JAMES R. BALLARD, CAL. BAR NO. 178122
Schwartz Semerdjian Haile Ballard & Cauley LLP
101 W Broadway Ste 810
San Diego, CA 92101-8229
A Limited Liability Partnership
Telephone: 619-236-8821
Facsimile: 619-236-8827
Email: jim@sshbclaw.com

JON E. MAKI, CAL. BAR NO. 199958
Law Office of Jon E. Maki
4135 Calle Isabelino
San Diego, CA 92130
Telephone: 858-876-2580
Facsimile: 858-876-1915
Email: jonmaki.esq@gmail.com

Attorneys for Plaintiffs
Unique Lighting Systems, Inc.,
Nate Mullen and Randy Weisser

UNITED STATES DISTRICT COURT

SOUTHERN DISTRICT OF CALIFORNIA

UNIQUE LIGHTING SYSTEMS, INC., a California corporation, NATE MULLEN, an individual, and RANDY WEISSER, an individual,

Plaintiffs,

v.

LANDSCAPE LIGHTING WORLD dba www.landscapelightingworld.com, LLW ENTERPRISE, LLC, a Florida limited liability company, VOLT CORPORATION, VOLT, LLC, a Florida limited liability company, ALAN BRYNJOLFSSON, an individual, and DOES 1-100, inclusive,

Defendants.

CASE NO. '10CV2174 H AJB

COMPLAINT FOR PATENT INFRINGEMENT

REQUEST FOR JURY TRIAL

I.

JURISDICTION AND VENUE

1. This action arises under the Patent Laws of the United States, Title 35, United States Code, and under the common law of the United States. This Court has original and exclusive jurisdiction of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

2. This Court has personal jurisdiction over Defendants in this action and venue is proper in this judicial district under 28 U.S.C. §§ 1391(b) and (c) because, as alleged below: (a) Defendants have intentionally engaged in substantial business within this forum amounting to sufficient minimum contacts, including but not limited to, the offering and selling their infringing products in this judicial district; (b) the harm caused to Plaintiffs by Defendants' acts and omissions was targeted at Plaintiffs and designed to impact Plaintiffs in this judicial district; and (c) a substantial part of the acts or omissions giving rise to the asserted claims occurred or had effects in this judicial district.

II.

PARTY ALLEGATIONS

3. Plaintiff Unique Lighting Systems, Inc. ("Unique Lighting") is a corporation duly organized and existing under the laws of the State of California, and has its principal place of business at 1240 Simpson Way, Escondido, California 92029. Plaintiff Nate Mullen ("Mr. Mullen") is an individual residing in the County of San Diego. Plaintiff Randy Weisser ("Mr. Weisser") is an individual residing in the County of San Diego (collectively referred to as "Plaintiffs").

4. On information and belief, Landscape Lighting World is an entity of unknown type having its principal place of business located at 15486 N. Nebraska Avenue, Lutz, Florida 33549 and doing business as and through its website www.landscapelightingworld.com. On information and belief, www.landscapelightingworld.com is a division of Volt Corporation.

5. On information and belief, Defendant LLW Enterprise, LLC is a limited liability company organized under the laws of the State of Florida and has its principal place of business located at 15486 N. Nebraska Avenue, Lutz, Florida 33549.

6. On information and belief, Defendant Volt Corporation is an entity of unknown type having its principal place of business located at 15486 N. Nebraska Avenue, Lutz, Florida 33549.

7. On information and belief, Defendant Volt LLC is a limited liability company organized under the laws of the State of Florida and has its principal place of business located at 17027 Candeleda de Avila, Tampa, Florida 33613.

8. On information and belief, Defendant Alan Brynjolfsson ("Mr. Brynjolfsson") is an individual residing in Hillsborough County, Florida (all defendants referred to collectively as "Defendants"). On information and belief, Mr. Brynjolfsson is the owner and only managing member of defendant LLW Enterprise, LLC. On information and belief, Mr. Brynjolfsson is the owner and a managing member of defendant Volt LLC. On information and belief, Mr. Brynjolfsson is the President and owner of defendants Volt Corporation and Landscape Lighting World.

9. On information and belief, Mr. Brynjolfsson controls all of the business activities, including but not limited to the infringing activities alleged herein, of

all other defendants such that there is a unity of interest and ownership between Defendants and Mr. Brynjolfsson and such that the separate personalities of those entities and Mr. Brynjolfsson do not exist. On information and belief, the entity defendants are merely shells designed to avoid personal liability for the infringing activities alleged herein that are directed and controlled by Mr. Brynjolfsson.

10. On information and belief, defendants Volt, LLC and LLW Enterprise, LLC are and were inactive and invalid limited liability companies during Defendants' infringing activities. On information and belief, Volt Corporation is not and was not a validly registered corporation during Defendants' infringing activities.

11. On information and belief, all of the Defendants were at all times the partners, officers, agents, assignees, successors-in-interest, co-conspirators, principals, alter egos, or employees of each other or were otherwise responsible for, contributed to, or participated in the acts and omissions alleged herein, and thereby incurred liability therefore. As a result, failure to disregard Defendants separate identities would result in an inequitable result regarding liability for the infringing activities alleged herein.

12. Plaintiffs do not know the true names and capacities, whether individuals, corporations, companies, partnerships, joint ventures, or otherwise of defendant DOES 1-100, inclusive. Plaintiffs are informed and believe, and on that basis allege, that each fictitious defendant was in some way responsible for, participated in, or contributed to the matters and things of which Plaintiffs complain, and in some fashion, has legal responsibility. When the exact nature and identity of such fictitious defendants or defendants' responsibility for participation and contribution to the matters and things alleged in this Complaint is ascertained, Plaintiffs will seek leave to amend this Complaint.

III.

GENERAL ALLEGATIONS

13. The allegations of paragraphs 1-12 above are hereby re-alleged and incorporated herein by reference.

14. Based in San Diego County, Unique Lighting is an innovator in the field of low voltage landscape lighting having developed a patented method that allows customers and contractors to properly install a well-designed lighting system to achieve uniform voltage drop. This patented method includes the multi-matic transformer hub wiring method and numerous high quality fixtures and designs covered by design patents and other intellectual property protection.

15. Unique Lighting is the exclusive licensee of the following United States Patents: (1) U.S. Patent No. 6,502,967 entitled "Gimble ring lighting fixture support" which was duly and lawfully issued by the United States Patent and Trademark Office ("USPTO") on January 7, 2003; (2) U.S. Patent No. D495,079 entitled "Pulsar lighting fixture" which was duly and lawfully issued by the USPTO on August 24, 2004; (3) U.S. Patent No. D550,877 entitled "Light fixture" which was duly and lawfully issued by the USPTO on September 11, 2007; (4) U.S. Patent No. D551,789 entitled "Light fixture" which was duly and lawfully issued by the USPTO on September 25, 2007; and (5) U.S. Patent No. 7,699,481 entitled "Method of wiring lighting fixtures to achieve uniform voltage drop" which was duly and lawfully issued by the USPTO on April 20, 2010 (collectively "the Patents-in-Suit").

16. Plaintiffs Mr. Mullen and Mr. Weisser each own an undivided 50% interest in the Patents-in-Suit. A true and correct copy of U.S. Patent No. 6,502,967 ("the '967 patent") is attached as Exhibit 1. A true and correct copy of U.S. Patent No.

D495,079 ("the '079 patent") is attached as Exhibit 2. A true and correct copy of U.S. Patent No. D550,877 ("the '877 patent") is attached as Exhibit 3. A true and correct copy of U.S. Patent No. D551,789 ("the '789 patent") is attached as Exhibit 4. A true and correct copy of U.S. Patent No. 7,699,481 is attached as Exhibit 5. By statute, the Patents-in-Suit are presumed valid and enforceable under 35 U.S.C. §282.

17. On information and belief, Defendants, by and through their agents, employees and servants, make, have made, manufacture, have manufactured, import, use, offer for sale, and/or sell products embodying the invention(s) of the Patents-in-Suit without authorization, permission or license. Defendants offer for sale and sell the infringing products through multiple marketing streams including offering and selling infringing products directly to customers in this judicial district through their interactive website, www.landscapelightingworld.com via the Internet.

18. On information and belief, Defendants actively induce infringement of the Patents-in-Suit with the specific intent to encourage the direct infringement by consumers who purchase products from Defendants, including but not limited to Defendants' "Hub System" and "Hub System ready" products.

19. On information and belief, Mr. Brynjolfsson is and was at all times relevant to this action personally aware of the Patents-in-Suit and personally acted with the specific intent to encourage the direct infringement by the entity defendants that he controls and by customers of those entity defendants.

FIRST CLAIM FOR RELIEF

(Infringement of U.S. Patent No. 6,502,967)

20. Plaintiffs reallege and incorporate herein by reference the allegations contained in Paragraphs 1 through 19 of this Complaint, as set forth above.

21. Defendants, by and through their agents, employees, and servants, have infringed one or more claims of the '967 patent by making, having made, manufacturing, having manufactured, importing, using, offering for sale, and/or selling, without Plaintiffs' authority, products embodying the claimed invention(s), including but not limited to Defendants' Well Light PAR36 product. On information and belief, Mr. Brynjolfsson has actively assisted the other defendants in their infringement.

22. By reason of Defendants' infringement, Plaintiffs have suffered and are suffering damages, including but not limited to, lost sales and impairment of the value of the '967 patent, in an amount yet to be determined.

23. Upon information and belief, Defendants' acts of infringement are willful, having been committed with notice and knowledge of Plaintiffs' patent rights. Upon information and belief, Defendants committed their acts of willful infringement by intentionally copying a design that they knew was patented.

24. Defendants' acts of infringement are causing irreparable harm to Plaintiffs and will continue to cause irreparable harm unless enjoined by this Court.

SECOND CLAIM FOR RELIEF

(Infringement of U.S. Patent No. D495,079)

25. Plaintiffs reallege and incorporate herein by reference the allegations contained in Paragraphs 1 through 24 of this Complaint, as set forth above.

26. Defendants, by and through their agents, employees, and servants, have infringed the claimed ornamental design of the '079 patent by making, having made, manufacturing, having manufactured, importing, using, offering for sale, and/or selling, without Plaintiffs' authority, products embodying the claimed invention, including but not limited to Defendants' product called "The Tank." On information and belief, Mr. Brynjolfsson has actively assisted the other defendants in their infringement.

27. By reason of Defendants' infringement, Plaintiffs have suffered and are suffering damages, including but not limited to, lost sales and impairment of the value of the '079 patent, in an amount yet to be determined.

28. Upon information and belief, Defendants' acts of infringement are willful, having been committed with notice and knowledge of Plaintiffs' patent rights. Upon information and belief, Defendants committed their acts of willful infringement by intentionally copying a design that they knew was patented.

29. Defendants' acts of infringement are causing irreparable harm to Plaintiffs and will continue to cause irreparable harm unless enjoined by this Court.

THIRD CLAIM FOR RELIEF

(Infringement of U.S. Patent No. D550,877)

30. Plaintiffs reallege and incorporate herein by reference the allegations contained in Paragraphs 1 through 29 of this Complaint, as set forth above.

31. Defendants, by and through their agents, employees, and servants, have infringed the claimed ornamental design of the '877 patent by making, having made, manufacturing, having manufactured, importing, using, offering for sale, and/or selling, without Plaintiffs' authority, products embodying the claimed invention, including but not limited to Defendants' "Big Splash" product. On information and belief, Mr. Brynjolfsson has actively assisted the other defendants in their infringement.

32. By reason of Defendants' infringement, Plaintiffs have suffered and are suffering damages, including but not limited to, lost sales and impairment of the value of the '877 patent, in an amount yet to be determined.

33. Upon information and belief, Defendants' acts of infringement are willful, having been committed with notice and knowledge of Plaintiffs' patent rights. Upon information and belief, Defendants committed their acts of willful infringement by intentionally copying a design that they knew was patented.

34. Defendants' acts of infringement are causing irreparable harm to Plaintiffs and will continue to cause irreparable harm unless enjoined by this Court.

FOURTH CLAIM FOR RELIEF

(Infringement of U.S. Patent No. D551,789)

35. Plaintiffs reallege and incorporate herein by reference the allegations contained in Paragraphs 1 through 34 of this Complaint, as set forth above.

36. Defendants, through their agents, employees, and servants, have infringed the claimed ornamental design of the '789 patent by making, having made, manufacturing, having manufactured, importing, using, offering for sale, and/or selling, without Plaintiffs' authority, products embodying the claimed invention, including but not limited to Defendants' "Gentle Splash" product. On information and belief, Mr. Brynjolfsson has actively assisted the other defendants in their infringement.

37. By reason of Defendants' infringement, Plaintiffs have suffered and are suffering damages, including but not limited to, lost sales and impairment of the value of the '789 patent, in an amount yet to be determined.

38. Upon information and belief, Defendants' acts of infringement are willful, having been committed with notice and knowledge of Plaintiffs' patent rights. Upon information and belief, Defendants committed their acts of willful infringement by intentionally copying a design that they knew was patented.

39. Defendants' acts of infringement are causing irreparable harm to Plaintiffs and will continue to cause irreparable harm unless enjoined by this Court.

FIFTH CLAIM FOR RELIEF

(Infringement of U.S. Patent No. 7,699,481)

40. Plaintiffs reallege and incorporate herein by reference the allegations contained in Paragraphs 1 through 39 of this Complaint, as set forth above.

41. Defendants, through their agents, employees, and servants, have infringed one or more claims of the '481 patent by making, having made, manufacturing, having manufactured, importing, using, offering for sale, and/or selling, without Plaintiffs' authority, products embodying and/or utilizing the claimed invention(s), including but not limited to Defendants' "Hub System" and "Hub System ready" fixtures.

42. Upon information and belief, Defendants have actively induced customers to directly infringe the '481 patent by making, having made, manufacturing, having manufactured, importing, using, offering for sale, and selling equipment, including but not limited to Defendants' "Hub System" and "Hub System ready" products, to be used by the customers in the direct infringement of the '481 patent. Upon information and belief, Defendants are intentionally advising, instructing and/or directing the customers how to carry out direct infringement by practicing the steps of the claimed method(s) with the specific intent to encourage direct infringement by consumers who purchased Defendants' "Hub System" and "Hub System ready" products. On information and belief, Mr. Brynjolfsson has actively assisted the other Defendants in their direct infringement and their intentional inducement of direct infringement.

