prior art. Claim 65 is therefore obvious under 35 U.S.C. § 103(a), and hence unpatentable, for the same reasons set forth by the Examiner in rejecting Claim 64, and further in view of the fact that making an element separable is not a patentable distinction.

C. Discussion of the prior art references submitted by Appellant in comments that the Examiner has refused to consider and has expunged from the record.

U.S. Patent No. 5,055,984 to Hung, identified in the submission that has been expunged from the record, discloses a solar-powered light (10) in which a rechargeable battery (26) charged by a solar panel (32) both reside within a common housing comprised of an upper housing (34) and base (16). The housing is supported atop a post (*see* Fig. 1).

U.S. Patent No. 6,406,163 to Yang discloses a solar-powered light comprising a solar cell panel (1) that charges a battery (30). The solar cell panel (1) is mounted atop a post (4), and the battery (30) is mounted beneath the solar panel inside the post (see, *e.g.*, Fig. 11).

U.S. Patent No. 6,729,742 to Wismuth discloses a solar powered light having a housing (2) sitting on the upper end of a pole (3). Solar cells (5) are located in the top part of the housing (2), and a module containing a battery and circuitry is also contained in the housing (2).

U.S. Patent No. 5,758,948 to Hale discloses a seasonal decoration in the general shape of a Christmas tree. Light supporting strips (12) that are C-shaped in cross-section (3:4–8) are mounted to a central supporting shaft (14). The lighting strips are movable from an extended position (Fig. 1) to a position in which they are collapsed against the pole for storage (Fig. 6). A housing (70) is located at the top of the shaft (14). Light sockets (30) are mounted in the C-shaped channel of the light supporting strips so that a bulb (15) extends outwardly. Conductors (36) extend at least partially within the C-shaped channel (see Fig. 9).

D. Claims under appeal that are unpatentable over prior art references submitted by Appellant that the Examiner has refused to consider and expunged from the record.

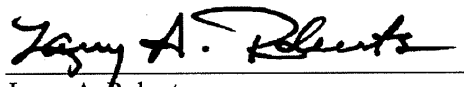
Claim 2—was allowable because of the limitation that the rechargeable electrical power system and the solar energy system be contained within a common housing. None of the prior art of record shows this feature. However, Hung and Yang, identified in the submission that has been expunged from the record, disclose a solar-powered light in which a solar energy system and a rechargeable electrical power system are contained within a common housing sitting atop a post. Because of the advantages inherent in combining solar cell and battery within a common housing, and in view of the teaching of supporting the housing atop a post, it would have been obvious to modify the combination of WO 93/00840 and Phyle by placing the solar cell and battery within a common housing atop the pole, thus rendering Claim 2 unpatentable.

(viii) ***Claims appendix***. An appendix containing a copy of the claims to be reviewed on appeal is attached as Exhibit A.

(ix) ***Evidence appendix***. None.

(x) ***Related proceedings appendix***. Appellant has no knowledge of any related proceedings.

Respectfully submitted:



Larry A. Roberts
Counsel for Southern Sales & Marketing Group, Inc.
Reg. No. 31,871

KILPATRICK TOWNSEND & STOCKTON LLP
1100 Peachtree Street
Suite 2800
Atlanta, Georgia 30309-4530
Tel. (404) 745–2409
Fax (404) 541–3368
Attorney Docket: 45639–316477

EXHIBIT A

LISTING OF CLAIMS UNDER APPEAL

2. (Amended) An umbrella apparatus comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion hingedly coupled to the pole portion;

a power module carried by the pole portion above the canopy portion, the power module having an upper portion and a lower portion;

a rechargeable electrical power system for providing electrical power to the umbrella apparatus, the rechargeable electrical power system being disposed in the lower portion of the power module;

a solar energy system carried by the [pole portion above the canopy portion] upper portion of the power module, 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 carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system.

3. (Amended - Confirmed) [The] An umbrella apparatus [according to claim 2,] comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion hingedly coupled to the pole portion;

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

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;

a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system;

wherein the lighting system comprises:

a plurality of rib members coupled to the canopy portion; and

a plurality of cold cathode tube elements carried by the rib members, each cold cathode tube element being conductively coupled to and powered by the rechargeable electrical power source.

4. (Original) The umbrella apparatus according to claim 2, wherein the lighting system comprises:

a plurality of rib members coupled to the canopy portion; and

a plurality of light emitting diode elements carried by the rib members, each light emitting diode element being conductively coupled to and powered by the rechargeable electrical power source.

5. (Original) The umbrella apparatus according to claim 2, wherein the lighting

system comprises:

a plurality of rib members coupled to the canopy portion; and

a plurality of fluorescent light elements carried by the rib members, each fluorescent light element being conductively coupled to and powered by the rechargeable electrical power source.

8. (Amended - Confirmed) [The] An umbrella apparatus [according to claim 7,] comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion hingedly coupled to the pole portion;

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

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; and

an electromechanical opening and closing system for opening and closing the canopy portion, the electromechanical opening and closing system being conductively coupled to and powered by the rechargeable electrical power system;

wherein the electromechanical opening and closing system comprises:

an electric motor carried by the pole portion;

a control system for controlling the electric motor;

a gear system coupled to the electric motor; and

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; and

wherein the control system comprises:

a receiver conductively coupled to the electric motor;

a remote transmitter for transmitting an encoded signal to the receiver; and

a decoder conductively coupled to the receiver for decoding the encoded signal from the transmitter.

10. (Confirmed) An umbrella apparatus comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion hingedly coupled to the pole portion;

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

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; and

a combination of two or more of the following modular systems:

a lighting system carried by the canopy portion;

an electromechanical opening and closing system for opening and closing the canopy portion; or

a cooling system;

wherein each modular system is configured to be interchanged with each other, each modular system being conductively coupled to and powered by the rechargeable electrical power system.

11. (Confirmed) The umbrella apparatus according to claim 10, wherein the lighting system comprises:

a plurality of rib members coupled to the canopy portion; and

a plurality of cold cathode tube elements carried by the rib members, each cold cathode tube element being conductively coupled to and powered by the rechargeable electrical power source.

12. (Confirmed) The umbrella apparatus according to claim 10, wherein the lighting system comprises:

a plurality of rib members coupled to the canopy portion; and

a plurality of light emitting diode elements carried by the rib members, each light emitting diode element being conductively coupled to and powered by the rechargeable electrical power source.

13. (Confirmed) The umbrella apparatus according to claim 10, wherein the cooling system comprises:

a fluid reservoir operably associated with the umbrella apparatus;

at least one mist nozzle coupled to the canopy portion, each mist nozzle being in fluid communication with the fluid;

a conduit creating fluid communication between the fluid reservoir and each mist nozzle; and

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

14. (Confirmed) The umbrella apparatus according to claim 10, wherein the electromechanical opening and closing system comprises:

an electric motor carried by the pole portion; a control system for controlling the electric motor;

a gear system coupled to the electric motor; and

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.

49. (New) An umbrella apparatus, comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion having a plurality of rib members, the canopy portion being hingedly coupled to the pole portion;

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

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; and

a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system;

wherein the lighting system includes multiple discrete lighting elements positioned along a rib member, each lighting element being recessed within the rib member and being conductively coupled to the

rechargeable electrical power system by an electrical conductor, the electrical conductor also being recessed within the rib member.

50. (New) The umbrella apparatus according to claim 49, wherein the lighting system includes multiple discrete lighting elements along each rib member.

52. (New) An umbrella apparatus comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion having a plurality of rib members, the canopy portion being hingedly coupled to the pole portion;

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

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; and

a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system;

wherein the lighting system includes multiple discrete lighting elements positioned along a rib member; and

wherein each lighting element is fully recessed within the corresponding rib member.

53. (New) The umbrella apparatus according to claim 52, further comprising:

a translucent cover over the lighting elements.

55. (New) The umbrella apparatus according to claim 52, further comprising:

wires for conductively coupling the lighting elements to the rechargeable electrical power source, the wires being fully recessed within the rib members.

56. (New) An umbrella apparatus, comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion having a plurality of rib members, the canopy portion being hingedly coupled to the pole portion;

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

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 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 carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system, the lighting system comprising a plurality of lighting elements carried by the rib members, each lighting element being conductively coupled to and powered by the rechargeable electrical power system;

wherein the rechargeable electrical power system and the solar energy system each form a separate component part of a power module that is carried by the pole portion above the canopy portion.

57. (New) A patio umbrella apparatus, comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion hingedly coupled to the pole portion, the canopy portion having a plurality of rib members;

a crank housing coupled to the pole portion, the crank housing being adapted to partially house a system for opening and closing the canopy portion;

a rechargeable electrical power system for providing electrical power to the umbrella apparatus, the rechargeable electrical power system being disposed below the canopy portion;

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; and

a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system, the lighting system comprising a plurality of lighting elements carried by the rib members, each lighting element being conductively coupled to and powered by the rechargeable electrical

power system via conductors, the conductors being recessed within the rib members.

58. (New) The patio umbrella apparatus according to claim 57, further comprising:

a switch carried by the crank housing for controlling the system for opening and closing the canopy portion.

60. (New) An umbrella apparatus, comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion having a plurality of rib members, the canopy portion being hingedly coupled to the pole portion;

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

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; and

a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system;

wherein the lighting system includes a plurality of lighting elements, each lighting element being recessed within a corresponding rib member and being covered by a translucent cover carried by the corresponding rib member.

61. (New) An umbrella apparatus, comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion having a plurality of rib members, the canopy portion being hingedly coupled to the pole portion;

a power unit carried by the pole portion above the canopy portion;

a rechargeable electrical power system for providing electrical power to the umbrella apparatus, the rechargeable electrical power system forming a component part of the power unit; a solar energy system for collecting solar energy and converting 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, the solar energy system also forming a component part of the power unit; and

a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system and having a plurality of lighting elements, each lighting element being carried by a rib member and being conductively coupled to the rechargeable electrical power system via a conductor carried by the corresponding rib member.

65. (New) The patio umbrella apparatus according to claim 64, wherein the discuss-shaped module is releasably coupled to the pole portion.

70. (New) An umbrella apparatus, comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion being hingedly coupled to the pole portion, the canopy portion having a plurality of rib members, each rib member having a recessed longitudinal channel;

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

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; and

a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system, the lighting system comprising a plurality of lighting elements carried by the rib members, each lighting element being disposed within the channel and being conductively coupled to and powered by the rechargeable electrical power source.

71. (New) The umbrella apparatus according to claim 70, further comprising:

a transparent cover disposed over each channel.

72. (New) An umbrella apparatus, comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion being hingedly coupled to the pole portion, the canopy portion having a plurality of rib members;

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

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; and

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

wherein the lighting system comprises:

a plurality of discrete lighting elements carried by each rib member;

wherein each discrete lighting element is conductively coupled to and powered by the rechargeable electrical power source and is recessed within a corresponding rib member, the discrete lighting elements being conductively coupled to the rechargeable electrical power system by electrical conductors, the electrical conductors also being recessed within the rib members.

74. (New) An umbrella apparatus comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion hingedly coupled to the pole portion;

a power module carried by the pole portion above the canopy portion, the power module having an upper portion and a lower portion;

a rechargeable electrical power system for providing electrical power to the umbrella apparatus, the rechargeable electrical power system being disposed in the lower portion of the power module;

a solar energy system disposed in the upper portion of the power module, 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 carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system.

EXHIBIT B

REQUESTER'S COMMENTS OF SEPTEMBER 14, 2009

(expunged from prosecution record)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Reexamination of:	)	
Gregory G. Kuelbs	)	
	)	
Control No. **95/000,104**	)	Examiner: **Margaret Rubin**
	)	
Patent No.: **6,612,713**	)	Art Unit: **3992**
	)	
Issued: **September 2, 2003**	)	
	)	
Assignee: **WORLD FACTORY, INC.**	)	

REPLACEMENT COMMENTS OF THIRD PARTY REQUESTER TO PATENT OWNER'S RESPONSE IN *INTER PARTES* REEXAMINATION AND TO OFFICE ACTION

Mail Stop Ex Parte Reexam
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Madame:

In response to the Inter Partes Reexamination Communication dated August 28, 2009, third party requester, Southern Sales & Marketing Group, Inc. ("Southern Sales"), pursuant to 37 CFR §§ 1.947 and 1.948, hereby submits its replacement comments to the "Response to Office Action in *Inter Partes* Reexamination" by the patent owner, World Factory, Inc. ("World Factory"), filed April 17, 2009.

CLAIMS 1, 47, 48, 51, AND 63 ARE UNPATENTABLE BECAUSE THEY BROADEN THE SCOPE OF THE PATENT

The Federal Circuit standard for determining whether a claim has been broadened is as follows: "A claim of a reissue application is broader in scope than the original claims if it

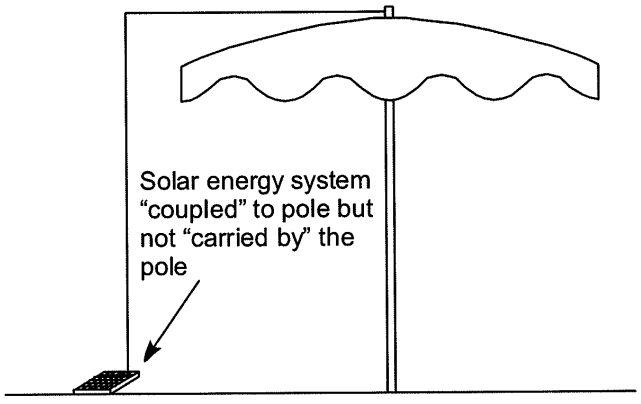
contains within its scope any conceivable apparatus or process which would not have infringed the original patent...." *Tillotson, Ltd. v. Walbro Corp.*, 831 F2d at 1037, 4 USPQ2d at 1453 n.2. The same broadening test is applied to claims in reexamination. *Anderson v. International Eng'g & Mfg.*, 160 F.3d at 1349, 48 USPQ2d at 1634.

For the purposes of the following analysis, the "conceivable apparatus" will be an apparatus that consists of the elements of the amended or new claim. If a device consisting of the elements of the amended or new claim does not infringe the patent claim, the amended or new claim impermissibly broadens the patent.

Amended Claim 1

Patent Claim 1—A device of amended Claim 1 does not infringe patent Claim 1. The device of amended Claim 1 lacks "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." Thus a device according to amended Claim 1 does not infringe patent Claim 1.

Patent Claims 2–5—A device of amended Claim 1 does not infringe patent Claims 2–5. The device of patent Claims 2–5 requires "a solar energy system carried by the pole portion." "Carried" means "to sustain the weight or burden of." Thus patent Claims 2–5 require that the weight of the solar energy system be borne by the pole portion above the canopy portion. In contrast, amended Claim 1 requires only that the solar energy system be "carried by a module coupled to the pole." Thus a hypothetical device according to amended



Claim 1 could include a module sitting on the ground beside the umbrella, coupled to the pole portion above the canopy portion but without the weight of the module being borne by the pole portion (see diagram). Thus a hypothetical device could infringe amended Claim 1 without infringing patent Claims 2–5.

Patent Claims 6–8—A device according to amended Claim 1 lacks an electromechanical opening and closing system for opening and closing the canopy portion, as required by patent Claims 6–8. Thus a device according to amended Claim 1 does not infringe patent Claims 6–8.

Patent Claim 9—A device according to amended Claim 1 lacks a cooling system as required by patent Claim 9. Thus a device according to amended Claim 1 does not infringe patent Claim 9.

Patent Claims 10–14—A device according to amended Claim 1 lacks a combination of two or more modules (lighting, cooling, canopy lift mechanism), as required by patent Claims 10–14. Thus a device according to amended Claim 1 does not infringe patent Claims 10–14.

CONCLUSION: Because a hypothetical device consisting of the limitations of amended Claim 1 would not infringe any of the claims of the original patent, Claim 1 as amended impermissibly broadens the scope of the patent and is not allowable.

New Claim 47

Patent Claim 1—A device according to new Claim 47 lacks an electrical charging system being adapted to receive power from an AC power outlet, as required by patent Claim 1. Thus a device according to new Claim 47 does not infringe patent Claim 1.

Patent Claims 2–5—A device according to new Claim 47 lacks a lighting system carried by the canopy portion, as required by patent Claims 2–5. Thus a device according to new Claim 47 does not infringe patent Claims 2–5.

Patent Claims 6–8—A device according to new Claim 47 lacks an electromechanical opening and closing system for opening and closing the canopy portion, as required by patent Claims 6–8. Thus a device according to new Claim 47 does not infringe patent Claims 6–8.

Patent Claim 9—A device according to new Claim 47 lacks a cooling system as required by patent Claim 9. Thus a device according to new Claim 47 does not infringe patent Claim 9.

Patent Claims 10–14—A device according to new Claim 47 lacks a combination of two or more modules (lighting, cooling, canopy lift mechanism), as required by patent Claims 10–14. Thus a device according to new Claim 47 does not infringe patent Claims 10–14.

CONCLUSION: Because a hypothetical device consisting of the limitations of new Claim 47 would not infringe any of the claims of the original patent, Claim 47 impermissibly broadens the scope of the patent and is not allowable.

New Claim 48

Patent Claim 1—A device according to new Claim 48 lacks an electrical charging system being adapted to receive power from an AC power outlet, as required by patent Claim 1. Thus a device according to new Claim 48 does not infringe patent Claim 1.

Patent Claims 2–5—A device according to new Claim 48 lacks a lighting system "being conductively coupled to and powered by the rechargeable electrical power system," as required by patent Claims 2–5. Thus a device according to new Claim 48 does not infringe patent Claims 2–5.

Patent Claims 6–8—A device according to new Claim 48 lacks an electromechanical opening and closing system for opening and closing the canopy portion, as required by patent Claims 6–8. Thus a device according to new Claim 48 does not infringe patent Claims 6–8.

Patent Claim 9—A device according to new Claim 48 lacks a cooling system as required by patent Claim 9. Thus a device according to new Claim 48 does not infringe patent Claim 9.

Patent Claims 10–14—A device according to new Claim 48 lacks a combination of two or more modules (lighting, cooling, canopy lift mechanism), as required by patent Claims 10–14. Thus a device according to new Claim 48 does not infringe patent Claims 10–14.

CONCLUSION: Because a hypothetical device consisting of the limitations of new Claim 48 would not infringe any of the claims of the original patent, Claim 48 impermissibly broadens the scope of the patent and is not allowable.

New Claim 51

Patent Claim 1—A device according to new Claim 51 lacks an electrical charging system being adapted to receive power from an AC power outlet, as required by patent Claim 1. Thus a device according to new Claim 51 does not infringe patent Claim 1.

Patent Claims 2–5—Patent Claims 2–5 recite "a solar energy system carried by the pole portion above the canopy portion." For the reasons set forth above with respect to amended Claim 1, a hypothetical device could infringe new Claim 51 without infringing patent Claims 2–5.

Patent Claims 6–8—A device according to new Claim 51 lacks an electromechanical opening and closing system for opening and closing the canopy portion, as required by patent Claims 6–8. Thus a device according to new Claim 51 does not infringe patent Claims 6–8.

Patent Claim 9—A device according to new Claim 51 lacks a cooling system as required by patent Claim 9. Thus a device according to new Claim 51 does not infringe patent Claim 9.

Patent Claims 10–14—A device according to new Claim 51 lacks a combination of two or more modules (lighting, cooling, canopy lift mechanism), as required by patent Claims 10–14. Thus a device according to new Claim 51 does not infringe patent Claim 9.

CONCLUSION: Because a hypothetical device consisting of the limitations of new Claim 51 would not infringe any of the claims of the original patent, Claim 51 impermissibly broadens the scope of the patent and is not allowable.

New Claim 63

Patent Claim 1—A device according to new Claim 63 lacks an electrical charging system being adapted to receive power from an AC power outlet, as required by patent Claim 1. Thus a device according to new Claim 63 does not infringe patent Claim 1.

Patent Claims 2–5—Patent Claims 2–5 recite "a solar energy system carried by the pole portion above the canopy portion." "Carried" means "to sustain the weight or burden of." Thus patent Claims 2–5 require that the weight of the solar energy system be borne by the pole portion above the canopy portion. In contrast, new Claim 63 requires only that the solar energy system be "coupled" to the pole. Thus a hypothetical device according to new Claim 63 could include a solar energy system sitting on the ground beside the umbrella, coupled to the pole portion above the canopy portion but without the weight of the solar energy system being borne by the pole portion. Thus a hypothetical device could infringe new Claim 63 without infringing patent Claims 2–5.

Patent Claims 6–8—A device according to new Claim 63 lacks an electromechanical opening and closing system for opening and closing the canopy portion, as required by patent Claims 6–8. Thus a device according to new Claim 63 does not infringe patent Claims 6–8.

Patent Claim 9—A device according to new Claim 63 lacks a cooling system as required by patent Claim 9. Thus a device according to new Claim 63 does not infringe patent Claim 9.

Patent Claims 10–14—A device according to new Claim 63 lacks a combination of two or more modules (lighting, cooling, canopy lift mechanism), as required by patent Claims 10–14. Thus a device according to new Claim 63 does not infringe patent Claims 10–14.

CONCLUSION: Because a hypothetical device consisting of the limitations of new Claim 63 would not infringe any of the claims of the original patent, Claim 63 impermissibly broadens the scope of the patent and is not allowable.

CLAIM 52 IS UNPATENTABLE FOR DOUBLE PATENTING

Claim 52 as added by patentee in the present reexamination is unpatentable over Claim 49 as added by patentee in the present reexamination under the judicially-created doctrine of double patenting.

> 49. (New) An umbrella apparatus, comprising:
> a base support portion;
> a pole portion coupled to the base support portion;

a canopy portion having a plurality of rib members, the canopy portion being hingedly coupled to the pole portion;
a rechargeable electrical power system for providing electrical power to the umbrella apparatus;
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; and
a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system;
wherein the lighting system includes multiple discrete lighting elements positioned along a rib member, each lighting element being recessed within the rib member and being conductively coupled to the rechargeable electrical power system by an electrical conductor, the electrical conductor also being recessed within the rib member.

52. (New) An umbrella apparatus comprising:
a base support portion;
a pole portion coupled to the base support portion;
a canopy portion having a plurality of rib members, the canopy portion being hingedly coupled to the pole portion;
a rechargeable electrical power system for providing electrical power to the umbrella apparatus;
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; and
a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system;
wherein the lighting system includes multiple discrete lighting elements positioned along a rib member; and
wherein each lighting element is fully recessed within the corresponding rib member.

The preamble and first six body paragraphs of each claim are identical. The only difference between the two claims is that Claim 49 recites that each lighting element is recessed within the corresponding rib member, whereas Claim 52 recites that each lighting element is fully recessed within the corresponding rib member.

The only way in which the terms "fully recessed" and "recessed" can differ is if Claim 49 covers a situation in which a lighting element is only partially recessed. However, there is no support in the specification of the '713 patent of a lighting element that is only partially recessed. All of the disclosed embodiments describe only lighting elements that are fully recessed. The term "recessed" in Claim 49 can only be interpreted to cover a lighting element that is "fully" recessed.

Because the '713 patent lacks support for any recess other than "fully" recessed, the terms "recessed" and "fully recessed" must be construed identically. Claim 49 is identical to Claim 52 and therefore constitutes double-patenting.

THE PROVISIONAL PATENT APPLICATIONS OF FEBRUARY 7, 2001, FAIL TO SUPPORT CLAIMS 1, 2, 4–7, 45–48, 51, 56, 61, 64–66, AND 74 OF THE PATENT

Patentee is not entitled to the filing dates of the provisional patent application of February 7, 2001 with respect to Claims 1, 2, 4–7, 45–48, 51, 56, 61, 64–66, and 74, because the 2/7/01 provisional application fails to disclose elements of these claims.

The 2/7/01 provisional does not disclose a "module" or "power unit" as required by Claims 1, 2, 4–7, 45–48, 51, 56, 61, 64–66, and 74. Rather, the solar cell is carried directly atop the pole. Similarly, the 2/7/01 provisional does not disclose a "rechargeable electrical power system" located above the canopy, as required by Claims 1, 2, 4–7, 45–48, 51, 56, 61, 64–66, and 74. Accordingly, these claims are not entitled to the February 7, 2001, filing date of this provisional.

THE DECLARATIONS UNDER RULE 131 ARE INSUFFICIENT TO SWEAR BEHIND THE REFERENCES

It is the patentee's responsibility to establish conception and, where necessary, diligence in reduction to practice from a time prior to the effective date of the cited references until the date of reduction to practice. Kuelbs' second Declaration, even when taken in combination with Kuelbs' first Declaration and the Quillen Declaration, fail to

establish diligence. Large blocks of unexplained inactivity remain, and the patentee has therefore failed to establish diligence.

Declarant's statements in Paragraph 2 of the Declaration are conclusory, self-serving, and uncorroborated.

Declarant's statements in Paragraph 3 of the Declaration are uncorroborated.

Declarant's statements in Paragraph 4 of the Declaration are uncorroborated.

The copy of the passport pages (Exhibit A) referenced in Paragraph 5 of the Declaration establish, at best, that Declarant visited China in July and October 1999. The passport pages do not contain any information about a solar-powered umbrella. Declarant's statements about the purpose of the trip are uncorroborated.

The notes (Exhibit B) referenced in Paragraph 6 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. Declarant's statements in Paragraph 6 of the Declaration are uncorroborated.

The notes (Exhibit C) referenced in Paragraph 7 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. Declarant's statements in Paragraph 7 of the Declaration are uncorroborated.

The notes (Exhibit D) referenced in Paragraph 8 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. Declarant's statements in Paragraph 8 of the Declaration are uncorroborated.

Paragraph 9 misstates the law. Exhibits B, C, and D are only drawings and, while possibly relevant to the issue of conception, do not constitute a reduction to practice, as they do not constitute making and using the invention and proving it useful for its intended purpose. Declarant's statements in Paragraph 9 of the Declaration are uncorroborated.

The notes (Exhibit E) referenced in Paragraph 10 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any

independent party. Declarant's statements in Paragraph 10 of the Declaration are uncorroborated.

The notes (Exhibit F) referenced in Paragraph 11 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. Declarant's statements in Paragraph 11 of the Declaration are uncorroborated.

The notes (Exhibit G) referenced in Paragraph 12 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. Declarant's statements in Paragraph 12 of the Declaration are uncorroborated.

The notes (Exhibit H) referenced in Paragraph 13 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. The notes are undated. While they bear the notation "Proposed Discussion Notes China Trip - July-Aug 99," the notes could have been prepared contemporaneously with the trip or months earlier. Declarant's statements in Paragraph 13 of the Declaration are uncorroborated.

The notes (Exhibit I) referenced in Paragraph 14 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. Declarant's statements in Paragraph 14 of the Declaration are uncorroborated.

The proposed itinerary (Exhibit J) referenced in Paragraph 15 of the Declaration is uncorroborated. Its existence prior to the critical date has not been attested to by any independent party. A proposed itinerary is not proof that a trip was ever made. The proposed itinerary contains no information about the alleged invention or any efforts to reduce it to practice. Declarant's statements in Paragraph 15 of the Declaration are uncorroborated.

The receipt for currency exchange (Exhibit K) referenced in Paragraph 16 of the Declaration establishes, at best, that Declarant was in the Hong Kong airport on October 20, 1999. Declarant's presence in the Hong Kong airport is no indicator of the purpose of

Declarant's trip and most certainly does not establish any element of the claimed invention. Declarant's statements in Paragraph 16 of the Declaration are uncorroborated.

The e-mail (Exhibit L) referenced in Paragraph 17 of the Declaration establishes, at best, that Declarant received an e-mail from an Eric Li on October 11, 1999. The e-mail does not establish any element of the claimed invention and does not even reference a stated purpose for a proposed visit. Declarant's statements in Paragraph 17 of the Declaration beyond his assertion that he received an e-mail are uncorroborated.

The e-mail (Exhibit M) referenced in Paragraph 18 of the Declaration establishes, at best, that Declarant received an e-mail from an Eric Li on October 14, 1999. The e-mail does not establish any element of the claimed invention and does not even reference a stated purpose for a proposed visit. Declarant's statements in Paragraph 18 of the Declaration beyond his assertion that he received an e-mail are uncorroborated.

The e-mail (Exhibit N) referenced in Paragraph 19 of the Declaration establishes, at best, that Declarant received an e-mail from an Eric Li on October 16, 1999. The e-mail does not establish any element of the claimed invention and does not even reference a stated purpose for a proposed visit. Declarant's statements in Paragraph 19 of the Declaration beyond his assertion that he received an e-mail are uncorroborated.

The drawings (Exhibits O, P, and Q) referenced in Paragraph 20 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. The drawings are undated. Declarant's statements in Paragraph 20 of the Declaration are uncorroborated.

The screen shot (Exhibit R) referenced in Paragraph 22 of the Declaration at best establishes that there are files on a computer bearing modified dates as shown. There is no corroboration that the screen shot has not been altered or modified. There is no corroboration that the files identified in Paragraph 22 of the Declaration relate in any way to the claimed invention.

Patentee's statements in Paragraphs 25 and 26 of the Declaration that he worked diligently on the invention 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, are uncorroborated and conclusory.

Patentee's statements in Paragraphs 27, 28, and 30 of the Declaration that he worked diligently on the invention from a date prior to 30 April, 1999, through the filing date of U.S. Provisional Application No. 60/335,933, i.e., 2 November 2001, are uncorroborated and conclusory.

Exhibit V was prepared on 26 April 2006, seven years after the events described therein. No contemporaneous notes are produced. No reason for the statement is given, leading to the inescapable conclusion that the document was produced solely for the purpose of this reexamination and, most likely, that the patentee instructed the author what to say. No specific dates are given except for July 1999, and it is unclear from the document when work on the project was discontinued. Thus the document fails to explain any period of inactivity during the critical period. Declarant's statements in Paragraph 20 of the Declaration are uncorroborated.

EVEN IF ALL OF DECLARANT'S STATEMENTS ARE *ARGUENDO* PRESUMED ACCURATE, THEY FAIL TO ESTABLISH DILIGENCE

An inventor's date of invention is his date of conception, IF he is thereafter diligent in reducing the invention to practice. The Patentee in this case seems to be alleging acts directed toward both an actual reduction to practice (making and using the invention) and a constructive reduction to practice (the filing of a patent application). To establish a valid date of invention, the Patentee must establish diligence in reducing the invention to practice from a time just prior to the effective date of a prior art reference until the filing date of the patent application. However, even if all of the facts alleged in the Patentee's § 1.131 Declaration are assumed to be correct for the sake of argument, there are large unexplained gaps of inactivity in his alleged efforts to reduce the invention to practice that preclude a date of invention any earlier than the filing date of the application.

A time line of the Patentee's activities shows the following:[1]

Date	Activity	Delay Since Previous Activity (days)
4/30/1999	Earliest possible date of conception (4, 6-8)	—
6/30/1999	Preparation of sketches of an umbrella (10)	61
7/30/1999	Trip to China (5)	30
7/31/1999	Notes in preparation for trip to China (11, 12, 13)	1
9/30/1999	Notes and sketches of umbrella (14)	61
10/11/1999	E-mail from Eric Li re Real Faith factory in China (17)	11
10/14/1999	E-mail from Eric Li re Jiangsu Metal & Minerals Import and Export (18)	3
10/16/1999	Memo from Eric Li re Mr. Bakula (19)	2
10/20/1999	Trip to China (5, 16)	4
10/23/2000	Quillen works on drawings (20, 22)	369
11/9/2000	Correspondence to patent attorney re preparation of patent application (21)	17
2/7/2001	Provisional patent application filed (23)	90

Patentee has unexplained periods of inactivity of 61, 30, 61, 369, and 90 days. Thus even if the Patentee's declaration did not suffer fatal flaws of lack of corroboration, any one of these unexplained prolonged periods of inactivity preclude a finding of diligence in reduction to practice.

For the reasons set forth above, the declarations submitted by patentee are insufficient to swear behind the references.

CLAIMS 1, 2, 4–7, 9, 47–57, 59–62, 64–66, AND 70–74 ARE UNPATENTABLE OVER THE PRIOR ART

Additional Prior Art Submitted Under 37 CFR § 1.948

For the Examiner's benefit, new prior art applicable to World Factory's amendments has been found. Pursuant to 37 CFR § 1.948, Southern Sales files herewith the following

[1] Where Patentee's Declaration does not specify a day but specifies only a month and year (*e.g.*, "6–99" in ¶ 10, "7–99" in ¶ 11), it is assumed that the event occurred on the last day of the month.

additional prior art references that address features of the amended Claims 1-5, 47–56, 59–62, 64–66, 70–72, and 74 not present in the original claims:

Patent No./App. No.	Inventor	Effective Date	Exhibit No.
5,055,984	Hung et al.	Aug. 11, 1989	13
5,758,948	Hale	July 10, 1996	14
6,406,163	T. Yang	Nov. 27, 2000	15
6,729,742	Wismeth	May 10, 2002	16

These submissions are made in response to the new amendments submitted by World Factory. Southern Sales believes that an overview of the newly submitted prior art would benefit the reexamination process.

World Factory has submitted a Second Declaration Under 37 C.F.R. § 1.131 in which the inventor swears behind the effective dates of the Cathel, Lee '856, Mai, Pan, Lee '224, Yang, Molnar, Vivian, Farr, and Lai references. The reference date alleged in the Second Declaration is April of 1999. The effective date of the newly submitted Hung and Hale prior art references predates April 1999. Thus even if the Examiner finds the Second Declaration effective in establishing a date of invention of April 1999, the new Hung and Hale prior art submissions would still constitute prior art.

U.S. Patent No. 5,055,984 to Hung et al. (hereafter "Hung") discloses a solar rechargeable lamp for outdoor use. The device contains a solar energy system (hereafter "SES") (32) that collects and converts solar energy into electrical energy, which the SES (32) stores in a rechargeable electrical system (hereafter "RES") (26, a battery) to which it is connected (Col. 3, 26-39). The two power systems are found in one housing (FIG. 5), the SES (32) found above the RES (26), which is releasably coupled to a pole (80) (See FIG. 2). The RES powers a lighting system (18)(FIG. 5).

U.S. Patent No. 5,758,948 to Hale (hereafter "Hale") discloses a seasonal light display device. The device contains an apparatus comprising a pole portion (3) and has a plurality of ribs (12) hingedly coupled to the pole portion, and a lighting system, wherein the lighting system includes multiple discrete lighting elements (15) positioned along a rib member (12), each lighting element being recessed (12, 22 and 24) within the rib member

and being conductively coupled to a electrical power system by an electrical conductor (36), the electrical conductor also being recessed within the rib member(12, 22 and 24).

If World Factory is successful in establishing a date of invention of April 1999, the newly submitted Yang and Wismeth prior art references may not constitute prior art. However, in the likely event that the Examiner finds the Second Declaration lacking, the following new prior art submissions would be highly useful in the reexamination.

U.S. Patent No. 6,406,143 to Yang (hereafter "Yang '163") (Exhibit 13) discloses a solar cell lighting fixture. The device contains a SES that collects and converts solar energy into electrical energy, which it stores in the RES to which the SES is connected (Col. 2, 62 – Col. 3, 18, FIG. 2). These two power systems are found in one module which is releasably coupled to a pole portion of the device (Col. 5, 11-18, FIG. 15). The SES is found in the upper portion of the module while the RES is found in the lower portion of the module. The RES powers a lighting system carried by the device (Col. 3, 4-10, FIG. 2).

U.S. Patent No. 6,729,742 to Wismeth et al. (hereafter "Wismeth") discloses a solar lamp for outdoor use. The device contains a solar energy system that collects and converts solar energy into electrical energy, which the SES stores in a RES to which it is connected (Col. 1, 53-59, Col. 2, 47-64). The two power systems are found in the cubic housing, the SES found above the RES (Col. 2, 38-58). The housing is coupled to a pole (Col. 2, 38-42, FIG. 1). The RES powers a lighting system (Col. 1, 53-57, Col. 2, 58-59).

Summary of Previously Presented Prior Art in View of Patentee's Amendments

While the following patents have previously been presented, a recap of their relevance is appropriate in view of the amendments made and new claims submitted by the patentee.

Phyle - U.S. Patent No. 5,584,564

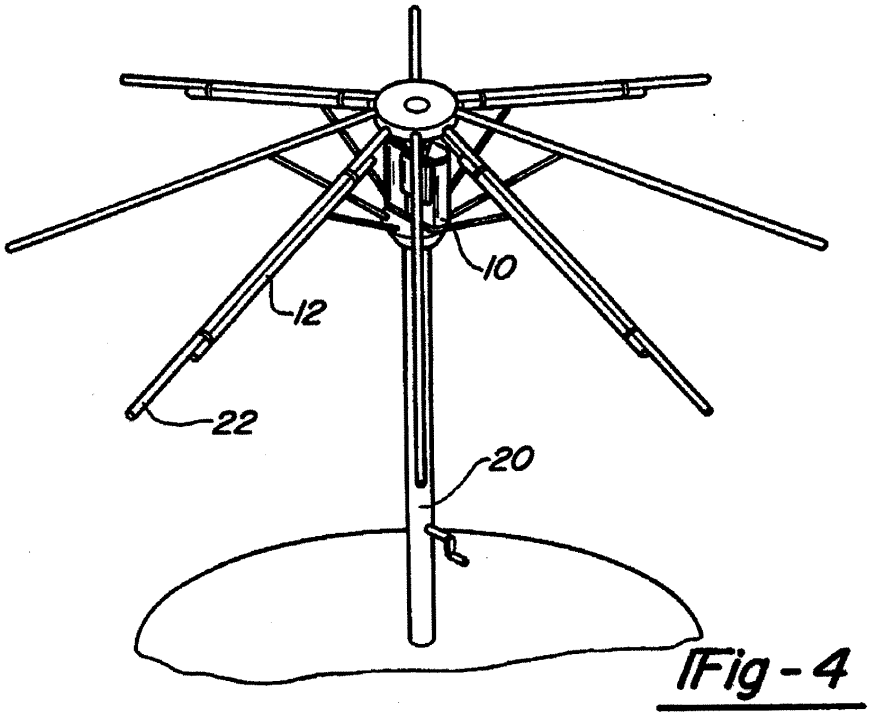


Fig - 4

Phyle discloses an apparatus that has an illumination device 12 carried by the canopy ribs. Battery (10) is rechargeable and is carried by the pole at an upper portion 20.

Valdner – US Patent No. 5,349,975

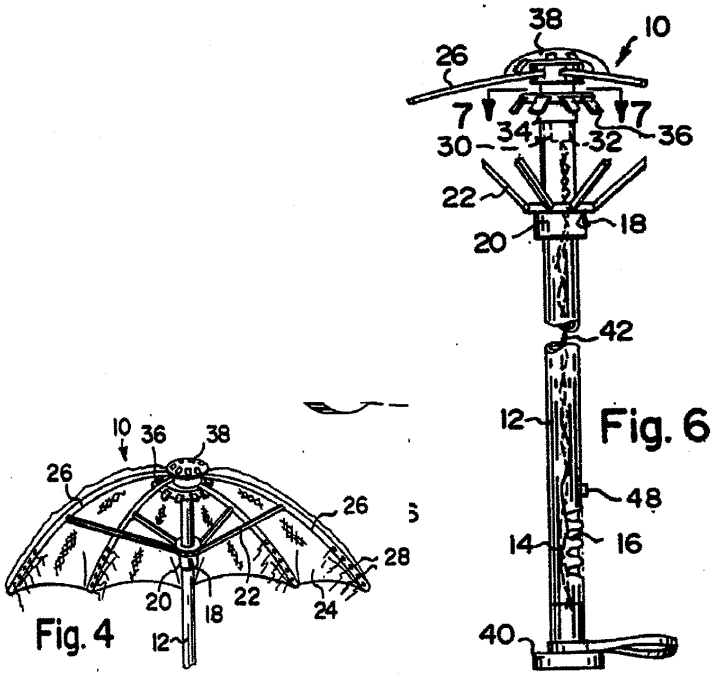


Fig. 6

Fig. 4

Valdner includes a solar power electrical system 38 found above the canopy 24, and carried by the rod (pole) 12. The solar power electrical system 38 has a discus-shape. The apparatus has a rechargeable battery pack that can be connected at the bottom 40 of the rod 12.

WO 93/00840

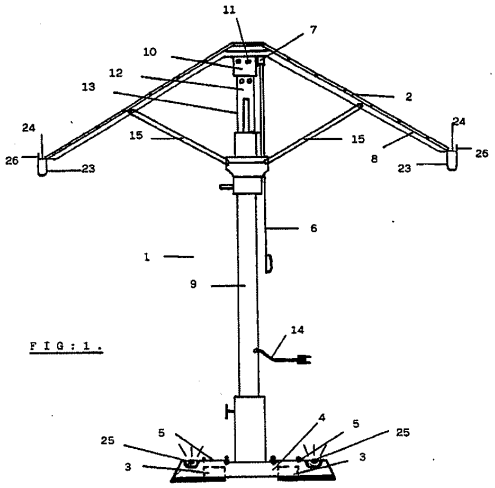


FIG:1.

Includes a solar collector 2 carried by the canopy that charges batteries 3 in the base 4. The batteries 3 can power a light 12.

Benton - U.S. Patent No. 6,017,188

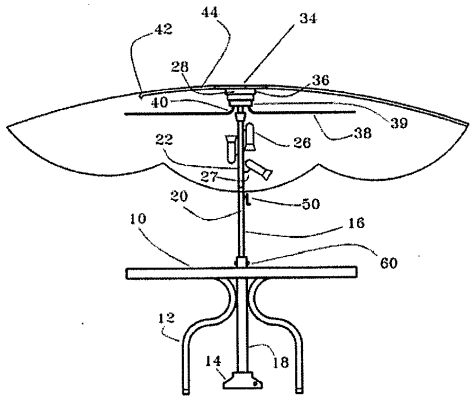


FIG. 1

Benton describes an umbrella supported by an upper portion 22 of a pole. The pole 22 supports lights 26. A solar panel 34 positioned on top of the canopy of the umbrella can

power a motor 36 of a fan 28. The motor and lights may be powered through an AC connection 27.

Walker – US Patent No. 5,911,493

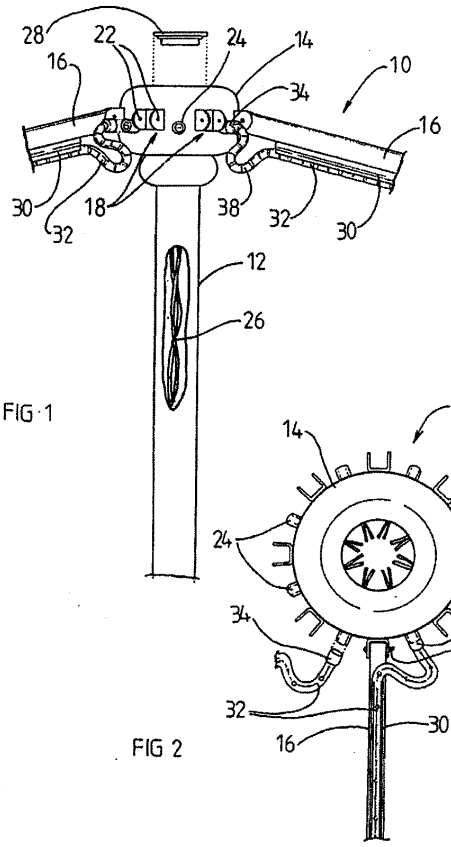


FIG 1

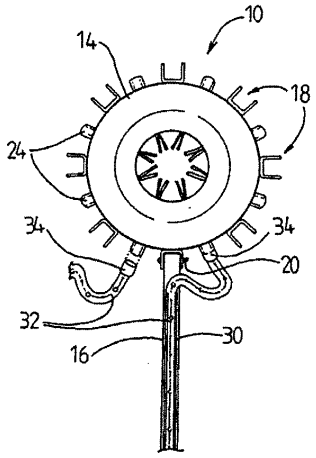


FIG 2

Walker discloses an umbrella 10 that includes hollow tubes 30 that carry light ropes 32 carried by the ribs 16 of the umbrella 10.

Small – US Patent No. 6,126,293

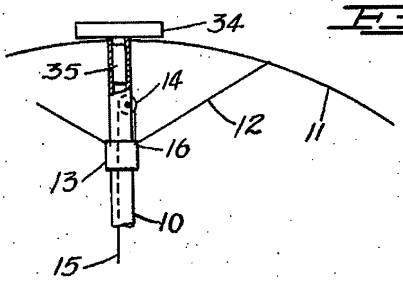
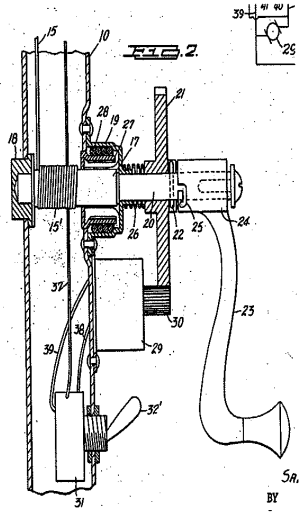
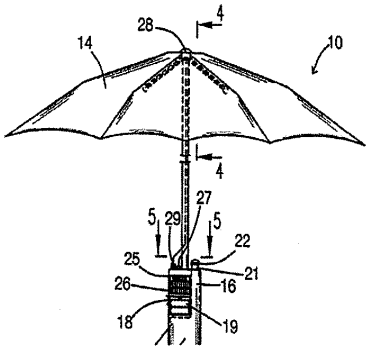


FIG. 1.



Small discloses an umbrella supported by a post 10. The umbrella employs a motor 29 to open and close the canopy. The motor may be powered by a solar battery 34 and a storage battery 35. The solar battery 34 charges the storage battery 35. The storage battery 35 may be found in other positions along the post 10. However, as shown in FIG. 1, the storage battery 35 is located below the solar battery 34 and is carried by the upper portion of the post 10.

Farr – US Patent App. Pub. No. 2002/0078985



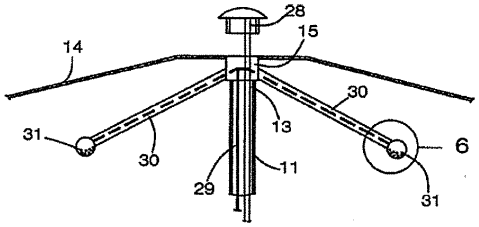


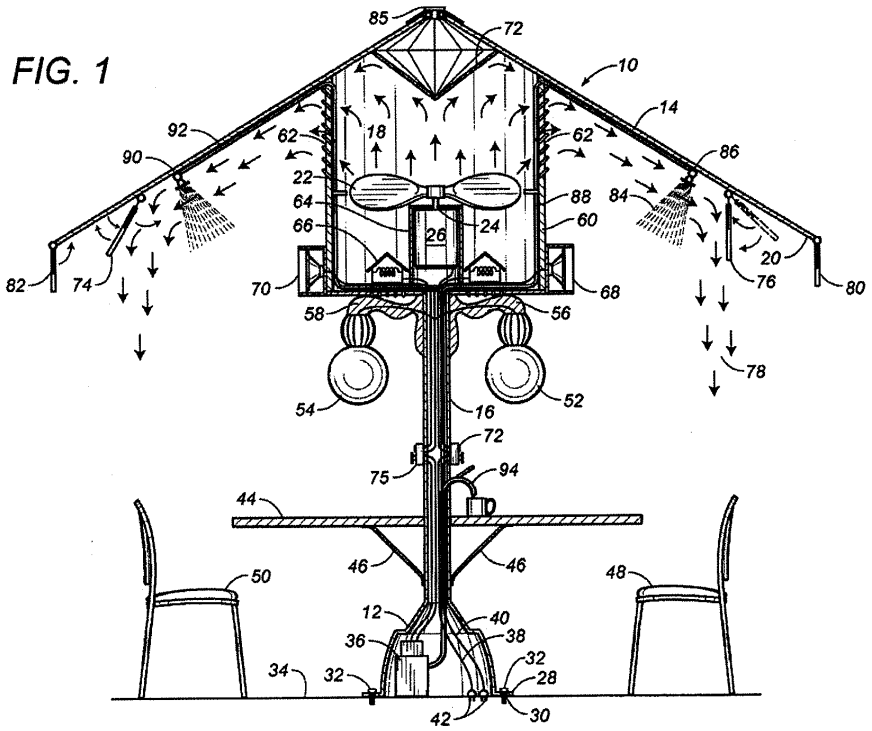
FIG. 4

US2000 11503020.1

Farr discloses an umbrella 10 with a cooling device. A tube supports the canopy 14 of the umbrella. The cooling device 16 is carried by the tube and may be detached from the tube. A battery 19 is contained within the cooling device 16, and is connected to a solar collector 28. The solar collector 28 is detachably connected to the tube, as shown in FIG. 4.

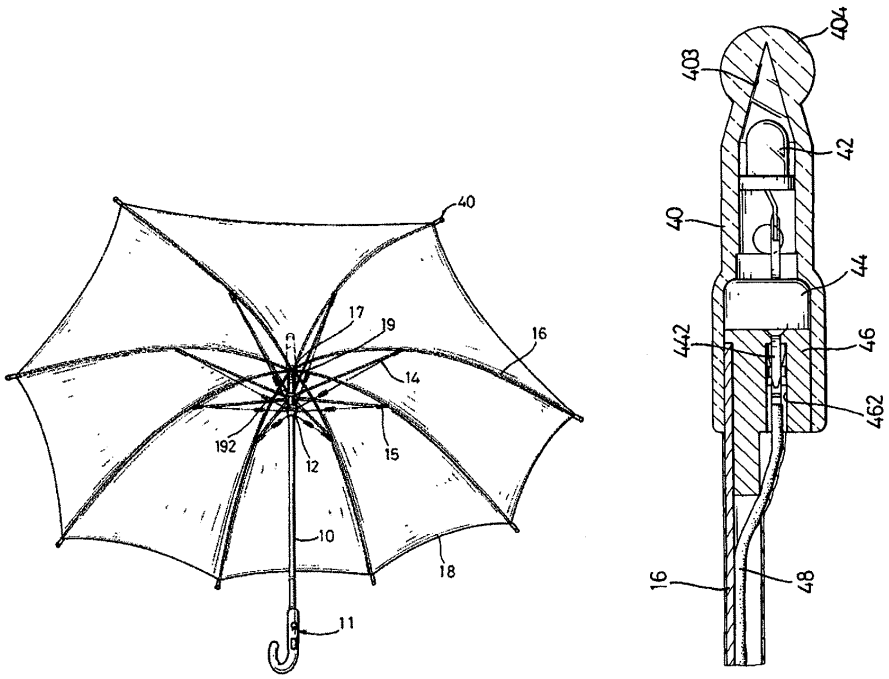
Molnar – US Patent No. 6,298,866

FIG. 1



Molnar discloses an umbrella 10 that includes a fan 18 and lights 54. A battery 36 that powers the fan and lights may be housed in the base 12 of the umbrella 10.

Yang – US Patent No. 6,341,873



Yang discloses an umbrella that has illumination devices mounted above the canopy 18 and in the tips 40 of each rib 16. The illumination device 40 includes a transparent tip 40 and an LED 42, so arguably, the LED 42 is within the rib 16.

Lee - US Patent No. 6,666,224 and 6,499,856

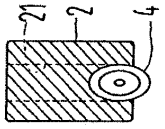


FIG. 4

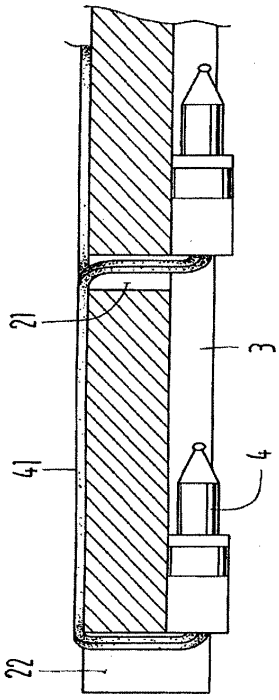
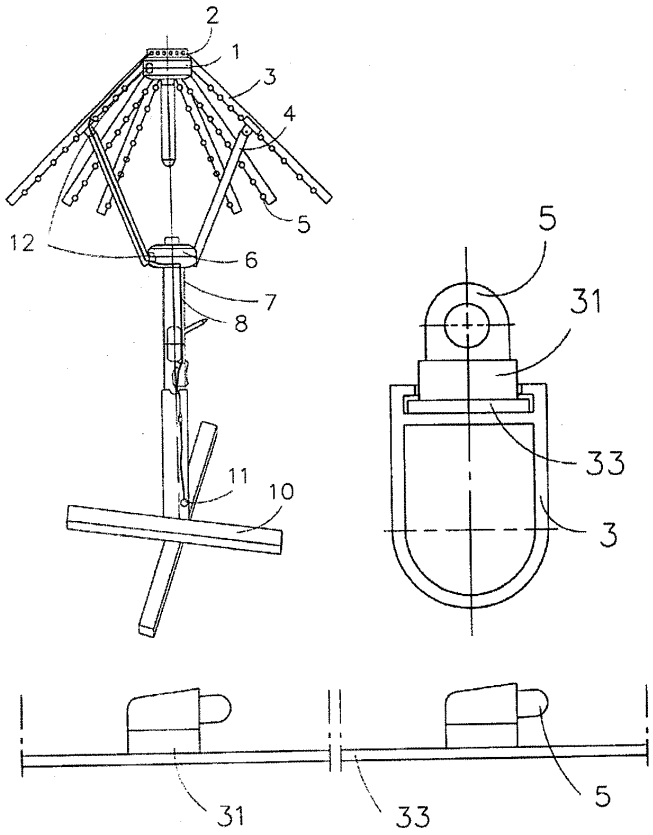


FIG. 3

Lee discloses an umbrella that has a plurality of ribs 2 with trenches 3 throughout the bottoms of the ribs 2. Lamps 4 are partially retained within the trenches 3 of the ribs 2.

Pan et al. – US Patent No. 6,439,249



Pan et al discloses an umbrella that includes a plurality of hollow ribs 3. Along each rib is a trench (32, not shown in these figures) that retain light sources 5. The light sources may be connected with an illuminating connector 31.

Cathel – US Patent No. 6,299,325

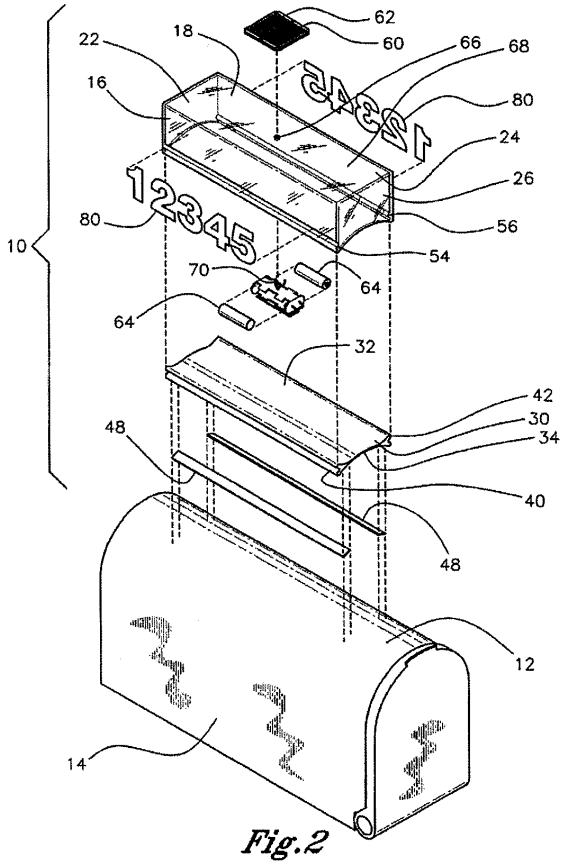


Fig.2

Cathel discloses an illuminated mailbox address device 10. The device 10 is powered by a solar cell 60 that recharges a battery 64. LEDs (not shown) may be used to illuminate the device.

Rushing – US Patent No. 5,053,931

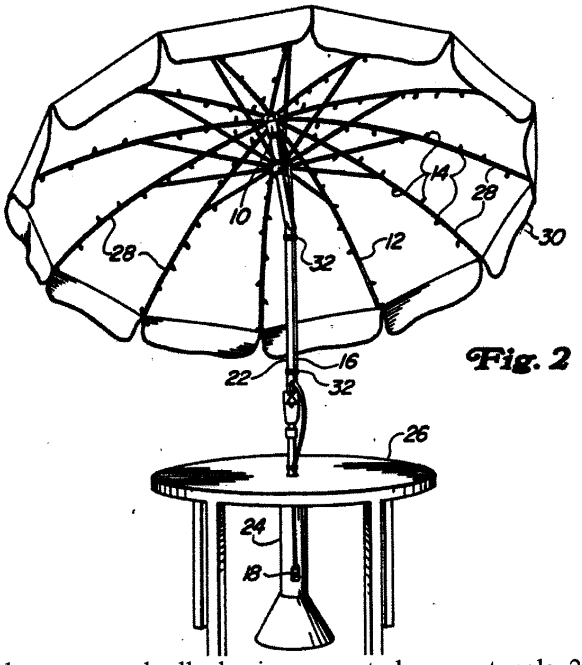
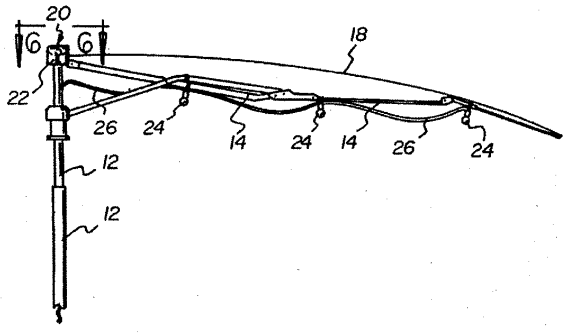


Fig. 2

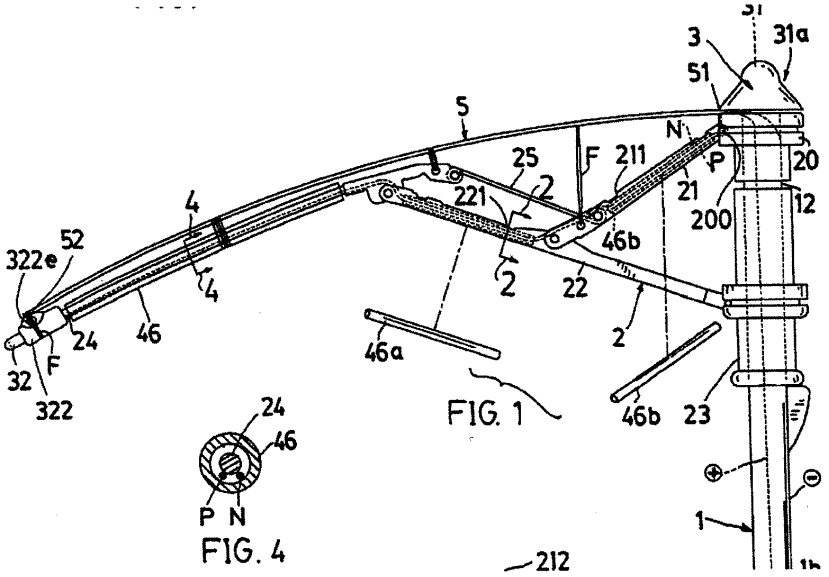
Rushing discloses an umbrella having a central support pole 22 that supports a plurality of ribs 28 that support a canopy 30. Light strings 12 with miniature lights 14 are attached to the ribs 28.

Morgan - US Patent No. 5,611,614



Morgan discloses an umbrella 20 with a plurality of ribs 14 that support a canopy 18 and electrical bulbs 24 and electrical connectors 26.

Wu – US Patent No. 6,126,293



Wu discloses an umbrella that has rib members 24 that have tip illuminators 32. The tip illuminators 23 may be LEDs.

REJECTIONS UNDER 35 U.S.C. §§ 102 AND/OR 103

The Rejection of Claim 1 under Combination I

The Office Action rejected Claim 1 as being obvious and unpatentable over WO 93/00840 and Valdner which was designated Combination I. In response, World Factory amended Claim 1 by adding these limitations: 1) a canopy portion has a plurality of rib members; 2) the SES is carried by a module coupled to the pole portion above the canopy portion; 3) the module is releasably coupled to the pole portion; and 4) the lighting system is carried by the canopy portion and coupled to and powered by the RES. Additionally, World

Factory deleted the requirement that the RES be adapted to receive power from an AC power outlet.

The introduction of these limitations fails to overcome the § 103(a) rejections over Combination I. WO 93/00840 and Valdner both disclose a canopy having a plurality of ribs. WO 93/00840 discloses an umbrella having a base 4, a pole 9, a canopy carried by the pole, and a solar collector 2 carried by the canopy that charges batteries 3 in the base 4. The batteries 3 can power a light 12. WO 93/00840 fails to show a lighting system carried by the canopy portion. In Valdner, the ribs carry the ventilation shafts. It would be obvious to a person of ordinary skill in the art at the time of the invention of the '713 patent to have the lighting system of WO 93/00840 carried by ribs such as those of Valdner, which carries the ventilation shafts along its ribs. Additionally, Valdner's solar cell is connected to the rechargeable system, so that the absence of the electrical system being able to receive power from an AC outlet would be a trivial change on their devices. Logically, the solar power system must be located at a position in which it may receive solar power. If the solar power system is located on the umbrella device, the solar panel may only be located on top of the umbrella, which can be either on the canopy itself or the pole portion of an umbrella, which would be obvious to a person skilled in the art. Finally, the solar portion being releasably coupled to the pole portion is not a novel concept. A component being releasably coupled to any device is ubiquitous.

The Rejection of Claim 1 under Combination I in view of Hung

Claim 1 is further unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination I in view of Hung. The teachings of Combination I are discussed in the preceding paragraph. Hung discloses a SES that is releasably coupled to a pole portion. Hung discloses a solar panel (32) on the upper portion of the housing for the light (10) which is removable from the pole portion (80). Thus, to the extent that Combination I does not expressly disclose a solar panel removably mounted to the upper portion of a pole, Hung provides this missing teaching. Claim 1 is therefore unpatentable under 35 U.S.C. § 103(a) as being obvious over Combination I in view of Hung.

The Rejection of Claims 2, 5 and 74 under Combination II

The Office Action rejected Claims 2 and 5 as being obvious and unpatentable over WO 93/00840 and Phyle, which was deemed Combination II. In response, World Factory amended Claim 2 by adding these limitations: 1) a power module is carried by the pole portion above the canopy portion; 2) the power module has an upper portion and a lower portion; 3) the SES is carried by the upper portion of the module; and 4) the RES is disposed in the lower portion of the power module. No amendments were made to Claim 5, which is dependent on claim 2. The only additional limitation of Claim 5 is the canopy has a plurality of rib members and that each rib member carries a fluorescent light.

These amendments fail to overcome the 35 U.S.C. § 103(a) rejections based on WO 93/00840 and Phyle. In addition, Claim 74 claims the same elements and has identical amendments, so it too should be found rejected based upon Combination II as well. The changes to the claims mean that the SES and the RES naturally reside in one singular component, with the SES found over the RES that is located on top of a patio umbrella. Such a combination would be obvious to a person skilled in the art. For the SES to convert light into electrical energy, it must have access to light. Accordingly, the SES must be above the canopy portion, either on the canopy itself or on the pole portion supporting the canopy. Additionally, placing the RES below the SES would be obvious as well; placing the RES above the SES would block sunlight from reaching the SES, preventing the SES from operating. Combining the SES and RES in one power module is obvious to a person skilled in the art because combining the two systems into one module greatly reduces the need for wire to connect the two systems as well as increases the ease of access to repair of the electrical systems. For Claim 5, both references disclose a canopy with multiple rib members. One skilled in the art would find it obvious to have the lighting system carried by the rib members, especially the use of fluorescent lights. Phyle itself carries fluorescent lights.

The Rejection of Claims 2, 5 and 74 under Combination II in view of Hung

Alternately, Claims 2, 5 and 74 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination II and further view of Hung. Combination II discloses all the elements of Claim 2 and 74 except for the amendments above, but Hung discloses a SES and a RES in a power module that is carried by a pole, the SES found in the upper portion and the RES found in the lower portion of the module. Accordingly, a person skilled in the art would find it obvious to modify Combination II by adding the power module carried by a pole, as taught by Hung. Additionally, claims 2 and 74 are identical. As such, one or the other should be cancelled even if the claims are allowed.

