# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0638MH-40982-US

In re Application of:

Examiner: SAWHNEY, HARGOBIND S. **GREGORY G. KUELBS** 

Serial No. TO BE ASSIGNED

Art Unit: 2875 Filed: HEREWITH

For: UMBRELLA APPARATUS

#### TRANSMITTAL

#### MAIL STOP: PATENT APPLICATION

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

Please file the following enclosed documents in the subject application:

- This Transmittal with Certificate of Express Mail; 1.
- Request for Continuation Application Under 37 C.F.R. § 1.53(b); 2.
- A copy of the Original Application and Declaration; 3.
- Preliminary Amendment, including two sheets of Annotated Drawings; 4.
- Eleven Sheets of Formal Drawings: 5.
- A copy of the Assertion of Entitlement to Small Entity Status from the 6. parent application;

## **EXPRESS MAIL NO. "EV 233938189 US"**

I hereby certify that this paper or fee is being deposited with the United States Postal Service as Express Mail "Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated below and is addressed to Mail Stop: Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Date of Deposit:

Transmittal Attorney Docket No. 0638MH-40982-US Page 1

- 7. Assignment and Assignment Cover Sheet;
- 8. Information Disclosure Statement;
- 9. Form PTO-1449 and copies of the cited references;

. . . .

- 10. Certification of No Foreign Filings Under 35 U.S.C. § 122(b)(2)(B)(i);
- 11. Change of Address of Agent;
- 12. Our check in the amount of \$415.00 to cover the \$375.00 Filing Fee and the \$40.00 Assignment Recordation Fee; and
- 13. Our return postcard which we would appreciate you date stamping and returning to us.

No other fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any additional fees that may be necessary, or credit any overpayments, to Deposit Account No. **502806**.

Respectfully submitted,

8/28/03

Date

James E. Malton Reg. No. 47.

James E. Walton, Reg. No. 47,245 Law Offices of James E. Walton, P.L.L.C. 1169 N. Burleson Blvd., Suite 107-328 Burleson, Texas 76028 (817) 447-9955 (Voice) (817) 447-9954 (Fax) jim@waltonpllc.com

ATTORNEY FOR APPLICANT

Transmittal Attorney Docket No. 0638MH-40982-US Page 2



### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C Prior Application Serial No.: 10/068,424

MAIL STOD, DATENT ADDITION

First Named Inventor: GREGORY G. KUELBS

Examiner: SAWHNEY, HARGOBIND S.

Art Unit: 2875

Comm P.O. B	issioner 1 ox 1450	ginia 22313-1450
	Sir:	This is a request for filing a continuation continuation-in-part divisional
		ler 37 CFR 1.53(b) of pending prior U.S. Patent Application No. 10/068,424 filed on 7, for UMBRELLA APPARATUS.
1	X	_Enclosed is a complete copy of the prior application <b>including the oath or declaration as originally filed</b> and an affidavit or declaration verifying it as a true copy (see No. 14 below for declaration).
2	Х	_New formal drawings are enclosed.
3	Х	_A Preliminary Amendment is enclosed.
4	Х	_Our return postcard is enclosed.
5	Х	_An Assertion of Entitlement to Small Entity Status under 37 C.F.R. §§ 1.9 and 1.27 was filed in the prior application and such status is still proper and desired. A copy of the Assertion of Entitlement to Small Entity Status is enclosed.
6	Х	_Cancel in this application original claims <u>2-20</u> of the prior application before calculating the filing fee. At least one original independent claim has been retained for filing purposes.
7	X .	_Amend the specification by inserting the following sentence before the first line: "This application is a <u>X</u> Continuation Continuation-in-Part or Division of U.S. Patent Application No. 10/068,424 filed on 7 February 2002 for UMBRELLA APPARATUS.

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EXPRESS MAIL NO. "EV 233938189 US"

Date of Deposit:\_

Continuation Under 37 C.F.R. § 1.53(b) Attorney Docket No. 0664MH-40982-C

8		_Priority of U.S. Patent Application No, filed o 35 U.S.C. 119. The certified copy has been file, filed	n, in is claimed under d in prior U.S. Patent Application No.
9	X	_The filing fee is calculated below:	
		CLAIMS AS FILED IN THE PRIOR APPLESS ANY CLAIMS CANCELLED BY AME	
			375.00 \$40.00
		Total Filing Fee:	415.00
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11	Х	_A check in the amount of \$415.00 is enclosed.	
12	Χ	_The prior application is assigned of record to World	d Factory, Inc.
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		James E. Walton Reg. No. 47,245 Law Offices of James E. Walton 1169 N. Burleson Blvd., Suite 10 Burleson, Texas 76028 (817) 447-9955 (Voice) (187) 447-9954 (Fax) jim@waltonpllc.com	
14	X	_I hereby declare and verify that the attached pap Application Serial No. 10/068,424 filed on 7 Februa and the Declaration therefor.	ers are true and correct copies of U.S. ary 2002 for UMBRELLA APPARATUS,
15	Х	_ Inventorship Statement: This application discl disclosed in the prior application whose particular in this specification are less than those named in that the following inventor(s) identified above for the	s are set out above and the inventor(s) the prior application and it is requested

Continuation Under 37 C.F.R. § 1.53(b) Attorney Docket No. 0664MH-40982-C Page 2

The undersigned declares further that all statements made herein of his or her 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 § 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application of any patent issuing thereon.

8/28/03	Jones E. Walt
	James E. Walton Reg. No. 47,245
Address of signatory:	
Law Offices of James E. Walton, P.L.L.C. 1169 N. Burleson Blvd., Suite 107-328 Burleson, Texas 76028 (817) 447-9955 (Voice) (817) 447-9954 (Fax) jim@waltonpllc.com (Email)	Inventor(s)  Assignee of complete interest  X Attorney or agent of record Filed under §1.34(a)

Continuation Under 37 C.F.R. § 1.53(b) Attorney Docket No. 0664MH-40982-C Page 3

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0638MH-40982-US

In re Application of:

GREGORY G. KUELBS

Serial No. TO BE ASSIGNED

Filed: 7 FEBRUARY 2001

For: UMBRELLA APPARATUS

S

Examiner:

S

Art Unit:
S

For: UMBRELLA SPARATUS

# ASSERTION OF ENTITLEMENT TO SMALL ENTITY STATUS UNDER 37 C.F.R. § 1.27(c)

**Box: Patent Application** 

Assistant Commissioner for Patents Washington, D.C.

Sir:

Pursuant to 37 C.F.R. 1.27(c)(2)(i), the undersigned hereby asserts that **WORLD FACTRORY, INC.**, owner by assignment of the entire right, title, and interest in the subject application, is a small entity as defined in 37 C.F.R. § 1.9(d) and is entitled to small entity status for purposes of paying reduced fees under Section 41 (a) and (b) of Title 35, United States Code, to the Patent and Trademark Office with regard to the subject invention.

> Assertion of Small Entity Status Attorney Docket No. 0638MH-40982-US Page 1

Respectfully submitted,

2/7/02 Date

Mekin A. Hunn, Reg. No. 32,574
Kenneth C. Hill, Reg. No. 29,650
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ATTORNEYS FOR APPLICANT

Assertion of Small Entity Status Attorney Docket No. 0638MH-40982-US Page 2

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Examiner: SAWHNEY, HARGOBIND S. **GREGORY G. KUELBS** 

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8/28/03

Date

James E. Walton Reg. No. 47.2

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ATTORNEY FOR APPLICANT

Transmittal Attorney Docket No. 0638MH-40982-US Page 2



### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C Prior Application Serial No.: 10/068,424

MAIL STOP: PATENT APPLICATION

First Named Inventor: GREGORY G. KUELBS

Examiner: SAWHNEY, HARGOBIND S.

Art Unit: 2875

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Continuation Under 37 C.F.R. § 1.53(b) Attorney Docket No. 0664MH-40982-C Page 2

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	Amer E. Walton Reg. No. 47,245
Address of signatory:	
Law Offices of James E. Walton, P.L.L.C. 1169 N. Burleson Blvd., Suite 107-328 Burleson, Texas 76028 (817) 447-9955 (Voice)	Inventor(s) Assignee of complete interest X Attorney or agent of record Filed under §1.34(a)
(817) 447-9954 (Fax) jim@waltonpllc.com (Email)	Tiled dilder §1.54(a)

Continuation Under 37 C.F.R. § 1.53(b) Attorney Docket No. 0664MH-40982-C Page 3

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0638MH-40982-US

In re Application of:

GREGORY G. KUELBS

Serial No. TO BE ASSIGNED

Filed: 7 FEBRUARY 2001

For: UMBRELLA APPARATUS

S

Examiner:

S

Art Unit:

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For: UMBRELLA SPARATUS

# ASSERTION OF ENTITLEMENT TO SMALL ENTITY STATUS <u>UNDER 37 C.F.R. § 1.27(c)</u>

**Box: Patent Application** 

Assistant Commissioner for Patents Washington, D.C.

Sir:

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> Assertion of Small Entity Status Attorney Docket No. 0638MH-40982-US Page 1

Respectfully submitted,

2/7/02 Date

Mekin A. Hunn, Reg. No. 32,574
Kenneth C. Hill, Reg. No. 29,650
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ATTORNEYS FOR APPLICANT

Assertion of Small Entity Status Attorney Docket No. 0638MH-40982-US Page 2

### SPECIFICATION

Attorney Docket No. 0638MH-40982-US

#### TO ALL WHOM IT MAY CONCERN:

BE IT KNOWN that I, **Gregory G. Kuelbs**, residing in the city of Westlake, Texas, have invented new and useful improvements in a

### **UMBRELLA APPARATUS**

of which the following is a specification.

"EXPRESS MAIL" No. EV024943769US

Date of Deposit: 2/7/02

I hereby certify that this paper or fee is being deposited with the United States Postal Service Express Mail "Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Box: Patent Application, P.O. Box 2327, Arlington, VA 22202-0327,

by Jana E. Walt

Specification Attorney Docket No. 0638MH-40982-US Page 1

This application claims the benefit of U.S. Provisional Application No. 60/267,018, filed 7 February 2001, titled "Lighted Patio Umbrella Apparatus;" and of U.S. Provisional Application No. 60/335,933, filed 2 November 2001, titled "Outdoor Lighting Systems with Cold Cathode Tubes."

#### **BACKGROUND OF THE INVENTION**

#### 1. Field of the Invention:

The present invention relates in general to patio umbrellas, and in particular, to an improved patio umbrella with integral lighting system and other modular electronic systems and components.

# 10 2. Description of the Prior Art:

There has been a recent increase in the interest in entertaining in a lawn and garden environment. Patio furniture is quite popular and useful for outdoor entertaining, especially in portions of the country that have warmer climates. However, the sun often presents an impediment to such outdoor entertaining. Consequently, sales have increased for relatively large patio and table umbrellas for use in shielding or shading table areas and people sitting around the tables from direct exposure to the sunlight. Given the relatively high degree of interest in patio umbrellas, it is likely that improved umbrellas, or umbrellas with enhanced functions, will be well received in the marketplace.

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Specification Attorney Docket No. 0638MH-40982-US Page 2

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It is one objective of the present invention to provide a lawn or patio umbrella with an integral lighting system that utilizes cold cathode tubes, light emitting diodes (LED's), or florescent lights, to provide relatively bright outdoor light for reading and other activities that require relatively high light intensities.

6 7 8

It is another objective of the present invention to provide an a lawn or patio umbrella with an integral lighting system that utilizes cold cathode tubes, LED's, or florescent lights,

opening and closing the umbrella.

electric fans or misting systems.

to provide relatively bright outdoor light, and its own rechargeable power supply, including

with an integral lighting system that utilizes cold cathode tubes, LED's, or florescent lights,

to provide relatively bright outdoor light, and a motorized retraction system that aids in

with an integral lighting system that utilizes cold cathode tubes, LED's, or florescent lights,

to provide relatively bright outdoor light, and a cooling system, such as one that utilizes

powered lawn or patio umbrella in which lighting systems, such as those utilizing cold

cathode tubes, LED's, or florescent lights; cooling systems, such as those utilizing electric fans or misting systems; and motorized retraction systems; can be selectively

system, a lighting system, a motorized retraction system, and/or a cooling system into a relatively large patio umbrella. The resulting umbrella does not have to be connected to a

household electrical system, is a relatively low power consuming device, does not generate much heat, provides a high amount of light intensity, reduces the overall energy

consumption of outdoor lighting, allows for fewer batteries to be utilized in each lighting

It is yet another objective of the present invention to provide a lawn or patio umbrella

It is yet another objective of the present invention to provide a lawn or patio umbrella

It is yet another objective of the present invention to provide a modular, electrically

The above objects are achieved, for example, by integrating a rechargeable power

solar cells.

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Specification Attorney Docket No. 0638MH-40982-US

fixture, allows for easier recharging of the batteries due to the lower power requirements, and allows the utilization of smaller photovoltaic solar cells.

In the embodiment that utilizes a cold cathode tube, one additional advantage is that the cold cathode tube may be operated at multiple voltage levels to provide differing amounts of light output. In one particular embodiment, a wireless receiver and transmitter pair may be utilized to allow an operator to use a wireless command signal to change the operating state of the lighting system, such as switching the system between an on and off condition, and switching the system between varying levels of light output. Accordingly, an operator may intensify the light output from the lighting system through use of a wireless handheld transmitter when he wants additional light from a particular umbrella.

Specification Attorney Docket No. 0638MH-40982-US Page 4

1	BRIEF DESCRIPTION OF THE DRAWINGS
2	The novel features believed characteristic of the invention are set forth in the
3	appended claims. However, the invention itself, as well as a preferred mode of use and
4	further objectives and advantages thereof, will best be understood by reference to the
5	following detailed description of the preferred embodiment when read in conjunction with
6	the following drawings.
7	Figure 1 is a fragmentary and sectional view of the preferred embodiment of the
8	lighted umbrella with motorized opening and closing system according to the present
9	invention.
10	Figures 2A, 2B, and 2C are pictorial, fragmentary, and section views of an alternate
11	embodiment of the present invention which is directed to a lighted umbrella with a stand
12	and a single battery and removable base cover.
13	Figures 3A, 3B, and 3C are pictorial, fragmentary, and partial section views of
14	another alternate embodiment of the present invention which is directed to a lighted
15	umbrella with a stand, charger, batteries, and removable battery cover.
16	Figure 4A is a fragmentary and sectional view of another alternate embodiment of
17	the present invention which is directed to a lighted umbrella with recessed lighting.
18	Figure 4B is a fragmentary and sectional view of another alternate embodiment of
19	the present invention which is directed to a lighted umbrella with integral misting system.
20	Figure 4C is a fragmentary and sectional view of another alternate embodiment of
21	the present invention which is directed to a lighted umbrella with an integral fan system.
22	Figure 5A is a block diagram representation of the motorized opening and closing
23	system of the umbrella of Figure 1 and of the other embodiments of the umbrella of the
24	present invention.
25	Figure 5B is a block diagram representation of an alternate embodiment of the

Specification Attorney Docket No. 0638MH-40982-US Page 5

motorized opening and closing system of Figure 5A.

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ı	rigure 6 is a simplified schematic of an alternative embodiment of the present
2	invention which is directed to a lighted umbrella with a top-mounted power unit and a cold
3	cathode tube lighting system.
4	Figure 7 is a simplified schematic of an alternative embodiment of the present
5	invention which is directed to an umbrella with a top-mounted power unit and an electric
6	fan cooling system.
7	Figure 8 is a simplified view of an alternative embodiment of the present invention
8	which is directed to an umbrella with a top-mounted power unit and a mist producing
9	cooling system.
10	Figure 9 is a simplified schematic of an alternate embodiment of the present
11	invention that is directed to an umbrella with a top-mounted power unit and a motorized
12	opening and closing system.
13	Figure 10 is a schematic of one broad implementation of the present invention.
14	Figure 11 is a block diagram representation of the present invention.
15	

Specification Attorney Docket No. 0638MH-40982-US Page 6

Referring to Figure 1 in the drawings, one embodiment of an umbrella apparatus according to the present invention is illustrated. Umbrella apparatus 11 includes an umbrella portion 13 and a hollow tubular pole portion 15. Pole portion 15 is coupled to and supports umbrella portion 13. Umbrella portion 13 is preferably retractable and may be moved between a raised, or expanded open position, which is shown; and a lowered, or retracted, closed position in which umbrella portion is collapsed down about pole portion 15, as is conventional. A flexible canopy 17 is attached to and covers umbrella portion 15. Canopy 17 is supported by a plurality of rib members 19, 21, 23, and 25. Rib members 19, 21, 23, and 25 are preferably hingedly coupled to pole portion 15 at an upper portion of pole portion 15. An integral lighting system 26 is carried by at least one of rib members 19, 21, 23, or 25. Lighting system 26 provides high intensity light to umbrella apparatus 11 and the surrounding area. In the embodiment of Figure 1, lighting system 26 preferably utilizes a cold cathode tube which will be described in greater detail herein.

Umbrella apparatus 11 may include a base member adapted to receive pole portion 15 and to support umbrella apparatus 11 in a generally upright position. Although not shown in the embodiment Figure 1, other embodiments of the present invention depict a variety of conventional and novel base members, any of which may be utilized with the embodiment of Figure 1. It should be understood that in all of the embodiments of the present invention discussed herein, umbrella apparatus 11 may be used with little or no base member whatsoever, provided there is a table or some other support structure, including the ground, which may be adapted to receive pole portion 15. For example, many patio tables are designed with central apertures to receive, support, and stabilize relatively large umbrellas. In some cases, the patio tables eliminate the need for a base member all together.

In accordance with the preferred embodiment of the present invention, light system 26 includes a plurality of light strands 27, 29, 31, and 33 attached to rib members 19, 21, 23, and 25. Each light strand 27, 29, 31, and 33 includes electrical

Specification Attorney Docket No. 0638MH-40982-US Page 7

wiring 39 which conductively connects a plurality of small cold cathode tube light bulbs together for providing the high intensity light under canopy 17 and in the area surrounding umbrella apparatus 11. A wiring ring 37 secures and locates electrical wiring 39 of light strands 27, 29, 31, and 33, so that electrical wiring 39 may be passed through the hollow interior of pole portion 15 to a power source, as will be described in detail below.

Umbrella apparatus 11 includes an optional opening and closing system 40 that aids in expanding umbrella portion 13 into the open condition and retracting umbrella portion 13 into the closed condition. Opening and closing system 40 includes a cable system 41, a gear and pulley system 43 housed in a crank case 44, and a manual crank 45. Crank case 44 is preferably located on pole portion 15 such that crank case 44 is accessible when umbrella portion 13 is in the fully retracted position against pole portion 15. Cable system 41 is coupled between rib members 19, 21, 23, and 25 and gear and pulley system 43, and is preferably disposed within the hollow interior of pole portion 15. Manual crank 45 is coupled to gear and pulley system 43 so as to allow manual opening and closing of umbrella portion 13.

Opening and closing system 40 may be automated by the inclusion of an electric screw driver motor 49, or other similar relatively small diameter motor assembly, and one or more operational switches 47. Motor 49 is preferably disposed within the hollow interior of pole portion 15 and is coupled to gear and pulley system 43. Operational switches 47 are preferably carried by crank case 44, and include one or more switches for controlling the operation of motor 49. With the inclusion of motor 49, a user may expand and retract umbrella portion 13 simply by pressing the appropriate operational switch 47. This feature is particularly advantageous when used with large umbrellas which may be relatively heavy and awkward to operate, or when the user lacks sufficient strength to expand or retract umbrella portion 13.

Umbrella apparatus 11 includes a power system 50 having a power source 55. In this embodiment, power source 55 is preferably disposed in the hollow interior of pole portion 15 at a lower extremity and comprises one or more rechargeable batteries 55a.

Specification Attorney Docket No. 0638MH-40982-US Page 8

A releasable end cap 57 having integral ground connectors is provided at the lowermost portion of pole portion 15 to complete the electrical circuit of power system 50 and to allow access to rechargeable batteries 55a, as rechargeable batteries 55a may have to be periodically replaced. Power system 50 provides electrical power to lighting system 26 and opening and closing system 40. An external power system charger 51 is electrically coupled to power system 50 to aid in repeatedly charging rechargeable batteries 55a. As is shown in Figure 1, an external adapter 60 may be provided. External adapter 60 includes a relatively small plug 59 that is adapted to be conductively received by external power system charger 51, an extension cord 61, an electrical transformer 63, and terminals 65 that allow transformer 63 to be plugged into a conventional AC wall outlet. This allows power system charger 51 to receive power directly from a conventional AC wall outlet in order to recharge rechargeable batteries 55a.

In accordance with a preferred embodiment of the present invention, an alternative power system charger 62 may be provided. Alternate power system charger 62 includes at least one solar cell 35 carried by an upper cap portion 64. Solar cells 35 are conductively coupled to power system charger 51 via wires (not shown) that pass through the hollow interior of pole portion 15, thereby allowing solar cells 35 to provide an electrical charge to recharge rechargeable batteries 55a, provided sunlight falls upon solar cells 35. Because solar cells 35 provide continuous recharging throughout the daylight hours, the amount and frequency of charging power system 50 with external power system charger 60 may be minimized. It is important to note that locating alternate power system charger 62 atop umbrella portion 13 is unique and advantageous, particularly when alternate power system charger 62 includes solar cells 35 or other types of solar energy collectors. Such location limits the visibility of alternate power system charger 62 and ensures that solar energy collection is maximized.

The embodiment depicted in Figure 1 is advantageous over the prior art in that it provides a number of useful functions. Umbrella apparatus 11 is lighted by lighting system 26 which does not require continuous access to a conventional AC wall outlet, while providing high intensity light. This allows umbrella apparatus 11 to be placed in a

Specification Attorney Docket No. 0638MH-40982-US Page 9

relatively remote lawn or garden locations that are away from, or substantially removed from, conventional AC power outlets. During daylight hours, solar cells 35 provide a continuous trickle charge to recharge rechargeable batteries 55a, thereby reducing the need for and frequency of use of external power system charger 60. However, when an electrical charge is needed, external power system charger 60 may be utilized to directly charge power system charger 51. Of course, a conventional extension cord may be used, thereby eliminating the need to move umbrella apparatus 11 from its remote location to a location near an AC power outlet.

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Referring now to Figures 2A-2C in the drawings, another embodiment of the present invention is illustrated. In this embodiment, an umbrella apparatus 111 includes an umbrella portion 113, a pole portion 115, a stand portion 118, and a base portion 120 adapted to house a rechargeable power system 151. Umbrella apparatus 11 includes a lighting system 126 and may include a motorized opening and closing system 140. Umbrella portion 113 is preferably retractable and may be moved between a raised, or expanded open position, which is shown; and a lowered, or retracted, closed position in which umbrella portion is collapsed down about pole portion 115, as is conventional. A flexible canopy 117 is attached to and covers umbrella portion 115. Canopy 117 is supported by a plurality of rib members 119, 121, 123, and 125. Rib members 119, 121, 123, and 125 are preferably hingedly coupled to pole portion 115 at an upper portion of pole portion 115. An integral lighting system 126 is carried by at least one of rib members 119, 121, 123, or 125. Lighting system 126 provides high intensity light to umbrella apparatus 111 and the surrounding area. In the embodiment of Figures 2A-2C, lighting system 126 preferably utilizes a cold cathode tube which will be described in greater detail herein.

Lighting system 126 includes a plurality of light strands 127, 129, 131, and 133 attached to rib members 119, 121, 123, and 125. Each light strand 127, 129, 131, and 133 includes electrical wiring 139 which conductively couples a plurality of small cold cathode tube light bulbs together for providing the high intensity light under canopy 117 and in the area surrounding umbrella apparatus 111. A wiring ring 137 secures and locates electrical wiring 139 of light strands 127, 129, 131, and 133, so that electrical

Specification Attorney Docket No. 0638MH-40982-US Page 10

wiring 139 may be passed through the hollow interior of pole portion 115 to a power source, as will be described in detail below.

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Umbrella apparatus 111 includes an optional opening and closing system 140 that aids in expanding umbrella portion 113 into the open condition and retracting umbrella portion 113 into the closed condition. Opening and closing system 140 includes a cable system 141, a gear and pulley system 143 housed in a crank case 144, and a manual crank 145. Crank case 144 is preferably located on pole portion 115 such that crank case 144 is accessible when umbrella portion 113 is in the fully retracted position against pole portion 115. Cable system 141 is coupled between rib members 119, 121, 123, and 125 and gear and pulley system 143, and is preferably disposed within the hollow interior of pole portion 115. Manual crank 145 is coupled to gear and pulley system 143 so as to allow manual opening and closing of umbrella portion 113.

Opening and closing system 140 may be automated by the inclusion of an electric screw driver motor 149, or other similar relatively small diameter motor assembly, and one or more operational switches 147. Motor 149 is preferably disposed within the hollow interior of pole portion 115 and is coupled to gear and pulley system 143. Operational switches 147 are preferably carried by crank case 144, and include one or more switches for controlling the operation of motor 149. With the inclusion of motor 149, a user may expand and retract umbrella portion 113 simply by pressing the appropriate operational switch 147. This feature is particularly advantageous when used with large umbrellas which may be relatively heavy and awkward to operate, or when the user lacks sufficient strength to expand or retract umbrella portion 113.

Umbrella apparatus 111 includes a power system 150 having a power source 155. In this embodiment, power source 155 is preferably adapted to be conductively coupled to base portion 120 and comprises a rechargeable battery pack 155a, preferably an 18-Volt rechargeable battery pack. Battery pack 155a is preferably the type of rechargeable battery that is utilized with most modern cordless power tools, such as drills, saws, and sanders. Battery pack 155a is adapted to be repeatedly

Specification Attorney Docket No. 0638MH-40982-US Page 11

recharged by plugging battery pack 155a into a conventional charger (not shown) that is plugged into a conventional AC power outlet. Power system 150 provides electrical power to lighting system 126 and opening and closing system 140.

In accordance with a preferred embodiment of the present invention, an alternative power system charger 162 may be provided. Alternate power system charger 162 includes at least one solar cell 135 carried by an upper cap portion 164. Solar cells 135 are conductively coupled to power system 150 via wires (not shown) that pass through the hollow interior of pole portion 115, thereby allowing solar cells 135 to provide an electrical charge to recharge rechargeable battery pack 155a, provided sunlight falls upon solar cells 135. Because solar cells 135 provide continuous recharging throughout the daylight hours, the frequency with which battery pack 155a must be replaced or recharged may be minimized. It is important to note that locating alternate power system charger 162 atop umbrella portion 113 is unique and advantageous, particularly when alternate power system charger 162 includes solar cells 135 or other types of solar energy collectors. Such location limits the visibility of alternate power system charger 162 and ensures that solar energy collection is maximized.

Stand portion 118 includes an upright shaft portion 170 having a central aperture 172 that is adapted to receive the pole portion 115 of umbrella apparatus 111. A plurality of screw clamps 174 and 176 are provided to secure pole portion 115 within shaft portion 170. A bottom portion 146 is provided to stabilize umbrella apparatus 111 while umbrella apparatus 111 is installed within stand portion 118.

Base portion 120 includes a removable cylindrical sleeve 156, a removable cover 160, and a receiver 168. Sleeve 156 is configured to slip over the exterior of shaft portion 170, and includes a longitudinal slot 158 that allows access to screw clamps 174 and 176 when sleeve 156 is placed over shaft portion 170. Slot 158 also allows access to a connector 166 disposed in the lower portion of pole portion 115 when sleeve 156 is placed over shaft portion 170. Connector 166 is conductively coupled to the wires from alternate power system charger 162 and solar cells 135. Cover 160 is preferably

Specification Attorney Docket No. 0638MH-40982-US Page 12

concave in shape, thereby defining an interior space which may be used to house the electronics (not shown) of power system 150. Cover 160 may include one or more seams 162 that allow access to the interior space defined by cover 160. Receiver 168 releasably receives battery pack 155a. A wire 152 and plug 154 conductively couple battery pack 155a to connector 166, thereby providing an electrical circuit between rechargeable battery pack 155a and light strands 119, 121, 123, and 125 of lighting system 126.

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The embodiment depicted in Figures 2A-2C is advantageous over the prior art in that it provides a number of useful functions. Umbrella apparatus 111 is lighted by lighting system 126 which does not require continuous access to a conventional AC wall outlet, while providing high intensity light. This allows umbrella apparatus 111 to be placed in a relatively remote lawn or garden locations that are away from, or substantially removed from, conventional AC power outlets. During daylight hours, solar cells 135 provide a continuous trickle charge to recharge rechargeable battery pack 155a, thereby reducing the frequency with which battery pack 155a must be replaced or recharged. Additionally, this embodiment is advantageous over the prior art in that conventional rechargeable battery packs, which are commonly used with cordless power tools, may be utilized. If battery pack 155a is insufficiently charged illuminate light strands 119, 121, 123, and 125 of light system 126, the user may simply replace battery pack 155a with another fully charged battery pack 155a. In this manner, lighting system 126 of umbrella apparatus 111 may be energized conveniently, even though umbrella apparatus 111 may be located extremely remotely from an AC power outlet, such as in a garden patio, or on a boat dock. In this embodiment, there is no need to use extension cords to charge an alternate power system charger.

Referring now to Figures 3A-3C in the drawings, another embodiment of the present invention is illustrated. In this embodiment, an umbrella apparatus 211 includes an umbrella portion 213, a pole portion 215, a stand portion 218, and a base portion 220 adapted to house a rechargeable power system 251. Umbrella apparatus 211 includes a lighting system 226 and may include a motorized opening and closing system 240. Umbrella portion 213 is preferably retractable and may be moved between a raised, or

Specification Attorney Docket No. 0638MH-40982-US Page 13

expanded open position, which is shown; and a lowered, or retracted, closed position in which umbrella portion is collapsed down about pole portion 215, as is conventional. A flexible canopy 217 is attached to and covers umbrella portion 215. Canopy 217 is supported by a plurality of rib members 219, 221, 223, and 225. Rib members 219, 221, 223, and 225 are preferably hingedly coupled to pole portion 215 at an upper portion of pole portion 215. An integral lighting system 226 is carried by at least one of rib members 219, 221, 223, or 225. Lighting system 226 provides high intensity light to umbrella apparatus 211 and the surrounding area. In the embodiment of Figures 3A-3C, lighting system 226 preferably utilizes a cold cathode tube which will be described in greater detail herein.

Lighting system 226 includes a plurality of light strands 227, 229, 231, and 233 attached to rib members 219, 221, 223, and 225. Each light strand 227, 229, 231, and 233 includes electrical wiring 239 which conductively couples a plurality of small cold cathode tube light bulbs together for providing the high intensity light under canopy 217 and in the area surrounding umbrella apparatus 211. A wiring ring 237 secures and locates electrical wiring 239 of light strands 227, 229, 231, and 233, so that electrical wiring 239 may be passed through the hollow interior of pole portion 215 to a power source, as will be described in detail below.

Umbrella apparatus 211 includes an optional opening and closing system 240 that aids in expanding umbrella portion 213 into the open condition and retracting umbrella portion 213 into the closed condition. Opening and closing system 240 includes a cable system 241, a gear and pulley system 243 housed in a crank case 244, and a manual crank 245. Crank case 244 is preferably located on pole portion 215 such that crank case 244 is accessible when umbrella portion 213 is in the fully retracted position against pole portion 215. Cable system 241 is coupled between rib members 219, 221, 223, and 225 and gear and pulley system 243, and is preferably disposed within the hollow interior of pole portion 215. Manual crank 245 is coupled to gear and pulley system 243 so as to allow manual opening and closing of umbrella portion 213.

Specification Attorney Docket No. 0638MH-40982-US Page 14

Opening and closing system 240 may be automated by the inclusion of an electric screw driver motor 249, or other similar relatively small diameter motor assembly, and one or more operational switches 247. Motor 249 is preferably disposed within the hollow interior of pole portion 215 and is coupled to gear and pulley system 243. Operational switches 247 are preferably carried by crank case 244, and include one or more switches for controlling the operation of motor 249. With the inclusion of motor 249, a user may expand and retract umbrella portion 213 simply by pressing the appropriate operational switch 247. This feature is particularly advantageous when used with large umbrellas which may be relatively heavy and awkward to operate, or when the user lacks sufficient strength to expand or retract umbrella portion 213.

Umbrella apparatus 211 includes a power system 250 having a rechargeable power source 255. In this embodiment, power source 255 is preferably adapted to be conductively coupled to and hosed within base portion 220 and comprises a bundle of rechargeable batteries 255a. Power system 250 provides electrical power to lighting system 226 and opening and closing system 240. An external power system charger and transformer 251 is electrically coupled to power system 250 to aid in repeatedly charging rechargeable batteries 255a. An extension cord 261 having terminals 265 allow external power system charger and transformer 251 to be plugged into a conventional AC wall outlet. This allows external power system charger and transformer 251 to receive power directly from a conventional AC wall outlet in order to recharge rechargeable batteries 255a.

In accordance with a preferred embodiment of the present invention, an alternative power system charger 262 may be provided. Alternate power system charger 262 includes at least one solar cell 235 carried by an upper cap portion 264. Solar cells 235 are conductively coupled to power system 250 via wires (not shown) that pass through the hollow interior of pole portion 215, thereby allowing solar cells 235 to provide an electrical charge to recharge rechargeable batteries 255a, provided sunlight falls upon solar cells 235. Because solar cells 235 provide continuous recharging throughout the daylight hours, the frequency with which batteries 255a must be replaced or recharged may be minimized. It is important to note that locating alternate

Specification Attorney Docket No. 0638MH-40982-US Page 15

power system charger 262 atop umbrella portion 213 is unique and advantageous, particularly when alternate power system charger 262 includes solar cells 235 or other types of solar energy collectors. Such location limits the visibility of alternate power system charger 262 and ensures that solar energy collection is maximized.

Stand portion 218 includes an upright shaft portion 270 having a central aperture 272 that is adapted to receive pole portion 215 of umbrella apparatus 211. A plurality of screw clamps 274 and 276 are provided to secure pole portion 215 within shaft portion 270. A bottom portion 246 is provided to stabilize umbrella apparatus 211 while umbrella apparatus 211 is installed within stand portion 218.

Base portion 220 includes a removable cylindrical sleeve 256, a removable cover 260, and recessed portions 280 and 282. Sleeve 256 is configured to slip over the exterior of shaft portion 270, and includes a longitudinal slot 258 that allows access to screw clamps 274 and 276 when sleeve 256 is placed over shaft portion 270. Slot 258 also allows access to a connector 266 disposed in the lower portion of pole portion 215 when sleeve 256 is placed over shaft portion 270. Connector 266 is conductively coupled to the wires from alternate power system charger 262 and solar cells 235. Cover 260 is preferably concave in shape, thereby defining an interior space which may be used to house the electronics (not shown) of power system 250. Cover 260 may include one or more seams 262 that allow access to the interior space defined by cover 260. Recessed portion 280 releasably receives batteries 255a, and recessed portion 282 releasably receives external power system charger 251. A wire 252 and plug 254 conductively couple batteries 255a to connector 266, thereby providing an electrical circuit between rechargeable batteries 255a and light strands 219, 221, 223, and 225 of lighting system 226.

The embodiment depicted in Figures 3A-3C is advantageous over the prior art in that it provides a number of useful functions. Umbrella apparatus 211 is lighted by lighting system 226 which does not require continuous access to a conventional AC wall outlet, while providing high intensity light. This allows umbrella apparatus 211 to be placed in a relatively remote lawn or garden locations that are away from, or

Specification Attorney Docket No. 0638MH-40982-US Page 16

substantially removed from, conventional AC power outlets. During daylight hours, solar cells 235 provide a continuous trickle charge to recharge rechargeable batteries 255a, thereby reducing the frequency with which batteries 255a must be replaced or recharged. However, when an electrical charge is needed, external power system charger 251 may be utilized to directly charge batteries 255a. Of course, a conventional extension cord may be used, thereby eliminating the need to move umbrella apparatus 211 from its remote location to a location near an AC power outlet.

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Referring now to Figure 4A in the drawings, the preferred embodiment of lighting systems 26, 126, and 226 of the present invention is illustrated. In this embodiment, a plurality of lighting elements 307, preferably cold cathode tube bulbs, are recessed into a rib member 301. Rib member 301 is indicative of rib members 19, 21, 23, 25, 119, 121, 123, 125, 219, 221, 223, and 225. As is shown, a cavity 303 is formed within rib 301. Cavity 303 is adapted to receive and hold light bulb 307. A translucent material 305 extends along the entire length of the cavity 303 to protect bulbs 307 from damage and undesirable exposure to weather and other conditions. Translucent material 305 may have a smooth surface or be textured to accentuate or enhance the light from bulbs 307. Although only a single cold cathode tube bulb 307 is illustrated, it should be understood that there may be many bulbs 307 spaced along the length of rib member 301 to illuminate the area under umbrella apparatus 11, 111, or 211. Rib member 301 includes a wiring channel 309 configured to receive a wire 311 that conductively connects all of the bulbs 307 installed in rib member 301, thereby forming an electrical circuit between bulbs 307 and the rechargeable power source, such as power sources 50, 150, and 250. In this manner, recessed lighting, which is carried entirely within rib member 301 and is not otherwise exposed to the elements, is achieved.

Referring now to Figure 4B in the drawings, an alternate embodiment of lighting systems 26, 126, and 226 of the present invention is illustrated. This embodiment is similar to the embodiment of Figure 4A, with the exception that an integral cooling system 410 has been added. In this embodiment, a plurality of lighting elements 307, preferably cold cathode tube bulbs, are recessed into a rib member 301. Rib member 301 is indicative of rib members 19, 21, 23, 25, 119, 121, 123, 125, 219, 221, 223, and

Specification Attorney Docket No. 0638MH-40982-US Page 17

225. Cooling system 410 comprises a misting means that provides a light mist to cool the area under umbrella apparatus 11, 111, or 211. A cavity 403 is formed within rib member 401. Cavity 403 is adapted to receive and hold light bulb 407. A translucent material 405 extends along the entire length of the cavity 403 to protect bulbs 407 from damage and undesirable exposure to weather and other conditions. Translucent material 405 may have a smooth surface or be textured to accentuate or enhance the light from bulbs 407. Although only a single cold cathode tube bulb 407 is illustrated, it should be understood that there may be many bulbs 407 spaced along the length of rib member 401 to illuminate the area under umbrella apparatus 11, 111, or 211. Rib member 401 includes a wiring channel 409 configured to receive a wire 411 that conductively connects all of the bulbs 407 installed in rib member 401, thereby forming an electrical circuit between bulbs 407 and the rechargeable power source, such as power sources 50, 150, and 250. In this manner, recessed lighting, which is carried entirely within rib member 401 and is not otherwise exposed to the elements, is achieved.

 A fluid supply channel 421 is provided in order to receive a fluid tight hose which supplies water to a plurality of misting nozzles 425 which generate mist 427 and 480. A fluid discharge channel 423 is provided to carry a fluid tight hose which carries water from the hose in fluid supply channel 421 to misting nozzles 425. In this embodiment, umbrella apparatus should include a small reservoir (not shown) of water or other water source, such as an inlet hose, and an electric pump to pressurize and pump the water through cooling system 410. In this manner, umbrella apparatus 11, 111, or 211 provides both light and a cooling mist to those in close proximity.

Referring now to Figure 4C in the drawings, another embodiment of lighting systems 26, 126, and 226 of the present invention is illustrated. This embodiment is similar to the embodiment of Figure 4A, with the exception that a different integral cooling system 510 has been added. In this embodiment, a plurality of lighting elements 507, preferably cold cathode tube bulbs, are recessed into a rib member 501. Rib member 501 is indicative of rib members 19, 21, 23, 25, 119, 121, 123, 125, 219, 221, 223, and 225. Cooling system 510 comprises a fanning means that provides a

Specification Attorney Docket No. 0638MH-40982-US Page 18

cool breeze under umbrella apparatus 11, 111, or 211. A cavity 503 is formed within rib member 501. Cavity 503 is adapted to receive and hold light bulb 507. A translucent material 505 extends along the entire length of the cavity 503 to protect bulbs 507 from damage and undesirable exposure to weather and other conditions. Translucent material 505 may have a smooth surface or be textured to accentuate or enhance the light from bulbs 507. Although only a single cold cathode tube bulb 507 is illustrated, it should be understood that there may be many bulbs 507 spaced along the length of rib member 501 to illuminate the area under umbrella apparatus 11, 111, or 211. Rib member 501 includes a wiring channel 509 configured to receive a wire 511 that conductively connects all of the bulbs 507 installed in rib member 501, thereby forming an electrical circuit between bulbs 507 and the rechargeable power source, such as power sources 50, 150, and 250. In this manner, recessed lighting, which is carried entirely within rib member 501 and is not otherwise exposed to the elements, is achieved.

A wiring conduit 520 is provided which routes electrical wiring from wire 511 to an electric motor 524 carried in a recessed cavity 522. Fanning means 528 and 580, such as fan blades, are carried by rotating shafts 530 which are connected to motors 524. When energized, motors 524 rotate fan blades 528 and 580, thereby providing a cooling breeze under umbrella apparatus 11, 111, and 211. A plurality of fan blade sets 528 and 580 may be located at predetermined locations along the length of rib member 501.

Referring now to Figure 5A in the drawings, a block diagram representation of the preferred embodiment of opening and closing systems 40, 140, and 240 is illustrated. As is shown, a pulley system 600 is coupled through gears 602 to an electric motor 604. A switch 606 is electrically connected between a power supply 608 and electric motor 604. Power supply 608 is indicative of rechargeable power systems 50, 150, and 250. External power system charger 610 and solar charger 612 are coupled to power supply 608 to recharge the rechargeable battery elements. External power system charger 610 is indicative of external power system chargers 51 and 251. Solar charger 612 is indicative of alternate power system chargers 62, 162, and 262. Mechanical actuation of switch 606 allows current to flow from power supply 608 to

Specification Attorney Docket No. 0638MH-40982-US Page 19

electric motor 604. Motor 604 works through gears 602 to operate pulley 600, thereby opening and closing canopy 17, 117, or 217 of umbrella apparatus 11, 111, or 211, respectively.

Referring now to Figure 5B in the drawings, another embodiment of the opening and closing systems 40, 140, and 240 of the present invention is illustrated. In this embodiment, a wireless transmitter 708 is utilized to transmit encoded signals and remotely communicate with a wireless receiver 706 that is carried by umbrella apparatus 11, 111, or 211, preferably near housings 44, 144, and 244. A decoder 704 is provided to decode the encoded signals. As is conventional with such receivers and transmitters, transmitter 708 and receiver 706 may be adapted to be coded on a particular frequency or coding scheme which enable a dedicated transmitter 708 to actuate a particular receiver 706. A decoder 704 coupled to an electrical switch 702 serves to allow for such identification. Switch 702 controls the application of electrical energy from a power supply 710 to an electric motor 700. Power supply 710 is indicative of rechargeable power systems 50, 150, and 250. Motor 700 is indicative of motors 49, 149, and 249. In this manner, a motorized retraction system may be actuated remotely utilizing wireless transmitter 708.

Referring now to Figures 6-9 in the drawings, the preferred embodiments of the umbrella apparatus of the present invention are illustrated. In these embodiments, the rechargeable power source and solar recharging system are mounted atop the pole portion of the umbrella apparatus above the canopy. One concept which runs throughout the embodiments depicted in Figures 6-9 is the utilization of a "power unit." This concept involves the placement of a unitary structure at a defined location relative to the umbrella. For example, in the embodiments of Figures 6-9, the power unit is shown at a top location directly above the umbrella apparatus, and secured to the pole portion with a threaded coupling. Figure 6 depicts a top-mounted power unit with a fanning means cooling system. Figure 8 depicts a top-mounted power unit with mist producing cooling system. Figure 9 depicts a top-mounted power unit with an automated opening and closing system.

Specification Attorney Docket No. 0638MH-40982-US Page 20

Although Figures 6-9 depict power units with a single electrical system, it should be understood that in alternative embodiments, one could mix and match these electrical subassemblies such that a single power unit provides electrical power to two or more subassemblies. For example, an umbrella apparatus may include a lighting system and either one or both of the cooling systems described above. Alternatively, an umbrella apparatus may include a lighting system, a cooling system, and an automated opening and closing system as described herein. In this manner, the umbrella apparatus of the present invention is modular such that the different subsystems can be easily mixed and matched.

This modularity allows one to manufacture and sell aftermarket kits which can be installed and interchanged by the umbrella owners. Such kits may include a power unit and one or more of the subsystems, such as a lighting system and/or a cooling system and/or an automated opening and closing system. Because the power unit is relatively self-contained, little interaction is required to attach the power unit to an umbrella apparatus. Alternatively, this modularity in design facilitates the mass manufacture of umbrellas, allowing the electrical system to be manufactured by one factory, and the umbrella systems, which do not include electrical systems, to be manufactured by a different factory. The parts can then be brought together in an assembly area and assembled together.

Referring now specifically to Figure 6, an umbrella apparatus 701 is illustrated. As is shown, a power unit 725 is provided for connection to the uppermost portion of umbrella apparatus 701. In this embodiment, a cold cathode tube light subassembly 721 is provided for connection at a different location to umbrella apparatus 701. Power unit 725 includes a solar collector 727 at its uppermost portion. Solar collector 727 is preferably carried by a top portion 703 of power unit 725. A bottom portion 705 of power unit 725 defines an interior battery compartment 707. Additionally, power unit 725 carries a coupling mechanism 729 to allow coupling between power unit 725 and a pole portion 719 of umbrella apparatus 701, pole portion 719 being adapted at an upper end 711, preferably with threads 713, to releasably receive power unit 725. A top cap 715 hingedly connects pole portion 719 to a canopy 717. Cold cathode tube light

Specification Attorney Docket No. 0638MH-40982-US Page 21

subassembly 721 is coupled at a desired location underneath canopy 717 to provide high intensity light in the area surrounding umbrella apparatus 701. Cold cathode tube light subassembly 721 is conductively coupled to power unit 725 by wiring 709 that passes through the hollow interior of pole portion 719. Such light allows users to read, play games, or perform other leisure activities that require a relatively high intensity light. The electrical components of umbrella apparatus 701 are entirely independent of any household electrical system. The power source, such as power sources 50, 150, and 250, carried by power unit 725 is utilized to energize cold cathode tube light subassembly 721. During daylight hours, solar energy is collected by solar panel 727 and is converted and utilized to recharge the rechargeable power source which is maintained within battery compartment 707.

Cold cathode tube light subassembly 721 is described below in more detail below. As will be appreciated by those skilled in the art, other low power lighting systems may be used instead of cold cathode tube light sub assembly 721. For example, an LED or fluorescent lighting subassembly may be utilized instead. LED and fluorescent systems designed for use with solar and low voltage lighting are known in the art. Such alternative lighting sources may be easily used with the present system in manners which are recognized by those skilled in the art. Implementation of LED, fluorescent, or other alternate light sources instead of cold cathode tube light subassembly 721 is a straightforward and need not be further described in detail.

Referring now specifically to Figure 7 in the drawings, an umbrella apparatus 801 is illustrated. As is shown, a power unit 825 is provided for connection to the uppermost portion of umbrella apparatus 801. In this embodiment, a cooling system 821 comprising a fanning means 831 is provided for connection at a different location to umbrella apparatus 801. Power unit 825 includes a solar collector 827 at its uppermost portion. Solar collector 827 is preferably carried by a top portion 803 of power unit 825. A bottom portion 805 of power unit 825 defines an interior battery compartment 807. Additionally, power unit 825 carries a coupling mechanism 829 to allow coupling between power unit 825 and a pole portion 819 of umbrella apparatus 801, pole portion 819 being adapted at an upper end 811, preferably with threads 813, to releasably

Specification Attorney Docket No. 0638MH-40982-US Page 22

receive power unit 825. A top cap 815 hingedly connects pole portion 819 to a canopy 817. Cooling system 821 is coupled at a desired location underneath canopy 817 to provide a cooling breeze in the area surrounding umbrella apparatus 801. Cooling system 821 is conductively coupled to power unit 825 by wiring 809 that passes through the hollow interior of pole portion 819. The electrical components of umbrella apparatus 801 are entirely independent of any household electrical system. The power source, such as power sources 50, 150, and 250, carried by power unit 825 is utilized to energize cooling system 821. During daylight hours, solar energy is collected by solar panel 827 and is converted and utilized to recharge the rechargeable power source which is maintained within battery compartment 807.

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Referring now specifically to Figure 8 in the drawings, an umbrella apparatus 901 is illustrated. As is shown, a power unit 955 is provided for connection to the uppermost portion of umbrella apparatus 901. In this embodiment, a cooling system 921 comprising a misting system 931 is provided for connection at a different location to umbrella apparatus 901. Power unit 955 includes a solar collector 957 at its uppermost portion. Solar collector 957 is preferably carried by a top portion 903 of power unit 955. A bottom portion 905 of power unit 955 defines an interior battery compartment 907. Additionally, power unit 955 carries a coupling mechanism 959 to allow coupling between power unit 955 and a pole portion 919 of umbrella apparatus 901, pole portion 919 being adapted at an upper end 911, preferably with threads 913, to releasably receive power unit 955. A top cap 915 hingedly connects pole portion 919 to a canopy 917. The electrical components of umbrella apparatus 901 are entirely independent of any household electrical system. The power source, such as power sources 50, 150, and 250, carried by power unit 955 is utilized to energize cooling system 921. During daylight hours, solar energy is collected by solar panel 957 and is converted and utilized to recharge the rechargeable power source which is maintained within battery compartment 907.

Cooling system 921 is coupled at a desired location underneath canopy 917 to provide a cooling mist in the area surrounding umbrella apparatus 901. Cooling system 921 is conductively coupled to power unit 955 by wiring 909 that passes through the

Specification Attorney Docket No. 0638MH-40982-US Page 23

hollow interior of pole portion 919. Cooling system 921 is a misting system comprising a reservoir 925, or other water source, a pump 927, water feed lines 929, and mist nozzles 923. Pump 927 pressurizes and pumps the water from reservoir 925 through water feed lines 929 and out of mist nozzles 923, which are located at selected spaced intervals under canopy 917, at a selected flow rate. Reservoir 925 may be a conventional ice cooler, such that the mist is chilled water.

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Referring now specifically to Figure 9 in the drawings, an umbrella apparatus 1001 is illustrated. As is shown, a power unit 1055 is utilized to provide electrical power to an automated opening and closing system 1050. Power unit 1055 includes a solar collector 1027 at its uppermost portion. Solar collector 1027 is preferably carried by a top portion 1003 of power unit 1055. A bottom portion 1005 of power unit 1055 defines an interior battery compartment 1007. Additionally, power unit 1055 carries a coupling mechanism 1029 to allow coupling between power unit 1055 and a pole portion 1019 of umbrella apparatus 1001, pole portion 1019 being adapted at an upper end 1011, preferably with threads 1013, to releasably receive power unit 1055. A top cap 1015 hingedly connects pole portion 1019 to a canopy 1017. The electrical components of umbrella apparatus 1001 are entirely independent of any household electrical system. Automated opening and closing system 1050 is conductively coupled to power unit 1055 by wiring 1009 that passes through the hollow interior of pole portion 1019. The power source, such as power sources 50, 150, and 250, carried by power unit 1055 is utilized to energize automated opening and closing system 1050. During daylight hours, solar energy is collected by solar panel 1027 and is converted and utilized to recharge the rechargeable power source which is maintained within battery compartment 1007.

Automated opening and closing system 1050 is carried at the uppermost portion of pole portion 1019. Opening and closing system 1050 includes a motor 1021, a transmission 1023, a line winding shaft 1025, a pulley system 1031, and a cable system 1033. These components cooperate to open and close the umbrella in response to the receipt of a command signal. The command signal may be supplied by the actuation of a switch (see Figures 1-3) carried on pole portion 1019, or it may be a wireless signal received from a paired transmitter receiver system (see Figure 5B).

Specification Attorney Docket No. 0638MH-40982-US Page 24

Referring now to Figure 10 in the drawings, a schematic of the cold cathode tube lighting system of the present invention is illustrated. The invention is to utilize in combination a cold cathode lamp, a power inverter which supplies alternating current to the cold cathode lamp, a rechargeable DC battery pack, and a solar collector. This is depicted in simplified form in Figure 10. This may be utilized in any outdoor application in which there is no easy or convenient access to household power. The system is entirely self-contained and does not require any household power for operation, or charging. As is shown, the cold cathode tube lighting system 3000 includes a cold cathode lamp 3001 that is supplied with AC power from a power inverter 3007. A DC battery pack 3003 includes rechargeable batteries that supply DC current to power inverter 3007. A solar collector 3005 is provided to recharge the batteries contained within DC power pack 3003.

A cold cathode tube is a lamp that produces light by the passage of an electric current through a vapor or gas maintained within a tube. A cold cathode tube does not require any heating above ambient temperature to produce light. The tube is phosphor coated on its inner surface, and thus may emit various colored light. In most cases, cold cathode tube lamps are low-pressure mercury vapor lamps. Such lamps use a 253.7 nanometer ultraviolet emission from mercury vapor excited by an electrical discharge through the lamp to charge the phosphors maintained on the wall of the lamp.

The optimum operating temperature for cold cathode tube is approximately 40 degrees Celsius, although Applicant believes that these lamps can be produced in a manner to reliably provide outdoor lighting in temperatures as cold as 15 degrees Fahrenheit. While the cold cathode tube does not require heating, the output of the lamp does vary based upon the ambient temperature. At room temperature, the initial output of a lamp is only about seventy percent of its steady state value at 40 degrees Celsius. In contrast, its output is only 25 percent when the lamp is started at zero degrees Celsius. Cold starts do require additional voltage from the power source to ensure reliable operation. However, the number of lamp "starts" has no adverse effect on the lamp. This is not true for fluorescent lamps, which degrade over time due to the number of "starts." Cold cathode tubes may be utilized to supply a white light output.

Specification Attorney Docket No. 0638MH-40982-US Page 25

In the preferred embodiment, a cold cathode tube manufactured by Nanjing Lampus Electronics Company, Ltd. is utilized. Specifically, a lamp type CFL-20 is utilized. This has an inner diameter of 1.5 millimeters. The tube length is variable, and may be anywhere in the range of 50 millimeters to 30 millimeters in overall length. The tube is adapted to operate on four milliamps of tube current. The tube voltage is in the range of 200 to 750 Volts. The average brightness of this particular tube is 40,000 cd/m².

Another advantage of cold cathode tubes is that the tubes can be very thin in diameter. For example, in the preferred implementation, the cold cathode tube may be one or two millimeters in diameter. A cold cathode tube can be bent into any shape and can be formed in very long lengths, such as several feet long. Thus, cold cathode tubes provide greater light output per foot versus conventional lighting.

Another significant advantage of cold cathode tubes it that they have relatively long lamp life. It is not unusual to have lamp lives which are thirty to forty thousand hours of use. In other words, these cold cathode tubes have, for all practical purposes, an infinite life span.

They are low power devices. They do not generate a lot of heat. They provide high lumen output. For these reasons, fewer batteries are needed to drive the cold cathode ray tube, and smaller solar cell panels may be utilized to recharge the batteries. In other words, relatively small form factors can be achieved because the solar cells, the batteries, and the bulbs can be relatively small in size.

The present invention can be implemented on a small, medium, or large scale so the solar cell panels and batteries may be moved up in size to either provide greater light output or to provide for a longer useful life.

Additionally, the present invention may be considered to satisfy three separate and distinct outdoor lighting applications, all of which may be incorporated into the umbrella apparatus of the present invention.

The first application is that of a "special purpose light," or "task light," such as for security applications. These special purpose lights would provide very light output, for a

Specification Attorney Docket No. 0638MH-40982-US Page 26

relatively short duration. One example would be the utilization of the cold cathode ray tube to provide extremely high light output for a very small area for a very short time, all in response to detection of motion in a particular area. For example, a system can be configured to detect motion in a doorway, motion in a yard, motion in a driveway, or the like. The brightness can be provided which can be far in excess of  $40,000 \text{ cd/m}^2$ . For example,  $100,000 \text{ to } 200,000 \text{ cd/m}^2$  may be provided for a very small area for a very short duration. For example, the duration may be a few minutes to ten minutes.

The second application requires a medium amount of light output, but requires longer periods of operation or wider areas of coverage. For example, the light assembly provided with the umbrella provides a relatively high light output, such as in the range of 20,000 to 100,000 cd/m², in order to allow one to read, play games, operate a computer, or do needlework under the umbrella. Preferably, the battery pack and associated solar panel is sufficient to allow the system to operate continuously for a time interval in the range of 8-12 hours. Additionally, and preferably, the solar panel should be of the size and output which is sufficient to fully recharge the battery pack during the daylight hours.

A third application requires a lower level of light intensity. A good example would be lawn, patio, walkway, or landscape lighting. One does not ordinarily expect to be able to read or do intricate work under this type of lighting. In contrast, all that is expected is that a reasonable amount of light be provided to allow one to walk safely through an area. This type of task may require brightness in the range of 6,000 cd/m² to 60,000 cd/m².

Referring now to Figure 11 in the drawings, a block diagram representation of the application of the present invention to a lawn lighting scenario is illustrated. In this scenario, a plurality of solar panels 4001, 4003, 4005, and 4007 are connected together in series. Preferably, solar panels 4001, 4003, 4005, and 4007 are manufactured by Siemens and comprise mono-crystal solar panels, each providing 1.5 Volts. The total current for the array of solar panels is about 80 milliamps. The current from solar panels 4001, 4003, 4005, and 4007 is passed through a diode 4009 and then to a battery pack 4011. Battery pack 4011 includes a plurality of batteries 4013, 4015, and 4017, for example three AA batteries. In alternative embodiments, as few as two batteries may be

Specification Attorney Docket No. 0638MH-40982-US Page 27

used. As is shown, each battery is a 1.2 Volt Nickel Cadmium battery. They collectively provide 700 milliamp hours of power.

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The output of DC battery pack 4011 is provided as an input to an inverter 4019. Inverter 4019 receives 4.8 Volts DC in and produces as an output of 800 Volts rms AC at 40 Hertz. The total current of the output is 4-6 milliamps.

This is provided to the cathode of a cold cathode ray tube lamp 4021. The current passes through the vapor maintained within cold cathode ray tube lamp 4021 and causes electrons to be stripped from the gas. These electrons collide with the phosphorus coating on the interior surface of cold cathode ray tube lamp 4021, thereby emitting light.

Although the invention has been described with reference to a particular embodiment, this description is not meant to be construed in a limiting sense. Various modifications of the disclosed embodiments as well as alternative embodiments of the invention will become apparent to persons skilled in the art upon reference to the description of the invention. It is therefore contemplated that the appended claims will cover any such modifications or embodiments that fall within the scope of the invention.

Specification Attorney Docket No. 0638MH-40982-US Page 28

### What is claimed is:

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- 1 1. An umbrella apparatus comprising:
- 2 a base support portion;
- 3 a pole portion coupled to the base support portion;
- 4 a canopy portion hingedly coupled to the pole portion;
- 5 a rechargeable electrical power system for providing electrical power to the 6 umbrella apparatus; and
  - a solar energy system carried by the pole portion above the canopy portion, the solar energy system being adapted to collect solar energy and convert the solar energy into electrical energy, the solar energy system being conductively coupled to the rechargeable electrical power system, such that the solar energy collected and converted into electrical energy recharges the rechargeable electrical power system.
- 1 2. The umbrella apparatus according to claim 1, wherein the rechargeable electrical
- 2 power system and the solar energy system are both carried by a housing mounted on
- 3 the pole portion above the canopy portion.
- 1 3. The umbrella apparatus according to claim 1, wherein the rechargeable electrical
- 2 power system is carried by the base support portion and the solar energy system is
- 3 carried by a housing mounted on the pole portion above the canopy portion.
- 1 4. The umbrella apparatus according to claim 1, wherein the rechargeable electrical
- 2 power system is powered by at least one rechargeable battery.
- 1 5. The umbrella apparatus according to claim 1, further comprising:
- an electrical charging system for recharging the rechargeable electrical power
- 3 system, the electrical charging system being adapted to receive power from an AC
- 4 power outlet.

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- 6. The umbrella apparatus according to claim 1, further comprising:
- a lighting system carried by the canopy portion, the lighting system being

Specification Attorney Docket No. 0638MH-40982-US Page 29

- 3 conductively coupled to and powered by the rechargeable electrical power system.
- 1 7. The umbrella apparatus according to claim 6, wherein the lighting system
- 2 comprises:
- a plurality of rib members coupled to the canopy portion; and
- 4 a plurality of cold cathode tube elements carried by the rib members, each cold
- 5 cathode tube element being conductively coupled to and powered by the rechargeable
- 6 electrical power source.
- 1 8. The umbrella apparatus according to claim 6, wherein the lighting system 2 comprises:
- a plurality of rib members coupled to the canopy portion; and
- 4 a plurality of light emitting diode elements carried by the rib members, each light
- 5 emitting diode element being conductively coupled to and powered by the rechargeable
- 6 electrical power source.
- 1 9. The umbrella apparatus according to claim 6, wherein the lighting system 2 comprises:
- a plurality of rib members coupled to the canopy portion; and
- 4 a plurality of fluorescent light elements carried by the rib members, each
- 5 fluorescent light element being conductively coupled to and powered by the
- 6 rechargeable electrical power source.
- 1 10. The umbrella apparatus according to claim 1, further comprising:
- 2 an electromechanical opening and closing system for opening and closing the
- 3 canopy portion, the electromechanical opening and closing system being conductively
- 4 coupled to and powered by the rechargeable electrical power system.
- 1 11. The umbrella apparatus according to claim 10, wherein the electromechanical
- 2 opening and closing system comprises:
- 3 an electric motor carried by the pole portion;

Specification
Attorney Docket No. 0638MH-40982-US
Page 30

4	a control system for controlling the electric motor;		
5	a gear system coupled to the electric motor; and		
6		a cable and pulley system coupled to the gear system and the canopy portion;	
7		wherein the opening and closing of the canopy portion is achieved by the electric	
8	motor in response to selective operation of the control system.		
1	12.	The umbrella apparatus according to claim 11, wherein the control system	
2	comprises:		
3	a receiver conductively coupled to the electric motor;		
4	a remote transmitter for transmitting an encoded signal to the receiver; and		
5		a decoder conductively coupled to the receiver for decoding the encoded signal	
6	fro the transmitter.		
1	13.	The umbrella apparatus according to claim 1, further comprising:	
2		a cooling system carried by the canopy portion, the cooling system being	
3	conductively coupled to and powered by the rechargeable electrical power system.		
1	14.	The umbrella apparatus according to claim 13, wherein the cooling system	
2	comprises:		
3		at least one electric fan coupled to the canopy portion, each electric fan being	
4	conductively coupled to and powered by the rechargeable electrical power system.		
1	15.	The umbrella apparatus according to claim 13, wherein the cooling system	
2	comprises:		
3		a fluid reservoir operably associated with the umbrella apparatus;	
4		at least one mist nozzle coupled to the canopy portion, each mist nozzle being in	
5	fluid communication with the fluid;		
6		a conduit creating fluid communication between the fluid reservoir and each mist	
7	nozzle; and		

Specification Attorney Docket No. 0638MH-40982-US Page 31

a pump for pumping the fluid from the reservoir through each mist nozzle.

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1	16. An umbrella apparatus comprising:		
2	a base support portion;		
3	a pole portion coupled to the base support portion;		
4	a canopy portion hingedly coupled to the pole portion;		
5	a rechargeable electrical power system for providing electrical power to the		
6	umbrella apparatus;		
7	a solar energy system carried by the pole portion above the canopy portion, the		
8	solar energy system being adapted to collect solar energy and convert the solar energy		
9	into electrical energy, the solar energy system being conductively coupled to the		
10	rechargeable electrical power system, such that the solar energy collected and		
11	converted into electrical energy recharges the rechargeable electrical power system;		
12	and		
13	a combination of two or more of the following modular systems:		
14	a lighting system carried by the canopy portion;		
15	an electromechanical opening and closing system for opening and closing		
. 16	the canopy portion; or		
17	a cooling system;		
18	wherein each modular system is configured to be interchanged with each		
19	other, each modular system being conductively coupled to and powered by the		
20	rechargeable electrical power system.		
1	17. The umbrella apparatus according to claim 16, wherein the lighting system		
2	comprises:		
3	a plurality of rib members coupled to the canopy portion; and		
4	a plurality of cold cathode tube elements carried by the rib members, each cold		
5	cathode tube element being conductively coupled to and powered by the rechargeable		
6	electrical power source.		
1	18. The umbrella apparatus according to claim 16, wherein the lighting system		
2	comprises:		
3	a plurality of rib members coupled to the canopy portion; and		

Specification Attorney Docket No. 0638MH-40982-US Page 32

4	a plurality of light emitting diode elements carried by the rib members, each light		
5	emitting diode element being conductively coupled to and powered by the rechargeable		
6	electrical power source.		
1	19. The umbrella apparatus according to claim 16, wherein the cooling system		
2	comprises:		
3	a fluid reservoir operably associated with the umbrella apparatus;		
4	at least one mist nozzle coupled to the canopy portion, each mist nozzle being in		
5	fluid communication with the fluid;		
6	a conduit creating fluid communication between the fluid reservoir and each mist		
7	nozzle; and		
8	a pump for pumping the fluid from the reservoir through each mist nozzle.		
1	20. The umbrella apparatus according to claim 16, wherein the electromechanical		
2	opening and closing system comprises:		
3			
	an electric motor carried by the pole portion;		
4	a control system for controlling the electric motor;		
5	a gear system coupled to the electric motor; and		
6	a cable and pulley system coupled to the gear system and the canopy portion:		

wherein the opening and closing of the canopy portion is achieved by the electric

motor in response to selective operation of the control system.

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Specification Attorney Docket No. 0638MH-40982-US Page 33

### ABSTRACT OF THE DISCLOSURE

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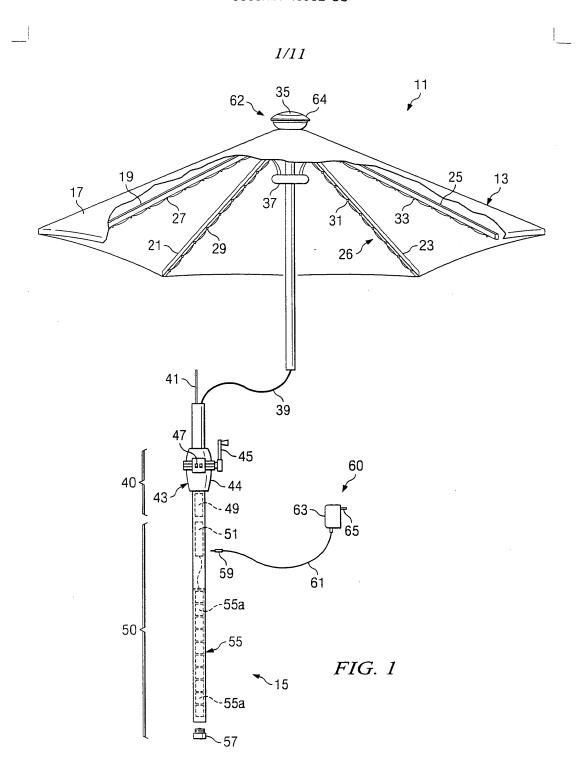
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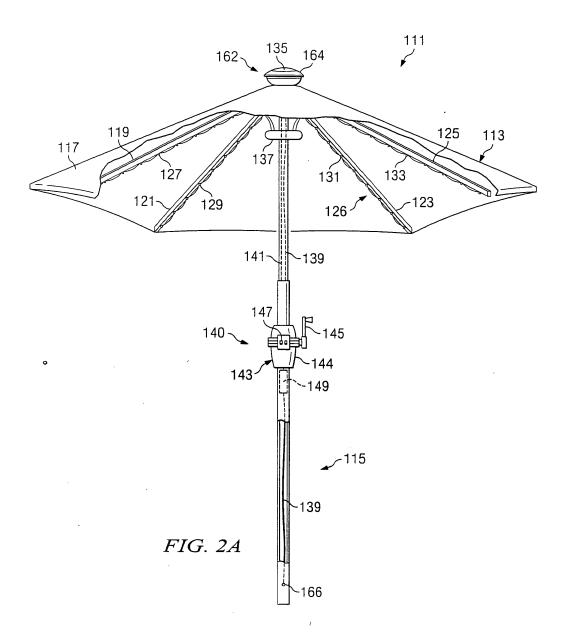
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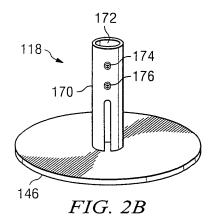
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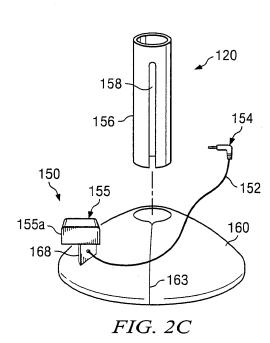
A lawn or patio umbrella with an integral lighting system that utilizes cold cathode ray tubes, light emitting diodes (LED's), or florescent lights, to provide relatively bright outdoor light for reading and other activities that require relatively high light intensities is provided. In one embodiment, a modular, electrically powered lawn or patio umbrella in which lighting systems, such as those utilizing cold cathode tubes, LED's, or florescent lights; cooling systems, such as those utilizing electric fans or misting systems; and motorized retraction systems; can be selectively interchanged is provided.

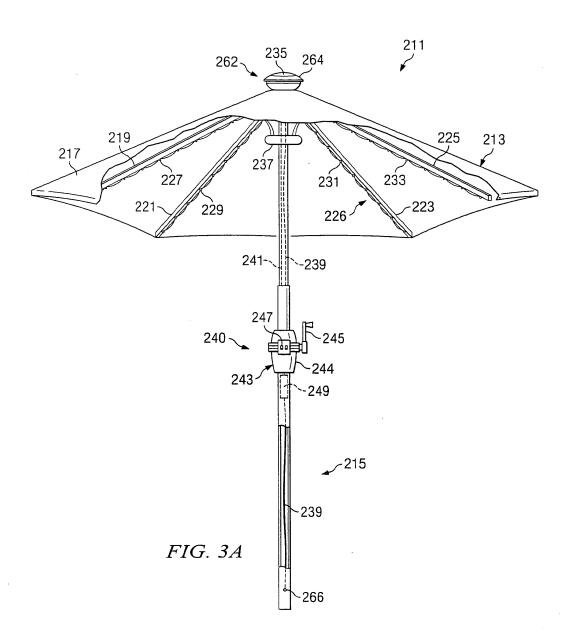
Specification Attorney Docket No. 0638MH-40982-US Page 34













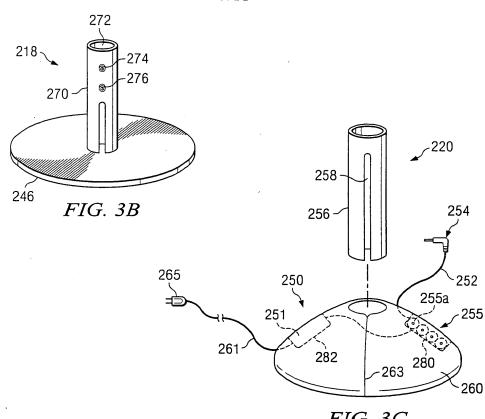
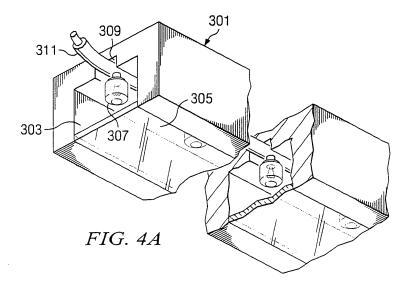
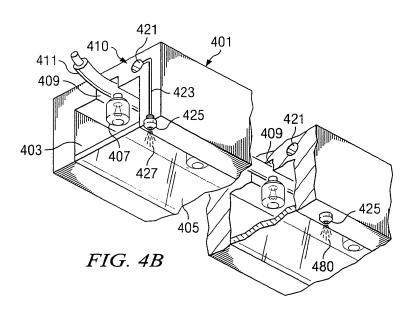
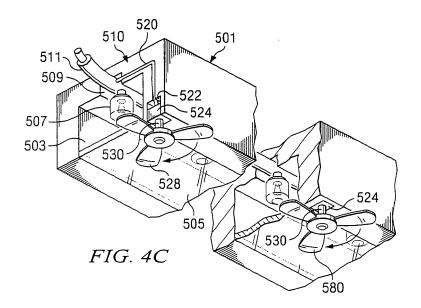
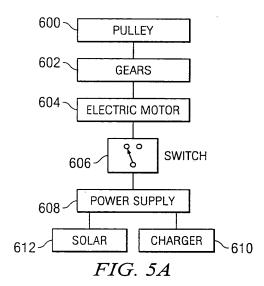


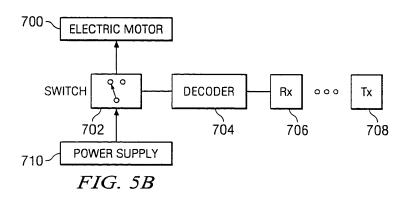
FIG. 3C

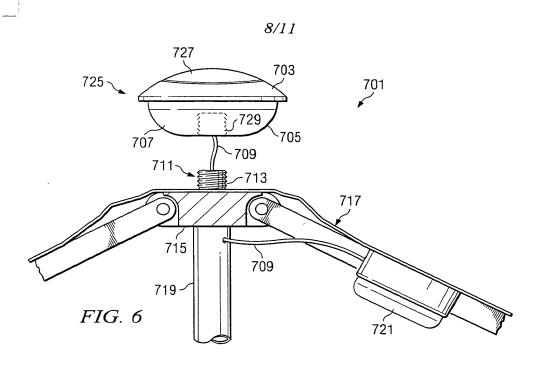


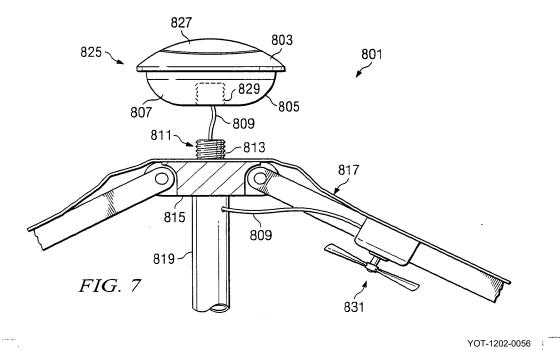


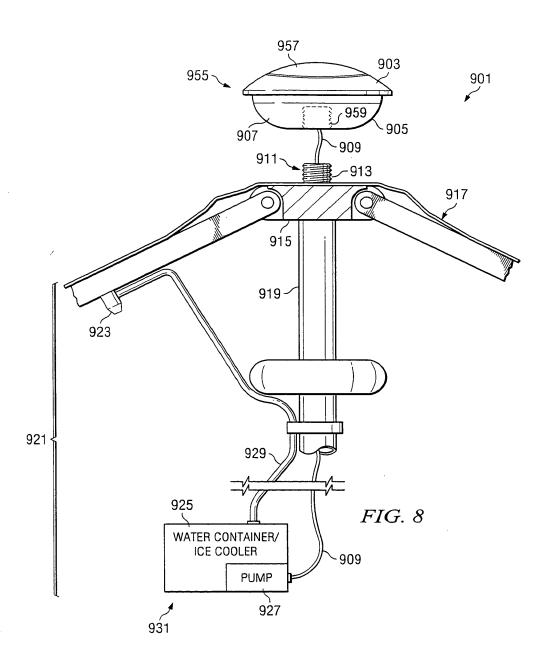


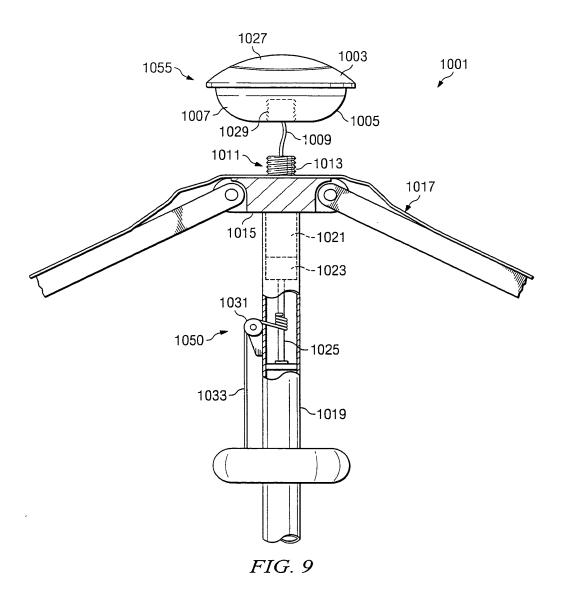


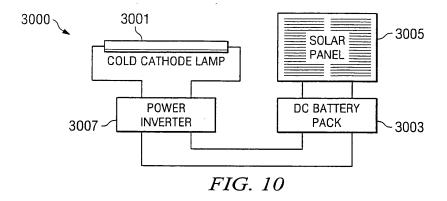


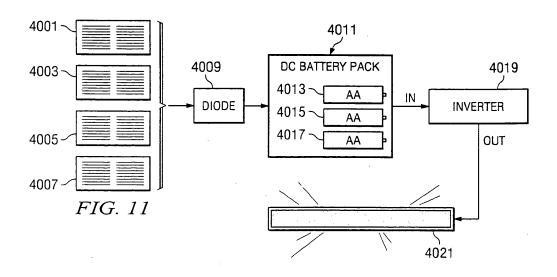












Attorney Docket No. 0638MH-40982-US

**DECLARATION FOR PATENT APPLICATION** 

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe that I am an original, first, and sole inventor, or joint inventor if other names

are set forth below, of the subject matter which is claimed and for which a patent is sought

on the invention entitled

**UMBRELLA APPARATUS** 

said application being filed herewith, and being further identified by Attorney Docket No.