43. By reason of Defendants' infringement, Plaintiffs have suffered and are suffering damages, including but not limited to, lost sales and impairment of the value of the '481 patent, in an amount yet to be determined.

44. Upon information and belief, Defendants' acts of infringement are willful, having been committed with notice and knowledge of Plaintiffs' patent rights. Upon information and belief, Defendants committed their acts of willful infringement by intentionally copying a design and/or methodology that they knew was patented.

45. Defendants' acts of infringement are causing irreparable harm to Plaintiffs and will continue to cause irreparable harm unless enjoined by this Court.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs pray for:

A. Judgment that Defendants have infringed U.S Patent No. 6,502,967.

B. An award of damages for infringement of U.S Patent No. 6,502,967 in an amount to be determined at trial.

C. Additional damages for willful infringement of U.S Patent No. 6,502,967 in an amount to be determined at trial.

D. A preliminary and thereafter permanent injunction prohibiting Defendants and their officers, agents, servants, employees, and attorneys, and those persons in active concert or participation with them, from further infringement of U.S Patent No. 6,502,967.

E. Judgment that Defendants have infringed U.S Patent No. D495,079.

F. An award of damages for infringement of U.S Patent No. D495,079 in an amount to be determined at trial.

G. Additional damages for willful infringement of U.S Patent No. D495,079 in an amount to be determined at trial.

H. A preliminary and thereafter permanent injunction prohibiting Defendants and their officers, agents, servants, employees, and attorneys, and those persons in active concert or participation with them, from further infringement of U.S Patent No. D495,079.

I. Judgment that Defendants have infringed U.S. Patent No. D550,877.

J. An award of damages for infringement of U.S. Patent No. D550,877 in an amount to be determined at trial.

K. Additional damages for willful infringement of U.S. Patent No. D550,877 in an amount to be determined at trial.

L. A preliminary and thereafter permanent injunction prohibiting Defendants and their officers, agents, servants, employees, and attorneys, and those persons in active concert or participation with them, from further infringement of U.S. Patent No. D550,877.

M. Judgment that Defendants have infringed U.S. Patent No. D551,789.

N. An award of damages for infringement of U.S. Patent No. D551,789 in an amount to be determined at trial.

O. Additional damages for willful infringement of U.S. Patent No. D551,789 in an amount to be determined at trial.

P. A preliminary and thereafter permanent injunction prohibiting Defendants and their officers, agents, servants, employees, and attorneys, and those persons in active concert or participation with them, from further infringement of U.S. Patent No. D551,789 .

Q. Judgment that Defendants have infringed U.S. Patent No. 6,129,978.

R. An award of damages for infringement of U.S. Patent No. 7,699,481 in an amount to be determined at trial.

S. Additional damages for willful infringement of U.S. Patent No. 7,699,481 in an amount to be determined at trial.

T. A preliminary and thereafter permanent injunction prohibiting Defendants and their officers, agents, servants, employees, and attorneys, and those persons in active concert or participation with them, from further infringement of U.S. Patent No. 7,699,481.

U. Judgment that this is an exceptional case under 35 U.S.C. § 285 and awarding Plaintiffs' their reasonable attorneys' fees.

///

///

///

V. Costs of suit; and

Such other relief as the Court deems just and proper.

Dated: October 18, 2010

By _____
JAMES R. BALLARD,
JON E. MAKI

Attorneys for Plaintiffs
UNIQUE LIGHTING SYSTEMS, INC., NATE MULLEN and RANDY WEISSER

DEMAND FOR JURY TRIAL

Pursuant to Federal Rule of Civil Procedure 38(b), Plaintiffs UNIQUE LIGHTING SYSTEMS, INC., NATE MULLEN and RANDY WEISSER hereby demand a trial by jury on this Complaint as to all issues that may be so tried.

Dated: October 18, 2010

By _____
JAMES R. BALLARD,
JON E. MAKI

Attorneys for Plaintiffs
UNIQUE LIGHTING SYSTEMS, INC., NATE MULLEN and RANDY WEISSER

Exhibit 1

US006502967B2

(12) **United States Patent**
Mullen

(10) **Patent No.: US 6,502,967 B2**
(45) **Date of Patent: Jan. 7, 2003**

(54) **GIMBLE RING LIGHTING FIXTURE SUPPORT**

(76) Inventor: **Nate Mullen**, 1240 Simpson Way, Escondido, CA (US) 92029

(*) 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.: **09/737,420**

(22) Filed: **Dec. 14, 2000**

(65) **Prior Publication Data**

US 2002/0075690 A1 Jun. 20, 2002

(51) **Int. Cl.**[7] **F21V 19/02**; F21V 21/26

(52) **U.S. Cl.** **362/427**; 362/285; 362/288; 362/419; 362/430

(58) **Field of Search** 362/153.1, 285, 362/287, 288, 368, 370–372, 417–419, 427–430, 432

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,894,693 A * 7/1959 Howarth 362/371
4,164,009 A * 8/1979 Maguire, Jr. et al. 362/371
4,849,864 A * 7/1989 Forrest 362/427
4,931,917 A * 6/1990 Scherft et al. 362/371
5,205,643 A * 4/1993 Lin 362/371
5,303,134 A * 4/1994 Cunado 362/372

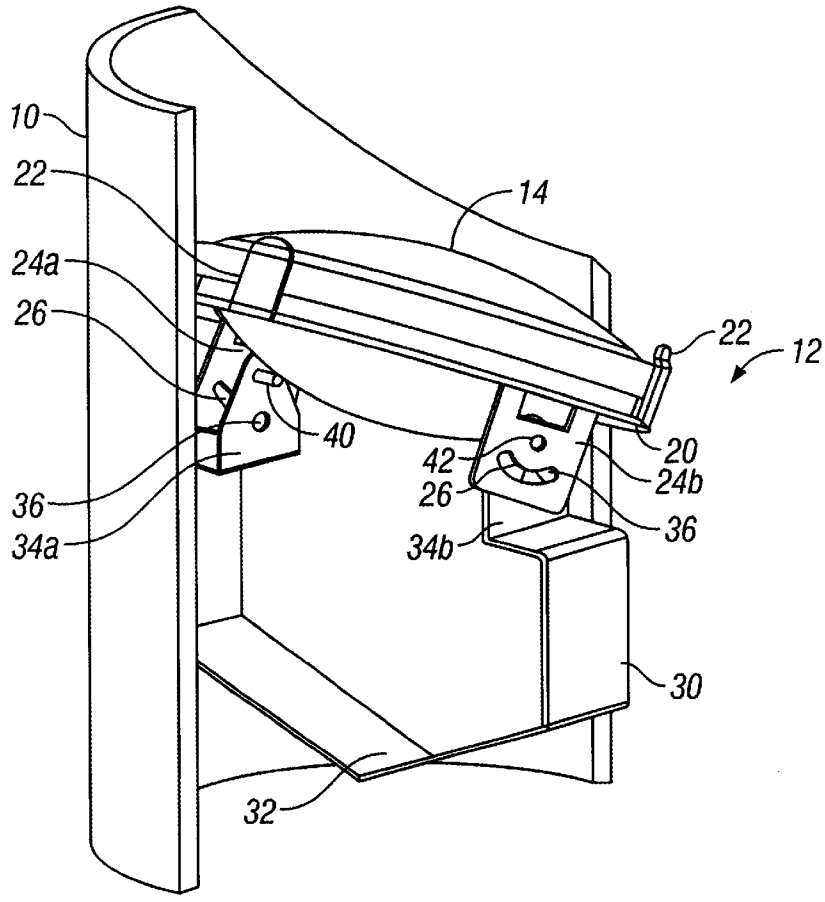
* cited by examiner

Primary Examiner—Alan Cariaso
(74) *Attorney, Agent, or Firm*—Joseph A. Yanny; Michael A. DiNardo

(57) **ABSTRACT**

This invention relates to a lighting fixture support with a pivoting mounting bracket. More specifically, this invention is aimed at providing a well-type lighting fixture for use in outdoor, below ground lighting settings which is easily positioned at various angles with respect to the ground. The inventive mounting bracket comprises a first bracket which is connected to a second bracket at a pivot point. One or more dimples on either of the brackets are operatively connected to one or more sets of ratchet teeth on the other bracket. The dimples and sets of ratchet teeth cooperate to secure the first bracket into discrete positions about the pivot point with respect to the second bracket.

