desired electrical configuration. By using multiple converters, a full range is available, from a minimum voltage input to a maximum voltage input.

[0078] The present invention can include systems and methods for integrating sensors for tracking atmospheric transducer system performance metrics into media devices and accessories therefor, thereby reducing or eliminating the need for additional independent monitoring devices. In one embodiment of the present invention.

[0079] It also is known to provide such transducers with connectors to allow their rechargeable batteries to be charged. In some cases, the connector is a Universal Serial Bus (USB) connector, allowing the transducer to be charged by plugging it into the USB port of a computer, grid circuit or other device.

[0080] These and other objects and advantages of the invention will appear more clearly from the following description in which the preferred embodiment of the invention has been set forth in conjunction with the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0081] FIG. 1 Prior Art depicts perspective view of Electric currents created in sunward ionosphere;

[0082]FIG. 2 is a box flow chart of the propulsion cycle systems present invention;

[0083] FIG. 3 is an top view of the piezoelectric disk cylinder orb of the present invention;

[0084] FIG. 4 is a longitudinal sectional view showing an embodiment of this cylinder invention;

[0085] FIG. 5 is a top view of the (ATS) slip rotor piezoelectric chamber of the present invention;

[0086] FIG. 6 is an alternate top view of the piezoelectric cylinder orb of the present invention;

[0087] FIG.7 - 10 elevation views of spine piezo stacks embodiments of the present invention;

[0088] FIG.11 illustrates one embodiment of a power service (ATS) system architecture;

[0089] FIG. 12 is a block diagram of the ATS charge schematics systems of the present invention;

[0090] FIG. 13 is a block diagram of an ATS charge and recycle schematics of the present invention;

[0091] FIG. 14 is a top view of the piezoelectric ball race cylinder of the present invention;

[0092] FIG. 15 is a side view of the piezoelectric housing and gear of the present invention;

[0093] FIG. 16 is a side view of a multiple piezoelectric ball race cylinder of the present invention;

[0094] FIG. 17 is another embodiment of the piezoelectric stack ball of the present invention;

[0095] FIG. 18 & 19 are antenna rod transmit device embodiments of the (ATS) present invention;

[0096] FIG. 20 illustrates substation embodiment of the power service (ATS) system architecture;

[0097] FIG. 21 illustrates a home embodiment of the power service (ATS) system architecture;

[0098] FIG. 22 illustrates a window embodiment of the power service (ATS) system architecture;

[0099] FIG. 23 is (ATS) shock device in accordance with an embodiment of the present invention;

[00100] FIG. 24 is (ATS) shock device in accordance with an embodiment of the present invention;

[00101] FIG. 25 is (ATS) motorcycle device embodiment of the present invention;

[00102] FIG. 26 is (ATS) axle device in accordance with an embodiment of the present invention;

[00103] FIG. 27 is (ATS) train device in accordance with an embodiment of the present invention;

[00104] FIG. 28 is (ATS) plane device in accordance with an embodiment of the present invention;

[00105] FIG. 29 is (ATS) boat device in accordance with an embodiment of the present invention;

[00106] FIG. 30 is (ATS) solar device in accordance with an embodiment of the present invention;

[00107] FIG.31 a (ATS) turbine device in accordance with an embodiment of the present invention;

[00108] FIG. 32 is (ATS) auto body panel device embodiment of the present invention;

[00109] FIG. 33 is (ATS) motorcycle body fairing panel device in of the present invention; and

[00110] FIG. 34 is (ATS) cross section view of body embed panel device of the present invention.

DETAILED DESCRIPTION

[00111] Oscillations causes the conductive rotor within piezoelectric molded housing device to spin rapidly thereby winding the mechanism in a manner closely simulating the spinning of the conductive rotor that occurs during normal electric activity when the device is activated. Due to the forces that are exerted, the conductive rotor spins around the piezoelectric cylinder device shaft during the oscillations, as opposed to the partial rotation observed in prior art mechanisms. Therefore, the time required to charge the Atmospheric Transduction System (ATS) device, and the energy required, is substantially reduced. Moreover, since the rotor is spinning about the shaft, as opposed to merely being held in a downward position while the ATS device is rotated, recharging more closely approximating the design mechanism is achieved, thereby putting less wear on the ATS chamber device. Innovative Piezoelectric housing and ball bearing, coupler and book spine stacks. There relies the notion of negative ground electricity and positive aerial electricity which is in abundance. This invention substantiates land vehicles recycle recharge by reverse oscillation. Aerial vehicles recycle recharge by forward oscillation in accumulation of environmental positive and negative electricity. These aforementioned activities are integral or synchronous with frequency.

[00112] PRIOR ART FIG.1 Electric currents created in sunward ionosphere. **Fig.2** is a recycle box flow chart **49** of a self propulsion unit consisting of a battery **27** , engine **29** and piezoelectric transducer **33** unit. **Fig.3** is a multiple disk **31** load part **51** about a 360 degree cylinder **45** and shaft **44**. **Fig.4** is a piezoelectric molded device **100** housing **110** containing a ball bearing race **104**, disk stacks capacitor **102** and conductive rotor **46**. **Fig.5** is a piezoelectric chamber **120** configuration including a counterweights **50**, shaft **44**, conductive slip rotor **106**. **Fig.6** is an alternate part **200** chamber cylinder **201** embodiment containing piezoelectric spine disk stack capacitors **102**. **Fig.7-**

10 are variations of spine **107,108,109,110** case piezoelectric stack capacitor **102** with plate and ball heads. **Fig.11** Various embodiments of the present invention, among others, will now be described with reference to the accompanying drawings. Accordingly, **FIG. 11** illustrates an embodiment of a Atmospheric Transduction (ATS) System **300** architecture. The system **300** may include, for example, a satellite broadcast station **318** that transmits signals **333** containing frequency content from a geostationary satellite **318** by way of airplane antenna **326**. In turn, the satellite **318** transmits line-of-sight (LOS) signals **333** to one or more ATS terrestrial frequency power receiver farms **314**. The system **300** also may include one or more terrestrial repeaters **316** which receive and retransmit the satellite signals **333** as repeater signals **323** to facilitate reliable reception in geographic areas where LOS reception from the satellite **318** is obstructed by tall buildings, hills, tunnels, and other similar impediments to the signals **333**. The ATS receivers **314** maybe designed to receive one or more signals **333** from the satellite **318** and/or from the terrestrial repeater transceiver **316**. In operation, such ATS receivers **314** may receive both the satellite signals **333** and the repeater signals **323**. The receivers **314** also may be located in mobile environments **320, 321**, **322** which include, but are not limited to, land vehicles **321, 322**, aircraft **320**, watercraft **900**, and handheld devices, among others. The receivers **314** also may be fixed in stationary antenna satellites **332** units for residential use (e.g., home **325**,**750** entertainment, etc.) or commercial **309**, use (e.g., business **314**, office **700**, security accentuation **328**, etc.). The power frequency broadcast station **318** also may be in communication with a grid network **342**. Two-way communication between the ATS receivers **314** and the power frequency broadcast station **318** may occur via the network **342**. Furthermore, information feedback from the power frequency broadcast station **318** may be transmitted to the ATS receiver **314** both by way of the network **342** as well as via the satellite antenna **332**. Information

also may be transmitted to the power broadcast station **318** wirelessly via a wireless network **342,707** by way of transducer tower **362**.

[00113] Further disclosed in **Fig. 12** and **Fig.13** (in block diagrams **400, 500**) are electrical schematics for handling the static charge from the atmosphere. By maintaining the voltage being collected in a prescribed range, an electrical conversion system is easily designed. While **FIGS. 12**, and **13** illustrate some electrical configurations, those of ordinary skill in the art readily recognize a variety of other configurations which will serve the same function.

[00114] Referencing **FIG. 12**, direct current in (DC IN) **401** is buffered by a gang of capacitors **410** before being communicated to a DC/AC converter **420**. The DC/AC converter **420** converts the direct current into a an alternating current suitable for placement over an existing electrical grid **430** such as normally found from a power-plant. **FIG. 12** Also illustrates an electrical arrangement suitable for use in charging a battery **440**. DC IN **401** is buffered by capacitor **410** bank before entering into a step down transformer **435**. Step down transformer **435** reduces the voltage so that the voltage can safely be introduced into battery **440** which is connected to ground **450** at the battery's other pole. In **FIG. 12**, DC IN **401** is fed into an adjustable rheostat **460** which is controlled by the controller **465** so that the DC OUT **470** falls within a computer **475** monitored and sensor **480** specified range. **Fig.13** Hypothetically, unused energy may be recycled current **501** and/or recaptured by reversing the oscillated spin rotation of devices **51, 100, 120** with the use of a rectifier **502** and Step up transformer **503**, returned to grid **430** capacitor **410**. This theory lends itself to the concept of positive and negative frequency. **Fig.14-17** Self charging propulsion embodiment of the invention where Da Vinci's ball race **510,512** is combined with a disk cylinder **45** and **513** stack balls **525,** conductive rotor **46**, **511** tooth gear **515** and piezoelectric molded housing **555**. **Fig.18 & 19** Improvement structures Franklin's lightening rod **600,603** and a molded vibration transducer **601**

quasi replicating Vion's tubes and piezoelectric spine stacks capacitor **602** improving Tesla's Atmospheric transmit device. **Fig.20** is an atmospheric receiving building sub station **700** where energy is consumed and excess rendered to the grid **707** by conductive rotor **702** transducer **710,** tower transducer**703**, antenna rod **701** and transducer windows **704**.

[00115] FIG. 12 and **Fig.2** flowchart illustration also includes battery **440**. Battery **440** may provide electrical power to components of ATS devices within **Fig.11**. Charging circuitry may also be provided to charge battery **440** when an external power supply is connected to an ATS device **100**. **Fig.14-17** eliminates one or more steps by presenting a self charge retaining transducers **510,511,512,513** may be configured with an accelerator sensor **480** controller **465** and gears **515,** provide reciprocal power incorporated within piezoelectric molded and ceramic housing **555** along with stack balls **525** and cylinder **545**. This assembly more resembles a motor by characteristics given power with application.

[00116] In operation, as illustrated in **FIGS. 2-20** and **FIGS. 21-34** , is periodically energized by movement to rotate Orb in either a clockwise or counterclockwise direction. The length of time or activity is energized, and the length of time between the period when the capacitor **31, 102** battery is energized, will depend on the particular ATS device design. As the Orb rotates, the outer end of the disk moves along a 360˚ circular pathway to push against with forward and rearwardly spinning. Upon engagement of the Orb, ATS device disk is rotated until carried to the apex or top of the circular pathway. Upon reaching the apex, the gravitational and vibrational force or counterweight **50** promotes additional oscillation. ATS device movement rapidly rotate on Orb at a rotational speed greater than the speed of rotation of Orb. Counterweight **50** is then carried beyond the bottom or lowest point of the pathway by its momentum to a point near the apex on the opposite side of the pathway. The cycle is repeated through multiple increasing oscillations of the ATS device until

counterweight **50** stops at the bottom position, or until once again engages to again move counterweight to the top of its circular pathway.

[00117] FIG. 2 is a flow chart showing generation of energy using a rotor according to one or more of the above-described embodiments. First, battery **27** starts the engine **29** and/or mobile transducer **33** is oscillated. In response to this acceleration, forces are imposed on one or more rotation piezoelectric devices. In response to those forces, the piezoelectric devices output electrical energy, which energy is extracted at a power controller **465**. The power controller **465** sensor **480** then makes this energy available to recharge a capacitor **410** battery **440** and/or to electronic components of the mobile terminal. Although **FIG.2** shows a serial flow of events, it is to be appreciated that the events of blocks **33**, **27** and **29** occur substantially instantaneously upon acceleration of the mobile terminal.

PREFERRED ALTERNATE EMBODIMENTS

[00118]The present invention (ATS) device in accordance with an embodiment of the present invention overcomes the foregoing problem in the conventional art and provides an electro energy vibration and alternative to gas, oil or fossil fuel consumption in **Fig.21** homes **750** transducer **755, Fig.28** airplane **880** transducer **801**, **Fig.27** train **860** transducer **801**, **Fig.32** auto **950** transducer **910**, **Fig.25** and **Fig.33** motorcycles **960,850** transducers **799, 802, 810**, **910** and **Fig.29** boat **900** transducers **901,910**.

[00119] In order to solve the foregoing problems in the conventional art, the present invention provides an electro transducer having a ball bearing assembly which is compatible with **Fig.26** axle shaft **44** transducer **810** wheel **870** assembly. In order to solve the foregoing problems in the

conventional art, the present invention provides an electro transducer having an **Fig.34** housing panel **980** transducer **910** assembly which is compatible with an exterior body assembly. Thereby, an Atmospheric transducer device may be shock **800, 803** integrated as within the **Fig.23** coupler **802,** and **Fig.24** ladder **799,** (vertical friction) piezoelectric absorbers assemblies. In order to solve the foregoing problems in the conventional art, the present invention provides an electro transducer having a capable flat assembly which is compatible with **Fig.22** window **704** disk **31** plate transducer **714**, **Fig.30** solar panel **920** transducer **910**, **Fig.31** wind turbine **930** transducer **910** assembly. This invention provided **Fig.3** piezoelectric plate disks **31**, **Fig.7-10** spine piezoelectric disks stacks **107,108,109,110** capacitor **102**, **Fig.17** piezoelectric stack balls **525** capacitor, the arrangement of balls **525** will not be in a facing relation. The deformation in the inner and outer races during rotation of the ball bearing while undergoing a radial load is made irregular and complicated. The spine eliminates the deformation and vibration level increased by a combination of ceramic and molded piezoelectric materials at a regular predetermined frequency thereby multiplying the level of vibration and noise reduction.

[00120] Certain modifications and improvements will occur to those skilled in the art upon a reading of the foregoing description. It should be understood that all such modifications and improvements have been deleted herein for the sake of conciseness and readability but are properly within the scope of the following claims.

[00121] Thus it is seen that an atmospheric transducer device may be integrated and/or provided. It will be understood that the foregoing is only illustrative of the principles of the invention, and that various modifications can be made by those skilled in the art without departing from the scope and spirit of the invention, and the present invention is limited only by the claims that follow.

Electronic Acknowledgement Receipt

EFS ID:	21066417
Application Number:	13692121
International Application Number:	
Confirmation Number:	7639
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
Filer:	James Edward Jennings
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	26-DEC-2014
Filing Date:	03-DEC-2012
Time Stamp:	10:39:20
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Applicant Arguments/Remarks Made in an Amendment	ATS_LIST_LETTER.pdf	37883 138b3fd64c27f556bf955933a158772b3036131a	no	4

Warnings:	
Information:	

2	Drawings-only black and white line drawings	ATS_AMEND_DRAW.pdf	157592 3216e75cd553f1e0187ae99f025eb098b3e3ec7e	no	1
Warnings:					
Information:					
3	Supplemental Response or Supplemental Amendment	ATS_MARKED_SPEC.pdf	145029 eb14489d11e43a5f155fda107215b865699f88e6	no	30
Warnings:					
Information:					
4	Specification	ATS_CLEAN_SPEC.pdf	143952 489e64df8bda6a120429652ad8c3c6cde8bcb55f	no	30
Warnings:					
Information:					
			Total Files Size (in bytes):	484456	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Serial No.: 13/692,121
Filing Date: 12/03/2012
Confirmation No.: 7639
GAU:2837

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: JENNINGS, James Edward

SERIAL NO.: 13/692,121 FILING DATE: December 3, 2012

TITLE: ATMOSPHERIC TRANSDUCTION SYSTEM

GROUP ART UNIT: 2837 EXAMINER: ROSENAU, DEREK

Box AAF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

RESPONSE/AMENDMENT

Dear Examiner Rosenau

This correspondence is being filed as a Response to the office action summary issued on November 10, 2014. Applicant requests entry of the amendments indicated below and consideration of the appended Remarks.

Amendments to the Specification begin on Page 2 of this paper and include both an attached Substitute Specification and an Annotated Substituted Specification showing changes. Amendments to the Drawings begin on Page 2 of this paper and include both an attached set of Replacement Sheets and set of Annotated Sheets showing changes. Remarks begin on Page 2 of this paper.

AMENDMENTS TO DRAWINGS & SPECIFICATION

Please replace the previously submitted Specification with the attached Substitute Specification.

Attachments: Substitute Specification

Substitute Specification (Annotated Showing Changes)

AMENDMENTS TO THE DRAWINGS:

All of the Replacement Sheets reflect formal drawings to replace the informal Numbered drawings previously submitted.

Attachments: Replacement Sheets (1)

REMARKS

Applicant has amended the Specification in the present Application to comply with the Examiner's request for the same. Applicant has made these amendments by way of the attached Substitute Specification. No new matter has been entered by way of these amendments.

Applicant has amended the Drawings Numbers in the present Application to formalize the entire set of Figures. In the process, certain amendments to the Drawings were required to clarify the features originally shown in the Drawings. No new matter has been entered by way of these amendments.

3.COMMERCIAL REPLACED BY 309

4. SECURITY ACCENTUATION 328

5. 360 IS A ROD

6. CORRECTED: BROADCAST STATION 318, AND ATMOSPHERIC ELECTRICITY 313

7. 513 IMAGE# AND 525 ELEMENT#

8.545 (PARAGRAPH 00115), 362 (PARAGRAPH 00112), 803 (PARAGRAPH 00119)

9.(0083) and (0084) INSERT "CYLINDER"

10. ACCENTUATION (PARAGRAPH 00111)

11.ALL ARE ELIGIBLE BECAUSE AN APPLICATION DOES NOT REQUIRE DRAWINGS

12. CORRECTED VIEWS 510-513 REPLACED BY **510,511,512,513**, 799/802 -VARIATIONS

13. CORRECTED

14. CORRECTED

15. REMOVED

16. CORRECTED except for abbreviations

17. CORRECTED

18. Corrected (1.78 mil)

19. CORRECTED

20. CORRECTED

MY CORRECTION: ELEMENT 332 WAS OMITTED.

Conditional Request For Constructive Assistance

If for any reason this application is not believed to be in full condition for allowance, applicant respectfully request the constructive assistance and suggestions of the examiner pursuant to M.P.E.P.§ 2173.02 and § 707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Applicant respectfully requests reconsideration of the application and its passage to allowance. Should any impediments to allowance remain, Applicant requests that the Examiner contact the undersigned at the indicated phone number.

Respectfully submitted, James Jennings

/JAMES EDWARD JENNINGS/

Date: 12/26/2014 By:_____

PO Box 270081 Louisville, CO 80027
303.664.1829

REPLACEMENT SHEET

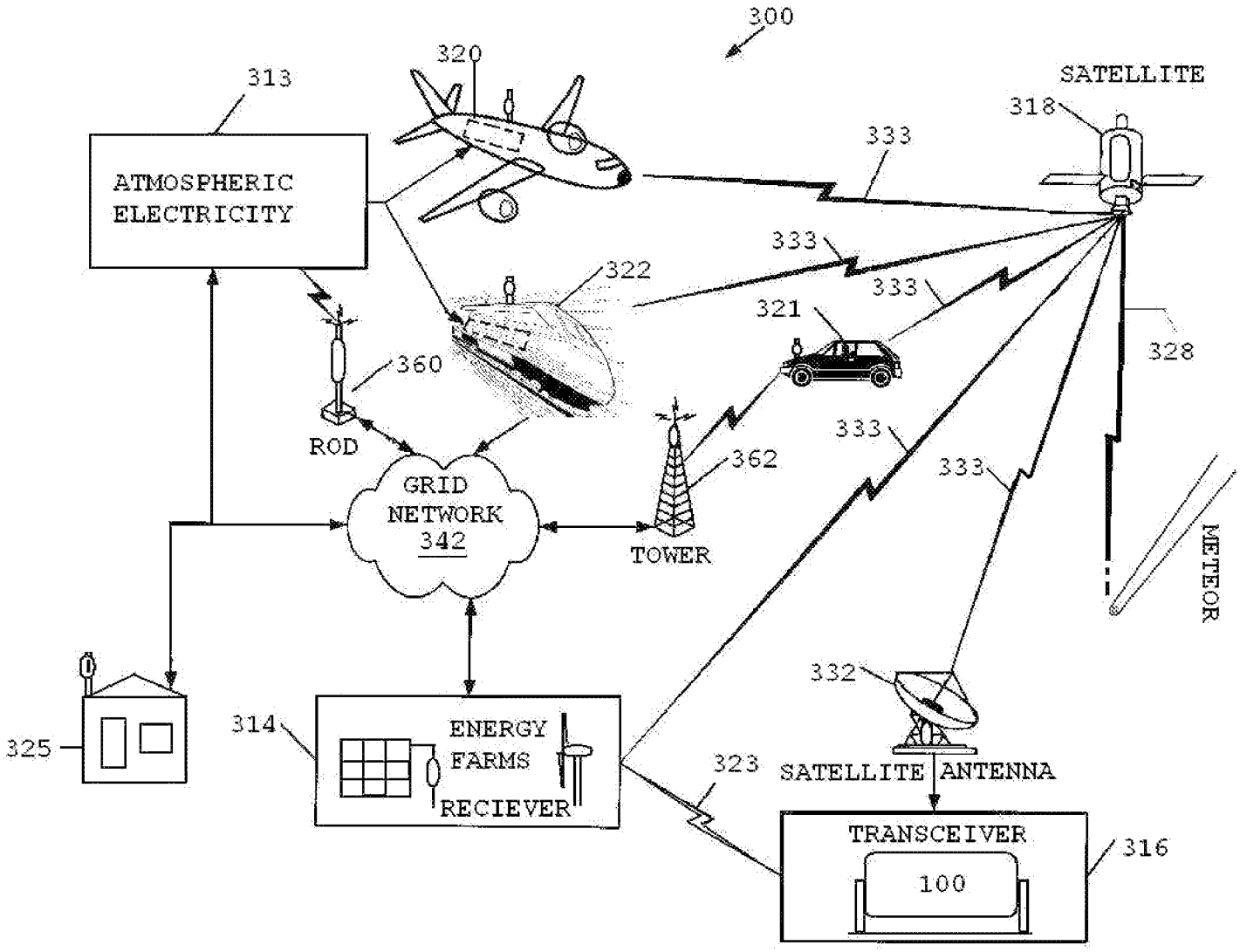

FIG.11

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 13/692,121	Filing Date 12/03/2012	☐ To be Mailed

ENTITY: ☐ LARGE ☐ SMALL ☒ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	12/26/2014	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 3	Minus	** 30	= 0	X $20 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X $105 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	0

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

SLIE
/HELENA PAYTON/

UNITED STATES PATENT AND TRADEMARK OFFICE

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Alexandria, Virginia 22313-1450
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/692,121	12/03/2012	JAMES EDWARD JENNINGS		7639

82669 7590 11/10/2014

James Edward Jennings
P.O. Box 270081
Louisville, CO 80027

EXAMINER	
ROSENAU, DEREK JOHN	

ART UNIT	PAPER NUMBER
2837	

MAIL DATE	DELIVERY MODE
11/10/2014	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. 13/692,121	Applicant(s) JENNINGS, JAMES EDWARD	
	Examiner Derek Rosenau	Art Unit 2837	AIA (First Inventor to File) Status No

-- 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* MONTHS 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 *27 May 2014*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

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) *4-6* 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) *4-6* is/are rejected.

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

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

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☒ The specification is objected to by the Examiner.

11)☒ The drawing(s) filed on *3 December 2012* 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).

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).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

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) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

DETAILED ACTION

1. The present application is being examined under the pre-AIA first to invent provisions.

Information Disclosure Statement

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “328” has been used to designate both “commercial” and “security. 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.

4. The drawings are objected to because the drawings show numeral 328 as corresponding to a meteor, but is identified in the specification as “commercial” and “security”. 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. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. 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.

5. The drawings are objected to because the drawings show numeral 360 as corresponding to a rod, but is identified as “commercial” in the specification. 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. The figure or figure number of an

amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. 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.

6. The drawings are objected to because the drawings identify numeral 318 as “atmospheric electricity,” but is identified as a satellite broadcast station in the specification. 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. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. 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.

7. The drawings are objected to because figure 17 appears to identify the same component with two reference numerals (513 and 525); therefore, it is unclear if what is shown in figure 17 is "stack balls" or "disk cylinder". 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. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. 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.

8. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 362, 545, 803. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) 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.

9. The drawings are objected to because figures 4 and 5 purport to show a "piezoelectric molded device" and "piezoelectric module," but is unclear from the drawings, and their accompanying description, which element is the piezoelectric element. 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. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. 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.

10. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the piezoelectric features (e.g., “means for piezoelectric production of direct current energy comprising frequency”, “means for piezoelectric transmittal of direct current energy comprising frequency”, “means for piezoelectric receivable of direct current energy comprising frequency”, each of the elements in the lists in claims 5 and 6, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

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. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. 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.

11. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, each element of every list in the claims must be shown or the feature(s) canceled from the claim(s). The claims include several lists that correspond to the various features of the claims, including many elements in those lists that are simply generically stated elements. Each element in every list must be shown in the drawings, including how each of those elements is connected with the remaining elements of the device. No new matter should be entered.

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. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

of the remaining figures. 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.

Specification

12. The disclosure is objected to because of the following informalities. The specification repeatedly identifies reference numerals with descriptions that are different from each other. For instance, 799 is identified as a “ladder” and "transducer", 802 is identified as a “coupler" and “transducer”, and 510-513 are each identified in multiple ways. Each reference numeral should include only a single identification that is used consistently throughout the specification

Appropriate correction is required.

13. The disclosure is objected to because of the following informalities. Paragraph 10 indicates that there is an image to the right. No such image appears in the specification, as images in patent documents do not appear alongside text.

Appropriate correction is required.

14. The disclosure is objected to because of the following informalities. Paragraph 19 references perpetual motion, which is a scientific impossibility. As such, it should be removed from the specification.

Appropriate correction is required.

15. The disclosure is objected to because of the following informalities. Paragraph 29 identifies patent number “6902513” as belonging to Nikola Tesla. However, this patent number appears to incorrect

Appropriate correction is required.

16. The disclosure is objected to because of the following informalities. Paragraphs 31, 32, and 114 include word in the middle of sentences that are capitalized incorrectly.

Appropriate correction is required.

17. The disclosure is objected to because of the following informalities. IN paragraph 32, it appears that “objection” should be “object”

Appropriate correction is required.

18. The disclosure is objected to because of the following informalities. Paragraph 46 includes a numerical value for a density without the appropriate units.

Appropriate correction is required.

19. The disclosure is objected to because of the following informalities. Paragraph 62, includes a discussion of "the balloon". However, there is no prior discussion of any balloons, so it is unclear to what this is referring.

Appropriate correction is required.

20. The disclosure is objected to because of the following informalities. At paragraph 111, the detailed description appears to be missing text prior to paragraph 111. The text starts with "this sequence" with no discussion of the sequence prior to that text.

Appropriate correction is required.

21. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

22. Claim 4 is objected to because of the following informalities: the phrase "means for piezoelectric receivable" is grammatically incorrect. Appropriate correction is required.

23. Claim 4 is objected to because of the following informalities: the phrase "means for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid" is grammatically incorrect. Appropriate correction is required.

Claim Rejections - 35 USC § 112

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

> (a) IN GENERAL.—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 or joint inventor of carrying out the invention.

The following is a quotation of the first paragraph of pre-AIA 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.

25. Claims 4-6 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the enablement requirement. The claim(s) contains

subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims each require some combination of piezoelectric features and the atmospheric transduction system. However, the discussion of the piezoelectric features in the specification is very limited, and includes no discussion of how these features are interconnected with the atmospheric transduction system. There appears to be no discussion of means for "piezoelectric transmittal" or "piezoelectric receivable" at all. There is some discussion of the theory of piezoelectric devices, and some very brief references to piezoelectric elements that are allegedly shown in the drawings. However, there is not sufficient detail in the drawings or in the specification such that one of ordinary skill in the art to be able to identify which feature or features are piezoelectric, how they are used, and how they are connected and used with the remaining elements of the device, such as the atmospheric transduction system.

26. The following is a quotation of 35 U.S.C. 112(b):

> (b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:

> 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.

27. Claims 4-6 rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

28. With respect to claim 4, it is unclear what is meant by both "means for piezoelectric transmittal" and "means for piezoelectric receivable". In both cases, it is unclear what is meant by these phrases, as piezoelectric elements do not transmit or receive electrical energy in the standard meaning of the terms. Piezoelectric elements may be components of circuits/components that transit or receive electrical energy, but do not transmit or receive electrical energy themselves.

29. With respect to claim 4, it is unclear what is meant by “means for self-charging propulsion provides motor characteristics, and frequency engine”

30. With respect to claim 4, it is unclear what is meant by “means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity”.

31. With respect to claim 5, it is unclear what is meant by “wherein said means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, an electrical conversion broadcast network circuit comprises piezoelectric transducer molded device housing, disk rotor, stack ball bearing, coupler, book spine stacks, laser and antenna rod stacks” as it is not clear to which feature the “comprises” is intended to refer.

32. With respect to claim 5, it is not clear what is meant by piezoelectric circuitry. The circuitry itself is not piezoelectric. If applicant intends to refer to circuitry for a piezoelectric element(s), this should be clarified.

33. With respect to claim 5, it is unclear what is meant by "where said means for charging providing satellite characteristics, said power frequency satellite comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball and transceiver". This language does not make any sense. It is unclear what “providing satellite characteristics” could mean. It is unclear what a “power frequency satellite” is, much less how it could include any of the various elements in the list. It is unclear what a “stack ball” is.

34. With respect to claim 5, it is unclear what is meant by “wherein said means for charging providing security characteristics, said frequency laser comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball, mirrors, coupler, beam and laser”. Again, this does not make any sense. It is unclear what "providing security characteristics" could mean. It is also unclear what a "a frequency laser” is, and how it could include any of the various elements in the list.

35. With respect to claim 5, it is unclear what is meant by “for propulsion”. It is unclear if there is a typographical error regarding the words “for propulsion,” as they do not appear to logically correspond to the preceding portion of the claim.

36. With respect to claim 6, the first 5 sections of the claim appear to be just lists of alternate elements, some of which may be interconnected, some of which may not, and some of which cannot coexist in the same device. It is unclear which of the element(s) from each of the lists is intended to be connected/used with the elements of each of the other lists.

37. With respect to claim 6, as with claim 4, it is unclear what is meant by “piezoelectric means for transmitting” and “piezoelectric means for receiving”.

38. With respect to claim 6, it is unclear what is meant by “frequency energy production”. In addition, there are two separate “comprise” clauses that correspond to the “means for frequency energy production. It is unclear if one of these is a result of a typographical order, or if both clauses or intended to correspond to the “means for frequency energy production”.

39. With respect to claim 6, it is unclear what is meant by “piezoelectric energy networking”.

40. With respect to claim 6, it is unclear what is meant by “piezoelectric energy”. Energy may be generated or used by piezoelectric elements, but energy itself is not piezoelectric.

41. With respect to claim 6, it is unclear what is meant by >means of energy" and "means of current". These statements do not make any sense. Neither energy nor current can comprises piezoelectric chambers, communication, or antennas.

42. With respect to claims 4 and 6, it is unclear what is meant by “direct current comprising frequency”.

43. With respect to claims 4-6, the claims include many words, terms, and phrases that are unknown to the examiner, in addition to those discussed above, that do not appear to be standard terminology in any field related to the claimed invention. Examples of such words, terms, and phrases are: "capacitates a charge", "self charging propulsion", "frequency engine", "antenna rod stacks", "piezoelectric spine stack

antenna", "piezoelectric transmitters", "piezoelectric receivers", "power frequency broadcast", “sensor accelerator”, “power frequency satellite”, “piezoelectric accelerator, “stack ball”, “frequency laser”, and “book spine stacks”. In addition to these terms, there are numerous other terms in the specification that are not adequately described, or are stated so generically, such that one of ordinary skill in the art would understand to what applicant intends to refer. Example of these terms are: “disc rotor", "stack ball bearing", "coupler", “piezoelectric network”, “piezoelectric grid”, “piezoelectric devices”, “piezoelectric cylinders and orbs”, "controller”, “rotor/gear", "disk rotor/gear".

44. With respect to claims 4-6, the language is sufficiently unclear, that no meaningful comparison with the prior art can be made, as the examiner cannot adequately determine what the intended meaning of the applicant is. Due to the extensive use of non-standard terminology, and the lack of claimed relationships between the various components (the claims are a mere listing of separate components, without an adequate description of how the separate components are connected and used with each other) the examiner is unable to make a comparison with the prior art other than to point to references that appear to be related to various portions of the claims.

Conclusion

45. An examination of this application reveals that applicant is unfamiliar with patent prosecution procedure. While an applicant may prosecute the application (except that a juristic entity must be represented by a patent practitioner, 37 CFR 1.31), lack of skill in this field usually acts as a liability in affording the maximum protection for the invention

disclosed. Applicant is advised to secure the services of a registered patent attorney or agent to prosecute the application, since the value of a patent is largely dependent upon skilled preparation and prosecution. The Office cannot aid in selecting an attorney or agent.

A listing of registered patent attorneys and agents is available at https://oedci.uspto.gov/OEDCI/. Applicants may also obtain a list of registered patent attorneys and agents located in their area by writing to the Mail Stop OED, Director of the U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450.

46. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tesla (US 1,119,732 and US 787,412) discloses device in the field transmission of electrical energy through the atmosphere, which are associated with the well-known attempts by Tesla in creating an electrical distribution network based on wireless transmission of electrical energy. Chen (US 2011/0273060) discloses a piezoelectric device that including an arrangement of ball bearings that impart mechanical stresses on piezoelectric elements to generate electricity. Mullen (US 2008/0083139) discloses an arrangement that includes piezoelectric elements that generate electrical energy, which is then provided to the electric power distribution grid.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derek Rosenau whose telephone number is (571)272-8932. The examiner can normally be reached on Monday thru Thursday 7:00-5:30 Mountain Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shawki Ismail can be reached on (571) 272-3985. 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.

/Derek Rosenau/
Primary Examiner, Art Unit 2837

Notice of References Cited	Application/Control No. 13/692,121	Applicant(s)/Patent Under Reexamination JENNINGS, JAMES EDWARD	
	Examiner Derek Rosenau	Art Unit 2837	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-1,119,732	12-1914	Tesla, Nikola	343/850
*	B	US-787,412	04-1905	Tesla, Nikola	455/40
*	C	US-2011/0273060	11-2011	Chen, Yao-Tung	310/339
*	D	US-2008/0083139	04-2008	Mullen, Jeffrey D.	310/339
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

UNITED STATES PATENT AND TRADEMARK OFFICE

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Alexandria, Virginia 22313-1450
www.uspto.gov

BIB DATA SHEET

CONFIRMATION NO. 7639

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
13/692,121	12/03/2012	310	2837	

APPLICANTS

INVENTORS

JAMES EDWARD JENNINGS, SUPERIOR, CO;

**** CONTINUING DATA ***************************

**** FOREIGN APPLICATIONS ***************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **** ** MICRO ENTITY **

Foreign Priority claimed ☐ Yes ☑ No 35 USC 119(a-d) conditions met ☐ Yes ☑ No Verified and Acknowledged /DEREK JOHN ROSENAU/ Examiner's Signature	☐ Met after Allowance Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		CO	15	3	3

ADDRESS

James Edward Jennings
P.O. Box 270081
Louisville, CO 80027
UNITED STATES

TITLE

ATMOSPHERIC TRANSDUCTION SYSTEM

FILING FEE RECEIVED	FEES: Authority has been given in Paper No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit
533		

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	0	"13692121"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/11 10:45
S2	3	"20080009240".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/11 14:15
S3	24	("1119732" "0787412").pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/11 15:13
S4	4	"6902513".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/11 15:53
S5	11	("4019073" "6615968").pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/11 15:53
S6	1511	310/339.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/11 16:00
S7	1724	200/48R.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/21 19:16
S8	1	"13692121"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/31 19:25
S9	438	(jennings near2 james).in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/31 19:31

EAST Search History (Interference)

<This search history is empty>

11/3/2014 10:31:13 AM
C:\Users\drosenau\Documents\EAST\Workspaces\13692121.wsp

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13692121	JENNINGS, JAMES EDWARD
	Examiner	Art Unit
	DEREK ROSENAU	2837

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	03/04/2014	11/03/2014							
	1	÷	-							
	2	÷	-							
	3	÷	-							
	4		✓							
	5		✓							
	6		✓							

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13692121	JENNINGS, JAMES EDWARD
	Examiner	Art Unit
	DEREK ROSENAU	2837

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
310	339	4/11/2014	DJR
200	48R	5/21/2014	DJR

SEARCH NOTES		
Search Notes	Date	Examiner
EAST Search History	10/31/2014	DJR
Inventor name search	10/31/2014	DJR

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

	/DEREK ROSENAU/ Primary Examiner.Art Unit 2837

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/692,121	12/03/2012	JAMES EDWARD JENNINGS	

CONFIRMATION NO. 7639

82669
James Edward Jennings
P.O. Box 270081
Louisville, CO 80027

PUBLICATION NOTICE

Title:ATMOSPHERIC TRANSDUCTION SYSTEM

Publication No.US-2014-0152016-A1
Publication Date:06/05/2014

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently http://pair.uspto.gov/. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Managment, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

Serial No.: 13/692,121
Filing Date: 12/03/2012
Confirmation No.: 7639
GAU:2837

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: JENNINGS, James Edward

SERIAL NO.: 13/692,121 FILING DATE: DECEMBER 3, 2012

TITLE: ATMOSPHERIC TRANSDUCTION SYSTEM

GROUP ART UNIT: 2837 EXAMINER: ROSENAU, DEREK

Box AAF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

RESPONSE TO SUGGESTED CLAIMS /AMENDMENT

Dear Examiner Rosenau:

This correspondence is being filed as a Response to the Office Action Summary issued on March 3, 2014. Applicant requests entry of the amendments indicated below and consideration of the appended Remarks. Amendments to the CLAIMS begin on Page 2 of this paper.

REMARKS

Applicant claims the invention to be obvious variants. No new matter has been entered by way of these amendments.

CLAIMS CANCELLED 1-3

REPLACEMENT CLAIMS (4-6)

4.(NEW) A method of atmospheric transduction system comprising:

means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, providing an electrical conversion broadcast network;

means for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid, transceiver and capacitates a charge;

means for self charging propulsion provides motor characteristics, and frequency engine;

means for piezoelectric production of direct current energy comprising frequency;

means for piezoelectric transmittal of direct current energy comprising frequency; and

means for piezoelectric receivable of direct current energy comprising frequency.

5.(NEW) The method of atmospheric transduction system in accordance with claim 1, wherein said means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, an electrical conversion broadcast network circuit comprises piezoelectric transducer molded device housing, disk rotor, stack ball bearing, coupler, book spine stacks, laser and antenna rod stacks;

wherein said means for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid and capacitates a charge comprises a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and orbs, power frequency broadcast; and

wherein said means for charging providing motor characteristics, said power frequency engine comprises a sensor accelerator, rotor/gear, battery/capacitor, antenna, controller, for propulsion.

wherein said means for charging providing satellite characteristics, said power frequency satellite comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball and transceiver;

wherein said means for charging providing security characteristics, said frequency laser comprises a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball, mirrors, coupler, beam and laser; and

Wherein said means of producing, transmittal, and receiving direct current energy comprising frequency comprises piezoelectric molded parts and circuitry.

6.(NEW) An atmospheric transduction system comprising:

a piezoelectric transducer molded device(s), disk rotor, spine ball bearing, coupler and book spine stack transducers, for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, providing an electrical conversion broadcast server network circuit; and

a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric

transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and disc orbs, stack rods, power frequency broadcast, for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid, transceiver and capacitates a charge; and

a sensor accelerator, disk rotor/gear, battery/capacitor, controller, antenna, means for self charge propulsion comprise motor characteristics, thereby an engine of power frequency;

a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball means for self charge propulsion comprise a transceiver, thereby power frequency satellite;

a piezoelectric accelerator, disk rotor/gear, battery/capacitor, controller, antenna, stack ball means for self charge propulsion and security comprise a transceiver, laser, mirrors, coupler, frequency thereby a direct current energy laser beam;

a piezoelectric means of producing direct current energy comprising frequency;

a piezoelectric means of transmitting direct current energy comprising frequency;

a piezoelectric means of receiving direct current energy comprising frequency.

a means of frequency energy production comprising piezoelectric oscillation circuit;

a means of frequency energy production comprising piezoelectric transducer oscillator and electronic circuitry; and

a means of piezoelectric energy networking comprising grids, antenna, cylinders, transceivers, transmitters, receivers, satellites, chamber rotors and engines.

a means of piezoelectric energy comprising chamber, communication, and antenna;

a means of energy comprising piezoelectric chamber, communication, and antenna; and

a means of current comprising piezoelectric chamber, communication, and antenna.

Conditional Request For Constructive Assistance

If for any reason this application is not believed to be in full condition for allowance, applicant respectfully request the constructive assistance and suggestions of the examiner pursuant to M.P.E.P.§ 2173.02 and § 707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Applicant respectfully requests reconsideration of the application and its passage to allowance. Should any impediments to allowance remain, Applicant requests that the Examiner contact the undersigned at the indicated phone number.

Respectfully submitted, James Jennings

/JAMES EDWARD JENNINGS/

Date: 5/27/2014 By:_____

PO Box 270081 Louisville, CO 80027
303.664.1829

Electronic Acknowledgement Receipt

EFS ID:	19123982
Application Number:	13692121
International Application Number:	
Confirmation Number:	7639
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
Filer:	James Edward Jennings
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	27-MAY-2014
Filing Date:	03-DEC-2012
Time Stamp:	02:15:10
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment Copy Claims/Response to Suggested Claims	13_692_121_NEW3_CLAIMS.pdf	41464 b65a4c0e03acd20fed7a38c4d2f185b8a0987291	no	5

Warnings:	
Information:	

Total Files Size (in bytes):	41464

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
13/692,121	12/03/2012	

ENTITY: ☐ LARGE ☐ SMALL ☒ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT **05/27/2014**

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 3	Minus	** 20	= 0	X $20 =	0
Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $105 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/ROSALIND BALL/

Serial No.: 13/692,121
Filing Date: 12/03/2012
Confirmation No.: 7639
GAU:2837

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: JENNINGS, James Edward

SERIAL NO.: 13/692,121 FILING DATE: DECEMBER 3, 2012

TITLE: ATMOSPHERIC TRANSDUCTION SYSTEM

GROUP ART UNIT: 2837 EXAMINER: ROSENAU, DEREK

Box AAF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

RESPONSE TO SUGGESTED CLAIMS /AMENDMENT

Dear Examiner Rosenau:

This correspondence is being filed as a Response to the Office Action Summary issued on March 3, 2014. Applicant requests entry of the amendments indicated below and consideration of the appended Remarks. Amendments to the CLAIMS begin on Page 2 of this paper.

REMARKS

Applicant argues inseparable novelty is not reason for distinction. Applicant agrees there is an abundance of systemic novelty. No new matter has been entered by way of these amendments.

CLAIMS CANCELLED 1-3

REPLACEMENT CLAIMS (4-6)

4.(NEW) A method of atmospheric transduction system comprising:

means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, providing an electrical conversion broadcast network;

means for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid, transceiver and capacitates a charge; and

means for self charging propulsion provides motor characteristics, and frequency engine.

5.(NEW) The method of atmospheric transduction system in accordance with claim 1, wherein said means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, an electrical conversion broadcast network circuit comprises piezoelectric transducer molded device(s) housing, rotor, stack ball bearing, coupler, book spine stacks and antenna rod stacks;

wherein said means for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid and capacitates a charge comprises a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and orbs, power frequency broadcast; and

wherein said means for charging providing motor characteristics, said power frequency engine comprises a sensor accelerator, rotor/gear, battery/capacitor, antenna, controller, for propulsion.

6.(NEW) An atmospheric transduction system comprising:

a piezoelectric transducer molded device(s), rotor, spine ball bearing, coupler and book spine stack transducers, for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, providing an electrical conversion broadcast server network circuit; and

a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and disc orbs, stack rods, power frequency broadcast, for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid, transceiver and capacitates a charge; and

a sensor accelerator, rotor/gear, battery/capacitor, controller, antenna, means for self charge propulsion providing motor characteristics, comprise an engine of power frequency.

a piezoelectric accelerator, rotor/gear, battery/capacitor, controller, antenna, stack ball means for self charge propulsion providing a transceiver, comprise a power frequency satellite.

Conditional Request For Constructive Assistance

If for any reason this application is not believed to be in full condition for allowance, applicant respectfully request the constructive assistance and suggestions of the examiner pursuant to M.P.E.P.§ 2173.02 and § 707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Applicant respectfully requests reconsideration of the application and its passage to allowance. Should any impediments to allowance remain, Applicant requests that the Examiner contact the undersigned at the indicated phone number.