0638MH-40982-US.

I hereby state that I have reviewed and understand the contents of the

above-identified specification, including the claims, as amended by any amendment

referred to above.

I acknowledge the duty to disclose to the Office all information known to my person

to be material to the patentability of this application in accordance with Title 37, Code of

Federal Regulations, Sec. 1.56(a).

I hereby declare that this application claims the benefit of U.S. Provisional

Application No. 60/267,018, filed 7 February 2001, titled "Lighted Patio Umbrella

Apparatus;" and of U.S. Provisional Application No. 60/335,933, filed 2 November 2001,

titled "Outdoor Lighting Systems with Cold Cathode Tubes."

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 Section 1001 of Title 18 of

the United States Code and that such willful false statements may jeopardize the validity of

Declaration
Attorney Docket No. 0638MH-40982-US

application or any patent issued thereon.

I hereby appoint Melvin A. Hunn, Reg. No. 32,574, Kenneth C. Hill, Reg. No. 29,650, and James E. Walton, Reg. No. 47,245 to prosecute this application and to transact all business in the U.S. Patent and Trademark Office in connection therewith.

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Inventor's Signature:	Jun Doub
Date of Signature: 2-7	-02 1 /
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Citizenship:	United States of America

Declaration

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0638MH-40982-US

In re Application of:

Examiner: SAWHNEY, HARGOBIND S.

**GREGORY G. KUELBS** 

Serial No. TO BE ASSIGNED

Art Unit: 2875

Filed: HEREWITH

For: UMBRELLA APPARATUS

INFORMATION DISCLOSURE STATEMENT

**MAIL STOP: PATENT APPLICATION** 

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

Filed herewith is a Form PTO-1449 listing references that may be material to the patentability of the invention disclosed and claimed in the subject application. Copies of the references listed on the Form PTO-1449 are included herewith.

This submission is made pursuant to 37 C.F.R. §§ 1.56 and 1.97(b).

EXPRESS MAIL NO. "EV 233938189 US"

I hereby certify that this paper or fee is being deposited with the United States Postal Service as Express Mail "Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated below and is addressed to Mail Stop: Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Date of Deposit:

Information Disclosure Statement Attorney Docket No. 0664MH-40982-C Page 1

This Information Disclosure Statement is being filed under 37 C.F.R. § 1.97(b)(3) before the mailing date of the first Office Action.

No fee is deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any fees that may be necessary, or credit any overpayments, to Deposit Account No. **502806**.

Respectfully submitted,

8/28/03

Date

James E. Walton, Reg. No. 47,245

Law Offices of James E. Walton, P.L.L.C. 1169 N. Burleson Blvd., Suite 107-328

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jim@waltonpllc.com

ATTORNEY FOR APPLICANT

Information Disclosure Statement Attorney Docket No. 0664MH-40982-C Page 2

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C

In re Application of:

**GREGORY G. KUELBS** Examiner: SAWHNEY, HARGOBIND S.

*<u>aaaaaaaaaaa</u>* Serial No. TO BE ASSIGNED

Filed: **HEREWITH** Art Unit: 2875

For: UMBRELLA APPARATUS

## **PRELIMINARY AMENDMENT**

**MAIL STOP: PATENT APPLICATION** 

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

This Preliminary Amendment is being filed in the subject application, which is a continuation application of Application No. 10/068,424 filed 7 February 2002 for UMBRELLA APPARATUS. Filed herewith is a Request for Continuation Application under 37 C.F.R. § 1.53(b), including a copy of the original application and the Declaration.

In the Request for Continued Application, the Applicant cancelled original Claims 2-20. Original Claim 1 is hereby cancelled, as well, and new Claims 20-38 are hereby added. Please enter the following amendments and consider the following remarks.

# EXPRESS MAIL NO. "EV 233938189 US" I hereby certify that this paper or fee is being deposited with the United States Postal Service as Express Mail "Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated below and is addressed to Mail Stop: Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Date of Deposit:

**Preliminary Amendment** Attorney Docket No. 0664MH-40982-C Page 1

### IN THE CLAIMS:

Please amend the claims as follows:

### 1-20. (Cancelled).

- 21. (New) An umbrella apparatus comprising:
  - a pole portion;
  - a canopy portion hingedly coupled to the pole portion;
- a rechargeable electrical power system for providing electrical power to the umbrella apparatus; and
- a solar energy system attached to the top of the pole portion above the canopy portion, the solar energy system being adapted to collect solar energy and convert the solar energy into electrical energy, the solar energy system being conductively coupled to the rechargeable electrical power system, such that the solar energy collected and converted into electrical energy recharges the rechargeable electrical power system.
- 22. **(New)** The umbrella apparatus according to claim 21, wherein the rechargeable electrical power system and the solar energy system are both carried by a single housing mounted on the pole portion above the canopy portion.
- 23. **(New)** The umbrella apparatus according to claim 21, wherein the solar energy system is carried by a first housing mounted on the top of the pole portion above the canopy portion and the rechargeable electrical power system is carried by a second housing located below the canopy portion.
- 24. (New) The umbrella apparatus according to claim 21, further comprising:

an electrical charging system for recharging the rechargeable electrical power system, the electrical charging system being adapted to receive power from an AC power outlet.

Preliminary Amendment Attorney Docket No. 0664MH-40982-C Page 2

- 25. **(New)** The umbrella apparatus according to claim 21, further comprising: a removable base support portion adapted to receive the pole portion and support the umbrella apparatus in an upright position.
- 26. **(New)** The umbrella apparatus according to claim 25, wherein the rechargeable electrical power system is carried within the base support portion.
- 27. (New) The umbrella apparatus according to claim 25, further comprising:

an electrical charging system for recharging the rechargeable electrical power system, the electrical charging system being adapted to receive power from an AC power outlet;

wherein the electrical charging system is carried within the base support portion.

28. (New) The umbrella apparatus according to claim 25, further comprising:

an electrical charging system for recharging the rechargeable electrical power system, the electrical charging system being adapted to receive power from an AC power outlet;

wherein the electrical charging system and the rechargeable electrical power system are both carried within the base support portion.

29. (New) The umbrella apparatus according to claim 25, further comprising:

a remote AC docking station for recharging the rechargeable electrical power system;

wherein the rechargeable electrical power system is configured for detachment from the umbrella apparatus and attachment to the remote AC docking station.

30. **(New)** The umbrella apparatus according to claim 21, wherein the solar energy system is conductively coupled to the rechargeable electrical power system by a releasable plug, such that the solar energy collected and converted into electrical energy recharges the rechargeable electrical power system when the solar energy system is plugged into the rechargeable electrical power system.

Preliminary Amendment Attorney Docket No. 0664MH-40982-C Page 3

- 31. **(New)** The umbrella apparatus according to claim 21, wherein the canopy portion comprises:
  - a collapsible cover;
  - a plurality of rib members for supporting the collapsible cover; and
- a lighting system carried by the rib members, the lighting system being conductively coupled to and powered by the rechargeable electrical power system.
- 32. **(New)** The umbrella apparatus according to claim 31, wherein the lighting system comprises:
  - a plurality of lighting elements recessed within the rib members.
- 33. **(New)** The umbrella apparatus according to claim 21, wherein the canopy portion comprises:
  - a collapsible cover;
  - a plurality of rib members for supporting the collapsible cover; and
- a lighting system carried by the collapsible cover, the lighting system being conductively coupled to and powered by the rechargeable electrical power system.
- 34. **(New)** The umbrella apparatus according to claim 21, wherein the canopy portion comprises:
  - a collapsible cover;
  - a plurality of rib members for supporting the collapsible cover;
  - a hub member that is movable along the pole portion;
  - a strut hingedly connected between the hub and each rib member; and
- a lighting system carried by the struts, the lighting system being conductively coupled to and powered by the rechargeable electrical power system.
- 35. **(New)** The umbrella apparatus according to claim 21, wherein the canopy portion comprises:
  - a collapsible cover;
  - a plurality of rib members extending radially outward from the pole portion for

Preliminary Amendment Attorney Docket No. 0664MH-40982-C Page 4 supporting the collapsible cover;

a cooling system carried at the radially exterior ends of the rib members, the cooling system being conductively coupled to and powered by the rechargeable electrical power system.

36. **(New)** The umbrella apparatus according to claim 35, wherein the cooling system comprises:

at least one electric fan coupled to a corresponding rib member, each electric fan being conductively coupled to and powered by the rechargeable electrical power system.

- 37. (New) An umbrella apparatus comprising:
  - a pole portion;
  - a canopy portion hingedly coupled to the pole portion;
- a rechargeable electrical power system for providing electrical power to the umbrella apparatus the rechargeable electrical power system being connected to the top of the pole portion above the canopy portion.
- 38. **(New)** The umbrella apparatus according to claim 37, wherein the rechargeable electrical power system comprises:
- a first port adapted for connection to a solar energy recharging system for providing a trickle charge to the rechargeable electrical power system;
- a second port adapted for connection to an AC adapter for recharging the rechargeable electrical power system; and
- a third port adapted for connection to at least one of the following electrical subsystems operably associated with the umbrella apparatus:
  - a lighting subsystem;
  - a cooling subsystem; and
  - a motorized opening and closing subsystem for opening and closing the canopy portion.

Preliminary Amendment Attorney Docket No. 0664MH-40982-C Page 5

### **IN THE DRAWINGS:**

Please make the following changes in the drawings:

- 1. In Figure 2C, change reference numeral "162" to --163--.
- 2. In Figure 3C, change reference numeral "262" to --263--.

Two "Annotated Sheets Showing Changes," with the foregoing proposed changes to Figures 2C and 3C marked in red ink, are enclosed herewith.

The original application was filed with informal drawings. Enclosed are 11 sheets of formal drawings. The foregoing changes to Figures 2C and 3C have been incorporated into the formal drawings. Two paragraphs in the Specification are hereby amended to conform to the foregoing changes in the drawings.

The foregoing changes to the drawings were approved by the Examiner in the parent application. The Applicant submits that the foregoing changes to the drawings add no new matter to the application. In addition, the Applicant submits that the changes and amendments proposed herein will not cause any undue burden on the Office.

Preliminary Amendment Attorney Docket No. 0664MH-40982-C Page 6

### IN THE SPECIFICATION:

Please enter the following amendments to the Specification:

On page 13, line 3, change "162" to --163--.

### Marked-Up Version:

Base portion 120 includes a removable cylindrical sleeve 156, a removable cover 160, and a receiver 168. Sleeve 156 is configured to slip over the exterior of shaft portion 170, and includes a longitudinal slot 158 that allows access to screw clamps 174 and 176 when sleeve 156 is placed over shaft portion 170. Slot 158 also allows access to a connector 166 disposed in the lower portion of pole portion 115 when sleeve 156 is placed over shaft portion 170. Connector 166 is conductively coupled to the wires from alternate power system charger 162 and solar cells 135. Cover 160 is preferably concave in shape, thereby defining an interior space which may be used to house the electronics (not shown) of power system 150. Cover 160 may include one or more seams [[162]] 163 that allow access to the interior space defined by cover 160. Receiver 168 releasably receives battery pack 155a. A wire 152 and plug 154 conductively couple battery pack 155a to connector 166, thereby providing an electrical circuit between rechargeable battery pack 155a and light strands 119, 121, 123, and 125 of lighting system 126.

2. On page 16, line 19, change "262" to --263--.

### Marked-Up Version:

Base portion 220 includes a removable cylindrical sleeve 256, a removable cover 260, and recessed portions 280 and 282. Sleeve 256 is configured to slip over the exterior of shaft portion 270, and includes a longitudinal slot 258 that allows access to screw clamps 274 and 276 when sleeve 256 is placed over shaft portion 270. Slot 258 also allows access to a connector 266 disposed in the lower portion of pole portion 215 when sleeve 256 is placed over shaft portion 270. Connector 266 is conductively coupled to the wires from alternate power system charger 262 and solar cells 235.

Preliminary Amendment Attorney Docket No. 0664MH-40982-C Page 7

Cover 260 is preferably concave in shape, thereby defining an interior space which may be used to house the electronics (not shown) of power system 250. Cover 260 may include one or more seams [[262]] 263 that allow access to the interior space defined by cover 260. Recessed portion 280 releasably receives batteries 255a, and recessed portion 282 releasably receives external power system charger 251. A wire 252 and plug 254 conductively couple batteries 255a to connector 266, thereby providing an electrical circuit between rechargeable batteries 255a and light strands 219, 221, 223, and 225 of lighting system 226.

The foregoing amendments to the Specification were approved by the Examiner in the parent application. The Applicant submits that the foregoing amendments add no new matter to the application. In addition, the Applicant submits that the changes and amendments proposed herein will not cause any undue burden on the Office.

### CONCLUSION

Enclosed is a check in the amount of \$415.00 to cover the \$375.00 Filing Fee and the \$40.00 Assignment Recordation Fee. No other fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any additional fees that are necessary, or credit any overpayments, to Deposit Account No. **502806**.

Respectfully submitted,

8/28/03

James E. Walton, Reg. No. 47,245 Law Offices of James E. Walton, P.L.L.C. 1169 N. Burleson Blvd., Suite 107-328 Burleson, Texas 76028 (817) 447-9955 (Voice)

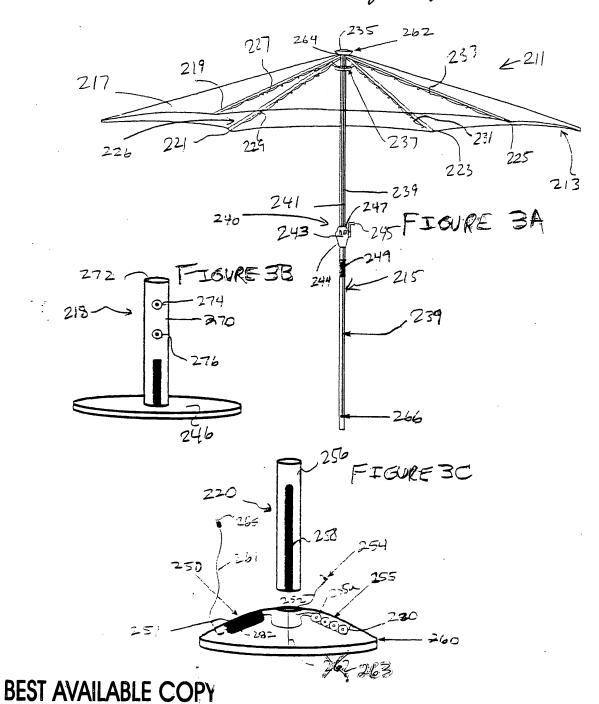
Jan E. Walto

(817) 447-9954 (Fax) iim@waltonpllc.com

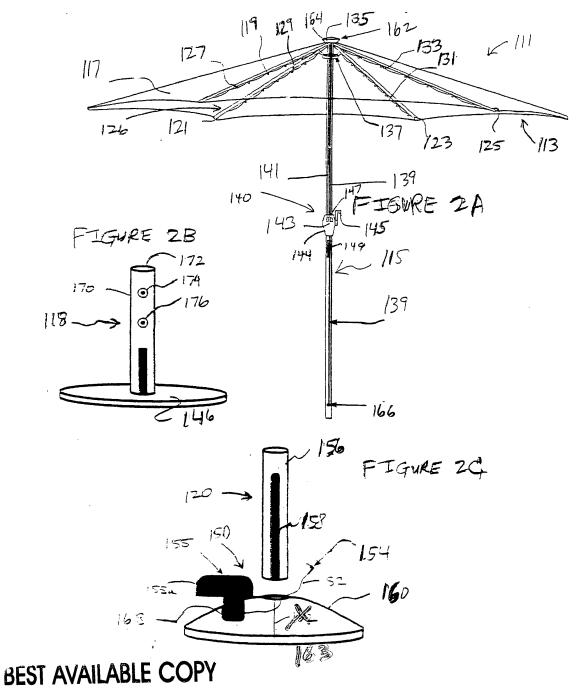
ATTORNEY FOR APPLICANT

Preliminary Amendment Attorney Docket No. 0664MH-40982-C Page 8

# Annotated Sheet Showing Changes



# Annotated Sheet Showing Changes



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# U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE FEE RECORD SHEET

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FORM	YOT-1202-0076  **U.S. Government Printing Office: 2003—499-464/79011 Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE												



# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C

In Re Application of: **GREGORY G. KUELBS** Examiner: Serial No: 10/650,537

Art Unit: Filed: 28 August 2003

**UMBRELLA APPARATUS** For:

#### **TRANSMITTAL**

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

Please file the following enclosed documents in the subject application:

- This Transmittal with Certificate of Mailing;
- Power of Attorney and Correspondence Address Indication Form; and 2.
- 3. Our return postcard which we would appreciate you date stamping and returning to us.

Certificate of Mailing Under 37 C.F.R. § 1.8

Date of Deposit: 2/24/04

I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail with sufficient postage under 37 C.F.R. §1.8 on the date indicated above and is addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450,

Transmittal Attorney Docket No. 0664MH-40982-C

Please link this application to Customer No. 38441 so that it may be accessed via the PAIR System.

No fees are deemed to be necessary; however, the Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayments, to Deposit Account No. 502806.

Respectfully submitted,

Reg. No. 47,245

Law Offices of James E. Walton, P.L.L.C. 1169 N. Burleson Blvd., Suite 107-328

Burleson, Texas 76028 (817) 447-9955 (Voice) (817) 447-9954 (Fax) jim@waltonpllc.com

**CUSTOMER NO. 38441** 

ATTORNEY FOR APPLICANTS

Transmittal Attorney Docket No. 0664MH-40982-C Page 2

PTO/SB/81 (09-03)
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**POWER OF ATTORNEY** and **CORRESPONDENCE ADDRESS** 

**INDICATION FORM** 

Application Number	10/650,537
Filing Date	08/28/2003
First Named Inventor	Gregory G. Kuelbs
Title	Umbrella Apparatus
Art Unit	
Examiner Name	
Attorney Docket Number	0664MH-40982-C

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	Assignee of record of the entire interest. See 37 CFF Statement under 37 CFR 3.73(b) is enclosed. (Form	PTO/SB/96)								
	SIGNATURE of Applicant or Assignee of Record									
Name	Gregopy G. Kuelbs									
Signa	ture you Lell									
Date	2-18-041		Telephone (8	17) 421-5767						
NOTE:	Signatures of all the inventors or assignees of record of the ent	tire interest or their represer	tative(s) are required. Sub	omit multiple						
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This collection of information is required by 37 CFR 1.31 and 1.33. 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 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will very 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.

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	Туре	Hits	Search Text	DBs
1	BRS	27103	solar adj (power or energy)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
2	BRS	957	(solar adj (power or energy)) and (recharg\$5 with (electrical or batter\$4))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
3	BRS	10	((solar adj (power or energy)) and (recharg\$5 with (electrical or batter\$4))) and umbrella	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
4	BRS	16794	umbrella	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
5	BRS	66	(solar adj (power or energy)) and umbrella	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
6	BRS	22425	recharg\$6 adj batter\$4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
7	BRS	708	(solar adj (power or energy)) and (recharg\$6 adj batter\$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
8	BRS	7	umbrella and ((solar adj (power or energy)) and (recharg\$6 adj batter\$4 ))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
9	BRS	163	umbrella and 362/\$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
10	BRS	5	("5007811"   "5172711"   "5273062"   "5711331"   "5765582").PN.	USPAT
11	BRS	9	("1148332"   "1532802"   "1555579"   "2547896"   "2627217"   "2729220"   "3177881"   "4154255"   "5007811").PN.	USPAT
12	BRS	20	("1148332"   "1173665"   "1555579"   "1683270"   "2627217"   "2729220"   "2817281"   "3102547"   "3177881"   "3318560"   "3444799"   "4154255"   "4628791"   "4753411"   "4850564"   "4867187"   "4915670"   "5007811"   "5161561"   "5172711").PN.	USPAT
13	BRS	4	(umbrella and 362/\$.ccis.) and (solar adj (power or energy))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
14	BRS	448	362/96.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
15	BRS	11	362/96.ccls. and solar	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
16	BRS	4	362/102.ccls. and solar	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
17	BRS	59	362/102.ccls. and umbrella	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
18	BRS	4	362/577.ccls. and umbrella	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB

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08/08/2004, EAST Version: 1.4.1

	Туре	Hits	Search Text	DBs
19	BRS	1	362/577.ccls. and solar	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
20	BRS	0	362/577.ccls. and solar and umbrella	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
21	BRS	0	362/209.ccls. and solar and umbrella	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
22	BRS	5	362/209.ccls. and solar	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
23	BRS	34	362/276.ccls. and solar	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
24	IS&R	2	("5172711").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
25	IS&R	2	("5349975").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
26	IS&R	2	("5463536").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
27	IS&R	2	("5172711").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
28	IS&R	2	("5273062").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
29	IS&R	2	("6017188").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
30	IS&R	8	("1148332").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
31	IS&R	6	(("6017188") or ("5273062") or ("5172711")).PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
32	BRS	0	362/209.ccls. and @pd > "20021201"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
33	BRS	13	362/96.ccls. and @pd > "20021201"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
34	BRS	28	362/276.ccls. and @pd > "20021201"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
35	BRS	3	362/577.ccls. and @pd > "20021201"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
36	BRS	6	362/102.ccls. and @pd > "20021201"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
37	BRS	64538	solar adj (power or energy or cell)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
38	BRS	117	housing with (solar adj (power or energy or cell) and (recharg\$5 with (electrical or batter\$4)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
39	BRS	3	(housing with (solar adj (power or energy or cell) and (recharg\$5 with (electrical or batter\$4)))) and umbrella	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
40	BRS	o	((housing or casing) with ((solar adj (power or energy)) and (recharg\$6 adj batter\$4 ))) and umbrella	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB

08/08/2004, EAST Version: 1.4.1 YOT-1202-0081

	Туре	Hits	Search Text	DBs
41	BRS	44	:((solar adi (nower or energy))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
42	BRS	91	362/102,96,209,276,577.CCLS . and umbrella	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
43	BRS	5	362/191.ccls. and umbrella	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
44	BRS	496	135/16.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
45	BRS	379	: 135/16 cele and umbrella	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
46	BRS	14	135/16.ccls. and umbrella and solar	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB



# 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.
10/650,537	08/28/2003	Gregory G. Kuelbs	0638MH-40982-US	9033
38441	7590 08/11/2004		EXAM	INER
	CES OF JAMES E. W. RLESON BLVD.	SAWHNEY, H.	ARGOBIND S	
SUITE 107-3			ART UNIT	PAPER NUMBER
BURLESON	, TX 76028		2875	

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)					
		, ,					
Office Action Summary	10/650,537	KUELBS, GREGORY G.					
· · · · · · · · · · · · · · · · · · ·	Examiner	Art Unit					
The MAILING DATE of this communication app	Hargobind S Sawhney pears on the cover sheet with the c	2875					
Period for Reply							
A SHORTENED STATUTORY PERIOD FOR REPL' THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication.  If the period for reply specified above is less than thirty (30) days, a repl  If NO period for reply is specified above, the maximum statutory period of Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be tim y within the statutory minimum of thirty (30) day will apply and will expire SIX (6) MONTHS from , cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).					
Status							
1) Responsive to communication(s) filed on 28 A	ugust 2003.						
2a) ☐ This action is <b>FINAL</b> . 2b) ☑ This	action is non-final.						
3) Since this application is in condition for allowa	•						
closed in accordance with the practice under E	Ex parte Quayle, 1935 C.D. 11, 45	53 O.G. 213.					
Disposition of Claims							
4)⊠ Claim(s) <u>1-20</u> is/are pending in the application							
4a) Of the above claim(s) is/are withdra	wn from consideration.						
5) Claim(s) is/are allowed.							
6)⊠ Claim(s) <u>1-20</u> is/are rejected.							
7) Claim(s) is/are objected to.	and and the control of the control						
8) Claim(s) are subject to restriction and/o	or election requirement.						
Application Papers							
9)☐ The specification is objected to by the Examine	er.						
10) ☐ The drawing(s) filed on is/are: a) ☐ acc	epted or b) objected to by the I	Examiner.					
Applicant may not request that any objection to the							
Replacement drawing sheet(s) including the correct		* *					
11)☐ The oath or declaration is objected to by the E	kaminer. Note the attached Office	Action of form PTO-152.					
Priority under 35 U.S.C. § 119							
a) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority document 2. Certified copies of the priority document	s have been received. s have been received in Applicati	on 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		ed.					
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Attachment(s)	_						
Notice of References Cited (PTO-892)    Notice of Draftsperson's Patent Drawing Review (PTO-948)	4)						
Notice of bransperson's Patent Brawing Review (FTO-940)     Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)     Paper No(s)/Mail Date 8/28/2003.		Patent Application (PTO-152)					

U.S. Patent and Trademark Office PTOL-326 (Rev. 1-04)

Office Action Summary

Part of Paper No./Mail Date 20040806

Art Unit: 2875

#### **DETAILED ACTION**

#### **Double Patenting**

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer <u>cannot</u> overcome a double patenting rejection based upon 35 U.S.C. 101.

- 2. Claims 16-20 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 10-14 of prior U.S. Patent No. 6,612,713 B1. This is a double patenting rejection.
- 3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 2875

4. Claims 1,5-13 and 15 are rejected under the judicially created doctrine of double patenting over claims 1-9 of U. S. Patent No. 6,612,713 B1 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

Subject matter claimed in the instant application is disclosed and covered in the U.S. Patent No. 6,612,713 B1, since U.S. Patent No. 6,612,713 B1 and the instant application are basically claiming common subject matter as follows:

Instant	Reference: U.S. Patent No.	Discussion on differences and
Application	6,612,713 B1 ('713),	additional References
10/650,537		
Claims 1	Claims 2-5	Substantially identical; Claim 2,
and 6-9		lines 1-14, of ('713 B1) meets the
		limitations of Claim 1 of the instant
		application.
		Claim 2, lines 15-17 of ('713 B1)
		meets the limitations of Claim 6 of
		the instant application.
		Claims 3-5 of ('713 B1) meet
		respective limitations of claims 7-9
		of the instant application.

Application/Control Number: 10/650,537

Art Unit: 2875

Instant	Reference: U.S. Patent No.	Discussion on differences and
Application	6,612,713 B1 ('713),	additional References
10/650,537		
Claims 10-	Claims 6-8	Substantially identical; Claim 6,
12		lines 15-19 of ('713 B1) meets the
		limitations of Claim 10 of the
		instant application.
		Further, claims 7 and 8 of ('713
		B1) meet the limitations of
		respective claims 11 and 12 of the
		instant application.
Claims 13	Claim 9	Substantially identical; entire
and 15		Claim 9 of ('713 B1) meets the
		limitations of dependent claims 13
		and 15 of the instant application.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to meet the limitations of claims 1,5-13 and 15 with the teaching recited in claim 2-9 of U.S. Patent No. 6,612,713 B1.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application, which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Application/Control Number: 10/650,537

Art Unit: 2875

5. Claims 2 and 4 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claim 1 of U.S. Patent No. 6,612,713 B1 in view of Winterer (US Patent No.; 5,664,874).

Claim 1, lines 5-8, of ('713 B1) substantially meets the limitations of claims 2 and 4 of the instant application. However, Claim 1 of the instant application does not specifically claim:

- the rechargeable electrical power system being powered by at least one rechargeable battery; and
- the rechargeable power system (rechargeable battery) being carried together within the housing of the solar power system.

On the other hand, Winterer ('874) discloses a warning light 10 (Figures 7 and 8) comprising:

- a rechargeable electrical power system including rechargeable batteries 145,146 (Figures 3,7 and 8, column 6, lines 65-67; column 7, lines 1 and 2); and
- both the rechargeable batteries and the solar system being held in the same housing (Figures 7 and 8).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of ('713) by providing rechargeable batteries and housing together with the power system in the same housing as taught by Winterer ('874) for the benefits of cost saving resulting from reduction of parts.

Page 5

Application/Control Number: 10/650,537

Art Unit: 2875

6. Claims 3 and 14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claim 9 of U.S. Patent No. 6,612,713 B1 in view of Molnar, IV (US Patent No.: 6,298,866 B1).

Claim 9, lines 5-8, of ('713 B1) substantially meets the limitations – rechargeable electrical power system and a solar power system- of Claim 3 of the instant application. However, Claim 9 of the instant application does not specifically claim:

the rechargeable power system (rechargeable battery) being carried by the base support portion.

On the other hand, Molnar, IV ('866 B1) discloses an umbrella apparatus 10 (Figure 1) comprising a battery power supply 36 being carried by the base portion of the apparatus (Figure 1, column 3, lines 17 and 18.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of ('713) by providing positioning the battery power supply at the base of the apparatus as taught by Molnar, IV ('866 B1) for the benefits of easy access to the batteries for their replacement, and less wiring for conventional electrical power supply needed for recharging the batteries...

Further, regarding Claim 14, Claim 9, lines 15-28 of ('713 B1) substantially meets the limitations – a cooling system carried by the canopy, and conductively coupled to the rechargeable electrical power system- of Claim 13 of the instant application. However, Claim 9 of the instant application does not specifically

Page 6

Art Unit: 2875

claim the cooling system including at least one fan conductively coupled to the rechargeable electrical power system.

On the other hand, Molnar, IV ('866 B1) discloses an umbrella apparatus
10 (Figure 1) comprising a cooling system including a fan 18 (Figure 1, column 3,
lines 1 and 2) conductively coupled to a power system.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of (' 713) by providing the fan as taught by Molnar, IV ('866 B1) for the benefits of efficient air circulation and cooling system.

#### Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S Sawhney whose telephone number is on 571-272-2380. The examiner can normally be reached on 6:15 - 2:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571-272-2378. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications and 703-872-9319.

Art Unit: 2875

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number 703-308-2956.

HSS

8/5/2004

THOMAS M. SEMBER

#### Application/Control No. Applicant(s)/Patent Under Reexamination 10/650,537 KUELBS, GREGORY G. Notice of References Cited Examiner Art Unit Page 1 of 1 2875 Hargobind S Sawhney U.S. PATENT DOCUMENTS Document Number Country Code-Number-Kind Code Date Classification MM-YYYY US-2002/0078985 A1 06-2002 Farr, Fariss 135/16 US-6,298,866 B1 В 10-2001 Molnar, IV, William F. 135/16 С US-5,664,874 09-1997 Winterer, Allen G. 362/191 D US-US-Ε F US-US-G US-Н US-ÚS-J US-Κ US-US-М FOREIGN PATENT DOCUMENTS Document Number Country Code-Number-Kind Code Date MM-YYYY Country Name Classification Ν 0 Ρ Q R s Т **NON-PATENT DOCUMENTS** Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) U W

"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.

U.S. Patent and Trademark Office PTO-892 (Rev. 01-2001)

**Notice of References Cited** 

Part of Paper No. 20040806

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(XXX)	AA	5,126,922	06/30/92	Andreasen	362/32	12/0	4/89				
(XX)	AB	5,172,711	12/22/92	Mueller et al.	135/16	07/3	1/91				
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	ΑD	5,349,975	09/27/94	Valdner	135/16	11/0	2/93				
W	ΑE	5,463,536	10/31/95	Chou et al.	362/102	02/2	8/95				
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Part of Paper No. 20040806



Application No.	Applicant(s)
10/650,537	KUELBS, GREGORY G.
Examiner	Art Unit
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U.S. Patent and Trademark Office

Part of Paper No. 20040806



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address COMMISSIONER FOR PATENTS P.O. DOX 1450 Alexandria, Vigania 22313-1450 www.usplugov

#### \*BIBDATASHEET\*

Bib Data Sheet

#### **CONFIRMATION NO. 9033**

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#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C

In re Application of:

GREGORY G. KUELBS

Serial No. 10/650,537

Filed: **28 AUGUST 2003** 

For: UMBRELLA APPARATUS

Examiner: SAWHNEY, HARGOBIND S.

Art Unit: 2875

#### **TRANSMITTAL**

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**MAIL STOP: FEE AMENDMENT** 

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

Please file the following enclosed documents in the subject application:

- 1. This Transmittal with Certificate of Mailing;
- 2. Response To Non-Final Office Action;
- 3. Our check in the amount of \$745.00 to cover the \$484.00 fee for 11 independent claims in excess of three, and the \$261.00 fee for 29 claims in excess of twenty; and
- 4. Our return postcard which we would appreciate you date stamping and returning to us.

#### Certificate of Mailing Under 37 C.F.R. § 1.8(a)

I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail under 37 C.F.R. § 1.10 on the date indicated below and is addressed to Mail Stop: Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Date of Deposit:

10/22/04

By:

ann E. Walt

Transmittal Attorney Docket No. 0638MH-40982-C Page 1

The application now has 49 total claims (Claims 21-69), 14 of which are independent claims. Therefore, enclosed is our check in the amount of \$745.00 to cover the \$484.00 fee for 11 independent claims in excess of three, and the \$261.00 fee for 29 claims in excess of twenty. No additional fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any additional fees that are necessary, or credit any overpayments, to Deposit Account No. **502806**.

Respectfully submitted,

James E. Walton Reg. No. 47,245

Michael Alford Reg. No. 48,707

Law Offices of James E. Walton, P.L.L.C. 1169 N. Burleson Blvd., Suite 107-328

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(817) 447-9954 (Fax)

jim@waltonpllc.com

ATTORNEYS FOR APPLICANT

Transmittal Attorney Docket No. 0638MH-40982-C Page 2





#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C

In re Application of:

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**GREGORY G. KUELBS** 

Examiner: SAWHNEY, HARGOBIND S.

Serial No. 10/650,537

Filed: 28 AUGUST 2003

Art Unit: 2875

For: UMBRELLA APPARATUS

## **RESPONSE TO NON-FINAL OFFICE ACTION**

**MAIL STOP: FEE AMENDMENT** 

Commissioner for Patents P.O. Box 1450

Alexandria, Virginia 22313-1450

Sir:

A Non-final Office Action in the subject application was mailed to the Applicant on 11 August 2004.

Please enter the following amendments and consider the following remarks.

10/28/2004 DEMMANU1 00000011 10650537

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484.00 OP 261.00 OP

#### Certificate of Mailing Under 37 C.F.R. § 1.8(a)

I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail under 37 C.F.R. § 1.10 on the date indicated below and is addressed to Mail Stop: Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Date of Deposit:

Response to Non-Final Office Action Attorney Docket No. 0664MH-40982-C Page 1

#### IN THE CLAIMS:

Please add the following claims:

--39. (New) An umbrella apparatus, comprising:

a hollow pole;

an articulating canopy movable between an open position and a closed position; and

a canopy articulation system for moving the canopy between the open and closed positions, at least a portion of the canopy articulation system being disposed within the pole.

- 40. (New) The umbrella apparatus according to claim 39, further comprising:
- a rechargeable electrical power system for providing electrical power to the canopy articulation system.
- 41. (New) The umbrella apparatus according to claim 40, further comprising:

a solar energy system for providing electrical power to the rechargeable electrical power system.

- 42. **(New)** The umbrella apparatus according to claim 40, wherein the rechargeable electrical power system is adapted to receive power from an alternating-current electrical power source.
- 43. (New) The umbrella apparatus according to claim 40, further comprising:

a solar energy system for providing electrical power to the rechargeable electrical power system;

wherein the rechargeable electrical power system is adapted to receive power from an alternating-current electrical power source; and

wherein the rechargeable electrical power system is adapted to simultaneously receive power from the solar energy system or the alternating-current electrical power

Response to Non-Final Office Action Attorney Docket No. 0664MH-40982-C Page 2

source and operate the canopy articulation system.

44. (New) An umbrella apparatus, comprising:

a pole;

a canopy;

a rechargeable electrical power system; and

a first port conductively connected to the rechargeable electrical power system, the first port being adapted to receive electrical power from a first source of electrical power for recharging the rechargeable electrical power system.

45. (New) The umbrella apparatus according to claim 44, further comprising:

a solar energy system having a means for conductively connecting the solar energy system to the port for providing electrical power to the rechargeable electrical power system.

46. (New) The umbrella apparatus according to claim 44, further comprising:

a second port conductively connected to the rechargeable electrical power system, the second port being adapted to receive electrical power from a second source of electrical power for recharging the rechargeable electrical power system;

wherein the rechargeable electrical power system is adapted to simultaneously receive power from the first source and from the second source.

47. (New) An umbrella apparatus, comprising:

a pole;

a canopy;

an electrical subsystem; and

a rechargeable electrical power system for providing power to the electrical subsystem, the rechargeable electrical power system being adapted to receive electrical power from an alternating-current electrical power source for recharging the rechargeable electrical power system.

Response to Non-Final Office Action Attorney Docket No. 0664MH-40982-C Page 3

- 48. **(New)** The umbrella apparatus according to claim 47, wherein the rechargeable electrical power system is capable of simultaneously providing power to the electrical subsystem and being recharged.
- 49. (New) An umbrella apparatus, comprising:
  - a pole;
  - a canopy;
  - an electrical subsystem; and
- a remote control system for remotely controlling the operation of the electrical subsystem.
- 50. **(New)** A solar-powered electrical subsystem adapted for use on an umbrella, the subsystem comprising:
  - a solar collector for generating electrical power;
- a rechargeable electrical power source conductively connected to the solar collector;

wherein the rechargeable electrical power source is adapted to be recharged by the electrical power from the solar collector.

- 51. **(New)** A solar-powered electrical subsystem adapted for use on an umbrella, the subsystem comprising:
  - a solar collector for generating electrical power;
- a rechargeable electrical power source conductively connected to the solar collector;

wherein the rechargeable electrical power source is adapted to be recharged by the electrical power from the solar collector; and

wherein the rechargeable electrical power source is adapted to receive electrical power from an alternating-current electrical power source for recharging the rechargeable electrical power source.

Response to Non-Final Office Action Attorney Docket No. 0664MH-40982-C Page 4 52. (New) A canopy actuating subsystem adapted for use on an umbrella having a canopy movable between an open position and a closed position, the subsystem comprising:

a motor operably connected to the canopy for moving the canopy between the open and closed positions;

an electrical power source for providing electrical power to the motor.

- 53. **(New)** The canopy actuating subsystem according to claim 52, wherein the electrical power source is rechargeable.
- 54. (New) The canopy actuating subsystem according to claim 52, further comprising:

a solar energy system conductively connected to the electrical power source, the solar energy system providing electrical power for recharging the electrical power source.

55. **(New)** A cooling subsystem adapted for use on an umbrella, the subsystem comprising:

at least one fan adapted to be carried on a movable support member of a canopy of an umbrella;

wherein the at least one fan is adapted to be conductively coupled to an electrical power source.

- 56. **(New)** The cooling subsystem according to claim 55, wherein the movable support member is a support rib.
- 57. **(New)** The cooling subsystem according to claim 55, wherein the movable support member is a strut.
- 58. (New) A misting subsystem adapted for use on an umbrella, the subsystem comprising:

Response to Non-Final Office Action Attorney Docket No. 0664MH-40982-C Page 5 a fluid source:

a conduit system in fluid communication with the fluid source and adapted for

distributing fluid from the fluid source to at least one outlet carried by the umbrella.

59. (New) The misting subsystem according to claim 58, wherein the conduit is

carried on support ribs of the umbrella.

60. (New) The misting subsystem according to claim 58, wherein the at least one

outlet is a nozzle.

61. (New) The misting subsystem according to claim 58, wherein the at least one

outlet has a pressurized tip.

62. (New) A lighting subsystem adapted for use on an umbrella, the subsystem

comprising:

at least one light source adapted to be carried on a movable support member of

a canopy of an umbrella;

wherein the at least one light source is adapted to be conductively coupled to an

electrical power source.

63. (New) The lighting subsystem according to claim 62, wherein the at least one

light source is of a type selected from the group consisting of incandescent, neon,

fluorescent, LED, organic LED, and cold cathode-ray tube.

64. (New) An electrical subsystem adapted for use on an umbrella, the subsystem

comprising:

a wiring system adapted to be carried by an umbrella for conducting electricity to

selected portions of the umbrella; and

a battery pack conductively connected to the wiring system and adapted to be

carried on a base of the umbrella.

Response to Non-Final Office Action Attorney Docket No. 0664MH-40982-C Page 6

- 65. **(New)** The electrical subsystem according to claim 64, wherein the battery pack is rechargeable.
- 66. **(New)** The electrical subsystem according to claim 65, wherein the battery pack is adapted to receive electrical power from an alternating-current electrical power source for recharging the battery pack.
- 67. **(New)** An electrical subsystem adapted for use on an umbrella, the subsystem comprising:
- a wiring system adapted to be carried by an umbrella for conducting electricity to selected portions of the umbrella;
  - an electrical power source conductively coupled to the wiring system;
- a switch conductively coupled to the wiring system for selectively controlling a flow of current through at least a portion of the wiring system.
- 68. **(New)** The electrical subsystem according to claim 67, wherein the switch is adapted to be disposed on a crank mechanism of the umbrella.
- 69. **(New)** The electrical subsystem according to claim 67, wherein the switch is adapted to be disposed on a pole of the umbrella.--

Response to Non-Final Office Action Attorney Docket No. 0664MH-40982-C Page 7 **REMARKS** 

The present application, which was filed on 28 August 2003, is a continuation of

U.S. Pat. App. No. 10/068,424, which was filed 7 February 2002. A Preliminary

Amendment was filed with the present application.

The Preliminary Amendment requested the cancellation of claims 1-20 and the

addition of claims 21-38. In addition, the Preliminary Amendment requested changes to

the Drawings and to the Specification.

The pending Office Action mailed on 11 August 2004 contained rejections for

claims 1-20. Claims 21-38 were not considered in the pending Office Action.

Pursuant to a telephone conference with the Examiner, it was determined that the

Examiner did not consider the timely filed Preliminary Amendment. Therefore, the

Applicant respectfully requests that the Examiner consider the Claims 21-38 filed in the

Preliminary Amendment.

In addition, Applicant requests the Examiner add and consider new Claims 39-69,

filed herewith.

Response to Non-Final Office Action Attorney Docket No. 0664MH-40982-C Page 8

#### CONCLUSION

The application now has 49 total claims (Claims 21-69), 14 of which are independent claims. Therefore, enclosed is our check in the amount of \$745.00 to cover the \$484.00 fee for 11 independent claims in excess of three, and the \$261.00 fee for 29 claims in excess of twenty. No additional fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any additional fees that are necessary, or credit any overpayments, to Deposit Account No. 502806.

. . . .

Respectfully submitted,

Janua E. Walt James E. Walton

Reg. No. 47,245 Michael Alford

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ATTORNEYS FOR APPLICANT

Response to Non-Final Office Action Attorney Docket No. 0664MH-40982-C Page 9



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,537 08/28/2003 Grego		Gregory G. Kuelbs	0638MH-40982-US	9033
38441	7590 11/05/2004		EXAM	INER
	CES OF JAMES E. WA	LTON, PLLC	SAWHNEY, H.	ARGOBIND S
1169 N. BUI SUITE 107-3	RLESON BLVD. 328		ART UNIT	PAPER NUMBER
	I, TX 76028		2875	

DATE MAILED: 11/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

YOT-1202-0108

PTO-90C (Rev. 10/03)

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United States Patent and Trademark Office

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE WASHINGTON, D.C. 2023)

10/650537

Paper No.

# Notice of Non-Compliant Amendment (37 CFR 1.121)

The amendment document filed on 10-27-04 is considered non-compliant because it has failed to meet the requirements of 37 Compliant, correction of the following omission(s) or provision is required. Only the section (1.121(h)) of the amendment document containing the omission or non-compliant provision must be resubmitted (in its entirety), e.g., the entire

"Amendments to the claims" section of applicant's amendment document must be resubmitted (in its entirety), e.g., the entire  THE FOLLOWING CHECKED as a result of the control of the entire of the control of the entire of the control of the entire of the
THE FOLLOWING CHECKED (X) ELEMENTS(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:  1. Amendments to the specification:  A. Amended paragraph(s) do not include markings.  B. New paragraph(s) should not be underlined.
<ul> <li>□ 2. Abstract:</li> <li>□ A. Not presented on a separate sheet. 37 CFR 1.72.</li> <li>□ B. Other</li></ul>
3. Amendments to the drawings:
4. Amendments to the claims:  A. A complete listing of all of the claims is not present.  B. The listing of claims does not include the text of all claims (incl. withdrawn claims)  C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim of the claims of this amendment paper have not been presented in ascending numerical order.  For further explanation of the amendment of the amendm
http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/officeflyer.pdf
the non-compliant amendment is a PRELIMINARY AMENDMENT, applicant is given ONE MONTH from the mail date of this letter to supply the corrected section which complies with 37 CFR 1.121. Failure to comply with 37 CFR 1.121 will result in changes in the preliminary amendment and examination on the merits will commence without consideration of the proposed not extendable.  This notice is not an action under 35 U.S.C. 132, and this ONE MONTH time limit to
if the non-compliant amendment is a reply to a NON-FINAL OFFICE ACTION, and since the amendment appears to be a bona within which to re-submit the corrected section which complies with 37 CFR 1.121 in order to avoid abandonment. EXTENSIONS
If the amendment is a reply to a FINAL REJECTION, this form may be an attachment to an Advisory Action. The period for status of the amendment.  The period for the date set in the final rejection, and is not affected by the non-compliant
Legal Instruments Examiner (LIE)  571 272-1613
uly Ž2, 2003 (rev.)
VOT 1202 0100

IFW



### THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C

In re Application of:

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Examiner: SAWHNEY, HARGOBIND S.

GREGORY G. KUELBS
Serial No. 10/650,537

Art Unit: 2875

Filed: 28 AUGUST 2003

For: UMBRELLA APPARATUS

### TRANSMITTAL

**MAIL STOP: FEE AMENDMENT** 

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

Please file the following enclosed documents in the subject application:

- 1. This Transmittal with Certificate of Mailing;
- 2. Response To Notice of Non-Compliant Amendment; and
- 3. Our return postcard which we would appreciate you date stamping and returning to us.

### Certificate of Mailing Under 37 C.F.R. § 1.8(a)

I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail under 37 C.F.R. § 1.10 on the date indicated below and is addressed to Mail Stop: Non-Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Date of Deposit:

11/15/04

Bv.

Transmittal Attorney Docket No. 0638MH-40982-C Page 1

The application now has 49 total claims (Claims 21-69), 14 of which are independent claims. The Applicant has previously submitted a check in the amount of \$745.00 to cover the \$484.00 fee for 11 independent claims in excess of three, and the \$261.00 fee for 29 claims in excess of twenty. No additional fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any additional fees that are necessary, or credit any overpayments, to Deposit Account No. **502806**.

Respectfully submitted,

James E. Walton

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Reg. No. 48,707

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ATTORNEYS FOR APPLICANT

Transmittal Attorney Docket No. 0638MH-40982-C Page 2



### N THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C

In re Application of:

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Examiner: SAWHNEY, HARGOBIND S.

**GREGORY G. KUELBS** 

Serial No. 10/650,537

Art Unit: 2875

Filed: 28 AUGUST 2003

For: UMBRELLA APPARATUS

### RESPONSE TO NOTICE OF NON-COMPLIANT AMENDMENT

MAIL STOP: FEE AMENDMENT

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

A Notice of Non-Compliant Amendment was mailed to the undersigned on 5 November 2004. The Notice stated that Applicant's Response to Non-Final Office Action filed on 22 October 2004 did not include a complete listing of all of the claims.

The "Amendments to the Claims" Section is resubmitted herewith, along with a complete listing of all of the claims, including proper status identifiers.

			. & 1.8(a	

I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail under 37 C.F.R. § 1.10 on the date indicated below and is addressed to Mail Stop: Non-Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Date of Deposit:

Response to Notice of Non-Compliant Amendment Attorney Docket No. 0664MH-40982-C Page 1

### IN THE CLAIMS:

Please cancel claims 1-20. Please add new claims 21-69. The following is a complete listing of the claims:

- 1. (Cancelled).
- 2. (Cancelled).
- 3. (Cancelled).
- 4. (Cancelled).
- 5. (Cancelled).
- 6. (Cancelled).
- 7. (Cancelled).
- 8. (Cancelled).
- 9. (Cancelled).
- 10. (Cancelled).
- 11. (Cancelled).
- 12. (Cancelled).
- 13. (Cancelled).
- 14. (Cancelled).
- 15. (Cancelled).
- 16. (Cancelled).
- 17. (Cancelled).
- 18. (Cancelled).
- 19. (Cancelled).
- 20. (Cancelled).
- 21. (New) An umbrella apparatus comprising:
  - a pole portion;
  - a canopy portion hingedly coupled to the pole portion;
- a rechargeable electrical power system for providing electrical power to the umbrella apparatus; and

Response to Notice of Non-Compliant Amendment Attorney Docket No. 0664MH-40982-C Page 2

a solar energy system attached to the top of the pole portion above the canopy portion, the solar energy system being adapted to collect solar energy and convert the solar energy into electrical energy, the solar energy system being conductively coupled to the rechargeable electrical power system, such that the solar energy collected and converted into electrical energy recharges the rechargeable electrical power system.

- 22. **(New)** The umbrella apparatus according to claim 21, wherein the rechargeable electrical power system and the solar energy system are both carried by a single housing mounted on the pole portion above the canopy portion.
- 23. **(New)** The umbrella apparatus according to claim 21, wherein the solar energy system is carried by a first housing mounted on the top of the pole portion above the canopy portion and the rechargeable electrical power system is carried by a second housing located below the canopy portion.
- 24. (New) The umbrella apparatus according to claim 21, further comprising: an electrical charging system for recharging the rechargeable electrical power system, the electrical charging system being adapted to receive power from an AC power outlet.
- 25. **(New)** The umbrella apparatus according to claim 21, further comprising: a removable base support portion adapted to receive the pole portion and support the umbrella apparatus in an upright position.
- 26. **(New)** The umbrella apparatus according to claim 25, wherein the rechargeable electrical power system is carried within the base support portion.
- 27. **(New)** The umbrella apparatus according to claim 25, further comprising: an electrical charging system for recharging the rechargeable electrical power system, the electrical charging system being adapted to receive power from an AC power outlet;

Response to Notice of Non-Compliant Amendment Attorney Docket No. 0664MH-40982-C Page 3 wherein the electrical charging system is carried within the base support portion.

28. (New) The umbrella apparatus according to claim 25, further comprising:

an electrical charging system for recharging the rechargeable electrical power system, the electrical charging system being adapted to receive power from an AC power outlet;

wherein the electrical charging system and the rechargeable electrical power system are both carried within the base support portion.

29. (New) The umbrella apparatus according to claim 25, further comprising:

a remote AC docking station for recharging the rechargeable electrical power system;

wherein the rechargeable electrical power system is configured for detachment from the umbrella apparatus and attachment to the remote AC docking station.

- 30. **(New)** The umbrella apparatus according to claim 21, wherein the solar energy system is conductively coupled to the rechargeable electrical power system by a releasable plug, such that the solar energy collected and converted into electrical energy recharges the rechargeable electrical power system when the solar energy system is plugged into the rechargeable electrical power system.
- 31. **(New)** The umbrella apparatus according to claim 21, wherein the canopy portion comprises:
  - a collapsible cover;
  - a plurality of rib members for supporting the collapsible cover; and
- a lighting system carried by the rib members, the lighting system being conductively coupled to and powered by the rechargeable electrical power system.
- 32. **(New)** The umbrella apparatus according to claim 31, wherein the lighting system comprises:
  - a plurality of lighting elements recessed within the rib members.

Response to Notice of Non-Compliant Amendment Attorney Docket No. 0664MH-40982-C Page 4

- 33. (New) The umbrella apparatus according to claim 21, wherein the canopy portion comprises:
  - a collapsible cover;
  - a plurality of rib members for supporting the collapsible cover; and
- a lighting system carried by the collapsible cover, the lighting system being conductively coupled to and powered by the rechargeable electrical power system.
- 34. **(New)** The umbrella apparatus according to claim 21, wherein the canopy portion comprises:
  - a collapsible cover;
  - a plurality of rib members for supporting the collapsible cover;
  - a hub member that is movable along the pole portion;
  - a strut hingedly connected between the hub and each rib member; and
- a lighting system carried by the struts, the lighting system being conductively coupled to and powered by the rechargeable electrical power system.
- 35. **(New)** The umbrella apparatus according to claim 21, wherein the canopy portion comprises:
  - a collapsible cover;
- a plurality of rib members extending radially outward from the pole portion for supporting the collapsible cover;
- a cooling system carried at the radially exterior ends of the rib members, the cooling system being conductively coupled to and powered by the rechargeable electrical power system.
- 36. **(New)** The umbrella apparatus according to claim 35, wherein the cooling system comprises:

at least one electric fan coupled to a corresponding rib member, each electric fan being conductively coupled to and powered by the rechargeable electrical power system.

> Response to Notice of Non-Compliant Amendment Attorney Docket No. 0664MH-40982-C Page 5

- 37. (New) An umbrella apparatus comprising:
  - a pole portion;
  - a canopy portion hingedly coupled to the pole portion;
- a rechargeable electrical power system for providing electrical power to the umbrella apparatus the rechargeable electrical power system being connected to the top of the pole portion above the canopy portion.
- 38. **(New)** The umbrella apparatus according to claim 37, wherein the rechargeable electrical power system comprises:
- a first port adapted for connection to a solar energy recharging system for providing a trickle charge to the rechargeable electrical power system;
- a second port adapted for connection to an AC adapter for recharging the rechargeable electrical power system; and
- a third port adapted for connection to at least one of the following electrical subsystems operably associated with the umbrella apparatus:
  - a lighting subsystem;
  - a cooling subsystem; and
- a motorized opening and closing subsystem for opening and closing the canopy portion.
- 39. (New) An umbrella apparatus, comprising:
  - a hollow pole;
- an articulating canopy movable between an open position and a closed position; and
- a canopy articulation system for moving the canopy between the open and closed positions, at least a portion of the canopy articulation system being disposed within the pole.
- 40. (New) The umbrella apparatus according to claim 39, further comprising:
- a rechargeable electrical power system for providing electrical power to the canopy articulation system.

Response to Notice of Non-Compliant Amendment Attorney Docket No. 0664MH-40982-C Page 6

- 41. **(New)** The umbrella apparatus according to claim 40, further comprising: a solar energy system for providing electrical power to the rechargeable electrical power system.
- 42. **(New)** The umbrella apparatus according to claim 40, wherein the rechargeable electrical power system is adapted to receive power from an alternating-current electrical power source.
- 43. (New) The umbrella apparatus according to claim 40, further comprising:

a solar energy system for providing electrical power to the rechargeable electrical power system;

wherein the rechargeable electrical power system is adapted to receive power from an alternating-current electrical power source; and

wherein the rechargeable electrical power system is adapted to simultaneously receive power from the solar energy system or the alternating-current electrical power source and operate the canopy articulation system.

44. (New) An umbrella apparatus, comprising:

a pole;

a canopy;

a rechargeable electrical power system; and

a first port conductively connected to the rechargeable electrical power system, the first port being adapted to receive electrical power from a first source of electrical power for recharging the rechargeable electrical power system.

45. (New) The umbrella apparatus according to claim 44, further comprising:

a solar energy system having a means for conductively connecting the solar energy system to the port for providing electrical power to the rechargeable electrical power system.

Response to Notice of Non-Compliant Amendment Attorney Docket No. 0664MH-40982-C Page 7

46. (New) The umbrella apparatus according to claim 44, further comprising:

a second port conductively connected to the rechargeable electrical power system, the second port being adapted to receive electrical power from a second source of electrical power for recharging the rechargeable electrical power system;

wherein the rechargeable electrical power system is adapted to simultaneously receive power from the first source and from the second source.

47. (New) An umbrella apparatus, comprising:

a pole;

a canopy;

an electrical subsystem; and

a rechargeable electrical power system for providing power to the electrical subsystem, the rechargeable electrical power system being adapted to receive electrical power from an alternating-current electrical power source for recharging the rechargeable electrical power system.

48. **(New)** The umbrella apparatus according to claim 47, wherein the rechargeable electrical power system is capable of simultaneously providing power to the electrical subsystem and being recharged.

49. (New) An umbrella apparatus, comprising:

a pole;

a canopy;

an electrical subsystem; and

a remote control system for remotely controlling the operation of the electrical subsystem.

50. **(New)** A solar-powered electrical subsystem adapted for use on an umbrella, the subsystem comprising:

a solar collector for generating electrical power;

a rechargeable electrical power source conductively connected to the solar

Response to Notice of Non-Compliant Amendment Attorney Docket No. 0664MH-40982-C Page 8

collector;

wherein the rechargeable electrical power source is adapted to be recharged by the electrical power from the solar collector.

51. **(New)** A solar-powered electrical subsystem adapted for use on an umbrella, the subsystem comprising:

a solar collector for generating electrical power;

a rechargeable electrical power source conductively connected to the solar collector:

wherein the rechargeable electrical power source is adapted to be recharged by the electrical power from the solar collector; and

wherein the rechargeable electrical power source is adapted to receive electrical power from an alternating-current electrical power source for recharging the rechargeable electrical power source.

52. (New) A canopy actuating subsystem adapted for use on an umbrella having a canopy movable between an open position and a closed position, the subsystem comprising:

a motor operably connected to the canopy for moving the canopy between the open and closed positions;

an electrical power source for providing electrical power to the motor.

- 53. **(New)** The canopy actuating subsystem according to claim 52, wherein the electrical power source is rechargeable.
- 54. (New) The canopy actuating subsystem according to claim 52, further comprising:

a solar energy system conductively connected to the electrical power source, the solar energy system providing electrical power for recharging the electrical power source.

Response to Notice of Non-Compliant Amendment Attorney Docket No. 0664MH-40982-C Page 9

55. (New) A cooling subsystem adapted for use on an umbrella, the subsystem comprising:

at least one fan adapted to be carried on a movable support member of a canopy of an umbrella;

wherein the at least one fan is adapted to be conductively coupled to an electrical power source.

- 56. (New) The cooling subsystem according to claim 55, wherein the movable support member is a support rib.
- 57. (New) The cooling subsystem according to claim 55, wherein the movable support member is a strut.
- 58. (New) A misting subsystem adapted for use on an umbrella, the subsystem comprising:
  - a fluid source;
- a conduit system in fluid communication with the fluid source and adapted for distributing fluid from the fluid source to at least one outlet carried by the umbrella.
- 59. (New) The misting subsystem according to claim 58, wherein the conduit is carried on support ribs of the umbrella.
- 60. (New) The misting subsystem according to claim 58, wherein the at least one outlet is a nozzle.
- 61. **(New)** The misting subsystem according to claim 58, wherein the at least one outlet has a pressurized tip.
- 62. (New) A lighting subsystem adapted for use on an umbrella, the subsystem comprising:

Response to Notice of Non-Compliant Amendment Attorney Docket No. 0664MH-40982-C Page 10

at least one light source adapted to be carried on a movable support member of a canopy of an umbrella;

wherein the at least one light source is adapted to be conductively coupled to an electrical power source.

- 63. **(New)** The lighting subsystem according to claim 62, wherein the at least one light source is of a type selected from the group consisting of incandescent, neon, fluorescent, LED, organic LED, and cold cathode-ray tube.
- 64. **(New)** An electrical subsystem adapted for use on an umbrella, the subsystem comprising:

a wiring system adapted to be carried by an umbrella for conducting electricity to selected portions of the umbrella; and

a battery pack conductively connected to the wiring system and adapted to be carried on a base of the umbrella.

- 65. **(New)** The electrical subsystem according to claim 64, wherein the battery pack is rechargeable.
- 66. **(New)** The electrical subsystem according to claim 65, wherein the battery pack is adapted to receive electrical power from an alternating-current electrical power source for recharging the battery pack.
- 67. **(New)** An electrical subsystem adapted for use on an umbrella, the subsystem comprising:

a wiring system adapted to be carried by an umbrella for conducting electricity to selected portions of the umbrella;

an electrical power source conductively coupled to the wiring system;

a switch conductively coupled to the wiring system for selectively controlling a flow of current through at least a portion of the wiring system.

Response to Notice of Non-Compliant Amendment Attorney Docket No. 0664MH-40982-C Page 11

- 68. **(New)** The electrical subsystem according to claim 67, wherein the switch is adapted to be disposed on a crank mechanism of the umbrella.
- 69. **(New)** The electrical subsystem according to claim 67, wherein the switch is adapted to be disposed on a pole of the umbrella.

Response to Notice of Non-Compliant Amendment Attorney Docket No. 0664MH-40982-C Page 12

**REMARKS**:

The present application, which was filed on 28 August 2003, is a continuation of

U.S. Pat. App. No. 10/068,424, which was filed 7 February 2002. A Preliminary

Amendment was filed with the present application.

The Preliminary Amendment requested the cancellation of claims 1-20 and the

addition of claims 21-38. In addition, the Preliminary Amendment requested changes to

the Drawings and to the Specification.

The pending Office Action mailed on 11 August 2004 contained rejections for

claims 1-20. Claims 21-38 were not considered in the pending Office Action.

Pursuant to a telephone conference with the Examiner, it was determined that the

Examiner did not consider the timely filed Preliminary Amendment. Therefore, the

Applicant respectfully requests that the Examiner consider the Claims 21-38 filed in the

Preliminary Amendment.

In addition, Applicant requests the Examiner add and consider additional new

Claims 39-69, filed with Applicant's Response to Non-Final Office Action filed 22 October

2004.

A complete listing of all of the pending claims is included herewith.

Response to Notice of Non-Compliant Amendment Attorney Docket No. 0664MH-40982-C Page 13

### **CONCLUSION:**

, , ,

The application now has 49 total claims (Claims 21-69), 14 of which are independent claims. The Applicant has previously submitted a check in the amount of \$745.00 to cover the \$484.00 fee for 11 independent claims in excess of three, and the \$261.00 fee for 29 claims in excess of twenty. No additional fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any additional fees that are necessary, or credit any overpayments, to Deposit Account No. **502806**.

Respectfully submitted,

Date

11/15/04

James E. Walton Reg. No. 47,245 Michael Alford Reg. No. 48,707

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ATTORNEYS FOR APPLICANT

Response to Notice of Non-Compliant Amendment Attorney Docket No. 0664MH-40982-C Page 14

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This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.					
10/650,537	08/28/2003	Gregory G. Kuelbs	0638MH-40982-US	9033					
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DATE MAILED: 02/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

YOT-1202-0128

PTO-90C (Rev. 10/03)

U.S. Patent and Trademark Office PTOL-326 (Rev. 1-04)

Paper No(s)/Mail Date \_

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)

Office Action Summary

6) Other: \_

Part of Paper No./Mail Date 20050213

Notice of Informal Patent Application (PTO-152)

Application/Control Number: 10/650,537

Art Unit: 2875

Page 2

### **DETAILED ACTION**

The amendment filed on November 18, 2004 has been filed. Accordingly, claims
 1-20 have been cancelled and new claims 21-69 have been added.

#### Election/Restrictions

2. As best understanding, this application contains claims directed to the following patentably distinct species of the claimed invention:

Species I Figures 1, 5B and 9

Species II Figures 2A- 2C and 5A

Species III Figure 3A-3C

Species IV Figure 4A

Species V Figures 4B and 8

Species VI Figures 4C and 7

Species VII Figures 6 and 10

Species IX Figure 11

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. None of the claims is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims

Application/Control Number: 10/650,537

Art Unit: 2875

readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species 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(a) of the other invention.

- A telephone call was made to Mr. James E. Walton on February 15, 2005 to request an oral election to the above restriction requirement, but did not result in an election being made.
- Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

YOT-1202-0131

Page 3

Page 4

### Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S Sawhney whose telephone number is 571 272 2380. The examiner can normally be reached on 6:15 - 2:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571 272 2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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).

HSS 2/15/2005

// Sándra O'Shea Supervisory Patent Examiner Technology Center 2800

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**CONFIRMATION NO. 9033** 

SERIAL NUMB 10/650,537	ER	FILING DATE 08/28/2003 RULE	(	CLASS 362	GRC	OUP ART 2875	UNIT	ATTORNEY DOCKET NO. 0638MH-40982-US					
** CONTINUING This applic which clain and claims	Gregory G. Kuelbs, Westlake, TX;  CONTINUING DATA  This application is a CON of 10/068,424 02/07/2002 PAT 6,612,713 which claims benefit of 60/267,018 02/07/2001 and claims benefit of 60/335,933 11/02/2001  FOREIGN APPLICATIONS												
IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** SMALL ENTITY **  *** 03/04/2004  Foreign Priority claimed													
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### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C

In Re Application of:

§

**GREGORY G. KUELBS** 

Examiner: SAWHNEY, HARGOBIND S.

Serial No.: 10/650,537

999999 Confirmation No.:

Filed: 28 AUGUST 2003

Art Unit: 2875

For: UMBRELLA APPARATUS

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### **TRANSMITTAL**

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- Response to Requirement for Restriction; and 2.
- 3. Our return postcard which we would appreciate you date stamping and returning to us.

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Date of Deposit:/7 MARCH 2005 By:

Transmittal Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537

No fee is deemed to be necessary; however, the Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayments, to Deposit Account No. **502806**.

Please link this application to Customer Nos. 50779 and 38441 so that its status may be checked via the PAIR System.

Respectfully submitted,

17 MARCH ZOOS

Date

James E. Walton

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**CUSTOMER NOS. 50779 AND 38441** 

ATTORNEYS AND AGENT FOR APPLICANT

Transmittal Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 2



### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C

In Re Application of:

§

**GREGORY G. KUELBS** 

Examiner: SAWHNEY, HARGOBIND S.

Serial No.: 10/650,537

Confirmation No.:

Filed: 28 AUGUST 2003

*<u>aaaaaaaa</u>* 

For: UMBRELLA APPARATUS

Art Unit: 2875

### RESPONSE TO REQUIREMENT FOR RESTRICTION

§

Mail Stop: AMENDMENT Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

This paper is submitted in response to the Restriction Requirement dated 17 February 2005, for which the one-month date for response is 17 March 2005.

Please consider the following election and remarks.

### CERTIFICATE OF MAILING 37 C.F.R. § 1.8(a)

I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail service with sufficient postage under 37 C.F.R. § 1.8(a) on the date indicated below and is addressed to Mail Stop: Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Date of Deposit:/7 MARCH 200 5

Response to Requirement for Restriction Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 1

### **ELECTION WITH TRAVERSE**

The Restriction Requirement alleges that the present application contains claims directed to following patentably distinct species of the claimed invention:

Species I – shown in Figures 1, 5B, and 9;

Species II – shown in Figures 2A – 2C and 5A;

Species III – shown in Figures 3A – 3C;

Species IV - shown in Figure 4A

Species V - shown in Figures 4B and 8;

Species VI – shown in Figures 4C and 7;

Species VII - shown in Figures 6 and 10; and

Species VIII - shown in Figure 11.

Note that, in the Restriction Requirement, Species "VIII" above is listed as Species "IX." Applicants elect, with traverse, to pursue the embodiment of alleged Species "II." Claims 21-32, 34, 37-48, 50-54, and 62-68 read on alleged Species "II", as each of the claimed elements appear in at least one of Figures 2A – 2C and 5A. Applicant's election is not an acquiescence in the propriety of the restriction or in the accuracy in the determination and/or identification of the alleged "species" in the application. Applicants also request withdrawal of the Restriction Requirement as set forth below, as the Requirement is improper.

Response to Requirement for Restriction Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 2

#### **REMARKS**

I. The eight-way requirement to elect species places an unreasonable burden on Applicant.

Under the Office's current construction of this requirement, Applicant must file eight patent applications if he desires to seek protection for the claimed invention. If all eight applications were to issue and be maintained for their statutory lives, the total Patent Office fees, under the current fee schedule, not including representation costs, would be over \$64,000.00. This places an unreasonable burden on Applicant and, for this reason, the requirement to elect species should be withdrawn. Furthermore, an Office policy routinely resulting in this kind of financial burden would result in a patent system in which an Applicant could never, or at most rarely, obtain reasonable patent protection for worthy inventions simply because of the associated financial burden. Applicant respectfully submits that such a policy would therefore substantially impair the Office's mission to "...promote the progress of science and useful arts", in contradiction of its constitutional and statutory mandate.

II. No serious burden would be placed on the examiner if all of the pending claims were examined.

For a restriction requirement to be proper between patentably distinct inventions, the inventions must be independent and there must be a serious burden on the examiner. A serious burden on the examiner may be *prima facie* shown if the examiner shows by appropriate explanation of separate classification, or separate status in the art, or a different field of search. See MPEP 803. Applicant respectfully asserts that the Office has not met any of these standards.

MPEP 808.02 is clear, in that "[w]here the classification is the same and the field of search is the same and there is no clear indication of separate future classification and field of search, no reasons exist for dividing among related inventions." Further, MPEP 803 clearly states that "[i]f the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it

Response to Requirement for Restriction Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 3

includes claims to independent or distinct inventions." Therefore, the requirement for restriction is improper and should be withdrawn.

### CONCLUSION

Applicants elect alleged Species "II", with traverse, in accordance with the applicable Rules of Practice and to advance the prosecution. However, the Restriction Requirement is improper. Accordingly, in traverse, Applicant requests withdrawal of the Restriction Requirement for the reasons set forth above. Because Applicant has elected an alleged species as set forth by the Examiner, this response is complete. The Examiner is invited to contact James E. Walton at (817) 447-9955 with any questions, comments or suggestions relating to the referenced patent application.

No fee is deemed to be necessary; however, the Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayments, to Deposit Account No. **502806.** 

Please link this application to Customer Nos. 50779 and 38441 so that its status may be checked via the PAIR System.

Response to Requirement for Restriction Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 4

Respectfully submitted,

/<u>7/MARCH 2005</u> Date

James E. Walton
Registration No. 47,245
Michael Alford
Registration No. 48,707
Daren C. Davis
Registration No. 38,425
Law Offices of James E. Walton, P.L.L.C.
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**CUSTOMER NOS. 50779 AND 38441** 

ATTORNEYS AND AGENT FOR APPLICANT

Response to Requirement for Restriction Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 5



### 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, Yignia 22313-1450
www.uspro.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.					
10/650,537	08/28/2003	Gregory G. Kuelbs	0638MH-40982-US	9033					
38441	7590 06/10/2005		EXAM	INER					
	CES OF JAMES E. W	ALTON, PLLC	SAWHNEY, H	SAWHNEY, HARGOBIND S					
1169 N. BUI SUITE 107-	RLESON BLVD. 328		ART UNIT	PAPER NUMBER					
	I, TX 76028		2875						

DATE MAILED: 06/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

			_ ne_									
	Application No.	Applicant(s)	h									
Office Action Summer	10/650,537	KUELBS, GREGOI	RY G.									
Office Action Summary	Examiner	Art Unit										
	Hargobind S. Sawhney	2875										
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet with the o	correspondence add	iress									
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) 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 the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - 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 22 M	larch 2005.											
	action is non-final.											
3) Since this application is in condition for allowa	nce except for formal matters, pr	osecution as to the	merits is									
closed in accordance with the practice under E	Ex p'arte Quayle, 1935 C.D. 11, 4	53 O.G. 213.										
Disposition of Claims												
4) ⊠ Claim(s) <u>21-69</u> is/are pending in the applicatio 4a) Of the above claim(s) <u>1-20</u> is/are withdrawn 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ⊠ Claim(s) <u>21-69</u> are subject to restriction and/or	n from consideration.											
Application Papers												
9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) acc Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Examine	epted or b) objected to by the drawing(s) be held in abeyance. Se tion is required if the drawing(s) is of	e 37 CFR 1.85(a). ejected to. See 37 CF										
Priority under 35 U.S.C. § 119												
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.												
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date	4) Interview Summar Paper No(s)/Mail D 5) Notice of Informal 6) Other:	ate	-152)									

U.S. Patent and Trademark Office PTOL-326 (Rev. 1-04)

Office Action Summary

Part of Paper No./Majl Date 20050607

Art Unit: 2875

### **DETAILED ACTION**

1. The response to the restriction requirement filed on March 22, 2005 has been entered. Applicant's request for reconsideration of the restriction requirement has been found persuasive and, therefore, the restriction requirement mailed on February 17, 2005 has been withdrawn. New election/restriction requirement is as follows.

### Election/Restrictions

2. As best understanding, this application contains claims directed to the following patentably distinct species of the claimed invention:

Species I Figures 1, 5B and 9

Species II Figures 2A- 2C, Figure 3A-3C and 5A

Species III Figure 4A, 6 and 10

Species IV Figures 4B and 8

Species V Figures 4C and 7

Species VI Figure 11

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. None of the claims is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims



Art Unit: 2875

readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species 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(a) of the other invention.

- 3. A telephone call was made to Mr. James E. Walton on February 15, 2005 to request an oral election to the above restriction requirement, but did not result in an election being made.
- Applicant is advised that the reply to this requirement to be complete must 4. include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Application/Control Number: 10/650,537

Art Unit: 2875

Response to Applicant's Arguments

 Applicant's arguments filed on March 22, 2005 with respect to the election/restriction requirement have been fully considered but they are moot in view of

withdrawal of the requirements mailed on February 17, 2005.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S. Sawhney whose telephone number is 571

272 2380. The examiner can normally be reached on 6:15 - 2:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571 272 2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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).

HSS 6/7/2005

Stephen Husar Primary Examiner

YOT-1202-0146

Page 4



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**CONFIRMATION NO. 9033** 

SERIAL NUMBE 10/650,537	≛R	FILING DATE 08/28/2003 RULE	c	CLASS 362	GROUP AR <sup>-</sup> 2875		GROUP ART UNIT 2875		ATTORNEY OCKET NO. BMH-40982-US
APPLICANTS									
Gregory G.	Kuel	lbs, Westlake, TX;							
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YOT-1202-0147

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U.S. Patent and Trademark Office

Part of Paper No. 20050607







### TATES PATENT AND TRADEMARK OFFICE

Attorney Docket No.

0664MH-40982-US

In ReApplication of:

GREGORY G. KUELBS

Serial No.: 10/650,537

Filed: 28 AUGUST 2003

For: UMBRELLA APPARATUS

Examiner: SAWHNEY, HARGOBIND S.

Confirmation No.:

9033

Art Unit: 2875

**TRANSMITTAL** 

**MAIL STOP: AMENDMENT** Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

Please file the following enclosed documents in the subject application:

- 1. This Transmittal with Certificate of Mailing;
- 2. Response to Second Requirement for Restriction; and
- 3. Our return postcard which we would appreciate you date stamping and returning to us.

### CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8(a) Date of Deposit: I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail with sufficient postage under 37 C.F.R. §1.8(a) on the date indicated above and is addressed to Mail Stop: Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Transmittal Attorney Docket No. 0664MH-40982-US Serial No. 10/650,537

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Please link this application to Customer Nos. 50779 and 38441 so that its status may be checked via the PAIR System.

Respectfully submitted,

<u>6/29/05</u> Date

James E. Walton, Registration No. 47,245
Michael Alford, Registration No. 48,707
Daren C. Davis, Registration No. 38,425
Law Offices of James E. Walton, P.L.L.C.
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jim@waltonpllc.com (e-mail)

**CUSTOMER NOS. 50779 AND 38441** 

ATTORNEYS AND AGENT FOR APPLICANT

Transmittal Attorney Docket No. 0664MH-40982-US Serial No. 10/650,537 Page 2

IN THE CONTECT STATES PATENT AND TRADEMARK OFFICE

IN AND INADEMAIN OFFICE

Attorney Docket No. 0664MH-40982-US

In Re Application of:

§

**GREGORY G. KUELBS** 

Examiner: SAWHNEY, HARGOBIND S.

Serial No.: 10/650,537

§ Confirmation No.: 9033

Filed: 28 AUGUST 2003

§ Art Unit: 2875

For: UMBRELLA APPARATUS

### RESPONSE TO SECOND REQUIREMENT FOR RESTRICTION

MAIL STOP: AMENDMENT Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

This paper is submitted in response to the Second Restriction Requirement mailed 10 June 2005, which provides for a one-month response period ending 10 July 2005.

Please consider the following election and remarks.

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8(a)

Date of Deposit:

6/29/05

I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail with sufficient postage under 37 C.F.R. §1.8(a) on the date indicated above and is addressed to Mail Stop: Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

| By

Jam E about

Response to Second Requirement for Restriction Attorney Docket No. 0664MH-40982-US Serial No. 10/650,537 Page 1



### **ELECTION WITH TRAVERSE**

The Restriction Requirement alleges that the present application contains claims directed to following patentably distinct species of the claimed invention:

Species I – shown in Figures 1, 5B, and 9;

Species II - shown in Figures 2A-2C, 3A-3C, and 5A;

Species III - shown in Figure 4A, 6, and 10;

Species IV - shown in Figure 4B and 8;

Species V - shown in Figures 4C and 7; and

Species VI - shown in Figure 11.