11 Claims, 2 Drawing Sheets



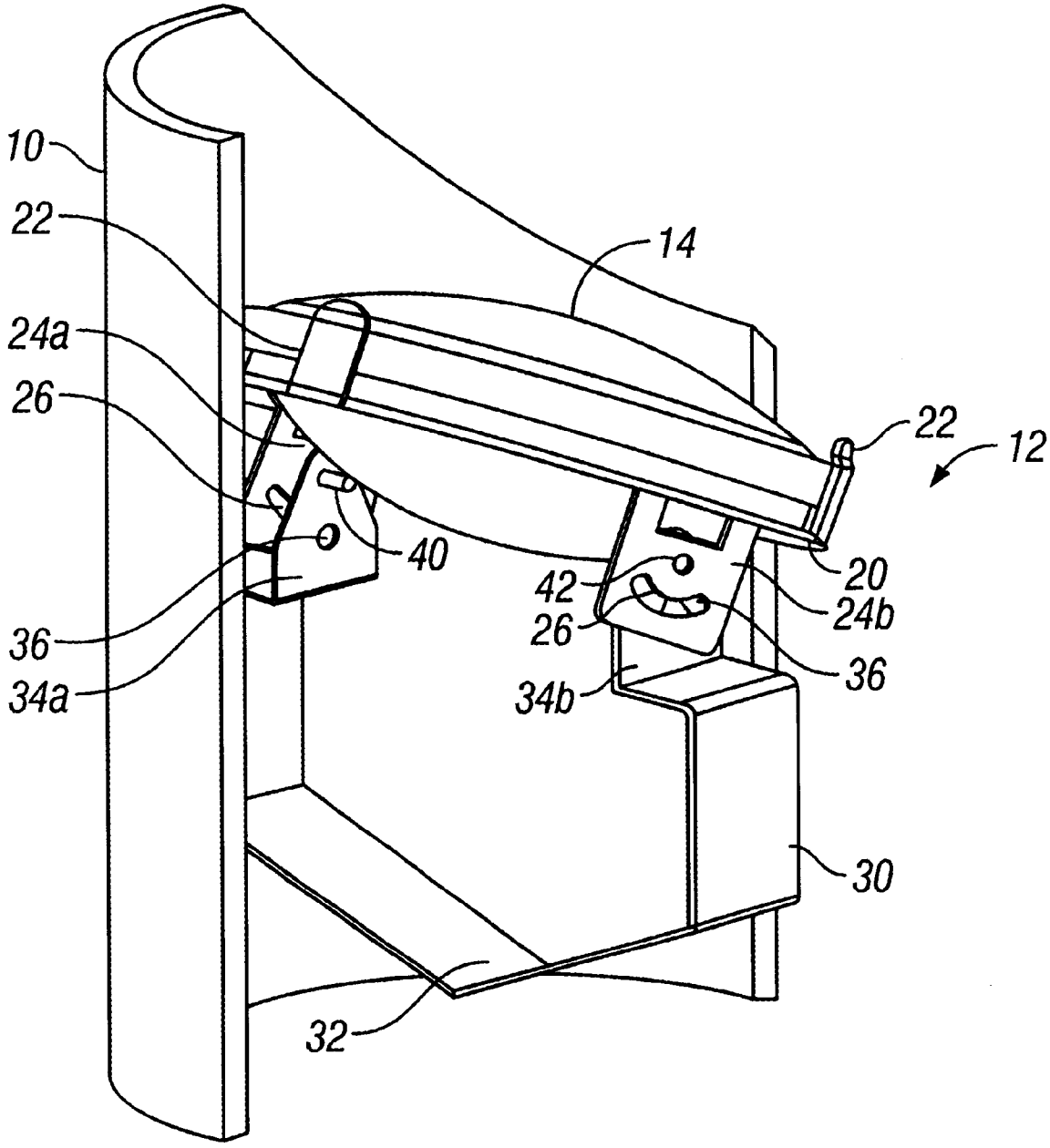


FIG. 1

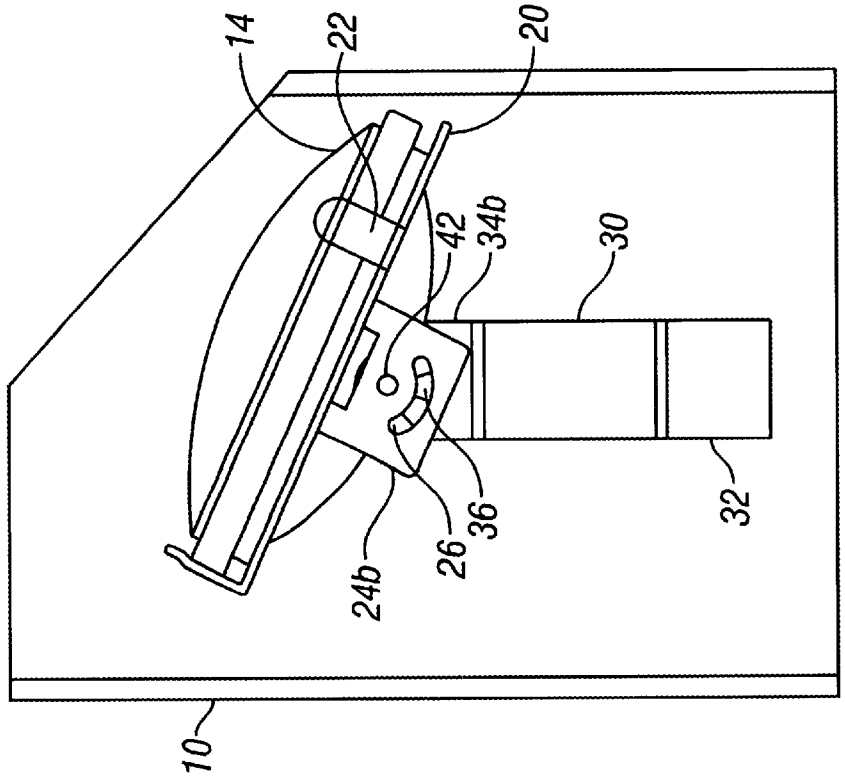


FIG. 3

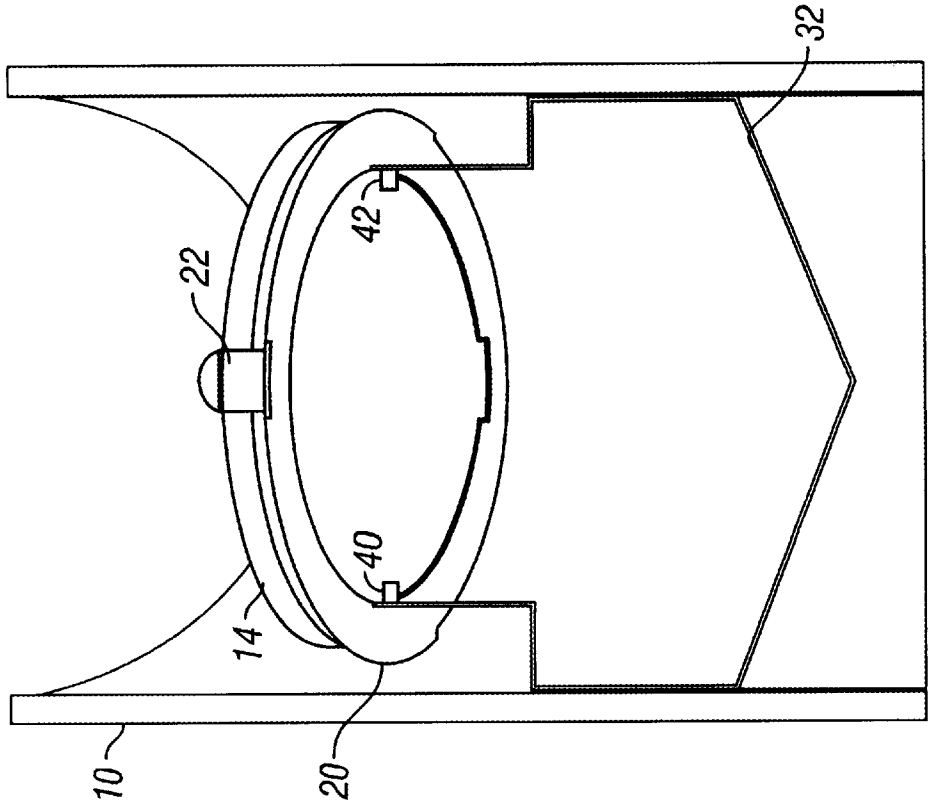


FIG. 2

GIMBLE RING LIGHTING FIXTURE SUPPORT

CROSS-REFERENCE TO RELATED APPLICATION Not Applicable.

STATEMENT RE: FEDERALLY SPONSORED RESEARCH AND DEVELOPMENT

Not Applicable.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to a lighting fixture support with a pivoting mounting bracket. More specifically, this invention is aimed at providing a well-type lighting fixture for use in outdoor, below ground lighting settings which is easily positioned at various angles with respect to the ground.

2. Description of the Related Art

The prior art discloses several types of well lights. Well lights generally consist of a hollow, cylindrical tube which is buried in the ground and contains a light fixture secured therein. In such lights, the fixture is generally capable of being positioned at various heights with respect to ground level. Variations on the securing means include guides and screws, mechanisms to hang the fixture from the top edge of the tube, or flexible members which exert pressure against the sides of the tube and retain the fixture through force of friction.

Such light fixtures are also generally capable of being angled at various degrees in relation to the ground surface. The primary mechanism used by artisans for angling such light fixtures include pivot points with securing screws.

Drawbacks of the prior art mechanisms include difficulty in positioning and retaining light fixtures in the tube. In addition, the mechanism for angling prior art light fixtures is difficult to use both at installation and later if the angle is to be changed. This is because such securing screws are generally threaded in opposite directions such that when one screw is tightened or loosened and the angle changed, the other screw loosens or tightens by the action of the movement. Another drawback of the prior art mechanism is that it has an inherent difficulty in use in that the light fixture must be removed from the tube in order to change the angle and properly tighten the securing screws.

BRIEF SUMMARY OF THE INVENTION

The main object of this invention is to provide a well-type lighting fixture support which is easy to install.

It is a another object of this invention is to provide a well-type lighting fixture support on which the settings are easy to adjust.

It is a further object of this invention is to provide a well-type lighting fixture support on which the angle may be adjusted without removal of the entire fixture.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** shows a perspective view of the inventive light fixture in a cut-away cylindrical tube.

FIG. **2** shows a back view of the inventive light fixture in a cut-away cylindrical tube.

FIG. **3** shows a side view of the inventive light fixture in a cut-away cylindrical tube.

DETAILED DESCRIPTION OF THE INVENTION

The instant invention is directed to a lighting fixture with a pivoting mounting bracket. Primarily, this invention is

aimed at providing a well-type lighting fixture for use in outdoor, below ground lighting settings which is easily positioned at various angles with respect to the ground. The principles of this invention are equally applicable to use in other areas of lighting, such as indoor, above ground, or non-well-type lighting fixtures.

The novel designs of the present invention address the shortcomings of prior art lighting systems, namely, by providing: (i) a light fixture which is easily installed and removed; (ii) a light fixture capable of being angled at different degrees which is easily adjusted; and (iii) a lighting fixture which incorporates the above benefits in a cost effective product.

FIGS. **1**, **2** and **3** show different views of the inventive light fixture support (**12**) in a cutaway cylindrical tube (**10**). The cylindrical tube (**10**) is designed to function as a well in the ground for receiving the light fixture support (**12**). Such well lights are well known in the art and a skilled artisan will be readily familiar with the function this type of light fixture. The cylindrical tube (**10**) may be constructed of any material commonly used in the art, i.e., plastic, metal, ceramic, etc. The preferred embodiment of the present invention uses black ABS plumbing pipe in the manufacture of the cylindrical tube (**10**).

The light fixture support (**12**) consists of a first bracket (**20**) and a second bracket (**30**). In the preferred embodiment, the first bracket (**20**) is generally circular in shape and is designed to receive and retain a PAR-36 light bulb (**14**). In alternate embodiments of the inventive light fixture support (**12**), the first bracket (**20**) may take different shapes to receive and retain different light bulbs (**14**).

The first bracket (**20**) has a bulb securing means on the top side. This bulb securing means is designed to retain a light bulb (**14**), in the preferred embodiment, a PAR-36 light bulb. This bulb securing means may be in any form with which a skilled artisan is familiar, i.e., male/female treaded connection, bracket arms, retaining clips, etc.

In the preferred embodiment of the present invention, the bulb securing means consists of two or more bracket arms (**22**) to retain the light bulb (**14**). The bracket arms (**22**) rise up over the edge of the light bulb (**14**) and a lip on the end of the bracket arm (**22**) reaches over the edge of the light bulb (**14**) to retains it in the first bracket (**20**). Two bracket arms (**22**) will function to retain the light bulb (**14**), however, the preferred embodiment includes three bracket arms (**22**) to more securely retain the light bulb (**14**).

The first bracket (**20**) has first and second pivot arms (**24***a* and **24***b*) on the bottom side. Alternate embodiments may use one pivot arm or more than two pivot arms. These alternate embodiments may take the form of a bar across the underside of the first bracket (**20**) which has one or more pivot arms thereupon.

The pivot arms (**24***a* and **24***b*) are attached in such a way so as not to interfere with the mounting of the light bulb (**14**) in the first bracket (**20**). The pivot arms (**24***a* and **24***b*) may be mounted anywhere across the bottom side the first bracket (**20**), from the inner portion as shown in the drawings to the outer portion(not shown). Mounting the pivot arms (**24***a* and **24***b*) on the outside edge of the first bracket (**20**) further removes them from interfering with the mounting of the light bulb (**14**).

At least one of the pivot arms (**24***a* or **24***b*) has a set of ratcheting teeth (**26**). This results in one or more sets of ratcheting teeth (**26**). In the preferred embodiment, each of the pivot arms (**24***a* and **24***b*) has a set of ratcheting teeth (**26**). The more pivot arms (**24***a* and **24***b*) which have sets of

ratcheting teeth (**26**), the tighter and more secure the ratcheting mechanism of the invention will operate. This will be discussed below more fully.

The second bracket (**30**) has a retention bar (**32**) and first and second stationary arms (**34***a* and **34***b*). The retention bar (**32**) is a flexible member which is compressible and expands on its own back to its original dimensions. The flexible nature of the retention bar (**32**) provides the pressure and friction force which retains the light fixture support (**12**) in a set position in the cylindrical tube (**10**). The retention bar (**32**) exerts force against the inner walls of the cylindrical tube (**10**). This force is such to create a friction force which holds the light fixture support (**12**) in a set position.

The first and second stationary arms (**34***a* and **34***b*) are arranged in close proximity to the first and second pivot arms (**24***a* and **24***b*) of the first bracket (**20**). In the preferred embodiment, the first and second stationary arms (**34***a* and **34***b*) and the first and second pivot arms (**24***a* and **24***b*) are directly adjacent to each other.

The first stationary arm (**34***a*) and the first pivot arm (**24***a*) are connected to each other by a first pivot securing means (**40**). Similarly, the second stationary arm (**34***b*) and the second pivot arm (**24***b*) are connected to each other by a second pivot securing means (**42**). The first and second pivot securing means (**40** and **42**) may take the form of any securing means known in the art, i.e., nut and bolt, cotter and pin, etc. In the preferred embodiment, the first and second pivot securing means (**40** and **42**) consist of a threaded stud with a washer and locking nut. The first and second pivot securing means (**40** and **42**) must allow for rotation of the first and second pivot arms (**24***a* and **24***b*) in relation to the first and second stationary arms (**34***a* and **34***b*). The first and second pivot securing means (**40** and **42**) must be aligned and have the same axis of rotation to allow the first bracket (**20**) to move in relation to the second bracket (**30**).

At least one of the stationary arms (**34***a* and **34***b*) has a dimple (**36**). This may result in one or more dimples (**36**). In the preferred embodiment, each of the stationary arms (**34***a* and **34***b*) has a dimple (**36**). The dimple (**36**) is in close proximity to the set of ratcheting teeth (**26**). When the first stationary arm (**34***a*) and the first pivot arm (**24***a*), or the second stationary arm (**34***b*) and the second pivot arm (**24***b*), are connected to each other by the pivot securing means (**40** or **42**), the dimple (**36**) and the set of ratcheting teeth (**26**) are in physical contact throughout the range of rotation of the first bracket (**20**) in relation to the second bracket (**30**).

The dimples (**36**) and sets of ratcheting teeth (**26**) are operatively connected to each other. At least a portion of the dimples (**36**) extend between the ratcheting teeth (**26**). The action of the dimples (**36**) extending between the ratcheting teeth (**36**) results in the pivot arms (**24***a* and **24***b*) being securable in multiple discrete positions in relation to the stationary arms (**34***a* and **34***b*), which in turn causes the first bracket (**20**) to be securable in multiple discrete positions in relation to the second bracket (**30**). The first bracket (**20**) and the second bracket (**30**) may be secured in multiple discrete positions depending upon the relative position of the dimples (**36**) with respect to the sets of ratcheting teeth (**26**).

The preferred embodiment of the invention has a dimple (**36**) on each stationary arm (**34***a* and **34***b*). In the preferred embodiment, each dimple (**36**) is operatively connected to a set of ratchet teeth (**26**), one on each pivot arm (**24***a* and **24***b*). The inventive light fixture support (**12**) will operate with fewer or more dimples (**36**) and sets of ratcheting teeth (**26**). However, the inventive light fixture support (**12**) must have at least one dimple (**36**) and one set of ratchet teeth (**26**) which are operatively connected to each other. In alternate embodiments, the dimples (**36**) may be on the pivot arms (**24***a* and **24***b*) and the ratcheting teeth (**26**) may be on the stationary arms (**34***a* and **34***b*).

All of the components of this apparatus may be manufactured from any materials commonly used in the construction of light fixtures. In the preferred embodiment of the invention, all of the components are manufactured from stainless steel. The use of stainless steel prevents rust and corrosion. In an alternate embodiment, the components of this invention can be manufactured from injection molded plastic.

The above described invention is capable of being used in nearly any lighting system, whether it is high, standard or low voltage, or whether it is indoor or outdoor lighting. A skilled artisan will recognize that this invention may be used on its own or in combination with any of the other prior art embodiments in various lighting systems.

The above-described preferred embodiments are intended to illustrate the principles of the invention, but not to limit its scope. Other embodiments and variations of these preferred embodiments will be apparent to those skilled in the art and may be made without departing from the spirit and scope of the invention as defined in the following claims.

I claim:

1. A light fixture support apparatus comprising:

a first bracket having a top side and a bottom side:

said top side having two or more bracket arms;

said bottom side having one or more pivot arms;

said one or more pivot arms having one or more sets of ratcheting teeth;

a second bracket comprising a retention bar connected to one or more stationary arms;

said one or more stationary arms having one or more dimples;

said one or more pivot arms of said first bracket connected to said one or more stationary arms of said second bracket by a pivot securing means;

said pivot securing means having an axis of rotation;

said one or more dimples on said one or more stationary arms operatively connected to said one or more sets of ratcheting teeth on said one or more pivot arms.

2. The light fixture support apparatus of claim **1** wherein said top side having three bracket arms.

3. The light fixture support apparatus of claim **1** wherein said bottom side of said first bracket has a first pivot arm and a second pivot arm.

4. The light fixture support apparatus of claim **3** wherein said first pivot arm and said second pivot arm each have a set of ratcheting teeth.

5. The light fixture support apparatus of claim **1** wherein said second bracket has a first stationary arm and a second stationary arm.

6. The light fixture support apparatus of claim **5** wherein said first stationary arm and said second stationary arm each have a dimple.