Respectfully submitted, James Jennings

/JAMES EDWARD JENNINGS/

Date: 5/21/2014 By:_____

PO Box 270081 Louisville, CO 80027
303.664.1829

Electronic Acknowledgement Receipt

EFS ID:	19085894
Application Number:	13692121
International Application Number:	
Confirmation Number:	7639
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
Filer:	James Edward Jennings
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	21-MAY-2014
Filing Date:	03-DEC-2012
Time Stamp:	02:12:43
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment Copy Claims/Response to Suggested Claims	13_692_121_NEW2_CLAIMS.pdf	37890 f9e6936322374201d7e86d5af958098dc2d9a2a5	no	4

Warnings:	
Information:	

Total Files Size (in bytes):	37890

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Electronic Patent Application Fee Transmittal

Application Number:	13692121
Filing Date:	03-Dec-2012
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Filer:	James Edward Jennings
Attorney Docket Number:	

Filed as Micro Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Extension - 1 month with $0 paid	3251	1	50	50

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
			Total in USD ($)	**50**

Electronic Acknowledgement Receipt

EFS ID:	19098347
Application Number:	13692121
International Application Number:	
Confirmation Number:	7639
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
Filer:	James Edward Jennings
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	21-MAY-2014
Filing Date:	03-DEC-2012
Time Stamp:	21:51:31
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$50
RAM confirmation Number	8464
Deposit Account	
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)

1	Fee Worksheet (SB06)	fee-info.pdf	30061 9efb3192cc541be7edb564be63b850785a9a321d	no	2

Warnings:	
Information:	
Total Files Size (in bytes):	30061

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

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New International Application Filed with the USPTO as a Receiving Office

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Serial No.: 13/692,121
Filing Date: 12/03/2012
Confirmation No.: 7639
GAU:2837

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: JENNINGS, James Edward

SERIAL NO.: 13/692,121 FILING DATE: DECEMBER 3, 2012

TITLE: ATMOSPHERIC TRANSDUCTION SYSTEM

GROUP ART UNIT: 2837 EXAMINER: ROSENAU, DEREK

Box AAF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

RESPONSE TO SUGGESTED CLAIMS /AMENDMENT

Dear Examiner Rosenau:

This correspondence is being filed as a Response to the Office Action Summary issued on March 3, 2014. Applicant requests entry of the amendments indicated below and consideration of the appended Remarks. Amendments to the CLAIMS begin on Page 2 of this paper. Remarks begin on Page 2 of this paper.

REMARKS

Applicant has assisted to relieve the search burden and drafted new claims as a compromise.

CLAIMS CANCELLED 1-3

REPLACEMENT CLAIMS (4-6)

4.(NEW) An atmospheric transduction system comprising:

means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, providing an electrical conversion broadcast network; and

means for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid, transceiver and capacitates a charge; and

means for self charging propulsion provides motor characteristics, and frequency engine.

5.(NEW) The atmospheric transduction system in accordance with claim 1, wherein said means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, an electrical conversion broadcast network comprises piezoelectric transducer molded device(s) , rotor, stack ball bearing, coupler, book spine stacks and antenna rod stacks;

wherein said means for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid and capacitates a charge comprises a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and orbs, power frequency broadcast;

wherein said means for charging providing motor characteristics, said power frequency engine comprises a sensor accelerator, rotor/gear, battery/capacitor, antenna, controller, for propulsion.

6.(NEW) An atmospheric transduction system comprising:

a piezoelectric transducer molded device(s), rotor, spine ball bearing, coupler and book spine stack transducers, for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, providing an electrical conversion broadcast server network; and

a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and disc orbs, stack rods, power frequency broadcast, for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid, transceiver and capacitates a charge; and

a sensor accelerator, rotor/gear, battery/capacitor, controller, antenna, means for self charge propulsion providing motor characteristics, thereby an engine of power frequency.

Conditional Request For Constructive Assistance

If for any reason this application is not believed to be in full condition for allowance, applicant respectfully request the constructive assistance and suggestions of the examiner pursuant to M.P.E.P.§ 2173.02 and § 707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Applicant respectfully requests reconsideration of the application and its passage to allowance. Should any impediments to allowance remain, Applicant requests that the Examiner contact the undersigned at the indicated phone number.

Respectfully submitted, James Jennings

/JAMES EDWARD JENNINGS/

Date: 4/3/2014 By:_____

PO Box 270081 Louisville, CO 80027
303.664.1829

Electronic Acknowledgement Receipt

EFS ID:	18658642
Application Number:	13692121
International Application Number:	
Confirmation Number:	7639
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
Filer:	James Edward Jennings
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	03-APR-2014
Filing Date:	03-DEC-2012
Time Stamp:	03:47:34
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment Copy Claims/Response to Suggested Claims	13_692_121_NEW_CLAIMS.pdf	37566 8732d44ce543d254d650bc7f3bdf995d094000ae	no	4

Warnings:	
Information:	

Total Files Size (in bytes):	37566

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Serial No.: 13/692,121
Filing Date: 12/03/2012
Confirmation No.: 7639
GAU:2837

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: JENNINGS, James Edward

SERIAL NO.: 13/692,121 FILING DATE: DECEMBER 3, 2012

TITLE: ATMOSPHERIC TRANSDUCTION SYSTEM

GROUP ART UNIT: 2837 EXAMINER: ROSENAU, DEREK

Box AAF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

RESPONSE TO SUGGESTED CLAIMS /AMENDMENT

Dear Examiner Rosenau:

This correspondence is being filed as a Response to the Office Action Summary issued on March 3, 2014. Applicant requests entry of the amendments indicated below and consideration of the appended Remarks. Amendments to the CLAIMS begin on Page 2 of this paper. Remarks begin on Page 2 of this paper.

REMARKS

Applicant has assisted to relieve the search burden and drafted new claims as a compromise.

CLAIMS CANCELLED 1-3

POTENTIAL CLAIMS

1. An atmospheric transduction system comprising:

means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, providing an electrical conversion broadcast network; and

means for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid, transceiver and capacitates a charge.

2. The atmospheric transduction system in accordance with claim 1, wherein said means for recycle recharge by oscillation and frequency in accumulation of environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, an electrical conversion broadcast network comprises piezoelectric transducer molded device(s) , rotor, stack ball bearing, coupler and book spine stacks;

wherein said means for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid and capacitates a charge comprises a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and orbs, power frequency broadcast .

3. An atmospheric transduction system comprising:

a piezoelectric transducer molded device(s), rotor, spine ball bearing, coupler and book spine stack transducers, for recycle recharge by oscillation and frequency in accumulation of

environmental positive and negative electricity, maintaining the voltage being collected in a prescribed range, providing an electrical conversion broadcast server network; and

a piezoelectric network, piezoelectric grid, piezoelectric spine stack antenna, piezoelectric transmitters, piezoelectric receivers, piezoelectric devices, piezoelectric cylinders and disc orbs, power frequency broadcast , for collecting the atmospheric electrical power as direct current and then supplies the appropriate power grid, transceiver and capacitates a charge.

Conditional Request For Constructive Assistance

If for any reason this application is not believed to be in full condition for allowance, applicant respectfully request the constructive assistance and suggestions of the examiner pursuant to M.P.E.P.§ 2173.02 and § 707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Applicant respectfully requests reconsideration of the application and its passage to allowance. Should any impediments to allowance remain, Applicant requests that the Examiner contact the undersigned at the indicated phone number.

Respectfully submitted, James Jennings

/JAMES EDWARD JENNINGS/

Date: 3/18/2014 By:_____

PO Box 270081 Louisville, CO 80027
303.664.1829

Electronic Acknowledgement Receipt

EFS ID:	18502444
Application Number:	13692121
International Application Number:	
Confirmation Number:	7639
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
Filer:	James Edward Jennings
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	18-MAR-2014
Filing Date:	03-DEC-2012
Time Stamp:	00:09:43
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment Copy Claims/Response to Suggested Claims	13_692_121_POTENTIAL_CLAIMS.pdf	34747 357db7882ddc86bd75542556ade8110cf6fe2417	no	3

Warnings:	
Information:	

Total Files Size (in bytes):	34747

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
13/692,121	12/03/2012	

ENTITY: ☐ LARGE ☐ SMALL ☒ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT **03/18/2014**

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 3	Minus	** 20	= 0	X $20 =	0
Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X $105 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/MARGARET BYARS/

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 13/692,121	Filing Date 12/03/2012	☐ To be Mailed

ENTITY: ☐ LARGE ☐ SMALL ☒ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT

03/18/2014	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 3	Minus	** 20	= 0	X $20 =	0
Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $105 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/ANNETTE COWAN/

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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P.O. Box 1450
Alexandria, Virginia 22313-1450
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/692,121	12/03/2012	JAMES EDWARD JENNINGS		7639

82669 7590 03/07/2014

James Edward Jennings
P.O. Box 270081
Louisville, CO 80027

EXAMINER	
ROSENAU, DEREK JOHN	
ART UNIT	PAPER NUMBER
2837	

MAIL DATE	DELIVERY MODE
03/07/2014	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. 13/692,121	Applicant(s) JENNINGS, JAMES EDWARD	
	Examiner Derek Rosenau	Art Unit 2837	AIA (First Inventor to File) Status No

-- 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 2 MONTHS 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 *3 December 2012*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

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) *1-3* 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) _____ is/are rejected.

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

9)☒ Claim(s) *1-3* are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

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).

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).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

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) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

DETAILED ACTION

1. The present application is being examined under the pre-AIA first to invent provisions.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claim 1, drawn to an at5mospheric transduction system, classified in 343/700R.

II. Claim 2, drawn to a transduction oscillation system, classified in 310/339.

III. Claim 3, drawn to a transducer for generating an electric current, classified in 310/339.

The inventions are distinct, each from the other because of the following reasons:

3. Inventions I, II, and III are directed to related apparatuses. The related inventions are distinct if: (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed each have materially different designs, mode of operation, functions or effects in that neither the inventions of groups II or III require the details of the atmospheric transduction system of group 1, while the invention of group I does not require the piezoelectric features of groups II and III, and in that the invention of group II is directed to a device having an aerial grid and the invention of group III is directed to a device that includes rotational elements. For these same reasons, the inventions of

groups I, II, and III do not overlap in scope, nor are obvious variants of each other. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

4. Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above and there would be a serious search and/or examination burden if restriction were not required because one or more of the following reasons apply: the inventions have acquired a separate status in the art in view of their different classification and the inventions require a different field of search (e.g., searching different classes/subclasses or electronic resources, or employing different search strategies or search queries).

Applicant is advised that the reply to this requirement to be complete must include (i) an election of an invention to be examined even though the requirement may be traversed (37 CFR 1.143) **and (ii) identification of the claims encompassing the elected invention**.

The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after

the election, applicant must indicate which of these claims are readable upon the elected invention.

Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103 or pre-AIA 35 U.S.C. 103(a) of the other invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derek Rosenau whose telephone number is (571)272-8932. The examiner can normally be reached on Monday thru Thursday 7:00-5:30 Mountain Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shawki Ismail can be reached on (571) 272-3985. 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.

/Derek Rosenau/
Primary Examiner, Art Unit 2837

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13692121	JENNINGS, JAMES EDWARD
	Examiner	**Art Unit**
	DEREK ROSENAU	2837

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	03/04/2014								
	1	÷								
	2	÷								
	3	÷								

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/692,121	12/03/2012	JAMES EDWARD JENNINGS	

CONFIRMATION NO. 7639

82669
James Edward Jennings
P.O. Box 270081
Louisville, CO 80027

NEW OR REVISED PPD NOTICE

OC000000065986986

NOTICE OF NEW OR REVISED PROJECTED PUBLICATION DATE

The above-identified application has a new or revised projected publication date. The current projected publication date for this application is 06/05/2014. If this is a new projected publication date (there was no previous projected publication date), the application has been cleared by Licensing & Review or a secrecy order has been rescinded and the application is now in the publication queue.

If this is a revised projected publication date (one that is different from a previously communicated projected publication date), the publication date has been revised due to processing delays in the USPTO or the abandonment and subsequent revival of an application. The application is anticipated to be published on a date that is more than six weeks different from the originally-projected publication date.

More detailed publication information is available through the private side of Patent Application Information Retrieval (PAIR) System. The direct link to access PAIR is currently http://pair.uspto.gov. Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Questions relating to this Notice should be directed to the Office of Data Management, Application Assistance Unit at (571) 272-4000, or (571) 272-4200, or 1-888-786-0101.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/692,121	12/03/2012	JAMES EDWARD JENNINGS		7639

EXAMINER	

10/01/2013

James Edward Jennings
P.O. Box 270081
Louisville, CO 80027

ART UNIT	PAPER NUMBER
3644	

MAIL DATE	DELIVERY MODE
10/01/2013	PAPER

IF NO RESPONSE TO THIS NOTICE IS RECEIVED WITHIN FORTY-FIVE DAYS, A FORMAL REQUIRMENT WILL BE ISSUED

The subject matter of this application appears to "have significant utility in the conduct of aeronautical and space activities" as recited in 42 U.S.C. 2457 (National Aeronautics and Space Administration (NASA)).

Accordingly, no patent can issue on this application unless applicant(s) file a statement (under oath or in the form of a declaration as provided by 37 CFR 1.68) setting forth (1) the full facts concerning the circumstances under which the invention was made and conceived and (2) the relationship (if any) of the invention to the performance of any work under any contract or other arrangement with the Agency(ies) noted above. On the 2nd page of this form is an example of an acceptable format for this statement. The language appearing in paragraphs III and/or IV of the example must appear if applicant is attempting to establish that no relationship (under item 2 above) exists.

If the invention disclosed in this application was developed under a contract, grant or cooperative agreement between the Agency indicated above and a person, small business or non-profit organization and rights to the invention have been determined by specific reference to 35 U.S.C. 202 in the contract, grant or cooperative agreement, then the applicant need not submit the statement described above. Instead, applicant may file a verified statement (under oath or in the form of a declaration, 37 CFR 1.68) setting forth the information required by 35 U.S.C. 202(c)(6).

IF NO STATEMENT HAS BEEN RECIEVED WITHIN FORTY-FIVE DAYS OF THE MAIL DATE INDICATED ABOVE, a formal 30 day requirement for statement will then be issued. No provision is made for extension of the statutory thirty-day period for response to the formal requirement and the penalty for failure to file an acceptable and timely statement is abandonment of the application. Therefore, applicants are strongly encouraged to submit a statement at this time in order to avoid the issuance of a formal requirement.

IT IS IMPORTANT TO NOTE that the statement must accurately represent the property rights situation of the claimed invention if and when the application is found allowable. Thus, if during prosecution before the examiner, the claimed invention is so altered or the property rights situation so changes to impact the accuracy of a statement submitted earlier, a supplemental statement must be filed. Failure to submit such additional information where appropriate may be considered a false representation of material facts and render the patent owner vulnerable to loss of patent rights and other sanctions as set forth in the statutes. The PTO will not review allowed applications for this possibility. The responsibility for complying with the statutes rests with the applicants.

Any questions regarding this requirment should be directed to Licensing and Review at (571)-272-8203.

PLEASE DIRECT ALL COMMUNICATIONS RELATING TO THIS MATTER TO THE ATTENTION OF MAIL STOP L&R.

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OCT 16 2013

The following is an example of an acceptable property rights statement. Statements of this type are, of course, only suitable for situations in which NO Agency funds or other considerations were involved in the making or conception of the invention. While this example is in the form of a declaration, a sworn document is equally acceptable.

I(We) JAMES EDWARD JENNINGS

citizens of UNITED STATES

residing at SUPERIOR, COLORADO

declare:

That I(we) made and conceived the invention described and claimed in patent application:

Serial Number 13/692,121 filed in the United States of America on 12/03/2012

titled ATMOSPHERIC TRANSDUCTION SYSTEM

(check and complete either I or II below)

☐ I. *(For Inventors Employed by an Organization)* That I(We) made and conceived this invention while employed by _____. That the invention is related to the work I am (we are) employed to perform and was made within the scope of my (our) employment duties; That the invention was made during working hours and with the use of facilities, equipment, materials, funds, information and services of _____. Other relevant facts are _____. That to the best of my (our) knowledge and belief (and/or) based upon information provided by _____ of _____.

--OR--

☒ II. *(For Self-Employed Inventors)* That I (we) made and conceived this invention on my (our) own time using only my (our) own facilities, equipment, materials, funds, information and services. Other relevant factors are _____.

(check III and/or IV below as appropriate)

That to the best of my (our) knowledge and belief:

☒ III. The invention was not made or conceived in the course of, or in connection with, or under the terms of any contract, subcontract or arrangement entered into with or for the benefit of the United States Atomic Energy Commission or its successors: Energy Research and Development Administration or the Department of Energy.

--AND/OR--

☒ IV. The invention was not made (conceived or first actually reduced to practice) under nor is there any relationship of the invention to the performance of any work under any contract of the National Aeronautics and Space Administration.

The undersigned inventors(s) declare further that all statements made herein of his or her (their) own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Inventor's Signature: _____

Post Office Address: PO BOX 270081 LOUISVILLE, CO 80027

Date: 10-15-2013

Inventor's Signature: _____

Post Office Address: _____

Date: _____

Doc Code: Oath
Document Description: Oath or declaration filed

PTO/SB/01 (04-09)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

☑ Declaration Submitted With Initial Filing OR ☐ Declaration Submitted After Initial Filing (surcharge (37 CFR 1.16(f)) required)

Attorney Docket Number	
First Named Inventor	JAMES EDWARD JENNINGS
COMPLETE IF KNOWN	
Application Number	13/692,121
Filing Date	12/03/2012
Art Unit	3644
Examiner Name	

I hereby declare that: (1) Each inventor's residence, mailing address, and citizenship are as stated below next to their name; and (2) I believe the inventor(s) named below to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention titled:

ATMOSPHERIC TRANSDUCTION SYSTEM

(Title of the Invention)

the application of which

☑ is attached hereto

OR

☐ was filed on (MM/DD/YYYY) _____ as United States Application Number or PCT International Application Number _____ and was amended on (MM/DD/YYYY) _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified application, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

Authorization To Permit Access To Application by Participating Offices

☐ If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified patent application is filed access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified patent application is filed to have access to the above-identified patent application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the above-identified patent application with respect to: 1) the above-identified patent application-as-filed; 2) any foreign application to which the above-identified patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above-identified patent application; and 3) any U.S. application-as-filed from which benefit is sought in the above-identified patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Offices.

DECLARATION — Utility or Design Patent Application

Claim of Foreign Priority Benefits

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached? YES	NO
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐

☐ Additional foreign application number(s) are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

PTO/SB/01 (04-09)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

DECLARATION — Utility or Design Patent Application

Direct all correspondence to:	☑	The address associated with Customer Number:	000082669	OR ☐	Correspondence address below

Name		
Address		
City	State	Zip
Country	Telephone	Email

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available. Petitioner/applicant is advised that documents which form the record of a patent application (such as the PTO/SB/01) are placed into the Privacy Act system of records DEPARTMENT OF COMMERCE, COMMERCE-PAT-7, System name: *Patent Application Files*. Documents not retained in an application file (such as the PTO-2038) are placed into the Privacy Act system of COMMERCE/PAT-TM-10, System name: *Deposit Accounts and Electronic Funds Transfer Profiles*.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

NAME OF SOLE OR FIRST INVENTOR:	☐ A petition has been filed for this unsigned inventor
Given Name (first and middle [if any])	Family Name or Surname
JAMES EDWARD	JENNINGS
Inventor's Signature	Date
/JAMES EDWARD JENNINGS/	9-21-2013

Residence: City	State	Country	Citizenship
SUPERIOR	CO	US	US

Mailing Address			
PO BOX 270081			
City	State	Zip	Country
LOUISVILLE	CO	80027	US

☐ Additional inventors or a legal representative are being named on the _____ supplemental sheet(s) PTO/SB/02A or 02LR attached hereto

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt

EFS ID:	16920688
Application Number:	13692121
International Application Number:	
Confirmation Number:	7639
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
Filer:	James Edward Jennings
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	21-SEP-2013
Filing Date:	03-DEC-2012
Time Stamp:	17:45:35
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Oath or Declaration filed	sb0001_ATS.pdf	616306 a397916d70b1fb5cdf2b09913abf8a97a5472b7b	no	4

Warnings:	
Information:	

Total Files Size (in bytes):	616306

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 13/692,121

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	70
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	150
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	180
TOTAL CLAIMS (37 CFR 1.16(i))	3 minus 20 =	*			OR	x 20 =	0.00
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3 minus 3 =	*				x 105 =	0.00
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						0.00
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							0.00
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	400

APPLICATION AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

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 NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
13/692,121	12/03/2012	3644	533		3	3

CONFIRMATION NO. 7639

82669
James Edward Jennings
P.O. Box 270081
Louisville, CO 80027

UPDATED FILING RECEIPT

OC000000063746985

Date Mailed: 09/19/2013

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Inventor(s)

JAMES EDWARD JENNINGS, SUPERIOR, CO;

Applicant(s)

JAMES EDWARD JENNINGS, SUPERIOR, CO;

Power of Attorney: None

Domestic Applications for which benefit is claimed - None.
A proper domestic benefit claim must be provided in an Application Data Sheet in order to constitute a claim for domestic benefit. See 37 CFR 1.76 and 1.78.

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Projected Publication Date: To Be Determined - pending completion of Security Review

Non-Publication Request: No

Early Publication Request: No
** **MICRO ENTITY** **

Title

ATMOSPHERIC TRANSDUCTION SYSTEM

Preliminary Class

244

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

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www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/692,121	12/03/2012	JAMES EDWARD JENNINGS	

CONFIRMATION NO. 7639

82669
James Edward Jennings
P.O. Box 270081
Louisville, CO 80027

NOTICE

OC000000063746986

Date Mailed: 09/19/2013

INFORMATIONAL NOTICE TO APPLICANT

Applicant is notified that the above-identified application contains the deficiencies noted below. No period for reply is set forth in this notice for correction of these deficiencies. However, if a deficiency relates to the inventor's oath or declaration, the applicant must file an oath or declaration in compliance with 37 CFR 1.63, or a substitute statement in compliance with 37 CFR 1.64, executed by or with respect to each actual inventor no later than the expiration of the time period set in the "Notice of Allowability" to avoid abandonment. See 37 CFR 1.53(f).

The item(s) indicated below are also required and should be submitted with any reply to this notice to avoid further processing delays.

A new inventor's oath or declaration that identifies this application (e.g., by Application Number and filing date) is required. The inventor's oath or declaration does not comply with 37 CFR 1.63 in that it:

- does not state that the above-identified application was made or authorized to be made by the person executing the oath or declaration.

CERTIFICATION OF MICRO ENTITY STATUS
(GROSS INCOME BASIS)

Application Number or Control Number (if applicable):	Patent Number (if applicable):
13/692,121	
First Named Inventor:	**Title of Invention:**
JAMES EDWARD JENNINGS	ATMOSPHERIC TRANSDUCTION SYSTEM

The applicant hereby certifies the following—

(1) **SMALL ENTITY REQUIREMENT -** The applicant qualifies as a small entity as defined in 37 CFR 1.27.

(2) **APPLICATION FILING LIMIT -** Neither the applicant nor the inventor nor a joint inventor has been named as the inventor or a joint inventor on more than four previously filed U.S. patent applications, excluding provisional applications and international applications under the Patent Cooperation Treaty (PCT) for which the basic national fee under 37 CFR 1.492(a) was not paid, and also excluding patent applications for which the applicant has assigned all ownership rights or is obligated to assign all ownership rights as a result of the applicant's previous employment.

(3) **GROSS INCOME LIMIT ON APPLICANTS AND INVENTORS -** Neither the applicant nor the inventor nor a joint inventor, in the calendar year preceding the calendar year in which the applicable fee is being paid, had a gross income, as defined in section 61(a) of the Internal Revenue Code of 1986 (26 U.S.C. 61(a)), exceeding the "Maximum Qualifying Gross Income" reported on the USPTO website at http://www.uspto.gov/patents/law/micro_entity.jsp which is equal to three times the median household income for that preceding calendar year, as most recently reported by the Bureau of the Census.

(4) **GROSS INCOME LIMIT ON PARTIES WITH AN "OWNERSHIP INTEREST" -** Neither the applicant nor the inventor nor a joint inventor has assigned, granted, or conveyed, nor is under an obligation by contract or law to assign, grant, or convey, a license or other ownership interest in the application concerned to an entity that, in the calendar year preceding the calendar year in which the applicable fee is being paid, had a gross income, as defined in section 61(a) of the Internal Revenue Code of 1986, exceeding the "Maximum Qualifying Gross Income" reported on the USPTO website at http://www.uspto.gov/patents/law/micro_entity.jsp which is equal to three times the median household income for that preceding calendar year, as most recently reported by the Bureau of the Census.

SIGNATURE by a party set forth in 37 CFR 1.33(b)

Signature	/JAMES EDWARD JENNINGS/				
Name	JAMES EDWARD JENNINGS				
Date	4/1/2013	Telephone	3036641829	Registration No.	82669

☐ There is more than one inventor and I am one of the inventors who are jointly identified as the applicant. Additional certification form(s) signed by the other joint inventor(s) are included with this form.

Electronic Acknowledgement Receipt

EFS ID:	15395313
Application Number:	13692121
International Application Number:	
Confirmation Number:	7639
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
Filer:	James Edward Jennings
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	01-APR-2013
Filing Date:	03-DEC-2012
Time Stamp:	02:58:17
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Certification of Micro Entity (Gross Income Basis)	sb15a_ATS.pdf	110262 d07e5779edcf6c1cd43f6ac5c802bc0cc8e659d4	no	1

Warnings:	
Information:	

Total Files Size (in bytes):	110262

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Doc Code: Oath
Document Description: Oath or declaration filed

PTO/SB/01 (04-09)
Approved for use through 01/31/2014. OMB 0651-0032
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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

☑ Declaration Submitted With Initial Filing OR ☐ Declaration Submitted After Initial Filing (surcharge (37 CFR 1.16(f)) required)

Attorney Docket Number	
First Named Inventor	JAMES EDWARD JENNINGS
COMPLETE IF KNOWN	
Application Number	
Filing Date	
Art Unit	
Examiner Name	

I hereby declare that: (1) Each inventor's residence, mailing address, and citizenship are as stated below next to their name; and (2) I believe the inventor(s) named below to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention titled:

ATMOSPHERIC TRANSDUCTION SYSTEM

(Title of the Invention)

the application of which

☑ is attached hereto

OR

☐ was filed on (MM/DD/YYYY) _____ as United States Application Number or PCT International Application Number _____ and was amended on (MM/DD/YYYY) _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified application, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

Authorization To Permit Access To Application by Participating Offices

☐ If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified patent application is filed access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified patent application is filed to have access to the above-identified patent application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the above-identified patent application with respect to: 1) the above-identified patent application-as-filed; 2) any foreign application to which the above-identified patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above-identified patent application; and 3) any U.S. application-as-filed from which benefit is sought in the above-identified patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Offices.

DECLARATION – Utility or Design Patent Application

Claim of Foreign Priority Benefits

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached? YES	NO
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐

☐ Additional foreign application number(s) are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

DECLARATION — Utility or Design Patent Application

Direct all correspondence to: ☑ The address associated with Customer Number: 000082669 OR ☐ Correspondence address below

Name

Address

City | State | Zip

Country | Telephone | Email

WARNING:

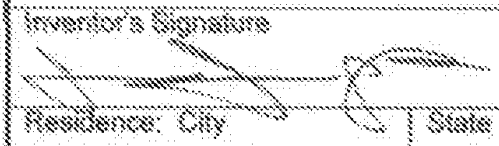
Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available. Petitioner/applicant is advised that documents which form the record of a patent application (such as the PTO/SB/01) are placed into the Privacy Act system of records DEPARTMENT OF COMMERCE, COMMERCE-PAT-7, System name: *Patent Application Files*. Documents not retained in an application file (such as the PTO-2038) are placed into the Privacy Act system of COMMERCE/PAT-TM-10, System name: *Deposit Accounts and Electronic Funds Transfer Profiles*.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

NAME OF SOLE OR FIRST INVENTOR: ☐ A petition has been filed for this unsigned inventor

Given Name (first and middle [if any]): JAMES EDWARD

Family Name or Surname: JENNINGS

Inventor's Signature: 

Date: 12-3-2012

Residence: City	State	Country	Citizenship
SUPERIOR	CO	US	US

Mailing Address: PO BOX 270081

City	State	Zip	Country
LOUISVILLE	CO	80027	US

☐ Additional inventors or a legal representative are being named on the ____ supplemental sheet(s) PTO/SB/02A or 02LR attached hereto

Electronic Acknowledgement Receipt

EFS ID:	14712626
Application Number:	13692121
International Application Number:	
Confirmation Number:	7639
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
Filer:	James Edward Jennings
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	16-JAN-2013
Filing Date:	03-DEC-2012
Time Stamp:	12:52:52
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Drawings-only black and white line drawings	ATS_2_DRAWINGS.pdf	1299186 0bcced3686935e848928661e89296f8a01333148	no	15

Warnings:	
Information:	

2	Specification	ATS_AMEND.pdf	160434 834056b0b68766161f6e66748024b375f157751b	no	36
Warnings:					
Information:					
3	Specification	ATS_MARKED.pdf	164833 4dc8ab6bc2b5eaefea641165d05ffe9687d4980c	no	37
Warnings:					
Information:					
4	Applicant Arguments/Remarks Made in an Amendment	ATS_LETTER.pdf	33612 900b120d0f16f7b6a92d335a46f0161192b308c0	no	3
Warnings:					
Information:					
5	Oath or Declaration filed	SB1_ATS_AMEND.pdf	1366048 8a9d389e642d5663b1706743624f8b737fdd8170	no	3
Warnings:					
Information:					
		Total Files Size (in bytes):	3024113		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

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New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

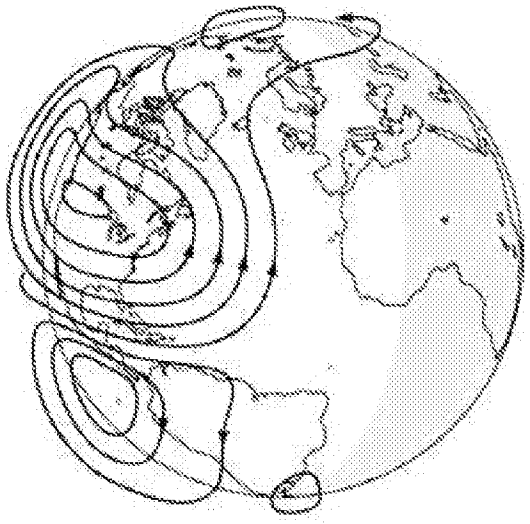


FIG.1

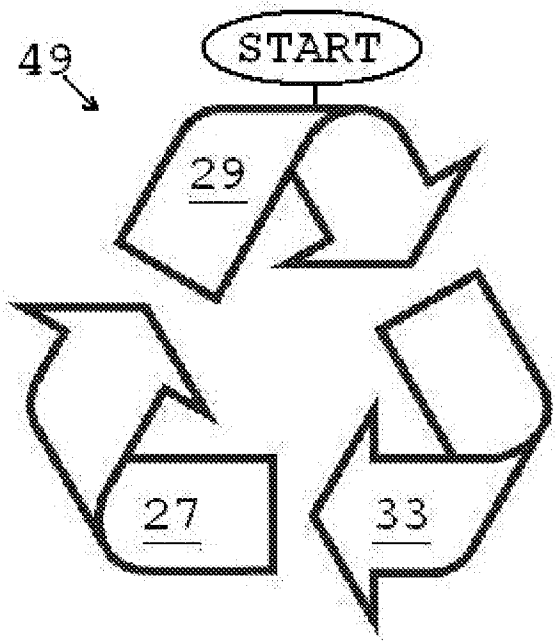


FIG.2

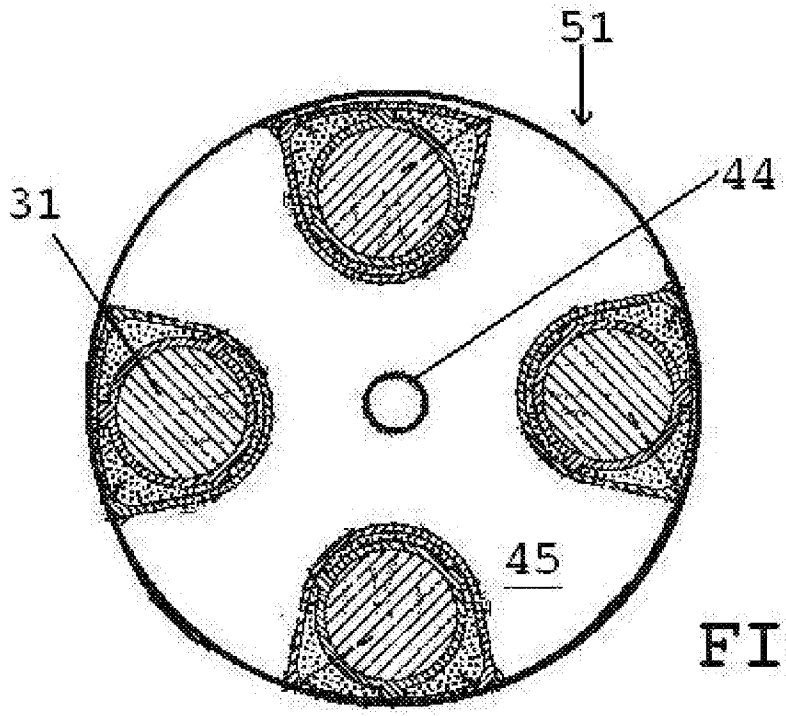


FIG.3

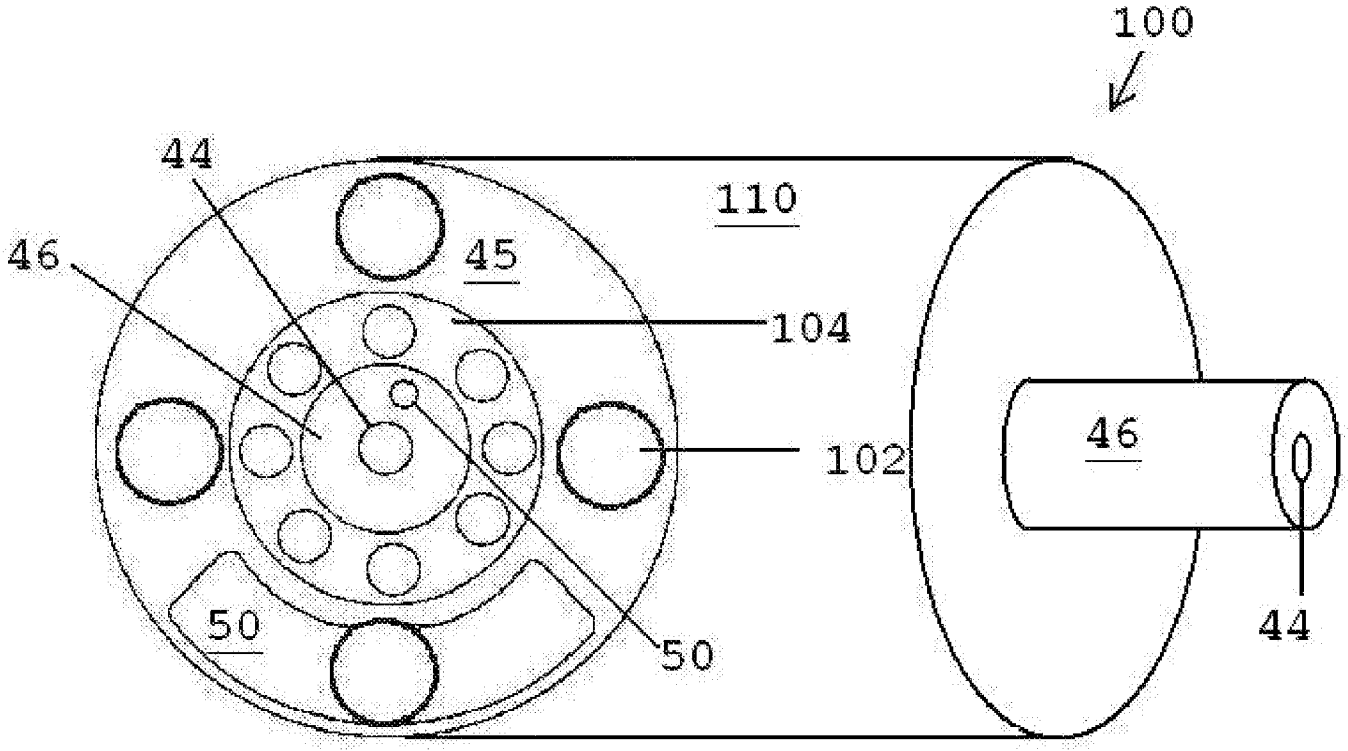


FIG.4

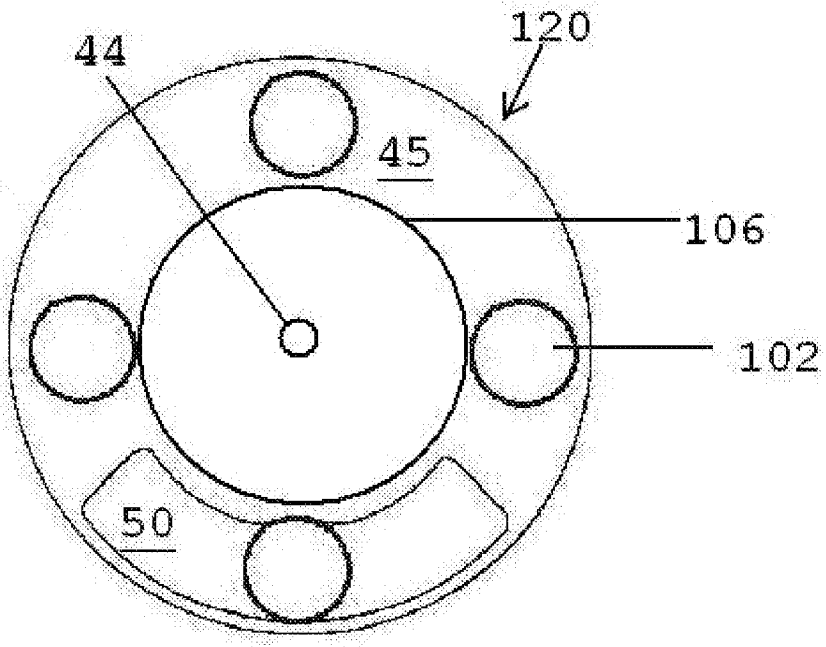


FIG.5

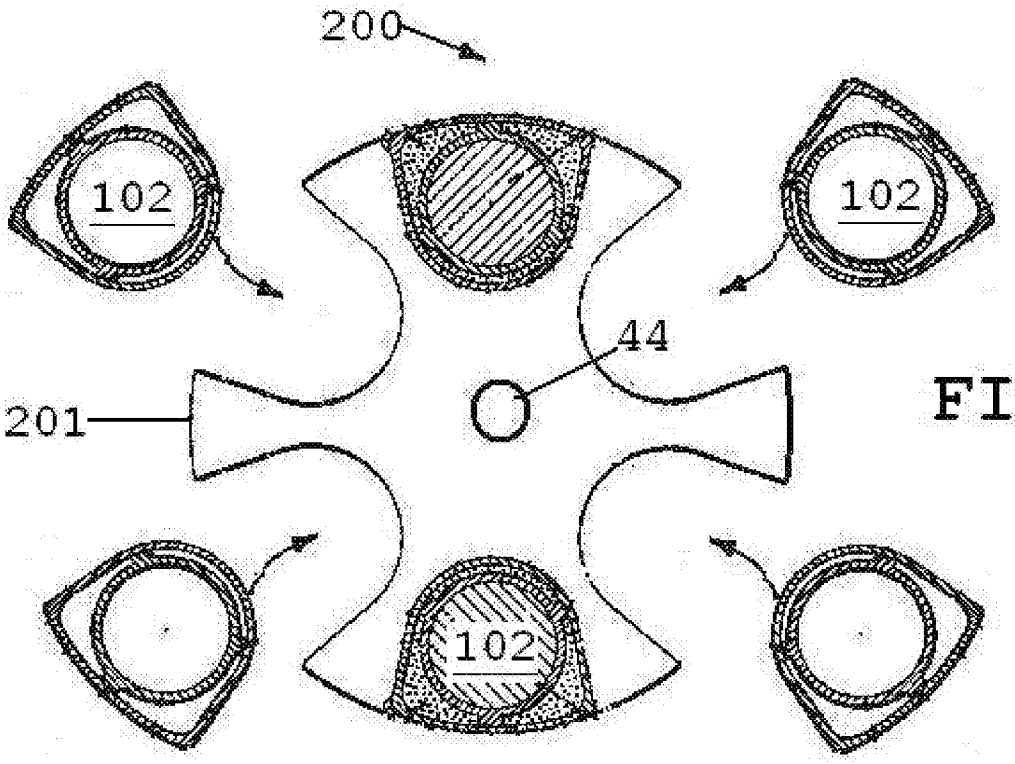


FIG. 6

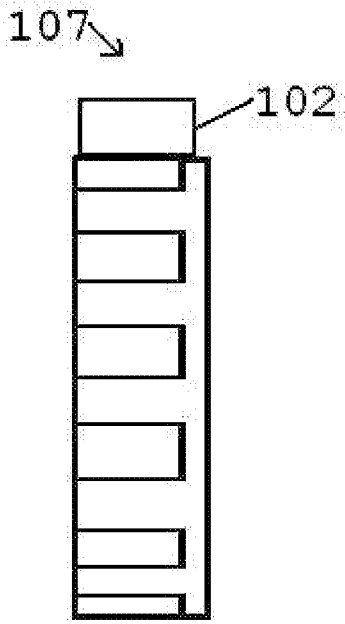


FIG. 7

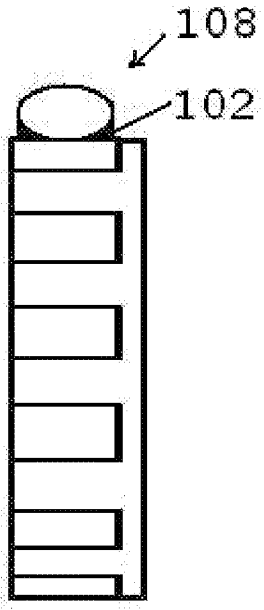


FIG. 8

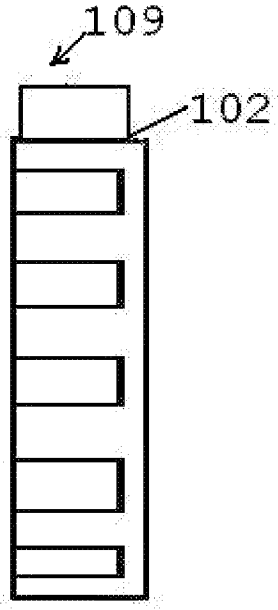


FIG. 9

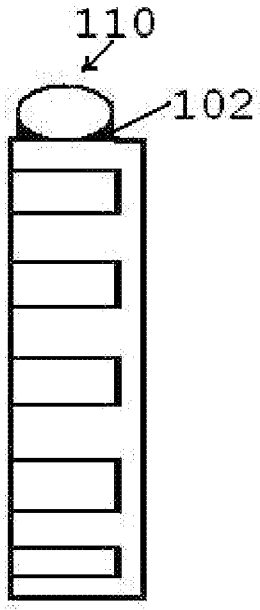
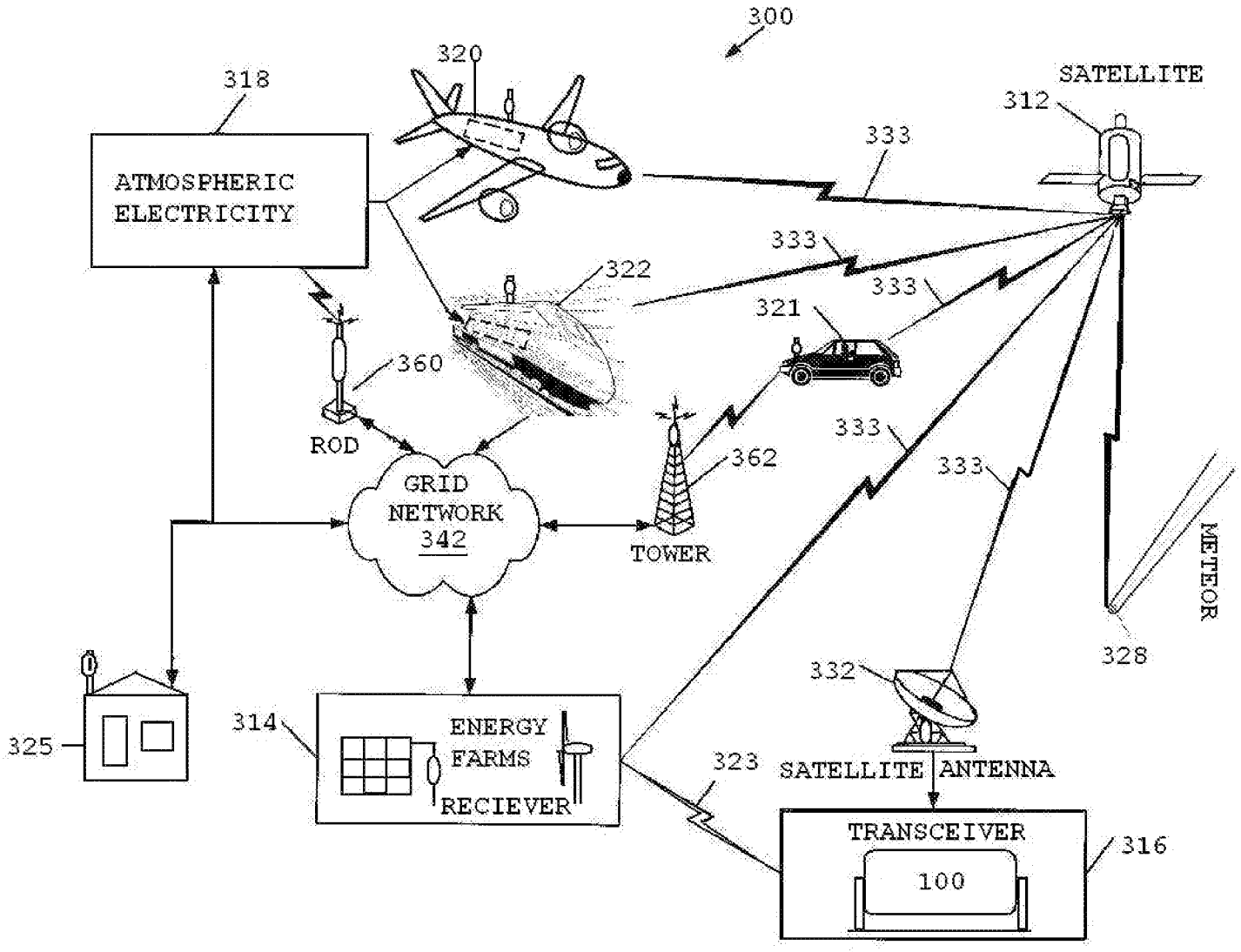


