Europäisches Patentamt
European Patent Office
Office européen des brevets

European Patent Office
Postbus 5818
2280 HV Rijswijk
NETHERLANDS
Tel: +31 70 340 2040
Fax: +31 70 340 3016

Dunlop, Hugh Christopher
RGC Jenkins & Co.
26 Caxton Street
London SW1H 0RJ
ROYAUME-UNI

Formalities Officer
Name: Bastié, Joël
Tel: +31 70 340 - 4157
or call
+31 (0)70 340 45 00

Application No.	Ref.	Date
10 851 166.8 - 1801	J54133EP	28.05.2014
Applicant: Melito Inc		

Communication under Rule 71(3) EPC

1. Intention to grant

You are informed that the Examining Division intends to grant a European patent on the basis of the above application with the text and drawings and the related bibliographic data as indicated below.

A copy of the relevant documents is enclosed.

1.1 In the text for the Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Description, Pages

2, 6	as published	
1, 3, 3a, 4, 5	filed in electronic form on	08-05-2013

Claims, Numbers

1-14	filed in electronic form on	08-05-2013

Drawings, Sheets

1/3-3/3	filed in electronic form on	08-05-2013

With the following amendments to the above-mentioned documents proposed by the division

Description, Pages	3*, 5**
Claims, Numbers	1-13***

Comments

* Rule 49(10) EPC
** Guidelines F-IV, 4.4
*** Rule 49(10) EPC, Rule 43(7) EPC

1.2 Bibliographic data

The title of the invention in the three official languages of the European Patent Office, the international patent classification, the designated Contracting States, the registered name(s) of the applicant(s) and the other bibliographic data are shown on the **enclosed EPO Form 2056.**

2. Invitation

You are invited, **within a non-extendable period of four months** of notification of this communication,

2.1 to EITHER approve the text communicated above and verify the bibliographic data (R. 71(5) EPC)

(1) by filing a translation of the claim(s) in the other two official languages of the EPO

		Fee code	EUR
(2a)	by paying the fee for grant including the fee for publication:	**007**	915.00
	minus any amount already paid (R. 71a(5) EPC):		0.00
		Total amount:	915.00
(3)	by paying additional claims fees under Rule 71(4) EPC; number of claims fees payable: 0	**016**	0.00
	minus any amount already paid (R. 71a(5) EPC):		0.00
		Total amount:	0.00

Important: If the translations of the claims and fees have already been filed and paid respectively in reply to a previous communication under Rule 71(3) EPC, e.g. in the case of resumption of examination after approval (see Guidelines C-V, 6), **agreement as to the text to be granted** (R. 71a(1) EPC) must be expressed within the same time limit (e.g. by approving the text and verifying the bibliographic data, by confirming that grant proceedings can go ahead with the documents on file and/or by stating which translations of the claims already on file are to be used).

Note 1: See "Important notes concerning fee payments" below.
Note 2: Any overpaid "minus" amounts will be refunded when the decision to grant (EPO Form 2006A) has been issued.

2.2 OR, in the case of disapproval, to request reasoned amendments or corrections to the text communicated above or keep to the latest text submitted by you (R. 71(6) EPC).

In this case the translations of the claims and fee payments mentioned under point 2.1 above are NOT due.

The terms "amendment(s)" and "correction(s)" refer only to amendments or corrections of the application documents and not of other documents (e.g. bibliographic data, the designation of the inventor, etc.).

If filing amendments, you must identify them and indicate the basis for them in the application as filed. Failure to meet either requirement may lead to a communication from the Examining Division requesting that you correct this deficiency (R. 137(4) EPC).

2.3 Bibliographic data

Where you request a change or correction of bibliographic data in response to the Rule 71(3) communication, this will **not** cause the sending of a second communication under Rule 71(3) EPC. You will still have to pay the fees and file translations in reply to the Rule 71(3) communication in the case of 2.1 above, unless you also file a reasoned request for amendments or corrections in response to the Rule 71(3) communication (see case 2.2 above).

3. Loss of rights

If neither of the two possible actions above (see points 2.1 or 2.2) is performed in due time, the European patent application will be deemed to be withdrawn (R. 71(7) EPC).

