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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
61/094,558	09/05/2008		105	5641-081720		

CONFIRMATION NO. 6443

28289

THE WEBB LAW FIRM, P.C.
700 KOPPERS BUILDING
436 SEVENTH AVENUE
PITTSBURGH, PA 15219

FILING RECEIPT



OC000000032467245

Date Mailed: 10/08/2008

Receipt is acknowledged of this provisional patent application. It will not be examined for patentability and will become abandoned not later than twelve months after its filing date. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Applicant(s)

James J. Wassel, Zelienople, PA;

Power of Attorney:

Kirk Miles--37891

If Required, Foreign Filing License Granted: 10/07/2008

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 61/094,558**

Projected Publication Date: None, application is not eligible for pre-grant publication

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

Lighting Fixture with Improved Cover and Mounting Assembly

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page 1 of 3

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Title 37, Code of Federal Regulations, 5.11 & 5.15

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PROVISIONAL APPLICATION FOR PATENT COVER SHEET - Page 1 of 2

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c).

Express Mail Label No. _____

INVENTOR(S)			
Given Name (first and middle [if any])	Family Name or Surname	Residence (City and either State or Foreign Country)	Citizenship
James J.	Wassel	Zelienople PA	US

Additional inventors are being named on the _____ separately numbered sheets attached hereto

ASSIGNEE	
Name of Assignee	Appalachian Lighting Systems, Inc.
TITLE OF THE INVENTION (500 characters max):	
"Lighting Fixture with Improved Cover and Mounting Assembly"	

Direct all correspondence to: **CORRESPONDENCE ADDRESS**

☒ The address corresponding to Customer Number: 28289

OR

☐ Firm or Individual Name The Webb Law Firm

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Country U.S.A.	Telephone 412-471-8815	Email webblaw@webblaw.com

ENCLOSED APPLICATION PARTS (check all that apply)

<input type="checkbox"/> Application Data Sheet. See 37 CFR 1.76	<input type="checkbox"/> CD(s), Number of CDs _____
<input checked="" type="checkbox"/> Specification Number of Pages 12	<input type="checkbox"/> Other (specify) _____
<input checked="" type="checkbox"/> Drawing(s) Number of Sheets 13	

Fees Due: Filing Fee of \$210 (\$105 for small entity). If the specification and drawings exceed 100 sheets of paper, an application size fee is also due, which is \$260 (\$130 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

METHOD OF PAYMENT OF THE FILING FEE AND APPLICATION SIZE FEE FOR THIS PROVISIONAL APPLICATION FOR PATENT	
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27.	<div style="border: 1px solid black; padding: 5px; font-size: 1.2em;">\$ 105.00</div> TOTAL FEE AMOUNT (\$)
<input type="checkbox"/> A check or money order is enclosed to cover the filing fee and application size fee (if applicable).	
<input checked="" type="checkbox"/> Payment by credit card.	
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Account Number: 23-0650 A duplicative copy of this form is enclosed for fee processing.	

USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

PROVISIONAL APPLICATION COVER SHEET

Page 2 of 2

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.



No.

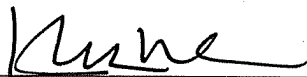


Yes, the name of the U.S. Government agency and the Government contract number are: _____

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SIGNATURE



Date

September 5, 2008

TYPED or PRINTED NAME

Kirk M. Miles

REGISTRATION NO.

37,891

(if appropriate)

TELEPHONE

412-471-8815

Docket Number:

5641 - 081720

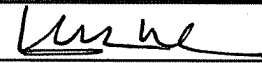
Effective on 12/08/2004. Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818). <h2 style="text-align: center;">FEE TRANSMITTAL</h2> <h3 style="text-align: center;">For FY 2008</h3>		Complete if Known	
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27		Application Number	Not yet assigned
		Filing Date	Concurrently herewith
		First Named Inventor	James J. Wassel
		Examiner Name	Not yet assigned
		Art Unit	Not yet assigned
TOTAL AMOUNT OF PAYMENT		(\$)	105.00
		Attorney Docket	5641 - 081720

METHOD OF PAYMENT (check all that apply)	
<input type="checkbox"/> Check <input checked="" type="checkbox"/> Credit Card <input type="checkbox"/> Money Order <input type="checkbox"/> None <input type="checkbox"/> Other (please identify): _____	
<input checked="" type="checkbox"/> Deposit Account Deposit Account Number: <u>23-0650</u> Deposit Account Name: _____	
For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)	
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<input checked="" type="checkbox"/> Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 <input checked="" type="checkbox"/> Credit any overpayments	
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1. BASIC FILING, SEARCH, AND EXAMINATION FEES							
	FILING FEES		SEARCH FEES		EXAMINATION FEES		
		<u>Small Entity</u>		<u>Small Entity</u>		<u>Small Entity</u>	
<u>Application Type</u>	<u>Fee (\$)</u>	<u>Fee (\$)</u>	<u>Fee (\$)</u>	<u>Fee (\$)</u>	<u>Fee (\$)</u>	<u>Fee (\$)</u>	<u>Fees Paid (\$)</u>
Utility	310	75	510	255	210	105	_____
Design	210	105	100	50	130	65	_____
Plant	210	105	310	155	160	80	_____
Reissue	310	155	510	255	620	310	_____
Provisional	210	105	0	0	0	0	105.00