FIG. 10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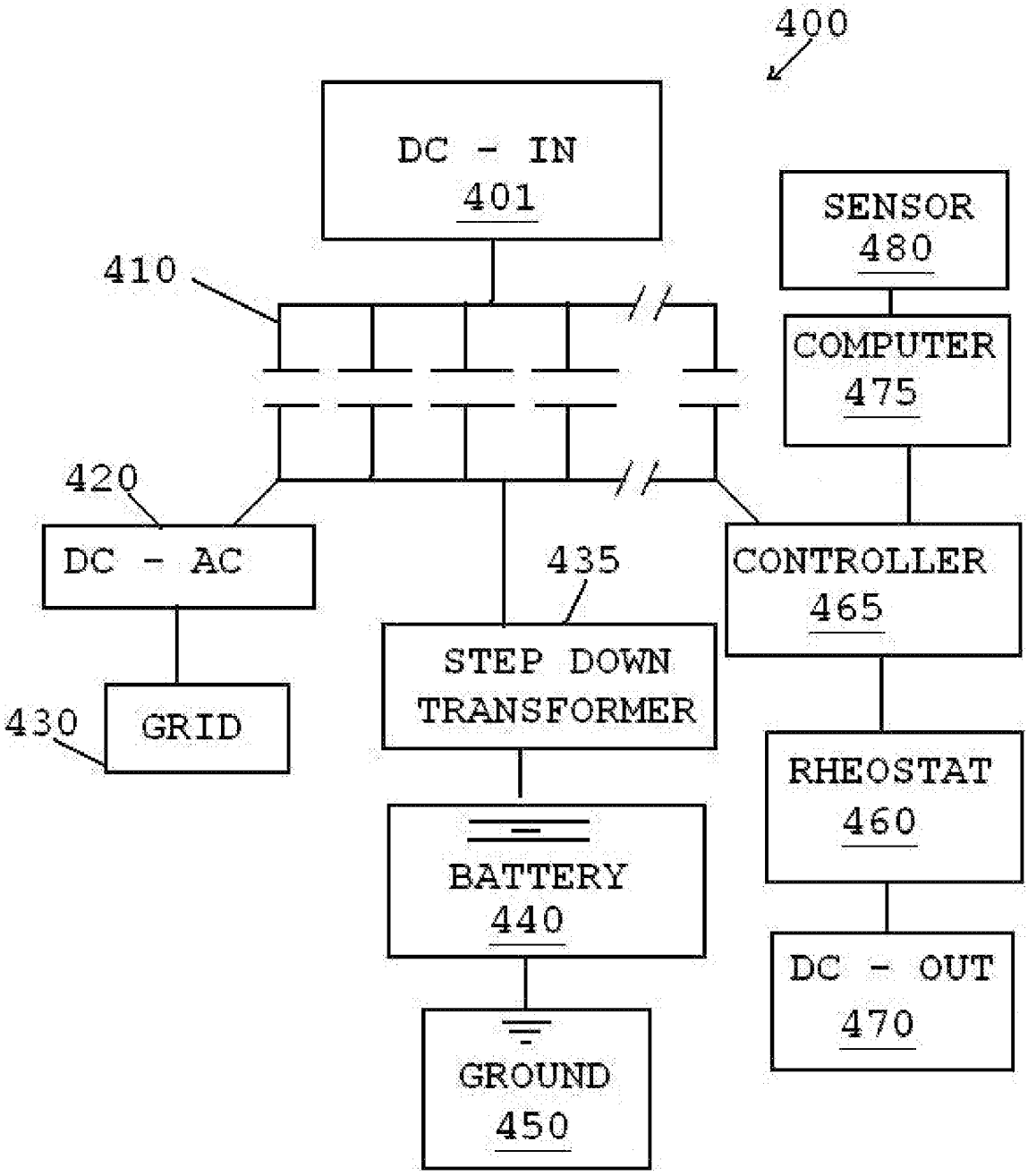
320
318
SATELLITE
312
ATMOSPHERIC ELECTRICITY
333
333
322
333
321
360
ROD
333
362
GRID NETWORK 342
TOWER
333
METEOR
328
332
325
314
ENERGY FARMS
RECIEVER
323
SATELLITE ANTENNA
TRANSCEIVER
316
100

FIG.11

FIG.12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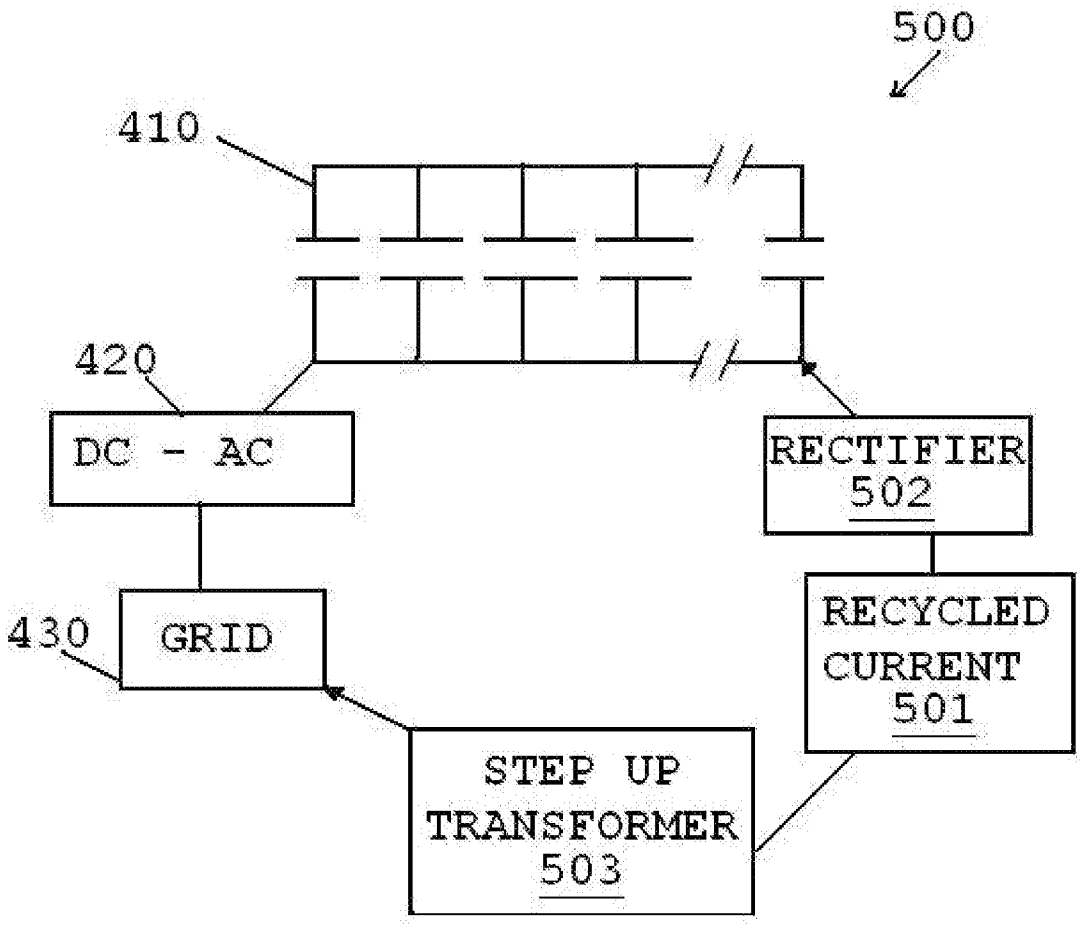
DC - IN
401
SENSOR
480
410
COMPUTER
475
420
DC - AC
435
CONTROLLER
465
STEP DOWN
TRANSFORMER
430
GRID
RHEOSTAT
460
BATTERY
440
DC - OUT
470
GROUND
450

FIG.13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420
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RECTIFIER
502
430
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STEP UP
TRANSFORMER
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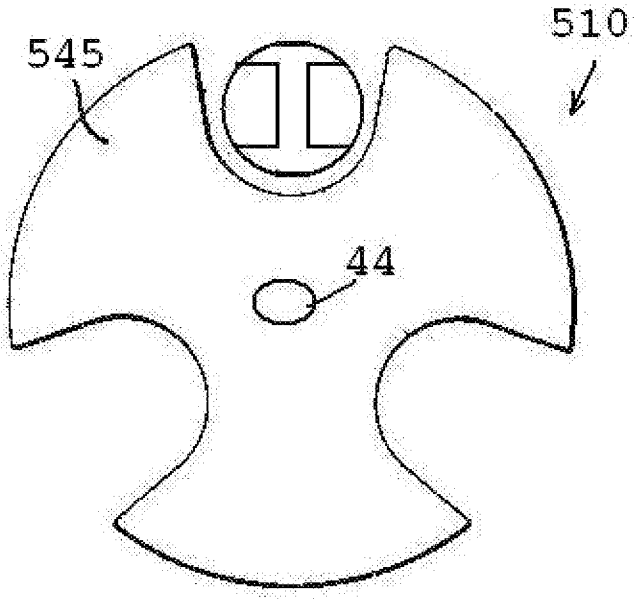


FIG.14

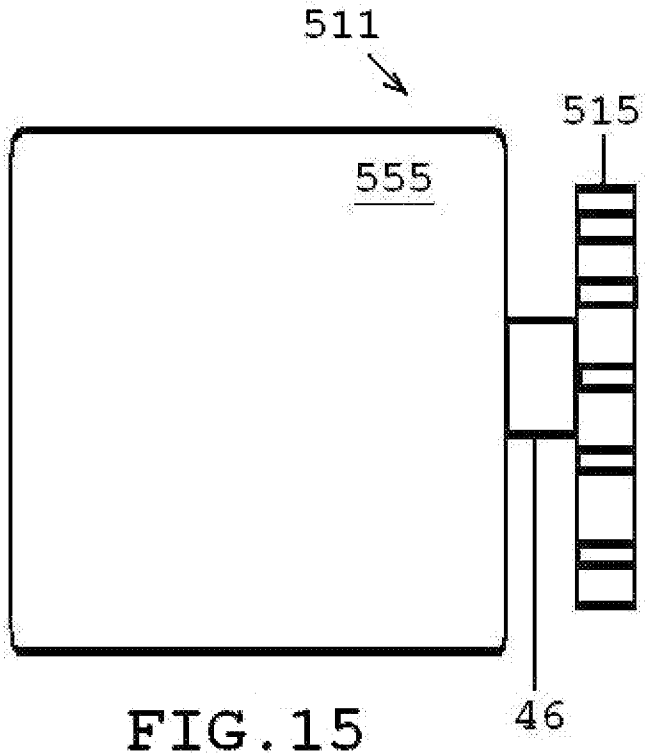
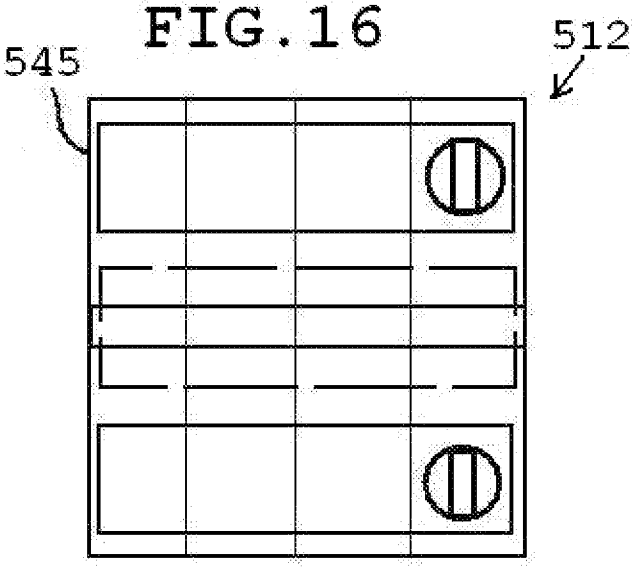


FIG.15

FIG.16



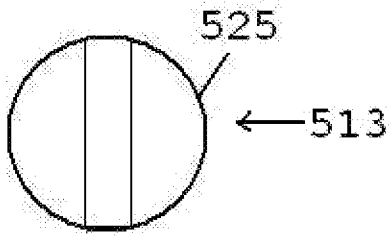


FIG.17

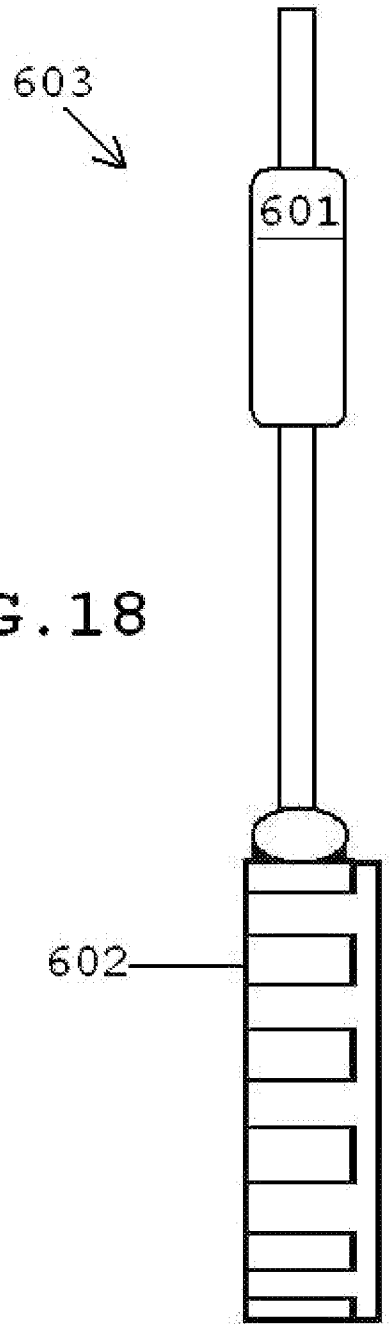


FIG.18

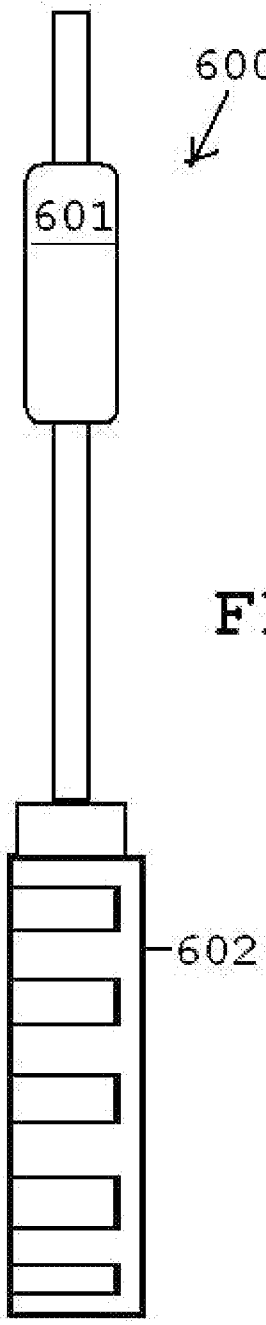
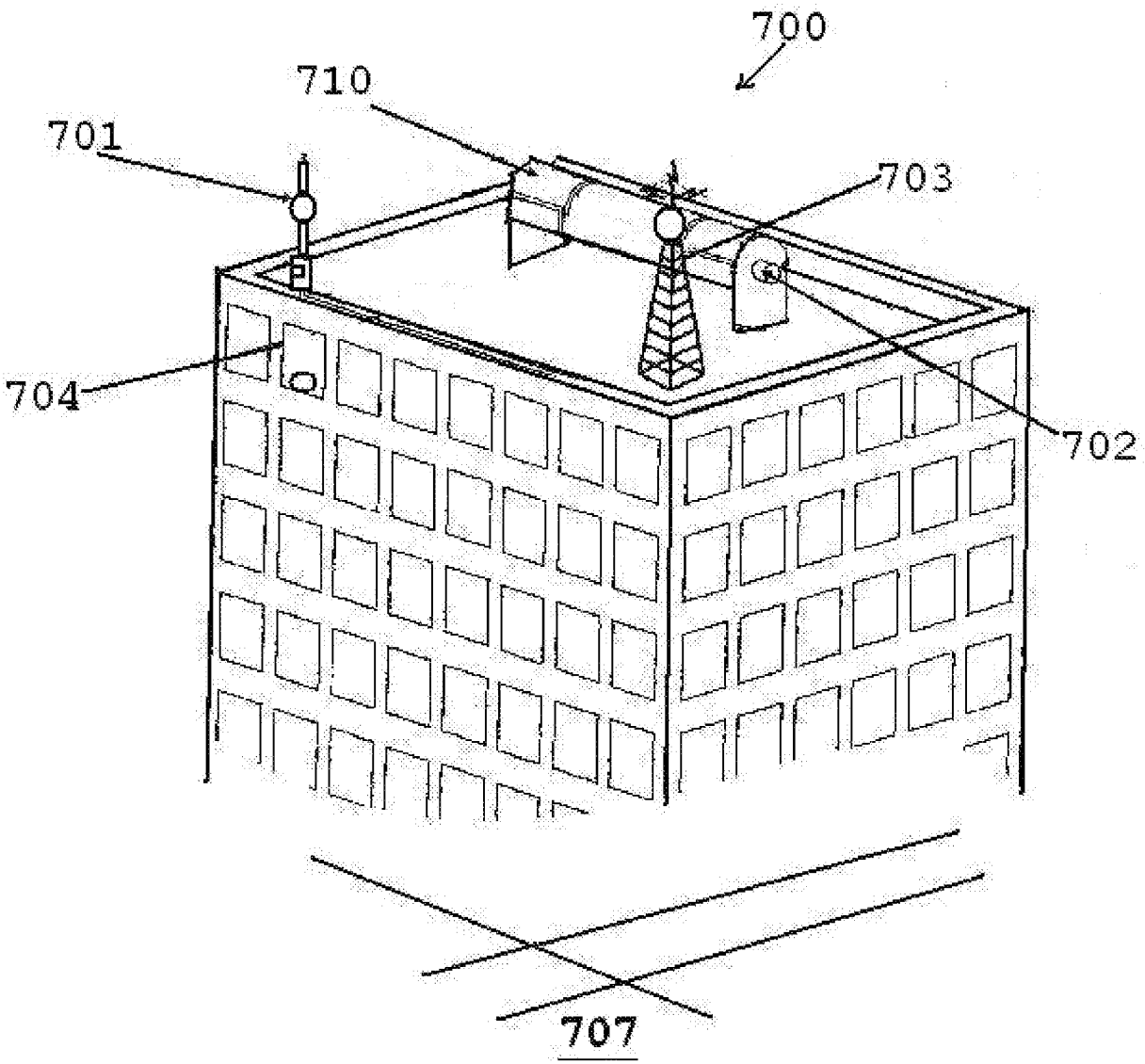


FIG.19

FIG.20



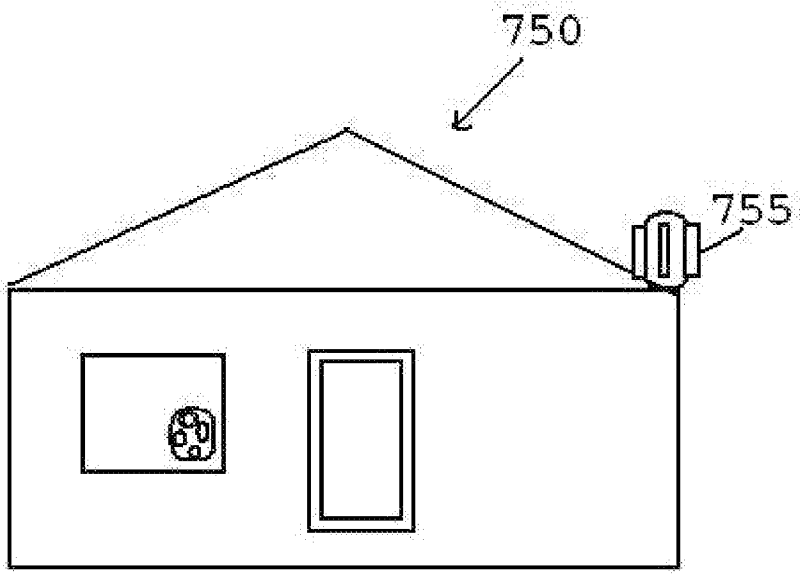


FIG.21

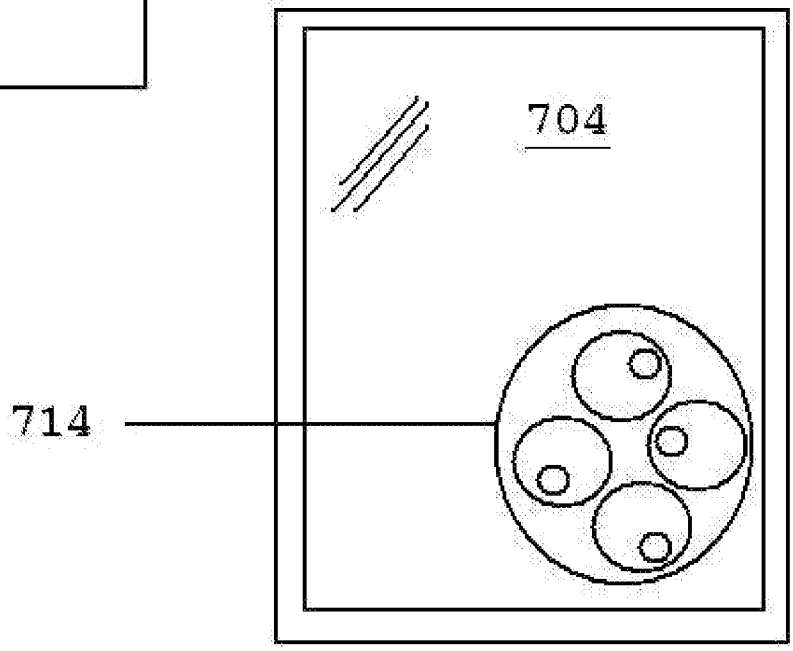


FIG.22

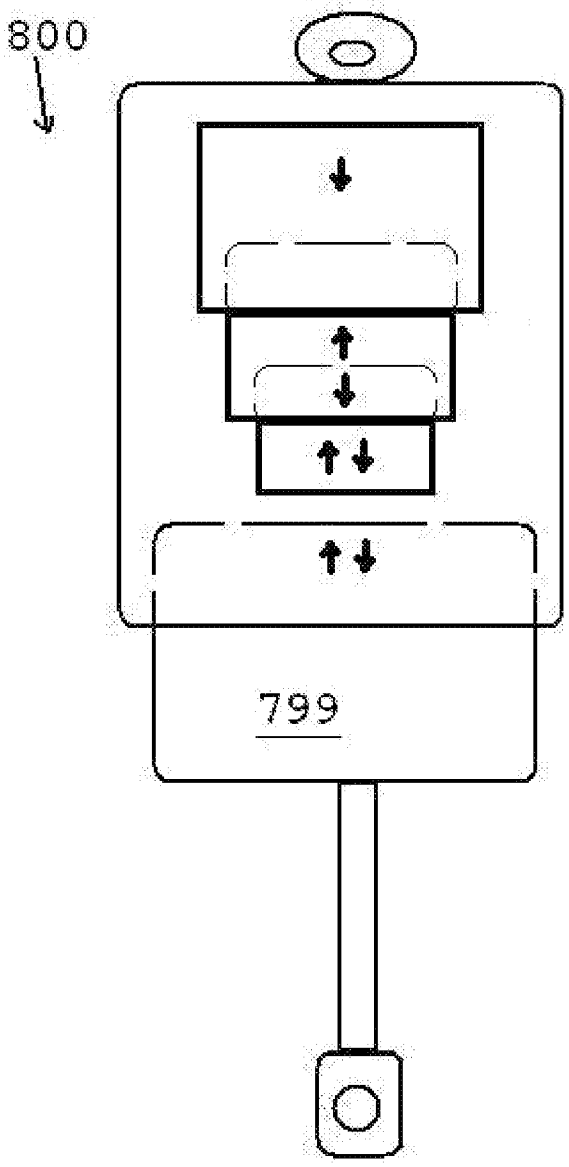


FIG.23

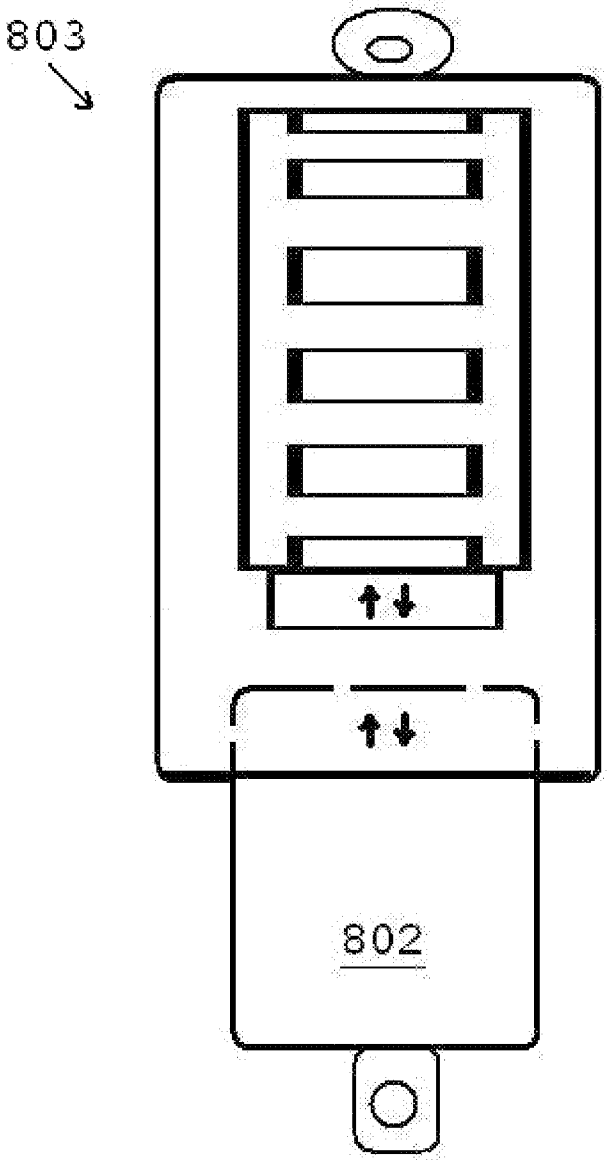


FIG.24

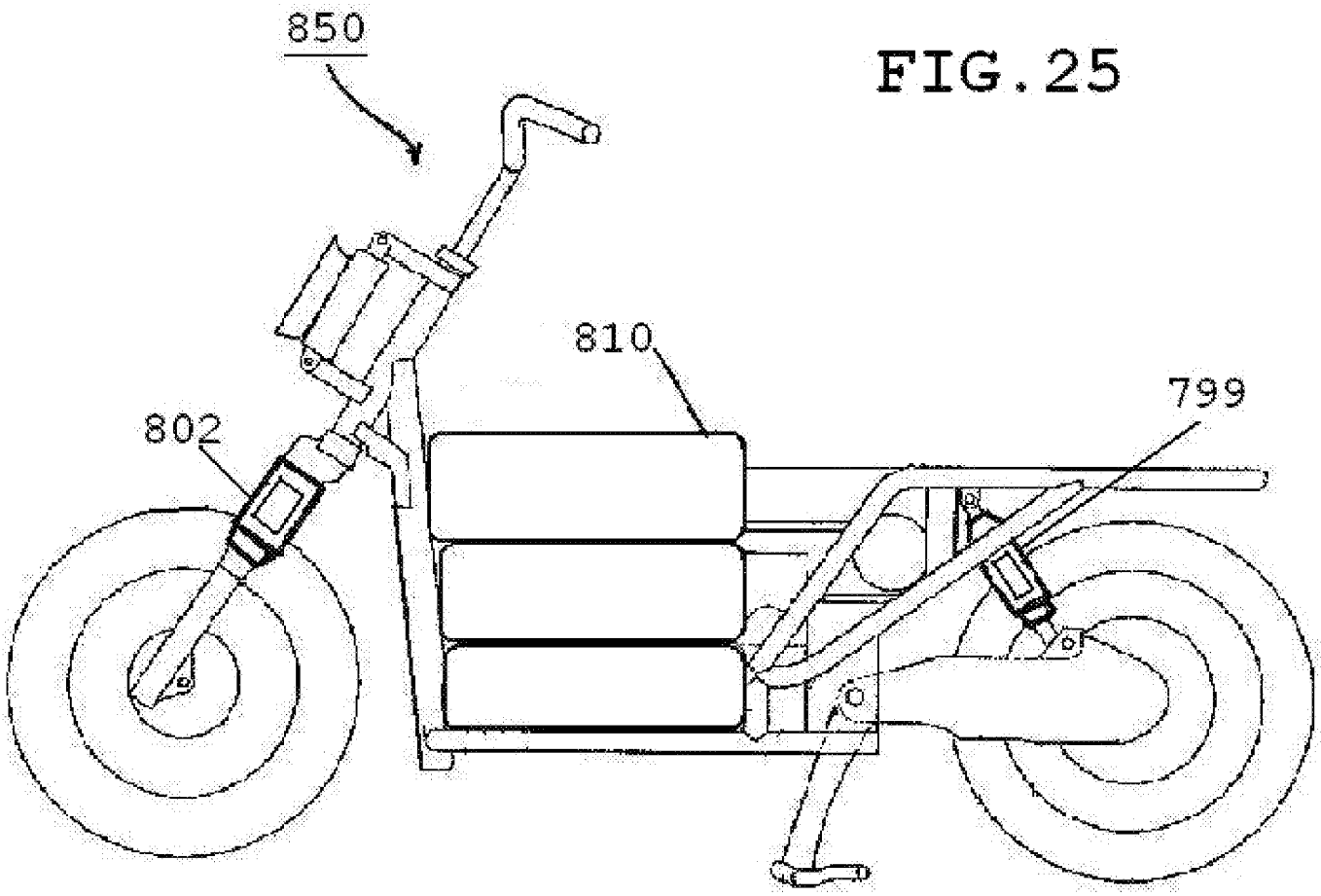


FIG.25

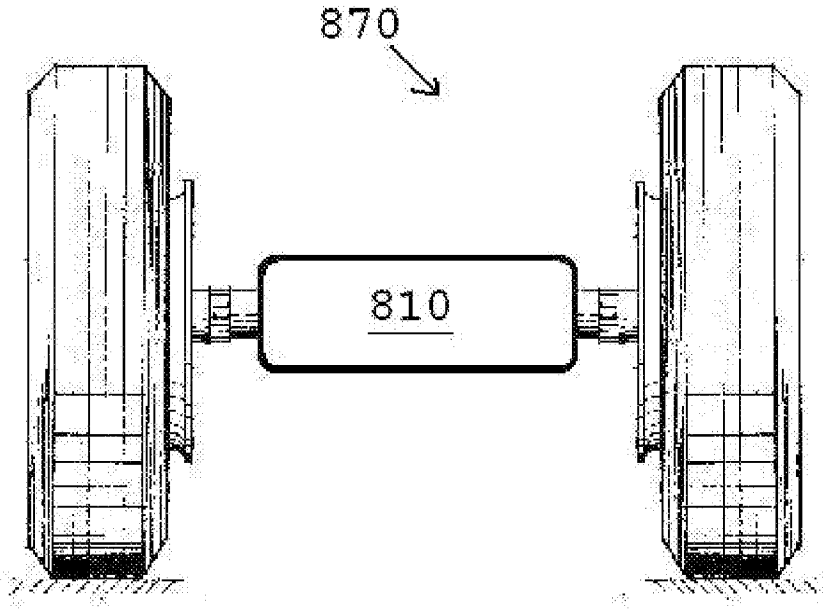


FIG.26

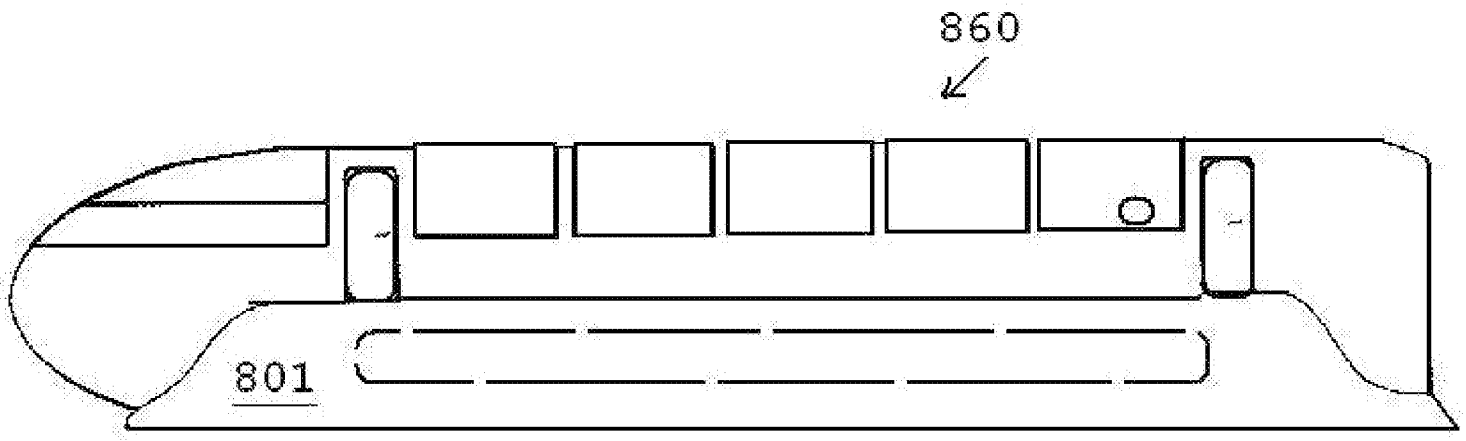


FIG.27

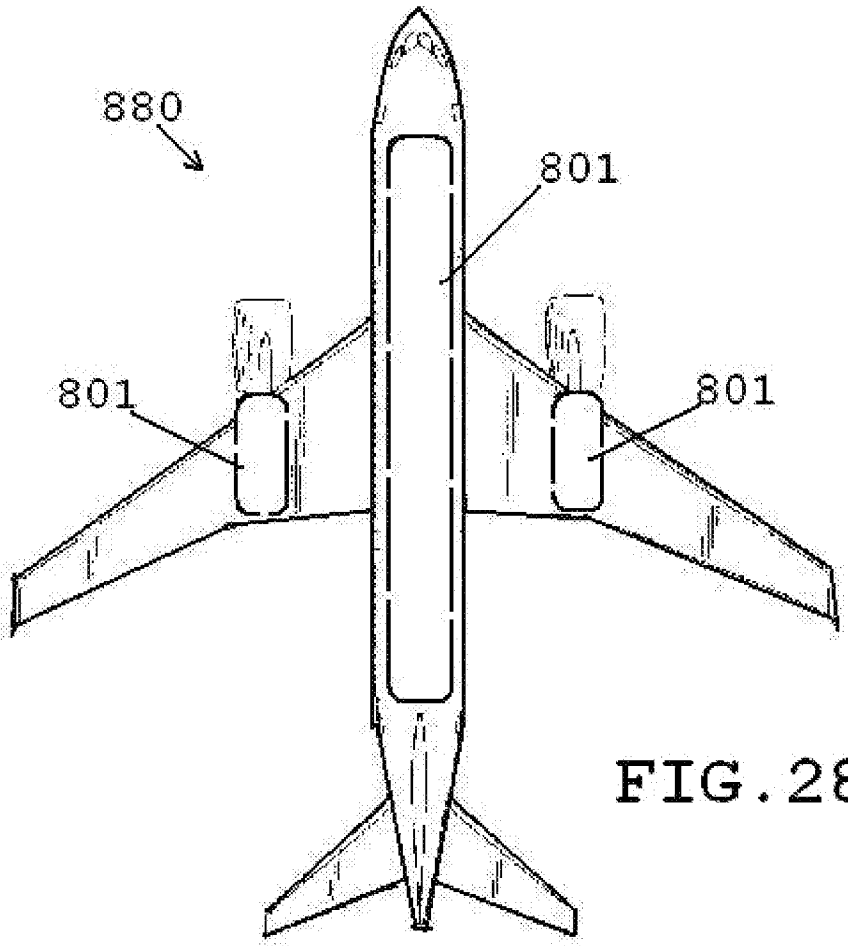


FIG.28

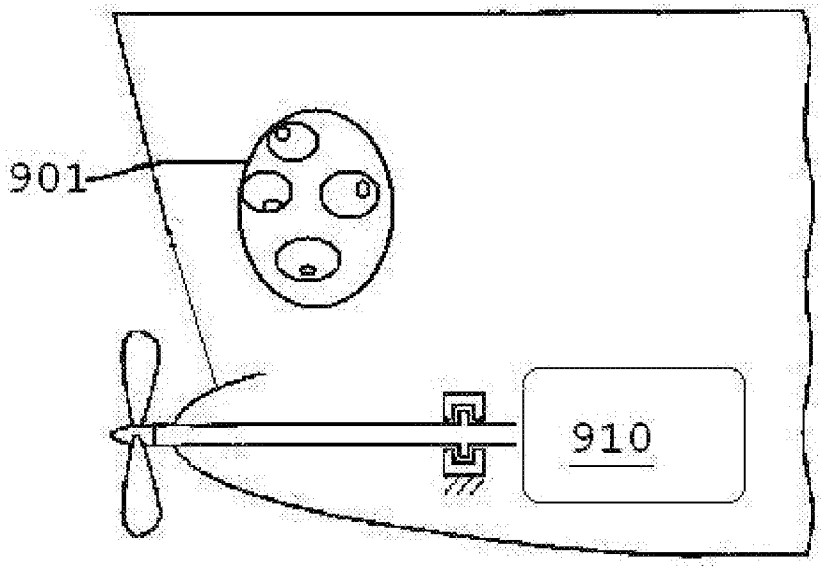


FIG.29

FIG.30

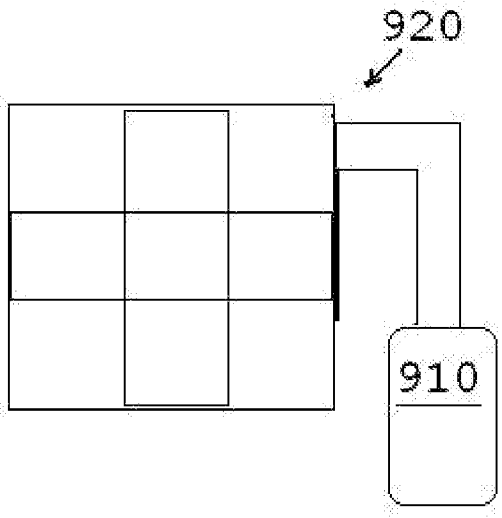


FIG.31

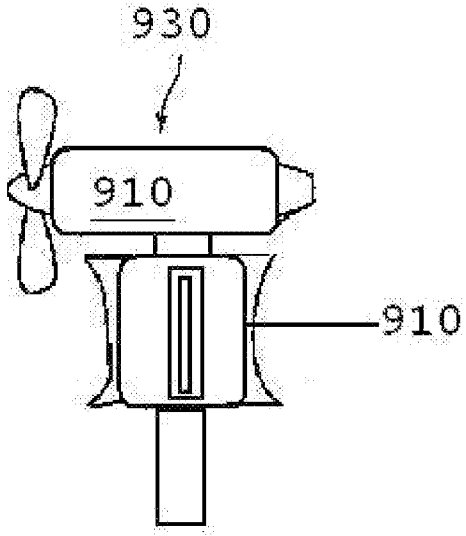
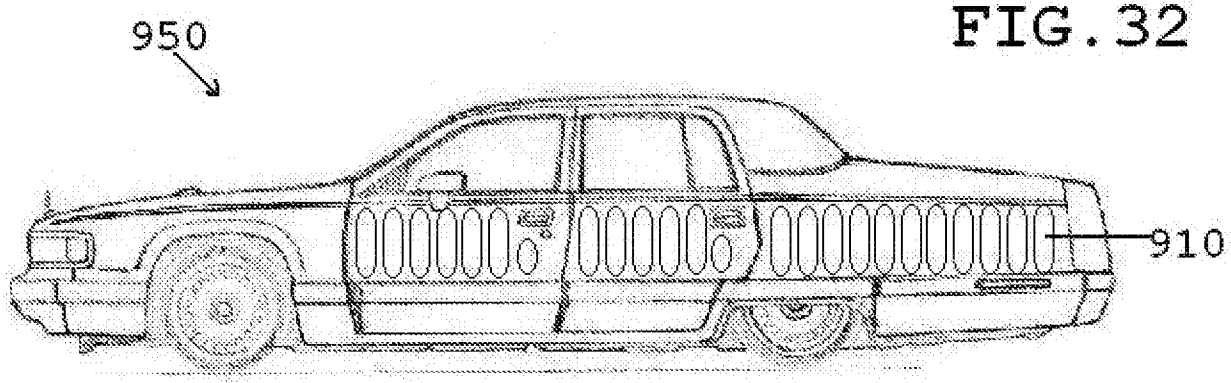


FIG.32



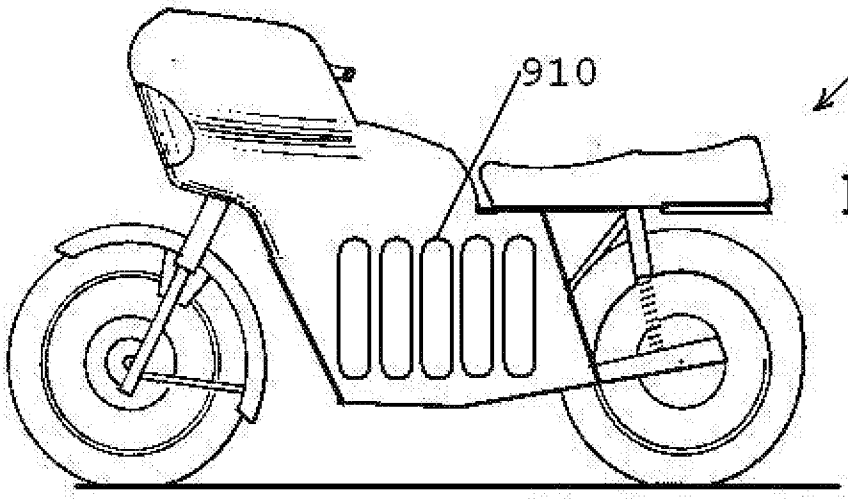


FIG.33

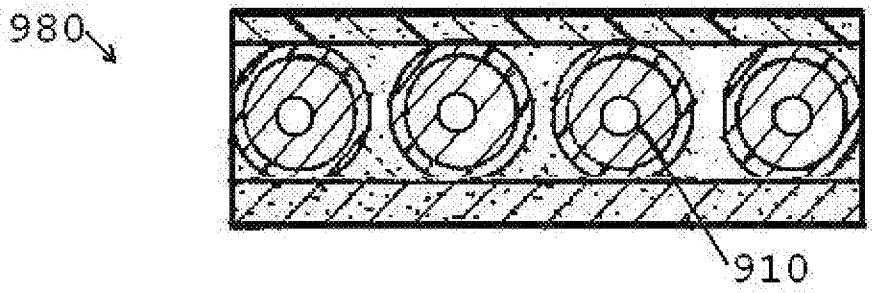


FIG.34

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

APPLICATION FOR U.S. LETTERS PATENT

TITLE: **ATMOSPHERIC TRANSDUCTION SYSTEM**

INVENTOR: **JENNINGS, James Edward**

CROSS REFERENCE TO RELATED APPLICATIONS

[001] NONE

BACKGROUND OF THE INVENTION

Field of the Invention

[002] Self-propelled travel is a type of recreational adventure travel using human powered transport. This includes non-motorized machines such as a bicycle or skateboard. It is in contrast to traveling in a powered vehicle (such as an automobile) as in that case it is the vehicle which powers itself. Self-propelled travel is used to travel short distances or even for much longer distances such as bicycle touring. Self propelled describes something that moves, progresses or acts on its own power without needing outside help. Leonardo da Vinci's 1478 Self-Propelled Car: It was more than 500 years ago, however -- sometime around the year 1478 to be more or less specific -- when Leonardo drew out his plans for the world's first self-propelled vehicle. Experts originally believed two leaf springs, the simplest form of the spring typically used for automotive suspensions, somehow powered the vehicle. Closer inspection eventually revealed the power came from bigger, coiled springs located in tambours, cylindrical drum-like casings, inside the car's frame. The machine works like a robot or a wind-up toy simply by rotating the wheels opposite of their intended direction, which winds up the springs inside and gives it power. Self propulsion(of a vehicle) provided with its own source of tractive power rather than requiring an external means of propulsion.