Applicant elects, with traverse, to pursue Claims 21-34. Claims 21-34 are directed to a single species, i.e., a solar-powered lighted umbrella. This solar-powered lighted umbrella, and the components thereof, is illustrated in Figures 1, 2A-2C, 3A-3C, 4A, and 6. All of these Figures show the claimed solar-powered lighted umbrella and its component parts. Applicants reiterate that the foregoing election is not an acquiescence in the propriety of the restriction or in the accuracy in the determination and/or identification of the alleged "species" in the application. Applicants also request withdrawal of the Restriction Requirement as set forth below, as the Requirement is improper.

Response to Second Requirement for Restriction Attorney Docket No. 0664MH-40982-US Serial No. 10/650,537 Page 2

### **REMARKS**

I. Telephone interview with Examiner Hargobind S. Sawhney on 29 June 2005.

A telephone call was made by the undersigned to Examiner Hargobind S. Sawhney on 29 June 2005 to request an oral election to the above restriction requirement; however, Examiner Sawhney did not accept the election. Examiner Sawhney requested that the Applicant submit this written response to the restriction requirement.

Response to Second Requirement for Restriction Attorney Docket No. 0664MH-40982-US Serial No. 10/650,537 Page 3

#### CONCLUSION

Applicant hereby elects Claims 21-34, which are illustrative of the solar-powered lighted umbrella species of Figures 1, 2A-2C, 3A-3C, 4A, and 6, with traverse, in accordance with the applicable Rules of Practice and to advance the prosecution. However, the Restriction Requirement is improper. Accordingly, in traverse, Applicant requests withdrawal of the Restriction Requirement for at least the reasons set forth above. Because Applicant has elected an alleged species and set forth the claims directed to that species, as set forth by the Examiner, this response is complete. The Examiner is invited to contact James E. Walton at (817) 447-9955 with any questions, comments, or suggestions relating to the referenced patent application.

No fee is deemed to be necessary; however, the Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayments, to Deposit Account No. **502806.** 

Please link this application to Customer Nos. 50779 and 38441 so that its status may be checked via the PAIR System.

Respectfully submitted,

6/29/05 Date

James E. Walton, Registration No. 47,245
Michael Alford, Registration No. 48,707
Daren C. Davis, Registration No. 38,425
Law Offices of James E. Walton, P.L.L.C.
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(817) 447-9955 (voice)
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**CUSTOMER NOS. 50779 AND 38441** 

jim@waltonpllc.com (e-mail)

ATTORNEYS AND AGENT FOR APPLICANT

Response to Second Requirement for Restriction Attorney Docket No. 0664MH-40982-US Serial No. 10/650,537 Page 4





Attorney Docket No. 0664MH-40982-C

In re Application of:

Examiner: **SAWHNEY**, **HARGOBIND S**.

**GREGORY G. KUELBS** Serial No. 10/650,537

Filed: 28 AUGUST 2003

Art Unit: 2875

For: UMBRELLA APPARATUS

**TRANSMITTAL** 

#### MAIL STOP AMENDMENT

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

Please file the following enclosed documents in the subject application:

- This Transmittal with Certificate of Mailing; 1.
- 2. Information Disclosure Statement;
- Form PTO/SB/08A with a copy of the cited reference and an English 3. translation of the cited reference; and
- 4. Our return postcard which we would appreciate you date stamping and returning to us.

### **CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8(a)** Date of Deposit: 8/23/05 I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail with sufficient postage under 37 C.F.R. §1.8(a) on the date indicated above and is addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Transmittal Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 1

No fee is considered to be necessary for the filing of this Information Disclosure Statement. However, the undersigned hereby authorizes the Director to charge any fees that may be required, or credit any overpayments, to **Deposit Account No. 502806**.

Please link this application to Customer Nos. 50779 and 38441 so that its status may be checked via the PAIR System.

Respectfully submitted,

8/>3/05 Date James F. Walton, Reg. No. 47,245
Law Offices of James E. Walton, P.L.L.C.
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**CUSTOMER NOS. 50779 and 38441** 

ATTORNEY FOR APPLICANT

Transmittal Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 2

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C

re Application of:

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Examiner: **SAWHNEY**, **HARGOBIND S**.

**GREGORY G. KUELBS** 

Serial No. 10/650,537

Art Unit: 2875

Filed: 28 AUGUST 2003

For: UMBRELLA APPARATUS

#### **INFORMATION DISCLOSURE STATEMENT**

### **Mail Stop Amendment**

**Commissioner for Patents** P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

In accordance with 37 C.F.R. §1.56, the reference listed below and on the attached form PTO/SB/08A (substitute for PTO-1449) is being brought to the attention of the Examiner for consideration in connection with the examination of the subject patent application. A copy of the cited document is enclosed.

**CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8(a)** 

Date of Deposit:

8/23/05

I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail with sufficient postage under 37 C.F.R. §1.8(a) on the date indicated above and is addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Information Disclosure Statement Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 1

The following foreign-language document is being brought to the attention of the Examiner:

PCT Published Patent Application No. WO 93/00840 entitled

"Multifunction Solar Parasol," published 21 January 1993.

Also submitted herewith is an English translation of this reference. The English translation

is submitted in order to fulfill the requirement for a concise explanation of relevance. The

English translation was prepared and filed by a third party with a Request for Inter Partes

Reexamination, discussed below. Applicant reserves the right to file an alternative

translation.

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This reference was first brought to Applicant's attention in a Request for Inter Partes

Reexamination (Control Number 95/000,104)("Request"), filed 12 August 2005, of U.S.

Patent No. 6,612,713, which issued from the parent application of the subject patent

application, and which has claims that differ from the claims of the subject patent

To the best of Applicant's knowledge, a reexamination pursuant to the

Request has not been granted as of the filing of this Information Disclosure Statement.

Further, Applicant's do not agree with the arguments presented in the Request, at least to

the extent that such arguments may be construed to mean that any of the prior art cited in

the Request, including the reference submitted herewith, would render unpatentable the

claims of the subject patent application.

The filing of this Information Disclosure Statement shall not be construed to be a

representation that a search has been conducted, nor shall it be construed as an

admission that the information cited in the statement is, or is considered to be, material to

patentability as defined in 37 C.F.R. §1.56(b).

It is respectfully requested that the Examiner return a copy of the attached form

PTO/SB/08A with initials or other appropriate marks indicating consideration of the cited

materials.

Information Disclosure Statement Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537

Page 2

### Certification Under 37 C.F.R. §1.97(e):

This information is being submitted subsequent to the later of three months after the filing date of the present application or the mailing of the first Office action on the merits, but before the mailing of a final action or the notice of allowance. Accordingly, the undersigned hereby certifies that no item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in this information disclosure statement was known to any individual designated in § 1.56(c) more than three months prior to the filing of this information disclosure statement.

No fee is considered to be necessary for the filing of this Information Disclosure Statement. However, the undersigned hereby authorizes the Director to charge any fees that may be required, or credit any overpayments, to **Deposit Account No. 502806**.

Please link this application to Customer Nos. 50779 and 38441 so that its status may be checked via the PAIR System.

Respectfully submitted,

<u>8/23/05</u> Date James E. Walton, Reg. No. 47,245 Law Offices of James E. Walton, P.L.L.C. 1169 N. Burleson Blvd., Suite 107-328 Burleson, Texas 76028 (817) 447-9955 (Voice) (817) 447-9954 (Facsimile)

(817) 447-9954 (Facsimile)

jim@waltonpllc.com

**CUSTOMER NOS. 50779 and 38441** 

ATTORNEY FOR APPLICANT

Information Disclosure Statement Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 3

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Under the Paperwork I	Reduction Act of 1995, no persons

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RAUBMAR Substitute for form 1449/PTO

Application Number 10/650,537 28 AUGUST 2003 Filing Date First Named Inventor Gregory G. Kuelbs Art Unit 2875

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)

Hargobind S. Sawhney Attorney Docket Number 0664MH-40982-C

**Examiner Name** 

Sheet	heet 1 of 1			Attorney Docket Number 0664MH-40982-C			
			II S DATENT	DOCUMENTS			
Examiner	Cito	Designant Number	Publication Date	Name of Patentee of	Pages Columns Lines Where		
Initials*	Cite No.1	Document Number  Number-Kind Code <sup>2 (# known)</sup>	MM-DD-YYYY	Applicant of Cited Docu			
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		FORE	IGN PATENT DOCU	JMENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	MM-DD-YYYY		Or Relevant Figures Appear	T <sup>6</sup>
		WO 93/00840 A1	01-21-1993	Noel Perrier, et al.		V
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Examiner	Date	
Signature	Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.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. Skind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

Transauorn is attached.

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 2 hours 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, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND

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#### PCT

(30) Données relatives à la priorité:

91/08781

### ORGANISATION MONDIALE DE LA PROPRIETE INTELLECTUELLE Bureau international



### DEMANDE INTERNATIONALE PUBLIEE EN VERTU DU TRAITE DE COOPERATION EN MATIERE DE BREVETS (PCT)

(51) Classification internationale des brevets 5 : A45B 23/00, 3/00, 3/04		(11) Numéro de publication internationale	: WO 93/00840
A45B 25/22, 25/28	AI	(43) Date de publication internationale:	21 janvier 1993 (21.01.93)

FR

(21) Numéro de la demande internationale: PCT/FR92/00638

8 juillet 1991 (08.07.91)

(22) Date de dépôt international: 6 juillet 1992 (06.07.92)

(71)(72) Déposants et inventeurs: PERRIER, Noël [FR/FR]; 9, rue Paul-Bousquet, F-34200 Sète (FR). SOUCHKO, Alexandre [FR/FR]; Rue du Dauphiné, Résidence Constellation, F-34200 Sète (FR).

(74) Mandataire: SCHMITT, John; Cabinet John Schmitt, 9, rue Pizay, F-69001 Lyon (FR).

(81) Etats désignés: HU, US, brevet européen (AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE).

Avec rapport de recherche internationale.

(54) Title: MULTIFUNCTION SOLAR PARASOL

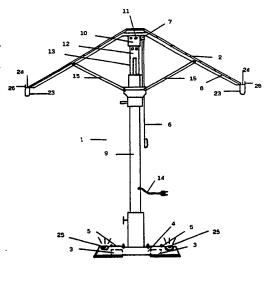
(54) Titre: PARASOL SOLAIRE MULTI-FONCTIONS

(57) Abstract

A parasol (1) comprising a solar collector (2) for supplying power, via rechargeable batteries (3) housed in its base (4), to accessories such as a diffuser for perfume or insect repellent, a musical device, an alarm, etc. placed in a housing (10), and a light (12). The parasol further comprises a cord (6) and a pulley (7) for controlling the canopy

### (57) Abrégé

L'invention est relative à un parasol (1) comportant: un capteur solaire (2) destiné à alimenter, via des batteries rechargeables (3) logees dans son socle (4), des accessoires tels que: diffuseur de parfums ou de produits anti-insectes, diffuseur de musique, alarme etc... placés dans un logement (10) ainsi qu'un éclairage (12); un câble (6) et une poulie (7) pour manœuvrer sa couverture (8).



YOT-1202-0161

Yotrio Ex. YOT-1202, Page 161

### UNIQUEMENT A TITRE D'INFORMATION

Codes utilisés pour identifier les États parties au PCT, sur les pages de couverture des brochures publiant des demandes internationales en vertu du PCT.

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#### Parasol solaire multi-fonctions.

La présente invention concerne un parasol solaire multi-fonctions comprenant :

- une armature constituée d'un mât creux, d'une multitude de baleines et d'un socle;
- 5 une couverture constituée par une toile perforée ou non perforée et imperméable, assujettie aux baleines;
  - au moins un câble et une poulie permettant d'ouvrir la couverture;
- au moins un capteur solaire destiné à alimenter,

  10 via au moins une batterie rechargeable, différents accessoires pouvant l'équiper : éclairages, diffuseur de parfums
  ou de produits anti-insectes, alarme, diffuseur de musique;
  - un logement tubulaire interne au mat pour recevoir les accessoires.
- Avec la lumière du jour le ou les capteurs solaires, positionnés sur la partie supérieure de la couverture du parasol, rechargent la ou les batteries, qui sont dissimulées à l'intérieur du socle, ce qui permet à l'utilisateur de disposer d'une source d'énergie autonome pour alimenter les différents accessoires pouvant équiper ledit parasol qui peut être de ce fait utilisé de jour comme parasol et de nuit comme lampadaire de façon autonome dans des lieux comme : des campings, jardins ou au bord des piscines qui généralement ne sont pas équipés d'énergie

25 électrique.

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L'invention sera mieux comprise à la lecture de la description d'un mode de réalisation, donné à titre non limitatif, en référence aux dessins annexés dans lesquels:

La figure l est une vue générale d'un parasol conforme à l'invention.

La figure 2 est une vue ağgrandie de la partie centrale dudit parasol.

WO 93/00840 PCT/FR92/00638

- 2 -

Sur la figure 1 on a représenté un parasol 1 comprenant: un mât creux 9 comportant un logement 10 constitué par un tube de liaison en métal, P V C, fibre synthétique, doté d'ouvertures 11, propre à loger, sans gêner la manoeu-5 vre de la couverture 8, des accessoires tels que : diffuseur de parfums ou de produits anti-insectes, alarme, diffuseur de musique ; une couverture 8 constituée soit par une toile perforée (type Estoril ou Batyligne aéré) laissant passer le vent pour éviter les renversements soit par 10 une toile non perforée imperméable comportant un lambrequin 23, soutenu au droit de chaque baleine 15 par des supports 24, constituant un chéneau périphérique possédant un retour 26 anti-débordement et une ouverture d'évacuation desdites eaux connectable à un conduit souple d'évacuation non 15 représenté; des baleines 15 auxquelles est assujettie la couverture 8 ; un capteur solaire 2, recouvrant en totalité ou en partie seulement la couverture 8, alimentant des batteries 3 logées dans un socle de lestage 4 approprié pourvu d'ouvertures 5 pour le placement desdites batteries 20 rechargeables; un câble 6 et une poulie 7 permettant la manoeuvre de la couverture 8 ; un câble d'alimentation 14 de liaison à une autre source d'énergie ; un éclairage 12 équipé d'un tube protecteur aéré 13 (métal perforé, grille, plexiglas, verre, gaine translucide ou colorée); 25 un éclairage 25 incorporé dans le socle 4.

Sur la figure 2 on a représenté un parasol 1; en 10 le logement comportant des ouvertures 11 pour les accessoires; en 12 l'éclairage pourvu de trous de ventilation 16, évitant les surchauffes, et d'un support d'appareillage électrique 17; en 6 le câble et en 7 la poulie de manoeuvre de la couverture : en 18 une goupille d'arrêt de l'articulation 20 logeant dans un guide transversal 21, situé dans le mât 9 et destiné à protéger les câbles électriques 22 lors de la mise et du retrait de ladite goupille.

Le parasol peut être réalisé, pour une utilisation familiale par exemple, dans une taille normale habituelle avec une seule armature ou pour une utilisation commerciale, par exemple terrasse de bar ou étalage forain, dans une taille adaptée aux besoins avec un nombre approprié d'armatures. Dans une seconde forme de réalisation les couvertures 8 des différentes armatures sont asssemblées pour constituer un ensemble d'une forme souhaitée.

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#### Revendications

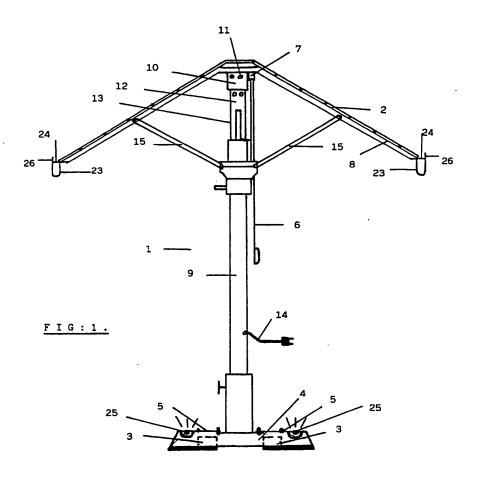
1 - Parasol solaire multi-fonctions, pouvant être
utilisé le jour comme parasol et la nuit comme lampadaire,
comprenant un mât creux (9), des baleines (15), une couverture (8), un socle de lestage (5), caractérisé en ce qu'il
comporte au moins un capteur solaire (2) recouvrant en
totalité ou en partie seulement la couverture (8), alimentant, via au moins une batterie rechargeable (3) logée
dans le socle (4), des éclairages (12) et (25) ainsi que
des accessoires tels que : diffuseur de parfums ou de
produits anti-insectes, alarme, diffuseur de musique;
un logement tubulaire (10) propre à recevoir lesdits accessoires ; au moins un câble (6) et une poulie (7) permettant
l'ouverture de la couverture (8).

- 2 Parasol suivant la revendication 1, caractérisé 15 en ce que la couverture (8) est constituée avec une toile perforée laissant passer le vent pour éviter les renversements par ce dernier.
- 3 Parasol suivant la revendication l, caractérisé en ce que la toile non perforée imperméable constituant la couverture (8) comporte un lambrequin (23), soutenu au droit de chaque baleine (15) par des supports (24), constituant un chéneau périphérique possédant un retour (26) anti-débordement et une ouverture d'évacuation des eaux connectable à un conduit souple d'évacuation.
  - 4 Parasol suivant la revendication 1, caractérisé en ce que le socle (4) est pourvu d'au moins une ouverture (5) pour le placement des batteries (3).
  - 5 Parasol suivant la revendication 1, caractérisé en ce que le socle (4) comporte un éclairage (25) incorporé.
  - 6 Parasol suivant la revendication 1, caractérisé par le fait que le mât creux (9) comporte un guide transversal (21) destiné à protéger les câbles électriques (22) lors de la mise et du retrait de la goupille (18) d'arrêt de l'articulation (20).

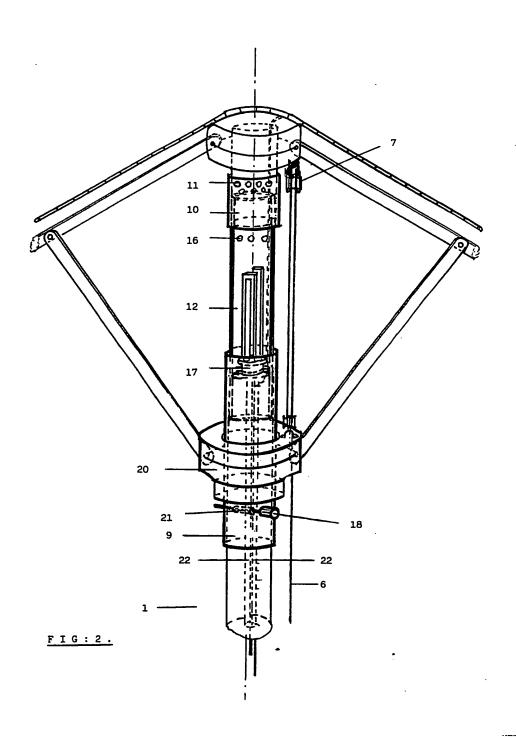
- 7 Parasol suivant la revendication 1, caractérisé par le fait que l'éclairage (12) est pourvu de trous de ventilation (16) évitant les surchauffes.
- 8 Parasol suivant la revendication l, caractérisé 5 par le fait que le logement (10) est doté d'ouvertures (11) permettant l'utilisation d'accessoires tels que : diffuseur de parfums ou de produits anti-insectes, alarme, diffuseur de musique.

WO 93/00840 PCT/FR92/00638

1 / 2



2/2



## INTERNATIONAL SEARCH REPORT

International application No.
PCT/FR 92/00638

A 67	ASSISTED A TON OR STREET		C1/FR 92/00638
IPC <sup>5</sup> According	ASSIFICATION OF SUBJECT MATTER  A45B23/00; A45B3/00; A45 to International Patent Classification (IPC) or to b  LDS SEARCHED	B3/04; A45B25/22 oth national classification and	A45B25/28 HPC
	ocumentation searched (classification system followe	hw classification symbols)	
IPC5	A45B		
	tion searched other than minimum documentation to ti		
Electronic d	ata base consulted during the international search (nat	ne of data base and, where prac	ticable, search terms used)
C. DOCU	MENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where	appropriate, of the relevant p	passages Relevant to claim No.
A	FR,A,2 617 689 (LOUKIL) 13 January 1989 see the whole document		1
A	DE,A,3 642 906 (SCHATTA) 23 June 1988 see the whole document	·	1 .
A	US,A,3 227 867 (BAKER) 4 January 1966 see the whole document	<b></b>	. 1,8
A	US,A,4 567 907 (DUBINSKY) 4 February 1986 see figures 1,2.1,2.2		1
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Further	documents are listed in the continuation of Box C	. See patent family	y annex.
"A" documen	ategories of cited documents: t defining the general state of the art which is not considere articular relevance		ed after the international filing date or priority with the application but cited to understand underlying the invention
"E" earlier do "L" document cited to c	cument but published on or after the international filing dat t which may throw doubts on priority claim(s) or which i stablish the publication date of another citation or other	"X" document of particular considered novel or ca	relevance; the claimed invention cannot be
"O" document means	referring to an oral disclosure, use, exhibition or othe	"Y" document of particular considered to involve combined with one or m	relevance; the claimed invention cannot be an inventive step when the document is ore other such documents, such combination
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	tual completion of the international search	Date of mailing of the inter	national search report
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m PCT/ISA/	210 (second sheet) (July 1992)	<del></del>	

### INTERNATIONAL SEARCH REPORT

International application No.
PCT/FR 92/00638

ategory*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim Ne
a-cgury	CHERTY OF ROOMER'S WITH INDICATORS WHERE APPROPRIATE OF THE LOCALITY PRODUCTS	Account to daily 14
A	FR,A,1 326 417 (BENLABED) 10 May 1963 see page 1, left-hand column, line 30 -	1,4
A	line 35; figure 2  FR,A,1 246 303 (SOUILHOL) 10 October 1960 see the whole document	2
A	US,A,3 456 661 (FARLEY) 22 July 1969 see figure 5	2
A	GB,A,M4229 (EVANS) 19 September 1912 & GB-A-4229 A.D. 1912 see the whole document	3
A	US,A,1 706 341 (ZUSSMAN) 19 March 1929 see the whole document	3
A	DE,U,8 505 328 (FARAZLY) 16 January 1986	
A	US,A,4 062 371 (BOLEN) 13 December 1977	
A	US,A,3 228 317 (WESTMAN) 11 January 1966	
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Form PCT/ISA/210 (continuation of second sheet) (July 1992)

## ANNEX TO THE INTERNATIONAL SEARCH REPORT ON INTERNATIONAL PATENT APPLICATION NO. FR SA 62257

This amer. lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The members are as contained in the European Patent Office EDP file on

The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information. 20/10/92

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
R-A-2617689	13-01-89	None	
DE-A-3642906	23-06-88	None	
JS- <b>A</b> -3227867		None	
JS-A-4567907	04-02-86	None	
R-A-1326417		None None	
R-A-1246303		None	
JS-A-3456661	22-07-69	None None	
GB-A-M4229		None	·
JS-A-1706341		None	
DE-U-8505328	16-01-86	None	
JS-A-4062371	13-12-77	None	
JS-A-3228317		None	
	·		·

 $\bar{\mathbb{R}}$  For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

# RAPPORT DE RECHERCHE INTERNATIONALE Demande Internationale No

PCT/FR 92/00638

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Catégorie °	10 en un extion	des documents cités, avec indic des passages pertinents <sup>13</sup>	ation, SI necessaire/4	No. des revendicati visées 14
A	FR,A,2 617 6 13 Janvier 1 voir le docu			1
٨	DE,A,3 642 9 23 Juin 1988 voir le docu	O6 (SCHATTA)		1
A	US,A,3 227 8 4 Janvier 19 voir le docu			1,8
A	US,A,4 567 9 4 Février 19 voir figures			1
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"A" docum consider tonal and tonal and tonal "I." docum priority autre "O" docum priority autre "O" docum or "P" docum or	s spéciales de documents cité- sent définissant l'état général dré coume particulèrement ; com après cette date ou après cette date aunt pouvant jeter un doute su è ou cité pour déterminer la di cité pour déterminer la di cité pour déterminer la di cité pour déterminer la di partie de des l'états de l'états spocifice ou tour autres moy sent pablé avant la date de ét à la date de priorité revendi	de la technique, non pertinent a date de dépôt interna- r une revendication de ate de publication d'une éciale (telle qu'indiquée) tion orale, à un usage, à us tos tos tos international, mais	"X" document particulièrement p quée ne peut être considérée impliquant une activité foves "Y" document particulièrement p diquée ne peut être considéré activité inventive lorsque le	somans is nate as invention eventuent invention revendi- comme nouvelle ou comme  nouvelle ou comme  nouvelle ou comme  estiment; l'invention reven- document est associé à un ou  te neme nature, cette combi- me personne du métier.
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Administration	chargée de la recherche inter OFFICE EUROPE		Signature du fonctionnaire au SIGWALT C.	atorisi

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Catégorie °	Identification des documents cités, <sup>16</sup> avec indication, si nécessaire des passages pertinents <sup>17</sup>	No. des revendications visées 18	
\	FR,A,1 326 417 (BENLABED) 10 Mai 1963 voir page 1, colonne de gauche, ligne 30 - ligne 35; figure 2	1,4	
	FR,A,1 246 303 (SOUILHOL) 10 Octobre 1960 voir le document en entier	2	
·	US,A,3 456 661 (FARLEY) 22 Juillet 1969 voir figure 5	2	
A	GB,A,M4229 (EVANS) 19 Septembre 1912 & GB-A-4229 A.D. 1912 voir le document en entier	3	
A	US,A,1 706 341 (ZUSSMAN) 19 Mars 1929 voir le document en entier	3	
A	DE,U,8 505 328 (FARAZLY) 16 Janvier 1986		
A	US,A,4 062 371 (BOLEN) 13 Décembre 1977		
A	US,A,3 228 317 (WESTMAN) 11 Janvier 1966		
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## ANNEXE AU RAPPORT DE RECHERCHE INTERNATIONALE RELATIF A LA DEMANDE INTERNATIONALE NO. FR 9200638

La présente annexe indique les membres de la famille de brevets relatifs aux documents brevets cités dans le rapport de recherche internationale visé ci-dessus.

Les fits membres sont contenus au fichier informatique de l'Office européen des brevets à la date du

Les renseignements fournis sont donnés à titre indicatif et n'engagent pas la responsabilité de l'Office européen des brevets. 20/10/92

Document brevet cité au rapport de recherche	Date de publication	Membre(s) de la famille de hrevet(s)	Date de publication
FR-A-2617689	13-01-89	Aucun	
DE-A-3642906	23-06-88	Aucun	
US-A-3227867		Aucun	
US-A-4567907	04-02-86	Aucun	************
FR-A-1326417		Aucun	
FR-A-1246303		Aucun	
US-A-3456661	22-07-69	Aucun	
GB-A-M4229		Aucun	
US-A-1706341		Aucun	
DE-U-8505328	16-01-86	Aucun	
US-A-4062371	13-12-77	Aucun	
US-A-3228317		Aucun	******

Pour tout remeignement concernant cette annexe : voir Journal Officiel de l'Office européen des brevets, No.12/82

### Multifunction solar parasol.

The present invention relates to a multifunction solar parasol comprising:

- · a frame composed of a hollow mast, multiple stays and a base;
- a canopy composed of perforated fabric, or unperforated and impermeable fabric, attached to the stays;
  - at least one cord and one pulley for opening the canopy;
- at least one solar collector for supplying power, via at least one rechargeable battery, to different accessories with which it can be equipped: lights, diffuser for perfume or insect repellent, alarm, musical device;
  - a tubular housing inside the mast to receive the accessories.

During daylight, the solar collector(s), positioned on the upper part of the canopy of the parasol, recharge(s) the battery or batteries concealed in the base, which makes it possible for the user to have an independent source of energy for supplying power to the different accessories with which said parasol can be equipped, so that it can be used by day as a parasol and by night as a self-powered standing lamp for places such as: camp sites, gardens or the deck of swimming pools where electric power is generally not supplied.

The invention will be better understood from the following description of one form of embodiment, given by way of non-limiting example, with reference to the attached drawings in which:

Figure 1 is a general view of a parasol according to the invention.

Figure 2 is an enlarged view of the central part of said parasol.

WO 93/00840 PCT/FR92/00638

- 2 -

Represented in Figure 1 is a parasol 1 comprising: a hollow mast 9 having a housing 10 composed of a connecting tube made of metal, PVC, synthetic fiber, provided with openings 11, suitable for housing, without hindering control of the canopy 8, accessories such as: a diffuser for perfume or insect repellent, alarm, musical device; a canopy 8 composed either of perforated fabric (such as Estoril or ventilated Batyline) allowing the wind to pass through to prevent overturning, or by an impermeable unperforated fabric having a valence 23, held at the end of each stay 15 by supports 24, constituting a peripheral gutter having an anti-overflow return 26 and an opening for draining off said water that can be connected to a flexible drain pipe, not shown; stays 15 to which the canopy 8 is attached; a solar collector 2, covering all or only part of the canopy 8, supplying power to the batteries 3 housed in an appropriate ballast base 4 provided with openings 5 for seating said rechargeable batteries; a cord 6 and a pulley 7 for controlling the canopy 8; a power cord 14 for connecting to another source of energy; a light 12 equipped with a ventilated protective tube 13 (perforated metal, screen, Plexiglas, glass, translucent or colored sleeve); a light 25 incorporated in the base 4.

Represented in Figure 2 is a parasol 1; the housing 10 having openings 11 for the accessories; a light 12 provided with ventilation holes 16 to prevent overheating, and a holder for electrical equipment 17; a cord 6 and a pulley 7 for controlling the canopy; a pin 18 for locking the hub 20 housed in a transverse guide 21 located in the mast 9 and designed to protect the electric wires 22 when said pin is inserted and withdrawn.

The parasol can be constructed in a normal size with a single frame, for example for family use, or in a size suitable for commercial use, such as for the terrace of a bar or an exhibition display, using an appropriate number of frames. In a second form of embodiment the canopies 8 of the different frames are assembled to form a unit of a desired shape.

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- 4 -

### Claims

WO 93/00840

- 1 Multifunction solar parasol, which can be used by day as a parasol and by night as a standing lamp, comprising a hollow mast (9), stays (15), a canopy (8), a ballast base (5 [sic]), characterized in that it includes at least one solar collector (2) covering all or only part of the canopy (8), supplying power, via at least one rechargeable battery (3) housed in the base (4), to lights (12) and (25) as well as to such accessories as: a diffuser for perfume or insect repellent, alarm, musical device; a tubular housing (10) suitable for receiving said accessories; at least one cord (6) and one pulley (7) for opening the canopy (8).
- 2 Parasol according to claim 1, characterized in that the canopy (8) is composed of a perforated fabric allowing the wind to pass through to prevent it from being overturned.
- 3 Parasol according to claim 1, characterized in that the impermeable non-perforated fabric comprising the canopy (8) has a valence (23), held at the end of each stay (15) by supports (24), constituting a peripheral gutter having an anti-overflow return (26) and an opening for draining off said water that can be connected to a flexible drain pipe.
- 4 Parasol according to claim 1, characterized in that the base (4) is provided with at least one opening (5) for the seating of the batteries (3).
- 5 Parasol according to claim 1, characterized in that the base (4) has a light (25) incorporated into it.
- 6 Parasol according to claim 1, characterized by the fact that the hollow mast (9) has a transverse guide (21) designed to protect the electric wires (22) when the pin (18) that locks the hub (20) is inserted and withdrawn.

YOT-1202-0179

PCT/FR92/00638

WO 93/00840 PCT/FR92/00638

- 5 -

- 7 Parasol according to claim 1, characterized by the fact that the light (12) has ventilation holes (16) to prevent overheating.
- 8 Parasol according to claim 1, characterized by the fact that the housing (10) is provided with openings (11) to allow the use of accessories such as: a diffuser for perfume or insect repellent, alarm, musical device.

	Туре	Hits	Search Text	DBs
1	BRS	27103	solar adj (power or energy)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
2	BRS	957	(solar adj (power or energy)) and (recharg\$5 with (electrical or batter\$4))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
3	BRS	10	((solar adj (power or energy)) and (recharg\$5 with (electrical or batter\$4))) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
4	BRS	16794	umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
5	BRS	66	(solar adj (power or energy)) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
6	BRS	22425	recharg\$6 adj batter\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
7	BRS	708	(solar adj (power or energy)) and (recharg\$6 adj batter\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
8	BRS	7	umbrella and ((solar adj (power or energy)) and (recharg\$6 adj batter\$4 ))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
9	BRS	163	umbrella and "362"/\$.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
10	BRS	5	("5007811"   "5172711"   "5273062"   "5711331"   "5765582").PN.	USPAT
11	BRS	9	("1148332"   "1532802"   "1555579"   "2547896"   "2627217"   "2729220"   "3177881"   "4154255"   "5007811").PN.	USPAT
12	BRS	20	("1148332"   "1173665"   "1555579"   "1683270"   "2627217"   "2729220"   "2817281"   "3102547"   "3177881"   "3318560"   "3444799"   "4154255"   "4628791"   "4753411"   "4850564"   "4867187"   "4915670"   "5007811"   "5161561"   "5172711") PN.	ICDAT
13	BRS	4	(umbrella and "362"/\$.ccls.) and (solar adj (power or energy))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
14	BRS	448	362/96.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
15	BRS	11	362/96.ccls. and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
16	BRS	4	362/102.ccls. and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
17	BRS	59	362/102.ccls. and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
18	BRS	4	362/577.ccls. and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
19	BRS	1	362/577.ccls. and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
20	BRS	0	362/577.ccls. and solar and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
21	BRS	0	362/209.ccls. and solar and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
22	BRS	5	362/209.ccls. and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
23	BRS	34	362/276.ccls. and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
24	IS&R	2	("5172711").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB

	Туре	Hits	Search Text	DBs
25	IS&R	2	("5349975").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
26	IS&R	2	("5463536").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
27	IS&R	2	("5172711").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
28	IS&R	2	("5273062").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
29	IS&R	2	("6017188").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
30	IS&R	8	("1148332").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
31	IS&R	6	(("6017188") or ("5273062") or ("5172711")).PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
32	BRS	0	362/209.ccls. and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
33	BRS	13	362/96.ccls. and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
34	BRS	28	362/276.ccls. and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
35	BRS	3	362/577.ccls. and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
36	BRS	6	362/102.ccls. and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
37	BRS	64538	solar adj (power or energy or cell)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
38	BRS	117	housing with (solar adj (power or energy or cell) and (recharg\$5 with (electrical or batter\$4)))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
39	BRS	3	(housing with (solar adj (power or energy or cell) and (recharg\$5 with (electrical or batter\$4)))) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
40	BRS	0	((housing or casing) with ((solar adj (power or energy)) and (recharg\$6 adj batter\$4 ))) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
41	BRS	44	(housing or casing) with ((solar adj (power or energy)) and (recharg\$6 adj batter\$4 ))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
42	BRS	91	362/102,96,209,276,577.CCLS. and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
43	BRS	5	362/191.ccls. and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
44	BRS	496	135/16.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
45	BRS	379	135/16.ccls. and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
46	BRS	14	135/16.ccls. and umbrella and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB

47			Search Text	DBs
41	IS&R	7	("5,584,564") or ("6,017,188")).PN.	USPAT
48	BRS	34128		US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
49	BRS	3722	S48 and ((recharg\$6 or charg\$7) with (electrical or batter\$4))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
50	BRS	23524		US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
51	BRS	120		US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
52	BRS	65	S48 and S50 and batter\$5	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
53	BRS	57	S51 and @ad <"20010207"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
54	BRS	351	362/102.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
55	BRS	3722	S48 and S49	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
56	BRS	1067	S55 and ((alternat\$4 current) or "AC")	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
57	BRS	22	S55 and ((alternat\$4 current) or "AC") and S50	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
58	BRS	5	("5053931"   "6089727"   "6196242"   "6270230"   "6439249").PN.	US-PGPUB; USPAT; USOCR
59	BRS	2	("6598990").URPN.	USPAT
60	BRS	72469	solar adj (power or energy or cell)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
61	BRS	2	S60 with batter\$4 with housing with umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
62	BRS	6	(S60 with batter\$4 with housing) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
63	BRS	365	S60 with batter\$4 with housing	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
64	BRS	220	S61 and @ad <"20010207"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
65	BRS	29	S60 with batter\$4 with (in or "wihin") with housing	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
66	BRS	88	S60 with batter\$4 with (in or "within") with housing	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
67	BRS	55		US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
68	BRS	1	(S60 with batter\$4 with (in or "within") with housing) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
69	BRS	202	S60 and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
70	BRS	24	S60 and umbrella and "135"/\$.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
71	BRS	12	("5584564" or "6439249" or "5053931" or "6820995" or "6837255" or "6126293").pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
72	BRS	6	("5584564" or "6439249" or "5053931" or "6820995" or "6837255" or "6126293").pn.	USPAT
73	BRS	1386	rib\$4 with ("within" or "in" or "inside") with light	USPAT
74				USPAT
- 4	BRS	19	S73 and umbrella	USPAT

9/18/05, EAST Version: 2.0.1.4

	Туре	Hits	Search Text	DBs
75	BRS	4	("5323798"   "5502624"   "6089727"   "6126293").PN.	US-PGPUB; USPAT; USOCR
76	BRS	0	("6904922").URPN.	USPAT
77	BRS	1343186	(light emit\$4 diod\$4) or "LED"	USPAT
78	BRS	1528312	light (bulb or tube)	USPAT
79	BRS	1756440	S77 or S78	USPAT
80	BRS	5407	rib\$4 with ("within" or "in" or "inside") with S79	USPAT
81	BRS	81	S80 and umbrella	USPAT
82	BRS	76	S81 and @ad < "20010702"	USPAT
83	BRS	1759917	S79 inside near4 rib	USPAT
84	BRS	4740	S83 and umbrella	USPAT
85	BRS	1570767	S83 and @ad < "20010702"	USPAT
86	BRS	4209	S84 and @ad < "20010702"	USPAT
87	IS&R	2	(("6270230") or ("6089727")).PN.	USPAT
88	BRS	4	("4601120"   "4860179"   "5323798"     "5502624").PN.	US-PGPUB; USPAT; USOCR
89	BRS	3	("6270230").URPN.	USPAT
90	BRS	2	("5323798"   "5502624").PN.	US-PGPUB; USPAT; USOCR
91	BRS	9	("6089727").URPN.	USPAT
92	BRS	2	("6089727"   "6302560").PN.	US-PGPUB: USPAT: USOCR
93	BRS	1	("6499856").URPN.	USPAT
94	BRS	6562044	(housing or casing or case)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
95	BRS	0	S71 with solar with batter\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
96	BRS	2343	S94 with solar with batter\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
97	BRS	0	(solar near5 batter\$4) with ("within" or "in") with S72	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
98	BRS	0	((solar panel) near4 batter\$4) with ("within" or "in") with S72	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
99	BRS	2176	((solar panel) near4 batter\$4)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
100	BRS	72	S99 with housing	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
101	BRS	147	S99 with (housing or casing or case)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDE
102	BRS	3	S99 with (housing or casing or case) and umbrella	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
103	BRS	4	(S99 same (housing or casing or case)) and umbrella	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDE
104	BRS	0	((solar panel) and batter\$4) near5 in near3 housing	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDE

	Туре	Hits	Search Text	DBs
105	BRS	19	((solar panel) and batter\$4) near5 within near3 housing	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
106	BRS	8	("2091693"   "4435095"   "4739549"   "5152610"   "5169236"   "5302028"   "5621390").PN.	US-PGPUB; USPAT; USOCR
107	BRS	2	("5681110").URPN.	USPAT
108	BRS	12	("3742633"   "4843525"   "4903172"   "4947300"   "4989124"   "4994941"   "5007190"   "5088221"   "5101329"   "5107637"   "5192944"   "D320815").PN.	US-PGPUB; USPAT; USOCR
109	BRS	13	("5435087").URPN.	USPAT
110	BRS	5	(umbrella) and (housing with solar with batter\$4)	USPAT
111	BRS	880	362/362.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
112	BRS	475	362/102.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
113	BRS	171	362/577.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
114	BRS	628	S112 or S113	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
115	BRS	223	S114 and @ad < "20010702"	USPAT
116	BRS	3063	(362/96,227,159,276,352,20,183,182,194,278,3 20,319,431,450,800.ccls.) and @ad < "20010702"	USPAT
117	BRS	311	(135/16,15.1.ccls.) and @ad < "20010702"	USPAT
118	BRS	335	(S116 or S117) and umbrella	USPAT
119	BRS	310	S118 not S115	USPAT
120	BRS	12	S119 and solar	USPAT



# United States Patent and Trademark Office

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,537	08/28/2003	Gregory G. Kuelbs	0638MH-40982-US	9033
38441	7590 09/21/2005		EXAM	INER
	CES OF JAMES E. WA	SAWHNEY, H.	ARGOBIND S	
1169 N. BUF SUITE 107-3	RLESON BLVD.		ART UNIT	PAPER NUMBER
	7, TX 76028		2875	

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		AI/	,
	Application No.	Applicant(s)	
	10/650,537	KUELBS, GREGORY G.	
Office Action Summary	Examiner	Art Unit	
	Hargobind S. Sawhney	2875	
The MAILING DATE of this communicati Period for Reply	on appears on the cover sheet wit	h the correspondence address	
A SHORTENED STATUTORY PERIOD FOR WHICHEVER IS LONGER, FROM THE MAIL  - Extensions of time may be available under the provisions of 37 after SIX (6) MONTHS from the mailing date of this communice.  - If NO period for reply is specified above, the maximum statutor  - Failure to reply within the set or extended period for reply will, the complex period for the provided by the Office later than three months after the earned patent term adjustment. See 37 CFR 1.704(b).	ING DATE OF THIS COMMUNIC CFR 1.136(a). In no event, however, may a re tition. y period will apply and will expire SIX (6) MON' by statute, cause the application to become AB.	ATION. ply be timely filed  THS from the mailing date of this communication.  NDONED (35 U.S.C. § 133).	
Status			
1) Responsive to communication(s) filed on 2a) This action is FINAL. 2b) Since this application is in condition for a closed in accordance with the practice upon 2 and	☑ This action is non-final. allowance except for formal matte		
Disposition of Claims			
4) Claim(s) 21-34 is/are pending in the approach 4a) Of the above claim(s) is/are we 5) Claim(s) is/are allowed. 6) Claim(s) 21-34 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction	rithdrawn from consideration.		
Application Papers			
9) The specification is objected to by the Extra 10) The drawing(s) filed on is/are: a)[ Applicant may not request that any objection Replacement drawing sheet(s) including the 11) The oath or declaration is objected to by	☐ accepted or b)☐ objected to be  to the drawing(s) be held in abeyan  correction is required if the drawing(	ce. See 37 CFR 1.85(a). 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 the alim All birth Some * circle None of:  1. Certified copies of the priority docentrial Copies of the priority docentrial Copies of the certified copies of the application from the International * See the attached detailed Office action for	tuments have been received.  Tuments have been received in Aprile priority documents have been Bureau (PCT Rule 17.2(a)).	oplication No received in this National Stage	
Attachment(s)  1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-3) Thormation Disclosure Statement(s) (PTO-1449 or PTO Paper No(s)/Mail Date 8/26/05	948) Paper No(s	ummary (PTO-413) //Mail Date formal Patent Application (PTO-152)	

U.S. Patent and Trademark Office PTOL-326 (Rev. 7-05)

Office Action Summary

Part of Paper No./Mail Date 20050915

Art Unit: 2875

## **DETAILED ACTION**

## **Double Patenting**

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 21-34 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 78-92 of copending Application No. 10/829,790. The conflicting claims are identical, they are not patentably distinct from each other as detailed below.

Instant Application No.	Copending Application	Discussion on differences, and
10,650,537	No. 10,829,790	additional References:
Claims 21-34	Claim 78-92	Claims 21-34 of the instant
		application are identical to the
		respective claims 78-92 of the
		copending application 10,829,790.

Art Unit: 2875

It would be have been obvious to one of ordinary skill in the art at the time of the invention to meet the limitations of claims 21-34 of the instant application with the claimed features of claims 78-92 of the copending application 10,829,790

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

## Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United

4. Claims 21 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Perrier et al. (WO Patent No.; 93/00840), hereinafter referred as Perrier.

The following examination has used the English translation of the Perrier, which was included in the Information Disclosure Statement (IDS) filed on August 26, 2005.

Regarding claims 21 and 23, Perrier discloses an umbrella apparatus 1 (Figure 1) comprising:

a canopy portion 8 hingedly coupled to a pole portion 9 (Figure 1, English translation, page 2, line 1); a rechargeable electrical power system 3 — rechargeable batteries - energizing the umbrella apparatus 1 (Figure 1, English translation, page 2, lines 10 and 11); a solar system 2 disposed on

Art Unit: 2875

the top of the pole portion 9 above the canopy 8 (Figure 1, English translation, page 2, lines 9 and 10); the solar system 2 able to collect solar energy, and convert solar energy into electrical energy (Figure 1, English translation, page 2, lines 9-11); the solar system conductively coupled, with electrical wires 22 (Figure 2), to the rechargeable electrical power system 3 (Figure 1, English translation, page 2, lines 9 and 10); the electrical energy converted from the solar energy by the solar system 2 being used for recharging the rechargeable electrical energy system 3 (Figure 1, English translation, page 2, lines 10 and 11); and the rechargeable energy system 3 disposed by the second housing 4 below the canopy portion 8 (Figure 1, English translation,, page 2, lines 10 and 11).

## Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 6. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Perrier et al. (WO Patent No.; 93/00840), hereinafter referred as Perrier, in view of Cathel (US Patent No.; 6,299,325).

Art Unit: 2875

Page 5

The following examination has used the English translation of the Perrier, which was included in the Information Disclosure Statement (IDS) filed on August 26, 2005.

7. Regarding claim 22, Perrier discloses an umbrella apparatus 1 (Figure 1) comprising a solar energy system disposed in a housing on the top of the pole portion above the canopy, and a rechargeable energy system – a rechargeable battery – positioned in a separate housing positioned below the canopy portion. However, Perrier does not teach a single housing accommodating both the rechargeable energy system and solar energy system above the canopy, and the housing mounted on the pole portion above the canopy portion.

On the other hand, Cathel ('325) discloses an illuminated sign (Figure 1) including a housing 26 accommodating a solar panel 60 and a rechargeable electrical power source 64 (Figures 1 and 2, column 3, lines 13 and 46-51).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Perrier by positioning the solar panel and the rechargeable batteries in a housing as taught by Cathel for the benefits of cost saving resulting from reduction of parts of the device.

8. Claims 24 -27, 29, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perrier et al. (WO Patent No.; 93/00840), hereinafter referred as Perrier, In view of Valdner (US Patent No.: 5,349,975).

Regarding claim 24, Perrier discloses a solar energy based umbrella apparatus comprising an electrical charging system receiving power from a solar energy system.

Art Unit: 2875

Page 6

However, Perrier does not disclose an umbrella apparatus comprising a charging system receiving power from AC power outlet.

On the other hand, Valdner ('975) discloses a an umbrella apparatus 10 including a recharging system 56 receiving power from AC power outlet 54 for recharging the rechargeable energy system 44 (Figures 1 and 3, column 2, lines 37-43).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Perrier by providing the AC-based charging system in addition to the solar energy based charging system as taught by Valdner ('975) for the benefits of highly reliable and economical power-supply system based on redundancy of the power sources.

Regarding claim 25, Perrier discloses a solar energy based umbrella apparatus comprising removable a base portion attached to a pole portion. However, Perrier does not specifically disclose the base being a removable from the pole portion.

On the other hand, Perrier teaches the umbrella apparatus including a pole portion 9 received in a sleeve – an extension of the base portion 4 –; and the base portion 4 being removable by removing the adjusting screw (Figure 10).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Perrier, as interpreted above and illustrated in Figure 1, an modify the umbrella apparatus for the benefits of easy assembly and economical storage and shipping.

Art Unit: 2875

Regarding Claim 26, Perrier discloses the umbrella apparatus 1(Figure 1) including the rechargeable electrical power system 3 positioned in the base 3 (Figure 1, English translation,, page 2, lines 10 and 11).

Regarding Claim 27, dependent on Claim 25, Perrier in view of Valdner ('975) discloses an umbrella apparatus meeting the limitations in similar manner as applied for Claim 24 detailed above.

Regarding Claim 29, dependent on Claim 25, Perrier discloses a solar energy based umbrella apparatus comprising an electrical recharging system receiving power from a solar energy system. However, Perrier does not disclose an umbrella apparatus comprising a rechargeable electrical power system, which is detachable from the umbrella apparatus, and attachable to a remote an AC docking station.

On the other hand, Valdner ('975) discloses a an umbrella apparatus 10 including a rechargeable electrical power system 44, which is detachable from the umbrella apparatus 10, and attachable to a remote an AC docking station receiving power plug 58 (Figure 3, column 2, lines 37-43).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Perrier by providing the AC-based rechargeable power system as taught by Valdner ('975) for the benefits of highly reliable and safe power-supply system promoting relocation of the device.

Regarding Claim 30, dependent on Claim 21, Perrier discloses a solar energy based umbrella apparatus comprising a solar energy system conductively coupled to a rechargeable electrical power system. However, Perrier does not specifically teach the

Page 7

Application/Control Number: 10/650,537 Page 8

Art Unit: 2875

the solar power energy system conductively coupled to the rechargeable electrical power system by a releasable plug, the engagement of which would allow recharging of the rechargeable electrical power system.

On the other hand, Valdner ('975) discloses a an umbrella apparatus 10 including a rechargeable electrical power system 44, which is detachable from the solar energy system by a plug 46 (Figure 3, column 2, lines 34-37)

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Perrier by providing the releasable plug as taught by Valdner ('975) for the benefits of recharging the electrical power system in a controlled manner.

9. Claims 31, 32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perrier et al. (WO Patent No.; 93/00840), hereinafter referred as Perrier, In view of Lee (US Patent No.: 6,499,856 B2).

Regarding Claim 31, dependent on Claim 21, Perrier discloses a solar energy based umbrella apparatus comprising a plurality of rib members supporting a canopy, and alighting system conductively coupled to the rechargeable electrical power system. However, Perrier dose not teach the lighting system carried by the ribs members.

On the other hand, Lee ('856 B2) discloses an umbrella apparatus (Figure 1) comprising a plurality of rib members 4 supporting a lighting system 5 (Figure 1, column 2, lines 9 and 10).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Perrier by providing and positioning the

Art Unit: 2875

Page 9

lighting system as taught by Lee ('856 B2) for the benefits of high attention and decorative values of the device.

Regarding claim 32 and 34, Perrier in view of Lee ('856 B2) discloses the umbrella apparatus further including the light system including:

- a plurality of lighting elements 5 recessed within the rib members 5 (Lee, Figure 1, column 2, lines 9 and 10); and
- a collapsible cover 2 (Perrier, Figure 1); a hub member 20 (Perrier, Figure 1, English translation, page 2, line 18); a strut 15 hingedly connected between the hub 20 and each of the rib members of the canopy 8 (Perrier, Figure 1, English translation, page 2, line 3); and
- a lighting system 5 carried by the strut 2 (Lee, Figure 1, column 2, lines 9 and 10).
- 10. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Perrier et al. (WO Patent No.; 93/00840), hereinafter referred as Perrier, In view of Mai (US Patent No.: 6,270,230 B1).

Regarding Claim 33, dependent on Claim 21, Perrier discloses a solar energy based umbrella apparatus comprising: a collapsible cover 2 supported a plurality of rib members, supporting a canopy 8 (Perrier, Figure 1). However, Perrier dose not teach the lighting system being carried by the collapsible cover.

On the other hand, Mai (230 B1) discloses an Umbrella apparatus including a lighting system 83 carried by the collapsible cover 30 (Figure 1, column 2, lines 64- and 65).

Art Unit: 2875

Page 10

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Perrier by providing and positioning the lighting system as taught by Mai ('230 B1) for the benefits of high attention and decorative values of the device.

#### Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee (US Patent No.: 6,666,224 B2), Pan et al. (US Patent No.: 6,439,249 B1), Yang (US Patent No.: 6,341,873 B1), Wu (US Patent No.: 6,126,293), Wu (US Patent No.: 6,089,727) and Rushing (US Patent No.: 5,307,931)

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S Sawhney whose telephone number is 571 272 2380. The examiner can normally be reached on 6:15 - 2:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571 272 2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2875

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).

HSS 9/16/2005

Primary Examiner

Page 11

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Substitute for form 1449/PTO

Sheet 1

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

of 1

Application Number 10/650,537 28 AUGUST 2003 Filing Date Gregory G. Kuelbs First Named Inventor Art Unit Examiner Name Hargobind S. Sawhney 0664MH-40982-C Attorney Docket Number

U. S. PATENT DOCUMENTS Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear Name of Patentee or Examiner Document Number Publication Date MM-DD-YYYY Applicant of Cited Document Initials\* No. Number-Kind Code<sup>2 (I transm)</sup> US US-US-US-US-US-US-US-US-US-US-USus-US-US-US-US-US-US-

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EXAMINER: Initial if reference considered, whether or fot citation is in conformance with MPEP 609. Draw line through citation if nor in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (options). See Kinds Codes of USPTO Patent Documents at <a href="https://www.usplo.gov">www.usplo.gov</a> or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precode the serial number of the patent document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

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Translation is attached.

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 2 hours 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, P.O. Box 1450, Baxandria, VA 22313-1450. D NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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## U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	Α	US-6,666,224 B2	12-2003	Lee, Chorng-Cheng	135/16
	В	US-6,499,856 B2	12-2002	Lee, Chorng-Cheng	362/102
	С	US-6,439,249 B1	08-2002	Pan et al.	135/16
	D	US-6,341,873 B1	01-2002	Yang, Chiu-Hsiung	362/102
	Е	US-6,299,325 B1	10-2001	Cathel, Wayne	362/183
	F	US-6,270,230 B1	08-2001	Mai, Kuei Ying	362/102
	G	US-6,126,293	10-2000	Wu, Tsun-Zong	362/102
	н	US-6,089,727	07-2000	Wu, Tzun-Zong	362/102
	1	US-5,053,931	10-1991	Rushing, John A.	362/102
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## NON-PATENT DOCUMENTS

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U.S. Patent and Trademark Office PTO-892 (Rev. 01-2001)

Notice of References Cited

Part of Paper No. 20050915



## UNITED STATES PATENT AND TRADEMARK OFFICE

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Bib Data Sheet

**CONFIRMATION NO. 9033** 

SERIAL NUMB 10/650,537	ER	FILING DATE 08/28/2003 RULE	C	CLASS 362	GRO	UP ART 2875	UNIT	D	ATTORNEY OCKET NO. BMH-40982-US
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Index of Claims						Application/Control No.									Applicant(s)/Patent under Reexamination														
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U.S. Patent and Trademark Office

Part of Paper No. 20050915

Search Notes	

Application No.	Applicant(s)
10/650,537	KUELBS, GREGORY G.
Examiner	Art Unit
Hargobind S. Sawhney	2875

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Class	Subclass	Date	Examiner
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SEARCH NOTES (INCLUDING SEARCH STRATEGY)								
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U.S. Patent and Trademark Office

Part of Paper No. 20050915

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

**GREGORY G. KUELBS** 

Serial No.: 10/650,537

Filed: 28 AUGUST 2003

For: UMBRELLA APPARATUS

Attorney Docket No. 0664MH-40982-C

000000000 Examiner: HARGOBIND S. **HAWHNEY** 

Art Unit: 2875

Confirmation No.: 9033

## TRANSMITTAL

MAIL STOP: AMENDMENT Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

Please file the following enclosed documents in the subject application:

- 1. This Transmittal with Certificate of Mailing;
- 2. Amendment; and
- 3. Our return postcard which we would appreciate you date stamping and returning to us.

**CERTIFICATE OF MAILING** UNDER 37 C.F.R. § 1.8(a)

Date of Deposit: 12/21/05

I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail with sufficient postage under 37 C.F.R. §1.8(a) on the date indicated above and is addressed to Mail Stop: Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Transmittal Attorney Docket No. 0638MH-40982-C Page 1

No fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any fees that may be required, or credit any overpayments, to **Deposit Account No. 502806**.

Please link this application to Customer Nos. 50779 and 38441 so that its status may be checked via the PAIR System.

Respectfully submitted,

12/21/05 Date

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Alan Dawson Lightfoot, Reg. No. 57,756
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**CUSTOMER NOS. 50779 and 38441** 

ATTORNEYS AND AGENTS FOR APPLICANT

Transmittal Attorney Docket No. 0638MH-40982-C Page 2

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

**GREGORY G. KUELBS** 

Serial No.: 10/650,537

Filed: 28 AUGUST 2003

For: UMBRELLA APPARATUS

Attorney Docket No. 0664MH-40982-C

§ Examiner: **HARGOBIND S.** § **HAWHNEY** 

Art Unit: 2875

Confirmation No.: 9033

## **AMENDMENT**

MAIL STOP: AMENDMENT Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

This Amendment is in response to the Office Action mailed 21 September 2005, which provides for a response period ending 21 December 2005.

Please enter the following amendments and consider the following remarks.

# CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8(a)

Date of Deposit: 12/21/05

I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail with sufficient postage under 37 C.F.R. §1.8(a) on the date indicated above and is addressed to Mail Stop: Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

By: \_\_\_\_\_\_ farm E Walto

Amendment Attorney Docket No. 0664MH-40982-C Page 1

IN THE CLAIMS:

The following is a complete listing of the claims.

Please amend the claims as follows:

:

Claims 1-20. (Cancelled).

21. (Currently Amended) An umbrella apparatus comprising:

a pole portion;

a canopy portion hingedly coupled to the pole portion;

a rechargeable electrical power system for providing electrical power to the umbrella apparatus; and

a solar energy system attached to the top of the pole portion above the canopy portion, the solar energy system being adapted to collect solar energy and convert the solar energy into electrical energy, the solar energy system being conductively coupled to the rechargeable electrical power system, such that the solar energy collected and converted into electrical energy recharges the rechargeable electrical power system;

wherein the solar energy system is configured to remain in a fixed position relative to the pole portion when the canopy portion is operated between an opened position and a closed position.

- 22. **(Original)** The umbrella apparatus according to claim 21, wherein the rechargeable electrical power system and the solar energy system are both carried by a single housing mounted on the pole portion above the canopy portion.
- 23. **(Original)** The umbrella apparatus according to claim 21, wherein the solar energy system is carried by a first housing mounted on the top of the pole portion above the canopy portion and the rechargeable electrical power system is carried by a second housing located below the canopy portion.
- 24. (Original) The umbrella apparatus according to claim 21, further comprising:

Amendment Attorney Docket No. 0664MH-40982-C Page 2

an electrical charging system for recharging the rechargeable electrical power system, the electrical charging system being adapted to receive power from an AC power outlet.

." :

- 25. **(Original)** The umbrella apparatus according to claim 21, further comprising: a removable base support portion adapted to receive the pole portion and support the umbrella apparatus in an upright position.
- 26. **(Original)** The umbrella apparatus according to claim 25, wherein the rechargeable electrical power system is carried within the base support portion.
- 27. (Original) The umbrella apparatus according to claim 25, further comprising: an electrical charging system for recharging the rechargeable electrical power system, the electrical charging system being adapted to receive power from an AC power outlet;

wherein the electrical charging system is carried within the base support portion.

28. **(Original)** The umbrella apparatus according to claim 25, further comprising: an electrical charging system for recharging the rechargeable electrical power system, the electrical charging system being adapted to receive power from an AC power outlet;

wherein the electrical charging system and the rechargeable electrical power system are both carried within the base support portion.

29. **(Original)** The umbrella apparatus according to claim 25, further comprising: a remote AC docking station for recharging the rechargeable electrical power system;

wherein the rechargeable electrical power system is configured for detachment from the umbrella apparatus and attachment to the remote AC docking station.

Amendment Attorney Docket No. 0664MH-40982-C Page 3

- 30. **(Original)** The umbrella apparatus according to claim 21, wherein the solar energy system is conductively coupled to the rechargeable electrical power system by a releasable plug, such that the solar energy collected and converted into electrical energy recharges the rechargeable electrical power system when the solar energy system is plugged into the rechargeable electrical power system.
- 31. **(Original)** The umbrella apparatus according to claim 21, wherein the canopy portion comprises:
  - a collapsible cover;

- a plurality of rib members for supporting the collapsible cover; and
- a lighting system carried by the rib members, the lighting system being conductively coupled to and powered by the rechargeable electrical power system.
- 32. **(Original)** The umbrella apparatus according to claim 31, wherein the lighting system comprises:
  - a plurality of lighting elements recessed within the rib members.
- 33. **(Original)** The umbrella apparatus according to claim 21, wherein the canopy portion comprises:
  - a collapsible cover;
  - a plurality of rib members for supporting the collapsible cover; and
- a lighting system carried by the collapsible cover, the lighting system being conductively coupled to and powered by the rechargeable electrical power system.
- 34. **(Original)** The umbrella apparatus according to claim 21, wherein the canopy portion comprises:
  - a collapsible cover;
  - a plurality of rib members for supporting the collapsible cover;
  - a hub member that is movable along the pole portion;
  - a strut hingedly connected between the hub and each rib member; and

Amendment
Attorney Docket No. 0664MH-40982-C

a lighting system carried by the struts, the lighting system being conductively coupled to and powered by the rechargeable electrical power system.

Claims 35-69. (Withdrawn).

Amendment Attorney Docket No. 0664MH-40982-C Page 5

**REMARKS:** 

: :

Claims 21-34 are currently pending in the application. Claims 21-34 stand

provisionally rejected under the judicially created doctrine of obviousness-type double

patenting as being unpatentable over Claims 78-92 of copending Application No.

10/829,790. Claims 21 and 23 stand rejected under 35 U.S.C. § 102(b) as being

anticipated by Perrier et al. Claim 22 stands rejected under 35 U.S.C. § 103(a) as being

unpatentable over Perrier et al. in view of Cathel. Claims 24-27, 29, and 30 stand

rejected under 35 U.S.C. § 103(a) as being unpatentable over Perrier et al. in view of

Valdner. Claims 31, 32, and 34 stand rejected under 35 U.S.C. § 103(a) as being

unpatentable over Perrier et al. in view of Lee. Claim 33 stands rejected under 35

U.S.C. § 103(a) as being unpatentable over Perrier et al. in view of Mai.

Provisional Rejections Under Obviousness-Type Double Patenting:

Claims 21-34 stand rejected under the judicially created doctrine of obviousness-

type double patenting over Claims 78-92 of U.S. Application No. 10/829,790.

United States Application No. 10/829,790 is commonly owned and is copending

with the subject application. The Applicant is currently prosecuting U.S. Application No.

10/829,790 and is awaiting an Office Action from the same Examiner. Therefore, the

Applicant respectfully requests that the Examiner hold the provisional double-patenting

rejection in abeyance until claims in either the subject application or U.S. Application

No. 10/829,790 are found to be allowable.

Rejections Under 35 U.S.C. § 102(b):

Claims 21 and 23 stand rejected under 35 U.S.C. § 102(b) as being anticipated

by Perrier et al.

The Examiner states that Perrier discloses an umbrella apparatus 1 (Figure 1)

comprising a canopy portion 8 hingedly coupled to a pole portion 9 (Figure 1, English

translation, page 2, line 1); a rechargeable electrical power system 3 - rechargeable

batteries - energizing the umbrella apparatus 1 (Figure 1, English translation, page 2,

Amendment Attorney Docket No. 0664MH-40982-C

lines 10 and 11); a solar system 2 disposed on the top of the pole portion 9 above the canopy 8 (Figure 1, English translation, page 2, lines 9 and 10); the solar system 2 able to collect solar energy, and convert solar energy into electrical energy (Figure 1, English translation, page 2, lines 9-11); the solar system conductively coupled, with electrical wires 22 (Figure 2), to the rechargeable electrical power system 3 (Figure 1, English translation, page 2, lines 9 and 10); the electrical energy converted from the solar energy by the solar system 2 being used for recharging the rechargeable electrical energy system 3 (Figure 1, English translation, page 2, lines 10 and 11); and the rechargeable energy system 3 disposed by the second housing 4 below the canopy portion 8 (Figure 1, English translation, page 2, lines 10 and 11).

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Perrier et al. disclose an umbrella 1 having a hollow mast 9, a housing 10 having openings 11, a canopy 8, stays 15 to which the canopy 8 is attached, a base 4, batteries 3 carried in the base 4, a cord 6 and a pulley 7 for controlling the canopy 8, a light 12 carried with in the hollow mast 9, a solar collector 2 for recharging the batteries 3, and a power cord 14 for connecting to an alternate source of energy. The canopy 8 is composed of either: (1) a perforated fabric; or (2) an impermeable unperforated fabric having a valence 23 held at the end of supports 24 that forms a peripheral gutter for draining off water. The solar collector 2 covers all or part of the canopy 8. The light 12 is equipped with a ventilated protective tube 13 made of perforated metal, screen, Plexiglas, glass, or a translucent or colored sleeve. Another light 25 is located in the base 4.

The solar collector 2 in the Perrier et al. device must fold down when the canopy is in the down position. Because the solar collector 2 moves with the canopy 8, the solar collector 2 is ineffective for several reasons. First, when the solar collector 2 is folded down with the canopy 8, the material of the canopy 8 blocks and shades the sun from shining onto the solar collector 2, thereby preventing sunshine from hitting the solar collector 2. Second, even if parts of the solar collector 2 are exposed when the canopy 8 is in the down position, the solar collector 2 is in a substantially vertical position, which is very ineffective for collecting solar energy. Third, the solar collector 2 is susceptible to damage from the canopy 8, the stays 15, the supports 24, the

Amendment
Attorney Docket No. 0664MH-40982-C

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peripheral gutter, the flexible drain pipe, and other components of the umbrella 1, when

the canopy 8 is repeatedly opened and closed.

Claim 21 is hereby amended to clarify that the solar energy system remains in a

fixed position relative to pole portion when the canopy portion is moved between an

open position and a closed position. This is merely one of the features that

distinguishes the claimed invention over the Perrier et al. device. In the claimed

invention, the solar energy system remains in a fixed position relative to the pole portion

when the canopy portion is moved up and down.

Claim 23 is not hereby amended; however, Claim 23 is a dependent claim based

upon Claim 21, which is hereby amended.

For these reasons, Perrier et al. fails to disclose all of the limitations of Claims 21

and 23, as amended. Therefore, the Applicant submits that Perrier et al. do not

anticipate Claims 21 and 23, as amended.

Rejections under 35 U.S.C. § 103(a):

Claim 22 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over

Perrier et al. in view of Cathel.

The Examiner states that Perrier discloses an umbrella apparatus (Figure 1)

comprising a solar energy system disposed in a housing on the top of the pole portion

above the canopy, and a rechargeable energy system - a rechargeable battery -

positioned in a separate housing positioned below the canopy portion. The Examiner

concedes that Perrier does not teach a single housing accommodating both the

rechargeable energy system and the solar energy system above the canopy, and the

housing mounted on the pole portion above the canopy portion. The Examiner relies

upon Cathel for these features.

The Examiner states that Cathel discloses an illuminated sign (Figure 1)

including a housing 26 accommodating a solar panel 60 and a rechargeable electrical

Amendment Attorney Docket No. 0664MH-40982-C Page 8

power source 64 (Figures 1 and 2, column 3, lines 13 and 46 -51). The Examiner asserts that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Perrier et al. by positioning the solar panel and the rechargeable batteries in a housing as taught by Cathel for the benefits of cost saving resulting from reduction of parts of the device.

The Applicant reiterates here the distinguishing comments set forth above regarding the Perrier et al. disclosure. In particular, the Applicant points out that Claim 21 is hereby amended to clarify that the claimed solar energy system is fixed relative to the pole portion, even as the canopy portion is moved from the open position to the closed position, and vice versa. As such, the claimed invention is distinguished over and is not anticipated by the Perrier et al. device.

Cathel discloses an illuminated mailbox address device 10 having a housing 26 adapted for connection to a traditionally-shaped, generally rectangular mailbox 14. The address device 10 also has a solar cell 60 for collecting energy from the sun, a rechargeable battery 64 mounted within the housing 26, and a photosensitive cell 62 which acts as a switch to permit battery 64 to power a light means used within the device 10. A pair of light emitting diodes (LED's) 76 are used to illuminate an address indicia 80.

There are several distinguishing features between the Cathel device and the claimed invention. The Cathel device is not related to illumination of a large umbrella having a canopy portion. Rather, the Cathel address device is adapted to illuminate a small address indicia 80 atop a conventional mailbox. The Cathel device is a mechanism for backlighting address indicia. The Cathel device is exclusively designed to fit the top portion of a mailbox, not an umbrella. The Cathel device is specifically configured to mate with the top portion of a mailbox with double-sided tape, such that a flat blade screwdriver may be used to apply a small amount of pressure to "pop" housing 26 off of the mailbox. In the Cathel device, the lighting elements must be placed inside the housing so that the lighting elements may backlight the address indicia. The Cathel device performs a completely different function than the claimed invention. Cathel makes no mention, teaching, or disclosure of casting light under an umbrella to provide light for reading,

Amendment Attorney Docket No. 0664MH-40982-C Page 9

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entertaining, and other outdoor activities. There is no motivation whatsoever in Cathel to combine his teachings with those of Perrier et al. to come up with the claimed invention. In addition, because Cathel includes the lighting elements within the housing, and because Cathel mounts his device atop a mail box with double-stick tape, the Applicant submits that Cathel teaches away from the claimed invention.

With regard to the Examiner's comment: "for the benefits of cost saving resulting from reduction of parts of the device," the Applicant notes that no such feature or limitation is included in Claim 22, nor should any such limitation be read into any claim.

Claim 22 is not hereby amended; however, Claim 22 is a dependent claim based upon Claim 21, which is hereby amended. For reasons set forth above, the Applicant submits that it would not have been obvious for a person of ordinary skill in the art at the time the invention was made to combine the teachings of Perrier et al. and Cathel to arrive at the claimed invention. The Applicant respectfully submits that the Examiner's rejection of Claim 22 under 35 U.S.C. § 103(a) is traversed and overcome and that Claim 22 is now in condition for allowance. Therefore, the Applicant respectfully requests that Claim 22 be allowed.

Claims 24-27, 29, and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Perrier et al. in view of Valdner.

With regard to Claim 24, the Examiner states that Perrier et al. disclose a solar energy based umbrella apparatus comprising an electrical charging system receiving power from a solar energy system. The Examiner concedes that Perrier et al. do not disclose an umbrella apparatus comprising a charging system receiving power from AC power outlet. The Examiner relies upon Valdner for this feature.

The Examiner states that Valdner discloses an umbrella apparatus 10 including a recharging system 56 receiving power from AC power outlet 54 for recharging the rechargeable energy system 44 (Figures 1 and 3, column 2, lines 37-43). The Examiner states that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Perrier et al. by providing the

Amendment
Attorney Docket No. 0664MH-40982-C
Page 10

AC-based charging system in addition to the solar energy based charging system as taught by Valdner for the benefits of highly reliable and economical power-supply system based on redundancy of the power sources.

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The Applicant reiterates here the distinguishing comments set forth above regarding the Perrier et al. disclosure. In particular, the Applicant points out that Claim 21 is hereby amended to clarify that the claimed solar energy system is fixed relative to the pole portion, even as the canopy portion is moved from the open position to the closed position, and vice versa. As such, the claimed invention is distinguished over and is not anticipated by the Perrier et al. device.

In addition, although Perrier et al. appear to disclose a lighted umbrella with rechargeable batteries, Perrier et al. do not disclose, teach, mention, suggest, or disclose a motivation for using an AC power source to recharge the rechargeable batteries. As explained on page 2, line 12 of the translation provided by the third-party requester, the power cord 14 disclosed in Perrier et al. is for "connecting to another source of energy ..." The batteries 3 are only recharged by the solar collector 2. Thus, the Perrier et al. device must operate on either the rechargeable batteries 3 or another source of energy via the power cord 14. In the Perrier et al. disclosure, the only use of AC power is as an alternate power source. Perrier et al. make no suggestion whatsoever of combining or providing rechargeable batteries that can be recharged by both a solar energy recharging system and an electrical charging system that is adapted to receive power from an AC power source.

Valdner discloses a hand-held, air cooled umbrella 10 having a rod 12, a handle 14 with hand grips 16, a top spring 18, a runner 20, a plurality of stretchers 22, and a collapsible canopy 24. The umbrella 10 includes flat ribs 26 with holes 28 to vent hot air from under the canopy 24. An electric fan 30 powered by an electric motor 32 is built into the rod 12. A solar cell panel 38 mounted to the apex of the canopy 24 provides power to the electric fan 30 on hot sunny days. In addition, the umbrella 10 includes a rechargeable handle battery pack 44 that plugs into the bottom end of the handle 14 to supply power to the electric fan 30 on hot sunless days and at night when there is no solar energy

Amendment
Attorney Docket No. 0664MH-40982-C

available. The rechargeable handle battery pack 44 may be charged utilizing a separate charger assembly 54 having plugs 58 for plugging into an AC power outlet.

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There are several distinguishing features between the Valdner device and the claimed invention. Most importantly, the Valdner device is a hand-held umbrella with a cooling fan, not a large lighted patio umbrella. In fact, in referring to large umbrellas that people sit under, Valdner states: "While these units may be suitable for the particular purpose to which they address, they would not be suitable for purposes of the present invention as heretofore described." Column 1, lines 14-17. Thus, Valdner expressly teaches away from large patio umbrellas.

Although Valdner discloses a rechargeable battery pack that is adapted to receive power from an AC power source, the Valdner device is not designed to be used while the battery pack is being recharged by or connected to the AC power source. On hot sunny days, the solar cell panel 38 runs the electric fan 30. On hot sunless days and nights, the rechargeable handle battery pack 44 can be used to supply the power. In the Valdner device, the solar cell panel 38 is used to directly drive the load of the electric fan 30. Other than the solar cell panel 38, the only means taught by Valdner for supplying power to the electric fan 30 is by using the rechargeable handle battery pack 44, as set forth at column 3, lines 3-6: "On hot sunless days and nights the electric plug 46 may be inserted into the electric socket 40 to now supply power to the electric fan 30." The only purpose mentioned by Valdner for the separate charger assembly 54 is to recharge the rechargeable handle battery pack 44. Valdner makes absolutely no mention or suggestion of using the umbrella while the separate charger assembly 54 is connected. Valdner discloses no motivation to combine a large umbrella with a rechargeable electrical power source that is adapted to receive power from an AC power source.

On the other hand, the claimed invention is directed toward an umbrella apparatus having a pole portion, a canopy portion hingedly coupled to the pole portion, a rechargeable electrical power system for providing electrical power to the umbrella, a solar energy system coupled to the rechargeable electrical power source, and an electrical charging system for recharging the rechargeable electrical power system, wherein the

Amendment Attorney Docket No. 0664MH-40982-C Page 12

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electrical charging system is adapted to receive power from an AC power outlet. Neither Perrier, Valdner, nor any other reference cited by the Examiner, teach, disclose, mention, suggest, or disclose a motivation to combine such a combination of features. This claimed electrical charging system allows the batteries to be recharged by either the solar energy system or an AC power source. In the claimed invention, the solar energy system does not directly drive the load. Rather, the rechargeable electrical power source drives the

load, and the solar energy system recharges the rechargeable electrical power source.

In addition, in the claimed invention, the AC power source is not limited to merely powering the umbrella. Rather, an AC power source can be used to actually recharge the rechargeable batteries. Because the claimed umbrella is a large patio-type umbrella, the rechargeable electric power source may be recharged via the solar energy system or an AC power source while the umbrella is being used for its intended purpose. In other words, the claimed umbrella is used while it is supported in a generally stationary position,

not while the user is walking down the street.

With regard to the Examiner's comment: "for the benefits of highly reliable and economical power-supply system based on redundancy of the power sources," the Applicant notes that no such feature or limitation is included in Claim 24, nor should any

such limitation be read into any claim.

Claim 24 is not hereby amended; however, Claim 24 is a dependent claim based upon Claim 21, which is hereby amended. For reasons set forth above, the Applicant submits that it would not have been obvious for a person of ordinary skill in the art at the time the invention was made to combine the teachings of Perrier et al. and Valdner to arrive at the claimed invention. The Applicant respectfully submits that the Examiner's rejection of Claim 24 under 35 U.S.C. § 103(a) is traversed and overcome and that Claim 24 is now in condition for allowance. Therefore, the Applicant respectfully

requests that Claim 24 be allowed.

With regard to Claim 25, the Examiner states that Perrier et al. disclose a solar energy based umbrella apparatus comprising a removable base portion attached to a pole portion. The Examiner concedes that Perrier et al. do not specifically disclose the

> Amendment Attorney Docket No. 0664MH-40982-C Page 13

base being removable from the pole portion. The Examiner states that "Perrier teaches the umbrella apparatus including a pole portion 9 received in a sleeve - an extension of the base portion 4 -; and the base portion 4 being removable by removing the adjusting screw (Figure 10)." The Examiner asserts that "[i]t would be [sic] have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Perrier, as interpreted above an [sic] modify the umbrella apparatus for the benefits of easy assembly and economical storage and shipping." (Emphasis added).