4. Further procedure

4.1 In the case of point 2.1 above

4.1.1 The decision to grant the European patent will be issued, and the **mention of the grant** of the patent will be published in the European Patent Bulletin, if the requirements concerning the translation of the claims and the payment of all fees are fulfilled and there is agreement as to the text to be granted (R. 71a(1) EPC).

Note on payment of the renewal fee:
If a renewal fee becomes due before the next possible date for publication of the mention of the grant of the European patent, publication will be effected only after the renewal fee and any additional fee have been paid (R. 71a(4) EPC).

Under Article 86(2) EPC, the obligation to pay renewal fees to the European Patent Office terminates with the payment of the renewal fee due in respect of the year in which the mention of the grant of the European patent is published.

Note on payment of the designation fee(s):
If the designation fee(s) become(s) due after the communication under Rule 71(3) EPC, the mention of the grant of the European patent will not be published until the designation fee(s) has/have been paid (R. 71a(3) EPC).

4.1.2 After publication, the **European patent specification** can be downloaded free of charge from the EPO publication server https://data.epo.org/publication-server or ordered from the Vienna sub-office upon payment of a fee (OJ EPO 2005, 126).

Until 31 December 2013, each proprietor may request in writing to receive the certificate for the European patent together with one copy of the new patent specification only if the request is filed within three-month or the additional two-month period (R. 95(3) and (4) EPC). If such request has been previously filed, it has to be confirmed within the same period. The requested copy is free of charge. Any request or confirmation of a request filed after 31 December 2013 or after expiry of these periods will not be dealt with and the certificate will be delivered without a copy of the new European patent specification (cf. Notice from the European Patent Office dated 16 July 2013 concerning communication of the certificate for a European patent, OJ 2013, 418).

4.1.3 Filing of translations in the Contracting States

As regards translation requirements prescribed by the Contracting States under Article 65(1) EPC, please consult the website of the European Patent Office
www.epo.org →Law & practice →Legal texts, National law relating to the EPC
www.epo.org →Law & practice →All Legal texts →London Agreement

In the case of a valid extension or validation

As regards translation requirements prescribed by the Extension or or Validation States, please consult the website of the European Patent Office
www.epo.org →Law & practice →Legal texts, National law relating to the EPC

Failure to supply a prescribed translation in a Contracting State, or in an Extension or Validation State may result in the patent being deemed to be void *ab initio* in the State concerned (Art. 65(3) EPC).

4.2 In case of 2.2 above

If the present communication under Rule 71(3) EPC is based on an auxiliary request and, within the time limit, you maintain the main request or a higher ranking request which is not allowable, the application will be refused (Art. 97(2) EPC).

If the Examining Division gives its consent to the requested amendments or corrections, it will issue a new communication under Rule 71(3) EPC; otherwise, it shall resume the examination proceedings (R. 71(6) EPC).

5. Filing of a divisional application

Any divisional application relating to this European patent application must be filed directly with the European Patent Office in Munich, The Hague or Berlin and will be in the language of the proceedings for the present application, or if the latter was not in an official language of the EPO, the divisional application may be filed in the language of the present application as filed (see Article 76(1) and Rule 36(2) EPC). Any such divisional application must be filed while the present application is still pending and the time limit for filing divisional applications must be observed (R. 36(1) EPC; Guidelines A-IV, 1.1.1).

6. Important notes concerning fee payments

6.1 For all payments, please refer to the relevant **fee code(s).**

6.2 Automatic debiting procedure

The fee for grant, including the fee for publication, and any additional claims fees due under Rule 71(4) EPC will be debited automatically on the date of filing of the translations of the claims, or on the last day of the period of this communication. However, if the designation fee(s) become(s) due as set out in Rule 71a(3) EPC and/or a renewal fee becomes due as set out in Rule 71a(4) EPC, these should be paid separately by another permitted way of payment in order not to delay the publication of the mention of the grant. The same applies in these circumstances to the payment of extension fees. For further details see the Arrangements for the automatic debiting procedure (AAD) and accompanying information from the EPO concerning the automatic debiting procedure (Annexes A.1 and A.2 to the Arrangements for deposit accounts (ADA) in Supplementary publication 4 - OJ EPO 2014).

6.3 Important information relating to fee amounts

Following any amendment to the Rules relating to Fees, the amount(s) mentioned in this communication may be different from the amount(s) **actually due on the date of payment.** The latest version of the Schedule of fees and expenses, published as a Supplement to the Official Journal of the EPO, is also available on the EPO website (www.epo.org) and can be found under www.epo.org/schedule-of-fees, which allows the viewing, downloading and searching for individual fee amounts, both current and previous.
Please note that procedural fees are usually adjusted every two years, on even years, with effect from 1 April.