[003] In the middle of the 18th century, Benjamin Franklin's experiments showed that electrical phenomena of the atmosphere were not fundamentally different from those produced in the

laboratory. By 1749, Franklin observed lightning to possess almost all the properties observable in electrical machines.

[004] In July 1750, Franklin hypothesized that electricity could be taken from clouds via a tall metal aerial with a sharp point. Before Franklin could carry out his experiment, in 1752 Thomas-François Dalibard erected a 40-foot (12 m) iron rod at Marly-la-Ville, near Paris, drawing sparks from a passing cloud. With ground-insulated aerials, an experimenter could bring a grounded lead with an insulated wax handle close to the aerial, and observe a spark discharge from the aerial to the grounding wire. In May 1752, Dalibard affirmed that Franklin's theory was correct.

Piezoelectric Motor

[005] A piezoelectric motor or piezo motor is a type of electric motor based upon the change in shape of a piezoelectric material when an electric field is applied. Piezoelectric motors make use of the converse piezoelectric effect whereby the material produces acoustic or ultrasonic vibrations in order to produce a linear or rotary motion. In one mechanism, the elongation in a single plane is used to make a series stretches and position holds, similar to the way a caterpillar moves. A transducer is a device that converts one form of energy to another. Energy types include (but are not limited to) electrical, mechanical, electromagnetic (including light), chemical, acoustic or thermal energy. While the term transducer commonly implies the use of a sensor/detector, any device which converts energy can be considered a transducer. Transducers are widely used in measuring instruments. Piezoelectric materials can also be used to harvest low levels of mechanical energy into electrical energy suitable for powering wireless sensors, low power microprocessors or charging batteries. Rotary Uses include rotating machines such as fans, turbines, drills, the wheels on electric cars, locomotives and conveyor

belts. Also, in many vibrating or oscillating machines, an electric motor spins an unbalanced mass, causing the motor (and its mounting structure) to vibrate.

ATMOSPHERIC ELECTRICITY

[006] There is always free electricity in the air and in the clouds, which acts by induction on the earth and electromagnetic devices. Experiments have shown that there is always free electricity in the atmosphere, which is sometimes negative and sometimes positive, but most generally positive, and the intensity of this free electricity is greater in the middle of the day than at morning or night and is greater in winter than in summer. In fine weather, the potential increases with altitude at about 30 volts per foot (100 V/m).

Atmospheric layers

[007] The electrical conductivity of the atmosphere increases exponentially with altitude. The amplitudes of the electric and magnetic components depend on season, latitude, and height above the sea level. The greater the altitude the more atmospheric electricity abounds. The exosphere is the uppermost layer of the atmosphere and is estimated to be 500 km to 1000 km above the Earth's surface, and its upper boundary at about 10,000 km. The thermosphere (upper atmosphere) is the layer of the Earth's atmosphere directly above the mesosphere and directly below the exosphere. Within this layer, ultraviolet radiation causes ionization. Theories that have been proposed to explain the phenomenon of the polar aurora, but it has been demonstrated by experiments that it is due to currents of positive electricity passing from the higher regions of the atmosphere to the earth.

[008] The mesosphere (middle atmosphere) is the layer of the Earth's atmosphere that is directly above the stratosphere and directly below the thermosphere. The mesosphere is located about

50-80/85 km above Earth's surface. The stratosphere (middle atmosphere) is a layer of Earth's atmosphere that is stratified in temperature and is situated between about 10 km and 50 km altitude above the surface at moderate latitudes, while at the poles it starts at about 8 km altitude. The stratosphere sits directly above the troposphere and directly below the mesosphere. The troposphere (lower atmosphere) is the densest layer of the atmosphere.

[009] The planetary boundary layer (PBL), also known as the atmospheric boundary layer (ABL), is the lowest part of the atmosphere and its behavior is directly influenced by its contact with the planetary surface. It is also known as the "exchange layer". (see also:p-n junction.)

[0010] There is a potential gradient at ground level ("Atmosphere ground layer") and this vertical field corresponds to the negative charge in and near the Earth's surface. The negative potential gradient falls rapidly as altitude increases from the ground. Most of this potential gradient is in the first few kilometers. The positive potential gradient rises rapidly as altitude increases from the ground. Volta, over two centuries before the 21st century, discovered with some degree of exactitude that the proportions of the ordinates of the curve or gradient of electric potential increased as the distance from the earth increases, and, more recently, Engel has provided data to calculate the increase (Image to the right).

Drum-type generator

[0011] A drum-type homopolar generator has a magnetic field (B) that radiates radially from the center of the drum and induces voltage (V) down the length of the drum. A conducting drum spun from above in the field of a "loudspeaker" type of magnet that has one pole in the center of the drum

and the other pole surrounding the drum could use conducting ball bearings at the top and bottom of the drum to pick up the generated current.

Astrophysical unipolar inductors

[0012] Unipolar inductors occur in astrophysics where a conductor rotates through a magnetic field, for example, the movement of the highly conductive plasma in a cosmic body's ionosphere through its magnetic field. In their book, Cosmical Electrodynamics, Hannes Alfvén and Carl-Gunne Fälthammar write:

"Since cosmical clouds of ionized gas are generally magnetized, their motion produces induced electric fields [..] For example the motion of the magnetized interplanetary plasma produces electric fields that are essential for the production of aurora and magnetic storms" [..]

".. the rotation of a conductor in a magnetic field produces an electric field in the system at rest.

[0013] This phenomenon is well known from laboratory experiments and is usually called 'homopolar ' or 'unipolar' induction.

The Faraday disc

[0014] The homopolar generator was developed first by Michael Faraday during his experiments in 1831. It is frequently called the Faraday disc in his honor. It was the beginning of modern dynamos — that is, electrical generators which operate using a magnetic field. It was very inefficient and was not used as a practical power source, but it showed the possibility of generating electric power using magnetism, and led the way for commutated direct current dynamos and then alternating current alternators.

Boeing 737–800

[0015] The Boeing Fuel Cell Demonstrator Airplane has a Proton Exchange Membrane (PEM) fuel cell/lithium-ion battery hybrid system to power an electric motor, which is coupled to a conventional propeller. The fuel cell provides all power for the cruise phase of flight. During takeoff and climb, the flight segment that requires the most power, the system draws on lightweight lithium-ion batteries.

[0016] The demonstrator aircraft is a Dimona motor glider, built by Diamond Aircraft Industries of Austria, which also carried out structural modifications to the aircraft. With a wing span of 16.3 meters (53.5 feet), the airplane will be able to cruise at approximately 100 kilometers per hour (62 miles per hour) on power from the fuel cell.

[0017] Nikola Tesla explored the wireless transmission of energy through his work with radio and microwaves and his creation of the Tesla coil and the magnifying transmitter. In 1898, Tesla demonstrated his radio-controlled boat, which he was able to control remotely. In the 1930s, Tesla claimed to have invented a particle beam weapon, or, as some called it, a "peace ray." The device was, in theory, capable of generating an intense, targeted beam of energy and sending it across great distances to demolish warplanes, foreign armies, or anything else you'd rather didn't exist.

[0018]"ROY J. MEYERS, BRITISH PATENT NUMBER 1098" This invention relates to improvements in apparatus for the production of electrical currents, and the primary object in view is the production of a commercially serviceable electrical current without the employment of mechanical or chemical action. To this end the invention comprises means for producing what I believe to be dynamic electricity from the earth and its ambient elements.

[0019] EDWARD LEEDSKALNIN: MAGNETIC CURRENT -The Perpetual Motion Holder is primarily a teaching device but it has many functions including an electromagnet, this is easy enough

to see; it is a generator—spin a magnet between the coils it will generate electricity; it functions as a transformer; it demonstrates how permanent magnets are made, and is a holder of perpetual motion.

Strategic Defense Initiative

[0020] The Strategic Defense Initiative (SDI) was proposed to use ground and space-based systems to protect the United States from attack by strategic nuclear ballistic missiles.

Description of the Related Art

[0021] The present invention relates to a ball bearing assembly structure, an electromagnetic clutch having the ball bearing assembly structure, and a gas compressor equipped with the electromagnetic clutch.

[0022]When operating the gas compressor , the electromagnet of the electromagnetic clutch is energized to attract or adsorb the follower armature plate to an end surface of the prime-mover pulley and join the prime-mover pulley and the rotor shaft, thereby rotating the rotor shaft.

[0023] The ball bearing of the electromagnetic clutch conventionally has used one having an even number of balls per row. Generally, the ball bearing causes vibration and noise due to rotation. In the case of the ball bearing rotating while undergoing a radial load due to a tension of the belt, vibration and noise considerably occur. Particularly when other vibration and noise levels are lowered during engine idling, the vibration and noise of the ball bearing transmitted to the vehicular compartment is not negligible.

[0024] The inventor has conducted various experiments and discovered that the one factor of high vibration and noise level is an even number of balls of the ball bearing. In the ball bearing having an even number of balls per one row, the balls are in a facing relation to have linear-symmetry arrangement between the inner race and the outer race. The deformation and vibration at a regular particular frequency is caused in the inner and outer races. It is to be considered that the vibration as a source also increases noise.

[0025]The present invention relates generally and in various embodiments to piezoelectric mechanical systems. More specifically, the present invention relates generally and in various embodiments to atmospheric oscillation transducer apparatuses, systems, and methods.

[0026] Although various implementations of the present invention, among many, may be described herein with reference to the specific illustrative embodiments related to particular applications, those skilled in the art will understand that the invention is not in any way intended to be limited to such embodiments and/or applications. Those having ordinary skill in the art and reference to the description of the embodiments herein will recognize additional modifications, applications, and other embodiments falling within the scope of the claimed invention and additional fields in which the present invention may be practiced.

[0027] Digital Radio (also known as Satellite Radio or Satellite Digital Audio Radio Service (SDARS)) is a subscriber-based digital radio service that is broadcast via satellites. Digital radio service provides compact-disc (CD) quality programming that may be digitally transmitted via one or more satellites and/or space stations to one or more Earth-based (terrestrial) digital radio stations, receivers, and/or repeaters. In satellite-based direct-broadcast radio services, digitally-encoded audio

program material may be broadcast to terrestrial fixed or mobile digital radio receivers. Fixed receivers may include, for example, stand alone digital radio receivers or digital radio receivers connected via computer networks, including for example, the Internet. Mobile receivers may include, for example, digital radio receivers located in automobiles, aircrafts, watercrafts, and the like.

[0028] Satellite-based digital audio radio services such as SDARS, for example, may be broadcast to one or more digital radio receivers either directly from an orbiting satellite, or indirectly from one or more repeater stations. Such repeater stations may be useful where the digital radio receiver is located in a shielded location or where there is no direct line of sight between the radio and the satellite. In other digital audio radio services systems, the audio programs also may be transmitted in digital form by one or more space stations directly to fixed, mobile, and/or portable radio stations. Such systems may comprise, for example, orbiting satellites, complementary repeating terrestrial transmitters, telemetry, tracking, and control facilities.

[0029] Combinations of mechanical devices U.S. Pat. Nos. 4,019,073, 6,615,968 and atmospheric system interaction are disclosed in U.S. Pat. Nos. 1,119,732, 787,412, 6,902,513 to Nikola Tesla; 28,793 to Charles Vion; and 1,540,998 to Herman Plauson. Lastly, U.S. Pat. Nos. 8,102,078 and US2008/0009240. Agnoff discloses an Oscillating watch winder in U.S. Pat. Nos. 6,543,929, Jennings further discloses an oscillating smart device in application No. 13,572,679.

[0030] As illustrated by a large body of prior art, including the above-noted patents, and a large number of commercial devices, efforts are continuously being made in an attempt to improve helmets, headsets and their methods of fabrication. Nothing in the prior art, however, suggests the present inventive combination of materials and method steps as herein described and claimed. The

present invention achieves its purposes, objects and advantages over the prior art through a new, useful and unobvious combination of components and method steps which improve safety, comfort and noise abatement performance.

[0031] Therefore, it is an object of this invention to provide Effectively, the provision of energy such that it meets the needs of the present without compromising the ability of future generations to meet their own needs. ...Sustainable Energy has two key components: renewable energy and energy efficiency.

[0032] It is still a further objection of this invention to promote Dynamic harmony between equitable availability of energy-intensive goods and services to all people and the preservation of the earth for future generations." And, "the solution will lie in finding sustainable energy sources and more efficient means of converting and utilizing energy.

[0033] It is a further object of the present invention to produce Green Power Energy: is energy that can be extracted, generated, and/or consumed without any significant negative impact to the environment, green power; as electricity produced from solar, wind, geothermal, biogas, biomass, and low-impact small hydroelectric sources.

[0034] Thus, there is a need for a clean energy system that uses atmospheric electricity.

Prior Art

[0035] Quartz crystals have been in regular use for many years to give an accurate frequency for all radio transmitters, radio receivers and computers. Their accuracy comes from an amazing set of coincidences: Quartz -- which is silicon dioxide like most sand -- is unaffected by most solvents and remains crystalline to hundreds of degrees Fahrenheit. The property that makes it an electronic miracle is the fact that, when compressed or bent, it generates a charge or voltage on its surface. This

is a fairly common phenomenon called the Piezoelectric effect. In the same way, if a voltage is applied, quartz will bend or change its shape very slightly.

[0036] If a bell were shaped by grinding a single crystal of quartz, it would ring for minutes after being tapped. Almost no energy is lost in the material. A quartz bell -- if shaped in the right direction to the crystalline axis -- will have an oscillating voltage on its surface, and the rate of oscillation is unaffected by temperature. If the surface voltage on the crystal is picked off with plated electrodes and amplified by a transistor or integrated circuit, it can be re-applied to the bell to keep it ringing.

[0037] The electronics of the watch initially amplifies noise at the crystal frequency. This builds or regenerates into oscillation -- it starts the crystal ringing. The output of the watch crystal oscillator is then converted to pulses suitable for the digital circuits.

Polymers

[0038] Polyvinylidene fluoride (PVDF): PVDF exhibits piezoelectricity several times greater than quartz. Unlike ceramics, where the crystal structure of the material creates the piezoelectric effect, in polymers the intertwined long-chain molecules attract and repel each other when an electric field is applied.

Near Space

[0039] Solar particles become trapped within the Earth's magnetic field and form radiation belts. The Van Allen radiation belt is a torus of energetic charged particles (i.e. a plasma) around Earth, trapped by Earth's magnetic field.

[0040] At elevations above the clouds, atmospheric electricity forms a continuous and distinct element (called the electrosphere) in which the Earth is surrounded. The electrosphere layer (from tens of kilometers above the surface of the earth to the ionosphere) has a high electrical conductivity

and is essentially at a constant electric potential. The ionosphere is the inner edge of the magnetosphere and is the part of the atmosphere that is ionized by solar radiation. (Photoionisation is a physical process in which a photon is incident on an atom, ion or molecule, resulting in the ejection of one or more electrons.)

ADVANTAGES/DISADVANTAGES

[0041] Energy in electronic elements: Electric potential energy, or electrostatic potential energy, is a potential energy (measured in joules) that results from conservative Coulomb forces and is associated with the configuration of a particular set of point charges within a defined system. The term "electric potential energy" is used to describe the potential energy in systems with time-variant electric fields, while the term "electrostatic potential energy" is used to describe the potential energy in systems with time-invariant electric fields.

[0042] Capacitance is the ability of a body to store an electrical charge. Any body or structure that is capable of being charged, either with static electricity or by an electric current, exhibits capacitance. A common form of energy storage device is a parallel-plate capacitor. In a parallel plate capacitor, capacitance is directly proportional to the surface area of the conductor plates and inversely proportional to the separation distance between the plates. If the charges on the plates are +q and -q, and V gives the voltage between the plates, then the capacitance C is given by

$$C = q/V.$$

[0043] The capacitance is a function only of the physical dimensions (geometry) of the conductors and the permittivity of the dielectric. It is independent of the potential difference between the conductors and the total charge on them.

[0044] Piezoelectricity is the combined effect of the electrical behavior of the material:

$$D = \epsilon E$$

where D is the electric charge density displacement (electric displacement), ϵ is permittivity and E is electric field strength, and

Hooke's Law: $S = s T$

where S is strain, s is compliance and T is stress.

[0045] Polyvinylidene fluoride, or polyvinylidene difluoride (PVDF) is a highly non-reactive and pure thermoplastic fluoropolymer produced by the polymerization of vinylidene difluoride. PVDF is a specialty plastic material in the fluoropolymer family; it is used generally in applications requiring the highest purity, strength, and resistance to solvents, acids, bases and heat and low smoke generation during a fire event. Compared to other fluoropolymers, it has an easier melt process because of its relatively low melting point of around 177 ˚C.

[0046] It has a low density (1.78) and low cost compared to the other fluoropolymers. It is available as piping products, sheet, tubing, films, plate and an insulator for premium wire. It can be injected, molded or welded and is commonly used in the chemical, semiconductor, medical and defense industries, as well as in lithium ion batteries. It is also available as a crosslinked closed cell foam, used increasingly in aviation and aerospace. PVDF has a glass transition temperature (Tg) of about -35 ˚C and is typically 50–60% crystalline. To give the material its piezoelectric properties, it is mechanically stretched to orient the molecular chains and then poled under tension. PVDF exists in several forms: alpha (TGTG'), beta (TTTT), and gamma (TTTGTTTG') phases, depending on the chain conformations as trans (T) or gauche (G) linkages. When poled, PVDF is a ferroelectric

polymer, exhibiting efficient piezoelectric and pyroelectric properties. These characteristics make it useful in sensor and battery applications. Thin films of PVDF are used in some newer thermal camera sensors.

[0047] Copolymers: Copolymers of PVDF are also used in piezoelectric and electrostrictive applications. One of the most commonly-used copolymers is P(VDF-trifluoroethylene), usually available in ratios of about 50:50 wt% and 65:35 wt% (equivalent to about 56:44 mol% and 70:30 mol%). Another one is P(VDF-tetrafluoroethylene). They improve the piezoelectric response by improving the crystallinity of the material.

[0048] While the copolymers' unit structures are less polar than that of pure PVDF, the copolymers typically have a much higher crystallinity. This results in a larger piezoelectric response: d33 values for P(VDF-TrFE) have been recorded to be as high as -38 pC/N versus -33 pC/N in pure PVDF.

[0049] APPLICATIONS: The piezoelectric properties of PVDF are used to advantage to manufacture tactile sensor arrays, inexpensive strain gauges and lightweight audio transducers. Piezoelectric panels made of PVDF are used on the Venetia Burney Student Dust Counter, a scientific instrument of the New Horizons space probe that measures dust density in the outer solar system. PVDF is the standard binder material used in the production of composite electrodes for lithium ion batteries. 1-2% weight solution of PVDF dissolved in N-Methyl-2-pyrrolidone (NMP) is mixed with an active lithium storage material such as graphite, silicon, tin, $LiCoO_2$, $LiMn_2O_4$, or $LiFePO_4$ and a conductive additive such as carbon black or carbon nanofibers. This slurry is cast onto a metallic current collector and the NMP is evaporated to form a composite or paste electrode. PVDF is used because it is chemically inert over the potential range used and does not react with the

electrolyte or lithium. Piezoelectric elements can be used in laser mirror alignment, where their ability to move a large mass (the mirror mount) over microscopic distances is exploited to electronically align some laser mirrors. By precisely controlling the distance between mirrors, the laser electronics can accurately maintain optical conditions inside the laser cavity to optimize the beam output. Piezoelectric sensors especially are used with high frequency sound in ultrasonic transducers for medical imaging and also industrial nondestructive testing (NDT).

[0050] For many sensing techniques, the sensor can act as both a sensor and an actuator – often the term transducer is preferred when the device acts in this dual capacity, but most piezo devices have this property of reversibility whether it is used or not. Ultrasonic transducers, for example, can inject ultrasound waves into the body, receive the returned wave, and convert it to an electrical signal (a voltage). Most medical ultrasound transducers are piezoelectric.

[0051] Advantageously, Sustainable energy is the sustainable provision of energy that meets the needs of the present without compromising the ability of future generations to meet their needs. Technologies that promote sustainable energy include renewable energy sources, such as hydroelectricity, solar energy, wind energy, wave power, geothermal energy, and tidal power, and also technologies designed to improve energy efficiency.

[0052] This sequence of oscillations causes the rotor within the watch to spin rapidly thereby winding the watch in a manner closely simulating the spinning of the rotor that occurs during normal winding of the watch when the watch is worn by a user. Due to the forces that are exerted, the rotor spins around the watch shaft during the oscillations, as opposed to the partial rotation observed in prior art mechanisms. Therefore, the time required to wind the watch, and the energy required, is

substantially reduced. Moreover, since the rotor is spinning about the shaft, as opposed to merely being held in a downward position while the watch is rotated, winding more closely approximating the design mechanism is achieved, thereby putting less wear on the watch.

[0053]This invention relates to satellite communications systems using multiple spot beams from a geosynchronous earth orbit satellite to provide selective coverage of the continental United States and, more particularly, relates to a system having a satellite receiving hub in every spot beam that allows for asynchronous communications between each hub and the satellite for maximizing frequency re-use.

[0054] These purposes, objects and advantages should be construed as merely illustrative of some of the more prominent features and applications of the present invention. Many other beneficial results can be obtained by applying the disclosed invention in a different manner or by modifying the invention within the scope of the disclosure. Accordingly, other purposes, objects and advantages as well as a fuller understanding of the invention may be had by referring to the summary herein mentioned and detailed description describing the preferred embodiments of the invention, in addition to the scope of the invention, as defined by the claims, taken in conjunction with the accompanying drawings.

SUMMARY OF THE INVENTION

[0055] In one general respect, an embodiment of the present invention is directed to a system. The system includes a Power Frequency broadcast station, a receiver, and a network. The Power Frequency broadcast station includes a transmitter and a server. The receiver is in communication with the Power Frequency broadcast transmitter and also includes a user interface for receiving user input commands comprising a request for information from the Power Frequency broadcast station.

[0056] The receiver is configured to establish a two-way communication path between the receiver and the Power Frequency broadcast transmitter. The network is in communication with the server and the receiver for exchanging information therebetween. The request for information is provided to the server via the network and the server is configured to receive the request and transmit a response message to the receiver in accordance with the request.

Continuously outboard recharged electric vehicle (COREV)

[0057] Given suitable infrastructure, permissions and vehicles, BEVs (battery electric vehicles) can be recharged while the user drives. The BEV establishes contact with an electrified rail, plate or overhead wires on the highway via an attached conducting wheel or other similar mechanism (see Conduit current collection). The BEV's batteries are recharged by this process—on the highway—and can then be used normally on other roads until the battery is discharged. Some of battery-electric locomotives used for maintenance trains on the London Underground are capable of this mode of operation. Power is picked up from the electtrified rails where possible, switching to battery power where the electricity supply is disconnected.

[0058] The present invention is directed to overcome the disadvantages of the prior art. The invention is a mechanism which taps into the naturally occurring static electricity in the atmosphere. Whereas heretofore, the attempt to garner electricity from the atmosphere has focused exclusively on capturing lightning, the present invention syphons off the static electricity which is generated from any agitated air and voids lightning.

[0059] Lightning is only the final discharge of the static electricity, whether that lightning is intra-cloud lightning, cloud-to-ground lightning, or inter-cloud lightning. Other types of final discharges are known as heat lightning, summer lightning, sheet lightning, ribbon lightning, silent lightning, ball lightning, bead lightning, elves, jets, and sprites. Well before these discharges are observed, as the atmosphere becomes agitated by wind or thermal, static electricity is being generated. The present invention recognizes that this static electricity is being formed and creates a mechanism to capture it.

[0060] In the preferred embodiment, a sensor array is used to monitor the activities both at the base unit (such as electrical flow within the conductor) and in the surrounding locale. A sensor monitoring the electrical flow (i.e. voltage and/or current) within the conductor is used to monitor the electrical activity within the conductor.

[0061] In the preferred embodiment, a lightning sensor monitors for lightning activity within the locale. As noted earlier, the electrical characteristic of lightning is so extreme that ideally this discharge is avoided as it might damage the mechanism of this invention. The sensor array is utilized by a controller, such as microprocessor, programmed to operate the mechanism as outlined herein.

[0062] The controller operates the winch motor to extend or withdraw the conductive line and by extension the altitude of the balloon. The controller is programmed to operate the winch by monitoring the electrical characteristics of the conductor and adjusting the balloon's altitude to maintain these characteristics within the conductor within a preset range.

[0063] This preset range is established either in the base programming of the controller or is established by an operator of the system. As example, by controlling the amount of current being withdrawn from the atmosphere, the mechanism operates within a safe range and also provides a

relatively stable current flow from which a variety of activities can take place (such as DC-AC conversion).

[0064] The controller also utilizes the lightning sensor to protect the mechanism from a lightning strike. Should lightning be detected within a pre-determined range (as established by the software or defined by an operator), then the balloon is pulled down to minimize the risk of damage from a lightning strike.

[0065] Another aspect of the invention relates to the electrical system which accepts the fluctuating atmospheric charge and changes it into an acceptable configuration for either the desired load or for the existing power grid.

[0066] Power grids in the United States operate with a frequency of 60 hertz in an alternating current arrangement. While this basic configuration seems to be universally accepted, the voltage within the grid varies dramatically, such as 15 kv, 34 kv, 69 kv, and even 112 kv.

[0067] Each atmospheric generator is placed proximate to or within easy access to a specific grid; this establishes the required electrical output configuration (i.e. that which is accepted by the power grid). As example, one of the atmospheric electrical collector units as described above collects the atmospheric electrical power as direct current and then supplies the appropriate power grid a specific flow (as example, AC, 60 hertz, at 69 kv).

[0068] The difficulty lies the fact that the DC current being garnered from the atmosphere varies depending on the actual agitation being generated in the atmosphere. This means that the source of DC current is fluctuating.

[0069] The present invention uses a monitoring system which checks the input DC voltage. Depending on the actual voltage being received, the appropriate converter is connected to the input DC voltage so that the desired output is obtained.

[0070] As example, suppose the DC input voltage is 1500 volts, the monitoring system, sensing this input, closes the switch connecting the DC voltage to a converter which accepts DC voltage in the range of 1000-2000 volts which then delivers an AC, 60 hertz 69 kv signal to the power grid. If the DC input voltage increases to 2100 volts, then the monitoring system opens the switch to the first converter (1000-2000 volts) and closes the switch to a second converter (such as 2000-4000 volts) to deliver the desired output of AC (60 hertz, 69 kv) for the power grid.

[0071] In this manner, regardless of the fluctuating input DC voltage, the electrical grid is supplied with a fully configured electrical input conforming to the needs of that specific electrical grid.

[0072] Another aspect of the present invention is the use of a tower or permanent structure instead of an aircraft. In this embodiment, the building or tower is electrically isolated from the ground and a rod (similar to a lightning rod) is extended into the atmosphere. The rod collects the atmospheric charge which is conveyed via an electrical conduit (ideally insulated) where the collected DC charge is reconfigured to meets the need of the locale.

[0073] In this context, for one embodiment of the invention, a tower is placed onto the top of a building. The tower is electrically isolated from the building using such mechanisms well known to those of ordinary skill in the art such as rubber mats. A rod ideally extends from the top of the tower to facilitate the collection of the DC electrical energy.

[0074] Piezoelectricity is a material property that is manifested when voltage is produced by applying mechanical forces, and vice versa, the effect has been described as direct and converse. Piezoelectricity has been described as coupling between a quasi-static electric field and dynamic mechanical motion.

[0075] A piezoelectricity converter mechanism such as described above, is connected to the tower to flow the DC electricity to a converter which modifies the DC current for the specific application. In one application, the DC current is converted to the electrical needs of the building, thereby providing at least some of the electrical requirements of the building itself.

[0076] As noted earlier, the dynamic converter system of the present invention allows a power generator to address a variable voltage in an efficient manner. This makes the dynamic converter system ideal for a variety of alternative energy sources such as the above described atmospheric electrical generator and other alternative energy sources such as wind and wave powered systems. In these systems, the energy being generated must be converted to a proper electrical configuration for a identified load. This may be a particular motor or connection to the power grid which act as a load to the power generating mechanism.

[0077] For these energy generating systems, the converter assembly of this invention utilizes multiple converters. Each converter is configured to accept a unique range of voltages and from these

voltages, create the desired electrical configuration. By using multiple converters, a full range is available, from a minimum voltage input to a maximum voltage input.

[0078] The present invention can include systems and methods for integrating sensors for tracking atmospheric transducer system performance metrics into media devices and accessories therefor, thereby reducing or eliminating the need for additional independent monitoring devices. In one embodiment of the present invention.

[0079] It also is known to provide such transducers with connectors to allow their rechargeable batteries to be charged. In some cases, the connector is a Universal Serial Bus (USB) connector, allowing the transducer to be charged by plugging it into the USB port of a computer, grid circuit or other device.

[0080] These and other objects and advantages of the invention will appear more clearly from the following description in which the preferred embodiment of the invention has been set forth in conjunction with the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0081] FIG. 1 Prior Art depicts perspective view of Electric currents created in sunward ionosphere;

[0082]FIG. 2 is a box flow chart of the propulsion cycle systems present invention;

[0083] FIG. 3 is an top view of the piezoelectric disk cylinder orb of the present invention;

[0084] FIG. 4 is a longitudinal sectional view showing an embodiment of this invention;

[0085] FIG. 5 is a top view of the (ATS) slip rotor piezoelectric chamber of the present invention;

[0086] FIG. 6 is an alternate top view of the piezoelectric cylinder orb of the present invention;

[0087] FIG.7 - 10 elevation views of spine piezo stacks embodiments of the present invention;

[0088] FIG.11 illustrates one embodiment of a power service (ATS) system architecture;

[0089] FIG. 12 is a block diagram of the ATS charge schematics systems of the present invention;

[0090] FIG. 13 is a block diagram of an ATS charge and recycle schematics of the present invention;

[0091] FIG. 14 is a view of the piezoelectric ball race cylinder of the present invention;

[0092] FIG. 15 is a view of the piezoelectric housing and gear of the present invention;

[0093] FIG. 16 is a view of a multiple piezoelectric ball race cylinder of the present invention;

[0094] FIG. 17 is another embodiment of the piezoelectric stack ball of the present invention;

[0095] FIG. 18 & 19 are antenna rod transmit device embodiments of the (ATS) present invention;

[0096] FIG. 20 illustrates substation embodiment of the power service (ATS) system architecture;

[0097] FIG. 21 illustrates a home embodiment of the power service (ATS) system architecture;

[0098] FIG. 22 illustrates a window embodiment of the power service (ATS) system architecture;

[0099] FIG. 23 is (ATS) shock device in accordance with an embodiment of the present invention;

[00100] FIG. 24 is (ATS) shock device in accordance with an embodiment of the present invention;

[00101] FIG. 25 is (ATS) motorcycle device embodiment of the present invention;

[00102] FIG. 26 is (ATS) axle device in accordance with an embodiment of the present invention;

[00103] FIG. 27 is (ATS) train device in accordance with an embodiment of the present invention;

[00104] FIG. 28 is (ATS) plane device in accordance with an embodiment of the present invention;

[00105] FIG. 29 is (ATS) boat device in accordance with an embodiment of the present invention;

[00106] FIG. 30 is (ATS) solar device in accordance with an embodiment of the present invention;

[00107] FIG.31 a (ATS) turbine device in accordance with an embodiment of the present invention;

[00108] FIG. 32 is (ATS) auto body panel device embodiment of the present invention;

[00109] FIG. 33 is (ATS) motorcycle body fairing panel device in of the present invention; and

[00110] FIG. 34 is (ATS) cross section view of body embed panel device of the present invention.

DETAILED DESCRIPTION

[00111] This sequence of oscillations causes the conductive rotor within piezoelectric molded housing device to spin rapidly thereby winding the mechanism in a manner closely simulating the spinning of the conductive rotor that occurs during normal electric activity when the device is activated. Due to the forces that are exerted, the conductive rotor spins around the piezoelectric cylinder device shaft during the oscillations, as opposed to the partial rotation observed in prior art mechanisms. Therefore, the time required to charge the Atmospheric Transduction System (ATS) device, and the energy required, is substantially reduced. Moreover, since the rotor is spinning about the shaft, as opposed to merely being held in a downward position while the ATS device is rotated, recharging more closely approximating the design mechanism is achieved, thereby putting less wear on the ATS chamber device. Innovative Piezoelectric housing and ball bearing, coupler and book spine stacks. There relies the notion of negative ground electricity and positive aerial electricity which is in abundance. This invention substantiates land vehicles recycle recharge by reverse oscillation. Aerial vehicles recycle recharge by forward oscillation in accumulation of environmental positive and negative electricity. These aforementioned activities are integral or synchronous with frequency.

[00112] PRIOR ART FIG.1 Electric currents created in sunward ionosphere. **Fig.2** is a recycle box flow chart **49** of a self propulsion unit consisting of a battery **27** , engine **29** and piezoelectric transducer **33** unit. **Fig.3** is a multiple disk **31** load part **51** about a 360 degree cylinder **45** and shaft **44**. **Fig.4** is a piezoelectric molded device **100** housing **110** containing a ball bearing race **104**, disk stacks capacitor **102** and conductive rotor **46**. **Fig.5** is a piezoelectric chamber **120** configuration including a counterweights **50**, shaft **44**, conductive slip rotor **106**. **Fig.6** is an alternate part **200**

chamber cylinder **201** embodiment containing piezoelectric spine disk stack capacitors **102**. **Fig.7-10** are variations of spine **107,108,109,110** case piezoelectric stack capacitor **102** with plate and ball heads. **Fig.11** Various embodiments of the present invention, among others, will now be described with reference to the accompanying drawings. Accordingly, **FIG. 11** illustrates an embodiment of a Atmospheric Transduction (ATS) System **300** architecture. The system **300** may include, for example, a satellite broadcast station **318** that transmits signals **333** containing frequency content from a geostationary satellite **312** by way of airplane antenna **326**. In turn, the satellite **312** transmits line-of-sight (LOS) signals **333** to one or more ATS terrestrial frequency power receiver farms **314**. The system **300** also may include one or more terrestrial repeaters **316** which receive and retransmit the satellite signals **333** as repeater signals **323** to facilitate reliable reception in geographic areas where LOS reception from the satellite **312** is obstructed by tall buildings, hills, tunnels, and other similar impediments to the signals **333**. The ATS receivers **314** maybe designed to receive one or more signals **333** from the satellite **312** and/or from the terrestrial repeater transceiver **316**. In operation, such ATS receivers **314** may receive both the satellite signals **333** and the repeater signals **323**. The receivers **314** also may be located in mobile environments **320, 321**, **322** which include, but are not limited to, land vehicles **321, 322**, aircraft **320**, watercraft **900**, and handheld devices, among others. The receivers **314** also may be fixed in stationary units for residential use (e.g., home **325,750** entertainment, etc.) or commercial **314, 328, 360** use (e.g., business **314**, office **700**, security **328**, etc.). The power frequency broadcast station **318** also may be in communication with a grid network **342**. Two-way communication between the ATS receivers **314** and the power frequency broadcast station **318** may occur via the network **342**. Furthermore, information feedback from the power frequency broadcast station **318** may be transmitted to the ATS receiver **314** both by way of

the network **342** as well as via the satellite **312**. Information also may be transmitted to the power broadcast station **318** wirelessly via a wireless network **342,707** by way of transducer tower **360**.

[00113] Further disclosed in **Fig. 12** and **Fig.13** (in block diagrams **400, 500**) are electrical schematics for handling the static charge from the atmosphere. By maintaining the voltage being collected in a prescribed range, an electrical conversion system is easily designed. While **FIGS. 12**, and **13** illustrate some electrical configurations, those of ordinary skill in the art readily recognize a variety of other configurations which will serve the same function.

[00114] Referencing **FIG. 12**, Direct Current In (DC IN) **401** is buffered by a gang of capacitors **410** before being communicated to a DC/AC converter **420**. The DC/AC converter **420** converts the direct current into a an alternating current suitable for placement over an existing electrical grid **430** such as normally found from a power-plant. **FIG. 12** Also illustrates an electrical arrangement suitable for use in charging a battery **440**. DC IN **401** is buffered by capacitor **410** bank before entering into a step down transformer **435**. Step down transformer **435** reduces the voltage so that the voltage can safely be introduced into battery **440** which is connected to ground **450** at the battery's other pole. In **FIG. 12**, DC IN **401** is fed into an adjustable rheostat **460** which is controlled by the controller **465** so that the DC OUT **470** falls within a computer **475** monitored and sensor **480** specified range. **Fig.13** Hypothetically, unused energy may be recycled current **501** and/or recaptured by reversing the oscillated spin rotation of devices **51, 100, 120** with the use of a rectifier **502** and Step up transformer **503**, returned to grid **430** capacitor **410**. This theory lends itself to the concept of positive and negative frequency. **Fig.14-17** Self charging propulsion embodiment of the invention where Da Vinci's ball race **510,512** is combined with a disk cylinder **45** and **513** stack balls **525,** conductive rotor **46**, **511** tooth gear **515** and piezoelectric molded housing **555**. **Fig.18 & 19** Improvement structures Franklin's lightening rod **600,603** and a molded vibration transducer **601**

quasi replicating Vion's tubes and piezoelectric spine stacks capacitor **602** improving Tesla's Atmospheric transmit device. **Fig.20** is an atmospheric receiving building sub station **700** where energy is consumed and excess rendered to the grid **707** by conductive rotor **702** transducer **710,** tower transducer**703**, antenna rod **701** and transducer windows **704**.

[00115] FIG. 12 and **Fig.2** flowchart illustration also includes battery **440**. Battery **440** may provide electrical power to components of ATS devices within **Fig.11**. Charging circuitry may also be provided to charge battery **440** when an external power supply is connected to an ATS device **100**. **Fig.14-17** eliminates one or more steps by presenting a self charge retaining transducer **510-513** may be configured with an accelerator sensor **480** controller **465** and gears **515,** provide reciprocal power incorporated within piezoelectric molded and ceramic housing **555** along with stack balls **525** and cylinder **545**. This assembly more resembles a motor by characteristics given power with application.

[00116] In operation, as illustrated in **FIGS. 2-20** and **FIGS. 21-34** , is periodically energized by movement to rotate Orb in either a clockwise or counterclockwise direction. The length of time or activity is energized, and the length of time between the period when the capacitor **31, 102** battery is energized, will depend on the particular ATS device design. As the Orb rotates, the outer end of the disk moves along a 360˚ circular pathway to push against with forward and rearwardly spinning. Upon engagement of the Orb, ATS device disk is rotated until carried to the apex or top of the circular pathway. Upon reaching the apex, the gravitational and vibrational force or counterweight **50** promotes additional oscillation. ATS device movement rapidly rotate on Orb at a rotational speed greater than the speed of rotation of Orb. Counterweight **50** is then carried beyond the bottom or lowest point of the pathway by its momentum to a point near the apex on the opposite side of the pathway. The cycle is repeated through multiple increasing oscillations of the ATS device until

counterweight **50** stops at the bottom position, or until once again engages to again move counterweight to the top of its circular pathway.

[00117] FIG. 2 is a flow chart showing generation of energy using a rotor according to one or more of the above-described embodiments. First, battery **27** starts the engine **29** and/or mobile transducer **33** is oscillated. In response to this acceleration, forces are imposed on one or more rotation piezoelectric devices. In response to those forces, the piezoelectric devices output electrical energy, which energy is extracted at a power controller **465**. The power controller **465** sensor **480** then makes this energy available to recharge a capacitor **410** battery **440** and/or to electronic components of the mobile terminal. Although **FIG.2** shows a serial flow of events, it is to be appreciated that the events of blocks **33**, **27** and **29** occur substantially instantaneously upon acceleration of the mobile terminal.

PREFERRED ALTERNATE EMBODIMENTS

[00118]The present invention (ATS) device in accordance with an embodiment of the present invention overcomes the foregoing problem in the conventional art and provides an electro energy vibration and alternative to gas, oil or fossil fuel consumption in **Fig.21** homes **750** transducer **755, Fig.28** airplane **880** transducer **801**, **Fig.27** train **860** transducer **801**, **Fig.32** auto **950** transducer **910**, **Fig.25** and **Fig.33** motorcycles **960,850** transducers **799, 802, 810**, **910** and **Fig.29** boat **900** transducers **901,910**.

[00119] In order to solve the foregoing problems in the conventional art, the present invention provides an electro transducer having a ball bearing assembly which is compatible with **Fig.26** axle shaft **44** transducer **810** wheel **870** assembly. In order to solve the foregoing problems in the

conventional art, the present invention provides an electro transducer having an **Fig.34** housing panel **980** transducer **910** assembly which is compatible with an exterior body assembly. Thereby, an Atmospheric transducer device may be shock **800** integrated as within the **Fig.23** coupler **802,** and **Fig.24** ladder **799,** (vertical friction) piezoelectric absorbers assemblies. In order to solve the foregoing problems in the conventional art, the present invention provides an electro transducer having a capable flat assembly which is compatible with **Fig.22** window **704** disk **31** plate transducer **714**, **Fig.30** solar panel **920** transducer **910**, **Fig.31** wind turbine **930** transducer **910** assembly. This invention provided **Fig.3** piezoelectric plate disks **31**, **Fig.7-10** spine piezoelectric disks stacks **107-110** capacitor **102**, **Fig.17** piezoelectric stack balls **525** capacitor, the arrangement of balls **525** will not be in a facing relation. The deformation in the inner and outer races during rotation of the ball bearing while undergoing a radial load is made irregular and complicated. The spine eliminates the deformation and vibration level increased by a combination of ceramic and molded piezoelectric materials at a regular predetermined frequency thereby multiplying the level of vibration and noise reduction.

[00120] Certain modifications and improvements will occur to those skilled in the art upon a reading of the foregoing description. It should be understood that all such modifications and improvements have been deleted herein for the sake of conciseness and readability but are properly within the scope of the following claims.

[00121] Thus it is seen that an atmospheric transducer device may be integrated and/or provided. It will be understood that the foregoing is only illustrative of the principles of the invention, and that various modifications can be made by those skilled in the art without departing from the scope and spirit of the invention, and the present invention is limited only by the claims that follow.