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The Applicant submits that Examiner's interpretation of Perrier et al. is not well taken. The Examiner concedes that Perrier et al. do not disclose a removable base. Nowhere in Perrier et al. is the base described as being removable. The only mention of a "sleeve" is in regard to the ventilated cover 13 for the light 12 located at the top of the mast 9. Nevertheless, the Examiner makes his own interpretation of Perrier et al. as having a removable base. This is clearly impermissible hindsight. It is improper for the Examiner to add features from the claimed invention into the prior art when they do not exist in the prior art. If the base were removed from the Perrier et al. device, it would not work, because the base is where the batteries are located. There is no Figure 10 in the Perrier et al. disclosure. If the Examiner is referring to Figure 1, then the Applicant submits that Perrier provides no mention, explanation, or discussion of any "adjustment screws" shown on the base 4.

The Applicant reiterates here the distinguishing comments set forth above regarding the Perrier et al. disclosure. In particular, the Applicant points out that Claim 21 is hereby amended to clarify that the claimed solar energy system is fixed relative to the pole portion, even as the canopy portion is moved from the open position to the closed position, and vice versa. As such, the claimed invention is distinguished over and is not anticipated by Perrier et al.

With regard to the Examiner's comment: "for the benefits of easy assembly and economical storage and shipping," the Applicant notes that no such feature or limitation is included in Claim 25, nor should any such limitation be read into any claim.

Amendment Attorney Docket No. 0664MH-40982-C Page 14

Claim 25 is not hereby amended; however, Claim 25 is a dependent claim based upon Claim 21, which is hereby amended. For reasons set forth above, the Applicant submits that it would not have been obvious for a person of ordinary skill in the art at the time the invention was made to utilize the teachings of Perrier et al. to arrive at the claimed invention. The Applicant respectfully submits that the Examiner's rejection of Claim 25 under 35 U.S.C. § 103(a) is traversed and overcome and that Claim 25 is now

With regard to Claim 26, the Examiner states that Perrier et al. disclose the umbrella apparatus 1 (Figure 1) including the rechargeable electrical power system 3 positioned in the base 3 (Figure 1, English translation, page 2, lines 10 and 11).

in condition for allowance. Therefore, the Applicant respectfully requests that Claim 25

be allowed.

The Applicant reiterates here the distinguishing comments set forth above regarding the Perrier et al. disclosure. In particular, the Applicant points out that Claim 21 is hereby amended to clarify that the claimed solar energy system is fixed relative to the pole portion, even as the canopy portion is moved from the open position to the closed position, and vice versa. As such, the claimed invention is distinguished over and is not anticipated by the Perrier et al. device.

In addition, the Applicant reiterates that it would be impermissible hindsight for the Examiner to add features from the claimed invention into the prior art when they do not exist in the prior art. If the base were removed from the Perrier et al. device, it would not work, because the base is where the batteries are located. The Applicant submits that Perrier et al. provide no mention, explanation, or discussion of any "adjustment screws" shown on the base 4.

Claim 26 is not hereby amended; however, Claim 26 is a dependent claim based upon Claim 21, which is hereby amended, and intervening claims. For reasons set forth above, the Applicant submits that it would not have been obvious for a person of ordinary skill in the art at the time the invention was made to utilize the teachings of Perrier et al. to arrive at the claimed invention. The Applicant respectfully submits that the Examiner's rejection of Claim 26 under 35 U.S.C. § 103(a) is traversed and

Amendment
Attorney Docket No. 0664MH-40982-C
Page 15

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overcome and that Claim 26 is now in condition for allowance. Therefore, the Applicant respectfully requests that Claim 26 be allowed.

With regard to Claim 27, the Examiner states that Perrier in view of Valdner discloses an umbrella apparatus meeting the limitations in similar manner as applied for Claim 24 detailed above.

The Applicant reiterates here the distinguishing comments set forth above regarding the Perrier et al. disclosure. In particular, the Applicant points out that Claim 21 is hereby amended to clarify that the claimed solar energy system is fixed relative to the pole portion, even as the canopy portion is moved from the open position to the closed position, and vice versa. In addition, the Applicant reiterates that it would be impermissible hindsight for the Examiner to add features from the claimed invention into the prior art when they do not exist in the prior art. If the base were removed from the Perrier et al. device, it would not work, because the base is where the batteries are located. The Applicant submits that Perrier et al. provide no mention, explanation, or discussion of any "adjustment screws" shown on the base 4. As such, the claimed invention is distinguished over and is not anticipated by the Perrier et al. device.

In addition, the Applicant reiterates here the distinguishing comments set forth above regarding the Valdner disclosure. In particular, although Valdner discloses a rechargeable battery pack that is adapted to receive power from an AC power source, the Valdner device is not designed to be used while the battery pack is being recharged by or connected to the AC power source. On hot sunny days, the solar cell panel 38 runs the electric fan 30. On hot sunless days and nights, the rechargeable handle battery pack 44 can be used to supply the power. In the Valdner device, the solar cell panel 38 is used to directly drive the load of the electric fan 30. Other than the solar cell panel 38, the only means taught by Valdner for supplying power to the electric fan 30 is by using the rechargeable handle battery pack 44, as set forth at column 3, lines 3-6: "On hot sunless days and nights the electric plug 46 may be inserted into the electric socket 40 to now supply power to the electric fan 30." The only purpose mentioned by Valdner for the separate charger assembly 54 is to recharge the rechargeable handle

Amendment Attorney Docket No. 0664MH-40982-C Page 16

battery pack 44. Valdner makes absolutely no mention or suggestion of using the umbrella while the separate charger assembly 54 is connected. Valdner discloses no motivation to combine a large umbrella with a rechargeable electrical power source that is adapted to receive power from an AC power source.

On the other hand, the claimed invention is directed toward an umbrella apparatus having a pole portion, a canopy portion hingedly coupled to the pole portion, a rechargeable electrical power system for providing electrical power to the umbrella, a solar energy system coupled to the rechargeable electrical power source, and an electrical charging system for recharging the rechargeable electrical power system, wherein the electrical charging system is adapted to receive power from an AC power outlet. Neither Perrier, Valdner, nor any other reference cited by the Examiner, teach, disclose, mention, suggest, or disclose a motivation to combine such a combination of features. This claimed electrical charging system allows the batteries to be recharged by either the solar energy system or an AC power source. In the claimed invention, the solar energy system does not directly drive the load. Rather, the rechargeable electrical power source drives the load, and the solar energy system recharges the rechargeable electrical power source.

In addition, in the claimed invention, the AC power source is not limited to merely powering the umbrella. Rather, an AC power source can be used to actually recharge the rechargeable batteries. Because the claimed umbrella is a large patio-type umbrella, the rechargeable electric power source may be recharged via the solar energy system or an AC power source while the umbrella is being used for its intended purpose. In other words, the claimed umbrella is used while it is supported in a generally stationary position, not while the user is walking down the street.

Claim 27 is not hereby amended; however, Claim 27 is a dependent claim based upon Claim 21, which is hereby amended, and intervening claims. For reasons set forth above, the Applicant submits that it would not have been obvious for a person of ordinary skill in the art at the time the invention was made to utilize the teachings of Perrier et al. to arrive at the claimed invention. The Applicant respectfully submits that the Examiner's rejection of Claim 27 under 35 U.S.C. § 103(a) is traversed and

Amendment Attorney Docket No. 0664MH-40982-C Page 17

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overcome and that Claim 27 is now in condition for allowance. Therefore, the Applicant

respectfully requests that Claim 27 be allowed.

With regard to Claim 29, the Examiner states that Perrier et al. disclose a solar

energy based umbrella apparatus comprising an electrical recharging system receiving

power from a solar energy system. The Examiner concedes that Perrier does not

disclose an umbrella apparatus comprising a rechargeable electrical power system,

which is detachable from the umbrella apparatus, and attachable to a remote an AC

docking station. The Examiner relies upon Valdner for this feature.

The Examiner states that Valdner discloses an umbrella apparatus 10 including a

rechargeable electrical power system 44, which is detachable from the umbrella apparatus 10, and attachable to a remote an AC docking station receiving power plug

58 (Figure 3, column 2, lines 37-43). The Examiner asserts that it would be have been

obvious to one of ordinary skill in the art at the time of the invention to modify the

umbrella apparatus of Perrier by providing the AC-based rechargeable power system as

taught by Valdner for the benefits of highly reliable and safe power-supply system

promoting relocation of the device.

The Applicant reiterates here the distinguishing comments set forth above

regarding the Perrier et al. disclosure. In particular, the Applicant points out that Claim 21

is hereby amended to clarify that the claimed solar energy system is fixed relative to the

pole portion, even as the canopy portion is moved from the open position to the closed

position, and vice versa. In addition, the Applicant reiterates that it would be impermissible

hindsight for the Examiner to add features from the claimed invention into the prior art

when they do not exist in the prior art. If the base were removed from the Perrier et al.

device, it would not work, because the base is where the batteries are located. The

Applicant submits that Perrier et al. provide no mention, explanation, or discussion of any

"adjustment screws" shown on the base 4. As such, the claimed invention is distinguished

over and is not anticipated by the Perrier et al. device.

Amendment Attorney Docket No. 0664MH-40982-C Page 18

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In addition, the Applicant reiterates here the distinguishing comments set forth above regarding the Valdner disclosure. In particular, although Valdner discloses a rechargeable battery pack that is adapted to receive power from an AC power source, the Valdner device is not designed to be used while the battery pack is being recharged by or connected to the AC power source. On hot sunny days, the solar cell panel 38 runs the electric fan 30. On hot sunless days and nights, the rechargeable handle battery pack 44 can be used to supply the power. In the Valdner device, the solar cell panel 38 is used to directly drive the load of the electric fan 30. Other than the solar cell panel 38, the only means taught by Valdner for supplying power to the electric fan 30 is by using the rechargeable handle battery pack 44, as set forth at column 3, lines 3-6: "On hot sunless days and nights the electric plug 46 may be inserted into the electric socket 40 to now supply power to the electric fan 30." The only purpose mentioned by Valdner for the separate charger assembly 54 is to recharge the rechargeable handle battery pack 44. Valdner makes absolutely no mention or suggestion of using the umbrella while the separate charger assembly 54 is connected. Valdner discloses no motivation to combine a large umbrella with a rechargeable electrical power source that is adapted to receive power from an AC power source.

On the other hand, the claimed invention is directed toward an umbrella apparatus having a pole portion, a canopy portion hingedly coupled to the pole portion, a rechargeable electrical power system for providing electrical power to the umbrella, a solar energy system coupled to the rechargeable electrical power source, and an electrical charging system for recharging the rechargeable electrical power system, wherein the electrical charging system is adapted to receive power from an AC power outlet. Neither Perrier, Valdner, nor any other reference cited by the Examiner, teach, disclose, mention, suggest, or disclose a motivation to combine such a combination of features. This claimed electrical charging system allows the batteries to be recharged by either the solar energy system or an AC power source. In the claimed invention, the solar energy system does not directly drive the load. Rather, the rechargeable electrical power source drives the load, and the solar energy system recharges the rechargeable electrical power source.

Amendment Attorney Docket No. 0664MH-40982-C Page 19

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In addition, in the claimed invention, the AC power source is not limited to merely powering the umbrella. Rather, an AC power source can be used to actually recharge the rechargeable batteries. Because the claimed umbrella is a large patio-type umbrella, the rechargeable electric power source may be recharged via the solar energy system or an AC power source while the umbrella is being used for its intended purpose. In other words, the claimed umbrella is used while it is supported in a

generally stationary position, not while the user is walking down the street

With regard to the Examiner's comment: "for the benefits of highly reliable and safe power-supply system promoting relocation of the device," the Applicant notes that no such feature or limitation is included in Claim 29, nor should any such limitation be

read into any claim.

Claim 29 is not hereby amended; however, Claim 29 is a dependent claim based upon Claim 21, which is hereby amended, and intervening claims. For reasons set forth above, the Applicant submits that it would not have been obvious for a person of ordinary skill in the art at the time the invention was made to combine the teachings of Perrier et al. and Valdner to arrive at the claimed invention. The Applicant respectfully submits that the Examiner's rejection of Claim 29 under 35 U.S.C. § 103(a) is traversed and overcome and that Claim 29 is now in condition for allowance. Therefore, the

Applicant respectfully requests that Claim 29 be allowed.

With regard to Claim 30, the Examiner states that Perrier et al. disclose a solar energy based umbrella apparatus comprising a solar energy system conductively coupled to a rechargeable electrical power system. The Examiner concedes that Perrier does not specifically teach the solar power energy system conductively coupled to the rechargeable electrical power system by a releasable plug, the engagement of which would allow recharging of the rechargeable electrical power system. The Examiner relies upon

Valdner for this feature.

The Examiner states that Valdner discloses an umbrella apparatus 10 including a rechargeable electrical power system 44, which is detachable from the solar energy system by a plug 46 (Figure 3, column 2, lines 34-37). The Examiner asserts that it would

Amendment
Attorney Docket No. 0664MH-40982-C
Page 20

have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Perrier et al. by providing the releasable plug as taught by Valdner for the benefits of recharging the electrical power system in a controlled manner.

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The Applicant reiterates here the distinguishing comments set forth above regarding the Perrier et al. disclosure. In particular, the Applicant points out that Claim 21 is hereby amended to clarify that the claimed solar energy system is fixed relative to the pole portion, even as the canopy portion is moved from the open position to the closed position, and vice versa. In addition, the Applicant submits that the Perrier et al. disclosure is completely devoid of any mention or teaching of disconnecting the solar energy system from the rechargeable electrical power source.

The Applicant reiterates here the distinguishing comments set forth above regarding the Valdner disclosure. In particular, the Applicant points out that, in the claimed invention, the solar system does not run the load by itself. In the claimed invention, the solar energy system merely recharges the rechargeable electrical power source. On the other hand, in the Valdner device, the fan can be run by the solar energy system alone. In Valdner, the rechargeable battery pack is only needed at night when the solar energy system cannot provide enough power to drive the fan, as set forth at column 3, lines 3-6: "On hot sunless days and nights the electric plug 46 may be inserted into the electric socket 40 to now supply power to the electric fan 30." Valdner makes absolutely no mention, suggestion, or provision for disconnecting the solar energy system from the rechargeable electrical power source.

With regard to the Examiner's comment: "for the benefits of highly reliable and safe power-supply system promoting relocation of the device," the Applicant notes that no such feature or limitation is included in Claim 30, nor should any such limitation be read into any claim.

Claim 30 is not hereby amended; however, Claim 30 is a dependent claim based upon Claim 21, which is hereby amended. For reasons set forth above, the Applicant submits that it would not have been obvious for a person of ordinary skill in the art at the time the invention was made to combine the teachings of Perrier et al. and Valdner to

Amendment Attorney Docket No. 0664MH-40982-C Page 21

arrive at the claimed invention. The Applicant respectfully submits that the Examiner's rejection of Claim 30 under 35 U.S.C. § 103(a) is traversed and overcome and that Claim 30 is now in condition for allowance. Therefore, the Applicant respectfully requests that Claim 30 be allowed.

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Claims 31, 32, and 34 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Perrier et al. in view of Lee.

The Lee patent issued on 31 December 2002 and was filed on 22 May 2001. The subject application claims priority to U.S. Provisional Application No. 60/267,018 filed 7 February 2001. The Applicant submits that the subject matter of Claims 31, 32, and 34 is disclosed in U.S. Provisional Application No. 60/267,018. The priority date of the subject application precedes the filing date of the Lee patent. As such, the Lee patent is not a proper prior-art reference.

Claims 31, 32, and 34 are not hereby amended; however, Claims 31, 32, and 34 are dependent claims based upon Claim 21, which is hereby amended, and intervening claims. For the reasons set forth above, the Applicant submits that the Lee patent is not a proper prior-art reference. As such, the Applicant respectfully submits that the Examiner's rejections of Claims 31, 32, and 34 under 35 U.S.C. § 103(a) are traversed and overcome and that Claims 31, 32, and 34 are now in condition for allowance. Therefore, the Applicant respectfully requests that Claims 31, 32, and 34 be allowed.

Claim 33 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Perrier et al. in view of Mai.

The Examiner states that Perrier et al. disclose a solar energy based umbrella apparatus comprising a collapsible cover 2 supported a plurality of rib members, supporting a canopy 8 (Perrier, Figure 1). The Examiner concedes that Perrier et al. do not teach the lighting system being carried by the collapsible cover. The Examiner relies upon Mai for this feature.

The Examiner states that Mai discloses an umbrella apparatus including a lighting system 83 carried by the collapsible cover 30 (Figure 1, column 2, lines 64 and 65). The

Amendment Attorney Docket No. 0664MH-40982-C Page 22

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Examiner asserts that it would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Perrier by providing and positioning the lighting system as taught by Mai for the benefits of high attention and

decorative values of the device.

The Applicant reiterates here the distinguishing comments set forth above regarding the Perrier et al. disclosure. In particular, the Applicant points out that Claim 21 is hereby amended to clarify that the claimed solar energy system is fixed relative to the pole portion, even as the canopy portion is moved from the open position to the closed

position, and vice versa.

Mai discloses a hand-held, battery operated umbrella with lights attached to the canopy. Mai makes no mention of utilizing rechargeable batteries or of using a solar energy system to recharge the batteries. In the Mai device, the LED's are attached to the upper side of the canopy so as to enhance the visibility of the umbrella at night. Mai makes no mention of placing the LED's on the underside of the canopy to provide light for the user to read by or to perform other outdoor activities. As such, Mai teaches away from the claimed invention. Because the Mai device is only used to warn others on dark, rainy nights, there is no motivation for Mai to add rechargeable batteries and a solar energy

recharging system.

With regard to the Examiner's comment: "for the benefits of high attention and decorative values of the device," the Applicant notes that no such feature or limitation is

included in Claim 33, nor should any such limitation be read into any claim.

Claim 33 is not hereby amended; however, Claim 33 is a dependent claim based upon Claim 21, which is hereby amended. For reasons set forth above, the Applicant submits that it would not have been obvious for a person of ordinary skill in the art at the time the invention was made to combine the teachings of Perrier et al. and Valdner to arrive at the claimed invention. The Applicant respectfully submits that the Examiner's rejection of Claim 33 under 35 U.S.C. § 103(a) is traversed and overcome and that Claim 33 is now in condition for allowance. Therefore, the Applicant respectfully requests that Claim 33 be allowed.

Amendment Attorney Docket No. 0664MH-40982-C Page 23

The Legal Standard for Novelty Rejections Under 35 U.S.C. § 102:

The following sets forth the legal standards for "anticipation."

The events that can lead to anticipation can be divided into the following seven

categories, all defined by statute:

1. <u>Prior Knowledge</u>: The invention was publicly known in the United States

before the patentee invented it.

2. Prior Use: The invention was publicly used in the United States either (i)

before the patentee invented it; or (ii) more than one year before he filed his patent

application.

3. Prior Publication: The invention was described in a printed publication

anywhere in the world either (i) before the patentee invented it; or (ii) more than one year

before he filed his patent application.

4. Prior Patent: The invention was patented in another patent anywhere in the

world either (i) before the patentee invented it; or (ii) more than one year before he filed his

application.

5. On Sale: The invention was on sale in the United States more than one

year before the patentee filed his application.

6. <u>Prior Invention</u>: The invention was invented by another person in the United

States before the patentee invented it, and that other person did not abandon, suppress or

conceal the invention.

7. Prior U.S. Patent: The invention was described in a patent granted on a

patent application filed in the United States before the patentee made the invention.

Each of those seven events has its own particular requirements, but they all have

the following requirements in common:

Amendment Attorney Docket No. 0664MH-40982-C Page 24

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1. Anticipation must be shown by clear and convincing evidence.

2. If one prior art reference completely embodies the same process or product

as any claim, the product or process of that claim is anticipated by the prior art, and that

claim is invalid. To decide whether anticipation exists, one must consider each of the

elements recited in the claim and determine whether all of them are found in the particular

item alleged to be anticipating prior art.

3. There is no anticipation unless every one of those elements is found in a

single prior publication, prior public use, prior invention, prior patent, prior knowledge or

prior sale. One may not combine two or more items of prior art to make out an

anticipation. One should, however, take into consideration, not only what is expressly

disclosed or embodied in the particular item of prior art, but also what inherently occurred

in its practice.

4. There cannot be an accidental or unrecognized anticipation. A prior

duplication of the claimed invention that was accidental, or unrecognized, unappreciated,

and incidental to some other purpose is not an invalidating anticipation.

Those four requirements must be kept in mind and applied to each kind of

anticipation in issue. The following additional requirements apply to some categories of

anticipation.

1. <u>Prior Knowledge</u>: An invention is anticipated if it was known by others in the

United States before it was invented by the patentee. "Known," in this context, means

known to the public. Private knowledge, secret knowledge or knowledge confined to a

small, limited group is not necessarily an invalidating anticipation. Things that were known

to the public only outside the United States are not invalidating anticipation.

2. Prior Use: An invention is anticipated if it was used by others before it was

invented by the patentee, or more than one year before the patentee filed his patent

application. "Use," in this context, means a public use.

Amendment Attorney Docket No. 0664MH-40982-C Page 25

- 3. <u>Prior Publication</u>: A patent is invalid if the invention defined by the claims was described in a printed publication before it was invented by the patentee or more than one year prior to the filing date of his application. For a publication to constitute an anticipation of an invention, it must be capable, when taken in conjunction with the knowledge of people of ordinary skill in the art, of placing the invention in the possession of the reader. The disclosure must be enabling and meaningful. In determining whether the disclosure is complete, enabling, and meaningful, one should take into account what would have been within the knowledge of a person of ordinary skill in the art at the time, and one may consider other publications that shed light on the knowledge such a person would have had.
- 4. <u>Prior Patent</u>: If the invention defined by the claims was patented in the United States or a foreign country, either before it was invented by the inventor or more than one year before the inventor filed his patent application, then the invention was anticipated. The effective date for this type of anticipation is the date on which two things co-existed: (i) the owner of the referenced patent had the right to enforce that patent; and (ii) the reference patent was available to the public. What was "patented" in the reference patent is determined by what is defined by its claims, interpreted in the light of the general description.
- 5. On Sale: A patent is invalid if the invention claimed in it was on sale in the United States more than one year prior to the application filing date.
- 6. <u>Prior Invention</u>: If the invention defined by the claims was invented by another person, in the United States, before it was invented by the inventor, and that other person did not abandon, suppress, or conceal the invention, the invention lacks novelty. A prior invention, even if put in physical form and shown to produce the desired result, is not an invalidating anticipation unless some steps were taken to make it public. However, it is not necessary that the inventor had knowledge of that prior invention.
- 7. <u>Prior U.S. Application</u>: A patent is invalid for lack of novelty if the invention defined by the claims was described in a United States patent issued on a patent application filed by another person before the invention was made by the inventor. The

Amendment
Attorney Docket No. 0664MH-40982-C
Page 26

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effective date of a prior application for purposes of this issue is the date on which it was

filed in the United States. Foreign-filed patent applications do not apply. If the issued

United States patent claims the benefit of more than one United States application, its

effective date as an anticipation is the filing date of the first United States application that

discloses the invention claimed in that referenced patent.

Experimental Use Exception: The law recognizes that it is beneficial to permit the

inventor the time and opportunity to develop his invention. As such there is an

"experimental use" exception to the "public use" and "on sale" rules. Even though the

invention was publicly used or on sale, more than one year prior to the application filing

date, that does not invalidate the patent, provided the principal purpose was experimenta-

tion rather than commercial benefit. If the primary purpose was experimental, it does not

matter that the public used the invention or that the inventor incidentally derived profit from

it.

When a public use or sale is shown, the burden is on the inventor to come forward

with evidence to support the experimental use exception. Only experimentation by or

under the control of the inventor qualifies for this exception. Experimentation by a third

party, for its own purposes, does not qualify for this exception. Once the invention leaves

the inventor's control, its use is a public one, even if further experimentation takes place.

The experimentation must relate to the claimed features of the invention. And it

must be for the purpose of technological improvement, not commercial exploitation. If any

commercial exploitation does occur, it must be merely incidental to the primary purpose of

experimentation. A test done primarily for marketing, and only incidentally for

technological improvement, is a public use.

The Legal Standard for Obviousness Rejections Under 35 U.S.C. § 103:

To establish a *prima facie* case of obviousness, three basic criteria must be met.

First, there must be some suggestion or motivation, either in the references themselves or

in the knowledge generally available to one of ordinary skill in the art, to modify the

reference or to combine reference teachings. Second, there must be a reasonable

Amendment Attorney Docket No. 0664MH-40982-C Page 27

expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. § 2142. Moreover, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); M.P.E.P. § 2143.03.

With respect to alleged obviousness, there must be something in the prior art as a whole to <u>suggest</u> the desirability, and thus the obviousness, of making the combination. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561 (Fed. Cir. 1986). In fact, the absence of a suggestion to combine is dispositive in an obviousness determination. *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573 (Fed. Cir. 1997). The mere fact that the prior art can be combined or modified does not make the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01. The consistent criterion for determining obviousness is whether the prior art would have suggested to one of ordinary skill in the art that the process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in the Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991; *In re O'Farrell*, 853 F.2d 894 (Fed. Cir. 1988); M.P.E.P. § 2142.

A recent Federal Circuit case makes it clear that, in an obviousness situation, the prior art must disclose each and every element of the claimed invention, and that any motivation to combine or modify the prior art must be based upon a suggestion in the prior art. *In re Lee*, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). Conclusory statements regarding common knowledge and common sense are insufficient to support a finding of obviousness. *Id.* at 1434-35.

Amendment Attorney Docket No. 0664MH-40982-C Page 28

### **CONCLUSION:**

In view of the foregoing amendments and remarks, the Applicant submits that Claims 21-34, as hereby amended, are now in condition for allowance, and respectfully requests that the Examiner issue a Notice of Allowance.

No fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any fees that may be required, or credit any overpayments, to Deposit Account No. 502806.

Please link this application to Customer Nos. 50779 and 38441 so that its status may be checked via the PAIR System.

Respectfully submitted,

12/21/05 Date

James E. Walton, Reg. No. 47,245
Alan Dawson Lightfoot, Reg. No. 57,756
Daren C. Davis, Registration No. 38,425
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**CUSTOMER NOS. 50779 and 38441** 

ATTORNEYS AND AGENTS FOR APPLICANT

Amendment Attorney Docket No. 0664MH-40982-C Page 29



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1459 Alexandria, Vrginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,537	08/28/2003	Gregory G. Kuelbs	0638MH-40982-US	9033
38441 75	590 01/09/2006		EXAM	INER
LAW OFFICE	ES OF JAMES E. WA	ALTON, PLLC	SAWHNEY, H.	ARGOBIND S
SUITE 107-328			ART UNIT	PAPER NUMBER
BURLESON,	TX 76028	•	2875	

DATE MAILED: 01/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

YOT-1202-0234

PTO-90C (Rev. 10/03)

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		Application No.		Applicant(s)	
	Notice of Non-Compliant	10/65	50 537		
	Amendment (37 CFR 1.121)	Examine	•	Art Unit	
	The MAILING DATE of this communication app	ears on the cover	sheet with the co	orrespondence a	ddress
requi	rementment document filed on 122705 rements of 37 CFR 1.121 or 1.4. In order for the am s) is required.	is considered ( lendment docum	non-compliant be ent to be complia	ecause it has fail ant, correction of	ed to meet the the following
THE (	FOLLOWING MARKED (X) ITEM(S) CAUSE THE A  1. Amendments to the specification: A. Amended paragraph(s) do not include B. New paragraph(s) should not be under C. Other	markings.	OCUMENT TO E	BE NON-COMPL	.IANT:
[	<ul><li>2. Abstract:</li><li>A. Not presented on a separate sheet. 37</li><li>B. Other</li></ul>	CFR 1.72.		·	
[	□ 3. Amendments to the drawings:     □ A. The drawings are not properly identified "Annotated Sheet" as required by 37 C     □ B. The practice of submitting proposed drawshowing amended figures, without man	FR 1.121(d). awing correction	has been elimina	ated Replaceme	ent drawings
	4. Amendments to the claims:  A. A complete listing of all of the claims is B. The listing of claims does not include th C. Each claim has not been provided with of each claim cannot be identified. Not number by using one of the following st (Previously presented), (New), (Not ent D. The claims of this amendment paper ha	e text of all pend the proper status e: the status of e atus identifiers: ( ered), (Withdraw	identifier, and a every claim must Original), (Curre n) and (Withdray	is such, the indiving be indicated afte the indicated after the indicated after the indicated are indicated as the indicated are indicated as the indicated are indicated as the indicated are indicated as the indicated are indicated as the indicated are indicated as the indicated are indicated as the indicated are indicated as the indicated are indicated as the indicated are indicated as the indicated are indicated as the indicated are indicated as the indicated are indicate	ridual status er its claim (Canceled),
	3. The amendment is unsigned or not signed in a	accordance with	37 CFR 1.4.		
For fui http://v	ther explanation of the amendment format required www.uspto.gov/web/offices/pac/dapp/opla/preognot	by 37 CFR 1.12 ice/officeflyer.pdf	1, see MPEP § 7	714 and the USP	TO website at
TIME	PERIODS FOR FILING A REPLY TO THIS NOTICE	≣:	•		
THE	oplicant is given <b>no new time period</b> if the non-comed after allowance. If applicant wishes to resubmit titre corrected amendment must be resubmitted we	he non-complian	t after-final amer	ndment with corre	ections the
an red	plicant is given one month, or thirty (30) days, whin rected section of the non-compliant amendment in nendment is one of the following: a preliminary ame quest for continued examination (RCE) under 37 CF riod under 37 CFR 1.103(a) or (c), and an amendm	n compliance wit ndment, a non-fil FR 1.114), a supp	h 37 CFR 1.121 nal amendment ( blemental amend	or 1.4, if the non (including a subn Iment filed within	n-compliant
	Extensions of time are available under 37 CFR 1. amendment or an amendment filed in response to a Failure to timely respond to this notice will result Abandonment of the application if the non-comfiled in response to a Quayle action; or Non-entry of the amendment if the non-complia	136(a) <u>only</u> if the a <i>Quayle</i> action. in: pliant amendmer	non-compliant a	amendment is a	n amendment
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	Legal Instruments Examiner (LIE)	<del></del> -	Te	272.1599 lephone No.	

# REVISED AMENDMENT PRACTICE: 37 CFR 1.121 CHANGED COMPLIANCE IS MANDATORY - Effective Date: July 30, 2003

All amendments filed on or after the effective date noted above must comply with revised 37 CFR 1.121. See Final Rule: Changes To Implement Electronic Maintenance of Official Patent Application Records (68 Fed. Reg. 38611 (June 30, 2003), posted on the Office's website at: http://www.uspto.gov/web/patents/ifw/ with related information. The amendment practice set forth in revised 37 CFR 1.121, and described below, replaces the voluntary revised amendment format available to applicants since February 2003. NOTE: STRICT COMPLIANCE WITH THE REVISED 37 CFR 1.121 IS REQUIRED AS OF THE EFFECTIVE DATE (July 30, 2003). The Office will notify applicants of amendments that are not accepted because they do not comply with revised 37 CFR 1.121 via a Notice of Non-Compliant Amendment. See MPEP 714.03 (Rev. 1, Feb. 2003). The noncompliant section(s) will have to be corrected and the entire corrected section(s) resubmitted within a set period

Bold underlined italic font has been used below to highlight the major differences between the revised 37 CFR 1.121 and the voluntary revised amendment format that applicants could use since February, 2003. Note: The amendment practice for reissues and reexamination proceedings, except for drawings, has not changed

## REVISED AMENDMENT PRACTICE

I. Begin each section of an amendment document on a separate sheet:

Each section of an amendment document (e.g., Specification Amendments, Claim Amendments, Drawing Amendments, and Remarks) must begin on a separate sheet. Starting each separate section on a new page will facilitate the process of separately indexing and scanning each section of an amendment document for placement in an image file wrapper.

II. Two versions of amended part(s) no longer required:

37 CFR 1.121 has been revised to no longer require two versions (a clean version and a marked up version) of each replacement paragraph or section, or amended claim. Note, however, the requirements for a clean version and a marked up version for substitute specifications under 37 CFR 1.125 have been retained.

Each amendment document that includes a change to an existing claim, cancellation of a claim or submission of a new claim, must include a complete listing of all claims in the application. After each claim number in the listing, the status must be indicated in a parenthetical expression, and the text of each pending claim (with markings to show current changes) must be presented. The claims in the listing will replace all prior claims in the application.

- (1) The current status of all of the claims in the application, including any previously canceled, not entered or withdrawn claims, must be given in a parenthetical expression following the claim number using only one of the following seven status identifiers: (original), (currently amended), (canceled), (withdrawn), (new), (previously presented) and (not entered). The text of all pending claims, including withdrawn claims, must be submitted each time any claim is amended. Canceled and not entered claims must be indicated by only the claim number and status, without presenting the text of the claims.
- (2) The text of all claims being currently amended must be presented in the claim listing with markings to indicate the changes that have been made relative to the immediate prior version. The changes in any amended claim must be shown by underlining (for added matter) or strikethrough (for deleted matter) with 2 exceptions: (1) for deletion of five characters or fewer, double brackets may be used (e.g., [[eroor]]); and (2) if strikethrough cannot be easily perceived (e.g., deletion of the number "4" or certain punctuation marks), double brackets must be used (e.g., [[4]]). As an alternative to using double brackets, however, extra portions of text may be included before and after text being deleted, all in strikethrough, followed by including and underlining the extra text with the desired change (e.g., number 4 as number 14 as). An accompanying clean version is not required and should not be presented. Only claims of the status "currently amended," and "withdrawn" that are being amended, may include markings.
- (3) The text of pending claims not being currently amended, including withdrawn claims, must be presented in the claim listing in clean version, i.e., without any markings. Any claim text presented in clean version will constitute an assertion that it has not been changed relative to the immediate prior version except to omit markings that may have been present in the immediate prior version of the claims.

Rev. 3 (07/24/03) Flyer for mailing with all Office actions by all TCs

(4) A claim being canceled must be listed in the claim listing with the status identifier "canceled"; the text of the claim must not be presented. Providing an instruction to cancel is optional.

(5) Any claims added by amendment must be presented in the claim listing with the status identifier "(new)"; the text of the claim must not be underlined.

(6) All of the claims in the claim listing must be presented in ascending numerical order. Consecutive canceled, or not entered, claims may be aggregated into one statement (e.g., Claims 1 - 5 (canceled))

# Example of listing of claims (use of the word "claim" before the claim number is optional):

Claims 1-5 (canceled)

Claim 6 (previously presented): A bucket with a handle.

Claim 7 (withdrawn): A handle comprising an elongated wire.

Claim 8 (withdrawn): The handle of claim 7 further comprising a plastic grip.

Claim 9 (currently amended): A bucket with a green blue handle

Claim 10 (original). The bucket of claim 9 wherein the handle is made of wood

Claim 11 (canceled)

Claim 12 (not entered)

Claim 13 (new): A bucket with plastic sides and bottom.

B) Amendments to the specification:

Amendments to the specification, including the abstract, must be made by presenting a replacement paragraph or section or abstract marked up to show changes made relative to the immediate prior version. An accompanying clean version is not required and should not be presented. Newly added paragraphs or sections, including a new abstract (instead of a replacement abstract), must not be underlined. A replacement or new abstract must be submitted on a separate sheet, 37 CFR 1.72. If a substitute specification is being submitted to incorporate extensive amendments, both a clean version (which will be entered) and a marked up version must be submitted as per 37 CFR 1.125.

The changes in any replacement paragraph or section, or substitute specification must be shown by underlining (for added matter) or strikethrough (for deleted matter) with 2 exceptions: (1) for deletion of five characters or fewer, double brackets may be used (e.g., [[eroor]]); and (2) if strikethrough cannot be easily perceived (e.g., deletion of the number "4" or certain punctuation marks), double brackets must be used (e.g., [[4]]). As an alternative to using double brackets, however, extra portions of text may be included before and after text being deleted, all in strikethrough, followed by including and underlining the extra text with the desired change (e.g., number 4 as number 14 as)

C) Amendments to drawing figures:

Drawing changes must be made by presenting replacement figures which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments, or remarks, section of the amendment, and may be accompanied by a marked-up copy of one or more of the figures being amended, with annotations. Any replacement drawing sheet must be identified in the top margin as "Replacement Sheet" and include all of the figures appearing on the immediate prior version of the sheet, even though only one figure may be amended. Any marked-up (annotated) copy showing changes must be labeled "Annotated Marked-up Drawings" and accompany the replacement sheet in the amendment (e.g., as an appendix). The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Questions regarding the submission of amendments pursuant to the revised practice set forth in this flyer should be directed to: Elizabeth Dougherty or Gena Jones, Legal Advisors, or Joe Narcavage, Senior Special Projects Examiner, Office of Patent Legal Administration, by e-mail to patentpractice@uspto.gov or by phone at (703) 305-1616.

Rev. 3 (07/24/03) Flyer for mailing with all Office actions by all TCs

	PATENT APPLICATION FEE DETERMINATION RECORD   10/650 537   Effective December 8, 2004											
CLAIMS AS FILED - PART I (Column 1) (Column 2)							SMALL E		OR		THAN ENTITY	
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N THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0638MH-40982-US

Examiner: SAWHNEY, HARGOBIND S.

ASSEMBLE Acation of:

**GREGORY G. KUELBS** 

Serial No. 10/650,537

Filed: 28 AUGUST 2003

Art Unit: 2875

For: UMBRELLA APPARATUS

TRANSMITTAL

### **MAIL STOP AMENDMENT**

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

Please file the following enclosed documents in the subject application:

- 1. This Transmittal with Certificate of Mailing;
- Information Disclosure Statement, Form PTO/SB/08A, Form PTO/SB/08B; 2. and Foreign Language Copy of JP-9-168415;
- A check in the amount of \$180.00 to cover the Submission of an 3. Information Disclosure Statement Fee
- 4. Our return postcard which we would appreciate you date stamping and returning to us. e PTO did not receive the following sted Item(s) & 180000 But \$ (13,0) 0

**CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8(a)** 

Date of Deposit: 1/9/06

I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail with sufficient postage under 37 C.F.R. §1.8(a) on the date indicated above and is addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Transmittal Attorney Docket No. 0638MH-40982-US Page 1

Submitted herewith is a check in the amount of \$180.00 to cover the Submission of an Information Disclosure Statement Fee. No additional fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any fees that may be necessary, or credit any overpayments, to Deposit Account No. **502806**.

Respectfully submitted,

James E. Welton, Reg. No. 47,245
Law Offices of James E. Walton, P.L.L.C.
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ATTORNEY FOR APPLICANT

Transmittal Attorney Docket No. 0638MH-40982-US Page 2



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In re Application of:

**GREGORY G. KUELBS** 

Serial No. 10/650,537

Filed: 28 AUGUST 2003

For: UMBRELLA APPARATUS

Attorney Docket No. 0638MH-40982-US

Examiner: SAWHNEY, HARGOBIND S.

Art Unit: 2875

## INFORMATION DISCLOSURE STATEMENT

## **Mail Stop Amendment**

**Commissioner for Patents** P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

In accordance with 37 C.F.R. §1.56 and under 37 CFR 1.97(c)(1) and 37 CFR 1.97(c)(2), the references listed on the attached forms PTO/SB/08A and PTO/SB/08B (substitutes for form 1449/PTO) are being brought to the attention of the Examiner for consideration in the subject application.

## **CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8(a)**

Date of Deposit:

I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail with sufficient postage under 37 C.F.R. §1.8(a) on the date indicated above and is addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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Information Disclosure Statement Attorney Docket No. 0638MH-40982-US Serial No. 10/650,537 Page 1

Each of U.S. Patent Application Serial No. 11/199956, U.S. Patent Application Serial No. 10/829790, and U.S. Patent Application Serial No. 10/829790, papers related to U.S. Patent Reexamination Control No. 95/000,104 contain technical disclosure in common with the subject application.

The following foreign-language document is being brought to the attention of the Examiner:

JP-9-168415

Applicant submits herewith a copy of the Japanese patent publication JP-9-168415 in a language other than English. This reference was first brought to Applicant's attention upon the receipt of a "COMMENTS OF THIRD PARTY REQUESTER TO PATENT OWNER'S RESPONSE IN *INTER PARTIES* REEXAMINATION AND TO OFFICE ACTION" correspondence received on 20 December 2005 and related to Inter Parties Reexamination Control Number 95/000,104 of U.S. Patent No. 6,612,713.

The filing of this Information Disclosure Statement shall not be construed to be a representation that a search has been conducted, nor shall it be construed as an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

It is respectfully requested that the Examiner return a copy of each attached form PTO/SB/08A and PTO/SB/08B with initials or other appropriate marks indicating consideration of the cited materials.

Certification Under 37 C.F.R. §1.97(e):

The information on form PTO/SB/08A is being submitted subsequent to the later of three months after the filing date of the present application or the mailing of the first Office action on the merits, but before the mailing of a final action or the notice of allowance. Accordingly, the undersigned hereby certifies that no item of information contained in information disclosure statement form PTO/SB/08A was, after making reasonable inquiry, no item of information contained in information disclosure statement form PTO/SB/08A

Information Disclosure Statement Attorney Docket No. 0638MH-40982-US Serial No. 10/650,537 Page 2

was known to any individual designated in § 1.56(c) more than three months prior to the filing of this information disclosure statement.

### Payment of the Fee Under 37 CFR 1.17(p):

The information on form PTO/SB/08B is being submitted subsequent to the later of three months after the filing date of the present application or the mailing of the first Office action on the merits, but before the mailing of a final action or the notice of allowance. Accordingly, the undersigned submits a payment in the amount of \$180.00 to cover the Submission of an Information Disclosure Statement Fee.

Submitted herewith is a check in the amount of \$180.00 to cover the Submission of an Information Disclosure Statement Fee. No additional fee is considered to be necessary for the filing of this Information Disclosure Statement. However, the undersigned hereby authorizes the Director to charge any fees that may be required, or credit any overpayments, to **Deposit Account No. 502806**.

Please link this application to Customer Nos. 50779 and 38441 so that its status may be checked via the PAIR System.

Respectfully submitted,

//9/06 Date

James E. Walton, Reg. No. 47,245 Law Offices of James E. Walton, P.L.L.C.

1169 N. Burleson Blvd., Suite 107-328

Burleson, Texas 76028 (817) 447-9955 (Voice)

(817) 447-9954 (Facsimile)

jim@waltonpllc.com

**CUSTOMER NOS. 50779 and 38441** 

ATTORNEY FOR APPLICANT

Information Disclosure Statement Attorney Docket No. 0638MH-40982-US Serial No. 10/650,537 Page 3

Substitute for form 144

PTO/SB/08A (07-05) Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE to a collection of information unless it contains a valid OMB control number.

**INFORMATION DISCLOSURE** STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1

Complete if Known Application Number 10/650,537 Filing Date 28 August 2003 First Named Inventor Gregory G. Kuelbs Art Unit 2875 **Examiner Name** Hargobind S. Hawhney 0664MH-40982-C Attorney Docket Number

	1			DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number  Number-Kind Code <sup>2</sup> (# known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	Al	<sup>US-</sup> 5911493	06-15-1999	Walker, et al.	
	AJ	<sup>US-</sup> 5611614	03-18-1997	Morgan, Robert E.	
	AK	<sup>US-</sup> 2005/0072451-A1	04-07-2005	Vivian, Charlie, et al.	
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at <a href="www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language

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		(UE MI		Application Number	10/650,537
			CLOSURE	Filing Date	28 August 2003
STA	TEMENT E	BY A	PPLICANT	First Named Inventor	Gregory G. Kuelbs
	(Use as many she	n se ster	acassary)	Art Unit	2875
		40 11		Examiner Name	Hargobind S. Hawhney
Sheet	1	of	1	Attorney Docket Number	0664MH-40982-C

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	АМ	U.S. Patent Application Serial No. 11/199956 titled "Umbrella Apparatus" filed on 08-09-2005	
	AN	U.S. Patent Application Serial No. 10/829790 titled "Umbrella Apparatus" filed on 04-22-2004	
	AO	U.S. Patent Reexamination Control No. 95/000,104 for U.S. Patent No. 6612713	
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(19)日本国特許庁 (JP)

## (12) 公開特許公報(A)

## (11)特許出願公開番号

## 特開平9-168415

(43)公開日 平成9年(1997)6月30日

(51) Int.Cl.<sup>6</sup>

識別記号 庁内整理番号

FI

技術表示箇所

A 4 5 B 3/04

A 4 5 B 3/04

C

## 審査請求 未請求 請求項の数 9 書面 (全 11 頁)

(21)出願番号

特願平7-353400

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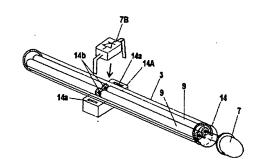
(54) 【発明の名称】 発光傘及び製造方法

(57)【要約】

(修正有)

【課題】 骨に添設する各LEDを点滅して発光させ、 安全性及び装飾性のある発光傘を提供する。

【解決手段】 傘を構成する骨3に沿って配線するリード線9の少なくとも1か所にLED7を設け、該リード線9を骨3沿いと支柱4内、又は骨3沿いのみに通して配線し、該各リード線9と回路接続する電源電池8と切り換え開閉器10と点滅回路11を、それぞれ握り5又は石突き12に設け、切り換え開閉器10によって各LED7を「消灯」「連続点灯」「点滅発光」のいずれかに切り換えて発光させる構成である。



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#### 【特許請求の範囲】

【請求項1】 傘を構成する骨(3)に沿って配線するリード線(9)の少なくとも1か所にLED(7)を設け、該リード線(9)を前記骨(3)沿いと支柱(4)内、又は前記骨(3)沿いのみに通して配線し、該各リード線(9)と回路接続する電源電池(8)と切り換え開閉器(10)と点滅回路(11)を、それぞれ握り(5)又は石突き(12)に設け、前記切り換え開閉器(10)によって各LED(7)を「消灯」「連続点灯」「点滅発光」のいずれかに切り換えて発光させることを特徴とする発光傘。

【請求項2】 前記点滅回路 (11) において、各LE D(7)(7)・・・(7)の一つ一つの点滅周期を各 々可変して給電する制御部 (11a) を設け、該制御部 (11a) によって予め設定した各LED (7) (7) ・・・(7)の点滅周期に応じた少なくとも2種以上の 点滅パターンを用意し、点滅パターン切換器(10A) によってその点滅パターンのいずれかに切り換え選択し て発光させることを特徴とする請求項1記載の発光傘。 【請求項3】 請求項1記載の切り換え開閉器 (10) と請求項2記載の点滅パターン切換器 (10A) の両器 を一体にした点滅切り換え開閉器 (10B) を請求項2 記載の回路に設け、その点滅切り換え開閉器 (10B) によって各LED(7)(7)···(7)を「消灯」 「連続点灯」「点滅パターン①」「点滅パターン②」・ ・・のいずれかに切り換え発光させることを特徴とする 請求項1 又は2 記載の発光傘.

【請求項4】 傘を構成する骨(3)に沿って配線する リード線(9)の少なくとも1か所に自己点滅LED (7A)を設け、該リード線(9)を前記骨(3)沿い と支柱(4)内、又は前記骨(3)沿いのみに通して配 線し、該各リード線(9)と回路接続する電源電池

(8) と開閉器 (10a) を、それぞれ握り (5) 又は石突き (12) に設け、前記開閉器 (10a) によって各自己点滅LED (7A) (7A)・・・(7A) を「消灯」又は「点滅」して発光させることを特徴とする発光象

【請求項5】 傘を構成する骨(3)と支柱(4)支持部(6)との少なくとも一つを各LED(7)又は各自己点域LED(7A)に給電する通電部として回路接続した請求項1,2,3又は4記載の発光傘。

【請求項6】 折畳み式の傘において、支柱(4)内又 は周面に、上下に摺動して接触通電する摺動式電極(1 6)を少なくとも1極設けたことを特徴とする請求項 1,2,3,4又は5記載の発光傘。

【請求項7】 前記リード線(9)の適所に所要数のソケット(14)を接続固定して製造し、次に骨(3)に沿ってそのリード線(9)を配線し、前記ソケット(14)へ各LED(7)を挿脱可能に設けたことを特徴とする請求項1,2,3,4,5又は6記載の発光傘及び

#### その製造方法。

【請求項8】 LED (7) に給電するリード線 (9) の先端部にソケット (14) を接続固定して製造し、次に該ソケット (14) を骨 (3) の先端に位置させ、同ソケット (14) にLED (7) を挿脱可能に装備させ、該LED (7) を光透過性の保護キャップ (15)で覆い、前記骨 (3) の先端部に装設させて製造する発光傘の製造方法。

【請求項9】 LED(7)が一つのLED単体で複数 色に発光する複数色LEDや自己点滅LED(7A)で なる請求項8記載の発光傘の製造方法。

#### 【発明の詳細な説明】

【発明の属する技術分野】本発明は、雨の夜に安全に歩行できる発光傘と製造方法に関する。

【従来の技術】雨の夜、傘をさして歩いていると傘によ って視界が狭くなり、周りが見えにくく自動車等の接近 するのが気がつかず非常に危険な場合がある。特に前方 から風が吹いている場合には、傘を前方に傾けることが 余儀なくされ、前方の対向車が見えなくなり非常に危険 である。また自動車側においても、雨の日は視界が悪い 上にフロントガラスがくもりやすく、前方がよく見えな くなって、特に傘をさした歩行者が黒っぽい服装で黒っ ぼい傘をさしていれば、発見するのがとても容易でなく 非常に危険になる場合がある。そこで傘の骨の先端にL ED (発光ダイオード) を設け、傘の柄 (把手) 部分に 電池を内蔵させ、前記LEDを点灯させる公知発明とし て実開平1-170120号公報、実開平2-5962 0号公報、特開平4-5906号公報などが出願されて おり、点滅させる公知発明として実開昭60-6902 2号公報、特開昭60-45302号公報、実開平1-117213号公報(点灯又は点滅のいずれのみ)など が出願されている。ここでこれらの公知発明において、 実際に実施した場合には自動車の運転者はその点灯又は 点滅する光を遠方より容易に視覚することができ、前述 の問題に対してある程度効果を発揮することが、本発明 者の試行実験によっても確かめられた。しかしながら本 発明者はその試行実験の過程で、前記公知発明にはさら に改良の余地があり、改良を加えることでよりいっそう の安全面と装飾面における効果を発揮できることを見い だした。すなわち前記公知発明においては、各LEDは 開閉器をONすれば単に連続して点灯するか点滅するか のどちらかのみの構成であって、安全面においては、夜 発光している光はそのまま変化無く連続して発光してい る光よりは、点滅しながら発光している光の方がより人 間の視覚に注意や警告を喚起させるものであり、発光す る光を点滅させることで人に注意や警告を与えられ、そ こに人の目を注視させる特性をもっている。このためそ の特性を応用することがさらに効果的で、そこで本発明 者は「連続点灯」の発光と「点滅発光」とを使い分ける ことをここに提案する。例えば「連続点灯」状態から

「点滅発光」状態にぱっと切り換えることで、急な点灯 状態の変化によって人の目をそこに注視させることがで き、また道路の沿道を歩いている時は「連続点灯」にし ておき、道路を横断する時は「点滅発光」にすれば、そ の場に応じた2段階の注意や警告を与えることができ る。これをもし「点滅発光」状態のみで沿道を歩いてい れば、車の運転者は常時必要以上に注意を注ぐことにな り神経が疲れてしまう。ところが公知発明の構成ではそ の場に応じて「連続点灯」又は「点滅発光」に可変でき ないものである。次に、装飾面においては、従来傘に潜 在する問題点として次のことがうかがえる。本来傘は雨 の日に携帯して持ち歩くものであるが、雨が降らなかっ た日や室内、電車の中では「お荷物」になってしまいが ちで、傘は実用面での単なる「雨よけの道具」として、 装飾性に乏しく携帯する楽しさがなかった。そして公知 発明においても安全面に鑑みてなされているが、装飾性 には乏しいものであった。さらに、次の問題として製造 面の問題については、公知発明ではその問題が特に言及 されてないが、LEDを用いて点灯又は点滅させる発光 傘を実際に製造するにあたっては、大きな解決すべき問 題があり、公知発明においてはその問題を解決する構成 や製造方法が示されていない。例えば実開平1-170 120号公報、実開平2-59620号公報、特開平4 -5906号公報などに、傘の骨にLEDを固設する図 が開示されているが、この公知発明の構成はLEDをリ ード線又は骨又はホルダーから離脱できないように固設 しており、この構成においては次のようなことが実際問 題として起きる。

1) 傘は往々にして乱暴に扱われやすく、特に傘の骨の 先端は何かにぶつけやすく、そのため公知発明の固設し たLEDは破損、欠落してしまう恐れがある。このため それを防止するには頑強に構成することが必要である が、傘の製作費にも限界があり、もし破損、欠落した場 合には公知発明の構成では修理が容易でなく、場合によ っては傘の寿命ということになりかねない。(以上前記 公知3発明)

2) LEDをリード線又は骨に固設する構成で傘を試作的に製作することは可能であるが、実際に傘の量産においては一つ一つのLEDをリード線に接続固定して製造することはその製造工程がとても難しく、また後述する生産性が低い。(以上前配公知2発明)

【発明が解決しようとする課題】本発明は、前配公知発明及び従来の傘に潜在する安全面、装飾面、製造面の問題に鑑みてなされたもので、その目的は安全面では傘の骨に沿って設ける各LEDを「連続点灯」と「点滅発光」の2段階に切り換え発光させる構成にすることで、運転者にその場に比例した注意や警告の喚起を2段階で促せるようにして、最も効果的な安全性を発揮させることであり、また装飾面ではいくつかの点滅パターンを予め用意しておき、それらを選択して切り換え発光できる

ようにすることで、電飾的な美観をもった装飾性のあるファッショナブルな発光傘を提供することである。また製造面においては、最も生産性が良くしかも修理交換が簡単なアフターケアを考慮した発光傘を提供することである。また最も安価な構成でできる点滅発光傘を提供することにもある。

【課題を解決するための手段】本発明は前記課題を解決 するために、安全面、装飾面においては、傘を構成する 骨(3)に沿って配線するリード線(9)の少なくとも 1か所にLED (7) を設け、該リード線 (9) を前記 骨(3)沿いと支柱(4)内、又は前記骨(3)沿いの みに通して配線し、該各リード線 (9) と回路接続する 電源電池(8)と切り換え開閉器(10)と点滅回路 (11) を、それぞれ握り(5) 又は石突き(12) に 設け、前記切り換え開閉器 (10) によって各LED (7)を「消灯」「連続点灯」「点滅発光」のいずれか に切り換えて発光させる構成である。また前記点滅回路 (11) において、各LED (7) (7) ··· (7) の一つ一つの点滅周期を各々可変して給電する制御部 (11a) を設け、該制御部 (11a) によって予め設 定した各LED (7) (7) ・・・ (7) の点滅周期に 応じた少なくとも2種以上の点滅パターンを用意し、点 滅パターン切換器(10A)によってその点滅パターン のいずれかに切り換え選択して発光させる構成であり、 また切り換え開閉器 (10) と点滅パターン切換器 (1 0A) の両体を一体にした点滅切り換え開閉器 (10 B)を前記回路に設け、その点滅切り換え開閉器 (10 B) によって各LED (7) (7) · · · (7) を「消 灯」「連続点灯」「点滅パターン①」「点滅パターン ②」・・・のいずれかに切り換え発光させる構成であ る。また安価に点滅させる構成として自己点滅LEDを 設けることで、点滅回路を設けなくてもそのLEDが自 己点滅して発光する構成にするものである。また製造面 においては、リード線(9)に所要数のソケット(1 4)を接続固定して製造し、次に骨(3)に沿ってその リード線(9)を配線し、次に前記ソケット(1 4)へ 各LED(7) を挿脱可能に設けて製造する製造方法で ある。またLED (7) に給電するリード線 (9) の先 端部にソケット(14)を接続固定して製造し、次に該 ソケット(14)を骨(3)の先端に位置させ、同ソケ ット(14)にLED(7)を挿脱可能に装備させ、次 に該LED (7) を光透過性の保護キャップ (15) で 覆い、前記骨(3)に装設して製造する製造方法であ る。また傘を構成する骨(3)と支持部(6)と支柱 (4) の少なくとも一つを各LED (7) に給電する通 電部として回路接続する構成にすることもできる。 【発明の実施の形態】本発明が実施する形態を以下に列 挙し、詳細については実施例で説明する。 \*LEDは全部の骨に添設してもよいし、選択した骨の

みに添設してもよい。

\*一本の骨に沿って添設するLEDは1個のみでもよいし、複数個でもよい。

\*骨に沿って配線するリード線は、骨が中空であれば中 を通してもよいし、忠実であれば外側に沿って配線して もよい。

\*LEDは赤色に限らず緑色や脊色でもよいし、各々混在させてもよい。

\*各LEDを点滅させる周期及びその点滅パターンは点滅回路の制御部によっていろいろ設定できる。

\*電源となる電池はバッテリーであってもよい。 【実施例】本発明を図面を基に説明する。

#### 実施例1

図1は、本発明の実施例1を示すものである。まず従来 の傘1の構成として、支柱4の下端に握り5があり、支 柱4の上部には支持部6があり、支持部6に軸支された 骨3が複数本(通常8本)あり、骨3に張設したシート 2で構成される。この構成において、図1 (a) は本発 明の実施例1を示す正面図、図1 (b) は下から見た底 面図を示すものである。8本の骨3の各先端部に赤色の LED7を回路接続して設けたもので、この回路構成と しては図7に示す構成であり、8個のLED7、7・・ ・7をそれぞれ並列に接続し、電池8と切り換え開閉器 10及び点滅回路11とを回路接続し、LED7、7・ ・・7を「OFF」「連続点灯」「点滅発光」に切り換 えられるようにしたものである。ここで各構成部の説明 をする。LED7は図5に示すように、2本の+極と-極のリード線9、9をソケット14の電極端子14b、 14bにそれぞれはんだ接続し、そのリード線9、9を 骨3の内側に配線して、骨3の先端にソケット14を位 置させ、その各電極孔14a、14aにLED7の2つ の端子を差し込んで接続した後、保護キャップ15を覆 せて設けたものである。保護キャップ15は光透過性の 合成樹脂で形成し、容易に外れることがないようにロッ クする嵌合式や螺合式に設け、覆せた状態では外力が直 接LED7に加わらないようにしてLED7の破損を防 止している。保護キャップ15は割れにくい柔軟な素材 で構成することができる。ソケット14は骨3の先端に 固設してもよいし、固設しないでもよい。 図4に示すよ うに、電源部を握り5に設けて、回転切り換え式の切り 換え開閉器10を握り5の上部側部に設け、点滅回路1 1を握り5の上部内部に設ける。そして図7の回路構成 で点滅回路11は図示しないが、電解コンデンサとIC (LM3909) によって構成できる。次に単5型電池 8を2本直列にして握り5内の電池ホルダー13に収納 して設け、握り5の上部は螺合式で着脱構造に設ける。 LED7、7・・・7と接続するリード線9、9・・・ 9は各骨3内に配線し、支持部6で各同極どうし接続し た後、この各リード線9、9を若干余裕をもたせて支柱 4内に通して配線し、切り換え開閉器10と点滅回路1 1と電池ホルダー13の各端子と回路接続する。この支

柱4内を配線したリード線9、9の接続は図示しないコ ネクタで接続でき、また直に接続してもよい。この構成 で各リード線9、9は傘1を折り畳む際、支柱4内に配 線しているため邪魔にならなく、しかも支持部6で若干 長さの余裕をもたせてあるため、屈曲による断線の恐れ がない。この構成による実際の使用は、図7の回路構成 にして、握り5に設けた切り換え開閉器10を回転させ て切り換え操作し、例えば「点滅」に固定すれば、傘1 の周りに設けた8個のLED7、7・・・7が同時に一 気に点滅発光し、そして「点灯」に固定すれば一気に連 続点灯で発光する。ここで点滅発光の点滅周期は点滅回 路11内の制御部11 a の回路構成を変えることで可変 できる。この各LED7が点滅した発光は遠くからは立 体的な楕円状に見え、丸い傘が周期的に楕円状に浮かび 上がって視覚できると共に、暗がりでは非常に際立って 見えるため注意や喚起を促し、その効果は連続で点灯し ているよりは効果が大きい。また傘1を傾ければ、その 傾きによって多種な楕円(最大円)形状で周期的に光 り、浮かび上がって見えるため人の目を注視させると共 に美観を与える。ここでLED7、7・・・7を赤色の みでなく、緑色で構成して緑色の点滅にしたり、赤色と 緑色を混在させて点滅することもでき、さらに電飾的な 美観を備えた点滅発光になる。点灯又は点滅の切り換え は切り換え開閉器10によって瞬時にしてでき、その場 の状況に応じて切り換えられるため、特に危険を予知す る場合には瞬時にして赤く点滅発光させることが危険を 知らせるために特に効果的である。尚、未使用時は切り 換え開閉器10を「OFF」に固定することで、各LE D7は点灯も点滅もしないままにして保管できる。尚、 リード線9を骨3と支柱4内に通して配線したが、骨3 や支持部6や支柱4を1極側の通電部として回路接続す ることもできる。次に製造方法として、LED7に給電 するリード線9の先端部にソケット14を接続固定して 製造し、次に該ソケット14を骨3の先端に位置させ、 同ソケット14にLED7を挿脱可能に装備させ、この LED7を光透過性の保護キャップ15で覆い、前記骨 3に装設して製造する製造方法にすることで、保護キャ ップ15に覆われてLED7が破損しにくく、仮に傘を 使用中にLED7が破損したとしても、新しいLEDと 差し替えることが可能で簡単に修理交換ができる。また 製造工程においては、ソケット14を例えば赤いLED と緑のLEDのどちらでも抜き差しできるように構成す ることができるため、リード線9にそのソケット14を 接続固定したワイヤーハーネスアッセイを赤と緑の両用 に共通化できて、製造工程での部品点数を最小限にで き、製造工程が簡単で生産しやすくなる。

#### 実施例2

図2は、本発明の実施例2の構成を示すものである。傘 1を構成する8本の骨3に対して、リード線9、9の3 個所に並列に接続した各ソケット14を設けて、それぞ

れに各LED7a1、7b1、7c1/・・・/7a 8、7 b 8、7 c 8の各端子をそれぞれ差し込んでその リード線9、9を骨3に沿って設けたものである。リー ド線9、9と各ソケット14、14Aとの接続固定の仕 方は、例えば図13に示すような構成で、2本のリード 線9、9の先端には円柱状のソケット14とその電極端 子14b、14bとをはんだ接続して固定し、リード線 9、9の適当な2か所で被覆を剝いで露出させた芯線に 3mm (横) ×6mm (縦) ×2.5mm (高さ) 程の 大きさのソケット14A、14Aをそれぞれ各電極端子 14b、14bとはんだ接続して固定したものである。 ここで各ソケット14A、14Aとリード線9との接続 は、ひと続きの一本のリード線9によって接続してもよ いし、各ソケット間をつなぐリード線9をそれぞれ用意 して分割して接続してもよい。ここでソケット14とソ ケット14A、14Aと接続したリード線9、9は傘本 体とは別にして、一つのワイヤーハーネスアッセイとし て製造することができ、各骨3に配線するリード線9、 9をそれぞれ束ねてその先端を前述の電源部とコネクタ 接続するワイヤーハーネスアッセイ体を造ることができ る。図13及び図14で示す一つ一つのワイヤーハーネ スアッセイは後述する生産性をあげることができる。こ の図13及び図14で示すワイヤーハーネスアッセイの 傘への取付方法としては、骨3が中空な場合は図15に 示すように骨3内にリード線9、9を通し、はめ込み式 にするか適所を図示しない係止部材で固定するか又は接 着剤で固定することができる。そして固定した状態で両 端子が同方向に突出されたLED7を、リード線9、9 の先端に固定したソケット14の電極孔14a, 14a に差し込み、その上から保護キャップ15を実施例1の 図5と同様に覆せて骨3に固定する。次に端子が互いに 反対方向に突出された実施例として、2.2mm (横) ×3mm (縦)×1.5mm (高さ)程の大きさのLE D7B(松下電子工業型番LN0120CAL)を、前 記ソケット14Aの電極孔14a, 14aに差し込み固 定する。ここでLED7Bは前記した微小な大きさであ るため、骨3上に固定した状態にしてシート2で覆って も何ら邪魔にならない。尚、骨3が中空でなく中実な場 合は、リード線9、9を骨3の外側に沿わせて配線して もよいし、またリード線9とソケット14、14Aの電 極端子14 b との接続は、はんだ接続に限らず圧着具等 でかしめて機械的に接続してもよい。またリード線9と 接続固定するソケットは、ソケット14Aタイプの構成 のみにしてリード線9の先端を含めて各位置に設けても よい。この構成によって、LED7、7Bをそれぞれ接 統固定した構成にして、図8に示すのはその全LED7 a 1、7 b 1、7 c 1/···/7 a 8、7 b 8、7 c 8を各々並列接続した一つの実施例を示す回路構成であ る。ここでまず切り換え開閉器10で「点灯」に接続 し、連続点灯させれば、その発光する光は立体的な上半

球状に見え、実施例1よりさらに傘の形状が浮彫りにプ ラネタリウムのように立体的に視覚でき、しかも傘1全 体がさらにきらびやかに明るく際立って見える。また傘 1を傾けることによって、各発光する光が重なり合った り、交錯したりしてさらに一層美観を与える。次に切り 換え開閉器10を「点滅」に切り換え、点滅回路11と 接続すれば、予め制御部11a内の回路に設定したいく つかの点滅パターンがあり、その点滅パターンは点滅パ ターン切換器10Aによって切り換えられ所望の点滅パ ターンで発光させることができる。その点滅パターンは 制御部11a内の回路で各LED7、7・・・7に給電 する周期を一つ一つ可変設定することでなされる。その 制御部11a内の一つの実施回路例を図9に示す。ここ で示す回路はシ7トレジスタを利用しており、シリアル 入力とパラレル出力タイプのシ7トレジスタを使用して おり、この回路構成を利用して例えば図10に示すよう な点滅パターンを用意し、点滅パターン切換器10Aに よって切り換え各々点滅させることができる。その各点 滅パターンの例を示すと

- (a) 各LEDが順に点灯していき、全点灯して全消灯 する点滅パターン
- (b)各LEDがひとつおきに交互に点滅を繰り返す点 滅パターン
- (c) 各LEDが同時に点滅を繰り返す点滅パターン
- (d) 2つのLEDと1つのLEDが交互に点滅を繰り 返す点滅パターン
- (e)各LEDがルーレット状に1つづつ点滅していく 点滅パターン

などで設定できるが、他にも様々に設定できる。また点 滅速度はポリューム11bによって可変できる。図11 は切り換え開閉器10と点滅パターン切換器10Aの両 器を一体にして一つの開閉器で切り換えられるようにし たもので、その点滅切り換え開閉器10Bで各LED7 を、「消灯」「点灯」「点滅パターン①」「点滅パター ン②」・・・に各々切り換えられるようにでき、この構 成にすることで全ての切り換え操作が一つの切換器でで きて非常に簡単に操作できる。ここで、前述の図13に 示したワイヤーハーネスアッセイにおいて、例えば先端 に接続したソケット14のみにLED7を接続し、他の ソケット14Aは空きのままにして骨3に設けてもよ く、こうすることで実施例1と同様の構成にして実施で きる。また各ソケット14、14Aには、LED7、7 Bを挿脱自在に構成してあるため、例えば赤いLEDを 接続して構成したり、又は緑のLEDを接続して構成し たり、或は混在させて構成したりと、図示の一つのワイ ヤーハーネスアッセイで全て共通化でき、このためワイ ヤーハーネスアッセイを各共通化できるため、多種類の 発光傘を製作する場合も、部品点数を減らすことがで き、製造が簡単でしかも低コストで生産できる。ここ で、図14に示すように、ワイヤーハーネスアッセイを

各々独立したリード線9、9と各ソケット14、14A とを接続固定して別接続で構成することもでき、このよ うに構成することで、一つの骨3に設けたLED7B、 LED7B、LED7をそれぞれ別々に点灯又は点滅さ せる制御ができる。また図16に示すように、ソケット 14、ソケット14Aの電極端子14bの各一端を可撓 性をもたせて、金属製の骨3に機械的に接触させて通電 するように構成してもよい。各LEDには給電する電流 を数10mAに制限する抵抗器Rを直列に接続する必要 があり、そのため骨3は特に抵抗値の低いものでなくて もよく、鉄材であれば十分に通電の役目を果たしこの構 成で実施できる。また前記した図14のワイヤーハーネ スアッセイの構成によって、傘1の発光する点滅パター ンはさらにさまざまな点滅パターンで編成でき、例えば LED  $(7c1 \cdot \cdot \cdot 7c8) \rightarrow (7b1 \cdot \cdot \cdot 7b)$ 8) → (7a1···7a8) の順に傘の上方から下方 に向けて点灯又は点滅させたりすることができる。ここ で点滅回路11は回路構成する各素子を集積化してチッ プ状にし、図4に示す握り5の上部内に納めることがで きる。

#### 実施例3

図3は、本発明の実施例3の構成を示すものである。傘1を構成する8本の骨3のうち、ひとつおきの4本の骨3の先端に発振チップを内蔵した自己点滅LED7Aを設けたもので、図12に示す回路接続にすれば4個の自己点滅LED7Aを自己点滅して発光させることができる。この構成にすれば点滅のための回路を接続しなくても自己点滅し、非常に安価に製作実施できる。尚、実施例1、2と同様に8本の骨3に適当数のLED7Aを添設してもよい。

#### 実施例4

図6は、本発明の実施例4の構成を示すものである。電 池8を収納する電池ホルダー13と点滅切り換え開閉器 10Bと点滅回路11とを、中心部が中空な一体成形体 にしたものを石突き12に嵌設したものである。前実施 例のように握り5で切り換え開閉操作をしてもよいが、 この実施例の構成のように石突き12にでも切り換え開 閉操作することができ、特に折量み傘には適した構成で ある。尚、本発明の構成として、LED7を一つのLE D単体で複数色に発光する複数色LEDによって構成す ることもできる。またLED7を追加して石突き12の 頂点又は内部に設けて発光させることもできる。また前 記構成で石突き12に電池ホルダー13と切り換え開閉 器10又は点滅パターン切換器10A又は点滅切り換え 開閉器10日のいずれかと点滅回路11とを内設させる ようにしてもよい。またリード線9は同軸ケーブルで構 成してもよい。また折量み式の傘において、骨3に沿っ てリード線9を配線し、そのリード線9を、図12に示 す支柱4内に設けた摺動式に接触通電する摺動式電極1 6、16と接続する構成にしてもよい。ここで支柱4を

1極にして通電し、この摺動式電極16を1極のみの構成にもできるし、また支柱4の周面に設けることもできる。

【発明の効果】前述のように本発明は、安全面では傘の 骨に沿って設けた各LEDを「連続点灯」又は「点滅発 光」に切り換えて発光できるため、運転者にその場の危 険状況に応じた注意や警告を2段階にして喚起でき、最 も効果的に注視させて安全な発光傘を提供することがで きる。また装飾面では、予め用意したいくつかの点滅パ ターンを所望のパターンに選択切り換えて発光でき、そ の光景は電飾的な美観と装飾性をもちファッショナブル な傘を提供できる。また製造面では、予め所要数のソケ ットを接続固定したリード線をハーネスアッセイとして 製造して共通化でき、次工程でLEDを挿脱可能に装備 する製造方法であるため、製造が簡単で最も生産性が良 く、しかも生産後も修理交換のアフターケアが簡単にで きる発光傘を製造できる。また保護キャップを骨の先端 に具備したLEDに覆せて装設する構造で発光傘を製造 することで、実際の使用で乱暴な扱いがなされても、L EDが容易に破損されにくい丈夫な発光傘を提供でき る。また点滅回路を用いず自己点滅LEDで構成するこ とによって、最も安価な製作費でできる点滅発光傘を提 供できる。また点滅発光する構成でその間電池の消耗を 少なくすることも同時にできる。

#### 【図面の簡単な説明】

- 【図1】 (a) 本発明の一実施例の正面図
- (b) 本発明の一実施例の底面図
- 【図2】(a) 本発明の一実施例の正面図
- (b) 本発明の一実施例の底面図
- 【図3】 (a) 本発明の一実施例の正面図
- (b) 本発明の一実施例の底面図
- 【図4】本発明の一実施例の一部構成を示す断面図
- 【図5】本発明の一実施例の一部構成を示す断面図
- 【図6】(a)本発明の一実施例の正面図
- (b) 本発明の一実施例の一部構成を示す斜視図
- 【図7】本発明の一実施例の回路構成図
- 【図8】本発明の一実施例の回路構成図
- 【図9】本発明の一実施例の回路構成図
- 【図10】本発明の実施例の各点滅パターンのタイミン グチャート
- 【図11】本発明の一実施例の回路構成図
- 【図12】本発明の一実施例の一部構成を示す断面図
- 【図13】本発明の一実施例の一部構成を示す斜視図
- 【図14】本発明の一実施例の一部構成を示す斜視図
- 【図15】本発明の一実施例の一部構成の組立斜視図
- 【図16】本発明の一実施例の一部構成の組立斜視図 【符号の説明】

1 : 🕸

3 : 骨

4 : 支柱

 5 : 握り
 10A: 点減パターン切換器

 7 : LED
 10B: 点減切り換え開閉器

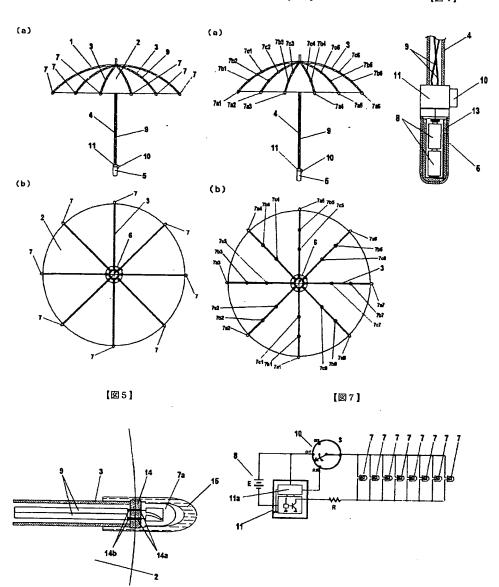
 7A:
 自己点滅LED
 11:
 点滅回路

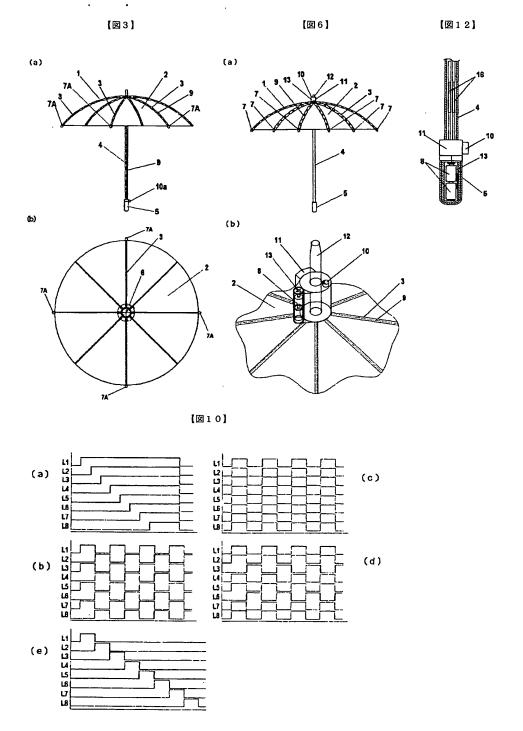
 8:
 電池
 11a:
 制御部

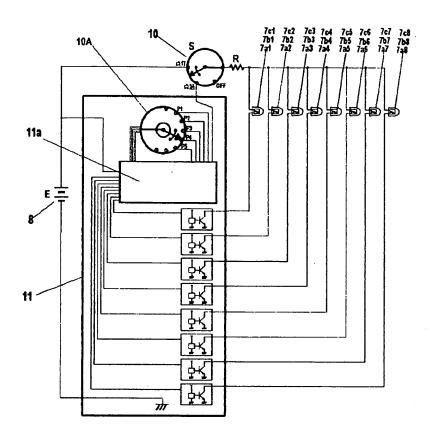
 9:
 リード線
 14:
 ソケット

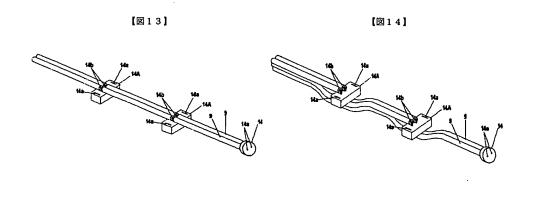
 10:
 切り換え開閉器
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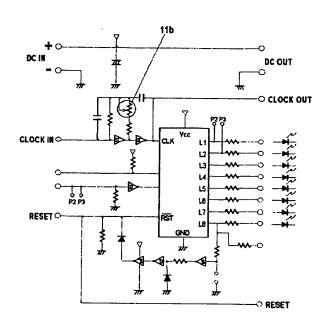




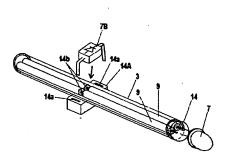




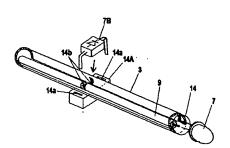




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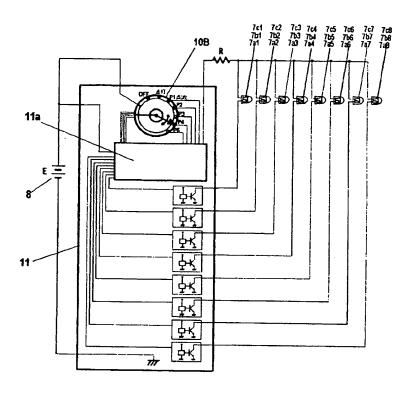


## 【図16】



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【図11】



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#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C

Re Application of:

**GREGORY G. KUELBS** 

Serial No.: 10/650,537

Filed: 28 AUGUST 2003

For: UMBRELLA APPARATUS

Examiner: HARGOBIND S. HAWHNEY

Art Unit: 2875

Confirmation No.: 9033

#### **TRANSMITTAL**

888

MAIL STOP: AMENDMENT Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

Please file the following enclosed documents in the subject application:

- 1. This Transmittal with Certificate of Mailing;
- 2. Response to Notice of Non-Compliant Amendment; and
- 3. Our return postcard which we would appreciate you date stamping and returning to us.

# CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8(a)

I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail with sufficient postage under 37 C.F.R. §1.8(a) on the date indicated above and is addressed to Mail Stop: Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

By:

Transmittal Attorney Docket No. 0638MH-40982-C

Page 1

No fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any fees that may be required, or credit any overpayments, to **Deposit Account No. 502806**.

Please link this application to Customer Nos. 50779 and 38441 so that its status may be checked via the PAIR System.

Respectfully submitted,

//13/06 Date

James E. Walton, Reg. No. 47,245
Michael B. Alford, Registration No. 48,707
Alan Dawson Lightfoot, Reg. No. 57,756
Daren C. Davis, Registration No. 38,425
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**CUSTOMER NOS. 50779 AND 38441** 

ATTORNEYS AND AGENTS FOR APPLICANT

Transmittal Attorney Docket No. 0638MH-40982-C Page 2





#### THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C

In Re Application of:

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Serial No.: 10/650,537

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For: UMBRELLA APPARATUS

§ S

Examiner: HARGOBIND S.

HAWHNEY

Art Unit: 2875

Confirmation No.: 9033

#### RESPONSE TO NOTICE OF NON-COMPLIANT AMENDMENT

MAIL STOP: AMENDMENT Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

This Response to Notice of Non-Compliant Amendment is in response to the Notice mailed to the undersigned on 9 January 2006.

The Notice indicated that the listing of claims in the Amendment filed on 21 December 2005 did not include a complete listing of the claims, including the withdrawn claims.

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8(a)

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By:

Amendment Attorney Docket No. 0664MH-40982-C Page 1

Attached hereto is a complete listing of the claims, including the withdrawn claims.

The Applicant requests that the attached listing of the claims replace the listing of the claims in Applicant's Amendment filed on 21 December 2005, such that the 21 December 2005 Amendment will be compliant.

Applicant respectfully requests that the 21 December 2005 Amendment, as corrected hereby, be considered.

Amendment Attorney Docket No. 0664MH-40982-C Page 2

#### IN THE CLAIMS:

The following is a complete listing of the claims.

Please amend the claims as follows:

Claims 1-20. (Cancelled).

21. (Currently Amended) An umbrella apparatus comprising:

a pole portion;

a canopy portion hingedly coupled to the pole portion;

a rechargeable electrical power system for providing electrical power to the umbrella apparatus; and

a solar energy system attached to the top of the pole portion above the canopy portion, the solar energy system being adapted to collect solar energy and convert the solar energy into electrical energy, the solar energy system being conductively coupled to the rechargeable electrical power system, such that the solar energy collected and converted into electrical energy recharges the rechargeable electrical power system;

wherein the solar energy system is configured to remain in a fixed position relative to the pole portion when the canopy portion is operated between an opened position and a closed position.

- 22. **(Original)** The umbrella apparatus according to claim 21, wherein the rechargeable electrical power system and the solar energy system are both carried by a single housing mounted on the pole portion above the canopy portion.
- 23. **(Original)** The umbrella apparatus according to claim 21, wherein the solar energy system is carried by a first housing mounted on the top of the pole portion above the canopy portion and the rechargeable electrical power system is carried by a second housing located below the canopy portion.

Amendment
Attorney Docket No. 0664MH-40982-C
Page 3

- 24. **(Original)** The umbrella apparatus according to claim 21, further comprising: an electrical charging system for recharging the rechargeable electrical power system, the electrical charging system being adapted to receive power from an AC power outlet.
- 25. **(Original)** The umbrella apparatus according to claim 21, further comprising: a removable base support portion adapted to receive the pole portion and support the umbrella apparatus in an upright position.
- 26. **(Original)** The umbrella apparatus according to claim 25, wherein the rechargeable electrical power system is carried within the base support portion.
- 27. **(Original)** The umbrella apparatus according to claim 25, further comprising: an electrical charging system for recharging the rechargeable electrical power system, the electrical charging system being adapted to receive power from an AC power outlet;

wherein the electrical charging system is carried within the base support portion.

28. **(Original)** The umbrella apparatus according to claim 25, further comprising: an electrical charging system for recharging the rechargeable electrical power system, the electrical charging system being adapted to receive power from an AC power outlet;

wherein the electrical charging system and the rechargeable electrical power system are both carried within the base support portion.

29. **(Original)** The umbrella apparatus according to claim 25, further comprising: a remote AC docking station for recharging the rechargeable electrical power system;

wherein the rechargeable electrical power system is configured for detachment from the umbrella apparatus and attachment to the remote AC docking station.

Amendment Attorney Docket No. 0664MH-40982-C Page 4

- 30. **(Original)** The umbrella apparatus according to claim 21, wherein the solar energy system is conductively coupled to the rechargeable electrical power system by a releasable plug, such that the solar energy collected and converted into electrical energy recharges the rechargeable electrical power system when the solar energy system is plugged into the rechargeable electrical power system.
- 31. **(Original)** The umbrella apparatus according to claim 21, wherein the canopy portion comprises:
  - a collapsible cover;
  - a plurality of rib members for supporting the collapsible cover; and
- a lighting system carried by the rib members, the lighting system being conductively coupled to and powered by the rechargeable electrical power system.
- 32. **(Original)** The umbrella apparatus according to claim 31, wherein the lighting system comprises:
  - a plurality of lighting elements recessed within the rib members.
- 33. **(Original)** The umbrella apparatus according to claim 21, wherein the canopy portion comprises:
  - a collapsible cover;
  - a plurality of rib members for supporting the collapsible cover; and
- a lighting system carried by the collapsible cover, the lighting system being conductively coupled to and powered by the rechargeable electrical power system.
- 34. **(Original)** The umbrella apparatus according to claim 21, wherein the canopy portion comprises:
  - a collapsible cover;
  - a plurality of rib members for supporting the collapsible cover;
  - a hub member that is movable along the pole portion;
  - a strut hingedly connected between the hub and each rib member; and

Amendment Attorney Docket No. 0664MH-40982-C Page 5

a lighting system carried by the struts, the lighting system being conductively coupled to and powered by the rechargeable electrical power system.

35. **(Withdrawn)** The umbrella apparatus according to claim 21, wherein the canopy portion comprises:

a collapsible cover;

a plurality of rib members extending radially outward from the pole portion for supporting the collapsible cover;

a cooling system carried at the radially exterior ends of the rib members, the cooling system being conductively coupled to and powered by the rechargeable electrical power system.

36. **(Withdrawn)** The umbrella apparatus according to claim 35, wherein the cooling system comprises:

at least one electric fan coupled to a corresponding rib member, each electric fan being conductively coupled to and powered by the rechargeable electrical power system.

37. (Withdrawn) An umbrella apparatus comprising:

a pole portion;

a canopy portion hingedly coupled to the pole portion;

a rechargeable electrical power system for providing electrical power to the umbrella apparatus the rechargeable electrical power system being connected to the top of the pole portion above the canopy portion.

38. **(Withdrawn)** The umbrella apparatus according to claim 37, wherein the rechargeable electrical power system comprises:

a first port adapted for connection to a solar energy recharging system for providing a trickle charge to the rechargeable electrical power system;

a second port adapted for connection to an AC adapter for recharging the rechargeable electrical power system; and

Amendment Attorney Docket No. 0664MH-40982-C Page 6

a third port adapted for connection to at least one of the following electrical subsystems operably associated with the umbrella apparatus:

- a lighting subsystem;
- a cooling subsystem; and
- a motorized opening and closing subsystem for opening and closing the canopy portion.
- 39. (Withdrawn) An umbrella apparatus, comprising:

a hollow pole;

an articulating canopy movable between an open position and a closed position; and

a canopy articulation system for moving the canopy between the open and closed positions, at least a portion of the canopy articulation system being disposed within the pole.

- 40. (Withdrawn) The umbrella apparatus according to claim 39, further comprising:
- a rechargeable electrical power system for providing electrical power to the canopy articulation system.
- 41. **(Withdrawn)** The umbrella apparatus according to claim 40, further comprising: a solar energy system for providing electrical power to the rechargeable electrical power system.
- 42. **(Withdrawn)** The umbrella apparatus according to claim 40, wherein the rechargeable electrical power system is adapted to receive power from an alternating-current electrical power source.
- 43. **(Withdrawn)** The umbrella apparatus according to claim 40, further comprising: a solar energy system for providing electrical power to the rechargeable electrical power system;

Amendment Attorney Docket No. 0664MH-40982-C Page 7

wherein the rechargeable electrical power system is adapted to receive power from an alternating-current electrical power source; and

wherein the rechargeable electrical power system is adapted to simultaneously receive power from the solar energy system or the alternating-current electrical power source and operate the canopy articulation system.

#### 44. (Withdrawn) An umbrella apparatus, comprising:

a pole;

a canopy;

a rechargeable electrical power system; and

a first port conductively connected to the rechargeable electrical power system, the first port being adapted to receive electrical power from a first source of electrical power for recharging the rechargeable electrical power system.

#### 45. (Withdrawn) The umbrella apparatus according to claim 44, further comprising:

a solar energy system having a means for conductively connecting the solar energy system to the port for providing electrical power to the rechargeable electrical power system.

#### 46. (Withdrawn) The umbrella apparatus according to claim 44, further comprising:

a second port conductively connected to the rechargeable electrical power system, the second port being adapted to receive electrical power from a second source of electrical power for recharging the rechargeable electrical power system;

wherein the rechargeable electrical power system is adapted to simultaneously receive power from the first source and from the second source.

#### 47. (Withdrawn) An umbrella apparatus, comprising:

a pole;

a canopy;

an electrical subsystem; and

Amendment Attorney Docket No. 0664MH-40982-C Page 8

a rechargeable electrical power system for providing power to the electrical subsystem, the rechargeable electrical power system being adapted to receive electrical power from an alternating-current electrical power source for recharging the rechargeable electrical power system.

- 48. **(Withdrawn)** The umbrella apparatus according to claim 47, wherein the rechargeable electrical power system is capable of simultaneously providing power to the electrical subsystem and being recharged.
- 49. (Withdrawn) An umbrella apparatus, comprising:

a pole;

a canopy;

an electrical subsystem; and

a remote control system for remotely controlling the operation of the electrical subsystem.

- 50. **(Withdrawn)** A solar-powered electrical subsystem adapted for use on an umbrella, the subsystem comprising:
  - a solar collector for generating electrical power;
- a rechargeable electrical power source conductively connected to the solar collector;

wherein the rechargeable electrical power source is adapted to be recharged by the electrical power from the solar collector.

- 51. **(Withdrawn)** A solar-powered electrical subsystem adapted for use on an umbrella, the subsystem comprising:
  - a solar collector for generating electrical power;
- a rechargeable electrical power source conductively connected to the solar collector;

wherein the rechargeable electrical power source is adapted to be recharged by the electrical power from the solar collector; and

> Amendment Attorney Docket No. 0664MH-40982-C Page 9

wherein the rechargeable electrical power source is adapted to receive electrical power from an alternating-current electrical power source for recharging the rechargeable electrical power source.

52. **(Withdrawn)** A canopy actuating subsystem adapted for use on an umbrella having a canopy movable between an open position and a closed position, the subsystem comprising:

a motor operably connected to the canopy for moving the canopy between the open and closed positions;

an electrical power source for providing electrical power to the motor.

53. **(Withdrawn)** The canopy actuating subsystem according to claim 52, wherein the electrical power source is rechargeable.

54. **(Withdrawn)** The canopy actuating subsystem according to claim 52, further comprising:

a solar energy system conductively connected to the electrical power source, the solar energy system providing electrical power for recharging the electrical power source.

55. **(Withdrawn)** A cooling subsystem adapted for use on an umbrella, the subsystem comprising:

at least one fan adapted to be carried on a movable support member of a canopy of an umbrella;

wherein the at least one fan is adapted to be conductively coupled to an electrical power source.

56. (Withdrawn)) The cooling subsystem according to claim 55, wherein the movable support member is a support rib.

Amendment Attorney Docket No. 0664MH-40982-C Page 10

- 57. **(Withdrawn)** The cooling subsystem according to claim 55, wherein the movable support member is a strut.
- 58. **(Withdrawn)** A misting subsystem adapted for use on an umbrella, the subsystem comprising:

a fluid source;

- a conduit system in fluid communication with the fluid source and adapted for distributing fluid from the fluid source to at least one outlet carried by the umbrella.
- 59. **(Withdrawn)** The misting subsystem according to claim 58, wherein the conduit is carried on support ribs of the umbrella.
- 60. **(Withdrawn)** The misting subsystem according to claim 58, wherein the at least one outlet is a nozzle.
- 61. **(Withdrawn)** The misting subsystem according to claim 58, wherein the at least one outlet has a pressurized tip.
- 62. **(Withdrawn)** A lighting subsystem adapted for use on an umbrella, the subsystem comprising:

at least one light source adapted to be carried on a movable support member of a canopy of an umbrella;

wherein the at least one light source is adapted to be conductively coupled to an electrical power source.

- 63. **(Withdrawn)** The lighting subsystem according to claim 62, wherein the at least one light source is of a type selected from the group consisting of incandescent, neon, fluorescent, LED, organic LED, and cold cathode-ray tube.
- 64. **(Withdrawn)** An electrical subsystem adapted for use on an umbrella, the subsystem comprising:

Amendment Attorney Docket No. 0664MH-40982-C Page 11

a wiring system adapted to be carried by an umbrella for conducting electricity to selected portions of the umbrella; and

a battery pack conductively connected to the wiring system and adapted to be carried on a base of the umbrella.

- 65. **(Withdrawn)** The electrical subsystem according to claim 64, wherein the battery pack is rechargeable.
- 66. **(Withdrawn)** The electrical subsystem according to claim 65, wherein the battery pack is adapted to receive electrical power from an alternating-current electrical power source for recharging the battery pack.
- 67. **(Withdrawn)** An electrical subsystem adapted for use on an umbrella, the subsystem comprising:

a wiring system adapted to be carried by an umbrella for conducting electricity to selected portions of the umbrella;

an electrical power source conductively coupled to the wiring system;

a switch conductively coupled to the wiring system for selectively controlling a flow of current through at least a portion of the wiring system.

- 68. **(Withdrawn)** The electrical subsystem according to claim 67, wherein the switch is adapted to be disposed on a crank mechanism of the umbrella.
- 69. **(Withdrawn)** The electrical subsystem according to claim 67, wherein the switch is adapted to be disposed on a pole of the umbrella.

Amendment Attorney Docket No. 0664MH-40982-C Page 12

#### **CONCLUSION:**

No fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any fees that may be required, or credit any overpayments, to **Deposit Account No. 502806**.

Please link this application to Customer Nos. 50779 and 38441 so that its status may be checked via the PAIR System.

Respectfully submitted,

James E. Walton, Reg. No. 47,245
Alan Dawson Lightfoot, Reg. No. 57,756
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jim@waltonpllc.com

**CUSTOMER NOS. 50779 AND 38441** 

ATTORNEYS AND AGENTS FOR APPLICANT

Amendment Attorney Docket No. 0664MH-40982-C Page 13

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Total 3	49 Minus	90 la	$\Box$	x3.1. 2.00	7	1.88.	
Total  D Total  D OFFI LINE  Independent  G CRI LINE  O CRI LINE	14 Minus	-3 111		× 44 = 704	OR	.200.	1
A REST PRESENTAL	TION OF MULTIPLE DEPENDEN	T CLAIM (37 CFR 1.16(4))		+.60-	OR .	TOTAL	+
HOST PRESERVA				TOTAL ADOIL FEE	OR	ADO'L FEE	L
		(Column 2) (Colum	~ 11·	PO	7_		
	(Column 1)	MOUSET		RATE ADOL		RATE	AD
10/10	CLAINS REMAINING AFTER	NUMBER PRES		TIONA	۱	ــــــــــــــــــــــــــــــــــــــ	<u>   '~</u>
127/04	AMENDMENT Minus	PAID FOR	<del></del>	1.9	·or	x./8	:
Total promission	4 / Minus	<del>- 1/2 \= 1</del>		x:44=	OR	× 88	
Total profit Listed	191	1411		1.150=	OR	1 732	
A FIRST PRESENT	ATION OF MULTIPLE DEPEND	ENT CLAM (37 CFR 1.16)		TOTAL	<b>⊣</b> "	ADD'L FE	Ė
Q	d on 11	18/04		ADD'L FEE			
,	(Column 1)	(Commission)	umn 3	<b>¬</b>		RATE	Α.
8001-1	CLAIMS REMAINING		ESENT	1 1 100	ML		1
E012403	AFTER AMENOMENT	PAID FOR	+	1 0 1 1	Н.	x . 18	
Yotal You	· 1186 Minus	20	/	x s 7 =	H $$	C50	-
Total (37 CFR 1.14(CB)	· 2 Minus	3	<u> </u>	x 3 44 ·		R + 30	
E FIRST PRESEN	TATION OF MULTIPLE DEPEN	DENT CLAM (37 CFR 1.1	5(4))	TOTAL +	_	TOTAL ADDLF	EÉ
				ADD'L FEE		,,,	
• If the entry in	column 1 is less than the el 1 Number Previously Paid F	ntry in column 2, write "0" or IN THIS SPACE is le	in coli	20, enter '20'			
it the sadnes	David F	OF IN THIS SPACE IS IC	P2 (11-0)	S Dill in Drevot water	propriate L	he public which	is to file (
the regitest		CFR 1.16. The informati	בי חסג	CER LIA This colle	ction is estim	nated to take 17 on the individua	d case. Any
USPTO to process)	on application, Confidentiation	is completed application	form to	required to obtain or retain a 2 and 37 CFR 1 14 This colle- to the USPTO, time will vary of reducing this burden, should be folia. VA 22313-1450. OO NOT ria, VA 22313-1450.	e seus to the	Chief Informati	on Officer. TED FORM
	to complete U	merce, P.O. Box 1450, A	Jenano Brandi	<sub>sha,</sub> va 22313-1450, 00 NO1 ha, va 22313-1450.	30.40		
ADDRESS, SEND T	e, U.S. Department of Com O: Commissioner for Pat			n, call 1-800-P1O-9199 and so			

at you need assistance in completing the form, call 1-800-P10-9199 and select option 2

Application SEARCH Number						
IDS Flag Clearance for Application 10650537  IDS Information						
IDS nformation						
IDS nformation	Content	Mailroom Date	Entry Number	IDS Review	Reviewer	
IDS nformation	Content M844	Mailroom Date 08-26-2005			Reviewer 09-01-2005 06:21:38	tdawkins
IDS Information			Number	Review		tdawkins jmcmillan

3/29/06

	Туре	Hits	Search Text	DBs
1		27103		US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
2	BRS	957	(solar adj (power or energy)) and (recharg\$5 with (electrical or batter\$4))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
3	BRS	10		US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
4	BRS	16794	umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
5	BRS	66		US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
6	BRS	22425	recharg\$6 adj batter\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
7	BRS	708	(solar adj (power or energy)) and (recharg\$6 adj batter\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
8	BRS	7	umbrella and ((solar adj (power or energy)) and (recharg\$6 adj batter\$4 ))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
9	BRS	163	umbrella and "362"/\$.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
10 .	BRS	5	("5007811"   "5172711"   "5273062"   "5711331"   "5765582").PN.	USPAT
11	BRS	9	("1148332"   "1532802"   "1555579"   "2547896"   "2627217"   "2729220"   "3177881"   "4154255"   "5007811").PN.	USPAT
12	BRS	20	("1148332"   "1173665"   "1555579"   "1683270"   "2627217"   "2729220"   "2817281"   "3102547"   "3177881"   "3318560"   "3444799"   "4154255"   "4628791"   "4753411"   "4850564"   "4867187"   "4915670"   "5007811"   "5161561"   "5172711").PN.	USPAT
13	BRS	4.	(umbrella and "362"/\$.ccls.) and (solar adj (power or energy))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
14	BRS	448	362/96.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
15	BRS	11	362/96.ccls. and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
16	BRS	4	362/102.ccls. and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
17	BRS	59	362/102.ccls. and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
18	BRS	4	362/577.ccls. and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
19	BRS	1	362/577.ccls. and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
20	BRS	0	362/577.ccls. and solar and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
21	BRS	0	362/209.ccls. and solar and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
22	BRS	5	362/209.ccls. and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
23	BRS	34	362/276.ccls. and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
24	IS&R	2	("5172711").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB

	Туре	Hits	Search Text	DBs
25	IS&R	2	("5349975").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
26	IS&R	2	("5463536").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
27	IS&R	2	("5172711").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
28	IS&R	2	("5273062").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
29	IS&R	2	("6017188").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
30	IS&R	8	("1148332").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
31	IS&R	6	(("6017188") or ("5273062") or ("5172711")).PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
32	BRS	o	362/209.ccls. and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
33	BRS	13	362/96.ccls. and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
34	BRS	28	362/276.ccls. and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
35	BRS	3	362/577.ccls. and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
36	BRS	6	362/102.ccls. and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
37	BRS	64538	solar adj (power or energy or cell)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
38	BRS	117	housing with (solar adj (power or energy or cell) and (recharg\$5 with (electrical or batter\$4)))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
39	BRS	3	(housing with (solar adj (power or energy or cell and (recharg\$5 with (electrical or batter\$4)))) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
40	BRS	0	((housing or casing) with ((solar adj (power or energy)) and (recharg\$6 adj batter\$4 ))) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
41	BRS	44	(housing or casing) with ((solar adj (power or energy)) and (recharg\$6 adj batter\$4 ))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
42	BRS	91	362/102,96,209,276,577.CCLS. and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
43	BRS	5	362/191.ccls. and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
44	BRS	496	135/16.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
45	BRS	379	135/16.ccls. and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
46	BRS	14	135/16.ccls. and umbrella and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB

48 BF 49 BF 50 BF 51 BF 52 BF 53 BF 54 BF 55 BF 56 BF 57 BF 58 BF 60 BF 61 BF 62 BF 63 BF	RS RS RS RS RS RS RS RS RS RS RS RS RS	7 34128 3722 23524 120 65 57 351 3722 1067 22	("5,584,564") or ("6,017,188")) PN. solar adj (power or energy) S48 and ((recharg\$6 or charg\$7) with (electrical or batter\$4)) umbrella S48 and S50 S48 and S50 and batter\$5 S51 and @ad <"20010207"	DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; USOCR  US-PGPUB; USPAT; USOCR
49 BF 50 BF 51 BF 52 BF 53 BF 54 BF 55 BF 56 BF 57 BF 60 BF 61 BF 62 BF 63 BF	RS RS RS RS RS RS RS RS RS RS RS RS RS R	3722 23524 120 65 57 351 3722 1067 22	Solar adj (power or energy)  S48 and ((recharg\$6 or charg\$7) with (electrical or batter\$4))  umbrella  S48 and S50  S48 and S50 and batter\$5  S51 and @ad <"20010207"  362/102.ccls.  S48 and S49  S55 and ((alternat\$4 current) or "AC")  S55 and ((alternat\$4 current) or "AC") and S50  ("5053931"   "6089727"   "6196242"   "6270230"   "6439249").PN.	DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; USOCR  USPAT
50 BF 51 BF 52 BF 53 BF 54 BF 55 BF 56 BF 57 BF 60 BF 61 BF 62 BF 63 BF	RS RS RS RS RS RS RS RS RS	23524 120 65 57 351 3722 1067 22	or batter\$4)) umbrella  \$48 and \$50  \$48 and \$50 and batter\$5  \$51 and @ad <"20010207"  362/102.ccls.  \$48 and \$49  \$55 and ((alternat\$4 current) or "AC")  \$55 and ((alternat\$4 current) or "AC") and \$50  ("5053931"   "6089727"   "6196242"   "6270230"   "6439249").PN.	DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; USOCR  US-PGPUB; USPAT; USOCR
51 BF 52 BF 53 BF 54 BF 55 BF 56 BF 57 BF 60 BF 61 BF 62 BF 63 BF	RS RS RS RS RS RS RS RS RS	120 65 57 351 3722 1067 22	S48 and S50  S48 and S50 and batter\$5  S51 and @ad <"20010207"  362/102.ccls.  S48 and S49  S55 and ((alternat\$4 current) or "AC")  S55 and ((alternat\$4 current) or "AC") and S50  ("5053931"   "6089727"   "6196242"   "6270230"   "6439249").PN.	DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; USOCR  USPAT
52 BF 53 BF 54 BF 55 BF 56 BF 57 BF 59 BF 60 BF 61 BF 62 BF 63 BF	RS RS RS RS RS RS RS	65 57 351 3722 1067 22	S48 and S50 and batter\$5  S51 and @ad <"20010207"  362/102.ccls.  S48 and S49  S55 and ((alternat\$4 current) or "AC")  S55 and ((alternat\$4 current) or "AC") and S50  ("5053931"   "6089727"   "6196242"   "6270230"   "6439249").PN.	DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; USOCR  USPAT
53 BF 54 BF 55 BF 56 BF 57 BF 58 BF 60 BF 61 BF 62 BF 63 BF	RS RS RS RS RS	57 351 3722 1067 22	S51 and @ad <"20010207"  362/102.ccls.  S48 and S49  S55 and ((alternat\$4 current) or "AC")  S55 and ((alternat\$4 current) or "AC") and S50  ("5053931"   "6089727"   "6196242"   "6270230"   "6439249").PN.	DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; USOCR  USPAT
54 BF 55 BF 56 BF 57 BF 58 BF 60 BF 61 BF 62 BF 63 BF	RS RS RS RS	351 3722 1067 22 5	362/102.ccls.  \$48 and \$49  \$55 and ((alternat\$4 current) or "AC")  \$55 and ((alternat\$4 current) or "AC") and \$50  ("5053931"   "6089727"   "6196242"   "6270230"   "6439249").PN.	DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; USOCR  USPAT
55 BF 56 BF 57 BF 58 BF 60 BF 61 BF 62 BF 63 BF	RS RS RS RS	3722 1067 22 5	362/102.ccls.  S48 and S49  S55 and ((alternat\$4 current) or "AC")  S55 and ((alternat\$4 current) or "AC") and S50  ("5053931"   "6089727"   "6196242"   "6270230"   "6439249").PN.	DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; USOCR  USPAT
56 BF 57 BF 58 BF 59 BF 60 BF 61 BF 62 BF	RS RS RS	1067 22 5	S55 and ((alternat\$4 current) or "AC") S55 and ((alternat\$4 current) or "AC") and S50 ("5053931"   "6089727"   "6196242"   "6270230"   "6439249").PN.	DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; USOCR  USPAT
57 BF 58 BF 59 BF 60 BF 61 BF 62 BF	RS RS	22 5 2	S55 and ((alternat\$4 current) or "AC") and S50 ("5053931"   "6089727"   "6196242"   "6270230"   "6439249").PN.	DERWENT; IBM_TDB  US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB  US-PGPUB; USPAT; USOCR  USPAT
58 BF 59 BF 60 BF 61 BF 62 BF 63 BF	RS RS	5	("5053931"   "6089727"   "6196242"   "6270230"   "6439249").PN.	DERWENT, IBM_TDB US-PGPUB, USPAT, USOCR USPAT
59 BF 60 BF 61 BF 62 BF 63 BF	RS	2	"6439249").PN.	USPAT
60 BF 61 BF 62 BF 63 BF		-	("6598990").URPN.	
61 BF 62 BF 63 BF	RS	70.400	·	
62 BF		72469	solar adj (power or energy or cell)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
<b>63</b> BF	RS	2	S60 with batter\$4 with housing with umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
	RS	6	(S60 with batter\$4 with housing) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
64 BE	RS	365	S60 with batter\$4 with housing	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
P.	RS	220	S61 and @ad <"20010207"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
<b>65</b> BF	RS	29	S60 with batter\$4 with (in or "wihin") with housing	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
<b>66</b> BF	BRS	88	S60 with batter\$4 with (in or "within") with housing	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
<b>67</b> BF	BRS	55	S66 and @ad <"20010207"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
<b>68</b> BF	BRS	1	(S60 with batter\$4 with (in or "within") with housing) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
69 BF	BRS	202	S60 and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
70 BF	BRS	24	S60 and umbrella and "135"/\$.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
71 BF	BRS	12	("5584564" or "6439249" or "5053931" or "6820995" or "6837255" or "6126293").pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
72 BF		6	("5584564" or "6439249" or "5053931" or "6820995" or "6837255" or "6126293").pn.	USPAT
73 B	BRS		11 0 4 - 24 - 01 - 24 - 10 02 - 0 02 - 24 - 03 - 24 - 24 - 24 - 24 - 24 - 24 - 24 - 2	USPAT
74 BI	BRS BRS	1386	rib\$4 with ("within" or "in" or "inside") with light	

	Туре	Hits	Search Text	DBs
75	BRS	4	("5323798"   "5502624"   "6089727"   "6126293").PN.	US-PGPUB; USPAT; USOCR
76	BRS	0	("6904922").URPN.	USPAT
77	BRS	1343186	(light emit\$4 diod\$4) or "LED"	USPAT
78	BRS	1528312	light (bulb or tube)	USPAT
79	BRS	1756440	S77 or S78	USPAT
80	BRS	5407	rib\$4 with ("within" or "in" or "inside") with S79	USPAT
81	BRS	81	S80 and umbrella	USPAT
82	BRS	76	S81 and @ad < "20010702"	USPAT
83	BRS	1759917	S79 inside near4 rib	USPAT
84	BRS	4740	S83 and umbrella	USPAT
85	BRS	1570767	S83 and @ad < "20010702"	USPAT
86	BRS	4209	S84 and @ad < "20010702"	USPAT
87	IS&R	2	(("6270230") or ("6089727")).PN.	USPAT
88	BRS	4	("4601120"   "4860179"   "5323798"   "5502624").PN.	US-PGPUB; USPAT; USOCR
89	BRS	3	("6270230").URPN.	USPAT
90	BRS	2	("5323798"   "5502624").PN.	US-PGPUB; USPAT; USOCR
91	BRS	9	("6089727").URPN.	USPAT
92	BRS	2	("6089727"   "6302560").PN.	US-PGPUB; USPAT; USOCR
93	BRS	1 .	("6499856").URPN.	USPAT
94	BRS	6562044	(housing or casing or case)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
95	BRS	0	S71 with solar with batter\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
96	BRS	2343	S94 with solar with batter\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
97	BRS	0	(solar near5 batter\$4) with ("within" or "in") with S72	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
98	BRS	0	((solar panel) near4 batter\$4) with ("within" or "in") with S72	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
99	BRS	2176	((solar panel) near4 batter\$4)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
100	BRS	72	S99 with housing	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
101	BRS	147	S99 with (housing or casing or case)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
102	BRS	3	S99 with (housing or casing or case) and umbrella	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
103	BRS	4	(S99 same (housing or casing or case)) and umbrella	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
104	BRS	0	((solar panel) and batter\$4) near5 in near3 housing	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB

	Туре	Hits	Search Text	DBs
105	BRS	19		US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
106	BRS	8	("2091693"   "4435095"   "4739549"   "5152610"   "5169236"   "5302028"   "5621390") PN	US-PGPUB; USPAT; USOCR
107	BRS	2	("5681110").URPN.	USPAT
108	BRS	12	("3742633"   "4843525"   "4903172"   "4947300"   "4989124"   "4994941"   "5007190"   "5088221"   "5101329"   "5107637"   "5192944"   "D320815").PN.	US-PGPUB; USPAT; USOCR
109	BRS	13	("5435087").URPN.	USPAT
110	BRS	5	(umbrella) and (housing with solar with batter\$4)	USPAT
111	BRS	880	362/362.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
112	BRS	475	362/102.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
113	BRS	171	362/577.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
114	BRS	628	S112 or S113	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
115	BRS	223	S114 and @ad < "20010702"	USPAT
116	BRS	3063	(362/96,227,159,276,352,20,183,182,194,278,3 20,319,431,450,800.ccls.) and @ad < "20010702"	USPAT
117	BRS	311	(135/16,15.1.ccls.) and @ad < "20010702"	USPAT
118	BRS	335	(S116 or S117) and umbrella	USPAT
119	BRS	310	S118 not S115	USPAT
120	BRS	12	S119 and solar	USPAT
121	BRS	578	umbrella and solar	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
122	BRS	2	"199956".ap.	US-PGPUB
123	BRS	1	"829790".ap.	US-PGPUB
124	BRS	200	umbrella and solar and (recharg\$5 or charg\$5)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDE
125	BRS	246	umbrella and solar and batter\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDE
126	BRS	82	S126 and @ad < "20010207"	US-PGPUB, USPAT, USOCR, EPO, JPO, DERWENT, IBM_TDE
127	BRS	164	S126 not S127	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDE

			<u> </u>	r
128	BRS	11	("20020074027"   "5584564"   "6089727"   "6386214"   "6439249"   "6598990"   "6612713"   "6666224"   "6820995"   "6837255"   "6840658").PN. OR ("7000624").URPN.	US-PGPUB; USPAT; USOCR

	Туре	Hits	Search Text	DBs
129	BRS	267		US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
130	BRS	185		US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
131	BRS	185	S131 not S127	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
132	BRS	185	S131 not S128	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
133	BRS .	2	"305653" ap.	US-PGPUB
134	IS&R	1	("5584564").PN.	USPAT
135	IS&R	1	("4020858").PN.	USPAT
136	IS&R	1	("2087537").PN.	USPAT
137	BRS	20	("2087537").URPN.	USPAT
138	IS&R	1	("6270230").PN.	USPAT
139	IS&R	2	(("6017188") or ("5349975")).PN.	USPAT
	BRS	25	("5007811"   "5172711"   "5273062"   "5711331"   "5765582").PN. OR ("6017188").URPN.	US-PGPUB; USPAT; USOCR
141	BRS	47	("20040100791"   "2087537"   "3215831"   "4061154"   "4072857"   "4174532"   "4491141" "4979535"   "4994631"   "5053931"   "5101844" "5331524"   "5463535"   "5584357"   "5611614" "5641223"   "5769000"   "5776559"   "5787914" "5907127"   "5911493"   "6017188"   "6070808" "6126293"   "6209147"   "6270230"   "6323431" "6402547"   "6439249"   "6598990"   "6612713" "6627816"   "6659616"   "6668845"   "6679622" "6722381"   "D130643"   "D208917"   "D295400'   "D378913"   "D379176"   "D379970"   "D467877") PN. OR ("7017598") URPN.	US-PGPUB; USPAT; USOCR
142	BRS	24	("5053931"   "5116258"   "5216948"   "5611614"   "5641223"   "5758948"   "6089727"   "6196242"   "6217192"   "6270230").PN. OR ("6439249").URPN.	US-PGPUB; USPAT; USOCR
143	BRS	4	("2087537"   "6017188"   "6439249").PN. OR ("6840657").URPN.	US-PGPUB; USPAT; USOCR
144	BRS	25	("5007811"   "5172711"   "5273062"   "5711331"   "5765582").PN. OR ("6017188").URPN.	US-PGPUB; USPAT; USOCR
145	BRS	24	("3102547"   "3177881"   "3444799"   "4023582"   "4505285"   "5007811"   "5143107"   "5172711   "5207238"   "5289839").PN. OR ("5349975").URPN.	US-PGPUB; USPAT; USOCR
146	BRS	427	362/102,577.ccls.	USPAT
147	BRS	15	362/102,577.ccls. and solar	USPAT
148	BRS	27	362/102,577.ccls. and solar	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB

	Туре	Hits	Search Text	DBs
149	BRS	12	S149 not S148	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
150	BRS	5283	362/96,227,159,276,352,20,183,182,194,278,32 0,319,431,450,800.ccls.	USPAT
151	BRS	621	135/16,15.1.ccls.	USPAT .
152	BRS	3	S151 and S152	USPAT
153	BRS	5901	S151 or S152	USPAT
154	BRS	21	S154 and S121	USPAT
155	BRS	1	'5349975".pn. and (light or lamp or (light source) or diode)	USPAT
156	IS&R	1	("6666224") PN.	USPAT
157	BRS	15	("20020124876"   "20020145873"   "20020149934"   "20030067765"   "5758948"   "6089727"   "6302560"   "6439249"   "6443595"   "6497496").PN. OR ("6666224").URPN.	US-PGPUB; USPAT; USOCR
158	BRS	12	("5323798"   "5502624").PN. OR ("6089727").URPN.	US-PGPUB; USPAT; USOCR
159	BRS	17	umbrella and solar and batter\$4 and ((light\$4 or lamps or (light bulbs)) with (ribs or struts))	US-PGPUB; USPAT; USOCR
160	BRS	19	("5126922"   "5172711"   "5273062"   "5349975"   "5463536").PN. OR ("6612713").URPN.	US-PGPUB; USPAT; USOCR
161	BRS	4049875	light\$4 or lamps	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
162	BRS	827721	(light emitting diod\$4) or "LED"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
163	BRS	4465156	S162 or S163	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
164	IS&R	1	("5911493").PN.	USPAT
165	BRS	13	("4848385"   "5053931"   "5323798"   "5502624"   "5584564"   "5611614").PN. OR ("5911493").URPN.	US-PGPUB; USPAT; USOCR
166	BRS	39	("1166272"   "2087537"   "2453925"   "3036206"   "3313929"   "3723723"   "3870062"   "4079344"   "4174532"   "4848385"   "4860179").PN. OR ("5053931").URPN.	US-PGPUB; USPAT; USOCR
167	BRS	9	(patio umbrella) and solar and S164	US-PGPUB; USPAT; USOCR
168	BRS	11	(patio umbrella) and solar	US-PGPUB; USPAT; USOCR
169	BRS	21	("1148332"   "1387740"   "1532802"   "1619217"   "2729220"   "3861410"   "5007811"   "5020557"   "5172711"   "5349975"   "5449012"   . "5765582").PN. OR ("5868152").URPN.	US-PGPUB; USPAT; USOCR
170	BRS	19	("5126922"   "5172711"   "5273062"   "5349975"   "5463536").PN. OR ("6612713").URPN.	US-PGPUB; USPAT; USOCR
171	BRS	8	("20030000559"   "2507919"   "5053931"   "5954417"   "6135605"   "6612713").PN. OR ("6820995").URPN.	US-PGPUB; USPAT; USOCR

	Туре	Hits	Search Text	DBs
172	BRS	425	umbrella and solar and (support or base or (Base plate))	US-PGPUB; USPAT; USOCR
173	BRS	5	umbrella and (post with solar) and (support or base or (Base plate))	US-PGPUB; USPAT; USOCR
174	BRS	2	("2960094").URPN.	USPAT
175	BRS	3	("6058951").URPN.	USPAT
176	BRS	2	("2960094").URPN.	USPAT
177	BRS	216	S173 and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
178	BRS	189	\$173 and @pd < "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
179	BRS	216	S173 not S181	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
180	BRS	0	("2005/0072451").URPN.	USPAT
181	BRS	0	("2005/0072451").URPN.	USPAT
182	IS&R	1	("5053931").PN.	USPAT
183	IS&R	1	("6298866").PN.	USPAT
184	IS&R	1	("6126293").PN.	USPAT
185	IS&R	1	("6089727").PN.	USPAT
186	IS&R	1	("5126922").PN.	USPAT
187	IS&R	2	(("2960094") or ("6830058")).PN.	USPAT
188	BRS	329	135/22.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
189	BRS	2	135/22.ccls. and solar	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB



# United States Patent and Trademark Office

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR  Gregory G. Kuelbs	ATTORNEY DOCKET NO.	CONFIRMATION NO. 9033	
10/650,537	08/28/2003		0638MH-40982-US		
38441	7590 04/04/2006		EXAMINER		
	CES OF JAMES E. W	SAWHNEY, HARGOBIND S			
1169 N. BUF SUITE 107-3	RLESON BLVD. 328		ART UNIT	PAPER NUMBER	
BURLESON	, TX 76028		2875	-	

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

YOT-1202-0286

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)					
	10/650,537	KUELBS, GREGORY G.					
Office Action Summary	Examiner	Art Unit					
•	Hargobind S. Sawhney	2875					
The MAILING DATE of this communication app	,	t					
Period for Reply							
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D.  - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period of Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailine earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tin will apply and will expire SIX (6) MONTHS from a, cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).					
Status							
1) Responsive to communication(s) filed on 17 J.	anuary 2006.						
, — · · · · · · · · · · · · · · · · · ·	s action is non-final.						
3) Since this application is in condition for allowa							
closed in accordance with the practice under t	Ex parte Quayle, 1935 C.D. 11, 4	53 O.G. 213.					
Disposition of Claims							
4)⊠ Claim(s) <u>21-34</u> is/are pending in the applicatio	n.	•					
4a) Of the above claim(s) <u>35-69</u> is/are withdrawn from consideration.							
5) Claim(s) is/are allowed.							
6)⊠ Claim(s) <u>21-34</u> is/are rejected.							
7) Claim(s) is/are objected to.		·					
8) Claim(s) are subject to restriction and/o	or election requirement.						
Application Papers							
9)☐ The specification is objected to by the Examine	er.						
10) ☐ The drawing(s) filed on is/are: a) ☐ acc		Examiner.					
Applicant may not request that any objection to the							
Replacement drawing sheet(s) including the correct							
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.							
Priority under 35 U.S.C. § 119							
12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).							
a) ☐ All b) ☐ Some * c) ☐ None of:  1. ☐ Certified copies of the priority documents have been received.							
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 Burea	iu (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)	4) Interview Summar						
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08	Paper No(s)/Mail D  5) Notice of Informal	Pate Patent Application (PTO-152)					
Paper No(s)/Mail Date <u>1/13/2006,8/26/05</u> .	6) Other:	·· · · · · · · · · · · · · · · · · · ·					

U.S. Patent and Trademark Office PTOL-326 (Rev. 7-05)

Office Action Summary

Part of Paper No (Mail Date 20060329

Application/Control Number: 10/650,537

Art Unit: 2875

#### **DETAILED ACTION**

#### Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 21-34 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 78-92 of copending Application No. 10/829,790. The conflicting claims are identical, they are not patentably distinct from each other as detailed below.

Instant Application No.	Copending Application	Discussion on differences, and
10,650,537	No. 10,829,790	additional References:
Claims 21-34	Claim 78-92	Claims 21-34 of the instant
		application are identical to the
·		respective claims 78-92 of the
		copending application 10,829,790.

Art Unit: 2875

Page 3

It would be have been obvious to one of ordinary skill in the art at the time of the invention to meet the limitations of claims 21-34 of the instant application with the claimed features of claims 78-92 of the copending application 10,829,790

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

## Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States

4. Claims 21, 23, 24, 29 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Valdner (US Patent No.; 5,349,975) hereinafter referred as Valdner.

Regarding claims 21, 23, 24, 29 and 30, Valdner discloses an umbrella apparatus 10 (Figure 1) comprising:

a canopy portion 24 hingedly coupled to a pole portion 12 (Figure 1, column 2, line 9); a rechargeable electrical power system 44 – rechargeable battery - energizing the umbrella apparatus 10 (Figure 1, column 2, lines 37 and 38); a solar power system 38 disposed on the top of the pole portion 12 above the canopy 24 (Figure 1, column 2, lines 37-43); the solar power system 38 able to collect solar energy, and convert

Application/Control Number: 10/650,537 Page 4

Art Unit: 2875

solar energy into electrical energy; the solar power system conductively coupled, with electrical wires (Figures 3 and 8 column 2, lines 37-43) to the rechargeable electrical power system 44; the electrical energy converted from the solar energy by the solar power system 38 being used for recharging the rechargeable electrical energy system 44 (Figure 1, column 2, lines 37-43); the solar system 38 being in fixed position relative to the pole portion 12, and does not move when the canopy portion operated between the opened and close position (Figures 5 and 6);

- the rechargeable energy system 44 disposed by the second housing below the canopy portion 12 (Figure 1);
- a recharging system 56 receiving power from AC power outlet 54 for
   recharging the rechargeable energy system 44 (Figures 1 and 3, column
   lines 37-43);
- a rechargeable electrical power system 44 detachable from the umbrella apparatus 10, and attachable to a remote an AC docking station receiving power plug 58 (Figure 3, column 2, lines 37-43); and
- a releasable plug 46 conductively coupling the rechargeable electrical power system 44 to the solar power system 38 (Figures 1 and 3, column 2, lines 34-43).
- 5. Claims 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Small (US Patent No.; 2,960,094) hereinafter referred as Small.

Art Unit: 2875

Page 5

Regarding claims 21 and 22, Small discloses a beach umbrella apparatus (Figure 1) comprising:

a canopy portion 11 hingedly coupled to a pole portion 10 (Figure 1, column 1, lines 47-50); a rechargeable electrical power system 35 rechargeable battery - energizing the umbrella apparatus (Figure 1, column 2, lines 29-31); a solar power system 34 disposed on the top of the pole portion 10 above the canopy 11 (Figure 1, column 2, lines 29-31); the solar power system 34 able to collect solar energy, and convert solar energy into electrical energy; the solar power system 34 conductively coupled, with electrical wires (Figure 1, column 2, lines 29-37) to the rechargeable electrical power system 35; the electrical energy converted from the solar energy by the solar power system 35 being used for recharging the rechargeable electrical energy system 34 (Figure 1, column 2, lines 29-37); the solar system being in fixed position relative to the pole portion 10, and does not move when the canopy portion 11 operated between the opened and close position (Figure 1); and the rechargeable battery 34 positionable in the housing carrying the solar system 35 (Figure 1, column 2, lines 29-37).

# Claim Rejections - 35 USC § 103

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

Art Unit: 2875

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

7. Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Small (US Patent No.; 2,960,094), hereinafter referred as Small, in view Perrier et al. (WO Patent No.; 93/00840), hereinafter referred as Perrier.

Regarding claim 25, Small discloses a beach umbrella apparatus (Figure 1) comprising a canopy portion hingedly coupled to a pole portion; a rechargeable electrical power system energizing the umbrella apparatus; and a solar power system disposed on the top of the pole portion above the canopy. Although, umbrella disclosed by Small is a free- sanding umbrella on the ground, Small does not discloses details of the base of the umbrella.

On the other hand, Perrier discloses a solar-powered umbrella apparatus 1 (Figure 1) comprising:

- a canopy portion 8 hingedly coupled to a pole portion 9 (Figure 1, English translation, page 2, line 1); and a pole portion 9 received in a removable, by removing the adjusting screw, base assembly 4- the combination of a sleeve integral with a base plate- (Figure 1).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Small by providing the base assembly as taught by Perrier for mounting the apparatus on the ground in stable position.

Page 6

Art Unit: 2875

Page 7

Regarding claims 26, Small in view of Perrier discloses the solar-powered umbrella apparatus further including a rechargeable charging system positioned within the base of the umbrella (Perrier, Figure 1, English translation, page 2, line 1).

8. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Small (US Patent No.; 2,960,094) in view Perrier et al. (WO Patent No.; 93/00840) as applied to Claim 25 above, and further in view of Valdner (US Patent No.; 5,349,975).

Regarding claim 27 and 28, Small ('094) in view of Perrier discloses the solar-powered umbrella apparatus further including a rechargeable charging system positioned within the base of the umbrella. However, neither combined nor individual teaching of Perrier and Small teaches a rechargeable charging system receiving AC power from a power outlet.

On the other hand, Valdner ('975) discloses an umbrella apparatus 10 including a recharging system 56 receiving power from AC power outlet 54 for recharging the rechargeable energy system 44 (Figures 1 and 3, column 2, lines 37-43).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Small in view of Perrier by providing and positioning the AC-based charging system in addition to the solar power energy based charging system as taught by Valdner ('975) for the benefits redundant power supply imparting high operational reliability.

Art Unit: 2875

Page 8

9. Claims 31, 32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Valdner (US Patent No.; 5,349,975) in view of Walker et al. (US Patent No.; 5,911,493).

Regarding claim 31, Valdner ('975) discloses a solar energy based umbrella apparatus comprising a plurality of rib members supporting a canopy, and a battery-based power system rechargeable with solar power system.

However, Valdner ('975) does not teach the disclosed umbrella assembly including a lighting system carried by the rib member, and the lighting system being conductively coupled to the rechargeable lighting system.

On the other hand, Walker et al. ('493) discloses an umbrella apparatus (Figure 1) comprising: a plurality of rib assembly 16- the combination of a channel element 30 integral with a rib element 16 - supporting a canopy (not shown) and a lighting system 32 (Figure 1, column 2, lines 9 and 10).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Valdner ('975) by providing and positioning the lighting system as taught by Walker et al. ('493) for the benefits of high attention and decorative values of the device.

Regarding claim 32, Valdner ('975) in view of Walker et al. ('493) the solar energy based umbrella apparatus further comprising the lighting system 32 positioned within the rib assemblies 16 (Walker, Figure 1,column 2, lines 21-25).

Page 9

Application/Control Number: 10/650,537

Art Unit: 2875

Regarding claim 34, Valdner ('975) discloses a solar energy based umbrella apparatus meeting the limitations, except the following, in similar manner as that applied to claims 21 and 31 detailed above and in section 3 of this office action.

In addition, Valdner ('975) discloses a solar energy based umbrella apparatus further including: a hub 20 movable along the pole portion 12 (Figures 1 and 4, column 2, lines 9-13).

10. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Valdner (US Patent No.; 5,349,975) in view of Mai (US Patent No.: 6,270,230 B1).

Regarding Claim 33, Valdner ('975) discloses a solar energy based umbrella apparatus comprising a plurality of rib members supporting a collapsible cover; and a battery-based power system rechargeable with solar power system.

However, Valdner ('975) does not teach the disclosed umbrella assembly including a lighting system carried by the collapsible cover, and the lighting system being conductively coupled to the rechargeable lighting system.

On the other hand, Mai (230 B1) discloses an Umbrella apparatus including a lighting system 83 carried by the collapsible cover 30 (Figure 1, column 2, lines 64- and 65).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Valdner ('975) by providing and positioning the lighting system as taught by Mai ('230 B1) for the benefits of high attention and decorative values of the device.

Art Unit: 2875

## Response to Amendment

11. Applicant's arguments filed on January 17, 2006 with respect to the 35 U.S.C. 102(a) rejections of claims 21 and 23, and 35 U.S.C. 103(a) rejections of claims 22 and 24-34 have been fully considered but they are moot in view of the new ground(s) of rejections necessitated by the amendment.

#### Conclusion

12. 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.

Art Unit: 2875

Page 11

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S. Sawhney whose telephone number is 571 272 2380. The examiner can normally be reached on 6:15 - 2:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571 272 2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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).

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> ALI ALAVI PRIMARY EXAMINER

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Under the Paperwork Reduction Act of 1995, no page 1449/PTO Substitute for form 1449/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

of 1

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Application Number	10/650,537					
Filing Date	28 AUGUST 2003					
First Named Inventor	Gregory G. Kuelbs					
Art Unit	2875					
Examiner Name	Hargobind S. Sawhney					
Attorney Docket Number	0664MH-40982-C					

Examiner	Cite	Document Number	U. S. PATENT D	Name of Patentee or	Pages, Columns, Lines, Where		
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the appropriate symbols as indicated on the document under WIPO Standard S1.16 if plossue. Application is predicted to standard S1.16 if plossue. Application 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 2 hours 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 Tradamark Office, P.O. Box 1450, Alexandria, VA 22313-1450. D NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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## **INFORMATION DISCLOSURE** STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known						
Application Number	10/650,537					
Filing Date	28 August 2003					
First Named Inventor	Gregory G. Kuelbs					
Art Unit	2875					
Examiner Name	Hargobind S. Hawhney					
Attomey Docket Number	0664MH-40982-C					

			U. S. PATEN	T DOCUMENTS	<del>-                                    </del>
Examiner Initials*	Cite No.1	Document Number  Number-Kind Code <sup>2</sup> (F Incomp)	Publication Date MM-DD-YYYY	Name of Patentiee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	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, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
ØS	AM .	U.S. Patent Application Serial No. 11/199956 titled "Umbrella Apparatus" filed on 08-09-2005	
	AN	U.S. Patent Application Serial No. 10/829790 titled "Umbrella Apparatus" filed on 04-22-2004	
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#### Application/Control No. Applicant(s)/Patent Under Reexamination KUELBS, GREGORY G. 10/650,537 Notice of References Cited Examiner Art Unit Page 1 of 1 Hargobind S. Sawhney 2875 **U.S. PATENT DOCUMENTS** Document Number Country Code-Number-Kind Code Date Classification Name MM-YYYY US-5,911,493 06-1999 Walker et al. 362/102 US-2,960,094 11-1960 SMALL SAMUEL N 135/22 В US-US-D US-Ε US-US-G Н US-US-1 US-J Κ US-US-US-Μ FOREIGN PATENT DOCUMENTS Document Number Country Code-Number-Kind Code Date Country MM-YYYY Name Classification Ν 0 Р Q R s Т NON-PATENT DOCUMENTS Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) υ

"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.

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**CONFIRMATION NO. 9033** 

SERIAL NUMBE 10/650,537	SERIAL NUMBER 08/28/2003 10/650,537 RULE		C	CLASS 362	S GROUP ART 2875		UNIT	D	ATTORNEY OCKET NO. BMH-40982-US
APPLICANTS Gregory G.	Kuel	lbs, Westlake, TX;	00						·
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TITLE Umbrella apparatus									
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Index of Claims		Applica	atio	n/Contr	ol No.		Ap Re	plica exam	nt(s)/ inatio	Pate	nt under
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Application No.	Applicant(s)
10/650,537	KUELBS, GREGORY G.
Examiner	Art Unit
Hargobind S. Sawhnev	2875

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U.S. Patent and Trademark Office

Part of Paper No. 20060329



Attorney Docket No. 0664MH-40982-C

In Re Application of:

**GREGORY G. KUELBS** 

Appl. No.: 10/650,537

Filed: 28 AUGUST 2003

For: UMBRELLA APPARATUS

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Examiner: HARGOBIND S.

SAWHNEY

Art Unit: 2875

Confirmation No.: 9033

## AMENDMENT UNDER 37 C.F.R. § 1.114

MAIL STOP: RCE

Commissioner for Patents P.O. Box 1450

Alexandria, Virginia 22313-1450

Sir:

A Final Office Action in the subject application was mailed to the undersigned on 4 April 2006. Filed herewith is a Request for Continued Examination (RCE). Please enter the following amendments and consider the following remarks prior to examining the subject Application.

## **CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8(a)**

Date of Deposit:

8/3/06

I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail with sufficient postage under 37 C.F.R. §1.8(a) on the date indicated above and is addressed to Mail Stop: RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Bv:

form E. Walk

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 1

Applicant hereby requests an extension of time for one month and is concurrently filing a formal Request for Extension of Time for one month accompanied by the government fee. If any extension of time is needed to maintain the pendency of the application, this is an express request for any required extension of time, and authorization to charge any required extension of time fee and/or any other fee to maintain the pendency of the application to Deposit Account No. **Deposit Account No. 502806.** 

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Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 2

#### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:** 

1-20. (Cancelled).

21. (Currently Amended) An umbrella apparatus comprising:

a pole portion adapted to be supported by a support structure, so as to remain in an outdoor location;

a canopy an umbrella portion hingedly coupled to the pole portion, the umbrella portion having a plurality of rib members, the umbrella portion being operable between an opened position and a closed position;

a rechargeable electrical power system for providing electrical power to the umbrella apparatus; and

a solar energy system <u>having a solar collector disposed</u> attached to the top of the pole portion above the canopy <u>umbrella</u> portion, the solar energy system being adapted to collect solar energy and convert the solar energy into electrical energy, the solar energy system being conductively coupled to the rechargeable electrical power system, such that the solar energy collected and converted into electrical energy recharges the rechargeable electrical power system; <u>and</u>

a lighting system having a plurality of light emitting diodes conductively coupled to the rechargeable electrical power system via a conductor and being powered by the rechargeable electrical power system without a need for connection to an AC power outlet, at least one of the light emitting diodes being carried by the umbrella portion and positioned so as to illuminate the area beneath the umbrella portion, and at least a portion of the conductor being carried by at least one of the rib members of the plurality of rib members;

wherein the solar collector energy system is configured to remain in a fixed

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 3

position relative to the pole portion when so that the degree of exposure of the solar collector remains the same regardless of whether the canopy umbrella portion is

eperated between an in the opened position and a or in the closed position; and

wherein the umbrella apparatus is adapted to remain in the outdoor location for recharging the rechargeable electrical power system during daylight hours, regardless

of whether the umbrella portion is in the opened position or the closed position, and can

remain in the outdoor location after daylight hours.

22. (Currently Amended) The umbrella apparatus according to claim 21, wherein

the rechargeable electrical power system and the solar energy system are both carried

by a single housing releasably mounted on the pole portion above the canopy umbrella

portion.

23. (Currently Amended) The umbrella apparatus according to claim 21, wherein

the solar energy system is carried by a first housing mounted on the top of the pole portion above the eanopy umbrella portion and the rechargeable electrical power

system is carried by a second housing located below the canopy umbrella portion.

24. (Original) The umbrella apparatus according to claim 21, further comprising:

an electrical charging system for recharging the rechargeable electrical power

system, the electrical charging system being adapted to receive power from an AC

power outlet.

(Currently Amended) The umbrella apparatus according to claim 21, further 25.

comprising:

a removable base support structure portion adapted to receive the pole portion

and support the umbrella apparatus in an upright position while the umbrella apparatus

is in the outdoor location.

26. (Cancelled).

> Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537

Page 4

- 27. (Cancelled).
- 28. (Cancelled).
- 29. (Cancelled).
- 30. (Currently Amended) The umbrella apparatus according to claim 21, wherein the solar energy system is conductively coupled to the rechargeable electrical power system by a releasable plug, such that the solar collector is removable from the umbrella apparatus energy collected and converted into electrical energy recharges the rechargeable electrical power system when the solar energy system is plugged into the rechargeable electrical power system.
- 31. (Cancelled).
- 32. (Cancelled).
- 33. **(Currently Amended)** The umbrella apparatus according to claim 21, wherein the eanopy umbrella portion further comprises:
  - a collapsible cover canopy;

wherein the lighting system is coupled to the collapsible canopy so as to illuminate the area beneath the umbrella portion a plurality of rib members for supporting the collapsible cover; and

- a lighting system carried by the collapsible cover, the lighting system being conductively coupled to and powered by the rechargeable electrical power system.
- 34. **(Currently Amended)** The umbrella apparatus according to claim 21, wherein the eanepy <u>umbrella</u> portion <u>further</u> comprises:
  - a collapsible cover canopy;
  - a plurality of rib members for supporting the collapsible cover;
  - a hub member that is movable along the pole portion; and

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 5

a strut hingedly connected between the hub member and each rib member; and wherein at least one of the light emitting diodes of the a lighting system is carried

by at least one of the struts, the lighting system being conductively coupled to and

powered by the rechargeable electrical power system.

35-69. (Cancelled).

70. (New) The umbrella apparatus according to claim 21, wherein the solar energy

system is releasably coupled to the rechargeable electrical power system.

71. (New) The umbrella apparatus according to claim 21, further comprising:

a top cap for hingedly connecting the umbrella portion to the pole portion;

wherein the rechargeable electrical power system is releasably coupled to the

top cap.

72. (New) The umbrella apparatus according to claim 21, wherein the solar energy

system and the rechargeable electrical power system are disposed in separate

housings.

73. (New) The umbrella apparatus according to claim 21, wherein each rib member

is tubular in shape and configured to allow the light from the light emitting diodes to

shine beneath the umbrella portion.

74. (New) The umbrella apparatus according to claim 21, wherein at least some of

the light emitting diodes move with articulation of the umbrella portion.

75. (New) The umbrella apparatus according to claim 21, further comprising:

a recessed channel in each rib member;

wherein at least a portion of the conductor is disposed within the recessed

channel.

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 6

**REMARKS**:

Claims 21-34 are currently pending in the application. Claims 35-69 have been

previously withdrawn. Claims 21-34 stand provisionally rejected under the judicially

created doctrine of obviousness-type double patenting as being unpatentable over claims

78-92 of copending Application No. 10/829,790. Claims 21, 23, 24, 29, and 30 stand

rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,349,975

issued to Valdner. Claims 21 and 22 stand rejected under 35 U.S.C. § 102(b) as being

anticipated by U.S. Patent No. 2,960,094 issued to Small. Claims 25 and 26 stand

rejected under 35 U.S.C. § 103(a) as being unpatentable over Small in view of WO

93/00840 to Perrier et al. Claims 27 and 28 stand rejected under 35 U.S.C. § 103(a) as

being unpatentable over Small in view of Perrier et al., and further in view of Valdner.

Claims 31, 32, and 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable

over Valdner in view of U.S. Patent No. 5,911,493 issued to Walker. Claim 33 stands

rejected under 35 U.S.C. § 103(a) as being unpatentable over Valdner in view of U.S.

Patent No. 6,270,230 B1 issued to Mai.

By this Amendment, Claims 26-29, 31, 32, and 35-69 have been cancelled without

prejudice or disclaimer of the subject matter recited therein to simplify issues for the

Examiner and to advance the application to allowance. Claims 21-23, 25,30, 33 and 35

have been amended. New Claims 70-75 have been added. The Applicant hereby

reserves the right to pursue all cancelled claims in continuation and/or divisional

applications.

The Applicant submits that no new matter has been added to the application by

this Amendment. For example, support for the amendments to the claims appears

throughout Applicant's originally filed application, including page 7, line 16 to page 7, line

7; page 9, line 14 to page 10, line 8; and page 10, line 9 to page 11, line 2.

**Discussion Of Interviews:** 

Applicant expresses appreciation for the courtesies extended by the Examiner to

Applicant's representative Arnold Turk during a July 25, 2006 personal interview at the

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537

Page 7

Patent and Trademark Office. During the Interview, amendments to the claims were

discussed, including the amendments presented in the present response. Applicant's

invention was discussed, and differences between the prior art of record and the

amended claims was discussed.

Arguments as included during the interview are present in the remarks included

herein.

Additionally, Applicant expresses appreciation for telephone conversations with the

Examiner on August 1 and 2, 2006 wherein the Examiner indicated that the Interview

Summary will be mailed shortly. Moreover, the amendment to claim 21 herein was briefly

discussed with the Examiner, and the Examiner indicated that he would consider the

amendment upon submission of a written response.

**Discussion Of Applicant's Amended Claims:** 

Applicant's independent claim 21 is directed to an umbrella apparatus

comprising:

a pole portion adapted to be supported by a support structure, so as to remain in

an outdoor location;

an umbrella portion hingedly coupled to the pole portion, the umbrella portion

having a plurality of rib members, the umbrella portion being operable between an

opened position and a closed position;

a rechargeable electrical power system for providing electrical power to the

umbrella apparatus;

a solar energy system having a solar collector disposed above the umbrella

portion, the solar energy system being adapted to collect solar energy and convert the

solar energy into electrical energy, the solar energy system being conductively coupled

to the rechargeable electrical power system, such that the solar energy collected and

converted into electrical energy recharges the rechargeable electrical power system;

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 8

and

a lighting system having a plurality of light emitting diodes conductively coupled

to the rechargeable electrical power system via a conductor and being powered by the

rechargeable electrical power system without a need for connection to an AC power

outlet, at least one of the light emitting diodes being carried by the umbrella portion and

positioned so as to illuminate the area beneath the umbrella portion, and at least a

portion of the conductor being carried by at least one of the rib members of the plurality

of rib members;

wherein the solar collector is configured so that the degree of exposure of the

solar collector remains the same regardless of whether the umbrella portion is in the

opened position or in the closed position; and

wherein the umbrella apparatus is adapted to remain in the outdoor location for

recharging the rechargeable electrical power system during daylight hours, regardless

of whether the umbrella portion is in the opened position or the closed position, and can

remain in the outdoor location after daylight hours.

Thus, as discussed with the Examiner during the above-noted personal

interview, Applicant's claimed subject matter provides an efficient structure of an

umbrella apparatus that is not taught or suggested by the prior art of record. Applicant's

recited umbrella apparatus includes a combination of solar, power and lighting

elements to provide an efficient and simple to use umbrella apparatus that is configured

to illuminate the area beneath the umbrella portion with the umbrella apparatus being

capable of remaining at a location, and being powered by a rechargeable electrical

power system by solar power without a need for connection to an AC power outlet.

Thus, Applicant's recited umbrella apparatus is designed to provide lighting with

a lighting system having a plurality of light emitting diodes conductively coupled to a

rechargeable electrical power system via a conductor and being powered by the

rechargeable electrical power system without a need for connection to an AC power

outlet. At least one of the light emitting diodes is carried by the umbrella portion and

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537

Page 9

positioned so as to illuminate the area beneath the umbrella portion. Also, at least a

portion of the conductor is carried by at least one of the rib members of the plurality of

rib members.

Applicant's umbrella apparatus also includes a solar energy system having a

solar collector disposed above the umbrella portion, the solar energy system is adapted

to collect solar energy and convert the solar energy into electrical energy, the solar

energy system is conductively coupled to the rechargeable electrical power system,

such that the solar energy is collected and converted into electrical energy and

recharges the rechargeable electrical power system.

Moreover, the solar collector is configured so that the degree of exposure of the

solar collector remains the same regardless of whether the umbrella portion is in the

opened position or in the closed position.

Still further, Applicant's umbrella apparatus is adapted to remain in the outdoor

location for recharging the rechargeable electrical power system during daylight hours,

regardless of whether the umbrella portion is in the opened position or the closed

position, and can remain in the outdoor location after daylight hours.

The dependent claims further define features of Applicant's umbrella apparatus,

and these dependent claims are patentable not only for the features recited in

independent claim 21, but also for the features recited in each dependent claim.

Reference To Related Applications and Reexamination Proceeding:

Further to Applicant's Information Disclosure Statement filed January 13, 2006,

Applicant once again brings to the Examiner's attention U.S. Patent Application Nos.

11/199,956 and 10/829,790, and Inter Partes Reexamination Proceeding No.

95/000,104 based upon parent U.S. Patent No. 6,612,713. In particular, it is noted that

Application No. 11/199,956 is a continuation of the present application, and 10/829,790

is a continuation-in-part of the present application. An obviousness-type double

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537

Page 10

patenting rejection has been made in the instant Office Action over claims of

Application No. 10/829,790.

Applicant further notes that an Office Action has been mailed in the

Reexamination Proceeding on September 28, 2005 to which responses have been filed

by the Patent Owner and the Third Party Requester. Accordingly, the Reexamination

Proceeding is presently awaiting action by the Patent and Trademark Office.

The Examiner is requested to review the Office Action in the Reexamination

Proceeding as well as the responses to the Office Action. If the Examiner needs copies

any of the documents from the Reexamination Proceeding and/or any of the related

applications, the Examiner is respectfully requested to contact the undersigned.

Provisional Rejections Under Obviousness-Type Double Patenting:

Claims 21-34 stand rejected under the judicially created doctrine of obviousness-

type double patenting over Claims 78-92 of U.S. Application No. 10/829,790. The

rejection asserts that Claims 21-34 are identical to Claims 78-92 of U.S. Application

No. 10/829,790. United States Application No. 10/829,790 is commonly owned and is

copending with the subject application. Following this assertion of the claims being

identical, the rejection contends that, "It would have been obvious to one having

ordinary skill in the art at the time of the invention to meet the limitations of claims 21-34

of the instant application with the claimed features of claims 78-92 of the copending

application 10,829,790."

Original Claim 21 included the following feature not present in Claim 78 of U.S.

Application No. 10/829,790: "wherein the solar energy system is configured to remain in

a fixed position relative to the pole portion when the canopy portion is operated between

an opened position and a closed position." Thus, Claims 21-34 of the subject application

and Claims 78-92 of the U.S. Application No. 10/829,790 are not identical. Moreover,

the rejection is without appropriate basis in that differences between the claimed

subject matter is not indicated in the rejection, and the rejection does not indicate what

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537

Page 11

changes are required and/or where any motivation is provided. Still further, , Claim 21 is hereby amended.

Nevertheless, because the Examiner's rejection is a provisional double-patenting rejection, the Applicant respectfully requests that upon allowance of the claims in the subject application, the Examiner pass the subject application to issuance.

## Rejections Under 35 U.S.C. § 102(b):

Claims 21, 23, 24, 29, and 30 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Valdner.

The Examiner states that Valdner discloses an umbrella apparatus 10 (Figure 1) comprising: a canopy portion 24 hingedly coupled to a pole portion 12 (Figure 1, column 2, line 9); a rechargeable electrical power system 44 - rechargeable battery energizing the umbrella apparatus 10 (Figure 1, column 2, lines 37 and 38); a solar power system 38 disposed on the top of the pole portion 12 above the canopy 24 (Figure 1, column 2, lines 37-43); the solar power system 38 able to collect solar energy, and convert solar energy into electrical energy; the solar power system conductively coupled, with electrical wires (Figures 3 and 8 column 2, lines 37-43) to the rechargeable electrical power system 44; the electrical energy converted from the solar energy by the solar power system 38 being used for recharging the rechargeable electrical energy system 44 (Figure 1, column 2, lines 37-43); the solar system 38 being in fixed position relative to the pole portion 12, and does not move when the canopy portion operated between the opened and close position (Figures 5 and 6); the rechargeable energy system 44 disposed by the second housing below the canopy portion 12 (Figure 1); a recharging system 56 receiving power from AC power outlet 54 for recharging the rechargeable energy system 44 (Figures 1 and 3, column 2, lines 37-43); a rechargeable electrical power system 44 detachable from the umbrella apparatus 10, and attachable to a remote an AC docking station receiving power plug 58 (Figure 3, column 2, lines 37-43); and a releasable plug 46 conductively coupling the

> Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 12

rechargeable electrical power system 44 to the solar power system 38 (Figures 1 and 3, column 2, lines 34-43).

The Valdner device is a hand-held, air-cooled umbrella. The umbrella 10 has a rod 12, a handle 14 with hand grips 16, a top spring 18, a runner 20, a plurality of stretchers 22, and a collapsible canopy 24. The umbrella 10 includes flat ribs 26 with holes 28 to vent hot air from under the canopy 24. An electric fan 30 powered by an electric motor 32 is built into the rod 12. A solar cell panel 38 mounted to the apex of the canopy 24 provides power to the electric fan 30 on hot sunny days. In addition, the umbrella 10 includes a rechargeable handle battery pack 44 that plugs into the bottom end of the handle 14 to supply power to the electric fan 30 on hot sunless days and at night when there is no solar energy available. The rechargeable handle battery pack 44 may be charged utilizing a separate charger assembly 54 having plugs 58 for plugging into an AC power outlet.

Claim 21 is hereby amended. The Applicant submits that Valdner does not anticipate amended Claim 21, because Valdner does not teach or disclose each element of the invention as claimed in amended Claim 21.

Valdner does not mention, suggest, disclose, or teach a lighting system in any form or fashion. The only electrically powered device disclosed by Valdner is the electric fan 30. On the other hand, the claimed invention includes a lighting system having a plurality of light emitting diodes. In the claimed invention, the lighting system is conductively coupled to and powered by the rechargeable electrical power system. Valdner makes no mention of such a lighting system.

Furthermore, Valdner does not mention, suggest, disclose, or teach the combination of features recited in Applicant's independent claim 21. For example, Valdner does not teach or suggest, amongst other features recited in claim 21, a pole portion adapted to be supported by a support structure, so as to remain in an outdoor location; a lighting system having a plurality of light emitting diodes conductively coupled to the rechargeable electrical power system via a conductor and being powered by the rechargeable electrical power system without a need for connection to

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 13

an AC power outlet, at least one of the light emitting diodes being carried by the umbrella portion and positioned so as to illuminate the area beneath the umbrella portion, and at least a portion of the conductor being carried by at least one of the rib members of the plurality of rib members; the solar collector being configured so that the degree of exposure of the solar collector remains the same regardless of whether the umbrella portion is in the opened position or in the closed position; and the umbrella apparatus being adapted to remain in the outdoor location for recharging the rechargeable electrical power system during daylight hours, regardless of whether the umbrella portion is in the opened position or the closed position, and can remain in the outdoor location after daylight hours.

Valdner discloses what appears to be a hand held umbrella that is not designed to remain in a location, but appears to be designed to be carried by handgrip 16. Also, although Valdner discloses a solar cell panel 38 mounted to the apex of the canopy 24 (see column 2, lines 20-21), Valdner clearly does not disclose a solar collector configured so that the degree of exposure of the solar collector remains the same regardless of whether the umbrella portion is in the opened position or in the closed position; rather, Valdner shows solar cell panel 38 changing orientation relative to the rod 12 when the canopy 24 is operated between an opened position and a closed position. The different orientations of solar cell panel 38 are clearly shown in Figures 2 and 5. In Figure 2, solar cell panel 38 is shown in a generally horizontal position, but in Figure 5, solar cell panel 38 is shown folded down into a generally vertical orientation. Because solar panel cell 38 changes its orientation, it would not be as efficient at collecting solar energy as a solar collector that remains in a position so that the degree of exposure when the umbrella is opened or closed would be essentially the same.

For at least these reasons, Valdner fails to disclose all of the limitations of Claim 21, as amended. As such, the Applicant submits that Valdner does not anticipate amended Claim 21, and that amended Claim 21 is now in condition for allowance. Therefore, the Applicant respectfully requests that amended Claim 21 be allowed.

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 14

Claim 29 is hereby cancelled. Claims 23, 24, and 30 are dependent claims based upon Claim 21, as amended. As such, the Applicant submits that Valdner fails to disclose all of the limitations of each of Claims 23, 24, and 30 and that Valdner does not anticipate Claims 23, 24, and 30. Because Claims 23, 24, and 30 are dependent claims based upon an allowable independent claim, the Applicant submits that Claims 23, 24, and 30 are also allowable and are now in condition for allowance. Therefore, the

Applicant respectfully requests that Claims 23, 24, and 30 be allowed.

Claims 21 and 22 stand rejected under 35 U.S.C. § 102(b) as being anticipated by

Small.

37).

The Examiner states that Small discloses a beach umbrella apparatus (Figure 1) comprising: a canopy portion 11 hingedly coupled to a pole portion 10 (Figure 1, column 1, lines 47-50); a rechargeable electrical power system 35 – rechargeable battery – energizing the umbrella apparatus (Figure 1, column 2, lines 29-31); a solar power system 34 disposed on the top of the pole portion 10 above the canopy 11 (Figure 1, column 2, lines 29-31); the solar power system 34 able to collect solar energy, and convert solar energy into electrical energy; the solar power system 34 conductively coupled, with electrical wires (Figure 1, column 2, lines 29-37) to the rechargeable electrical power system 35; the electrical energy converted from the solar energy by the solar power system 35 being used for recharging the rechargeable electrical energy system 34 (Figure 1, column 2, lines 29-37); the solar system being in fixed position relative to the pole portion 10, and does not move when the canopy portion 11 operated between the opened and close position (Figure 1); and the rechargeable battery 34 positionable in the housing carrying the solar system 35 (Figure 1, column 2, lines 29-positionable in the housing carrying the solar system 35 (Figure 1, column 2, lines 29-positionable in the housing carrying the solar system 35 (Figure 1, column 2, lines 29-positionable in the housing carrying the solar system 35 (Figure 1, column 2, lines 29-positionable in the housing carrying the solar system 35 (Figure 1, column 2, lines 29-positionable in the housing carrying the solar system 35 (Figure 1, column 2, lines 29-positionable in the housing carrying the solar system 35 (Figure 1, column 2, lines 29-positionable in the housing carrying the solar system 35 (Figure 1, column 2, lines 29-positionable in the housing carrying the solar system 35 (Figure 1, column 2, lines 29-positionable in the housing carrying the solar system 35 (Figure 1, column 2, lines 29-positionable in the housing carrying the solar system 35 (Figure 1, column 2,

The Small device is an umbrella having an electrical opening and closing system. Small teaches the use of a conventional battery in combination with a solar battery (solar collector) arranged upon the top of the umbrella, which provide a source of electricity for powering a drive motor (and associated pulley system) for moving the umbrella (see column 1, lines 18-24). The umbrella is driven by the motor 29 between

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 15

an open and closed position (column 2, lines 46-48). The solar battery 34 is located at

the top center of the umbrella at the upper end of the post 10 (see Figure 1, column 2

lines 28-31). On sunny days, the solar battery 34 is charged to in turn charge the

battery 35 (see column 2, lines 53-58). The umbrella has a manually operable crank 23

for operating the opening and closing mechanism if the power of the storage battery 35

is insufficient to operate the opening and closing of the umbrella (see column 1, lines

65-70 and column 2, lines 65-72).