7. A light fixture support apparatus comprising:

a first bracket having a top side and a bottom side:

said top side having three or more bracket arms;

said bottom side having a first pivot arm and a second pivot arm;

said first pivot arm and said second pivot arm having one or more sets of ratcheting teeth;

a second bracket comprising a retention bar connected to a first stationary arm and a second stationary arm;

said first stationary arm and said second stationary arm having one or more dimples;

said first pivot arm of said first bracket connected to said first stationary arm of said second bracket by a first pivot securing means, said first pivot securing means having an axis of rotation;

said second pivot arm of said first bracket connected to said second stationary arm of said second bracket by a second pivot securing means, said second pivot securing means having an axis of rotation;

said first pivot securing means and said second pivot securing means having the same axis of rotation;

said one or more dimples on said first stationary arm and said second stationary arm operatively connected to said one or more sets of ratcheting teeth on said first pivot arms and said second pivot arm.

8. The light fixture support apparatus of claim **7** wherein said top side of said first bracket has three bracket arms.

9. The light fixture support apparatus of claim **7** wherein said first pivot arm and said second pivot arm each have a set of ratcheting teeth.

10. The light fixture support apparatus of claim **7** wherein said first stationary arm and said second stationary arm each have a dimple.

11. A light fixture support apparatus comprising:

a first bracket having a top side and a bottom side;

said top side having three bracket arms;

said bottom side having a first pivot arm and a second pivot arm;

said first pivot arm and said second pivot arm each having a set of ratcheting teeth;

a second bracket comprising a retention bar connected to a first stationary arm and a second stationary arm;

said first stationary arm and said second stationary arm each having a dimple;

said first pivot arm of said first bracket connected to said first stationary arm of said second bracket by a first pivot securing means, said first pivot securing means having an axis of rotation;

said second pivot arm of said first bracket connected to said second stationary arm of said second bracket by a second pivot securing means, said second pivot securing means having an axis of rotation;

said first pivot securing means and said second pivot securing means having the same axis of rotation;

said dimple on said first stationary arm operatively connected to said set of ratcheting teeth on said first pivot arm; and

said dimple on said second stationary arm operatively connected to said set of ratcheting teeth on said second pivot arm.

* * * * *

Exhibit 2

US00D495079S1

(12) United States Design Patent

Mullen

(10) Patent No.: US D495,079 S
(45) Date of Patent: ** Aug. 24, 2004

(54) **PULSAR LIGHTING FIXTURE**

(76) Inventor: **Nate Mullen**, 1240 Simpson Way, Escondido, CA (US) 92029

(**) Term: **14 Years**

(21) Appl. No.: **29/183,384**

(22) Filed: **Jun. 11, 2003**

(51) **LOC (7) Cl.** **26-05**
(52) **U.S. Cl.** **D26/63**; D26/67
(58) **Field of Search** D26/60–72, 82–85, D26/87–90, 92; 362/153, 153.1, 267, 269, 281, 285, 287, 418, 419, 427, 430

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,270,192	A	*	8/1966	Watson	362/293
4,238,816	A	*	12/1980	Merlo	362/279
D286,682	S	*	11/1986	Greenlee	D26/63
5,599,091	A	*	2/1997	Kira	362/269
5,651,606	A	*	7/1997	Krogman	362/96
D385,638	S	*	10/1997	Bonnette et al.	D26/62
5,713,662	A	*	2/1998	Kira	362/427
D392,067	S	*	3/1998	Morrow et al.	D26/65
D417,519	S	*	12/1999	Cutler	D26/63
D473,669	S	*	4/2003	Hille et al.	D26/63

* cited by examiner

Primary Examiner—Clare Heflin
(74) *Attorney, Agent, or Firm*—Joseph A. Yanny; Michael A. DiNardo; Stacie J. Sundquist

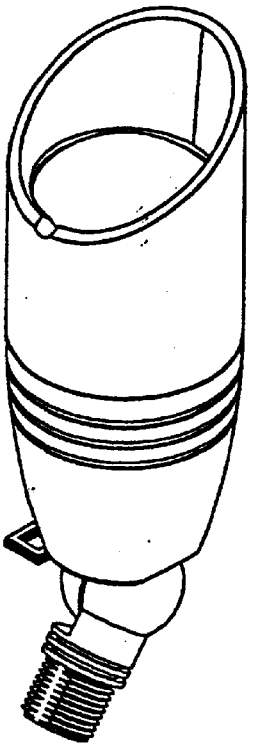
(57) **CLAIM**

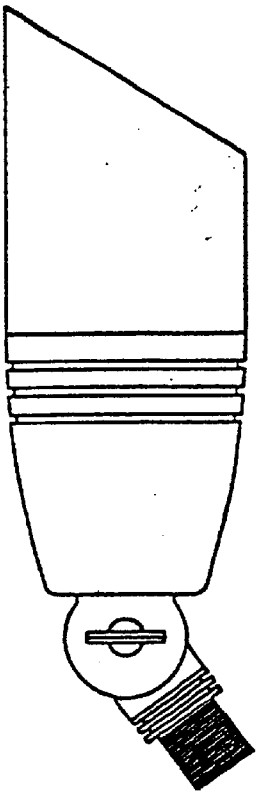
The ornamental design for a pulsar lighting fixture, as shown.

DESCRIPTION

FIG. **1** presents a perspective view of the pulsar lighting fixture of the present invention.
FIG. **2** presents a front view of the pulsar lighting fixture of the present invention.
FIG. **3** presents a top view of the pulsar lighting fixture of the present invention.
FIG. **4** presents a bottom view of the pulsar lighting fixture of the present invention.
FIG. **5** presents a left side view of the pulsar lighting fixture of the present invention; and,
FIG. **6** presents a right side view of the pulsar lighting fixture of the present invention.

1 Claim, 3 Drawing Sheets





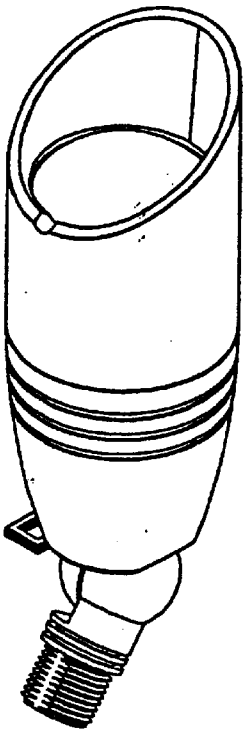


FIGURE 1

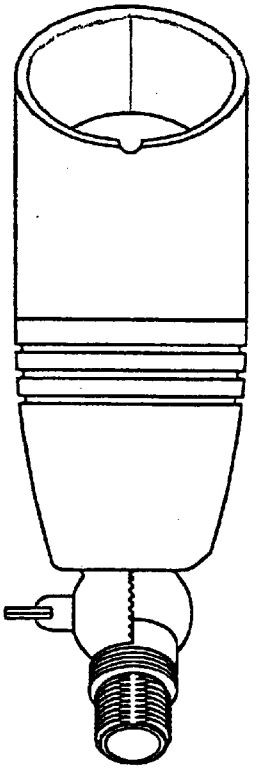


FIGURE 2

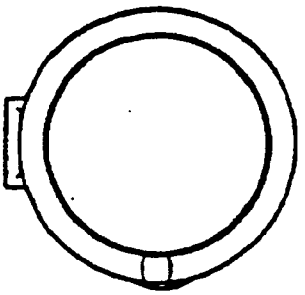


FIGURE 3

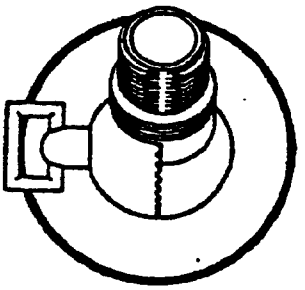


FIGURE 4

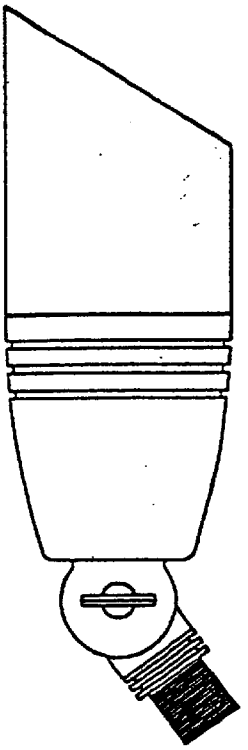


FIGURE 5

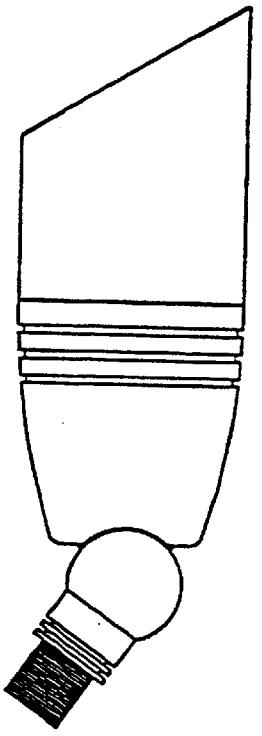


FIGURE 6

Exhibit 3

US00D550877S

(12) **United States Design Patent** (10) **Patent No.: US D550,877 S**
Mullen (45) **Date of Patent: ** Sep. 11, 2007**

(54) **LIGHT FIXTURE**

(76) Inventor: **Nate Mullen**, 1240 Simpson Way, Escondido, CA (US) 92029

(**) Term: **14 Years**

(21) Appl. No.: **29/254,042**

(22) Filed: **Feb. 16, 2006**

(51) **LOC (8) Cl.** **26-05**
(52) **U.S. Cl.** **D26/63**; D26/68
(58) **Field of Classification Search** D26/63, D26/67–71; 362/183, 145, 152, 153, 153.1, 362/266, 267, 269, 275, 287, 415, 431
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D308,111	S	*	5/1990	Banathy et al.	D26/68
D319,891	S	*	9/1991	Giese	D26/67
5,086,379	A	*	2/1992	Denison et al.	362/145
D360,962	S	*	8/1995	Cornell et al.	D26/67
5,584,574	A	*	12/1996	Haddad	362/359
5,988,833	A	*	11/1999	Giese et al.	362/287
D424,731	S	*	5/2000	Landefeld	D26/68
D437,071	S	*	1/2001	Andrus et al.	D26/63
D542,959	S	*	5/2007	Yao	D26/68

* cited by examiner

Primary Examiner—Clare E Heflin
(74) *Attorney, Agent, or Firm*—Kelly Lowry & Kelley, LLP

(57) **CLAIM**

The ornamental design for a light fixture, as shown.

DESCRIPTION

FIG. **1** is a perspective view of the light fixture embodying the new design;

FIG. **2** is a front view of the present invention;

FIG. **3** is a back view of the present invention;

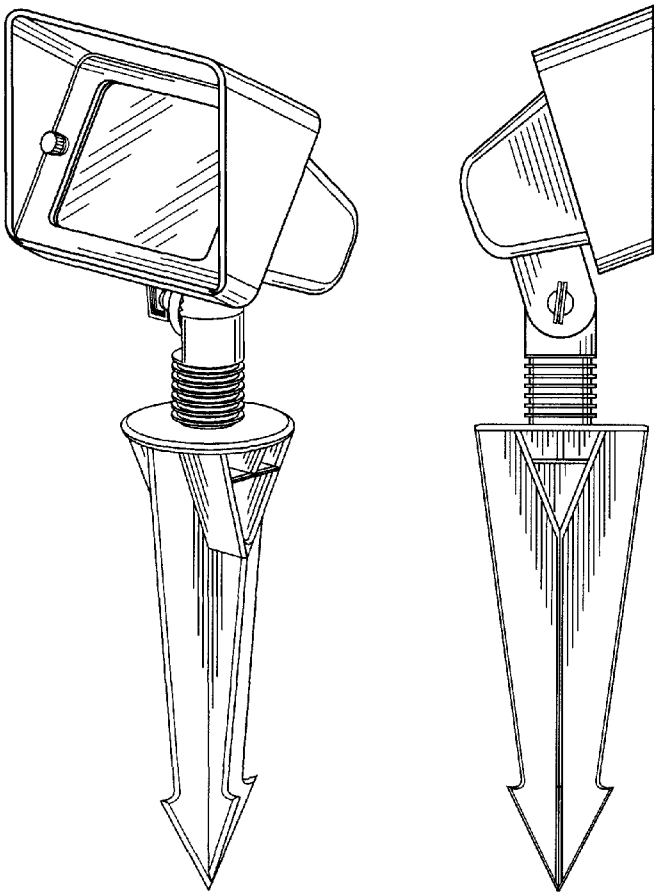
FIG. **4** is a left side view of the present invention;

FIG. **5** is a right side view of the present invention;

FIG. **6** is a top view of the present invention; and,

FIG. **7** is a bottom view of the light fixture.