2. EXCESS CLAIM FEES							
<u>Fee Description</u>						<u>Small Entity</u>	
						<u>Fee (\$)</u>	<u>Fee (\$)</u>
Each claim over 20 (including Reissues)						50	25
Each independent claim over 3 (including Reissues)						210	105
Multiple dependent claims						370	185
<u>Total Claims</u> <u>- 20 or HP</u> <u>Extra Claims</u> <u>Fee (\$)</u> <u>Fee Paid (\$)</u>						<u>Multiple Dependent Claims</u>	
_____ - _____ = _____ x _____ = _____						<u>Fee (\$)</u>	<u>Fee Paid (\$)</u>
HP = highest number of total claims paid for, if greater than 20.							
<u>Indep. Claims</u> <u>- 3 or HP</u> <u>Extra Claims</u> <u>Fee (\$)</u> <u>Fee Paid (\$)</u>							
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3. APPLICATION SIZE FEE							
If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$260 (\$130 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).							
<u>Total Sheets</u>	<u>Extra Sheets</u>	<u>Number of each additional 50 or fraction thereof</u>			<u>Fee (\$)</u>	<u>Fee Paid (\$)</u>	
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							<u>Fees Paid (\$)</u>

4. OTHER FEE(S)							
Non-English Specification, \$130 fee (no small entity discount)							
Other (e.g., late filing surcharge): _____							

SUBMITTED BY			
Signature		Registration No. (Attorney/Agent)	37,891
		Telephone	412-471-8815
Name (Print/Type)	Kirk M. Miles	Date	September 5, 2008

LIGHTING FIXTURE WITH IMPROVED COVER AND MOUNTING ASSEMBLY

CROSS REFERENCE TO RELATED APPLICATION

[0001] This application is related to United States Provisional Patent Application No. 61/015,713 entitled "Lighting Fixture" filed December 21, 2007, which is hereby incorporated by reference in its entirety.

BACKGROUND OF THE INVENTION

Field of the Invention

[0002] The present invention relates, in general, to a lighting fixture that utilizes light emitting diodes (LEDs) as its light source and, more particularly, to reflector arrangements configured to amplify and direct light produced by such a lighting fixture.

Description of Related Art

[0003] Conventionally, street lights and office lights have utilized incandescent, halogen, or fluorescent bulbs to provide light. The use of incandescent and halogen bulbs has been problematic in a number of ways. First, incandescent light bulbs are very energy inefficient. A large percentage of the energy they consume is released as heat, rather than light. Although fluorescent bulbs are more efficient than incandescent light bulbs, they are still very inefficient when compared to LEDs or other similar solid state light emitters.

[0004] Additionally, incandescent and fluorescent light bulbs have short lifetimes when compared to solid state emitters. This requires lighting devices to be replaced more frequently. A short lifetime becomes even more problematic when used in overhead lighting in office buildings or in street lights where access may be difficult. Replacement is not only time consuming, but can be dangerous.

[0005] Furthermore, the unwanted heat produced in these lighting systems adds, not only to additional energy costs, but may also require additional air conditioning to lower the temperature of the area lit by the system. For example, in large buildings, overhead lighting is often provided by lights placed near the ceiling and directed downward. These buildings will require additional air conditioning to compensate for this energy produced as heat.

[0006] Although solid state emitters, such as LEDs, are known to be more energy efficient in general, LEDs have not been considered an option in the past for providing quality light in many

applications, such as street lights and office lighting systems, because they do not provide enough useful light at a distance.

SUMMARY OF THE INVENTION

[0007] In view of the foregoing, a need exists for a lighting fixture that can be used as a street light or an office lighting system that utilizes LEDs or other solid state emitters to provide quality light from a distance.

[0008] One embodiment described herein is directed to a lighting fixture that includes a base plate having a front side and a rear side, a plurality of strips removably mounted on the front side of the base plate, a reflector assembly mounted to each of the plurality of strips such that it extends from the front side of the base plate at an angle, a transparent cover coupled to the front side of the base plate, and a pole mounting member coupled to the rear side of the base plate. Each of the plurality of strips desirably includes a plurality of light emitting diodes (LEDs) coupled thereto.