Claim 5 adds only the limitations that ribs are attached to the canopy, and fluorescent lights are mounted to the ribs. The type of lighting used, whether incandescent, fluorescent, LED, or the like is a trivial modification. And because of the elongated structure of fluorescent bulbs, mounting them to the umbrella ribs would be an obvious expedient. Claim 5 is thus also obvious over Combination II in view of Hung.

The Rejection of Claims 2, 5 and 74 under Combination II in view of Yang '163 or Wismeth

If the Examiner finds World Factory's § 131 Declaration lacking, Claims 2, 5, and 74 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination II in further view of Yang '163 or Wismeth. Both Yang '163 and Wismeth disclose a SES and a RES in a power module that is carried by a pole, the SES found in the upper portion and the RES found in the lower portion of the module. Because an SES, if mounted to the umbrella, must be mounted above the canopy if it is to be exposed to sunlight, it would have been obvious to one of ordinary skill in the art to have mounted a SES and a RES in a power module carried by the pole, as taught by Yang '163 or Wismeth, and to affix it to a portion of the pole above the canopy so it will be exposed to sunlight. Claims 2, 5, and 74 are therefore obvious, and therefore unpatentable, over Combination II in view of Yang '163 or Wismeth.

Claim 5 adds only the limitations that ribs are attached to the canopy, and fluorescent lights are mounted to the ribs. The type of lighting used, whether incandescent, fluorescent, LED, or the like is a trivial modification. And because of the elongated structure of fluorescent bulbs, mounting them to the umbrella ribs would be an obvious expedient. Claim 5 is thus also obvious over Combination II in further view of Yang '163 or Wismeth.

The Rejection of Claims 2, 5 and 74 under Combination III

The Office Action rejected Claims 2, 5, and 74 as being unpatentable over Phyle and Valdner which was deemed Combination III. In response, World Factory amended Claims 2 and 74 by adding these limitations: 1) a power module carried by the pole portion above the canopy portion; 2) the power module has an upper portion and a lower portion; 3) the SES is carried by the upper portion of the module; and 4) the RES is disposed in the lower portion of the power module. No amendments were made to Claim 5, which is dependent on claim 2. The only additional limitation of Claim 5 is that the canopy has a plurality of rib members and that each rib member carries a fluorescent light. For Claim 5, both references disclose a canopy with multiple rib members. Phyle discloses fluorescent lights (12) attached to its rib members.

These amendments fail to overcome the 35 U.S.C. § 103(a) rejections as being obvious and unpatentable over Phyle and Valdner. The changes to the claims mean that the SES and the RES reside in one singular component, with the SES found over the RES that is located on top of a patio umbrella. Such a combination would be obvious to a person skilled in the art. For the SES to convert light into electrical energy, it must be exposed to light. As such, the SES must be above the canopy portion, either on the canopy itself or on the pole portion supporting the canopy. Additionally, having the RES below the SES would be obvious as well, as having the RES above the SES would prevent the SES from receiving sunlight and thereby prevent its operation. Combining the SES and RES in one power module is obvious to a person skilled in the art because combining the two systems into one module greatly reduces the need for wire to connect the two systems as well as increases the ease of access to repair of the electrical systems.

The Rejection of Claims 2, 5 and 74 under Combination III in view of Hung

Alternately, Claim 2, 5, and 74 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination III in view of Hung. Combination III discloses all the elements of former Claims 2 and 74. As to the features added by amendment, Hung discloses a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to modify Combination III by placing the SES and RES in a single module carried by a pole, as taught by Hung. When combined with Combination III, accordingly, a person skilled in the art would see this combination as obvious.

Claim 5 adds only the limitations that ribs are attached to the canopy, and fluorescent lights are mounted to the ribs. The type of lighting used, whether incandescent, fluorescent, LED, or the like is a trivial modification. And because of the elongated structure of fluorescent bulbs, mounting them to the umbrella ribs would be an obvious expedient. Claim 5 is thus also obvious over Combination III in view of Hung.

Claims 2, 5 and 74 are unpatentable under Combination III in view of Yang '163 or Wismeth

If the Examiner finds World Factory's § 131 Declaration lacking, Claim 2, 5 and 74 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination III in view of either Yang '163 or Wismeth. Combination III discloses all the elements of Claim 2 and 74 and Yang '163 and Wismeth disclose a SES and a RES in a singular module that is carried by a pole. When combined with Combination III, accordingly, a person skilled in the art would see this combination as obvious.

Claim 5 adds only the limitations that ribs are attached to the canopy, and fluorescent lights are mounted to the ribs. The type of lighting used, whether incandescent, fluorescent, LED, or the like is a trivial modification. And because of the elongated structure of fluorescent bulbs, mounting them to the umbrella ribs would be an obvious expedient. Claim 5 is thus also obvious over Combination III in view of either Yang '163 or Wismeth.

Claims 2 and 4 are unpatentable under Combination IV

The Office Action rejected Claims 2 and 4 as being unpatentable over WO 93/00840 and Pan or Wu or JP 9-168415 or Mai or Yang which was deemed Combination IV. In response, World Factory amended Claim 2 by adding these limitations: 1) a power module carried by the pole portion above the canopy portion; 2) the power module has an upper portion and a lower portion; 3) the SES is carried by the upper portion of the module; and 4) the electrical power system is disposed in the lower portion of the power module. Lastly, World Factory submitted a Declaration in which the inventor attempts to swear behind Mai, Pan, and Yang.

World Factory has failed to overcome the 35 U.S.C. § 103(a) rejections as being obvious and unpatentable over WO 93/00840 and Wu or JP-9-168415. The changes to the claims mean that the SES and the RES reside in one singular component, with the SES found over the RES that is located on top of a patio umbrella. Such a combination would be obvious to a person skilled in the art. For the SES to convert light into electrical energy, it must have access to light. As such, the SES must be above the canopy portion, either on the canopy itself or on the pole portion supporting the canopy. Additionally, having the RES below the SES would be obvious as well; having the RES above the SES would prevent the SES from receiving light and thereby preventing its operation. Combining the SES and RES in one power module is obvious to a person skilled in the art because combining the two systems into one module greatly reduces the need for wire to connect the two systems as well as increases the ease of access to repair of the electrical systems.

No amendments were made to Claim 4, which is dependent on Claim 2. The only additional limitation of Claim 4 is that the canopy has a plurality of rib members which carries the lighting system and that the rib members carry a plurality of light emitting diodes coupled to the RES. For Claim 4, the references disclose a canopy with multiple rib members and the use of lighting devices. All but WO 93/00480 disclose using light emitting diodes in various positions, some specifically on the ribs. As such, the arguments above that apply to Claim 2 apply to Claim 4.

Claims 2 and 4 are unpatentable under Combination IV in view of Hung

Alternately, Claim 2 and 4 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination IV in view of Hung. Combination IV discloses all the elements of former Claims 2 and 4, and Hung discloses the new elements added by the amendments: a SES and a RES in a singular module that is carried by a pole, the SES found in the upper portion and the RES found in a lower portion. It would have been obvious to a person skilled in the art to modify Combination IV by substituting a SES and a RES in a singular module that is carried by a pole, as taught by Hung, and thereby construct the invention of Claims 2 and 4.

The Rejection of Claims 2 and 4 under Combination IV in view of Yang '163 or Wismeth

If the Examiner finds the Declaration lacking, Claims 2 and 4 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Combination IV in view of either Yang '163 or Wismeth. Combination IV discloses all the elements of former Claims 2 and 4, and Yang '163 and Wismeth disclose the limitations added by the recent amendments: a SES and a RES in a singular module that is carried by a pole. A person of ordinary skill in the art would have found it obvious to modify Combination IV by adding a SES and a RES in a singular module that is carried by a pole, as taught by Yang '163 or Wismeth, and thereby construct the claimed invention. Claims 2 and 4 are therefore unpatentable.

The Rejection of Claim 4 under Combination V

The Office Action rejected Claim 4 as being unpatentable over Phyle and Valdner and Wu or Pan or JP-9-168415 or Mai or Yang, which was deemed Combination V. Claim 4 was not amended; however, Claim 4 remained dependent upon Claim 2, which was amended as stated above. As such, it includes the limitations of Claim 2. For Claim 4, the limitations disclose a canopy with multiple rib members and the lighting elements being LEDs. Also, World Factory submitted a Declaration in which the inventor attempts to swear behind Mai, Pan, and Yang.

These amendments fail to overcome the 35 U.S.C. § 103(a) rejections as being obvious and unpatentable over Combination V. The changes to the claims mean that the SES and the RES reside in one singular component, with the SES located over the RES that is located on top of a patio umbrella. Such a combination would be obvious to a person skilled in the art. For the SES to convert light into electrical energy, it must have access to light. As such, the SES must be above the canopy portion, either on the canopy itself or on the pole portion supporting the canopy. Additionally, having the RES below the SES would be obvious as well; having the RES above the SES would prevent the SES from receiving light and thereby preventing its operation. Combining the SES and RES in one power module is obvious to a person skilled in the art because combining the two systems into one module greatly reduces the need for wire to connect the two systems as well as increases the ease of access to repair of the electrical systems.

Claim 4 is unpatentable over Combination V in view of Hung

Alternately, Claim 4 is unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination V in view of Hung. Combination V discloses all the elements of previous Claim 4. Hung discloses a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to have modified Combination V by providing a SES and a RES in a single module that is carried by a pole, as taught by Hung. Locating the module on the pole above the canopy is an obvious step, because a module located beneath the canopy would not be exposed to sunlight and could not collect energy. Claim 4 is therefore unpatentable as obvious over Combination V in view of Hung.

Claim 4 is unpatentable over Combination V in view of either Yang '163 or Wismeth

If the Examiner finds the Declaration lacking, Claim 4 is unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination V in view of either Yang '163 or Wismeth. Combination V discloses all the elements of former Claim 4. Yang '163 and Wismeth disclose a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to have modified Combination V by providing a SES and a RES in a single module that is carried by a pole, as taught by either

Yang '163 or Wismeth. Locating the module on the pole above the canopy is an obvious step, because a module located beneath the canopy would not be exposed to sunlight and could not collect energy. Claim 4 is therefore unpatentable as obvious over Combination V in view of either Yang '163 or Wismeth.

The Rejection of Claims 49, 50 and 72 under Combination VIII (A)

The Office Action rejected Claims 49, 50 and 72 as being unpatentable over WO 93/00840 and Morgan or Rushing or Pan or JP 9-168415 or Mai which was deemed Combination VIII (A). World Factory responded by amending claims 49 and 72 by adding this limitation: each lighting element is recessed within the rib member and is conductively coupled to the rechargeable electrical power system by an electrical conductor that is also recessed within the rib member. Claim 50 was not amended, but is dependent on Claim 49, therefore taking in the limitation. In addition, World Factory submitted a Declaration in which the inventor attempted to swear behind Mai and Pan.

This amendment fails to overcome the 35 U.S.C. § 103(a) rejections as being obvious and unpatentable over Combination VIII(A). The amendments to the claims relate to the positioning of lighting elements and wires within the rib members. Such an element would be obvious to a person skilled in the art in light of Combination VIII (A). The lighting elements and connecting wires must be carried by a reinforced structure of a canopy, which would be the rib members. Safety issues would make it obvious not to have wires protruding from the rib members. As such, the logical solution would be to recess the wires and lighting elements within the rib members.

Claims 49, 50 and 72 are obvious over Combination VIII (A) in view of Hale or Wu or Walker

Alternatively, Claims 49, 50 and 72 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination VIII (A) in view of Hale or Wu or Walker. Wu specifically discloses a recessed rib (21) into which the lighting elements (32) and wires (P and N) are recessed. Hale also discloses lighting elements (15) and wires (36) that are recessed into the rib members (12). Walker discloses lighting elements and wires

(32) that are recessed into channels (30) along the underside of the rib (16). It would have been obvious, and hence unpatentable, for a person skilled in the art to have modified Combination VIII(A) by recessing the wires and lighting elements into the rib members, as taught by either Hale or Wu or Walker. Claims 49, 50, and 72 are therefore unpatentable.

Claims 49, 50 and 72 are obvious over Combination VIII (A) in view of Lee '224 or Lee '856

If the Examiner finds the Rule 1.131 Declaration lacking, Claims 49, 50 and 72 are unpatentable under U.S.C. § 103(a) as being obvious and unpatentable over Combination VIII (A) in view of Lee '224 or Lee '856. Former Claims 49, 50, and 72 have already been rejected as obvious over Combination VIII(A). Claims 49, 50, and 72 have now been amended to add the limitations that each lighting element is recessed within the rib member and is conductively coupled to the rechargeable electrical power system by an electrical conductor that is also recessed within the rib member. Lee '224 and Lee '856 disclose an umbrella that has a plurality of ribs 2 with trenches 3 throughout the bottoms of the ribs 2. Lamps 4 are partially retained within the trenches 3 of the ribs 2. Both Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into the rib members with the wires connected to a rechargeable power source. It would have been obvious to a person skilled in the art to have modified Combinaton VIII(A) by providing trenches in the bottoms of the ribs, with lighting elements and associated wiring recessed into the trenches as taught by Lee '224 and Lee '856 and thereby construct the claimed invention. Claims 49, 50, and 72 are therefore unpatentable under § 103(a).

The Rejection of Claims 51 and 55 under Combination VIII (B) in view of Wu or Hale

The Office Action rejected Claims 51 and 55 as being unpatentable over WO 93/00840 and Lee '856 which was deemed Combination VIII (B). Claim 51 was originally dependent on Claim 49, but World Factory amended Claim 51 to become independent, and incorporated the limitations of Claim 49, except that a single lighting element has replaced a plurality of lighting elements along a rib member. These additional limitations were added as well: 1) a translucent cover for covering the lighting elements; 2) the SES carried by a power

unit coupled to the pole portion above the canopy portion; and 3) a portion of each lighting element extends beyond the corresponding rib member. Claim 55 was amended to depend from Claim 52, which is identical to Claim 51 except that it claims the lighting elements are fully recessed within the rib member. Claim 55 further claims that each wire is fully recessed within the rib member. In addition, World Factory submitted a Declaration in which the inventor attempts to swear behind Lee '856.

Claims 51 and 55 as amended are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination VIII(B) in view of Wu or Hale. The amendments made disclose the solar power system coupled to the pole portion in a removable manner. Hung has the same configuration. Alternatively, having an item coupled to another item is ubiquitous. Wu and Hale both disclose lighting elements that extend beyond the ribs. Additionally, whether a lighting element is fully recessed or extended from a rib does not have an inventive value. Wu has a translucent cover (322) that covers the lighting element (32). The wire elements for Wu and Hale are recessed within the rib members.

It would have been obvious to a person skilled in the art to modify Combination VIII(B) by coupling one item to another, to have lighting elements that extend beyond the ribs as taught by Wu or Hale, to recess wires within the rib members as taught by Wu or Hale, and to provide a translucent cover that covers a lighting element, as taught by Wu. Claims 51 and 55 are therefore unpatentable as obvious over § 103(a).

The Rejection of Claim 54 under Combination VIII(C)

The Office Action rejected Claim 54 as being unpatentable over WO 93/00840 and Pan or JP 9-168415 or Mai, which was deemed Combination VIII(C). World Factory did not amend Claim 54, but did amend Claim 49, from which Claim 54 depends. Claim 49 was amended by adding these limitations: 1) each lighting element is recessed within the rib member; and 2) is conductively coupled to the rechargeable electrical power system by an electrical conductor that is also recessed within the rib member. Claim 54 adds the limitation

that the lighting elements are each an LED. In addition, World Factory submitted a Declaration in which the inventor attempts to swear behind Pan and Mai.

Even if Pan and Mai are removed as references, these amendments fail to overcome the 35 U.S.C. § 103(a) rejections as being obvious and unpatentable over WO 93/00840 and JP 9-168415. The amendments to the claims relate to the positioning of lighting elements and wires within the rib members. The lighting elements and connecting wires must be carried by a reinforced structure of a canopy, which would be the rib members. Safety issues would make it obvious not to have protruding wires from the rib members. As such, the logical solution would be to recess the wires and lighting elements within the rib members. Such an element would be obvious to a person skilled in the art in light of WO 93/00840 and JP 9-168415.

Claim 54 is unpatentable over WO 93/00840 and JP 9-168415 in view of either Hale or Wu

Alternatively, Claim 54 is unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over WO 93/00840 and JP 9-168415 in view of either Hale or Wu. Wu specifically discloses a recessed rib (21) into which the lighting elements (32) and wires (P and N) are recessed. Hale also discloses lighting elements (15) and wires (36) that are recessed into the rib members (12). JP 9-168415 discloses using LEDs. A person skilled in the art would find it obvious to modify WO 93/00840 and JP 9-168415, which show all of the features of former Claim 54, by providing a recessed channel with the ribs into which the lighting elements and wires are recessed, as taught by Hale or Wu. Claim 54 is therefore unpatentable as obvious over WO 93/00840 and JP 9-168415 in view of either Hale or Wu.

If the Examiner finds World Factory's § 1.131 Declaration lacking, Claim 54 is unpatentable under U.S.C. § 103(a) as being obvious and unpatentable over Combination VIII(C) in view of Lee '224 or Lee '856. Lee '224 and Lee '856 each disclose lighting elements and wires that are recessed into umbrella rib members. Combination VIII(C) discloses all of the elements of former Claim 54. The new limitations added to Claim 54 are shown in Lee '224 and Lee '856. It would be obvious to a person skilled in the art to modify

Combination VIII(C) by recessing the lighting elements and wires into umbrella rib members, as taught by Lee '224 and Lee '856. Claim 54 is therefore unpatentably obvious over Combination VIII(C) in view of Lee '224 or Lee '856.

Claims 49, 50, and 72 are unpatentable under Phyle and Valdner, and Morgan or Rushing or JP 9-168415

The Office Action rejected claims 49, 50 and 72 as being unpatentable over Phyle and Valdner, and Morgan or Rushing or Pan or JP 9-168415 or Mai which was deemed Combination IX (A). World Factory amended Claims 49 and 72 (50 was not amended, but dependent on 49), by adding these limitations: 1) each lighting element is recessed within the rib member and being conductively coupled to the rechargeable electrical power system by an electrical conductor; and 2) the electrical conductor also is recessed within the rib member. Claim 72 further states the lighting element is recessed within the corresponding rib member. Additionally, World Factory submitted a Declaration that attempts to swear behind Pan and Mai.

Even if Pan and Mai are removed as prior art references, the amendments to Claims 49, 50 and 72 fail to overcome the 35 U.S.C. § 103(a) rejections as being obvious and unpatentable over Phyle and Valdner, and Morgan or Rushing or JP 9-168415. The amendments to the claims relate to the positioning of lighting elements and wires within the rib members. The lighting elements and connecting wires must be carried by a reinforced structure of a canopy, which would be the rib members. Safety issues would make it obvious not to have protruding wires from the rib members. As such, the logical solution would be to recess the wires and lighting elements within the rib members, which would be obvious to a person skilled in the art in light of the combination of Phyle and Valdner, and Morgan or Rushing or JP 9-168415.

Claims 49, 50, and 72 are unpatentable under Phyle and Valdner, and Morgan or Rushing or JP 9-168415 and further in view of Hale or Wu or Walker

Alternatively, Claims 49, 50 and 72 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Phyle and Valdner, and Morgan or Rushing or JP 9-

168415 in view of Hale or Wu or Walker. Wu specifically discloses a recessed rib (21) into which the lighting elements (32) and wires (P and N) are recessed. Hale also discloses lighting elements (15) and wires (36) that are recessed into the rib members (12). Walker discloses lighting elements and wires (32) that are recessed into channels (30) along the underside of the rib (16). It would have been obvious to a person skilled in the art to have modified the combination of Phyle and Valdner, and Morgan or Rushing or JP 9-168415 by providing recesses in the ribs to receive the wires and lighting elements, as taught by Hale or Wu or Walker, and thereby construct the claimed invention.

Claims 49, 50, and 72 are unpatentable over Combination IX(A) in view of Lee '224 or Lee '856

If the Examiner finds World Factory's Rule 1.131 Declaration inadequate to establish a date of invention earlier than its filing date, Claims 49, 50 and 72 are unpatentable under U.S.C. § 103(a) as being obvious over Combination IX (A) in view of Lee '224 or Lee '856. Both Lee '224 and Lee '856 disclose an umbrella that has a plurality of ribs 2 with trenches 3 throughout the bottoms of the ribs 2. Lamps 4 are partially retained within the trenches 3 of the ribs 2. Both Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into the rib members with the wires connected to a power source. It would have been obvious to a person skilled in the art to modify Combination IX(A) by providing recesses in the bottom of the rib members with the lighting elements and wires received within the recesses, as taught by Lee '224 and Lee '856, and thereby construct the claimed invention.

Claims 51 and 55 are unpatentable under Combination IX (B)

The Office Action rejected Claims 51 and 55 as being unpatentable over Phyle, Valdner, and Lee '856, which was deemed Combination IX (B). Claim 51 was originally dependent on Claim 49, but World Factory amended Claim 51 to become independent, and incorporated the limitations of Claim 49, except that a single lighting element has replaced a plurality of lighting elements along a rib member. The additional limitations were added: 1) a translucent cover for covering the lighting elements; 2) the SES carried by a power unit

coupled to the pole portion above the canopy portion; and 3) that a portion of each lighting element extends beyond the corresponding rib member. Claim 55 was amended to depend from Claim 52, which is identical to Claim 51 except that it claims that the lighting elements are fully recessed within the rib member. Claim 55 further claims that each wire is fully recessed within the rib member. In addition, World Factory submitted a Declaration in which the inventor attempts to swear behind Lee '856.

These amendments fail to overcome the 35 U.S.C. § 103(a) rejections as being obvious and unpatentable over Phyle and Valdner. The amendments have made the SES part of a power module, which Valdner discloses. The SES is attached to the pole portion of World Factory's invention. Valdner's SES is attached to the apex of the canopy portion, which would be the equivalent of the pole portion of World Factory's invention. Having a removable SES is not a novel concept either. The venting component (28) of Valdner is recessed in the rib members (26) of the canopy portion. It would have been obvious to a person skilled in the art to position the lights and wiring of Phyle within the venting component of Valdner and thereby construct the claimed invention.

Claims 51 and 55 are unpatentable under Combination IX (B)

Alternatively, Claims 51 and 55 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Phyle and Valdner, and Hung in view of Wu or Hale. The amendments made to Claims 51 and 55 disclose the solar power system coupled to the pole portion in a removable manner. Hung has the same configuration. Wu and Hale both disclose lighting elements that extend beyond the ribs. Additionally, the extent to the amount a lighting element is fully recessed or extended from a rib does not have an inventive value. Wu has a translucent cover (322) that covers the lighting element (32). The wire elements for Wu and Hale are fully recessed within the rib members. It would have been obvious to a person skilled in the art to have modified Combination IX(B) by providing a solar power system coupled to the pole portion in a removable manner, as taught by Hung, to provide lighting elements that extend beyond the ribs, as taught by Wu and Hale, and to provide a translucent cover, as taught by Wu, and thereby construct the claimed invention.

Claims 51 and 55 are unpatentable over Combination IX (B)

If the Examiner finds the Declaration lacking, Claims 51 and 55 are unpatentable under U.S.C. § 103(a) as being obvious over Combination IX (B) and Wu in view of Lee '224 or Lee '856. As previously discussed, both Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into the rib members. It would have been obvious to a person skilled in the art to have modified Combination IX(B) by providing lighting elements and wires recessed into rib members, as taught by Lee '224 and Lee '856, and thereby construct the claimed invention.

Claim 54 is unpatentable over Combination IX (C)

The Office Action rejected Claim 54 as unpatentable over Phyle and Valdner, and Pan or JP 9-168415 or Mai which was deemed Combination IX (C). World Factory did not amend Claim 54, but did amend Claim 49, from which Claim 54 depends. Claim 49 was amended by adding these limitations: 1) each lighting element is recessed within the rib member; and 2) each lighting element is conductively coupled to the rechargeable electrical power system by an electrical conductor that is also recessed within the rib member. Claim 54 adds the limitation that the lighting elements are each an LED. In addition, World Factory submitted a Declaration in which the inventor attempts to swear behind Pan and Mai.

Even if Pan and Mai were removed as prior art references, World Factory has failed to overcome the 35 U.S.C. § 103(a) rejections over Phyle and Valdner and JP 9-168415. The amendments to the claims relate to the positioning of lighting elements and wires within the rib members. Phyle discloses the lighting elements (12) being carried by the rib portions (22). Valdner discloses its venting element (28) being recessed in the rib members (26). Using an LED as the lighting element would be obvious to one skilled in the art, and JP 9-168415 discloses the use of LEDs. The combination of recessing an LED and its wiring components within a rib member would be obvious to a person skilled in the art in light of Combination IX (C).

Claim 54 is unpatentable over Combination IX (C) in view of Hale or Wu

Alternatively, Claim 54 is unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination IX (C) in view of either Hale or Wu. Wu specifically discloses a recessed rib (21) into which the lighting elements (32) and wires (P and N) are recessed. Hale also discloses lighting elements (15) and wires (36) that are recessed into the rib members (12). It would have been obvious to a person skilled in the art to have modified Combination IX(C) by providing a recess in each rib into which lighting elements and wires are recessed, as taught by either Hale or Wu, and thereby construct the claimed invention.

Claim 54 is unpatentable over Combination IX (C) in view of Lee '224 or Lee '856.

If the Examiner finds the Rule 1.131 Declaration lacking, Claim 54 is unpatentable under U.S.C. § 103(a) as being obvious and unpatentable over Combination IX (C) in view of Lee '224 or Lee '856. As previously discussed, both Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into rib members. It would have been obvious to a person skilled in the art to have modified Combination IX(C) by providing lighting elements and wires recessed into rib members, as taught by either Lee '224 or Lee '856, and thereby construct the claimed invention.

ADDITIONAL PROPOSED REJECTIONS

Claim 1—Claim 1 is not patentable under 35 U.S.C. § 103(a) over Mueller and Rushing in view of Hung. Mueller discloses an umbrella apparatus (80), a base portion (28), a pole portion (16) coupled to the pole portion (28), a canopy portion hingedly coupled to the pole portion, the canopy portion having a plurality of rib members, a rechargeable electrical power system for providing power to the umbrella apparatus, and a SES (82) carried by a module coupled to the pole portion above the canopy portion, the SES being connected to the RES (26). Rushing discloses a lighting system having multiple discrete lighting elements (28) positioned along at least one of the rib members (12), and being conductively coupled to an electrical power system. Hung discloses a SES (32) carried by a module (10), the module being releaseably coupled to the pole portion (80). It would have been obvious to a person skilled in the art to have modified the umbrella of Mueller by providing a lighting system

having multiple discrete lighting elements positioned along a rib member and being conductively coupled to an electrical power system, as taught by Rushing, and to substitute a SES carried by a module that is releasably coupled to the pole portion, as taught by Hung, and thereby construct the invention of Claim 1.

Claim 2, 4, 5, 56, and 74—Claims 2, 4, 5, 56, and 74 are not patentable under 35 U.S.C. § 103(a) over Mueller and Phyle in light of Hung. Claim 2 recites a base, a pole, a canopy hingedly mounted to the pole, a power module attached to the pole above the canopy, and a lighting system carried by the canopy. Claim 4 depends from Claim 2 and adds the additional limitations that the canopy comprises a plurality of ribs and the lighting system comprises LEDs. Claim 5 depends from Claim 2 and adds the limitations that the canopy comprises a plurality of ribs and the lighting elements are fluorescent. Claim 56 recites a base, a pole, a canopy comprising a plurality of ribs, and a power module carried by the pole above the canopy. Claim 74 recites a base, a pole, a canopy, a lighting system carried by the canopy, and a power module carried by the pole above the canopy. It should also be noted that Claims 2 and 74 are identical as amended.

Mueller discloses an umbrella apparatus (80), a base portion (28), a pole portion (16) coupled to the pole portion (28), a canopy portion hingedly coupled to the pole portion, a rechargeable electrical power system for providing power to the umbrella apparatus, and a SES (82) carried by a module coupled to the pole portion above the canopy portion, the SES being connected to the RES (26). It does not disclose a power module carried by the pole portion having an upper and lower portion, nor does it disclose the canopy carrying a lighting system that is coupled to the RES. Phyle does disclose a lighting system that is carried by the canopy that is coupled to the RES. Hung discloses a power module (10) carried by the pole portion (80), with the SES (32) in the upper portion and the RES (26) in the lower portion.

It would have been obvious to a person of ordinary skill in the art to have modified the umbrella apparatus of Mueller by providing a lighting system carried by the canopy that is coupled to the power module, as taught by Phyle, and to have the power module carried by the pole portion with the SES in the upper portion of the module and the RES in the lower portion. Claim 2 would therefore be obvious and unpatentable. The only element of Claim 4

not disclosed by this combination is that the lighting elements are LEDs. The type of lighting element used is trivial and cannot form the basis for patentability. In any event, JP 9-168415 discloses the use of LED lighting elements. The only element of Claim 5 not disclosed by this combination is that the lighting elements are fluorescent. The type of lighting element used is trivial and cannot form the basis for patentability. All of the elements of Claims 56 and 74 are shown in this combination.

Alternatively, if the Examiner finds the Declaration lacking, the combination of Mueller and Phyle in light of Yang '613 or Wismeth would make Claims 2, 46, and 74 obvious in the same manner. As previously discussed, Yang '163 and Wismeth disclose a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to have modified the previously discussed combination of Mueller and Phyle by providing a SES and a RES in a single module that is carried by a pole, as taught by either Yang '163 or Wismeth. Locating the module on the pole above the canopy is an obvious step, because a module located beneath the canopy would not be exposed to sunlight and could not collect energy.

Claim 47—Claim 47 is unpatentable under 35 U.S.C. 103(a) as being unpatentable over Phyle and Hung. Phyle discloses a patio umbrella apparatus (1), a base portion, a pole portion (20) coupled to the base portion, a canopy portion hingedly coupled to the pole portion, and a RES for providing power to the umbrella apparatus. It does not disclose a power module carried by the pole portion having an upper and lower portion. Hung discloses a power unit (10) that has a SES (32) in the upper portion and a RES (26) in the lower portion, the unit coupled to the top portion of a pole (80). It would have been obvious to a person skilled in the art to modify the umbrella apparatus of Phyle by providing a power unit that has a SES in the upper portion and a RES in the lower portion, the unit coupled to the top portion of a pole as taught by Hung. Claim 47 would therefore have been obvious to a person skilled in the art.

Alternatively, if the Examiner finds the Rule 1.131 Declaration lacking, the combination of Phyle and Yang '613 or Wismeth would make Claim 47 obvious in the same manner as Phyle and Hung. Yang '163 and Wismeth disclose a SES and a RES in a single

module that is carried by a pole. It would have been obvious to a person skilled in the art to have modified Phyle by providing a SES and a RES in a single module that is carried by a pole, as taught by either Yang '163 or Wismeth.

Claim 48—Claim 48 is unpatentable under 35 U.S.C. 103(a) over Phyle, Valdner, and Hung in view of Hale. Valdner discloses all elements of Claim 48 except a plurality of lighting elements carried by the rib member, the lighting elements being recessed within the rib members and the RES and SES each forming a component part disposed in a power unit carried by the pole portion above the canopy. Phyle discloses most of the same, but further includes carrying lighting elements. Phyle does not have a SES. However, Valdner does disclose its venting mechanisms (28) being recessed within the rib members (26). Hale discloses its lighting elements (15) being recessed within its rib members (12). Hung discloses the power unit (10) coupled on top of the pole portion (80), with the SES being in the top portion and the RES being in the bottom portion. It would have been obvious to one skilled in the art to have modified the apparatus of Phyle or Valdner by providing the lighting elements recessed within the canopy rib members, as taught by Hale, and providing the power unit coupled on top of the pole portion, with the SES being in the top portion and the RES being in the bottom portion. Claim 48 is therefore unpatentable as obvious.

Additionally, if the Examiner finds the Rule 1.131 Declaration lacking, the combination of Phyle, Valdner or Mueller and Yang '613 or Wismeth in view of Lee '224 or Lee '856 would make Claim 48 obvious in the same manner. Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into rib members. Yang '163 and Wismeth disclose a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to have modified the previously discussed combination of Phyle and Valdner or Mueller by providing lighting elements and wires recessed into rib members, as taught by Lee '224 or Lee '856, and to combine a SES and a RES in a single module that is carried by a pole, as taught by Yang '163 and Wismeth, and thereby construct the claimed invention.

Claim 49, 50 and 54—Claim 49 is unpatentable under 35 U.S.C. § 103(a) over Mueller and Rushing in view of Hale. Mueller discloses all elements of Claim 49 except

those dealing with the lighting system. Rushing discloses all of the lighting elements of Claim 49 except each lighting element being recessed within the rib member as well as the electrical conductor being recessed. Hale discloses each lighting element and electrical conductor being recessed within the rib member (see FIG. 1 and 9). It would have been obvious to a person skilled in the art to have modified the apparatus of Mueller to provide the lighting elements as taught by Rushing, recessing the lighting elements and wires as taught by Hale, and thereby construct the claimed invention.

Alternatively, if the Examiner finds the Declaration lacking, the combination of Mueller and Rushing in view of Lee '224 and Lee '856 would make Claims 49, 50 and 54 obvious in the same manner. Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into rib members. It would have been obvious to a person skilled in the art to have modified the apparatus of Mueller to provide the lighting elements as taught by Rushing, recessing the lighting elements and wires as taught by Lee '224 and Lee '856, and thereby construct the claimed invention.

Additionally, Claim 50 is dependent on Claim 49, with the additional limitation that the lighting system includes multiple discrete lighting elements along each rib member. Rushing discloses this feature, so Claim 50 would be obvious based on the same combination that renders Claim 49 unpatentable.

Claim 54 is also dependent on Claim 49, with the additional limitation that the multiple discrete lighting elements are each an LED. Having the lighting elements being an LED would be obvious to anyone skilled in the art. It is common practice to use LEDs in such applications which World Factory states in its Response to the Office Action. Alternatively, with the addition of JP 9-168415, which clearly discloses LEDs, Claim 54 would be obvious to one skilled in the art.

Claim 51—Claim 51 is unpatentable under 35 U.S.C. 103(a) over Phyle and Hung in view of Wu. Phyle discloses every element of Claim 51 except the power unit being releasably coupled to the pole, translucent covers for the lighting elements, and the lighting elements extending beyond the corresponding rib member. Hung discloses a power unit that comprises a SES that is releasably coupled to the pole portion. Wu discloses translucent

covers (322) where the lighting elements extend beyond the rib member. It would have been obvious to a person skilled in the art to have modified the device of Phyle by providing a power unit that comprises a SES that is releasably coupled to the pole portion, as taught by Hung, and translucent covers where the lighting elements extend beyond the rib member, as taught by Wu.

Alternatively, if the Examiner finds the Rule 1.131 Declaration lacking, the combination of Phyle and Yang '613 in view of Wu would make Claim 51 obvious in the same manner. Yang '163 discloses a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to modify the apparatus of Phyle to provide a SES and a RES in a single module that is carried by a pole, as taught by Yang '613, and translucent covers where the lighting elements extend beyond the rib member, as taught by Wu, thereby constructing the claimed invention.

Claim 52, 53, and 55—Claim 52 is unpatentable under 35 U.S.C. 103(a) over Mueller, Rushing, and Hale or Wu. Mueller contains all of the elements of Claim 52 except the canopy carrying a lighting system which includes multiple discrete lighting elements positioned along a rib member, wherein each lighting element is fully recessed within the corresponding rib member. Rushing discloses the canopy portion carrying the lighting system, with multiple discrete lighting elements positioned along the rib members. Hale and Wu disclose the lighting elements being recessed within the corresponding rib member. However, being fully recessed in the rib member would be obvious to one skilled in the art. It would have been obvious to a person skilled in the art to have modified the apparatus of Mueller by providing that the canopy portion carry the lighting system, with multiple discrete lighting elements positioned along the rib members, as taught by Rushing, with the lighting elements being recessed within the corresponding rib member, as taught by Hale or Wu, thereby constructing the claimed invention.

Alternatively, if the Examiner finds the rule 1.131 Declaration lacking, the combination of Mueller, Rushing, and Lee '224 or Lee '856 would make Claim 52 obvious in the same manner. Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into rib members. It would have been obvious to a person skilled in the art to

modify the device of Mueller by providing that the canopy portion carry the lighting system, with multiple discrete lighting elements positioned along the rib members, as taught by Rushing, with lighting elements and wires that are recessed into rib members, as taught by Lee '224 and Lee '856, thereby constructing the claimed invention.

Claims 53 and 55 are dependent on Claim 52. Claim 55 has the further limitation that the wires for the lighting elements be fully recessed within the rib members. Hale, Wu, Lee '224, and Lee '856 disclose this limitation as well. Claim 53 adds the limitation that the lighting elements are covered by a translucent cover. Wu discloses this limitation. As such, the combination of Mueller, Rushing, and Lee '224 or Lee '856 would make Claims 53 and 55 obvious.

Claim 60—Claim 60 is unpatentable under 35 U.S.C. § 103(a) over Mueller and Wu. Mueller discloses every element of Claim 60 except for a lighting system that is carried by the canopy portion that is conductively coupled to and powered by the RES, wherein the lighting system includes a plurality of lighting elements, each lighting element being recessed within a corresponding rib member and being covered by a translucent cover carried by the corresponding rib member. Wu discloses these limitations. It would have been obvious to a person skilled in the art to have modified the device of Mueller by providing a lighting system that is carried by the canopy portion that is conductively coupled to and powered by the RES, wherein the lighting system includes a plurality of lighting elements, each lighting element being recessed within a corresponding rib member and being covered by a translucent cover carried by the corresponding rib member, as taught by Wu, thereby constructing the claimed invention.

If the Examiner finds the Rule 1.131 Declaration lacking, the combination of Mueller and Wu in view of Lee '224 or Lee '856 would make Claim 60 obvious in the same manner. Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into rib members. It would have been obvious to a person skilled in the art to have modified the device of Mueller by providing a lighting system that is carried by the canopy portion that is conductively coupled to and powered by the RES, wherein the lighting system includes a plurality of lighting elements, each lighting element being recessed within a corresponding

rib member and being covered by a translucent cover carried by the corresponding rib member, as taught by Wu, with the lighting elements and wires recessed into rib members, as taught by Lee '224 and Lee '856, thereby constructing the claimed invention.

Alternatively, Claim 60 is unpatentable based on this combination and Hale. Hale discloses the lighting elements being recessed within a rib portion. As such, one skilled in the art would find Claim 60 obvious after observing this combination.

Claim 61—Claim 61 is unpatentable under 35 U.S.C. § 103(a) over Phyle, Mueller, and Hung. Phyle discloses a patio umbrella apparatus, a base portion, a pole portion coupled to the base portion, a canopy portion hingedly coupled to the pole portion, a RES for providing power to the umbrella apparatus, and the canopy carrying a lighting system, each lighting element carried by a rib member, as well as the wiring system. It does not disclose a power unit carried by the pole portion having an upper and lower portion. Mueller discloses a SES carried by the pole portion that recharges the RES. Hung discloses a power unit (10) that has a SES (32) in the upper portion and a RES (26) in the lower portion, the unit coupled to the top portion of a pole (80). It would have been obvious to a person skilled in the art to have modified the device of Phyle by providing a SES carried by the pole portion that recharges the RES, as taught by Mueller, and a power unit that has a SES in the upper portion and a RES in the lower portion, the unit coupled to the top portion of a pole, as taught by Hung, thereby constructing the claimed invention.

If the Examiner finds the Rule 1.131 Declaration lacking, the combination of Phyle, Mueller and Yang '613 or Wismeth would make Claim 61 obvious in the same manner. Yang '163 and Wismeth disclose a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to have modified the device of Phyle by providing a SES carried by the pole portion that recharges the RES, as taught by Mueller, and a power unit that has a SES in the upper portion and a RES in the lower portion, the unit coupled to the pole, as taught by Yang '163 and Wismeth, thereby constructing the claimed invention.

Claim 62—Claim 62 is unpatentable under 35 U.S.C. § 103(a) over Mueller and JP 9-168415. Mueller discloses all of the elements of Claim 62 except all limitations dealing

with the lighting subassembly, its location and components. JP 9-168415 discloses a lighting subassembly (7) that is carried by the canopy portion, the lighting subassembly being conductively coupled (9) to the RES, wherein the lighting subassembly includes a plurality of LEDs (7), each LED being recessed relative to a corresponding rib member (3) and each LED being conductively coupled by a conductor (9) recessed relative to the corresponding rib member. It would have been obvious to a person skilled in the art to have modified the device of Mueller by providing a lighting subassembly that is carried by the canopy portion, the lighting subassembly being conductively coupled to the RES, wherein the lighting subassembly includes a plurality of LEDs, each LED being recessed relative to a corresponding rib member, and each LED being conductively coupled by a conductor recessed relative to the corresponding rib member, as taught by JP 9-168415, thereby constructing the claimed device.

Alternatively, this combination in view of Hale would make Claim 62 obvious to a person skilled in the art as well. Hale has a lighting subassembly (15) and conductor (36) that are recessed relative to the corresponding rib member (12). If the Examiner finds the Declaration lacking, the combination above in view of Lee '224 or Lee '856 would make Claim 62 obvious in the same manner.

Claim 64 and 65—Claim 64 is unpatentable under 35 U.S.C. § 103(a) over Mueller or Valdner and Phyle or Rushing. Mueller and Valdner disclose all of the elements of Claim 64 except the lighting system portions. Valdner and Mueller both have discus-shaped modules that hold the SES. Phyle and Rushing disclose a lighting system being carried by the canopy portion. It would have been obvious to a person skilled in the art to have modified Mueller or Valdner by providing a lighting system being carried by the canopy portion, as taught by Phyle or Rushing, and thereby construct the claimed invention.

Alternatively, Claim 64 is unpatentable over the combination above in further view of Hung. The SES is contained in a discus-shaped module that is carried by a pole portion. As such, these combinations make Claim 64 obvious in the eyes of a person skilled in the art. If the Examiner finds the Declaration lacking, the combination above in light of Yang '613 would make Claim 64 obvious in the same manner.

Claim 65 has been amended to be dependent on Claim 64, with the only additional limitation that the discuss-shaped module is releasably coupled to the pole portion. To the extent the term "discuss-shaped module" can be understood, Hung's module is releasably coupled to the pole portion, as is module in Yang '613. As such, this combination makes Claim 65 obvious.

Claim 66—Claim 66 is unpatentable under 35 U.S.C. § 103(a) over Phyle and Hung in view of Hale. Phyle discloses all of the elements of Claim 66 except for elements dealing with the SES and the RES forming a power unit fixed relative to the pole portion, with the SES forming the upper portion and the RES forming the lower portion. Additionally, Phyle does not disclose conductors recessed within the rib members. Hung discloses a power unit fixed relative to the pole portion that has the SES forming the upper portion and the RES forming the lower portion. Hale discloses conductors that are recessed within the rib members. As such, Claim 66 would be seen as obvious by one who was skilled in the art after referring to the above combination. If the Examiner finds the Declaration lacking, the combination of Phyle and Yang '613 or Wismeth in view of Lee '224 or Lee ' 856 would make Claims 2, 46, and 74 obvious in the same manner.

Alternatively, Claim 66 is unpatentable in further view of the combination above and Mueller and Wu. Mueller discloses a SES carried by the pole portion of the umbrella, whereas Wu discloses the electrical conductors being recessed within the rib members.

Claims 70 and 71—Claims 70 and 71 are unpatentable under 35 U.S.C. § 103(a) over Mueller or Valdner and Wu. Mueller and Valdner disclose all of the elements of Claim 70 except each rib member having a recessed longitudinal channel and having a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the RES, the lighting system comprising a plurality of lighting elements carried by the rib members, each lighting element being disposed within the channel. Wu discloses a recessed longitudinal channel in each rib member (21 - See FIGS. 5, 7- 8). The lighting elements (32) are recessed within the rib member. As such, a person skilled in the art would view this combination and find Claim 70 obvious. Claim 71 is dependent on Claim 70, with the only additional element being that a transparent cover is disposed over each channel. Wu

discloses a translucent cover being placed over the channel. As such, 71 is unpatentable as well for obviousness. If the Examiner finds the Declaration lacking, the combination of Mueller or Valdner in view of Lee '224 or Lee '856 would make Claim 70 obvious in the same manner, with the addition of Wu for Claim 71.

Alternatively, Claims 70 and 71 are unpatentable with Mueller or Valdner and Wu in further view of Hale. Hale has a recessed longitudinal channel (See FIGS. 3, 8, and 9) within which the lighting elements are disposed. Additionally, having a translucent cover over the lighting elements would be obvious in the view of a person skilled in the art.

Claim 72—Claim 72 is unpatentable under 35 U.S.C. § 103(a) over Mueller or Valdner and Rushing or Phyle in view of Wu or Hale. Mueller and Valdner disclose all of the elements of Claim 72 except a lighting system carried by the canopy portion, a plurality of discrete lighting elements carried by each rib member that is recessed within a corresponding rib member, and the electrical conductors also being recessed within the rib members. Rushing and Phyle disclose a lighting system carried by the canopy portion and a plurality of discrete lighting elements carried by each rib member. Hale and Wu disclose the lighting elements and the electrical conductors being recessed within the rib members as well. As such, Claim 72 would be obvious to one skilled in the art in view of the above combination. If the Examiner finds the Declaration lacking, the combination Mueller or Valdner and Rushing or Phyle in light of Lee '224 or Lee '856 would make Claim 72 obvious in the same manner.

Compliance with 37 C.F.R. §§ 1.52 and 1.943

The foregoing Comments are submitted in 12 point nonscript type, 1-1/2 spaced, and do not exceed 50 pages in length, excluding amendments, appendices of claims, and reference materials such as prior art references.

CONCLUSION

In view of the foregoing, Southern Sales respectfully requests that the rejection of Claims 1, 2, 4, 5, 6, 7, 9, 49, 50, 51, 54, 55, 57, 72, 73 and 74 be maintained, and that Claims 1, 2, 4, 5, 47–56, 59–62, 64–66, 70–72, and 74 be rejected under 35 U.S.C. § 103(a) based

upon the various combinations discussed above and any other various combinations that may be developed in further combination with the new prior art references cited herein and the other bases as set forth above.

Respectfully submitted:

Larry A. Roberts
Counsel for Southern Sales, Inc.
Reg. No. 31,871

KILPATRICK STOCKTON LLP
1100 Peachtree Street
Suite 2800
Atlanta, Georgia 30309-4530
Tel. (404) 815–6500
Fax (404) 815–6555
Attorney Docket: 45639–316477

EXHIBIT C

U.S. PATENT NO. 5,055,984 TO HUNG *ET AL.*

United States Patent [19]

Hung et al.

[11] **Patent Number: 5,055,984**

[45] **Date of Patent: Oct. 8, 1991**

[54] **SOLAR RECHARGEABLE LIGHT**

[75] Inventors: **Kung C. Hung**, Tsian Lung-Tau, Hong Kong; **Leo Milewicz, Jr.**, Irving, Tex.; **Donald L. Rohrs**, Overland Park, Kans.

[73] Assignee: **The Brinkmann Corporation**, Dallas, Tex.

[21] Appl. No.: **392,722**

[22] Filed: **Aug. 11, 1989**

[51] **Int. Cl.**[5] **F21L 7/00**

[52] **U.S. Cl.** **362/183**; 362/431; 362/145; D26/67

[58] **Field of Search** 362/183, 145, 153, 285, 362/287, 372, 431; 136/291; D26/67–71

[56] **References Cited**

U.S. PATENT DOCUMENTS

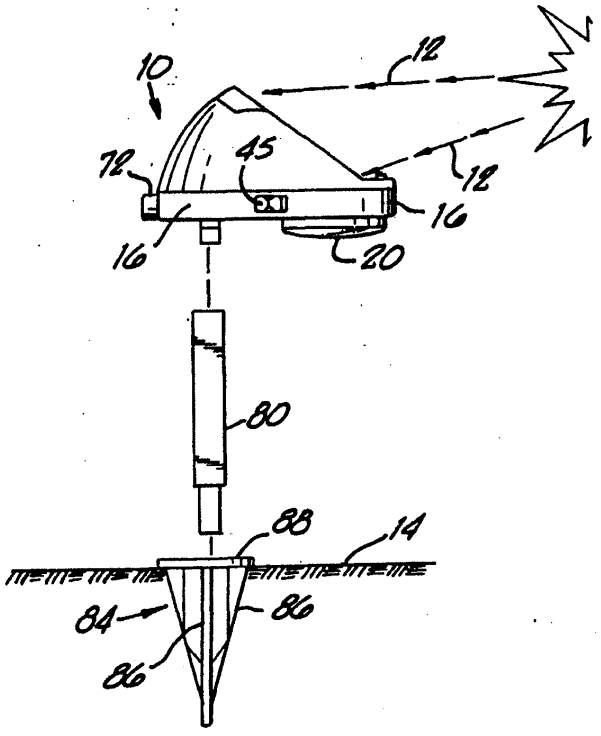
D207,273	3/1967	Muller et al.	D48/31
D291,926	9/1987	Schlepp	D26/67
2,919,353	12/1959	Paradise	250/239
3,869,604	3/1975	Prochnow	362/285
4,281,369	7/1981	Batte	362/183
4,450,507	5/1984	Gordin	362/431
4,481,562	11/1984	Hickson	362/183
4,486,820	12/1984	Baba et al.	362/183
4,751,622	6/1988	Williams	362/183
4,835,664	5/1989	Wen	362/183
4,841,416	6/1989	Doss	362/183

Primary Examiner—Ira S. Lazarus
Assistant Examiner—D. M. Cox
Attorney, Agent, or Firm—Pretty, Schroeder, Brueggemann & Clark

[57] **ABSTRACT**

A solar rechargeable light has a lamp for illuminating a selected area such as the ground or a wall. A base is adapted to support the lamp in a fixed position to illuminate the selected area. An electrical storage device and power supply is electrically coupled to the lamp. A solar panel is electrically coupled to the electrical storage device for charging the storage device when the solar panel is exposed to light, wherein current from the storage device energizes the lamp, and wherein the solar panel is moveable relative to the base so that the orientation of the solar panel is substantially independent of an orientation of the lamp relative to the selected area.

1 Claim, 2 Drawing Sheets



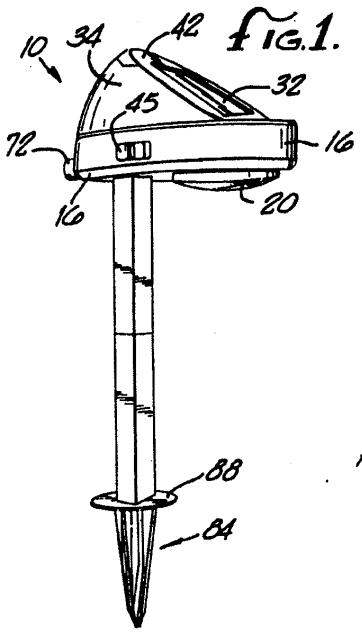


FIG. 1.

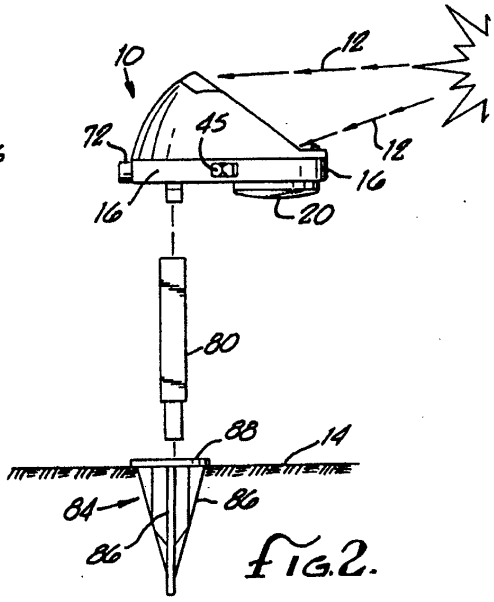


FIG. 2.

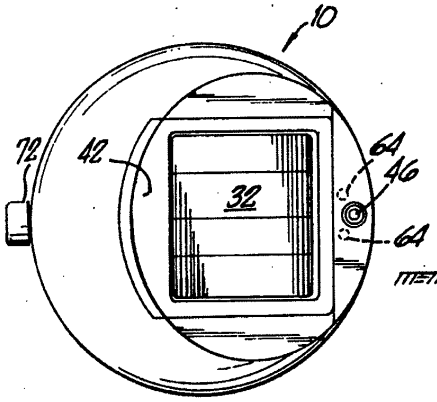


FIG. 4.

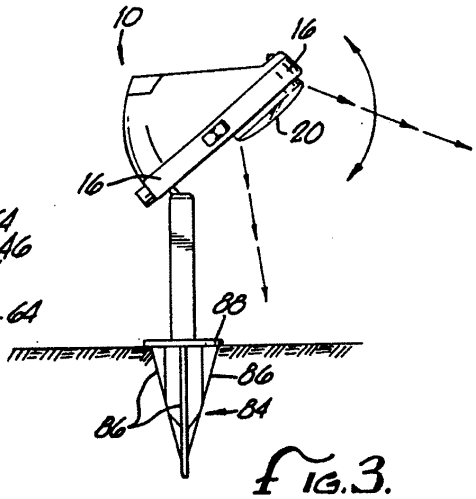


FIG. 3.

YOT-1003-1740

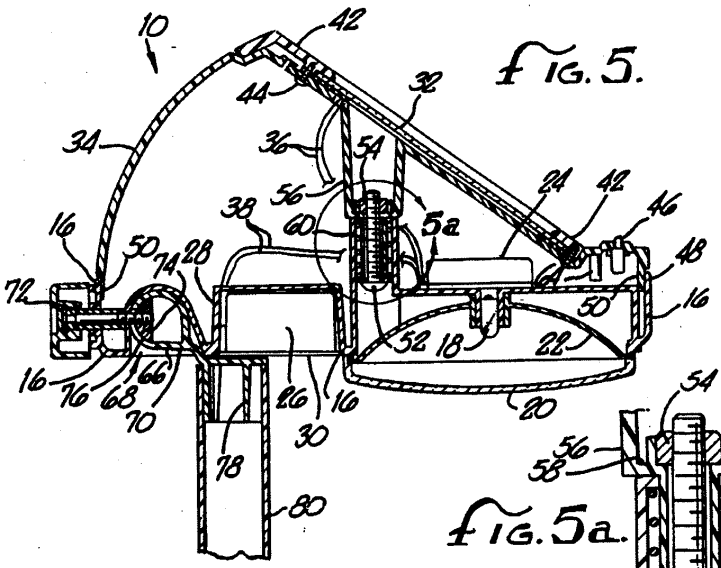


FIG. 5.

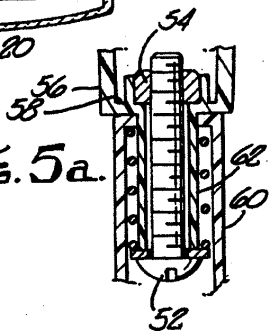


FIG. 5a.

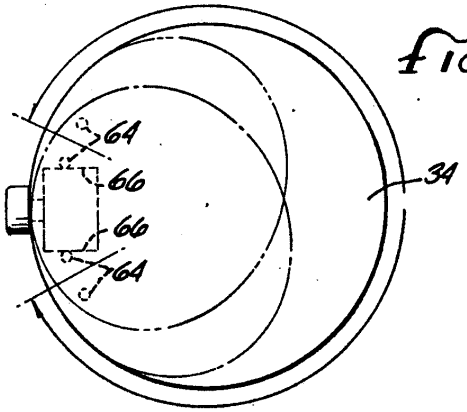


FIG. 6.

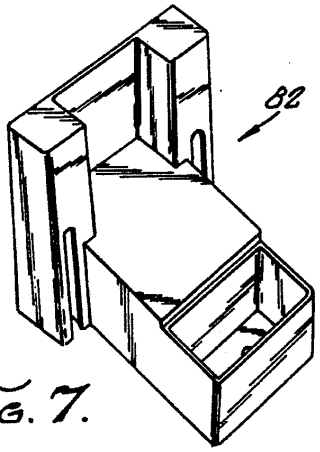


FIG. 7.

YOT-1003-1741

SOLAR RECHARGEABLE LIGHT

BACKGROUND OF THE INVENTION

1. Field Of The Invention

The present invention relates to solar rechargeable lights.

2. Related Art

Yard and walkway lights are well known for providing illumination of sidewalks, driveways, yards, and so forth. These lights typically are powered through underground wiring or gas supply. To eliminate the need for such underground power supply, solar powered lights have been used which can be selectively placed irrespective of underground power supplies, as long as there is sufficient illumination of the solar panel to charge a battery sufficiently to power the light when darkness sets in.

Such solar powered lights typically have been mounted on posts stuck in the ground and have had the light bulb placed on the bottom of the housing of the solar light. The solar panel for the light sloped downward on a side of the housing from the top of the housing to the bottom. With this arrangement, however, placement of the light in the desired location for optimum illumination of a selected area necessarily determined the orientation of the sloped solar panel. On the other hand, if the light was positioned so as to optimize collection of solar rays in the solar panel, the selected area for illumination was not always properly lighted. There has been a need, therefore, for a solar powered light wherein the orientation of the light is independent of the orientation of the solar panel.

Prior solar powered lights were rigidly fixed to the standard or post on which the light housing was mounted. As a result, the light source always pointed down to illuminate the ground underneath the light. The light would illuminate a circular area centered around the solar powered light. The rigid structure of the light did not allow reorientation of the light to illuminate a different area. There also has been, therefore, a need for a solar powered light which can be adjusted for illuminating any number of selected areas from the same location.

Prior solar lights were placed in the ground merely by sticking the support stake in the ground. Whenever the surrounding area was to be mowed or cleaned, the light would be left in place, in which case it could be hit or bumped and possibly damaged or the area next to the stake could not be adequately maintained, or the stake could be removed from the ground. If the stake were removed from the ground, the hole is often widened through the action of withdrawing and replacing the stake, making the repositioning of the light unstable. Therefore, there has been a further need for a solar powered light which can be placed in the ground and repeatedly removed to allow mowing or cleaning in the surrounding area without loosening the surrounding soil with repeated removal of the stake.

SUMMARY OF THE INVENTION

Briefly, and in general terms, the present invention resides in a solar rechargeable light which the orientation of the light source is independent of the orientation of the solar panel, movement of the light source is allowed to change the area of illumination, and the light can be quickly and easily removed from the ground and replaced after mowing, trimming and so forth.

In accordance with the present invention, a solar rechargeable light has a lamp for illuminating a selected area such as the ground or a wall. A base is adapted to support the lamp in a fixed position to illuminate the selected area. An electrical storage device and power supply is electrically coupled to the lamp. A solar panel is electrically coupled to the electrical storage device for charging the storage device when the solar panel is exposed to light, wherein current from the storage device energizes the lamp, and wherein the solar panel is moveable relative to the base so that the orientation of the solar panel is substantially independent of an orientation of the lamp relative to the selected area. With this invention, the lamp and the solar panel can be oriented independently of one another to optimize the collection of solar rays and still provide the desired illumination at the same time.

In a preferred embodiment, the solar panel is rotatable about an axis relative to the base through an angle of only less than 360°. This minimizes the possibility of entanglement of any wires or conductors which may be used in the solar rechargeable light. Additionally, the base may include a mount which is releasably fixed to the base so that the base and lamp can be adjusted in position relative to the support. This would allow, for example, the light to be tilted for illuminating a different area or for adjusting the solar panel angle to present the best panel angle at the particular latitude.

In a further preferred embodiment, the solar rechargeable light can be mounted on a light stand having an end which can be placed in a ground stake embedded in the ground. The light stand can be easily removed from the ground stake to allow mowing or trimming. The light stand can then be easily reinserted into the ground stake without disturbing the surrounding soil so that the light is in the same stable position and orientation as previously.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a solar rechargeable light supported by a light stand and ground stake.

FIG. 2 is a side elevation exploded view of the solar rechargeable light shown in FIG. 1.

FIG. 3 is a side elevation view of the solar rechargeable light of FIG. 1 showing the light tilted.

FIG. 4 is a top plan and sectional view of the light of FIG. 1.

FIG. 5 is a vertical cross-sectional view of the light of FIG. 1.

FIG. 5*a* is a detailed vertical cross-sectional view of a portion of the light of FIG. 5 showing concentric pivot cylinders.

FIG. 6 is a plan view of the light of FIG. 1 depicting the full extent of rotation of a solar panel.

FIG. 7 is a perspective view of a wall mounting bracket for use with the light of FIG. 1.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

In accordance with the invention, a solar rechargeable light is described which provides orientation of the light source independent of the orientation of the solar collector for the light so that the light can be positioned as desired while still allowing orientation of the solar panel for optimum efficiency. Considering FIGS. 1, 2 and 5, a solar rechargeable light 10 receives light rays

12 (FIG. 2) from the sun or other suitable light source and converts the light rays to electrical energy for storage and subsequent use to energize the light source for illuminating a selected area, such as the ground 14. A base 16 forms the lower part of a housing for the rechargeable light. A lamp or lamp bulb 18 is mounted in the base for producing light to shine below the base through a lens 20 for illuminating a selected area such as the ground or a wall. The lamp bulb may be an incandescent light source, or a gas-filled, fluorescent or other suitable light source. The lens 20 transmits the light, part of which light is reflected from a reflector 22 also mounted in the base 16. The lens holds the reflector in an opening in the bottom of the base through a bayonet lock mount or other suitable means for removeably retaining the lens.

The bulb is electrically coupled through an appropriate circuit 24, to be described more fully below, to an electrical storage device and power supply or battery 26 so that current from the power supply can energize the lamp bulb. The battery may be, for example a gelled electrolyte lead acid battery or NiCad battery, for example. The battery 26 is retained in a battery compartment 28 formed in the bottom of the base using a cover 30 fastened to the bottom of the base.

A solar panel 32 is mounted on an upper housing or cover 34 relative to the base 16 so as to be slanted or sloped for receiving light rays and converting the energy of the light rays to electrical energy. The solar panel may also be used as light/darkness indicator for determining when it is dark enough to turn the lamp bulb on. The solar panel is preferably a semi-crystalline solar panel well known in the art for receiving and converting light rays to electrical energy, such as may be used for charging a storage battery. The solar panel is electrically coupled to the battery 26 through the electrical circuit 24 by means of suitable conductors 36 and 38 for charging the storage device when the solar panel is exposed to light.

The solar panel is placed on a sloped surface on the cover 34 and sandwiches a water seal cover or gasket 40 against the outer top surface of the solar panel to keep water out of the housing under normal conditions. The solar panel and gasket are held in place by a panel cover 42 having lugs or clips 44 passing through slots in the gasket around the edges of the gasket and through respective slots in the cover 38 to clip the underside of the cover and thereby retain the gasket and solar panel in place. A suitable opening is formed in the panel cover to allow light rays to reach the solar panel.

A switch 45 is mounted on the outside of the base for selecting between an "Automatic" configuration for circuit 24 and an "Off" configuration. In the "Off" configuration, the light will be off at all times while still allowing charging of the battery by the solar panel. In the "Automatic" configuration, the solar panel charges the battery during the day while the light is off, and the light comes on at night using current stored in the battery. Alternatively, the "Off" configuration can disconnect the battery from both the solar panel and the lamp bulb.

The electrical circuit 24 is any suitable circuit well known to those skilled in the art for accomplishing the functions described herein. The circuit passes current from the solar panel to the battery for charging the battery during the day while light is absorbed by the solar panel. The electrical circuit includes a circuit for determining when darkness has set in. In one embodiment, the darkness sensor circuit is coupled to the solar panel and a diode is provided in the circuit between the solar panel and battery to prevent current from passing in the opposite direction from the battery to the solar panel during darkness, resulting in a gradual low level drain. The electrical circuit also includes a further circuit for testing the charge level of the battery. When the charge level on the battery approaches b 30% of maximum, due to continuous energization of the lamp bulb, the electrical circuit opens the circuit between the battery and the lamp bulb to prevent further draining of the battery. The battery can then be recharged. A further circuit is included for keeping an open circuit between the battery and the lamp bulb when there is sufficient ambient light, for example from the sun, to illuminate the solar panel. The electronic circuit is preferably moisture resistant.