1 Claim, 3 Drawing Sheets



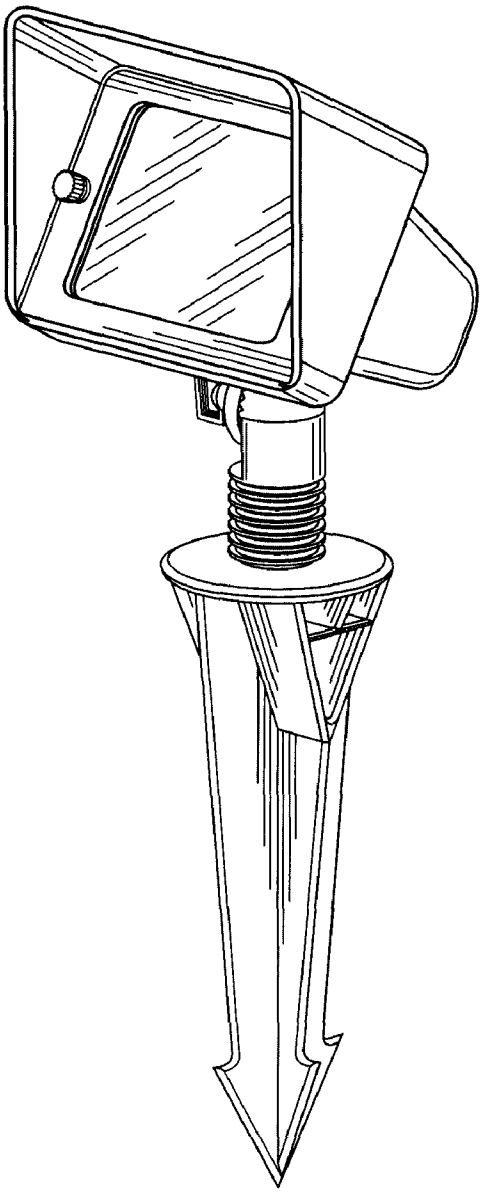


FIG. 1

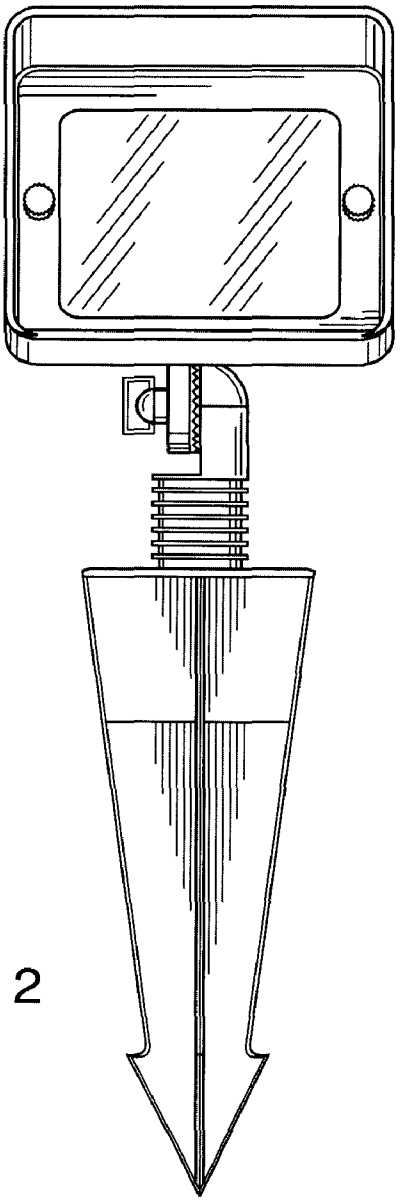


FIG. 2

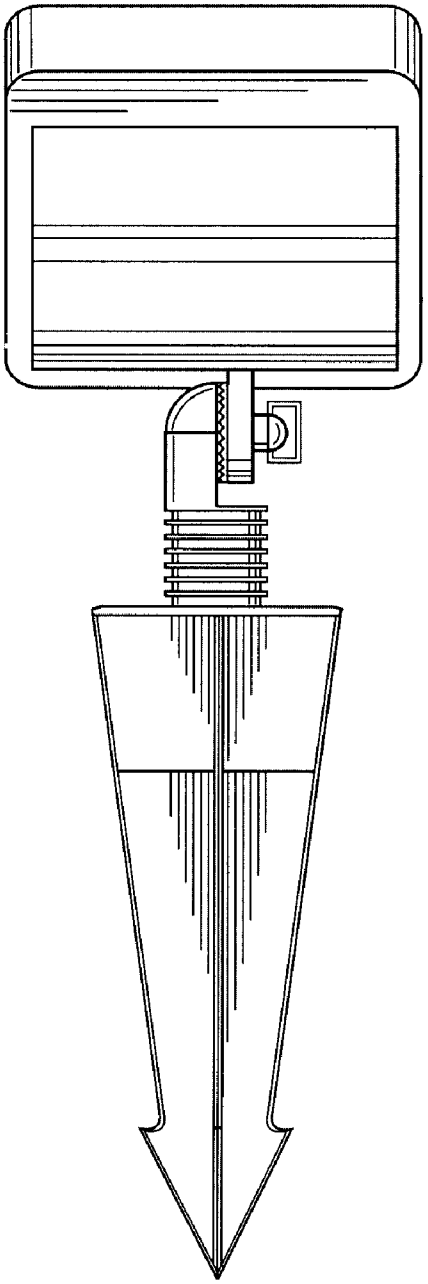


FIG. 3

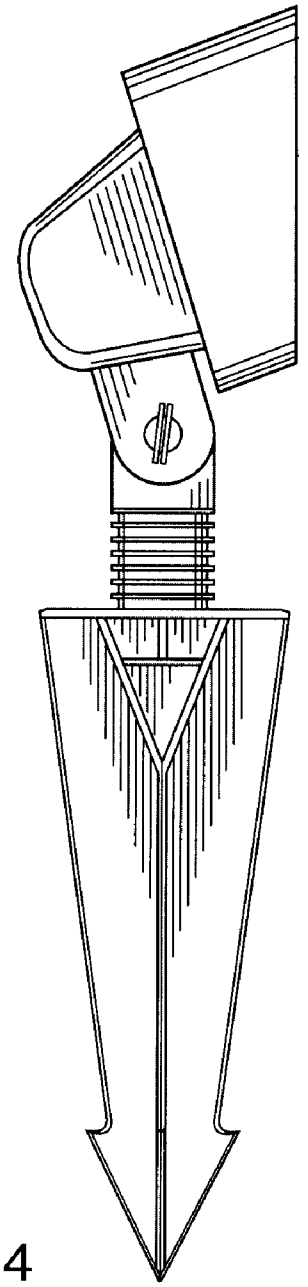


FIG. 4

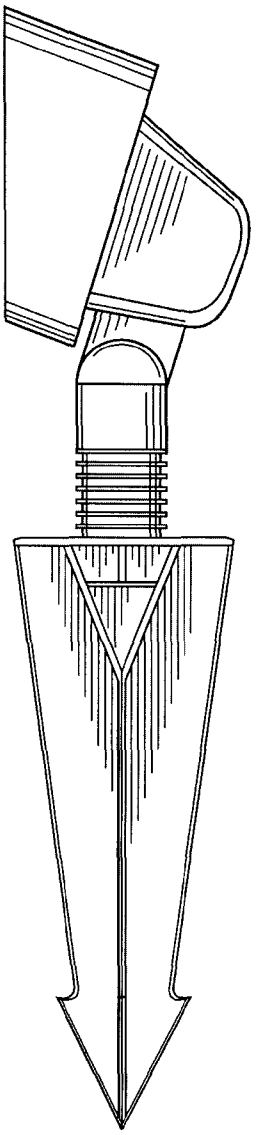


FIG. 5

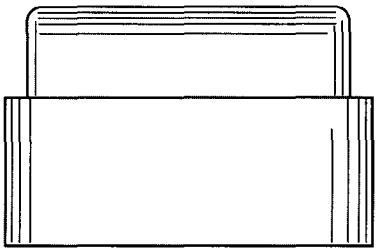


FIG. 6

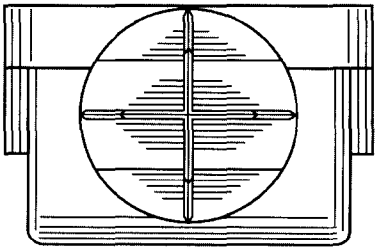


FIG. 7

Exhibit 4

US00D551789S

(12) United States Design Patent

Mullen

(10) Patent No.: US D551,789 S
(45) Date of Patent: ** Sep. 25, 2007

(54) **LIGHT FIXTURE**

(76) Inventor: **Nate Mullen**, 1240 Simpson Way, Escondido, CA (US) 92029

(**) Term: **14 Years**

(21) Appl. No.: **29/254,031**

(22) Filed: **Feb. 16, 2006**

(51) **LOC (8) Cl.** **26-05**
(52) **U.S. Cl.** **D26/63**; D26/68
(58) **Field of Classification Search** D26/63, D26/67–71; 362/183, 145, 152, 153, 153.1, 362/266, 267, 269, 275, 287, 415, 431
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D308,111 S * 5/1990 Banathy et al. D26/68
D319,891 S * 9/1991 Giese D26/67
5,086,379 A * 2/1992 Denison et al. 362/145
D360,962 S * 8/1995 Cornell et al. D26/67
D370,070 S * 5/1996 Kay D26/67
5,584,574 A * 12/1996 Haddad 362/359
D414,579 S * 9/1999 Denison et al. D26/68
5,988,833 A * 11/1999 Giese et al. 362/287
6,612,720 B1 * 9/2003 Beadle 362/287
D542,959 S * 5/2007 Yao et al. D26/68

* cited by examiner

Primary Examiner—Clare E Heflin
(74) *Attorney, Agent, or Firm*—Kelly Lowry & Kelley, LLP

(57) **CLAIM**

The ornamental design for a light fixture, as shown.

DESCRIPTION

FIG. **1** is a perspective view of the light fixture embodying the new design;

FIG. **2** is a front view of the present invention;

FIG. **3** is a back view of the present invention;

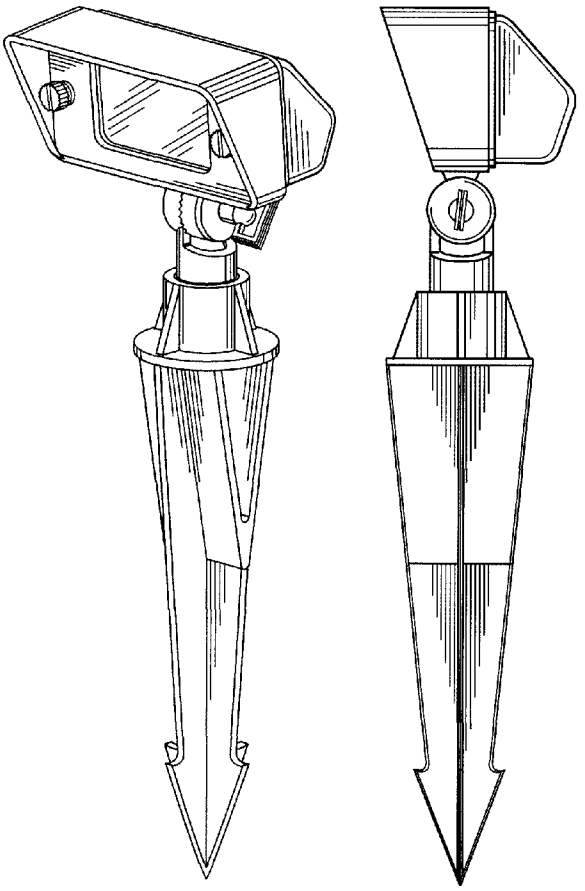
FIG. **4** is a right side view of the present invention;

FIG. **5** is a left side view of the present invention;

FIG. **6** is a top view of the present invention; and,

FIG. **7** is a bottom view of the light fixture.