6.4 **Payments by cheque** delivered or sent direct to the EPO are no longer accepted as from 1 April 2008 (see OJ EPO 2007, 626).

Examining Division:

Chairman:	Boerrigter, Herman
2nd Examiner:	Hugueny, Bertrand
1st Examiner:	Bijn, Eric

Europäisches Patentamt • European Patent Office • Office européen des brevets

Bastié, Joël
For the Examining Division
Tel. No.: +31 70 340 - 4157 **Branch at The Hague**

Enclosure(s): Text intended for grant (12 pages)

EPO Form 2056

Europäisches Patentamt
European Patent Office
Office européen des brevets

European Patent Office
Postbus 5818
2280 HV Rijswijk
NETHERLANDS
Tel: +31 70 340 2040
Fax: +31 70 340 3016

Annex to EPO Form 2004, Communication pursuant to Rule 71(3) EPC

Bibliographical data of European patent application No. 10 851 166.8

For the intended grant of the European patent, the bibliographical data are set out below, for information:

Title of invention:
- SUPERKONDENSATOR
- SUPER CAPACITOR
- SUPERCONDENSATEUR

Classification: INV. H01G2/10 H05F7/00 H01G9/00 H02J7/34

Date of filing: 29.12.2010

Priority claimed: US / 02.05.2010 / USA772213

Contracting States* for which fees have been paid: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Extension States* for which fees have been paid:

Validation States* for which fees have been paid:

Applicant(s):**

Melito Inc
12225 Greenville Avenue, Suite 700
Dallas, TX 75243
US

Melito, Carl Frank
12225 Greenville Avenue
Suite 700
Dallas, TX 75243
US

Inventor(s):

MELITO, Carl, Frank
13217 Emily Rd. No. 3210
Dallas, TX 75240
US

*) If the time limit for the payment of designation fees according to Rule 39(1) EPC has not yet expired and the applicant has not withdrawn any designation, **all Contracting States/Extension States/Validation States** are currently still deemed to be designated. See also Rule 71(8) EPC and, if applicable, the above Note to users of the automatic debiting procedure.

Europäisches Patentamt
European Patent Office
Office européen des brevets

European Patent Office
Postbus 5818
2280 HV Rijswijk
NETHERLANDS
Tel: +31 70 340 2040
Fax: +31 70 340 3016

**) If two or more applicants have designated different Contracting States, this is indicated here.

WO 2011/139315 PCT/US2010/062389

~~SUPER CONDUCTING SUPER CAPACITOR~~

FIELD OF THE INVENTION

[Para 1] This invention relates generally to massive electrical circuits and their fabrication, housed within a massive water resistant vacuum nonconductive shell made of concrete, ceramic, or other like nonconductive material, using layers of localized abundant natural resources such as sand, or other dielectric materials, etc., as insulators (whether human fabricated or naturally occurring); human fabricated or naturally occurring layers of metallic materials such as iron, aluminum, etc., as conductors; a metallic probe emanating from the housing and connected in parallel with each conductive layer; and human generated or naturally occurring phenomena such as ~~lighting~~ lightning as a source of power to the probe. More particularly, this invention relates to a process for forming a macroelectronic assembly with integral multilayer capacitors that have a wide range of capacitance values based on their very wide radii and number of layers formed in its housing. Electricity thusly captured can then be stored and distributed for human consumption. A new type of electrical power plant is contemplated employing this ~~super~~ ~~conducting~~ super capacitor technology, providing electrical energy to the power grid and for use by electrical filling stations for electrical transport vehicles, such as cars, trucks, buses, ships, trains and aircraft.