CLAIMS

I Claim:

Claim 1. Atmospheric transduction system method of producing great electrical activities a resonant circuit having its outer conducting boundaries, which are charged to a higher potential, arranged in surfaces of large radii of curvature so as to prevent leakage of the oscillating charge, substantially as set forth: and

(a) an method improvement in the Atmospheric transduction art of transmit and utilizing electrical energy which consists in establishing stationary electrical waves in the natural conducting media, and operating thereby, one or more receiving devices remote from the source of energy, as set forth, and enhancing said energy by amplifying further transduction; and

(b)an Atmospheric transduction method enabling the use of positive electricity contained in the atmosphere and the negative electricity contained in the earth, and thus form an electric pile of considerable power and make the electricity available for industry and consumer purposes; and

(c) an atmospheric transduction system method, comprising: a satellite power broadcast station having a transmitter and a transducer; a receiver in communication with the satellite power broadcast transmitter, the receiver comprising a user interface for receiving user input commands comprising a request for information from the satellite power broadcast station, wherein the receiver is configured to establish a two-way communication path between the receiver and the satellite power broadcast transmitter; and a network in communication with the server and the receiver for exchanging information therebetween; wherein the request for information is provided to the transducer via the network and the computer is configured to receive the request and transmit a response message to the transreceiver in accordance with the request.

2. A transduction oscillation system method of charging or enhancement where plates and/or battery disks form a modified version of capacitor, wherein said capacitor(s) having an outside piezoelectric housing and wherein the improvement comprising an outside diameter or linear distance from said sensor monitor providing, said battery capacitor is a sub-system of an automobile, sub-system of an airplane, sub-system of a train, sub-system of a motorcycle, sub-system of a home, sub-system of a solar system, sub-system of a wind turbine, sub-system of a satellite system, and:

(a) a method for sensor to atmospheric electricity and absorption, said method sensor imbedded and/or removably attached to exterior system panel(s), said sensor absorber capturing electricity potential by piezoelectric materials and negative - positive atmosphere, and;

(b) a transduction oscillation method of power frequency system where electric energy is captured, relayed and/or beamed by satellites to an aerial grid, said energy further relayed to the atopic surface, recaptured by antenna rod transducer;

(i) wherein aerial grid is a subsystem of atmospheric positive current;

(ii) wherein said atopic grid is a subsystem of atmospheric negative current;

(c) providing a means of absorption signaling and communication within said power frequency system is relayed by computer devices and/or capacitor devices, display communicate while in progress to manage and/or evaluate outcome, and;

(i) version includes a absorption capacitor device as a means of direction and performance;

(ii) said device is removably attached to housing to communicate in energy level;

(d) providing said atopic device captures conducts dc to dc voltage by converter, and;

(f) providing said aerial device captures conducts ac to dc voltage by converter, and;

(g) wherein dc are compatible to aerial and atopic recharge by atmospheric magnetic fields.

3. A transducer for generating an electric current comprising: current generating means comprising first transducer means and second transducer means arranged to generate electric current in response to relative rotation between said first and second generator means; a first rotary part having vanes, said first rotary part arranged to rotate in a first direction around an axis when exposed to a flow of air perpendicular to said axis, said first rotary part operatively connected to a first of said first and second transducer means; said axis is through an axial shaft about which said first rotary part is arranged to rotate; said axial shaft is configured to receive electrical connection means therethrough, said electrical connection means configured to provide an electrical connection between said current generating means and transducer electrical means:

(a) an electrical frequency transducer system receiving a variable voltage input and connected to a load requiring a set electrical configuration, said system comprising: a static electricity collector having a conductor that collects static electricity from the atmosphere and outputs a collected energy, a converter assembly in electrical communication with the transducer comprising: a plurality of converters, each converter configured to accept a unique range of voltages from the collected energy and producing the set electrical configuration, and a sensor that measures the collected energy from the transducer, the computer further selectively closing, in response to said level of the input voltage; and

(b) a piezoelectric transducer comprising: stack capacitors; a rotational member mounted to undergo rotation; an armature molded selectively coupled to the rotational member for rotation therewith

when the conductive cylinder is energized; and a ball bearing, conductive rotor supporting the rotational member, the ball bearing having an inner race, an outer race, and a plurality of balls arranged in a plurality of rows each containing a number of the balls and/or stacks, the balls being disposed between the inner race and the outer race so that each of the balls contacts the inner race at at least one point and contacts the outer race at at least one point; and

(c) an oscillating transducer device housing; a chamber cylinder configured to retain a capacitor battery or disk with counterweight; a first piezoelectric element coupling the chamber to the device housing and configured to receive, as a result of spinning acceleration of the device axis, a first portion of a force of imposed by a mass of a battery retained in the chamber; a second piezoelectric element coupling the chamber to the device housing and configured to receive, as a result of the device housing acceleration and along a second axis that is circumvents adjacent to the first axis, a second portion of the force imposed by the mass of at least another capacitor retained in the cylinder chamber; and a controller configured to receive electrical energy output by the first and second piezoelectric elements in response to the first and second force portions and to make the received electrical energy available for at least one of satisfying at least part of an electrical load satisfiable by the capacitors retained in the chamber, and recharging the battery, and;

(d) the oscillating transducer apparatus, further comprising a piezoelectric element, a transceiver, power frequency and wherein the piezoelectric elements also couple to the device housing, the force portions include portions of forces imposed by masses, the rotational piezoelectric element is configured to receive, as a result of the device having a center of gravity offset acceleration and

forces imposed by the masses is released to freely rotate about said axis with said counterweight being carried bi-directionally beneath said axis in an oscillating motion to spin of the processor, the controller, the capacitor, retained in the chamber and the controller is configured to receive electrical energy output by the piezoelectric elements in response to the force and counterweight portions.

ABSTRACT

Atmospheric Transduction System including a Power Frequency broadcast station, a receiver, and a network. The Power Frequency broadcast station includes a transmitter and a computer server. The receiver is in communication with the Power Frequency broadcast transmitter and also includes a user interface for receiving user input commands comprising a request for information from the Power Frequency broadcast station. The receiver is configured to establish a two-way communication path between the receiver and the Power Frequency broadcast transmitter. The network is in communication with the transducer, controller and the receiver for exchanging information therebetween. In response to oscillation translation and/or rotation of the electronic transducer, portions of forces induced by the mass are transferred to the piezoelectric elements. Electrical energy output by these piezoelectric elements is received in a power controller and can be applied to the battery as self charging. The piezoelectric transducer includes a conductive rotor and bearings, at least one of them incorporating a vibrator of mechanical oscillation, having a piezoelectric transducer converting mechanical vibrations into electric power.

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

APPLICATION FOR U.S. LETTERS PATENT

TITLE: **ATMOSPHERIC TRANSDUCTION SYSTEM**

INVENTOR: **JENNINGS, James Edward**

CROSS REFERENCE TO RELATED APPLICATIONS

[001] NONE

BACKGROUND OF THE INVENTION

Field of the Invention

[002] Self-propelled travel is a type of recreational adventure travel using human powered transport. This includes non-motorized machines such as a bicycle or skateboard. It is in contrast to traveling in a powered vehicle (such as an automobile) as in that case it is the vehicle which powers itself. Self-propelled travel is used to travel short distances or even for much longer distances such as bicycle touring. Self propelled describes something that moves, progresses or acts on its own power without needing outside help. Leonardo da Vinci's 1478 Self-Propelled Car: It was more than 500 years ago, however -- sometime around the year 1478 to be more or less specific -- when Leonardo drew out his plans for the world's first self-propelled vehicle. Experts originally believed two leaf springs, the simplest form of the spring typically used for automotive suspensions, somehow powered the vehicle. Closer inspection eventually revealed the power came from bigger, coiled springs located in tambours, cylindrical drum-like casings, inside the car's frame. The machine works like a robot or a wind-up toy simply by rotating the wheels opposite of their intended direction, which winds up the springs inside and gives it power. Self propulsion(of a vehicle) provided with its own source of tractive power rather than requiring an external means of propulsion.

[003] In the middle of the 18th century, Benjamin Franklin's experiments showed that electrical phenomena of the atmosphere were not fundamentally different from those produced in the

laboratory. By 1749, Franklin observed lightning to possess almost all the properties observable in electrical machines.

[004] In July 1750, Franklin hypothesized that electricity could be taken from clouds via a tall metal aerial with a sharp point. Before Franklin could carry out his experiment, in 1752 Thomas-François Dalibard erected a 40-foot (12 m) iron rod at Marly-la-Ville, near Paris, drawing sparks from a passing cloud. With ground-insulated aerials, an experimenter could bring a grounded lead with an insulated wax handle close to the aerial, and observe a spark discharge from the aerial to the grounding wire. In May 1752, Dalibard affirmed that Franklin's theory was correct.

Piezoelectric Motor

[005] A piezoelectric motor or piezo motor is a type of electric motor based upon the change in shape of a piezoelectric material when an electric field is applied. Piezoelectric motors make use of the converse piezoelectric effect whereby the material produces acoustic or ultrasonic vibrations in order to produce a linear or rotary motion. In one mechanism, the elongation in a single plane is used to make a series stretches and position holds, similar to the way a caterpillar moves. A transducer is a device that converts one form of energy to another. Energy types include (but are not limited to) electrical, mechanical, electromagnetic (including light), chemical, acoustic or thermal energy. While the term transducer commonly implies the use of a sensor/detector, any device which converts energy can be considered a transducer. Transducers are widely used in measuring instruments. Piezoelectric materials can also be used to harvest low levels of mechanical energy into electrical energy suitable for powering wireless sensors, low power microprocessors or charging batteries. Rotary Uses include rotating machines such as fans, turbines, drills, the wheels on electric cars, locomotives and conveyor

belts. Also, in many vibrating or oscillating machines, an electric motor spins an unbalanced mass, causing the motor (and its mounting structure) to vibrate.

ATMOSPHERIC ELECTRICITY

[006] There is always free electricity in the air and in the clouds, which acts by induction on the earth and electromagnetic devices. Experiments have shown that there is always free electricity in the atmosphere, which is sometimes negative and sometimes positive, but most generally positive, and the intensity of this free electricity is greater in the middle of the day than at morning or night and is greater in winter than in summer. In fine weather, the potential increases with altitude at about 30 volts per foot (100 V/m).

Atmospheric layers

[007] The electrical conductivity of the atmosphere increases exponentially with altitude. The amplitudes of the electric and magnetic components depend on season, latitude, and height above the sea level. The greater the altitude the more atmospheric electricity abounds. The exosphere is the uppermost layer of the atmosphere and is estimated to be 500 km to 1000 km above the Earth's surface, and its upper boundary at about 10,000 km. The thermosphere (upper atmosphere) is the layer of the Earth's atmosphere directly above the mesosphere and directly below the exosphere. Within this layer, ultraviolet radiation causes ionization. Theories that have been proposed to explain the phenomenon of the polar aurora, but it has been demonstrated by experiments that it is due to currents of positive electricity passing from the higher regions of the atmosphere to the earth.

[008] The mesosphere (middle atmosphere) is the layer of the Earth's atmosphere that is directly above the stratosphere and directly below the thermosphere. The mesosphere is located about

50-80/85 km above Earth's surface. The stratosphere (middle atmosphere) is a layer of Earth's atmosphere that is stratified in temperature and is situated between about 10 km and 50 km altitude above the surface at moderate latitudes, while at the poles it starts at about 8 km altitude. The stratosphere sits directly above the troposphere and directly below the mesosphere. The troposphere (lower atmosphere) is the densest layer of the atmosphere.

[009] The planetary boundary layer (PBL), also known as the atmospheric boundary layer (ABL), is the lowest part of the atmosphere and its behavior is directly influenced by its contact with the planetary surface. It is also known as the "exchange layer". (see also:p-n junction.)

[0010] There is a potential gradient at ground level ("Atmosphere ground layer") and this vertical field corresponds to the negative charge in and near the Earth's surface. The negative potential gradient falls rapidly as altitude increases from the ground. Most of this potential gradient is in the first few kilometers. The positive potential gradient rises rapidly as altitude increases from the ground. Volta, over two centuries before the 21st century, discovered with some degree of exactitude that the proportions of the ordinates of the curve or gradient of electric potential increased as the distance from the earth increases, and, more recently, Engel has provided data to calculate the increase (Image to the right).

Drum-type generator

[0011] A drum-type homopolar generator has a magnetic field (B) that radiates radially from the center of the drum and induces voltage (V) down the length of the drum. A conducting drum spun from above in the field of a "loudspeaker" type of magnet that has one pole in the center of the drum

and the other pole surrounding the drum could use conducting ball bearings at the top and bottom of the drum to pick up the generated current.

Astrophysical unipolar inductors

[0012] Unipolar inductors occur in astrophysics where a conductor rotates through a magnetic field, for example, the movement of the highly conductive plasma in a cosmic body's ionosphere through its magnetic field. In their book, Cosmical Electrodynamics, Hannes Alfvén and Carl-Gunne Fälthammar write:

"Since cosmical clouds of ionized gas are generally magnetized, their motion produces induced electric fields [..] For example the motion of the magnetized interplanetary plasma produces electric fields that are essential for the production of aurora and magnetic storms" [..]

".. the rotation of a conductor in a magnetic field produces an electric field in the system at rest.

[0013] This phenomenon is well known from laboratory experiments and is usually called 'homopolar ' or 'unipolar' induction.

The Faraday disc

[0014] The homopolar generator was developed first by Michael Faraday during his experiments in 1831. It is frequently called the Faraday disc in his honor. It was the beginning of modern dynamos — that is, electrical generators which operate using a magnetic field. It was very inefficient and was not used as a practical power source, but it showed the possibility of generating electric power using magnetism, and led the way for commutated direct current dynamos and then alternating current alternators.

Boeing 737–800

[0015] The Boeing Fuel Cell Demonstrator Airplane has a Proton Exchange Membrane (PEM) fuel cell/lithium-ion battery hybrid system to power an electric motor, which is coupled to a conventional propeller. The fuel cell provides all power for the cruise phase of flight. During takeoff and climb, the flight segment that requires the most power, the system draws on lightweight lithium-ion batteries.

[0016] The demonstrator aircraft is a Dimona motor glider, built by Diamond Aircraft Industries of Austria, which also carried out structural modifications to the aircraft. With a wing span of 16.3 meters (53.5 feet), the airplane will be able to cruise at approximately 100 kilometers per hour (62 miles per hour) on power from the fuel cell.

[0017] Nikola Tesla explored the wireless transmission of energy through his work with radio and microwaves and his creation of the Tesla coil and the magnifying transmitter. In 1898, Tesla demonstrated his radio-controlled boat, which he was able to control remotely. In the 1930s, Tesla claimed to have invented a particle beam weapon, or, as some called it, a "peace ray." The device was, in theory, capable of generating an intense, targeted beam of energy and sending it across great distances to demolish warplanes, foreign armies, or anything else you'd rather didn't exist.

[0018]"ROY J. MEYERS, BRITISH PATENT NUMBER 1098" This invention relates to improvements in apparatus for the production of electrical currents, and the primary object in view is the production of a commercially serviceable electrical current without the employment of mechanical or chemical action. To this end the invention comprises means for producing what I believe to be dynamic electricity from the earth and its ambient elements.

[0019] EDWARD LEEDSKALNIN: MAGNETIC CURRENT -The Perpetual Motion Holder is primarily a teaching device but it has many functions including an electromagnet, this is easy enough

to see; it is a generator—spin a magnet between the coils it will generate electricity; it functions as a transformer; it demonstrates how permanent magnets are made, and is a holder of perpetual motion.

Strategic Defense Initiative

[0020] The Strategic Defense Initiative (SDI) was proposed to use ground and space-based systems to protect the United States from attack by strategic nuclear ballistic missiles.

Description of the Related Art

[0021] The present invention relates to a ball bearing assembly structure, an electromagnetic clutch having the ball bearing assembly structure, and a gas compressor equipped with the electromagnetic clutch.

[0022]When operating the gas compressor , the electromagnet of the electromagnetic clutch is energized to attract or adsorb the follower armature plate to an end surface of the prime-mover pulley and join the prime-mover pulley and the rotor shaft, thereby rotating the rotor shaft.

[0023] The ball bearing of the electromagnetic clutch conventionally has used one having an even number of balls per row. Generally, the ball bearing causes vibration and noise due to rotation. In the case of the ball bearing rotating while undergoing a radial load due to a tension of the belt, vibration and noise considerably occur. Particularly when other vibration and noise levels are lowered during engine idling, the vibration and noise of the ball bearing transmitted to the vehicular compartment is not negligible.

[0024] The inventor has conducted various experiments and discovered that the one factor of high vibration and noise level is an even number of balls of the ball bearing. In the ball bearing having an even number of balls per one row, the balls are in a facing relation to have linear-symmetry arrangement between the inner race and the outer race. The deformation and vibration at a regular particular frequency is caused in the inner and outer races. It is to be considered that the vibration as a source also increases noise.

[0025]The present invention relates generally and in various embodiments to piezoelectric mechanical systems. More specifically, the present invention relates generally and in various embodiments to atmospheric oscillation transducer apparatuses, systems, and methods.

[0026] Although various implementations of the present invention, among many, may be described herein with reference to the specific illustrative embodiments related to particular applications, those skilled in the art will understand that the invention is not in any way intended to be limited to such embodiments and/or applications. Those having ordinary skill in the art and reference to the description of the embodiments herein will recognize additional modifications, applications, and other embodiments falling within the scope of the claimed invention and additional fields in which the present invention may be practiced.

[0027] Digital Radio (also known as Satellite Radio or Satellite Digital Audio Radio Service (SDARS)) is a subscriber-based digital radio service that is broadcast via satellites. Digital radio service provides compact-disc (CD) quality programming that may be digitally transmitted via one or more satellites and/or space stations to one or more Earth-based (terrestrial) digital radio stations, receivers, and/or repeaters. In satellite-based direct-broadcast radio services, digitally-encoded audio

program material may be broadcast to terrestrial fixed or mobile digital radio receivers. Fixed receivers may include, for example, stand alone digital radio receivers or digital radio receivers connected via computer networks, including for example, the Internet. Mobile receivers may include, for example, digital radio receivers located in automobiles, aircrafts, watercrafts, and the like.

[0028] Satellite-based digital audio radio services such as SDARS, for example, may be broadcast to one or more digital radio receivers either directly from an orbiting satellite, or indirectly from one or more repeater stations. Such repeater stations may be useful where the digital radio receiver is located in a shielded location or where there is no direct line of sight between the radio and the satellite. In other digital audio radio services systems, the audio programs also may be transmitted in digital form by one or more space stations directly to fixed, mobile, and/or portable radio stations. Such systems may comprise, for example, orbiting satellites, complementary repeating terrestrial transmitters, telemetry, tracking, and control facilities.

[0029] Combinations of mechanical devices U.S. Pat. Nos. 4,019,073, 6,615,968 and atmospheric system interaction are disclosed in U.S. Pat. Nos. 1,119,732, 787,412, 6,902,513 to Nikola Tesla; 28,793 to Charles Vion; and 1,540,998 to Herman Plauson. Lastly, U.S. Pat. Nos. 8,102,078 and US2008/0009240. Agnoff discloses an Oscillating watch winder in U.S. Pat. Nos. 6,543,929, Jennings further discloses an oscillating smart device in application No. 13,572,679.

[0030] As illustrated by a large body of prior art, including the above-noted patents, and a large number of commercial devices, efforts are continuously being made in an attempt to improve helmets, headsets and their methods of fabrication. Nothing in the prior art, however, suggests the present inventive combination of materials and method steps as herein described and claimed. The

present invention achieves its purposes, objects and advantages over the prior art through a new, useful and unobvious combination of components and method steps which improve safety, comfort and noise abatement performance.

[0031] Therefore, it is an object of this invention to provide Effectively, the provision of energy such that it meets the needs of the present without compromising the ability of future generations to meet their own needs. ...Sustainable Energy has two key components: renewable energy and energy efficiency.

[0032] It is still a further objection of this invention to promote Dynamic harmony between equitable availability of energy-intensive goods and services to all people and the preservation of the earth for future generations." And, "the solution will lie in finding sustainable energy sources and more efficient means of converting and utilizing energy.

[0033] It is a further object of the present invention to produce Green Power Energy: is energy that can be extracted, generated, and/or consumed without any significant negative impact to the environment, green power; as electricity produced from solar, wind, geothermal, biogas, biomass, and low-impact small hydroelectric sources.

[0034] Thus, there is a need for a clean energy system that uses atmospheric electricity.

Prior Art

[0035] Quartz crystals have been in regular use for many years to give an accurate frequency for all radio transmitters, radio receivers and computers. Their accuracy comes from an amazing set of coincidences: Quartz -- which is silicon dioxide like most sand -- is unaffected by most solvents and remains crystalline to hundreds of degrees Fahrenheit. The property that makes it an electronic miracle is the fact that, when compressed or bent, it generates a charge or voltage on its surface. This

is a fairly common phenomenon called the Piezoelectric effect. In the same way, if a voltage is applied, quartz will bend or change its shape very slightly.

[0036] If a bell were shaped by grinding a single crystal of quartz, it would ring for minutes after being tapped. Almost no energy is lost in the material. A quartz bell -- if shaped in the right direction to the crystalline axis -- will have an oscillating voltage on its surface, and the rate of oscillation is unaffected by temperature. If the surface voltage on the crystal is picked off with plated electrodes and amplified by a transistor or integrated circuit, it can be re-applied to the bell to keep it ringing.

[0037] The electronics of the watch initially amplifies noise at the crystal frequency. This builds or regenerates into oscillation -- it starts the crystal ringing. The output of the watch crystal oscillator is then converted to pulses suitable for the digital circuits.

Polymers

[0038] Polyvinylidene fluoride (PVDF): PVDF exhibits piezoelectricity several times greater than quartz. Unlike ceramics, where the crystal structure of the material creates the piezoelectric effect, in polymers the intertwined long-chain molecules attract and repel each other when an electric field is applied.

Near Space

[0039] Solar particles become trapped within the Earth's magnetic field and form radiation belts. The Van Allen radiation belt is a torus of energetic charged particles (i.e. a plasma) around Earth, trapped by Earth's magnetic field.

[0040] At elevations above the clouds, atmospheric electricity forms a continuous and distinct element (called the electrosphere) in which the Earth is surrounded. The electrosphere layer (from tens of kilometers above the surface of the earth to the ionosphere) has a high electrical conductivity

and is essentially at a constant electric potential. The ionosphere is the inner edge of the magnetosphere and is the part of the atmosphere that is ionized by solar radiation. (Photoionisation is a physical process in which a photon is incident on an atom, ion or molecule, resulting in the ejection of one or more electrons.)

ADVANTAGES/DISADVANTAGES

[0041] Energy in electronic elements: Electric potential energy, or electrostatic potential energy, is a potential energy (measured in joules) that results from conservative Coulomb forces and is associated with the configuration of a particular set of point charges within a defined system. The term "electric potential energy" is used to describe the potential energy in systems with time-variant electric fields, while the term "electrostatic potential energy" is used to describe the potential energy in systems with time-invariant electric fields.

[0042] Capacitance is the ability of a body to store an electrical charge. Any body or structure that is capable of being charged, either with static electricity or by an electric current, exhibits capacitance. A common form of energy storage device is a parallel-plate capacitor. In a parallel plate capacitor, capacitance is directly proportional to the surface area of the conductor plates and inversely proportional to the separation distance between the plates. If the charges on the plates are +q and -q, and V gives the voltage between the plates, then the capacitance C is given by

$$C = q/V.$$

[0043] The capacitance is a function only of the physical dimensions (geometry) of the conductors and the permittivity of the dielectric. It is independent of the potential difference between the conductors and the total charge on them.

[0044] Piezoelectricity is the combined effect of the electrical behavior of the material:

$$D = \epsilon E$$

where D is the electric charge density displacement (electric displacement), ϵ is permittivity and E is electric field strength, and

Hooke's Law: $S = s T$

where S is strain, s is compliance and T is stress.

[0045] Polyvinylidene fluoride, or polyvinylidene difluoride (PVDF) is a highly non-reactive and pure thermoplastic fluoropolymer produced by the polymerization of vinylidene difluoride. PVDF is a specialty plastic material in the fluoropolymer family; it is used generally in applications requiring the highest purity, strength, and resistance to solvents, acids, bases and heat and low smoke generation during a fire event. Compared to other fluoropolymers, it has an easier melt process because of its relatively low melting point of around 177 ˚C.

[0046] It has a low density (1.78) and low cost compared to the other fluoropolymers. It is available as piping products, sheet, tubing, films, plate and an insulator for premium wire. It can be injected, molded or welded and is commonly used in the chemical, semiconductor, medical and defense industries, as well as in lithium ion batteries. It is also available as a crosslinked closed cell foam, used increasingly in aviation and aerospace. PVDF has a glass transition temperature (Tg) of about -35 ˚C and is typically 50–60% crystalline. To give the material its piezoelectric properties, it is mechanically stretched to orient the molecular chains and then poled under tension. PVDF exists in several forms: alpha (TGTG'), beta (TTTT), and gamma (TTTGTTTG') phases, depending on the chain conformations as trans (T) or gauche (G) linkages. When poled, PVDF is a ferroelectric

polymer, exhibiting efficient piezoelectric and pyroelectric properties. These characteristics make it useful in sensor and battery applications. Thin films of PVDF are used in some newer thermal camera sensors.

[0047] Copolymers: Copolymers of PVDF are also used in piezoelectric and electrostrictive applications. One of the most commonly-used copolymers is P(VDF-trifluoroethylene), usually available in ratios of about 50:50 wt% and 65:35 wt% (equivalent to about 56:44 mol% and 70:30 mol%). Another one is P(VDF-tetrafluoroethylene). They improve the piezoelectric response by improving the crystallinity of the material.

[0048] While the copolymers' unit structures are less polar than that of pure PVDF, the copolymers typically have a much higher crystallinity. This results in a larger piezoelectric response: d33 values for P(VDF-TrFE) have been recorded to be as high as -38 pC/N versus -33 pC/N in pure PVDF.

[0049] APPLICATIONS: The piezoelectric properties of PVDF are used to advantage to manufacture tactile sensor arrays, inexpensive strain gauges and lightweight audio transducers. Piezoelectric panels made of PVDF are used on the Venetia Burney Student Dust Counter, a scientific instrument of the New Horizons space probe that measures dust density in the outer solar system. PVDF is the standard binder material used in the production of composite electrodes for lithium ion batteries. 1-2% weight solution of PVDF dissolved in N-Methyl-2-pyrrolidone (NMP) is mixed with an active lithium storage material such as graphite, silicon, tin, $LiCoO_2$, $LiMn_2O_4$, or $LiFePO_4$ and a conductive additive such as carbon black or carbon nanofibers. This slurry is cast onto a metallic current collector and the NMP is evaporated to form a composite or paste electrode. PVDF is used because it is chemically inert over the potential range used and does not react with the

electrolyte or lithium. Piezoelectric elements can be used in laser mirror alignment, where their ability to move a large mass (the mirror mount) over microscopic distances is exploited to electronically align some laser mirrors. By precisely controlling the distance between mirrors, the laser electronics can accurately maintain optical conditions inside the laser cavity to optimize the beam output. Piezoelectric sensors especially are used with high frequency sound in ultrasonic transducers for medical imaging and also industrial nondestructive testing (NDT).

[0050] For many sensing techniques, the sensor can act as both a sensor and an actuator – often the term transducer is preferred when the device acts in this dual capacity, but most piezo devices have this property of reversibility whether it is used or not. Ultrasonic transducers, for example, can inject ultrasound waves into the body, receive the returned wave, and convert it to an electrical signal (a voltage). Most medical ultrasound transducers are piezoelectric.

[0051] Advantageously, Sustainable energy is the sustainable provision of energy that meets the needs of the present without compromising the ability of future generations to meet their needs. Technologies that promote sustainable energy include renewable energy sources, such as hydroelectricity, solar energy, wind energy, wave power, geothermal energy, and tidal power, and also technologies designed to improve energy efficiency.

[0052] This sequence of oscillations causes the rotor within the watch to spin rapidly thereby winding the watch in a manner closely simulating the spinning of the rotor that occurs during normal winding of the watch when the watch is worn by a user. Due to the forces that are exerted, the rotor spins around the watch shaft during the oscillations, as opposed to the partial rotation observed in prior art mechanisms. Therefore, the time required to wind the watch, and the energy required, is

substantially reduced. Moreover, since the rotor is spinning about the shaft, as opposed to merely being held in a downward position while the watch is rotated, winding more closely approximating the design mechanism is achieved, thereby putting less wear on the watch.

[0053]This invention relates to satellite communications systems using multiple spot beams from a geosynchronous earth orbit satellite to provide selective coverage of the continental United States and, more particularly, relates to a system having a satellite receiving hub in every spot beam that allows for asynchronous communications between each hub and the satellite for maximizing frequency re-use.

[0054] These purposes, objects and advantages should be construed as merely illustrative of some of the more prominent features and applications of the present invention. Many other beneficial results can be obtained by applying the disclosed invention in a different manner or by modifying the invention within the scope of the disclosure. Accordingly, other purposes, objects and advantages as well as a fuller understanding of the invention may be had by referring to the summary herein mentioned and detailed description describing the preferred embodiments of the invention, in addition to the scope of the invention, as defined by the claims, taken in conjunction with the accompanying drawings.

SUMMARY OF THE INVENTION

[0055] In one general respect, an embodiment of the present invention is directed to a system. The system includes a Power Frequency broadcast station, a receiver, and a network. The Power Frequency broadcast station includes a transmitter and a server. The receiver is in communication with the Power Frequency broadcast transmitter and also includes a user interface for receiving user input commands comprising a request for information from the Power Frequency broadcast station.

[0056] The receiver is configured to establish a two-way communication path between the receiver and the Power Frequency broadcast transmitter. The network is in communication with the server and the receiver for exchanging information therebetween. The request for information is provided to the server via the network and the server is configured to receive the request and transmit a response message to the receiver in accordance with the request.

Continuously outboard recharged electric vehicle (COREV)

[0057] Given suitable infrastructure, permissions and vehicles, BEVs (battery electric vehicles) can be recharged while the user drives. The BEV establishes contact with an electrified rail, plate or overhead wires on the highway via an attached conducting wheel or other similar mechanism (see Conduit current collection). The BEV's batteries are recharged by this process—on the highway—and can then be used normally on other roads until the battery is discharged. Some of battery-electric locomotives used for maintenance trains on the London Underground are capable of this mode of operation. Power is picked up from the electtrified rails where possible, switching to battery power where the electricity supply is disconnected.

[0058] The present invention is directed to overcome the disadvantages of the prior art. The invention is a mechanism which taps into the naturally occurring static electricity in the atmosphere. Whereas heretofore, the attempt to garner electricity from the atmosphere has focused exclusively on capturing lightning, the present invention syphons off the static electricity which is generated from any agitated air and voids lightning.

[0059] Lightning is only the final discharge of the static electricity, whether that lightning is intra-cloud lightning, cloud-to-ground lightning, or inter-cloud lightning. Other types of final discharges are known as heat lightning, summer lightning, sheet lightning, ribbon lightning, silent lightning, ball lightning, bead lightning, elves, jets, and sprites. Well before these discharges are observed, as the atmosphere becomes agitated by wind or thermal, static electricity is being generated. The present invention recognizes that this static electricity is being formed and creates a mechanism to capture it.

[0060] In the preferred embodiment, a sensor array is used to monitor the activities both at the base unit (such as electrical flow within the conductor) and in the surrounding locale. A sensor monitoring the electrical flow (i.e. voltage and/or current) within the conductor is used to monitor the electrical activity within the conductor.

[0061] In the preferred embodiment, a lightning sensor monitors for lightning activity within the locale. As noted earlier, the electrical characteristic of lightning is so extreme that ideally this discharge is avoided as it might damage the mechanism of this invention. The sensor array is utilized by a controller, such as microprocessor, programmed to operate the mechanism as outlined herein.

[0062] The controller operates the winch motor to extend or withdraw the conductive line and by extension the altitude of the balloon. The controller is programmed to operate the winch by monitoring the electrical characteristics of the conductor and adjusting the balloon's altitude to maintain these characteristics within the conductor within a preset range.

[0063] This preset range is established either in the base programming of the controller or is established by an operator of the system. As example, by controlling the amount of current being withdrawn from the atmosphere, the mechanism operates within a safe range and also provides a

relatively stable current flow from which a variety of activities can take place (such as DC-AC conversion).

[0064] The controller also utilizes the lightning sensor to protect the mechanism from a lightning strike. Should lightning be detected within a pre-determined range (as established by the software or defined by an operator), then the balloon is pulled down to minimize the risk of damage from a lightning strike.

[0065] Another aspect of the invention relates to the electrical system which accepts the fluctuating atmospheric charge and changes it into an acceptable configuration for either the desired load or for the existing power grid.

[0066] Power grids in the United States operate with a frequency of 60 hertz in an alternating current arrangement. While this basic configuration seems to be universally accepted, the voltage within the grid varies dramatically, such as 15 kv, 34 kv, 69 kv, and even 112 kv.

[0067] Each atmospheric generator is placed proximate to or within easy access to a specific grid; this establishes the required electrical output configuration (i.e. that which is accepted by the power grid). As example, one of the atmospheric electrical collector units as described above collects the atmospheric electrical power as direct current and then supplies the appropriate power grid a specific flow (as example, AC, 60 hertz, at 69 kv).

[0068] The difficulty lies the fact that the DC current being garnered from the atmosphere varies depending on the actual agitation being generated in the atmosphere. This means that the source of DC current is fluctuating.

[0069] The present invention uses a monitoring system which checks the input DC voltage. Depending on the actual voltage being received, the appropriate converter is connected to the input DC voltage so that the desired output is obtained.

[0070] As example, suppose the DC input voltage is 1500 volts, the monitoring system, sensing this input, closes the switch connecting the DC voltage to a converter which accepts DC voltage in the range of 1000-2000 volts which then delivers an AC, 60 hertz 69 kv signal to the power grid. If the DC input voltage increases to 2100 volts, then the monitoring system opens the switch to the first converter (1000-2000 volts) and closes the switch to a second converter (such as 2000-4000 volts) to deliver the desired output of AC (60 hertz, 69 kv) for the power grid.

[0071] In this manner, regardless of the fluctuating input DC voltage, the electrical grid is supplied with a fully configured electrical input conforming to the needs of that specific electrical grid.

[0072] Another aspect of the present invention is the use of a tower or permanent structure instead of an aircraft. In this embodiment, the building or tower is electrically isolated from the ground and a rod (similar to a lightning rod) is extended into the atmosphere. The rod collects the atmospheric charge which is conveyed via an electrical conduit (ideally insulated) where the collected DC charge is reconfigured to meets the need of the locale.

[0073] In this context, for one embodiment of the invention, a tower is placed onto the top of a building. The tower is electrically isolated from the building using such mechanisms well known to those of ordinary skill in the art such as rubber mats. A rod ideally extends from the top of the tower to facilitate the collection of the DC electrical energy.

[0074] Piezoelectricity is a material property that is manifested when voltage is produced by applying mechanical forces, and vice versa, the effect has been described as direct and converse. Piezoelectricity has been described as coupling between a quasi-static electric field and dynamic mechanical motion.

[0075] A piezoelectricity converter mechanism such as described above, is connected to the tower to flow the DC electricity to a converter which modifies the DC current for the specific application. In one application, the DC current is converted to the electrical needs of the building, thereby providing at least some of the electrical requirements of the building itself.

[0076] As noted earlier, the dynamic converter system of the present invention allows a power generator to address a variable voltage in an efficient manner. This makes the dynamic converter system ideal for a variety of alternative energy sources such as the above described atmospheric electrical generator and other alternative energy sources such as wind and wave powered systems. In these systems, the energy being generated must be converted to a proper electrical configuration for a identified load. This may be a particular motor or connection to the power grid which act as a load to the power generating mechanism.

[0077] For these energy generating systems, the converter assembly of this invention utilizes multiple converters. Each converter is configured to accept a unique range of voltages and from these

voltages, create the desired electrical configuration. By using multiple converters, a full range is available, from a minimum voltage input to a maximum voltage input.

[0078] The present invention can include systems and methods for integrating sensors for tracking atmospheric transducer system performance metrics into media devices and accessories therefor, thereby reducing or eliminating the need for additional independent monitoring devices. In one embodiment of the present invention.

[0079] It also is known to provide such transducers with connectors to allow their rechargeable batteries to be charged. In some cases, the connector is a Universal Serial Bus (USB) connector, allowing the transducer to be charged by plugging it into the USB port of a computer, grid circuit or other device.

[0080] These and other objects and advantages of the invention will appear more clearly from the following description in which the preferred embodiment of the invention has been set forth in conjunction with the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0081] FIG. 1 Prior Art depicts perspective view of Electric currents created in sunward ionosphere;

[0082]FIG. 2 is a box flow chart of the propulsion cycle systems present invention;

[0083] FIG. 3 is an top view of the piezoelectric disk cylinder orb of the present invention;

[0084] FIG. 4 is a longitudinal sectional view showing an embodiment of this invention;

[0085] FIG. 5 is a top view of the (ATS) slip rotor piezoelectric chamber of the present invention;

[0086] FIG. 6 is an alternate top view of the piezoelectric cylinder orb of the present invention;

[0087] FIG. [7a-d]7-10 elevation views of spine piezo stacks embodiments of the present invention;

[0088] FIG.[8] 11 illustrates one embodiment of a power service (ATS) system architecture;

[0089] FIG. [9] 12 is a block diagram of the [~~atmospheric transducer~~] ATS charge schematics systems of the present invention;

[0090] FIG. [10] 13 is a block diagram of a [~~atmospheric transducer~~] ATS charge and recycle schematics systems of the present invention;

[0091] FIG. [11a-d] 14 are views of the piezoelectric ball race cylinder of the present invention;

FIG. 15 is a view of the piezoelectric housing and gear of the present invention;

FIG. 16 is a view of a multiple piezoelectric ball race cylinder of the present invention;

FIG. 17 is another embodiment of the piezoelectric stack ball of the present invention;

[0092] FIG. [12a-b] 18&19 are antenna rod transmit devices [~~in accordance with an~~] embodiment of the (ATS) present invention;

[0093] FIG. [13] 20 illustrates substation embodiment of the power service (ATS) system architecture;

[0094] FIG. [14] 21 illustrates a home embodiment of the power service (ATS) system architecture;

FIG. 22 illustrates a window embodiment of the power service (ATS) system architecture;

[0095] FIG. [15] 23 is (ATS) shock device in accordance with an embodiment of the present invention;

FIG. 24 is (ATS) shock device in accordance with an embodiment of the present invention;

[0096] FIG. [16] 25 is (ATS) motorcycle device [~~in accordance with an~~] embodiment of the present invention;

[0097] FIG. [17] 26 is (ATS) axle device in accordance with an embodiment of the present invention;

[0098] FIG. [18] 27 is (ATS) train device in accordance with an embodiment of the present invention;

[0099] FIG. [19] 28 is (ATS) plane device in accordance with an embodiment of the present invention;

[00100] FIG. [20] 29 is (ATS) boat device in accordance with an embodiment of the present invention;

[00101] FIG. [21] 30 is (ATS) solar device in accordance with an embodiment of the present invention;

[00102] FIG. [22] 31 is (ATS) turbine device in accordance with an embodiment of the present invention;

[00103] FIG. 23 32 is (ATS) auto body panel device ~~[in accordance with an]~~ embodiment of the present invention;

[00104] FIG. [24] 33 is (ATS) motorcycle body fairing panel device [~~in accordance with an~~] embodiment of the present invention; and

[00105] FIG. [25] 34 is (ATS) cross section view of body embed panel device [~~in accordance with an embodiment~~] of the present invention.

DETAILED DESCRIPTION

[00106] This sequence of oscillations causes the conductive rotor within piezoelectric molded housing device to spin rapidly thereby winding the mechanism in a manner closely simulating the spinning of the conductive rotor that occurs during normal electric activity when the device is activated. Due to the forces that are exerted, the conductive rotor spins around the piezoelectric cylinder device shaft during the oscillations, as opposed to the partial rotation observed in prior art

mechanisms. Therefore, the time required to charge the Atmospheric Transduction System (ATS) device, and the energy required, is substantially reduced. Moreover, since the rotor is spinning about the shaft, as opposed to merely being held in a downward position while the ATS device is rotated, recharging more closely approximating the design mechanism is achieved, thereby putting less wear on the ATS chamber device. Innovative Piezoelectric housing and ball bearing, coupler and book spine stacks. There relies the notion of negative ground electricity and positive aerial electricity which is in abundance. This invention substantiates land vehicles recycle recharge by reverse oscillation. Aerial vehicles recycle recharge by forward oscillation in accumulation of environmental positive and negative electricity. These aforementioned activities are integral or synchronous with frequency.

[00107] PRIOR ART FIG.1 Electric currents created in sunward ionosphere. **Fig.2** is a recycle box flow chart **49** of a self propulsion unit consisting of a battery **27** , engine **29** and piezoelectric transducer **33** unit. **Fig.3** is a multiple disk **31** load part **51** about a 360 degree cylinder **45** and shaft **44**. **Fig.4** is a piezoelectric molded device **100** housing **110** containing a ball bearing race **104**, disk stacks capacitor **102** and conductive rotor **46**. **Fig.5** is a piezoelectric chamber **120** configuration including a counterweights **50**, shaft **44**, conductive slip rotor **106**. **Fig.6** is an alternate part **200** chamber cylinder **201** embodiment containing piezoelectric spine disk stack capacitors **102**. **Fig.[7a-d]7-10** are variations of spine **107108,109,110** case piezoelectric stack capacitor **102** with plate and ball heads. **Fig.[8]11** Various embodiments of the present invention, among others, will now be described with reference to the accompanying drawings. Accordingly, **FIG.[8]11** illustrates an embodiment of a Atmospheric Transduction (ATS) System **300** architecture. The system **300** may include, for example, a satellite broadcast station **318** that transmits signals **333** containing frequency content from a geostationary satellite **312** by way of airplane antenna **326**. In turn, the satellite **312**

transmits line-of-sight (LOS) signals **333** to one or more ATS terrestrial frequency power receiver farms **314**. The system **300** also may include one or more terrestrial repeaters **316** which receive and retransmit the satellite signals **333** as repeater signals **323** to facilitate reliable reception in geographic areas where LOS reception from the satellite **312** is obstructed by tall buildings, hills, tunnels, and other similar impediments to the signals **333**. The ATS receivers **314** maybe designed to receive one or more signals **333** from the satellite **312** and/or from the terrestrial repeater transceiver **316**. In operation, such ATS receivers **314** may receive both the satellite signals **333** and the repeater signals **323**. The receivers **314** also may be located in mobile environments **320, 321, 322** which include, but are not limited to, land vehicles **321, 322**, aircraft **320**, watercraft **900**, and handheld devices, among others. The receivers **314** also may be fixed in stationary units for residential use (e.g., home **325,750** entertainment, etc.) or commercial **314, 328, 360** use (e.g., business **314**, office **700**, security **328**, etc.). The power frequency broadcast station **318** also may be in communication with a grid network **342**. Two-way communication between the ATS receivers **314** and the power frequency broadcast station **318** may occur via the network **342**. Furthermore, information feedback from the power frequency broadcast station **318** may be transmitted to the ATS receiver **314** both by way of the network **342** as well as via the satellite **312**. Information also may be transmitted to the power broadcast station **318** wirelessly via a wireless network **342,707** by way of transducer tower **360**.

[00108] Further disclosed in **Fig. [9]12** and **Fig.[10]13** (in block diagrams **400, 500**) are electrical schematics for handling the static charge from the atmosphere. By maintaining the voltage being collected in a prescribed range, an electrical conversion system is easily designed. While **FIGS. [9]12**, and **[10]13** illustrate some electrical configurations, those of ordinary skill in the art readily recognize a variety of other configurations which will serve the same function.

[00109] Referencing **FIG. [9]12**, Direct Current In (DC IN) **401** is buffered by a gang of capacitors **410** before being communicated to a DC/AC converter **420**. The DC/AC converter **420** converts the direct current into a an alternating current suitable for placement over an existing electrical grid **430** such as normally found from a power-plant. **FIG.[9] 12** Also illustrates an electrical arrangement suitable for use in charging a battery **440**. DC IN **401** is buffered by capacitor **410** bank before entering into a step down transformer **435**. Step down transformer **435** reduces the voltage so that the voltage can safely be introduced into battery **440** which is connected to ground **450** at the battery's other pole. In **FIG. 9**, DC IN **401** is fed into an adjustable rheostat **460** which is controlled by the controller **465** so that the DC OUT **470** falls within a computer **475** monitored and sensor **480** specified range. **Fig.[10]13** Hypothetically, unused energy may be recycled current **501** and/or recaptured by reversing the oscillated spin rotation of devices **51, 100, 120** with the use of a rectifier **502** and Step up transformer **503**, returned to grid **430** capacitor **410**. This theory lends itself to the concept of positive and negative frequency. **Fig.[11]14-17** Self charging propulsion embodiment of the invention where Da Vinci's ball race is combined with a disk cylinder **45** and stack balls **525,** conductive rotor **46**, tooth gear **515** and piezoelectric molded housing **555**. **Fig.[12]18&19** Improvement structures Franklin's lightening rod **600,603** and a molded vibration transducer **601** quasi replicating Vion's tubes and piezoelectric spine stacks capacitor **602** improving Tesla's Atmospheric transmit device. **Fig.[13]20** is an atmospheric receiving building sub station **700** where energy is consumed and excess rendered to the grid **707** by conductive rotor **702** transducer **710,** tower transducer**703**, antenna rod **701** and transducer windows **704**.