1 Claim, 3 Drawing Sheets



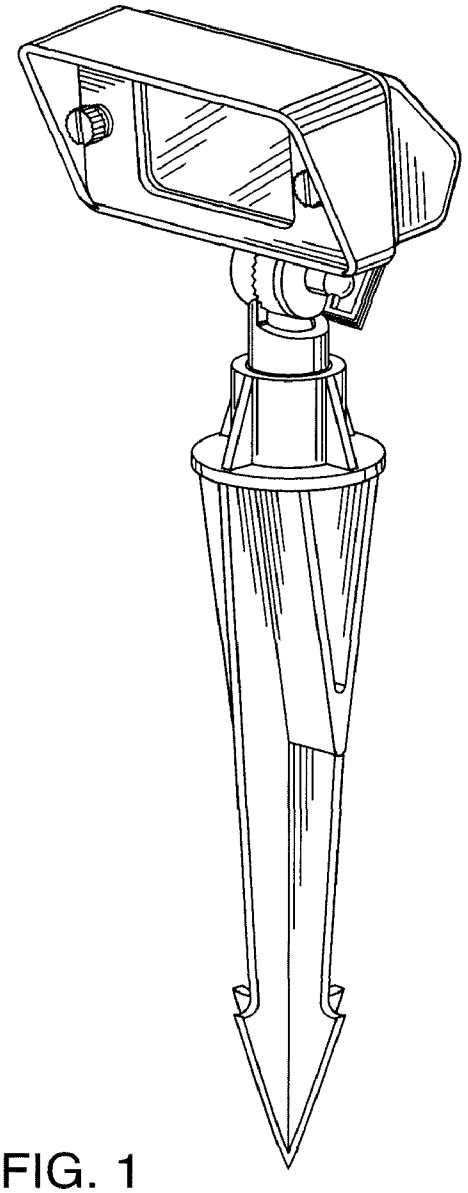


FIG. 1

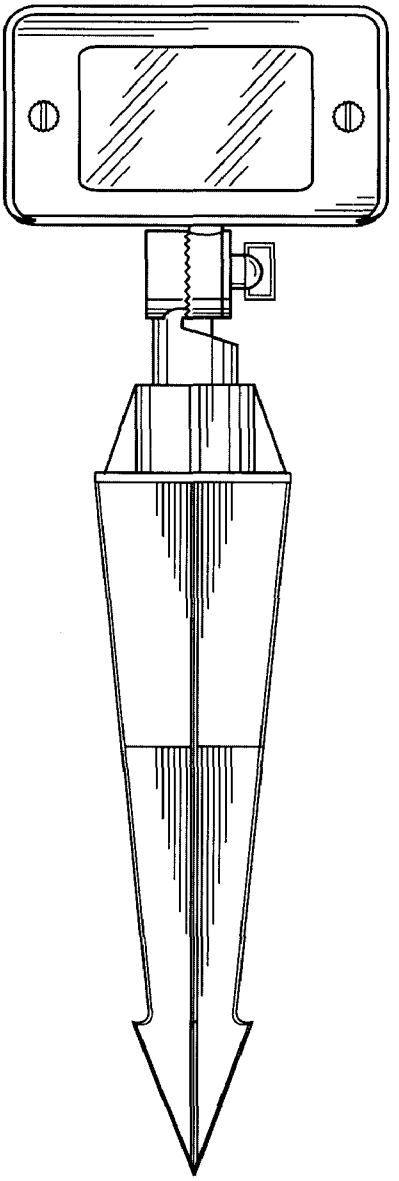


FIG. 2

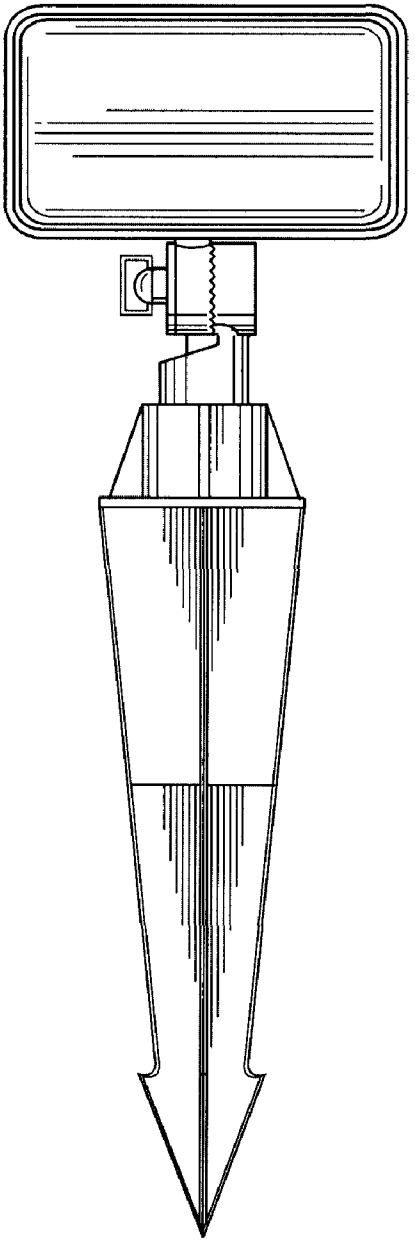


FIG. 3

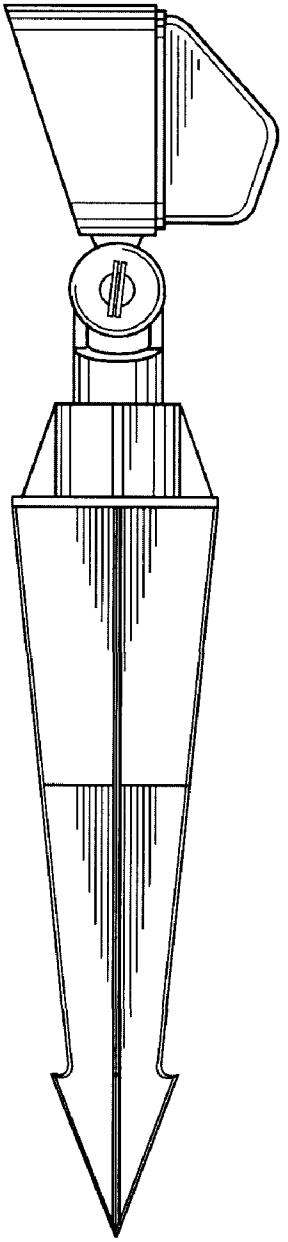


FIG. 4

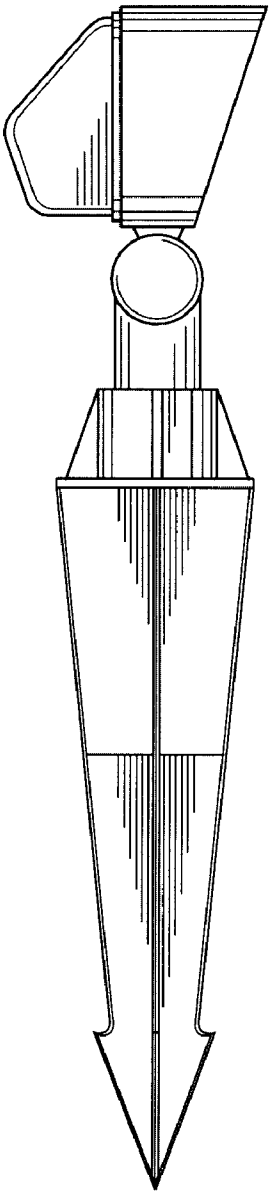


FIG. 5

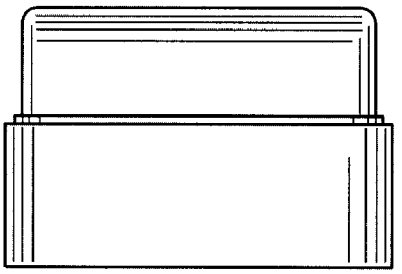


FIG. 6

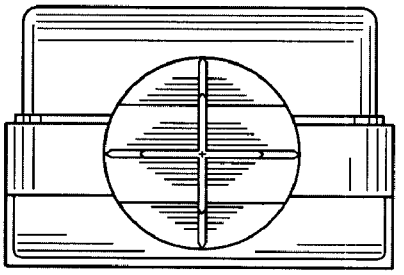


FIG. 7

Exhibit 5

US007699481B2

(12) **United States Patent**
Mullen

(10) **Patent No.: US 7,699,481 B2**
(45) **Date of Patent: Apr. 20, 2010**

(54) **METHOD OF WIRING LIGHTING FIXTURES TO ACHIEVE UNIFORM VOLTAGE DROP**

(76) Inventor: **Nate Mullen**, Unique Lighting, 1240 Simpson Way, Escondido, CA (US) 92029

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 2029 days.

(21) Appl. No.: **09/738,024**

(22) Filed: **Dec. 14, 2000**

(65) **Prior Publication Data**

US 2002/0124395 A1 Sep. 12, 2002

(51) **Int. Cl.**
F21V 9/16 (2006.01)

(52) **U.S. Cl.** **362/84**; 362/85; 362/103; 362/145

(58) **Field of Classification Search** 29/832, 29/854, 825; 315/149, 159; 362/103, 146, 362/84–85, 145
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,740,541 A * 6/1973 Conradt 362/146
4,937,499 A * 6/1990 Hunte 315/149
5,113,325 A * 5/1992 Eisenbraun 362/103

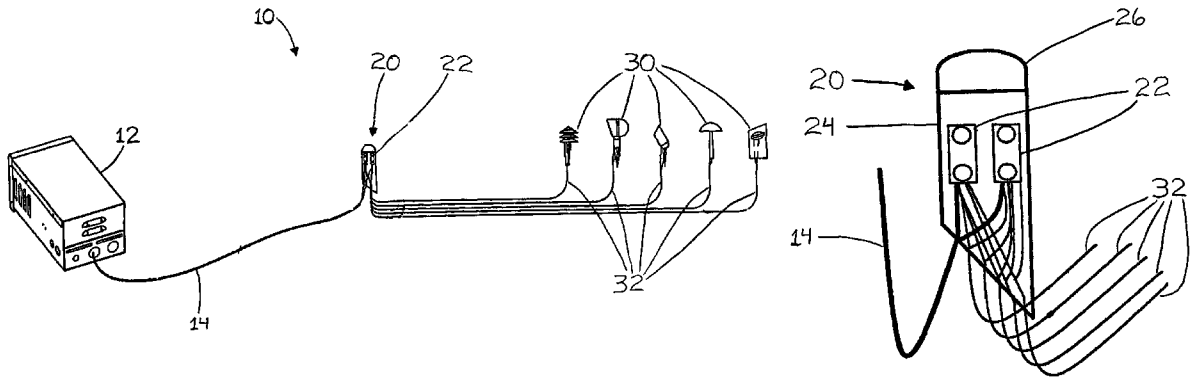
* cited by examiner

Primary Examiner—Rick K Chang
(74) *Attorney, Agent, or Firm*—Kelly Lowry & Kelley, LLP

(57) **ABSTRACT**

This invention is directed toward a method for wiring lighting systems, primarily low voltage, landscape lighting systems. The inventive method operates to equalize voltage drop across such lighting systems. The inventive method involves running a home run wire from a power source or transformer to a wiring hub. Two or more light fixtures having equal length wire leads are connected to the home run wire in the wiring hub. Each of the light fixtures are then arranged in the landscape lighting system around the wiring hub. Uniform voltage drop is achieved through the creation of equal distances between multiple light fixtures and a common power source. The common home run wire and equal length wire leads results is an equal distance from a common power source to each light fixture in the configuration.