In the disclosed embodiment, a low battery indicator 46 is mounted in the cover 38 centered and in front of the solar panel (FIG. 4). The indicator 46 may be an LED coupled to the electrical circuit 24 and is illuminated when the battery charge level approaches 30% of maximum. Alternatively, the battery indicator may be omitted.

In the disclosed embodiment, the base 16 and the cover 38 are circular in plan view and engage at their circumferential edges in an overlapping junction around the circumferences thereof. The inside diameter of the rim 48 of the base is approximately the same as the outside diameter of the circular rim 50 of the cover which slidingly contacts the inside surface of the rim of the base. The rim of the base abuts against a ledge extending outwardly from the rim of the cover so that the ledge rests on the rim of the base. This engagement between the base and the cover allows the rim of the base to support the outer edge of the cover which allows rotation of the cover relative to the base. Moreover, the sliding joint between the cover and the base around the entire circumference thereof provides centering, interlocking stability and mutual alignment of the cover and the base. The rims take some of the centering pressure off the pivot cylinders and distributes it around the edges of the base and cover.

The cover and base are placed in mutual engagement and allowed to rotate relative to one another about a central axis defined by a bolt 52 threaded into a captivated nut 54. The nut 54 rests at the bottom 58 of a first pivot or depending cylinder 56 extending downward from the flat slopping surface on which the solar panel is retained. A hole is formed in the bottom of the depending cylinder to allow a portion of the bolt 52 to pass into the cylinder and thread with the nut.

A second pivot or base cylinder 60, having an outside diameter less than the outside diameter of the first cylinder 56 and having an inside diameter slightly less than the inside diameter of the first cylinder, extends upwardly from the base to contact the bottom 58 of the depending cylinder. The length of the first and second pivot cylinders are such as to provide support for the cover in addition to the support provided by the engagement of the rims of the cover and base. An annular cap 61 closes off part of the second pivot cylinder to act as a bearing surface for a spring, described below.

Concentric with the first and second pivot cylinders is a third pivot or stop cylinder 62 fixed to the bottom 58 of the first cylinder and extending downward within the interior of the second cylinder 60. A compression spring 64 extends from a washer at the head of the bolt 52 to

the annular cap on the base cylinder between the inside of the base cylinder and the outside of the stop cylinder. The combination of the first, second and third pivot cylinders, the bolt and captivated nut and the compression spring provide centering for the cover and base and allow the cover to rotate relative to the base. The lengths of the base cylinder and the stop cylinder from the bottom **58** are such as to provide a uniform tension in the compression spring **64** when the bolt is threaded until the washer stops against the stop cylinder. This provides the desired amount of frictional engagement between the base and cover while still allowing manual rotation of the cover.

The conductors **36** and **38** are sufficiently long to allow rotation of the cover relative to the base about 360°. A pair of posts **64** (FIG. **5**; shown in phantom in FIG. **4**) extend downwardly on each side of the low battery indicator **46**. The posts extend downwardly a distance sufficient to come into contact with walls **66** in the base defining a cavity **68** for accommodating a hinge **70**, to be described more fully below. The cover can rotate relative to the base in one direction until the first post contacts the wall of the cavity **68** (FIG. **6**). The contact between the post and the wall prevents wrapping of the conductors around the pivot cylinders. The cover can be rotated in the other direction until the second post contacts the opposite wall of the cavity **68**. This prevents the conductors from wrapping around the pivot cylinders in the other direction. The full extent of rotation of the cover, however, approaches 360° and allows for almost any desired orientation of the solar panel regardless of the position, in a horizontal plane, of the lamp bulb. This allows for optimum exposure of the solar panel to light rays while still allowing the best possible positioning of the light source for illuminating the selected area of the ground, wall or the like.

The base and cover are made of a suitable plastic. The first, second and third pivot cylinders are dimensioned along with the spring and bolt in such a way as to allow easy manual rotation of the cover while still providing sufficient frictional engagement between the rims and cylinders of the cover and base to keep the cover from rotating when no force is applied to the cover.

The cavity **68** accepts a cylindrical hinge element **70** in a manner which allows the hinge to rotate about a horizontal axis extending from the left to the right side of the base. The cavity defines an inverted round-bottomed trough enclosed at each end by straight sides. The cylindrical hinge element rests and rotates in the trough and is held in place by each side of the trough. The hinge element is rotatably cradled in cusps in the sides of the trough by protrusions on each end of the hinge element. The hinge element is releasably fastened in place in the trough by a bolt **72** and friction nut **74** so that the base and cover can be rotated about the hinge element to change the orientation of the light and solar panel. A slot **76** in the hinge element allows rotation of the hinge element relative to the bolt.

A mounting post **78** is coupled to the hinge element **70** to allow the rechargeable light to be mounted to a light stand **80** which can then be anchored in the ground or to a wall mounting bracket **82** (FIG. **7**) for mounting to another suitable support surface.

As shown in FIG. **2**, the light stand can be inserted on the mounting post **78** and then used in conjunction with a ground stake **84** so that the rechargeable light can illuminate the ground or walkway, etc. The ground stake preferably includes a plurality of flanges **86** to maintain a stable anchor for the light. The ground stake also has a flat, horizontally extending rim **88** to be placed flush against the ground to provide a low profile for the ground stake and to provide a bearing surface for pushing the ground stake into the ground. After installing the light, the light stand and light can be removed from the ground stake so that the surrounding area can be mowed, trimmed or otherwise maintained.

As shown in FIG. **3**, the bolt **72** can be loosened to allow the hinge element to rotate within the cavity **68** to change the planar orientation of the base and cover of the light. This changes the selected area of illumination for the light. It can also be used to change the slant angle of the solar panel as a function of geographic latitude. The bolt can be retightened as desired to fix the orientation of the light.

FIG. **4** shows the slanted solar panel retained in the cover by the panel cover **42**. The low battery indicator is centered in front of the solar panel and the posts **64** are shown in phantom on each side.

The wall mount bracket **82** (FIG. **7**) includes a rectangular cavity for accepting the mounting post **78** and a pair of slots for accepting the heads of suitable fasteners mounted in a wall or fence for mounting the wall mount bracket to the wall or fence.

The base may include one or more louvers or vents for preventing build-up of humid air inside the cover and base. There may also be provided a labyrinthine path from inside the cover, through a small gap in the gasket **40** and out the top of the cover underneath the upper portion of the panel cover **42**. This allows for convective circulation of air through the unit and prevents accumulation of humid air inside the housing.

Although the present invention has been described in detail with reference only to the presently preferred embodiments, it will be appreciated by those of ordinary skill in the art that various modifications can be made without departing from the invention. Accordingly, the invention is limited only by the following claims.

We claim:

1. A solar rechargable light assembly comprising:

a substantially planar base;

a lamp mounted in the planar base in a fixed position for illuminating a selected area such as the ground or a wall in a direction away from the base;

a mount releasably fixed on the base for mounting the light assembly to a support such as the ground or a wall;

an electrical storage device and power supply for supplying electric current to the lamp;

a cover mounted to a side of the base opposite the lamp and rotatable relative to the base through an angle less than 360°; and

a solar panel fixed to the cover at an angle slanted relative to the planar base to face away form the base and electrically coupled to the electrical storage device for charging the storage device when the solar panel is exposed to light, and wherein current from the storage device illuminates the lamp.

* * * * *

EXHIBIT D

U.S. PATENT NO. 5,758,948 TO HALE

US005758948A

United States Patent [19]

Hale

[11] Patent Number: 5,758,948

[45] Date of Patent: Jun. 2, 1998

[54] **SEASONAL LIGHT DISPLAY DEVICE**

[76] Inventor: **Gregory S. Hale**, 812 E. Broadway, Waukesha, Wis. 53186

[21] Appl. No.: **677,832**

[22] Filed: **Jul. 10, 1996**

[51] **Int. Cl.**[6] **F21P 1/00**; F21P 1/02; A47G 33/06

[52] **U.S. Cl.** **362/123**; 362/123; 362/249; 428/8; 428/9

[58] **Field of Search** 362/102, 123, 362/109, 249; 428/8, 9

[56] **References Cited**

U.S. PATENT DOCUMENTS

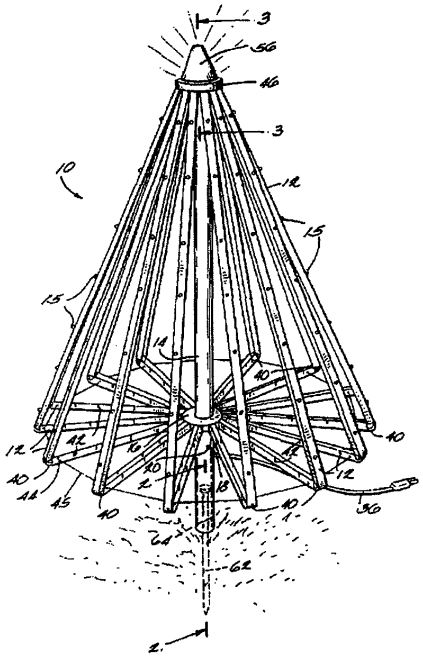
2,087,537	7/1937	Finkel	362/102
2,414,866	1/1947	Glaser	362/123
2,708,324	5/1955	Wedden	362/123
3,313,929	4/1967	Schiavone	362/102
3,704,366	11/1972	Korb et al.	362/123
3,819,459	6/1974	Wren	362/123
4,404,621	9/1983	Mauro	362/123
4,620,270	10/1986	Laakso	362/123
4,734,301	3/1988	McKinney	428/8
4,806,392	2/1989	Dixon	362/123
4,847,123	7/1989	Armstead et al.	428/9
5,053,931	10/1991	Rushing	362/102
5,359,502	10/1994	Cantin	362/249
5,488,549	1/1996	Miller et al.	362/123
5,609,412	3/1997	Contigiani	362/123

Primary Examiner—Ira S. Luzarus
Assistant Examiner—Matthew Spark
Attorney, Agent, or Firm—Ryan, Maki, Mann & Hohenfeldt

[57] **ABSTRACT**

A lighting display device simulates a decorated, lighted tree, when illuminated. A plurality, preferably 15 elongated support members are attached at each end to a central shaft. The upper end is hingedly attached to a stationary collar while the lower end is attached to a collar which is axially moveable along the shaft. A hinge is formed in each of the support members at a point spaced away from the ends of the support members. Each of the support members has a generally C-shaped configuration with an open side facing the shaft and a plurality of spaced openings through a surface of each of the support members faces away from the shaft. Each of the openings is adapted to receive a light bulb from a string of lights, and the channel is adapted to receive a plurality of light sockets supporting the lights. When the collar is moved axially along the shaft, each of the support members is moved, from a substantially straight position suitable for storage of the device, to an erect position wherein each of the support members is folded outwardly from the shaft at the hinge point. The axially moveable ends of the support members are secured to the shaft thus forming a conical tree-like structure.

10 Claims, 5 Drawing Sheets



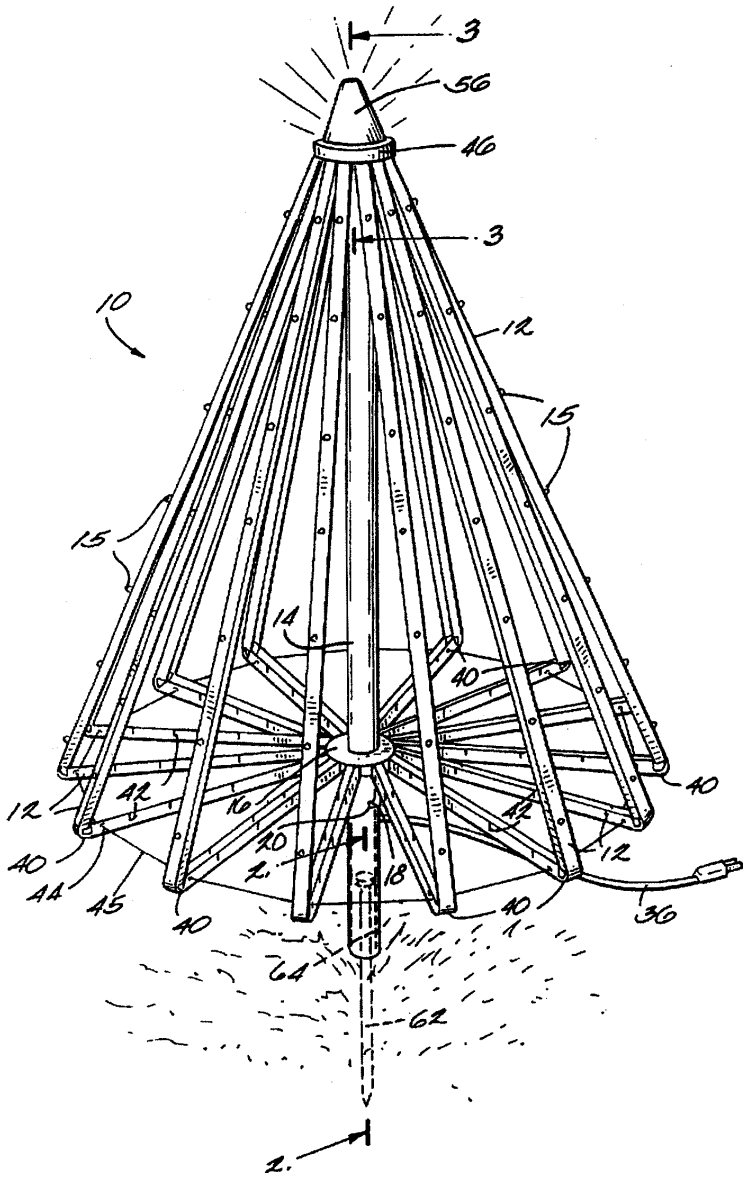
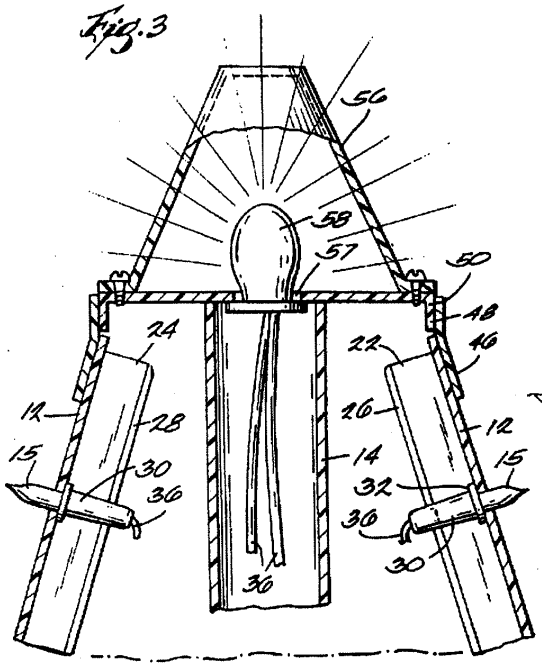
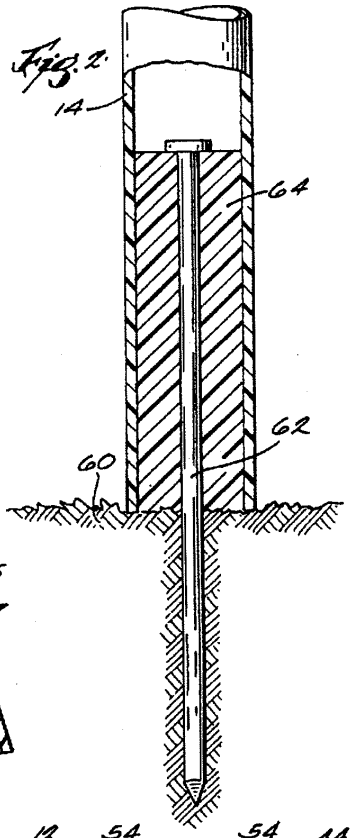
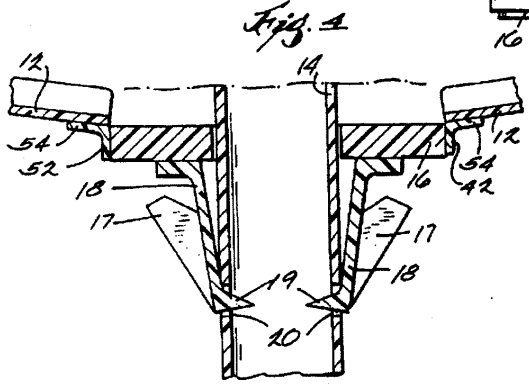


Fig. 1







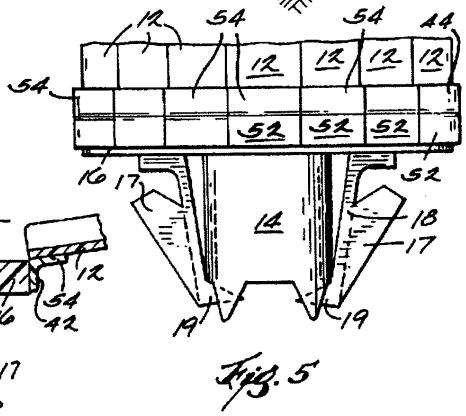


Fig. 5

YOT-1003-1748

Fig. 7

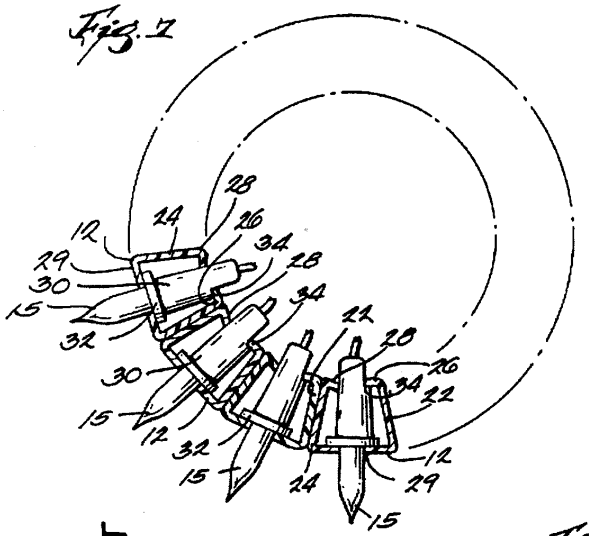


Fig. 6

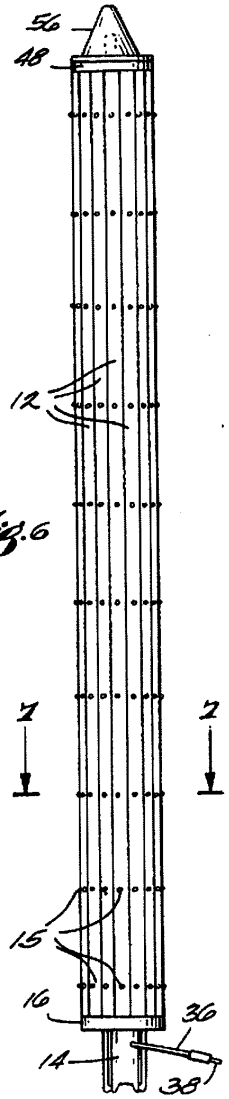


Fig. 8

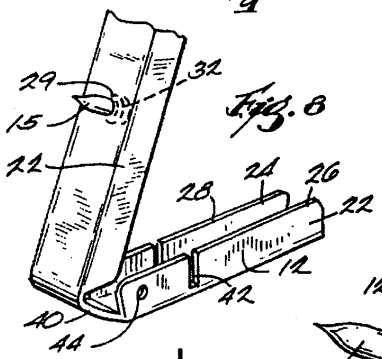
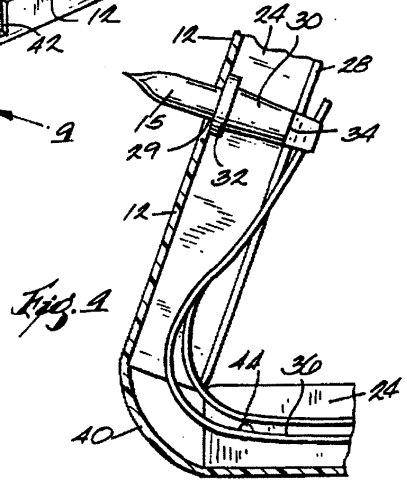


Fig. 9



YOT-1003-1749

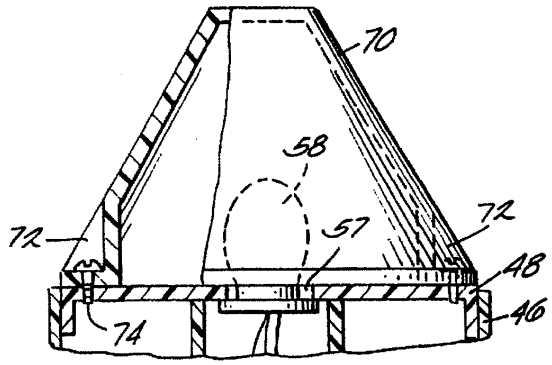


Fig. 10

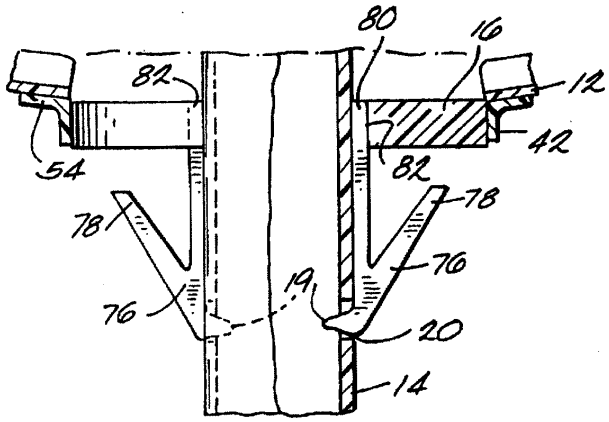


Fig. 11

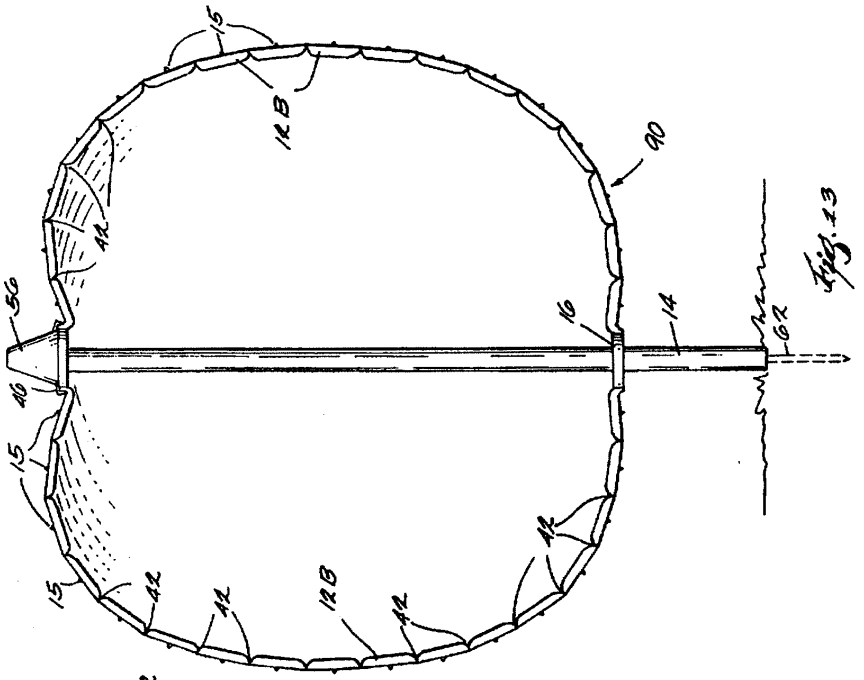


Fig. 13

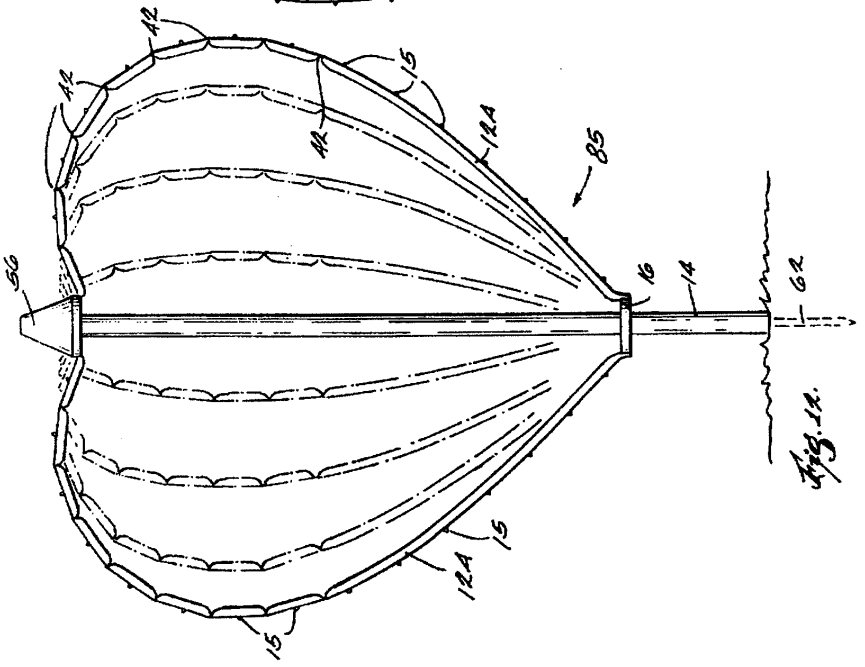


Fig. 14.

SEASONAL LIGHT DISPLAY DEVICE

FIELD OF THE INVENTION

The present invention relates to lighted display devices such as simulated Christmas tree. More specifically the invention relates to a collapsible light-supporting device that, when illuminated, at night resembles a lighted outdoor tree or similar lighted object.

BACKGROUND OF THE INVENTION

Various types of artificial Christmas trees have been utilized for indoor and outdoor usage. Often, to provide an outdoor lighted tree, either a living tree or some type of framework that can support the Christmas lights in a shape resembling a tree, when lighted at night, have been utilized.

SUMMARY OF THE INVENTION

The present invention provides a collapsible and erectable structure adapted to hold one or more strings of conventional Christmas tree lights, and which, when erected, assumes a conical shape resembling a lighted Christmas tree when illuminated and viewed in darkness.

In accordance with one of its aspects, the invention provides a collapsible light supporting device adapted to hold one or more strings of conventional Christmas lights in a shape simulating a tree when erected and illuminated.

In accordance with a related aspect of the invention, a framework is provided which includes a plurality of channels for holding a string of lights. In accordance with a further aspect of the invention the channels for receiving the lights are configured to receive a string of commercially available lights installed in plurality of sockets generally wired together to form a string of lights. Preferably the channels are provided with openings for receiving and supporting the individual lights. In accordance with a further aspect of the invention a conical, treelike structure can be collapsed, much in the manner of an umbrella, for off-season storage.

In accordance with a further aspect of the invention the conical structure is provided with a supporting base which preferably is provided at its lower end with a projecting spike which can be inserted into the ground, by hammering, even if the ground is frozen.

In accordance with yet further aspects of the invention, the structure is preferably formed of plastic channel-shaped strips connected to the upper end of a central shaft which resembles a tree trunk and which are adapted to be pivoted away therefrom into a conically shaped superstructure for use.

In accordance with still further aspects of the invention, the lower ends of each strip are connected to a collar, which forms an interconnecting structure for the lower end of the conical superstructure, which is slidable axially along the central shaft. In accordance with still further aspects of the invention, each rib is provided with a pivoting joint nearer the base of the treelike structure than its top so that, when the collar is moved upwardly on the central shaft, the strips will each pivot outwardly to provide a uniform conically-shaped structure.

In accordance with still further aspects of the invention, other shapes of lighted displays of varying colors are provided for different holidays or special days such as Valentine's Day or Halloween.

Briefly, a lighting display device of the invention simulates a decorated, lighted tree, when illuminated. A plurality, preferably 15, elongated support members are attached at each end to a central shaft. The upper end is hingedly attached to a stationary collar while the lower end is attached to a collar which is axially moveable along the shaft. A hinge is formed in each of the support members at a point spaced away from the ends of the support members. Each of the support members has a generally C-shaped configuration with an open side facing the shaft and a plurality of spaced openings through a surface of each of the support members faces away from the shaft. Each of the openings is adapted to receive a light bulb from a string of lights, and the channel is adapted to receive a plurality of light sockets supporting the lights. When the collar is moved axially along the shaft, each of the support members is moved, from a substantially straight position suitable for storage of the device, to an erect position wherein each of the support members is folded outwardly from the shaft at the hinge point. The axially moveable ends of the support members are secured to the shaft thus forming a conical tree-like structure.

Further objects and advantages of the invention will be apparent from the following detailed description, the claims and the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view showing a lighting device of this invention in the assembled, erect position;

FIG. 2 is a fragmentary cross sectional view taken along line 2—2 of FIG. 1;

FIG. 3 is a fragmentary sectional view taken along line 3—3 of FIG. 1;

FIG. 4 is a fragmentary central sectional view showing in expanded detail the relationship between the central shaft and the elongated light supporting members;

FIG. 5 is fragmentary view showing the lower strip connecting assembly in the storage position;

FIG. 6 is a side elevational view showing the device of the invention in the collapsed storage position;

FIG. 7 is a fragmentary sectional view taken along line 7—7 in FIG. 6;

FIG. 8 is a fragmentary perspective view of a pivoting joint formed in the elongated supporting strips used in connection with the structure of the invention; and,

FIG. 9 is a sectional view taken along line 9—9 of FIG. 8;

FIG. 10 is a fragmentary cross-sectional view showing an alternate form of an upper end cap for device of this invention;

FIG. 11 is a fragmentary view with parts in section showing an alternative embodiment of a slidable collar and central supporting shaft assembled together;

FIG. 12 is a side elevational view with some of the light supporting strips removed for clarity showing a lighting device of this invention suitable for use at Valentine's Day; and,

FIG. 13 is a view showing schematically a lighting device suitable for use at Halloween.

DETAILED DESCRIPTION

Referring more particularly to the drawings, a lighting device 10 of this invention is shown in the assembled and erect position in FIG. 1. Device 10 is adapted to support at least one string of conventional Christmas tree lights and to resemble, when illuminated, a lighted Christmas tree, when viewed at night or in darkness. As will be further explained, such a device can be provided either for indoor or outdoor display.

Device **10** includes a plurality, around its circumference, of elongated light supporting strips **12**. Strips **12** are all mounted concentrically around a central supporting shaft **14**. Each strip **12** is preferably in the form of a generally C-shaped channel and is adapted to support a plurality of small miniature or small light bulbs **15** provided in a conventional string of lights. Each of the strips **12** is connected at its lower end to a sleeve **16** which is concentrically slidably mounted around a central supporting shaft **14**. As best seen in FIG. **4** the lower end of supporting sleeve **16** is provided with a plurality, preferably a pair, of clips **18** which have inwardly extending tips or ends **19**, which are adapted to be received in openings or slats **20** provided in shaft **14** at an elevation which supports the strips **12** in a generally conical shape as shown in FIG. **1**.

As best seen in FIG. **7**, each of strips **12** is provided with an outwardly exposed side having circular openings through each of which a light bulb **15** extends. Strips **12** have opposed lateral edges **22** and **24** which are sloped inwardly at an angle which enables all of the strips, when placed in the storage position shown in FIG. **6**, to form an encircling assembly around central shaft **14**. In the illustrated embodiment there are **15** strips **12** positioned around central shaft **14**. This number of strips has been convenient, and preferred, in that a single string of miniature type Christmas tree lights will conveniently fit within and be supported by the channels of strips **12**. However, it will be understood that a different number of strips **12** can be utilized and that the side surfaces **22** and **24** can be positioned at a slightly different angle appropriate for the number of strips **12** employed to fit together.

As further seen in FIG. **7**, the sides **22** and **24** of strips **12** also have inwardly turned edges **26** and **28** which form a partial inner wall for strips **12** through which light bulbs **15** can be introduced or removed as needed.

It will be noted that the sockets **30** into which miniature style light bulbs **15** are conveniently each provided with a flange or ledge **32** which abuts against the inner side of strips **12** thereby enabling the light bulbs **15** only, to extend through openings **29** in strips **12**. Light sockets **30** also, conveniently, usually have ledges **34** formed thereon, which are of a size adapted to snap under and to be retained by an edge **26** or **28**, to thus securely hold the lights in place. In conventional fashion the light sockets are all connected electrically in by means of wires or cords **36** which are provided at their ends with a conventional electrical plug **38** for installation in the socket of an electrical outlet or extension cord.

Each of the strips **12** is provided with a section **40** which is the devoid of sidewalls **22** and **24**. Sections **40** thus provide a point for folding of the strips **12** outwardly when sleeve **16** is raised along the length supporting shaft **14**. The pivoting points defined by sections **40** are preferably located closer to the lower end of the assembly than to the top so that a conical shape is achieved as shown in FIG. **1** when sleeve **16** is moved to an elevation wherein ends **19** of clips **18** can be lodged in slots **20**. Note also in FIGS. **4** and **5** that clips **18** have projecting flanges **17** which are provided to enable removal of ends **19** from slots **20** by pivoted caused by inward finger pressure against the projecting flanges **17**.

As also best seen in FIGS. **1** and **8**, the lower ends of strips **12** are preferably provided with a plurality of slots or notches **42** which impart a degree of flexibility and curvature to the lower ends of strips **12** while the upper ends are relatively more rigid. Also provided in the strips **12** at a location just below pivot sections **40** are openings **44** which are adapted to receive an encircling restraining cord **45**. Cord **45** is of benefit in assisting the assembly **10** in holding its shape even when adverse weather conditions, such as wind or blowing snow are encountered. Cord **45** is preferably attached to each strip **12** by means of glue, a clip or similar fastening means. An L-shaped tab **52** can be adhered to sleeve **16** corresponding to each strip **12**. The ends **54** of tabs **52** provide surfaces for attachment of strips **12**.

An upper plate **50** is also provided at the upper end of shaft **14** as best seen in FIG. **3**. Connecting strips **46** are also connected to upper ends of strips **12** and to a downwardly depending flange **48** on plate **50**. This arrangement will be observed to enable repeating pivoting of the upper ends of strips **12** toward and away from shaft **14** without failure on account of material fatigue.

Also located at the upper end of the device **10** is a translucent conical cap **56** which houses a bulb **58** which is adapted to extend through a central opening **57** in plate **50**. This enables lighting of the conical cap **56** at the upper end of the device. Instead of a single bulb **58**, a short string, for example, one with **10** miniature lights can be in inserted within cap **56** to provide a somewhat modified visual effect.

Device **10** can be mounted outdoors and secured to the ground **60** by means of a spike **62** which is centrally located through a hole in a short cylindrical shaft **64** preferably formed of plastic material. Shaft **64** has an outer dimension to fit snugly within the inside diameter of central supporting shaft **14**. Thus the device can be easily installed by hammering the top of spike **62** to install shaft **64** above the ground surface and the central shaft **14** is installed thereover with the strips **12** in the conically expanded position. The device is then ready for illumination by installation of plug **38** into an electrically energized socket. Spike **62** can be provided with laterally extending fins to improve anchoring of the device in temperate climates or when soft ground is encountered, for example, for non-wintertime use.

It is preferred to construct the device **10** entirely out of plastic material such as polyvinyl chloride, high density polyethylene or other commercially available plastics. An exception, of course is spike **62** which would generally be formed of metal. It will also be appreciated that instead of a spike **62**, shaft **64** can be attached to a suitable supporting base having laterally extending feet, so that device **10** can be placed in an indoor location. It will thus be appreciated that while during daylight only a conical structure as shown in FIG. **1** will be noted, that, in the darkness, when illuminated, the device will resemble a lighted Christmas tree. The device also can be provided with accessories for storage such as a suitable containing sleeve or a band, such as a Velcro strip, to retain the strips **12** in the elongated storage position of FIG. **6** for off season storage. The device of this invention can also be displayed in the collapsed position to form a "pillar of light."

While it is convenient to use a string of lights to provide illumination, other arrangements could be substituted. For example, a separate string of lights could be provided for each of strips **12**.

Also, the device can be provided in alternate forms for use in seasons other than Christmas. For example, as depicted in FIG. **12**, a lighting display appropriate for Valentine's Day or Halloween can be provided by altering the placement of the strips **12** and notches **42** formed therein.

Referring to FIG. **10**, there is seen an alternative form of a cap **70** suitable for attachment to upper end plate flange **48**. For that purpose, indentations are formed on two or more sides of the conically-shaped cap **70** and indentations **72** are

formed on two or more sides of the conically-shaped cap **70**. The bottoms of indentations **72** are provided with openings to facilitate placement of screws **74** for attachment of cap **70** to end plate flange **48**.

An alternative form of clip **76** is illustrated in FIG. **11**. Two or more clips **76** are provided in place of clips **18** to engage an opening **20** and central shaft **14**. Extensions **78** are provided to enable flexing of the ends **19** of clip **76** out of openings **20** to permit sliding of the assembly along shaft **14**. The upper ends **80** of clips **76** are adapted to be adhered within channels **82** cut into the interior edge of sleeve **16**.

FIGS. **12** and **13** illustrate alternative embodiments of the invention provided for differing seasons of the year. It will be noted that by appropriate placement of notches **42** and light supporting strips **12A**, in the embodiment shown on FIG. **12**, a generally heart-shaped lighting display **85** can be formed. In keeping with a Valentine's display, the lights **15** could be fitted with red or pink bulbs.

A still further form of display device **90** is shown in FIG. **13**. Device **90** is suitable for use as a Halloween display. In this case, the notches **42** in strips **12B** are formed so as to provide a pumpkin-shaped outline. Light bulbs **15** can be orange-colored bulbs. Upper conical cap **56** in such event could be fitted with a green bulb. Additionally, it will be apparent to those skilled in the art that lighting displays suitable for other seasons or occasions can be provided.

While preferred embodiments of the invention have been shown for the purposed of illustration, it will be understood various substitutes and changes may be made by those skilled in the art without departing from the concepts of the invention.

What is claimed is:

1. A lighting display device for simulating a selected lighted object, when illuminated, comprising

a central shaft,

a plurality of elongated support members each attached at one end to said shaft adjacent a first end of said shaft,

at least one hinge formed in each of said support members and spaced away from said first end of said shaft,

each of said support members having a generally C-shaped configuration with an open side facing said shaft and a closed side facing away from said shaft, a plurality of spaced openings through said closed side of each of said support members, each of said openings being adapted to receive a light bulb which is provided with means for illumination thereof, said bulbs extendable through said openings in a direction away from said shaft, said C-shaped configuration being adapted to receive and contain therein a plurality of light sockets supporting said light bulbs, the end of each said support members opposite said first end being moveable axially along said shaft, whereby each of said support members can be moved, from a substantially straight position suitable for storage of said device, to an erected position wherein each of said support members is folded outwardly from said shaft at said hinge, and,

means to retain said axially moveable ends at a selected position relative to said shaft.

2. A device according to claim **1** wherein said support members have inwardly angled sidewalls on each side thereof which are each complementary with the side walls of an adjacent support member, whereby said support members, collectively, when in the elongated storage position, circumscribe said shaft.

3. A device according to claim **1** wherein a cylindrical collar is provided for supporting each end of said elongated support members on said shaft.

4. A device according to claim **2** wherein fifteen of said elongated support members are employed.

5. A display device according to claim **1** wherein said open sides of said C-shaped channels are bordered by inwardly extending edges and said sockets are adapted to snap fit under and to be retained by said edges.

6. A lighting display device which simulates a decorated, lighted tree, when illuminated, comprising a plurality of elongated support members attached at each end to a central shaft, the upper end of each member being hingedly attached to a stationary collar and the lower end being attached to a collar which is axially moveable along the shaft, a hinge being provided in each of the support members at a point spaced away from the ends thereof, each of the elongated support members having a plurality of spaced openings therethrough, said openings passing a through a surface of each of the support members which faces outwardly away from the shaft, each of the openings being adapted to receive a light bulb attached to a string of lights with each bulb extendable through one of said openings in a direction away from said central shaft, the elongated support members each having a C-shaped channel having an open side facing toward said shaft and a closed side having said surface facing away from said shaft which channel is adapted to receive and contain a plurality of light sockets supporting the light bulbs, each of the support members being movable, from a substantially straight position suitable for storage of the device, to an erect position wherein each of the support members is folded outwardly from the shaft at the hinge, thus forming a conical tree-like structure, when said movable collar is moved axially upward along the shaft.

7. A device according to claim **6** wherein said support members comprise generally C-shaped channels with an open side facing the shaft.

8. A device according to claim **6** wherein a hollow conical housing is provided at the upper end of said shaft, said housing being adapted to contain at least one light bulb for illumination thereof.

9. A device according to claim **7** wherein said hinge on each support member is formed by a section which is devoid of side walls.

10. A device according to claim **7** wherein each end of each of said elongated members is hingedly attached to one of said collars.

* * * * *

EXHIBIT E

U.S. PATENT NO. 6,406,163 TO T. YANG

US006406163B1

(12) **United States Patent**
Yang

(10) **Patent No.: US 6,406,163 B1**
(45) **Date of Patent: Jun. 18, 2002**

(54) **SOLAR CELL LIGHTING FIXTURE INTEGRATED WITH HEAT SINK**

(76) Inventor: **Tai-Her Yang**, No. 59, Chung Hsing 8 St., Si-Hu Town, Dzan-Hwa (TW)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/721,970**

(22) Filed: **Nov. 27, 2000**

(51) **Int. Cl.**[7] **F21L 4/02**; F21V 23/00
(52) **U.S. Cl.** **362/183**; 362/374; 362/276
(58) **Field of Search** 362/183, 218, 362/191, 249, 276, 363, 306, 360, 361, 353, 354, 294, 373

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,103,384 A	*	4/1992	Drohan	362/191
5,249,112 A	*	9/1993	Bray	362/306
5,297,013 A	*	3/1994	Hall et al.	362/363
6,120,165 A	*	9/2000	Shalvi	362/276

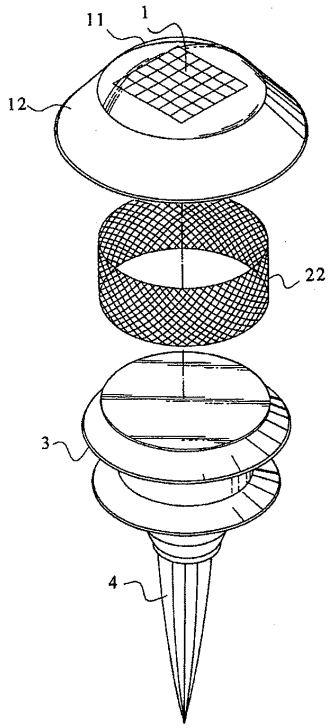
* cited by examiner

Primary Examiner—Alan Cariaso
Assistant Examiner—Bao Truong
(74) *Attorney, Agent, or Firm*—Bacon & Thomas

(57) **ABSTRACT**

A solar cell lighting fixture is integrated with a heat sink adapted to a lantern, a garden light, a wall fitting, a portable lighting fixture or other lighting fixtures, or on a mobile vehicle including an automobile, a sea vessel, an aircraft, a bicycle, or a motorcycle. A support structure with a predetermined configuration is provided between an upper lid with a solar cell panel, and a bulb is provided below the upper lid. A bulb housing contains battery components, such as a secondary cell or a battery capacitor, a charging circuit or a component to convert electrical energy into optical energy, and operation and control circuits. The support structure defines a space for the heat sink, thus allowing heat dissipation for the area between the upper lid and the bulb, thus protecting the charging circuit and battery components contained inside the bulb housing from being damaged or having their performance negatively affected by heat built up due to prolonged exposure to the direct sun.