BACKGROUND

[Para 2] Microelectronic capacitors are typically formed by patterning a conductive region on a ceramic substrate to define a bottom electrode, depositing a thin layer of a dielectric material over the bottom electrode to form the dielectric for the microelectronic capacitor, and then forming a second electrode over the dielectric, patterned to form the microelectronic capacitor, using a second conductive region above the dielectric material. In this way, microelectronic capacitors store electric charge, and since work must be done to charge the microelectronic capacitor, the microelectronic capacitor will also store electric potential energy. If one considers an example isolated metallic sphere of radius R, any electric charge stored on this sphere, call it Q, can be articulated as a potential:

$$V = \frac{1}{4\pi\epsilon_0}\frac{Q}{R}$$

such that the amount of charge stored on the sphere is directly proportional to the potential (V). This proportionality exists for any conductor of any shape or size. Capacitance (C) of this single conductor is large if the conductor is capable of storing a large amount of charge at a low potential, so that the relation:

$$Q = CV \quad \text{becomes} \quad C = \frac{Q}{V} = \frac{Q}{\frac{1}{4\pi\epsilon_0}\frac{Q}{R}} = 4\pi\epsilon_0 R$$

Therefore, the capacitance of the sphere increases with its radius, and many such spheres wired together in parallel creates a net capacitance that is the sum of their individual capacitances.

Furthermore, capacitors store not only electric charge (Q), but also electric potential energy (U), which can be expressed roughly as:

$$U = \frac{\frac{1}{2}Q^2}{C}$$

(ignoring the energy density in the dielectric layers). The electric potential energy (U) is also the total amount of work that must be performed to charge the capacitor.

[Para 3] What is needed is a macroelectronic circuit referred to herein as a ~~super-conducting~~ super capacitor and method that exploits the above relationships to be used to capture and store the electric charge of lightning, whether naturally occurring or human generated, as an alternative energy source for human consumption. After determination of the total energy range generated by lightning strikes in a particular setting, an optimum radius and number of embedded parallel layers of capacitors forming the ~~super-conducting~~ super capacitor of the present invention can be established based on the area of land, or other substrate, that is available to support the ~~super-conducting~~ super capacitor housing of the present invention.

[insert rider a]

SUMMARY

[insert rider b]

[Para 4] A ~~super-conducting~~ super capacitor and method forming massive embedded capacitors connected in parallel over a very wide radius that can vary from a few square (meters (feet)) to hundreds or thousands of square (km (miles)) and more, is disclosed. The ~~super-conducting~~ super capacitor is formed within a water proof vacuum housing to keep out water and humidity by depositing a plurality of alternating layers of dielectric material between each layer of conducting material, whereby one or more electrodes are situated on each dielectric layer, thus forming a ~~super-conducting~~ super capacitor having at least one probe electrode exuding from said housing, and

<rider a>

US 5,367,245 relates to an assembly for the induction of lightning into a superconducting magnetic energy storage system. A coil formed of a superconductive material is housed within a trench formed in the ground. A first conductive pathway interconnects a lightning attracting structure to the coil. A second conductive path interconnects the coil to a power take-off means, which may be standard and conventional power lines.

<rider b>

In accordance with the invention, there is provided: a super capacitor as recited in claim 1; and methods as recited in claims 9 and 13.

connected to the one or more electrodes, for receiving electric charge from a lightning source for example. One can contemplate many dielectric layers separating many conductor layers from a few layers to thousands, and possibly even millions or more layers delineated, for example, to define a multilayer capacitive structure capable of providing electric power to supplement or replace other sources of electric power that harm the environment.

BRIEF DESCRIPTION OF THE DRAWINGS

[Para 5] FIG. 1 illustrates one contemplated embodiment of a ~~super conducting~~ super capacitor by which massive embedded super capacitors are connected in parallel over a very large land area in accordance with certain embodiments of the present invention using a ceramic material for a water proof housing, silicon as the dielectric insulator material forming each insulating layer, and metallic sheets as conductors forming each conducting layer.

[Para 6] FIG. 2 is a block diagram that illustrates a naturally occurring embodiment of the method of the present invention.

[Para 7] FIG. 3 is a block diagram that illustrates a human controlled embodiment of the method of the present invention.

DETAILED DESCRIPTION

[Para 8] Detailed embodiments of the present invention are disclosed herein; however, it is to be understood that the disclosed embodiments are merely exemplary of the invention, which can be embodied in various forms. Therefore, specific structural and functional details disclosed herein are not to be interpreted as limiting, but merely as a basis for the claims and as a representative basis for teaching one skilled in the art to variously employ the present invention in virtually any

appropriately detailed structure. Further, the terms and phrases used herein are not intended to be limiting; but rather, to provide an understandable description of the invention.