[00110] FIG. [9]12 and **Fig.2** flowchart illustration also includes battery **440**. Battery **440** may provide electrical power to components of ATS devices within **Fig.[8]11**. Charging circuitry may also be provided to charge battery **440** when an external power supply is connected to an ATS device

100. **Fig.[11a-d]14-17** eliminates one or more steps by presenting a self charge retaining transducer **510-513** may be configured with an accelerator sensor **480** controller **465** and gears **515,** provide reciprocal power incorporated within piezoelectric molded and ceramic housing **555** along with stack balls **525** and cylinder **545**. This assembly more resembles a motor by characteristics given power with application.

[00111] In operation, as illustrated in **FIGS. 2-[13]20** and **FIGS. [14-25]21-34** , is periodically energized by movement to rotate Orb in either a clockwise or counterclockwise direction. The length of time or activity is energized, and the length of time between the period when the capacitor **31, 102** battery is energized, will depend on the particular ATS device design. As the Orb rotates, the outer end of the disk moves along a 360˚ circular pathway to push against with forward and rearwardly spinning. Upon engagement of the Orb, ATS device disk is rotated until carried to the apex or top of the circular pathway. Upon reaching the apex, the gravitational and vibrational force or counterweight **50** promotes additional oscillation. ATS device movement rapidly rotate on Orb at a rotational speed greater than the speed of rotation of Orb. Counterweight **50** is then carried beyond the bottom or lowest point of the pathway by its momentum to a point near the apex on the opposite side of the pathway. The cycle is repeated through multiple increasing oscillations of the ATS device until counterweight **50** stops at the bottom position, or until once again engages to again move counterweight to the top of its circular pathway.

[00112] FIG. 2 is a flow chart showing generation of energy using a rotor according to one or more of the above-described embodiments. First, battery **27** starts the engine **29** and/or mobile transducer **33** is oscillated. In response to this acceleration, forces are imposed on one or more rotation piezoelectric devices. In response to those forces, the piezoelectric devices output electrical energy,

which energy is extracted at a power controller **465**. The power controller **465** sensor **480** then makes this energy available to recharge a capacitor **410** battery **440** and/or to electronic components of the mobile terminal. Although **FIG.2** shows a serial flow of events, it is to be appreciated that the events of blocks **33**, **27** and **29** occur substantially instantaneously upon acceleration of the mobile terminal.

PREFERRED ALTERNATE EMBODIMENTS

[00113]The present invention (ATS) device in accordance with an embodiment of the present invention overcomes the foregoing problem in the conventional art and provides an electro energy vibration and alternative to gas, oil or fossil fuel consumption in **Fig.[14A]21** homes **750** transducer **755, Fig.[19]28** airplane **880** transducer **801**, **Fig.[18]27** train **860** transducer **801**, **Fig.[23]32** auto **950** transducer **910**, **Fig.[16]25** and **Fig.[24]32** motorcycles **960,850** transducers **799, 802, 810, 910** and **Fig.[20]29** boat **900** transducers **901,910**.

[00114] In order to solve the foregoing problems in the conventional art, the present invention provides an electro transducer having a ball bearing assembly which is compatible with **Fig.[17]26** axle shaft **44** transducer **810** wheel **870** assembly. In order to solve the foregoing problems in the conventional art, the present invention provides an electro transducer having an **Fig.[25]34** housing panel **980** transducer **910** assembly which is compatible with an exterior body assembly. Thereby, an Atmospheric transducer device may be shock **800** integrated as within the **Fig.[15A]23** coupler **802,** and **Fig.[15B]24** ladder **799,** (vertical friction) piezoelectric absorbers assemblies. In order to solve the foregoing problems in the conventional art, the present invention provides an electro transducer having a capable flat assembly which is compatible with **Fig.[14B]22** window **704** disk

31 plate transducer **714**, **Fig.[21]30** solar panel **920** transducer **910**, **Fig.[22]31** wind turbine **930** transducer **910** assembly. This invention provided **Fig.3** piezoelectric plate disks **31**, **Fig.7[a-d]-10** spine piezoelectric disks stacks **107-110** capacitor **102**, **Fig.[11D]17** piezoelectric stack balls **525** capacitor, the arrangement of balls **525** will not be in a facing relation. The deformation in the inner and outer races during rotation of the ball bearing while undergoing a radial load is made irregular and complicated. The spine eliminates the deformation and vibration level increased by a combination of ceramic and molded piezoelectric materials at a regular predetermined frequency thereby multiplying the level of vibration and noise reduction.

[00115] Certain modifications and improvements will occur to those skilled in the art upon a reading of the foregoing description. It should be understood that all such modifications and improvements have been deleted herein for the sake of conciseness and readability but are properly within the scope of the following claims.

[00116] Thus it is seen that an atmospheric transducer device may be integrated and/or provided. It will be understood that the foregoing is only illustrative of the principles of the invention, and that various modifications can be made by those skilled in the art without departing from the scope and spirit of the invention, and the present invention is limited only by the claims that follow.

CLAIMS

I Claim:

Claim 1. Atmospheric transduction system method of producing great electrical activities a resonant circuit having its outer conducting boundaries, which are charged to a higher potential, arranged in surfaces of large radii of curvature so as to prevent leakage of the oscillating charge, substantially as set forth: and

(a) an method improvement in the Atmospheric transduction art of transmit and utilizing electrical energy which consists in establishing stationary electrical waves in the natural conducting media, and operating thereby, one or more receiving devices remote from the source of energy, as set forth, and enhancing said energy by amplifying further transduction; and

(b)an Atmospheric transduction method enabling the use of positive electricity contained in the atmosphere and the negative electricity contained in the earth, and thus form an electric pile of considerable power and make the electricity available for industry and consumer purposes; and

(c) an atmospheric transduction system method, comprising: a satellite power broadcast station having a transmitter and a transducer; a receiver in communication with the satellite power broadcast transmitter, the receiver comprising a user interface for receiving user input commands comprising a request for information from the satellite power broadcast station, wherein the receiver is configured to establish a two-way communication path between the receiver and the satellite power broadcast transmitter; and a network in communication with the server and the receiver for exchanging information therebetween; wherein the request for information is provided to the transducer via the network and the computer is configured to receive the request and transmit a response message to the transreceiver in accordance with the request.

2. A transduction oscillation system method of charging or enhancement where plates and/or battery disks form a modified version of capacitor, wherein said capacitor(s) having an outside piezoelectric housing and wherein the improvement comprising an outside diameter or linear distance from said sensor monitor providing, said battery capacitor is a sub-system of an automobile, sub-system of an airplane, sub-system of a train, sub-system of a motorcycle, sub-system of a home, sub-system of a solar system, sub-system of a wind turbine, sub-system of a satellite system, and:

(a) a method for sensor to atmospheric electricity and absorption, said method sensor imbedded and/or removably attached to exterior system panel(s), said sensor absorber capturing electricity potential by piezoelectric materials and negative - positive atmosphere, and;

(b) a transduction oscillation method of power frequency system where electric energy is captured, relayed and/or beamed by satellites to an aerial grid, said energy further relayed to the atopic surface, recaptured by antenna rod transducer;

(i) wherein aerial grid is a subsystem of atmospheric positive current;

(ii) wherein said atopic grid is a subsystem of atmospheric negative current;

(c) providing a means of absorption signaling and communication within said power frequency system is relayed by computer devices and/or capacitor devices, display communicate while in progress to manage and/or evaluate outcome, and;

(i) version includes a absorption capacitor device as a means of direction and performance;

(ii) said device is removably attached to housing to communicate in energy level;

(d) providing said atopic device captures conducts dc to dc voltage by converter, and;

(f) providing said aerial device captures conducts ac to dc voltage by converter, and;

(g) wherein dc are compatible to aerial and atopic recharge by atmospheric magnetic fields.

3. A transducer for generating an electric current comprising: current generating means comprising first transducer means and second transducer means arranged to generate electric current in response to relative rotation between said first and second generator means; a first rotary part having vanes, said first rotary part arranged to rotate in a first direction around an axis when exposed to a flow of air perpendicular to said axis, said first rotary part operatively connected to a first of said first and second transducer means; said axis is through an axial shaft about which said first rotary part is arranged to rotate; said axial shaft is configured to receive electrical connection means therethrough, said electrical connection means configured to provide an electrical connection between said current generating means and transducer electrical means:

(a) an electrical frequency transducer system receiving a variable voltage input and connected to a load requiring a set electrical configuration, said system comprising: a static electricity collector having a conductor that collects static electricity from the atmosphere and outputs a collected energy, a converter assembly in electrical communication with the transducer comprising: a plurality of converters, each converter configured to accept a unique range of voltages from the collected energy and producing the set electrical configuration, and a sensor that measures the collected energy from the transducer, the computer further selectively closing, in response to said level of the input voltage; and

(b) a piezoelectric transducer comprising: stack capacitors; a rotational member mounted to undergo rotation; an armature molded selectively coupled to the rotational member for rotation therewith

when the conductive cylinder is energized; and a ball bearing, conductive rotor supporting the rotational member, the ball bearing having an inner race, an outer race, and a plurality of balls arranged in a plurality of rows each containing a number of the balls and/or stacks, the balls being disposed between the inner race and the outer race so that each of the balls contacts the inner race at at least one point and contacts the outer race at at least one point; and

(c) an oscillating transducer device housing; a chamber cylinder configured to retain a capacitor battery or disk with counterweight; a first piezoelectric element coupling the chamber to the device housing and configured to receive, as a result of spinning acceleration of the device axis, a first portion of a force of imposed by a mass of a battery retained in the chamber; a second piezoelectric element coupling the chamber to the device housing and configured to receive, as a result of the device housing acceleration and along a second axis that is circumvents adjacent to the first axis, a second portion of the force imposed by the mass of at least another capacitor retained in the cylinder chamber; and a controller configured to receive electrical energy output by the first and second piezoelectric elements in response to the first and second force portions and to make the received electrical energy available for at least one of satisfying at least part of an electrical load satisfiable by the capacitors retained in the chamber, and recharging the battery, and;

(d) the oscillating transducer apparatus, further comprising a piezoelectric element, a transceiver, power frequency and wherein the piezoelectric elements also couple to the device housing, the force portions include portions of forces imposed by masses, the rotational piezoelectric element is configured to receive, as a result of the device having a center of gravity offset acceleration and

forces imposed by the masses is released to freely rotate about said axis with said counterweight being carried bi-directionally beneath said axis in an oscillating motion to spin of the processor, the controller, the capacitor, retained in the chamber and the controller is configured to receive electrical energy output by the piezoelectric elements in response to the force and counterweight portions.

ABSTRACT

Atmospheric Transduction System including a Power Frequency broadcast station, a receiver, and a network. The Power Frequency broadcast station includes a transmitter and a computer server. The receiver is in communication with the Power Frequency broadcast transmitter and also includes a user interface for receiving user input commands comprising a request for information from the Power Frequency broadcast station. The receiver is configured to establish a two-way communication path between the receiver and the Power Frequency broadcast transmitter. The network is in communication with the transducer, controller and the receiver for exchanging information therebetween. In response to oscillation translation and/or rotation of the electronic transducer, portions of forces induced by the mass are transferred to the piezoelectric elements. Electrical energy output by these piezoelectric elements is received in a power controller and can be applied to the battery as self charging. The piezoelectric transducer includes a conductive rotor and bearings, at least one of them incorporating a vibrator of mechanical oscillation, having a piezoelectric transducer converting mechanical vibrations into electric power.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: JENNINGS, James Edward

SERIAL NO.: 13/692,121 FILING DATE: December 3, 2012

TITLE: ATMOSPHERIC TRANSDUCTION SYSTEM

GROUP ART UNIT: 3644 EXAMINER: NONE

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RESPONSE/AMENDMENT

Dear Examiner:

This correspondence is being filed as a Response to the NOTICE TO FILE CORRECTED PAPERS issued on January 9, 2013. Applicant requests entry of the amendments indicated below and consideration of the appended Remarks.

Amendments to the Specification BRIEF DESCRIPTIONS begin on Page 2 of this paper and include both an attached Substitute Specification and an Annotated Substituted Specification showing changes.

Amendments to the Drawings begin on Page 2 of this paper and include both an attached set of Replacement Sheets and set of Annotated Sheets showing changes. Remarks begin on Page 2 of this paper.

AMENDMENTS TO DRAWINGS & SPECIFICATION

Please replace the previously submitted Specification with the attached Substitute Specification.

Attachments: Substitute Specification

Substitute Specification (Annotated Showing Changes)

AMENDMENTS TO THE DRAWINGS:

All of the Replacement Sheets reflect formal drawings to replace the informal Numbered drawings previously submitted.

Attachments: Replacement Sheets (15)

REMARKS

Applicant has amended the Specification in the present Application to comply with the Examiner's request for the same. Applicant has made these amendments by way of the attached Substitute Specification. No new matter has been entered by way of these amendments.

Applicant has amended the Drawings Numbers in the present Application to formalize the entire set of Figures. In the process, certain amendments to the Drawings were required to clarify the features originally shown in the Drawings. No new matter has been entered by way of these amendments.

Conditional Request For Constructive Assistance

If for any reason this application is not believed to be in full condition for allowance, applicant respectfully request the constructive assistance and suggestions of the examiner pursuant to M.P.E.P.§ 2173.02 and § 707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Applicant respectfully requests reconsideration of the application and its passage to allowance. Should any impediments to allowance remain, Applicant requests that the Examiner contact the undersigned at the indicated phone number.

Respectfully submitted, James Jennings

/JAMES EDWARD JENNINGS/

Date: 1/16/2013 By:_____

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DocCode - SCORE

SCORE Placeholder Sheet for IFW Content

Application Number: 13692121 Document Date: 01/16/2013

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13/692,121	12/03/2012	JAMES EDWARD JENNINGS	

CONFIRMATION NO. 7639

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FORMALITIES LETTER

OC000000058435136

Date Mailed: 01/09/2013

NOTICE TO FILE CORRECTED APPLICATION PAPERS

Filing Date Granted

An application number and filing date have been accorded to this application. The application is informal since it does not comply with the regulations for the reason(s) indicated below. Applicant is given TWO MONTHS from the date of this Notice within which to correct the informalities indicated below. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

The required item(s) identified below must be timely submitted to avoid abandonment:

- A substitute specification in compliance with 37 CFR 1.52, 1.121(b)(3), and 1.125, is required. The substitute specification must be submitted with markings and be accompanied by a clean version (without markings) as set forth in 37 CFR 1.125(c) and a statement that the substitute specification contains no new matter (see 37 CFR 1.125(b)). The specification, claims, and/or abstract page(s) submitted is not acceptable and cannot be scanned or properly stored because:
  - The application contains drawings, but the specification does not contain a brief description of the several views of the drawings as required by 37 CFR 1.74 and 37 CFR 1.77(b)(7).
- Replacement drawings in compliance with 37 CFR 1.84 and 37 CFR 1.121(d) are required. The drawings submitted are not acceptable because:
  - More than one figure is present and each figure is not labeled "Fig." with a consecutive Arabic numeral (1, 2, etc.) or an Arabic numeral and capital letter in the English alphabet (A, B, etc.)(see 37 CFR 1.84(u)(1)). See Figure(s) 14, 15. A brief description of the several views of the drawings (see 37 CFR 1.74) should be added or amended to correspond to the corrected numbering of the figures. See also 37 CFR 1.77(b)(7).

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

Items Required To Avoid Processing Delays:

Applicant is notified that the above-identified application contains the deficiencies noted below. No period for reply is set forth in this notice for correction of these deficiencies. However, if a deficiency relates to the inventor's oath or declaration, the applicant must file an oath or declaration in compliance with 37 CFR 1.63, or a substitute statement in compliance with 37 CFR 1.64, executed by or with respect to each actual inventor no later than the expiration of the time period set in the "Notice of Allowability" to avoid abandonment. See 37 CFR 1.53(f).

A new inventor's oath or declaration that identifies this application (e.g., by Application Number and filing date) is required. The inventor's oath or declaration does not comply with 37 CFR 1.63 in that it:

- does not state that the above-identified application was made or authorized to be made by the person executing the oath or declaration.

Replies must be received in the USPTO within the set time period or must include a proper Certificate of Mailing or Transmission under 37 CFR 1.8 with a mailing or transmission date within the set time period. For more information and a suggested format, see Form PTO/SB/92 and MPEP 512.

Replies should be mailed to:

Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.
https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html

For more information about EFS-Web please call the USPTO Electronic Business Center at **1-866-217-9197** or visit our website at http://www.uspto.gov/ebc.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

/lchau/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

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 NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
13/692,121	12/03/2012	3644	533		3	3

CONFIRMATION NO. 7639

82669
James Edward Jennings
P.O. Box 270081
Louisville, CO 80027

FILING RECEIPT

OC000000058435135

Date Mailed: 01/09/2013

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Inventor(s)

JAMES EDWARD JENNINGS, SUPERIOR, CO;

Applicant(s)

JAMES EDWARD JENNINGS, SUPERIOR, CO;

Power of Attorney: None

Domestic Applications for which benefit is claimed - None.
A proper domestic benefit claim must be provided in an Application Data Sheet in order to constitute a claim for domestic benefit. See 37 CFR 1.76 and 1.78.

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Projected Publication Date: To Be Determined - pending completion of Corrected Papers

Non-Publication Request: No

Early Publication Request: No
**** SMALL ENTITY ****

Title

ATMOSPHERIC TRANSDUCTION SYSTEM

Preliminary Class

244

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as

set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

SelectUSA

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit http://www.SelectUSA.gov or call +1-202-482-6800.

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 13/692,121

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	98		N/A	
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	310		N/A	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	125		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	3 minus 20 =	*	x 31 =	0.00	OR		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3 minus 3 =	*	x 125 =	0.00			
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			0.00			
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				0.00			
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	533		TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

PTO/SB/05 (08-09)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	
First Inventor	JAMES EDWARD JENNINGS
Title	ATMOSPHERIC TRANSDUCTION SYSTEM
Express Mail Label No.	

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO: Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

1. ☐ **Fee Transmittal Form** (e.g., PTO/SB/17)
2. ☑ **Applicant claims small entity status.** See 37 CFR 1.27.
3. ☑ **Specification** [Total Pages 30]
   Both the claims and abstract must start on a new page.
   (For information on the preferred arrangement, see MPEP 608.01(a))
4. ☑ **Drawing(s)** (35 U.S.C. 113) [Total Sheets 15]
5. **Oath or Declaration** [Total Sheets 3]
   a. ☑ Newly executed (original or copy)
   b. ☐ A copy from a prior application (37 CFR 1.63(d))
   (for continuation/divisional with Box 18 completed)
   i. ☐ DELETION OF INVENTOR(S)
   Signed statement attached deleting inventor(s) name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☐ **Application Data Sheet.** See 37 CFR 1.76
7. ☐ **CD-ROM or CD-R** in duplicate, large table or Computer Program *(Appendix)*
   ☐ Landscape Table on CD
8. **Nucleotide and/or Amino Acid Sequence Submission**
   (if applicable, items a. – c. are required)
   a. ☐ Computer Readable Form (CRF)
   b. Specification Sequence Listing on:
      i. ☐ CD-ROM or CD-R (2 copies); or
      ii. ☐ Paper
   c. ☐ Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

9. ☐ **Assignment Papers** (cover sheet & document(s))
   Name of Assignee: _____
10. ☐ **37 CFR 3.73(b) Statement** *(when there is an assignee)* ☐ **Power of Attorney**
11. ☐ **English Translation Document** *(if applicable)*
12. ☐ **Information Disclosure Statement** (PTO/SB/08 or PTO-1449)
    ☐ Copies of citations attached
13. ☐ **Preliminary Amendment**
14. ☐ **Return Receipt Postcard** (MPEP 503)
    (Should be specifically itemized)
15. ☐ **Certified Copy of Priority Document(s)**
    (if foreign priority is claimed)
16. ☐ **Nonpublication Request** under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent.
17. ☐ Other: _____

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:

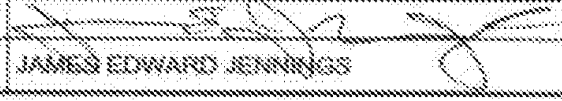
☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: _____

Prior application information: Examiner: _____ Art Unit: _____

19. CORRESPONDENCE ADDRESS

☑ The address associated with Customer Number: 82669 OR ☐ Correspondence address below

Name					
Address					
City		State		Zip Code	
Country		Telephone		Email	

Signature		Date	12-3-2012
Name (Print/Type)	JAMES EDWARD JENNINGS	Registration No. (Attorney/Agent)	

Doc Code: Oath
Document Description: Oath or declaration filed

PTO/SB/01 (04-09)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

☑ Declaration Submitted With Initial Filing OR ☐ Declaration Submitted After Initial Filing (surcharge (37 CFR 1.16(f)) required)

Attorney Docket Number	
First Named Inventor	
COMPLETE IF KNOWN	
Application Number	
Filing Date	
Art Unit	
Examiner Name	

I hereby declare that: (1) Each inventor's residence, mailing address, and citizenship are as stated below next to their name; and (2) I believe the inventor(s) named below to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention titled:

ATMOSPHERIC TRANSDUCTION SYSTEM

(Title of the Invention)

the application of which

☑ is attached hereto

OR

☐ was filed on (MM/DD/YYYY) _____ as United States Application Number or PCT International Application Number _____ and was amended on (MM/DD/YYYY) _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified application, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

Authorization To Permit Access To Application by Participating Offices

☐ If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified patent application is filed access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified patent application is filed to have access to the above-identified patent application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the above-identified patent application with respect to: 1) the above-identified patent application-as-filed; 2) any foreign application to which the above-identified patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above-identified patent application; and 3) any U.S. application-as-filed from which benefit is sought in the above-identified patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Offices.

DECLARATION — Utility or Design Patent Application

Claim of Foreign Priority Benefits

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached? YES	NO
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐

☐ Additional foreign application number(s) are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

PTO/SB/01 (04-08)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

DECLARATION — Utility or Design Patent Application

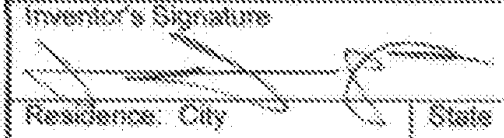
Direct all correspondence to: ☑ The address associated with Customer Number: 000082669 OR ☐ Correspondence address below

Name		
Address		
City	State	Zip
Country	Telephone	Email

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available. Petitioner/applicant is advised that documents which form the record of a patent application (such as the PTO/SB/01) are placed into the Privacy Act system of records DEPARTMENT OF COMMERCE, COMMERCE-PAT-7, System name: *Patent Application Files*. Documents not retained in an application file (such as the PTO-2038) are placed into the Privacy Act system of COMMERCE/PAT-TM-10, System name: *Deposit Accounts and Electronic Funds Transfer Profiles*.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

NAME OF SOLE OR FIRST INVENTOR:	☐ A petition has been filed for this unsigned inventor
Given Name (first and middle [if any]): JAMES EDWARD	Family Name or Surname: JENNINGS
Inventor's Signature: 	Date: 12-3-2012

Residence: City	State	Country	Citizenship
SUPERIOR	CO	US	US

Mailing Address: PO BOX 270081

City	State	Zip	Country
LOUISVILLE	CO	80027	US

☐ Additional inventors or a legal representative are being named on the _____ supplemental sheet(s) PTO/SB/02A or 02LR attached hereto

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

APPLICATION FOR U.S. LETTERS PATENT

TITLE: **ATMOSPHERIC TRANSDUCTION SYSTEM**

INVENTOR: **JENNINGS, James Edward**

CROSS REFERENCE TO RELATED APPLICATIONS

[001] NONE

BACKGROUND OF THE INVENTION

Field of the Invention

[002] Self-propelled travel is a type of recreational adventure travel using human powered transport. This includes non-motorized machines such as a bicycle or skateboard. It is in contrast to traveling in a powered vehicle (such as an automobile) as in that case it is the vehicle which powers itself. Self-propelled travel is used to travel short distances or even for much longer distances such as bicycle touring. Self propelled describes something that moves, progresses or acts on its own power without needing outside help. Leonardo da Vinci's 1478 Self-Propelled Car: It was more than 500 years ago, however -- sometime around the year 1478 to be more or less specific -- when Leonardo drew out his plans for the world's first self-propelled vehicle. Experts originally believed two leaf springs, the simplest form of the spring typically used for automotive suspensions, somehow powered the vehicle. Closer inspection eventually revealed the power came from bigger, coiled springs located in tambours, cylindrical drum-like casings, inside the car's frame. The machine works like a robot or a wind-up toy simply by rotating the wheels opposite of their intended direction, which winds up the springs inside and gives it power. Self propulsion(of a vehicle) provided with its own source of tractive power rather than requiring an external means of propulsion.

[003] In the middle of the 18th century, Benjamin Franklin's experiments showed that electrical phenomena of the atmosphere were not fundamentally different from those produced in the

laboratory. By 1749, Franklin observed lightning to possess almost all the properties observable in electrical machines.

[004] In July 1750, Franklin hypothesized that electricity could be taken from clouds via a tall metal aerial with a sharp point. Before Franklin could carry out his experiment, in 1752 Thomas-François Dalibard erected a 40-foot (12 m) iron rod at Marly-la-Ville, near Paris, drawing sparks from a passing cloud. With ground-insulated aerials, an experimenter could bring a grounded lead with an insulated wax handle close to the aerial, and observe a spark discharge from the aerial to the grounding wire. In May 1752, Dalibard affirmed that Franklin's theory was correct.

Piezoelectric Motor

[005] A piezoelectric motor or piezo motor is a type of electric motor based upon the change in shape of a piezoelectric material when an electric field is applied. Piezoelectric motors make use of the converse piezoelectric effect whereby the material produces acoustic or ultrasonic vibrations in order to produce a linear or rotary motion. In one mechanism, the elongation in a single plane is used to make a series stretches and position holds, similar to the way a caterpillar moves. A transducer is a device that converts one form of energy to another. Energy types include (but are not limited to) electrical, mechanical, electromagnetic (including light), chemical, acoustic or thermal energy. While the term transducer commonly implies the use of a sensor/detector, any device which converts energy can be considered a transducer. Transducers are widely used in measuring instruments. Piezoelectric materials can also be used to harvest low levels of mechanical energy into electrical energy suitable for powering wireless sensors, low power microprocessors or charging batteries. Rotary Uses include rotating machines such as fans, turbines, drills, the wheels on electric cars, locomotives and conveyor

belts. Also, in many vibrating or oscillating machines, an electric motor spins an unbalanced mass, causing the motor (and its mounting structure) to vibrate.

ATMOSPHERIC ELECTRICITY

[006] There is always free electricity in the air and in the clouds, which acts by induction on the earth and electromagnetic devices. Experiments have shown that there is always free electricity in the atmosphere, which is sometimes negative and sometimes positive, but most generally positive, and the intensity of this free electricity is greater in the middle of the day than at morning or night and is greater in winter than in summer. In fine weather, the potential increases with altitude at about 30 volts per foot (100 V/m).

Atmospheric layers

[007] The electrical conductivity of the atmosphere increases exponentially with altitude. The amplitudes of the electric and magnetic components depend on season, latitude, and height above the sea level. The greater the altitude the more atmospheric electricity abounds. The exosphere is the uppermost layer of the atmosphere and is estimated to be 500 km to 1000 km above the Earth's surface, and its upper boundary at about 10,000 km. The thermosphere (upper atmosphere) is the layer of the Earth's atmosphere directly above the mesosphere and directly below the exosphere. Within this layer, ultraviolet radiation causes ionization. Theories that have been proposed to explain the phenomenon of the polar aurora, but it has been demonstrated by experiments that it is due to currents of positive electricity passing from the higher regions of the atmosphere to the earth.

[008] The mesosphere (middle atmosphere) is the layer of the Earth's atmosphere that is directly above the stratosphere and directly below the thermosphere. The mesosphere is located about

50-80/85 km above Earth's surface. The stratosphere (middle atmosphere) is a layer of Earth's atmosphere that is stratified in temperature and is situated between about 10 km and 50 km altitude above the surface at moderate latitudes, while at the poles it starts at about 8 km altitude. The stratosphere sits directly above the troposphere and directly below the mesosphere. The troposphere (lower atmosphere) is the densest layer of the atmosphere.

[009] The planetary boundary layer (PBL), also known as the atmospheric boundary layer (ABL), is the lowest part of the atmosphere and its behavior is directly influenced by its contact with the planetary surface. It is also known as the "exchange layer". (see also:p-n junction.)

[0010] There is a potential gradient at ground level ("Atmosphere ground layer") and this vertical field corresponds to the negative charge in and near the Earth's surface. The negative potential gradient falls rapidly as altitude increases from the ground. Most of this potential gradient is in the first few kilometers. The positive potential gradient rises rapidly as altitude increases from the ground. Volta, over two centuries before the 21st century, discovered with some degree of exactitude that the proportions of the ordinates of the curve or gradient of electric potential increased as the distance from the earth increases, and, more recently, Engel has provided data to calculate the increase (Image to the right).

Drum-type generator

[0011] A drum-type homopolar generator has a magnetic field (B) that radiates radially from the center of the drum and induces voltage (V) down the length of the drum. A conducting drum spun from above in the field of a "loudspeaker" type of magnet that has one pole in the center of the drum

and the other pole surrounding the drum could use conducting ball bearings at the top and bottom of the drum to pick up the generated current.

Astrophysical unipolar inductors

[0012] Unipolar inductors occur in astrophysics where a conductor rotates through a magnetic field, for example, the movement of the highly conductive plasma in a cosmic body's ionosphere through its magnetic field. In their book, Cosmical Electrodynamics, Hannes Alfvén and Carl-Gunne Fälthammar write:

"Since cosmical clouds of ionized gas are generally magnetized, their motion produces induced electric fields [..] For example the motion of the magnetized interplanetary plasma produces electric fields that are essential for the production of aurora and magnetic storms" [..]

".. the rotation of a conductor in a magnetic field produces an electric field in the system at rest.

[0013] This phenomenon is well known from laboratory experiments and is usually called 'homopolar ' or 'unipolar' induction.

The Faraday disc

[0014] The homopolar generator was developed first by Michael Faraday during his experiments in 1831. It is frequently called the Faraday disc in his honor. It was the beginning of modern dynamos — that is, electrical generators which operate using a magnetic field. It was very inefficient and was not used as a practical power source, but it showed the possibility of generating electric power using magnetism, and led the way for commutated direct current dynamos and then alternating current alternators.

Boeing 737–800

[0015] The Boeing Fuel Cell Demonstrator Airplane has a Proton Exchange Membrane (PEM) fuel cell/lithium-ion battery hybrid system to power an electric motor, which is coupled to a conventional propeller. The fuel cell provides all power for the cruise phase of flight. During takeoff and climb, the flight segment that requires the most power, the system draws on lightweight lithium-ion batteries.

[0016] The demonstrator aircraft is a Dimona motor glider, built by Diamond Aircraft Industries of Austria, which also carried out structural modifications to the aircraft. With a wing span of 16.3 meters (53.5 feet), the airplane will be able to cruise at approximately 100 kilometers per hour (62 miles per hour) on power from the fuel cell.

[0017] Nikola Tesla explored the wireless transmission of energy through his work with radio and microwaves and his creation of the Tesla coil and the magnifying transmitter. In 1898, Tesla demonstrated his radio-controlled boat, which he was able to control remotely. In the 1930s, Tesla claimed to have invented a particle beam weapon, or, as some called it, a "peace ray." The device was, in theory, capable of generating an intense, targeted beam of energy and sending it across great distances to demolish warplanes, foreign armies, or anything else you'd rather didn't exist.

[0018]"ROY J. MEYERS, BRITISH PATENT NUMBER 1098" This invention relates to improvements in apparatus for the production of electrical currents, and the primary object in view is the production of a commercially serviceable electrical current without the employment of mechanical or chemical action. To this end the invention comprises means for producing what I believe to be dynamic electricity from the earth and its ambient elements.

[0019] EDWARD LEEDSKALNIN: MAGNETIC CURRENT -The Perpetual Motion Holder is primarily a teaching device but it has many functions including an electromagnet, this is easy enough

to see; it is a generator—spin a magnet between the coils it will generate electricity; it functions as a transformer; it demonstrates how permanent magnets are made, and is a holder of perpetual motion.

Strategic Defense Initiative

[0020] The Strategic Defense Initiative (SDI) was proposed to use ground and space-based systems to protect the United States from attack by strategic nuclear ballistic missiles.

Description of the Related Art

[0021] The present invention relates to a ball bearing assembly structure, an electromagnetic clutch having the ball bearing assembly structure, and a gas compressor equipped with the electromagnetic clutch.

[0022]When operating the gas compressor , the electromagnet of the electromagnetic clutch is energized to attract or adsorb the follower armature plate to an end surface of the prime-mover pulley and join the prime-mover pulley and the rotor shaft, thereby rotating the rotor shaft.

[0023] The ball bearing of the electromagnetic clutch conventionally has used one having an even number of balls per row. Generally, the ball bearing causes vibration and noise due to rotation. In the case of the ball bearing rotating while undergoing a radial load due to a tension of the belt, vibration and noise considerably occur. Particularly when other vibration and noise levels are lowered during engine idling, the vibration and noise of the ball bearing transmitted to the vehicular compartment is not negligible.

[0024] The inventor has conducted various experiments and discovered that the one factor of high vibration and noise level is an even number of balls of the ball bearing. In the ball bearing having an even number of balls per one row, the balls are in a facing relation to have linear-symmetry arrangement between the inner race and the outer race. The deformation and vibration at a regular particular frequency is caused in the inner and outer races. It is to be considered that the vibration as a source also increases noise.

[0025]The present invention relates generally and in various embodiments to piezoelectric mechanical systems. More specifically, the present invention relates generally and in various embodiments to atmospheric oscillation transducer apparatuses, systems, and methods.

[0026] Although various implementations of the present invention, among many, may be described herein with reference to the specific illustrative embodiments related to particular applications, those skilled in the art will understand that the invention is not in any way intended to be limited to such embodiments and/or applications. Those having ordinary skill in the art and reference to the description of the embodiments herein will recognize additional modifications, applications, and other embodiments falling within the scope of the claimed invention and additional fields in which the present invention may be practiced.

[0027] Digital Radio (also known as Satellite Radio or Satellite Digital Audio Radio Service (SDARS)) is a subscriber-based digital radio service that is broadcast via satellites. Digital radio service provides compact-disc (CD) quality programming that may be digitally transmitted via one or more satellites and/or space stations to one or more Earth-based (terrestrial) digital radio stations, receivers, and/or repeaters. In satellite-based direct-broadcast radio services, digitally-encoded audio

program material may be broadcast to terrestrial fixed or mobile digital radio receivers. Fixed receivers may include, for example, stand alone digital radio receivers or digital radio receivers connected via computer networks, including for example, the Internet. Mobile receivers may include, for example, digital radio receivers located in automobiles, aircrafts, watercrafts, and the like.

[0028] Satellite-based digital audio radio services such as SDARS, for example, may be broadcast to one or more digital radio receivers either directly from an orbiting satellite, or indirectly from one or more repeater stations. Such repeater stations may be useful where the digital radio receiver is located in a shielded location or where there is no direct line of sight between the radio and the satellite. In other digital audio radio services systems, the audio programs also may be transmitted in digital form by one or more space stations directly to fixed, mobile, and/or portable radio stations. Such systems may comprise, for example, orbiting satellites, complementary repeating terrestrial transmitters, telemetry, tracking, and control facilities.

[0029] Combinations of mechanical devices U.S. Pat. Nos. 4,019,073, 6,615,968 and atmospheric system interaction are disclosed in U.S. Pat. Nos. 1,119,732, 787,412, 6,902,513 to Nikola Tesla; 28,793 to Charles Vion; and 1,540,998 to Herman Plauson. Lastly, U.S. Pat. Nos. 8,102,078 and US2008/0009240. Agnoff discloses an Oscillating watch winder in U.S. Pat. Nos. 6,543,929, Jennings further discloses an oscillating smart device in application No. 13,572,679.

[0030] As illustrated by a large body of prior art, including the above-noted patents, and a large number of commercial devices, efforts are continuously being made in an attempt to improve helmets, headsets and their methods of fabrication. Nothing in the prior art, however, suggests the present inventive combination of materials and method steps as herein described and claimed. The

present invention achieves its purposes, objects and advantages over the prior art through a new, useful and unobvious combination of components and method steps which improve safety, comfort and noise abatement performance.

[0031] Therefore, it is an object of this invention to provide Effectively, the provision of energy such that it meets the needs of the present without compromising the ability of future generations to meet their own needs. ...Sustainable Energy has two key components: renewable energy and energy efficiency.

[0032] It is still a further objection of this invention to promote Dynamic harmony between equitable availability of energy-intensive goods and services to all people and the preservation of the earth for future generations." And, "the solution will lie in finding sustainable energy sources and more efficient means of converting and utilizing energy.

[0033] It is a further object of the present invention to produce Green Power Energy: is energy that can be extracted, generated, and/or consumed without any significant negative impact to the environment, green power;as electricity produced from solar, wind, geothermal, biogas, biomass, and low-impact small hydroelectric sources.

[0034] Thus, there is a need for a clean energy system that uses atmospheric electricity.

Prior Art

[0035] Quartz crystals have been in regular use for many years to give an accurate frequency for all radio transmitters, radio receivers and computers. Their accuracy comes from an amazing set of coincidences: Quartz -- which is silicon dioxide like most sand -- is unaffected by most solvents and remains crystalline to hundreds of degrees Fahrenheit. The property that makes it an electronic miracle is the fact that, when compressed or bent, it generates a charge or voltage on its surface. This

is a fairly common phenomenon called the Piezoelectric effect. In the same way, if a voltage is applied, quartz will bend or change its shape very slightly.

[0036] If a bell were shaped by grinding a single crystal of quartz, it would ring for minutes after being tapped. Almost no energy is lost in the material. A quartz bell -- if shaped in the right direction to the crystalline axis -- will have an oscillating voltage on its surface, and the rate of oscillation is unaffected by temperature. If the surface voltage on the crystal is picked off with plated electrodes and amplified by a transistor or integrated circuit, it can be re-applied to the bell to keep it ringing.

[0037] The electronics of the watch initially amplifies noise at the crystal frequency. This builds or regenerates into oscillation -- it starts the crystal ringing. The output of the watch crystal oscillator is then converted to pulses suitable for the digital circuits.

Polymers

[0038] Polyvinylidene fluoride (PVDF): PVDF exhibits piezoelectricity several times greater than quartz. Unlike ceramics, where the crystal structure of the material creates the piezoelectric effect, in polymers the intertwined long-chain molecules attract and repel each other when an electric field is applied.

Near Space

[0039] Solar particles become trapped within the Earth's magnetic field and form radiation belts. The Van Allen radiation belt is a torus of energetic charged particles (i.e. a plasma) around Earth, trapped by Earth's magnetic field.

[0040] At elevations above the clouds, atmospheric electricity forms a continuous and distinct element (called the electrosphere) in which the Earth is surrounded. The electrosphere layer (from tens of kilometers above the surface of the earth to the ionosphere) has a high electrical conductivity

and is essentially at a constant electric potential. The ionosphere is the inner edge of the magnetosphere and is the part of the atmosphere that is ionized by solar radiation. (Photoionisation is a physical process in which a photon is incident on an atom, ion or molecule, resulting in the ejection of one or more electrons.)

ADVANTAGES/DISADVANTAGES

[0041] Energy in electronic elements: Electric potential energy, or electrostatic potential energy, is a potential energy (measured in joules) that results from conservative Coulomb forces and is associated with the configuration of a particular set of point charges within a defined system. The term "electric potential energy" is used to describe the potential energy in systems with time-variant electric fields, while the term "electrostatic potential energy" is used to describe the potential energy in systems with time-invariant electric fields.

[0042] Capacitance is the ability of a body to store an electrical charge. Any body or structure that is capable of being charged, either with static electricity or by an electric current, exhibits capacitance. A common form of energy storage device is a parallel-plate capacitor. In a parallel plate capacitor, capacitance is directly proportional to the surface area of the conductor plates and inversely proportional to the separation distance between the plates. If the charges on the plates are +q and -q, and V gives the voltage between the plates, then the capacitance C is given by

$$C = q/V.$$

[0043] The capacitance is a function only of the physical dimensions (geometry) of the conductors and the permittivity of the dielectric. It is independent of the potential difference between the conductors and the total charge on them.

[0044] Piezoelectricity is the combined effect of the electrical behavior of the material:

$$D = \epsilon E$$

where D is the electric charge density displacement (electric displacement), ϵ is permittivity and E is electric field strength, and

Hooke's Law: $S = s T$

where S is strain, s is compliance and T is stress.

[0045] Polyvinylidene fluoride, or polyvinylidene difluoride (PVDF) is a highly non-reactive and pure thermoplastic fluoropolymer produced by the polymerization of vinylidene difluoride. PVDF is a specialty plastic material in the fluoropolymer family; it is used generally in applications requiring the highest purity, strength, and resistance to solvents, acids, bases and heat and low smoke generation during a fire event. Compared to other fluoropolymers, it has an easier melt process because of its relatively low melting point of around 177 ˚C.

[0046] It has a low density (1.78) and low cost compared to the other fluoropolymers. It is available as piping products, sheet, tubing, films, plate and an insulator for premium wire. It can be injected, molded or welded and is commonly used in the chemical, semiconductor, medical and defense industries, as well as in lithium ion batteries. It is also available as a crosslinked closed cell foam, used increasingly in aviation and aerospace. PVDF has a glass transition temperature (Tg) of about -35 ˚C and is typically 50–60% crystalline. To give the material its piezoelectric properties, it is mechanically stretched to orient the molecular chains and then poled under tension. PVDF exists in several forms: alpha (TGTG'), beta (TTTT), and gamma (TTTGTTTG') phases, depending on the chain conformations as trans (T) or gauche (G) linkages. When poled, PVDF is a ferroelectric

polymer, exhibiting efficient piezoelectric and pyroelectric properties. These characteristics make it useful in sensor and battery applications. Thin films of PVDF are used in some newer thermal camera sensors.

[0047] Copolymers: Copolymers of PVDF are also used in piezoelectric and electrostrictive applications. One of the most commonly-used copolymers is P(VDF-trifluoroethylene), usually available in ratios of about 50:50 wt% and 65:35 wt% (equivalent to about 56:44 mol% and 70:30 mol%). Another one is P(VDF-tetrafluoroethylene). They improve the piezoelectric response by improving the crystallinity of the material.

[0048] While the copolymers' unit structures are less polar than that of pure PVDF, the copolymers typically have a much higher crystallinity. This results in a larger piezoelectric response: d33 values for P(VDF-TrFE) have been recorded to be as high as -38 pC/N versus -33 pC/N in pure PVDF.

[0049] APPLICATIONS: The piezoelectric properties of PVDF are used to advantage to manufacture tactile sensor arrays, inexpensive strain gauges and lightweight audio transducers. Piezoelectric panels made of PVDF are used on the Venetia Burney Student Dust Counter, a scientific instrument of the New Horizons space probe that measures dust density in the outer solar system. PVDF is the standard binder material used in the production of composite electrodes for lithium ion batteries. 1-2% weight solution of PVDF dissolved in N-Methyl-2-pyrrolidone (NMP) is mixed with an active lithium storage material such as graphite, silicon, tin, $LiCoO_2$, $LiMn_2O_4$, or $LiFePO_4$ and a conductive additive such as carbon black or carbon nanofibers. This slurry is cast onto a metallic current collector and the NMP is evaporated to form a composite or paste electrode. PVDF is used because it is chemically inert over the potential range used and does not react with the

electrolyte or lithium. Piezoelectric elements can be used in laser mirror alignment, where their ability to move a large mass (the mirror mount) over microscopic distances is exploited to electronically align some laser mirrors. By precisely controlling the distance between mirrors, the laser electronics can accurately maintain optical conditions inside the laser cavity to optimize the beam output. Piezoelectric sensors especially are used with high frequency sound in ultrasonic transducers for medical imaging and also industrial nondestructive testing (NDT).

[0050] For many sensing techniques, the sensor can act as both a sensor and an actuator – often the term transducer is preferred when the device acts in this dual capacity, but most piezo devices have this property of reversibility whether it is used or not. Ultrasonic transducers, for example, can inject ultrasound waves into the body, receive the returned wave, and convert it to an electrical signal (a voltage). Most medical ultrasound transducers are piezoelectric.