13 Claims, 15 Drawing Sheets



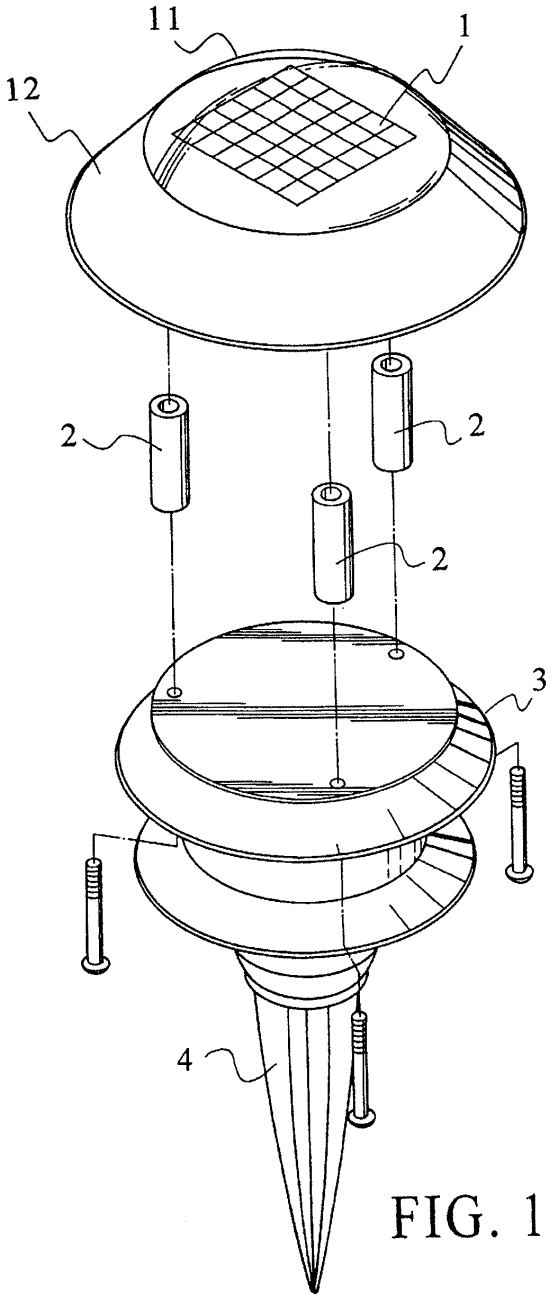


FIG. 1

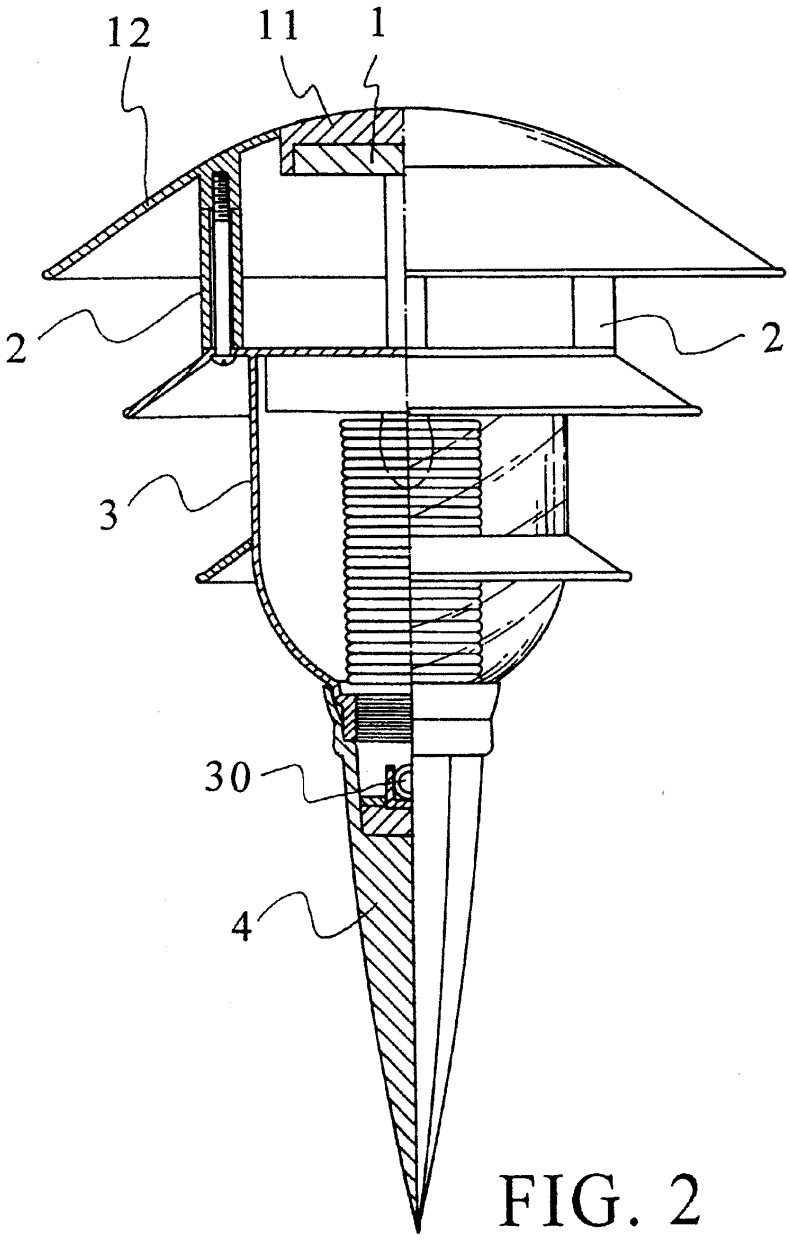


FIG. 2

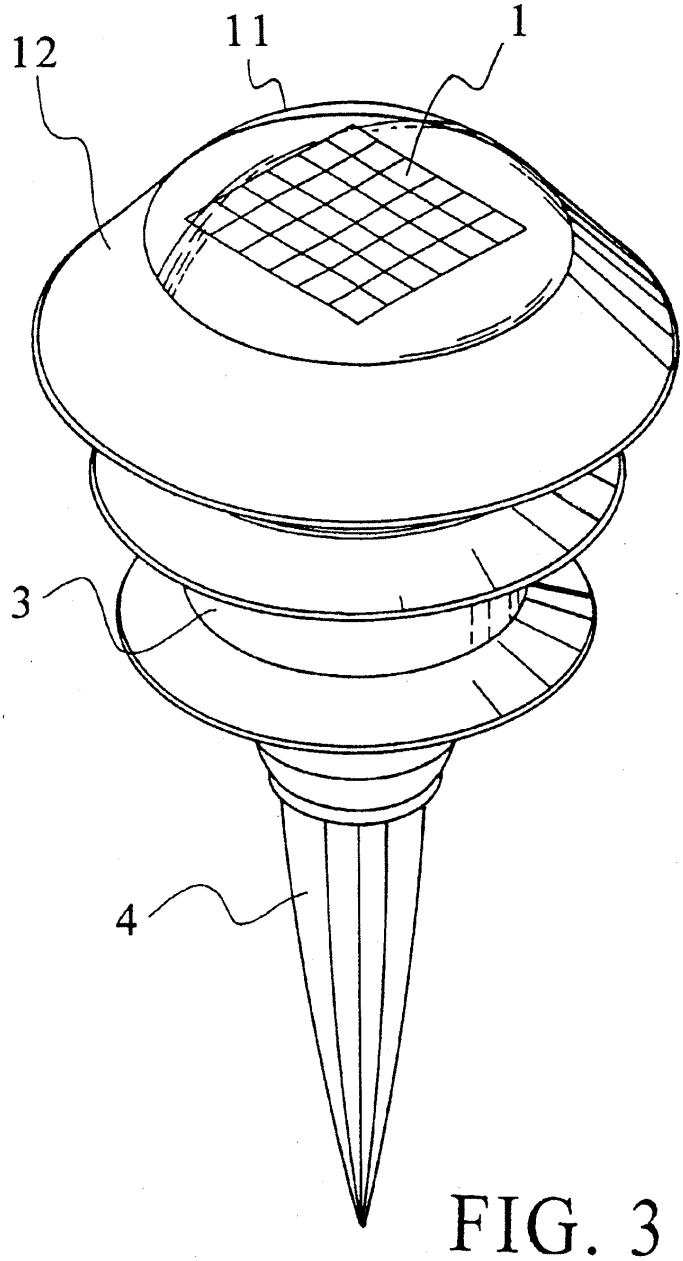


FIG. 3

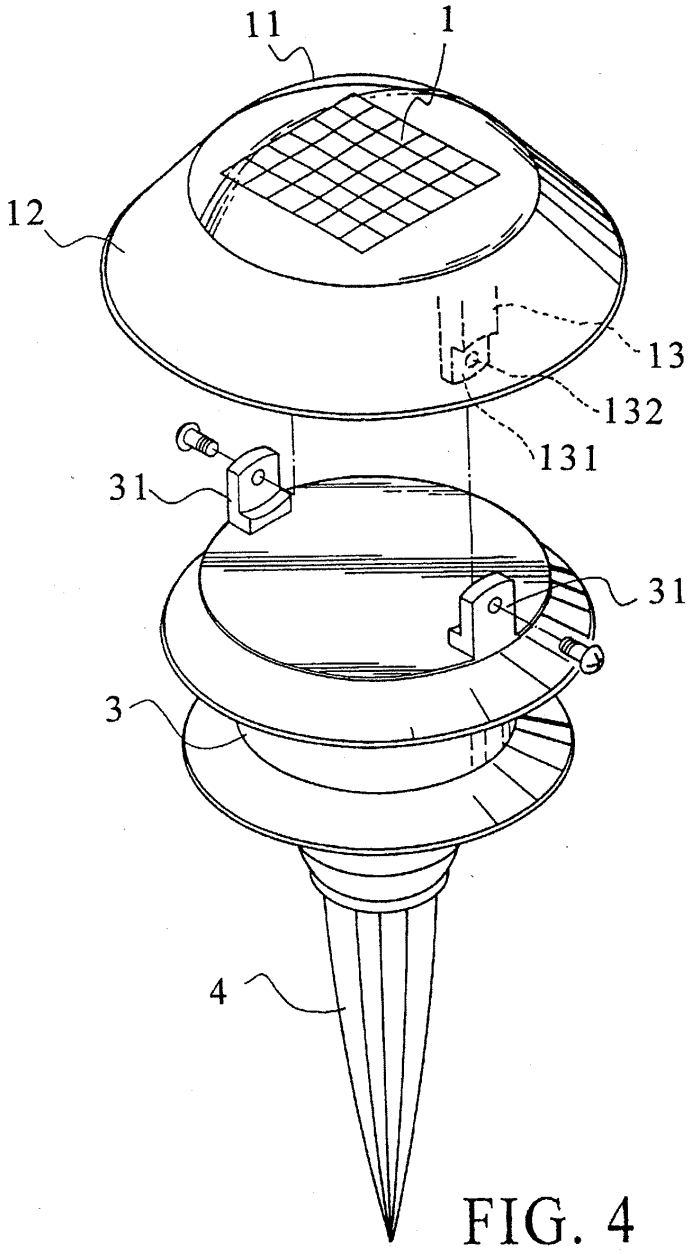


FIG. 4

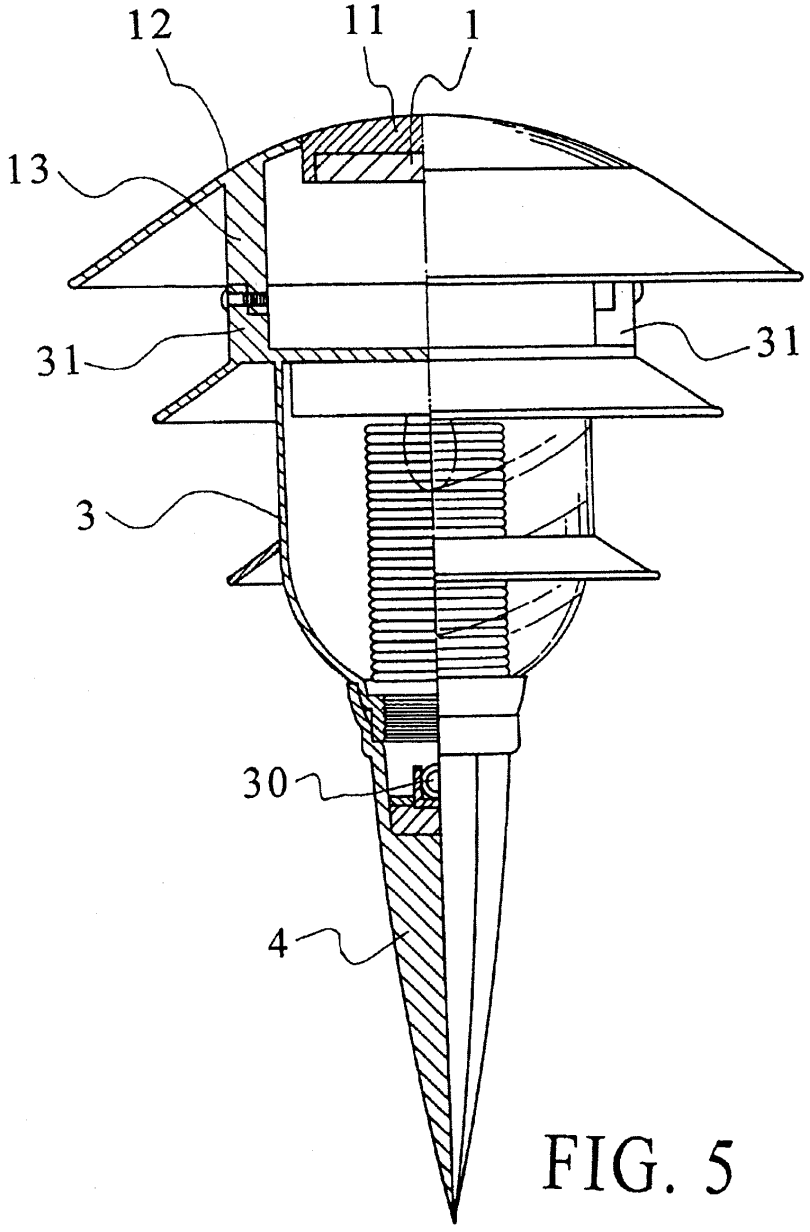


FIG. 5

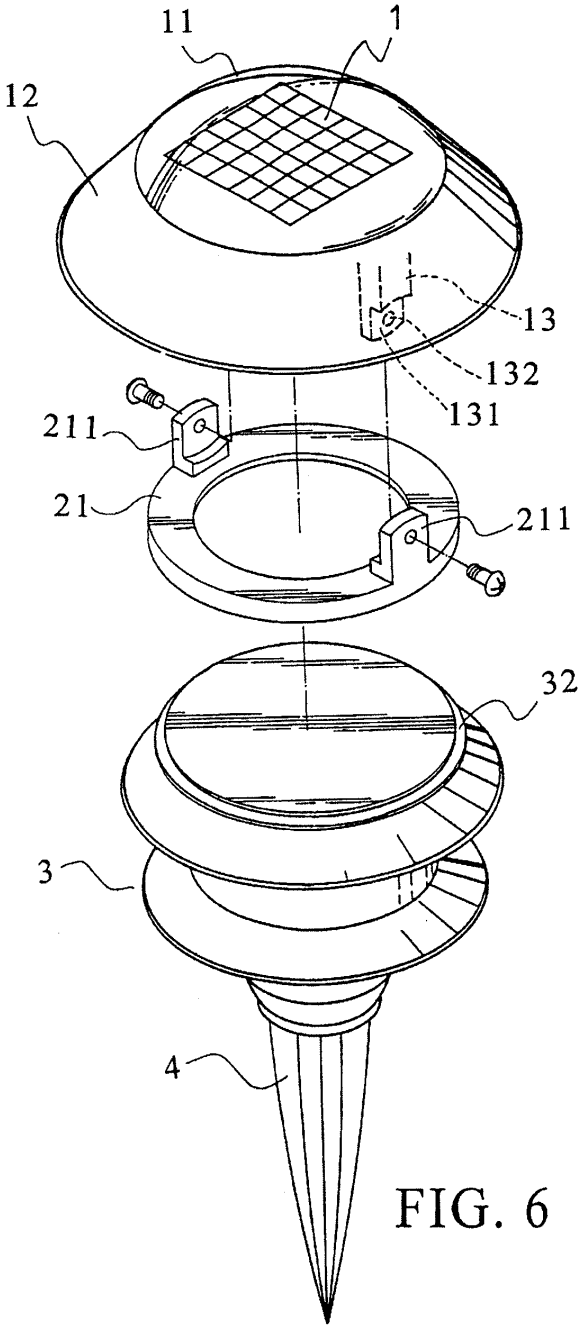


FIG. 6

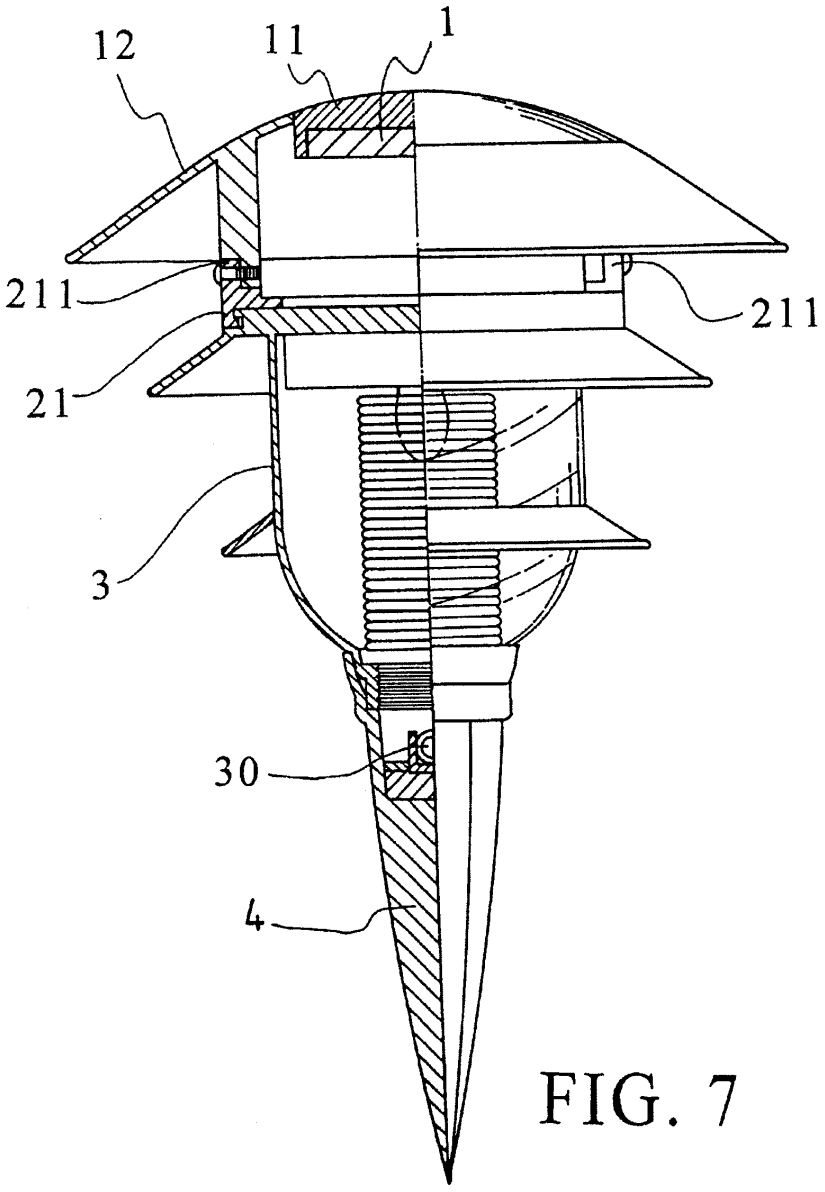


FIG. 7

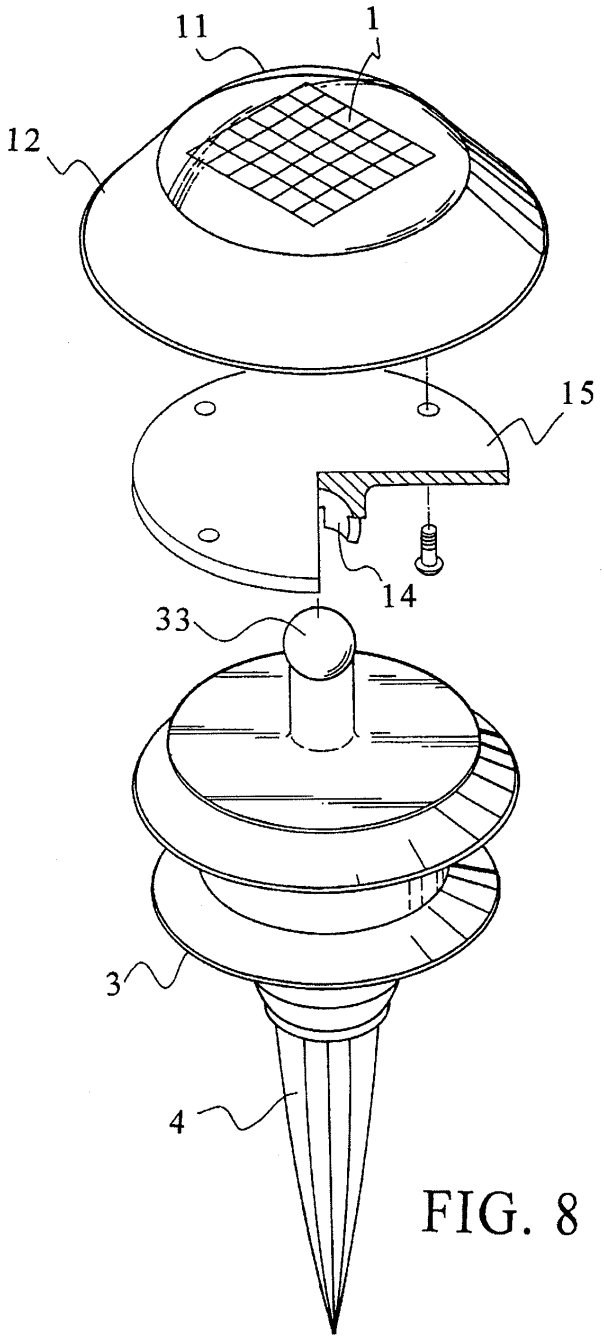


FIG. 8

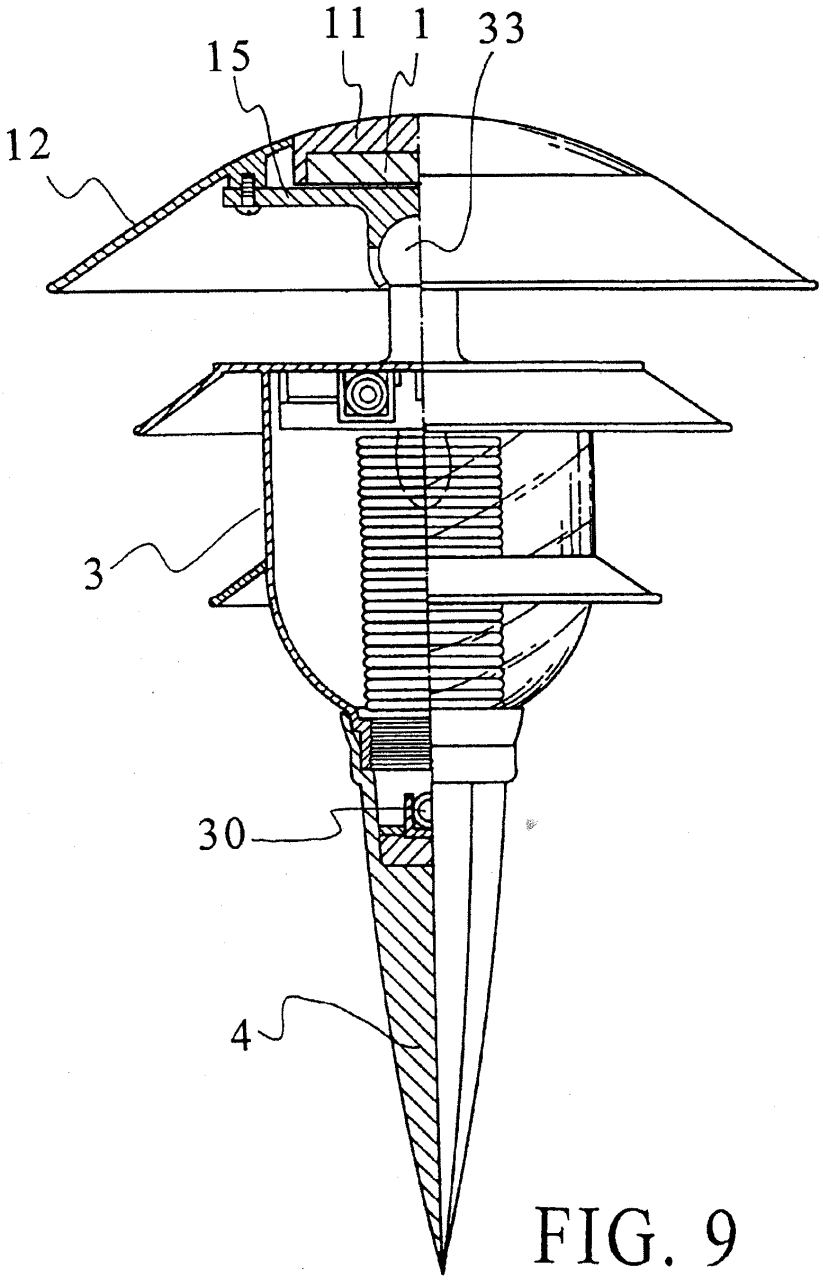


FIG. 9

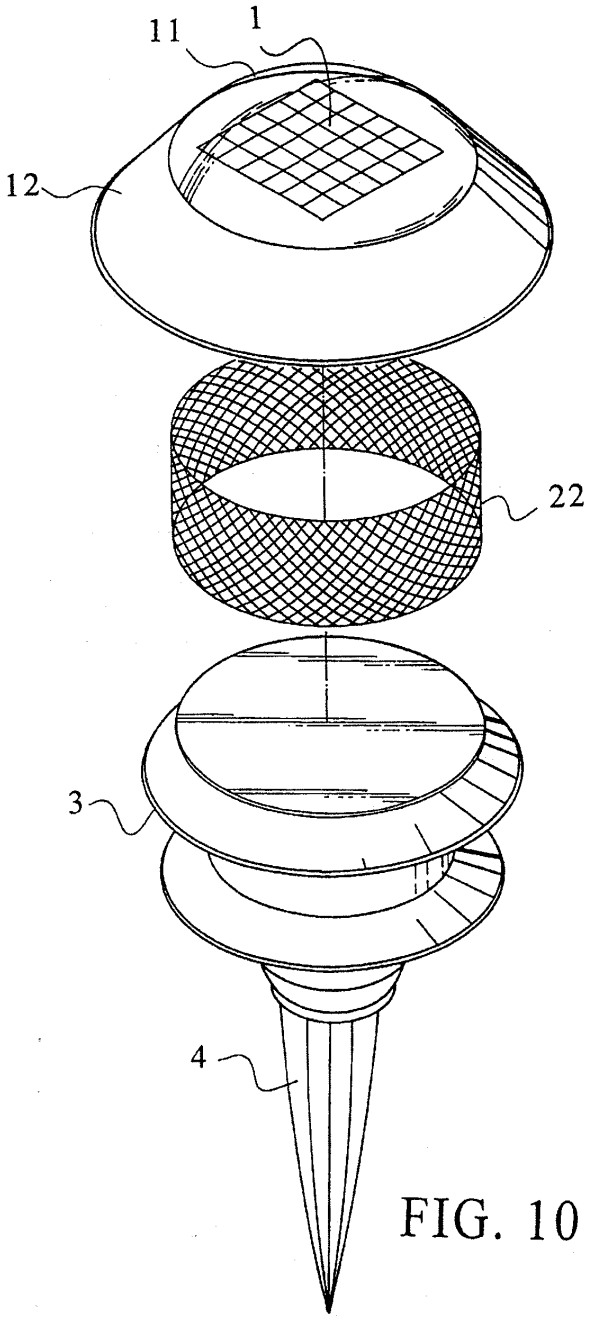


FIG. 10

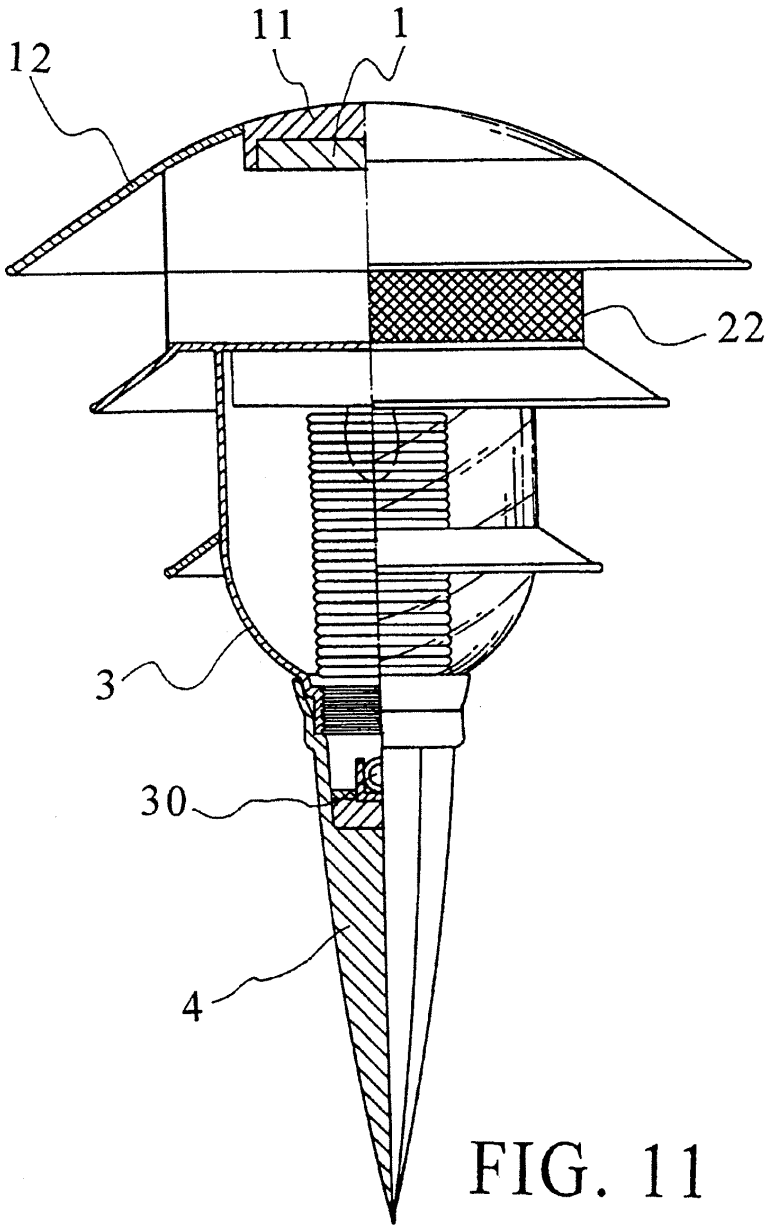


FIG. 11

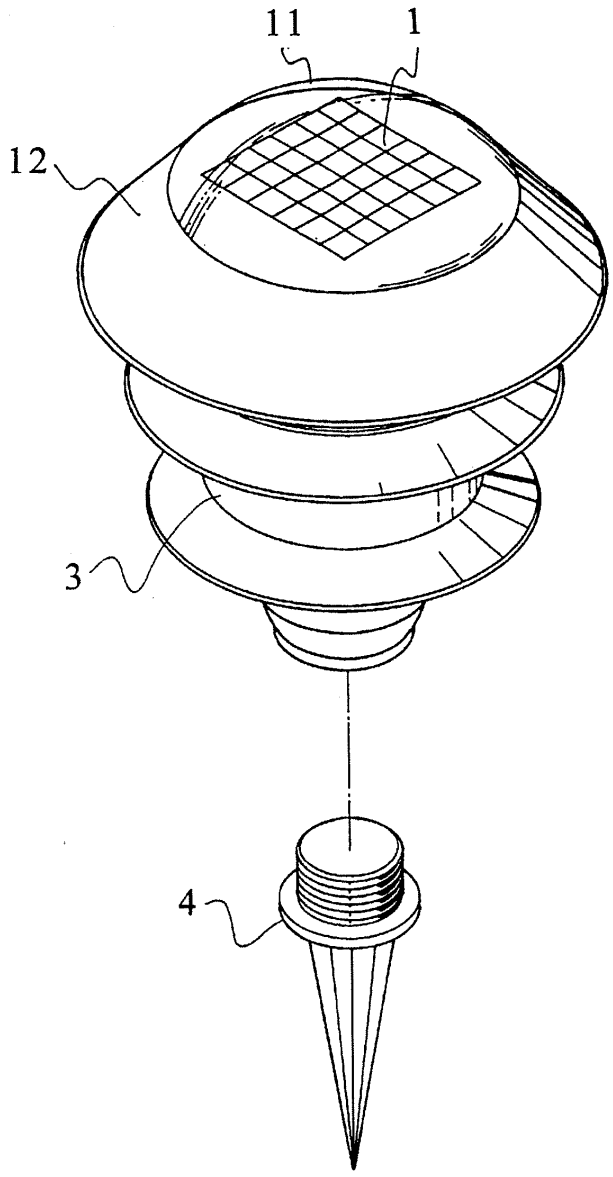


FIG. 12

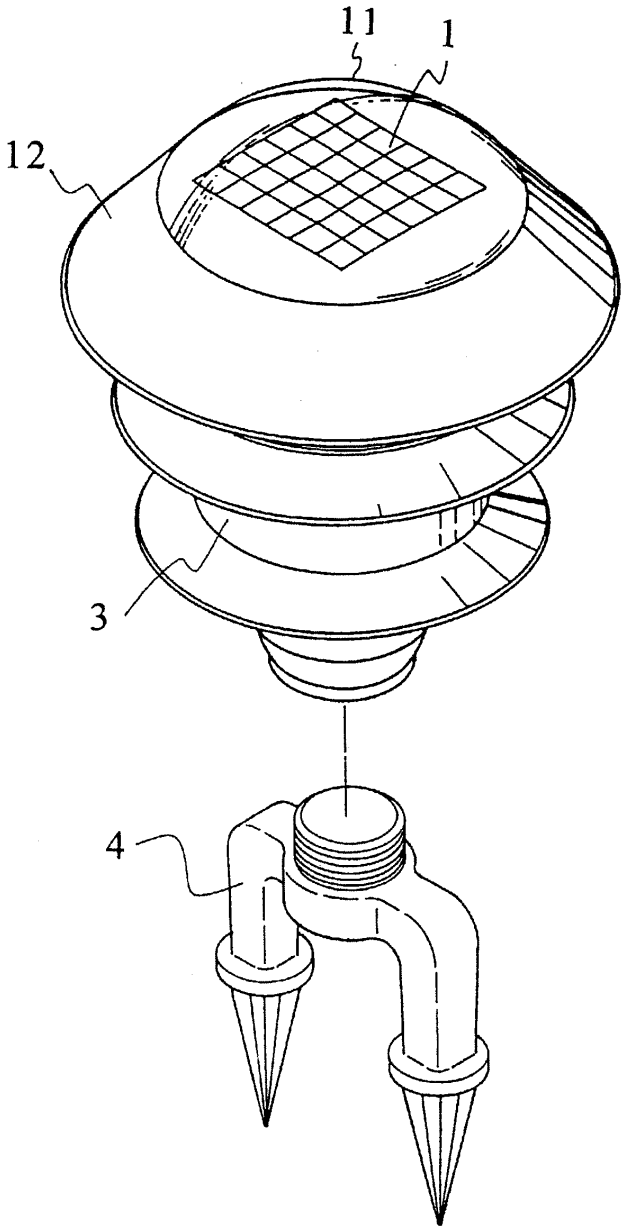


FIG. 13

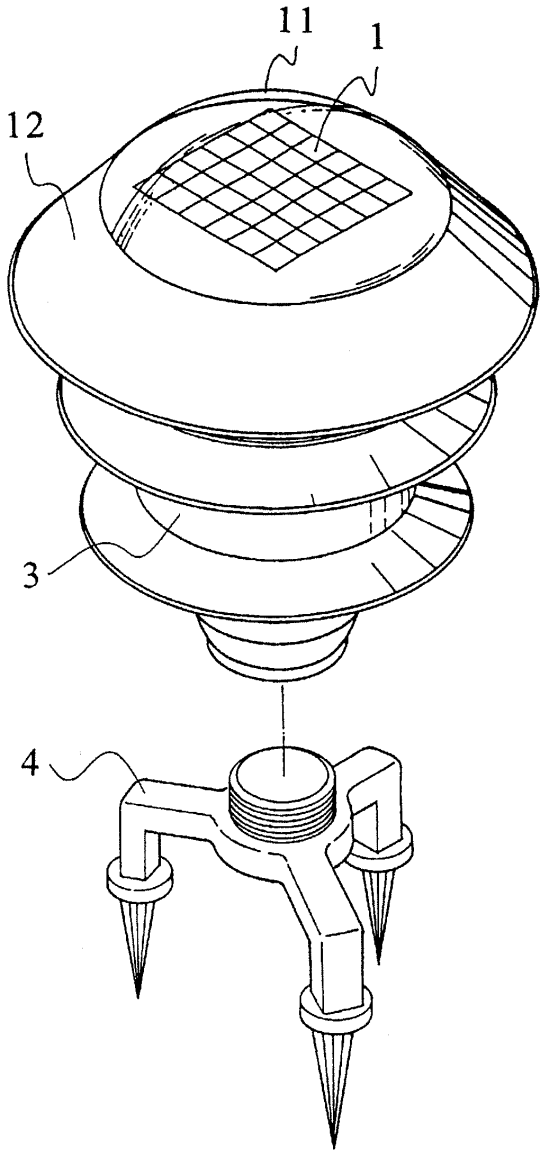


FIG. 14

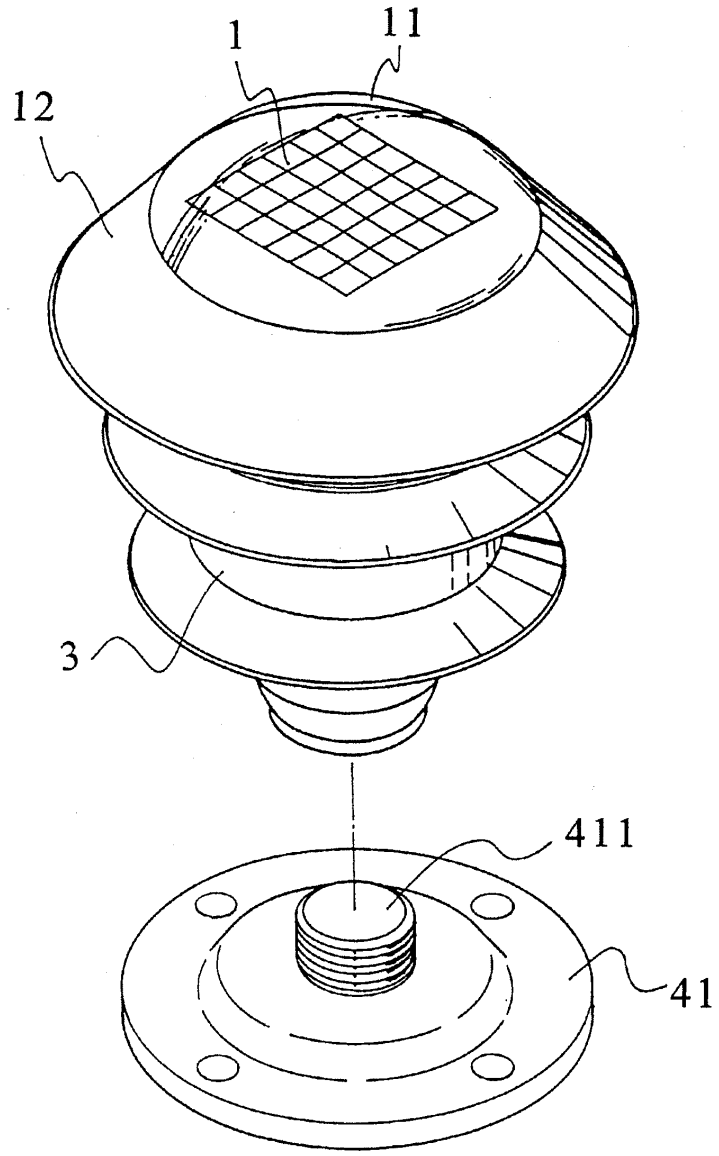


FIG. 15

SOLAR CELL LIGHTING FIXTURE INTEGRATED WITH HEAT SINK

BACKGROUND OF THE INVENTION

(a) Field of the Invention

The present invention relates to a solar cell lighting fixture integrated with a heat sink, and more particularly, to one to be adapted to a wall fitting or a garden light. Between its utmost top where an upper lid of a solar cell panel is provide, and below the top where a bulb containing battery components and other circuit devices, a ventilation space and a support structure of a predetermined configuration in said space are provided. An isolated heat sink between the upper lid and the bulb is created for protecting the charging circuits and its battery components from being damaged or their performance from been negatively affected by excessively high interior temperature due to prolonged direct sunshine.

(b) Description of the Prior Art

The prior art of solar lighting fixture, such as a traditional solar cell post lantern, garden light or wall fitting is essentially comprised of a solar cell panel light shade, bulb, battery components within the bulb (containing charging circuit and battery and a mounting member. The purpose of said mounting member is for the fixture to be either directly buried in the ground, or provided at the top of a post, in a mechanical equipment, or to a vehicle including a automobile, a sea vessel or an aircraft. Said member may be also provided in a form of an underground post or ground tapered support. However, in the traditional solar cell lighting fixture, the light shade of the solar cell panel and the bulb are integrated that encourages heat to build up inside the bulb due to hyperthermal effect when the solar cell panel absorbs solar energy. Since the heat can not be effectively dissipated, the performance of the charging circuit and cell components is vulnerable to damage or failure.

SUMMARY OF THE INVENTION

The primary purpose of the present invention is to provide a solar cell lighting fixture integrated with a heat sink. The prevent invention is for adaptation to a post lantern, a garden light, a wall fitting, or a vehicle including an automobile, a sea vessel or a aircraft, or a bicycle, a motorcycle, a portable light or other types of lighting fixtures. A ventilation space is provided between utmost top and bulb of the lighting fixture of the present invention. The utmost top of the lighting fixture accommodates an upper lid of a solar cell panel. Battery components such as a secondary cell or a battery capacitor, and a charging circuit or device to convert electric energy into optical energy such as a bulb or an illuminating diode and its operation and control circuits are provided below the upper lid. Within the ventilation space separating a support structure of the solar cell panel from the bulb, the support structure in a predetermined configuration is provided to protect charging circuit and its batter components from being damaged or having their performance negatively affected by excessively high interior temperature in the bulb.

Another purpose of the present invention is to provide a solar cell lighting fixture integrated with a heat sink. Said heat sink is comprised of one or more than one support pillar provided between the support structure of the solar cell panel and the bulb. Said pillars may be made mobile and mutually interlocked between the support structure of the solar cell panel and the bulb to adjust the angle of the support structure as desired. Said pillar may be individually provided onto a ring that is inserted to the bulb so that the pillar can be adjusted as desired by rotation. A universal ball joint may be provided at the bottom of the support casing of the solar cell panel and inserted into the joint pillar corresponding to the bulb for adjustment as desired by rotation. The heat sink may be also provided in net or porous structure.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a blowout of a first preferred embodiment of the present invention.

FIG. **2** is a sectional view of the first preferred embodiment of the present invention as assembled.

FIG. **3** is a view showing the appearance of the first preferred embodiment as assembled.

FIG. **4** is a blowout of a second preferred embodiment of the present invention.

FIG. **5** is a sectional view of the second preferred embodiment of the present invention as assembled.

FIG. **6** is a blowout of a third preferred embodiment of the present invention.

FIG. **7** is a sectional view of the third preferred embodiment of the present invention as assembled.

FIG. **8** is a blowout of a fourth preferred embodiment of the present invention.

FIG. **9** is a sectional view of the fourth preferred embodiment of the present invention as assembled.

FIG. **10** is a blowout of a fifth preferred embodiment of the present invention.

FIG. **11** is a sectional view of the fifth preferred embodiment of the present invention as assembled.

FIG. **12** is a view showing a preferred embodiment of the present invention with one tapered pillar provided at the bottom of a bulb.

FIG. **13** is a view showing a preferred embodiment of the present invention with two tapered pillars provided at the bottom of the bulb.

FIG. **14** is a view showing a preferred embodiment of the present invention with three tapered pillars provided at the bottom of the bulb.

FIG. **15** is a view showing a preferred embodiment of the present invention with a fixed base provided at the bottom of the bulb.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The present invention, as illustrated by multiple preferred embodiments of the accompanying drawings, is for adaptation to a post lantern, a garden light, a wall fitting or other types of lighting fixtures. It is essentially comprised of an upper lid at the utmost top to accommodate a solar cell panel, and a support structure with a predetermined configuration provided between the upper lid for accommodation of the solar cell panel and the bulb underneath said upper lid. Said support structure thus creates an isolated space for heat sink. Both of the support structure and the heat sink protect batter components inside the bulb from being damaged or having their performance negatively affected by heat build up due to prolonged exposure to direct sun. As illustrated in FIGS. **1**, **2** and **3**, a first preferred embodiment of the present invention of a solar lighting fixture integrated with a heat sink is essentially comprised of a solar cell panel **1**, a support structure and bulb **3**. Wherein, said solar cell panel **1** is provided at the tip of the utmost top of the lighting fixture and a light transmission plate **11** coupled to the solar cell panel **1** and incorporated to the upper lid **12**. A support

structure is fixed by incorporation or assembly between the solar cell panel **1** and a bulb **3** with one or more than one hollow or solid pillar **2** to permit an isolated heat sink between the solar cell panel **1** and the bulb **3**. The bulb **3** is essentially provided to accommodate a battery component, such as a secondary cell or a battery capacitor **30**. It may be further placed with a charging circuit or device that converts electrical energy into optical energy, such an electric bulb or an illuminating diode, and light operation and control circuits as applicable. The bulb **3** may be made with a tapered footing structure **4** extending downward for the lighting fixture to be directly planted into the ground. The tapered footing structure **4** provides an interior space closer to the ground for accommodating the battery component, such as the secondary cell or the battery capacitor **30**, and the charging circuit or device that converts electrical energy into optical energy, such an electric bulb or an illuminating diode. Or, a tapered footing member may be separately provided at bottom of the bulb **3**.

By assembling those members disclosed above, a heat sink is formed among the support structure of the solar cell panel, the bulb and the operation and control circuits. By taking advantage of said isolated heat sink, the charging circuit and its battery component **30** inside the bulb **3** are protected from being damaged or having their performance negatively affected by excessively heat built up due to the prolonged direct sunshine.

As illustrated in FIGS. **4** and **5**, a second preferred embodiment of the present invention of a solar cell lighting fixture integrated with a heat a sink is essentially comprised of a solar cell panel **1**, a support structure and a bulb **3**. Wherein, said solar cell panel **1** is provided at the utmost top of the lighting fixture. A light transmission **11** is coupled to the peripheral of the solar cell panel **1** and incorporated to an upper lid **12**. An insertion post **13** is each provided at where appropriately on both sides of at the bottom of the upper lid **12**, and a graded arc **131** and a pivot hole **132** are provided at the terminal of each insertion post **13**. In the support structure, one locking post **31** is each provided at the where appropriately on both sides of the upper end of the bulb **3**. The upper end of said locking post **31** indicates an arc so to pivot to the insertion post **13**. Both of the insertion post **13** and the locking **31** when pivoted define for the solar cell panel **1** an isolated heat sink between said support structure and the bulb **3**. The solar cell panel **1** on the upper lid **12** can also be adjusted for the optimal area to contact the sunlight as desired. The bulb **3** is essentially provided for accommodation battery component **30**, such as a secondary cell or battery capacitor. If required, a charging circuit or a component to convert electrical energy into optical energy, such as an electric bulb or an illuminating diode and light operation and control circuits. The bulb **3** may further include a tapered footing structure **4** extending downward from the bulb **3** for the lighting fixture to be directly planted into the ground. The footing structure **4** also provides an interior space closer to the ground to accommodate the battery component, such as a secondary cell or a battery capacitor **30**. Furthermore, as required, a charging circuit or a component to convert electrical energy into optical energy such as an electric bulb or an illuminating diode may also be included in the interior space. Alternatively, the tapered footing member to plant the lighting fixture may be separately provided at the bottom of the bulb **3**.

Those members disclosed above for the second preferred embodiment of the present invention when assembled create a space between the support structure for the solar cell panel support structure and the operation and control circuits for heat sink. The angle facing the sunlight for the solar cell panel **1** can be adjusted as desired. By taking advantage of the heat sink, the charging circuit and its battery component **30** in the bulb **3** are protected from being damaged or having their performance negatively affected by the heat built up due to prolonged exposure to the direct sunshine.

Referring to those preferred embodiments disclosed above and FIGS. **6** and **7**, in a third preferred embodiment of the present invention of a solar cell lighting fixture integrated with a heat sink, the locking post of the support structure is separately provided to a ring component **21**. A groove **32** in relation to the locking post is provided at the upper edge of the bulb **3**. A locking post **211** provided on the ring component **21** is pivoted to the insertion post **13** provided under the solar cell panel **1**. Accordingly, the solar cell panel is able to freely rotate by means of said ring component **21** to adjust elevation of the isolated heat sink, and an adjusting effect by radius oriented rotation. The bulb **3** may further include a tapered footing structure **4** extending downward from the bulb **3** for the lighting fixture to be directly planted into the ground. The footing structure **4** also provides an interior space closer to the ground to accommodate the battery component, such as a secondary cell or a battery capacitor **30**. Furthermore, as required, a charging circuit or a component to convert electrical energy into optical energy such as an electric bulb or an illuminating diode may also be included in the interior space. Alternatively, the tapered footing member to plant the lighting fixture may be separately provided at the bottom of the bulb **3**.

In relation to the support structure disclosed in the preferred embodiments above, a structure of universal ball point **14** is provided at a lower casing **15** of the solar cell panel **1** in a fourth preferred embodiment of the present invention as illustrated in FIGS. **8** and **9**. Said ball joint **14** is given with a proper packing structure to rotate a corresponding ball pillar **33** freely inserted into the upper end of the bulb **3**. The bulb **3** may further include a tapered footing structure **4** extending downward from the bulb **3** for the lighting fixture to be directly planted into the ground. The footing structure **4** also provides an interior space closer to the ground to accommodate the battery component, such as a secondary cell or a battery capacitor **30**. Furthermore, as required, a charging circuit or a component to convert electrical energy into optical energy such as an electric bulb or an illuminating diode may also be included in the interior space. Alternatively, the tapered footing member to plant the lighting fixture may be separately provided at the bottom of the bulb **3**.

In relation to the support structure disclosed in the preferred embodiments above, a net or porous support structure **22** is provided between the solar cell panel **1** and the bulb **3** to create a heat sink in a fifth preferred embodiment of the present invention as illustrated in FIGS. **10** and **11**. Said ball joint **14** is given with a proper packing structure to rotate a corresponding ball pillar **33** freely inserted into the upper end of the bulb **3**. The bulb **3** may further include a tapered footing structure **4** extending downward from the bulb **3** for the lighting fixture to be directly planted into the ground. The footing structure **4** also provides an interior space closer to the ground to accommodate the battery component, such as a secondary cell or a battery capacitor **30**. Furthermore, as required, a charging circuit or a component to convert electrical energy into optical energy such as an electric bulb or an illuminating diode may also be included in the interior space. Alternatively, the tapered footing member to plant the lighting fixture may be separately provided at the bottom of the bulb **3**.

Those additional preferred embodiments of the present invention as illustrated in FIGS. **12**, **13** and **14** are adapted to various types of garden light. Wherein, the tapered footing member **4** separately provided at the bottom of the bulb **3** for planting the lighting fixture of the present invention into the ground as disclosed in those preferred embodiments disclosed above is incorporated to the bottom of the bulb **3**. Said member **4** may be provided in the form of having one, two or three, or more than three sharp pedestals, which will be directly buried in the ground or simply erected on the ground. As the title of the present invention, a solar cell lighting fixture integrated with heat sink, suggests, a fixed base **41** in disk shape many be incorporated to the bottom of the bulb **3** with a locking pillar **411** at the center of the fixed base **41**. Furthermore, the fixed base **41** may be fixed to any place, a body of mechanical equipment, a building, a mechanical equipment, or vehicles including automobile, sea vessel or aircraft.

To sum up, as a complete assembly, the solar cell lighting fixture integrated with heat sink is innovative either in its means, manipulation or spatial, configuration, and is significantly different from the structure of the prior art of integrated solar cell lighting fixtures. It can effectively protect circuits and battery devices contained within the light fixture from being damaged due to prolonged direct sunshine.

I claim:

1. A solar cell lighting fixture integrated with a heat sink comprising an upper lid having a solar cell panel at the top of the upper lid; a bulb; and a bulb housing that encloses said bulb, said heat sink comprising a support structure below said upper lid and above said bulb, and said support structure defining a space for the heat sink between said solar cell panel and said bulb;

wherein a charging circuit and a battery component are contained inside said bulb housing; and

whereby said heat sink protects said charging circuit and battery component from being damaged or having their performance negatively affected by heat built up due to prolonged direct sunshine.

2. A solar cell lighting fixture integrated with a heat sink as claimed in claim **1**, wherein said upper lid comprises a light transmission plate coupled to the solar cell panel; and said support structure includes at least one pillar and a fixing or locking means to secure said at least one pillar to the lighting fixture.

3. A solar cell lighting fixture integrated with a heat sink as claimed in claim **1**, wherein said upper lid comprises a light transmission plate coupled to the solar cell panel; said support structure includes an insertion post provided on both sides of the bottom of the upper lid, a graded arc and a pivot hole provided at the terminal of each said insertion post and, a locking post provided on both sides of the upper end of the bulb, wherein the upper end of said locking post defines an arc to pivot the insertion post into said locking post so that the solar cell panel on the upper lid can be adjusted for an optimal area to face the sunlight; the insertion post and the locking post defining said space between said support structure and the bulb.

4. A solar cell lighting fixture integrated with a heat sink as claimed in claim **3**, wherein the support structure further comprises a ring component and a groove provided at the upper edge of the bulb, and said locking post attaches to the ring component so that the solar cell panel can freely rotate by means of said ring component.

5. A solar cell lighting fixture integrated with a heat sink as claimed in claim **4**, wherein said bulb housing further includes a tapered footing structure extending downward from the bulb, said tapered footing structure allowing the lighting fixture to be directly planted into the ground and providing an interior space to accommodate said battery component and said charging circuit.

6. A solar cell lighting fixture integrated with a heat sink as claimed in claim **1**, wherein said support structure further comprises a universal ball joint and a corresponding ball pillar, said ball joint is provided at a lower casing of the solar cell panel and said ball pillar is inserted into the upper end of the bulb, wherein the ball joint rotates freely around the ball pillar.

7. A solar cell lighting fixture integrated with a heat sink as claimed in claim **6**, wherein said bulb housing further includes a tapered footing structure extending downward from the bulb, said tapered footing allowing the lighting fixture to be directly planted into the ground, and providing an interior space to accommodate said battery component and said charging circuit.

8. A solar cell lighting fixture integrated with a heat sink as claimed in claim **1**, wherein said support structure further comprises a net or porous support structure between the solar cell panel and the bulb to create said heat sink.

9. A solar cell lighting fixture integrated with a heat sink as claimed in claim **8**, wherein said bulb housing further includes a footing structure extending downward from the bulb, said footing structure allowing the lighting fixture to be directly planted into the ground and providing an interior space to accommodate said battery component.

10. A solar cell lighting fixture integrated with a heat sink as claimed in claim **1**, wherein said bulb housing further includes a tapered footing member having one, two, three, or more sharp pedestals separately provided at the bottom of the bulb housing, wherein said pedestals are planted, buried, or erected on the ground.

11. A solar cell lighting fixture integrated with a heat sink as claimed in claim **1**, wherein, said bulb housing further comprises a fixed base with a locking pillar, said base being movably fixed.

12. A solar cell lighting fixture integrated with a heat sink as claimed in claim **1**, wherein said bulb housing further includes a tapered footing structure extending downward from the bulb, said tapered footing allowing the lighting fixture to be directly planted into the ground, and providing an interior space to accommodate said battery component and said charging circuit.

13. A solar cell lighting fixture integrated with a heat sink as claimed in claim **2**, wherein said bulb housing further includes a tapered footing structure extending downward from the bulb, said tapered footing allowing the lighting fixture to be directly planted into the ground, and providing an interior space to accommodate said battery component and said charging circuit.

* * * * *

EXHIBIT F

U.S. PATENT NO. 6,729,742 TO WISMETH

US006729742B2

(12) **United States Patent**
Wismeth et al.

(10) **Patent No.: US 6,729,742 B2**
(45) **Date of Patent: May 4, 2004**

(54) **SOLAR LAMP FOR OUTDOOR USE**

(76) Inventors: **Wofgang Wismeth**, Hans-Vogel-Strasse 22, Fürth (DE), 90765; **Gerhard Lutz**, Hermann-Kolb-Strasse 51, Nürnberg (DE), 90473; **Werner Kohlmann**, Am Kriegerdenkmal 13, Nürnberg (DE), 90427

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **10/142,464**

(22) Filed: **May 10, 2002**

(65) **Prior Publication Data**

US 2002/0176248 A1 Nov. 28, 2002

Related U.S. Application Data

(63) Continuation of application No. PCT/DE00/03948, filed on Nov. 10, 2000.

(30) **Foreign Application Priority Data**

Nov. 12, 1999 (DE) ..... 299 19 948 U

(51) **Int. Cl.**[7] **F21L 13/00**

(52) **U.S. Cl.** **362/183**; 362/153.1; 362/431; 136/206

(58) **Field of Search** 362/153.1, 431, 362/183, 414, 367, 800; 323/906; 136/206

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,816,970 A * 3/1989 Garcia, Jr. 362/183
5,984,570 A * 11/1999 Parashar 40/565

FOREIGN PATENT DOCUMENTS

DE	8521579.1	* 9/1985
DE	85 21 579.1	10/1985
DE	39 38 251.6	5/1991
DE	91 04 219.4	8/1991
DE	93 04 947.1	7/1993
DE	298 08 876 U1	10/1998
DE	298 12 152 U1	10/1998

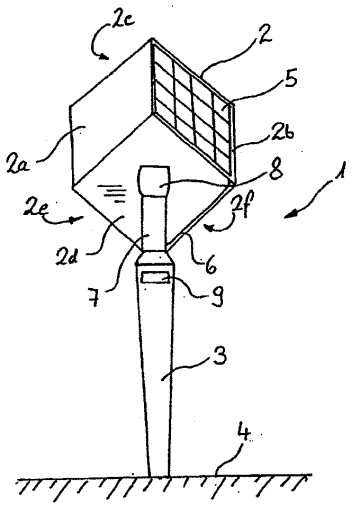
* cited by examiner

Primary Examiner—Alan Cariaso
Assistant Examiner—Ali Alavi

(57) **ABSTRACT**

Solar lamp for outdoor use, in particular a garden lamp, road or street lamp or such, consisting of one or more solar module, and a housing with a storage means for electric energy (battery), which is electrically connected to the solar module, and one or more luminous body, whereby between the battery and the luminous body a circuit is provided, which reacts to signals from a light sensor attached to the solar lamp, and which enables or disables the electrical connection between the battery and the luminous body depending on the degree of brightness/darkness, whereby the housing is provided with two or more walls of different orientation which do not converge parallel to each other, and whereby one or more solar modules are arranged on each wall, or that the walls are formed by solar modules.

4 Claims, 1 Drawing Sheet



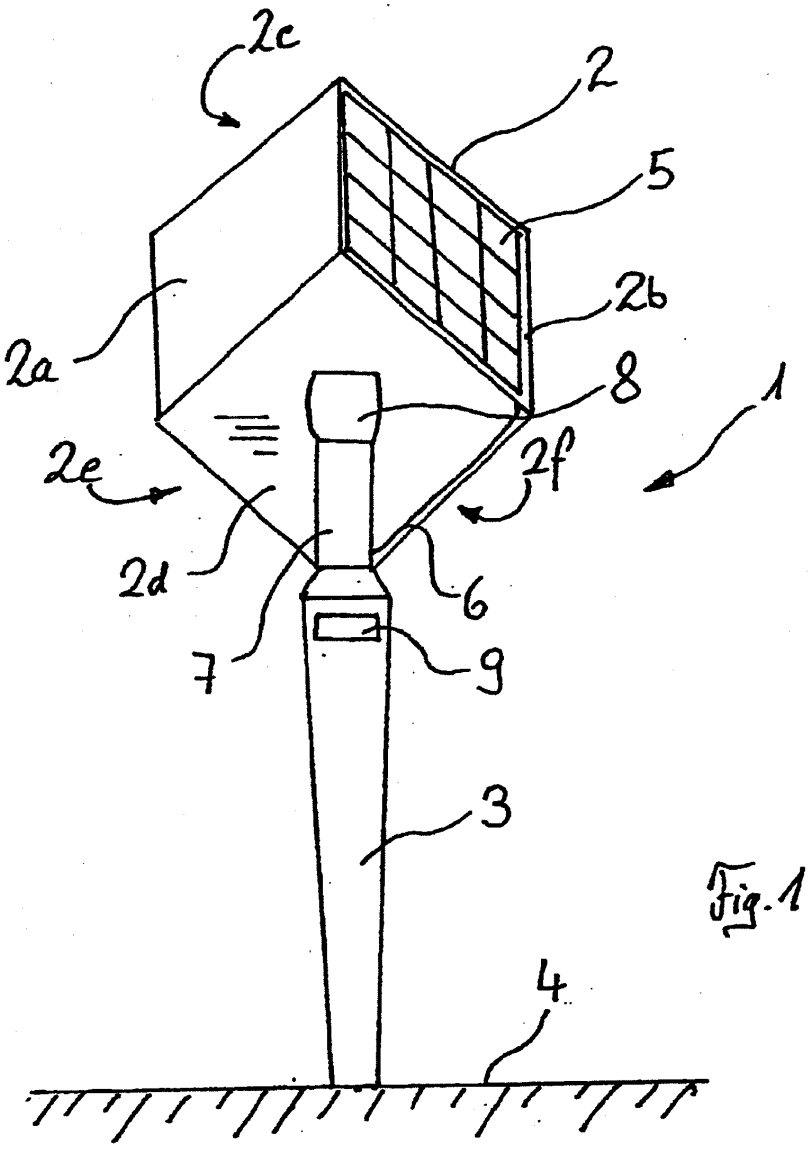


Fig. 1

SOLAR LAMP FOR OUTDOOR USE

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a continuation of PCT/DE00/03948, filed Nov. 10, 2000, which claims priority from German Application No. 299 19 948.7, filed Nov. 12, 1999.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The invention relates to a solar lamp for outdoor use which is in the shape of a cube, which has solar modules in or on two or more top wall surfaces and which is attached to a fastening structure for being supported.

2. Description of the Related Art

Known in prior art are solar lamps for outdoor use, in particular garden lamps, consisting of one or more solar module, and a housing with a storage means for electric energy (battery), which is electrically connected to the solar module, and one or more luminous bodies, whereby between the battery and the luminous body a circuit is provided which reacts to signals from a light sensor attached to the solar lamp and enables or disables the electrical connection between the battery and the luminous body, depending on the degree of brightness/darkness. One version, which is marketed under the name of "Pagoda"["Pagode"], consists of a post to be inserted into the ground, which on the top is provided with a cylindrical housing into which the luminous body, battery, circuit and sensors are integrated and which is covered by a disc-shaped horizontal solar module. Another version called "Solite" is also provided with a disc-shaped upper end with a solar module, but is covered by a transparent dome. It is also known in prior art to design street lamps as solar lamps, whereby in one version, a plate-shaped elongated solar module itself serves as the largest component of the post. Other solutions have lines of lamps leading to external solar modules, since the power of the modules arranged on the plate-shaped ends of the garden lamps is inadequate since—for design reasons and practical considerations—the use of small modules is preferred.

BRIEF SUMMARY OF THE INVENTION

It is the object of the present invention to create a solar lamp, in which energy generation is optimized and which still allows for an aesthetically pleasing design.

This object is achieved with of a cube, which has two or more solar modules in or on two or more tub wall surfaces and which is attached to a fastening structure for being supported.

According to the invention is a solar lamp for outdoor use, in particular a garden lamp, road or street lamp or such, consisting of one or more solar modules, and a housing with a storage means for electric energy (battery), which is electrically connected to the solar module, and one or more luminous bodies, whereby between the battery and the luminous body a circuit is provided, which reacts to signals from a light sensor attached to the solar lamp, and which enables or disables the electrical connection between the battery and the luminous body, depending on the degree of brightness/darkness, characterized in that the housing is provided with at least two walls of different orientation and which do not converge parallel to each other, and that one or more solar modules are arranged on each wall, or that the walls are formed by solar modules.

This basic idea deviates from the "conventional wisdom" about the orientation of solar modules, according to which a southern exposure is suggested to allow a maximum incidence of solar light. Instead, two modules with different orientations are suggested, whereby it is found, however, that the sum of the energy obtained is increased to such an extent that it is possible to achieve a satisfactory illumination with a relatively small lamp design.

Preferably, the housing is a regular body (n-hedron) with at least four wall surfaces. According to a preferred embodiment of the invention, it is a cube arranged so that it stands on an apex on a fastening, whereby the solar modules are arranged on two or more of its upper surfaces or form these surfaces. Preferably, the fastening is arranged in the region of the lower apex of the cube, and it may form either a vertical post or a horizontal arm.

According to a special embodiment of the invention, there is also a motion sensor connected with electrical control means, whereby the luminous body is provided with two or more controllable brightness levels, and the higher brightness level is turned on in reaction to a signal of the motion sensor, whereby a timer is provided which limits this on period.

According to an advantageous embodiment of the invention, the luminous body consists of a plurality of light emitting diodes (LEDs).

The invention is described in detail below, using an example, and with reference to the accompanying drawing figure.

BRIEF DESCRIPTION OF THE VIEW OF THE DRAWING

FIG. **1** is an elevational view of the solar lamp of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

FIG. **1** shows a solar lamp **1**, consisting of a cubic housing **2** and a pole **3**. A lower apex of cubic housing **2** sits on the upper end of pole **3** where it is fastened to same. Pole **3** is inserted in conventional fashion in the ground **4**, for example in the earth. This renders the configuration of cubic housing **2** such that three wall surfaces **2***a*, **2***b*, **2***c* are slanted toward the top, while the other three wall surfaces **2***a*, **2***b*, **2***c* are slanted toward the bottom. The upper surfaces **2***a*, **2***b*, **2***c* are formed by solar modules **5**, of which only that of module **5** is indicated here. The solar modules are glass plates with series-connected solar cells and a frame, whereby the modules are connected to their frames in such a way that they produce a cubic shape. The lower wall surfaces **2***d*, **2***e*, **2***f* are transparent and can be formed, for example, by equal glass plates which have no solar cells and are provided with frames, by which they are connected to each other and to the solar modules. The solar modules are provided with connections from which cables **6** lead to a module **7** in the interior of housing **2**, which is provided with the above described circuits and the battery. A luminous body **8** is arranged on module **7**. A sensor **9** for light and motion is arranged in pole **3**, from which the corresponding line runs to module **7**. When all the upper surfaces **2***a*, **2***b*, **2***c* are formed by solar modules, or when they carry solar modules, the cubic shape of housing **2** ensures that an optimal use of solar energy is always guaranteed without the owner having to worry about the orientation of the solar modules.

What is claimed is:

1. Solar lamp for outdoor use, in particular a garden lamp, road or street lamp, comprising one or more solar modules,

and a housing with a battery, which is electrically connected to the at least one solar module, and one or more luminous bodies, a circuit being provided between the battery and the luminous body which reacts to signals from a light sensor attached to the solar lamp and which enables or disables the electrical connection between the battery and the at least one luminous body, depending on the degree of brightness/darkness,

characterized in that

the housing is a cube with six wall surfaces, that one or more solar modules (**5**) are arranged on at least two wall surfaces of the cube, or that at least two wall surfaces of the cube are formed by solar modules themselves,

that the cube stands on its apex the cube is attached to a fastening structure for supporting the cube above the floor or ground and the fastening structure is attached to the cube in the area of the lower apex of the cube, and that the solar modules (**5**) are arranged on two or more top surfaces (**2***a*, **2***b*, **2***c*) of the cube or the solar modules (**5**) and form the at least two wall surfaces of the cube.

2. Solar lamp according to claim **1**, characterized in that the fastening structure for the cube comprises one of a vertical pole (**3**) or a horizontal arm.

3. Solar lamp according to claim **1**, characterized by comprising:

a motion sensor which is connected to electrical control means, the luminous body having two or more controllable brightness levels, and the higher brightness level is turned on in reaction to a signal from the motion sensor, and a timer is provided which limits the period that the higher brightness level is turned on.

4. Solar lamp according to claim **1**, characterized in that the luminous body comprises a plurality of light emitting diodes (LED's).

* * * * *

EXHIBIT G

COPY OF APPELLANT'S COMMENTS OF SEPTEMBER 14, 2009, REFORMATTED TO REMOVE PRIOR ART IMAGES

(This exhibit is provided for the sole purpose of showing that the comments comply with the 50-page limit once prior art images are removed.)

Reexamination No. 95/000,104

EXHIBIT 1 TO APPEAL BRIEF OF THIRD PARTY REQUESTOR

Applicant's submission of 9/14/2009 reproduced with same margins and font sizes as original submission, but with prior art drawings removed

TOTAL: 44 PAGES

For purposes only of illustrating effects of elimination of embedded images on total page length. NOT submitted for substantive content as it relates to patentability of claims.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Reexamination of:	)	
Gregory G. Kuelbs	)	
	)	
Control No. **95/000,104**	)	Examiner: **Margaret Rubin**
	)	
Patent No.: **6,612,713**	)	Art Unit: **3992**
	)	
Issued: **September 2, 2003**	)	
	)	
Assignee: **WORLD FACTORY, INC.**	)	

REPLACEMENT COMMENTS OF THIRD PARTY REQUESTER TO PATENT OWNER'S RESPONSE IN *INTER PARTES* REEXAMINATION AND TO OFFICE ACTION

Mail Stop Ex Parte Reexam
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Madame:

In response to the Inter Partes Reexamination Communication dated August 28, 2009, third party requester, Southern Sales & Marketing Group, Inc. ("Southern Sales"), pursuant to 37 CFR §§ 1.947 and 1.948, hereby submits its replacement comments to the "Response to Office Action in *Inter Partes* Reexamination" by the patent owner, World Factory, Inc. ("World Factory"), filed April 17, 2009.

CLAIMS 1, 47, 48, 51, AND 63 ARE UNPATENTABLE BECAUSE THEY BROADEN THE SCOPE OF THE PATENT

The Federal Circuit standard for determining whether a claim has been broadened is as follows: "A claim of a reissue application is broader in scope than the original claims if it

contains within its scope any conceivable apparatus or process which would not have infringed the original patent...." *Tillotson, Ltd. v. Walbro Corp.*, 831 F2d at 1037, 4 USPQ2d at 1453 n.2. The same broadening test is applied to claims in reexamination. *Anderson v. International Eng'g & Mfg.*, 160 F.3d at 1349, 48 USPQ2d at 1634.

For the purposes of the following analysis, the "conceivable apparatus" will be an apparatus that consists of the elements of the amended or new claim. If a device consisting of the elements of the amended or new claim does not infringe the patent claim, the amended or new claim impermissibly broadens the patent.

Amended Claim 1

Patent Claim 1—A device of amended Claim 1 does not infringe patent Claim 1. The device of amended Claim 1 lacks "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." Thus a device according to amended Claim 1 does not infringe patent Claim 1.

Patent Claims 2–5—A device of amended Claim 1 does not infringe patent Claims 2–5. The device of patent Claims 2–5 requires "a solar energy system carried by the pole portion." "Carried" means "to sustain the weight or burden of." Thus patent Claims 2–5 require that the weight of the solar energy system be borne by the pole portion above the canopy portion. In contrast, amended Claim 1 requires only that the solar energy system be "carried by a module coupled to the pole." Thus a hypothetical device according to amended Claim 1 could include a module sitting on the ground beside the umbrella, coupled to the pole portion above the canopy portion but without the weight of the module being borne by the pole portion (see diagram). Thus a hypothetical device could infringe amended Claim 1 without infringing patent Claims 2–5.

Patent Claims 6–8—A device according to amended Claim 1 lacks an electromechanical opening and closing system for opening and closing the canopy portion, as required by patent Claims 6–8. Thus a device according to amended Claim 1 does not infringe patent Claims 6–8.

Patent Claim 9—A device according to amended Claim 1 lacks a cooling system as required by patent Claim 9. Thus a device according to amended Claim 1 does not infringe patent Claim 9.

Patent Claims 10–14—A device according to amended Claim 1 lacks a combination of two or more modules (lighting, cooling, canopy lift mechanism), as required by patent Claims 10–14. Thus a device according to amended Claim 1 does not infringe patent Claims 10–14.

CONCLUSION: Because a hypothetical device consisting of the limitations of amended Claim 1 would not infringe any of the claims of the original patent, Claim 1 as amended impermissibly broadens the scope of the patent and is not allowable.

New Claim 47

Patent Claim 1—A device according to new Claim 47 lacks an electrical charging system being adapted to receive power from an AC power outlet, as required by patent Claim 1. Thus a device according to new Claim 47 does not infringe patent Claim 1.

Patent Claims 2–5—A device according to new Claim 47 lacks a lighting system carried by the canopy portion, as required by patent Claims 2–5. Thus a device according to new Claim 47 does not infringe patent Claims 2–5.

Patent Claims 6–8—A device according to new Claim 47 lacks an electromechanical opening and closing system for opening and closing the canopy portion, as required by patent Claims 6–8. Thus a device according to new Claim 47 does not infringe patent Claims 6–8.

Patent Claim 9—A device according to new Claim 47 lacks a cooling system as required by patent Claim 9. Thus a device according to new Claim 47 does not infringe patent Claim 9.

Patent Claims 10–14—A device according to new Claim 47 lacks a combination of two or more modules (lighting, cooling, canopy lift mechanism), as required by patent Claims 10–14. Thus a device according to new Claim 47 does not infringe patent Claims 10–14.

CONCLUSION: Because a hypothetical device consisting of the limitations of new Claim 47 would not infringe any of the claims of the original patent, Claim 47 impermissibly broadens the scope of the patent and is not allowable.

New Claim 48

Patent Claim 1—A device according to new Claim 48 lacks an electrical charging system being adapted to receive power from an AC power outlet, as required by patent Claim 1. Thus a device according to new Claim 48 does not infringe patent Claim 1.

Patent Claims 2–5—A device according to new Claim 48 lacks a lighting system "being conductively coupled to and powered by the rechargeable electrical power system," as required by patent Claims 2–5. Thus a device according to new Claim 48 does not infringe patent Claims 2–5.

Patent Claims 6–8—A device according to new Claim 48 lacks an electromechanical opening and closing system for opening and closing the canopy portion, as required by patent Claims 6–8. Thus a device according to new Claim 48 does not infringe patent Claims 6–8.

Patent Claim 9—A device according to new Claim 48 lacks a cooling system as required by patent Claim 9. Thus a device according to new Claim 48 does not infringe patent Claim 9.

Patent Claims 10–14—A device according to new Claim 48 lacks a combination of two or more modules (lighting, cooling, canopy lift mechanism), as required by patent Claims 10–14. Thus a device according to new Claim 48 does not infringe patent Claims 10–14.

CONCLUSION: Because a hypothetical device consisting of the limitations of new Claim 48 would not infringe any of the claims of the original patent, Claim 48 impermissibly broadens the scope of the patent and is not allowable.

New Claim 51

Patent Claim 1—A device according to new Claim 51 lacks an electrical charging system being adapted to receive power from an AC power outlet, as required by patent Claim 1. Thus a device according to new Claim 51 does not infringe patent Claim 1.

Patent Claims 2–5—Patent Claims 2–5 recite "a solar energy system carried by the pole portion above the canopy portion." For the reasons set forth above with respect to amended Claim 1, a hypothetical device could infringe new Claim 51 without infringing patent Claims 2–5.

Patent Claims 6–8—A device according to new Claim 51 lacks an electromechanical opening and closing system for opening and closing the canopy portion, as required by patent Claims 6–8. Thus a device according to new Claim 51 does not infringe patent Claims 6–8.

Patent Claim 9—A device according to new Claim 51 lacks a cooling system as required by patent Claim 9. Thus a device according to new Claim 51 does not infringe patent Claim 9.

Patent Claims 10–14—A device according to new Claim 51 lacks a combination of two or more modules (lighting, cooling, canopy lift mechanism), as required by patent Claims 10–14. Thus a device according to new Claim 51 does not infringe patent Claim 9.

CONCLUSION: Because a hypothetical device consisting of the limitations of new Claim 51 would not infringe any of the claims of the original patent, Claim 51 impermissibly broadens the scope of the patent and is not allowable.

New Claim 63

Patent Claim 1—A device according to new Claim 63 lacks an electrical charging system being adapted to receive power from an AC power outlet, as required by patent Claim 1. Thus a device according to new Claim 63 does not infringe patent Claim 1.

Patent Claims 2–5—Patent Claims 2–5 recite "a solar energy system carried by the pole portion above the canopy portion." "Carried" means "to sustain the weight or burden of." Thus patent Claims 2–5 require that the weight of the solar energy system be borne by the pole portion above the canopy portion. In contrast, new Claim 63 requires only that the solar energy system be "coupled" to the pole. Thus a hypothetical device according to new Claim 63 could include a solar energy system sitting on the ground beside the umbrella, coupled to the pole portion above the canopy portion but without the weight of the solar

energy system being borne by the pole portion. Thus a hypothetical device could infringe new Claim 63 without infringing patent Claims 2–5.

Patent Claims 6–8—A device according to new Claim 63 lacks an electromechanical opening and closing system for opening and closing the canopy portion, as required by patent Claims 6–8. Thus a device according to new Claim 63 does not infringe patent Claims 6–8.

Patent Claim 9—A device according to new Claim 63 lacks a cooling system as required by patent Claim 9. Thus a device according to new Claim 63 does not infringe patent Claim 9.

Patent Claims 10–14—A device according to new Claim 63 lacks a combination of two or more modules (lighting, cooling, canopy lift mechanism), as required by patent Claims 10–14. Thus a device according to new Claim 63 does not infringe patent Claims 10–14.

CONCLUSION: Because a hypothetical device consisting of the limitations of new Claim 63 would not infringe any of the claims of the original patent, Claim 63 impermissibly broadens the scope of the patent and is not allowable.

CLAIM 52 IS UNPATENTABLE FOR DOUBLE PATENTING

Claim 52 as added by patentee in the present reexamination is unpatentable over Claim 49 as added by patentee in the present reexamination under the judicially-created doctrine of double patenting.

> 49. (New) An umbrella apparatus, comprising:
> a base support portion;
> a pole portion coupled to the base support portion;
> a canopy portion having a plurality of rib members, the canopy portion being hingedly coupled to the pole portion;
> a rechargeable electrical power system for providing electrical power to the umbrella apparatus;
> 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; and

a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system;
wherein the lighting system includes multiple discrete lighting elements positioned along a rib member, each lighting element being recessed within the rib member and being conductively coupled to the rechargeable electrical power system by an electrical conductor, the electrical conductor also being recessed within the rib member.

52. (New) An umbrella apparatus comprising:
a base support portion;
a pole portion coupled to the base support portion;
a canopy portion having a plurality of rib members, the canopy portion being hingedly coupled to the pole portion;
a rechargeable electrical power system for providing electrical power to the umbrella apparatus;
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; and
a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system;
wherein the lighting system includes multiple discrete lighting elements positioned along a rib member; and
wherein each lighting element is fully recessed within the corresponding rib member.

The preamble and first six body paragraphs of each claim are identical. The only difference between the two claims is that Claim 49 recites that each lighting element is recessed within the corresponding rib member, whereas Claim 52 recites that each lighting element is fully recessed within the corresponding rib member.

The only way in which the terms "fully recessed" and "recessed" can differ is if Claim 49 covers a situation in which a lighting element is only partially recessed. However, there is no support in the specification of the '713 patent of a lighting element that is only partially recessed. All of the disclosed embodiments describe only lighting elements that are fully recessed. The term "recessed" in Claim 49 can only be interpreted to cover a lighting element that is "fully" recessed.

Because the '713 patent lacks support for any recess other than "fully" recessed, the terms "recessed" and "fully recessed" must be construed identically. Claim 49 is identical to Claim 52 and therefore constitutes double-patenting.

THE PROVISIONAL PATENT APPLICATIONS OF FEBRUARY 7, 2001, FAIL TO SUPPORT CLAIMS 1, 2, 4–7, 45–48, 51, 56, 61, 64–66, AND 74 OF THE PATENT

Patentee is not entitled to the filing dates of the provisional patent application of February 7, 2001 with respect to Claims 1, 2, 4–7, 45–48, 51, 56, 61, 64–66, and 74, because the 2/7/01 provisional application fails to disclose elements of these claims.

The 2/7/01 provisional does not disclose a "module" or "power unit" as required by Claims 1, 2, 4–7, 45–48, 51, 56, 61, 64–66, and 74. Rather, the solar cell is carried directly atop the pole. Similarly, the 2/7/01 provisional does not disclose a "rechargeable electrical power system" located above the canopy, as required by Claims 1, 2, 4–7, 45–48, 51, 56, 61, 64–66, and 74. Accordingly, these claims are not entitled to the February 7, 2001, filing date of this provisional.

THE DECLARATIONS UNDER RULE 131 ARE INSUFFICIENT TO SWEAR BEHIND THE REFERENCES

It is the patentee's responsibility to establish conception and, where necessary, diligence in reduction to practice from a time prior to the effective date of the cited references until the date of reduction to practice. Kuelbs' second Declaration, even when taken in combination with Kuelbs' first Declaration and the Quillen Declaration, fail to establish diligence. Large blocks of unexplained inactivity remain, and the patentee has therefore failed to establish diligence.

Declarant's statements in Paragraph 2 of the Declaration are conclusory, self-serving, and uncorroborated.

Declarant's statements in Paragraph 3 of the Declaration are uncorroborated.

Declarant's statements in Paragraph 4 of the Declaration are uncorroborated.

The copy of the passport pages (Exhibit A) referenced in Paragraph 5 of the Declaration establish, at best, that Declarant visited China in July and October 1999. The passport pages do not contain any information about a solar-powered umbrella. Declarant's statements about the purpose of the trip are uncorroborated.

The notes (Exhibit B) referenced in Paragraph 6 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. Declarant's statements in Paragraph 6 of the Declaration are uncorroborated.

The notes (Exhibit C) referenced in Paragraph 7 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. Declarant's statements in Paragraph 7 of the Declaration are uncorroborated.

The notes (Exhibit D) referenced in Paragraph 8 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. Declarant's statements in Paragraph 8 of the Declaration are uncorroborated.

Paragraph 9 misstates the law. Exhibits B, C, and D are only drawings and, while possibly relevant to the issue of conception, do not constitute a reduction to practice, as they do not constitute making and using the invention and proving it useful for its intended purpose. Declarant's statements in Paragraph 9 of the Declaration are uncorroborated.

The notes (Exhibit E) referenced in Paragraph 10 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. Declarant's statements in Paragraph 10 of the Declaration are uncorroborated.

The notes (Exhibit F) referenced in Paragraph 11 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. Declarant's statements in Paragraph 11 of the Declaration are uncorroborated.

The notes (Exhibit G) referenced in Paragraph 12 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. Declarant's statements in Paragraph 12 of the Declaration are uncorroborated.

The notes (Exhibit H) referenced in Paragraph 13 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. The notes are undated. While they bear the notation "Proposed Discussion Notes China Trip - July-Aug 99," the notes could have been prepared contemporaneously with the trip or months earlier. Declarant's statements in Paragraph 13 of the Declaration are uncorroborated.

The notes (Exhibit I) referenced in Paragraph 14 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. Declarant's statements in Paragraph 14 of the Declaration are uncorroborated.

The proposed itinerary (Exhibit J) referenced in Paragraph 15 of the Declaration is uncorroborated. Its existence prior to the critical date has not been attested to by any independent party. A proposed itinerary is not proof that a trip was ever made. The proposed itinerary contains no information about the alleged invention or any efforts to reduce it to practice. Declarant's statements in Paragraph 15 of the Declaration are uncorroborated.

The receipt for currency exchange (Exhibit K) referenced in Paragraph 16 of the Declaration establishes, at best, that Declarant was in the Hong Kong airport on October 20, 1999. Declarant's presence in the Hong Kong airport is no indicator of the purpose of Declarant's trip and most certainly does not establish any element of the claimed invention. Declarant's statements in Paragraph 16 of the Declaration are uncorroborated.