[Para 9] The terms a or an, as used herein, are defined as one or more than one. The term plurality, as used herein, is defined as two or more than two. The term another, as used herein, is defined as at least a second or more. The terms including and/or having, as used herein, are defined as comprising (i.e., open language). While a particular configuration for the invention is shown in FIG. 1, those skilled in the art will appreciate that variations and modifications are possible, and such variations and modifications are within the scope of this invention, as defined in the appended claims.

[Para 10] Referring now to FIG. 1, the macroelectronic circuit of the present invention, referred to herein as the ~~super conducting~~ super capacitor 100 (hereinafter ~~SCSC~~ SC), is shown as having alternating layers of conductors 20 and dielectric material 30, similar in structure to prior art microelectronic parallel capacitor circuits, and at least one probe electrode 10 for receiving the lightning strike. The primary differences over prior art capacitors are size, power scale, purpose, and lightning as a power source. One embodiment of the present invention contemplates connecting the ~~SCSC~~ SC 100 to a massive battery system 200 (hereinafter massive battery) that receives the generated electrical energy so as to free up the ~~SCSC~~ SC 100 for more lightning strikes. The massive battery 200 can also be linked with an electrical power grid 300 that can comprise direct connections to Electric Train Stations, Factories, and Electric Filling Stations for transfer to transport vehicles such as electric trucks, cars, ships and aircraft.

[Para 11] Referring now to FIG. 2, the best mode for practicing the invention is to utilize free and naturally occurring lightning. However, this method limits the invention to use in geographic areas where there is substantial rain, and thus naturally occurring lightning.

[Para 12] Referring now to FIG 3, an alternative, but more costly, method to practice the invention, but which overcomes geographic limitations, is to create lightning by ionization of the atmosphere, such as by silver iodide cloud seeding to generate rain, and therefore, lightning.

[Para 13] While the invention has been described in conjunction with specific embodiments, it is evident that many alternatives, modifications, permutations and variations will become apparent to those of ordinary skill in the art in light of the foregoing description. Accordingly, it is intended that the present invention embrace all such alternatives, modifications and variations as fall within the scope of the appended claims.

CLAIMS

1. A super capacitor (100) comprising:

a plurality of embedded parallel capacitors having radii in excess of (several meters) (ten feet) enclosed in a water proof housing;

at least one metallic probe (10) connected to said capacitors and exuding from said housing for receiving electrical energy from a lightning source to charge said capacitors.

2. The super capacitor of claim 1, wherein a massive battery (200) is electrically connected to said super capacitor (100).

3. The super capacitor of claim 1, wherein said super capacitor is electrically connected to an electrical power grid (300).

4. The super capacitor of claim 2, wherein said massive battery is electrically connected to an electrical power grid (300).

5. The super capacitor of any of claims 1 to 3, wherein said embedded parallel capacitors have sand as a dielectric material (30).

6. The super capacitor of any of claims 1 to 3, wherein said embedded parallel capacitors have iron as a conductor material (20).

7. The super capacitor of any of claims 1 to 3, wherein said embedded parallel capacitors have silicon as a dielectric material (30).

8. The super capacitor of any of claims 1 to 3, wherein said embedded parallel capacitors have metallic sheets for conductor material (20).

9. A method of capturing electrical energy from lightning, comprising the steps of:

placing near a lightning source at least one probe electrode (10) of a super capacitor having alternating layers of conductors (20) and dielectric material (30) each having radii in excess of (several meters) (ten feet)

to form a multilayer parallel capacitive structure, said multilayer parallel capacitive structure being formed of embedded massive parallel capacitors within a water proof housing;

receiving electrical energy from a lightning strike using said at least one probe electrode connected to said embedded massive parallel capacitors, said at least one probe electrode exuding from said housing.

10. The method of claim 9, wherein said conductors comprise metallic sheets and said dielectric material is silicon.

11. The method of claim 9, comprising the additional step of electrically connecting a massive battery to said super capacitor.

12. The method of claim 9, comprising the additional step of electrically connecting said super capacitor to an electrical power grid to function as an alternative energy source.

13. A method of generating electricity, comprising the steps of:

generating lightning by ionising the atmosphere near at least one probe electrode of a super capacitor, said super capacitor having alternating layers of conductors and dielectric material each having any shape with radii at a shortest side in excess of ten feet to form a multilayer parallel capacitive structure, said multilayer parallel capacitive structure being formed of at least one embedded massive parallel capacitor within a water proof housing; and

receiving electrical energy from a lightning strike through said at least one probe electrode connected to said at least one embedded massive parallel capacitor, said at least one probe electrode exuding from said housing.