[0051] Advantageously, Sustainable energy is the sustainable provision of energy that meets the needs of the present without compromising the ability of future generations to meet their needs. Technologies that promote sustainable energy include renewable energy sources, such as hydroelectricity, solar energy, wind energy, wave power, geothermal energy, and tidal power, and also technologies designed to improve energy efficiency.

[0052] This sequence of oscillations causes the rotor within the watch to spin rapidly thereby winding the watch in a manner closely simulating the spinning of the rotor that occurs during normal winding of the watch when the watch is worn by a user. Due to the forces that are exerted, the rotor spins around the watch shaft during the oscillations, as opposed to the partial rotation observed in prior art mechanisms. Therefore, the time required to wind the watch, and the energy required, is

substantially reduced. Moreover, since the rotor is spinning about the shaft, as opposed to merely being held in a downward position while the watch is rotated, winding more closely approximating the design mechanism is achieved, thereby putting less wear on the watch.

[0053]This invention relates to satellite communications systems using multiple spot beams from a geosynchronous earth orbit satellite to provide selective coverage of the continental United States and, more particularly, relates to a system having a satellite receiving hub in every spot beam that allows for asynchronous communications between each hub and the satellite for maximizing frequency re-use.

[0054] These purposes, objects and advantages should be construed as merely illustrative of some of the more prominent features and applications of the present invention. Many other beneficial results can be obtained by applying the disclosed invention in a different manner or by modifying the invention within the scope of the disclosure. Accordingly, other purposes, objects and advantages as well as a fuller understanding of the invention may be had by referring to the summary herein mentioned and detailed description describing the preferred embodiments of the invention, in addition to the scope of the invention, as defined by the claims, taken in conjunction with the accompanying drawings.

SUMMARY OF THE INVENTION

[0055] In one general respect, an embodiment of the present invention is directed to a system. The system includes a Power Frequency broadcast station, a receiver, and a network. The Power Frequency broadcast station includes a transmitter and a server. The receiver is in communication with the Power Frequency broadcast transmitter and also includes a user interface for receiving user input commands comprising a request for information from the Power Frequency broadcast station.

[0056] The receiver is configured to establish a two-way communication path between the receiver and the Power Frequency broadcast transmitter. The network is in communication with the server and the receiver for exchanging information therebetween. The request for information is provided to the server via the network and the server is configured to receive the request and transmit a response message to the receiver in accordance with the request.

Continuously outboard recharged electric vehicle (COREV)

[0057] Given suitable infrastructure, permissions and vehicles, BEVs (battery electric vehicles) can be recharged while the user drives. The BEV establishes contact with an electrified rail, plate or overhead wires on the highway via an attached conducting wheel or other similar mechanism (see Conduit current collection). The BEV's batteries are recharged by this process—on the highway—and can then be used normally on other roads until the battery is discharged. Some of battery-electric locomotives used for maintenance trains on the London Underground are capable of this mode of operation. Power is picked up from the electtrified rails where possible, switching to battery power where the electricity supply is disconnected.

[0058] The present invention is directed to overcome the disadvantages of the prior art. The invention is a mechanism which taps into the naturally occurring static electricity in the atmosphere. Whereas heretofore, the attempt to garner electricity from the atmosphere has focused exclusively on capturing lightning, the present invention syphons off the static electricity which is generated from any agitated air and voids lightning.

[0059] Lightning is only the final discharge of the static electricity, whether that lightning is intra-cloud lightning, cloud-to-ground lightning, or inter-cloud lightning. Other types of final discharges are known as heat lightning, summer lightning, sheet lightning, ribbon lightning, silent lightning, ball lightning, bead lightning, elves, jets, and sprites. Well before these discharges are observed, as the atmosphere becomes agitated by wind or thermal, static electricity is being generated. The present invention recognizes that this static electricity is being formed and creates a mechanism to capture it.

[0060] In the preferred embodiment, a sensor array is used to monitor the activities both at the base unit (such as electrical flow within the conductor) and in the surrounding locale. A sensor monitoring the electrical flow (i.e. voltage and/or current) within the conductor is used to monitor the electrical activity within the conductor.

[0061] In the preferred embodiment, a lightning sensor monitors for lightning activity within the locale. As noted earlier, the electrical characteristic of lightning is so extreme that ideally this discharge is avoided as it might damage the mechanism of this invention. The sensor array is utilized by a controller, such as microprocessor, programmed to operate the mechanism as outlined herein.

[0062] The controller operates the winch motor to extend or withdraw the conductive line and by extension the altitude of the balloon. The controller is programmed to operate the winch by monitoring the electrical characteristics of the conductor and adjusting the balloon's altitude to maintain these characteristics within the conductor within a preset range.

[0063] This preset range is established either in the base programming of the controller or is established by an operator of the system. As example, by controlling the amount of current being withdrawn from the atmosphere, the mechanism operates within a safe range and also provides a

relatively stable current flow from which a variety of activities can take place (such as DC-AC conversion).

[0064] The controller also utilizes the lightning sensor to protect the mechanism from a lightning strike. Should lightning be detected within a pre-determined range (as established by the software or defined by an operator), then the balloon is pulled down to minimize the risk of damage from a lightning strike.

[0065] Another aspect of the invention relates to the electrical system which accepts the fluctuating atmospheric charge and changes it into an acceptable configuration for either the desired load or for the existing power grid.

[0066] Power grids in the United States operate with a frequency of 60 hertz in an alternating current arrangement. While this basic configuration seems to be universally accepted, the voltage within the grid varies dramatically, such as 15 kv, 34 kv, 69 kv, and even 112 kv.

[0067] Each atmospheric generator is placed proximate to or within easy access to a specific grid; this establishes the required electrical output configuration (i.e. that which is accepted by the power grid). As example, one of the atmospheric electrical collector units as described above collects the atmospheric electrical power as direct current and then supplies the appropriate power grid a specific flow (as example, AC, 60 hertz, at 69 kv).

[0068] The difficulty lies the fact that the DC current being garnered from the atmosphere varies depending on the actual agitation being generated in the atmosphere. This means that the source of DC current is fluctuating.

[0069] The present invention uses a monitoring system which checks the input DC voltage. Depending on the actual voltage being received, the appropriate converter is connected to the input DC voltage so that the desired output is obtained.

[0070] As example, suppose the DC input voltage is 1500 volts, the monitoring system, sensing this input, closes the switch connecting the DC voltage to a converter which accepts DC voltage in the range of 1000-2000 volts which then delivers an AC, 60 hertz 69 kv signal to the power grid. If the DC input voltage increases to 2100 volts, then the monitoring system opens the switch to the first converter (1000-2000 volts) and closes the switch to a second converter (such as 2000-4000 volts) to deliver the desired output of AC (60 hertz, 69 kv) for the power grid.

[0071] In this manner, regardless of the fluctuating input DC voltage, the electrical grid is supplied with a fully configured electrical input conforming to the needs of that specific electrical grid.

[0072] Another aspect of the present invention is the use of a tower or permanent structure instead of an aircraft. In this embodiment, the building or tower is electrically isolated from the ground and a rod (similar to a lightning rod) is extended into the atmosphere. The rod collects the atmospheric charge which is conveyed via an electrical conduit (ideally insulated) where the collected DC charge is reconfigured to meets the need of the locale.

[0073] In this context, for one embodiment of the invention, a tower is placed onto the top of a building. The tower is electrically isolated from the building using such mechanisms well known to those of ordinary skill in the art such as rubber mats. A rod ideally extends from the top of the tower to facilitate the collection of the DC electrical energy.

[0074] Piezoelectricity is a material property that is manifested when voltage is produced by applying mechanical forces, and vice versa, the effect has been described as direct and converse. Piezoelectricity has been described as coupling between a quasi-static electric field and dynamic mechanical motion.

[0075] A piezoelectricity converter mechanism such as described above, is connected to the tower to flow the DC electricity to a converter which modifies the DC current for the specific application. In one application, the DC current is converted to the electrical needs of the building, thereby providing at least some of the electrical requirements of the building itself.

[0076] As noted earlier, the dynamic converter system of the present invention allows a power generator to address a variable voltage in an efficient manner. This makes the dynamic converter system ideal for a variety of alternative energy sources such as the above described atmospheric electrical generator and other alternative energy sources such as wind and wave powered systems. In these systems, the energy being generated must be converted to a proper electrical configuration for a identified load. This may be a particular motor or connection to the power grid which act as a load to the power generating mechanism.

[0077] For these energy generating systems, the converter assembly of this invention utilizes multiple converters. Each converter is configured to accept a unique range of voltages and from these

voltages, create the desired electrical configuration. By using multiple converters, a full range is available, from a minimum voltage input to a maximum voltage input.

[0078] The present invention can include systems and methods for integrating sensors for tracking atmospheric transducer system performance metrics into media devices and accessories therefor, thereby reducing or eliminating the need for additional independent monitoring devices. In one embodiment of the present invention.

[0079] It also is known to provide such transducers with connectors to allow their rechargeable batteries to be charged. In some cases, the connector is a Universal Serial Bus (USB) connector, allowing the transducer to be charged by plugging it into the USB port of a computer, grid circuit or other device.

[0080] These and other objects and advantages of the invention will appear more clearly from the following description in which the preferred embodiment of the invention has been set forth in conjunction with the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0081] FIG. 1 Prior Art depicts perspective view of Electric currents created in sunward ionosphere;

[0082]FIG. 2 is a box flow chart of the propulsion cycle systems present invention;

[0083] FIG. 3 is an top view of the piezoelectric disk cylinder orb of the present invention;

[0084] FIG. 4 is a longitudinal sectional view showing an embodiment of this invention;

[0085] FIG. 5 is a top view of the (ATS) slip rotor piezoelectric chamber of the present invention;

[0086] FIG. 6 is an alternate top view of the piezoelectric cylinder orb of the present invention;

[0087] FIG. 7a-d elevation views of spine piezo stacks embodiments of the present invention;

[0088] FIG.8 illustrates one embodiment of a power service (ATS) system architecture;

[0089] FIG. 9 is a block diagram of the atmospheric transducer charge schematics systems of the present invention;

[0090] FIG. 10 is a block diagram of a atmospheric transducer charge and recycle schematics systems of the present invention;

[0091] FIG. 11a-d are views of the piezoelectric ball race cylinder of the present invention;

[0092] FIG. 12a-b are antenna rod transmit devices in accordance with an embodiment of the (ATS) present invention;

[0093] FIG. 13 illustrates substation embodiment of the power service (ATS) system architecture;

[0094] FIG. 14 illustrates a home embodiment of the power service (ATS) system architecture;

[0095] FIG. 15 is (ATS) device in accordance with an embodiment of the present invention;

[0096] FIG. 16 is (ATS) device in accordance with an embodiment of the present invention;

[0097] FIG. 17 is (ATS) device in accordance with an embodiment of the present invention;

[0098] FIG. 18 is (ATS) device in accordance with an embodiment of the present invention;

[0099] FIG. 19 is (ATS) device in accordance with an embodiment of the present invention;

[00100] FIG. 20 is (ATS) device in accordance with an embodiment of the present invention;

[00101] FIG. 21 is (ATS) device in accordance with an embodiment of the present invention;

[00102] FIG. 22 is (ATS) device in accordance with an embodiment of the present invention;

[00103] FIG. 23 is (ATS) device in accordance with an embodiment of the present invention;

[00104] FIG. 24 is (ATS) device in accordance with an embodiment of the present invention; and

[00105] FIG. 25 is (ATS) device in accordance with an embodiment of the present invention.

DETAILED DESCRIPTION

[00106] This sequence of oscillations causes the conductive rotor within piezoelectric molded housing device to spin rapidly thereby winding the mechanism in a manner closely simulating the spinning of the conductive rotor that occurs during normal electric activity when the device is activated. Due to the forces that are exerted, the conductive rotor spins around the piezoelectric cylinder device shaft during the oscillations, as opposed to the partial rotation observed in prior art mechanisms. Therefore, the time required to charge the Atmospheric Transduction System (ATS) device, and the energy required, is substantially reduced. Moreover, since the rotor is spinning about the shaft, as opposed to merely being held in a downward position while the ATS device is rotated, recharging more closely approximating the design mechanism is achieved, thereby putting less wear on the ATS chamber device. Innovative Piezoelectric housing and ball bearing, coupler and book spine stacks. There relies the notion of negative ground electricity and positive aerial electricity which is in abundance. This invention substantiates land vehicles recycle recharge by reverse oscillation. Aerial vehicles recycle recharge by forward oscillation in accumulation of environmental positive and negative electricity. These aforementioned activities are integral or synchronous with frequency.

[00107] PRIOR ART FIG.1 Electric currents created in sunward ionosphere. **Fig.2** is a recycle box flow chart **49** of a self propulsion unit consisting of a battery **27** , engine **29** and piezoelectric transducer **33** unit. **Fig.3** is a multiple disk **31** load part **51** about a 360 degree cylinder **45** and shaft **44**. **Fig.4** is a piezoelectric molded device **100** housing **110** containing a ball bearing race **104**, disk stacks capacitor **102** and conductive rotor **46**. **Fig.5** is a piezoelectric chamber **120** configuration including a counterweights **50**, shaft **44**, conductive slip rotor **106**. **Fig.6** is an alternate part **200** chamber cylinder **201** embodiment containing piezoelectric spine disk stack capacitors **102**. **Fig.7a-**

d are variations of spine **107** case piezoelectric stack capacitor **102** with plate and ball heads. **Fig.8** Various embodiments of the present invention, among others, will now be described with reference to the accompanying drawings. Accordingly, **FIG. 8** illustrates an embodiment of a Atmospheric Transduction (ATS) System **300** architecture. The system **300** may include, for example, a satellite broadcast station **318** that transmits signals **333** containing frequency content from a geostationary satellite **312** by way of airplane antenna **326**. In turn, the satellite **312** transmits line-of-sight (LOS) signals **333** to one or more ATS terrestrial frequency power receiver farms **314**. The system **300** also may include one or more terrestrial repeaters **316** which receive and retransmit the satellite signals **333** as repeater signals **323** to facilitate reliable reception in geographic areas where LOS reception from the satellite **312** is obstructed by tall buildings, hills, tunnels, and other similar impediments to the signals **333**. The ATS receivers **314** maybe designed to receive one or more signals **333** from the satellite **312** and/or from the terrestrial repeater transceiver **316**. In operation, such ATS receivers **314** may receive both the satellite signals **333** and the repeater signals **323**. The receivers **314** also may be located in mobile environments **320, 321**, **322** which include, but are not limited to, land vehicles **321, 322**, aircraft **320**, watercraft **900**, and handheld devices, among others. The receivers **314** also may be fixed in stationary units for residential use (e.g., home **325**,**750** entertainment, etc.) or commercial **314, 328, 360** use (e.g., business **314**, office **700**, security **328**, etc.). The power frequency broadcast station **318** also may be in communication with a grid network **342**. Two-way communication between the ATS receivers **314** and the power frequency broadcast station **318** may occur via the network **342**. Furthermore, information feedback from the power frequency broadcast station **318** may be transmitted to the ATS receiver **314** both by way of the network **342** as well as via the satellite **312**. Information also may be transmitted to the power broadcast station **318** wirelessly via a wireless network **342,707** by way of transducer tower **360**.

[00108] Further disclosed in **Fig. 9** and **Fig.10** (in block diagrams **400, 500**) are electrical schematics for handling the static charge from the atmosphere. By maintaining the voltage being collected in a prescribed range, an electrical conversion system is easily designed. While **FIGS. 9**, and **10** illustrate some electrical configurations, those of ordinary skill in the art readily recognize a variety of other configurations which will serve the same function.

[00109] Referencing **FIG. 9**, Direct Current In (DC IN) **401** is buffered by a gang of capacitors **410** before being communicated to a DC/AC converter **420**. The DC/AC converter **420** converts the direct current into a an alternating current suitable for placement over an existing electrical grid **430** such as normally found from a power-plant. **FIG. 9** Also illustrates an electrical arrangement suitable for use in charging a battery **440**. DC IN **401** is buffered by capacitor **410** bank before entering into a step down transformer **435**. Step down transformer **435** reduces the voltage so that the voltage can safely be introduced into battery **440** which is connected to ground **450** at the battery's other pole. In **FIG. 9**, DC IN **401** is fed into an adjustable rheostat **460** which is controlled by the controller **465** so that the DC OUT **470** falls within a computer **475** monitored and sensor **480** specified range. **Fig.10** Hypothetically, unused energy may be recycled current **501** and/or recaptured by reversing the oscillated spin rotation of devices **51, 100**, **120** with the use of a rectifier **502** and Step up transformer **503**, returned to grid **430** capacitor **410**. This theory lends itself to the concept of positive and negative frequency. **Fig.11** Self charging propulsion embodiment of the invention where Da Vinci's ball race is combined with a disk cylinder **45** and stack balls **525,** conductive rotor **46**, tooth gear **515** and piezoelectric molded housing **555**. **Fig.12** Improvement structures Franklin's lightening rod **600** and a molded vibration transducer **601** quasi replicating Vion's tubes and piezoelectric spine stacks capacitor **602** improving Tesla's Atmospheric transmit device. **Fig.13** is an atmospheric receiving building sub station **700** where energy is consumed and excess rendered to the grid **707**

by conductive rotor **702** transducer **710,** tower transducer**703**, antenna rod **701** and transducer windows **704**.

[00110] FIG. 9 and **Fig.2** flowchart illustration also includes battery **440**. Battery **440** may provide electrical power to components of ATS devices within **Fig.8**. Charging circuitry may also be provided to charge battery **440** when an external power supply is connected to an ATS device **100**. **Fig.11a-d** eliminates one or more steps by presenting a self charge retaining transducer **510** may be configured with an accelerator sensor **480** controller **465** and gears **515,** provide reciprocal power incorporated within piezoelectric molded and ceramic housing **555** along with stack balls **525** and cylinder **545**. This assembly more resembles a motor by characteristics given power with application.

[00111] In operation, as illustrated in **FIGS. 2-13** and **FIGS. 14-25** , is periodically energized by movement to rotate Orb in either a clockwise or counterclockwise direction. The length of time or activity is energized, and the length of time between the period when the capacitor **31, 102** battery is energized, will depend on the particular ATS device design. As the Orb rotates, the outer end of the disk moves along a 360˚ circular pathway to push against with forward and rearwardly spinning. Upon engagement of the Orb, ATS device disk is rotated until carried to the apex or top of the circular pathway. Upon reaching the apex, the gravitational and vibrational force or counterweight **50** promotes additional oscillation. ATS device movement rapidly rotate on Orb at a rotational speed greater than the speed of rotation of Orb. Counterweight **50** is then carried beyond the bottom or lowest point of the pathway by its momentum to a point near the apex on the opposite side of the pathway. The cycle is repeated through multiple increasing oscillations of the ATS device until counterweight **50** stops at the bottom position, or until once again engages to again move counterweight to the top of its circular pathway.

[00112] FIG. 2 is a flow chart showing generation of energy using a rotor according to one or more of the above-described embodiments. First, battery **27** starts the engine **29** and/or mobile transducer **33** is oscillated. In response to this acceleration, forces are imposed on one or more rotation piezoelectric devices. In response to those forces, the piezoelectric devices output electrical energy, which energy is extracted at a power controller **465**. The power controller **465** sensor **480** then makes this energy available to recharge a capacitor **410** battery **440** and/or to electronic components of the mobile terminal. Although **FIG.2** shows a serial flow of events, it is to be appreciated that the events of blocks **33**, **27** and **29** occur substantially instantaneously upon acceleration of the mobile terminal.

PREFERRED ALTERNATE EMBODIMENTS

[00113]The present invention (ATS) device in accordance with an embodiment of the present invention overcomes the foregoing problem in the conventional art and provides an electro energy vibration and alternative to gas, oil or fossil fuel consumption in **Fig.14A** homes **750** transducer **755, Fig.19** airplane **880** transducer **801**, **Fig.18** train **860** transducer **801**, **Fig.23** auto **950** transducer **910**, **Fig.16** and **Fig.24** motorcycles **960,850** transducers **799, 802, 810**, **910** and **Fig.20** boat **900** transducers **901,910**.

[00114] In order to solve the foregoing problems in the conventional art, the present invention provides an electro transducer having a ball bearing assembly which is compatible with **Fig.17** axle shaft **44** transducer **810** wheel **870** assembly. In order to solve the foregoing problems in the conventional art, the present invention provides an electro transducer having an **Fig.25** housing panel **980** transducer **910** assembly which is compatible with an exterior body assembly. Thereby, an

Atmospheric transducer device may be shock **800** integrated as within the **Fig.15A** coupler **802,** and **Fig.15B** ladder **799,** (vertical friction) piezoelectric absorbers assemblies. In order to solve the foregoing problems in the conventional art, the present invention provides an electro transducer having a capable flat assembly which is compatible with **Fig.14B** window **704** disk **31** plate transducer **714**, **Fig.21** solar panel **920** transducer **910**, **Fig.22** wind turbine **930** transducer **910** assembly. This invention provided **Fig.3** piezoelectric plate disks **31**, **Fig.7a-d** spine piezoelectric disks stacks **107** capacitor **102**, **Fig.11D** piezoelectric stack balls **525** capacitor, the arrangement of balls **525** will not be in a facing relation. The deformation in the inner and outer races during rotation of the ball bearing while undergoing a radial load is made irregular and complicated. The spine eliminates the deformation and vibration level increased by a combination of ceramic and molded piezoelectric materials at a regular predetermined frequency thereby multiplying the level of vibration and noise reduction.

[00115] Certain modifications and improvements will occur to those skilled in the art upon a reading of the foregoing description. It should be understood that all such modifications and improvements have been deleted herein for the sake of conciseness and readability but are properly within the scope of the following claims.

[00116] Thus it is seen that an atmospheric transducer device may be integrated and/or provided. It will be understood that the foregoing is only illustrative of the principles of the invention, and that various modifications can be made by those skilled in the art without departing from the scope and spirit of the invention, and the present invention is limited only by the claims that follow.

CLAIMS

I Claim:

Claim 1. Atmospheric transduction system method of producing great electrical activities a resonant circuit having its outer conducting boundaries, which are charged to a higher potential, arranged in surfaces of large radii of curvature so as to prevent leakage of the oscillating charge, substantially as set forth: and

(a) an method improvement in the Atmospheric transduction art of transmit and utilizing electrical energy which consists in establishing stationary electrical waves in the natural conducting media, and operating thereby, one or more receiving devices remote from the source of energy, as set forth, and enhancing said energy by amplifying further transduction; and

(b)an Atmospheric transduction method enabling the use of positive electricity contained in the atmosphere and the negative electricity contained in the earth, and thus form an electric pile of considerable power and make the electricity available for industry and consumer purposes; and

(c) an atmospheric transduction system method, comprising: a satellite power broadcast station having a transmitter and a transducer; a receiver in communication with the satellite power broadcast transmitter, the receiver comprising a user interface for receiving user input commands comprising a request for information from the satellite power broadcast station, wherein the receiver is configured to establish a two-way communication path between the receiver and the satellite power broadcast transmitter; and a network in communication with the server and the receiver for exchanging information therebetween; wherein the request for information is provided to the transducer via the network and the computer is configured to receive the request and transmit a response message to the transreceiver in accordance with the request.

2. A transduction oscillation system method of charging or enhancement where plates and/or battery disks form a modified version of capacitor, wherein said capacitor(s) having an outside piezoelectric housing and wherein the improvement comprising an outside diameter or linear distance from said sensor monitor providing, said battery capacitor is a sub-system of an automobile, sub-system of an airplane, sub-system of a train, sub-system of a motorcycle, sub-system of a home, sub-system of a solar system, sub-system of a wind turbine, sub-system of a satellite system, and:

(a) a method for sensor to atmospheric electricity and absorption, said method sensor imbedded and/or removably attached to exterior system panel(s), said sensor absorber capturing electricity potential by piezoelectric materials and negative - positive atmosphere, and;

(b) a transduction oscillation method of power frequency system where electric energy is captured, relayed and/or beamed by satellites to an aerial grid, said energy further relayed to the atopic surface, recaptured by antenna rod transducer;

(i) wherein aerial grid is a subsystem of atmospheric positive current;

(ii) wherein said atopic grid is a subsystem of atmospheric negative current;

(c) providing a means of absorption signaling and communication within said power frequency system is relayed by computer devices and/or capacitor devices, display communicate while in progress to manage and/or evaluate outcome, and;

(i) version includes a absorption capacitor device as a means of direction and performance;

(ii) said device is removably attached to housing to communicate in energy level;

(d) providing said atopic device captures conducts dc to dc voltage by converter, and;

(f) providing said aerial device captures conducts ac to dc voltage by converter, and;

(g) wherein dc are compatible to aerial and atopic recharge by atmospheric magnetic fields.

3. A transducer for generating an electric current comprising: current generating means comprising first transducer means and second transducer means arranged to generate electric current in response to relative rotation between said first and second generator means; a first rotary part having vanes, said first rotary part arranged to rotate in a first direction around an axis when exposed to a flow of air perpendicular to said axis, said first rotary part operatively connected to a first of said first and second transducer means; said axis is through an axial shaft about which said first rotary part is arranged to rotate; said axial shaft is configured to receive electrical connection means therethrough, said electrical connection means configured to provide an electrical connection between said current generating means and transducer electrical means:

(a) an electrical frequency transducer system receiving a variable voltage input and connected to a load requiring a set electrical configuration, said system comprising: a static electricity collector having a conductor that collects static electricity from the atmosphere and outputs a collected energy, a converter assembly in electrical communication with the transducer comprising: a plurality of converters, each converter configured to accept a unique range of voltages from the collected energy and producing the set electrical configuration, and a sensor that measures the collected energy from the transducer, the computer further selectively closing, in response to said level of the input voltage; and

(b) a piezoelectric transducer comprising: stack capacitors; a rotational member mounted to undergo rotation; an armature molded selectively coupled to the rotational member for rotation therewith

when the conductive cylinder is energized; and a ball bearing, conductive rotor supporting the rotational member, the ball bearing having an inner race, an outer race, and a plurality of balls arranged in a plurality of rows each containing a number of the balls and/or stacks, the balls being disposed between the inner race and the outer race so that each of the balls contacts the inner race at at least one point and contacts the outer race at at least one point; and

(c) an oscillating transducer device housing; a chamber cylinder configured to retain a capacitor battery or disk with counterweight; a first piezoelectric element coupling the chamber to the device housing and configured to receive, as a result of spinning acceleration of the device axis, a first portion of a force of imposed by a mass of a battery retained in the chamber; a second piezoelectric element coupling the chamber to the device housing and configured to receive, as a result of the device housing acceleration and along a second axis that is circumvents adjacent to the first axis, a second portion of the force imposed by the mass of at least another capacitor retained in the cylinder chamber; and a controller configured to receive electrical energy output by the first and second piezoelectric elements in response to the first and second force portions and to make the received electrical energy available for at least one of satisfying at least part of an electrical load satisfiable by the capacitors retained in the chamber, and recharging the battery, and;

(d) the oscillating transducer apparatus, further comprising a piezoelectric element, a transceiver, power frequency and wherein the piezoelectric elements also couple to the device housing, the force portions include portions of forces imposed by masses, the rotational piezoelectric element is configured to receive, as a result of the device having a center of gravity offset acceleration and

forces imposed by the masses is released to freely rotate about said axis with said counterweight being carried bi-directionally beneath said axis in an oscillating motion to spin of the processor, the controller, the capacitor, retained in the chamber and the controller is configured to receive electrical energy output by the piezoelectric elements in response to the force and counterweight portions.

ABSTRACT

Atmospheric Transduction System including a Power Frequency broadcast station, a receiver, and a network. The Power Frequency broadcast station includes a transmitter and a computer server. The receiver is in communication with the Power Frequency broadcast transmitter and also includes a user interface for receiving user input commands comprising a request for information from the Power Frequency broadcast station. The receiver is configured to establish a two-way communication path between the receiver and the Power Frequency broadcast transmitter. The network is in communication with the transducer, controller and the receiver for exchanging information therebetween. In response to oscillation translation and/or rotation of the electronic transducer, portions of forces induced by the mass are transferred to the piezoelectric elements. Electrical energy output by these piezoelectric elements is received in a power controller and can be applied to the battery as self charging. The piezoelectric transducer includes a conductive rotor and bearings, at least one of them incorporating a vibrator of mechanical oscillation, having a piezoelectric transducer converting mechanical vibrations into electric power.

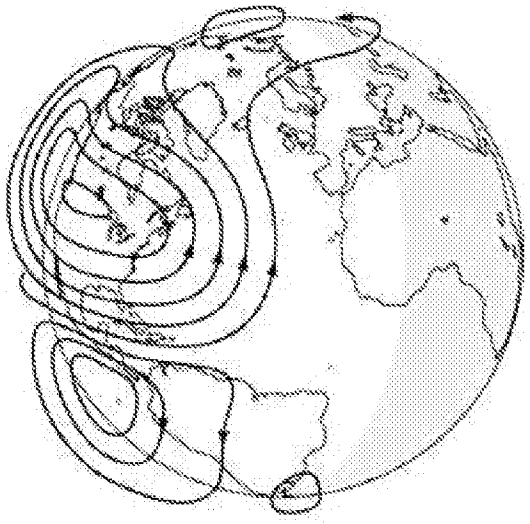


FIG.1

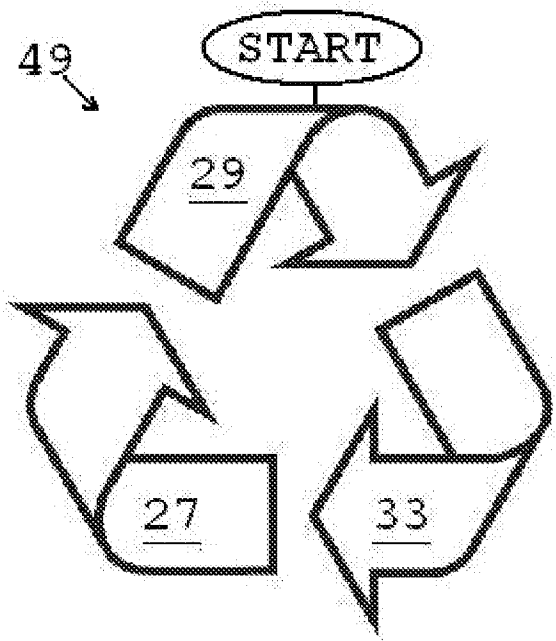


FIG.2

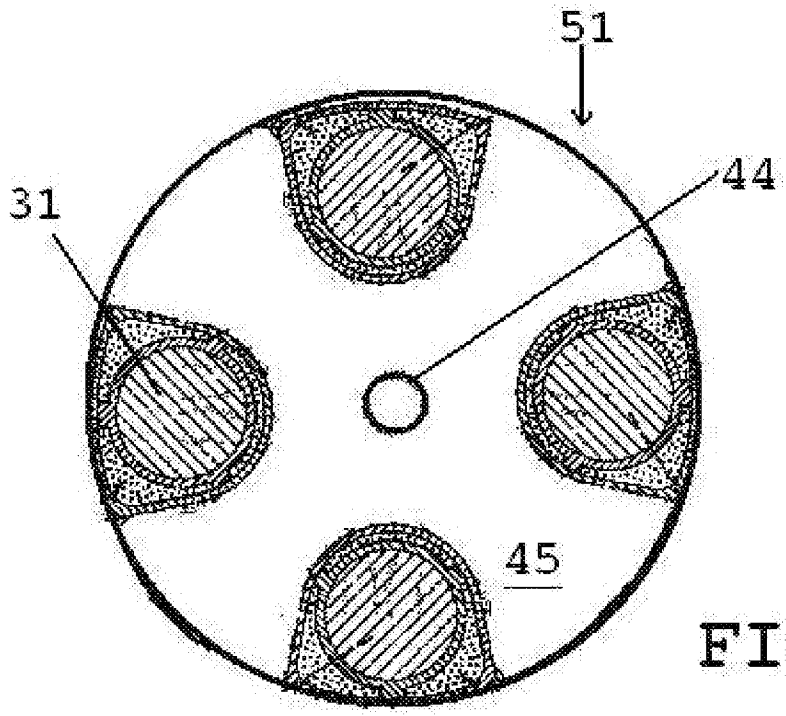


FIG.3

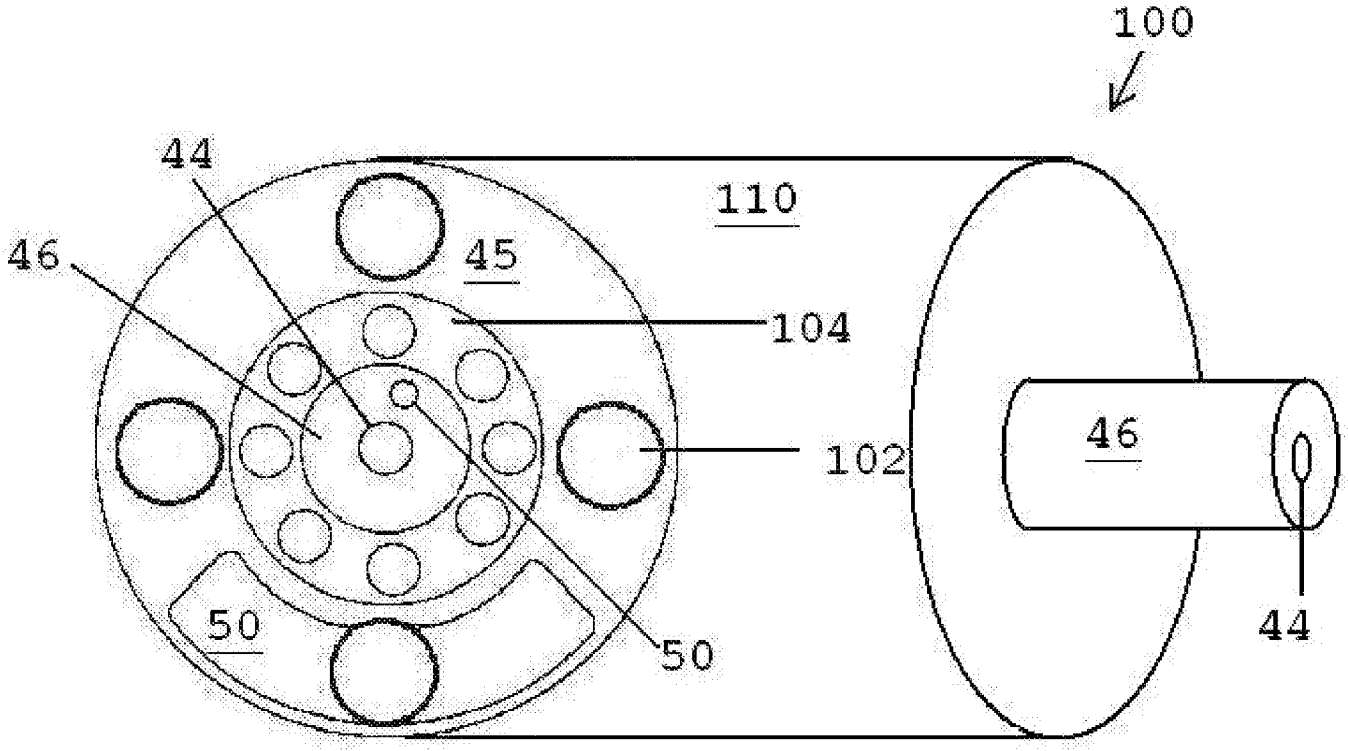


FIG.4

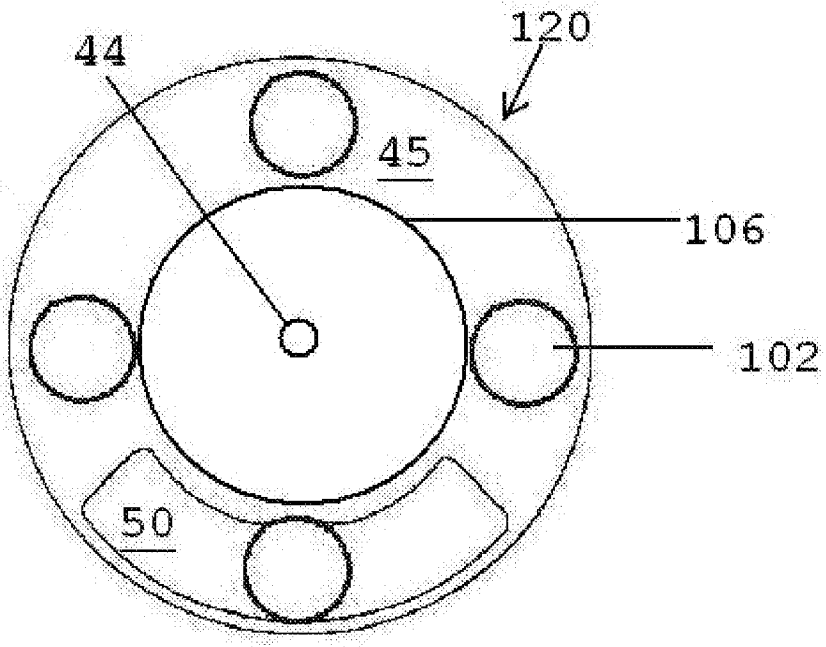


FIG.5

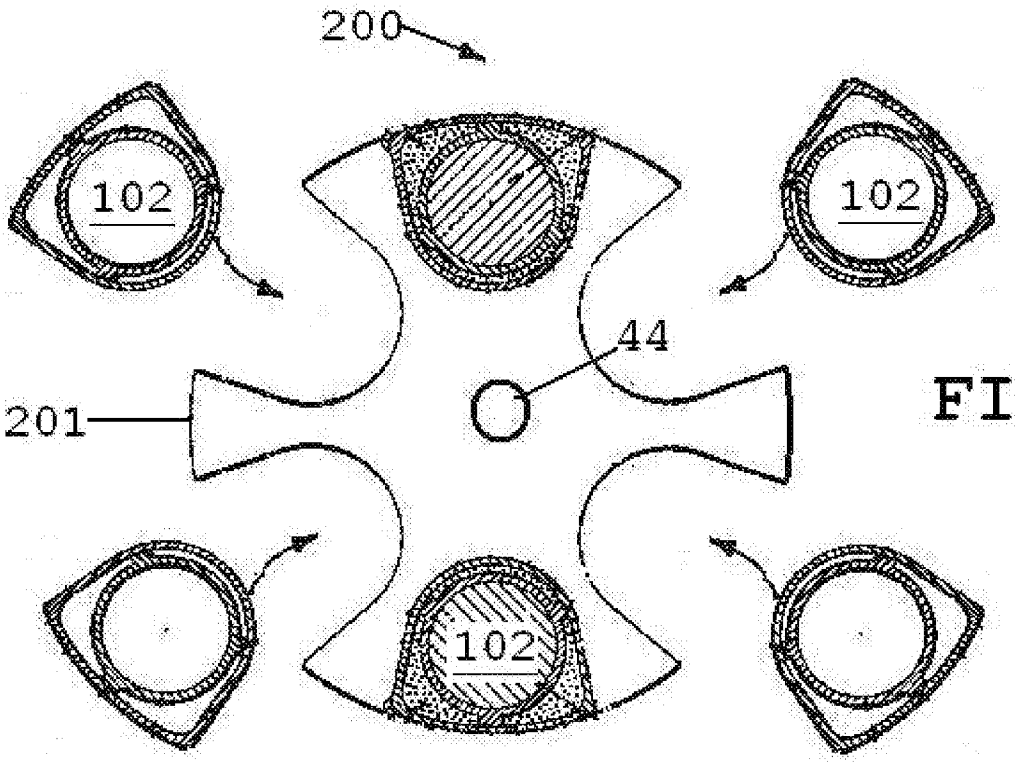


FIG. 6

FIG. 7

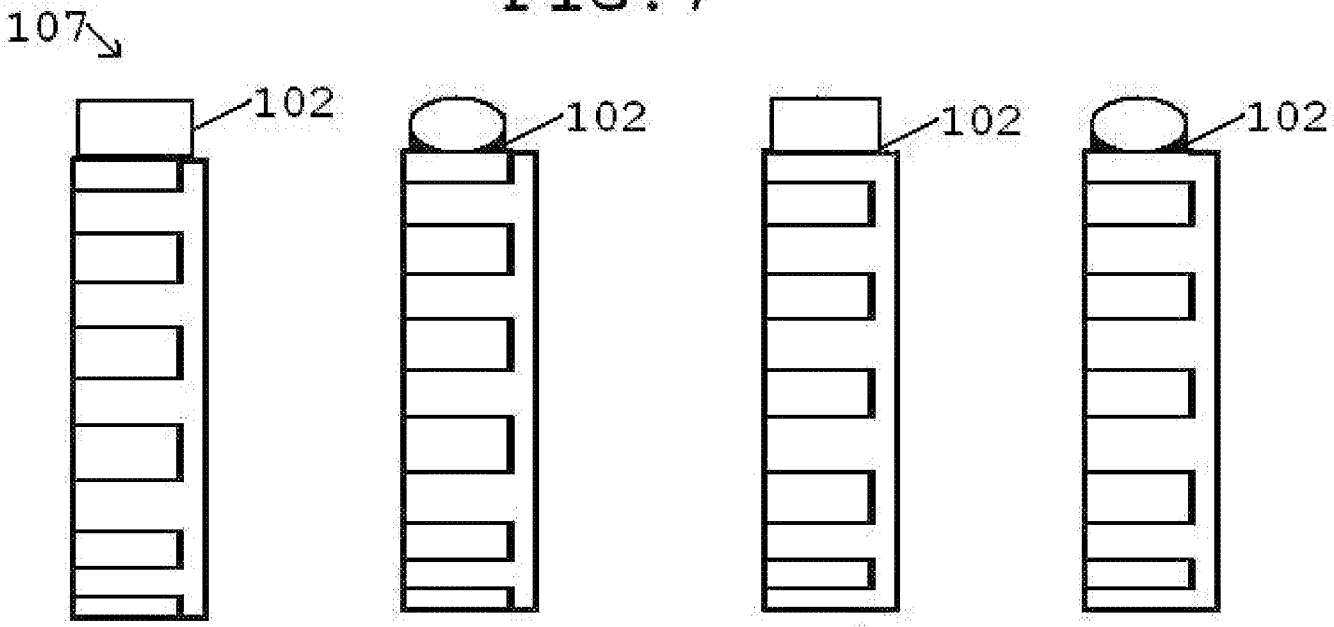


FIG. 7A FIG. 7B FIG. 7C FIG. 7D

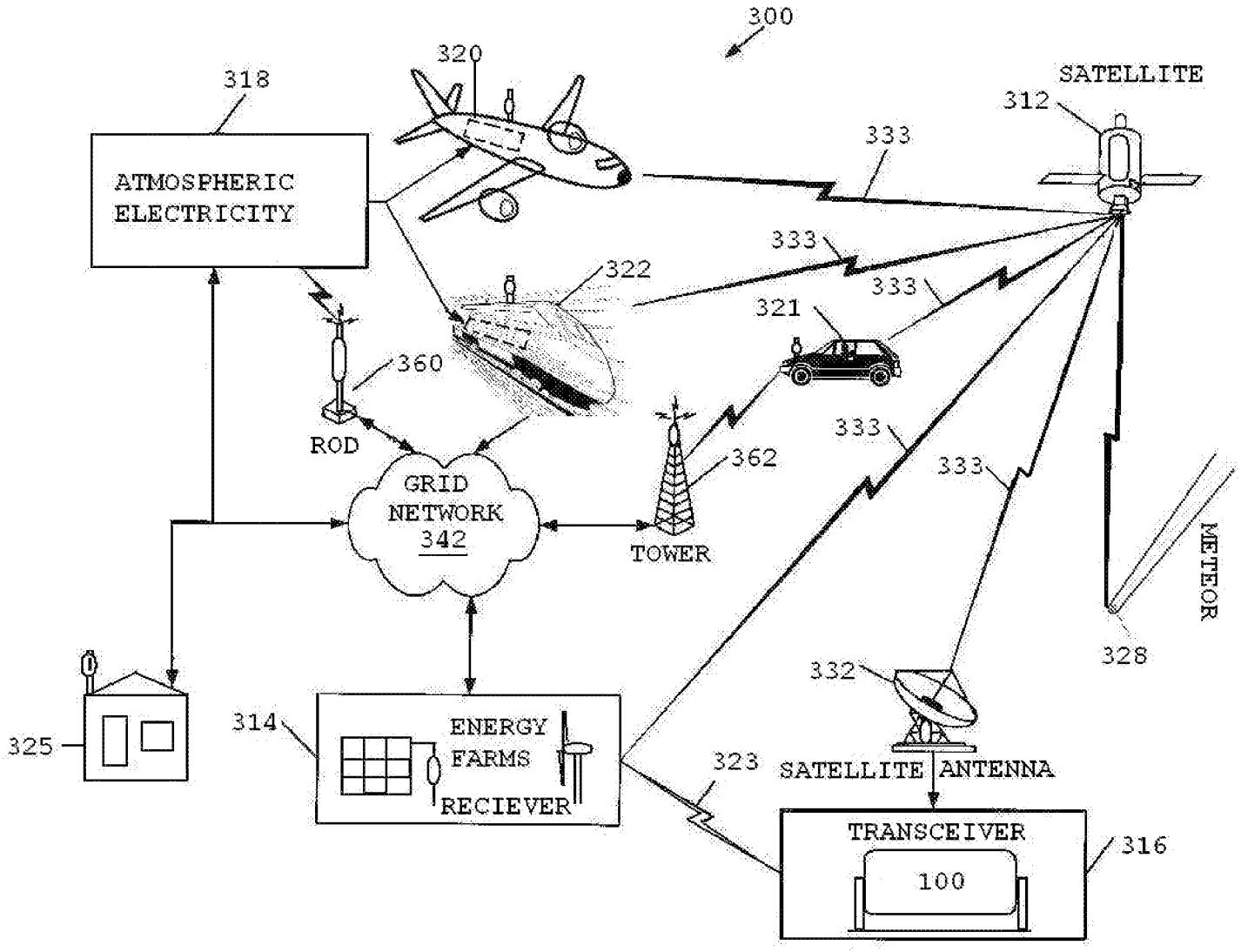

300
320
318
SATELLITE
312
ATMOSPHERIC ELECTRICITY
333
333
322
333
321
360
ROD
GRID NETWORK 342
362
TOWER
333
333
METEOR
328
332
325
314
ENERGY FARMS
RECIEVER
323
SATELLITE ANTENNA
TRANSCEIVER
316
100