The e-mail (Exhibit L) referenced in Paragraph 17 of the Declaration establishes, at best, that Declarant received an e-mail from an Eric Li on October 11, 1999. The e-mail does not establish any element of the claimed invention and does not even reference a stated purpose for a proposed visit. Declarant's statements in Paragraph 17 of the Declaration beyond his assertion that he received an e-mail are uncorroborated.

The e-mail (Exhibit M) referenced in Paragraph 18 of the Declaration establishes, at best, that Declarant received an e-mail from an Eric Li on October 14, 1999. The e-mail does not establish any element of the claimed invention and does not even reference a stated purpose for a proposed visit. Declarant's statements in Paragraph 18 of the Declaration beyond his assertion that he received an e-mail are uncorroborated.

The e-mail (Exhibit N) referenced in Paragraph 19 of the Declaration establishes, at best, that Declarant received an e-mail from an Eric Li on October 16, 1999. The e-mail does not establish any element of the claimed invention and does not even reference a stated purpose for a proposed visit. Declarant's statements in Paragraph 19 of the Declaration beyond his assertion that he received an e-mail are uncorroborated.

The drawings (Exhibits O, P, and Q) referenced in Paragraph 20 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. The drawings are undated. Declarant's statements in Paragraph 20 of the Declaration are uncorroborated.

The screen shot (Exhibit R) referenced in Paragraph 22 of the Declaration at best establishes that there are files on a computer bearing modified dates as shown. There is no corroboration that the screen shot has not been altered or modified. There is no corroboration that the files identified in Paragraph 22 of the Declaration relate in any way to the claimed invention.

Patentee's statements in Paragraphs 25 and 26 of the Declaration that he worked diligently on the invention 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, are uncorroborated and conclusory.

Patentee's statements in Paragraphs 27, 28, and 30 of the Declaration that he worked diligently on the invention from a date prior to 30 April, 1999, through the filing date of U.S. Provisional Application No. 60/335,933, i.e., 2 November 2001, are uncorroborated and conclusory.

Exhibit V was prepared on 26 April 2006, seven years after the events described therein. No contemporaneous notes are produced. No reason for the statement is given,

leading to the inescapable conclusion that the document was produced solely for the purpose of this reexamination and, most likely, that the patentee instructed the author what to say. No specific dates are given except for July 1999, and it is unclear from the document when work on the project was discontinued. Thus the document fails to explain any period of inactivity during the critical period. Declarant's statements in Paragraph 20 of the Declaration are uncorroborated.

EVEN IF ALL OF DECLARANT'S STATEMENTS ARE *ARGUENDO* PRESUMED ACCURATE, THEY FAIL TO ESTABLISH DILIGENCE

An inventor's date of invention is his date of conception, IF he is thereafter diligent in reducing the invention to practice. The Patentee in this case seems to be alleging acts directed toward both an actual reduction to practice (making and using the invention) and a constructive reduction to practice (the filing of a patent application). To establish a valid date of invention, the Patentee must establish diligence in reducing the invention to practice from a time just prior to the effective date of a prior art reference until the filing date of the patent application. However, even if all of the facts alleged in the Patentee's § 1.131 Declaration are assumed to be correct for the sake of argument, there are large unexplained gaps of inactivity in his alleged efforts to reduce the invention to practice that preclude a date of invention any earlier than the filing date of the application.

A time line of the Patentee's activities shows the following:[1]

Date	Activity	Delay Since Previous Activity (days)
4/30/1999	Earliest possible date of conception (4, 6-8)	—
6/30/1999	Preparation of sketches of an umbrella (10)	61
7/30/1999	Trip to China (5)	30
7/31/1999	Notes in preparation for trip to China (11, 12, 13)	1
9/30/1999	Notes and sketches of umbrella (14)	61
10/11/1999	E-mail from Eric Li re Real Faith factory in China (17)	11

[1] Where Patentee's Declaration does not specify a day but specifies only a month and year (*e.g.*, "6–99" in ¶ 10, "7–99" in ¶ 11), it is assumed that the event occurred on the last day of the month.

10/14/1999	E-mail from Eric Li re Jiangsu Metal & Minerals Import and Export (18)	3
10/16/1999	Memo from Eric Li re Mr. Bakula (19)	2
10/20/1999	Trip to China (5, 16)	4
10/23/2000	Quillen works on drawings (20, 22)	369
11/9/2000	Correspondence to patent attorney re preparation of patent application (21)	17
2/7/2001	Provisional patent application filed (23)	90

Patentee has unexplained periods of inactivity of 61, 30, 61, 369, and 90 days. Thus even if the Patentee's declaration did not suffer fatal flaws of lack of corroboration, any one of these unexplained prolonged periods of inactivity preclude a finding of diligence in reduction to practice.

For the reasons set forth above, the declarations submitted by patentee are insufficient to swear behind the references.

CLAIMS 1, 2, 4–7, 9, 47–57, 59–62, 64–66, AND 70–74 ARE UNPATENTABLE OVER THE PRIOR ART

Additional Prior Art Submitted Under 37 CFR § 1.948

For the Examiner's benefit, new prior art applicable to World Factory's amendments has been found. Pursuant to 37 CFR § 1.948, Southern Sales files herewith the following additional prior art references that address features of the amended Claims 1-5, 47–56, 59–62, 64–66, 70–72, and 74 not present in the original claims:

Patent No./App. No.	Inventor	Effective Date	Exhibit No.
5,055,984	Hung et al.	Aug. 11, 1989	13
5,758,948	Hale	July 10, 1996	14
6,406,163	T. Yang	Nov. 27, 2000	15
6,729,742	Wismeth	May 10, 2002	16

These submissions are made in response to the new amendments submitted by World Factory. Southern Sales believes that an overview of the newly submitted prior art would benefit the reexamination process.

World Factory has submitted a Second Declaration Under 37 C.F.R. § 1.131 in which the inventor swears behind the effective dates of the Cathel, Lee '856, Mai, Pan, Lee '224, Yang, Molnar, Vivian, Farr, and Lai references. The reference date alleged in the Second Declaration is April of 1999. The effective date of the newly submitted Hung and Hale prior art references predates April 1999. Thus even if the Examiner finds the Second Declaration effective in establishing a date of invention of April 1999, the new Hung and Hale prior art submissions would still constitute prior art.

U.S. Patent No. 5,055,984 to Hung et al. (hereafter "Hung") discloses a solar rechargeable lamp for outdoor use. The device contains a solar energy system (hereafter "SES") (32) that collects and converts solar energy into electrical energy, which the SES (32) stores in a rechargeable electrical system (hereafter "RES") (26, a battery) to which it is connected (Col. 3, 26-39). The two power systems are found in one housing (FIG. 5), the SES (32) found above the RES (26), which is releasably coupled to a pole (80) (See FIG. 2). The RES powers a lighting system (18)(FIG. 5).

U.S. Patent No. 5,758,948 to Hale (hereafter "Hale") discloses a seasonal light display device. The device contains an apparatus comprising a pole portion (3) and has a plurality of ribs (12) hingedly coupled to the pole portion, and a lighting system, wherein the lighting system includes multiple discrete lighting elements (15) positioned along a rib member (12), each lighting element being recessed (12, 22 and 24) within the rib member and being conductively coupled to a electrical power system by an electrical conductor (36), the electrical conductor also being recessed within the rib member(12, 22 and 24).

If World Factory is successful in establishing a date of invention of April 1999, the newly submitted Yang and Wismeth prior art references may not constitute prior art. However, in the likely event that the Examiner finds the Second Declaration lacking, the following new prior art submissions would be highly useful in the reexamination.

U.S. Patent No. 6,406,143 to Yang (hereafter "Yang '163") (Exhibit 13) discloses a solar cell lighting fixture. The device contains a SES that collects and converts solar energy into electrical energy, which it stores in the RES to which the SES is connected (Col. 2, 62 – Col. 3, 18, FIG. 2). These two power systems are found in one module which is releasably

coupled to a pole portion of the device (Col. 5, 11-18, FIG. 15). The SES is found in the upper portion of the module while the RES is found in the lower portion of the module. The RES powers a lighting system carried by the device (Col. 3, 4-10, FIG. 2).

U.S. Patent No. 6,729,742 to Wismeth et al. (hereafter "Wismeth") discloses a solar lamp for outdoor use. The device contains a solar energy system that collects and converts solar energy into electrical energy, which the SES stores in a RES to which it is connected (Col. 1, 53-59, Col. 2, 47-64). The two power systems are found in the cubic housing, the SES found above the RES (Col. 2, 38-58). The housing is coupled to a pole (Col. 2, 38-42, FIG. 1). The RES powers a lighting system (Col. 1, 53-57, Col. 2, 58-59).

Summary of Previously Presented Prior Art in View of Patentee's Amendments

While the following patents have previously been presented, a recap of their relevance is appropriate in view of the amendments made and new claims submitted by the patentee.

Phyle - U.S. Patent No. 5,584,564

Phyle discloses an apparatus that has an illumination device 12 carried by the canopy ribs. Battery (10) is rechargeable and is carried by the pole at an upper portion 20.

Valdner includes a solar power electrical system 38 found above the canopy 24, and carried by the rod (pole) 12. The solar power electrical system 38 has a discus-shape. The apparatus has a rechargeable battery pack that can be connected at the bottom 40 of the rod 12.

Includes a solar collector 2 carried by the canopy that charges batteries 3 in the base 4. The batteries 3 can power a light 12.

Benton describes an umbrella supported by an upper portion 22 of a pole. The pole 22 supports lights 26. A solar panel 34 positioned on top of the canopy of the umbrella can power a motor 36 of a fan 28. The motor and lights may be powered through an AC connection 27.

Walker discloses an umbrella 10 that includes hollow tubes 30 that carry light ropes 32 carried by the ribs 16 of the umbrella 10.

Small discloses an umbrella supported by a post 10. The umbrella employs a motor 29 to open and close the canopy. The motor may be powered by a solar battery 34 and a storage battery 35. The solar battery 34 charges the storage battery 35. The storage battery 35 may be found in other positions along the post 10. However, as shown in FIG. 1, the storage battery 35 is located below the solar battery 34 and is carried by the upper portion of the post 10.

Farr discloses an umbrella 10 with a cooling device. A tube supports the canopy 14 of the umbrella. The cooling device 16 is carried by the tube and may be detached from the tube. A battery 19 is contained within the cooling device 16, and is connected to a solar collector 28. The solar collector 28 is detachably connected to the tube, as shown in FIG. 4.

Molnar discloses an umbrella 10 that includes a fan 18 and lights 54. A battery 36 that powers the fan and lights may be housed in the base 12 of the umbrella 10.

Yang discloses an umbrella that has illumination devices mounted above the canopy 18 and in the tips 40 of each rib 16. The illumination device 40 includes a transparent tip 40 and an LED 42, so arguably, the LED 42 is within the rib 16.

Lee discloses an umbrella that has a plurality of ribs 2 with trenches 3 throughout the bottoms of the ribs 2. Lamps 4 are partially retained within the trenches 3 of the ribs 2.

Pan et al discloses an umbrella that includes a plurality of hollow ribs 3. Along each rib is a trench (32, not shown in these figures) that retain light sources 5. The light sources may be connected with an illuminating connector 31.

Cathel discloses an illuminated mailbox address device 10. The device 10 is powered by a solar cell 60 that recharges a battery 64. LEDs (not shown) may be used to illuminate the device.

Rushing discloses an umbrella having a central support pole 22 that supports a plurality of ribs 28 that support a canopy 30. Light strings 12 with miniature lights 14 are attached to the ribs 28.

Morgan discloses an umbrella 20 with a plurality of ribs 14 that support a canopy 18 and electrical bulbs 24 and electrical connectors 26.

Wu discloses an umbrella that has rib members 24 that have tip illuminators 32. The tip illuminators 23 may be LEDs.

REJECTIONS UNDER 35 U.S.C. §§ 102 AND/OR 103

The Rejection of Claim 1 under Combination I

The Office Action rejected Claim 1 as being obvious and unpatentable over WO 93/00840 and Valdner which was designated Combination I. In response, World Factory amended Claim 1 by adding these limitations: 1) a canopy portion has a plurality of rib members; 2) the SES is carried by a module coupled to the pole portion above the canopy portion; 3) the module is releasably coupled to the pole portion; and 4) the lighting system is carried by the canopy portion and coupled to and powered by the RES. Additionally, World Factory deleted the requirement that the RES be adapted to receive power from an AC power outlet.

The introduction of these limitations fails to overcome the § 103(a) rejections over Combination I. WO 93/00840 and Valdner both disclose a canopy having a plurality of ribs. WO 93/00840 discloses an umbrella having a base 4, a pole 9, a canopy carried by the pole, and a solar collector 2 carried by the canopy that charges batteries 3 in the base 4. The batteries 3 can power a light 12. WO 93/00840 fails to show a lighting system carried by the canopy portion. In Valdner, the ribs carry the ventilation shafts. It would be obvious to a person of ordinary skill in the art at the time of the invention of the '713 patent to have the lighting system of WO 93/00840 carried by ribs such as those of Valdner, which carries the ventilation shafts along its ribs. Additionally, Valdner's solar cell is connected to the rechargeable system, so that the absence of the electrical system being able to receive power

from an AC outlet would be a trivial change on their devices. Logically, the solar power system must be located at a position in which it may receive solar power. If the solar power system is located on the umbrella device, the solar panel may only be located on top of the umbrella, which can be either on the canopy itself or the pole portion of an umbrella, which would be obvious to a person skilled in the art. Finally, the solar portion being releasably coupled to the pole portion is not a novel concept. A component being releasably coupled to any device is ubiquitous.

The Rejection of Claim 1 under Combination I in view of Hung

Claim 1 is further unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination I in view of Hung. The teachings of Combination I are discussed in the preceding paragraph. Hung discloses a SES that is releasably coupled to a pole portion. Hung discloses a solar panel (32) on the upper portion of the housing for the light (10) which is removable from the pole portion (80). Thus, to the extent that Combination I does not expressly disclose a solar panel removably mounted to the upper portion of a pole, Hung provides this missing teaching. Claim 1 is therefore unpatentable under 35 U.S.C. § 103(a) as being obvious over Combination I in view of Hung.

The Rejection of Claims 2, 5 and 74 under Combination II

The Office Action rejected Claims 2 and 5 as being obvious and unpatentable over WO 93/00840 and Phyle, which was deemed Combination II. In response, World Factory amended Claim 2 by adding these limitations: 1) a power module is carried by the pole portion above the canopy portion; 2) the power module has an upper portion and a lower portion; 3) the SES is carried by the upper portion of the module; and 4) the RES is disposed in the lower portion of the power module. No amendments were made to Claim 5, which is dependent on claim 2. The only additional limitation of Claim 5 is the canopy has a plurality of rib members and that each rib member carries a fluorescent light.

These amendments fail to overcome the 35 U.S.C. § 103(a) rejections based on WO 93/00840 and Phyle. In addition, Claim 74 claims the same elements and has identical amendments, so it too should be found rejected based upon Combination II as well. The

changes to the claims mean that the SES and the RES naturally reside in one singular component, with the SES found over the RES that is located on top of a patio umbrella. Such a combination would be obvious to a person skilled in the art. For the SES to convert light into electrical energy, it must have access to light. Accordingly, the SES must be above the canopy portion, either on the canopy itself or on the pole portion supporting the canopy. Additionally, placing the RES below the SES would be obvious as well; placing the RES above the SES would block sunlight from reaching the SES, preventing the SES from operating. Combining the SES and RES in one power module is obvious to a person skilled in the art because combining the two systems into one module greatly reduces the need for wire to connect the two systems as well as increases the ease of access to repair of the electrical systems. For Claim 5, both references disclose a canopy with multiple rib members. One skilled in the art would find it obvious to have the lighting system carried by the rib members, especially the use of fluorescent lights. Phyle itself carries fluorescent lights.

The Rejection of Claims 2, 5 and 74 under Combination II in view of Hung

Alternately, Claims 2, 5 and 74 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination II and further view of Hung. Combination II discloses all the elements of Claim 2 and 74 except for the amendments above, but Hung discloses a SES and a RES in a power module that is carried by a pole, the SES found in the upper portion and the RES found in the lower portion of the module. Accordingly, a person skilled in the art would find it obvious to modify Combination II by adding the power module carried by a pole, as taught by Hung. Additionally, claims 2 and 74 are identical. As such, one or the other should be cancelled even if the claims are allowed.

Claim 5 adds only the limitations that ribs are attached to the canopy, and fluorescent lights are mounted to the ribs. The type of lighting used, whether incandescent, fluorescent, LED, or the like is a trivial modification. And because of the elongated structure of fluorescent bulbs, mounting them to the umbrella ribs would be an obvious expedient. Claim 5 is thus also obvious over Combination II in view of Hung.

The Rejection of Claims 2, 5 and 74 under Combination II in view of Yang '163 or Wismeth

If the Examiner finds World Factory's § 131 Declaration lacking, Claims 2, 5, and 74 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination II in further view of Yang '163 or Wismeth. Both Yang '163 and Wismeth disclose a SES and a RES in a power module that is carried by a pole, the SES found in the upper portion and the RES found in the lower portion of the module. Because an SES, if mounted to the umbrella, must be mounted above the canopy if it is to be exposed to sunlight, it would have been obvious to one of ordinary skill in the art to have mounted a SES and a RES in a power module carried by the pole, as taught by Yang '163 or Wismeth, and to affix it to a portion of the pole above the canopy so it will be exposed to sunlight. Claims 2, 5, and 74 are therefore obvious, and therefore unpatentable, over Combination II in view of Yang '163 or Wismeth.

Claim 5 adds only the limitations that ribs are attached to the canopy, and fluorescent lights are mounted to the ribs. The type of lighting used, whether incandescent, fluorescent, LED, or the like is a trivial modification. And because of the elongated structure of fluorescent bulbs, mounting them to the umbrella ribs would be an obvious expedient. Claim 5 is thus also obvious over Combination II in further view of Yang '163 or Wismeth.

The Rejection of Claims 2, 5 and 74 under Combination III

The Office Action rejected Claims 2, 5, and 74 as being unpatentable over Phyle and Valdner which was deemed Combination III. In response, World Factory amended Claims 2 and 74 by adding these limitations: 1) a power module carried by the pole portion above the canopy portion; 2) the power module has an upper portion and a lower portion; 3) the SES is carried by the upper portion of the module; and 4) the RES is disposed in the lower portion of the power module. No amendments were made to Claim 5, which is dependent on claim 2. The only additional limitation of Claim 5 is that the canopy has a plurality of rib members and that each rib member carries a fluorescent light. For Claim 5, both references disclose a

canopy with multiple rib members. Phyle discloses fluorescent lights (12) attached to its rib members.

These amendments fail to overcome the 35 U.S.C. § 103(a) rejections as being obvious and unpatentable over Phyle and Valdner. The changes to the claims mean that the SES and the RES reside in one singular component, with the SES found over the RES that is located on top of a patio umbrella. Such a combination would be obvious to a person skilled in the art. For the SES to convert light into electrical energy, it must be exposed to light. As such, the SES must be above the canopy portion, either on the canopy itself or on the pole portion supporting the canopy. Additionally, having the RES below the SES would be obvious as well, as having the RES above the SES would prevent the SES from receiving sunlight and thereby prevent its operation. Combining the SES and RES in one power module is obvious to a person skilled in the art because combining the two systems into one module greatly reduces the need for wire to connect the two systems as well as increases the ease of access to repair of the electrical systems.

The Rejection of Claims 2, 5 and 74 under Combination III in view of Hung

Alternately, Claim 2, 5, and 74 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination III in view of Hung. Combination III discloses all the elements of former Claims 2 and 74. As to the features added by amendment, Hung discloses a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to modify Combination III by placing the SES and RES in a single module carried by a pole, as taught by Hung. When combined with Combination III, accordingly, a person skilled in the art would see this combination as obvious.

Claim 5 adds only the limitations that ribs are attached to the canopy, and fluorescent lights are mounted to the ribs. The type of lighting used, whether incandescent, fluorescent, LED, or the like is a trivial modification. And because of the elongated structure of fluorescent bulbs, mounting them to the umbrella ribs would be an obvious expedient. Claim 5 is thus also obvious over Combination III in view of Hung.

Claims 2, 5 and 74 are unpatentable under Combination III in view of Yang '163 or Wismeth

If the Examiner finds World Factory's § 131 Declaration lacking, Claim 2, 5 and 74 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination III in view of either Yang '163 or Wismeth. Combination III discloses all the elements of Claim 2 and 74 and Yang '163 and Wismeth disclose a SES and a RES in a singular module that is carried by a pole. When combined with Combination III, accordingly, a person skilled in the art would see this combination as obvious.

Claim 5 adds only the limitations that ribs are attached to the canopy, and fluorescent lights are mounted to the ribs. The type of lighting used, whether incandescent, fluorescent, LED, or the like is a trivial modification. And because of the elongated structure of fluorescent bulbs, mounting them to the umbrella ribs would be an obvious expedient. Claim 5 is thus also obvious over Combination III in view of either Yang '163 or Wismeth.

Claims 2 and 4 are unpatentable under Combination IV

The Office Action rejected Claims 2 and 4 as being unpatentable over WO 93/00840 and Pan or Wu or JP 9-168415 or Mai or Yang which was deemed Combination IV. In response, World Factory amended Claim 2 by adding these limitations: 1) a power module carried by the pole portion above the canopy portion; 2) the power module has an upper portion and a lower portion; 3) the SES is carried by the upper portion of the module; and 4) the electrical power system is disposed in the lower portion of the power module. Lastly, World Factory submitted a Declaration in which the inventor attempts to swear behind Mai, Pan, and Yang.

World Factory has failed to overcome the 35 U.S.C. § 103(a) rejections as being obvious and unpatentable over WO 93/00840 and Wu or JP-9-168415. The changes to the claims mean that the SES and the RES reside in one singular component, with the SES found over the RES that is located on top of a patio umbrella. Such a combination would be obvious to a person skilled in the art. For the SES to convert light into electrical energy, it must have access to light. As such, the SES must be above the canopy portion, either on the

canopy itself or on the pole portion supporting the canopy. Additionally, having the RES below the SES would be obvious as well; having the RES above the SES would prevent the SES from receiving light and thereby preventing its operation. Combining the SES and RES in one power module is obvious to a person skilled in the art because combining the two systems into one module greatly reduces the need for wire to connect the two systems as well as increases the ease of access to repair of the electrical systems.

No amendments were made to Claim 4, which is dependent on Claim 2. The only additional limitation of Claim 4 is that the canopy has a plurality of rib members which carries the lighting system and that the rib members carry a plurality of light emitting diodes coupled to the RES. For Claim 4, the references disclose a canopy with multiple rib members and the use of lighting devices. All but WO 93/00480 disclose using light emitting diodes in various positions, some specifically on the ribs. As such, the arguments above that apply to Claim 2 apply to Claim 4.

Claims 2 and 4 are unpatentable under Combination IV in view of Hung

Alternately, Claim 2 and 4 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination IV in view of Hung. Combination IV discloses all the elements of former Claims 2 and 4, and Hung discloses the new elements added by the amendments: a SES and a RES in a singular module that is carried by a pole, the SES found in the upper portion and the RES found in a lower portion. It would have been obvious to a person skilled in the art to modify Combination IV by substituting a SES and a RES in a singular module that is carried by a pole, as taught by Hung, and thereby construct the invention of Claims 2 and 4.

The Rejection of Claims 2 and 4 under Combination IV in view of Yang '163 or Wismeth

If the Examiner finds the Declaration lacking, Claims 2 and 4 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Combination IV in view of either Yang '163 or Wismeth. Combination IV discloses all the elements of former Claims 2 and 4, and Yang '163 and Wismeth disclose the limitations added by the recent amendments: a SES and a

RES in a singular module that is carried by a pole. A person of ordinary skill in the art would have found it obvious to modify Combination IV by adding a SES and a RES in a singular module that is carried by a pole, as taught by Yang '163 or Wismeth, and thereby construct the claimed invention. Claims 2 and 4 are therefore unpatentable.

The Rejection of Claim 4 under Combination V

The Office Action rejected Claim 4 as being unpatentable over Phyle and Valdner and Wu or Pan or JP-9-168415 or Mai or Yang, which was deemed Combination V. Claim 4 was not amended; however, Claim 4 remained dependent upon Claim 2, which was amended as stated above. As such, it includes the limitations of Claim 2. For Claim 4, the limitations disclose a canopy with multiple rib members and the lighting elements being LEDs. Also, World Factory submitted a Declaration in which the inventor attempts to swear behind Mai, Pan, and Yang.

These amendments fail to overcome the 35 U.S.C. § 103(a) rejections as being obvious and unpatentable over Combination V. The changes to the claims mean that the SES and the RES reside in one singular component, with the SES located over the RES that is located on top of a patio umbrella. Such a combination would be obvious to a person skilled in the art. For the SES to convert light into electrical energy, it must have access to light. As such, the SES must be above the canopy portion, either on the canopy itself or on the pole portion supporting the canopy. Additionally, having the RES below the SES would be obvious as well; having the RES above the SES would prevent the SES from receiving light and thereby preventing its operation. Combining the SES and RES in one power module is obvious to a person skilled in the art because combining the two systems into one module greatly reduces the need for wire to connect the two systems as well as increases the ease of access to repair of the electrical systems.

Claim 4 is unpatentable over Combination V in view of Hung

Alternately, Claim 4 is unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination V in view of Hung. Combination V discloses all the elements of previous Claim 4. Hung discloses a SES and a RES in a single module that is carried by a

pole. It would have been obvious to a person skilled in the art to have modified Combination V by providing a SES and a RES in a single module that is carried by a pole, as taught by Hung. Locating the module on the pole above the canopy is an obvious step, because a module located beneath the canopy would not be exposed to sunlight and could not collect energy. Claim 4 is therefore unpatentable as obvious over Combination V in view of Hung.

Claim 4 is unpatentable over Combination V in view of either Yang '163 or Wismeth

If the Examiner finds the Declaration lacking, Claim 4 is unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination V in view of either Yang '163 or Wismeth. Combination V discloses all the elements of former Claim 4. Yang '163 and Wismeth disclose a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to have modified Combination V by providing a SES and a RES in a single module that is carried by a pole, as taught by either Yang '163 or Wismeth. Locating the module on the pole above the canopy is an obvious step, because a module located beneath the canopy would not be exposed to sunlight and could not collect energy. Claim 4 is therefore unpatentable as obvious over Combination V in view of either Yang '163 or Wismeth.

The Rejection of Claims 49, 50 and 72 under Combination VIII (A)

The Office Action rejected Claims 49, 50 and 72 as being unpatentable over WO 93/00840 and Morgan or Rushing or Pan or JP 9-168415 or Mai which was deemed Combination VIII (A). World Factory responded by amending claims 49 and 72 by adding this limitation: each lighting element is recessed within the rib member and is conductively coupled to the rechargeable electrical power system by an electrical conductor that is also recessed within the rib member. Claim 50 was not amended, but is dependent on Claim 49, therefore taking in the limitation. In addition, World Factory submitted a Declaration in which the inventor attempted to swear behind Mai and Pan.

This amendment fails to overcome the 35 U.S.C. § 103(a) rejections as being obvious and unpatentable over Combination VIII(A). The amendments to the claims relate to the positioning of lighting elements and wires within the rib members. Such an element would

be obvious to a person skilled in the art in light of Combination VIII (A). The lighting elements and connecting wires must be carried by a reinforced structure of a canopy, which would be the rib members. Safety issues would make it obvious not to have wires protruding from the rib members. As such, the logical solution would be to recess the wires and lighting elements within the rib members.

Claims 49, 50 and 72 are obvious over Combination VIII (A) in view of Hale or Wu or Walker

Alternatively, Claims 49, 50 and 72 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination VIII (A) in view of Hale or Wu or Walker. Wu specifically discloses a recessed rib (21) into which the lighting elements (32) and wires (P and N) are recessed. Hale also discloses lighting elements (15) and wires (36) that are recessed into the rib members (12). Walker discloses lighting elements and wires (32) that are recessed into channels (30) along the underside of the rib (16). It would have been obvious, and hence unpatentable, for a person skilled in the art to have modified Combination VIII(A) by recessing the wires and lighting elements into the rib members, as taught by either Hale or Wu or Walker. Claims 49, 50, and 72 are therefore unpatentable.

Claims 49, 50 and 72 are obvious over Combination VIII (A) in view of Lee '224 or Lee '856

If the Examiner finds the Rule 1.131 Declaration lacking, Claims 49, 50 and 72 are unpatentable under U.S.C. § 103(a) as being obvious and unpatentable over Combination VIII (A) in view of Lee '224 or Lee '856. Former Claims 49, 50, and 72 have already been rejected as obvious over Combination VIII(A). Claims 49, 50, and 72 have now been amended to add the limitations that each lighting element is recessed within the rib member and is conductively coupled to the rechargeable electrical power system by an electrical conductor that is also recessed within the rib member. Lee '224 and Lee '856 disclose an umbrella that has a plurality of ribs 2 with trenches 3 throughout the bottoms of the ribs 2. Lamps 4 are partially retained within the trenches 3 of the ribs 2. Both Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into the rib members with the

wires connected to a rechargeable power source. It would have been obvious to a person skilled in the art to have modified Combinaton VIII(A) by providing trenches in the bottoms of the ribs, with lighting elements and associated wiring recessed into the trenches as taught by Lee '224 and Lee '856 and thereby construct the claimed invention. Claims 49, 50, and 72 are therefore unpatentable under § 103(a).

The Rejection of Claims 51 and 55 under Combination VIII (B) in view of Wu or Hale

The Office Action rejected Claims 51 and 55 as being unpatentable over WO 93/00840 and Lee '856 which was deemed Combination VIII (B). Claim 51 was originally dependent on Claim 49, but World Factory amended Claim 51 to become independent, and incorporated the limitations of Claim 49, except that a single lighting element has replaced a plurality of lighting elements along a rib member. These additional limitations were added as well: 1) a translucent cover for covering the lighting elements; 2) the SES carried by a power unit coupled to the pole portion above the canopy portion; and 3) a portion of each lighting element extends beyond the corresponding rib member. Claim 55 was amended to depend from Claim 52, which is identical to Claim 51 except that it claims the lighting elements are fully recessed within the rib member. Claim 55 further claims that each wire is fully recessed within the rib member. In addition, World Factory submitted a Declaration in which the inventor attempts to swear behind Lee '856.

Claims 51 and 55 as amended are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination VIII(B) in view of Wu or Hale. The amendments made disclose the solar power system coupled to the pole portion in a removable manner. Hung has the same configuration. Alternatively, having an item coupled to another item is ubiquitous. Wu and Hale both disclose lighting elements that extend beyond the ribs. Additionally, whether a lighting element is fully recessed or extended from a rib does not have an inventive value. Wu has a translucent cover (322) that covers the lighting element (32). The wire elements for Wu and Hale are recessed within the rib members.

It would have been obvious to a person skilled in the art to modify Combination VIII(B) by coupling one item to another, to have lighting elements that extend beyond the ribs as taught by Wu or Hale, to recess wires within the rib members as taught by Wu or Hale, and to provide a translucent cover that covers a lighting element, as taught by Wu. Claims 51 and 55 are therefore unpatentable as obvious over § 103(a).

The Rejection of Claim 54 under Combination VIII(C)

The Office Action rejected Claim 54 as being unpatentable over WO 93/00840 and Pan or JP 9-168415 or Mai, which was deemed Combination VIII(C). World Factory did not amend Claim 54, but did amend Claim 49, from which Claim 54 depends. Claim 49 was amended by adding these limitations: 1) each lighting element is recessed within the rib member; and 2) is conductively coupled to the rechargeable electrical power system by an electrical conductor that is also recessed within the rib member. Claim 54 adds the limitation that the lighting elements are each an LED. In addition, World Factory submitted a Declaration in which the inventor attempts to swear behind Pan and Mai.

Even if Pan and Mai are removed as references, these amendments fail to overcome the 35 U.S.C. § 103(a) rejections as being obvious and unpatentable over WO 93/00840 and JP 9-168415. The amendments to the claims relate to the positioning of lighting elements and wires within the rib members. The lighting elements and connecting wires must be carried by a reinforced structure of a canopy, which would be the rib members. Safety issues would make it obvious not to have protruding wires from the rib members. As such, the logical solution would be to recess the wires and lighting elements within the rib members. Such an element would be obvious to a person skilled in the art in light of WO 93/00840 and JP 9-168415.

Claim 54 is unpatentable over WO 93/00840 and JP 9-168415 in view of either Hale or Wu

Alternatively, Claim 54 is unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over WO 93/00840 and JP 9-168415 in view of either Hale or Wu. Wu specifically discloses a recessed rib (21) into which the lighting elements (32) and wires (P

and N) are recessed. Hale also discloses lighting elements (15) and wires (36) that are recessed into the rib members (12). JP 9-168415 discloses using LEDs. A person skilled in the art would find it obvious to modify WO 93/00840 and JP 9-168415, which show all of the features of former Claim 54, by providing a recessed channel with the ribs into which the lighting elements and wires are recessed, as taught by Hale or Wu. Claim 54 is therefore unpatentable as obvious over WO 93/00840 and JP 9-168415 in view of either Hale or Wu.

If the Examiner finds World Factory's § 1.131 Declaration lacking, Claim 54 is unpatentable under U.S.C. § 103(a) as being obvious and unpatentable over Combination VIII(C) in view of Lee '224 or Lee '856. Lee '224 and Lee '856 each disclose lighting elements and wires that are recessed into umbrella rib members. Combination VIII(C) discloses all of the elements of former Claim 54. The new limitations added to Claim 54 are shown in Lee '224 and Lee '856. It would be obvious to a person skilled in the art to modify Combination VIII(C) by recessing the lighting elements and wires into umbrella rib members, as taught by Lee '224 and Lee '856. Claim 54 is therefore unpatentably obvious over Combination VIII(C) in view of Lee '224 or Lee '856.

Claims 49, 50, and 72 are unpatentable under Phyle and Valdner, and Morgan or Rushing or JP 9-168415

The Office Action rejected claims 49, 50 and 72 as being unpatentable over Phyle and Valdner, and Morgan or Rushing or Pan or JP 9-168415 or Mai which was deemed Combination IX (A). World Factory amended Claims 49 and 72 (50 was not amended, but dependent on 49), by adding these limitations: 1) each lighting element is recessed within the rib member and being conductively coupled to the rechargeable electrical power system by an electrical conductor; and 2) the electrical conductor also is recessed within the rib member. Claim 72 further states the lighting element is recessed within the corresponding rib member. Additionally, World Factory submitted a Declaration that attempts to swear behind Pan and Mai.

Even if Pan and Mai are removed as prior art references, the amendments to Claims 49, 50 and 72 fail to overcome the 35 U.S.C. § 103(a) rejections as being obvious and

unpatentable over Phyle and Valdner, and Morgan or Rushing or JP 9-168415. The amendments to the claims relate to the positioning of lighting elements and wires within the rib members. The lighting elements and connecting wires must be carried by a reinforced structure of a canopy, which would be the rib members. Safety issues would make it obvious not to have protruding wires from the rib members. As such, the logical solution would be to recess the wires and lighting elements within the rib members, which would be obvious to a person skilled in the art in light of the combination of Phyle and Valdner, and Morgan or Rushing or JP 9-168415.

Claims 49, 50, and 72 are unpatentable under Phyle and Valdner, and Morgan or Rushing or JP 9-168415 and further in view of Hale or Wu or Walker

Alternatively, Claims 49, 50 and 72 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Phyle and Valdner, and Morgan or Rushing or JP 9-168415 in view of Hale or Wu or Walker. Wu specifically discloses a recessed rib (21) into which the lighting elements (32) and wires (P and N) are recessed. Hale also discloses lighting elements (15) and wires (36) that are recessed into the rib members (12). Walker discloses lighting elements and wires (32) that are recessed into channels (30) along the underside of the rib (16). It would have been obvious to a person skilled in the art to have modified the combination of Phyle and Valdner, and Morgan or Rushing or JP 9-168415 by providing recesses in the ribs to receive the wires and lighting elements, as taught by Hale or Wu or Walker, and thereby construct the claimed invention.

Claims 49, 50, and 72 are unpatentable over Combination IX(A) in view of Lee '224 or Lee '856

If the Examiner finds World Factory's Rule 1.131 Declaration inadequate to establish a date of invention earlier than its filing date, Claims 49, 50 and 72 are unpatentable under U.S.C. § 103(a) as being obvious over Combination IX (A) in view of Lee '224 or Lee '856. Both Lee '224 and Lee '856 disclose an umbrella that has a plurality of ribs 2 with trenches 3 throughout the bottoms of the ribs 2. Lamps 4 are partially retained within the trenches 3 of

the ribs 2. Both Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into the rib members with the wires connected to a power source. It would have been obvious to a person skilled in the art to modify Combination IX(A) by providing recesses in the bottom of the rib members with the lighting elements and wires received within the recesses, as taught by Lee '224 and Lee '856, and thereby construct the claimed invention.

Claims 51 and 55 are unpatentable under Combination IX (B)

The Office Action rejected Claims 51 and 55 as being unpatentable over Phyle, Valdner, and Lee '856, which was deemed Combination IX (B). Claim 51 was originally dependent on Claim 49, but World Factory amended Claim 51 to become independent, and incorporated the limitations of Claim 49, except that a single lighting element has replaced a plurality of lighting elements along a rib member. The additional limitations were added: 1) a translucent cover for covering the lighting elements; 2) the SES carried by a power unit coupled to the pole portion above the canopy portion; and 3) that a portion of each lighting element extends beyond the corresponding rib member. Claim 55 was amended to depend from Claim 52, which is identical to Claim 51 except that it claims that the lighting elements are fully recessed within the rib member. Claim 55 further claims that each wire is fully recessed within the rib member. In addition, World Factory submitted a Declaration in which the inventor attempts to swear behind Lee '856.

These amendments fail to overcome the 35 U.S.C. § 103(a) rejections as being obvious and unpatentable over Phyle and Valdner. The amendments have made the SES part of a power module, which Valdner discloses. The SES is attached to the pole portion of World Factory's invention. Valdner's SES is attached to the apex of the canopy portion, which would be the equivalent of the pole portion of World Factory's invention. Having a removable SES is not a novel concept either. The venting component (28) of Valdner is recessed in the rib members (26) of the canopy portion. It would have been obvious to a person skilled in the art to position the lights and wiring of Phyle within the venting component of Valdner and thereby construct the claimed invention.

Claims 51 and 55 are unpatentable under Combination IX (B)

Alternatively, Claims 51 and 55 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Phyle and Valdner, and Hung in view of Wu or Hale. The amendments made to Claims 51 and 55 disclose the solar power system coupled to the pole portion in a removable manner. Hung has the same configuration. Wu and Hale both disclose lighting elements that extend beyond the ribs. Additionally, the extent to the amount a lighting element is fully recessed or extended from a rib does not have an inventive value. Wu has a translucent cover (322) that covers the lighting element (32). The wire elements for Wu and Hale are fully recessed within the rib members. It would have been obvious to a person skilled in the art to have modified Combination IX(B) by providing a solar power system coupled to the pole portion in a removable manner, as taught by Hung, to provide lighting elements that extend beyond the ribs, as taught by Wu and Hale, and to provide a translucent cover, as taught by Wu, and thereby construct the claimed invention.

Claims 51 and 55 are unpatentable over Combination IX (B)

If the Examiner finds the Declaration lacking, Claims 51 and 55 are unpatentable under U.S.C. § 103(a) as being obvious over Combination IX (B) and Wu in view of Lee '224 or Lee '856. As previously discussed, both Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into the rib members. It would have been obvious to a person skilled in the art to have modified Combination IX(B) by providing lighting elements and wires recessed into rib members, as taught by Lee '224 and Lee '856, and thereby construct the claimed invention.

Claim 54 is unpatentable over Combination IX (C)

The Office Action rejected Claim 54 as unpatentable over Phyle and Valdner, and Pan or JP 9-168415 or Mai which was deemed Combination IX (C). World Factory did not amend Claim 54, but did amend Claim 49, from which Claim 54 depends. Claim 49 was amended by adding these limitations: 1) each lighting element is recessed within the rib member; and 2) each lighting element is conductively coupled to the rechargeable electrical power system by an electrical conductor that is also recessed within the rib member. Claim

54 adds the limitation that the lighting elements are each an LED. In addition, World Factory submitted a Declaration in which the inventor attempts to swear behind Pan and Mai.

Even if Pan and Mai were removed as prior art references, World Factory has failed to overcome the 35 U.S.C. § 103(a) rejections over Phyle and Valdner and JP 9-168415. The amendments to the claims relate to the positioning of lighting elements and wires within the rib members. Phyle discloses the lighting elements (12) being carried by the rib portions (22). Valdner discloses its venting element (28) being recessed in the rib members (26). Using an LED as the lighting element would be obvious to one skilled in the art, and JP 9-168415 discloses the use of LEDs. The combination of recessing an LED and its wiring components within a rib member would be obvious to a person skilled in the art in light of Combination IX (C).

Claim 54 is unpatentable over Combination IX (C) in view of Hale or Wu

Alternatively, Claim 54 is unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination IX (C) in view of either Hale or Wu. Wu specifically discloses a recessed rib (21) into which the lighting elements (32) and wires (P and N) are recessed. Hale also discloses lighting elements (15) and wires (36) that are recessed into the rib members (12). It would have been obvious to a person skilled in the art to have modified Combination IX(C) by providing a recess in each rib into which lighting elements and wires are recessed, as taught by either Hale or Wu, and thereby construct the claimed invention.

Claim 54 is unpatentable over Combination IX (C) in view of Lee '224 or Lee '856.

If the Examiner finds the Rule 1.131 Declaration lacking, Claim 54 is unpatentable under U.S.C. § 103(a) as being obvious and unpatentable over Combination IX (C) in view of Lee '224 or Lee '856. As previously discussed, both Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into rib members. It would have been obvious to a person skilled in the art to have modified Combination IX(C) by providing lighting elements and wires recessed into rib members, as taught by either Lee '224 or Lee '856, and thereby construct the claimed invention.

ADDITIONAL PROPOSED REJECTIONS

Claim 1—Claim 1 is not patentable under 35 U.S.C. § 103(a) over Mueller and Rushing in view of Hung. Mueller discloses an umbrella apparatus (80), a base portion (28), a pole portion (16) coupled to the pole portion (28), a canopy portion hingedly coupled to the pole portion, the canopy portion having a plurality of rib members, a rechargeable electrical power system for providing power to the umbrella apparatus, and a SES (82) carried by a module coupled to the pole portion above the canopy portion, the SES being connected to the RES (26). Rushing discloses a lighting system having multiple discrete lighting elements (28) positioned along at least one of the rib members (12), and being conductively coupled to an electrical power system. Hung discloses a SES (32) carried by a module (10), the module being releaseably coupled to the pole portion (80). It would have been obvious to a person skilled in the art to have modified the umbrella of Mueller by providing a lighting system having multiple discrete lighting elements positioned along a rib member and being conductively coupled to an electrical power system, as taught by Rushing, and to substitute a SES carried by a module that is releasably coupled to the pole portion, as taught by Hung, and thereby construct the invention of Claim 1.

Claim 2, 4, 5, 56, and 74—Claims 2, 4, 5, 56, and 74 are not patentable under 35 U.S.C. § 103(a) over Mueller and Phyle in light of Hung. Claim 2 recites a base, a pole, a canopy hingedly mounted to the pole, a power module attached to the pole above the canopy, and a lighting system carried by the canopy. Claim 4 depends from Claim 2 and adds the additional limitations that the canopy comprises a plurality of ribs and the lighting system comprises LEDs. Claim 5 depends from Claim 2 and adds the limitations that the canopy comprises a plurality of ribs and the lighting elements are fluorescent. Claim 56 recites a base, a pole, a canopy comprising a plurality of ribs, and a power module carried by the pole above the canopy. Claim 74 recites a base, a pole, a canopy, a lighting system carried by the canopy, and a power module carried by the pole above the canopy. It should also be noted that Claims 2 and 74 are identical as amended.

Mueller discloses an umbrella apparatus (80), a base portion (28), a pole portion (16) coupled to the pole portion (28), a canopy portion hingedly coupled to the pole portion, a

rechargeable electrical power system for providing power to the umbrella apparatus, and a SES (82) carried by a module coupled to the pole portion above the canopy portion, the SES being connected to the RES (26). It does not disclose a power module carried by the pole portion having an upper and lower portion, nor does it disclose the canopy carrying a lighting system that is coupled to the RES. Phyle does disclose a lighting system that is carried by the canopy that is coupled to the RES. Hung discloses a power module (10) carried by the pole portion (80), with the SES (32) in the upper portion and the RES (26) in the lower portion.

It would have been obvious to a person of ordinary skill in the art to have modified the umbrella apparatus of Mueller by providing a lighting system carried by the canopy that is coupled to the power module, as taught by Phyle, and to have the power module carried by the pole portion with the SES in the upper portion of the module and the RES in the lower portion. Claim 2 would therefore be obvious and unpatentable. The only element of Claim 4 not disclosed by this combination is that the lighting elements are LEDs. The type of lighting element used is trivial and cannot form the basis for patentability. In any event, JP 9-168415 discloses the use of LED lighting elements. The only element of Claim 5 not disclosed by this combination is that the lighting elements are fluorescent. The type of lighting element used is trivial and cannot form the basis for patentability. All of the elements of Claims 56 and 74 are shown in this combination.

Alternatively, if the Examiner finds the Declaration lacking, the combination of Mueller and Phyle in light of Yang '613 or Wismeth would make Claims 2, 46, and 74 obvious in the same manner. As previously discussed, Yang '163 and Wismeth disclose a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to have modified the previously discussed combination of Mueller and Phyle by providing a SES and a RES in a single module that is carried by a pole, as taught by either Yang '163 or Wismeth. Locating the module on the pole above the canopy is an obvious step, because a module located beneath the canopy would not be exposed to sunlight and could not collect energy.

Claim 47—Claim 47 is unpatentable under 35 U.S.C. 103(a) as being unpatentable over Phyle and Hung. Phyle discloses a patio umbrella apparatus (1), a base portion, a pole

portion (20) coupled to the base portion, a canopy portion hingedly coupled to the pole portion, and a RES for providing power to the umbrella apparatus. It does not disclose a power module carried by the pole portion having an upper and lower portion. Hung discloses a power unit (10) that has a SES (32) in the upper portion and a RES (26) in the lower portion, the unit coupled to the top portion of a pole (80). It would have been obvious to a person skilled in the art to modify the umbrella apparatus of Phyle by providing a power unit that has a SES in the upper portion and a RES in the lower portion, the unit coupled to the top portion of a pole as taught by Hung. Claim 47 would therefore have been obvious to a person skilled in the art.

Alternatively, if the Examiner finds the Rule 1.131 Declaration lacking, the combination of Phyle and Yang '613 or Wismeth would make Claim 47 obvious in the same manner as Phyle and Hung. Yang '163 and Wismeth disclose a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to have modified Phyle by providing a SES and a RES in a single module that is carried by a pole, as taught by either Yang '163 or Wismeth.

Claim 48—Claim 48 is unpatentable under 35 U.S.C. 103(a) over Phyle, Valdner, and Hung in view of Hale. Valdner discloses all elements of Claim 48 except a plurality of lighting elements carried by the rib member, the lighting elements being recessed within the rib members and the RES and SES each forming a component part disposed in a power unit carried by the pole portion above the canopy. Phyle discloses most of the same, but further includes carrying lighting elements. Phyle does not have a SES. However, Valdner does disclose its venting mechanisms (28) being recessed within the rib members (26). Hale discloses its lighting elements (15) being recessed within its rib members (12). Hung discloses the power unit (10) coupled on top of the pole portion (80), with the SES being in the top portion and the RES being in the bottom portion. It would have been obvious to one skilled in the art to have modified the apparatus of Phyle or Valdner by providing the lighting elements recessed within the canopy rib members, as taught by Hale, and providing the power unit coupled on top of the pole portion, with the SES being in the top portion and the RES being in the bottom portion. Claim 48 is therefore unpatentable as obvious.

Additionally, if the Examiner finds the Rule 1.131 Declaration lacking, the combination of Phyle, Valdner or Mueller and Yang '613 or Wismeth in view of Lee '224 or Lee '856 would make Claim 48 obvious in the same manner. Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into rib members. Yang '163 and Wismeth disclose a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to have modified the previously discussed combination of Phyle and Valdner or Mueller by providing lighting elements and wires recessed into rib members, as taught by Lee '224 or Lee '856, and to combine a SES and a RES in a single module that is carried by a pole, as taught by Yang '163 and Wismeth, and thereby construct the claimed invention.

Claim 49, 50 and 54—Claim 49 is unpatentable under 35 U.S.C. § 103(a) over Mueller and Rushing in view of Hale. Mueller discloses all elements of Claim 49 except those dealing with the lighting system. Rushing discloses all of the lighting elements of Claim 49 except each lighting element being recessed within the rib member as well as the electrical conductor being recessed. Hale discloses each lighting element and electrical conductor being recessed within the rib member (see FIG. 1 and 9). It would have been obvious to a person skilled in the art to have modified the apparatus of Mueller to provide the lighting elements as taught by Rushing, recessing the lighting elements and wires as taught by Hale, and thereby construct the claimed invention.

Alternatively, if the Examiner finds the Declaration lacking, the combination of Mueller and Rushing in view of Lee '224 and Lee '856 would make Claims 49, 50 and 54 obvious in the same manner. Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into rib members. It would have been obvious to a person skilled in the art to have modified the apparatus of Mueller to provide the lighting elements as taught by Rushing, recessing the lighting elements and wires as taught by Lee '224 and Lee '856, and thereby construct the claimed invention.

Additionally, Claim 50 is dependent on Claim 49, with the additional limitation that the lighting system includes multiple discrete lighting elements along each rib member.

Rushing discloses this feature, so Claim 50 would be obvious based on the same combination that renders Claim 49 unpatentable.

Claim 54 is also dependent on Claim 49, with the additional limitation that the multiple discrete lighting elements are each an LED. Having the lighting elements being an LED would be obvious to anyone skilled in the art. It is common practice to use LEDs in such applications which World Factory states in its Response to the Office Action. Alternatively, with the addition of JP 9-168415, which clearly discloses LEDs, Claim 54 would be obvious to one skilled in the art.

Claim 51—Claim 51 is unpatentable under 35 U.S.C. 103(a) over Phyle and Hung in view of Wu. Phyle discloses every element of Claim 51 except the power unit being releasably coupled to the pole, translucent covers for the lighting elements, and the lighting elements extending beyond the corresponding rib member. Hung discloses a power unit that comprises a SES that is releasably coupled to the pole portion. Wu discloses translucent covers (322) where the lighting elements extend beyond the rib member. It would have been obvious to a person skilled in the art to have modified the device of Phyle by providing a power unit that comprises a SES that is releasably coupled to the pole portion, as taught by Hung, and translucent covers where the lighting elements extend beyond the rib member, as taught by Wu.

Alternatively, if the Examiner finds the Rule 1.131 Declaration lacking, the combination of Phyle and Yang '613 in view of Wu would make Claim 51 obvious in the same manner. Yang '163 discloses a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to modify the apparatus of Phyle to provide a SES and a RES in a single module that is carried by a pole, as taught by Yang '613, and translucent covers where the lighting elements extend beyond the rib member, as taught by Wu, thereby constructing the claimed invention.

Claim 52, 53, and 55—Claim 52 is unpatentable under 35 U.S.C. 103(a) over Mueller, Rushing, and Hale or Wu. Mueller contains all of the elements of Claim 52 except the canopy carrying a lighting system which includes multiple discrete lighting elements positioned along a rib member, wherein each lighting element is fully recessed within the

corresponding rib member. Rushing discloses the canopy portion carrying the lighting system, with multiple discrete lighting elements positioned along the rib members. Hale and Wu disclose the lighting elements being recessed within the corresponding rib member. However, being fully recessed in the rib member would be obvious to one skilled in the art. It would have been obvious to a person skilled in the art to have modified the apparatus of Mueller by providing that the canopy portion carry the lighting system, with multiple discrete lighting elements positioned along the rib members, as taught by Rushing, with the lighting elements being recessed within the corresponding rib member, as taught by Hale or Wu, thereby constructing the claimed invention.

Alternatively, if the Examiner finds the rule 1.131 Declaration lacking, the combination of Mueller, Rushing, and Lee '224 or Lee '856 would make Claim 52 obvious in the same manner. Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into rib members. It would have been obvious to a person skilled in the art to modify the device of Mueller by providing that the canopy portion carry the lighting system, with multiple discrete lighting elements positioned along the rib members, as taught by Rushing, with lighting elements and wires that are recessed into rib members, as taught by Lee '224 and Lee '856, thereby constructing the claimed invention.

Claims 53 and 55 are dependent on Claim 52. Claim 55 has the further limitation that the wires for the lighting elements be fully recessed within the rib members. Hale, Wu, Lee '224, and Lee '856 disclose this limitation as well. Claim 53 adds the limitation that the lighting elements are covered by a translucent cover. Wu discloses this limitation. As such, the combination of Mueller, Rushing, and Lee '224 or Lee '856 would make Claims 53 and 55 obvious.

Claim 60—Claim 60 is unpatentable under 35 U.S.C. § 103(a) over Mueller and Wu. Mueller discloses every element of Claim 60 except for a lighting system that is carried by the canopy portion that is conductively coupled to and powered by the RES, wherein the lighting system includes a plurality of lighting elements, each lighting element being recessed within a corresponding rib member and being covered by a translucent cover carried by the corresponding rib member. Wu discloses these limitations. It would have been

obvious to a person skilled in the art to have modified the device of Mueller by providing a lighting system that is carried by the canopy portion that is conductively coupled to and powered by the RES, wherein the lighting system includes a plurality of lighting elements, each lighting element being recessed within a corresponding rib member and being covered by a translucent cover carried by the corresponding rib member, as taught by Wu, thereby constructing the claimed invention.

If the Examiner finds the Rule 1.131 Declaration lacking, the combination of Mueller and Wu in view of Lee '224 or Lee '856 would make Claim 60 obvious in the same manner. Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into rib members. It would have been obvious to a person skilled in the art to have modified the device of Mueller by providing a lighting system that is carried by the canopy portion that is conductively coupled to and powered by the RES, wherein the lighting system includes a plurality of lighting elements, each lighting element being recessed within a corresponding rib member and being covered by a translucent cover carried by the corresponding rib member, as taught by Wu, with the lighting elements and wires recessed into rib members, as taught by Lee '224 and Lee '856, thereby constructing the claimed invention.

Alternatively, Claim 60 is unpatentable based on this combination and Hale. Hale discloses the lighting elements being recessed within a rib portion. As such, one skilled in the art would find Claim 60 obvious after observing this combination.

Claim 61—Claim 61 is unpatentable under 35 U.S.C. § 103(a) over Phyle, Mueller, and Hung. Phyle discloses a patio umbrella apparatus, a base portion, a pole portion coupled to the base portion, a canopy portion hingedly coupled to the pole portion, a RES for providing power to the umbrella apparatus, and the canopy carrying a lighting system, each lighting element carried by a rib member, as well as the wiring system. It does not disclose a power unit carried by the pole portion having an upper and lower portion. Mueller discloses a SES carried by the pole portion that recharges the RES. Hung discloses a power unit (10) that has a SES (32) in the upper portion and a RES (26) in the lower portion, the unit coupled to the top portion of a pole (80). It would have been obvious to a person skilled in the art to have modified the device of Phyle by providing a SES carried by the pole portion that

recharges the RES, as taught by Mueller, and a power unit that has a SES in the upper portion and a RES in the lower portion, the unit coupled to the top portion of a pole, as taught by Hung, thereby constructing the claimed invention.

If the Examiner finds the Rule 1.131 Declaration lacking, the combination of Phyle, Mueller and Yang '613 or Wismeth would make Claim 61 obvious in the same manner. Yang '163 and Wismeth disclose a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to have modified the device of Phyle by providing a SES carried by the pole portion that recharges the RES, as taught by Mueller, and a power unit that has a SES in the upper portion and a RES in the lower portion, the unit coupled to the pole, as taught by Yang '163 and Wismeth, thereby constructing the claimed invention.

Claim 62—Claim 62 is unpatentable under 35 U.S.C. § 103(a) over Mueller and JP 9-168415. Mueller discloses all of the elements of Claim 62 except all limitations dealing with the lighting subassembly, its location and components. JP 9-168415 discloses a lighting subassembly (7) that is carried by the canopy portion, the lighting subassembly being conductively coupled (9) to the RES, wherein the lighting subassembly includes a plurality of LEDs (7), each LED being recessed relative to a corresponding rib member (3) and each LED being conductively coupled by a conductor (9) recessed relative to the corresponding rib member. It would have been obvious to a person skilled in the art to have modified the device of Mueller by providing a lighting subassembly that is carried by the canopy portion, the lighting subassembly being conductively coupled to the RES, wherein the lighting subassembly includes a plurality of LEDs, each LED being recessed relative to a corresponding rib member, and each LED being conductively coupled by a conductor recessed relative to the corresponding rib member, as taught by JP 9-168415, thereby constructing the claimed device.

Alternatively, this combination in view of Hale would make Claim 62 obvious to a person skilled in the art as well. Hale has a lighting subassembly (15) and conductor (36) that are recessed relative to the corresponding rib member (12). If the Examiner finds the

Declaration lacking, the combination above in view of Lee '224 or Lee '856 would make Claim 62 obvious in the same manner.

Claim 64 and 65—Claim 64 is unpatentable under 35 U.S.C. § 103(a) over Mueller or Valdner and Phyle or Rushing. Mueller and Valdner disclose all of the elements of Claim 64 except the lighting system portions. Valdner and Mueller both have discus-shaped modules that hold the SES. Phyle and Rushing disclose a lighting system being carried by the canopy portion. It would have been obvious to a person skilled in the art to have modified Mueller or Valdner by providing a lighting system being carried by the canopy portion, as taught by Phyle or Rushing, and thereby construct the claimed invention.

Alternatively, Claim 64 is unpatentable over the combination above in further view of Hung. The SES is contained in a discus-shaped module that is carried by a pole portion. As such, these combinations make Claim 64 obvious in the eyes of a person skilled in the art. If the Examiner finds the Declaration lacking, the combination above in light of Yang '613 would make Claim 64 obvious in the same manner.

Claim 65 has been amended to be dependent on Claim 64, with the only additional limitation that the discuss-shaped module is releasably coupled to the pole portion. To the extent the term "discuss-shaped module" can be understood, Hung's module is releasably coupled to the pole portion, as is module in Yang '613. As such, this combination makes Claim 65 obvious.

Claim 66—Claim 66 is unpatentable under 35 U.S.C. § 103(a) over Phyle and Hung in view of Hale. Phyle discloses all of the elements of Claim 66 except for elements dealing with the SES and the RES forming a power unit fixed relative to the pole portion, with the SES forming the upper portion and the RES forming the lower portion. Additionally, Phyle does not disclose conductors recessed within the rib members. Hung discloses a power unit fixed relative to the pole portion that has the SES forming the upper portion and the RES forming the lower portion. Hale discloses conductors that are recessed within the rib members. As such, Claim 66 would be seen as obvious by one who was skilled in the art after referring to the above combination. If the Examiner finds the Declaration lacking, the

combination of Phyle and Yang '613 or Wismeth in view of Lee '224 or Lee ' 856 would make Claims 2, 46, and 74 obvious in the same manner.

Alternatively, Claim 66 is unpatentable in further view of the combination above and Mueller and Wu. Mueller discloses a SES carried by the pole portion of the umbrella, whereas Wu discloses the electrical conductors being recessed within the rib members.

Claims 70 and 71—Claims 70 and 71 are unpatentable under 35 U.S.C. § 103(a) over Mueller or Valdner and Wu. Mueller and Valdner disclose all of the elements of Claim 70 except each rib member having a recessed longitudinal channel and having a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the RES, the lighting system comprising a plurality of lighting elements carried by the rib members, each lighting element being disposed within the channel. Wu discloses a recessed longitudinal channel in each rib member (21 - See FIGS. 5, 7- 8). The lighting elements (32) are recessed within the rib member. As such, a person skilled in the art would view this combination and find Claim 70 obvious. Claim 71 is dependent on Claim 70, with the only additional element being that a transparent cover is disposed over each channel. Wu discloses a translucent cover being placed over the channel. As such, 71 is unpatentable as well for obviousness. If the Examiner finds the Declaration lacking, the combination of Mueller or Valdner in view of Lee '224 or Lee '856 would make Claim 70 obvious in the same manner, with the addition of Wu for Claim 71.

Alternatively, Claims 70 and 71 are unpatentable with Mueller or Valdner and Wu in further view of Hale. Hale has a recessed longitudinal channel (See FIGS. 3, 8, and 9) within which the lighting elements are disposed. Additionally, having a translucent cover over the lighting elements would be obvious in the view of a person skilled in the art.

Claim 72—Claim 72 is unpatentable under 35 U.S.C. § 103(a) over Mueller or Valdner and Rushing or Phyle in view of Wu or Hale. Mueller and Valdner disclose all of the elements of Claim 72 except a lighting system carried by the canopy portion, a plurality of discrete lighting elements carried by each rib member that is recessed within a corresponding rib member, and the electrical conductors also being recessed within the rib members. Rushing and Phyle disclose a lighting system carried by the canopy portion and a plurality of

discrete lighting elements carried by each rib member. Hale and Wu disclose the lighting elements and the electrical conductors being recessed within the rib members as well. As such, Claim 72 would be obvious to one skilled in the art in view of the above combination. If the Examiner finds the Declaration lacking, the combination Mueller or Valdner and Rushing or Phyle in light of Lee '224 or Lee '856 would make Claim 72 obvious in the same manner.

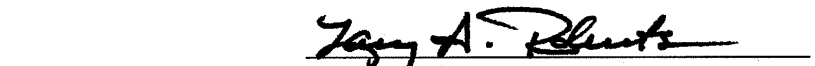
Compliance with 37 C.F.R. §§ 1.52 and 1.943

The foregoing Comments are submitted in 12 point nonscript type, 1-1/2 spaced, and do not exceed 50 pages in length, excluding amendments, appendices of claims, and reference materials such as prior art references.

CONCLUSION

In view of the foregoing, Southern Sales respectfully requests that the rejection of Claims 1, 2, 4, 5, 6, 7, 9, 49, 50, 51, 54, 55, 57, 72, 73 and 74 be maintained, and that Claims 1, 2, 4, 5, 47–56, 59–62, 64–66, 70–72, and 74 be rejected under 35 U.S.C. § 103(a) based upon the various combinations discussed above and any other various combinations that may be developed in further combination with the new prior art references cited herein and the other bases as set forth above.

Respectfully submitted:



Larry A. Roberts
Counsel for Southern Sales, Inc.
Reg. No. 31,871

KILPATRICK STOCKTON LLP
1100 Peachtree Street
Suite 2800
Atlanta, Georgia 30309-4530
Tel. (404) 815–6500
Fax (404) 815–6555
Attorney Docket: 45639–316477

EXHIBIT H

COPY OF APPELLANT'S COMMENTS OF SEPTEMBER 14, 2009, REFORMATTED TO REDUCE FONT SIZE AND MARGINS

(This exhibit is provided for the sole purpose of showing that the comments comply with the 50-page limit while still formatted in accordance with Patent Office Rules.)

Reexamination No. 95/000,104

EXHIBIT 2 TO
APPEAL BRIEF OF THIRD-PARTY REQUESTER

Applicant's submission of 9/14/2009 reproduced with reduced margins and reduced font size, images still present

Total: 30 Pages

For purposes only of illustrating effects of reduced margins, reduced font size, and elimination of embedded images on total page length. NOT submitted for substantive content as it relates to patentability of claims.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Reexamination of:	)	
Gregory G. Kuelbs	)	
Control No. **95/000,104**	)	Examiner: **Margaret Rubin**
Patent No.: **6,612,713**	)	Art Unit: **3992**
Issued: **September 2, 2003**	)	
Assignee: **WORLD FACTORY, INC.**	)	

REPLACEMENT COMMENTS OF THIRD PARTY REQUESTER TO PATENT OWNER'S RESPONSE IN *INTER PARTES* REEXAMINATION AND TO OFFICE ACTION

Mail Stop Ex Parte Reexam
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Madame:

In response to the Inter Partes Reexamination Communication dated August 28, 2009, third party requester, Southern Sales & Marketing Group, Inc. ("Southern Sales"), pursuant to 37 CFR §§ 1.947 and 1.948, hereby submits its replacement comments to the "Response to Office Action in *Inter Partes* Reexamination" by the patent owner, World Factory, Inc. ("World Factory"), filed April 17, 2009.