2 Claims, 7 Drawing Sheets



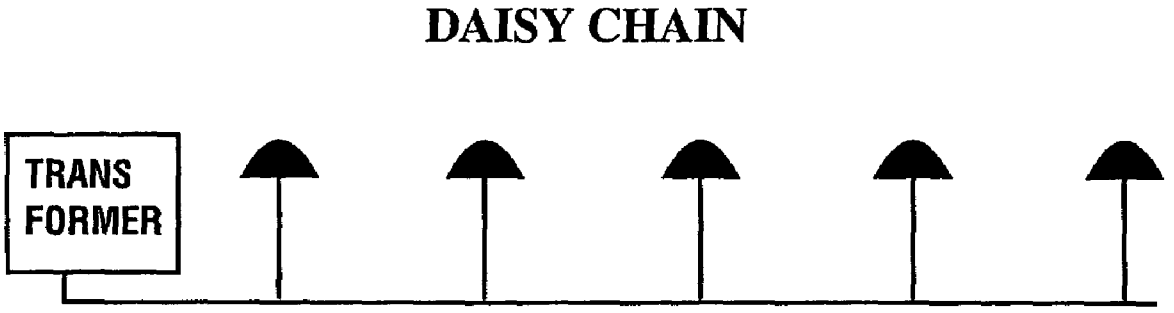


FIGURE 1a

LOOP METHOD

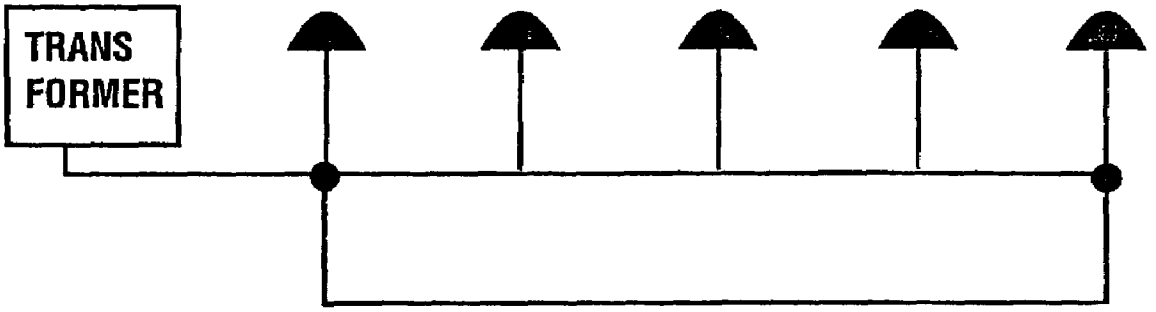


FIGURE 1b

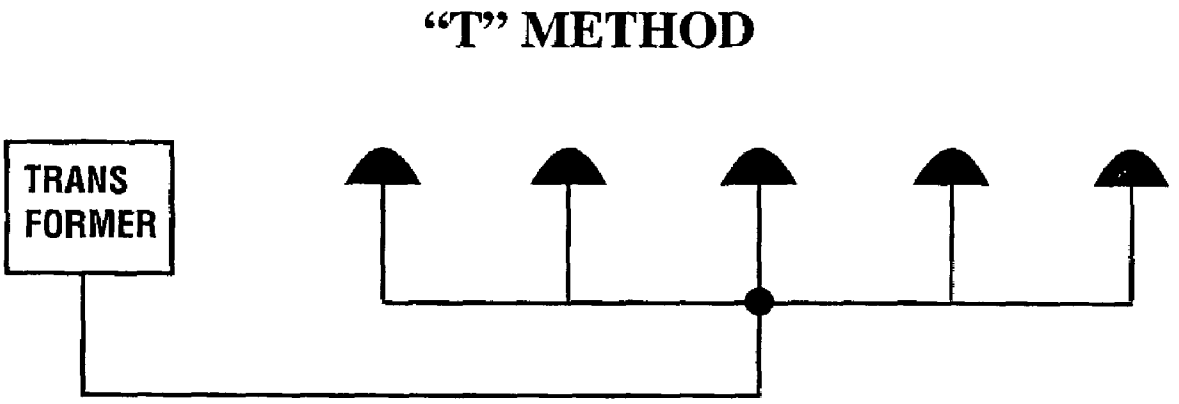


FIGURE 1c

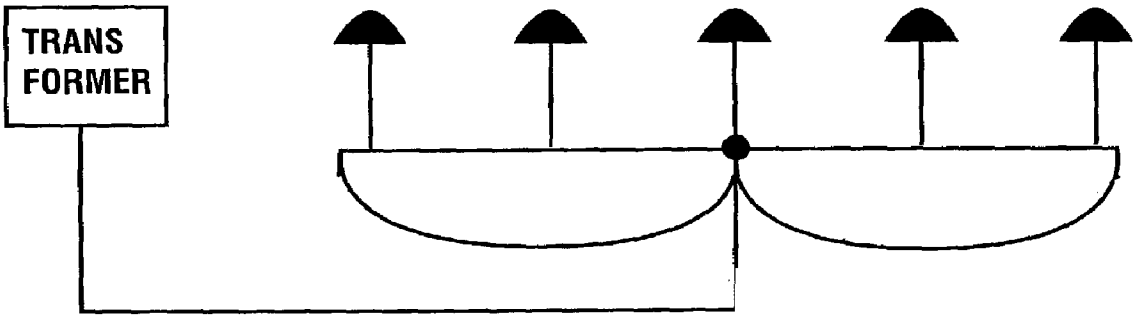


FIGURE 1d

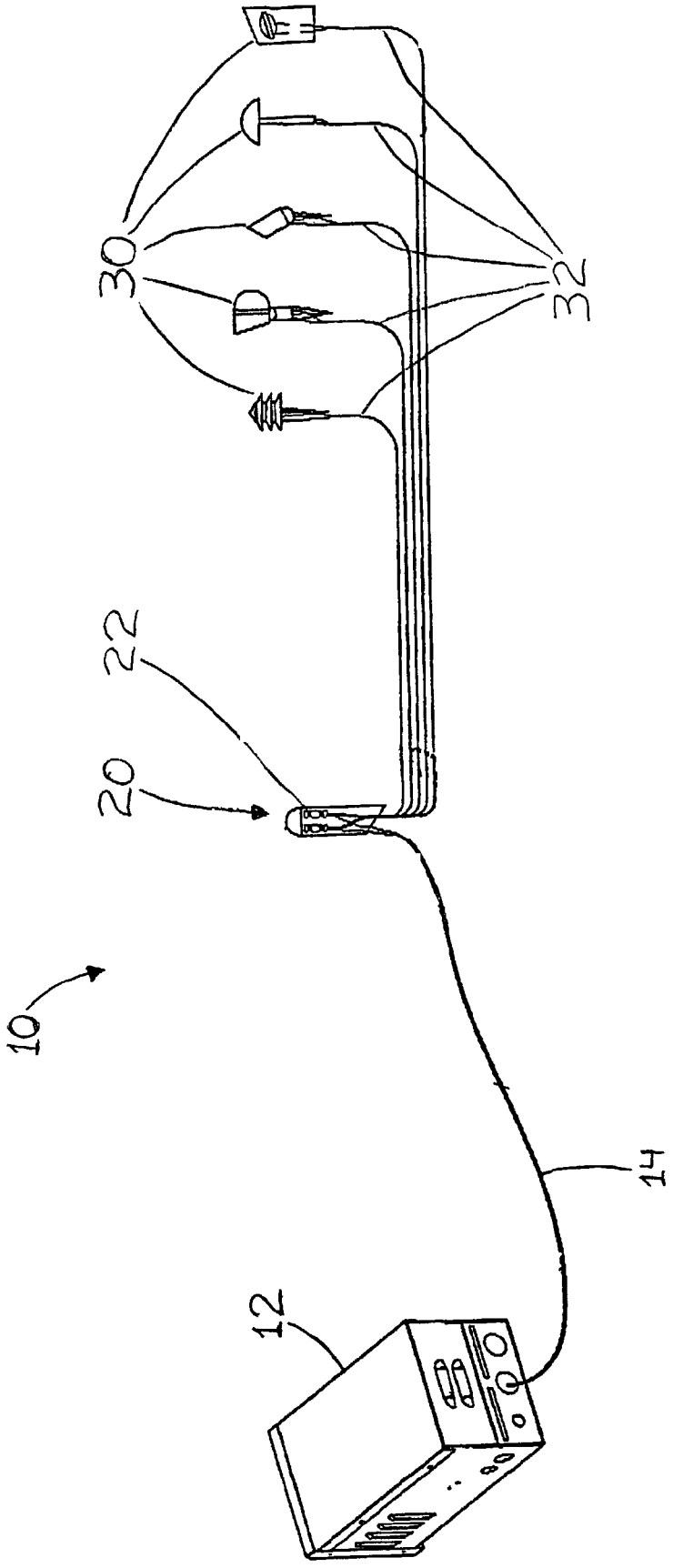


FIGURE 2

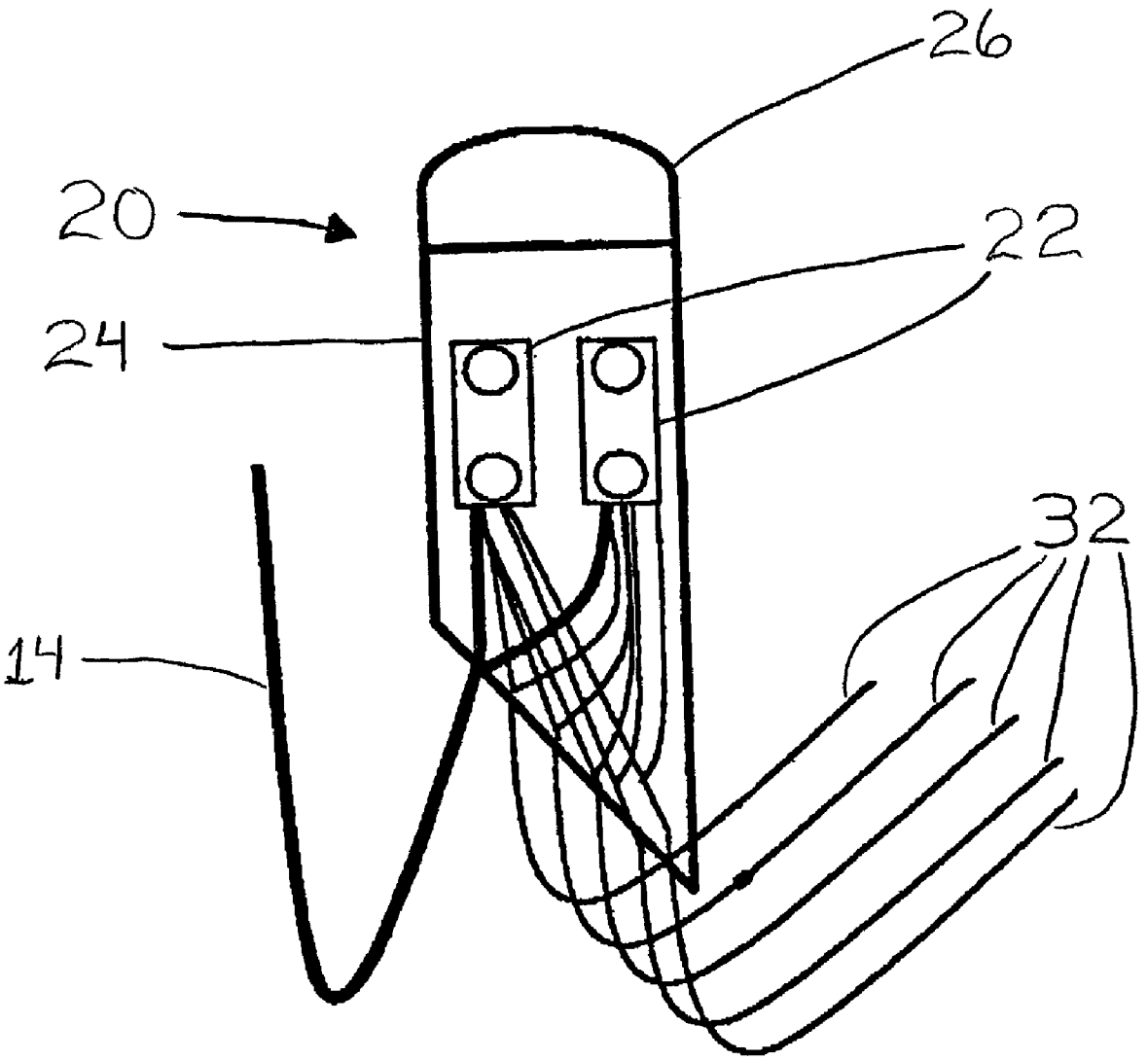


FIGURE 3

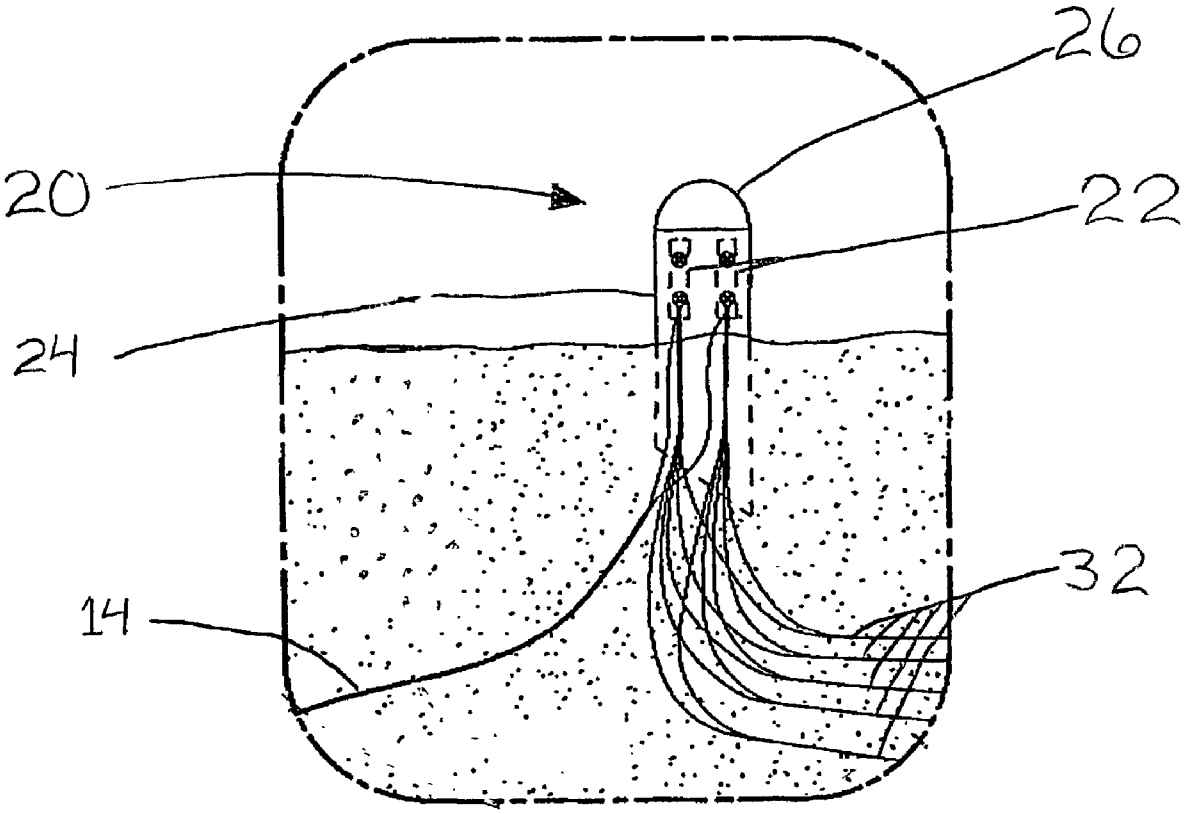


FIGURE 4

METHOD OF WIRING LIGHTING FIXTURES TO ACHIEVE UNIFORM VOLTAGE DROP

CROSS-REFERENCE TO RELATED APPLICATION

Not Applicable.

STATEMENT RE:FEDERALLY SPONSORED RESEARCH AND DEVELOPMENT

Not Applicable.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to a wiring method and an apparatus used therein to equalize voltage drop across a lighting system. The method and apparatus is particularly applicable to low voltage lighting systems. As this invention was developed for use in low voltage systems, this specification will discuss the invention as applied to low voltage systems. However, the principles and teachings of this invention are applicable to both standard and high voltage systems as well.

2. Description of the Related Art

The prior art discloses several methods and manners for wiring lighting systems to compensate for voltage drop across a system. The most common method is the Daisy Chain method which simply has each light fixture run in series from the power source. This method results in a voltage drop at each fixture and across the wiring in between. At the end of a series of fixtures, the voltage drop across a Daisy Chain system may be very large at low voltages.

Another wiring method is the Loop Method which is basically a Daisy Chain run with an extra loop of wire between the first fixture and the last fixture. The loop of wire brings the same voltage and power to both ends of the wire run. The voltage drop across the fixtures decreases only up to the mid-point of the Daisy Chain run rather than the entire length.

Another wiring method is the "T" Method. The "T" Method has the homerun wire running to a central fixture and the other fixtures are wired in series from the central fixture. This method lessens the voltage drop because the runs are shorter than in the Daisy Chain or Loop Methods for the same number of fixtures. This method may also be combined with other methods such as the Loop Method.

Drawbacks of the prior art methods include excessive voltage drop or the use of extra parts, labor and time to minimize the voltage drop. Because of the voltage drop in the above methods, lighting systems which are wired using these methods present lights that are each receiving a different voltage resulting in lights with inconsistent light output.

BRIEF SUMMARY OF THE INVENTION

The main object of this invention is to provide a wiring method which equalizes voltage across a lighting system while minimizing parts, labor and time spent.

It is another object of this invention to provide a wiring method which provides better wiring connections for landscape lighting, i.e., connections are not in the ground where they are exposed to oxidation and rust but are contained in an Equalizer Hub™.

The Equalizer Hub™ is a wiring manifold that distributes voltage evenly to each lamp in a given lighting system, even if one or more light fixtures fail. The Equalizer Hub™ is designed to be used in conjunction with one or more lighting fixtures, and serves as the connection point between the homerun wire from the power source, i.e. a transformer, and the fixture lead wires. The Equalizer Hub™ may be used in all applications, particularly low voltage landscape lighting, and it may be buried above or below grade. While, the Equalizer Hub™ may be used in all applications, it is most effective in low voltage situations where the amount of voltage drop in a system will have a greater effect on the light output by the individual fixtures.

Other advantages and benefits of the present invention include ease in adding fixtures to a system, easy in testing voltage, ease in troubleshooting, easy access to wire connections, and ease in moving fixtures.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1***a* depicts a representation of the prior art Daisy Chain wiring method.

FIG. **1***b* depicts a representation of the prior art Loop wiring method.

FIG. **1***c* depicts a representation of the prior art "T" wiring method.

FIG. **1***d* depicts a representation of the prior art combined "T" and Loop wiring method.

FIG. **2** depicts a representation of the wiring method of the present invention.

FIG. **3** shows an enlarged, cut-away side view of the Equalizer Hub™ with homerun and wire lead connections.

FIG. **4** shows a cut-away side view of the Equalizer Hub™ with homerun and wire lead connections in relation to ground level.

DETAILED DESCRIPTION OF THE INVENTION

The instant invention is directed to a wiring method used for equalizing voltage delivered to each fixture in a lighting system. Primarily, the wiring method of the instant invention is intended for use in low voltage landscape lighting systems, however, the principles and methods are equally applicable to standard and high voltage systems. The benefits of this invention are more realizable in low voltage systems where the voltage drop over a given distance will cause a noticeable decrease in performance of the lighting system.

The novel designs of the present invention address the shortcomings of prior art outdoor wiring systems, namely, by providing: (i) a wiring method that saves on parts, labor and time in installation; (ii) a wiring method that results in lighting systems that do not experience a voltage drop that reduces performance; (iii) a wiring method that allows for easy addition of lighting fixtures to an existing lighting system; and (iv) a wiring method that may be used to combine various types of light fixtures into one lighting system without worrying about different types of fixtures causing different amounts of voltage drop across the line.

FIGS. **1***a*, **1***b*, **1***c*, and **1***d* depict representations of various prior art wiring methods used to connect light fixtures in a given lighting system. As discussed above, each of these wiring methods result in an increasing voltage drop from the first fixture in the lighting system to each fixture down the run.