FIG.8

FIG. 9

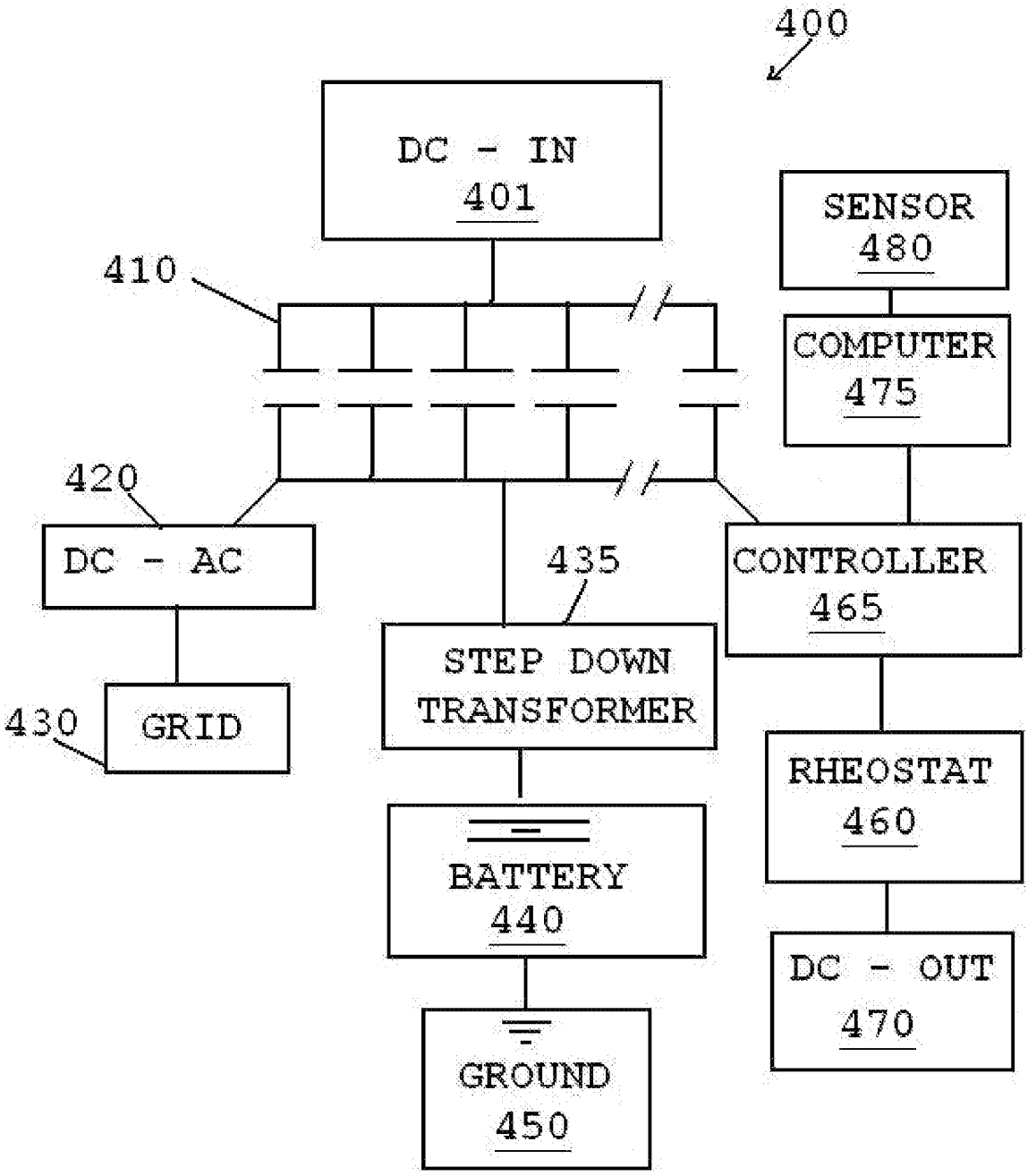
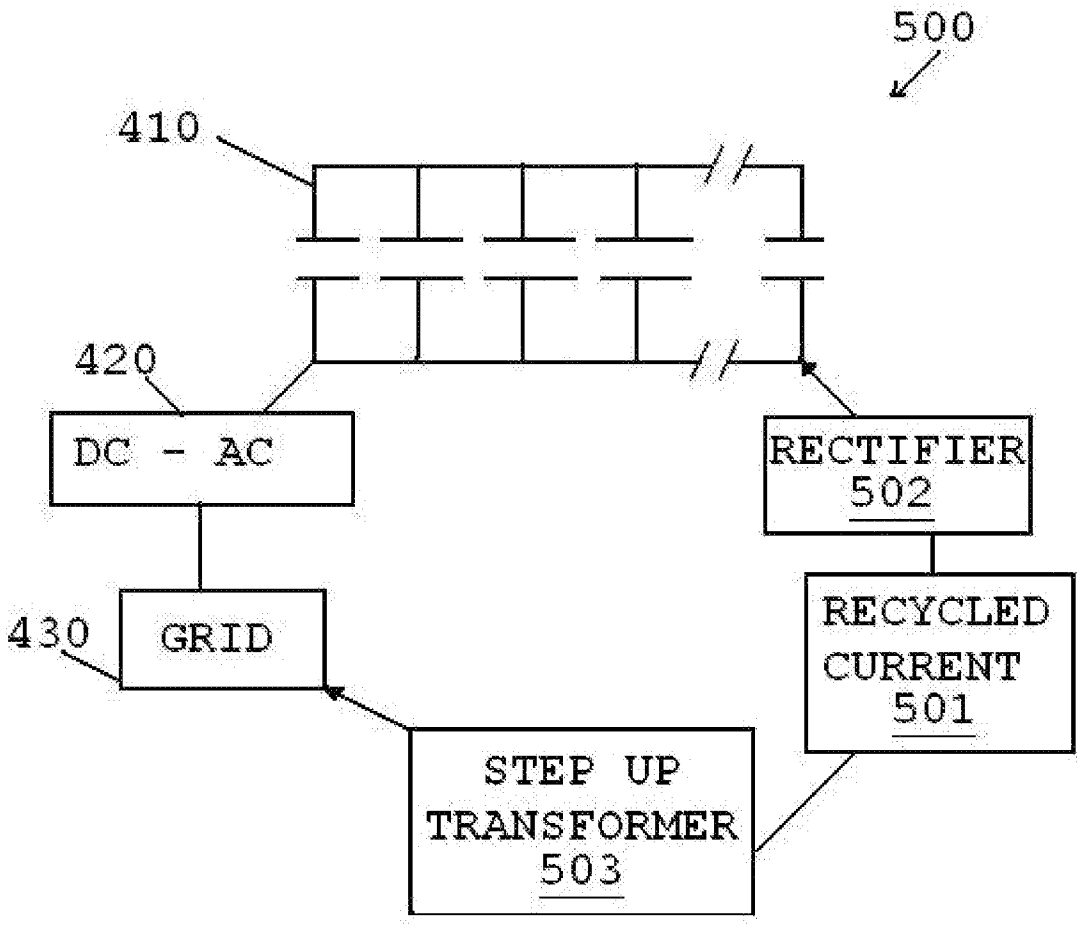

400
DC - IN
401
SENSOR
480
410
COMPUTER
475
420
DC - AC
435
CONTROLLER
465
STEP DOWN
TRANSFORMER
430
GRID
RHEOSTAT
460
BATTERY
440
DC - OUT
470
GROUND
450

FIG.10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420
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RECTIFIER
502
430
GRID
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CURRENT
501
STEP UP
TRANSFORMER
503

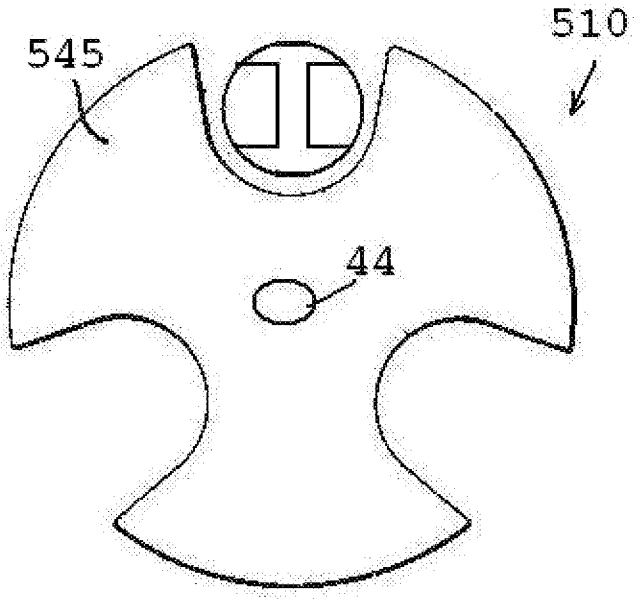


FIG.11A

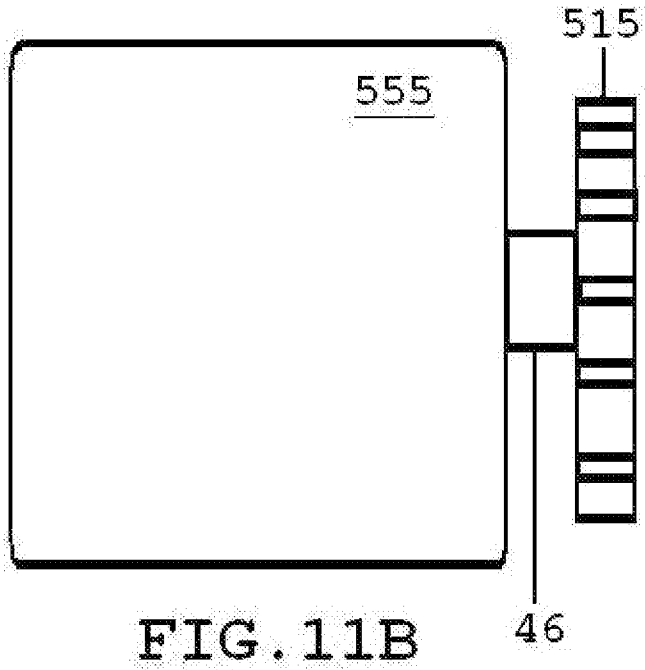
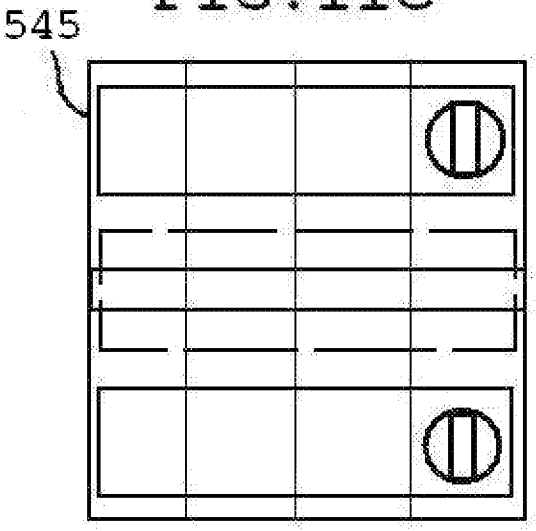


FIG.11B

FIG.11C



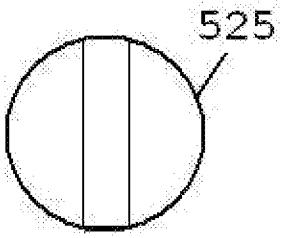


FIG.11D

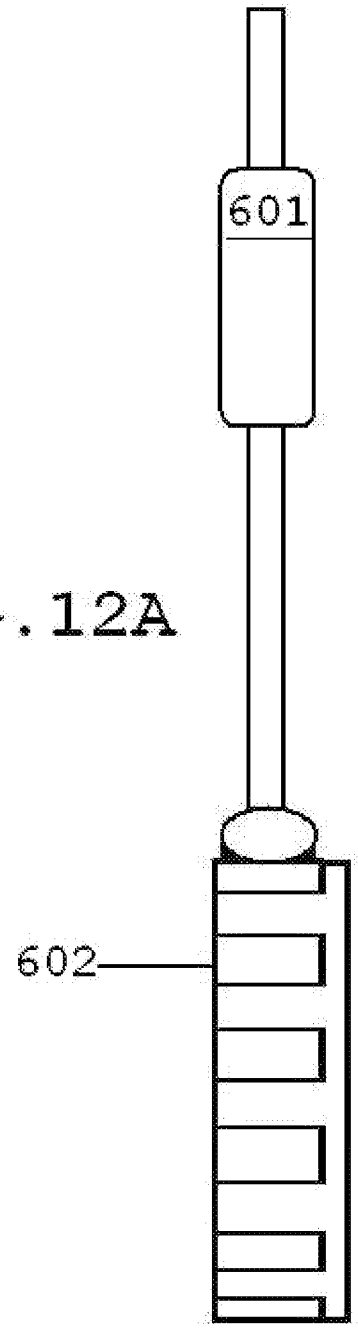


FIG.12A

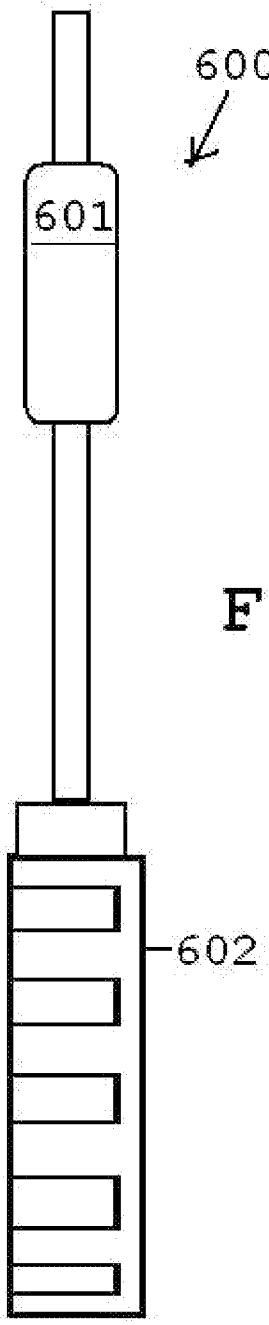
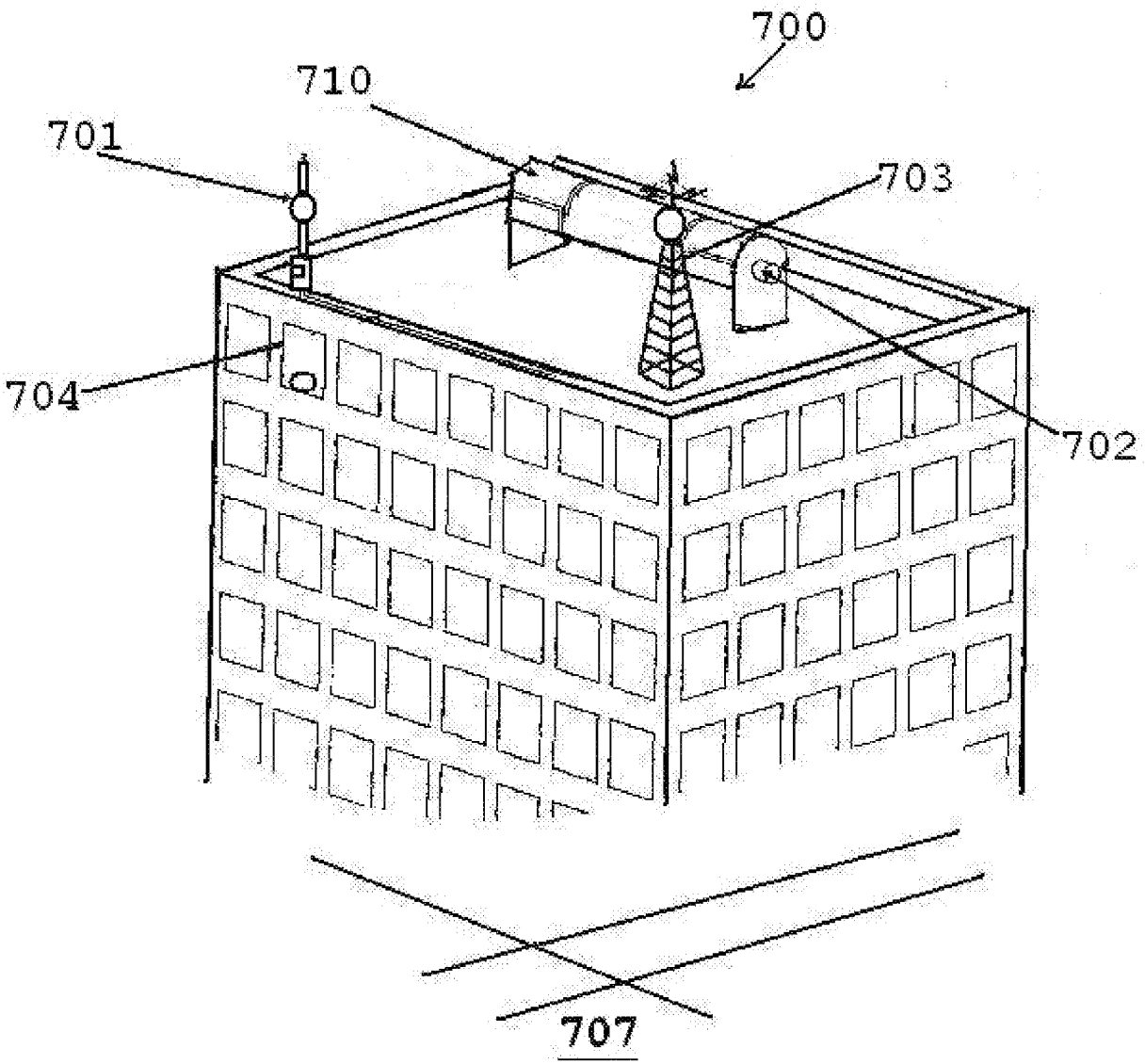


FIG.12B

FIG.13



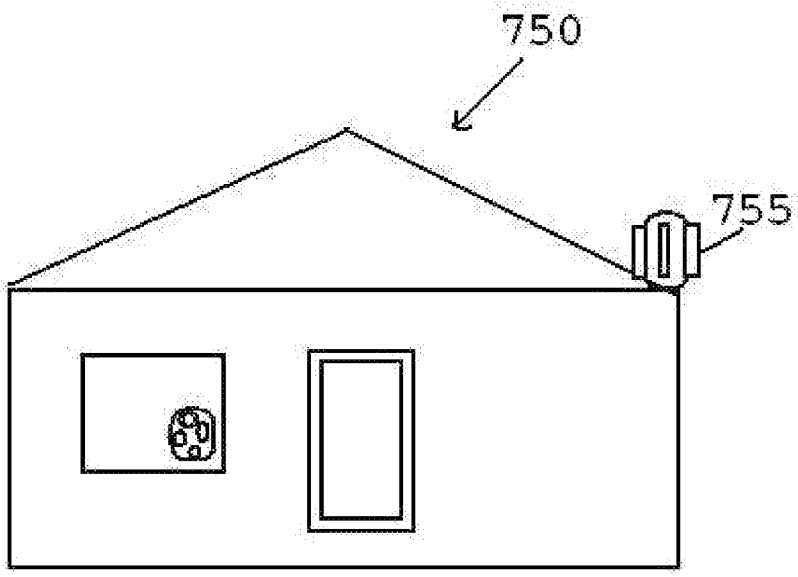


FIG.14A

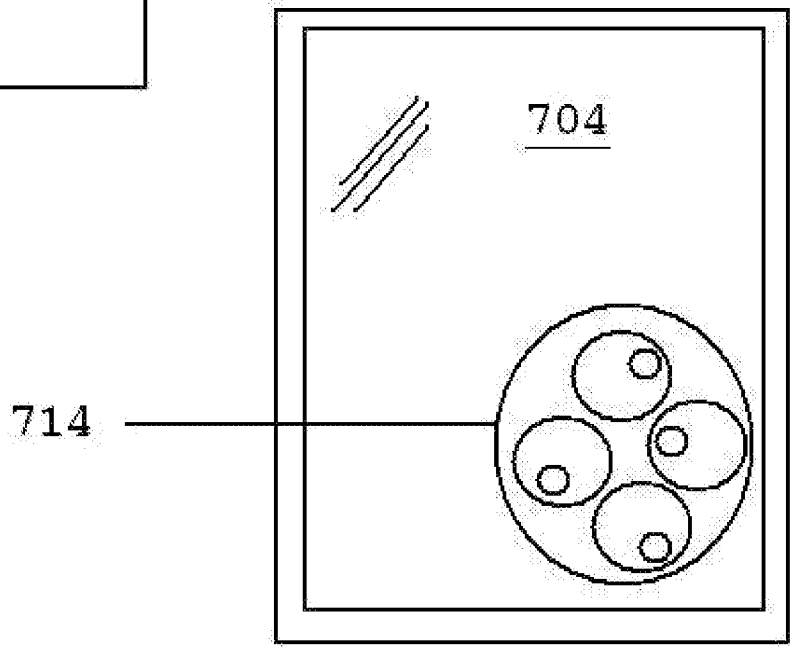


FIG.14B

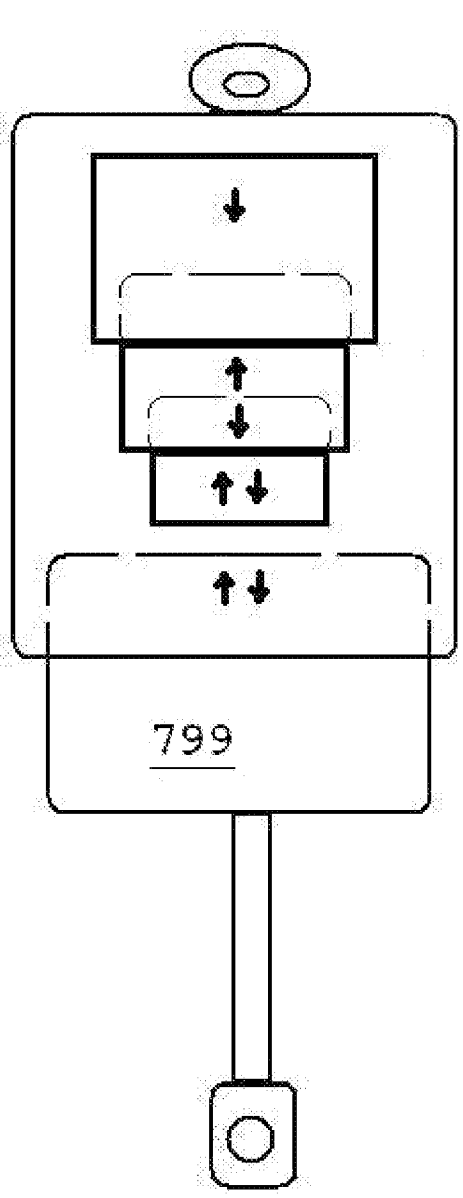


FIG.15A

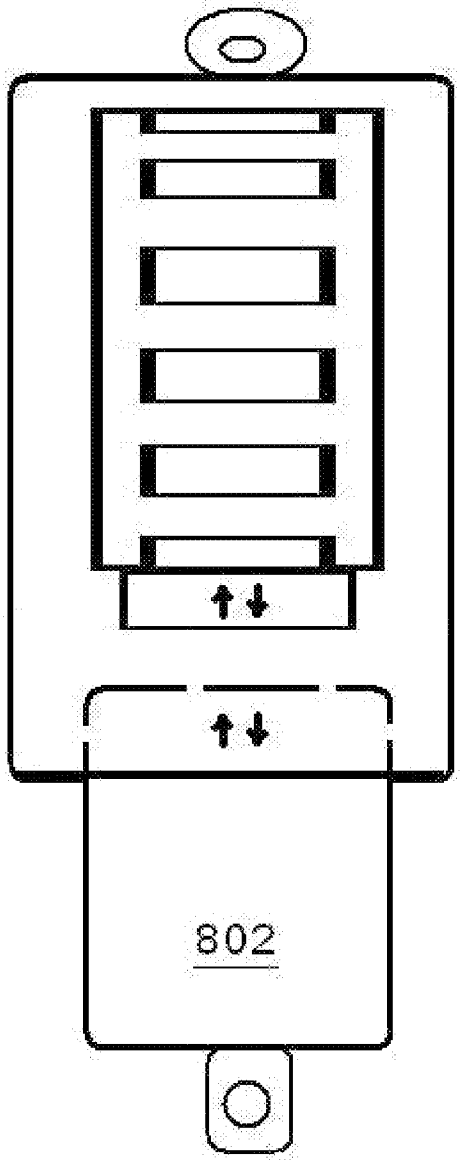


FIG.15B

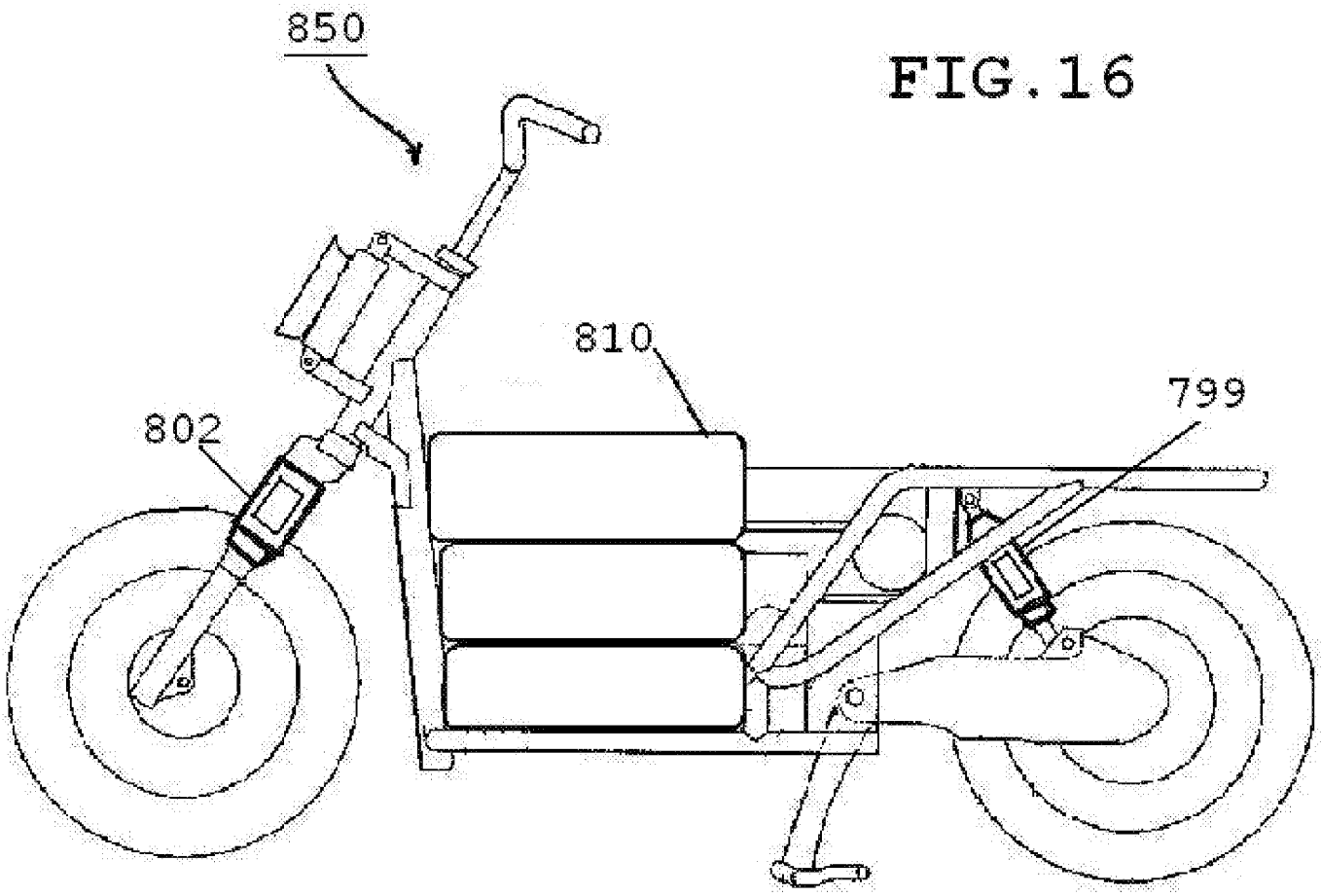


FIG.16

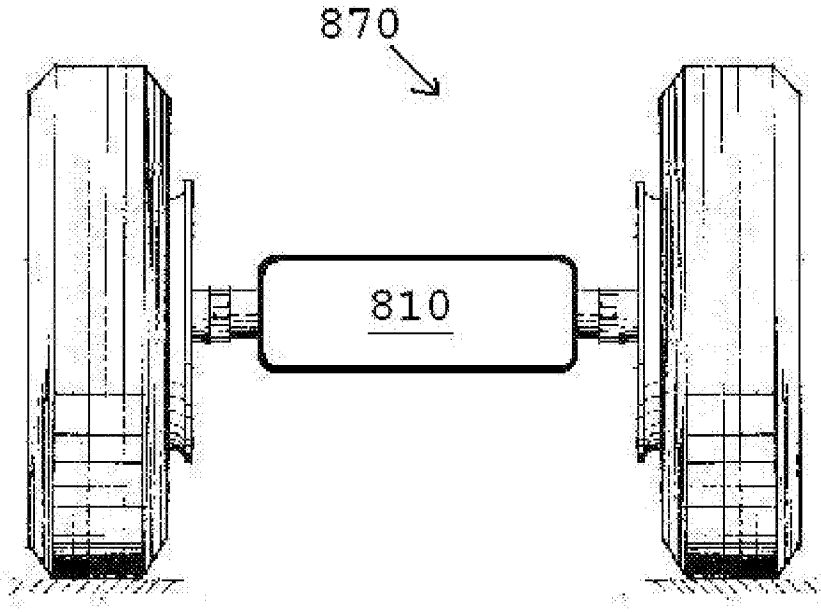


FIG.17

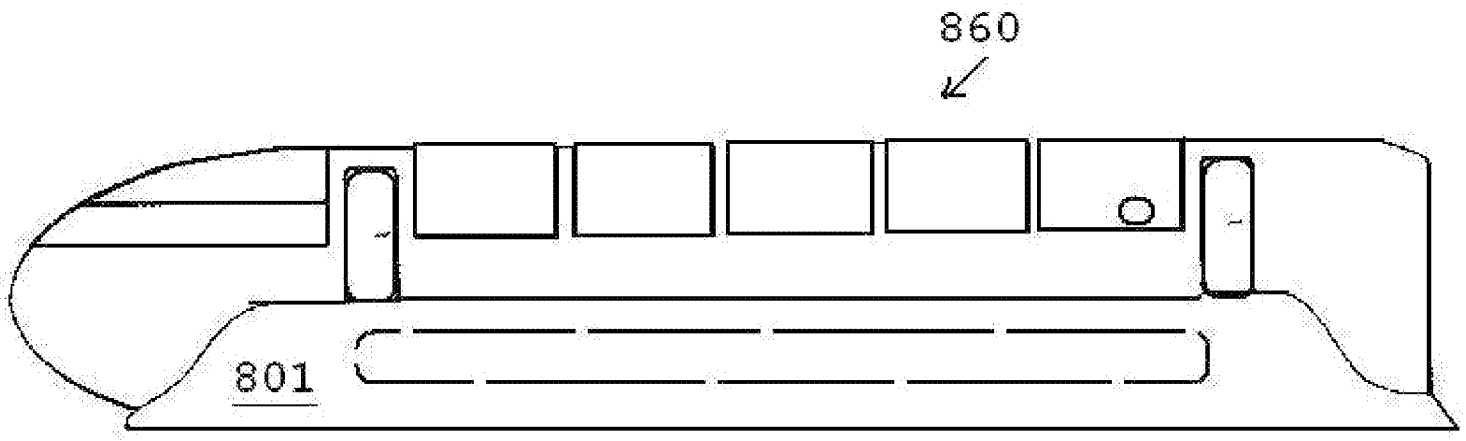


FIG.18

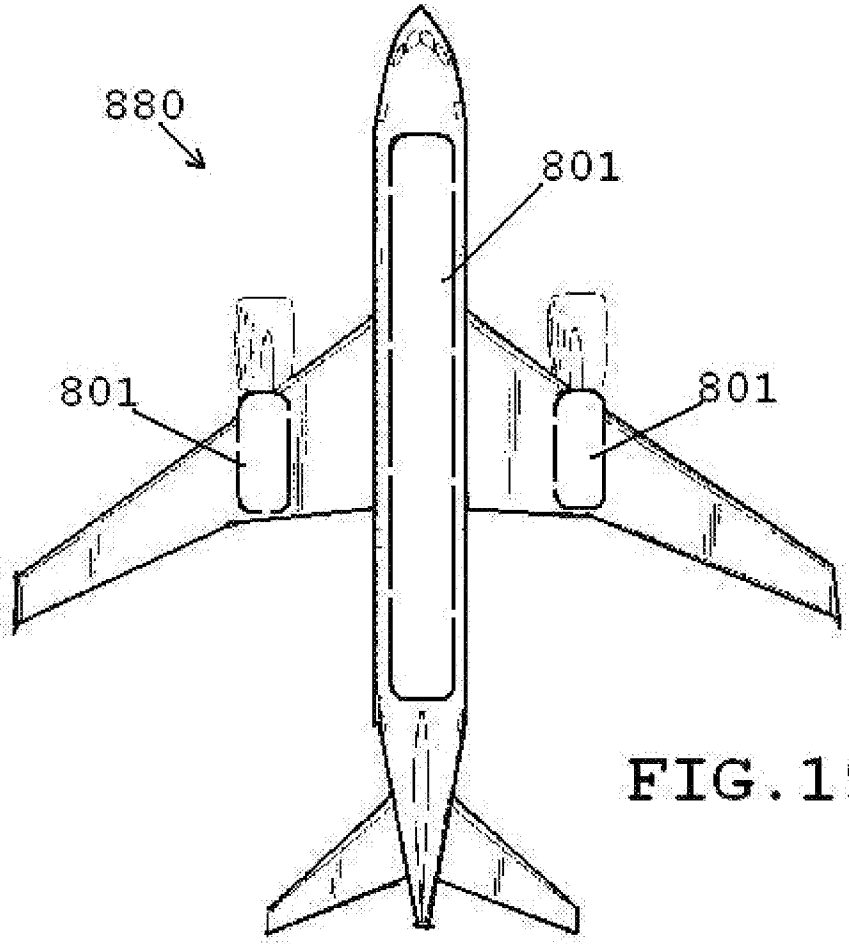


FIG.19

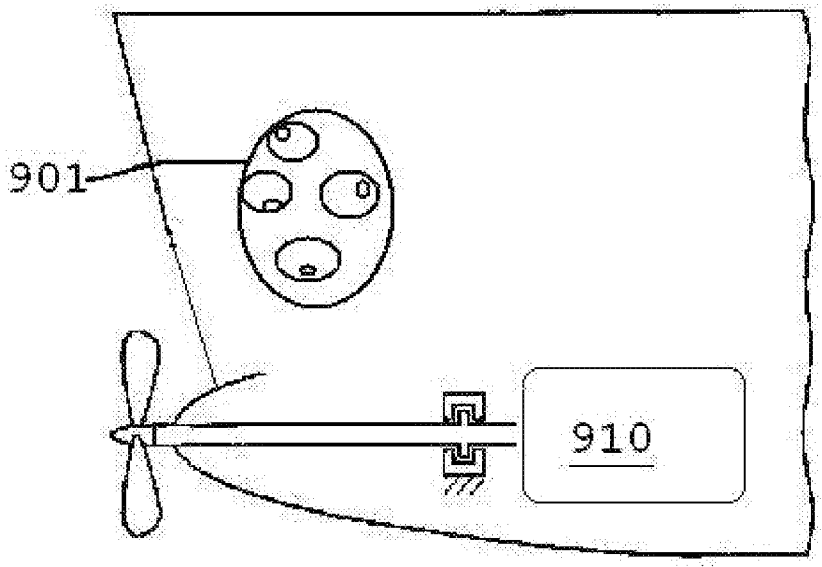


FIG.20

FIG.21

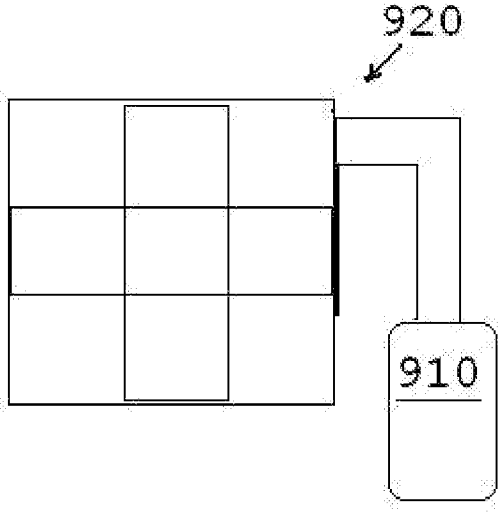
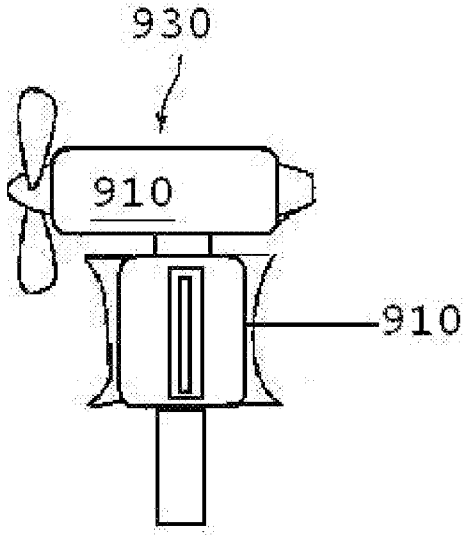


FIG.22



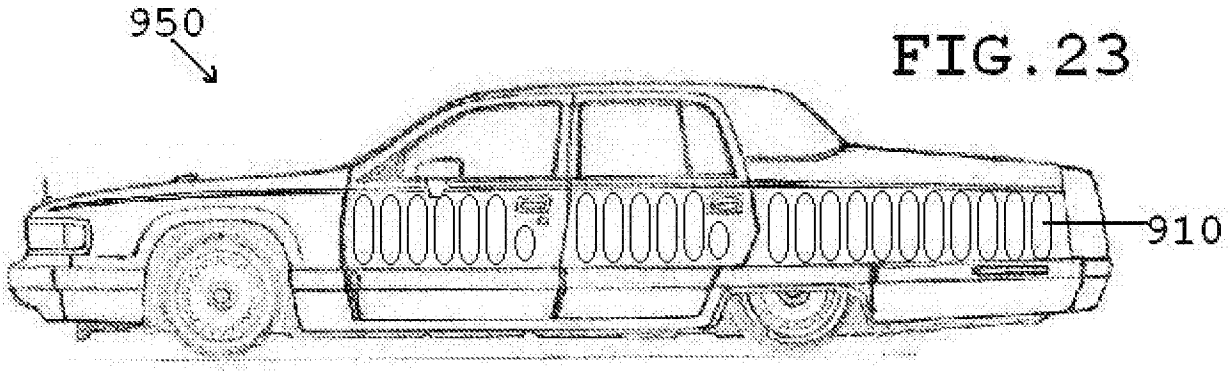


FIG.23

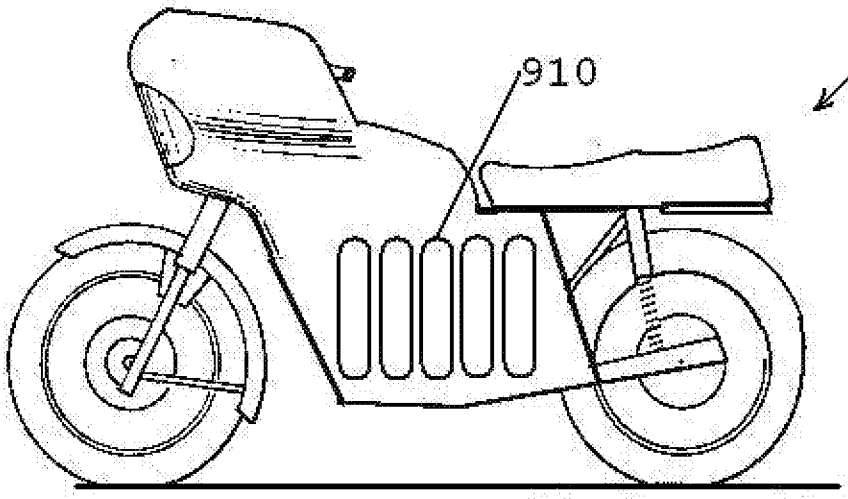


FIG.24

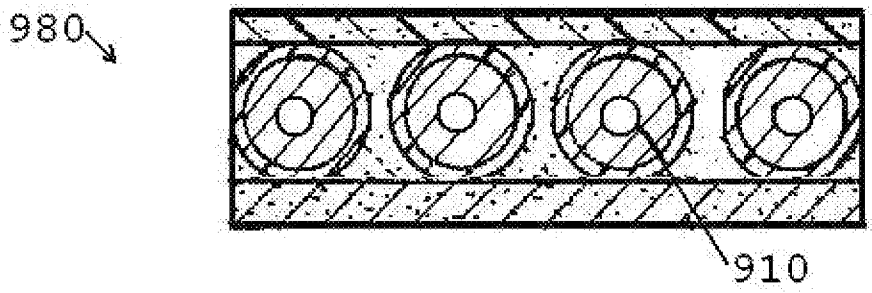


FIG.25

Electronic Patent Application Fee Transmittal

Application Number:	
Filing Date:	
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Filer:	James Edward Jennings
Attorney Docket Number:	

Filed as Small Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Utility filing Fee (Electronic filing)	4011	1	98	98
Utility Search Fee	2111	1	310	310
Utility Examination Fee	2311	1	125	125
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**533**

Electronic Acknowledgement Receipt

EFS ID:	14365898
Application Number:	13692121
International Application Number:	
Confirmation Number:	7639
Title of Invention:	ATMOSPHERIC TRANSDUCTION SYSTEM
First Named Inventor/Applicant Name:	JAMES EDWARD JENNINGS
Customer Number:	82669
Filer:	James Edward Jennings
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	03-DEC-2012
Filing Date:	
Time Stamp:	14:00:36
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$533
RAM confirmation Number	455
Deposit Account	
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)

1	Transmittal of New Application	SB5_ATS.pdf	584284 7bc0df8e47c394fcd3ed190b5ee0241f3f218131	no	1
Warnings:					
Information:					
2	Oath or Declaration filed	SB1_ATS.pdf	1391256 63cd8e4d13088c3592284eb2480f09849138f426	no	3
Warnings:					
Information:					
3	Specification	ATS.pdf	159065 275fcb7559600a5803d1ac3b78e9085ebc98e3eb	no	36
Warnings:					
Information:					
4	Drawings-only black and white line drawings	ATS_DRAWINGS.pdf	1297673 943b1cf5ba6788ee2241a2595a8dedf0e735983c	no	15
Warnings:					
Information:					
5	Fee Worksheet (SB06)	fee-info.pdf	32725 151bc64ead43dceb4f5e1e0e734855b490e3ee8f	no	2
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If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

DocCode - SCORE

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Application Number: 13692121 Document Date: 12/03/2012

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Form Revision Date: February 8, 2006