Claim 21 is hereby amended. The Applicant submits that Small does not

anticipate amended Claim 21, because Small does not teach or disclose each element

of the invention as claimed in amended Claim 21.

As with Valdner, Small does not mention, suggest, disclose, or teach a lighting

system in any form or fashion, or the combination of features as recited in Applicant's

claims 21. For the sake of brevity, Applicant is not repeating each of the arguments as

set forth above. However, it is noted that that only electrically powered device disclosed

by Small is the motor for opening and closing the umbrella. On the other hand, the

claimed invention includes a lighting system having a plurality of light emitting diodes.

In the claimed invention, the lighting system is conductively coupled to and powered by

the rechargeable electrical power system. Small makes no mention of such a lighting

system.

For at least these reasons, Small fails to disclose all of the limitations of Claim

21, as amended. As such, the Applicant submits that Small does not anticipate

amended Claim 21, and that amended Claim 21 is now in condition for allowance.

Therefore, the Applicant respectfully requests that amended Claim 21 be allowed.

With regard to Claim 22, Small does not mention, suggest, disclose, or teach a

rechargeable electrical power system and a solar energy system both carried by a

single housing releasably mounted on the pole portion above the umbrella portion. In

the Small device, the solar battery 34 is supported on the upper end of the post 10, and

the storage battery 35 is either internal to the pole or external to the pole. Small makes

the storage battery of its entire internal to the pole of external to the pole.

no mention or suggestion of providing a single housing for both the solar battery and

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537

Page 16

the storage battery, and makes no mention or suggestion of allowing the single housing

to be releasable from the pole.

Furthermore, Claim 22 is a dependent claim based upon Claim 21, as amended.

As set forth above, Small does not teach, mention, suggest, or disclose a lighting

system. For these reasons, the Applicant submits that Small fails to disclose all of the

limitations of Claim 22 and that Small does not anticipate Claim 22. Because Small does not mention, suggest, disclose, or teach a rechargeable electrical power system

and a solar energy system both carried by a single housing releasably mounted on the

pole portion above the umbrella portion, and because Claim 22 is a dependent claim

based upon an allowable independent claim, the Applicant submits that Claim 22 is

allowable and now in condition for allowance. Therefore, the Applicant respectfully

requests that Claim 22 be allowed.

Rejections Under 35 U.S.C. § 103(a):

Claims 25 and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable

over Small in view of Perrier et al.

Regarding Claim 25, the Examiner states that Small discloses a beach umbrella

apparatus (Figure 1) comprising a canopy portion hingedly coupled to a pole portion; a

rechargeable electrical power system energizing the umbrella apparatus; and a solar

power system disposed on the top of the pole portion above the canopy. The Examiner

concedes that the umbrella disclosed by Small is a free-standing umbrella on the ground and that Small does not disclose details of the base of the umbrella. The Examiner relies

upon Perrier et al. for this feature.

The Examiner states that Perrier et al. disclose a solar-powered umbrella

apparatus 1 (Figure 1) comprising: a canopy portion 8 hingedly coupled to a pole portion

9 (Figure 1, English translation, page 2, line 1); and a pole portion 9 received in a

removable, by removing the adjustable screw, base assembly 4 - the combination of a

sleeve integral with a base plate (Figure 1). The Examiner asserts that it would have

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537

Page 17

been obvious to one of ordinary skill in the art at the time of the invention to modify the

umbrella apparatus of Small by providing the base assembly as taught by Perrier et al. for

mounting the apparatus on the ground in a stable position.

The Applicant reiterates here the distinguishing remarks set forth herein with

regard to Small. As discussed in detail herein, Small discloses an umbrella employing a

conventional battery in combination with a solar battery (solar collector) arranged upon

the top of the umbrella, which provides a source of electricity to power a drive motor

(and associated pulley system) for moving the umbrella between open and closed

positions (see column 1, lines 18-24). However, Small does not teach, mention,

suggest, or disclose at least a lighting system or other features recited in Applicant's

claims.

The Perrier et al. device is an umbrella with a ventilated light and other

accessories. The umbrella 1 has a hollow mast 9, a housing 10 having openings 11, a

canopy 8, stays 15 to which the canopy 8 is attached, a base 4, batteries 3 carried in

the base 4, a cord 6 and a pulley 7 for controlling the canopy 8, a light 12 carried within

the hollow mast 9, a solar collector 2 for recharging the batteries 3, and a power cord

14 for connecting to an alternate source of energy. The canopy 8 is composed of

either: (1) a perforated fabric; or (2) an impermeable unperforated fabric having a

valence 23 held at the end of supports 24 that forms a peripheral gutter for draining off

water. The solar collector 2 covers all or part of the canopy 8. The light 12 is equipped

with a ventilated protective tube 13 made of perforated metal, screen, Plexiglas, glass,

or a translucent or colored sleeve. Another light 25 is located in the base 4.

Claim 25 is not hereby amended; however, Claim 25 is a dependent claim that is

dependent upon Claim 21, which is hereby amended. The Applicant submits that neither

Small nor Perrier et al., either alone or in combination, disclose all of the limitations of

Claim 25.

Perrier is utilized in the rejection merely for its disclosure of a base. Accordingly,

whether or not it would have been obvious to incorporate a base with Small, the

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537

Page 18

instantly claimed invention would not be at hand. Accordingly, for at least this reason, the rejection of record should be withdrawn.

Still further, Perrier et al. make no mention, teaching, suggestion, or disclosure of a lighting system having a plurality of light emitting diodes conductively coupled to and powered by a rechargeable electrical power system. Instead, Perrier et al. disclose a light 12 carried within the hollow mast 9, the light 12 being equipped with a ventilated protective tube 13 and/or ventilation holes 16 to prevent overheating (see English translation Figures 1 and 2, pages 2 and 5). Clearly, because Perrier et al. expressly discuss concerns with overheating, Perrier et al. do not contemplate the use of light emitting diodes. Indeed, Perrier et al. add additional components to their device to accommodate the extreme heat generated by their lighting element. This clearly teaches away from the claimed invention. One having ordinary skill in the art would not have been motivated to include light emitting diodes into a hollow mast such as disclosed by Perrier et al.

Moreover, the location of the lights in the Perrier et al. device are in very undesirable locations and create additional design problems. Locating the ventilated light 12 in the pole is undesirable for several reasons. First, incorporating the light fixture into the pole makes the pole less strong. The light fixture and the ventilation tube would typically not be as strong as the material from which the pole is constructed. The extra joints would make the pole less strong and harder to manufacture, assemble, ship, and maintain. Second, with the light located on the pole above the hub, shadows from the hub, struts, cords, and pulleys are cast directly into the area that is supposed to be illuminated. Third, the light that does get through these obstacles shines directly into the faces of the users under the canopy, which is very distracting and undesirable. Fourth, because the lights in the Perrier et al. device are susceptible to overheating, they pose a safety risk, particularly if the canopy is in a closed position, where the canopy prevents circulation of cooling air around the light.

On the other hand, because the lighting systems in the claimed invention do not generate excessive heat, the lighting systems can be disposed in close proximity to the

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 19

canopy without the danger of overheating. The lighting systems in the claimed invention do not cast undesirable shadows on the users. To the contrary, in the claimed invention, at least one of the light emitting diodes is carried by the umbrella portion and positioned so as to illuminate the area beneath the umbrella portion

As for the lights in the base of the Perrier et al. device, these lights are of very little practical use, and are undesirable for various reasons, as well. First, when the umbrella is used with a table, the lights are located directly beneath the users' feet, which makes the lights susceptible to damage and/or breakage. Second, most of the light generated by these lights would be blocked by the users' feet, purses, bags, and other things located under the table. Third, because these lights in the base only shine upward, any light that does make it up through the obstacles under the umbrella would create a glare and actually make it more difficult for a user to read or conduct activities under the umbrella. Fourth, these lights in the base are susceptible to damage and breakage from various sources, including, weather, the environment, dirt, debris, and the pole itself, as the pole is removed and replaced into the base unit.

Moreover, Perrier et al. do not disclose a lighting system having a plurality of light emitting diodes conductively coupled to the rechargeable electrical power system via a conductor and being powered by the rechargeable electrical power system without a need for connection to an AC power outlet, at least one of the light emitting diodes being carried by the umbrella portion and positioned so as to illuminate the area beneath the umbrella portion, and at least a portion of the conductor being carried by at least one of the rib members of the plurality of rib members. Still further, Perrier et al. do not disclose a solar collector configured so that the degree of exposure of the solar collector remains the same regardless of whether the umbrella portion is in the opened position or in the closed position. Still further, Perrier et al. do not disclose an umbrella apparatus adapted to remain in an outdoor location for recharging the rechargeable electrical power system during daylight hours, regardless of whether the umbrella portion is in the opened position or the closed position, and can remain in the outdoor location after daylight hours.

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 20

In the Perrier et al. device, the solar collector 2 covers all or only part of the

canopy (English translation Figures 1 and 2, page 2). In Perrier et al., solar collector 2

is attached to canopy 8 such that when the canopy portion is operated between an

opened position and a closed position, the degree of exposure of solar collector 2

would not be essentially the same.

The configuration of Perrier et al. is undesirable for several reasons. First,

because the solar collectors move with the canopy, they are ineffective and/or

inoperable when the canopy is in the closed position. When the canopy is in the closed

position, the folds of the collapsed canopy hide a significant portion of the solar

collectors, making the solar collectors ineffective and/or inoperable. Furthermore, even

if parts of the solar collector 2 are exposed when the canopy 8 is in the down position,

the solar collector 2 is in a substantially vertical position, which is very ineffective for

collecting solar energy.

For at least these reasons, Small taken alone in combination with Perrier et al.

fails to disclose all of the limitations of Claim 25. As such, the Applicant submits that it

would not have been obvious to one of ordinary skill in the art at the time of the invention

to modify the umbrella apparatus of Small by providing the base assembly as taught by

Perrier et al. for mounting the apparatus on the ground in a stable position, and that

Claim 25 is now in condition for allowance. Therefore, the Applicant respectfully requests

that Claim 25 be allowed.

Claim 26 is hereby cancelled, rendering the Examiner's rejection of Claim 26 moot.

Claims 27 and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable

over Small in view of Perrier, and further in view of Valdner.

Claims 27 and 28 are hereby cancelled, rendering the Examiner's rejection of

Claims 27 and 28 moot.

Claims 31, 32, and 34 stand rejected under 35 U.S.C. § 103(a) as being

unpatentable over Valdner in view of Walker.

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537

Page 21

Claims 31 and 32 are hereby cancelled, rendering the Examiner's rejection of

Claims 31 and 32 moot.

Regarding Claim 34, the Examiner states that "Valdner ('975) discloses a solar

energy based umbrella apparatus meeting the limitations, except the following, in similar

manner as that applied to claims 21 and 31 detailed above and in section 3 of this office

action." The Examiner further states that Valdner additionally discloses a solar energy

based umbrella apparatus further including: a hub 20 movable along the pole portion 12

(Figures 1 and 4, column 2, lines 9-13).

The Applicant reiterates here all of the distinguishing remarks set forth herein

regarding Valdner. In particular, the Applicant reiterates that Valdner makes no mention,

suggestion, teaching or disclosure, of including a lighting system having a plurality of

LED's on an umbrella or the combination of elements as recited in Applicant's

independent claim 21.

The Walker device is a lighted umbrella that uses high-voltage rope lighting.

Walker discloses an umbrella 10 including a post 12, a plurality of ribs 16 and a canopy

supported on the ribs 16. The umbrella further includes a light source in the form of a

length of rope lighting 32 carried by and extending along each of the ribs (see Figures 1

and 2). Separate downwardly opening, elongate channels 30 are secured to the

undersides of the ribs 16. A light source in the form of rope lighting 32 (see column 2,

lines 21-25) is pressed into each channel 30. The umbrella 10 also has a hub 14 that is

fixed to the upper end of the pole 12 (see column 1, lines 66-67). The hub 10 carries a

plurality of electrical sockets 24 (see column 2, lines 8-9). The radially inner end of

each length of rope lighting 32 includes a plug 34 which is pushed into the adjacent

socket 24 (carried by hub 14) and subsequently connected to a source of electricity

(column 2, lines 25-35).

Claim 34 is not hereby amended; however, Claim 34 is a dependent claim that is

dependent upon Claim 21, which is hereby amended. The Applicant submits that neither

Valdner nor Walker, either alone or in combination, disclose all of the limitations of Claim

34.

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537

Page 22

Walker does not mention, teach, suggest or otherwise disclose, an umbrella having a rechargeable electrical power system, a solar energy system or light emitting diodes. To the contrary, Walker teaches the use of rope lights, which are typically powered by high-voltage power supplies, such as typical 120 Volt AC, as is commonly found in homes. Such rope lights would require more power than could be supplied by rechargeable batteries that are recharged by a solar energy system mounted on the umbrella. Thus, Walker teaches away from the use of batteries and/or solar collectors as power supplies. Using conventional batteries to power rope lights which require high voltages is not easily or economically accomplished. On the other hand, the present invention is well suited for use any distance away from external power sources since the rechargeable batteries are conveniently recharged by the solar collectors, and the light emitting diodes require far less electrical power.

Walker does not disclose a lighting system having a plurality of light emitting diodes conductively coupled to the rechargeable electrical power system via a conductor and being powered by the rechargeable electrical power system without a need for connection to an AC power outlet, at least one of the light emitting diodes being carried by the umbrella portion and positioned so as to illuminate the area beneath the umbrella portion, and at least a portion of the conductor being carried by at least one of the rib members of the plurality of rib members. Still further, Walker does not disclose a solar collector configured so that the degree of exposure of the solar collector remains the same regardless of whether the umbrella portion is in the opened position or in the closed position. Still further, Walker does not disclose an umbrella apparatus adapted to remain in an outdoor location for recharging the rechargeable electrical power system during daylight hours, regardless of whether the umbrella portion is in the opened position or the closed position, and can remain in the outdoor location after daylight hours.

For at least these reasons, Valdner whether taken alone or in combination with Walker fails to disclose all of the limitations of Claim 34. As such, the Applicant submits that it would not have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Valdner by providing the rope lighting of

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 23

Walker, and that Claim 34 is now in condition for allowance. Therefore, the Applicant respectfully requests that Claim 34 be allowed.

Claim 33 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over

Valdner in view of Mai.

The Examiner states that Valdner discloses a solar energy based umbrella

apparatus comprising a plurality of rib members supporting a collapsible cover; and a

battery-based power system rechargeable with solar power system. The Examiner

concedes that Valdner does not teach the disclosed umbrella assembly including a

lighting system carried by the collapsible cover, and the lighting system being

conductively coupled to the rechargeable lighting system. The Examiner further states

that Mai discloses an umbrella apparatus including a lighting system 83 carried by the

collapsible cover 30 (Figure 1, column 2, lines 64-65). The Examiner concludes that it

would have been obvious to one of ordinary skill in the art at the time of the invention to

modify the umbrella apparatus of Valdner by providing and positioning the lighting system

as taught by Mai for the benefits of high attention and decorative values of the device.

The Applicant reiterates here all of the distinguishing remarks set forth herein

regarding Valdner. In particular, for example, the Applicant reiterates that Valdner makes

no mention, suggestion, teaching, or disclosure, of including a lighting system having a

plurality of LED's on an umbrella.

The Mai device is an umbrella with an alert device. Mai discloses a handheld

umbrella body 2 having an attached umbrella cover 3. The umbrella cover 3 comprises a

plurality of gores 30 sewn edge to edge to form a circular covering. A combination of

stretchers 50 and ribs 20 fully stretch and open the umbrella. The umbrella system

disclosed by Mai further comprises an alert device 80 which comprises a battery receiver

81 mounted below the umbrella cover, a battery 82 stored in the receiver 81, the battery

being used to provide power to a plurality of light emitting diodes 83 distributed on the

gores 30 of the umbrella cover 3 (see column 2, lines 40-67). In operation, the Mai alert

device serves to increase visibility of the user of the handheld umbrella, so that drivers

around the user can easily be aware of the location of the user, thereby preventing

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537

Page 24

accidents (see column 3, lines 32-36). The Mai device includes battery-powered LED's

83 held within transparent strips 84 that are sealed to the top of cover 3.

The Mai device is a handheld umbrella used primarily for increasing the visibility

of the user to nearby drivers and lowering the chance of the user being struck by the

drivers. In the Mai umbrella, the lights are not intended to shine under the umbrella to

provide light under the umbrella. To the contrary, in Mai, the lights are placed on the

top side of the cover and shine out to provide a beacon. Because the Mai device is

only used to warn others on dark, rainy nights, there is no motivation for Mai to add

rechargeable batteries and a solar energy recharging system. Thus, the Applicant

submits that Mai teaches away from the claimed invention.

Mai fails to disclose several features of the claimed invention. Specifically, Mai

does not mention, suggest, teach, or otherwise disclose, a rechargeable electrical

power system, and Mai does not mention, suggest, teach, or otherwise disclose, the

use of a solar energy system to recharge the rechargeable electrical power system.

On the other hand, the present invention is a solar powered umbrella having a

lighting system that is conductively coupled to a rechargeable electrical power source.

The rechargeable electrical power source is conductively coupled to the solar energy

system, so as to be recharged by the solar energy system. In the claimed invention,

the lighting system is coupled to the collapsible cover, so as to illuminate the area

beneath the umbrella portion.

Claim 33 is hereby amended to clarify that the lighting system is configured to

illuminate the area beneath the canopy portion. In addition, Claim 33 is a dependent

claim that is dependent upon Claim 21, which is also hereby amended. The Applicant

submits that neither Valdner nor Mai, either alone or in combination, disclose all of the

limitations of Claim 33.

For at least these reasons, Valdner whether taken alone or in view of Mai, fails to

disclose all of the limitations of Claim 33. As such, the Applicant submits that it would

not have been obvious to one of ordinary skill in the art at the time of the invention to

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537

Page 25

modify the umbrella apparatus of Valdner by providing the lighting of Mai, and that Claim

33 is now in condition for allowance. Therefore, the Applicant respectfully requests that

Claim 33 be allowed.

The Applicant maintains and reiterates here the arguments previously presented in

the Applicant's response to an Office Action mailed to the Applicant on 21 September

2005, selected portions of which are reproduced herein for the Examiner's convenience.

Statements of Support for New Claims:

New Claims 70-75 are hereby added. The Applicant submits that support for each

element and feature of each and every new claim may be found in the various

embodiments of the application at various locations throughout the application, including

the figures.

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 26

#### **CONCLUSION:**

In view of the foregoing amendments and remarks, the Applicant respectfully submits that the application is now condition for allowance, and earnestly solicits an early reconsideration and a Notice of Allowance.

Enclosed is a check in the amount of \$395.00 to cover the RCE Filing Fee. No other fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any fees that are necessary, or credit any overpayments, to **Deposit Account No. 502806**.

Please link this application to Customer Nos. 50779 and 38441 so that its status may be checked using the PAIR System.

Respectfully submitted,

8/3/06

Date

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ATTORNEYS FOR APPLICANT

Amendment Under 37 C.F.R. § 1.114 Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 27

AUG 0 7 2006 PTO/SB/30 (04-05) Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE TRADE Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Request for Continued Examination (RCE)

**Transmittal** Address to: Mail Stop RCE Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Application Number	10/650,537	
Filing Date	28 AUGUST 2003	
First Named Inventor	GREGORY G. KUELBS	
Art Unit	2875	
Examiner Name	HARGOBIND S. SAWHNEY	
Attorney Docket Number	0664MH-40982-C	

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application. Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

1.	Submission required under 37 CFR 1.114 Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).										
	a.	Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.									
		i. Consider the arguments in the Appeal Brief or Reply Brief previously filed on									
		li. Uther									
	b.	Enclosed									
		I. Amendment/Reply iii. Information Disclosure Statement (IDS)									
		ii. Affidavit(s)/ Declaration(s) iv. Other									
2.	Mi	iscellaneous									
		Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a									
	a. b.	period of months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)  Other									
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3.	LE	The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.  The Director is hereby authorized to charge the following fees, any underpayment of fees, or credit any overpayments, to									
	a.	Deposit Account No. <u>502806</u> . I have enclosed a duplicate copy of this sheet.									
		i. RCE fee required under 37 CFR 1.17(e)									
		ii.  Extension of time fee (37 CFR 1.136 and 1.17)									
		iii. Other									
	b.	Check in the amount of \$enclosed									
	C.	Payment by credit card (Form PTO-2038 enclosed)									
		G: Information on this form may become public. Credit card information should not be included on this form. Provide credit prination and authorization on PTO-2038.									

	SIGNATURE OF APPLICANT, ATTORNE	EY, OR AGENT REQUIRED	
Signature	Janu E. Walk	Date	8/3/06
Name (Print/Type)	James E. Walton	Registration No.	47,245

CERTIFICATE OF MAILING OR TRANSMISSION I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 or facsimile transmitted to the U.S. Patent and Trademark

Name (Print/Type) James E. Walton

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Office on the date shown below.

Name (Print/Type) James E. Walton Date B/3/06

This collection of information is required by 37 CFR 1.114. 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 1.11 and 1.14. This collection is estimated to take 12 minutes 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 2313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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YOT-1202-0332

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#### THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C

In Re Application of:

**GREGORY G. KUELBS** 

Serial No.: 10/650,537

Filed: 28 AUGUST 2003

For: UMBRELLA APPARATUS

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Examiner: HARGOBIND S.

SAWHNEY

Art Unit: 2875

Confirmation No.: 9033

#### REQUEST FOR EXTENSION FOR RESPONSE WITHIN THE FIRST MONTH

MAIL STOP: RCE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

A Final Office Action was mailed to the undersigned on 4 April 2006. Filed herewith is a Request for Continued Examination Under 37 C.F.R. § 1.114, along with an Amendment Under 37 C.F.R. § 1.114. The Applicant hereby requests a one-month extension of time, until 4 August 2006, to respond to the Final Office Action.

## CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8(a)

Date of Deposit:

8/3/66

Jann E. Walk

I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail with sufficient postage under 37 C.F.R. §1.8(a) on the date indicated above and is addressed to Mail Stop: RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

By

Request for Extension for Response Within the First Month Attorney Docket No. 0664MH-40982-C

Serial No. 10/650,537 Page 1

, , ,

Enclosed is a completed Credit Card Payment Form, Form PTO-2038, authorizing the Commissioner to charge \$455.00 to cover the \$395.00 fee for the Request for Continued Examination Fee and the \$60.00 One-Month Extension Fee, to a designated credit card. No other fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any fees that are necessary, or credit any overpayments, to **Deposit Account No. 502806**.

Please link this application to Customer Nos. 50779 and 38441 so that its status may be checked using the PAIR System.

Respectfully submitted,

Date

8/3/06

James E Walton

Registration No. 47,245

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Burleson, Texas 76028 (817) 447-9955 (Voice)

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ATTORNEYS FOR APPLICANT

Request for Extension for Response Within the First Month Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 2





#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C

In Re Application of:

**GREGORY G. KUELBS** 

Serial No.: 10/650,537

Filed: 28 AUGUST 2003

For: UMBRELLA APPARATUS

888

Examiner: HARGOBIND S.

**SAWHNEY** 

Art Unit: 2875

Confirmation No.: 9033

**TRANSMITTAL** 

MAIL STOP: RCE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

Please file the following enclosed documents in the subject application:

- 1. This Transmittal with Certificate of Mailing;
- Request for Continued Examination (RCE) Transmittal, Form PTO/SB/30; 2.
- 3. Amendment Under 37 C.F.R. § 1.114;
- 4. Request for Extension for Response Within the First Month;
- 5. A completed Credit Card Payment Form, Form PTO-2038, authorizing the Commissioner to charge \$455.00 to cover the \$395.00 fee for the Request for Continued Examination Fee and the \$60.00 One-Month Extension Fee, to a designated credit card; and
- Our return postcard which we would appreciate you date stamping and 6. returning to us.

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Transmittal Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537

Page 1

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Please link this application to Customer Nos. 50779 and 38441 so that its status may be checked using the PAIR System.

Respectfully submitted,

8/3/06 Date

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ATTORNEYS FOR APPLICANT

Transmittal Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 2

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Approved for use through 7/31/2008, OMB 0651-0332
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This collection of Information is required by 37 CFR 1.16. 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 12 minutes 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.

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	Туре	Hits	Search Text	DBs
1	BRS	27103	solar adj (power or energy)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
2	BRS	957	(solar adj (power or energy)) and (recharg\$5 with (electrical or batter\$4))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
3	BRS	10	((solar adj (power or energy)) and (recharg\$5 with (electrical or batter\$4))) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
4	BRS	16794	umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
5	BRS	66	(solar adj (power or energy)) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
6	BRS	22425	recharg\$6 adj batter\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
7	BRS	708	(solar adj (power or energy)) and (recharg\$6 adj batter\$4 )	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
8	BRS	7	umbrella and ((solar adj (power or energy)) and (recharg\$6 adj batter\$4 ))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
9	BRS	163	umbrella and "362"/\$.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
10	BRS	5	("5007811"   "5172711"   "5273062"   "5711331"   "5765582").PN.	USPAT
11	BRS	9	("1148332"   "1532802"   "1555579"   "2547896"   "2627217"   "2729220"   "3177881"   "4154255"   "5007811").PN.	USPAT
12	BRS	20	("1148332"   "1173665"   "1555579"   "1683270"   "2627217"   "2729220"   "2817281"   "3102547"   "3177881"   "3318560"   "3444799"   "4154255"   "4628791"   "4753411"   "4850564"   "4867187"   "4915670"   "5007811"   "5161561"   "5172711").PN.	USPAT
13	BRS	4	(umbrella and "362"/\$.ccls.) and (solar adj (power or energy))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB

	Туре	Hits	Search Text	DBs
14	BRS	448	362/96.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
15	BRS	11	362/96.ccls. and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
16	BRS	4	362/102.ccis. and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
17	BRS	59	362/102.ccls. and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
18	BRS	4	362/577.ccls. and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
19	BRS	1	362/577.ccls. and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
20	BRS	o	362/577.ccls. and solar and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
21	BRS	0	362/209.ccls. and solar and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
22	BRS	5	362/209.ccls. and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
23	BRS	34	362/276.ccls. and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
24	IS&R	2	("5172711").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
25	IS&R	2	("5349975").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
26	IS&R	2	("5463536").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
27	IS&R	2	("5172711").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
28	IS&R	2	("5273062").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB

	Туре	Hits	Search Text	DBs
29	IS&R	2	("6017188").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
30	IS&R	8	("1148332").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
31	IS&R	6	(("6017188") or ("5273062") or ("5172711")).PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
32	BRS	0	362/209.ccls. and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
33	BRS	13	362/96.ccls. and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
34	BRS	28	362/276.ccls. and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
35	BRS	3	362/577.ccls. and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
36	BRS	6	362/102.ccls. and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
37	BRS	64538	solar adj (power or energy or cell)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
38	BRS	117	housing with (solar adj (power or energy or cell) and (recharg\$5 with (electrical or batter\$4)))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
39	BRS	3	(housing with (solar adj (power or energy or cell) and (recharg\$5 with (electrical or batter\$4)))) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
40	BRS	0	((housing or casing) with ((solar adj (power or energy)) and (recharg\$6 adj batter\$4 ))) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
41	BRS	44	(housing or casing) with ((solar adj (power or energy)) and (recharg\$6 adj batter\$4 ))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
42	BRS	91	362/102,96,209,276,577.CCLS. and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB

	Туре	Hits	Search Text	DBs
43	BRS	5	362/191.ccls. and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
44	BRS	496	135/16.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
45	BRS	379	135/16.ccls. and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
46	BRS	14	135/16.ccls. and umbrella and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
47	IS&R	7	(("5,126,922") or ("5,172,711") or ("5,273,062") or ("5,349,975") or ("5,463,536") or ("5,584,564") or ("6,017,188")).PN.	USPAT
48	BRS	34128	solar adj (power or energy)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
49	BRS	3722	\$48 and ((recharg\$6 or charg\$7) with (electrical or batter\$4))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
50	BRS	23524	umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
51	BRS	120	S48 and S50	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
52	BRS	65	S48 and S50 and batter\$5	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
53	BRS	57	S51 and @ad <"20010207"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
54	BRS	351	362/102.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
55	BRS	3722	S48 and S49	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
56	BRS	1067	S55 and ((alternat\$4 current) or "AC")	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB

	Туре	Hits	Search Text	DBs
57	BRS	22	S55 and ((alternat\$4 current) or "AC") and S50	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
58	BRS	5	("5053931"   "6089727"   "6196242"   "6270230"   "6439249").PN.	US-PGPUB; USPAT; USOCR
59	BRS	2	("6598990").URPN.	USPAT
60	BRS	72469	solar adj (power or energy or cell)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
61	BRS	2	S60 with batter\$4 with housing with umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
62	BRS	6	(S60 with batter\$4 with housing) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
63	BRS	365	\$60 with batter\$4 with housing	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
64	BRS	220	S61 and @ad <"20010207"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
65	BRS	29	\$60 with batter\$4 with (in or "wihin") with housing	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
66	BRS	88	\$60 with batter\$4 with (in or "within") with housing	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
67	BRS	55	S66 and @ad <"20010207"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
68	BRS	1	(\$60 with batter\$4 with (in or "within") with housing) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
69	BRS	202	S60 and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
70	BRS	24	S60 and umbrella and "135"/\$.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
71	BRS	12	("5584564" or "6439249" or "5053931" or "6820995" or "6837255" or "6126293").pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
72	BRS	6	("5584564" or "6439249" or "5053931" or "6820995" or "6837255" or "6126293").pn.	USPAT

	Туре	Hits	Search Text	DBs
73	BRS	1386	rib\$4 with ("within" or "in" or "inside") with light	USPAT
74	BRS	19	\$73 and umbrella	USPAT
75	BRS	4	("5323798"   "5502624"   "6089727"	US-PGPUB; USPAT;
	J.Ko		"6126293").PN.	USOCR
76	BRS	0	("6904922").URPN.	USPAT
77	BRS	1343186	(light emit\$4 diod\$4) or "LED"	USPAT
78	BRS	1528312	light (bulb or tube)	USPAT
79	BRS	1756440	S77 or S78	USPAT ,
80	BRS	5407	rib\$4 with ("within" or "in" or "inside") with \$79	USPAT
81	BRS	81	S80 and umbrella	USPAT
82	BRS	76	S81 and @ad < "20010702"	USPAT
83	BRS	1759917	S79 inside near4 rib	USPAT
84	BRS	4740	\$83 and umbrella	USPAT
85	BRS	1570767	S83 and @ad < "20010702"	USPAT
86	BRS	4209	\$84 and @ad < "20010702"	USPAT
87	IS&R	2	(("6270230") or ("6089727")).PN.	USPAT
88	BRS	4	("4601120"   "4860179"   "5323798"   "5502624").PN.	US-PGPUB; USPAT; USOCR
89	BRS	3	("6270230").URPN.	USPAT
90	BRS	2	("5323798"   "5502624").PN.	US-PGPUB; USPAT; USOCR
91	BRS	9	("6089727").URPN.	USPAT
92	BRS	2	("6089727"   "6302560").PN.	US-PGPUB; USPAT; USOCR
93	BRS	1	("6499856").URPN.	USPAT
94	BRS	6562044	(housing or casing or case)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
95	BRS	o	S71 with solar with batter\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
96	BRS	2343	\$94 with solar with batter\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
97	BRS	0	(solar near5 batter\$4) with ("within" or "in") with \$72	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
98	BRS	o	((solar panel) near4 batter\$4) with ("within" or "in") with \$72	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB

	Туре	Hits	Search Text	DBs
99	BRS	2176		US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
100	BRS	72	S99 with housing	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
101	BRS	147	S99 with (housing or casing or case)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
102	BRS	3	S99 with (housing or casing or case) and umbrella	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
103	BRS	4	(S99 same (housing or casing or case)) and umbrella	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
104	BRS	o	((solar panel) and batter\$4) near5 in near3 housing	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
105	BRS	19	((solar panel) and batter\$4) near5 within near3 housing	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
106	BRS	8	("2091693"   "4435095"   "4739549"   "5152610"   "5169236"   "5302028"   "5621390").PN.	US-PGPUB; USPAT; USOCR
107	BRS	2	("5681110").URPN.	USPAT
108	BRS	12	("3742633"   "4843525"   "4903172"   "4947300"   "4989124"   "4994941"   "5007190"   "5088221"   "5101329"   "5107637"   "5192944"   "D320815").PN.	US-PGPUB; USPAT; USOCR
109	BRS	13	("5435087").URPN.	USPAT
110	BRS	5	(umbrella) and (housing with solar with batter\$4)	USPAT
111	BRS	880	362/362.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
112	BRS	475	362/102.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
113	BRS	171	362/577.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
114	BRS	628	S112 or S113	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB

	Туре	Hits	Search Text	DBs
115	BRS .	223	\$114 and @ad < "20010702"	USPAT
116	BRS	3063	(362/96,227,159,276,352,20,183,182,19 4,278,320,319,431,450,800.ccls.) and @ad < "20010702"	USPAT
117	BRS	311	(135/16,15.1.ccls.) and @ad < "20010702"	USPAT
118	BRS	335	(S116 or S117) and umbrella	USPAT
119	BRS	310	S118 not S115	USPAT
120	BRS	12	S119 and solar	USPAT
121	BRS	578	umbrella and solar	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
122	BRS	2	"199956".ap.	US-PGPUB
123	BRS	1	"829790".ap.	US-PGPUB
124	BRS	200	umbrella and solar and (recharg\$5 or	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
125	BRS	246	umbrella and solar and batter\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
126	BRS	82	\$126 and @ad < "20010207"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
127	BRS	164	\$126 not \$127	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
128	BRS	11	("20020074027"   "5584564"   "6089727"   "6386214"   "6439249"   "6598990"   "6612713"   "6666224"   "6820995"   "6837255"   "6840658").PN. OR ("7000624").URPN.	US-PGPUB; USPAT; USOCR
129	BRS	267	S122 and @ad < "20010207"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
130	BRS	185	\$130 not \$126	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
131	BRS	185	S131 not S127	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
132	BRS	185	S131 not S128	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
133	BRS	2	"305653".ap.	US-PGPUB

	Type	Hits	Search Text	DBs
134	IS&R	1	("5584564").PN.	USPAT
35	IS&R	1	("4020858").PN.	USPAT
136	IS&R	1	("2087537").PN.	USPAT
37	BRS	20	("2087537").URPN.	USPAT
138	IS&R	1	("6270230").PN.	USPAT
139	IS&R	2	(("6017188") or ("5349975")).PN.	USPAT
140	BRS	25	("5007811"   "5172711"   "5273062"   "5711331"   "5765582").PN. OR ("6017188").URPN.	US-PGPUB; USPAT; USOCR
141	BRS	47	("20040100791"   "2087537"   "3215831"   "4061154"   "4072857"   "4174532"   "4491141"   "4979535"   "4994631"   "5053931"   "5101844"   "5331524"   "5463535"   "5584357"   "5611614"   "5641223"   "5769000"   "5776559"   "5787914"   "5907127"   "5911493"   "6017188"   "6070808"   "6126293"   "6209147"   "6270230"   "6323431"   "6402547"   "6439249"   "6598990"   "6612713"   "6627816"   "6659616"   "6668845"   "6679622"   "6722381"   "D130643"   "D208917"   "D295400"   "D378913"   "D379176"   "D379970"   "D467877").PN. OR ("7017598").URPN.	US-PGPUB; USPAT; USOCR
142	BRS	24	("5053931"   "5116258"   "5216948"   "5611614"   "5641223"   "5758948"   "6089727"   "6196242"   "6217192"   "6270230").PN. OR ("6439249").URPN.	US-PGPUB; USPAT; USOCR
143	BRS	4	("2087537"   "6017188"   "6439249").PN. OR ("6840657").URPN.	US-PGPUB; USPAT; USOCR
144	BRS	25	("5007811"   "5172711"   "5273062"   "5711331"   "5765582").PN. OR ("6017188").URPN.	US-PGPUB; USPAT; USOCR
145	BRS	24	("3102547"   "3177881"   "3444799"   "4023582"   "4505285"   "5007811"   "5143107"   "5172711"   "5207238"   "5289839").PN. OR ("5349975").URPN.	US-PGPUB; USPAT; USOCR
146	BRS	427	362/102,577.ccls.	USPAT
147	BRS	15	362/102,577.ccls. and solar	USPAT

	Туре	Hits	Search Text	DBs
148	BRS	27	362/102,577.ccls. and solar	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
149	BRS	12	S149 not S148	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
150	BRS	5283	362/96,227,159,276,352,20,183,182,19 4,278,320,319,431,450,800.ccls.	USPAT
151	BRS	621	135/16,15.1.ccls.	USPAT
152	BRS	3	\$151 and \$152	USPAT
153	BRS	5901	S151 or S152	USPAT
154	BRS	21	\$154 and \$121	USPAT
155	BRS	1	"5349975".pn. and (light or lamp or (light source) or diode)	USPAT
156	IS&R	1	("6666224").PN.	USPAT
157	BRS	15	("20020124876"   "20020145873"   "20020149934"   "20030067765"   "5758948"   "6089727"   "6302560"   "6439249"   "6443595"   "6497496").PN. OR ("6666224").URPN.	US-PGPUB; USPAT; USOCR
158	BRS	12	("5323798"   "5502624").PN. OR ("6089727").URPN.	US-PGPUB; USPAT; USOCR
159	BRS	17	umbrella and solar and batter\$4 and ((light\$4 or lamps or (light bulbs)) with (ribs or struts))	US-PGPUB; USPAT; USOCR
160	BRS	19	("5126922"   "5172711"   "5273062"   "5349975"   "5463536").PN. OR ("6612713").URPN.	US-PGPUB; USPAT; USOCR
161	IS&R	1	("6126293").PN.	USPAT
162	BRS	2	("2960094").URPN.	USPAT
163	BRS	19	("5126922"   "5172711"   "5273062"   "5349975"   "5463536").PN. OR ("6612713").URPN.	US-PGPUB; USPAT; USOCR
164	BRS	5	umbrella and (post with solar) and (support or base or (Base plate))	US-PGPUB; USPAT; USOCR
165	BRS	425	umbrella and solar and (support or base or (Base plate))	US-PGPUB; USPAT; USOCR
166	BRS	9	(patio umbrella) and solar and S164	US-PGPUB; USPAT; USOCR
167	BRS	13	("4848385"   "5053931"   "5323798"   "5502624"   "5584564"   "5611614").PN. OR ("5911493").URPN.	US-PGPUB; USPAT; USOCR

	Туре	Hits	Search Text	DBs
168	IS&R	1	("5911493").PN.	USPAT
169	BRS	4465156	S162 or S163	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
170	BRS	827721	(light emitting diod\$4) or "LED"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
171	BRS	4049875	light\$4 or lamps	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
172	BRS	216	\$173 and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
173	BRS	2	("2960094").URPN.	USPAT
174	IS&R	1	("5126922").PN.	USPAT
175	IS&R	2	(("2960094") or ("6830058")).PN.	USPAT
176	BRS	216	\$173 not \$181	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
177	BRS	0	("2005/0072451").URPN.	USPAT
178	IS&R	1	("5053931").PN.	USPAT
179	IS&R	1	("6298866").PN.	USPAT
180	IS&R	1	("6089727").PN.	USPAT
181	BRS	189	S173 and @pd < "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
182	BRS	329	135/22.ccis.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
183	BRS	2	135/22.ccis. and solar	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
184	BRS	0	("2005/0072451").URPN.	USPAT
185	BRS	8	("20030000559"   "2507919"   "5053931"   "5954417"   "6135605"   "6612713").PN. OR ("6820995").URPN.	US-PGPUB; USPAT; USOCR
186	BRS	3	("6058951").URPN.	USPAT
187	BRS	21	("1148332"   "1387740"   "1532802"   "1619217"   "2729220"   "3861410"   "5007811"   "5020557"   "5172711"   "5349975"   "5449012"   "5765582").PN. OR ("5868152").URPN.	US-PGPUB; USPAT; USOCR

	Type	Hits	Search Text	DBs
188	BRS	11	(patio umbrella) and solar	US-PGPUB; USPAT; USOCR
189	BRS	39	("1166272"   "2087537"   "2453925"   "3036206"   "3313929"   "3723723"   "3870062"   "4079344"   "4174532"   "4848385"   "4860179").PN. OR ("5053931").URPN.	US-PGPUB; USPAT; USOCR
190	BRS	1418	135/15.1,16,22.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
191	BRS	189621	solar or photovoltaic or (solar cell) or (photo cell) or (solar panel)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
192	BRS	7870	S195 or S194	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
193	BRS	863413	(light emit\$5 diod\$3) or "LED"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
194	BRS	1098	\$196 and \$200	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
195	BRS	29224	umbrella	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
196	BRS	17	("20030084931"   "3755663"   "5007811"   "5053931"   "5273062"   "5584564"   "5611614"   "6017188"   "6089727"   "6340233"   "6439249"   "6499856"   "6598990"   "6612713").PN. OR ("6837255").URPN.	US-PGPUB; USPAT; USOCR
197	BRS	41	S196 and S200 and S199	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
198	BRS	12	S196 and S200 and S199 and S197	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
199	BRS	4168524	lamp or (light bulb) or (light\$4 element) or light\$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
200	BRS	6482	362/20,96,102,159,182,183,191,194,20 9,227,276,278,319,320,352,431,450,57 7,800.ccls.	USPAT

	Туре	Hits	Search Text	DBs
201	BRS	14	S206 not S203	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
202	BRS	26	\$196 and \$200 and \$199 and \$205	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
203	BRS	12	("5053931"   "6089727"   "6196242"   "6270230"   "6439249").PN. OR ("6598990").URPN.	US-PGPUB; USPAT; USOCR
204	BRS	168	S213 and @ad < "20010207"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
205	BRS	641	\$200 and \$199	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
206	BRS	4593510	S197 or S205	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
207	BRS	6480	\$194 not \$215	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
208	BRS	52	oshio-kozo.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
209	BRS	462	S212 and S200 and S199	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
210	BRS	2	JP-09168415-\$.did.	JPO; DERWENT
211	IS&R	1	("5349975").PN.	USPAT; USOCR
212	BRS	294	S213 not S215	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
213	BRS	278	S214 and @ad < "20010207"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
214	BRS	198	(362/102,577.ccls. or "135"/\$.ccls.) and \$199	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
215	BRS	81	(362/102,577.ccls. or "135"/\$.ccls.) and \$199 and umbrella	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
216	BRS	110	S218 not S213	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB

	Туре	Hits	Search Text	DBs
217	BRS	1	"6439249".pn. and battery	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
218	IS&R	1	("6299325").PN.	USPAT; USOCR
219	BRS	1525	(solar adj (power or energy)) and (recharg\$6 adj batter\$4 )	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
220	BRS	41892	recharg\$6 adj batter\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
221	BRS	5734010	housing or casing or case or encas\$6	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
222	BRS	41	(housing or casing or case or encas\$6) with (recharg\$6 adj batter\$4) with (solar adj ((power or energy)) and (recharg\$6 adj batter\$4))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
223	BRS	o	(housing or casing or case or encas\$6) with (recharg\$6 adj batter\$4) with (solar adj ((power or energy)) and (recharg\$6 adj batter\$4 )) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
224	IS&R	2	("2960094").PN.	USPAT; USOCR
225	BRS	3	("2960094").URPN.	USPAT
226	BRS	189621	solar or photovoltaic or (solar cell) or (photo cell) or (solar panel)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
227	BRS	6978	(solar or photovoltaic or (solar cell) or (photo cell) or (solar panel)) with (recharg\$6 adj batter\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
228	BRS ·	66	umbrella and S233	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
229	BRS	943	(solar or photovoltaic or (solar cell) or (photo cell) or (solar panel)) with (recharg\$6 adj batter\$4) with \$227	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
230	BRS	8	S235 and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
231	BRS	1037	\$243 with plug with batter\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB

	Туре	Hits	Search Text	DBs
232	BRS	863413	(light emit\$5 diod\$3) or "LED"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
233	BRS	323	\$235 and \$237	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
234	BRS	109	\$252 and batter\$5 and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
235	BRS	38	S235 and S237 and outdoor	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
236	IS&R	0	("umbrellaand(recharg\$6batter\$4)and" AC"and(charging)").PN.	USPAT; USOCR
237	BRS	0	"650537".ap. and strut\$3	US-PGPUB
238	BRS	1	"650537".ap.	US-PGPUB
239	BRS	0	"650537".ap. and strut	US-PGPUB
240	BRS	12	kuelbs-gregory-g.in.	US-PGPUB
241	BRS	o	"650537".ap. and strut\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
242	BRS	22	("1481703"   "2182441"   "3056222"   "4227327"   "4384317"   "4441143"   "4555694"   "4697365"   "4718185"   "4855723"   "4862613"   "4903172"   "5101329"   "5107637").PN. OR ("5309656").URPN.	US-PGPUB; USPAT; USOCR
243	BRS	3170232	(solar or photovoltaic or (solar cell) or (photo cell) or (solar panel))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
244	BRS	4763	S241 and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
245	BRS	54	((\$243 with top) same batter\$4) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
246	BRS	2717354	(solar or photovoltaic or (solar cell) or (solar panel))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
247	BRS	4472	S243 and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
248	BRS	704	(S243 with top) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB

	Туре	Hits	Search Text	DBs
249	BRS	40	(S243 with top with batter\$4) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
250	BRS	6	"650537".ap.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
251	BRS	2	"650537".ap. and batter\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
252	BRS	893605		US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
253	BRS	58137	\$251 and batter\$5	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
254	BRS	268389	\$243 with (remov\$5 or detach\$5)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
255	BRS	23	("2960094" "20020078985" "20050072 451" "5053931" "5126922" "5172711" " 5273062" "5349975" "5463536" "55845 64" "5611614" "5664874" "5911493" "6 017188" "6089727" "6126293" "627023 0" "6298866" "6299325" "6341873" "64 39249" "6499856" "6666224").PN.	
256	IS&R	1	("6499856").PN.	USPAT; USOCR
257	BRS	6	("6089727"   "6302560").PN. OR ("6499856").URPN.	US-PGPUB; USPAT; USOCR
258	BRS	18	lee-chorng-cheng.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
259	BRS	4168524	lamp or (light bulb) or (light\$4 element) or light\$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
260	BRS	53	umbrella and (strut with (S237 or S259))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
261	BRS	53	umbrella and (strut\$3 with (\$237 or \$259))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
262	BRS	53	umbrella and (strut with (\$237 or \$259))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB

	Туре	Hits	Search Text	DBs
263	BRS	2	("6089727"   "6302560").PN.	US-PGPUB; USPAT; USOCR
264	IS&R	1	("6612713").PN.	USPAT; USOCR
265	BRS	o	umbrella and (recharg\$6 batter\$4) and "AC"and (charging)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
266	BRS	88	umbrella and (recharg\$6 batter\$4) and (charging)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
267	BRS	0	"650537".ap. and strut\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
268	BRS	36	umbrella and (recharg\$6 batter\$4) and charger	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
269	BRS	94	umbrella and (recharg\$6 batter\$4) and outlet	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
270	BRS	24	\$275 and @ad < "20010207"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
271	IS&R	1	("5349975").PN.	USPAT; USOCR
272	BRS	25	("3102547"   "3177881"   "3444799"   "4023582"   "4505285"   "5007811"   "5143107"   "5172711"   "5207238"   "5289839").PN. OR ("5349975").URPN.	US-PGPUB; USPAT; USOCR
273	BRS	23	umbrella and (battery charger)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
274	BRS	2	wo-9300840-\$.did.	EPO; DERWENT
275	BRS	61	(recharg\$6 batter\$4) and ((battery charg\$4) with("AC" power)) and (light or lamp) and (outdoor or lawn or backyard)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
276	BRS	2	(recharg\$6 batter\$4) and ((battery charg\$4) with("AC" power)) and (light or lamp) and umbrella	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
277	BRS	542	(recharg\$6 batter\$4) and ((battery charg\$4) with("AC" power)) and (light or lamp)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
278	BRS	2112	batter\$4 and ((battery charg\$4) with("AC" power))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB

	Type	Hits	Search Text	DBs
279	BRS	60	batter\$4 and ((battery charg\$4) and ("AC" power)) and (outdoor (light\$5 or lamp))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
280	BRS	30	batter\$4 and ((battery charg\$4) and ("AC" power)) and umbrella	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
281	BRS	10	batter\$4 and ((battery charg\$4) same ("AC" power)) and umbrella	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
282	BRS	o	batter\$4 and ((battery charg\$4) with ("AC" power)) and (outdoor (light\$5 or lamp))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
283	BRS	2112	(battery charg\$4) with ("AC" power)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
284	BRS	2	batter\$4 and ((battery charg\$4) with ("AC" power)) and umbrella	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
285	BRS	2112	batter\$4 and ((battery charg\$4) with ("AC" power))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB
286	BRS	29310	umbrella	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB
287	BRS	3	("2960094").URPN.	USPAT
288	BRS	186	umbrella and (solar with batter\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB
289	BRS	19	umbrella and (top with solar with batter\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB
290	BRS	14	umbrella and (housing with solar with batter\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB
291	BRS	4777	S296 and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
292	BRS	33	S298 and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB

	Туре	Hits	Search Text	DBs
293	BRS	3179055	(solar or photovoltaic or (solar cell) or (photo cell) or (solar panel))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
294	BRS	844	S296 and umbrella and batter\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
295	BRS	6161	housing with S296 with batter\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
296	BRS	40	(\$296 with batter\$4 with top) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB
297	IS&R	2	("2960094").PN.	USPAT; USOCR
298	BRS	28	umbrella with (top with solar )	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB
299	BRS	14	("20040040591"   "20050016571"   "20050133077"   "2745421"   "2960094"   "3801809"   "4011881"   "4424824"   "5740822"   "5937882"   "6058951"   "6129101").PN. OR ("7051744").URPN.	US-PGPUB; USPAT; USOCR
300	IS&R	o	("10829790").PN.	USPAT; USOCR



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APPLICATION NO. FILING DATE		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO	
10/650,537	08/28/2003	Gregory G. Kuelbs	0638MH-40982-US	9033	
38441 7	7590 10/20/2006	•	EXAMINER		
	ES OF JAMES E. WAL	SAWHNEY, H.	SAWHNEY, HARGOBIND S		
1169 N. BURI SUITE 107-32	LESON BLVD. 8		ART UNIT	PAPER NUMBER	
BURLESON,			2875		

DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	<del> </del>	Application	n No.	Applicant(s)				
Office Action Summary		10/650,537	,	KUELBS, GREGORY G.				
		Examiner		Art Unit				
	•	Hargobind	S. Sawhney	2875				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply								
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1:136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).								
Status								
Responsive to communication(s) filed on <u>07 August 2006</u> .  2a) ☐ This action is <b>FINAL</b> . 2b) ☐ This action is non-final.  3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.								
Dispositi	on of Claims							
4)  Claim(s) 21-25,30,33,34 and 70-75 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  5)  Claim(s) is/are allowed.  6)  Claim(s) 21-25,30, 33, 34 and 70-75 is/are rejected.  7)  Claim(s) is/are objected to.  8)  Claim(s) are subject to restriction and/or election requirement.  Application Papers  9)  The specification is objected to by the Examiner.  10)  The drawing(s) filed on 28 August 2003 is/are: a)  accepted or b)  objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.								
Priority under 35 U.S.C. § 119								
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>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)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>								
2) Notice 3) Inform	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTo- nation Disclosure Statement(s) (PTO-1449 or Prosent)	O-948) TO/SB/08)	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	te	-152)			

U.S. Patent and Trademark Office PTOL-326 (Rev. 7-05)

Office Action Summary

Part of Paper No./Mail Date 20061005

#### **DETAILED ACTION**

- 1. The Request for Continued Examination (RCE) and the amendment filed on August 7, 2006 have been entered. Accordingly:
  - Claims 1-20, 26-29, 31, 32 and 35-69 have been canceled;
  - Claims 21-23, 25, 30, 33 and 34 have been amended; and
  - New claims 70-75 have been added.

#### **Drawings**

The drawings are objected to under 37 CFR 1.83(a). The drawings must show 2. every feature of the invention specified in the claims. Therefore, the following features must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claim 34 (amended), lines 6-8, "a strut hingedly connected between the hub member and each rib member; wherein at least one of the light emitting diodes of the lighting system is carried by at least one of the struts".

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

Art Unit: 2875

Page 3

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

3. The specification lacks sufficient antecedent basis for the limitations of the amended dependent claim 34.

Neither the specification nor the figures provide any detail or description associated with the limitations "a strut hingedly connected between the hub member and each of rib members; wherein at least one of the LEDs of the lighting system is carried by at least one struts".

The specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same.

Art Unit: 2875

### **Double Patenting**

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Omum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claim 21, 22, 24, 25 and 30 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 102 and 107-110 of copending Application No. 10/829,790 in view of Pan et al. (US Patent No.: 6,439,249 B1).

The newly added claim 102, lines 1-19 and 24-31, of the copending application 10/829,790 meets all limitations, except the following, of claim 21 of the instant application. However, neither combined nor individually, the claims of the copending application recite "the LEDs being powered by the rechargeable power system without a need for connection to an AC power connection".

On the other hand, Pan et al. ('249 B1) discloses an outdoor umbrella apparatus (Figure 1) comprising:

a lighting system including a plurality of light emitting diodes (LEDs) 5

collectively coupled – interpreted as all LEDs being coupled to one power system 11 – through the electrical cable 8 to the rechargeable power system 11 (Figure 1, column 3, lines 21-28); the electrical power system

Art Unit: 2875

11 not requiring connection with an AC power outlet (Figure 1, column 3, lines 25-27).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the outdoor umbrella apparatus recited in claim 102 of the copending application 10/829,790 by providing the rechargeable power system powering the LEDs connection without needing connection with an AC power outlet as taught by Pan('249 B1) for the benefits of flexibility of locating the umbrella system at remote locations not having the AC power supply system.

Regarding claims 22, 24, 25 and 30, the copending application 10/829,790 in view of Pan ('249 B1) discloses the umbrella apparatus meeting the limitations as follows:

Copending application, claim 107, lines 1-3; in view of Pan ('249 B1) meets the limitations of the claim 22 of the instant application;

Copending application, claim 108, lines 1-4; in view of Pan ('249 B1) meets the limitations of the claim 24 of the instant application;

Copending application, claim 109, lines 1-3; in view of Pan ('249 B1) meets the limitations of the claim 25 of the instant application;

Copending application, claim 110, lines 1-3; in view of Pan ('249 B1) meets the limitations of the claim 30 of the instant application;

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

## Claim Rejections - 35 USC § 112

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

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

7. Claim 34 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification does not support the following limitations.

Claim 34, lines 6-8, "at least one of the light emitting diodes of a lighting system is carried by at least one of the struts".

Neither the specification nor the figures provide any detail or description reflecting "at least one strut carrying at least one of the LEDs". The specification includes following details that associates with the claimed rib members and lighting systems.

- a plurality of rib members preferably hingedly coupled to the pole portion
   ( Page 7, lines 10 and 11; page 10, lines 17 and 18; page 14, lines 4-6;
   page 17, line);
- an integral lighting system is carried by at least one of the rib members (
  Page 7, lines 11 and 12; page 10, lines 18-20; page 14, lines 6 and 7);
  and

YOT-1202-0364

Art Unit: 2875

a plurality of light strands attached to rib members ( Page 7, lines 28 and
 29; page 10, lines 25 and 26; page 14, lines 11 and 12).

The above details do not cover the limitation " at least one of the light emitting diodes of a lighting system is carried is carried by at least one of the struts," of the amended claim 34.

## Claim Rejections - 35 USC § 103

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

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

9. Claims 21, 22, 23, 25, 33 and 70-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pan et al. (US Patent No.: 6,439,249 B1) in view of Small (US Patent No.: 2,960,094) hereinafter referred as Small.

Regarding claim 21, Pan et al. ('249 B1) discloses an outdoor umbrella apparatus (Figure 1) comprising:

a pole portion 7 supportable by a support structure 10 for outdoor location (Figure 1, column 2, lines 49-51); an umbrella portion hingedly coupled to a pole portion 7 (Figure 1, column 2, lines 39-41); the umbrella portion including a plurality of rib members 3 (Figure 1, column 2, lines 41-51); the umbrella portion operable between open and close positions (Figure 1, column 2, lines 41-51); a rechargeable electrical power system 11 –

Art Unit: 2875

coupled to the electrical cable 8 (Figure 1) - electrically powering the umbrella apparatus (Figure 1, column 3, lines 25 and 26); a lighting system including a plurality of light emitting diodes (LEDs) 5 collectively coupled – interpreted as all LEDs being coupled to one power system 11 – through the electrical cable 8 to the rechargeable power system 11 (Figure 1, column 3, lines 21-28); the electrical power system 11 not requiring connection with an AC power outlet (Figure 1, column 3, lines 25-27); the plurality of LEDs 5 carried by the umbrella portion, and illuminating the area beneath the umbrella portion (Figure 1 and abstract); and a portion of the conductor 8 being carried by a rib – left upper rib - (Figure 1).

Although Pan et al. ('249 B1) discloses an outdoor umbrella apparatus, comprising a rechargeable power system as discussed above, Pan et al. ('249 B1) does not specifically teach the rechargeable system being charges with a solar energy system as claimed by the applicant.

On the other hand, Small discloses an outdoor umbrella device including a solar energy system including a solar collector 34 recharging a DC power source 35 – batteries – (Figure 1, column 2, lines 28-31); the solar collector 34 disposed above the umbrella portion 11 (Figure 1, column 1, lines 47-49; column 2, lines 28-31), the solar collector collecting and converting solar energy into electrical energy used for recharging the batteries 35 (Figure 1, column 2, lines 28-31); open and close positions of the umbrella does not affect the degree of exposure of the solar collector 28 (Figure 1).

Application/Control Number: 10/650,537 Page 9

Art Unit: 2875

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the umbrella apparatus of Pan et al. ('249 B1) by providing solar energy system for recharging the batteries as taught by Small for the benefits of cost saving resulting from the use of a least cost, renewable free energy source with high availability desired for reliable operation.

In addition, Pan et al. ('249 B1) in view of Small discloses the outdoor umbrella apparatus normally remains in outdoor locations in both open position and close position, and during after and during daylight hours (Pan, Figure 1, column 1, lines 40-43; column 2, lines 37-39).

Regarding Claim 22, Pan et al. ('249 B1) in view of Small discloses the outdoor umbrella apparatus comprising a rechargeable battery 35 positioned adjacent the solar energy system 34 (Small, Figure 1). Further, Small further teaches that the rechargeable batteries may be positioned either anywhere, including external or internal of the post (Small, Figure 1, column 2, lines 28-36).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the umbrella apparatus of Pan et al. ('249 B1) in view of Small by positioning the rechargeable batteries within the housing receiving the solar energy system, since it has been held that rearranging parts of a prior art structure involves only routing skill in the art. *In re Japikse*, 86 USPQ 70. Further, positioning of rechargeable power sources – batteries – within the housing receiving a solar energy system would operate well, and would be compact with less wiring.

Application/Control Number: 10/650,537 Page 10

Art Unit: 2875

Regarding Claim 23, Pan et al. ('249 B1) in view of Small discloses the outdoor umbrella apparatus comprising a solar energy system 34 carried in the first housing mounted on the top of the umbrella portion 11 (Small, Figure 1, column 1, lines 21-24; column 2, lines 28-30); and the rechargeable electrical power 35 received in a second housing within the post 10 (Small, not shown, column 2, lines 28-3).

Regarding Claim 25, Pan et al. ('249 B1) in view of Small discloses the outdoor umbrella apparatus comprising a support structure portion 10 adaptable for receiving the pole portion 7, and for supporting the umbrella apparatus during its outdoor positioning (Pan, Figure 1, column 2, lines 49-51).

However, neither in combination or individually Pan et al. ('249 B1) and Small teaches the support structure being removable.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the umbrella apparatus of Pan et al. ('249 B1) in view of Small by making the support structure removable, since it has been held that making a component removable is a merely a matter obvious engineering choice, and involves only routine skill in the art. USPQ 348, 349 (CCPA 1961). Further, the umbrella apparatus with a removable support structure would operate equally well as that with a non-removable support structure. Provision of a removable support structure would facilitate relocation or disassembly of the umbrella apparatus.

Regarding claim 33, Pan et al. ('249 B1) in view of Small discloses the outdoor umbrella apparatus further comprising:

Art Unit: 2875

a collapsible canopy, the collapsible position attained when the canopy is closed, (Pan, Figure 1, Column 2, lines 39-41); a lighting system, including a plurality of light emitting diodes (LEDs) 5, coupled to the to the collapsible canopy via ribs 3, and the lighting system illuminating the area beneath the umbrella portion (Pan, abstract, Figure 1, column 3, lines 2-5).

Regarding claims 70-75, Pan et al. ('249 B1) in view of Small discloses the outdoor umbrella apparatus further comprising:

- the solar energy system 34 releasably coupled to the rechargeable electrical power system 35 through the circuit cutout 33 (Small. Figures 1 and 3, column 53-61);
- a top cap 1 for hingedly connecting the umbrella portion 3 to the pole 7 the pole including the pole portion telescopically received on the lower portion of the pole 7 (Pan, Figure 1) and the rechargeable electrical power system including rechargeable batteries releasably coupled removability of the batteries- to the top cap (Pan, Figure 1, column 3, lines 22-28);
- the solar energy system 34 and the rechargeable electrical power system 35 being positioned in separate housings casing of 34, and element 10 (Small, Figure 1); each of the rib members 3 is tubular allowing the light from the LEDs 5 to shine beneath the umbrella portion (Pan, Figures 1-4, column 3, lines 1-5; and abstract);

Art Unit: 2875

at least some of the LEDs 5 movable with articulation – movements of the
 ribs for closing and opening- of the umbrella (Pan, Figure 1); and

- a recessed channel 32 in each rib 3; and the channel 32 receiving at least a portion of the conductor 33 (Pan, Figure 1, column 2, lines 62-67).
- 10. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pan et al. (US Patent No.: 6,439,249 B1) in view of Small (US Patent No.: 2,960,094) as applied to Claim 21 above, and further in view of Valdner (US Patent No. US 5,349,975).

Pan et al. ('249 B1) in view of Small discloses the outdoor umbrella apparatus comprising a solar energy system conductively coupled to a rechargeable electrical power system as applied to claim 21 discussed in section 9 above. Further, Pan et al. ('249 B1) in view of Small teaches provision of an electrical receptacle switchably connectable to either conventional AC power supply, or to a rechargeable battery for powering lighting system (Pan, Figure 1, column 3, lines 25-30). However, neither combined nor individual teachings of Pan et al. ('249 B1) and Small specifically teaches recharging of the rechargeable batteries using AC power supply.

In the other hand, Valdner ('975) discloses an umbrella 10 (Figure 1) comprising a recharging system 54 – the combination including elements 14, 44, 54, 56 and 58 – electrically connectable to a rechargeable battery. The recharging system 54 is further connectable to a, AC power outlet (Figures 1, 3 and 8, column 2, lines 34-43).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the umbrella apparatus of Pan et al. ('249 B1) in view of

Art Unit: 2875

Small by the AC powered charging system for umbrella application as taught by Valdner ('975) for charging the rechargeable batteries when sunlight is either not available, or is available at marginal levels.

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pan et 11. al. (US Patent No.: 6,439,249 B1) in view of Small (US Patent No.: 2,960,094) as applied to Claim 21 above, and further in view of Farr (US Patent Application Pub. No. US 2002/0078985 A1) hereafter referred as Farr.

Pan et al. ('249 B1) in view of Small discloses the outdoor umbrella apparatus comprising a solar energy system conductively coupled to a rechargeable electrical power system – rechargeable battery(s) -. However, neither in combination not individually Pan et al. ('249 B1) and Small teaches the solar energy system being removably coupled to the rechargeable power system using a plug.

On the other hand, Farr discloses an umbrella device 10 (Figure 1) comprising a solar energy system 28 positioned above the umbrella portion 14; the solar energy system 28 removably coupled to a rechargeable battery 19 with the use of a plug 35 (Figures 1 and 2, Para. 0034, lines 19-23).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the umbrella apparatus of Pan et al. ('249 B1) in view of Small by making the solar energy system removably coupled to the rechargeable batteries with the use of a plug as taught by Farr for the benefits of facilitating disassembly desired for replacement of parts including solar cells.

YOT-1202-0371

Art Unit: 2875

## Response to Amendment

12. Applicant's arguments filed on August 7, 2006 with respect to the 35 U.S.C. 102(a) rejections of claims 21-24, 29 and 30; and 35 U.S.C. 103(a) rejections of claims 25-28, 31-34 have been fully considered but they are moot in view of the new ground(s) of rejections necessitated by the amendment.

In the non-final office action filed on April 4, 2006 included double patenting rejections of claims 21-34 over claims 78-92 of the copending application. However, the applicant has cancelled claims 78-92 of the copending application with the second preliminary amendment filed on August 24, 2006. Therefore, all arguments respective to the double patenting rejections of claims 21-34 of the instant application are moot.

#### Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S Sawhney whose telephone number is 571 272 2380. The examiner can normally be reached on 8:30 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571 272 2378. 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.

Page 15

Art Unit: 2875

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).

HSS

10/13/2006

:xaminer: Hal<del>gobin</del>d

Index of Claims			Application/Control No.						Applicant(s)/Patent under Reexamination							
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Part of Paper No. 20061005

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Application No.	Applicant(s)
10/650,537	KUELBS, GREGORY G
Examiner	Art Unit
Hargobind S. Sawhney	2875

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Part of Paper No. 20061005



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Bib Data Sheet

**CONFIRMATION NO. 9033** 

SERIAL NUMBER 10/650,537	FILING OR 371(c) DATE 08/28/2003 RULE	C	362	GRO	UP ART 2875	UNIT	Ď	ATTORNEY OCKET NO. BMH-40982-US
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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Attorney Docket No. 0664MH-40982-C

In Re Application of:

**GREGORY G. KUELBS** 

Appl. No.: 10/650,537

Filed: 28 AUGUST 2003

For: UMBRELLA APPARATUS

Examiner: HARGOBIND S. SAWHNEY

Art Unit: 2875

Confirmation No.: 9033

## **AMENDMENT**

MAIL STOP: AMENDMENT Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

An Office Action in the subject application was mailed to the undersigned on 20 October 2006. Filed herewith is a Request for Extension for Response Within the Second Month, whereby the Applicant requests a two-month extension of time, until 20 March 2007, to respond to the 20 October 2006 Office Action.

Please enter the following amendments and consider the following remarks.

Date of Deposit: 3/19/07

I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail with sufficient postage under 37 C.F.R. §1.8(a) on the date indicated above and is addressed to Mail Stop: Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 1

## **IN THE SPECIFICATION:**

The Specification stands objected to as lacking antecedent basis for the limitations of Claim 34.

Claim 34 is hereby cancelled. As such, the Examiner's objection to the Specification is now moot.

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 3

### **IN THE CLAIMS:**

This following is a complete listing of the claims in the application and replaces all prior versions and listings of the claims. Please amend the claims as follows.

### 1-20. (Previously Cancelled).

## 21. (Previously Presented) An umbrella apparatus comprising:

a pole portion adapted to be supported by a support structure, so as to remain in an outdoor location;

an umbrella portion hingedly coupled to the pole portion, the umbrella portion having a plurality of rib members, the umbrella portion being operable between an opened position and a closed position;

a rechargeable electrical power system for providing electrical power to the umbrella apparatus;

a solar energy system having a solar collector disposed above the umbrella portion, the solar energy system being adapted to collect solar energy and convert the solar energy into electrical energy, the solar energy system being conductively coupled to the rechargeable electrical power system, such that the solar energy collected and converted into electrical energy recharges the rechargeable electrical power system; and

a lighting system having a plurality of light emitting diodes conductively coupled to the rechargeable electrical power system via a conductor and being powered by the rechargeable electrical power system without a need for connection to an AC power outlet, at least one of the light emitting diodes being carried by the umbrella portion and positioned so as to illuminate the area beneath the umbrella portion, and at least a portion of the conductor being carried by at least one of the rib members of the plurality of rib members:

wherein the solar collector is configured so that the degree of exposure of the solar collector remains the same regardless of whether the umbrella portion is in the opened position or in the closed position; and

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 4

wherein the umbrella apparatus is adapted to remain in the outdoor location for recharging the rechargeable electrical power system during daylight hours, regardless of whether the umbrella portion is in the opened position or the closed position, and can remain in the outdoor location after daylight hours.

22. **(Previously Presented)** The umbrella apparatus according to claim 21, wherein the rechargeable electrical power system and the solar energy system are both carried by a single housing releasably mounted on the pole portion above the umbrella portion.

23. **(Previously Presented)** The umbrella apparatus according to claim 21, wherein the solar energy system is carried by a first housing mounted on the top of the pole portion above the umbrella portion and the rechargeable electrical power system is carried by a second housing located below the umbrella portion.

24. (Original) The umbrella apparatus according to claim 21, further comprising: an electrical charging system for recharging the rechargeable electrical power system, the electrical charging system being adapted to receive power from an AC power outlet.

25. **(Previously Presented)** The umbrella apparatus according to claim 21, further comprising:

a removable support structure portion adapted to receive the pole portion and support the umbrella apparatus while the umbrella apparatus is in the outdoor location.

- 26. (Previously Cancelled).
- 27. (Previously Cancelled).
- 28. (Previously Cancelled).
- 29. (Previously Cancelled).

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 5

30. **(Previously Presented)** The umbrella apparatus according to claim 21, wherein the solar energy system is conductively coupled to the rechargeable electrical power system by a releasable plug, such that the solar collector is removable from the umbrella apparatus.

31. (Previously Cancelled).

32. (Previously Cancelled).

33. **(Previously Presented)** The umbrella apparatus according to claim 21, wherein the umbrella portion further comprises:

a collapsible canopy;

wherein the lighting system is coupled to the collapsible canopy so as to illuminate the area beneath the umbrella portion.

34. (Hereby Cancelled).

35-69. (Previously Cancelled).

70. **(Previously Presented)** The umbrella apparatus according to claim 21, wherein the solar energy system is releasably coupled to the rechargeable electrical power system.

71. **(Previously Presented)** The umbrella apparatus according to claim 21, further comprising:

a top cap for hingedly connecting the umbrella portion to the pole portion;

wherein the rechargeable electrical power system is releasably coupled to the top cap.

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 6

- 72. **(Previously Presented)** The umbrella apparatus according to claim 21, wherein the solar energy system and the rechargeable electrical power system are disposed in separate housings.
- 73. **(Previously Presented)** The umbrella apparatus according to claim 21, wherein each rib member is tubular in shape and configured to allow the light from the light emitting diodes to shine beneath the umbrella portion.
- 74. **(Previously Presented)** The umbrella apparatus according to claim 21, wherein at least some of the light emitting diodes move with articulation of the umbrella portion.
- 75. **(Previously Presented)** The umbrella apparatus according to claim 21, further comprising:

a recessed channel in each rib member;

wherein at least a portion of the conductor is disposed within the recessed channel.

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 7

## **IN THE DRAWINGS**:

The drawings stand objected to under 37 C.F.R. § 1.83(a) as failing to show every feature of the invention specified in Claim 34.

Claim 34 is hereby cancelled. As such, the Examiner's objection to the drawings is now moot.

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 2

**REMARKS**:

Claims 21-25, 30, 33, 34, and 70-75 are currently pending in the application.

Claims 1-20, 26-29, 31, 32, and 35-69 have been previously withdrawn and/or cancelled.

By this Amendment, Claim 34 is hereby cancelled without prejudice or disclaimer of the

subject matter recited therein to simplify issues for the Examiner and to advance the

application to allowance. The Applicant hereby reserves the right to pursue all cancelled

and/or withdrawn claims in continuation and/or divisional applications.

Claims 21, 22, 24, 25, and 30 stand provisionally rejected under the judicially

created doctrine of obviousness-type double patenting as being unpatentable over claims

102 and 107-110 of copending U.S. Application No. 10/829,790 in view of Pan et al.

Claim 34 stands rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with

the written description requirement. Claims 21, 22, 23, 25, 33, and 70-75 stand rejected

under 35 U.S.C. § 103(a) as being unpatentable over Pan et al. in view of Small. Claim

24 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Pan et al. in

view of Small as applied to Claim 21, and further in view of Valdner. Claim 30 stands

rejected under 35 U.S.C. § 103(a) as being unpatentable over Pan et al. in view of Small

as applied to Claim 21, and further in view of Farr.

The Applicant submits that no new matter has been added to the application by

this Amendment.

Reference To Related Applications and Reexamination Proceeding:

Applicant once again brings to the Examiner's attention U.S. Patent Application

Nos. 11/199,956 and 10/829,790 and Inter Partes Reexamination Proceeding No.

95/000,104, which is a reexamination of U.S. Patent No. 6,612,713, the parent patent

to the subject application.

Applicant further notes that a second Office Action was mailed in the

Reexamination Proceeding on 5 December 2006. A response was filed by the Patent

Owner, i.e., the Applicant herein, on 5 February 2007. Accordingly, the Applicant is

presently awaiting action by the Examiner in the Central Reexamination Unit.

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537

Page 8

The Examiner is requested to review the Office Actions in the Reexamination Proceeding, as well as the Patent Owner's Responses to the Office Actions and all other papers and references filed in the Reexamination Proceeding. If the Examiner needs copies any of the documents from the Reexamination Proceeding and/or any of the related applications, the Examiner is respectfully requested to contact the undersigned.

## **Provisional Rejections Under Obviousness-Type Double Patenting:**

Claims 21, 22, 24, 25, and 30 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 102 and 107-110 of copending U.S. Application No. 10/829,790 in view of Pan et al.

With regard to Claim 21, the Examiner states that Claim 102 of U.S. Application No. 10/829,790 meets all of the limitations of Claim 21, except "the LEDs being powered by the rechargeable power system without a need for connection to an AC power connection." The Examiner relies upon Pan et al. for this feature.

Claim 21 of the subject application includes the following feature not present in limitation Claim 102 of U.S. Application No. 10/829,790: "light emitting diodes conductively coupled to the rechargeable electrical power system via a conductor and being powered by the rechargeable electrical power system without a need for connection to an AC power outlet ...." In addition, Claim 102 of U.S. Application No. 10/829,790 includes the following feature not present in Claim 21 of the subject application: "an electrical opening and closing system for actuating the umbrella portion between the opened position and the closed position, the opening and closing system being conductively coupled to the rechargeable electrical power system via a conductor and being powered by the rechargeable electrical power system."

With regard to Claims 22, 24, 25, and 30, the Examiner states that Claims 107, 108, 109, and 110 of U.S. Application No. 10/829,790 in view of Pan et al. meet the limitations of Claims 22, 24, 25, and 30, respectively.

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 9

Claims 22, 24, 25, and 30 of the subject application are dependent claims based upon independent Claim 21. Likewise, Claims 107, 108, 109, and 110 of U.S. Application No. 10/829,790 are dependent claims based upon independent Claim 102. As such, the Applicant reiterates here the arguments and remarks set forth above with respect to Claim 21 of the subject application and Claim 102 of U.S. Application No.

10/829,790.

Thus, in each respective pair of claims, the claim from the subject application

includes at least one feature that is not present in the claim from U.S. Application No.

10/829,790, and vice versa.

In addition, the Pan et al. reference does not disclose an electrical opening and

closing system. Furthermore, filed herewith is a Declaration Under 37 C.F.R. § 1.131 in

which the inventor, Gregory G. Kuelbs, swears behind the effective date of the Pan et al.

reference. In light of this Declaration, the Applicant respectfully submits that the Pan et

al. reference may not be relied upon to reject Claims 21, 22, 24, 25, and 30.

For these reasons, the Applicant submits that Claim 21 of the subject application

and Claim 102 of U.S. Application No. 10/829,790 are patentably distinct and that an

obviousness-type double patenting rejection based upon U.S. Application No. 10/829,790

in view of Pan et al. is not proper. Furthermore, the Applicant submits that Claims 22, 24,

25, and 30 of the subject application and Claims 107, 108, 109, and 110, respectively, of

U.S. Application No. 10/829,790 are patentably distinct and that obviousness-type double

patenting rejections based upon U.S. Application No. 10/829,790 in view of Pan et al. are

not proper.

Because the Examiner's rejections are provisional double-patenting rejections,

the Applicant respectfully requests that the Examiner hold the provisional double-

patenting rejections in abeyance until claims in the subject application are found to

otherwise be allowable.

Rejections Under 35 U.S.C. § 112, First Paragraph:

Claim 34 stands rejected under 35 U.S.C. § 112, first paragraph, as failing to

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 10

comply with the written description requirement.

Claim 34 is hereby cancelled. As such, the Examiner's rejection under 35 U.S.C. § 112, first paragraph is now moot.

Rejections Under 35 U.S.C. § 103(a):

Claims 21, 22, 23, 25, 33, and 70-75 stand rejected under 35 U.S.C. § 103(a) as

being unpatentable over Pan et al. in view of Small.

The Applicant respectfully disagrees with the Examiner and submits that the

claimed combination of features in Claims 21, 22, 23, 25, 33, and 70-75 are not

rendered obvious under 35 U.S.C. § 103(a) over Pan et al. in view of Small.

Nevertheless, filed herewith is a Declaration Under 37 C.F.R. § 1.131 in which the

inventor, Gregory G. Kuelbs, swears behind the effective date of the Pan et al. reference.