Referring to the prior art methods in FIGS. **1***a*, **1***b*, **1***c*, and **1***d*, each lamp is not a uniform length of wire from the transformer, and hence, each lamp experiences a different amount of voltage drop. In addition, in the prior art methods, each lamp in series from the transformer experiences an additional voltage drop because of the additional connections and fixtures that the electricity passes through prior to reaching the intended fixture.

The preferred embodiment of the wiring method of the present invention will be described using 12/2 or 16/2 electrical line where appropriate. A person having ordinary skill in the art will realize the differences and benefits between using 16/2 or 12/2 electrical line or wire of another gauge or an electrical line with more wires and be able to choose the appropriate type and gauge of wire.

As depicted in FIG. **2**, the wiring method for a given lighting system (**10**) connects a power source (not shown) to a transformer (**12**), with a homerun wire (**14**). The homerun wire (**14**) is connected to two or more connectors (**22**) in the Equalizer Hub™ (**20**). The connectors (**22**) in the Equalizer Hub™ (**20**) may be any appropriate type of electrical connector, i.e. barrel-lug, screw on electrical connector typically sold under the trademark WIRE-NUT®, permanent solder connection, etc. A skilled artisan will recognize the advantages and disadvantages of using the various types of wire connectors. The preferred embodiment of the present invention uses barrel-lug connectors with threaded ends for securing in a screw on electrical connector typically sold under the trademark WIRE-NUT®.

As further shown in FIG. **2**, each of the lighting fixtures (**30**) are directly coupled to the homerun wire (**14**) without passing through another connection or fixture. The fixtures (**30**) are coupled to the homerun wire (**14**) by running wires leads (**32**) from the fixtures (**30**) to the connectors (**22**) in the Equalizer Hub™ (**20**). This feature is more clearly shown in FIGS. **3** and **4**, which are close-up views of the Equalizer Hub™ (**20**) with incoming homerun (**14**) and lead (**32**) wires coupled with the connectors (**22**).

In the present invention, the wire leads (**32**) are of equal lengths so that each fixture (**30**) is an equal distance from the transformer (**12**). A skilled artisan will recognize that the homerun wire (**14**) and the wire leads (**32**) should be coupled with the connectors (**22**) in such a way to allow the homerun wire (**14**) and the wire leads (**32**) to be connected with matching polarities.

The equal distance of each fixture (**30**) from the transformer (**12**) results in equal voltage drop between the transformer (**12**) to the fixture (**30**). The only available source of voltage drop is the electrical wire itself, the electricity to each fixture (**30**) does not pass through any additional connections, fixtures or other sources of voltage drop prior to arriving at the intended fixture (**30**). Since the only source of voltage drop is the wire itself and each fixture (**30**) is an equal length of wire from the transformer (**12**), the amount of voltage drop will be uniform.

A skilled artisan will recognize that even given the present invention, there are limitations on the length of wire runs and the number of fixtures or total amount of wattage which may be attached to a given lighting system. Extremely long wire runs inherently experience a high level of voltage drop. In addition, a lighting system which has too many fixtures or a total wattage that is too high will not function properly.

In the preferred embodiment of the present invention, runs of 12/2 electrical wire from the equalizer hub to any fixture should be limited to 50 feet. If an artisan uses 16/2 electrical wire, similar runs from the equalizer hub to any fixture should

be limited to 25 feet. This is not to say that runs cannot be of greater lengths, but, as the length increases, the amount of voltage drop across the line increases and the benefits gained by the use of the inventive method begin to decrease.

Similarly, in the preferred embodiment of the present invention, the number of fixtures on a given equalizer hub should be limited to 4 or 5. However, a greater number of fixtures may be used depending upon the total wattage of the fixtures and any potential or intended increases in wattage in the future. The inventor has found that the use of 4 or 5 fixtures at installation are adequate for allowing the future addition of new fixtures to a hub while maximizing effectiveness at installation.

FIG. **4** depicts the Equalizer Hub™ (**20**) with incoming homerun (**14**) and wires lead (**32**) coupled with the connectors (**22**). The Equalizer Hub™ (**20**) in this figure is depicted as installed and in use above grade. As an artisan will recognize, the Equalizer Hub™ (**20**) may be installed above grade or below grade. The Equalizer Hub™ (**20**) consists of a cylindrical member (**24**) with a cap (**26**) covering the top of the cylindrical member (**24**). The cylindrical member (**24**) and cap (**26**) may be constructed of any material commonly used for containing electrical connections, i.e. plastic, metal, ceramic, etc. In the preferred embodiment, the cylindrical member (**24**) and cap (**26**) are manufactured from black ABS plumbing pipe. This material provides a secure environment for the connections when made in a landscape lighting system. The plubming pipe remains water-tight in an outdoor environment and the black color is aesthetically pleasing and easily concealed under a plant or in a bed of mulch or dirt.

The above described invention is capable of being used in nearly any lighting system, whether it is high, standard or low voltage, or whether it is indoor or outdoor lighting. A skilled artisan will recognize that this invention may be used on its own or in combination with any of the other prior art embodiments in various lighting systems.

The above-described preferred embodiments are intended to illustrate the principles of the invention, but not to limit its scope. Other embodiments and variations of these preferred embodiments will be apparent to those skilled in the art and may be made without departing from the spirit and scope of the invention as defined in the following claims.

I claim:

1. A method for wiring an outdoor electrical lighting system to achieve uniform voltage drop, comprising:

providing a low voltage electrical source through a homerun wire;

connecting said homerun wire to wire connectors in an equalizer hub;

connecting uniform length wire leads from two or more outdoor light fixtures to said wire connectors such that each light fixture is an equal electrical distance from the electrical source.

2. The method of claim **1** wherein said homerun wire runs from a transformer and the transformer is the low voltage electrical source.

* * * * *

JS 44 (Rev. 12/07)

CIVIL COVER SHEET

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. (SEE INSTRUCTIONS ON THE REVERSE OF THE FORM.)

I. (a) PLAINTIFFS

Unique Lighting Systems, Inc., Mullen, Nate, & Weisser, Randy

(b) County of Residence of First Listed Plaintiff San Diego
(EXCEPT IN U.S. PLAINTIFF CASES)

(c) Attorney's (Firm Name, Address, and Telephone Number)
See Attachment

DEFENDANTS

Landscape Lighting World dba www.landscapelightingworld.com et al. (see attachment)

County of Residence of First Listed Defendant Hillsborough County, FL
(IN U.S. PLAINTIFF CASES ONLY)

NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE LAND INVOLVED.

Attorneys (If Known) '10CV2174 H AJB

II. BASIS OF JURISDICTION (Place an "X" in One Box Only)

- ☐ 1 U.S. Government Plaintiff
- ☒ 3 Federal Question (U.S. Government Not a Party)
- ☐ 2 U.S. Government Defendant
- ☐ 4 Diversity (Indicate Citizenship of Parties in Item III)

III. CITIZENSHIP OF PRINCIPAL PARTIES (Place an "X" in One Box for Plaintiff and One Box for Defendant)
(For Diversity Cases Only)

	PTF	DEF		PTF	DEF
Citizen of This State	☐ 1	☐ 1	Incorporated *or* Principal Place of Business In This State	☐ 4	☐ 4
Citizen of Another State	☐ 2	☐ 2	Incorporated *and* Principal Place of Business In Another State	☐ 5	☐ 5
Citizen or Subject of a Foreign Country	☐ 3	☐ 3	Foreign Nation	☐ 6	☐ 6

IV. NATURE OF SUIT (Place an "X" in One Box Only)

CONTRACT
- ☐ 110 Insurance
- ☐ 120 Marine
- ☐ 130 Miller Act
- ☐ 140 Negotiable Instrument
- ☐ 150 Recovery of Overpayment & Enforcement of Judgment
- ☐ 151 Medicare Act
- ☐ 152 Recovery of Defaulted Student Loans (Excl. Veterans)
- ☐ 153 Recovery of Overpayment of Veteran's Benefits
- ☐ 160 Stockholders' Suits
- ☐ 190 Other Contract
- ☐ 195 Contract Product Liability
- ☐ 196 Franchise

REAL PROPERTY
- ☐ 210 Land Condemnation
- ☐ 220 Foreclosure
- ☐ 230 Rent Lease & Ejectment
- ☐ 240 Torts to Land
- ☐ 245 Tort Product Liability
- ☐ 290 All Other Real Property

TORTS

PERSONAL INJURY
- ☐ 310 Airplane
- ☐ 315 Airplane Product Liability
- ☐ 320 Assault, Libel & Slander
- ☐ 330 Federal Employers' Liability
- ☐ 340 Marine
- ☐ 345 Marine Product Liability
- ☐ 350 Motor Vehicle
- ☐ 355 Motor Vehicle Product Liability
- ☐ 360 Other Personal Injury

PERSONAL INJURY
- ☐ 362 Personal Injury - Med. Malpractice
- ☐ 365 Personal Injury - Product Liability
- ☐ 368 Asbestos Personal Injury Product Liability

PERSONAL PROPERTY
- ☐ 370 Other Fraud
- ☐ 371 Truth in Lending
- ☐ 380 Other Personal Property Damage
- ☐ 385 Property Damage Product Liability

CIVIL RIGHTS
- ☐ 441 Voting
- ☐ 442 Employment
- ☐ 443 Housing/ Accommodations
- ☐ 444 Welfare
- ☐ 445 Amer. w/Disabilities - Employment
- ☐ 446 Amer. w/Disabilities - Other
- ☐ 440 Other Civil Rights

PRISONER PETITIONS
- ☐ 510 Motions to Vacate Sentence

Habeas Corpus:
- ☐ 530 General
- ☐ 535 Death Penalty
- ☐ 540 Mandamus & Other
- ☐ 550 Civil Rights
- ☐ 555 Prison Condition

FORFEITURE/PENALTY
- ☐ 610 Agriculture
- ☐ 620 Other Food & Drug
- ☐ 625 Drug Related Seizure of Property 21 USC 881
- ☐ 630 Liquor Laws
- ☐ 640 R.R. & Truck
- ☐ 650 Airline Regs.
- ☐ 660 Occupational Safety/Health
- ☐ 690 Other

LABOR
- ☐ 710 Fair Labor Standards Act
- ☐ 720 Labor/Mgmt. Relations
- ☐ 730 Labor/Mgmt.Reporting & Disclosure Act
- ☐ 740 Railway Labor Act
- ☐ 790 Other Labor Litigation
- ☐ 791 Empl. Ret. Inc. Security Act

IMMIGRATION
- ☐ 462 Naturalization Application
- ☐ 463 Habeas Corpus - Alien Detainee
- ☐ 465 Other Immigration Actions

BANKRUPTCY
- ☐ 422 Appeal 28 USC 158
- ☐ 423 Withdrawal 28 USC 157

PROPERTY RIGHTS
- ☐ 820 Copyrights
- ☒ 830 Patent
- ☐ 840 Trademark

SOCIAL SECURITY
- ☐ 861 HIA (1395ff)
- ☐ 862 Black Lung (923)
- ☐ 863 DIWC/DIWW (405(g))
- ☐ 864 SSID Title XVI
- ☐ 865 RSI (405(g))

FEDERAL TAX SUITS
- ☐ 870 Taxes (U.S. Plaintiff or Defendant)
- ☐ 871 IRS—Third Party 26 USC 7609

OTHER STATUTES
- ☐ 400 State Reapportionment
- ☐ 410 Antitrust
- ☐ 430 Banks and Banking
- ☐ 450 Commerce
- ☐ 460 Deportation
- ☐ 470 Racketeer Influenced and Corrupt Organizations
- ☐ 480 Consumer Credit
- ☐ 490 Cable/Sat TV
- ☐ 810 Selective Service
- ☐ 850 Securities/Commodities/ Exchange
- ☐ 875 Customer Challenge 12 USC 3410
- ☐ 890 Other Statutory Actions
- ☐ 891 Agricultural Acts
- ☐ 892 Economic Stabilization Act
- ☐ 893 Environmental Matters
- ☐ 894 Energy Allocation Act
- ☐ 895 Freedom of Information Act
- ☐ 900Appeal of Fee Determination Under Equal Access to Justice
- ☐ 950 Constitutionality of State Statutes

V. ORIGIN (Place an "X" in One Box Only)

☒ 1 Original Proceeding ☐ 2 Removed from State Court ☐ 3 Remanded from Appellate Court ☐ 4 Reinstated or Reopened ☐ 5 Transferred from another district (specify) ☐ 6 Multidistrict Litigation ☐ 7 Appeal to District Judge from Magistrate Judgment

VI. CAUSE OF ACTION

Cite the U.S. Civil Statute under which you are filing **(Do not cite jurisdictional statutes unless diversity)**:
28 U.S.C. §§ 1331 and 1338(a)

Brief description of cause:
Complaint for patent intringement

VII. REQUESTED IN COMPLAINT:

☐ CHECK IF THIS IS A **CLASS ACTION** UNDER F.R.C.P. 23

DEMAND $

CHECK YES only if demanded in complaint:
JURY DEMAND: ☑ Yes ☐ No

VIII. RELATED CASE(S) IF ANY

(See instructions): JUDGE _____ DOCKET NUMBER _____

DATE 10/18/2010

SIGNATURE OF ATTORNEY OF RECORD

FOR OFFICE USE ONLY

RECEIPT # _____ AMOUNT _____ APPLYING IFP _____ JUDGE _____ MAG. JUDGE _____

Civil Cover Sheet Attachment

I. (c) Plaintiffs' Attorneys' (Firm Name, Address, and Telephone Number)

Schwartz Semerdjian Haile Ballard & Cauley LLP
101 W Broadway Ste 810, San Diego, CA 92101
Telephone: 619-236-8821
James R. Ballard

Law Office of Jon E. Maki
4135 Calle Isabelino
San Diego, CA 92130
Telephone: 858-876-2580
Jon E. Maki

Defendants (cont'd)

LANDSCAPE LIGHTING WORLD dba www.landscapelightingworld.com,
LLW ENTERPRISE, LLC, VOLT CORPORATION, VOLT, LLC, ALAN BRYNJOLFSSON,
and DOES 1 100, inclusive.