CLAIMS 1, 47, 48, 51, AND 63 ARE UNPATENTABLE BECAUSE THEY BROADEN THE SCOPE OF THE PATENT

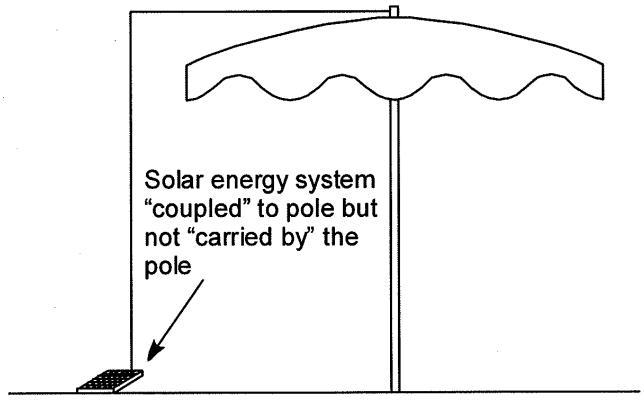
The Federal Circuit standard for determining whether a claim has been broadened is as follows: "A claim of a reissue application is broader in scope than the original claims if it contains within its scope any conceivable apparatus or process which would not have infringed the original patent...." *Tillotson, Ltd. v. Walbro Corp.*, 831 F2d at 1037, 4 USPQ2d at 1453 n.2. The same broadening test is applied to claims in reexamination. *Anderson v. International Eng'g & Mfg.*, 160 F.3d at 1349, 48 USPQ2d at 1634.

For the purposes of the following analysis, the "conceivable apparatus" will be an apparatus that consists of the elements of the amended or new claim. If a device consisting of the elements of the amended or new claim does not infringe the patent claim, the amended or new claim impermissibly broadens the patent.

Amended Claim 1

Patent Claim 1—A device of amended Claim 1 does not infringe patent Claim 1. The device of amended Claim 1 lacks "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." Thus a device according to amended Claim 1 does not infringe patent Claim 1.

Patent Claims 2–5—A device of amended Claim 1 does not infringe patent Claims 2–5. The device of patent Claims 2–5 requires "a solar energy system carried by the pole portion." "Carried" means "to sustain the weight or burden of." Thus patent Claims 2–5 require that the weight of the solar energy system be borne by the pole portion above the canopy portion. In contrast, amended Claim 1 requires only that the solar energy system be



"carried by a module coupled to the pole." Thus a hypothetical device according to amended Claim 1 could include a module sitting on the ground beside the umbrella, coupled to the pole portion above the canopy portion but without the weight of the module being borne by the pole portion (see diagram). Thus a hypothetical device could infringe amended Claim 1 without infringing patent Claims 2–5.

Patent Claims 6–8—A device according to amended Claim 1 lacks an electromechanical opening and closing system for opening and closing the canopy portion, as required by patent Claims 6–8. Thus a device according to amended Claim 1 does not infringe patent Claims 6–8.

Patent Claim 9—A device according to amended Claim 1 lacks a cooling system as required by patent Claim 9. Thus a device according to amended Claim 1 does not infringe patent Claim 9.

Patent Claims 10–14—A device according to amended Claim 1 lacks a combination of two or more modules (lighting, cooling, canopy lift mechanism), as required by patent Claims 10–14. Thus a device according to amended Claim 1 does not infringe patent Claims 10–14.

CONCLUSION: Because a hypothetical device consisting of the limitations of amended Claim 1 would not infringe any of the claims of the original patent, Claim 1 as amended impermissibly broadens the scope of the patent and is not allowable.

New Claim 47

Patent Claim 1—A device according to new Claim 47 lacks an electrical charging system being adapted to receive power from an AC power outlet, as required by patent Claim 1. Thus a device according to new Claim 47 does not infringe patent Claim 1.

Patent Claims 2–5—A device according to new Claim 47 lacks a lighting system carried by the canopy portion, as required by patent Claims 2–5. Thus a device according to new Claim 47 does not infringe patent Claims 2–5.

Patent Claims 6–8—A device according to new Claim 47 lacks an electromechanical opening and closing system for opening and closing the canopy portion, as required by patent Claims 6–8. Thus a device according to new Claim 47 does not infringe patent Claims 6–8.

Patent Claim 9—A device according to new Claim 47 lacks a cooling system as required by patent Claim 9. Thus a device according to new Claim 47 does not infringe patent Claim 9.

Patent Claims 10–14—A device according to new Claim 47 lacks a combination of two or more modules (lighting, cooling, canopy lift mechanism), as required by patent Claims 10–14. Thus a device according to new Claim 47 does not infringe patent Claims 10–14.

CONCLUSION: Because a hypothetical device consisting of the limitations of new Claim 47 would not infringe any of the claims of the original patent, Claim 47 impermissibly broadens the scope of the patent and is not allowable.

New Claim 48

Patent Claim 1—A device according to new Claim 48 lacks an electrical charging system being adapted to receive power from an AC power outlet, as required by patent Claim 1. Thus a device according to new Claim 48 does not infringe patent Claim 1.

Patent Claims 2–5—A device according to new Claim 48 lacks a lighting system "being conductively coupled to and powered by the rechargeable electrical power system," as required by patent Claims 2–5. Thus a device according to new Claim 48 does not infringe patent Claims 2–5.

Patent Claims 6–8—A device according to new Claim 48 lacks an electromechanical opening and closing system for opening and closing the canopy portion, as required by patent Claims 6–8. Thus a device according to new Claim 48 does not infringe patent Claims 6–8.

Patent Claim 9—A device according to new Claim 48 lacks a cooling system as required by patent Claim 9. Thus a device according to new Claim 48 does not infringe patent Claim 9.

Patent Claims 10–14—A device according to new Claim 48 lacks a combination of two or more modules (lighting, cooling, canopy lift mechanism), as required by patent Claims 10–14. Thus a device according to new Claim 48 does not infringe patent Claims 10–14.

CONCLUSION: Because a hypothetical device consisting of the limitations of new Claim 48 would not infringe any of the claims of the original patent, Claim 48 impermissibly broadens the scope of the patent and is not allowable.

New Claim 51

Patent Claim 1—A device according to new Claim 51 lacks an electrical charging system being adapted to receive power from an AC power outlet, as required by patent Claim 1. Thus a device according to new Claim 51 does not infringe patent Claim 1.

Patent Claims 2–5—Patent Claims 2–5 recite "a solar energy system carried by the pole portion above the canopy portion." For the reasons set forth above with respect to amended Claim 1, a hypothetical device could infringe new Claim 51 without infringing patent Claims 2–5.

Patent Claims 6–8—A device according to new Claim 51 lacks an electromechanical opening and closing system for opening and closing the canopy portion, as required by patent Claims 6–8. Thus a device according to new Claim 51 does not infringe patent Claims 6–8.

Patent Claim 9—A device according to new Claim 51 lacks a cooling system as required by patent Claim 9. Thus a device according to new Claim 51 does not infringe patent Claim 9.

Patent Claims 10–14—A device according to new Claim 51 lacks a combination of two or more modules (lighting, cooling, canopy lift mechanism), as required by patent Claims 10–14. Thus a device according to new Claim 51 does not infringe patent Claim 9.

CONCLUSION: Because a hypothetical device consisting of the limitations of new Claim 51 would not infringe any of the claims of the original patent, Claim 51 impermissibly broadens the scope of the patent and is not allowable.

New Claim 63

Patent Claim 1—A device according to new Claim 63 lacks an electrical charging system being adapted to receive power from an AC power outlet, as required by patent Claim 1. Thus a device according to new Claim 63 does not infringe patent Claim 1.

Patent Claims 2–5—Patent Claims 2–5 recite "a solar energy system carried by the pole portion above the canopy portion." "Carried" means "to sustain the weight or burden of." Thus patent Claims 2–5 require that the weight of the solar energy system be borne by the pole portion above the canopy portion. In contrast, new Claim 63 requires only that the solar energy system be "coupled" to the pole. Thus a hypothetical device according to new Claim 63 could include a solar energy system sitting on the ground beside the umbrella, coupled to the pole portion above the canopy portion but without the weight of the solar energy system being borne by the pole portion. Thus a hypothetical device could infringe new Claim 63 without infringing patent Claims 2–5.

Patent Claims 6–8—A device according to new Claim 63 lacks an electromechanical opening and closing system for opening and closing the canopy portion, as required by patent Claims 6–8. Thus a device according to new Claim 63 does not infringe patent Claims 6–8.

Patent Claim 9—A device according to new Claim 63 lacks a cooling system as required by patent Claim 9. Thus a device according to new Claim 63 does not infringe patent Claim 9.

Patent Claims 10–14—A device according to new Claim 63 lacks a combination of two or more modules (lighting, cooling, canopy lift mechanism), as required by patent Claims 10–14. Thus a device according to new Claim 63 does not infringe patent Claims 10–14.

CONCLUSION: Because a hypothetical device consisting of the limitations of new Claim 63 would not infringe any of the claims of the original patent, Claim 63 impermissibly broadens the scope of the patent and is not allowable.

CLAIM 52 IS UNPATENTABLE FOR DOUBLE PATENTING

Claim 52 as added by patentee in the present reexamination is unpatentable over Claim 49 as added by patentee in the present reexamination under the judicially-created doctrine of double patenting.

49. (New) An umbrella apparatus, comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion having a plurality of rib members, the canopy portion being hingedly coupled to the pole portion;

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

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; and

a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system;

wherein the lighting system includes multiple discrete lighting elements positioned along a rib member, each lighting element being recessed within the rib member and being conductively coupled to the rechargeable electrical power system by an electrical conductor, the electrical conductor also being recessed within the rib member.

52. (New) An umbrella apparatus comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion having a plurality of rib members, the canopy portion being hingedly coupled to the pole portion;

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

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; and

a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system;

wherein the lighting system includes multiple discrete lighting elements positioned along a rib member; and

wherein each lighting element is fully recessed within the corresponding rib member.

The preamble and first six body paragraphs of each claim are identical. The only difference between the two claims is that Claim 49 recites that each lighting element is recessed within the corresponding rib member, whereas Claim 52 recites that each lighting element is fully recessed within the corresponding rib member.

The only way in which the terms "fully recessed" and "recessed" can differ is if Claim 49 covers a situation in which a lighting element is only partially recessed. However, there is no support in the specification of the '713 patent of a lighting element that is only partially recessed. All of the disclosed embodiments describe only lighting elements that are fully recessed. The term "recessed" in Claim 49 can only be interpreted to cover a lighting element that is "fully" recessed.

Because the '713 patent lacks support for any recess other than "fully" recessed, the terms "recessed" and "fully recessed" must be construed identically. Claim 49 is identical to Claim 52 and therefore constitutes double-patenting.

THE PROVISIONAL PATENT APPLICATIONS OF FEBRUARY 7, 2001, FAIL TO SUPPORT CLAIMS 1, 2, 4–7, 45–48, 51, 56, 61, 64–66, AND 74 OF THE PATENT

Patentee is not entitled to the filing dates of the provisional patent application of February 7, 2001 with respect to Claims 1, 2, 4–7, 45–48, 51, 56, 61, 64–66, and 74, because the 2/7/01 provisional application fails to disclose elements of these claims.

The 2/7/01 provisional does not disclose a "module" or "power unit" as required by Claims 1, 2, 4–7, 45–48, 51, 56, 61, 64–66, and 74. Rather, the solar cell is carried directly atop the pole. Similarly, the 2/7/01 provisional does not disclose a "rechargeable electrical power system" located above the canopy, as required by Claims 1, 2, 4–7, 45–48, 51, 56, 61, 64–66, and 74. Accordingly, these claims are not entitled to the February 7, 2001, filing date of this provisional.

THE DECLARATIONS UNDER RULE 131 ARE INSUFFICIENT TO SWEAR BEHIND THE REFERENCES

It is the patentee's responsibility to establish conception and, where necessary, diligence in reduction to practice from a time prior to the effective date of the cited references until the date of reduction to practice. Kuelbs' second Declaration, even when taken in combination with Kuelbs' first Declaration and the Quillen Declaration, fail to establish diligence. Large blocks of unexplained inactivity remain, and the patentee has therefore failed to establish diligence.

Declarant's statements in Paragraph 2 of the Declaration are conclusory, self-serving, and uncorroborated.

Declarant's statements in Paragraph 3 of the Declaration are uncorroborated.

Declarant's statements in Paragraph 4 of the Declaration are uncorroborated.

The copy of the passport pages (Exhibit A) referenced in Paragraph 5 of the Declaration establish, at best, that Declarant visited China in July and October 1999. The passport pages do not contain any information about a solar-powered umbrella. Declarant's statements about the purpose of the trip are uncorroborated.

The notes (Exhibit B) referenced in Paragraph 6 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. Declarant's statements in Paragraph 6 of the Declaration are uncorroborated.

The notes (Exhibit C) referenced in Paragraph 7 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. Declarant's statements in Paragraph 7 of the Declaration are uncorroborated.

The notes (Exhibit D) referenced in Paragraph 8 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. Declarant's statements in Paragraph 8 of the Declaration are uncorroborated.

Paragraph 9 misstates the law. Exhibits B, C, and D are only drawings and, while possibly relevant to the issue of conception, do not constitute a reduction to practice, as they do not constitute making and using the invention and proving it useful for its intended purpose. Declarant's statements in Paragraph 9 of the Declaration are uncorroborated.

The notes (Exhibit E) referenced in Paragraph 10 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. Declarant's statements in Paragraph 10 of the Declaration are uncorroborated.

The notes (Exhibit F) referenced in Paragraph 11 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. Declarant's statements in Paragraph 11 of the Declaration are uncorroborated.

The notes (Exhibit G) referenced in Paragraph 12 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. Declarant's statements in Paragraph 12 of the Declaration are uncorroborated.

The notes (Exhibit H) referenced in Paragraph 13 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. The notes are undated. While they bear the notation "Proposed Discussion Notes China Trip - July-Aug 99," the notes could have been prepared contemporaneously with the trip or months earlier. Declarant's statements in Paragraph 13 of the Declaration are uncorroborated.

The notes (Exhibit I) referenced in Paragraph 14 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. Declarant's statements in Paragraph 14 of the Declaration are uncorroborated.

The proposed itinerary (Exhibit J) referenced in Paragraph 15 of the Declaration is uncorroborated. Its existence prior to the critical date has not been attested to by any independent party. A proposed itinerary is not proof that a trip was ever made. The proposed itinerary contains no information about the alleged invention or any efforts to reduce it to practice. Declarant's statements in Paragraph 15 of the Declaration are uncorroborated.

The receipt for currency exchange (Exhibit K) referenced in Paragraph 16 of the Declaration establishes, at best, that Declarant was in the Hong Kong airport on October 20, 1999. Declarant's presence in the Hong Kong airport is no indicator of the purpose of Declarant's trip and most certainly does not establish any element of the claimed invention. Declarant's statements in Paragraph 16 of the Declaration are uncorroborated.

The e-mail (Exhibit L) referenced in Paragraph 17 of the Declaration establishes, at best, that Declarant received an e-mail from an Eric Li on October 11, 1999. The e-mail does not establish any element of the claimed invention and does not even reference a stated purpose for a proposed visit. Declarant's statements in Paragraph 17 of the Declaration beyond his assertion that he received an e-mail are uncorroborated.

The e-mail (Exhibit M) referenced in Paragraph 18 of the Declaration establishes, at best, that Declarant received an e-mail from an Eric Li on October 14, 1999. The e-mail does not establish any element of the claimed invention and does not even reference a stated purpose for a proposed visit. Declarant's statements in Paragraph 18 of the Declaration beyond his assertion that he received an e-mail are uncorroborated.

The e-mail (Exhibit N) referenced in Paragraph 19 of the Declaration establishes, at best, that Declarant received an e-mail from an Eric Li on October 16, 1999. The e-mail does not establish any element of the claimed invention and does not even reference a stated purpose for a proposed visit. Declarant's statements in Paragraph 19 of the Declaration beyond his assertion that he received an e-mail are uncorroborated.

The drawings (Exhibits O, P, and Q) referenced in Paragraph 20 of the Declaration are uncorroborated. Their existence prior to the critical date has not been attested to by any independent party. The drawings are undated. Declarant's statements in Paragraph 20 of the Declaration are uncorroborated.

The screen shot (Exhibit R) referenced in Paragraph 22 of the Declaration at best establishes that there are files on a computer bearing modified dates as shown. There is no corroboration that the screen shot has not been altered or modified. There is no corroboration that the files identified in Paragraph 22 of the Declaration relate in any way to the claimed invention.

Patentee's statements in Paragraphs 25 and 26 of the Declaration that he worked diligently on the invention 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, are uncorroborated and conclusory.

Patentee's statements in Paragraphs 27, 28, and 30 of the Declaration that he worked diligently on the invention from a date prior to 30 April, 1999, through the filing date of U.S. Provisional Application No. 60/335,933, i.e., 2 November 2001, are uncorroborated and conclusory.

Exhibit V was prepared on 26 April 2006, seven years after the events described therein. No contemporaneous notes are produced. No reason for the statement is given, leading to the inescapable conclusion that the document was produced solely for the purpose of this reexamination and, most likely, that the patentee instructed the author what to say. No specific dates are given except for July 1999, and it is unclear from the document when

work on the project was discontinued. Thus the document fails to explain any period of inactivity during the critical period. Declarant's statements in Paragraph 20 of the Declaration are uncorroborated.

EVEN IF ALL OF DECLARANT'S STATEMENTS ARE ARGUENDO PRESUMED ACCURATE, THEY FAIL TO ESTABLISH DILIGENCE

An inventor's date of invention is his date of conception, IF he is thereafter diligent in reducing the invention to practice. The Patentee in this case seems to be alleging acts directed toward both an actual reduction to practice (making and using the invention) and a constructive reduction to practice (the filing of a patent application). To establish a valid date of invention, the Patentee must establish diligence in reducing the invention to practice from a time just prior to the effective date of a prior art reference until the filing date of the patent application. However, even if all of the facts alleged in the Patentee's § 1.131 Declaration are assumed to be correct for the sake of argument, there are large unexplained gaps of inactivity in his alleged efforts to reduce the invention to practice that preclude a date of invention any earlier than the filing date of the application.

A time line of the Patentee's activities shows the following:[1]

Date	Activity	Delay Since Previous Activity (days)
4/30/1999	Earliest possible date of conception (4, 6-8)	—
6/30/1999	Preparation of sketches of an umbrella (10)	61
7/30/1999	Trip to China (5)	30
7/31/1999	Notes in preparation for trip to China (11, 12, 13)	1
9/30/1999	Notes and sketches of umbrella (14)	61
10/11/1999	E-mail from Eric Li re Real Faith factory in China (17)	11
10/14/1999	E-mail from Eric Li re Jiangsu Metal & Minerals Import and Export (18)	3
10/16/1999	Memo from Eric Li re Mr. Bakula (19)	2
10/20/1999	Trip to China (5, 16)	4
10/23/2000	Quillen works on drawings (20, 22)	369
11/9/2000	Correspondence to patent attorney re preparation of patent application (21)	17
2/7/2001	Provisional patent application filed (23)	90

Patentee has unexplained periods of inactivity of 61, 30, 61, 369, and 90 days. Thus even if the Patentee's declaration did not suffer fatal flaws of lack of corroboration, any one of these unexplained prolonged periods of inactivity preclude a finding of diligence in reduction to practice.

For the reasons set forth above, the declarations submitted by patentee are insufficient to swear behind the references.

CLAIMS 1, 2, 4–7, 9, 47–57, 59–62, 64–66, AND 70–74 ARE UNPATENTABLE OVER THE PRIOR ART

Additional Prior Art Submitted Under 37 CFR § 1.948

For the Examiner's benefit, new prior art applicable to World Factory's amendments has been found. Pursuant to 37 CFR § 1.948, Southern Sales files herewith the following additional prior art references that address features of the amended Claims 1-5, 47–56, 59–62, 64–66, 70–72, and 74 not present in the original claims:

Patent No./App. No.	Inventor	Effective Date	Exhibit No.
5,055,984	Hung et al.	Aug. 11, 1989	13
5,758,948	Hale	July 10, 1996	14
6,406,163	T. Yang	Nov. 27, 2000	15
6,729,742	Wismeth	May 10, 2002	16

[1] Where Patentee's Declaration does not specify a day but specifies only a month and year (*e.g.*, "6–99" in ¶ 10, "7–99" in ¶ 11), it is assumed that the event occurred on the last day of the month.

These submissions are made in response to the new amendments submitted by World Factory. Southern Sales believes that an overview of the newly submitted prior art would benefit the reexamination process.

World Factory has submitted a Second Declaration Under 37 C.F.R. § 1.131 in which the inventor swears behind the effective dates of the Cathel, Lee '856, Mai, Pan, Lee '224, Yang, Molnar, Vivian, Farr, and Lai references. The reference date alleged in the Second Declaration is April of 1999. The effective date of the newly submitted Hung and Hale prior art references predates April 1999. Thus even if the Examiner finds the Second Declaration effective in establishing a date of invention of April 1999, the new Hung and Hale prior art submissions would still constitute prior art.

U.S. Patent No. 5,055,984 to Hung et al. (hereafter "Hung") discloses a solar rechargeable lamp for outdoor use. The device contains a solar energy system (hereafter "SES") (32) that collects and converts solar energy into electrical energy, which the SES (32) stores in a rechargeable electrical system (hereafter "RES") (26, a battery) to which it is connected (Col. 3, 26-39). The two power systems are found in one housing (FIG. 5), the SES (32) found above the RES (26), which is releasably coupled to a pole (80) (See FIG. 2). The RES powers a lighting system (18)(FIG. 5).

U.S. Patent No. 5,758,948 to Hale (hereafter "Hale") discloses a seasonal light display device. The device contains an apparatus comprising a pole portion (3) and has a plurality of ribs (12) hingedly coupled to the pole portion, and a lighting system, wherein the lighting system includes multiple discrete lighting elements (15) positioned along a rib member (12), each lighting element being recessed (12, 22 and 24) within the rib member and being conductively coupled to a electrical power system by an electrical conductor (36), the electrical conductor also being recessed within the rib member(12, 22 and 24).

If World Factory is successful in establishing a date of invention of April 1999, the newly submitted Yang and Wismeth prior art references may not constitute prior art. However, in the likely event that the Examiner finds the Second Declaration lacking, the following new prior art submissions would be highly useful in the reexamination.

U.S. Patent No. 6,406,143 to Yang (hereafter "Yang '163") (Exhibit 13) discloses a solar cell lighting fixture. The device contains a SES that collects and converts solar energy into electrical energy, which it stores in the RES to which the SES is connected (Col. 2, 62 – Col. 3, 18, FIG. 2). These two power systems are found in one module which is releasably coupled to a pole portion of the device (Col. 5, 11-18, FIG. 15). The SES is found in the upper portion of the module while the RES is found in the lower portion of the module. The RES powers a lighting system carried by the device (Col. 3, 4-10, FIG. 2).

U.S. Patent No. 6,729,742 to Wismeth et al. (hereafter "Wismeth") discloses a solar lamp for outdoor use. The device contains a solar energy system that collects and converts solar energy into electrical energy, which the SES stores in a RES to which it is connected (Col. 1, 53-59, Col. 2, 47-64). The two power systems are found in the cubic housing, the SES found above the RES (Col. 2, 38-58). The housing is coupled to a pole (Col. 2, 38-42, FIG. 1). The RES powers a lighting system (Col. 1, 53-57, Col. 2, 58-59).

Summary of Previously Presented Prior Art in View of Patentee's Amendments

While the following patents have previously been presented, a recap of their relevance is appropriate in view of the amendments made and new claims submitted by the patentee.

Phyle - U.S. Patent No. 5,584,564

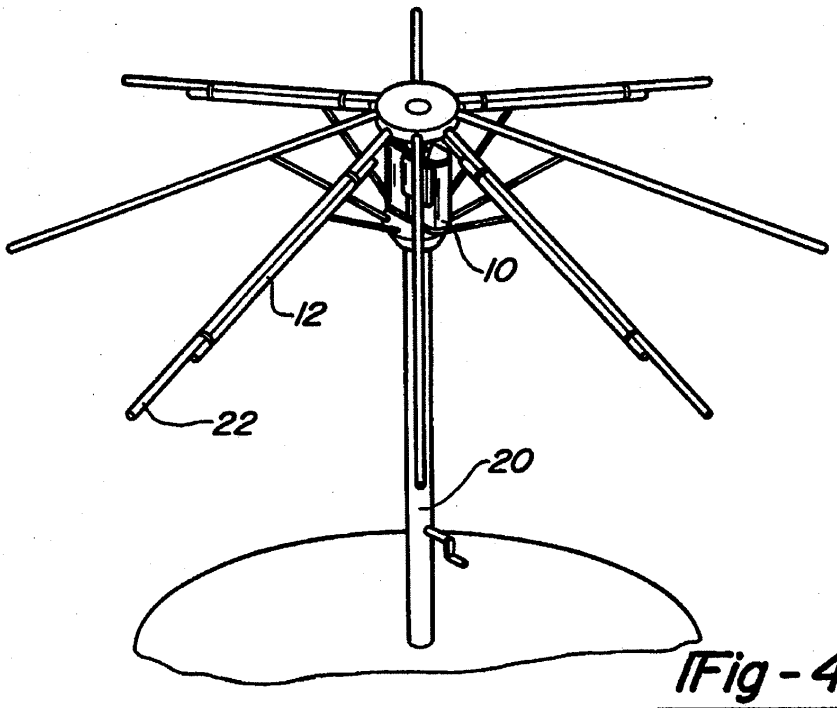


Fig - 4

Phyle discloses an apparatus that has an illumination device 12 carried by the canopy ribs. Battery (10) is rechargeable and is carried by the pole at an upper portion 20.

Valdner – US Patent No. 5,349,975

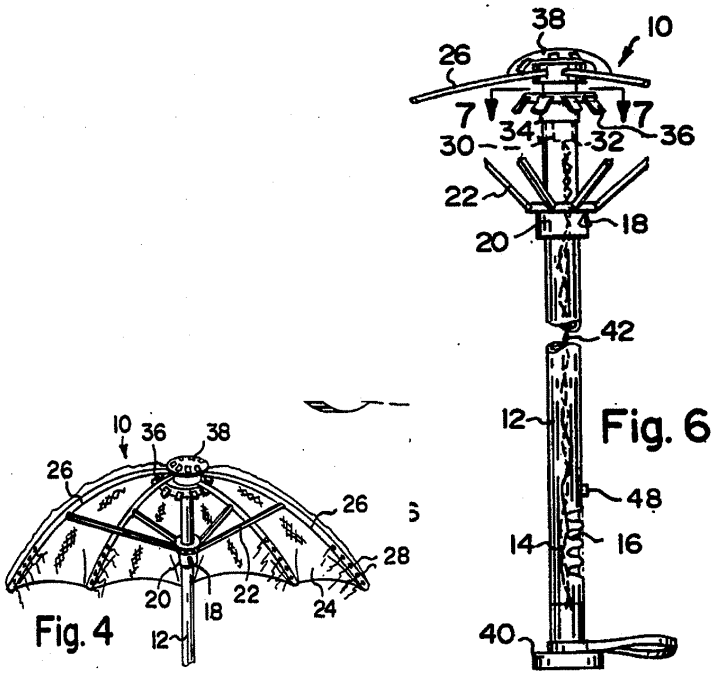


Fig. 6

Fig. 4

Valdner includes a solar power electrical system 38 found above the canopy 24, and carried by the rod (pole) 12. The solar power electrical system 38 has a discus-shape. The apparatus has a rechargeable battery pack that can be connected at the bottom 40 of the rod 12.

WO 93/00840

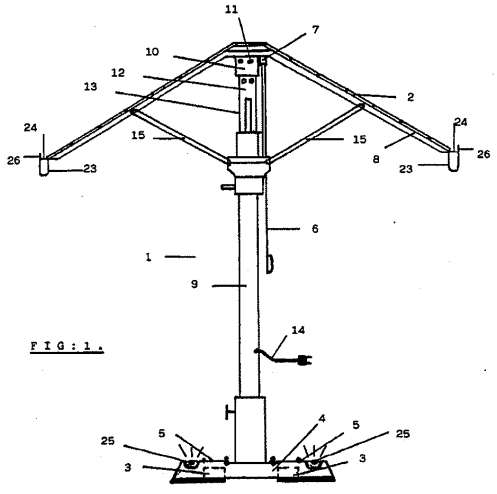


FIG: 1.

Includes a solar collector 2 carried by the canopy that charges batteries 3 in the base 4. The batteries 3 can power a light 12.

Benton - U.S. Patent No. 6,017,188

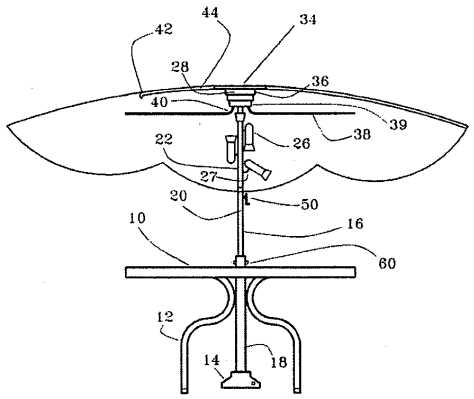


FIG. 1

Benton describes an umbrella supported by an upper portion 22 of a pole. The pole 22 supports lights 26. A solar panel 34 positioned on top of the canopy of the umbrella can power a motor 36 of a fan 28. The motor and lights may be powered through an AC connection 27.

Walker – US Patent No. 5,911,493

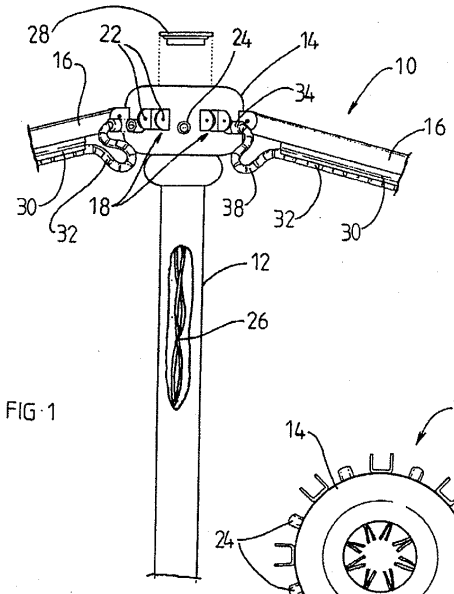


FIG 1

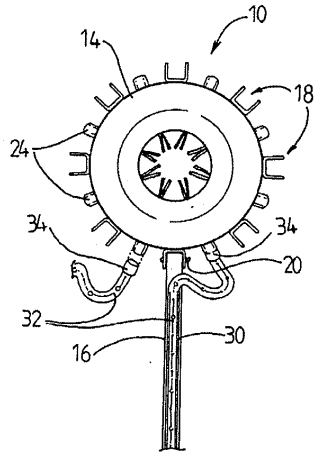


FIG 2

Walker discloses an umbrella 10 that includes hollow tubes 30 that carry light ropes 32 carried by the ribs 16 of the umbrella 10.

Small – US Patent No. 6,126,293

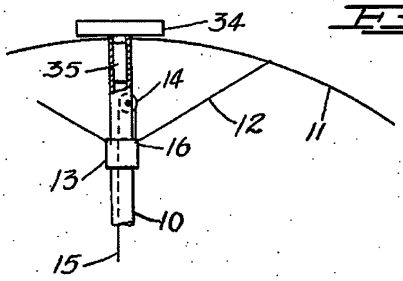
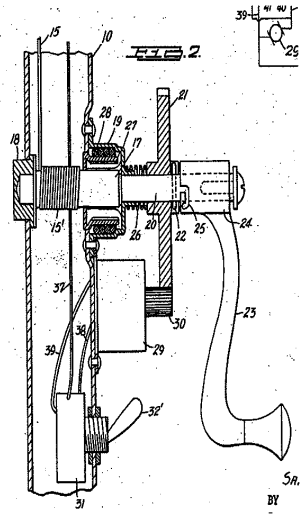


FIG. 1.



Small discloses an umbrella supported by a post 10. The umbrella employs a motor 29 to open and close the canopy. The motor may be powered by a solar battery 34 and a storage battery 35. The solar battery 34 charges the storage battery 35. The storage battery 35 may be found in other positions along the post 10. However, as shown in FIG. 1, the storage battery 35 is located below the solar battery 34 and is carried by the upper portion of the post 10.

Farr – US Patent App. Pub. No. 2002/0078985

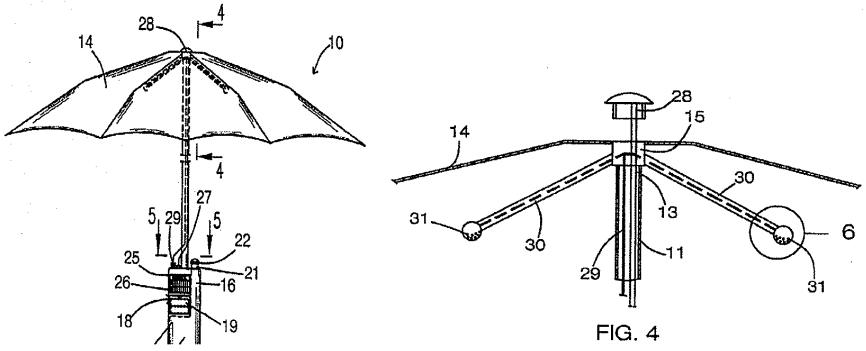
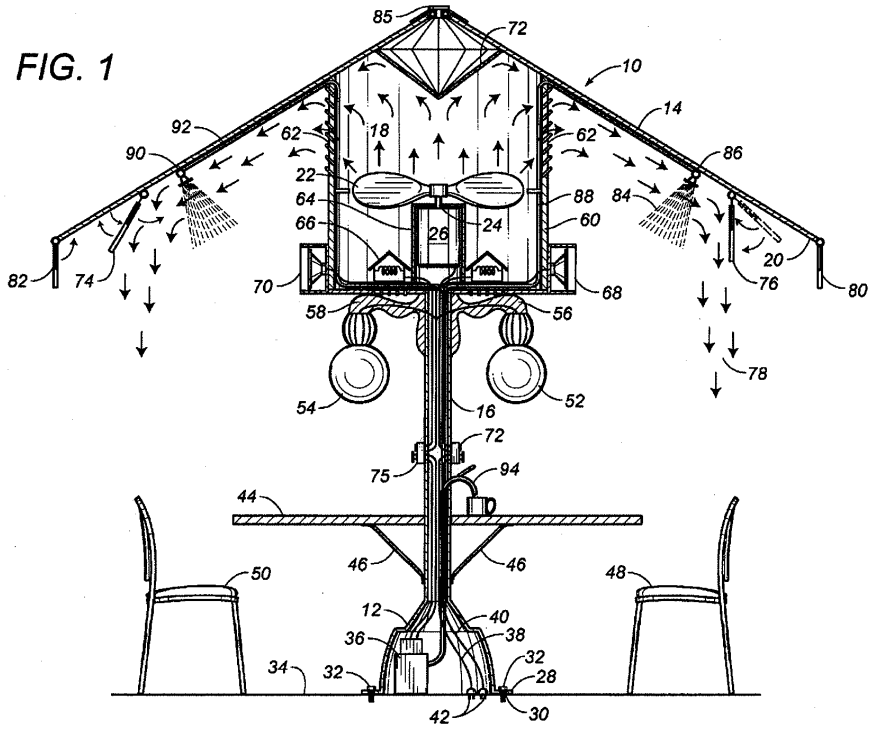


FIG. 4

Farr discloses an umbrella 10 with a cooling device. A tube supports the canopy 14 of the umbrella. The cooling device 16 is carried by the tube and may be detached from the tube. A battery 19 is contained within the cooling device 16, and is connected to a solar collector 28. The solar collector 28 is detachably connected to the tube, as shown in FIG. 4.

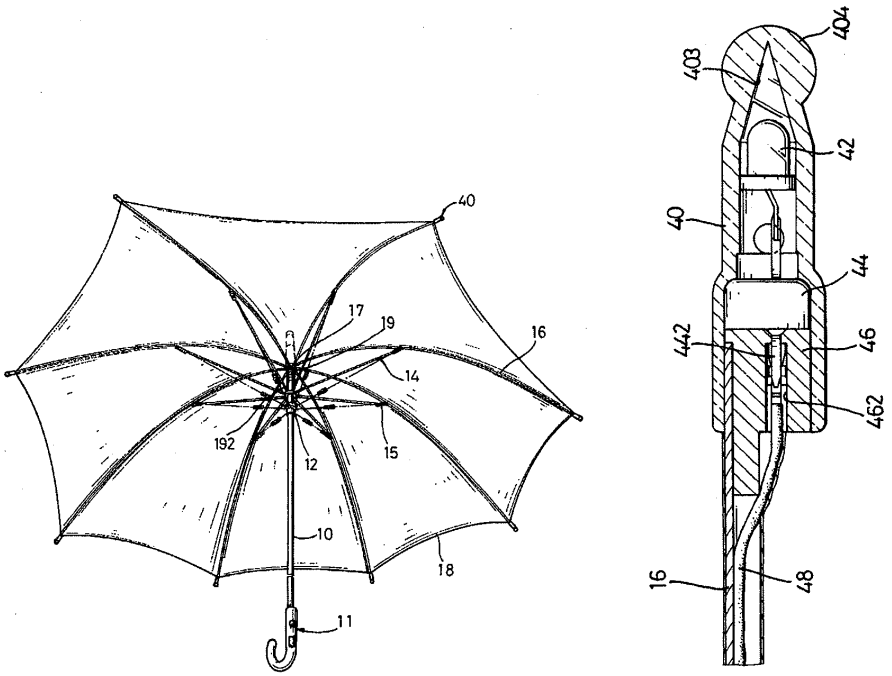
Molnar – US Patent No. 6,298,866

FIG. 1



Molnar discloses an umbrella 10 that includes a fan 18 and lights 54. A battery 36 that powers the fan and lights may be housed in the base 12 of the umbrella 10.

Yang – US Patent No. 6,341,873



Yang discloses an umbrella that has illumination devices mounted above the canopy 18 and in the tips 40 of each rib 16. The illumination device 40 includes a transparent tip 40 and an LED 42, so arguably, the LED 42 is within the rib 16.

Lee - US Patent No. 6,666,224 and 6,499,856

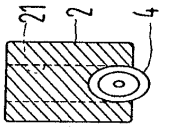


FIG. 4

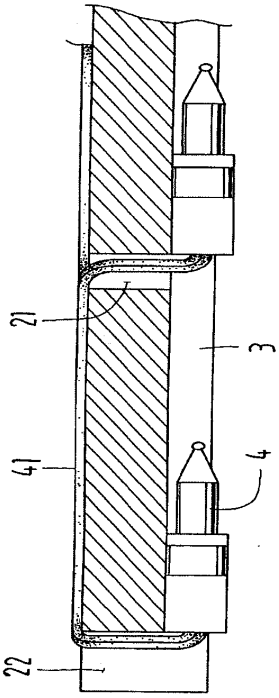
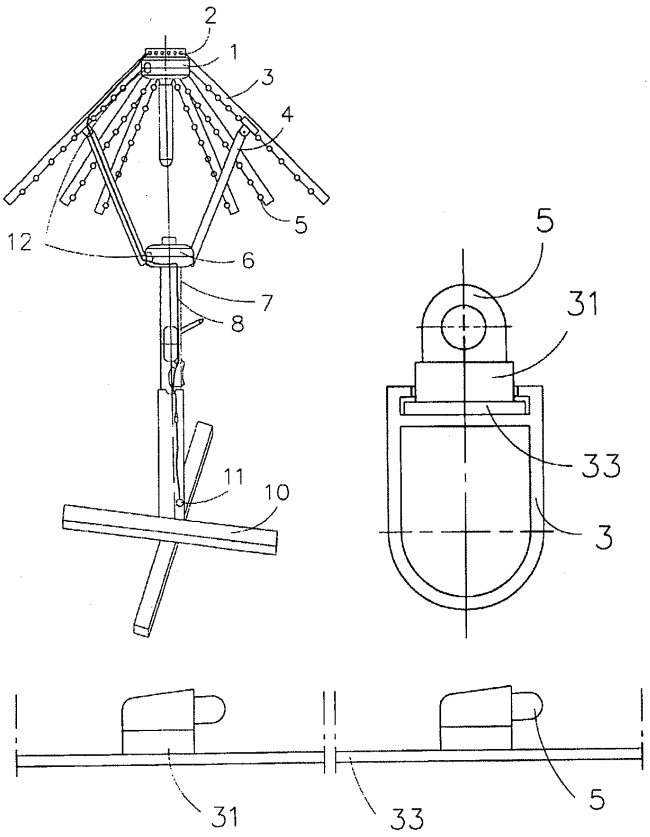


FIG. 3

Lee discloses an umbrella that has a plurality of ribs 2 with trenches 3 throughout the bottoms of the ribs 2. Lamps 4 are partially retained within the trenches 3 of the ribs 2.

Pan et al. – US Patent No. 6,439,249



Pan et al discloses an umbrella that includes a plurality of hollow ribs 3. Along each rib is a trench (32, not shown in these figures) that retain light sources 5. The light sources may be connected with an illuminating connector 31.

Cathel – US Patent No. 6,299,325

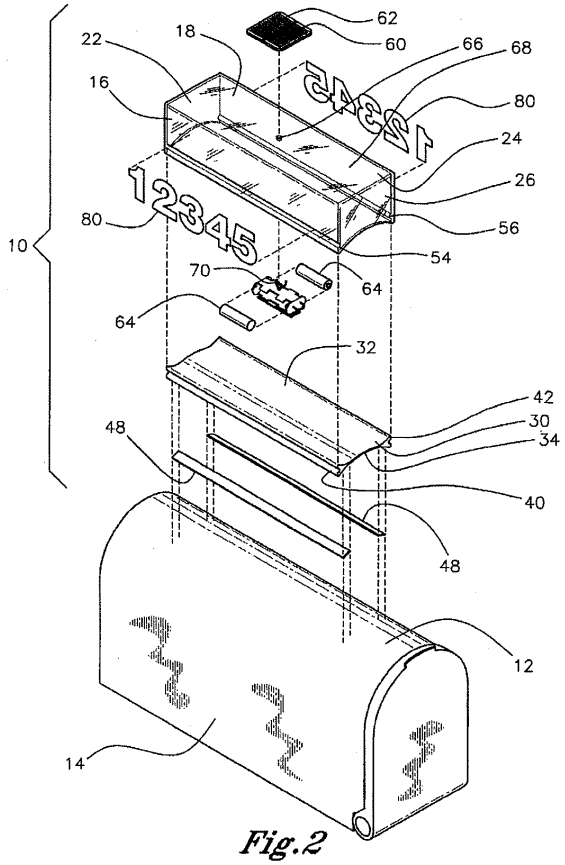


Fig.2

Cathel discloses an illuminated mailbox address device 10. The device 10 is powered by a solar cell 60 that recharges a battery 64. LEDs (not shown) may be used to illuminate the device.

Rushing – US Patent No. 5,053,931

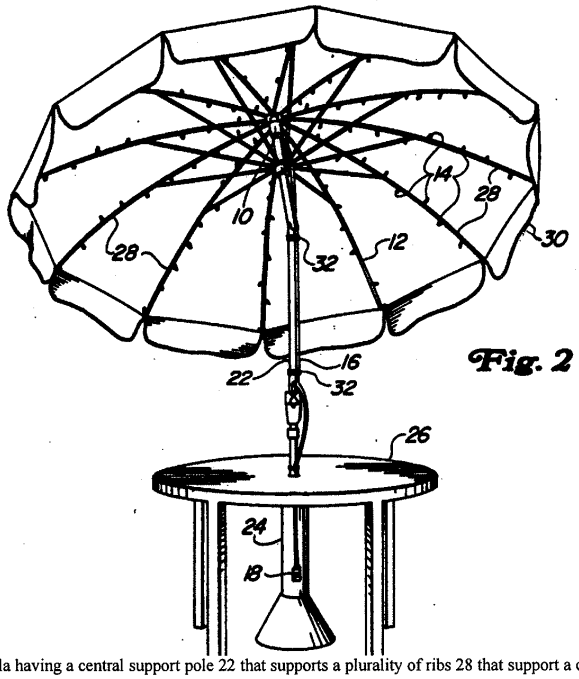
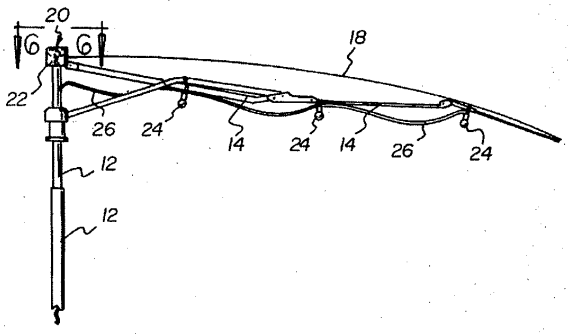


Fig. 2

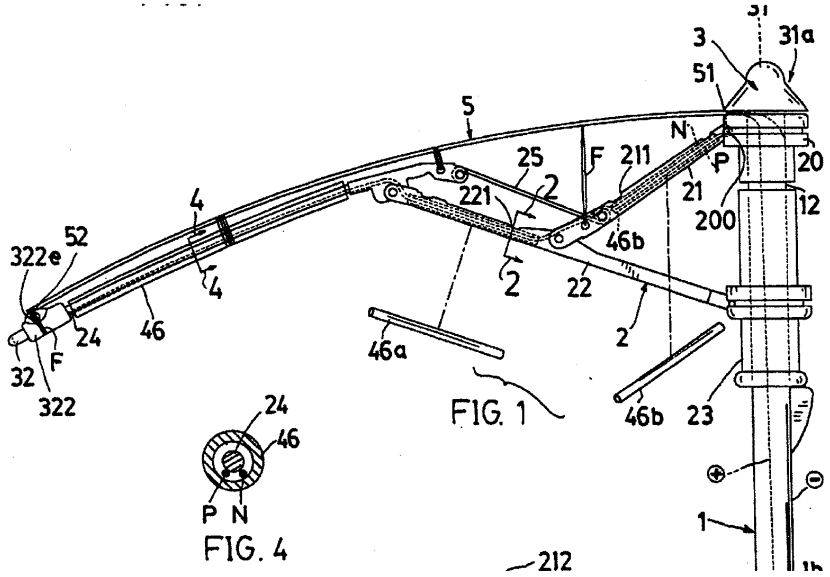
Rushing discloses an umbrella having a central support pole 22 that supports a plurality of ribs 28 that support a canopy 30. Light strings 12 with miniature lights 14 are attached to the ribs 28.

Morgan - US Patent No. 5,611,614



Morgan discloses an umbrella 20 with a plurality of ribs 14 that support a canopy 18 and electrical bulbs 24 and electrical connectors 26.

Wu – US Patent No. 6,126,293



Wu discloses an umbrella that has rib members 24 that have tip illuminators 32. The tip illuminators 23 may be LEDs.

REJECTIONS UNDER 35 U.S.C. §§ 102 AND/OR 103

The Rejection of Claim 1 under Combination I

The Office Action rejected Claim 1 as being obvious and unpatentable over WO 93/00840 and Valdner which was designated Combination I. In response, World Factory amended Claim 1 by adding these limitations: 1) a canopy portion has a plurality of rib members; 2) the SES is carried by a module coupled to the pole portion above the canopy portion; 3) the module is releasably coupled to the pole portion; and 4) the lighting system is carried by the canopy portion and coupled to and powered by the RES. Additionally, World Factory deleted the requirement that the RES be adapted to receive power from an AC power outlet.

The introduction of these limitations fails to overcome the § 103(a) rejections over Combination I. WO 93/00840 and Valdner both disclose a canopy having a plurality of ribs. WO 93/00840 discloses an umbrella having a base 4, a pole 9, a canopy carried by the pole, and a solar collector 2 carried by the canopy that charges batteries 3 in the base 4. The batteries 3 can power a light 12. WO 93/00840 fails to show a lighting system carried by the canopy portion. In Valdner, the ribs carry the ventilation shafts. It would be obvious to a person of ordinary skill in the art at the time of the invention of the '713 patent to have the lighting system of WO 93/00840 carried by ribs such as those of Valdner, which carries the ventilation shafts along its ribs. Additionally, Valdner's solar cell is connected to the rechargeable system, so that the absence of the electrical system being able to receive power from an AC outlet would be a trivial change on their devices. Logically, the solar power system must be located at a position in which it may receive solar power. If the solar power system is located on the umbrella device, the solar panel may only be located on top of the umbrella, which can be either on the canopy itself or the pole portion of an umbrella, which would be obvious to a person skilled in the art. Finally, the solar portion being releasably coupled to the pole portion is not a novel concept. A component being releasably coupled to any device is ubiquitous.

The Rejection of Claim 1 under Combination I in view of Hung

Claim 1 is further unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination I in view of Hung. The teachings of Combination I are discussed in the preceding paragraph. Hung discloses a SES that is releasably coupled to a pole portion. Hung discloses a solar panel (32) on the upper portion of the housing for the light (10) which is removable from the pole portion (80). Thus, to the extent that Combination I

does not expressly disclose a solar panel removably mounted to the upper portion of a pole, Hung provides this missing teaching. Claim 1 is therefore unpatentable under 35 U.S.C. § 103(a) as being obvious over Combination I in view of Hung.

The Rejection of Claims 2, 5 and 74 under Combination II

The Office Action rejected Claims 2 and 5 as being obvious and unpatentable over WO 93/00840 and Phyle, which was deemed Combination II. In response, World Factory amended Claim 2 by adding these limitations: 1) a power module is carried by the pole portion above the canopy portion; 2) the power module has an upper portion and a lower portion; 3) the SES is carried by the upper portion of the module; and 4) the RES is disposed in the lower portion of the power module. No amendments were made to Claim 5, which is dependent on claim 2. The only additional limitation of Claim 5 is the canopy has a plurality of rib members and that each rib member carries a fluorescent light.

These amendments fail to overcome the 35 U.S.C. § 103(a) rejections based on WO 93/00840 and Phyle. In addition, Claim 74 claims the same elements and has identical amendments, so it too should be found rejected based upon Combination II as well. The changes to the claims mean that the SES and the RES naturally reside in one singular component, with the SES found over the RES that is located on top of a patio umbrella. Such a combination would be obvious to a person skilled in the art. For the SES to convert light into electrical energy, it must have access to light. Accordingly, the SES must be above the canopy portion, either on the canopy itself or on the pole portion supporting the canopy. Additionally, placing the RES below the SES would be obvious as well; placing the RES above the SES would block sunlight from reaching the SES, preventing the SES from operating. Combining the SES and RES in one power module is obvious to a person skilled in the art because combining the two systems into one module greatly reduces the need for wire to connect the two systems as well as increases the ease of access to repair of the electrical systems. For Claim 5, both references disclose a canopy with multiple rib members. One skilled in the art would find it obvious to have the lighting system carried by the rib members, especially the use of fluorescent lights. Phyle itself carries fluorescent lights.

The Rejection of Claims 2, 5 and 74 under Combination II in view of Hung

Alternately, Claims 2, 5 and 74 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination II and further view of Hung. Combination II discloses all the elements of Claim 2 and 74 except for the amendments above, but Hung discloses a SES and a RES in a power module that is carried by a pole, the SES found in the upper portion and the RES found in the lower portion of the module. Accordingly, a person skilled in the art would find it obvious to modify Combination II by adding the power module carried by a pole, as taught by Hung. Additionally, claims 2 and 74 are identical. As such, one or the other should be cancelled even if the claims are allowed.

Claim 5 adds only the limitations that ribs are attached to the canopy, and fluorescent lights are mounted to the ribs. The type of lighting used, whether incandescent, fluorescent, LED, or the like is a trivial modification. And because of the elongated structure of fluorescent bulbs, mounting them to the umbrella ribs would be an obvious expedient. Claim 5 is thus also obvious over Combination II in view of Hung.

The Rejection of Claims 2, 5 and 74 under Combination II in view of Yang '163 or Wismeth

If the Examiner finds World Factory's § 131 Declaration lacking, Claims 2, 5, and 74 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination II in further view of Yang '163 or Wismeth. Both Yang '163 and Wismeth disclose a SES and a RES in a power module that is carried by a pole, the SES found in the upper portion and the RES found in the lower portion of the module. Because an SES, if mounted to the umbrella, must be mounted above the canopy if it is to be exposed to sunlight, it would have been obvious to one of ordinary skill in the art to have mounted a SES and a RES in a power module carried by the pole, as taught by Yang '163 or Wismeth, and to affix it to a portion of the pole above the canopy so it will be exposed to sunlight. Claims 2, 5, and 74 are therefore obvious, and therefore unpatentable, over Combination II in view of Yang '163 or Wismeth.

Claim 5 adds only the limitations that ribs are attached to the canopy, and fluorescent lights are mounted to the ribs. The type of lighting used, whether incandescent, fluorescent, LED, or the like is a trivial modification. And because of the elongated structure of fluorescent bulbs, mounting them to the umbrella ribs would be an obvious expedient. Claim 5 is thus also obvious over Combination II in further view of Yang '163 or Wismeth.

The Rejection of Claims 2, 5 and 74 under Combination III

The Office Action rejected Claims 2, 5, and 74 as being unpatentable over Phyle and Valdner which was deemed Combination III. In response, World Factory amended Claims 2 and 74 by adding these limitations: 1) a power module carried by the pole portion above the canopy portion; 2) the power module has an upper portion and a lower portion; 3) the SES is carried by the upper portion of the module; and 4) the RES is disposed in the lower portion of the power module. No amendments were made to Claim 5, which is dependent on claim 2. The only additional limitation of Claim 5 is

that the canopy has a plurality of rib members and that each rib member carries a fluorescent light. For Claim 5, both references disclose a canopy with multiple rib members. Phyle discloses fluorescent lights (12) attached to its rib members.

These amendments fail to overcome the 35 U.S.C. § 103(a) rejections as being obvious and unpatentable over Phyle and Valdner. The changes to the claims mean that the SES and the RES reside in one singular component, with the SES found over the RES that is located on top of a patio umbrella. Such a combination would be obvious to a person skilled in the art. For the SES to convert light into electrical energy, it must be exposed to light. As such, the SES must be above the canopy portion, either on the canopy itself or on the pole portion supporting the canopy. Additionally, having the RES below the SES would be obvious as well, as having the RES above the SES would prevent the SES from receiving sunlight and thereby prevent its operation. Combining the SES and RES in one power module is obvious to a person skilled in the art because combining the two systems into one module greatly reduces the need for wire to connect the two systems as well as increases the ease of access to repair of the electrical systems.

The Rejection of Claims 2, 5 and 74 under Combination III in view of Hung

Alternately, Claim 2, 5, and 74 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination III in view of Hung. Combination III discloses all the elements of former Claims 2 and 74. As to the features added by amendment, Hung discloses a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to modify Combination III by placing the SES and RES in a single module carried by a pole, as taught by Hung. When combined with Combination III, accordingly, a person skilled in the art would see this combination as obvious.

Claim 5 adds only the limitations that ribs are attached to the canopy, and fluorescent lights are mounted to the ribs. The type of lighting used, whether incandescent, fluorescent, LED, or the like is a trivial modification. And because of the elongated structure of fluorescent bulbs, mounting them to the umbrella ribs would be an obvious expedient. Claim 5 is thus also obvious over Combination III in view of Hung.

Claims 2, 5 and 74 are unpatentable under Combination III in view of Yang '163 or Wismeth

If the Examiner finds World Factory's § 131 Declaration lacking, Claim 2, 5 and 74 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination III in view of either Yang '163 or Wismeth. Combination III discloses all the elements of Claim 2 and 74 and Yang '163 and Wismeth disclose a SES and a RES in a singular module that is carried by a pole. When combined with Combination III, accordingly, a person skilled in the art would see this combination as obvious.

Claim 5 adds only the limitations that ribs are attached to the canopy, and fluorescent lights are mounted to the ribs. The type of lighting used, whether incandescent, fluorescent, LED, or the like is a trivial modification. And because of the elongated structure of fluorescent bulbs, mounting them to the umbrella ribs would be an obvious expedient. Claim 5 is thus also obvious over Combination III in view of either Yang '163 or Wismeth.

Claims 2 and 4 are unpatentable under Combination IV

The Office Action rejected Claims 2 and 4 as being unpatentable over WO 93/00840 and Pan or Wu or JP 9-168415 or Mai or Yang which was deemed Combination IV. In response, World Factory amended Claim 2 by adding these limitations: 1) a power module carried by the pole portion above the canopy portion; 2) the power module has an upper portion and a lower portion; 3) the SES is carried by the upper portion of the module; and 4) the electrical power system is disposed in the lower portion of the power module. Lastly, World Factory submitted a Declaration in which the inventor attempts to swear behind Mai, Pan, and Yang.

World Factory has failed to overcome the 35 U.S.C. § 103(a) rejections as being obvious and unpatentable over WO 93/00840 and Wu or JP-9-168415. The changes to the claims mean that the SES and the RES reside in one singular component, with the SES found over the RES that is located on top of a patio umbrella. Such a combination would be obvious to a person skilled in the art. For the SES to convert light into electrical energy, it must have access to light. As such, the SES must be above the canopy portion, either on the canopy itself or on the pole portion supporting the canopy. Additionally, having the RES below the SES would be obvious as well; having the RES above the SES would prevent the SES from receiving light and thereby preventing its operation. Combining the SES and RES in one power module is obvious to a person skilled in the art because combining the two systems into one module greatly reduces the need for wire to connect the two systems as well as increases the ease of access to repair of the electrical systems.

No amendments were made to Claim 4, which is dependent on Claim 2. The only additional limitation of Claim 4 is that the canopy has a plurality of rib members which carries the lighting system and that the rib members carry a plurality of light emitting diodes coupled to the RES. For Claim 4, the references disclose a canopy with multiple rib members and the use of lighting devices. All but WO 93/00480 disclose using light emitting diodes in various positions, some specifically on the ribs. As such, the arguments above that apply to Claim 2 apply to Claim 4.

Claims 2 and 4 are unpatentable under Combination IV in view of Hung

Alternately, Claim 2 and 4 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination IV in view of Hung. Combination IV discloses all the elements of former Claims 2 and 4, and Hung discloses the new elements added by the amendments: a SES and a RES in a singular module that is carried by a pole, the SES found in the upper portion and the RES found in a lower portion. It would have been obvious to a person skilled in the art to modify Combination IV by substituting a SES and a RES in a singular module that is carried by a pole, as taught by Hung, and thereby construct the invention of Claims 2 and 4.

The Rejection of Claims 2 and 4 under Combination IV in view of Yang '163 or Wismeth

If the Examiner finds the Declaration lacking, Claims 2 and 4 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Combination IV in view of either Yang '163 or Wismeth. Combination IV discloses all the elements of former Claims 2 and 4, and Yang '163 and Wismeth disclose the limitations added by the recent amendments: a SES and a RES in a singular module that is carried by a pole. A person of ordinary skill in the art would have found it obvious to modify Combination IV by adding a SES and a RES in a singular module that is carried by a pole, as taught by Yang '163 or Wismeth, and thereby construct the claimed invention. Claims 2 and 4 are therefore unpatentable.

The Rejection of Claim 4 under Combination V

The Office Action rejected Claim 4 as being unpatentable over Phyle and Valdner and Wu or Pan or JP-9-168415 or Mai or Yang, which was deemed Combination V. Claim 4 was not amended; however, Claim 4 remained dependent upon Claim 2, which was amended as stated above. As such, it includes the limitations of Claim 2. For Claim 4, the limitations disclose a canopy with multiple rib members and the lighting elements being LEDs. Also, World Factory submitted a Declaration in which the inventor attempts to swear behind Mai, Pan, and Yang.

These amendments fail to overcome the 35 U.S.C. § 103(a) rejections as being obvious and unpatentable over Combination V. The changes to the claims mean that the SES and the RES reside in one singular component, with the SES located over the RES that is located on top of a patio umbrella. Such a combination would be obvious to a person skilled in the art. For the SES to convert light into electrical energy, it must have access to light. As such, the SES must be above the canopy portion, either on the canopy itself or on the pole portion supporting the canopy. Additionally, having the RES below the SES would be obvious as well; having the RES above the SES would prevent the SES from receiving light and thereby preventing its operation. Combining the SES and RES in one power module is obvious to a person skilled in the art because combining the two systems into one module greatly reduces the need for wire to connect the two systems as well as increases the ease of access to repair of the electrical systems.

Claim 4 is unpatentable over Combination V in view of Hung

Alternately, Claim 4 is unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination V in view of Hung. Combination V discloses all the elements of previous Claim 4. Hung discloses a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to have modified Combination V by providing a SES and a RES in a single module that is carried by a pole, as taught by Hung. Locating the module on the pole above the canopy is an obvious step, because a module located beneath the canopy would not be exposed to sunlight and could not collect energy. Claim 4 is therefore unpatentable as obvious over Combination V in view of Hung.

Claim 4 is unpatentable over Combination V in view of either Yang '163 or Wismeth

If the Examiner finds the Declaration lacking, Claim 4 is unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination V in view of either Yang '163 or Wismeth. Combination V discloses all the elements of former Claim 4. Yang '163 and Wismeth disclose a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to have modified Combination V by providing a SES and a RES in a single module that is carried by a pole, as taught by either Yang '163 or Wismeth. Locating the module on the pole above the canopy is an obvious step, because a module located beneath the canopy would not be exposed to sunlight and could not collect energy. Claim 4 is therefore unpatentable as obvious over Combination V in view of either Yang '163 or Wismeth.

The Rejection of Claims 49, 50 and 72 under Combination VIII (A)

The Office Action rejected Claims 49, 50 and 72 as being unpatentable over WO 93/00840 and Morgan or Rushing or Pan or JP 9-168415 or Mai which was deemed Combination VIII (A). World Factory responded by amending claims 49 and 72 by adding this limitation: each lighting element is recessed within the rib member and is conductively coupled to the rechargeable electrical power system by an electrical conductor that is also recessed within the rib member. Claim 50 was not amended, but is dependent on Claim 49, therefore taking in the limitation. In addition, World Factory submitted a Declaration in which the inventor attempted to swear behind Mai and Pan.

This amendment fails to overcome the 35 U.S.C. § 103(a) rejections as being obvious and unpatentable over Combination VIII(A). The amendments to the claims relate to the positioning of lighting elements and wires within the rib members. Such an element would be obvious to a person skilled in the art in light of Combination VIII (A). The lighting elements and connecting wires must be carried by a reinforced structure of a canopy, which would be the rib members. Safety issues would make it obvious not to have wires protruding from the rib members. As such, the logical solution would be to recess the wires and lighting elements within the rib members.

Claims 49, 50 and 72 are obvious over Combination VIII (A) in view of Hale or Wu or Walker

Alternatively, Claims 49, 50 and 72 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination VIII (A) in view of Hale or Wu or Walker. Wu specifically discloses a recessed rib (21) into which the lighting elements (32) and wires (P and N) are recessed. Hale also discloses lighting elements (15) and wires (36) that are recessed into the rib members (12). Walker discloses lighting elements and wires (32) that are recessed into channels (30) along the underside of the rib (16). It would have been obvious, and hence unpatentable, for a person skilled in the art to have modified Combination VIII(A) by recessing the wires and lighting elements into the rib members, as taught by either Hale or Wu or Walker. Claims 49, 50, and 72 are therefore unpatentable.