In light of this Declaration, the Applicant respectfully submits that the Pan et al. reference

may not be relied upon to reject Claims 21, 22, 23, 25, 33, and 70-75.

Claim 24 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over

Pan et al. in view of Small as applied to Claim 21, and further in view of Valdner.

The Applicant respectfully disagrees with the Examiner and submits that the

claimed combination of features in Claim 24 are not rendered obvious under 35 U.S.C.

§ 103(a) over Pan et al. in view of Small as applied to Claim 21, and further in view of

Valdner.

Nevertheless, filed herewith is a Declaration Under 37 C.F.R. § 1.131 in which the

inventor, Gregory G. Kuelbs, swears behind the effective date of the Pan et al. reference.

In light of this Declaration, the Applicant respectfully submits that the Pan et al. reference

may not be relied upon to reject Claim 24.

Claim 30 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over

Pan et al. in view of Small as applied to Claim 21, and further in view of Farr.

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537

Page 11

The Applicant respectfully disagrees with the Examiner and submits that the claimed combination of features in Claim 30 are not rendered obvious under 35 U.S.C. § 103(a) over Pan et al. in view of Small as applied to Claim 21, and further in view of Farr.

Nevertheless, filed herewith is a Declaration Under 37 C.F.R. § 1.131 in which the inventor, Gregory G. Kuelbs, swears behind the effective dates of the Pan et al. and Farr references. In light of this Declaration, the Applicant respectfully submits that the Pan et al. and Farr references may not be relied upon to reject Claim 30.

In addition, the Applicant reiterates here as if set forth in full all of the arguments and distinguishing remarks made by Applicant earlier in this application.

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 12

#### **CONCLUSION:**

In view of the foregoing amendments and remarks, the Applicant respectfully submits that the application is now condition for allowance, and earnestly solicits an early reconsideration and a Notice of Allowance.

If any extension of time is needed to maintain the pendency of the application, this is an express request for any required extension of time, and authorization to charge any required extension of time fee and/or any other fee to maintain the pendency of the application to Deposit Account No. Deposit Account No. 502806.

Enclosed is a completed Credit Card Payment Form, Form PTO-2038, authorizing the Commissioner to charge \$405.00 to cover the \$225.00 Two-Month Extension Fee and the \$180.00 Information Disclosure Statement Fee to a designated credit card. No other fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any fees that are necessary, or credit any overpayments, to Deposit Account No. 502806.

Please link this application to Customer Nos. 50779 and 38441 so that its status may be checked using the PAIR System.

Respectfully submitted,

3/19/07 Date

Registration No. 47,245

Law Offices of James E. Walton, P.L.L.C.

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**CUSTOMER NOS. 50779 AND 38441** 

ATTORNEY FOR APPLICANT

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 13





## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Attorney Docket No. 0664MH-40982-C

In Re Application of:

**GREGORY G. KUELBS** 

Serial No.: 10/650,537

Filed: 28 AUGUST 2003

For: UMBRELLA APPARATUS

Examiner: HARGOBIND S. SAWHNEY

Art Unit: 2875

Confirmation No.: 9033

## **DECLARATION UNDER 37 C.F.R. § 1.131**

MAIL STOP: AMENDMENT Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

- I, Gregory G. Kuelbs, declare as follows:
- 1. I am over eighteen years of age and am competent to make this Declaration.
  - 2. I am the sole inventor of the subject invention.
- 3. I conceived of the claimed invention and reduced it to practice in the United States prior to 30 April 1999.
- 4. As early as April 1999, I was engaged in developing a variety of solar-powered lighting products that incorporated LED's, and was therefore familiar with the advantages of pairing LED technology with solar technology. Attached hereto as Exhibits A-V are documents that evidence my conception of the subject invention, my reduction to practice of the subject invention, and my diligence with regard to the subject invention.

Declaration Under 37 C.F.R. § 1.131 Attorney Docket No. 0664MH-40982-C Page 1

- 5. Exhibit A is a true and correct photocopy of four pages from my U.S. passport bearing stamps evidencing that I traveled to China in July 1999 and October 1999. These trips to China were to attend various trade shows and to meet with various factories about the possibility of manufacturing solar powered lighted patio umbrellas for my company.
- 6. Exhibit B is a true and correct photocopy of two sheets of notes that I recorded relating to solar powered lighted patio umbrellas. These notes were made in April 1999 as indicated by the date "4-99" in the lower left corner of each sheet of the notes. On the sheet on the left side of Exhibit B, I recorded reminders to inquire about certain detailed specifications for several of the components that would be used in the solar powered lighted patio umbrellas, such as how big of a solar panel, how many batteries, what size batteries, the cost for the solar system, the cost for the AC recharging system, the cost for various types of umbrellas (such as wood or aluminum), and the best selling sizes of umbrellas. On the sheet on the right side of Exhibit B, I drew a sketch of a solar powered lighted patio umbrella. As is clearly seen and labeled, the umbrella included a solar panel on top, batteries located in three possible locations (in the same module as the solar panel, carried in the crank housing on the pole, and carried in a base), at least two types of lights (LED's and cold cathode ray tubes), and a switch carried by the crank housing. My notes at the bottom of the page state that I wanted to further explore which was better to use (fluorescent, LED, or cold cathode), and how much power was going to be need for 4-8 hours of light. I wanted enough light to read a menu under the umbrella.
- 7. Exhibit C is a true and correct photocopy of another sheet of notes that I recorded relating to solar powered lighted patio umbrellas. These notes were made in April 1999 as indicated by the date "4-99" in the upper left corner of the sheet of the notes. I recorded the following notes: A. On aluminum hide wire in rib bulb can be recessed; and B. Can run wire on top canal that can be routed out and drill hole to accept bulb. At the top of the sheet, I recorded reminders to determine the size of solar panel for LED or cold cathode; and to make the panel removable. Also in the upper half of the sheet, I drew a sketch of the upper portion of a solar powered lighted patio umbrella. As

Declaration Under 37 C.F.R. § 1.131 Attorney Docket No. 0664MH-40982-C Page 2

is clearly seen and labeled, the umbrella includes a removable solar panel on top, LED bulbs spaced along the ribs and partially recessed within the ribs, and a wire from the lights and the solar panel to a switch located below the canopy portion.

- 8. Exhibit D is a true and correct photocopy of another sheet of notes that I recorded relating to solar powered lighted patio umbrellas. These notes were made in April 1999 as indicated by the date "4-99" in the upper left corner of the sheet of the notes. In the middle of the page, I drew three sketches of possible covers for LED bulbs and cold cathode bulbs. At the top of the sheet, I recorded the following notes: "Hide wiring," "Let LED stick out," and "Keep from breaking."
- 9. I submit that the notes and sketches of Exhibits B, C, and D clearly evidence that I had fully reduced the invention to practice as early as April 1999.
- 10. Exhibit E is a true and correct photocopy of another sheet of notes that I recorded relating to solar powered lighted patio umbrellas. These notes were made in June 1999 as indicated by the date "6-99" in the lower right corner of the sheet of the notes. At the top of the sheet, I drew a crude sketch of a solar powered lighted umbrella having a motorized opening and closing system and a cooling system. The "motor updown" is clearly labeled. At the bottom of the sheet, I recorded notes about how much battery to use, and that I could hide the wires and the water supply in the ribs.
- 11. Exhibit F is a true and correct photocopy of another sheet of notes that I recorded relating to solar powered lighted patio umbrellas. These notes were made in July 1999 as indicated by the date "7-99" in the lower right corner of the sheet of the notes. These notes were made in preparation for my July 1999 trip to China and relate specifically to a particular umbrella factory in China, and one of its principals, Mr. Shen Yei. Mr. Yei's factory is very large. As can be seen, I recorded that Mr. Yei's factory "Won't play Volume too big." This meant that Mr. Yei's factory required orders that were going to be too large for my company to place at that time. My note, "No Solar" meant that Mr. Yei's factory did not handle any electronics, i.e., did not handle solar panels. These notes are a sample of the types of notes and records that I recorded over the months while I was diligently working on my invention.

Declaration Under 37 C.F.R. § 1.131 Attorney Docket No. 0664MH-40982-C Page 3

- 12. Exhibit G is a true and correct photocopy of two sheets of notes that I recorded relating to solar powered lighted patio umbrellas. These notes were made in preparation for my July 1999 trip to China as indicated by the note "Notes for China Trip 7-99" at the top of the first page of the notes. These notes relate to a first version of the umbrella, as indicated by the "V-1 Solar, LED light" at the top of the first page of notes. On the bottom of the first page, I recorded the following notes: 1. Solar panel big enough to power LED's probably 2-4 per rib - 4-8 hrs run time; LED's should require small power. Top mounted removable unit complete with batteries would be easiest to manufacture and ship; 2. Switch in crank housing, or at least upper part of pole; 3. Wiring hidden in pole; 4. LED's can be completely hidden in aluminum or if easier just drill a hole in rib and push partially into rib - this is bets for wood rib. The last notes indicated that we can discuss more complicated up-down etc. models later. At the top of the first sheet, I drew a sketch of a solar powered lighted patio umbrella. As is clearly seen and labeled, the umbrella includes a removable solar panel with batteries, LED bulbs spaced along the ribs and the struts, and a switch carried by a crank housing on the upper part of a 2-piece pole.
- 13. Exhibit H is a true and correct photocopy of two sheets of notes that I recorded relating to solar powered lighted patio umbrellas. These notes were made in preparation for my July 1999 tri to China as indicated by the note "Proposed Discussion Notes China Trip July-Aug 99" at the top of the first page of the notes. These notes relate to a second version of the umbrella, as indicated by the "V-2 Solar, Cold Cathode lights" at the top of the first page of notes. On the bottom of the first page, I recorded the following notes: 1. Removable top with solar panel big enough to power 6-8 AA batteries should power 2-4 cold cathode bulbs; 2. Batteries in top housing or pole; 3. Switch in crank housing or on pole, Wiring hidden in rib on aluminum; Wiring hidden in slot for wood; Surface mount better for wood; Surface mount or recessed can work on aluminum; Solar or AC rechargeable; run time 4-8 hrs; Add misting, and or electric up down. At the top of the first sheet, I drew a sketch of a solar powered lighted patio umbrella. As is clearly seen and labeled, the umbrella includes a solar panel with batteries in either the

Declaration Under 37 C.F.R. § 1.131 Attorney Docket No. 0664MH-40982-C Page 4 solar panel housing or in the pole, cold cathode carried by the ribs, and a switch carried by a crank housing.

- 14. Exhibit I is a true and correct photocopy of another sheet of notes that I recorded relating to a solar powered lighted patio umbrella with a cooling system. These notes were made in September 1999 as indicated by the date "9-99" in the upper left corner of the sheet of the notes. At the top of the sheet, I drew a crude sketch of a solar powered lighted umbrella having a cooling system. As is clearly seen and labeled, the umbrella includes a removable solar panel at the top that is easy to ship, and that will still charge when the cover is down, lights and misters on the struts, and mist-water in base or from a facet. At the bottom of the sheet, I recorded notes about rechargeable batteries in the base; and that table does not need base.
- 15. Exhibit J is a true and correct photocopy of a proposed itinerary for my October 1999 trip to China. These notes were taken in preparation for my October 1999 trip to China as indicated by the note "China Trip 10-8 10-27 Canton Fair" at the top of the first page of notes. One of the main reasons I took this trip to China was to meet with different manufactures and factories in China about manufacturing solar powered lighted patio umbrellas for my company.
- 16. Exhibit K is a true and correct photocopy of a receipt for foreign exchange of money that I made while I was at the Thomas Cook Hung Kai Airport on 20 October 1999, which further evidences my presence in China in October 1999.
- 17. Exhibit L is a true and correct photocopy of an email dated 11 October 1999 from Eric Li, an employee of my company, to me regarding a certain factory in China known as Real Faith. As indicated by my handwritten note, I was interested in finding out if this factory could manufacture our solar powered lighted patio umbrellas.
- 18. Exhibit M is a true and correct photocopy of an email dated 14 October 1999 from Eric Li to me regarding a certain factory in China known as Jiangsu Metal & Minerals Import and Export. We were interested in speaking with Jiangsu Metal & Minerals Import and Export because they manufacture many different types of products.

Declaration Under 37 C.F.R. § 1.131 Attorney Docket No. 0664MH-40982-C Page 5

In particular, I was interested in seeing if they could supply my company with drill motors for the opening and closing systems and for bases for our solar powered lighted patio umbrellas.

- 19. Exhibit N is a true and correct photocopy of a memo from Eric Li to me dated 16 October 1999 regarding a Mr. Bakula. We were interested in speaking with Mr. Bakula about electronic certain components for our solar powered lighted patio umbrellas.
- 20. Exhibits O, P, and Q are drawings of the subject invention as drawn by Rodney S. Quillen, a graphic artist working under my direction in the United States, prior to 13 November 2000. These drawings show strands of small LEDs attached to the ribs of a solar umbrella.
- 21. My company transmitted Exhibits O, P, and Q to my patent attorney, Melvin Hunn, via facsimile on 9 November 2000 for use in preparing and filing a U.S. provisional patent application covering my invention.
- 22. Exhibit R is a true and correct photocopy of a screen shot of a file directory on the computer of Mr. Rodney S. Quillen, a graphic designer who works for my company, showing the file "Name" and "Date Modified" of the computer files that correspond to Exhibits O, P, and Q: Lighted Umbrella.eps, Lighted umbrella & stand18V.eps, and Lighted umbrella and stand.eps, respectively. The last modified dates for the relevant files are listed as "Mon, Oct 23, 2000" which is consistent with my own knowledge that Mr. Quillen had worked on this project prior to November 2000.
- 23. The provisional patent application, titled "Lighted Patio Umbrella Apparatus," was prepared by Melvin Hunn and filed on 7 February 2001. The provisional application was accorded U.S. Provisional Patent Application No. 60/267,018. The subject patent claims priority to U.S. Provisional Patent Application No. 60/267,018.
- 24. Attached hereto as Exhibits S, T, and U are Figures 1, 2A, 2B, 2C, 3A, 3B, and 3C of Provisional Application Serial No. 60/267,018. Melvin Hunn used the drawings that my company sent to him by facsimile on 9 November 2000 (Exhibits O, P, and Q) as the basis for Figures 1, 2A, 2B, 2C, 3A, 3B, and 3C (Exhibits S, T, and U) of

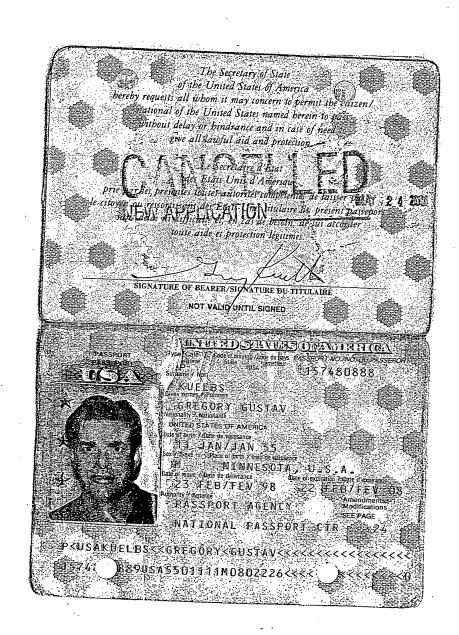
Declaration Under 37 C.F.R. § 1.131 Attorney Docket No. 0664MH-40982-C Page 6

- U.S. Provisional Application Serial No. 60/267,018. The facsimile headers on Exhibits R, S, and T, clearly indicate that the drawings were sent via facsimile from my company, Worldwise (now known as World Factory, Inc.), to Melvin Hunn on 9 November 2000.
- 25. Furthermore, I conceived of the claimed invention in the United States at least as early as 30 April 1999 and worked diligently on the invention in the United States from a date prior to 30 April 1999, through the filing date of U.S. Provisional Application No. 60/267,018, i.e., 7 February 2001.
- 26. I worked diligently as a part of my full-time employment on further developing a marketable solar umbrella with LED lights, and performing other work related to the claimed invention, during the time period from prior to 30 April 1999 through 7 February 2001, the filing date of U.S. Provisional Application No. 60/267,018, and beyond.
- 27. In addition, I conceived of the claimed invention in the United States prior to 30 April 1999, and worked diligently on the invention in the United States from a date prior to 30 April 1999 through 2 November 2001, the filing date of U.S. Provisional Application No. 60/335,933.
- 28. On 2 November 2001, my patent attorney filed a second provisional application, U.S. Provisional Application No. 60/335,933, titled "Improved Outdoor Lighting Systems with Cold Cathode Tubes," which covered my invention of the solar-powered umbrella with LED lights, as well as other embodiments. The subject patent also claims priority to U.S. Provisional Application No. 60/335,933.
- 29. Figures 1, 2A, 2B, 2C, 3A, 3B, and 3C of U.S. Provisional Application No. 60/335,933 are identical to Exhibits S, T, and U.
- 30. I worked diligently as a part of my full-time employment on further developing a marketable solar umbrella with LED lights, and performing other work related to the subject invention, during the time period from prior to 30 April 1999 through 2 November 2001, the filing date of U.S. Provisional Application No. 60/335,933.

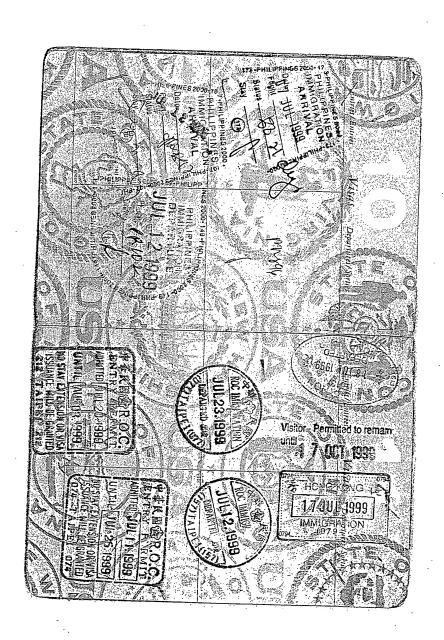
Declaration Under 37 C.F.R. § 1.131 Attorney Docket No. 0664MH-40982-C Page 7

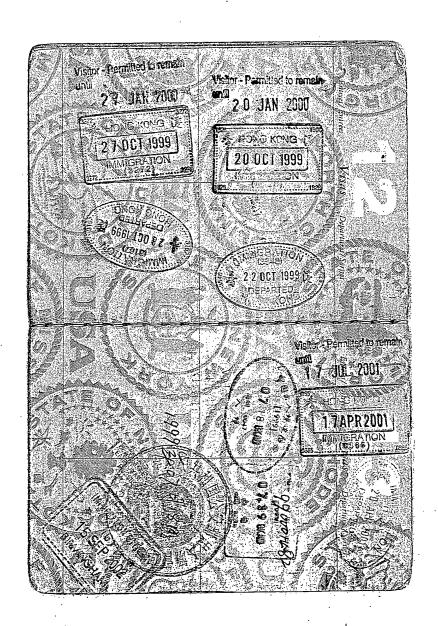
- 31. Exhibit V is a true and correct copy of a letter dated 26 April 2006 from Jessica Kao of Union Legend Inc., a Factory in Taiwan, regarding Union Legend's work for my company related to solar powered lighted patio umbrellas. The letter clearly sets forth that my company had conceived of, was working diligently on, and had reduced to practice, a solar powered lighted patio umbrella as early as July 1999.
- 32. All statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true; and further, 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 Section 1001 of Title 18 of the United States Code, and such willful false statements may jeopardize the validity of the application or any patent issued thereon.

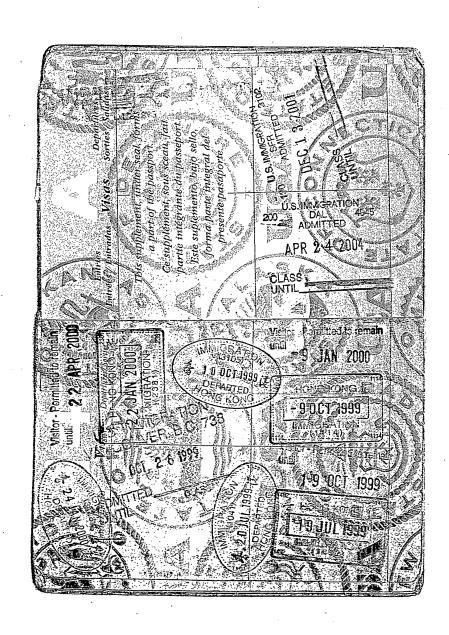
Inventor's Signature: _	Tregory J. Luell
Date of Signature:	3-15-07
Full Name of Inventor:	Gregory G. Kuelbs
Residence and Post Office Address: _	1831 River Oaks Drive
_	Westlake, Texas 76262
Citizenship:	United States of America



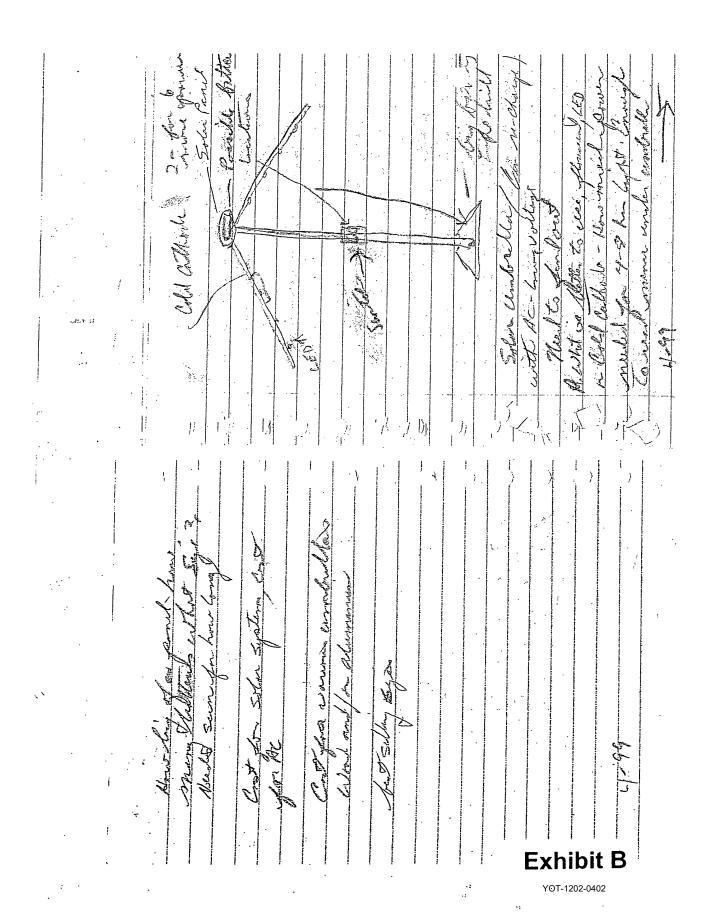
### **Exhibit A**

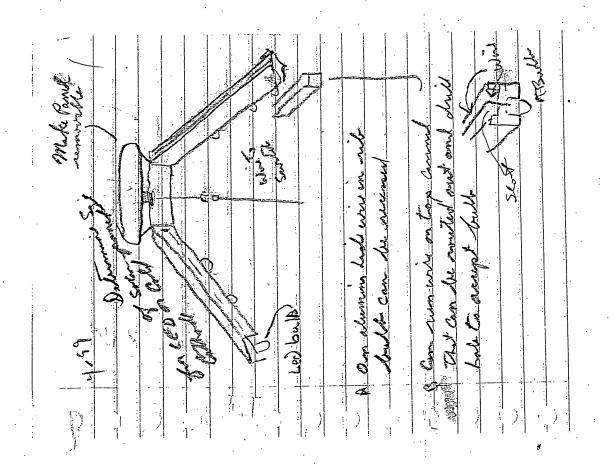




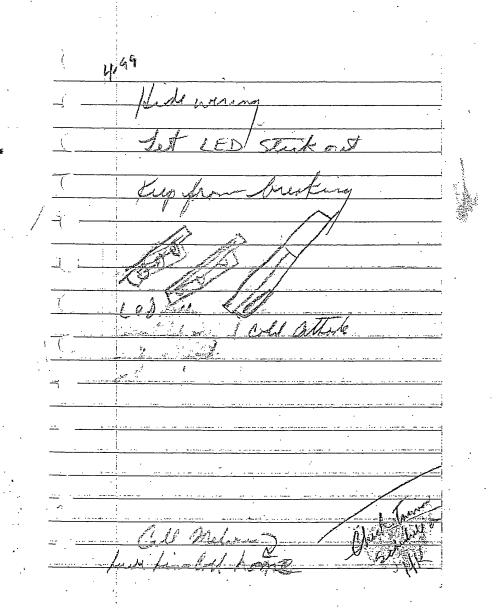


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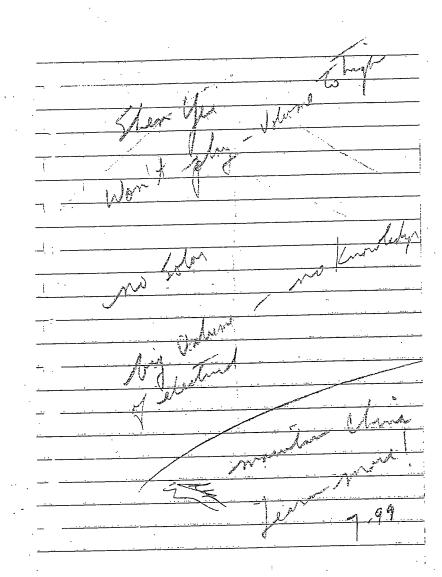


# **Exhibit C**



# **Exhibit D**

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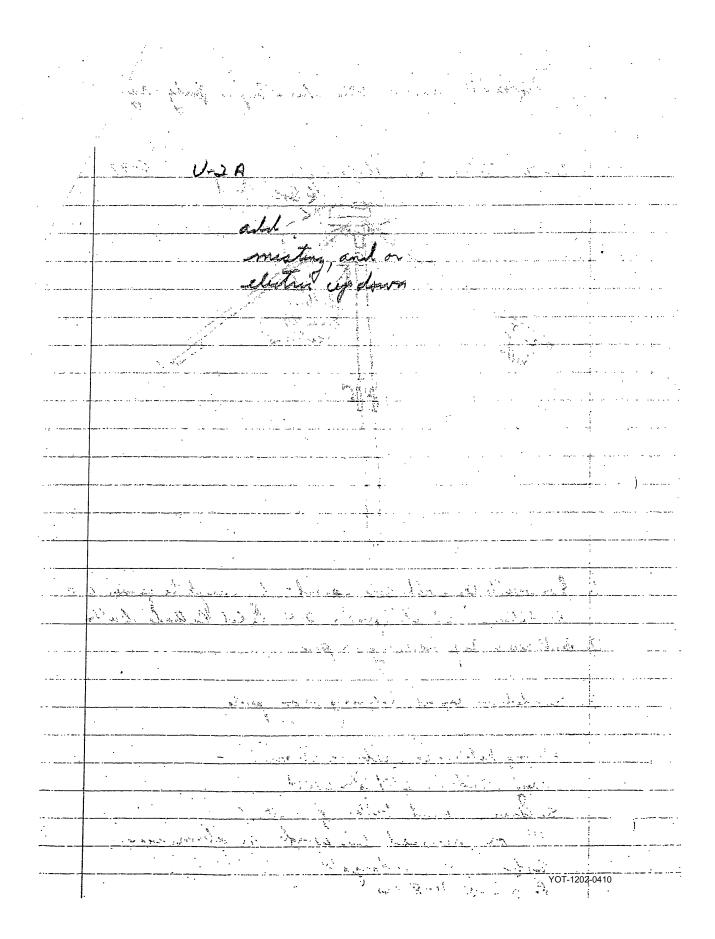


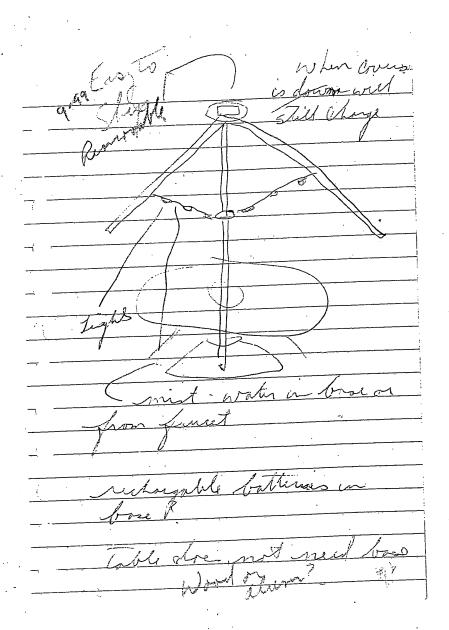
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## Exhibit I

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CUSTOMER: R E T A I L

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Tel 28544938 Hong Kong Int Airport, Passenger Terminal Building, Hong Kong,

REC 6/98

通濟隆鴻基機場外幣找換有限公司 辦公室號碼5W001 機場客運大樓 香港國際機場

# Exhibit K



# How IT professionals impress their bosses



## Hotmail worldwise@hotmail.com

Passport 3

Iribox Compose Addresses Folders Options Help ...

From: "Eric Li" <ericl@worldwiseco.com> Save Address Block Sender

To: "WorldWise" <worldwise@hotmail.com> Save Addresses

CC: "Weicheng Wang" <cxmtemao@public.xm.fj.cn> Save Addresses

Subject: real faith

Date: Mon, 11 Oct 1999 18:00:18 -0700

Reply Reply All Forward Delete Previous Next Close

Dear Greg

Real Faith will not attend upcoming GuangZhou show. So please let me if you want to visit the office of Real Faith. It produces all kind of oak wood furniture. If you want to, I will try to arrange it. Thanks

Have a nice day.

Eric Li WorldWise, Co. 2200 State Highway 114 West Suite 300

Grapevine, TX 76051, USA Tel: (817) 421-5767

Fax: (817) 421-6199

Email: ericl@worldwiseco.com
Home Page: www.worldwiseco.com

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Get notified when you have new Hotmail or when your friends are on-line. Send instant messages. Click here to get your FREE download of MSN Messenger Service!

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### Exhibit L



### Hotmail

worldwise@hotmail.com

Passport 7

Inbox

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Folders

ders Options

Help

Folder: Inbox

From: "Eric Li" (ericl@worldwiseco.com) Save Address Block Sender

RocastbbA

To: "WorldWise" <worldwise@hotmail.com>, "John Kuelbs" <johnk@worldwiseco.com>, "Gustav Kuelbs

<gusk@worldwiseco.com>, "Greg Kubles" <gregk@worldwiseco.com> Save Addresses

Subject: NYC trip Report

Date: Thu, 14 Oct 1999 17:45:25 -0700

Reply

Reply All

Forward

Delete

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Next

Close

Persons:

Li, MingYong, President, Jiangsu Metal & Minerals Imp. & Exp.

(Group) Corp.

Duan, ZhiWei, Assistant President, Jiangsu Metal & Minerals Imp. & Exp.

(Group) Corp. Li, Eric, WorldWise

Time:

9:30pm, Oct. 12

Memo: We had a very good and constructive conversation. They are interested in our idea and would like to work with us

interested in our idea and would like to work with us.

There will be two stages to work with them:

1. Near term: We will purchase its current products, which we are interested in, from them. Also, they will source new products for us. They will provide all the necessary measures to export our products smoothly. These measures include shipping, custom clearance, etc.

2. Long term: We will work with them to examine its IT system and come out with a plan to integrate the both side's systems.

As a result of this conversation, they will organize a team of 3 people to closely work with us to address all the issues we might have in the future.

Eric Li WorldWise, Co. 2200 State Highway 114 West Suite 300 Grapevine, TX 76051, USA

Tel: (817) 421-5767 Fax: (817) 421-6199

Email: <u>ericl@worldwiseco.com</u> Home Page: www.worldwiseco.com

Reply

Reply All

Forward

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Move to Selected Folder)

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Сопрове

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Options

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Exhibit M

Get notified when you have new Hotzail or when your friends are on-line. Send instant messages. Click here to get your FREE download of MSN Messenger Service!

To Gregory Gustav Kuelbs

From: Zric

Dean Greg

As per our conversation last night, I sent an email to Mr. Bakula and tell him where you are soing to stay in Beijing. Also, I cc this email to you. please kindly check it.

The following are the detailed address of the hotel both in English and Chinese in case you don't meet Arthur & Charles at the Airport.

China World Hotel

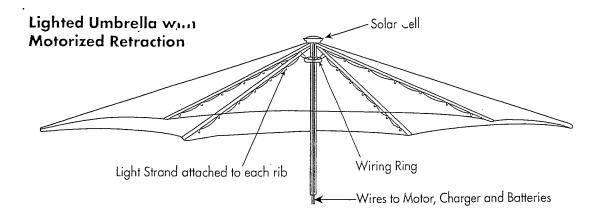
No. 1 Tianguo men vai Ave. Da Bei Yao, Beijing
Tel: (10) 6505-2266

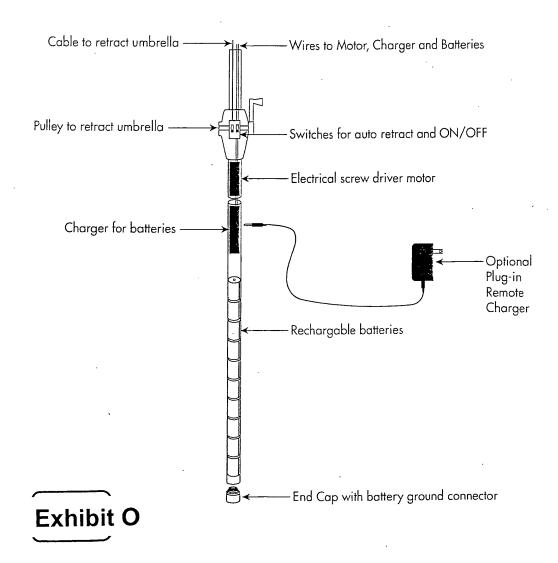
Chinese:

· 中国天板店 北京建国门外大街一号,大礼窑

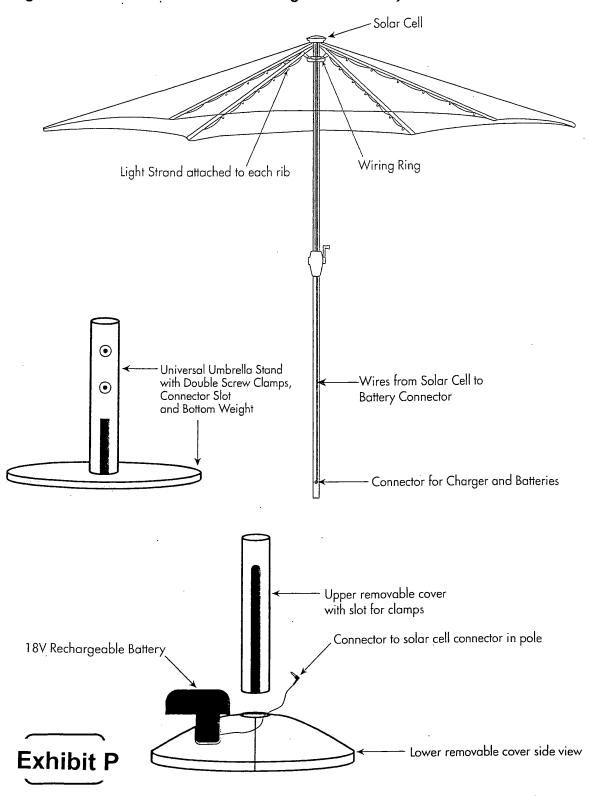
Best Regards.

Zric Li Exhibit N

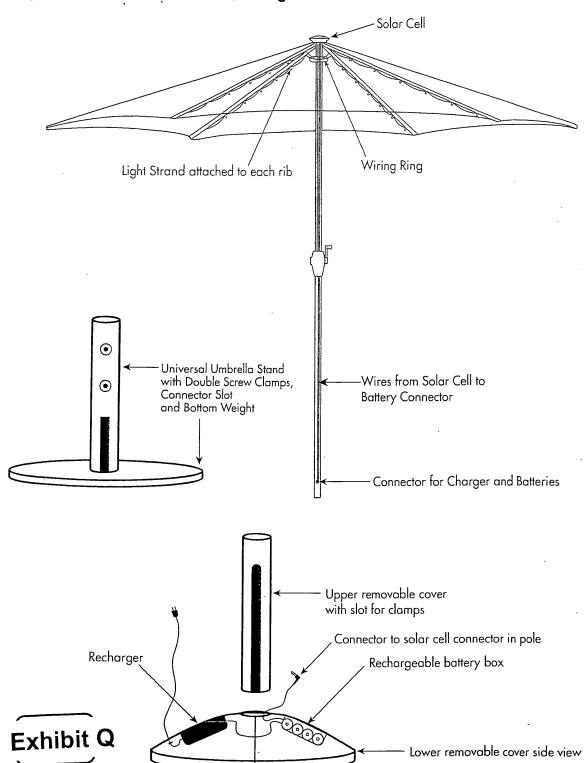




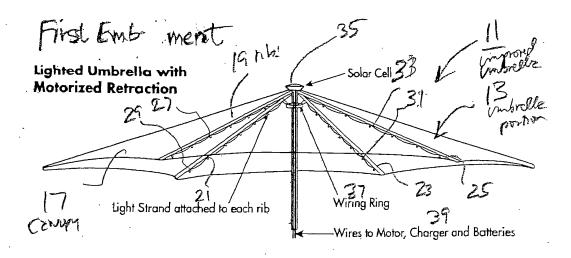
### Lighted Umbrella w... Stand and Single 18V Battery in Removable Cover

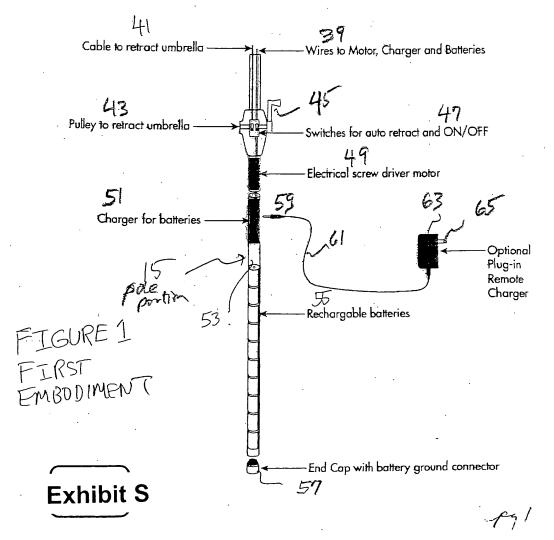


Lighted Umbrella will Stand, Charger and Batteries in Removable Cover



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Lighted Umbrella with Stand and Single 18V Battery in Removable Cover Solar Cell \ 137 Wiring Ring | 23 121 125 Light Strand attached to each rib IGURE Universal Umbrella Stand Wires from Solar Cell to with Double Screw Clamps, Connector Slot **Battery Connector** and Bottom Weight Connector for Charger and Batteries Upper removable cover with slot for clamps Connector to solar cell connector in pole 18V Rechargeable Battery 154 160 **Exhibit T** Lower removable cover side view 162 921WD170W 921:20 00-60-von F.03 **45127** (218)

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**L973154** (718)

Lighted Umbrella with Stand, Charger and Batteries in Removable Cover 235 Solar Cell 227 133 219 217 237 Light Strand attached to each rib Wiring Ring 239 VMBREY 241 IGURE 3A
STAMO PORTON 243 iour<del>e</del> 3B 240 r 239 Universal Umbrella Stand -Wires from Solar Cell to with Double Screw Clamps, 0 Connector Slot **Battery Connector** and Bottom Weight Connector for Charger and Batteries 246 FIGURE 3C Upper removable cover ith slot for clamps

276

Connector to solar cell connector in pole with slot for clamps ZXV Rechargeable battery box Recharger **Exhibit U** ver removable cover side view 262

YOT-1202-0424

921WD170W 951:20 00-60-VON

### UNION LEGEND INC.

6 FL. No.649-3 Jong Jeng Road, Hsin Chuang City Taipei Hsien, Taiwan, R.O.C.

Statement regarding work on a solar umbrella project.

In July of 1999 we began investigating the possibility of developing and sourcing a product idea disclosed to us earlier by Gregory Kuelbs. The concept was that of a "Patio" type umbrella with lights powered by batteries that were recharged by a solar panel.

Some of the following elements of the design Mr. Kuelbs described were as listed below.

The solar panel was to be mounted on the top of the umbrella pole above the fabric cover and detachable from the pole for shipping.

The batteries and charging circuit board were to be mounted in the same housing as the solar panel or just under the fabric cover near or where the umbrella ribs connected at the top. We were to considered benefits and tooling costs of both.

Led and cold cathode type lights were both considered .Leds were cheaper, used less power and were an easier way. Cold cathode was more complicated used more power but produced more light with fewer elements. We decided to start with the Leds first.

The wiring and connections were to be inside the ribs on tubing type umbrellas and hidden in a grove on wood umbrellas. The led was to be mounted in a hole drilled in to the rib or completely recessed and covered by a lens.

An on-off switch was to be mounted on the pole within easy reach. It was to preferably have al hillow light setting on the switch. On umbrellas with "crank housing' the switch could be mounted in that housing.

We did some initial research on factories that could manufacture the various elements and the costs and ways to do so.

We discontinued work on this project because of other business commitments.

. We had agreed with Mr. Kuelbs not to disclose the overall idea to anyone else including the component factories and never did so.

Jessica Kao 04/26/2006

Exhibit V

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YOT-1202-0426 ·

# OPE MAIS

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C

n Ré Application of:

**GREGORY G. KUELBS** 

Serial No.: 10/650,537

Filed: 28 AUGUST 2003

For: UMBRELLA APPARATUS

Examiner: HARGOBIND S. SAWHNEY

Art Unit: 2875

Confirmation No.: 9033

### REQUEST FOR EXTENSION FOR RESPONSE WITHIN THE SECOND MONTH

 $\omega\omega\omega\omega\omega\omega\omega\omega\omega$ 

MAIL STOP: AMENDMENT Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

An Office Action was mailed to the undersigned on 20 October 2006. Filed herewith is an Amendment. The Applicant hereby requests a two-month extension of time, until 20 March 2007, to respond to the Office Action.

CERTIFICATE OF I	MAILING	1
UNDER 37 C.F.R.	§ 1.8(a)	
Date of Deposit:		
I hereby certify that this paper or fee is being de Service as First Class Mail with sufficient postage indicated above and is addressed to Mail S Patents, P.O. Box 1450, Alexandria, Virginia 223	e under 37 C.F.R. §1.8( top: Amendment, Com 13-1450.	a) on the date nmissioner for
By: E. Nalto	93/26/2897 CNEGA1 8	9988888 18658537 225.6

Request for Extension for Response Within the Second Month Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 1

Enclosed is a completed Credit Card Payment Form, Form PTO-2038, authorizing the Commissioner to charge \$405.00 to cover the \$225.00 Two-Month Extension Fee and the \$180.00 Information Disclosure Statement Fee to a designated credit card. No other fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any fees that are necessary, or credit any overpayments, to **Deposit Account No. 502806**.

Please link this application to Customer Nos. 50779 and 38441 so that its status may be checked using the PAIR System.

Respectfully submitted,

3/19/07 Date

James E. Walton

Registration No. 47,245

Law Offices of James E. Walton, P.L.L.C.

1169 N. Burleson Blvd., Suite 107-328

Burleson, Texas 76028

(817) 447-9955 (Voice)

(817) 447-9954 (Facsimile)

jim@waltonpllc.com

**CUSTOMER NOS. 50779 AND 38441** 

ATTORNEY FOR APPLICANT

Request for Extension for Response Within the Second Month Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 2





### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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80000

Attorney Docket No. 0664MH-40982-C

Re Application of:

**GREGORY G. KUELBS** 

Serial No.: 10/650,537

Filed: 28 AUGUST 2003

For: UMBRELLA APPARATUS

Examiner:

HARGOBIND S.

**SAWHNEY** 

Art Unit: 2875

Confirmation No.: 9033

### **TRANSMITTAL**

**MAIL STOP: AMENDMENT** Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

Please file the following enclosed documents in the subject application:

- 1. This Transmittal with Certificate of Mailing;
- 2. Amendment:
- 3. Request for Extension for Response Within the Second Month;
- 4. Declaration Under 37 C.F.R. § 1.131;
- 5. Information Disclosure Statement and Form PTO/SB/08A;
- 6. A completed Credit Card Payment Form, Form PTO-2038, authorizing the Commissioner to charge \$405.00 to cover the \$225.00 Two-Month Extension Fee and the \$180.00 Information Disclosure Statement Fee to a designated credit card; and

### **CERTIFICATE OF MAILING** UNDER 37 C.F.R. § 1.8(a)

Date of Deposit: 3/19/07

I hereby certify that this paper or fee is being deposited with the United States Postal Service as First Class Mail with sufficient postage under 37 C.F.R. §1.8(a) on the date indicated above and is addressed to Mail Stop: Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Transmittal Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 1

7. Our return postcard which we would appreciate you date stamping and returning to us.

Enclosed is a completed Credit Card Payment Form, Form PTO-2038, authorizing the Commissioner to charge \$405.00 to cover the \$225.00 Two-Month Extension Fee and the \$180.00 Information Disclosure Statement Fee to a designated credit card. No other fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any fees that are necessary, or credit any overpayments, to Deposit Account No. 502806.

Please link this application to Customer Nos. 50779 and 38441 so that its status may be checked using the PAIR System.

Respectfully submitted,

3/19/07 Date

James E. Walton

Registration No. 47,245

Law Offices of James E. Walton, P.L.L.C.

1169 N. Burleson Blvd., Suite 107-328

Burleson, Texas 76028 (817) 447-9955 (Voice)

(817) 447-9954 (Facsimile)

jim@waltonpllc.com

**CUSTOMER NOS. 50779 AND 38441** 

ATTORNEY FOR APPLICANT

Transmittal Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 2

# MAR 23 2007

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0638MH-40982-C

in re Application of:

GREGORY G. KUELBS

Examiner: SAWHNEY, HARGOBIND S.

Serial No. 10/650,537

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Filed: 28 AUGUST 2003

Art Unit: 2875

For: UMBRELLA APPARATUS

Confirmation No. 9033

### **INFORMATION DISCLOSURE STATEMENT**

**MAIL STOP: AMENDEMENT** 

Commissioner for Patents P.O. Box 1450

Alexandria, Virginia 22313-1450

Sir:

In accordance with 37 C.F.R. § 1.56 and under 37 C.F.R. § 1.97(c)(1) and 37 CFR 1.97(c)(2), the references listed on the attached form PTO/SB/08A are being brought to the attention of the Examiner for consideration in the subject application.

The filing of this Information Disclosure Statement shall not be construed to be a representation that a search has been conducted, nor shall it be construed as an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

CERTIFICATE ( UNDER 37 C.F	
Date of Deposit:	
I hereby certify that this paper or fee is being Service as First Class Mail with sufficient posindicated above and is addressed to Mai Patents, P.O. Box 1450, Alexandria, Virginia 2	stage under 37 C.F.R. §1.8(a) on the date il Stop: Amendment, Commissioner for
By: Jemm E. Watto	83/26/2007 CMEGA1 90090608 10650537
	at FC:1626

Information Disclosure Statement Attorney Docket No. 0638MH-40982-C Serial No. 10/650,537 Page 1

It is respectfully requested that the Examiner return a copy of the attached form PTO/SB/08A with initials or other appropriate marks indicating consideration of the cited materials.

Payment of the Fee Under 37 CFR 1.17(p):

The information on form PTO/SB/08A is being submitted subsequent to the later of three months after the filing date of the present application or the mailing of the first Office action on the merits, but before the mailing of a final action or the notice of allowance. Accordingly, the undersigned submits a payment in the amount of \$180.00 to cover the Submission of an Information Disclosure Statement Fee.

Filed herewith is a completed Credit Card Payment Form, Form PTO-2038, authorizing the Commissioner to charge \$405.00 to cover the \$225.00 Two-Month Extension Fee and the \$180.00 Information Disclosure Statement Fee to a designated credit card. No additional fees are deemed to be necessary; however, the undersigned hereby authorizes the Director to charge any fees that may be required, or credit any overpayments, to **Deposit Account No. 502806**.

Please link this application to Customer Nos. 50779 and 38441 so that its status may be checked via the PAIR System.

Respectfully submitted,

3/19/07 Date

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ATTORNEY FOR APPLICANT

Information Disclosure Statement Attorney Docket No. 0638MH-40982-C Serial No. 10/650,537 Page 2

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PTO/SB/08A (07-05)

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#### INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

of 1

Complete if Known					
Application Number	10/650,537				
Filing Date	28 AUGUST 2003				
First Named Inventor	Gregory G. Kuelbs				
Art Unit	2875				
Examiner Name	Hargobind S. Sawhney				
Attorney Docket Number	0664MH-40982-C				

	1			DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number  Number-Kind Code <sup>2 (# known)</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AM	<sup>US-</sup> 6,058,951	05-09-2000	Wilson	
	AN	<sup>US-</sup> 6,182,917	02/06/2001	Lai	
	AO	<sup>US-</sup> 6,729,742	05-04-2004	Wismeth et al.	
	AP	<sup>US-</sup> 6,406,163	06-18-2002	Tai-Her Yang	
	AQ	<sup>US-</sup> 5,758,948	06-02-1998	Hale	
	AR	<sup>US-</sup> 5,055,984	10-08-1991	Hung et al.	
	AS	<sup>US-</sup> 6,196,242	03-06-2001	Xu	
	AT	<sup>US-</sup> 5,937,882	08-17-1999	Harbaugh	
	AU	<sup>US-</sup> 5,373,287	12-13-1994	Doublet	
	ΑV	<sup>US-</sup> 5,116,258	05-26-1992	Vennik	
	AW	<sup>US-</sup> 3,801,809	04-02-1974	Slade	
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FOREIGN PATENT DOCUMENTS									
Cite No.1		Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages					
	Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	MM-DD-YYYY	, , , , , , , , , , , , , , , , , , , ,	Or Relevant Figures Appear					
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Examiner	Date		
Signature	Considered		
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Transation is attached.

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 2 hours 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, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND

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YOT-1202-0433

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WPO Standard ST.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. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/06 (07-06)

Approved for use through 1/31/2007, 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 Application or Docket Number Filing Date 10/650,537 08/28/2003 To be Mailed Substitute for Form PTO-875 APPLICATION AS FILED - PART I OTHER THAN (Column 1) (Column 2) SMALL ENTITY OR SMALL ENTITY NUMBER FILED NUMBER EXTRA RATE (\$) FEE (\$) FOR RATE (\$) FEE (\$) ■ BASIC FEE N/A N/A N/A SEARCH FEE N/A N/A N/A (37 CFR 1.16(k), ☐ EXAMINATION FEE N/A 37 CFR 1.16(o), (p), or (q) TOTAL CLAIMS minus 20 = OR INDEPENDENT CLAIMS X \$ x \$ If the specification and drawings exceed 100 sheets of paper, the application size fee due ☐ APPLICATION SIZE FEE is \$250 (\$125 for small entity) for each (37 CFR 1.16(s)) 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 TOTAL APPLICATION AS AMENDED - PART II OTHER THAN SMALL ENTITY OR SMALL ENTITY (Column 1) (Column 2) (Column 3) CLAIMS HIGHEST REMAINING NUMBER PRESENT ADDITIONAL ADDITIONAL 03/23/2007 RATE (\$) RATE (\$) **PREVIOUSLY AFTER EXTRA** FEE (\$) FEE (\$) AMENDMEN-AMENDMENT Total (37 CFR \*\* 49 \* 13 = 0 X \$25 = 0 OR X \$ \* 1 Minus \*\*\*14 - 0 X \$100 = 0 OR x \$ Application Size Fee (37 CFR 1.16(s)) OR FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(i)) TOTAL TOTAL ADD'L FEE 0 OR ADD'L FEE (Column 2) (Column 1) (Column 3) CLAIMS HIGHEST REMAINING NUMBER PRESENT ADDITIONAL ADDITIONAL RATE (\$) RATE (\$) AFTER AMENDMENT PREVIOUSI Y **FXTRA** FEE (\$) FEE (\$) Total (37 CFR Minus X \$ OR X \$ AMENDME Minus OR X \$ Application Size Fee (37 CFR 1.16(s)) OR FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) TOTAL TOTAL ADD'L OR ADD'L FEE FEE \* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. Legal Instrument Examiner: \*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1. This collection of information is required by 37 CFR 1.16. 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 12 minutes 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

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YOT-1202-0434

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	27103	solar adj (power or energy)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/06/02 13:45
S2	957	(solar adj (power or energy)) and (recharg\$5 with (electrical or batter\$4))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/08/18 16:24
S3	10	((solar adj (power or energy)) and (recharg\$5 with (electrical or batter\$4))) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/26 17:01
S4	16794	umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/15 17:06
S5	66	(solar adj (power or energy)) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/15 17:40
S6	22425	recharg\$6 adj batter\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2002/12/05 10:30
S7	708	(solar adj (power or energy)) and (recharg\$6 adj batter\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2002/12/05 10:30
S8	7	umbrella and ((solar adj (power or energy)) and (recharg\$6 adj batter\$4 ))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/08/07 12:55
S9	163	umbrella and "362"/\$.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2002/12/05 11:52
S10	5	("5007811"   "5172711"   "5273062"   "5711331"   "5765582").PN.	USPAT	OR	ON	2002/12/05 11:42

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S11	9	("1148332"   "1532802"   "1555579"   "2547896"   "2627217"   "2729220"   "3177881"   "4154255"   "5007811").PN.	USPAT	OR	ON	2002/12/05 11:44
S12	20	("1148332"   "1173665"   "1555579"   "1683270"   "2627217"   "2729220"   "2817281"   "3102547"   "3177881"   "3318560"   "3444799"   "4154255"   "4628791"   "4753411"   "4850564"   "4867187"   "4915670"   "5007811"   "5161561"   "5172711").PN.	USPAT	OR .	ON	2002/12/05 11:50
S13	. 4	(umbrella and "362"/\$.ccls.) and (solar adj (power or energy))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR .	ON	2002/12/05 11:50
S14	448	362/96.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2002/12/05 11:52
S15	11	362/96.ccls. and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2002/12/05 11:54
S16	4	362/102.ccls. and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2002/12/05 11:54
S17	59	362/102.ccls. and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2002/12/05 12:10
S18	4	362/577.ccls. and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2002/12/05 11:58
S19	1	362/577.ccls. and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2002/12/05 11:58

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S20	0	362/577.ccls. and solar and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2002/12/05 11:59
S21	0	362/209.ccls. and solar and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2002/12/05 11:59
S22	5	362/209.ccls. and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2002/12/05 12:00
S23	34	362/276.ccls. and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2002/12/05 12:00
S24	2	("5172711").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2002/12/05 12:18
S25	2	("5349975").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2002/12/05 12:24
S26	2	("5463536").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2002/12/05 12:25
S27	2	("5172711").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2002/12/05 12:57
S28	2	("5273062").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2002/12/05 13:11

6/3/2007 1:33:51 PM Page 3 C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus.Wsp<sup>-1202-0437</sup>

S29	2	("6017188").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2002/12/05 16:44
S30	8	("1148332").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2002/12/05 13:47
S31	6	(("6017188") or ("5273062") or ("5172711")).PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR .	OFF	2002/12/05 16:45
S32	0	362/209.ccls. and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/03/30 12:20
S33	13	362/96.ccls. and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2003/03/17 15:49
S34	28	362/276.ccls. and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/08/18 16:41
S35	3	362/577.ccls. and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2003/03/17 15:50
S36	6	362/102.ccls. and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2003/03/17 15:50
S37	64538	solar adj (power or energy or cell)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/08/06 10:38

6/3/2007 1:33:51 PM Page 4
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S38	117	housing with (solar adj (power or energy or cell) and (recharg\$5 with (electrical or batter\$4)))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/08/06 10:40
S39	3	(housing with (solar adj (power or energy or cell) and (recharg\$5 with (electrical or batter\$4)))) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/08/06 10:40
S40	0	((housing or casing) with ((solar adj (power or energy)) and (recharg\$6 adj batter\$4 ))) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/08/07 12:57
S41	44	(housing or casing) with ((solar adj (power or energy)) and (recharg\$6 adj batter\$4 ))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/08/07 12:57
S42	91	362/102,96,209,276,577.CCLS. and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/08/08 12:41
S43	5	362/191.ccls. and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/08/08 12:41
S44	496	135/16.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/08/08 12:42
S45	379	135/16.ccls. and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/08/08 12:42
S46	14	135/16.ccls. and umbrella and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/08/08 12:42
S47	7	(("5,126,922") or ("5,172,711") or ("5,273,062") or ("5,349,975") or ("5,463,536") or ("5,584,564") or ("6,017,188")).PN.	USPAT	OR	OFF	2005/08/18 16:19

S48	34128	solar adj (power or energy)	US-PGPUB; USPAT; EPO; JPO; DERWENT;	NEAR	ON	2005/08/18 16:24
S49	3722	S48 and ((recharg\$6 or charg\$7) with (electrical or batter\$4))	IBM_TDB US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/08/18 16:25
S50	23524	umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/08/18 16:26
S51	120	S48 and S50	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/08/18 16:26
S52	65	S48 and S50 and batter\$5	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/08/18 16:27
S53	57	S51 and @ad <"20010207"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/08/19 11:44
S54	351	362/102.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2005/08/18 17:14
S55	3722	S48 and S49	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2005/08/18 17:14
S56	1067	S55 and ((alternat\$4 current) or "AC")	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2005/08/18 17:16
S57	22	S55 and ((alternat\$4 current) or "AC") and S50	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2005/08/18 17:17

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S58	5	("5053931"   "6089727"   "6196242"   "6270230"   "6439249").PN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2005/08/18 17:22
S59	2	("6598990").URPN.	USPAT	NEAR	ON <sup>°</sup>	2005/08/18 17:26
S60	72469	solar adj (power or energy or cell)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/08/19 11:52
S61	365	S60 with batter\$4 with housing	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/08/19 11:45
S62	2	S60 with batter\$4 with housing with umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/08/19 11:42
S63	6	(S60 with batter\$4 with housing) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/08/19 11:42
S64	220	S61 and @ad <"20010207"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/08/19 11:46
S65	29	S60 with batter\$4 with (in or "wihin") with housing	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/08/19 11:45
S66	88	S60 with batter\$4 with (in or "within") with housing	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/08/19 11:50
S67	55	S66 and @ad <"20010207"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/08/19 11:46
S68	1	(S60 with batter\$4 with (in or "within") with housing) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/08/19 11:51

6/3/2007 1:33:51 PM Page 7 C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus.\WSp<sup>T-1202-0441</sup>

S69	202	S60 and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT;	OR	ON	2005/08/19 11:52
S70	24	S60 and umbrella and "135"/\$.ccls.	IBM_TDB US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/08/19 11:52
S71	12	("5584564" or "6439249" or "5053931" or "6820995" or "6837255" or "6126293").pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/09/18 12:30
S72	6	("5584564" or "6439249" or "5053931" or "6820995" or "6837255" or "6126293").pn.	USPAT	OR	ON	2005/09/18 12:30
S73	1386	rib\$4 with ("within" or "in" or "inside") with light	USPAT	OR	ON	2005/09/18 12:42
S74	19	S73 and umbrella	USPAT	OR	ON	2005/09/18 12:41
S75	4	("5323798"   "5502624"   "6089727"   "6126293").PN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2005/09/18 12:37
S76	0	("6904922").URPN.	USPAT	NEAR	ON	2005/09/18 12:38
S77	1343186	(light emit\$4 diod\$4) or "LED"	USPAT	OR	ON	2005/09/18 12:41
S78	1528312	light (bulb or tube)	USPAT	OR	ON	2005/09/18 12:42
S79	1756440	S77 or S78	USPAT	OR	ON	2005/09/18 12:42
S80	5407	rib\$4 with ("within" or "in" or "inside") with S79	USPAT	OR	ON	2005/09/18 12:43
S81	81	S80 and umbrella	USPAT	OR	ON	2005/09/18 12:43
S82	76	S81 and @ad < "20010702"	USPAT	OR	ON	2005/09/18 13:02
S83	1759917	S79 inside near4 rib	USPAT	OR	ON	2005/09/18 13:01
S84	4740	S83 and umbrella	USPAT	OR	ON	2005/09/18 13:01
S85	1570767	S83 and @ad < "20010702"	USPAT	OR	ON	2005/09/18 13:03
S86	4209	S84 and @ad < "20010702"	USPAT	OR	ON	2005/09/18 16:07
S87	2	(("6270230") or ("6089727")).PN.	USPAT	OR	OFF	2005/09/18 13:04
S88	4	("4601120"   "4860179"   "5323798"   "5502624").PN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2005/09/18 13:04
589	3	("6270230").URPN.	USPAT	NEAR	ON	2005/09/18 13:05
S90	2	("5323798"   "5502624").PN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2005/09/18 13:06

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S91	9	("6089727").URPN.	USPAT	NEAR	ON	2005/09/18 13:06
S92	2	("6089727"   "6302560").PN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2005/09/18 13:20
S93	1	("6499856").URPN.	USPAT	NEAR	ON	2005/09/18 14:22
S94	6562044	(housing or casing or case)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2005/09/18 14:24
S95		S71 with solar with batter\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2005/09/18 14:38
S96 .	2343	S94 with solar with batter\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2005/09/18 14:26
S97	0	(solar near5 batter\$4) with ("within" or "in") with S72	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2005/09/18 14:29
S98	0	((solar panel) near4 batter\$4) with ("within" or "in") with S72	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2005/09/18 14:31
S99	2176	((solar panel) near4 batter\$4)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2005/09/18 14:31
S10 0	72	S99 with housing	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2005/09/18 14:32

Page 9 C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus.\#\\$\frac{\partial}{37}-1202-0443

S10 1	147	S99 with (housing or case)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2005/09/18 14:32
S10 2	3	S99 with (housing or casing or case) and umbrella	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2005/09/18 14:36
S10 3	4	(S99 same (housing or casing or case)) and umbrella	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2005/09/18 14:37
S10 4	19	((solar panel) and batter\$4) near5 within near3 housing	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2005/09/18 14:40
S10 5	0	((solar panel) and batter\$4) near5 in near3 housing	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2005/09/18 14:40
S10 6	8.	("2091693"   "4435095"   "4739549"   "5152610"   "5169236"   "5302028"   "5621390").PN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2005/09/18 14:47
S10 7	2	("5681110").URPN.	USPAT	NEAR	ON	2005/09/18 14:51
S10 8	12	("3742633"   "4843525"   "4903172"   "4947300"   "4989124"     "4994941"   "5007190"   "5088221"   "5101329"   "5107637"     "5192944"   "D320815").PN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2005/09/18 14:48
S10 9	13	("5435087").URPN.	USPAT	NEAR	ON	2005/09/18 14:49
S11 0	5	(umbrella) and (housing with solar with batter\$4)	USPAT	NEAR	ON	2005/09/18 14:52
S11 1	880	362/362.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2005/09/18 16:06

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S11 2	475	362/102.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2005/09/18 16:07
S11 3	171	362/577.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2005/09/18 16:07
S11 4	628	S112 or S113	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2005/09/18 16:07
S11 5	223	S114 and @ad < "20010702"	USPAT	OR	ON	2005/09/18 16:10
S11 6	3063	(362/96,227,159,276,352,20,183, 182,194,278,320,319,431,450,800. ccls.) and @ad < "20010702"	USPAT	OR	ON	2006/03/29 18:10
S11 7	311	(135/16,15.1.ccls.) and @ad < "20010702"	USPAT	OR	ON	2006/03/29 18:11
S11 8	335	(S116 or S117) and umbrella	USPAT	OR	ON	2005/09/18 16:13
S11 9	310	S118 not S115	USPAT	OR	ON	2005/09/18 16:13
S12 0	12	S119 and solar	USPAT	OR	ON	2005/09/18 16:14
S12 2	578	umbrella and solar	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/03/29 16:21
S12 3	. 2	"199956".ap.	US-PGPUB	NEAR	ON	2006/03/29 16:17
S12 4	1	"829790".ap.	US-PGPUB	NEAR	ON	2006/03/29 16:17
S12 5	200	umbrella and solar and (recharg\$5 or charg\$5)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/03/29 16:22

6/3/2007 1:33:51 PM Page 11 C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus.\SQT-1202-0445

S12 6	246	umbrella and solar and batter\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/03/29 16:22
S12 7	82	S126 and @ad < "20010207"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/03/29 17:36
S12 8	164	S126 not S127	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/03/29 16:42
S12 9	11	("20020074027"   "5584564"   "6089727"   "6386214"   "6439249"   "6598990"   "6612713"   "6666224"   "6820995"   "6837255"   "6840658").PN. OR ("7000624"). URPN.	US-PGPUB; USPAT; USOCR	NEAR .	ON	2006/03/29 17:01
S13 0	267	S122 and @ad < "20010207"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/03/29 17:07
S13 1	185	S130 not S126	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/03/29 17:07
S13 2	185	S131 not S127	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/03/29 17:08
S13 3	185	S131 not S128	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/03/29 17:08
S13 4	2	"305653".ap.	US-PGPUB	NEAR	ON	2006/03/29 17:39

6/3/2007 1:33:51 PM Page 12 C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus.\WST-1202-0446

S13	1	("5584564").PN.	USPAT	OR	OFF	2006/03/29 17:41
5			l			
S13 6	1	("4020858").PN.	USPAT	OR	OFF	2006/03/29 17:45
S13 7	1	("2087537").PN.	USPAT	OR	OFF	2006/03/29 17:50
S13 8	20	("2087537").URPN.	USPAT	NEAR	ON	2006/03/29 17:45
S13 9	1	("6270230").PN.	USPAT	OR	OFF	2006/03/29 17:57
S14 0	2	(("6017188") or ("5349975")).PN.	USPAT	OR	OFF	2006/03/29 17:57
S14 1	25	("5007811"   "5172711"   "5273062"   "5711331"   "5765582").PN. OR ("6017188").URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/03/29 17:57
S14 2	47	("20040100791"   "2087537"   "3215831"   "4061154"   "4072857"   "4174532"   "4491141"   "4979535"   "4994631"   "5053931"   "5101844"   "5331524"   "5463535"   "5584357"   "5611614"   "5641223"   "5769000"   "5776559"   "5787914"   "5907127"   "5911493"   "6017188"   "6070808"   "6126293"   "6209147"   "6270230"   "6323431"   "6402547"   "6439249"   "6598990"   "6612713"   "6627816"   "6659616"   "6668845"   "6679622"   "6722381"   "D130643"   "D208917"   "D295400"   "D378913"   "D379176"   "D379970"   "D467877").PN. OR ("7017598"). URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/03/29 18:00
S14 3	24	("5053931"   "5116258"   "5216948"   "5611614"   "5641223"   "5758948"   "6089727"   "6196242"   "6217192"   "6270230").PN. OR ("6439249").URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/03/29 18:02
S14 4	4	("2087537"   "6017188"   "6439249").PN. OR ("6840657"). URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/03/29 18:03
S14 5	25	("5007811"   "5172711"   "5273062"   "5711331"   "5765582").PN. OR ("6017188").URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/03/29 18:03

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S14 6	24	("3102547"   "3177881"   "3444799"   "4023582"   "4505285"   "5007811"   "5143107"   "5172711"   "5207238"   "5289839").PN. OR ("5349975").URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/03/29 18:04
S14 7	427	362/102,577.ccls.	USPAT	OR	ON	2006/03/29 18:07
S14 8	15	362/102,577.ccls. and solar	USPAT	OR	ON	2006/03/29 18:09
S14 9	27	362/102,577.ccls. and solar	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/03/29 18:09
S15 ·0	12	S149 not S148	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/03/29 18:10
S15 1	5283	362/96,227,159,276,352,20,183, 182,194,278,320,319,431,450,800. ccls.	USPAT	OR	ON	2006/10/05 13:21
S15 2	621	135/16,15.1.ccls.	USPAT	OR	ON	2006/03/29 18:11
S15 3	. 3	S151 and S152	USPAT	OR	ON	2006/03/29 18:11
S15 4	5901	S151 or S152	USPAT	OR	ON	2006/03/29 18:11
S15 5	21	S154 and S121	USPAT	OR	ON	2006/03/29 18:12
S15 6	1	"5349975".pn. and (light or lamp or (light source) or diode)	USPAT	NEAR	ON	2006/03/29 19:25
S15 7	1	("6666224").PN.	USPAT	OR	OFF	2006/03/29 19:25
S15 8	15	("20020124876"   "20020145873"   "20020149934"   "20030067765"   "5758948"   "6089727"   "6302560"   "6439249"   "6443595"   "6497496").PN. OR ("6666224"). URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/03/29 19:26
S15 9	12	("5323798"   "5502624").PN. OR ("6089727").URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/03/29 19:29
S16 0	17	umbrella and solar and batter\$4 and ((light\$4 or lamps or (light bulbs)) with (ribs or struts))	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/03/29 19:31

6/3/2007 1:33:51 PM Page 14 C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus.\WS\partial \text{T}-1202-0448

S16 1	19	("5126922"   "5172711"   "5273062"   "5349975"   "5463536").PN. OR ("6612713").URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/03/29 19:32
S16 2	4049875	light\$4 or lamps	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/03/30 10:00
S16 3	827721	(light emitting diod\$4) or "LED"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/03/30 10:01
S16 4	4465156	S162 or S163	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/03/30 10:02
S16 5	1	("5911493").PN.	USPAT	OR	OFF	2006/03/30 10:07
S16 6	13	("4848385"   "5053931"   "5323798"   "5502624"   "5584564"   "5611614").PN. OR ("5911493"). URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/03/30 10:07
S16 7	39	("1166272"   "2087537"   "2453925"   "3036206"   "3313929"   "3723723"   "3870062"   "4079344"   "4174532"   "4860179").PN. OR ("5053931"). URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/03/30 10:17
S16 8	9	(patio umbrella) and solar and S164	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/03/30 11:47
S16 9	11	(patio umbrella) and solar	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/03/30 12:03
S17 0	21	("1148332"   "1387740"   "1532802"   "1619217"   "2729220"   "3861410"   "5007811"   "5020557"   "5172711"   "5349975"   "5449012"   "5765582").PN. OR ("5868152").URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/03/30 11:50
S17 1	19	("5126922"   "5172711"   "5273062"   "5349975"   "5463536").PN. OR ("6612713").URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/03/30 11:54

6/3/2007 1:33:51 PM Page 15 C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus\\$\frac{1}{202-0449}

S17 2	8	("20030000559"   "2507919"   "5053931"   "5954417"   "6135605"   "6612713").PN. OR ("6820995"). URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/03/30 11:57
S17 3	425	umbrella and solar and (support or base or (Base plate))	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/03/30 12:06
S17 4	5	umbrella and (post with solar) and (support or base or (Base plate))	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/03/30 12:07
S17 5	2	("2960094").URPN.	USPAT	NEAR	ON	2006/03/30 12:16
S17 6	3	("6058951").URPN.	USPAT	NEAR	ON	2006/03/30 12:17
S17 7	2	("2960094").URPN.	USPAT	NEAR	ON	2006/03/30 12:19
S18 0	216	S173 and @pd > "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/03/30 12:22
S18 1	189	S173 and @pd < "20021201"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/03/30 12:30
S18 2	216	S173 not S181	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/03/30 12:31
S18 3	0	("2005/0072451").URPN.	USPAT	NEAR	ON	2006/03/30 12:35
S18 4	0	("2005/0072451").URPN.	USPAT	NEAR	ON	2006/03/30 12:56
S18 5	1	("5053931").PN.	USPAT	OR	OFF	2006/03/30 12:58
S18 6	1	("6298866").PN.	USPAT	OR	OFF	2006/03/30 12:59
S18 7	1	("6126293").PN.	USPAT	OR	OFF	2006/03/30 13:00
S18 8	1	("6089727").PN.	USPAT	OR	OFF	2006/03/30 13:01
S18 9	1	("5126922").PN.	USPAT	OR	OFF	2006/03/30 14:59
S19 0	2	(("2960094") or ("6830058")).PN.	USPAT	OR	OFF	2006/03/30 15:00

6/3/2007 1:33:51 PM Page 16 C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus.W9J-1202-0450

S19	329	135/22.ccls.	US-PGPUB;	NEAR	ON	2006/03/30 16:42
1	323	133/2E/CG31	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB		O.V.	
S19 2	2	135/22.ccls. and solar	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/03/30 16:42
S19 4	6482	362/20,96,102,159,182,183,191, 194,209,227,276,278,319,320,352, 431,450,577,800.ccls.	USPAT	OR	ON	2006/10/05 13:29
S19 5	1418	135/15.1,16,22.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 13:31
S19 6	7870	S195 or S194	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 13:32
S19 7	863413	(light emit\$5 diod\$3) or "LED"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 13:33
S19 9	189621	solar or photovoltaic or (solar cell) or (photo cell) or (solar panel)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 13:35
S20 0	29224	umbrella	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 13:35
S20 1	1098	S196 and S200	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 13:35

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S20 2	41	S196 and S200 and S199	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 13:36
S20 3	12	S196 and S200 and S199 and S197	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 13:48
S20 5	4168524	lamp or (light bulb) or (light\$4 element) or light\$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 13:47
S20 6	26	S196 and S200 and S199 and S205	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 13:49
S20 7	14	S206 not S203	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 13:49
S20 8	17	("20030084931"   "3755663"   "5007811"   "5053931"   "5273062"   "5584564"   "5611614"   "6017188"   "6089727"   "6340233"   "6439249"   "6499856"   "6598990"   "6612713").PN. OR ("6837255").URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/10/05 13:58
S20 9	12	("5053931"   "6089727"   "6196242"   "6270230"   "6439249").PN. OR ("6598990").URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/10/05 15:17
S21 0	2	JP-09168415-\$.did.	JPO; DERWENT	NEAR	ON	2006/10/05 15:24
S21 1	52	oshio-kozo.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 16:12

6/3/2007 1:33:51 PM Page 18 C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus.WSP<sup>-1202-0452</sup>

S21 2	4593510	S197 or S205	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 16:14
S21 3	462	S212 and S200 and S199	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 16:15
S21 4	641	S200 and S199	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 16:15
S21 5	168	S213 and @ad < "20010207"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 16:37
S21 6	6480	S194 not S215	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 16:26
S21 7	294	S213 not S215	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 16:37
S21 8	278	S214 and @ad < "20010207"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 16:38
S21 9	110	S218 not S213	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 16:44

6/3/2007 1:33:51 PM Page 19 C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus.WSp<sup>T-1202-0453</sup>

S22 0	198	(362/102,577.ccls. or "135"/\$.ccls.) and S199	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 16:46
S22 1	81	(362/102,577.ccls. or "135"/\$.ccls.) and S199 and umbrella	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/05 16:55
S22 2	1	("5349975").PN.	USPAT; USOCR	OR	OFF	2006/10/05 17:12
S22 3	1	"6439249".pn. and battery	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/06 08:43
S22 4	1	("6299325").PN.	USPAT; USOCR	OR	OFF	2006/10/06 08:43
S22 5	1525	(solar adj (power or energy)) and (recharg\$6 adj batter\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 08:44
S22 6	41892	recharg\$6 adj batter\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 09:37
S22 7	5734010	housing or casing or case or encas\$6	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 08:47
S22 8	41	(housing or casing or case or encas\$6) with (recharg\$6 adj batter\$4) with (solar adj ((power or energy)) and (recharg\$6 adj batter\$4))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON ·	2006/10/06 09:34
S22 9	0	(housing or casing or case or encas\$6) with (recharg\$6 adj batter\$4) with (solar adj ((power or energy)) and (recharg\$6 adj batter\$4)) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 08:48
S23 0	2	("2960094").PN.	USPAT; USOCR	OR	OFF	2006/10/06 16:46

 $\frac{6/3/2007\ 1:33:51\ PM}{\text{C:\Documents Apparatus.}} \\ \frac{Page\ 20}{\text{C:}}$ 

S23 1	3	("2960094").URPN.	USPAT	NEAR	ON	2006/10/06 09:33
S23 2	189621	solar or photovoltaic or (solar cell) or (photo cell) or (solar panel)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/06 09:36
S23 3	6978	(solar or photovoltaic or (solar cell) or (photo cell) or (solar panel)) with (recharg\$6 adj batter\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 09:38
S23 4	66	umbrella and S233	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 09:38
S23 5	943	(solar or photovoltaic or (solar cell) or (photo cell) or (solar panel)) with (recharg\$6 adj batter\$4) with S227	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 09:50
S23 6	8	S235 and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 09:43
S23 7	863413	(light emit\$5 diod\$3) or "LED"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/06 09:42
S23 8	323	S235 and S237	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 09:43
S23 9	38	S235 and S237 and outdoor	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 09:43

6/3/2007 1:33:51 PM Page 21 C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus.\wsp^T-1202-0455