14. The method of claim 13, wherein ionising the atmosphere comprises cloud seeding.

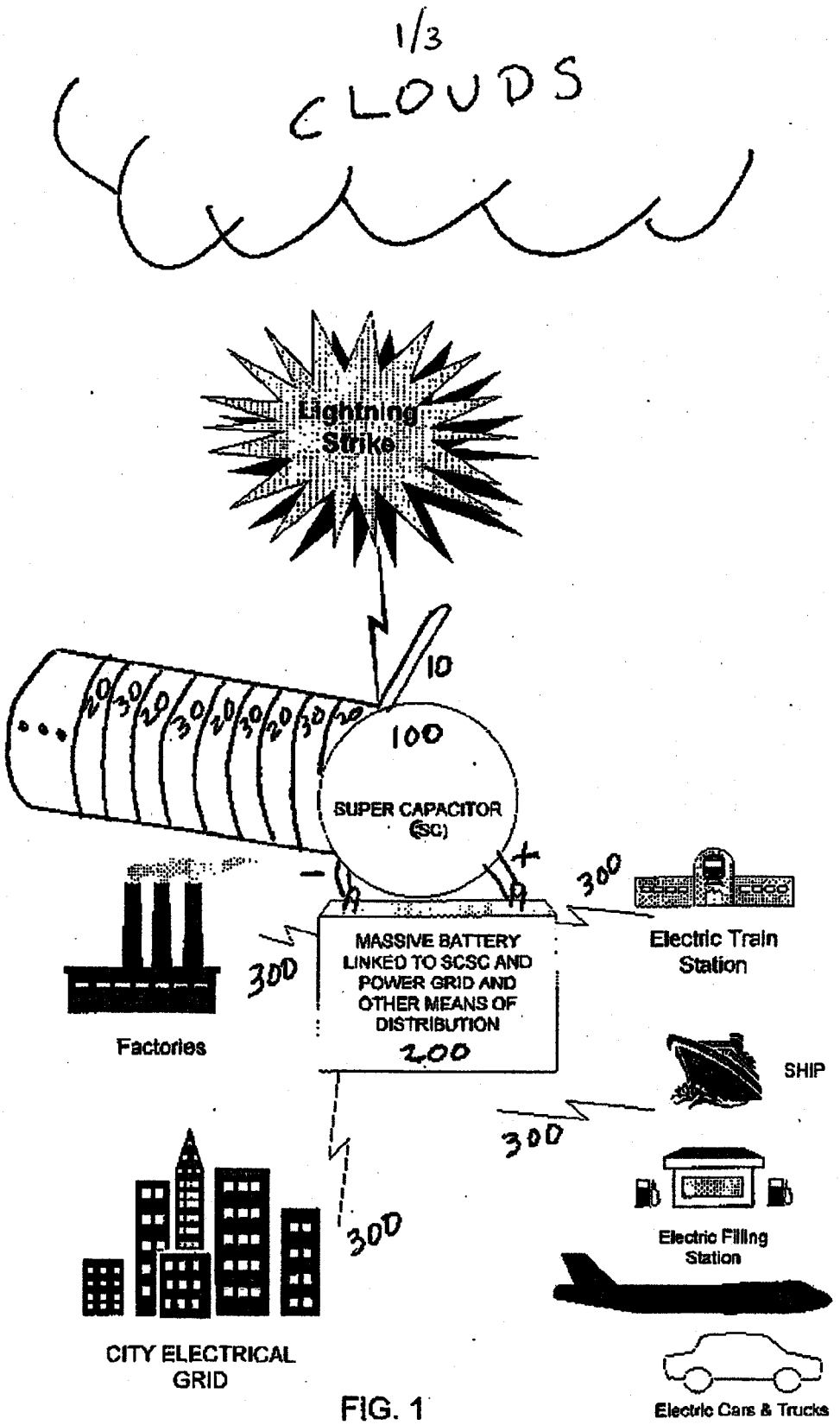
1/3
CLOUDS
Lightning Strike
10
100
SUPER CAPACITOR (SC)
MASSIVE BATTERY LINKED TO SCSC AND POWER GRID AND OTHER MEANS OF DISTRIBUTION
200
300
Electric Train Station
Factories
SHIP
Electric Filling Station
CITY ELECTRICAL GRID
Electric Cars & Trucks