Claims 49, 50 and 72 are obvious over Combination VIII (A) in view of Lee '224 or Lee '856

If the Examiner finds the Rule 1.131 Declaration lacking, Claims 49, 50 and 72 are unpatentable under U.S.C. § 103(a) as being obvious and unpatentable over Combination VIII (A) in view of Lee '224 or Lee '856. Former Claims 49, 50, and 72 have already been rejected as obvious over Combination VIII(A). Claims 49, 50, and 72 have now been amended to add the limitations that each lighting element is recessed within the rib member and is conductively coupled to the rechargeable electrical power system by an electrical conductor that is also recessed within the rib member. Lee '224 and Lee '856 disclose an umbrella that has a plurality of ribs 2 with trenches 3 throughout the bottoms of the ribs 2. Lamps 4 are partially retained within the trenches 3 of the ribs 2. Both Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into the rib members with the wires connected to a rechargeable power source. It would have been obvious to a person skilled in the art to have modified Combinaton VIII(A) by providing trenches in the bottoms of the ribs, with lighting elements and associated wiring recessed into the trenches as taught by Lee '224 and Lee '856 and thereby construct the claimed invention. Claims 49, 50, and 72 are therefore unpatentable under § 103(a).

The Rejection of Claims 51 and 55 under Combination VIII (B) in view of Wu or Hale

The Office Action rejected Claims 51 and 55 as being unpatentable over WO 93/00840 and Lee '856 which was deemed Combination VIII (B). Claim 51 was originally dependent on Claim 49, but World Factory amended Claim 51 to become independent, and incorporated the limitations of Claim 49, except that a single lighting element has replaced a plurality of lighting elements along a rib member. These additional limitations were added as well: 1) a translucent cover for covering the lighting elements; 2) the SES carried by a power unit coupled to the pole portion above the canopy portion; and 3) a portion of each lighting element extends beyond the corresponding rib member. Claim 55 was amended to depend from Claim 52, which is identical to Claim 51 except that it claims the lighting elements are fully recessed within the rib member. Claim 55 further claims that each wire is fully recessed within the rib member. In addition, World Factory submitted a Declaration in which the inventor attempts to swear behind Lee '856.

Claims 51 and 55 as amended are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination VIII(B) in view of Wu or Hale. The amendments made disclose the solar power system coupled to the pole portion in a removable manner. Hung has the same configuration. Alternatively, having an item coupled to another item is ubiquitous. Wu and Hale both disclose lighting elements that extend beyond the ribs. Additionally, whether a lighting element is fully recessed or extended from a rib does not have an inventive value. Wu has a translucent cover (322) that covers the lighting element (32). The wire elements for Wu and Hale are recessed within the rib members.

It would have been obvious to a person skilled in the art to modify Combination VIII(B) by coupling one item to another, to have lighting elements that extend beyond the ribs as taught by Wu or Hale, to recess wires within the rib members as taught by Wu or Hale, and to provide a translucent cover that covers a lighting element, as taught by Wu. Claims 51 and 55 are therefore unpatentable as obvious over § 103(a).

The Rejection of Claim 54 under Combination VIII(C)

The Office Action rejected Claim 54 as being unpatentable over WO 93/00840 and Pan or JP 9-168415 or Mai, which was deemed Combination VIII(C). World Factory did not amend Claim 54, but did amend Claim 49, from which Claim 54 depends. Claim 49 was amended by adding these limitations: 1) each lighting element is recessed within the rib member; and 2) is conductively coupled to the rechargeable electrical power system by

an electrical conductor that is also recessed within the rib member. Claim 54 adds the limitation that the lighting elements are each an LED. In addition, World Factory submitted a Declaration in which the inventor attempts to swear behind Pan and Mai.

Even if Pan and Mai are removed as references, these amendments fail to overcome the 35 U.S.C. § 103(a) rejections as being obvious and unpatentable over WO 93/00840 and JP 9-168415. The amendments to the claims relate to the positioning of lighting elements and wires within the rib members. The lighting elements and connecting wires must be carried by a reinforced structure of a canopy, which would be the rib members. Safety issues would make it obvious not to have protruding wires from the rib members. As such, the logical solution would be to recess the wires and lighting elements within the rib members. Such an element would be obvious to a person skilled in the art in light of WO 93/00840 and JP 9-168415.

Claim 54 is unpatentable over WO 93/00840 and JP 9-168415 in view of either Hale or Wu

Alternatively, Claim 54 is unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over WO 93/00840 and JP 9-168415 in view of either Hale or Wu. Wu specifically discloses a recessed rib (21) into which the lighting elements (32) and wires (P and N) are recessed. Hale also discloses lighting elements (15) and wires (36) that are recessed into the rib members (12). JP 9-168415 discloses using LEDs. A person skilled in the art would find it obvious to modify WO 93/00840 and JP 9-168415, which show all of the features of former Claim 54, by providing a recessed channel with the ribs into which the lighting elements and wires are recessed, as taught by Hale or Wu. Claim 54 is therefore unpatentable as obvious over WO 93/00840 and JP 9-168415 in view of either Hale or Wu.

If the Examiner finds World Factory's § 1.131 Declaration lacking, Claim 54 is unpatentable under U.S.C. § 103(a) as being obvious and unpatentable over Combination VIII(C) in view of Lee '224 or Lee '856. Lee '224 and Lee '856 each disclose lighting elements and wires that are recessed into umbrella rib members. Combination VIII(C) discloses all of the elements of former Claim 54. The new limitations added to Claim 54 are shown in Lee '224 and Lee '856. It would be obvious to a person skilled in the art to modify Combination VIII(C) by recessing the lighting elements and wires into umbrella rib members, as taught by Lee '224 and Lee '856. Claim 54 is therefore unpatentably obvious over Combination VIII(C) in view of Lee '224 or Lee '856.

Claims 49, 50, and 72 are unpatentable under Phyle and Valdner, and Morgan or Rushing or JP 9-168415

The Office Action rejected claims 49, 50 and 72 as being unpatentable over Phyle and Valdner, and Morgan or Rushing or Pan or JP 9-168415 or Mai which was deemed Combination IX (A). World Factory amended Claims 49 and 72 (50 was not amended, but dependent on 49), by adding these limitations: 1) each lighting element is recessed within the rib member and being conductively coupled to the rechargeable electrical power system by an electrical conductor; and 2) the electrical conductor also is recessed within the rib member. Claim 72 further states the lighting element is recessed within the corresponding rib member. Additionally, World Factory submitted a Declaration that attempts to swear behind Pan and Mai.

Even if Pan and Mai are removed as prior art references, the amendments to Claims 49, 50 and 72 fail to overcome the 35 U.S.C. § 103(a) rejections as being obvious and unpatentable over Phyle and Valdner, and Morgan or Rushing or JP 9-168415. The amendments to the claims relate to the positioning of lighting elements and wires within the rib members. The lighting elements and connecting wires must be carried by a reinforced structure of a canopy, which would be the rib members. Safety issues would make it obvious not to have protruding wires from the rib members. As such, the logical solution would be to recess the wires and lighting elements within the rib members, which would be obvious to a person skilled in the art in light of the combination of Phyle and Valdner, and Morgan or Rushing or JP 9-168415.

Claims 49, 50, and 72 are unpatentable under Phyle and Valdner, and Morgan or Rushing or JP 9-168415 and further in view of Hale or Wu or Walker

Alternatively, Claims 49, 50 and 72 are unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Phyle and Valdner, and Morgan or Rushing or JP 9-168415 in view of Hale or Wu or Walker. Wu specifically discloses a recessed rib (21) into which the lighting elements (32) and wires (P and N) are recessed. Hale also discloses lighting elements (15) and wires (36) that are recessed into the rib members (12). Walker discloses lighting elements and wires (32) that are recessed into channels (30) along the underside of the rib (16). It would have been obvious to a person skilled in the art to have modified the combination of Phyle and Valdner, and Morgan or Rushing or JP 9-168415 by providing recesses in the ribs to receive the wires and lighting elements, as taught by Hale or Wu or Walker, and thereby construct the claimed invention.

Claims 49, 50, and 72 are unpatentable over Combination IX(A) in view of Lee '224 or Lee '856

If the Examiner finds World Factory's Rule 1.131 Declaration inadequate to establish a date of invention earlier than its filing date, Claims 49, 50 and 72 are unpatentable under U.S.C. § 103(a) as being obvious over Combination IX (A) in view of Lee '224 or Lee '856. Both Lee '224 and Lee

'856 disclose an umbrella that has a plurality of ribs 2 with trenches 3 throughout the bottoms of the ribs 2. Lamps 4 are partially retained within the trenches 3 of the ribs 2. Both Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into the rib members with the wires connected to a power source. It would have been obvious to a person skilled in the art to modify Combination IX(A) by providing recesses in the bottom of the rib members with the lighting elements and wires received within the recesses, as taught by Lee '224 and Lee '856, and thereby construct the claimed invention.

Claims 51 and 55 are unpatentable under Combination IX (B)

The Office Action rejected Claims 51 and 55 as being unpatentable over Phyle, Valdner, and Lee '856, which was deemed Combination IX (B). Claim 51 was originally dependent on Claim 49, but World Factory amended Claim 51 to become independent, and incorporated the limitations of Claim 49, except that a single lighting element has replaced a plurality of lighting elements along a rib member. The additional limitations were added: 1) a translucent cover for covering the lighting elements; 2) the SES carried by a power unit coupled to the pole portion above the canopy portion; and 3) that a portion of each lighting element extends beyond the corresponding rib member. Claim 55 was amended to depend from Claim 52, which is identical to Claim 51 except that it claims that the lighting elements are fully recessed within the rib member. Claim 55 further claims that each wire is fully recessed within the rib member. In addition, World Factory submitted a Declaration in which the inventor attempts to swear behind Lee '856.

These amendments fail to overcome the 35 U.S.C. § 103(a) rejections as being obvious and unpatentable over Phyle and Valdner. The amendments have made the SES part of a power module, which Valdner discloses. The SES is attached to the pole portion of World Factory's invention. Valdner's SES is attached to the apex of the canopy portion, which would be the equivalent of the pole portion of World Factory's invention. Having a removable SES is not a novel concept either. The venting component (28) of Valdner is recessed in the rib members (26) of the canopy portion. It would have been obvious to a person skilled in the art to position the lights and wiring of Phyle within the venting component of Valdner and thereby construct the claimed invention.

Claims 51 and 55 are unpatentable under Combination IX (B)

Alternatively, Claims 51 and 55 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Phyle and Valdner, and Hung in view of Wu or Hale. The amendments made to Claims 51 and 55 disclose the solar power system coupled to the pole portion in a removable manner. Hung has the same configuration. Wu and Hale both disclose lighting elements that extend beyond the ribs. Additionally, the extent to the amount a lighting element is fully recessed or extended from a rib does not have an inventive value. Wu has a translucent cover (322) that covers the lighting element (32). The wire elements for Wu and Hale are fully recessed within the rib members. It would have been obvious to a person skilled in the art to have modified Combination IX(B) by providing a solar power system coupled to the pole portion in a removable manner, as taught by Hung, to provide lighting elements that extend beyond the ribs, as taught by Wu and Hale, and to provide a translucent cover, as taught by Wu, and thereby construct the claimed invention.

Claims 51 and 55 are unpatentable over Combination IX (B)

If the Examiner finds the Declaration lacking, Claims 51 and 55 are unpatentable under U.S.C. § 103(a) as being obvious over Combination IX (B) and Wu in view of Lee '224 or Lee '856. As previously discussed, both Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into the rib members. It would have been obvious to a person skilled in the art to have modified Combination IX(B) by providing lighting elements and wires recessed into rib members, as taught by Lee '224 and Lee '856, and thereby construct the claimed invention.

Claim 54 is unpatentable over Combination IX (C)

The Office Action rejected Claim 54 as unpatentable over Phyle and Valdner, and Pan or JP 9-168415 or Mai which was deemed Combination IX (C). World Factory did not amend Claim 54, but did amend Claim 49, from which Claim 54 depends. Claim 49 was amended by adding these limitations: 1) each lighting element is recessed within the rib member; and 2) each lighting element is conductively coupled to the rechargeable electrical power system by an electrical conductor that is also recessed within the rib member. Claim 54 adds the limitation that the lighting elements are each an LED. In addition, World Factory submitted a Declaration in which the inventor attempts to swear behind Pan and Mai.

Even if Pan and Mai were removed as prior art references, World Factory has failed to overcome the 35 U.S.C. § 103(a) rejections over Phyle and Valdner and JP 9-168415. The amendments to the claims relate to the positioning of lighting elements and wires within the rib members. Phyle discloses the lighting elements (12) being carried by the rib portions (22). Valdner discloses its venting element (28) being recessed in the rib members (26). Using an LED as the lighting element would be obvious to one skilled in the art, and JP 9-168415 discloses the use of LEDs. The combination of recessing an LED and its wiring components within a rib member would be obvious to a person skilled in the art in light of Combination IX (C).

Claim 54 is unpatentable over Combination IX (C) in view of Hale or Wu

Alternatively, Claim 54 is unpatentable under 35 U.S.C. § 103(a) as being obvious and unpatentable over Combination IX (C) in view of either Hale or Wu. Wu specifically discloses a recessed rib (21) into which the lighting elements (32) and wires (P and N) are recessed. Hale also discloses lighting elements (15) and wires (36) that are recessed into the rib members (12). It would have been obvious to a person skilled in the art to have modified Combination IX(C) by providing a recess in each rib into which lighting elements and wires are recessed, as taught by either Hale or Wu, and thereby construct the claimed invention.

Claim 54 is unpatentable over Combination IX (C) in view of Lee '224 or Lee '856.

If the Examiner finds the Rule 1.131 Declaration lacking, Claim 54 is unpatentable under U.S.C. § 103(a) as being obvious and unpatentable over Combination IX (C) in view of Lee '224 or Lee '856. As previously discussed, both Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into rib members. It would have been obvious to a person skilled in the art to have modified Combination IX(C) by providing lighting elements and wires recessed into rib members, as taught by either Lee '224 or Lee '856, and thereby construct the claimed invention.

ADDITIONAL PROPOSED REJECTIONS

Claim 1—Claim 1 is not patentable under 35 U.S.C. § 103(a) over Mueller and Rushing in view of Hung. Mueller discloses an umbrella apparatus (80), a base portion (28), a pole portion (16) coupled to the pole portion (28), a canopy portion hingedly coupled to the pole portion, the canopy portion having a plurality of rib members, a rechargeable electrical power system for providing power to the umbrella apparatus, and a SES (82) carried by a module coupled to the pole portion above the canopy portion, the SES being connected to the RES (26). Rushing discloses a lighting system having multiple discrete lighting elements (28) positioned along at least one of the rib members (12), and being conductively coupled to an electrical power system. Hung discloses a SES (32) carried by a module (10), the module being releaseably coupled to the pole portion (80). It would have been obvious to a person skilled in the art to have modified the umbrella of Mueller by providing a lighting system having multiple discrete lighting elements positioned along a rib member and being conductively coupled to an electrical power system, as taught by Rushing, and to substitute a SES carried by a module that is releasably coupled to the pole portion, as taught by Hung, and thereby construct the invention of Claim 1.

Claim 2, 4, 5, 56, and 74—Claims 2, 4, 5, 56, and 74 are not patentable under 35 U.S.C. § 103(a) over Mueller and Phyle in light of Hung. Claim 2 recites a base, a pole, a canopy hingedly mounted to the pole, a power module attached to the pole above the canopy, and a lighting system carried by the canopy. Claim 4 depends from Claim 2 and adds the additional limitations that the canopy comprises a plurality of ribs and the lighting system comprises LEDs. Claim 5 depends from Claim 2 and adds the limitations that the canopy comprises a plurality of ribs and the lighting elements are fluorescent. Claim 56 recites a base, a pole, a canopy comprising a plurality of ribs, and a power module carried by the pole above the canopy. Claim 74 recites a base, a pole, a canopy, a lighting system carried by the canopy, and a power module carried by the pole above the canopy. It should also be noted that Claims 2 and 74 are identical as amended.

Mueller discloses an umbrella apparatus (80), a base portion (28), a pole portion (16) coupled to the pole portion (28), a canopy portion hingedly coupled to the pole portion, a rechargeable electrical power system for providing power to the umbrella apparatus, and a SES (82) carried by a module coupled to the pole portion above the canopy portion, the SES being connected to the RES (26). It does not disclose a power module carried by the pole portion having an upper and lower portion, nor does it disclose the canopy carrying a lighting system that is coupled to the RES. Phyle does disclose a lighting system that is carried by the canopy that is coupled to the RES. Hung discloses a power module (10) carried by the pole portion (80), with the SES (32) in the upper portion and the RES (26) in the lower portion.

It would have been obvious to a person of ordinary skill in the art to have modified the umbrella apparatus of Mueller by providing a lighting system carried by the canopy that is coupled to the power module, as taught by Phyle, and to have the power module carried by the pole portion with the SES in the upper portion of the module and the RES in the lower portion. Claim 2 would therefore be obvious and unpatentable. The only element of Claim 4 not disclosed by this combination is that the lighting elements are LEDs. The type of lighting element used is trivial and cannot form the basis for patentability. In any event, JP 9-168415 discloses the use of LED lighting elements. The only element of Claim 5 not disclosed by this combination is that the lighting elements are fluorescent. The type of lighting element used is trivial and cannot form the basis for patentability. All of the elements of Claims 56 and 74 are shown in this combination.

Alternatively, if the Examiner finds the Declaration lacking, the combination of Mueller and Phyle in light of Yang '613 or Wismeth would make Claims 2, 46, and 74 obvious in the same manner. As previously discussed, Yang '163 and Wismeth disclose a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to have modified the previously discussed combination of Mueller and Phyle by providing a SES and a RES in a single module that is carried by a pole, as taught by either Yang '163 or Wismeth. Locating the module on

the pole above the canopy is an obvious step, because a module located beneath the canopy would not be exposed to sunlight and could not collect energy.

Claim 47—Claim 47 is unpatentable under 35 U.S.C. 103(a) as being unpatentable over Phyle and Hung. Phyle discloses a patio umbrella apparatus (1), a base portion, a pole portion (20) coupled to the base portion, a canopy portion hingedly coupled to the pole portion, and a RES for providing power to the umbrella apparatus. It does not disclose a power module carried by the pole portion having an upper and lower portion. Hung discloses a power unit (10) that has a SES (32) in the upper portion and a RES (26) in the lower portion, the unit coupled to the top portion of a pole (80). It would have been obvious to a person skilled in the art to modify the umbrella apparatus of Phyle by providing a power unit that has a SES in the upper portion and a RES in the lower portion, the unit coupled to the top portion of a pole as taught by Hung. Claim 47 would therefore have been obvious to a person skilled in the art.

Alternatively, if the Examiner finds the Rule 1.131 Declaration lacking, the combination of Phyle and Yang '613 or Wismeth would make Claim 47 obvious in the same manner as Phyle and Hung. Yang '163 and Wismeth disclose a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to have modified Phyle by providing a SES and a RES in a single module that is carried by a pole, as taught by either Yang '163 or Wismeth.

Claim 48—Claim 48 is unpatentable under 35 U.S.C. 103(a) over Phyle, Valdner, and Hung in view of Hale. Valdner discloses all elements of Claim 48 except a plurality of lighting elements carried by the rib member, the lighting elements being recessed within the rib members and the RES and SES each forming a component part disposed in a power unit carried by the pole portion above the canopy. Phyle discloses most of the same, but further includes carrying lighting elements. Phyle does not have a SES. However, Valdner does disclose its venting mechanisms (28) being recessed within the rib members (26). Hale discloses its lighting elements (15) being recessed within its rib members (12). Hung discloses the power unit (10) coupled on top of the pole portion (80), with the SES being in the top portion and the RES being in the bottom portion. It would have been obvious to one skilled in the art to have modified the apparatus of Phyle or Valdner by providing the lighting elements recessed within the canopy rib members, as taught by Hale, and providing the power unit coupled on top of the pole portion, with the SES being in the top portion and the RES being in the bottom portion. Claim 48 is therefore unpatentable as obvious.

Additionally, if the Examiner finds the Rule 1.131 Declaration lacking, the combination of Phyle, Valdner or Mueller and Yang '613 or Wismeth in view of Lee '224 or Lee '856 would make Claim 48 obvious in the same manner. Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into rib members. Yang '163 and Wismeth disclose a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to have modified the previously discussed combination of Phyle and Valdner or Mueller by providing lighting elements and wires recessed into rib members, as taught by Lee '224 or Lee '856, and to combine a SES and a RES in a single module that is carried by a pole, as taught by Yang '163 and Wismeth, and thereby construct the claimed invention.

Claim 49, 50 and 54—Claim 49 is unpatentable under 35 U.S.C. § 103(a) over Mueller and Rushing in view of Hale. Mueller discloses all elements of Claim 49 except those dealing with the lighting system. Rushing discloses all of the lighting elements of Claim 49 except each lighting element being recessed within the rib member as well as the electrical conductor being recessed. Hale discloses each lighting element and electrical conductor being recessed within the rib member (see FIG. 1 and 9). It would have been obvious to a person skilled in the art to have modified the apparatus of Mueller to provide the lighting elements as taught by Rushing, recessing the lighting elements and wires as taught by Hale, and thereby construct the claimed invention.

Alternatively, if the Examiner finds the Declaration lacking, the combination of Mueller and Rushing in view of Lee '224 and Lee '856 would make Claims 49, 50 and 54 obvious in the same manner. Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into rib members. It would have been obvious to a person skilled in the art to have modified the apparatus of Mueller to provide the lighting elements as taught by Rushing, recessing the lighting elements and wires as taught by Lee '224 and Lee '856, and thereby construct the claimed invention.

Additionally, Claim 50 is dependent on Claim 49, with the additional limitation that the lighting system includes multiple discrete lighting elements along each rib member. Rushing discloses this feature, so Claim 50 would be obvious based on the same combination that renders Claim 49 unpatentable.

Claim 54 is also dependent on Claim 49, with the additional limitation that the multiple discrete lighting elements are each an LED. Having the lighting elements being an LED would be obvious to anyone skilled in the art. It is common practice to use LEDs in such applications which World Factory states in its Response to the Office Action. Alternatively, with the addition of JP 9-168415, which clearly discloses LEDs, Claim 54 would be obvious to one skilled in the art.

Claim 51—Claim 51 is unpatentable under 35 U.S.C. 103(a) over Phyle and Hung in view of Wu. Phyle discloses every element of Claim 51 except the power unit being releasably coupled to the pole, translucent covers for the lighting elements, and the lighting elements extending beyond the corresponding rib member. Hung discloses a power unit that comprises a SES that is releasably coupled to the pole portion. Wu discloses translucent covers (322) where the lighting elements extend beyond the rib member. It would have been obvious to a person skilled in the art to have modified the device of Phyle by providing a power unit that comprises a SES that is releasably coupled to the pole portion, as taught by Hung, and translucent covers where the lighting elements extend beyond the rib member, as taught by Wu.

Alternatively, if the Examiner finds the Rule 1.131 Declaration lacking, the combination of Phyle and Yang '613 in view of Wu would make Claim 51 obvious in the same manner. Yang '163 discloses a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to modify the apparatus of Phyle to provide a SES and a RES in a single module that is carried by a pole, as taught by Yang '613, and translucent covers where the lighting elements extend beyond the rib member, as taught by Wu, thereby constructing the claimed invention.

Claim 52, 53, and 55—Claim 52 is unpatentable under 35 U.S.C. 103(a) over Mueller, Rushing, and Hale or Wu. Mueller contains all of the elements of Claim 52 except the canopy carrying a lighting system which includes multiple discrete lighting elements positioned along a rib member, wherein each lighting element is fully recessed within the corresponding rib member. Rushing discloses the canopy portion carrying the lighting system, with multiple discrete lighting elements positioned along the rib members. Hale and Wu disclose the lighting elements being recessed within the corresponding rib member. However, being fully recessed in the rib member would be obvious to one skilled in the art. It would have been obvious to a person skilled in the art to have modified the apparatus of Mueller by providing that the canopy portion carry the lighting system, with multiple discrete lighting elements positioned along the rib members, as taught by Rushing, with the lighting elements being recessed within the corresponding rib member, as taught by Hale or Wu, thereby constructing the claimed invention.

Alternatively, if the Examiner finds the rule 1.131 Declaration lacking, the combination of Mueller, Rushing, and Lee '224 or Lee '856 would make Claim 52 obvious in the same manner. Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into rib members. It would have been obvious to a person skilled in the art to modify the device of Mueller by providing that the canopy portion carry the lighting system, with multiple discrete lighting elements positioned along the rib members, as taught by Rushing, with lighting elements and wires that are recessed into rib members, as taught by Lee '224 and Lee '856, thereby constructing the claimed invention.

Claims 53 and 55 are dependent on Claim 52. Claim 55 has the further limitation that the wires for the lighting elements be fully recessed within the rib members. Hale, Wu, Lee '224, and Lee '856 disclose this limitation as well. Claim 53 adds the limitation that the lighting elements are covered by a translucent cover. Wu discloses this limitation. As such, the combination of Mueller, Rushing, and Lee '224 or Lee '856 would make Claims 53 and 55 obvious.

Claim 60—Claim 60 is unpatentable under 35 U.S.C. § 103(a) over Mueller and Wu. Mueller discloses every element of Claim 60 except for a lighting system that is carried by the canopy portion that is conductively coupled to and powered by the RES, wherein the lighting system includes a plurality of lighting elements, each lighting element being recessed within a corresponding rib member and being covered by a translucent cover carried by the corresponding rib member. Wu discloses these limitations. It would have been obvious to a person skilled in the art to have modified the device of Mueller by providing a lighting system that is carried by the canopy portion that is conductively coupled to and powered by the RES, wherein the lighting system includes a plurality of lighting elements, each lighting element being recessed within a corresponding rib member and being covered by a translucent cover carried by the corresponding rib member, as taught by Wu, thereby constructing the claimed invention.

If the Examiner finds the Rule 1.131 Declaration lacking, the combination of Mueller and Wu in view of Lee '224 or Lee '856 would make Claim 60 obvious in the same manner. Lee '224 and Lee '856 disclose lighting elements and wires that are recessed into rib members. It would have been obvious to a person skilled in the art to have modified the device of Mueller by providing a lighting system that is carried by the canopy portion that is conductively coupled to and powered by the RES, wherein the lighting system includes a plurality of lighting elements, each lighting element being recessed within a corresponding rib member and being covered by a translucent cover carried by the corresponding rib member, as taught by Wu, with the lighting elements and wires recessed into rib members, as taught by Lee '224 and Lee '856, thereby constructing the claimed invention.

Alternatively, Claim 60 is unpatentable based on this combination and Hale. Hale discloses the lighting elements being recessed within a rib portion. As such, one skilled in the art would find Claim 60 obvious after observing this combination.

Claim 61—Claim 61 is unpatentable under 35 U.S.C. § 103(a) over Phyle, Mueller, and Hung. Phyle discloses a patio umbrella apparatus, a base portion, a pole portion coupled to the base portion, a canopy portion hingedly coupled to the pole portion, a RES for providing power to the umbrella apparatus, and the canopy carrying a lighting system, each lighting element carried by a rib member, as well as the wiring system. It does not disclose a power unit carried by the pole portion having an upper and lower portion. Mueller discloses a SES carried by the pole portion that recharges the RES.

Hung discloses a power unit (10) that has a SES (32) in the upper portion and a RES (26) in the lower portion, the unit coupled to the top portion of a pole (80). It would have been obvious to a person skilled in the art to have modified the device of Phyle by providing a SES carried by the pole portion that recharges the RES, as taught by Mueller, and a power unit that has a SES in the upper portion and a RES in the lower portion, the unit coupled to the top portion of a pole, as taught by Hung, thereby constructing the claimed invention.

If the Examiner finds the Rule 1.131 Declaration lacking, the combination of Phyle, Mueller and Yang '613 or Wismeth would make Claim 61 obvious in the same manner. Yang '163 and Wismeth disclose a SES and a RES in a single module that is carried by a pole. It would have been obvious to a person skilled in the art to have modified the device of Phyle by providing a SES carried by the pole portion that recharges the RES, as taught by Mueller, and a power unit that has a SES in the upper portion and a RES in the lower portion, the unit coupled to the pole, as taught by Yang '163 and Wismeth, thereby constructing the claimed invention.

Claim 62—Claim 62 is unpatentable under 35 U.S.C. § 103(a) over Mueller and JP 9-168415. Mueller discloses all of the elements of Claim 62 except all limitations dealing with the lighting subassembly, its location and components. JP 9-168415 discloses a lighting subassembly (7) that is carried by the canopy portion, the lighting subassembly being conductively coupled (9) to the RES, wherein the lighting subassembly includes a plurality of LEDs (7), each LED being recessed relative to a corresponding rib member (3) and each LED being conductively coupled by a conductor (9) recessed relative to the corresponding rib member. It would have been obvious to a person skilled in the art to have modified the device of Mueller by providing a lighting subassembly that is carried by the canopy portion, the lighting subassembly being conductively coupled to the RES, wherein the lighting subassembly includes a plurality of LEDs, each LED being recessed relative to a corresponding rib member, and each LED being conductively coupled by a conductor recessed relative to the corresponding rib member, as taught by JP 9-168415, thereby constructing the claimed device.

Alternatively, this combination in view of Hale would make Claim 62 obvious to a person skilled in the art as well. Hale has a lighting subassembly (15) and conductor (36) that are recessed relative to the corresponding rib member (12). If the Examiner finds the Declaration lacking, the combination above in view of Lee '224 or Lee '856 would make Claim 62 obvious in the same manner.

Claim 64 and 65—Claim 64 is unpatentable under 35 U.S.C. § 103(a) over Mueller or Valdner and Phyle or Rushing. Mueller and Valdner disclose all of the elements of Claim 64 except the lighting system portions. Valdner and Mueller both have discus-shaped modules that hold the SES. Phyle and Rushing disclose a lighting system being carried by the canopy portion. It would have been obvious to a person skilled in the art to have modified Mueller or Valdner by providing a lighting system being carried by the canopy portion, as taught by Phyle or Rushing, and thereby construct the claimed invention.

Alternatively, Claim 64 is unpatentable over the combination above in further view of Hung. The SES is contained in a discus-shaped module that is carried by a pole portion. As such, these combinations make Claim 64 obvious in the eyes of a person skilled in the art. If the Examiner finds the Declaration lacking, the combination above in light of Yang '613 would make Claim 64 obvious in the same manner.

Claim 65 has been amended to be dependent on Claim 64, with the only additional limitation that the discuss-shaped module is releasably coupled to the pole portion. To the extent the term "discuss-shaped module" can be understood, Hung's module is releasably coupled to the pole portion, as is module in Yang '613. As such, this combination makes Claim 65 obvious.

Claim 66—Claim 66 is unpatentable under 35 U.S.C. § 103(a) over Phyle and Hung in view of Hale. Phyle discloses all of the elements of Claim 66 except for elements dealing with the SES and the RES forming a power unit fixed relative to the pole portion, with the SES forming the upper portion and the RES forming the lower portion. Additionally, Phyle does not disclose conductors recessed within the rib members. Hung discloses a power unit fixed relative to the pole portion that has the SES forming the upper portion and the RES forming the lower portion. Hale discloses conductors that are recessed within the rib members. As such, Claim 66 would be seen as obvious by one who was skilled in the art after referring to the above combination. If the Examiner finds the Declaration lacking, the combination of Phyle and Yang '613 or Wismeth in view of Lee '224 or Lee ' 856 would make Claims 2, 46, and 74 obvious in the same manner.

Alternatively, Claim 66 is unpatentable in further view of the combination above and Mueller and Wu. Mueller discloses a SES carried by the pole portion of the umbrella, whereas Wu discloses the electrical conductors being recessed within the rib members.

Claims 70 and 71—Claims 70 and 71 are unpatentable under 35 U.S.C. § 103(a) over Mueller or Valdner and Wu. Mueller and Valdner disclose all of the elements of Claim 70 except each rib member having a recessed longitudinal channel and having a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the RES, the lighting system comprising a plurality of lighting elements carried by the rib members, each lighting element being disposed within the channel. Wu discloses a recessed longitudinal channel in each rib member (21 - See FIGS. 5, 7- 8). The lighting elements (32) are recessed within the rib member. As such, a person skilled in the art would view this

combination and find Claim 70 obvious. Claim 71 is dependent on Claim 70, with the only additional element being that a transparent cover is disposed over each channel. Wu discloses a translucent cover being placed over the channel. As such, 71 is unpatentable as well for obviousness. If the Examiner finds the Declaration lacking, the combination of Mueller or Valdner in view of Lee '224 or Lee '856 would make Claim 70 obvious in the same manner, with the addition of Wu for Claim 71.

Alternatively, Claims 70 and 71 are unpatentable with Mueller or Valdner and Wu in further view of Hale. Hale has a recessed longitudinal channel (See FIGS. 3, 8, and 9) within which the lighting elements are disposed. Additionally, having a translucent cover over the lighting elements would be obvious in the view of a person skilled in the art.

Claim 72—Claim 72 is unpatentable under 35 U.S.C. § 103(a) over Mueller or Valdner and Rushing or Phyle in view of Wu or Hale. Mueller and Valdner disclose all of the elements of Claim 72 except a lighting system carried by the canopy portion, a plurality of discrete lighting elements carried by each rib member that is recessed within a corresponding rib member, and the electrical conductors also being recessed within the rib members. Rushing and Phyle disclose a lighting system carried by the canopy portion and a plurality of discrete lighting elements carried by each rib member. Hale and Wu disclose the lighting elements and the electrical conductors being recessed within the rib members as well. As such, Claim 72 would be obvious to one skilled in the art in view of the above combination. If the Examiner finds the Declaration lacking, the combination Mueller or Valdner and Rushing or Phyle in light of Lee '224 or Lee '856 would make Claim 72 obvious in the same manner.

Compliance with 37 C.F.R. §§ 1.52 and 1.943

The foregoing Comments are submitted in 12 point nonscript type, 1-1/2 spaced, and do not exceed 50 pages in length, excluding amendments, appendices of claims, and reference materials such as prior art references.

CONCLUSION

In view of the foregoing, Southern Sales respectfully requests that the rejection of Claims 1, 2, 4, 5, 6, 7, 9, 49, 50, 51, 54, 55, 57, 72, 73 and 74 be maintained, and that Claims 1, 2, 4, 5, 47–56, 59–62, 64–66, 70–72, and 74 be rejected under 35 U.S.C. § 103(a) based upon the various combinations discussed above and any other various combinations that may be developed in further combination with the new prior art references cited herein and the other bases as set forth above.

Respectfully submitted:

Larry A. Roberts
Counsel for Southern Sales, Inc.
Reg. No. 31,871

KILPATRICK STOCKTON LLP
1100 Peachtree Street
Suite 2800
Atlanta, Georgia 30309-4530
Tel. (404) 815–6500
Fax (404) 815–6555
Attorney Docket: 45639–316477

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Reexamination of:	)	
	)	
Gregory G. Kuelbs	)	
	)	Examiner: Margaret Rubin
Control No. **95/000,104**	)	
	)	Art Unit: 3992
Patent No.: **6,612,713**	)	
	)	
Issued: **September 2, 2003**	)	
	)	
Assignee: **WORLD FACTORY, INC.**	)	

CERTIFICATE OF SERVICE

This is to certify that I have this day served a true and correct copy of the foregoing "Appeal Brief of Appellant Third-Party Requestor" by depositing same in the United States mail, properly addressed with sufficient first class postage affixed thereto to ensure delivery to:

James E. Walton, Esq.
1169 N. Burleson Boulevard
Suite 107-328
Burleson, Texas 76028

This 8th day of April, 2011.

Larry A. Roberts

US2000 12107292.1

YOT-1003-1858

Electronic Acknowledgement Receipt	
EFS ID:	9900606
Application Number:	95000104
International Application Number:	
Confirmation Number:	5847
Title of Invention:	UMBRELLA APPARATUS
First Named Inventor/Applicant Name:	6612713
Customer Number:	38441
Filer:	Larry A. Roberts./Andrea Cummings
Filer Authorized By:	Larry A. Roberts.
Attorney Docket Number:	45639-316477
Receipt Date:	18-APR-2011
Filing Date:	12-AUG-2005
Time Stamp:	15:17:24
Application Type:	inter partes reexam

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		316477_transmittal.pdf	63200 0a57d3e08f90cb072cb310d901380e4854166c4c	yes	3

YOT-1003-1859

	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Reexam Miscellaneous Incoming Letter		1	2	
	Reexam Certificate of Service		3	3	
Warnings:					
Information:					
2	Appeal Brief - Third Party Requester	316477_appealbrief.pdf	10780409 336dddc6ddd6f9e8faffdecc57df8523f589b76b	no	206
Warnings:					
Information:					
		Total Files Size (in bytes):	10843609		

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

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

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

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

UNITED STATES PATENT AND TRADEMARK OFFICE

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

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
95/000,104	08/12/2005	6612713	45639-316477	5847

38441 7590 09/20/2011

LAW OFFICES OF JAMES E. WALTON, PLLC
1169 N. BURLESON BLVD.
SUITE 107-328
BURLESON, TX 76028

EXAMINER	
RUBIN, MARGARET R	
ART UNIT	**PAPER NUMBER**
3992	

MAIL DATE	DELIVERY MODE
09/20/2011	PAPER

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

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

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

DO NOT USE IN PALM PRINTER

THIRD PARTY REQUESTER'S CORRESPONDENCE ADDRESS
ROBERT E. RICHARDS
KILPATRICK STOCKTON, LLP
1100 PEACHTREE STREET, SUITE 2800
ATLANTA, GA 30309

Date:
MAILED
SEP 20 2011
CENTRAL REEXAMINATION UNIT

Transmittal of Communication to Third Party Requester
Inter Partes Reexamination

REEXAMINATION CONTROL NO. : 95000104
PATENT NO. : 6612713
TECHNOLOGY CENTER : 3999
ART UNIT : 3900

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified Reexamination proceeding. 37 CFR 1.903.

Prior to the filing of a Notice of Appeal, each time the patent owner responds to this communication, the third party requester of the inter partes reexamination may once file written comments within a period of 30 days from the date of service of the patent owner's response. This 30-day time period is statutory (35 U.S.C. 314(b)(2)), and, as such, it cannot be extended. See also 37 CFR 1.947.

If an ex parte reexamination has been merged with the inter partes reexamination, no responsive submission by any ex parte third party requester is permitted.

All correspondence relating to this inter partes reexamination proceeding should be directed to the Central Reexamination Unit at the mail, FAX, or hand-carry addresses given at the end of the communication enclosed with this transmittal.

PTOL-2070(Rev.07-04)

YOT-1003-1862

Transmittal of Communication to Third Party Requester Inter Partes Reexamination	Control No.	Patent Under Reexamination
	95/000,104	6612713
	Examiner	Art Unit
	MARGARET RUBIN	3992

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

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above-identified reexamination proceeding. 37 CFR 1.903.

Prior to the filing of a Notice of Appeal, each time the patent owner responds to this communication, the third party requester of the *inter partes* reexamination may once file written comments within a period of 30 days from the date of service of the patent owner's response. This 30-day time period is statutory (35 U.S.C. 314(b)(2)), and, as such, it cannot be extended. See also 37 CFR 1.947.

If an *ex parte* reexamination has been merged with the *inter partes* reexamination, no responsive submission by any *ex parte* third party requester is permitted.

All correspondence relating to this inter partes reexamination proceeding should be directed to the **Central Reexamination Unit** at the mail, FAX, or hand-carry addresses given at the end of the communication enclosed with this transmittal.

Inter Partes Reexamination Examiner's Answer	Application No.	Applicant(s)	
	95/000,104	6612713	
	Examiner	Art Unit	
	MARGARET RUBIN	3992	

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

Incorporation by Reference of the Right of Appeal Notice
The Right of Appeal Notice (RAN) mailed on 1/12/11, including all of the grounds of rejection, determinations of patentability, and explanations set forth in the RAN is incorporated by reference. Every ground of rejection and every determination not to make a proposed rejection set forth in the RAN are being maintained by the examiner.

This examiner's answer does not contain any new ground of rejection and any new determination not to make a proposed rejection.

Status of Amendment After Action Closing Prosecution
The amendment(s) filed on _____ has/have been entered.
The amendment(s) filed on 1/18/10 and 3/9/10 has/have not been entered.

Period for providing a Rebuttal Brief
Appellant(s) is/are given a period of ONE MONTH from the mailing date of this examiner's answer within which to file a rebuttal brief in response to the examiner's answer. Prosecution otherwise remains closed.

The rebuttal brief of the patent owner may be directed to the examiner's answer and/or any respondent's brief. The rebuttal brief of the third party requester(s) may be directed to the examiner's answer and/or the respondent's brief of the patent owner. The rebuttal brief must (1) clearly identify each issue, and (2) point out *where* the issue was raised in the examiner's answer and/or in the respondent's brief. In addition, the rebuttal brief must be limited to issues raised in the examiner's answer or in the respondent's brief. The time for filing the rebuttal brief may not be extended. No further submission (other than the rebuttal brief(s)) will be considered, and any such submission will be treated in accordance with 37 CFR 1.939 and MPEP 2667.

☒ Attachment(s)
_____

☐ Other:
_____

All correspondence relating to this *inter partes* reexamination proceeding should be directed to the **Central Reexamination Unit** at one of the following addresses:

Please mail any communications to:
Attn: Mail Stop "Inter partes Reexam"
Central Reexamination Unit
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

Please hand-deliver any communication to:
Customer Service Window
Attn: Central Reexamination Unit
Randolph Building, Lobby Level
401 Dulany Street
Alexandria VA 22314

Please FAX any communications to: (571) 273-9900

ATTACHMENT TO PTOL-2291

All correspondence relating to this *inter partes* reexamination proceeding should be directed:
By Mail to: Mail Stop *Inter Partes* Reexam
Attn: Central Reexamination Unit
Commissioner for Patents
United States Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

By FAX to: (571) 273-9900
Central Reexamination Unit

By hand: Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Registered users of EFS-Web may alternatively submit such correspondence via the electronic filing system EFS-Web, at https://sportal.uspto.gov/authenticate/authenticateuserlocalepf.html. EFS-Web offers the benefit of quick submission to the particular area of the Office that needs to act on the correspondence. Also, EFS-Web submissions are "soft scanned" (i.e., electronically uploaded) directly into the official file for the reexamination proceeding, which offers parties the opportunity to review the content of their submissions after the "soft scanning" process is complete.

Any inquiry concerning this communication or earlier communications from the examiner, or as to the status of this proceeding, should be directed to the Central Reexamination Unit at telephone number (571) 272-7705.

Signed:

/Margaret Rubin/
Primary Examiner, CRU 3992

/My-Trang N. Ton/
Primary Examiner, CRU 3992

MARK J. REINHART
CRU SPE-AU 3992

Reexamination	Application/Control No.	Applicant(s)/Patent Under Reexamination
	95/000,104	6612713
	Certificate Date	Certificate Number

Requester Correspondence Address: ☐ **Patent Owner** ☒ **Third Party**

Robert E. Richards
Kilpatrick Stockton LLP
1100 Peachtree Street, Suite 2800
Atlanta, GA 30309

LITIGATION REVIEW ☒	MR (examiner initials)	9/15/11 (date)
Case Name		Director Initials
World Factory Inc v. Southern Sales and Marketing Group Inc U.S. District Court - Texas Northern (Fort Worth) 4:05cv373		MM for IC
World Factory Inc v. Bond Manufacturing Co U.S. District Court - Texas Northern (Fort Worth) 4:05cv374		↓

COPENDING OFFICE PROCEEDINGS	
TYPE OF PROCEEDING	NUMBER
1. NONE	
2.	
3.	
4.	

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	95000104
Filing Date	2003-09-02
First Named Inventor	GREGORY G. KUELBS
Art Unit	3992
Examiner Name	Margaret Wambach
Attorney Docket Number	0664MH-40982-REX

U.S.PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	7051744	B2	2006-05-30	Hung	
	2	7188633	B2	2007-03-13	Zerillo	
	3	8069868	B2	2011-12-06	Kuelbs	
	4	4346606		1982-08-31	Cannon et al.	
	5	5819455		1998-10-13	Tsuda	
	6	4893356		1990-01-16	Waters	
	7	7753546	B2	2010-07-13	Kuelbs	
	8	6612713	B1	2003-09-02	Kuelbs	

If you wish to add additional U.S. Patent citation information please click the Add button.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	95000104
	Filing Date	2003-09-02
	First Named Inventor	GREGORY G. KUELBS
	Art Unit	3992
	Examiner Name	Margaret Wambach
	Attorney Docket Number	0664MH-40982-REX

U.S.PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20060005869	A1	2006-01-12	Kuelbs	
	2	20040149325	A1	2004-08-05	Kuelbs	

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	Amendment dated 2012-04-18 from corresponding Application No. 13/311,887	☐
	2	Non-Final Office Action dated 2012-01-18 from corresponding Application No. 13/311,887	☐
	3	Amendment dated 2011-04-12 from corresponding Application No. 12/240,845	☐

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	95000104
	Filing Date	2003-09-02
	First Named Inventor	GREGORY G. KUELBS
	Art Unit	3992
	Examiner Name	Margaret Wambach
	Attorney Docket Number	0664MH-40982-REX

	4	Issue Notification from corresponding Application No. 12/240,845	☐
	5	Notice of Allowance from corresponding Application No. 12/240,845	☐

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	95000104
	Filing Date	2003-09-02
	First Named Inventor	GREGORY G. KUELBS
	Art Unit	3992
	Examiner Name	Margaret Wambach
	Attorney Docket Number	0664MH-40982-REX

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☒ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☐ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/jamesewaltonpat/	Date (YYYY-MM-DD)	2012-04-27
Name/Print	James E. Walton	Registration Number	47,245

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Electronic Acknowledgement Receipt	
EFS ID:	12653066
Application Number:	95000104
International Application Number:	
Confirmation Number:	5847
Title of Invention:	UMBRELLA APPARATUS
First Named Inventor/Applicant Name:	6612713
Customer Number:	38441
Filer:	James Edward Walton
Filer Authorized By:	
Attorney Docket Number:	45639-316477
Receipt Date:	27-APR-2012
Filing Date:	12-AUG-2005
Time Stamp:	17:27:15
Application Type:	inter partes reexam

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		IDS20120427.pdf	421609 49b95d2404a5d2160d82bb56116b8ed33b49bb3a	yes	10

YOT-1003-1871

	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Miscellaneous Incoming Letter		1	2	
	Transmittal Letter		3	6	
	Information Disclosure Statement (IDS) Form (SB08)		7	10	
Warnings:					
Information:					
2	Non Patent Literature	NPD_1_Amendment.pdf	390361 446bcfd620f5c71b0404d0ff091e6a2a02c59ae8	no	10
Warnings:					
Information:					
3	Non Patent Literature	NPD_2_Office_Action.pdf	311606 a13ecca2ba4ac307e79d1cdea6672ffe2d2b83b8	no	6
Warnings:					
Information:					
4	Non Patent Literature	NPD_3_Amendment.pdf	535940 16b7e546887b92909fcf181a63e596ffc5205c93	no	13
Warnings:					
Information:					
5	Non Patent Literature	NPD_4_Issue_Notice.pdf	57799 4ec17b7daffb0702c7a300ae775e55db6f9ec872	no	1
Warnings:					
Information:					
6	Non Patent Literature	NPD_5_Notice_of_Allowance.pdf	645369 99c0fd8a2722c5b66afa83b3af6c7cede79888a1	no	8
Warnings:					
Information:					
		Total Files Size (in bytes):	2362684		

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-REX**

In re Reexamination of:	§	
GREGORY G. KUELBS	§	Examiner: **MARGARET WAMBACH**
Control No. **95/000,104**	§	
Patent No. **6,612,713**	§	
Issued: **2 SEPTEMBER 2003**	§	Art Unit: **3992**
For: **UMBRELLA APPARATUS**	§	

TRANSMITTAL

Filed via EFS-Web
Central Reexamination Unit
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

Please file the following enclosed documents in the subject reexamination proceeding:

1. This Transmittal with Certificate of Transmission; and
2. Information Disclosure Statement, including Form PTO/SB/08a, along with non-patent literature documents.

CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. § 1.8(a)(1)(i)(C)
Date of Transmission: 4/27/12
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 James E. Walton

The foregoing documents are being filed via the U.S. Patent and Trademark Office's EFS-Web electronic filing system. No fees are deemed to be necessary; however, the undersigned hereby authorizes the Director to charge any other fees that may be required, 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,

4/27/12
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 NO. 38441

ATTORNEY FOR PATENT OWNER

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. **0664MH-40982-REX**

In re Reexamination of:	§	
	§	
GREGORY G. KUELBS	§	Examiner: **MARGARET WAMBACH**
	§	
Control No. **95/000,104**	§	
	§	
Patent No. **6,612,713**	§	
	§	
Issued: **2 SEPTEMBER 2003**	§	Art Unit: **3992**
	§	
For: **UMBRELLA APPARATUS**	§	

INFORMATION DISCLOSURE STATEMENT
IN *INTER PARTES* REEXAMINATION

Filed via EFS-Web
Central Reexamination Unit
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

In accordance with 37 C.F.R. § 1.56, the references listed on the attached form PTO/SB/08A are being brought to the attention of the Examiner for consideration in connection with the subject reexamination application.

CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. § 1.8(a)(1)(i)(C)
Date of Transmission: 4/27/12
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 James E. Walton

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).

Proof of Service:

Pursuant to 37 C.F.R. § 1.903, a true and correct copy of this Information Disclosure Statement has been served on the third-party requester. Pursuant to 37 C.F.R. § 1.248(a)(4), the undersigned hereby certifies that a true and correct copy of this Information Disclosure Statement was served on the third-party requester's attorney of record, John S. Pratt, by First Class Mail with sufficient postage at Kilpatrick Stockton LLP, 1100 Peachtree Street, Suite 2800, Atlanta, Georgia 30309-4530 on **27 April 2012**.

James E. Walton — Date: 4/27/12

Conclusion:

No 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 No. 50779 so that its status may be checked via the PAIR System.

Respectfully submitted,

4/27/12
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 NO. 50779

ATTORNEY FOR PATENT OWNER

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.
95/000,104	08/12/2005	6612713	45639-316477	5847

38441 7590 06/05/2012

LAW OFFICES OF JAMES E. WALTON, PLLC
1169 N. BURLESON BLVD.
SUITE 107-328
BURLESON, TX 76028

EXAMINER	
RUBIN, MARGARET R	

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
06/05/2012	PAPER

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

The time period for reply, if any, is set in the attached communication.

United States Patent and Trademark Office

Under Secretary of Commerce for Intellectual Property and
Director of the United States Patent and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

LAW OFFICES OF JAMES E. WALTON, PLLC
1169 N. BURLESON BLVD.
SUITE 107-328
BURLESON, TX 76028

Appeal No: 2012-008958
Application: 95/000,104
Appellant: Kuelbs et al.

Board of Patent Appeals and Interferences
Docketing Notice

Application 95/000,104 was received from the Technology Center at the Board on June 04, 2012 and has been assigned Appeal No: 2012-008958.

In all future communications regarding this appeal, please include both the application number and the appeal number.

The mailing address for the Board is:

BOARD OF PATENT APPEALS AND INTERFERENCES
UNITED STATES PATENT AND TRADEMARK OFFICE
P.O. BOX 1450
ALEXANDRIA, VIRGINIA 22313-1450

The facsimile number of the Board is 571-273-0052. Because of the heightened security in the Washington D.C. area, facsimile communications are recommended. Telephone inquiries can be made by calling 571-272-9797 and referencing the appeal number listed above.

By order of the Board of Patent Appeals and Interferences.

cc: Third Party Requester

ROBERT E. RICHARDS
KILPATRICK STOCKTON LLP
SUITE 2800, 1100 PEACHTREE STREET
ATLANTA, GA 30309

YOT-1003-1881

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.
95/000,104	08/12/2005	6612713	45639-316477	5847

38441 7590 01/10/2013

LAW OFFICES OF JAMES E. WALTON, PLLC
1169 N. BURLESON BLVD.
SUITE 107-328
BURLESON, TX 76028

EXAMINER	
RUBIN, MARGARET R	

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
01/10/2013	PAPER

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

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SOUTHERN SALES & MARKETING GROUP, INC.
Requester and Appellant

v.

WORLD FACTORY, INC.
Patent Owner

Appeal 2012-008958
Reexamination Control 95/000,104
Patent 6,612,713[1]
Technology Center 3900

Before KARL D. EASTHOM, KEVIN F. TURNER, and JOSIAH C. COCKS, *Administrative Patent Judges*.

COCKS, *Administrative Patent Judge*.

DECISION ON APPEAL

---

[1] The patent involved in this reexamination proceeding (the "'713 Patent") issued to Gregory G. Kuelbs on September 2, 2003.

A. STATEMENT OF THE CASE

Third Party Requester Southern Sales & Marketing Group, Inc. ("SSMG") has filed an appeal in connection with the reexamination of the '713 Patent.[2] The owner of the '713 Patent, Word Factory, Inc.,[3] has filed no papers in the appeal.

SSMG characterizes its appeal as involving four "issues." Those "issues" are reproduced below as they appear in SSMG's Appeal Brief:[4]

> The issues to be reviewed on appeal are:
>
> Did the Examiner err in concluding that Appellant's submission of September 14, 2009, contained material outside the scope of permitted content pursuant to 37 CFR § 1.948, where the new prior art was submitted in response to arguments raised by the Respondent?
>
> Did the Examiner exceed her authority by demanding that the appellant remove allegedly improper proposed arguments rather than correct alleged defects, where MPEP § 2666.05 specifically provides for replacement comments and contains no requirement that alleged defects be removed?
>
> Did the Examiner err in refusing to consider Appellant's comments of September 14, 2009, for violating the 50-page limit on submissions, where:
>
> removal of drawings from prior art references would have brought the page count below 50;
>
> a simple reformatting of the document to reduce font size and margins would have brought the page count below 50; and
>
> the Examiner failed to afford Appellant the notice and opportunity to correct specifically required by MPEP § 2667 I.B.2?
>
> Did the Examiner err by failing to reject Claims 51 and 56 for failure to comply with the written description requirement of § 112(1)?

---

[2] *See* SSMG's "Substitute Appeal Brief of Appellant Third-Party Requestor" filed April 18, 2011 (hereinafter "App. Br.").

[3] *See* Patent Assignment Abstract of Title, Reel 012576 Frame 0039 which was entered into the record of this proceeding as "Title Report" on August 15, 2005.

[4] SSMG's Appeal Brief includes no page numbers. The portion reproduced is from the third page of the Brief.

B. DISCUSSION

The jurisdiction of this Board to resolve appeals from a third party requester arises under 35 U.S.C. §§ 134(c) and 315(b). Those sections provide that a third party requester in an *inter partes* proceeding may appeal the "final decision" of an examiner that is "favorable to the patentability of" any original or new claim of a patent. With that in mind, we turn to the purposed "issues" on which SSMG seeks our review.

The first three "issues" raised by SSMG are directed to matters pertaining to procedural actions taken by the Examiner. Evidently, the Examiner declined to enter and refused to consider submissions from SSMG offered during the reexamination of the '713 Patent. The procedural actions of an Examiner with respect to paper entry and consideration of such papers do not constitute a final decision of an Examiner favorable to the patentability of a claim. In effect, SSMG requests that the Board exert supervisory authority over the Examiner and compel the entry and consideration of those submissions. That is not a proper request.

SSMG was, however, not without an available avenue to challenge the Examiner's actions. Its recourse in that regard was to petition the Director. Indeed, the record reveals that it, in fact, did so.[5] The Director duly responded. In two decisions dated March 1, 2010, the Director either denied or dismissed each of the very "issues" noted above. Matters which have been properly petitioned to, and decided by, the Director are not appropriately presented in an appeal to the Board.

---

[5] *See* SSMG's petitions under 37 C.F.R. § 1.181 filed November 16, 2009.

SSMG's fourth "issue" is directed to an alleged decision by the Examiner in not rejecting two claims, *i.e.*, claims 51 and 56, for failing to comply with the written description requirement of 35 U.S.C. 112, first paragraph. Were the Examiner to have made such a decision, that would be within our purview to review. However, SSMG does not inform us where in the record such a rejection was properly proposed or where the Examiner subsequently decided not to adopt it. Indeed, we also search the record in vain in that regard.[6] That such a rejection has not been properly proposed during the course of the reexamination of the '713 Patent means that the Examiner could not have made a final decision concerning that rejection. To the extent that SSMG now belatedly proposes the rejection, that is also improper. It is too late for SSMG to propose new ground of rejections in its Appeal Brief. *See* 37 C.F.R. § 41.67(c)(1)(vi).[7]

C. CONCLUSION

We do not discern that SSMG has raised any issue that is properly resolved by this Board. However, to the extent that SSMG's Appeal Brief includes any issue which we have not perceived, we have also not been

---

[6] We observe that papers submitted by SSMG in this Reexamination have been expunged from the record and are therefore not before the Board in this appeal. *See* "Decision on Petitions Under 37 CFR § 1.181" mailed March 1, 2010.

[7] Portions of SSMG's Brief under the heading "II. Rejections Under 35 U.S.C. § 112(1)" also refer vaguely to alleged written description deficiencies of other additional claims and include vague assertions of obviousness. SSMG does not meaningfully explain the significance of those assertions or what purpose they have in connection with the appeal that is before this Board.

presented with a meaningful basis for disturbing the Examiner's decisions favorable to the patentability of claims of the '713 Patent.[8] Accordingly, the Examiner's decisions are **affirmed.**

In accordance with 37 C.F.R. § 41.79(a)(1), the "[p]arties to the appeal may file a request for rehearing of the decision within one month of the date of: . . . [t]he original decision of the Board under § 41.77(a)." A request for rehearing must be in compliance with 37 C.F.R. § 41.79(b). Comments in opposition to the request and additional requests for rehearing must be in accordance with 37 C.F.R. § 41.79(c) & (d), respectively. Under 37 C.F.R. § 41.79(e), the times for requesting rehearing under paragraph (a) of this section, for requesting further rehearing under paragraph (d) of this section, and for submitting comments under paragraph (c) of this section may not be extended.

An appeal to the United States Court of Appeals for the Federal Circuit under 35 U.S.C. §§ 141-144 and 315 and 37 C.F.R. § 1.983 for an *inter partes* reexamination proceeding "commenced" on or after November 2, 2002 may not be taken "until all parties' rights to request rehearing have been exhausted, at which time the decision of the Board is final and appealable by any party to the appeal to the Board." 37 C.F.R. § 41.81. *See also* MPEP § 2682 (8th ed., Rev. 8, July 2010).

---

[8] *See* the Right of Appeal Notice mailed January 12, 2011 and the Examiner's Answer mailed September 20, 2011.

Appeal 2012-008958
Reexamination Control 95/000,104
Patent 6,612,713

AFFIRMED

PATENT OWNER:

LAW OFFICES OF JAMES E. WALTON, PLLC
1169 N. BURLESON BLVD.
SUITE 107-328
BURLESON, TX 76028

THIRD-PARTY REQUESTER:

ROBERT E. RICHARDS
KILPATRICK STOCKTON LLP
SUITE 2800, 100 PEACHTREE STREET
ATLANTA, GA 30309

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (**Not for submission under 37 CFR 1.99**)		
	Application Number	95000104
	Filing Date	2003-09-02
	First Named Inventor	GREGORY G. KUELBS
	Art Unit	3992
	Examiner Name	Margaret Wambach
	Attorney Docket Number	0664MH-40982-REX

U.S.PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	5217296		1993-06-08	Tanner et al.	

If you wish to add additional U.S. Patent citation information please click the Add button.

U.S.PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20120325278	A1	2012-12-27	KUELBS	

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	95000104
	Filing Date	2003-09-02
	First Named Inventor	GREGORY G. KUELBS
	Art Unit	3992
	Examiner Name	Margaret Wambach
	Attorney Docket Number	0664MH-40982-REX

	1	Notice of Publication Dated 2012-03-29 from 13/311,887.	☐
	2	Amendment Date 2012-04-18 from 13/311,887.	☐
	3	Office Action Dated 2012-08-03 from 13/311,887.	☐
	4	Office Action Dated 2012-11-02 from 13/607,911.	☐
	5	Notice of Publication Dated 2012-12-27 from 13/607,911.	☐
	6	Filing Receipt Dated 2012-09-21 from 13/607,911.	☐
	7	Office Action Dated 2012-08-03 from 13/311,887.	☐
	8	Notice of Allowance Dated 2012-10-17 from 13/311,887.	☐
	9	Amendment After Final Dated 2012-10-03 from 13/311,887.	☐

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	95000104
	Filing Date	2003-09-02
	First Named Inventor	GREGORY G. KUELBS
	Art Unit	3992
	Examiner Name	Margaret Wambach
	Attorney Docket Number	0664MH-40982-REX

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	95000104
	Filing Date	2003-09-02
	First Named Inventor	GREGORY G. KUELBS
	Art Unit	3992
	Examiner Name	Margaret Wambach
	Attorney Docket Number	0664MH-40982-REX

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☒ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☐ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/jamesewaltonpat/	Date (YYYY-MM-DD)	2013-02-27
Name/Print	James E. Walton	Registration Number	47,245

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Electronic Acknowledgement Receipt	
EFS ID:	15069478
Application Number:	95000104
International Application Number:	
Confirmation Number:	5847
Title of Invention:	UMBRELLA APPARATUS
First Named Inventor/Applicant Name:	6612713
Customer Number:	38441
Filer:	James Edward Walton
Filer Authorized By:	
Attorney Docket Number:	45639-316477
Receipt Date:	27-FEB-2013
Filing Date:	12-AUG-2005
Time Stamp:	16:54:24
Application Type:	inter partes reexam

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		IDS20130227.pdf	671809 d48af2c56f91cca4192dbac1bf9a82559e97f c83	yes	10

YOT-1003-1893

	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Miscellaneous Incoming Letter		1	2	
	Transmittal Letter		3	6	
	Information Disclosure Statement (IDS) Form (SB08)		7	10	
Warnings:					
Information:					
2	Non Patent Literature	NPLD_1_NoticeOfPub.pdf	77381 05af9ef3f7ad8e82dfda294a5e84f5e528cb73ed	no	1
Warnings:					
Information:					
3	Non Patent Literature	NPLD_2_Amendment.pdf	554246 e421df2a4efede4e17b2b36c2497ca54a8faeea2	no	10
Warnings:					
Information:					
4	Non Patent Literature	NPLD_3_OfficeAction.pdf	484042 14c96972764e8aac7fff10629ef2f16da5a65e16	no	9
Warnings:					
Information:					
5	Non Patent Literature	NPLD_4_Office_Action.pdf	272726 67d15ed0c326762b1104b21411d6519f22af7684	no	8
Warnings:					
Information:					
6	Non Patent Literature	NPLD_5_NOP.pdf	57547 41e18909a1fb071f86e84bd8a0faf2816f17591a	no	1
Warnings:					
Information:					
7	Non Patent Literature	NPLD_6_Filing_Receipt.pdf	164280 736c5bf15118420e9fafe3e325b03feca12389a7	no	3
Warnings:					
Information:					
8	Non Patent Literature	NPLD_7_Office_Action.pdf	529112 8d1cbf00f5eae55d813ed76309ef9d6d71a4bba6	no	10
Warnings:					

Information:					
9	Non Patent Literature	NPLD_8_NOA.pdf	2584900 db01dfe7235fba0d48259fbce01642b807019740	no	51
Warnings:					
Information:					
10	Non Patent Literature	NPLD_9_AmendAfterFinal.pdf	860992 3d16a8b9cc3134520aa1adfe6f7a20d011ae5224	no	8
Warnings:					
Information:					
			Total Files Size (in bytes):	6257035	

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-REX**

In re Reexamination of:	§	
	§	
GREGORY G. KUELBS	§	Examiner: **MARGARET WAMBACH**
	§	
Control No. **95/000,104**	§	
	§	
Patent No. **6,612,713**	§	
	§	
Issued: **2 SEPTEMBER 2003**	§	Art Unit: **3992**
	§	
For: **UMBRELLA APPARATUS**	§	

TRANSMITTAL

Filed via EFS-Web
Central Reexamination Unit
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

Please file the following enclosed documents in the subject reexamination proceeding:

1. This Transmittal with Certificate of Transmission; and
2. Information Disclosure Statement, including Form PTO/SB/08a, along with non-patent literature documents.

CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. § 1.8(a)(1)(i)(C)
Date of Transmission: 2/27/13
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 James E. Walton

The foregoing documents are being filed via the U.S. Patent and Trademark Office's EFS-Web electronic filing system. No fees are deemed to be necessary; however, the undersigned hereby authorizes the Director to charge any other fees that may be required, 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,

2/27/13
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 NO. 38441

ATTORNEY FOR PATENT OWNER

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. **0664MH-40982-REX**

In re Reexamination of:	§	
	§	
GREGORY G. KUELBS	§	Examiner: **MARGARET WAMBACH**
	§	
Control No. **95/000,104**	§	
	§	
Patent No. **6,612,713**	§	
	§	
Issued: **2 SEPTEMBER 2003**	§	Art Unit: **3992**
	§	
For: **UMBRELLA APPARATUS**	§	

INFORMATION DISCLOSURE STATEMENT
IN *INTER PARTES* REEXAMINATION

Filed via EFS-Web
Central Reexamination Unit
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

In accordance with 37 C.F.R. § 1.56, the references listed on the attached form PTO/SB/08A are being brought to the attention of the Examiner for consideration in connection with the subject reexamination application.

CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. § 1.8(a)(1)(i)(C)
Date of Transmission: 2/27/13
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 James E. Walton

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).

Proof of Service:

Pursuant to 37 C.F.R. § 1.903, a true and correct copy of this Information Disclosure Statement has been served on the third-party requester. Pursuant to 37 C.F.R. § 1.248(a)(4), the undersigned hereby certifies that a true and correct copy of this Information Disclosure Statement was served on the third-party requester's attorney of record, John S. Pratt, by First Class Mail with sufficient postage at Kilpatrick Stockton LLP, 1100 Peachtree Street, Suite 2800, Atlanta, Georgia 30309-4530 on **27 February 2013**.

John E. Walton

James E. Walton

2/27/13

Date

Conclusion:

No 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 No. 50779 so that its status may be checked via the PAIR System.

Respectfully submitted,

2/27/13
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 NO. 50779

ATTORNEY FOR PATENT OWNER

Litigation Search Report CRU 3999

Reexam Control No. 95/000,104

To: Margaret Rubin **Art Unit: 3992** **Date: 04/06/08** **Case Serial Number: 95/000,104**	**From: Karen L. Ward** **Location: CRU 3999** **MDW 7C76** **Phone: (571) 272-7932** **Karen.Ward@uspto.gov**

Search Notes

Litigation was found involving U.S. Patent No. 6,612,713.

4:05CV373 – CLOSED
4:05CV374 – CLOSED

1) I performed a KeyCite Search in Westlaw, which retrieves all history on the patent including any litigation.

2) I performed a search on the patent in Lexis CourtLink for any open dockets or closed cases.

3) I performed a search in Lexis in the Federal Courts and Administrative Materials databases for any cases found.

4) I performed a search in Lexis in the IP Journal and Periodicals database for any articles on the patent.

5) I performed a search in Lexis in the news databases for any articles about the patent or any articles about litigation on this patent.

YOT-1003-1902

Westlaw.

Date of Printing: Apr 04, 2013

KEYCITE

C US PAT 6612713 UMBRELLA APPARATUS, Assignee: World Factory, Inc. (Sep 02, 2003)

History

Direct History

=> 1 **UMBRELLA APPARATUS,** US PAT 6612713, 2003 WL 22044809 (U.S. PTO Utility Sep 02, 2003)

Patent Family

2 UMBRELLA APPARATUS FOR LAWNS, HAS SOLAR ENERGY SYSTEM CONDUCTIVELY COUPLED TO RECHARGEABLE ELECTRICAL POWER SYSTEM FOR CONVERTING SOLAR ENERGY INTO ELECTRICAL ENERGY AND CHARGER FOR RECHARGING POWER SYSTEM, Derwent World Patents Legal 2003-895364

3 PATIO UMBRELLA APPARATUS, HAS RECHARGEABLE ELECTRICAL POWER SYSTEM PROVIDING ELECTRICAL POWER TO APPARATUS, AND SOLAR ENERGY SYSTEM CONVERTING SOLAR ENERGY INTO ELECTRICAL ENERGY TO RECHARGE ELECTRICAL POWER SYSTEM, Derwent World Patents Legal 2004-649563

4 PATIO UMBRELLA HAS SOLAR CELLS WHICH CHARGE RECHARGEABLE BATTERIES THAT POWER LIGHT STRANDS, Derwent World Patents Legal 2006-107613

5 PATIO UMBRELLA APPARATUS FOR SHIELDING AND SHADING E.G. TABLE AREA, IN E.G. BOAT DOCK, HAS UMBRELLA PORTION COUPLED TO POLE PORTION WITH SUPPORT RIBS AND STRUTS, AND LAMP MODULE WITH SET OF LEDS AIMED IN SELECTED FIXED DIRECTION OF RIBS, Derwent World Patents Legal 2009-F54637+

6 PATIO UMBRELLA HAS A SOLAR COLLECTOR THAT IS COUPLED TO RECHARGEABLE POWER SYSTEM THAT SUPPLIES POWER TO LED LIGHTING SYSTEM AND MOTORIZED OPENING AND CLOSING SYSTEM WITH REMOTE CONTROL, Derwent World Patents Legal 2009-G90014+

7 PATIO UMBRELLA APPARATUS FOR USE IN GARDEN PATIO, HAS ELECTROMECHANICAL OPENING AND CLOSING SYSTEM POWERED BY RECHARGEABLE ELECTRICAL POWER SYSTEM COUPLED TO SOLAR ENERGY SYSTEM, AND HAS LIGHT SUBASSEMBLY CARRIED BY CANOPY, Derwent World Patents Legal 2012-D68253+

8 PATIO LIGHTED UMBRELLA APPARATUS FOR SHIELDING OR SHADING TABLE AREAS FROM DIRECT EXPOSURE TO SUNLIGHT, HAS CONTROL SYSTEM REMOTELY CONTROLLING OPERATION OF RECHARGEABLE ELECTRICAL POWER SYSTEM, Derwent World Patents Legal 2012-R70333

Assignments

9 ACTION: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS). NUMBER OF PAGES: 002, (DATE RECORDED: Feb 07, 2002)

Patent Status Files

.. Request for Re-Examination, (OG DATE: Sep 27, 2005)
.. Patent Suit(See LitAlert Entries),
.. Patent Suit(See LitAlert Entries),

Docket Summaries

13 WORLD FACTORY INC v. SOUTHERN SALES AND MARKETING GROUP INC, (N.D.TEX. Jun 13, 2005) (NO. 4:05CV00373), (35 USC 145 PATENT INFRINGEMENT)
14 WORLD FACTORY INC v. BOND MANUFACTURING CO, (N.D.TEX. Jun 13, 2005) (NO. 4:05CV00374), (35 USC 145 PATENT INFRINGEMENT)

Litigation Alert

15 Derwent LitAlert P2005-42-24 (Jun 13, 2005) Action Taken: A complaint was filed
16 Derwent LitAlert P2005-42-26 (Jun 13, 2005) Action Taken: A complaint was filed

Prior Art (Coverage Begins 1976)

C 17 AIR COOLED UMBRELLA, US PAT 5349975 (U.S. PTO Utility 1994)
C 18 COMBINATION CANOPY AND FAN, US PAT 5172711 (U.S. PTO Utility 1992)
C 19 ILLUMINATED UMBRELLA OR PARASOL, US PAT 5126922 (U.S. PTO Utility 1992)
C 20 UMBRELLA, US PAT 5273062 (U.S. PTO Utility 1993)
C 21 UMBRELLA WITH A LIGHT SOURCE AND LIGHT REFRACTING MEANS, US PAT 5463536 (U.S. PTO Utility 1995)

US District Court Civil Docket

U.S. District - Texas Northern
(Fort Worth)

4:05cv373

World Factory Inc v. Southern Sales And Marketing Group Inc

This case was retrieved from the court on Friday, March 11, 2011

Date Filed:	**06/13/2005**	**Class Code:**	**CLOSED**
Assigned To:	**Judge John McBryde**	**Closed:**	**Yes**
Referred To:		**Statute:**	**35:145**
Nature of suit:	**Patent (830)**	**Jury Demand:**	**Plaintiff**
Cause:	**Patent Infringement**	**Demand Amount:**	**$0**
Lead Docket:	**None**	**NOS Description:**	**Patent**
Other Docket:	**None**		
Jurisdiction:	**Federal Question**		

Litigants	Attorneys
World Factory Inc Plaintiff	Michael D Anderson [COR LD NTC] Kelly Hart & Hallman 201 Main St Suite 2500 Fort Worth , TX 76102-3194 USA 817/ 332-2500 Email: Michael_anderson@khh.com Hugh G Connor , II [COR LD NTC] Kelly Hart & Hallman 201 Main St Suite 2500 Fort Worth , TX 76102-3194 USA 817/ 332-2500 Email: HUGH_CONNOR@KHH.COM Marshall M Searcy [COR LD NTC] Kelly Hart & Hallman 201 Main St Suite 2500 Fort Worth , TX 76102-3194 USA 817/ 332-2500 Fax: 817/ 878-9280 Fax Email: Marshall_searcy@khh.com
Southern Sales And Marketing Group Inc Doing Business as Southern Patio	

YOT-1003-1905

Defendant

Date	#	Proceeding Text	Source
06/13/2005	2	CERTIFICATE OF INTERESTED PERSONS/DISCLOSURE STATEMENT by World Factory Inc. (mjw,) (Entered: 06/14/2005)	
06/13/2005	3	Summons Issued as to Southern Sales and Marketing Group Inc. (mjw,) (Entered: 06/14/2005)	
06/13/2005	4	Mailing of Patent and Trademark Infringement Notice to Director in Alexandria VA (mjw,) (Entered: 06/14/2005)	
06/13/2005	5	CIVIL COVER SHEET filed by World Factory Inc. (mjw,) (Entered: 06/15/2005)	
06/14/2005	1	COMPLAINT AND JURY DEMAND against Southern Sales and Marketing Group Inc (Filing fee $250; Receipt number 53004), filed by World Factory Inc.(mjw,) (Entered: 06/14/2005)	
01/04/2006	6	ORDER:...Ordered that on/before 1/18/06 pltf. World Factory Inc file either proof of proper svc. of summons/complaint on deft. or instrument containing satisfactory explanation in affidavit form as to why such proof can't be filed; if pltf. fails to comply court will consider dismissal w/o further notice of pltf's claims... (Signed by Judge John McBryde on 1/4/06) (pdm,) (Entered: 01/04/2006)	
01/06/2006	7	Voluntary Dismissal Pursuant to Rule 41(a)(1) by World Factory Inc (pdm,) (Entered: 01/06/2006)	
01/09/2006	8	ORDER:...Ordered all claims and causes of action asserted by pltf against deft. dismissed w/o prejudice (Signed by Judge John McBryde on 1/9/06) (pdm,) (Entered: 01/09/2006)	
01/09/2006	9	Final JUDGMENT... Ordered all claims and causes of action asserted by pltf against deft. dismissed w/o prejudice (Signed by Judge John McBryde on 1/9/06) (pdm,) (Entered: 01/09/2006)	

US District Court Civil Docket

U.S. District - Texas Northern
(Fort Worth)

4:05cv374

World Factory Inc v. Bond Manufacturing Co

This case was retrieved from the court on Friday, March 11, 2011

Date Filed:	**06/13/2005**	**Class Code:**	**CLOSED**
Assigned To:	**Judge John McBryde**	**Closed:**	**Yes**
Referred To:		**Statute:**	**35:145**
Nature of suit:	**Patent (830)**	**Jury Demand:**	**Plaintiff**
Cause:	**Patent Infringement**	**Demand Amount:**	**$0**
Lead Docket:	**None**	**NOS Description:**	**Patent**
Other Docket:	**None**		
Jurisdiction:	**Federal Question**		

Litigants	Attorneys
World Factory Inc Plaintiff	Michael D Anderson [COR LD NTC] Kelly Hart & Hallman 201 Main St Suite 2500 Fort Worth , TX 76102-3194 USA 817/ 332-2500 Email: Michael_anderson@khh.com Hugh G Connor , II [COR LD NTC] Kelly Hart & Hallman 201 Main St Suite 2500 Fort Worth , TX 76102-3194 USA 817/ 332-2500 Email: HUGH_CONNOR@KHH.COM Marshall M Searcy [COR LD NTC] Kelly Hart & Hallman 201 Main St Suite 2500 Fort Worth , TX 76102-3194 USA 817/ 332-2500 Fax: 817/ 878-9280 Fax Email: Marshall_searcy@khh.com
Bond Manufacturing Co Defendant	

Date	#	Proceeding Text	Source
06/13/2005	1	COMPLAINT against Bond Manufacturing Co (Filing fee $250; Receipt number 53005), filed by World Factory Inc.(jmb,) (Entered: 06/14/2005)	
06/13/2005	--	DEMAND for Trial by Jury by World Factory Inc. (jmb,)on face of complaint (Entered: 06/14/2005)	
06/13/2005	2	CERTIFICATE OF INTERESTED PERSONS/DISCLOSURE STATEMENT by World Factory Inc. (jmb,) (Entered: 06/14/2005)	
06/14/2005	3	Summons Issued as to Bond Manufacturing Co. (jmb,) (Entered: 06/14/2005)	
06/14/2005	4	NOTICE of patent filing mailed to US Patent and Trademark Office(jmb,) (Entered: 06/14/2005)	
11/14/2005	5	ORDER: that on before Nov 28, 2005, pla file either proof of proper service of summons and complaint on dft, or an instrument containing a satisfactory explanation, in affidavit form, as to why such proof cannot be filed. (Signed by Judge John McBryde on 11/14/05) (mjw,) (Entered: 11/15/2005)	
11/21/2005	6	VOLUNTARY DISMISSAL PURSUANT TO RULE 41(a)(1) by World Factory Inc (mjw,) (Entered: 11/21/2005)	
11/21/2005	7	FINAL JUDGMENT...dismissed without prejudice. (Signed by Judge John McBryde on 11/21/05) (mjw,) (Entered: 11/22/2005)	

1. 8375966, February 19, 2013, Umbrella apparatus, Kuelbs, Gregory G., Grapevine, Texas, United States of America(US), United States of America(); 311887, January 6, 2012, ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS)., WORLD FACTORY, INC., 8 CAMPUS CIRCLE, SUITE 130, WESTLAKE, TEXAS, UNITED STATES OF AMERICA(US), 76262, reel-frame:027496/0012, World Factory, Inc., Westlake, Texas, United States of America(US), United States company or corporation

   CORE TERMS: umbrella, battery, solar, pole, rib, electrical, module, pack, lighting, bracket, wire, rechargeable, lamp, charger, connector, coupled, cell, cold cathode tube, conductively, mounting, power source, closing, canopy, bulb, interior, cooling, utilized, wiring, alternate, recharge

   ... PENDING , which is a Continuation of Ser. No. 10068424, February 7, 2002, GRANTED **6612713** Provisional Application Ser. No. 60335933, November 2, 2001, PENDING Provisional ...
   ... States of America (US) 6499856, December 31, 2002, Lee, United States of America (US) **6612713**, September 2, 2003, Kuelbs, United States of America (US) 6666224, December 23, ...

2. 8337034, December 25, 2012, Illumination device, Ronda, Cornelis Reinder, Aachen, Federal Republic of Germany(DE), Federal Republic of Germany(); Cornelissen, Hugo Johan, Waalre, Kingdom of the Netherlands(NL), Kingdom of the Netherlands(); Liu, Yadong, Shanghai, People's Republic of China(CN), People's Republic of China(); Zhu, Xiaoyan, Shanghai, People's Republic of China(CN), People's Republic of China(); Liu, Bo, Shanghai, People's Republic of China(CN), People's Republic of China(); Contractor, Kairaz Sarosh, Shanghai, People's Republic of China(CN), People's Republic of China(); Krijn, Marcellinus Petrus Carolus Michael, Eindhoven, Kingdom of the Netherlands(NL), Kingdom of the Netherlands(); De Ruijter, Hendrikus Albertus Adrianus Maria, Shanghai, People's Republic of China(CN), People's Republic of China(); Van Den Biggelaar, Theodorus Johannes Petrus, Veldhoven, Kingdom of the Netherlands(NL), Kingdom of the Netherlands(); 522740, November 15, 2012, ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS)., KONINKLIJKE PHILIPS ELECTRONICS N V, HIGH TECH CAMPUS 5, EINDHOVEN, NETHERLANDS( ), 5656AE, reel-frame:029302/0703, Koninklijke Philips Electronics N.V., Eindhoven, Kingdom of the Netherlands(NL), Foreign company or corporation

   CORE TERMS: illuminating, illumination, artificial, layer, lighting, extraction, prime, reflector, mirror, optical, condensor, cell, solar, housing element, transparent,

illuminated, side faces, luminescent, lamp, reflective, clip, deflection, formation, emitted, surface structure, organic, battery, emit, user, conductive

... 6139163, October 31, 2000, Satoh et al., United States of America (US) **6612713**, September 2, 2003, Kuelbs, United States of America (US) 6951403, October 4, ...

3. 8308810, November 13, 2012, Multiple bearing acetabular prosthesis, Meridew, Jason D., Warsaw, Indiana, United States of America(US), United States of America (); 502848, July 15, 2009, ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS)., BIOMET MANUFACTURING CORP., 56 E. BELL DRIVE, WARSAW, INDIANA, UNITED STATES OF AMERICA(US), 46582, reel-frame:022958/0364; November 12, 2009, SECURITY AGREEMENT, BANK OF AMERICA, N.A., AS ADMINISTRATIVE AGENT FOR THE SECURED PARTIES, NC1-001-15-14, 101 N. TRYON STREET, CHARLOTTE, NORTH CAROLINA, UNITED STATES OF AMERICA(US), 28255, reel-frame:023505/0241, Biomet Manufacturing Corp., Warsaw, Indiana, United States of America(US), United States company or corporation

CORE TERMS: liner, cup, acetabular, engaging, groove, prime, rim, taper, anti-rotation, connecting, finger, projection, annular, prosthesis, protrusion, male, flange, apical, outset, bone, assembled, femoral, cavity, selectively, counterbore, female, hole, greater detail, disclosure, acetabulum

... States of America (US) 6612649, September 2, 2003, Kain, United States of America (US) **6612713**, September 2, 2003, Kuelbs, United States of America (US) 6612766, September 2, ...

4. 8303145, November 6, 2012, Marine lighting apparatus and method, Wilcox, Scott A., Plantation, Florida, United States of America(US), United States of America(); 610045, WILCOX SCOTT A

CORE TERMS: marine, tubular, lighting, housing, coupling, vessel, lens, inside, mounting, lighted, lamp, illumination, handrail, tower, array, color, invention relates, vibration, in-line, axial, incandescent, longitudinal, electrical, gap, cap, alignment, interior, fishing, hollow, rail

... 362#102 5992804, November 30, 1999, Johnson, United States of America (US), 248#157 **6612713**, September 2, 2003, Kuelbs, United States of America (US), 362#102 6863016, March ...

5. 8297294, October 30, 2012, Rechargeable battery arrangement for electrical system of outdoor shading device, Li, Wanda Ying, Irvine, California, United States of America(US), United States of America(); 804491, August 30, 2011, ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS)., MA, OLIVER JOEN-AN, 29 W. WISTERIA, ARCADIA, CALIFORNIA, UNITED STATES OF AMERICA(US), 91007, reel-frame:026862/0646, Ma, Oliver Joen-An, Arcadia, California, United States of America(US), United States individual

CORE TERMS: electronic, battery, rechargeable, electrical, appliance, arm, shading, resilient, locker, awning, holder, housing, locking, slot, umbrella, outdoor, terminal, releasing, prime, power source, button, electrically, shaft, releasable, controller, control panel, detachably, coupled, protrusion, retracting

6612713, September 2, 2003, Kuelbs, United States of America (US), 362#102 6732752, May ...

6. 8123815, February 28, 2012, Multiple bearing acetabular prosthesis, Meridew, Jason D., Syracuse, Indiana, United States of America(US), United States of America(); Hershberger, Troy W., Winona Lake, Indiana, United States of America (US), United States of America(); 624142, January 28, 2010, ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS)., BIOMET MANUFACTURING CORP., 56 E. BELL DR., WARSAW, INDIANA, UNITED STATES OF AMERICA(US), 46582, reel-frame:023864/0593, Biomet Manufacturing Corp., Warsaw, Indiana, United States of America(US), United States company or corporation

CORE TERMS: liner, shell, taper, connecting, depression, projection, female, femoral, interior, apical, groove, acetabular, exterior, implantation, male, rim, near, implant, anatomy, locking, thickness, prosthesis, prime, acetabulum, operable, assist, rigid, anti-rotation, apex, positioning

... States of America (US) 6612649, September 2, 2003, Kain, United States of America (US) **6612713**, September 2, 2003, Kuelbs, United States of America (US) 6612766, September 2, ...

7. 8104491, January 31, 2012, Outdoor shading device with renewable power system, Li, Wanda Ying, Santa Ana, California, United States of America(US), United States of America(); 317533, December 22, 2011, ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS)., MA, OLIVER JOEN-AN, 29 W. WISTERIA, ARCADIA, CALIFORNIA, UNITED STATES OF AMERICA(US), 91007, reel-frame:027586/0830, LI WANDA YING

CORE TERMS: awning, shading, solar, energy, collecting, outdoor, electrical, renewable, prime, solar power, panel, wind, storage, arms, electrically, kinetic energy, stored, electronic devices, discrete, converted, terminal, convert, layer, converting, coupled, kinetic, rain, maximize, sunlight, folded

... States of America (US) 5273062, December 28, 1993, Mozdzanowski, United States of America (US) **6612713**, September 2, 2003, Kuelbs, United States of America (US) 6837255, January 4, ...

8. 8069868, December 6, 2011, Umbrella apparatus, Kuelbs, Gregory G., Westlake, Texas, United States of America(US), United States of America(); 240845, December 29, 2008, ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS)., WORLD FACTORY, INC., 306 AIRLINE DRIVE, SUITE 200, COPPELL, TEXAS, UNITED STATES OF AMERICA(US), 75019-4670, reel-frame:022037/0318, World Factory, Inc., Westlake, Texas, United States of America(US), United States company or corporation

CORE TERMS: umbrella, battery, solar, pole, rib, electrical, lighting, module, pack, bracket, wire, cold cathode tubes, rechargeable, lamp, charger, connector, cell, mounting, coupled, power source, conductively, cooling, closing, canopy, bulb, interior, utilized, wiring, alternate, recharge

... PENDING , which is a Continuation of Ser. No. 10068424, February 7, 2002, GRANTED **6612713** Provisional Application Ser. No. 60267018, February 7, 2001, PENDING Provisional ...

9. 8015988, September 13, 2011, Rechargeable battery arrangement for electrical system of shading device, Li, Wanda Ying, Santa Ana, California, United States of America(US), United States of America(); 985415, LI WANDA YING, April 25, 2012, ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS)., MA, OLIVER JOEN-AN, 29 W. WISTERIA,, ARCADIA, CALIFORNIA, UNITED STATES OF AMERICA(US), 91007, reel-frame:028108/0059

CORE TERMS: battery, rechargeable, electrical, resilient, locker, arm, awning, slot, locking, releasing, terminal, button, umbrella, shading, power source, prime, shaft, releasable, electrically, protrusion, housing, hooking, sidewall, compartment, detachably, pressing, slidably, outdoor, gap, coupled

... States of America (US) 6039062, March 21, 2000, Karakaedos, United States of America (US) **6612713**, September 2, 2003, Kuelbs, United States of America (US) 6732752, May 11, ...

10. 7824061, November 2, 2010, Rechargeable battery powered cordless lamps, Riedfort, Robert A., 19720 N. 83rd Dr., Peoria, Arizona, United States of America (US), 85382, United States of America(); Riedfort, Karen A., 19720 N. 83rd Dr., Phoenix, Arizona, United States of America(US), 95382, United States of America(); 082391, RIEDFORT ROBERT A; RIEDFORT KAREN A

CORE TERMS: lamp, battery, timer, electrical, pack, pole, variant, cordless, outlet, user, electrical communication, light bulbs, controller, sensor, cord, rechargeable, recharger, remote, optionally, furniture, powered, display, numeral, actuate, outdoor, dimmer, switch, button, floor, bulb

... States of America (US) 6443604, September 3, 2002, Rudenberg, United States of America (US) **6612713**, September 2, 2003, Kuelbs, United States of America (US) 6634768, October 21, ...

Source: **Command Searching > Utility, Design and Plant Patents** i
Terms: **6612713** (Suggest Terms for My Search)
View: Cite
Date/Time: Saturday, April 6, 2013 - 7:48 AM EDT

Search View Tutorial | Help

Select Search Type and Enter Search Terms

Terms & Connectors | Natural Language | Easy Search™

6612713 or 6,612,713

Suggest terms for my search

Check spelling

Search

Restrict by Document Segment

Select a document segment, enter search terms for the segment, then click Add.

Select a Segment Add

Note: Segment availability differs between sources. Segments may not be applied consistently across sources.

Restrict by Date

No Date Restrictions From To Date formats...

Search Connectors

and	and	w/p	in same paragraph
or	or	w/seg	in same segment
w/N	within N words	w/s	in same sentence
pre/N	precedes by N words	and not	and not

More Connectors & Commands...

How Do I...?
- Combine sources?
- Restrict by date?
- Restrict by document segment?
- Use wildcards as placeholders for one or more characters in a search term?

View Tutorials

In

No Documents Found

No documents were found for your search terms
"6612713 or 6,612,713"

Click "Save this search as an Alert" to schedule your search to run in the future.

- OR -
Click "Search Using Natural Language" to run your search as Natural Language search.

- OR -

Click "Edit Search" to return to the search form and modify your search.

Suggestions:

- Check for spelling errors.
- Remove some search terms.
- Use more common search terms, such as those listed in "Suggested Words and Concepts."
- Use a less restrictive date range.
- Use "OR" in between terms to search for one term or the other.

| **Save this Search as an Alert** || **Search Using Natural Language** || **Edit Search** |

Search | View Tutorial | Help

Select Search Type and Enter Search Terms

Terms & Connectors | Natural Language | Easy Search™

6612713 or 6,612,713

Suggest terms for my search

Check spelling

Search

Restrict by Document Segment

Select a document segment, enter search terms for the segment, then click Add.

Select a Segment | Add

Note: Segment availability differs between sources. Segments may not be applied consistently across sources.

Restrict by Date

No Date Restrictions | From | To | Date formats...

Search Connectors

and	and	w/p	in same paragraph
or	or	w/seg	in same segment
w/N	within N words	w/s	in same sentence
pre/N	precedes by N words	and not	and not

More Connectors & Commands...

How Do I...?

Combine sources?
Restrict by date?
Restrict by document segment?
Use wildcards as placeholders for one or more characters in a search term?

View Tutorials

No Documents Found

No documents were found for your search terms
"6612713 or 6,612,713"

Click "Save this search as an Alert" to schedule your search to run in the future.

- OR -
Click "Search Using Natural Language" to run your search as Natural Language search.

- OR -

Click "Edit Search" to return to the search form and modify your search.

Suggestions:
- Check for spelling errors.
- Remove some search terms.
- Use more common search terms, such as those listed in "Suggested Words and Concepts."
- Use a less restrictive date range.
- Use "OR" in between terms to search for one term or the other.

| **Save this Search as an Alert** || **Search Using Natural Language** || **Edit Search** |

In

Search View Tutorial | Help

Select Search Type and Enter Search Terms

Terms & Connectors | Natural Language | Easy Search™

6612713 or 6,612,713

Suggest terms for my search

Check spelling

Search

Restrict by Document Segment

Select a document segment, enter search terms for the segment, then click Add.

Select a Segment Add

Note: Segment availability differs between sources. Segments may not be applied consistently across sources.

Restrict by Date

No Date Restrictions From To Date formats...

Search Connectors

and	and	w/p	in same paragraph
or	or	w/seg	in same segment
w/N	within N words	w/s	in same sentence
pre/N	precedes by N words	and not	and not

More Connectors & Commands...

How Do I...?
- Combine sources?
- Restrict by date?
- Restrict by document segment?
- Use wildcards as placeholders for one or more characters in a search term?

View Tutorials

In

1. News Bites Asian Markets, April 24, 2012 Tuesday, 1655 words, Ichia Technologies, Inc [TAIEX] dips 0.4%, falling for a third day, weekly fall of 11.6% monthly fall of 24.9%

   CORE TERMS: Taiwan, total assets, FTSE, TWSE, indicator, bearish, internet, relative, trailing, signal, rank, capital loss, Taiwanese, Ichia, TWD13.95, TWD1,000, EMA, 1-month, six-month, unchanged, invested, Technologies Inc, Beta, FPCs, TWD14.15, capitalisation, buysellsignals, fundamentals, resistance, volatility

   ... a relative price change of -0.6%. The volume was 0.7 times average trading of **6,612,713** shares. The stock fell for a third day on Tuesday bringing its ...

2. AAP Company News, January 30, 2001, Tuesday, 931 words, Second Quarter Activities Report, Sydney

   CORE TERMS: PMA, Westgold, Normandy, Saracen, joint venture, PROSPECT, Tonalite, Kintore, Wrixon, mineralisation, drill, holes, MANAGING DIRECTOR, CASTLE HILL, sale agreement, cash flow, JOYNERS, Ridgeback, Roderick, Mineral, Bernard, Mick, Adam, Pty, CHRC447D, AMG, employment, placement, drilling, interval

   ... 41 2 2.25 46 2 2.47
   51 4 1.38 CHRC457 **6612713**
   311022 -60 270 29 2 3.73 CHRC459 **6612713** 311102 -60
   270 98 2 1.63 CRRC462 6610608 310532 -60 ...

3. AAP Company News, January 30, 2001, Tuesday, 930 words, Second Quarter Activities Report, Sydney

   CORE TERMS: PMA, Westgold, Normandy, Saracen, joint venture, PROSPECT, Tonalite, Kintore, Wrixon, mineralisation, drill, holes, MANAGING DIRECTOR, CASTLE HILL, sale agreement, cash flow, JOYNERS, Ridgeback, Roderick, Mineral, Bernard, Mick, Adam, Pty, CHRC447D, AMG, employment, placement, drilling, interval

   ... 41 2 2.25 46 2 2.47
   51 4 1.38 CHRC457 **6612713**
   311022 -60 270 29 2 3.73 CHRC459 **6612713** 311102 -60
   270 98 2 1.63 CRRC462 6610608 310532 -60 ...

4. AAP NEWSFEED, January 30, 2001, Tuesday, Nationwide General News; Finance Wire, 958 words, WGR

CORE TERMS: PMA, Westgold, Normandy, Saracen, joint venture, PROSPECT, Tonalite, Kintore, Wrixon, mineralisation, drill, holes, MANAGING DIRECTOR, CASTLE HILL, sale agreement, cash flow, JOYNERS, Ridgeback, Roderick, Mineral, Bernard, Mick, Adam, Pty, CHRC447D, AMG, employment, placement, drilling, interval

... 41 2 2.25 46 2 2.47 51 4 1.38 CHRC457 **6612713** 311022 -60 270 29 2 3.73 CHRC459 **6612713** 311102 -60 270 98 2 1.63 CRRC462 6610608 310532 -60 ...

Source: **Command Searching > News, All (English, Full Text)**
Terms: **6612713 or 6,612,713** (Suggest Terms for My Search)
View: Cite
Date/Time: Saturday, April 6, 2013 - 7:49 AM EDT

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.
95/000,104	08/12/2005	6612713	45639-316477	5847

38441 7590 05/14/2013

LAW OFFICES OF JAMES E. WALTON, PLLC
1169 N. BURLESON BLVD.
SUITE 107-328
BURLESON, TX 76028

EXAMINER	
RUBIN, MARGARET R	

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
05/14/2013	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.

Transmittal of Communication to Third Party Requester *Inter Partes* Reexamination	Control No.	Patent Under Reexamination	
	95/000,104	6612713	
	Examiner	Art Unit	
	MARGARET RUBIN	3992	

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

(THIRD PARTY REQUESTER'S CORRESPONDENCE ADDRESS)

Robert E. Richards
Kilpatrick Stockton LLP
Suite 2800, 100 Peachtree Street
Atlanta GA 30309

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above-identified reexamination prceeding. 37 CFR 1.903.

Prior to the filing of a Notice of Appeal, each time the patent owner responds to this communication, the third party requester of the *inter partes* reexamination may once file written comments within a period of 30 days from the date of service of the patent owner's response. This 30-day time period is statutory (35 U.S.C. 314(b)(2)), and, as such, it cannot be extended. See also 37 CFR 1.947.

If an *ex parte* reexamination has been merged with the *inter partes* reexamination, no responsive submission by any *ex parte* third party requester is permitted.

All correspondence relating to this inter partes reexamination proceeding should be directed to the **Central Reexamination Unit** at the mail, FAX, or hand-carry addresses given at the end of the communication enclosed with this transmittal.

NOTICE OF INTENT TO ISSUE INTER PARTES REEXAMINATION CERTIFICATE	Control No. 95/000,104	Patent Under Reexamination 6612713
	Examiner MARGARET RUBIN	Art Unit 3992

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

1. ☒ Prosecution on the merits is (or remains) closed in this *inter partes* reexamination proceeding. This proceeding is subject to reopening at the initiative of the Office or upon petition. *Cf.* 37 CFR 1.313(a). A Certificate will be issued in view of:
   a. ☐ The communication filed on by .
   b. ☐ Patent owner's failure to file an appropriate timely response to the Office action dated .
   c. ☐ The failure to timely file an Appeal with fee by all parties to the reexamination proceeding entitled to do so. 37 CFR 1.959 and 41.61.
   d. ☐ The failure to timely file an Appellant's Brief with fee by all parties to the reexamination proceeding entitled to do so. 37 CFR 41.66(a).
   e. ☒ The decision on appeal by the ☒ Board of Patent Appeals and Interferences ☐ Court dated
   f. ☐ Other:

2. ☒ The Reexamination Certificate will indicate the following:
   a. Change in the Specification: ☐ Yes ☒ No
   b. Change in the Drawings: ☐ Yes ☒ No
   c. Status of the Claims:
      (1) Patent claim(s) confirmed:10-14.
      (2) Patent claim(s) amended (including dependent on amended claim(s)): 2-5 and 8
      (3) Patent claim(s) cancelled: 1,6,7 and 9.
      (4) Newly presented claim(s) patentable: 49,50,52,53,55-58,60,61,65,70-72 and 74.
      (5) Newly presented cancelled claims: 15-48,51,54,59,62-64,66-69 and 73.
      (6) Patent claim(s) ☐ previously ☐ currently disclaimed:
      (7) Patent claim(s) not subject to reexamination: .

3. ☒ Note the attached statement of reasons for patentability and/or confirmation. Any comments considered necessary by patent owner regarding reasons for patentability and/or confirmation must be submitted promptly to avoid processing delays. Such submission(s) should be labeled: "Comments On Statement of Reasons for Patentability and/or Confirmation."

4. ☐ Note attached NOTICE OF REFERENCE CITED, (PTO-892).

5. ☒ Note attached LIST OF REFERENCES CITED (PTO/SB/08 or PTO/SB/08 substitute).

6. ☐ The drawings filed on _____ is: ☐ approved ☐ disapproved.

7. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. § 119(a) - (d) or (f).
   a)☐ All b)☐ Some* c)☐ None of the certified copies have
   ☐ been received.
   ☐ not been received.
   ☐ been filed in Application No. .
   ☐ been filed in reexamination Control No. .
   ☐ been received by the International Bureau in PCT Application No. .
   * Certified copies not received: .

8. ☒ Note Examiner's Amendment.

9. ☐ Other: .

All correspondence relating to this *inter partes* reexamination proceeding should be directed to the **Central Reexamination Unit** at the mail, FAX, or hand-carry addresses given at the end of this Office action.

ATTACHMENT TO PTOL-2068

The issuance of a Notice of Intent to Issue an Inter Partes Reexamination Certificate ("NIRC") is appropriate insofar as the Office has no information indicating that a timely appeal was filed to the Court of Appeals for the Federal Circuit nor has a timely request for rehearing by the Board been filed after a final decision by the Patent Trial and Appeal Board ("PTAB") on January 10, 2013. See MPEP 2687.I.

Furthermore, an examiner's amendment cancelling all rejected claims is appropriate in the present circumstance in which the Patent Owner failed to file an appeal (see MPEP 2686.04.)

Examiner's Amendment

An examiner's amendment to the record appears below. The changes made by this examiner's amendment will be reflected in the reexamination certificate to issue in due course.

Claims 1, 6, 7, 9, 15-48, 51, 54, 59, 62-64, 66-69 and 73 are cancelled.

Information Disclosure Statements

With respect to the Information Disclosure Statements (PTO/SB/08A and 08B or its equivalent) filed on October 6, 2010, January 3, 2011, April 27, 2012 and February 27, 2013, the material has been considered with this action, the information cited thereon has been considered to the extent suggested in the MPEP. Note that MPEP §§ 2256 and 2656 indicate that degree of consideration to be given to such information will be normally limited by the degree to which the party filing the information citation has explained the content and relevance of the information.

Any duplicate citations noticed by the examiner have been lined through.

STATEMENT OF REASONS FOR PATENTABILITY AND/OR CONFIRMATION

The following is an examiner's statement of reasons for patentability and/or confirmation of the claims found patentable in this reexamination proceeding: The examiner’s statement of

reasons for patentability or confirmation provided on pages 76-81 of the ACP of March 2, 2010 is incorporated by reference.

Any comments considered necessary by PATENT OWNER regarding the above statement must be submitted promptly to avoid processing delays. Such submission by the patent owner should be labeled: "Comments on Statement of Reasons for Patentability and/or Confirmation" and will be placed in the reexamination file.

All correspondence relating to this *inter partes* reexamination proceeding should be directed:

By Mail to: Mail Stop *Inter Partes* Reexam
Attn: Central Reexamination Unit
Commissioner for Patents
United States Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

By FAX to: (571) 273-9900
Central Reexamination Unit

By hand: Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Registered users of EFS-Web may alternatively submit such correspondence via the electronic filing system EFS-Web, at https://sportal.uspto.gov/authenticate/authenticateuserlocalepf.html. EFS-Web offers the benefit of quick submission to the particular area of the Office that needs to act on the correspondence. Also, EFS-Web submissions are "soft scanned" (i.e., electronically uploaded) directly into the official file for the reexamination proceeding, which offers parties the opportunity to review the content of their submissions after the "soft scanning" process is complete.

Any inquiry concerning this communication or earlier communications from the examiner, or as to the status of this proceeding, should be directed to the Central Reexamination Unit at telephone number (571) 272-7705.

/Margaret Rubin/
Primary Examiner CRU 3992

Conferees:

/My Trang Nu Ton/
Primary Examiner, CRU 3992

/ANDREW J. FISCHER/
Supervisory Patent Examiner, Art Unit 3992

Search Notes	Application/Control No.	Applicant(s)/Patent under Reexamination	
	95/000,104	6612713	
	Examiner	Art Unit	
	MARGARET RUBIN	3992	

SEARCHED			
Class	Subclass	Date	Examiner
none		4/10/2013	MR

INTERFERENCE SEARCHED			
Class	Subclass	Date	Examiner
N/A		4/10/2013	**MR**

SEARCH NOTES (INCLUDING SEARCH STRATEGY)		
	DATE	EXMR
none	4/10/2013	MR

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

BIB DATA SHEET

CONFIRMATION NO. 5847

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
95/000,104	08/12/2005 **RULE**	700	3992	45639-316477

APPLICANTS

6612713, Residence Not Provided;
World Factory Inc.(Owner), Southlake, TX;
Robert E. Richards(3rd. Pty. Req.), Atlanta, GA;
Southern Sales & Marketing Group Inc.(Real Party In Interest), Atlanta, GA;
Robert E. Richards, Atlanta, GA

** **CONTINUING DATA** *************************

This application is a REX of 10/068,424 02/07/2002 PAT 6612713
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** **

Foreign Priority claimed ❑ Yes ☑ No 35 USC 119(a-d) conditions met ❑ Yes ☑ No Verified and Acknowledged /MARGARET R RUBIN/ Examiner's Signature	❑ Met after Allowance mr Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS

ADDRESS

LAW OFFICES OF JAMES E. WALTON, PLLC
1169 N. BURLESON BLVD.
SUITE 107-328
BURLESON, TX 76028
UNITED STATES

TITLE

UMBRELLA APPARATUS

FILING FEE RECEIVED	FEES: Authority has been given in Paper No.____________ to charge/credit DEPOSIT ACCOUNT No.____________ for following:	❑ All Fees ❑ 1.16 Fees (Filing) ❑ 1.17 Fees (Processing Ext. of time) ❑ 1.18 Fees (Issue) ❑ Other ________________ ❑ Credit

BIB (Rev. 05/07).

YOT-1003-1928

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (**Not for submission under 37 CFR 1.99**)		
	Application Number	95000104
	Filing Date	2003-09-02
	First Named Inventor	GREGORY G. KUELBS
	Art Unit	3992
	Examiner Name	Margaret Wambach
	Attorney Docket Number	0664MH-40982-REX

U.S.PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
/M.R./	1	5217296		1993-06-08	Tanner et al.	

If you wish to add additional U.S. Patent citation information please click the Add button.

U.S.PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
/M.R./	1	20120325278	A1	2012-12-27	KUELBS	

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	95000104
	Filing Date	2003-09-02
	First Named Inventor	GREGORY G. KUELBS
	Art Unit	3992
	Examiner Name	Margaret Wambach
	Attorney Docket Number	0664MH-40982-REX

/M.R./	1	Notice of Publication Dated 2012-03-29 from 13/311,887.	☐
/M.R./	2	Amendment Date 2012-04-18 from 13/311,887.	☐
/M.R./	3	Office Action Dated 2012-08-03 from 13/311,887.	☐
/M.R./	4	Office Action Dated 2012-11-02 from 13/607,911.	☐
/M.R./	5	Notice of Publication Dated 2012-12-27 from 13/607,911.	☐
/M.R./	6	Filing Receipt Dated 2012-09-21 from 13/607,911.	☐
/M.R./	7	Office Action Dated 2012-08-03 from 13/311,887.	☐
/M.R./	8	Notice of Allowance Dated 2012-10-17 from 13/311,887.	☐
/M.R./	9	Amendment After Final Dated 2012-10-03 from 13/311,887.	☐

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature	/Margaret Rubin/	Date Considered	04/04/2013

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Reexamination	Application/Control No. 95/000,104	Applicant(s)/Patent Under Reexamination 6612713
	Certificate Date	Certificate Number C1

Requester	Correspondence Address:	☐ Patent Owner	☒ Third Party

Robert E. Richards
Kilpatrick Stockton LLP
Suite 2800, 100 Peachtree Street
Atlanta GA 30309

LITIGATION REVIEW ☒	mr (examiner initials)	4/10/13 (date)
Case Name		Director Initials
World Factory Inc v. Southern Sales and Marketing Group Inc U.S.District Court - Texas Northern (Fort Worth) 4:05cv373		/A.J.F./ for I.Y.
World Factory Inc v. Bond Manufacturing Co U.S.District Court - Texas Northern (Fort Worth) 4:05cv374		/A.J.F./ for I.Y.

COPENDING OFFICE PROCEEDINGS	
TYPE OF PROCEEDING	**NUMBER**
1. NONE	
2.	
3.	
4.	

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (**Not for submission under 37 CFR 1.99**)		
	Application Number	95000104
	Filing Date	2003-09-02
	First Named Inventor	GREGORY G. KUELBS
	Art Unit	3992
	Examiner Name	Margaret Wambach
	Attorney Docket Number	0664MH-40982-REX

U.S.PATENTS						
Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
/M.R./	1	3129715		1964-04-21	Vincent Militano, et al.	
/M.R./	2	4540929		1985-09-10	Bruce Binkley, et al.	
/M.R./	3	5141010		1992-08-25	Richard Muller, et al.	
If you wish to add additional U.S. Patent citation information please click the Add button.						

U.S.PATENT APPLICATION PUBLICATIONS						
Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					
If you wish to add additional U.S. Published Application citation information please click the Add button.						

FOREIGN PATENT DOCUMENTS								
Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐

EFS Web 2.1.16

YOT-1003-1932

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	95000104
	Filing Date	2003-09-02
	First Named Inventor	GREGORY G. KUELBS
	Art Unit	3992
	Examiner Name	Margaret Wambach
	Attorney Docket Number	0664MH-40982-REX

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
/M.R./	1	Interview Summary dated 2010-04-05 from corresponding Application No. 12/240,845	☐
/M.R./	2	Amendment dated 2010-04-09 from corresponding Application No. 12/240,845	☐
/M.R./	3	Final Office Action dated 2010-07-06 from corresponding Application No. 12/240,845	☐

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature	/Margaret Rubin/	Date Considered	04/04/2013

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (**Not for submission under 37 CFR 1.99**)		
	Application Number	95000104
	Filing Date	2003-09-02
	First Named Inventor	GREGORY G. KUELBS
	Art Unit	3992
	Examiner Name	Margaret Wambach
	Attorney Docket Number	0664MH-40982-REX

U.S.PATENTS						
Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
/M.R./	1	2960094		1960-11-15	Small, Samuel N.	
/M.R./	2	5502624		1996-03-26	Tu, Yeu-Feng	
If you wish to add additional U.S. Patent citation information please click the Add button.						

U.S.PATENT APPLICATION PUBLICATIONS						
Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					
If you wish to add additional U.S. Published Application citation information please click the Add button.						

FOREIGN PATENT DOCUMENTS								
Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] ¡	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐
If you wish to add additional Foreign Patent Document citation information please click the Add button								

NON-PATENT LITERATURE DOCUMENTS

EFS Web 2.1.16

YOT-1003-1934

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	95000104
	Filing Date	2003-09-02
	First Named Inventor	GREGORY G. KUELBS
	Art Unit	3992
	Examiner Name	Margaret Wambach
	Attorney Docket Number	0664MH-40982-REX

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
/M.R./	1	Request for Continued Examination and Amendment under 37 CFR 1.114 dated 2010-11-04 from corresponding Application No. 12/240,845	☐
/M.R./	2	Non-Final Office Action dated 2010-12-15 from corresponding Application No. 12/240,845	☐

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature	/Margaret Rubin/	Date Considered	04/04/2013

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	95000104
Filing Date	2003-09-02
First Named Inventor	GREGORY G. KUELBS
Art Unit	3992
Examiner Name	Margaret Wambach
Attorney Docket Number	0664MH-40982-REX

U.S.PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
/M.R./	1	7051744	B2	2006-05-30	Hung	
/M.R./	2	7188633	B2	2007-03-13	Zerillo	
/M.R./	3	8069868	B2	2011-12-06	Kuelbs	
/M.R./	4	4346606		1982-08-31	Cannon et al.	
/M.R./	5	5819455		1998-10-13	Tsuda	
/M.R./	6	4893356		1990-01-16	Waters	
/M.R./	7	7753546	B2	2010-07-13	Kuelbs	
/M.R./	8	6612713	B1	2003-09-02	Kuelbs	

If you wish to add additional U.S. Patent citation information please click the Add button.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	95000104
	Filing Date	2003-09-02
	First Named Inventor	GREGORY G. KUELBS
	Art Unit	3992
	Examiner Name	Margaret Wambach
	Attorney Docket Number	0664MH-40982-REX

U.S.PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
/M.R./	1	20060005869	A1	2006-01-12	Kuelbs	
/M.R./	2	20040149325	A1	2004-08-05	Kuelbs	

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							☐

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
/M.R./	1	Amendment dated 2012-04-18 from corresponding Application No. 13/311,887	☐
/M.R./	2	Non-Final Office Action dated 2012-01-18 from corresponding Application No. 13/311,887	☐
/M.R./	3	Amendment dated 2011-04-12 from corresponding Application No. 12/240,845	☐

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	95000104
	Filing Date	2003-09-02
	First Named Inventor	GREGORY G. KUELBS
	Art Unit	3992
	Examiner Name	Margaret Wambach
	Attorney Docket Number	0664MH-40982-REX

/M.R./	4	Issue Notification from corresponding Application No. 12/240,845	☐
/M.R./	5	Notice of Allowance from corresponding Application No. 12/240,845	☐

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature	/Margaret Rubin/	Date Considered	04/04/2013

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

Best Available Copy

Issue Classification	Application/Control No.	Applicant(s)/Patent under Reexamination	
	95/000,104	6612713	
	Examiner	Art Unit	
	MARGARET RUBIN	3992	

ISSUE CLASSIFICATION

ORIGINAL		CROSS REFERENCE(S)							
CLASS	SUBCLASS	CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)						
362	102	362	96	209	276				

INTERNATIONAL CLASSIFICATION	
A 4 5 B	3/00
A 4 5 B	3/04
A 4 5 B	25/14
F 2 1 S	9/03
F 2 1 V	33/00

---------- (Assistant Examiner) (Date)	/Margaret Rubin/ 5/7/13 (Primary Examiner) (Date)	Total Claims Allowed: 25
AK 7/9/13 (Legal Instruments Examiner) (Date)		O.G. Print Claim(s): 2 / O.G. Print Fig: 9

☒ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1		31	24	61		91		121		151		181
2	2		32		62		92		122		152		182
3	3		33		63		93		123		153		183
4	4		34		64		94		124		154		184
5	5		35	25	65		95		125		155		185
6	6		36		66		96		126		156		186
7	7		37		67		97		127		157		187
8	8		38		68		98		128		158		188
9	9		39		69		99		129		159		189
10	10		40	26	70		100		130		160		190
11	11		41	27	71		101		131		161		191
12	12		42	28	72		102		132		162		192
13	13		43		73		103		133		163		193
14	14		44	29	74		104		134		164		194
	15		45		75		105		135		165		195
	16		46		76		106		136		166		196
	17		47		77		107		137		167		197
	18		48		78		108		138		168		198
	19	15	49		79		109		139		169		199
	20	16	50		80		110		140		170		200
	21		51		81		111		141		171		201
	22	17	52		82		112		142		172		202
	23	18	53		83		113		143		173		203
	24		54		84		114		144		174		204
	25	19	55		85		115		145		175		205
	26	20	56		86		116		146		176		206
	27	21	57		87		117		147		177		207
	28	22	58		88		118		148		178		208
	29		59		89		119		149		179		209
	30	23	60		90		120		150		180		210

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.
95/000,104	08/12/2005	6612713	45639-316477	5847

38441 7590 08/27/2013

LAW OFFICES OF JAMES E. WALTON, PLLC
1169 N. BURLESON BLVD.
SUITE 107-328
BURLESON, TX 76028

EXAMINER	
RUBIN, MARGARET R	

ART UNIT	PAPER NUMBER
3992	

MAIL DATE	DELIVERY MODE
08/27/2013	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.

Transmittal of Communication to Third Party Requester *Inter Partes* Reexamination	Control No.	Patent Under Reexamination	
	95/000,104	6612713	
	Examiner	Art Unit	
	MARGARET RUBIN	3992	

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

(THIRD PARTY REQUESTER'S CORRESPONDENCE ADDRESS)

Robert E. Richards
Kilpatrick Stockton LLP
Suite 2800, 100 Peachtree Street
Atlanta GA 30309

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above-identified reexamination prceeding. 37 CFR 1.903.

Prior to the filing of a Notice of Appeal, each time the patent owner responds to this communication, the third party requester of the *inter partes* reexamination may once file written comments within a period of 30 days from the date of service of the patent owner's response. This 30-day time period is statutory (35 U.S.C. 314(b)(2)), and, as such, it cannot be extended. See also 37 CFR 1.947.

If an *ex parte* reexamination has been merged with the *inter partes* reexamination, no responsive submission by any *ex parte* third party requester is permitted.

All correspondence relating to this inter partes reexamination proceeding should be directed to the **Central Reexamination Unit** at the mail, FAX, or hand-carry addresses given at the end of the communication enclosed with this transmittal.

UNITED STATES DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office
Address : COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
95/000,104	12 August, 2005	6612713	45639-316477

LAW OFFICES OF JAMES E. WALTON, PLLC
1169 N. BURLESON BLVD.
SUITE 107-328
BURLESON, TX 76028

EXAMINER	
MARGARET RUBIN	
ART UNIT	PAPER
3992	20130722

DATE MAILED:

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

Commissioner for Patents

See the attached Examiner's amendment.

/Margaret Rubin/ Primary Examiner CRU 3992	/Justin M Pats/ Primary Examiner, AU 3623

PTO-90C (Rev.04-03)

YOT-1003-1942

ATTACHMENT TO PTOL-2068

New claim 64 was cancelled in the notice of intent to issue a reexam certificate of May 14, 2013 for reasons explained therein. Dependent claim 65 is now patentable except for its dependency from cancelled claim 64.

Claim 65 was not objected to as being dependent upon a rejected base claim before prosecution was closed. Accordingly, claim 65 has not been cancelled but, rather, has been rewritten in independent form, including all of the limitations of the base claim (*see* Claim 64, 4/21/09, pg. 21) and any intervening claims in accordance with MPEP § 1214.06.

Examiner's Amendment

Claim 65 (renumbered as claim 25) is amended to read as follows:

"A patio umbrella apparatus, comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion hingedly coupled to the pole portion;

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

a solar energy system contained in a discus-shaped module, the discus-shaped module being 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; and

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

wherein the discus-shaped module is releasably coupled to the pole portion."

For Patent Owner's convenience the provisions of the examiner's amendment of May 14, 2013 are repeated herein.

Claims 1, 6, 7, 9, 15-48, 51, 54, 59, 62-64, 66-69 and 73 are cancelled.

All correspondence relating to this *inter partes* reexamination proceeding should be directed:

By Mail to: Mail Stop *Inter Partes* Reexam
Attn: Central Reexamination Unit
Commissioner for Patents
United States Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

By FAX to: (571) 273-9900
Central Reexamination Unit

By hand: Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Registered users of EFS-Web may alternatively submit such correspondence via the electronic filing system EFS-Web, at https://sportal.uspto.gov/authenticate/authenticateuserlocalepf.html. EFS-Web offers the benefit of quick submission to the particular area of the Office that needs to act on the correspondence. Also, EFS-Web submissions are "soft scanned" (i.e., electronically uploaded) directly into the official file for the reexamination proceeding, which offers parties the opportunity to review the content of their submissions after the "soft scanning" process is complete.

Any inquiry concerning this communication or earlier communications from the examiner, or as to the status of this proceeding, should be directed to the Central Reexamination Unit at telephone number (571) 272-7705.

Signed:

/Margaret Rubin/
Primary Examiner, CRU 3992

Conferees:

/JUSTIN M PATS/
Primary Examiner, Art Unit 3623

/ANDREW J. FISCHER/
Supervisory Patent Reexamination Specialist, Art Unit 3992

US006612713C1

(12) **INTER PARTES REEXAMINATION CERTIFICATE** (698th)

United States Patent
Kuelbs

(10) **Number: US 6,612,713 C1**
(45) **Certificate Issued: Sep. 23, 2013**

(54) **UMBRELLA APPARATUS**

(75) Inventor: **Gregory G. Kuelbs**, Westlake, TX (US)

(73) Assignee: **World Factory, Inc.**, Southlake, TX (US)

Reexamination Request:
No. 95/000,104, Aug. 12, 2005

Reexamination Certificate for:
Patent No.: **6,612,713**
Issued: **Sep. 2, 2003**
Appl. No.: **10/068,424**
Filed: **Feb. 7, 2002**

Related U.S. Application Data

(60) Provisional application No. 60/267,018, filed on Feb. 7, 2001, provisional application No. 60/335,933, filed on Nov. 2, 2001.

(51) **Int. Cl.**

A45B 3/00	(2006.01)
A45B 3/04	(2006.01)
A45B 25/14	(2006.01)
F21S 9/03	(2006.01)
F21V 33/00	(2006.01)

(52) **U.S. Cl.**
USPC **362/102**; 362/96; 362/209; 362/276

(58) **Field of Classification Search**
None
See application file for complete search history.

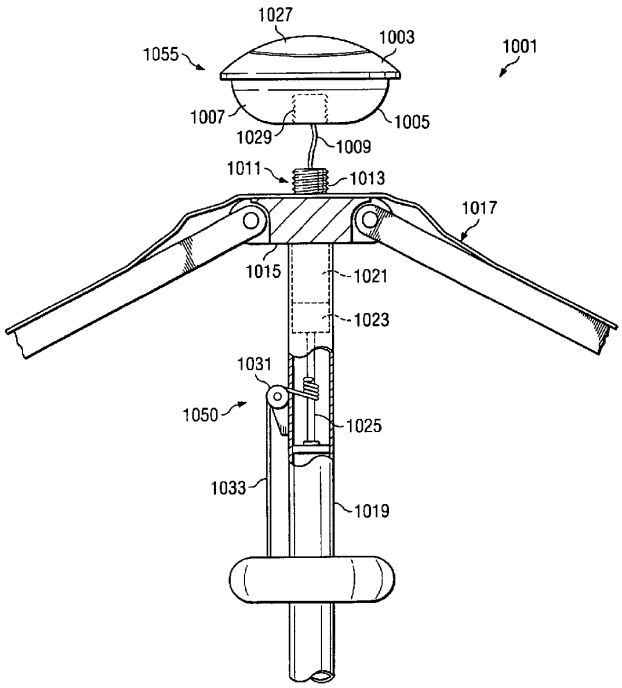
(56) **References Cited**

To view the complete listing of prior art documents cited during the proceeding for Reexamination Control Number 95/000,104, please refer to the USPTO's public Patent Application Information Retrieval (PAIR) system under the Display References tab.

Primary Examiner — Margaret Rubin

(57) **ABSTRACT**

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.



YOT-1003-1946

INTER PARTES REEXAMINATION CERTIFICATE ISSUED UNDER 35 U.S.C. 316

THE PATENT IS HEREBY AMENDED AS INDICATED BELOW.

Matter enclosed in heavy brackets [ ] appeared in the patent, but has been deleted and is no longer a part of the patent; matter printed in italics indicates additions made to the patent.

AS A RESULT OF REEXAMINATION, IT HAS BEEN DETERMINED THAT:

The patentability of claims **10-14** is confirmed.

Claims **1**, **6**, **7** and **9** are cancelled.

Claims **2**, **3** and **8** are determined to be patentable as amended.

Claims **4** and **5**, dependent on an amended claim, are determined to be patentable.

New claims **15-29** are added and determined to be patentable.

2. An umbrella apparatus comprising:
a base support portion;
a pole portion coupled to the base support portion;
a canopy portion hingedly coupled to the pole portion;
a power module carried by the pole portion above the canopy portion, the power module having an upper portion and a lower portion;
a rechargeable electrical power system for providing electrical power to the umbrella apparatus, *the rechargeable electrical power system being disposed in the lower portion of the power module*;
a solar energy system carried by the **[**pole portion above the canopy portion**]** *upper portion of the power module*, 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 carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system.

3. **[**The**]** *An* umbrella apparatus **[**according to claim **2**,**]** *comprising:*
a base support portion;
a pole portion coupled to the base support portion;
a canopy portion hingedly coupled to the pole portion;
a rechargeable electrical power system for providing electrical power to the umbrella apparatus;
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;
a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system;

wherein the lighting system comprises:
a plurality of rib members coupled to the canopy portion; and
a plurality of cold cathode tube elements carried by the rib members, each cold cathode tube element being conductively coupled to and powered by the rechargeable electrical power source.

8. **[**The**]** *An* umbrella apparatus **[**according to claim **7**,**]** *comprising:*
a base support portion;
a pole portion coupled to the base support portion;
a canopy portion hingedly coupled to the pole portion;
a rechargeable electrical power system for providing electrical power to the umbrella apparatus;
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; and
an electromechanical opening and closing system for opening and closing the canopy portion, the electromechanical opening and closing system being conductively coupled to and powered by the rechargeable electrical power system;
wherein the electromechanical opening and closing system comprises:
an electric motor carried by the pole portion;
a control system for controlling the electric motor;
a gear system coupled to the electric motor; and
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; and
wherein the control system comprises:
a receiver conductively coupled to the electric motor;
a remote transmitter for transmitting an encoded signal to the receiver; and
a decoder conductively coupled to the receiver for decoding the encoded signal from the transmitter.

15. An umbrella apparatus, comprising:
a base support portion;
a pole portion coupled to the base support portion;
a canopy portion having a plurality of rib members, the canopy portion being hingedly coupled to the pole portion;
a rechargeable electrical power system for providing electrical power to the umbrella apparatus;
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; and
a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system;
wherein the lighting system includes multiple discrete lighting elements positioned along a rib member, each lighting element being recessed within the rib member and being conductively coupled to the rechargeable

electrical power system by an electrical conductor, the electrical conductor also being recessed within the rib member.

16. The umbrella apparatus according to claim 15, wherein the lighting system includes multiple discrete lighting elements along each rib member.

17. An umbrella apparatus comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion having a plurality of rib members, the canopy portion being hingedly coupled to the pole portion;

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

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; and

a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system;

wherein the lighting system includes multiple discrete lighting elements positioned along a rib member; and

wherein each lighting element is fully recessed within the corresponding rib member.

18. The umbrella apparatus according to claim 17, further comprising:

a translucent cover over the lighting elements.

19. The umbrella apparatus according to claim 17, further comprising:

wires for conductively coupling the lighting elements to the rechargeable electrical power source, the wires being fully recessed within the rib members.

20. An umbrella apparatus, comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion having a plurality of rib members, the canopy portion being hingedly coupled to the pole portion;

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

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 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 carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system, the lighting system comprising a plurality of lighting elements carried by the rib members, each lighting element being conductively coupled to and powered by the rechargeable electrical power system;

wherein the rechargeable electrical power system and the solar energy system each form a separate component part of a power module that is carried by the pole portion above the canopy portion.

21. A patio umbrella apparatus, comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion hingedly coupled to the pole portion, the canopy portion having a plurality of rib members;

a crank housing coupled to the pole portion, the crank housing being adapted to partially house a system for opening and closing the canopy portion;

a rechargeable electrical power system for providing electrical power to the umbrella apparatus, the rechargeable electrical power system being disposed below the canopy portion;

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; and

a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system, the lighting system comprising a plurality of lighting elements carried by the rib members, each lighting element being conductively coupled to and powered by the rechargeable electrical power system via conductors, the conductors being recessed within the rib members.

22. The patio umbrella apparatus according to claim 21, further comprising:

a switch carried by the crank housing for controlling the system for opening and closing the canopy portion.

23. An umbrella apparatus, comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion having a plurality of rib members, the canopy portion being hingedly coupled to the pole portion;

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

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; and

a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system;

wherein the lighting system includes a plurality of lighting elements, each lighting element being recessed within a corresponding rib member and being covered by a translucent cover carried by the corresponding rib member.

24. An umbrella apparatus, comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion having a plurality of rib members, the canopy portion being hingedly coupled to the pole portion;

a power unit carried by the pole portion above the canopy portion;

a rechargeable electrical power system for providing electrical power to the umbrella apparatus, the rechargeable electrical power system forming a component part of the power unit; a solar energy system for collecting solar energy and converting 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, the solar energy system also forming a component part of the power unit; and

a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system and having a plurality of lighting elements, each lighting element being carried by a rib member and being conductively coupled to the rechargeable electrical power system via a conductor carried by the corresponding rib member.

25. A patio umbrella apparatus, comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion hingedly coupled to the pole portion;

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

a solar energy system contained in a discus-shaped module, the discus-shaped module being 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; and

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

wherein the discus-shaped module is releasably coupled to the pole portion.

26. An umbrella apparatus, comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion being hingedly coupled to the pole portion, the canopy portion having a plurality of rib members, each rib member having a recessed longitudinal channel;

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

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; and

a lighting system carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system, the lighting system comprising a plurality of lighting elements carried by the rib members, each lighting element being disposed within the channel and being conductively coupled to and powered by the rechargeable electrical power source.

27. The umbrella apparatus according to claim 26, further comprising:

a transparent cover disposed over each channel.

28. An umbrella apparatus, comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion being hingedly coupled to the pole portion, the canopy portion having a plurality of rib members;

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

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; and

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

wherein the lighting system comprises:

a plurality of discrete lighting elements carried by each rib member;

wherein each discrete lighting element is conductively coupled to and powered by the rechargeable electrical power source and is recessed within a corresponding rib member, the discrete lighting elements being conductively coupled to the rechargeable electrical power system by electrical conductors, the electrical conductors also being recessed within the rib members.

29. An umbrella apparatus comprising:

a base support portion;

a pole portion coupled to the base support portion;

a canopy portion hingedly coupled to the pole portion;

a power module carried by the pole portion above the canopy portion, the power module having an upper portion and a lower portion;

a rechargeable electrical power system for providing electrical power to the umbrella apparatus, the rechargeable electrical power system being disposed in the lower portion of the power module;

a solar energy system disposed in the upper portion of the power module, 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 carried by the canopy portion, the lighting system being conductively coupled to and powered by the rechargeable electrical power system.

* * * * *