S24 0	22	("1481703"   "2182441"   "3056222"   "4227327"   "4384317"   "4441143"   "4555694"   "4697365"   "4718185"   "4855723"   "4862613"   "4903172"   "5101329"   "5107637").PN. OR ("5309656"). URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/10/06 09:46
S24 1	3170232	(solar or photovoltaic or (solar cell) or (photo cell) or (solar panel))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 09:51
S24 2	4763	S241 and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON .	2006/10/06 09:51
S24 3	2717354	(solar or photovoltaic or (solar cell) or (solar panel))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 09:51
S24 4	4472	S243 and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 09:52
S24 5	704	(S243 with top) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 12:24
S24 6	40	(S243 with top with batter\$4) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 09:54
S24 7	54	((S243 with top) same batter\$4) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 10:10
S24 8	6	"650537".ap.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 16:27

6/3/2007 1:33:51 PM Page 22 C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus.\#\sp\\_1202-0456

		<u> </u>				
S24 9	2	"650537".ap. and batter\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 10:59
S25 0	1037	S243 with plug with batter\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR .	ON	2006/10/06 12:26
S25 1	893605	S243 with remov\$5 or detach\$5	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 12:27
S25 2	268389	S243 with (remov\$5 or detach\$5)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 12:27
S25 3	58137	S251 and batter\$5	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 12:29
S25 4	109	S252 and batter\$5 and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 14:16
S25 5	23	("2960094" "20020078985" "200500 72451" "5053931" "5126922" "5172 711" "5273062" "5349975" "546353 6" "5584564" "5611614" "5664874"  "5911493" "6017188" "6089727" " 6126293" "6270230" "6298866" "62 99325" "6341873" "6439249" "6499 856" "6666224").PN.	US-PGPUB; USPAT	OR	ON	2006/10/06 14:29
S25 6	1	("6499856").PN.	USPAT; USOCR	OR	OFF	2006/10/06 14:29
S25 7	6	("6089727"   "6302560").PN. OR ("6499856").URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/10/06 14:39
S25 8	18	lee-chorng-cheng.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/06 15:05

Page 23 C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus.\@\frac{1}{202-0457}

S25 9	4168524	lamp or (light bulb) or (light\$4 element) or light\$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/06 15:07
S26 0	53	umbrella and (strut with (S237 or S259))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/06 15:27
S26 1	53	umbrella and (strut with (S237 or S259))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/06 15:28
S26 2	53	umbrella and (strut\$3 with (S237 or S259))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/06 15:28
S26 3	2	("6089727"   "6302560").PN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/10/06 15:56
S26 4	0	"650537".ap. and strut\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/06 16:28
S26 5	0	"650537".ap. and strut\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	WITH	ON	2006/10/06 16:28
S26 6	0	"650537".ap. and strut\$3	US-PGPUB	WITH	ON	2006/10/06 16:28
S26 7	1	"650537".ap.	US-PĠPUB	WITH	ON	2006/10/06 16:28
S26 8	0	"650537".ap. and strut	US-PGPUB	WITH	ON	2006/10/06 16:32
S26 9	12	kuelbs-gregory-g.in.	US-PGPUB	WITH	ON	2006/10/06 16:32
S27 0	1	("6612713").PN.	USPAT; USOCR	OR	OFF	2006/10/06 18:14
S27 1	0	("umbrellaand(recharg\$6batter\$4)a nd"AC"and(charging)").PN.	USPAT; USOCR	OR	OFF	2006/10/06 18:16

6/3/2007 1:33:51 PM Page 24 C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus.\WS\(\frac{1}{2}\)-1202-0458

S27 2	0	umbrella and (recharg\$6 batter\$4) and "AC"and (charging)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/06 18:17
S27 3	88	umbrella and (recharg\$6 batter\$4) and (charging)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/06 18:20
S27 4	36	umbrella and (recharg\$6 batter\$4) and charger	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/06 18:23
S27 5	94	umbrella and (recharg\$6 batter\$4) and outlet	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/06 18:43
S27 6	24	S275 and @ad < "20010207"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/06 18:37
S27 7	1	("5349975").PN.	USPAT; USOCR	OR	OFF	2006/10/06 18:37
S27 8	25	("3102547"   "3177881"   "3444799"   "4023582"   "4505285"   "5007811"   "5143107"   "5172711"   "5207238"   "5289839").PN. OR ("5349975").URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/10/06 18:42
S27 9	23	umbrella and (battery charger)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/07 13:07
S28 0	2	wo-9300840-\$.did.	EPO; DERWENT	OR	ON	2006/10/07 13:01

				T		T
S28   1	2112	(battery charg\$4) with ("AC" power)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/07 13:08
S28 2	2112	batter\$4 and ((battery charg\$4) with ("AC" power))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/07 13:08
S28 3	2	batter\$4 and ((battery charg\$4) with ("AC" power)) and umbrella	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/07 13:11
S28 4	10	batter\$4 and ((battery charg\$4) same ("AC" power)) and umbrella	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR .	ON	2006/10/07 13:12
S28 5	30	batter\$4 and ((battery charg\$4) and ("AC" power)) and umbrella	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/07 13:15
S28 6	0	batter\$4 and ((battery charg\$4) with ("AC" power)) and (outdoor (light\$5 or lamp))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/07 13:16
S28 7	60	batter\$4 and ((battery charg\$4) and ("AC" power)) and (outdoor (light\$5 or lamp))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/07 13:21
S28 8	2112	batter\$4 and ((battery charg\$4) with("AC" power))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/07 13:21

6/3/2007 1:33:51 PM Page 26 C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus.\sqrt{90}T-1202-0460

S28 9	542	(recharg\$6 batter\$4) and ((battery charg\$4) with("AC" power)) and (light or lamp)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/07 13:22
S29 0	2	(recharg\$6 batter\$4) and ((battery charg\$4) with("AC" power)) and (light or lamp) and umbrella	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/07 13:22
S29 1	61	(recharg\$6 batter\$4) and ((battery charg\$4) with("AC" power)) and (light or lamp) and (outdoor or lawn or backyard)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2006/10/07 13:23
S29 2	29310	umbrella :	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/15 17:06
S29 3	186	umbrella and (solar with batter\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/15 17:07
S29 4	19	umbrella and (top with solar with batter\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/15 17:45
S29 5	14	umbrella and (housing with solar with batter\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/15 17:11
S29 6	3179055	(solar or photovoltaic or (solar cell) or (photo cell) or (solar panel))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/15 17:13

6/3/2007 1:33:51 PM Page 27 C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus.\SQT-1202-0461

S29	4777	S296 and umbrella	US-PGPUB;	OR	ON	2006/10/15 17:17
7			USPAT; EPO; JPO; DERWENT; IBM_TDB			
S29 8	6161	housing with S296 with batter\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/15 17:14
S29 9	33	S298 and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/15 17:15
S30 0	844	S296 and umbrella and batter\$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/15 17:18
S30 1	40	(S296 with batter\$4 with top) and umbrella	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/15 17:20
S30 2	2	("2960094").PN.	USPAT; USOCR	OR	OFF	2006/10/15 17:41
S30 3	3	("2960094").URPN.	USPAT	NEAR	ON	2006/10/15 17:41
\$30 4	14	("20040040591"   "20050016571"   "20050133077"   "2745421"   "2960094"   "3801809"   "4011881"   "4424824"   "5740822"   "5937882"   "6058951"   "6129101").PN. OR ("7051744"). URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2006/10/15 17:42
\$30 5	28	umbrella with (top with solar )	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/15 18:37
S30 6	0	("10829790").PN.	USPAT; USOCR	ÒR	OFF	2006/10/15 18:37

6/3/2007 1:33:51 PM Page 28 C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus. W3\(\bar{y}\)-1202-0462

S30 7	0	("("2960094" "20020078985" "2005 0072451" "5053931" "5126922" "51 72711" "5273062" "5349975" "5463 536" "5584564" "5611614" "566487 4" "5911493" "6017188" "6089727"  "6126293" "6270230" "6298866" " 6299325" "6341873" "6439249" "64	USPAT; USOCR	OR	OFF	2006/10/16 10:32
S30 8	23	99856" "6666224").PN.").PN.  ("2960094" "20020078985" "200500 72451" "5053931" "5126922" "5172 711" "5273062" "5349975" "546353 6" "5584564" "5611614" "5664874"  "5911493" "6017188" "6089727" " 6126293" "6270230" "6298866" "62 99325" "6341873" "6439249" "6499 856" "6666224").PN.	US-PGPUB; USPAT	NEAR	ON	2006/10/16 10:32
S30 9	652	umbrella and solar	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/05/26 17:04
S31 0	302	umbrella and solar and batter\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/05/26 17:02
S31 1	3816762	((light emitting diode) or "LED") or lights or lamps or (light bulbs)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/05/26 17:04
S31 2	465	S309 and S311	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/05/26 17:05
S31 3	151	S312 and @ad < "20010207"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/05/26 17:07
S31 6	3877	((solar adj (power or energy)) or photovoltaic) and recharg\$5 and batter\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/06/02 14:07
S31 7	80794	(umbrella with support) or (lawn umbrella) or (patio umbrella) or (umbrella with outside) or (umbrella with deck)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/06/02 14:08

6/3/2007 1:33:51 PM Page 29 C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus.\#\sp-1202-0463

S31 8	173	S316 and S317	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/06/02 13:59
S31 9	1604687	illuminat\$5 or (light bulbs) or ((light emitting diod\$3) or "LED") or (light emitting elements) or lighting	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/06/02 13:53
S32 0	127	S318 and S319	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/06/02 14:00
S32 1	80794	(umbrella with support) or (lawn umbrella) or (patio umbrella) or (umbrella with (outside or swimming pool)) or (umbrella with deck)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/06/02 13:58
S32 2	173	S316 and S321	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/06/02 14:08
S32 3	127	S322 and S319	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/06/02 14:01
\$32 4	25	S323 and @ad < "20010207"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/06/02 14:10

6/3/2007 1:33:51 PM Page 30 C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus.\WS\(\text{T}^{-1202-0464}\)

S32 5	8727	(solar or photovoltaic) and recharg\$5 and batter\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/06/02 14:07
S32 6	351	S325 and S321	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/06/02 14:08
S32 7	211	S325 and S321 and S319	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/06/02 14:08
S32 8	80794	umbrella or (umbrella with support) or (lawn umbrella) or (patio umbrella) or (umbrella with outside) or (umbrella with deck)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/06/02 14:09
S32 9	211	S328 and S325 and S319	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/06/02 14:10
S33 0	49	S329 and @ad < "20010207"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/06/02 14:20
S33 1	162	S329 not S330	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/06/02 14:21
S33 2	5	("6017188"   "6298866"   "6692135").PN. OR ("6830058"). URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2007/06/02 14:46

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622		(112022222422411   11277777711	LIC DCT:	NEAS	011	2007/05/22 11 15
S33 3	19	("20030084931"   "3755663"   "5007811"   "5053931"   "5273062"   "5584564"   "5611614"   "6017188"   "6089727"   "6340233"   "6439249"   "6499856"   "6598990"   "6612713").PN. OR ("6837255").URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2007/06/02 14:48
S33 4	17	("2414866"   "2828473"   "4072857"   "4571018"   "5053931"   "5323798"   "5337225"   "5502624"   "5559681"   "5733037"   "5911493").PN. OR ("6340233"). URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2007/06/02 14:51
S33 5	5	("5611614"   "6598990"   "6612713"   "6666224").PN. OR ("6966667"). URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2007/06/02 14:52
S33 6	11	("20020074027"   "5584564"   "6089727"   "6386214"   "6439249"   "6598990"   "6612713"   "6666224"   "6820995"   "6837255"   "6840658").PN. OR ("7000624"). URPN.	US-PGPUB; USPAT; USOCR	NEAR	Ο̈́Ν	2007/06/02 14:53
S33 7	6	("5116258"   "6017188"   "6196242"   "6439249"   "6612713"   "6666224").PN. OR ("7013903"). URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2007/06/02 14:55
S33 8	4	("5611614"   "6598990"   "6612713"   "6666224").PN. OR ("7108388"). URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2007/06/02 15:06
S33 9	2	(("6837255") or ("7000624")).PN.	USPAT	OR	OFF	2007/06/02 15:09
S34 0	11	("20020074027"   "5584564"   "6089727"   "6386214"   "6439249"   "6598990"   "6612713"   "6666224"   "6820995"   "6837255"   "6840658").PN. OR ("7000624"). URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2007/06/02 15:10
S34 1	. 19	("20030084931"   "3755663"   "5007811"   "5053931"   "5273062"   "5584564"   "5611614"   "6017188"   "6089727"   "6340233"   "6439249"   "6499856"   "6598990"   "6612713").PN. OR ("6837255").URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2007/06/02 15:13
S34 2	10	("4193389" "5126922" "5331524" " 5349975" "5410458" "5911493" "60 17188" "6286528" "6323431" "6612 713").PN.	USPAT	NEAR	ON	2007/06/02 15:13

6/3/2007 1:33:51 PM
C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus.WSp<sup>T-1202-0466</sup>

S34 3	14	("2087537"   "3313929"   "3777136").PN. OR ("5331524"). URPN.	US-PGPUB; USPAT; USOCR	NEAR	ON	2007/06/02 15:15
S34 4	690	362/102,577.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/06/03 13:18
S34 5	8585	362/96,227,159,276,352,20,183, 182,194,278,319,320,431,450,800. ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/06/03 13:19
S34 6	459	135/15.1,16.22.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/06/03 13:20
\$34 7	9044	S345 or S346	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/06/03 13:20
S34 8	97	umbrella and solar and (light\$4 or illuminat\$5 or diode or (lighting elements) or (light bulb) or (light tube)) and batter\$4 and recharg\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/06/03 13:28
S34 9	258	umbrella and solar and (light\$4 or illuminat\$5 or diode or (lighting elements) or (light bulb) or (light tube)) and batter\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/06/03 13:29

6/3/2007 1:33:51 PM Page 33 C:\Documents and Settings\hsawhney\My Documents\EAST\Workspaces\10650537new Umbrella Apparatus\%\\$\bar{D}\$1202-0467

S35 0	15	S349 and S347	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/06/03 13:29
S35 1	20	S349 and S344	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/06/03 13:29
S35 2	31	S350 or S351	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	NEAR	ON	2007/06/03 13:29

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# United States Patent and Trademark Office

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/650,537	10/650,537 08/28/2003 Gregory G. Kuelbs 38441 7590 06/08/2007		0638MH-40982-US 9033			
LAW OFFICES OF JAMES E. WALTON, PLLC		EXAMINER				
10/650,537 08/28/2003 Gregory G. Kuelbs 38441 7590 06/08/2007		SAWHNEY, H.	SAWHNEY, HARGOBIND S			
SUITE 107-328			ART UNIT	PAPER NUMBER		
<i>B</i> 01(220011, 1	10/650,537 08/28/2003 Gregory G. Kuelbs  38441 7590 06/08/2007  LAW OFFICES OF JAMES E. WALTON, PLLC 1169 N. BURLESON BLVD. SUITE 107-328		2885			
			MAIL DATE	DELIVERY MODE.		
			06/08/2007	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.

	Application No.	Applicant(s)				
	10/650,537	KUELBS, GREGORY G.				
Office Action Summary	Examiner	Art Unit				
	Hargobind S. Sawhney	2885				
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address				
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  Status						
Status						
1) Responsive to communication(s) filed on 23 Ma	arch 2007.					
•	action is non-final.					
3) Since this application is in condition for allowan						
closed in accordance with the practice under E	x parte Quayle, 1935 C.D. 11, 45	i3 O.G. 213.				
Disposition of Claims						
4)  Claim(s) 21-25,30,33 and 70-75 is/are pending 4a) Of the above claim(s) is/are withdrawr 5)  Claim(s) is/are allowed. 6)  Claim(s) 21-25,30,33 and 70-75 is/are rejected 7)  Claim(s) is/are objected to. 8)  Claim(s) are subject to restriction and/or	n from consideration.					
Application Papers						
9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
	anniner. Note the attached Office	Action of form F10-132.				
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  Priority under 35 U.S.C. § 119  12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All b) Some * c) None of:  1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No.  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.						
Attachment(s)  1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	4)  Interview Summary Paper No(s)/Mail Da 5)  Notice of Informal Pa					

U.S. Patent and Trademark Office PTOL-326 (Rev. 7-05)

Office Action Summary

Part of Paper No./Monti-f02002-2000700602

Art Unit: 2885

Page 2

### **DETAILED ACTION**

The amendment filed on March 23, 2007 has been entered. Accordingly, Claim
 has been canceled.

2. The Declaration under 37 C.F.R. § 1.131 filed on March 23, 2007 under 37 CFR 1.131 has been entered, and considered but is ineffective to overcome the reference Pan US Patent 6,439,249 B1.

Patent Owner must show that the teachings were reduced to practice prior to the filing date of Pan. As the evidence submitted consists only of drawings, there is no text to confirm that the depicted elements are connected or interact in the manner recited in the rejected claims. Such information cannot be gleaned from the drawings submitted. Lastly, Patent Owner has only provided conclusionary statements regarding the requirement for a showing of facts sufficient to show conception of the invention prior to the effective daze of the reference coupled with due diligence from prior to the reference date to a subsequent (actual) reduction to practice or conception of the invention prior to the effective date of the reference coupled with due diligence from prior to the reference date to the filing date of the application (constructive reduction to practice.) Thus, Patent Owner has failed to invention of the subject matter of the rejected claims prior to the filing date of Pan.

Therefore, the claim rejections detailed in the previous non-final office action mailed on October 20, 2006 remain sustained.

Art Unit: 2885

Page 3

In addition, claims 21-30, 33 and 70-75 have been further examined on new ground of rejection detailed below.

### **Double Patenting**

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Omum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claim 21, 22, 24, 25 and 30 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 102 and 107-110 of copending Application No. 10/829,790 in view WIPO publication WO 93/00840 (Perrier et al.).

The following examination is based on the English translation of Perrier et al.

Hereafter; the above-indicated English translation has been referred as "the English translated text".

The newly added claim 102, lines 1-19 and 24-31, of the copending application 10/829,790 meets all limitations, except the following, of claim 21 of the instant application. However, neither combined nor individually, the claims of the copending application recite "the LEDs being powered by the rechargeable power system without a need for connection to an AC power connection".

Art Unit: 2885

Page 4

On the other hand, Perrier et al. discloses an outdoor umbrella apparatus (Figure 1) comprising:

A lighting powered with an electric power system via the electrical cable 22 connected to electrical power system 3 – including batteries 3 – rechargeable with a solar energy system 2 (Figure 1, English translated abstract and text); the electrical power system 3 not requiring connection with an AC power outlet (Figure 1, English translated abstract and text).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the outdoor umbrella apparatus recited in claim 102 of the copending application 10/829,790 by providing the rechargeable power system powering the LEDs connection without needing connection with an AC power outlet as taught by Perrier et al. for the benefits of flexibility of locating the umbrella system at remote locations not having the AC power supply system, and for cost saving resulting from energy conservation.

Regarding claims 22, 24, 25 and 30, the copending application 10/829,790 in view of Perrier et al. discloses the umbrella apparatus meeting the limitations as follows:

Copending application, claim 107, lines 1-3; in view of Perrier et al. meets the limitations of the claim 22 of the instant application;

Copending application, claim 108, lines 1-4; in view of Perrier et al. meets the limitations of the claim 24 of the instant application;

Copending application, claim 109, lines 1-3; in view of Perrier et al. meets the limitations of the claim 25 of the instant application;

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Page 5

Art Unit: 2885

Copending application, claim 110, lines 1-3; in view of Perrier et al. meets the limitations of the claim 30 of the instant application;

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### Claim Rejections - 35 USC § 103

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

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

6. Claims 21, 22, 23, 30, 33 and 70, 72-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No.: 2,960,094 (Small) in view of US Patent NO.: 5,954,417 (Mai).

Regarding claims 21 and 33, Small discloses an outdoor umbrella apparatus (Figure 1) comprising:

A pole portion 10 supportable by a support structure (not shown) for outdoor location (Figure 1, column 1, lines 16 and 47); an umbrella portion 11 hingedly coupled to a pole portion 10 (Figure 1, column 1, line 49); the umbrella apportion including ribs – operationally require for starching the canopy- for a rechargeable electrical power system 35 providing power to the umbrella apparatus (Figure 1, column 2, lines 29 and 30); a solar energy system 34 including a solar collector positioned above the

Art Unit: 2885

Page 6

umbrella portion 11 (Figure 1, column2, lines 29-36); the electrical energy converted by the solar energy system conductively coupled to , and recharging the rechargeable electrical power system 35 (Figure 1, column2, lines 29-36); Positioning of the solar collector of the solar energy system 34 keeping the degree of exposure unaffected from opening and closing of the umbrella apparatus (Figure 1).

However, Small does not specifically teach the solar- powered umbrella apparatus further comprising a lighting system including a plurality of light emitting diodes "LEDs" conductively coupled to the rechargeable power system included in the umbrella apparatus.

On the other hand, Mai discloses an umbrella apparatus (Figure 1) comprising:

An umbrella portion 3 coupled to a pole 10 (Figure 1,column 2, lines 42-46); a lighting system 83'— electrically powered lighting elements LEDs 83 conductively coupled to, and powered by the power system 82'- including a battery 82 without the need of AC power outlet (Figure 1,column 2, lines 61-67); the LEDs 83 carried by the umbrella portion — canopy -; and the LEDs 83 illuminating the area beneath the umbrella portion 3 (Figure 1,column 2, lines 42-46).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the solar-powered umbrella apparatus of Small by providing the

Art Unit: 2885

LED-based lighting system as taught by Mai for the benefits enhancing utility of umbrella apparatus by illuminating the area under the umbrella portion.

Regarding claim 22, Small in view of Mai discloses the outdoor umbrella apparatus including the rechargeable battery 35 positioned adjacent the solar energy system 34 (Small, Figure 1). In addition, Small further teaches that the rechargeable batteries may be positioned anywhere, including external or internal of the post 10 (Small, Figure 1, column 2, lines 28-36).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the umbrella apparatus of Pan et al. ('249 B1) in view of Small by positioning the rechargeable batteries within the housing receiving the solar energy system, since it has been held that rearranging parts of a prior art structure involves only routing skill in the art. *In re Japikse*, 86 USPQ 70. Further, positioning of rechargeable power sources – batteries – within the housing receiving a solar energy system would operate equally well, and would be compact with less wiring.

Regarding claims 23 and 72, Small in view of Mai discloses the outdoor umbrella apparatus including:

The solar energy system 34 positioned in a housing mounted above the top of the pole 10 and above the umbrella portion 1, and the rechargeable battery 35 positioned in a housing mounted below the umbrella portion 1 (Small, Figure 1).

Regarding claim 30, Small in view of Mai teaches the solar energy system being operationally coupled to the rechargeable electrical power system, However, neither in

Art Unit: 2885

Page 8

combination nor individually Small and Mai specifically teach the solar energy system being releasably coupled to the rechargeable electrical power system.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to make the solar energy system of Small in view of Mai releasable or detachably attached to the electrical power system, since it has been held that making a component removable is a merely a matter obvious engineering choice, and involves only routine skill in the art. USPQ 348, 349 (CCPA 1961). Further, using a solar energy system, which is detachable from the rechargeable electrical power system would facilitate repair, replacement or maintenance of the umbrella apparatus.

Regarding claim 70, Small in view of Mai teaches the solar energy system meeting the limitations in similar manner as that applied to claim 30 discussed above.

Regarding claims 73-75, Small in view of Mai discloses the outdoor umbrella apparatus (Mai, Figures 3 and 4) including a plurality of tubular ribs 20' supporting the umbrella portion 30' – canopy-; each of the tubular ribs 20' carrying plurality of LEDs 83' (Mai, Figures 3 and 4, column 3, lines 47, 56-61); the configuration of the tubular ribs – shape, and relative positioning of the LEDs 83' – allowing the LEDs 83' shine beneath the umbrella portion (Mai, Figure 3); the LEDs being moved with articulation – resulting from opening and closing of the umbrella apparatus – of the umbrella apparatus (Mai, Figures 3 and 4); and each of the tubular ribs 20' including a channel – hollow portion receiving a portion of a conductor 831' (Mai, Figure 4, column 3, lines 47-51).

7. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No.: 2,960,094 (Small) in view of US Patent No.: 5,954,417 (Mai) as

Art Unit: 2885

Page 9

applied to claim 21 above, and further in view of WIPO publication WO 93/00840 (Perrier et al.).

The following examination is based on the English translation of Perrier et al.

Hereafter, the above-indicated English translation has been referred as "the English translated text".

Regarding claim 24, Small in view of Mai discloses the umbrella apparatus including a rechargeable electric power system charged with a solar energy system as applied to claim 21 discussed in section 6 above. However, neither in combination nor individually, Small and Mai teaches the rechargeable power system <u>adapted</u> to receive power from an AC power outlet.

On the other hand, Perrier et al. discloses an outdoor umbrella apparatus (Figure 1) comprising:

A lighting powered with an electric power system via the electrical cable holder 17 connectable to electrical power system 3 – including batteries 3 – rechargeable with a solar energy system 2 (Figure 1, English translated abstract and text).

Further, Perrier et al. teaches the umbrella apparatus including the rechargeable electrical power system capable of receiving power from an AC power outlet through a power plug 14 (Figure 1, English translated abstract and text).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the outdoor umbrella apparatus of Small in view of Mai by providing the rechargeable power system capable of receiving power from the AC

Art Unit: 2885

power outlet as taught by Perrier et al. for the benefits of redundant power sources desirable for high operational reliability and availability of the umbrella apparatus.

Regarding claim 25, Small in view of Mai and Perrier et al. discloses the umbrella apparatus further including a pole 9 receivable in a removable support structure – lower portion including a sleeve with a retaining fastener - (Perrier et al., Figure 1).

8. Claim 71 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No.: 2,960,094 (Small) in view of US Patent NO.: 5,954,417 (Mai) as applied to claim 21 above, and further in view of US Patent 2,863,466 (Small '466).

Small in view of Mai discloses the outdoor umbrella apparatus including: a top housing receiving the solar energy system 35– broadly interpreted as a cap - and a rechargeable battery 35 – broadly interpreted as a rechargeable electrical power system - positioned adjacent the solar energy system 34 (Small, Figure 1).

Small does not specifically teach: the top cap used to hingedly connecting the umbrella portion to the pole portion; and the rechargeable electrical power system received in the top cap portion. However, Small further teaches that the rechargeable batteries may be positioned anywhere, including external or internal of the post 10 (Small, Figure 1, column 2, lines 28-36).

On the other hand Small '466 discloses an umbrella apparatus (Figure 1) including am umbrella portion – canopy - (not shown) supported by a plurality of ribs each connected to a top cap 27 hingedly connecting the umbrella portion to the pole 28 (Figure 1, column 2, lines 20-29).

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Page 10

Art Unit: 2885

Page 11

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the umbrella apparatus of Small in view of Mia by positioning the rechargeable batteries within the housing receiving the solar energy system, since it has been held that rearranging parts of a prior art structure involves only routing skill in the art. *In re Japikse*, 86 USPQ 70. Further, positioning of rechargeable power sources – batteries – within the housing receiving a solar energy system would operate equally well, and would be compact with less wiring.

### Response to Amendment

Applicant's arguments filed on August 7, 2006 with respect to the 35
 U.S.C. 103(a) rejections of claims 21-25, 30, 33 and 71-75; and the obvious-type double patenting rejections of claims 21, 22, 24, 25 and 30 have been fully considered but they are moot.

As discussed in section 2 above, the Declaration under 37 C.F.R. § 1.131 filed on March 23, 2007 under 37 CFR 1.131 has been considered but is ineffective to overcome the reference Pan US Patent 6,439,249 B1. Therefore, claim rejections based on Pan have been sustained.

### Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S Sawhney whose telephone number is 571 272 2380. The examiner can normally be reached on 8:30 AM - 4:30 PM.

Art Unit: 2885

Page 12

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Jong-Suk (James) Lee can be reached on 571 272 7044. 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).

6/5/2007

/Hargobind S. Sawhney/

Examiner, Art Unit 2885



#### Application/Control No. Applicant(s)/Patent Under Reexamination 10/650,537 KUELBS, GREGORY G. Notice of References Cited Examiner Art Unit Page 1 of 1 2885 Hargobind S. Sawhney

### U.S. PATENT DOCUMENTS

*		Document Number	Date	U.S. PATENT DOCUMENTS	
		Country Code-Number-Kind Code	MM-YYYY	Name	Classification
*	Α	US-2,863,466	12-1958	SMALL SAMUEL N	135/20.3
	В	US-			
	С	US-			
	D	US-			
	Е	US-			
	F	US-			
	G	US-			
	Н	US-			
	1	US-			
	J	US-			
	К	US-			
	L	US-			
	М	US-	,		

### FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
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### NON-PATENT DOCUMENTS

* Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)  U  W		
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"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.

U.S. Patent and Trademark Office PTO-892 (Rev. 01-2001)

Notice of References Cited

Part of Paper No. 20070602

Inder the Paperwork Reduction
Substitute for term (1449) 1970

PTO/S8/08A (07-05)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**INFORMATION DISCLOSURE** STATEMENT BY APPLICANT

(Use as many sheets as necessary)

1	Col	mplete if Known	
ı	Application Number	10/650,537	
	Filing Date	28 AUGUST 2003	
	First Named Inventor	Gregory G. Kuelbs	
	Art Unit	2875	
	Examiner Name	Hargobind S. Sawhney	
	Attomey Docket Number	0664MH-40982-C	

				T DOCUMENTS	
Examiner Initials*	Cite Document Number Publication Date MM-DD-YYYY  Number-Kind Code <sup>2 (# known)</sup>		Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
/HS/	AM	<sup>US-</sup> 6,058,951	05-09-2000	Wilson	
	AN	<sup>US-</sup> 6,182,917	02/06/2001	Lai	
	AO	<sup>US-</sup> 6,729,742	05-04-2004	Wismeth et al.	
	AP	<sup>US-</sup> 6,406,163	06-18-2002	Tal-Her Yang	
	AQ	<sup>US-</sup> 5,758,948	06-02-1998	Hale	
	AR	<sup>US-</sup> 5,055,984	10-08-1991	Hung et al.	
	AS	<sup>US-</sup> 6,196,242	03-06-2001	Xu	
	AT	<sup>US-</sup> 5,937,882	08-17-1999	Harbaugh	
	AU	<sup>US-</sup> 5,373,287	12-13-1994	Doublet	
1/	ΑV	<sup>US-</sup> 5,116,258	05-26-1992	Vennik	
•	AW	<sup>US-</sup> 3,801,809	04-02-1974	Slade	
		US-			
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	Cite Foreign Patent Document		Publica Date		Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	T
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1	Signature	/Hargobind S. Sawhney/	Considered	06/06/2007

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THINKS .	Application Number	10/650,537
INFORMATION DISCLOSURE	Filing Date	28 August 2003
	First Named Inventor	Gregory G. Kuelbs
STATEMENT BY APPLICANT	Art Unit	2875
(Use as many sheets as necessary)	Examiner Name	Hargobind S. Hawhney
Sheet 1 of 1	Attorney Docket Number	0664MH-40982-C

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Examiner Initials*	Cite No.1	Document Number  Number-Kind Code <sup>2 (# known)</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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$\Delta \mathbf{Z}$	AJ	<sup>US-</sup> 5611614	03-18-1997	Morgan, Robert E.	
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Examiner Signature	/Hargobind S. Sawhney/	Date   06/06/2007

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Cite No.1	NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of	
	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, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
АМ	U.S. Patent Application Serial No. 11/199956 titled "Umbrella Apparatus" filed on 08-09-2005	
AN	U.S. Patent Application Serial No. 10/829790 titled "Umbrella Apparatus" filed on 04-22-2004	
AO	U.S. Patent Reexamination Control No. 95/000,104 for U.S. Patent No. 6612713	
	AN	filed on 08-09-2005  U.S. Patent Application Serial No. 10/829790 titled "Umbrella Apparatus" filed on 04-22-2004  U.S. Patent Reexamination Control No. 95/000,104 for U.S. Patent No. 6612713

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Signature	/Hargobind S. Sawhney/	اند دن ما	06/06/2007
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Commission of the Commissio PTO/SB/08A (07-05) Under the Paperwork Reduction Substitute for form 1449/PTO Application Number 10/650,537 Filing Date 28 AUGUST 2003 INFORMATION DISCLOSURE First Named Inventor Gregory G. Kuelbs

STATEMENT BY APPLICANT Art Unit 2875 (Use as many sheets as necessary) **Examiner Name** Hargobind S. Sawhney 0664MH-40982-C of 1 Attorney Docket Number

Examiner Initials*	Cite No.1	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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Application No.	Applicant(s)
10/650,537	KUELBS, GREGORY G.
Examiner	Art Unit
Hargobind S. Sawhney	2885

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**CONFIRMATION NO. 9033** 

SERIAL NUMBEI 10/650,537	FILING OR 371(c) DATE 08/28/2003 RULE	CLASS 362	GROU	GROUP ART UNIT 2885		ATTORNEY DOCKET NO. 0638MH-40982-US	
APPLICANTS Gregory G. Kuelbs, Westlake, TX;  ** CONTINUING DATA **********************************							
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ADDRESS 38441							
TITLE Umbrella apparatus							
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### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C

In Re Application of:

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Examiner:

HARGOBIND S.

SAWHNEY

**GREGORY G. KUELBS** 

Art Unit: 2875

Appl. No.: 10/650,537

Filed: 28 AUGUST 2003

Confirmation No.: 9033

For: UMBRELLA APPARATUS

### **AMENDMENT**

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

An Office Action in the subject application was mailed to the undersigned on 8 June 2006. Filed herewith is a Request for Extension for Response Within the Third Month, whereby the Applicant requests a three-month extension of time, until 10 December 2007 (as 8 December 2007 was a Saturday), to respond to the 8 June 2007 Office Action.

Please enter the following amendments and consider the following remarks.

CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. § 1.8(a)(1)(i)(C)

Date of Transmission:

12/10/07

mm E. Walto

I hereby certify that this correspondence is being transmitted to the U.S. Patent and Trademark Office (USPTO) via the USPTO electronic filing system (EFS-Web) on the date shown above.

By:

James E. Walton

Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 1

### IN THE CLAIMS:

This following is a complete listing of the claims in the application and replaces all prior versions and listings of the claims. Please amend the claims as follows.

### 1-75. (Cancelled).

76. (New) An umbrella apparatus comprising:

a pole portion;

an umbrella portion hingedly coupled to the pole portion, the umbrella portion having a plurality of rib members;

a rechargeable electrical power system for providing electrical power to the umbrella apparatus;

a solar energy system coupled to the pole portion, the solar energy system being adapted to collect solar energy and convert the solar energy into electrical energy, the solar energy system being conductively coupled to the rechargeable electrical power system, such that the solar energy collected and converted into electrical energy recharges the rechargeable electrical power system;

a lighting system having a plurality of light emitting diodes conductively coupled to the rechargeable electrical power system, the light emitting diodes being recessed within the rib members; and

translucent materials disposed over the light emitting diodes for enhancing the light from the light emitting diodes.

77. **(New)** The umbrella apparatus according to claim 76, wherein the translucent materials are smooth.

78. **(New)** The umbrella apparatus according to claim 76, wherein the translucent materials are textured.

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 2

- 79. **(New)** The umbrella apparatus according to claim 76, wherein the translucent materials extend beyond the exterior surfaces of the rib members.
- 80. **(New)** The umbrella apparatus according to claim 76, further comprising: conductors carried within the rib members for conductively coupling the light emitting diodes to the rechargeable electrical power system.
- 81. **(New)** The umbrella apparatus according to claim 76, wherein the solar energy system is releasably coupled to the rechargeable electrical power system.
- 82. **(New)** The umbrella apparatus according to claim 76, further comprising: a top cap for hingedly connecting the umbrella portion to the pole portion; wherein the rechargeable electrical power system is releasably coupled to the top cap.
- 83. **(New)** The umbrella apparatus according to claim 76, wherein the solar energy system and the rechargeable electrical power system are disposed in separate housings.
- 84. **(New)** The umbrella apparatus according to claim 76, wherein the rechargeable electrical power system comprises:

at least one rechargeable battery disposed in a housing that surrounds the pole portion.

- 85. (New) The umbrella apparatus according to claim 84, further comprising:
- a power system charger conductively coupled to the at least one rechargeable battery:
- a detachable transformer for converting AC electrical power to DC electrical power, the transformer being releasably coupled to the power system charger, thereby allowing the power system charger to use AC power to recharge the at least one rechargeable battery when the transformer is conductively coupled to the power system

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 3

charger.

86. (New) An umbrella apparatus comprising:

a pole portion;

a top cap coupled to the pole portion;

a plurality of rib members hingedly coupled to the top cap;

a flexible canopy carried by the rib members;

at least one rechargeable battery for providing electrical power to the umbrella apparatus, the at least one rechargeable battery being located below the flexible canopy;

a solar energy system adapted to collect solar energy and convert the solar energy into electrical energy, the solar energy system being conductively coupled to the at least one rechargeable battery, such that the solar energy collected and converted into electrical energy recharges the at least one rechargeable battery, the solar energy system being releasably coupled to the top cap, such that the flexible canopy passes between the top cap and the solar energy system; and

a lighting system carried by the rib members, the lighting system having a plurality of light emitting diodes conductively coupled to the at least one rechargeable battery.

87. (New) The umbrella apparatus according to claim 86, further comprising:

wiring passing through an interior portion of the pole portion for conductively coupling the light emitting diodes to the at least one rechargeable battery.

- 88. **(New)** The umbrella apparatus according to claim 86, wherein the solar energy system is releasably coupled to the top cap via a threaded connection.
- 89. **(New)** The umbrella apparatus according to claim 86, wherein the light emitting diodes are located in recessed channels in the rib members.

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 4

- 90. **(New)** The umbrella apparatus according to claim 86, further comprising: a wireless receiver and transmitter pair for generating a wireless command signal for changing the operating state of the lighting system.
- 91. **(New)** The umbrella apparatus according to claim 90, wherein the wireless commend signal switches the lighting system on and off.
- 92. **(New)** The umbrella apparatus according to claim 90, wherein the wireless commend signal switches the lighting system between varying levels of light output.

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 5

**REMARKS:** 

Claims 21-25, 30, 33, and 70-75 are currently pending in the application. Claims

1-20, 26-29, 31, 32, and 34-69 have been previously withdrawn and/or cancelled. Claims

21-25, 30, 33, and 70-75 are hereby cancelled. The Applicant hereby reserves the right

to pursue all cancelled and/or withdrawn claims in continuation and/or divisional

applications.

New Claims 76-92 are hereby added.

The Applicant submits that no new matter has been added to the application by

this Amendment.

Claim Rejections:

Because Claims 21-25, 30, 33, and 70-75 are hereby cancelled, the Applicant

submits that all of the Examiner's rejections and objections, from both the Non-Final

Office Action mailed on 20 October 2006 and the Non-Final Office Action mailed on 8

June 2007, are now moot.

The Applicant reiterates here all of the arguments and remarks that Applicant has

previously set forth which distinguish the Applicant's invention over all of the prior-art

references cited by the Examiner. The Applicant respectfully submits that he has

distinguished the claimed invention over each and every combination of references cited

by the Examiner. As such, the Applicant submits that the references cited by the

Examiner, either alone or in combination, do not anticipate or render obvious the claimed

invention.

Claims 21-25, 30, 33, and 70-75 are hereby cancelled and new Claims 76-92 are

hereby added in order to expedite the prosecution and allowance of the subject

application.

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537

Page 6

### Applicant's Declaration Under 37 C.F.R. § 1.131:

The Examiner states that Applicant's Declaration Under 37 C.F.R. § 1.131 filed 23 March 2007 is ineffective to overcome the reference, U.S. Patent No. 6,439,249 to Pan et al. The Examiner states: "As the evidence submitted consists only of drawings, there is no text to confirm that the depicted elements are connected or interact in the manner recited in the rejected claims. Such information cannot be gleaned from the drawings submitted."

The Applicant disagrees. The Applicant submits that the Examiner's characterization that the evidence consists only of drawings is incorrect. The exhibits to the Declaration are **full** of text. **There is text on every page of the inventor's notes.** Exhibit B, Exhibit C, Exhibit D, Exhibit E, Exhibit F, Exhibit G, Exhibit H, Exhibit O, Exhibit P, Exhibit Q, Exhibit S, Exhibit T, Exhibit U, and Exhibit V are replete with sketches, drawings, notes, typing, and all forms of **text**. The Applicant submits that these exhibits inexplicably prove, without a doubt, that the inventor had possession of the invention prior to the effective date of the Pan et al. reference. Possession of the invention is defined in MPEP 715.02 as "the basic inventive concept." A 37 CFR 1.131 declaration is not required to show every detail set forth in the specification. Furthermore, MPEP 715.02 states:

Further, a 37 CFR 1.131 affidavit is not insufficient merely because it does not show the identical disclosure of the reference(s) or the identical subject matter involved in the activity relied upon. If the affidavit contains facts showing a completion of the invention commensurate with the extent of the invention as claimed is shown in the reference or activity, the affidavit or declaration is sufficient, whether or not it is a showing of the identical disclosure of the reference or the identical subject matter involved in the activity.

The Applicant submits that the basic concept of the invention is clearly shown in the exhibits of the Declaration. Not only are the sketches and drawings almost identical to the drawings that used in the application, the inventor typed out the notes in the Declaration so that the Examiner would have no problem understanding the notes and the sketches.

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 7

It appears as though the Examiner has ignored the Applicant's statements and the exhibits regarding the Applicant's reduction to practice of the invention. The Declaration clearly shows that the Applicant had designed the invention, was working with factories, "sourcing" the project, researching components and costs, and verifying the assembly of the device. As stated in the Declaration, the Applicant submits that he reduced the invention to practice prior to the effective date of the Pan et al. reference.

With regard to the Examiner's statement that the Patent Owner has only provided conclusionary [sic] statements regarding the requirement for a showing of facts sufficient to show conception of the invention coupled with due diligence from prior to the effective date to a subsequent reduction to practice, or conception of the invention coupled with due diligence from prior to the effective date to the filing of the application, the Applicant submits that the Examiner's position is not well taken. The Applicant's dated notes, sketches, and drawings clearly establish the fact that the Applicant had possession of the basic concept of the invention prior to the effective date of the Pan et al. reference and that the Applicant worked diligently on the invention through the filing date of an application on the invention. The Applicant submits that the Declaration contains a showing of facts, in such character and weight, as to establish conception of the invention prior to the effective date coupled with due diligence from prior to the effective date to a subsequent reduction to practice or to the filing date of an application.

Because Claims 21-25, 30, 33, and 70-75 are hereby cancelled, the Examiner's rejections that relied upon the Pan et al. reference are now moot. As such, the Applicant does not need to rely upon his Declaration Under 37 C.F.R. § 1.131 filed 23 March 2007. Nevertheless, should the Examiner cite the Pan et al. reference again, or any other non-prior-art reference, the Applicant hereby reserves the right to refile the Declaration or file another Declaration Under 37 C.F.R. § 1.131.

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 8

Reference To Related Applications and Reexamination Proceeding:

Applicant once again brings to the Examiner's attention U.S. Patent Application

Nos. 11/199,956 and 10/829,790 and Inter Partes Reexamination Proceeding No. 95/000,104, which is a reexamination of U.S. Patent No. 6,612,713, the parent patent

to the subject application.

Applicant again notes that a second Office Action was mailed in the

Reexamination Proceeding on 5 December 2006. A response was filed by the Patent

Owner, i.e., the Applicant herein, on 5 February 2007. Accordingly, the Applicant is

presently awaiting action by the Examiner in the Central Reexamination Unit.

The Examiner is requested to review the Office Actions in the Reexamination

Proceeding, as well as the Patent Owner's Responses to the Office Actions and all

other papers and references filed in the Reexamination Proceeding. If the Examiner

needs copies any of the documents from the Reexamination Proceeding and/or any of

the related applications, the Examiner is respectfully requested to contact the

undersigned.

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 9

### **CONCLUSION:**

In view of the foregoing amendments and remarks, the Applicant respectfully submits that the application is now condition for allowance, and earnestly solicits an early reconsideration and a Notice of Allowance.

If any extension of time is needed to maintain the pendency of the application, this is an express request for any required extension of time, and authorization to charge any required extension of time fee and/or any other fee to maintain the pendency of the application to Deposit Account No. **Deposit Account No. 502806**.

This Amendment is being filed via the U.S. Patent and Trademark Office's EFS-Web electronic filing system. The \$525.00 Three-Month Extension Fee is being paid via a designated credit card. No other fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any fees that are necessary, or credit any overpayments, to **Deposit Account No. 502806**.

Please link this application to Customer No. 50779 so that its status may be checked using the PAIR System.

Respectfully submitted,

12/10/07

James E. Walton

Registration No. 47,245

Law Offices of James E. Walton, P.L.L.C.

1169 N. Burleson Blvd., Suite 107-328

Burleson, Texas 76028 (817) 447-9955 (Voice)

(817) 447-9955 (Voice) (817) 447-9954 (Facsimile)

jim@waltonpllc.com

**CUSTOMER NO. 50779** 

ATTORNEY FOR APPLICANT

Amendment Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 10

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C

In Re Application of: HARGOBIND S. Examiner:

SAWHNEY **GREGORY G. KUELBS** 

Appl. No.: 10/650,537 Art Unit: 2875

Filed: 28 AUGUST 2003

Confirmation No.: 9033

For: UMBRELLA APPARATUS

### REQUEST FOR EXTENSION FOR RESPONSE WITHIN THE THIRD MONTH

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Dear Sir:

A Non-Final Office Action was mailed to the undersigned on 8 June 2007. The Office Action set forth a three-month response date of 8 September 2007.

The Applicant hereby requests a three-month extension of time, until 10 December 2007 (as 8 December 2007 is a Saturday), to respond to the Non-Final Office Action.

CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. § 1.8(a)(1)(i)(C)						
Date of Transmission: 12/10/07						
I hereby certify that this correspondence is being transmi and Trademark Office (USPTO) via the USPTO electror Web) on the date shown above.						
By: James E. Walton						

Request for Extension for Response in the Third Month Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 1

### **CONCLUSION:**

The \$525.00 extension fee is being paid via a designated credit card. No other fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any additional fees that are necessary, or credit any overpayments, to **Deposit Account No. 502806**.

Please link this application to Customer No. 50799 so that its status may be checked via the PAIR System.

Respectfully submitted,

James E. Walton

Reg. No. 47,245

Law Offices of James E. Walton, P.L.L.C.

1169 N. Burleson Blvd., Suite 107-328

Burleson, Texas 76028 (817) 447-9955 (Voice)

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**CUSTOMER NO. 50779** 

ATTORNEY FOR APPLICANT

Request for Extension for Response in the Third Month Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 2

Electronic Patent Application Fee Transmittal						
plication Number: 10650537						
Filing Date: 28-Aug-2003						
Title of Invention:	Invention: Umbrella apparatus					
First Named Inventor/Applicant Name:	st Named Inventor/Applicant Name: Gregory G. Kuelbs					
Filer:	Jan	mes Edward Walto	on			
Attorney Docket Number:	063	38MH-40982-US				
Filed as Small Entity						
Utility Filing Fees						
Utility Filing Fees						
Utility Filing Fees  Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)	
		Fee Code	Quantity	Amount		
Description		Fee Code	Quantity	Amount		
Description  Basic Filing:		Fee Code	Quantity	Amount		
Description  Basic Filing:  Pages:		Fee Code	Quantity	Amount		
Description  Basic Filing:  Pages:  Claims:		Fee Code	Quantity	Amount		
Description  Basic Filing:  Pages:  Claims:  Miscellaneous-Filing:		Fee Code	Quantity	Amount		
Description  Basic Filing:  Pages:  Claims:  Miscellaneous-Filing:  Petition:		Fee Code	Quantity	Amount		
Description  Basic Filing:  Pages:  Claims:  Miscellaneous-Filing:  Petition:  Patent-Appeals-and-Interference:		Fee Code	Quantity	Amount		

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
	Total in USD (\$)			525

Electronic Acknowledgement Receipt				
EFS ID:	2572002			
Application Number:	10650537			
International Application Number:				
Confirmation Number:	9033			
Title of Invention:	Umbrella apparatus			
First Named Inventor/Applicant Name:	Gregory G. Kuelbs			
Customer Number:	38441			
Filer:	James Edward Walton			
Filer Authorized By:				
Attorney Docket Number:	0638MH-40982-US			
Receipt Date:	10-DEC-2007			
Filing Date:	28-AUG-2003			
Time Stamp:	18:53:16			
Application Type:	Utility under 35 USC 111(a)			

## Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$525
RAM confirmation Number	3695
Deposit Account	502806
Authorized User	WALTON, JAMES E

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
1		AmendmentDocuments.pdf	568579		14
'		Amenament Documents.par	98dce87d487b1ac4bcde5ef859b0a5a8 339bec0d	yes	14
	Multipa	rt Description/PDF files in	.zip description		
	Document De	scription	Start	E	nd
	Miscellaneous Inc	1	1 2		
	Amendment - After No	3		12	
	Extension o	f Time	13	14	
Warnings:					
Information:					
2	Fee Worksheet (PTO-06)	fee-info.pdf	8122	no	2
-	. 55 11011011001 (1 1 0 00)	100 imo.pai	3a22b5b2e33eec43af36e21f69aec197 bfb8bd53	110	_
Warnings:					
Information:					
		Total Files Size (in bytes):	57	76701	

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.

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C

In Re Application of: Examiner: HARGOBIND S. **GREGORY G. KUELBS** SAWHNEY

Art Unit: 2875 Appl. No.: 10/650,537

Filed: 28 AUGUST 2003

Confirmation No.: 9033 For: UMBRELLA APPARATUS

#### **TRANSMITTAL**

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Dear Sir:

Please file the following documents in the subject application:

- This Transmittal with Certificate of Transmission; 1.
- 2. Amendment; and
- Request for Extension for Response Within the Third Month. 3.

CERTIFICATE OF TRANSMISSION	UNDER 37 C.F.R. § 1.8(a)(1)(i)(C)
Date of Transmission: 12/10/07	
I hereby certify that this correspondence is be and Trademark Office (USPTO) via the USF Web) on the date shown above.	eing transmitted to the U.S. Patent PTO electronic filing system (EFS-
By: famm E. Welk  Dames E. Walton	

Transmittal Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 1

The foregoing documents are being filed via the U.S. Patent and Trademark Office's EFS-Web electronic filing system. The \$525.00 extension fee is being paid via a designated credit card. No other fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any additional fees that are necessary, or credit any overpayments, to **Deposit Account No. 502806**.

Please link this application to Customer No. 50799 so that its status may be checked via the PAIR System.

Respectfully submitted,

<u>/2/10/07</u> Date James E. Walton Reg. No. 47,245

Law Offices of James E. Walton, P.L.L.C. 1169 N. Burleson Blvd., Suite 107-328

Burleson, Texas 76028 (817) 447-9955 (Voice) (817) 447-9954 (Fax) jim@waltonpllc.com

**CUSTOMER NO. 50779** 

ATTORNEY FOR APPLICANT

Transmittal Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 2

PTO/SB/06 (07-06)

Approved for use through 1/31/2007. OMB 0661-0032
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.

P	PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Application or Docket Number 10/650,537 Filing Date 08/28/2003 To be			☐ To be Mailed	
	AF	D – PART I		SMALL	ENTITY 🛛	OR		HER THAN			
	FOR	N	UMBER FII	.ED	NUMBER EXTRA	Г	RATE (\$)	FEE (\$)		RATE (\$)	FEE (\$)
	BASIC FEE (37 CFR 1.16(a), (b),	or (c))	N/A		N/A	1	N/A		1	N/A	. ,
	SEARCH FEE (37 CFR 1.16(k), (i), (ii)	or (m))	N/A		N/A		N/A			N/A	
	EXAMINATION FE (37 CFR 1.16(o), (p),		N/A		N/A		N/A			N/A	
	TAL CLAIMS CFR 1.16(i))		mir	us 20 = *			x \$ =		OR	x \$ =	
	EPENDENT CLAIM CFR 1.16(h))	S	m	inus 3 = *			x \$ =			x \$ =	
	APPLICATION SIZE (37 CFR 1.16(s))	shee is \$2 addi 35 U	ets of pape 250 (\$125 tional 50 s I.S.C. 41(	er, the application for small enti sheets or fraction (1)(G) and (1)	vings exceed 100 ation size fee due ty) for each tion thereof. See 37 CFR 1.16(s).						
1	MULTIPLE DEPEN				•	J	TOTAL		ł	TOTAL	
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	APP	LICATION AS (Column 1)	AMENE	(Column 2)			SMAL	L ENTITY	OR		ER THAN ALL ENTITY
AMENDMENT	12/10/2007	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSL PAID FOR	PRESENT Y EXTRA		RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)
ME	Total (37 CFR 1.16(i))	* 17	Minus	** 49	= 0		X \$25 =	0	OR	x \$ =	
	Independent (37 CFR 1.16(h))	* 2	Minus	***14	= 0		X \$105 =	0	OR	x \$ =	
\ME	Application Si	ze Fee (37 CFR	1.16(s))								
	FIRST PRESEN	ITATION OF MULTI	PLE DEPEN	DENT CLAIM (37	CFR 1.16(j))				OR		
							TOTAL ADD'L FEE	0	OR	TOTAL ADD'L FEE	
		(Column 1)		(Column 2)	(Column 3)		•				
L		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSL PAID FOR	PRESENT Y EXTRA		RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)
Z	Total (37 CFR 1.16(i))	*	Minus	**	=	1	x \$ =		OR	x \$ =	
AMENDMENT	Independent (37 CFR 1.16(h))	*	Minus	***	=	1	x \$ =		OR	x \$ =	
	Application Si	ize Fee (37 CFR	1.16(s))								
AM	FIRST PRESEN	ITATION OF MULTI	PLE DEPEN	DENT CLAIM (37	CFR 1.16(j))				OR		
							TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	
** If	f the "Highest Numb	er Previously Paid er Previously Pai	l For" IN TH d For" IN T	HIS SPACE is le	" in column 3. ess than 20, enter "20 less than 3, enter "3". s the highest number		Linda V			er:	

This collection of information is required by 37 CFR 1.16. 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 12 minutes 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.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C

In Re Application of:

88888888

Examiner: HARGOBIND S. SAWHNEY

**GREGORY G. KUELBS** 

Appl. No.: 10/650,537

Art Unit: 2875

Filed: 28 AUGUST 2003

Confirmation No.: 9033

For: UMBRELLA APPARATUS

#### **INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

In accordance with 37 C.F.R. §§ 1.56 and 1.97(c)(2) the references listed on the attached form PTO/SB/08A are being brought to the attention of the Examiner for consideration in the subject application.

CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. § 1.8(a)(1)(i)(C)

Date of Transmission:

I hereby certify that this correspondence is being transmitted to the U.S. Patent and Trademark Office (USPTO) via the USPTO electronic filing system (EFS-Web) on the date shown above.

By:

ann E. Welts James E. Walton

> Information Disclosure Statement Attorney Docket No. 0638MH-40982-C Serial No. 10/650,537 Page 1

The filing of this Information Disclosure Statement shall not be construed to be a representation that a search has been conducted, nor shall it be construed as an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

The information on form PTO/SB/08A is being submitted subsequent to the later of three months after the filing date of the present application or the mailing of the first Office action on the merits, but before the mailing of a final action or the notice of allowance.

The \$180.00 Filing Fee under 37 C.F.R. §§ 1.97(c)(2) and 1.17(p) is being paid via a designated credit card. No other fees are deemed to be necessary; however, the undersigned hereby authorizes the Commissioner to charge any additional fees that are necessary, or credit any overpayments, to **Deposit Account No. 502806**.

Please link this application to Customer No. 50779 so that its status may be checked via the PAIR System.

Respectfully submitted,

2//4/08 Date

James E. Walton, Reg. No. 47,245

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**CUSTOMER NO. 50779** 

ATTORNEY FOR APPLICANT

Information Disclosure Statement Attorney Docket No. 0638MH-40982-C Serial No. 10/650,537 Page 2

PTO/SB/08a (05-07)
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	Application Number		10650537	
INFORMATION DISCLOSURE	Filing Date		2003-08-28	
	First Named Inventor Gregor		gory G. Kuelbs	
STATEMENT BY APPLICANT ( Not for submission under 37 CFR 1.99)	Art Unit		2885	
(Not for submission under 67 of R 1.55)	Examiner Name Hargo		gobind S. Sawhney	
	Attorney Docket Numb	er	0638MH-40982-C	

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YOT-1202-0512 EFS Web 2.0.2

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

( Not for submission under 37 CFR 1.99)

Application Number		10650537		
Filing Date		2003-08-28		
First Named Inventor	Grego	ory G. Kuelbs		
Art Unit		2885		
Examiner Name Hargo		bbind S. Sawhney		
Attorney Docket Number		0638MH-40982-C		

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

( Not for submission under 37 CFR 1.99)

Application Number		10650537		
Filing Date		2003-08-28		
First Named Inventor Grego		ory G. Kuelbs		
Art Unit		2885		
Examiner Name Hargo		obind S. Sawhney		
Attorney Docket Number		0638MH-40982-C		

	CERTIFICATION STATEMENT								
Plea	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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X	Fee set forth in 3	7 CFR 1.17 (p) has been submitted herewith							
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Sigr	nature	/jamesewaltonpat/	Date (YYYY-MM-DD)	2008-02-14					
Nan	ne/Print	James E. Walton	Registration Number	47,245					

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Electronic Patent Application Fee Transmittal								
Application Number:	10650537							
Filing Date:	28	-Aug-2003						
Title of Invention:	Umbrella apparatus							
First Named Inventor/Applicant Name:	Gr	egory G. Kuelbs						
Filer:	Ja	mes Edward Walto	on					
Attorney Docket Number:	0638MH-40982-US							
Filed as Small Entity								
Utility 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:								

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)					
Miscellaneous:									
Submission- Information Disclosure Stmt	1806	1	180	180					
Total in USD (\$) 180									

Electronic Acl	knowledgement Receipt
EFS ID:	2858914
Application Number:	10650537
International Application Number:	
Confirmation Number:	9033
Title of Invention:	Umbrella apparatus
First Named Inventor/Applicant Name:	Gregory G. Kuelbs
Customer Number:	38441
Filer:	James Edward Walton
Filer Authorized By:	
Attorney Docket Number:	0638MH-40982-US
Receipt Date:	14-FEB-2008
Filing Date:	28-AUG-2003
Time Stamp:	11:56:44
Application Type:	Utility under 35 USC 111(a)

## Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$180
RAM confirmation Number	7306
Deposit Account	502806
Authorized User	WALTON, JAMES E

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#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 0664MH-40982-C

In Re Application of:

Examiner:

HARGOBIND S. SAWHNEY

**GREGORY G. KUELBS** 

Art Unit: 2875

Appl. No.: 10/650,537

Filed: 28 AUGUST 2003

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Confirmation No.: 9033

For: UMBRELLA APPARATUS

#### **TRANSMITTAL**

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Dear Sir:

Please file the following documents in the subject application:

- This Transmittal with Certificate of Transmission;
- 2. Information Disclosure Statement; and
- 3. Form PTO/SB/08a.

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By:

E. Walt

James E. Walton

Transmittal Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 1

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Please link this application to Customer No. 50799 so that its status may be checked via the PAIR System.

Respectfully submitted,

*2/14/08* Date James E. Walton

Reg. No. 47,245

Law Offices of James E. Walton, P.L.L.C.

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**CUSTOMER NO. 50779** 

ATTORNEY FOR APPLICANT

Transmittal Attorney Docket No. 0664MH-40982-C Serial No. 10/650,537 Page 2



### 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.
10/650,537	08/28/2003	0638MH-40982-US	9033	
	7590 03/18/200 S OF JAMES E. WAL'		EXAM	IINER
1169 N. BURL SUITE 107-328	ESON BLVD.		SAWHNEY, H	ARGOBIND S
BURLESON, T			ART UNIT	PAPER NUMBER
			2885	
			MAIL DATE	DELIVERY MODE
			03/18/2008	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.

	A	AP(/-)
	Application No.	Applicant(s)
	10/650,537	KUELBS, GREGORY G.
Office Action Summary	Examiner	Art Unit
	HARGOBIND S. SAWHNEY	2885
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet with the c	orrespondence address
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING D.  - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period of Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tin will apply and will expire SIX (6) MONTHS from , cause the application to become ABANDONE	√. nely filed the mailing date of this communication. D (35 U.S.C. § 133).
Status		
1) Responsive to communication(s) filed on 10 D	<u>ecember 2007</u> .	
2a)⊠ This action is <b>FINAL</b> . 2b)☐ This	action is non-final.	
3) Since this application is in condition for alloward		
closed in accordance with the practice under E	Ex parte Quayle, 1935 C.D. 11, 45	53 O.G. 213.
Disposition of Claims		
4) Claim(s) 76-92 is/are pending in the applicatio 4a) Of the above claim(s) is/are withdray 5) Claim(s) is/are allowed. 6) Claim(s) 76-92 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/o	wn from consideration.	
Application Papers		
9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) acc Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Examine	epted or b)  objected to by the I drawing(s) be held in abeyance. See tion is required if the drawing(s) is obj	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority document application from the International Bureau * See the attached detailed Office action for a list	s have been received. s have been received in Applicati rity documents have been receive u (PCT Rule 17.2(a)).	on No ed in this National Stage
Attachment(s)  1) ☑ Notice of References Cited (PTO-892) 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 2/14/2008.	4) ☐ Interview Summary Paper No(s)/Mail Da 5) ☐ Notice of Informal P 6) ☐ Other:	nte

U.S. Patent and Trademark Office PTOL-326 (Rev. 08-06)

Office Action Summary

Part of Paper No/Mail Date 20080308

Application/Control Number: 10/650,537 Page 2

Art Unit: 2885

#### **DETAILED ACTION**

1. The amendment filed on December 10, 2007 has been entered. Accordingly, Claims 1-75 have been cancelled; and new claims 76-92 have been added.

#### Claim Objections

2. Claim 87 is objected to because of the following informalities:

Claim 87, line 3, "the light emitting diodes" lacks antecedent basis.

Appropriate correction is required.

#### Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 76-81 and 83 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No.: 2,960,094 (Small) in view of US Patent NO.: 5,954,417 (Mai).

Regarding claims 76, Small discloses umbrella apparatus (Figure 1) comprising:

A pole portion 10 for outdoor location (Figure 1, column 1, lines 16 and
 47); an umbrella portion 11 hingedly coupled to a pole portion 10 (Figure
 1, column 1, line 49); the umbrella apportion including ribs 11' - including

elements 12 – starching the top 11 (Figure 1, column 1, lines 47-50); a for a rechargeable electrical power system 35 providing power to the umbrella apparatus (Figure 1, column 2, lines 29 and 30); a solar energy system 34 including a solar collector positioned above the umbrella portion 11 (Figure 1, column2, lines 29-36); the electrical energy converted by the solar energy system conductively coupled to , and recharging the rechargeable electrical power system 35 (Figure 1, column2, lines 29-36); Positioning of the solar collector of the solar energy system 34 keeping the degree of exposure unaffected from opening and closing of the umbrella apparatus (Figure 1).

However, Small does not specifically teach the solar- powered umbrella apparatus further comprising a lighting system including a plurality of light emitting diodes "LEDs" conductively coupled to the rechargeable power system included in the umbrella apparatus.

On the other hand, Mai discloses an umbrella apparatus (Figure 1) comprising:

An umbrella portion 3 coupled to a pole 10 (Figure 1,column 2, lines 42-46); a lighting system 80" including lighting elements LEDs 83" conductively coupled to a rechargeable system 35 through wires 831" (Figures 1 and 5, column 3, lines 4-10; and column 4, lines 4-6); the LEDs 83" being recessed within the transparent rib portion 84" – transparent strips integral with the ribs have been interpreted as the rib portions-covering the LEDs 83" (Figure 5,column 4 lines 11-19).

YOT-1202-0525

Page 3

Application/Control Number: 10/650,537 Page 4

Art Unit: 2885

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the solar-powered umbrella apparatus of Small by providing the LED-based lighting system as taught by Mai for the benefits enhancing utility of umbrella apparatus by illuminating the area under the umbrella canopy portion.

Further, Small in view of Mai teaches the material covering the LEDs being transparent instead of being translucent as claimed by the applicant.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to provide translucent finish to the light transmitting covering, since it has been held that matters relating to ornamentation only which has no mechanical function cannot be relied upon to patentably distinguish the claimed invention over prior art.

Regarding claims 77, 78, Small in view of Mai teaches the LED covering material being translucent as applied to claim 76 discussed above. However, neither in combination nor individually Small and Mai specifically teaches the translucent material being smooth or textured. The above surface characteristics are considered as ornamental features not affecting mechanical function of the device.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to provide translucent surface with either smooth or textured surface finish to the light transmitting covering, since it has been held that matters relating to ornamentation only which has no mechanical function cannot be relied upon to patentably distinguish the claimed invention over prior art.

Regarding claim 79 and 80, Small in view of Mai further teaches the translucent material 84" extending beyond – width of the covering material being wider than that of

Application/Control Number: 10/650,537

Art Unit: 2885

the ribs (Figure 5) - the exterior surfaces of the rib members (Figure 5), and the conductors 831" being carried – covered along with the LEDs 83"- within the rib portion 84" (Mai, Figure 5, column 4, lines 14-18).

Regarding <u>claim 81</u>, Small in view of Mai teaches the solar energy system being operationally coupled to the rechargeable electrical power system, However, neither in combination nor individually Small and Mai specifically teach the solar energy system being <u>releasably</u> coupled to the rechargeable electrical power system.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to make the solar energy system of Small in view of Mai releasable or detachably attached to the electrical power system, since it has been held that making a component removable is a merely a matter obvious engineering choice, and involves only routine skill in the art. USPQ 348, 349 (CCPA 1961). Further, using a solar energy system, which is detachable from the rechargeable electrical power system, would facilitate repair, replacement or maintenance of the umbrella apparatus.

Regarding <u>claim 83</u>, Small in view of Mai discloses the umbrella apparatus further comprising the solar energy system 34 and rechargeable electric power system being disposed n separate housings (Figure 1, column 2, lines 30-36).

5. Claim 82 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No.: 2,960,094 (Small) in view of US Patent NO.: 5,954,417 (Mai) as applied to claim 76 above, and further in view of US Patent 2,863,466 (Small '466).

Regarding <u>claim 82</u>, Small in view of Mai discloses the outdoor umbrella apparatus including: a top housing receiving the solar energy system 35– broadly

Page 5

Application/Control Number: 10/650,537

Art Unit: 2885

Page 6

interpreted as a cap - and a rechargeable battery 35 – broadly interpreted as a rechargeable electrical power system - positioned adjacent the solar energy system 34 (Small, Figure 1).

Small further teaches that the rechargeable batteries may be positioned anywhere, including external or internal of the post 10 (Small, Figure 1, column 2, lines 28-36). However, Small does not specifically teach: the top cap used to hingedly connecting the umbrella portion to the pole portion; and the rechargeable electrical power system received in the top cap portion.

On the other hand Small '466 discloses an umbrella apparatus (Figure 1) including am umbrella portion – canopy - (not shown) supported by a plurality of ribs each connected to a top cap 27 for hingedly connecting the umbrella portion to the pole 28 (Figure 1, column 2, lines 20-29).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the umbrella apparatus of Small in view of Mia by positioning the rechargeable batteries within the housing receiving the solar energy system, since it has been held that rearranging parts of a prior art structure involves only routing skill in the art. *In re Japikse*, 86 USPQ 70. Further, positioning of rechargeable power sources – batteries – within the housing receiving a solar energy system would operate equally well, and would be compact with less wiring.

6. Claim 84 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No.: 2,960,094 (Small) in view of US Patent NO.: 5,954,417 (Mai) as applied to claim 76 above, and further in view of US Patent 5,584,564 (Phyle).

Regarding <u>claim 84</u>, Small in view of Mai discloses the outdoor umbrella comprising a rechargeable battery disposed in a housing mounted on the umbrella pole as applied to claim 76 discussed in section 3 above. However neither Small nor Mai specifically teaches the battery housing surrounding the umbrella pole as claimed by the applicant.

On the other hand, Phyle discloses an outdoor umbrella (Figures 9 and 10) comprising: batteries 60 received in a housing 10; and the housing 10 surrounding the umbrella pole 20 (Figures 9 and 10, column 3, lines 58-67; and column 4, lines 1-7).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the umbrella apparatus of Small in view of Mia by positioning the rechargeable batteries within the housing surrounding the umbrella pole as taught by Phyle for the benefits of mounting the housing with no interfere with the vertical motion of the umbrella slide, and fir easy excess for replacements of batteries.

7. Claims 85 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No.: 2,960,094 (Small) in view of US Patent NO.: 5,954,417 (Mai) and US Patent 5,584,564 (Phyle) as applied to claim 84 above, and further in view of WIPO publication WO 93/00840 (Perrier et al.).

The following examination is based on the English translation of Perrier et al. Hereafter, the above-indicated English translation has been referred as "the English translated text".

Regarding claim 85, Small in view of Mai and Phyle discloses the umbrella apparatus including a rechargeable electric power system charged with a solar energy

Application/Control Number: 10/650,537

Art Unit: 2885

system as applied to claim 84 discussed in section 5 above. However, neither in combination nor individually, Small, Mai and Phyle teaches AC-based rechargeable power system conductively coupled to at least one rechargeable battery receive power from an AC power outlet.

On the other hand, Perrier et al. discloses an outdoor umbrella apparatus (Figure 1) comprising:

A lighting powered with an electric power system via the electrical cable holder 17 connectable to electrical power system 3 – including batteries 3 – rechargeable with a solar energy system 2 – operationally a transformer is a part of the battery-charger connected to the rechargeable battery-(Figure 1, English translated abstract and text).

Further, Perrier et al. teaches the umbrella apparatus including the rechargeable electrical power system capable of receiving power from an AC power outlet through a power plug 14 (Figure 1, English translated abstract and text).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the outdoor umbrella apparatus of Small in view of Mai and Phyle by providing the rechargeable power system – operationally equipped with a transformer - receiving power from the AC power outlet as taught by Perrier et al. for the benefits of redundant power sources desirable for high operational reliability and availability of the umbrella apparatus.

Further, neither in combination nor individually Small, Mai, Phyle and Perrier specifically teaches the transformer equipped with the recharging system is releasably

Page 8

Application/Control Number: 10/650,537

Art Unit: 2885

coupled to the power system charger.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the outdoor umbrella apparatus of Small in view of Mai and Phyle by providing the rechargeable power system – operationally equipped with a releasable transformer, since, it has been held that constructing a formerly integral structure in various separable elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

8. Claims 86-89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent No. JP 9168415 (Oshio) in view of US Patent No.: 2,960,094 (Small).

The following examination is based on the English translation provided by the Advanced Industrial Property Network (AIPN) of the Japanese Patent Office. Hereafter, the above-indicated English translation has been referred as "Oshio".

Regarding claim 86, Oshio discloses an umbrella apparatus (Figures 1 and 3) comprising:

A top cap 12 coupled to a pole 4 (English translated Oshio, Figures 2a and 3b); a plurality of ribs 3 hingedly coupled to the top cap 12 (English translated Oshio, Figures 2a and 3b); a flexible canopy 2carried by the ribs 2 (English translated Oshio, Figures 2a and 3b); power supply batteries 8 energizing the umbrellas apparatus (English translated Oshio, Figures 2a and 3b)' the power supply batteries positioned below the canopy (English translated Oshio, Figures 2a and 3b); a lighting system

YOT-1202-0531

Page 9

electrically powered lighting elements LEDs 7a1-7a6, 7b1-7b6 ...... 7c6 – carried by the ribs 3, and conductively coupled to and powered by the power system 8 (English translated Oshio, Figures 2a and 3b).

Oshio teaches the power system including a battery – a power system - instead of a rechargeable power system as claimed by the applicant.

On the other hand, Small discloses an umbrella apparatus (Figure 1) comprising: a rechargeable electrical power system 35 rechargeable by a solar energy system 34 – operationally required to include a battery charger - (Figures 1 and 3, column 2, lines 28-31 and 54-64).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the outdoor umbrella apparatus of Oshio by providing rechargeable electrical power system operationally coupled with a solar energy system as taught by Small for the benefits of cost saving resulting from: the least- cost solar energy, longer operational life of batteries, and high operational reliability of the umbrella apparatus.

Regarding claims 87 and 89, Oshio in view of Small discloses the umbrella apparatus additionally including:

Wiring 9 passing through the interior portion of the pole 4 for conductively coupling light emitting diodes – LEDs-, included in the lighting system, to the rechargeable batteries (English translated Oshio, Figures 2a, 3b and 4); and

Application/Control Number: 10/650,537 Page 11

Art Unit: 2885

- The LEDs 7s positioned in recessed channel in the rib members 3 (English translated Oshio, Figures 2a, 3b and 4).

Regarding claim 88, neither in combination nor individually Oshio and Small does not specifically teach solar energy system being releasably coupled to top cap via threaded connection.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the outdoor umbrella apparatus of Oshio in view of Small by providing the solar energy system releasably coupled to the top cape with a threaded connection, it has been held that constructing a formerly integral structure in various separable elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179. Mounting of a solar energy system in releasable manner would promote cost effective replacement and maintenance of the device.

9. Claims 90-92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent No. JP 9168415 (Oshio) in view of US Patent No.: 2,960,094 (Small) as applied to Claim 86 above, and further in view of Wilson (US Patent No.; 6,058,951) and Doublet (US Patent No. US 5,373,287).

Regarding claims 90 and 91, Oshio in view of Small discloses the outdoor umbrella apparatus comprising a manually operable switch 10 (English translated Oshio, Figures 2a, 3b and 4) actuating the lighting system. However, neither in combination nor individually Small and Mai teaches the switch being remotely controllable with signals sent from a wireless transmitter to a receiver.

On the other hand, Wilson ('951) discloses a remote-controlled, outdoor umbrella apparatus (Figure 1) including: an electric motor 1 for opening and closing the umbrella (Figure 1, column 2, lines 30-41); cut-off switches 12 and 13 cutting off the power to the electrical motor operationally coupled to the umbrella actuators 5 and 15 (Figure 1, column 3, lines 5-9); the switches 12 and 13 remotely controlled by signals sent from a central control locations (Figure 1, column 1, lines 23-32).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the umbrella apparatus of Oshio in view of Small by providing remote control system as taught by Wilson ('951) for the benefits of actuating the lighting system remotely in response to weather changes.

Further, neither combined nor individual teaching of Oshio, Small and Wilson ('951) teaches the outdoor, remotely controlled, electrically powered umbrella apparatus, as discussed above, further including a remote control system operable with signals sent from a wireless transmitter to a receiver.

On the other hand, Doublet ('287) discloses a remote control system including a receiver 25 positioned the housing of an apparatus, and a wireless transmitter 9 held by the operator (Figures 1 and 2, column 3, lines 40-53).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to further modify the umbrella apparatus of Oshio in view of Small and Wilson) by providing remote control system with wireless transmitter and a receiver as taught by Doublet ('287) for the benefits of actuating the lighting system remotely in response to weather changes.

Application/Control Number: 10/650,537

Art Unit: 2885

Regarding claim 92, Oshio in view of Small, Wilson and Doublet discloses the umbrella apparatus further comprising:

The wireless command signal switching the light system- with elements LEDs 7a1-7a6, 7b1-7b6 ...... 7c6 –between varying levels of light output with light output varying circuit 11 (English translated Oshio, Figures 2a and 3b).

#### Response to Amendment

10. Applicant's arguments filed on December 10, 2007 with respect to the 35 U.S.C. 103(a) rejections of claims 21-25, 30, 33 and 70-75; and the obvious-type double patenting rejections of claims 21, 22, 24, 25 and 30 have been fully considered but they are moot as all claims have been canceled.

#### Conclusion

11. **THIS ACTION IS MADE FINAL.** 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

Page 13

Application/Control Number: 10/650,537

Art Unit: 2885

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Hargobind S Sawhney whose telephone number is 571

272 2380. The examiner can normally be reached on 8:30 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mr. Jong-Suk (James) Lee can be reached on 571 272 7044. 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).

3/14/2008

/Hargobind S Sawhney/ Primary Examiner, Art Unit 2885

Page 14

#### Application/Control No. Applicant(s)/Patent Under Reexamination KUELBS, GREGORY G. 10/650,537 Notice of References Cited Examiner Art Unit Page 1 of 1 HARGOBIND S. SAWHNEY 2885 U.S. PATENT DOCUMENTS Document Number Country Code-Number-Kind Code Date Name Classification MM-YYYY Α US-5,954,417 09-1999 Mai, Kuei Ying 362/102 US-В С US-US-D US-Ε F US-US-G US-Н US-US-J Κ US-US-US-М FOREIGN PATENT DOCUMENTS Document Number Country Code-Number-Kind Code Date Classification Country Name MM-YYYY Ν 0 Ρ Q R s Т NON-PATENT DOCUMENTS Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) U W

\*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.

U.S. Patent and Trademark Office PTO-892 (Rev. 01-2001)

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Notice of References Cited

Part of Paper No. 20080308

# Index of Claims 10650537 Examiner HARGOBIND S SAWHNEY Applicant(s)/Patent Under Reexamination KUELBS, GREGORY G. Art Unit 2885

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U.S. Patent and Trademark Office

Part of Paper No.: 20080308
YOT-1202-0538

# Index of Claims 10650537 Examiner HARGOBIND S SAWHNEY Applicant(s)/Patent Under Reexamination KUELBS, GREGORY G. Art Unit 2885

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