FIG. 1

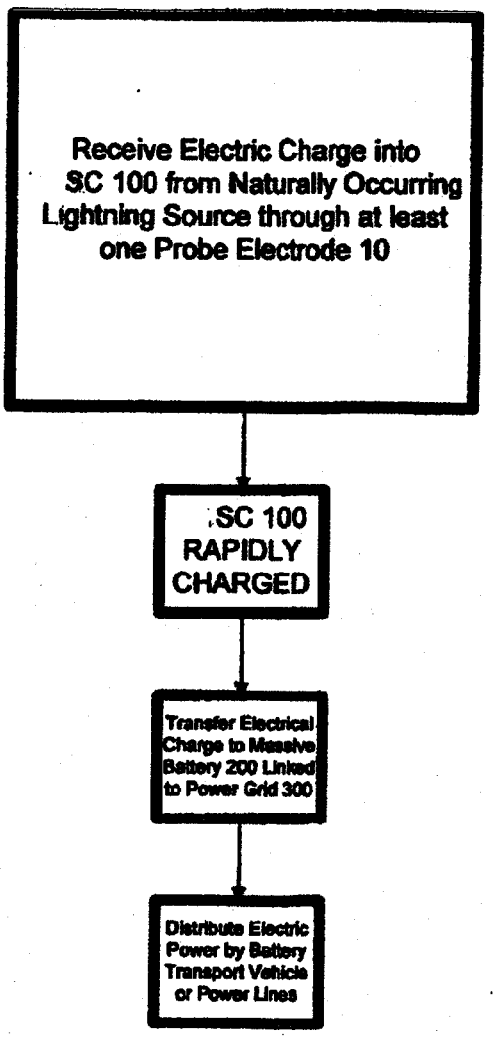
Receive Electric Charge into SC 100 from Naturally Occurring Lightning Source through at least one Probe Electrode 10
SC 100 RAPIDLY CHARGED
Transfer Electrical Charge to Massive Battery 200 Linked to Power Grid 300
Distribute Electric Power by Battery Transport Vehicle or Power Lines

FIG. 2

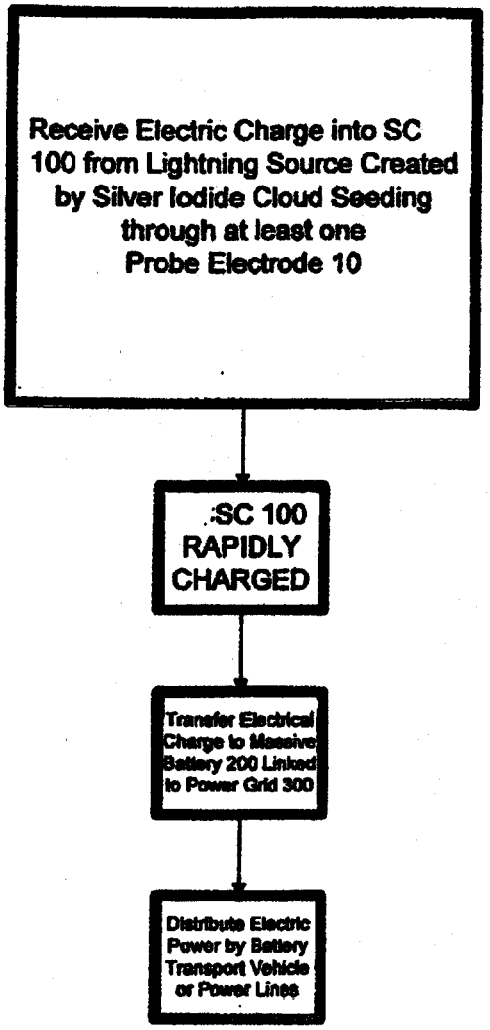
Receive Electric Charge into SC 100 from Lightning Source Created by Silver Iodide Cloud Seeding through at least one Probe Electrode 10
:SC 100 RAPIDLY CHARGED
Transfer Electrical Charge to Massive Battery 200 Linked to Power Grid 300
Distribute Electric Power by Battery Transport Vehicle or Power Lines

FIG. 3