[0009] Each of the plurality of strips may include an extension member that has a plurality of grooves formed therein. Each of the plurality of grooves may be configured to receive a fastening member therein to mount the strip to the front side of the base plate. Each strip may also comprise an electrical connector that allows the strip to be operatively connected to a power supply and control circuitry.

[0010] The pole mounting member may be configured to allow a pole to be adjustably mounted to the lighting fixture. The pole mounting member may include a first clamp member having a first arcuate surface and a second clamp member having a second arcuate surface. The first arcuate surface and the second arcuate surface may be configured to face one another and capture a pole therebetween. The pole mounting member may further include a first bolt and a second bolt that are configured to be tightened to secure the pole between the first clamp member and the second clamp member. The first clamp member and the second clamp member may each include a pair of arcuate slots configured to receive mounting bars positioned on the rear side of the base plate such that the mounting bars are moveable within the arcuate slots to allow the lighting fixture to be adjusted up and down.

[0011] The transparent cover may be coupled to the front side of the base plate using at least one clamping member. The at least one clamping member may be a spring clip.

[0012] The foregoing and other features and characteristics, as well as the methods of operation and functions of the related elements of structures and the combination of parts and economies of manufacture will become more apparent upon consideration of the following description with reference to the accompanying drawings, all of which form a part of this specification, wherein like reference numerals designate corresponding parts in the various figures.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] **FIG. 1** is an elevational view of a front side of a lighting fixture for use as a streetlight.

[0014] **FIG. 2** is an elevational view of a rear side of the lighting fixture of **FIG. 1**.

[0015] **FIG. 3** is an elevational view of a side of the lighting fixture of **FIG. 1**.

[0016] **FIG. 4A** is a cross-sectional view of a reflector assembly used with the lighting fixture of **FIG. 1**.

[0017] **FIG. 4B** is a top plan view of a reflector assembly blank used to manufacture the reflector assembly of **FIG. 4A**.

[0018] **FIG. 5** is a schematic diagram of an exemplary embodiment of the circuitry used for controlling the lighting fixture of **FIG. 1**.

[0019] **FIG. 6** is an exemplary flow diagram illustrating a possible control configuration for the lighting fixture.

[0020] **FIG. 7** is an elevational view of a front side of a lighting fixture for use as an office lighting fixture.

[0021] **FIG. 8** is an elevational view of a rear side of the lighting fixture of **FIG. 7**.

[0022] **FIG. 9** is an elevational view of a side of the lighting fixture of **FIG. 7**.

[0023] **FIG. 10** is a cross-sectional view of a side of an alternative embodiment of the lighting fixture.

[0024] **FIG. 11** is a portion of the cross-sectional view of **FIG. 10** enlarged for magnification purposes.

[0025] **FIG. 12** is an elevational view of a side of a pole mounting assembly of **FIG. 10**.

[0026] **FIG. 13** is an exploded, elevational top view of the pole mounting assembly of **FIG. 12**.

[0027] **FIG. 14** is an elevation view of a top side of an LED mounting strip.

[0028] **FIG. 15** is a cross sectional view of the LED mounting strip of **FIG. 14**.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0029] For purposes of the description hereinafter, the terms “upper”, “lower”, “right”, “left”, “vertical”, “horizontal”, “top”, “bottom”, “lateral”, “longitudinal” and derivatives thereof shall relate to the invention as it is oriented in the drawing figures. However, it is to be understood that the invention may assume various alternative variations, except where expressly specified to the contrary. It is also to be understood that the specific devices illustrated in the attached drawings, and described in the following specification, are simply exemplary embodiments of the invention.

[0030] With reference to **FIGS. 1-3**, a lighting fixture **1**, for use, for example, as a streetlight, includes a base plate **3** having a front side **5** and a rear side **7**. As an example, three strips **9** are mounted on front side **5** of base plate **3**. Each strip **9** includes a plurality of surface-mount LEDs **11** mounted thereto. Base plate **3** has an exemplary thickness about 1/8 to 1/4 of an inch thick and is constructed from anodized aluminum or any other suitable material. Base plate **3** functions as a heat sink for LEDs **11** and is oversized compared to strips **9** to ensure that LEDs **11** stay cool regardless of the outdoor temperature. Additionally, base plate **3** may be formed in the shape of a football, baseball glove, hockey stick, etc. to provide a decorative beam of light. LEDs **11** are high-power LEDs such as the LUXEON[®] Rebel manufactured by Phillips Lumileds Lighting Company or the Cree[®] XLamp[®] XR-E LED manufactured by Cree, Inc. Alternatively, plasma emitter bulbs may be used instead of LEDs **11**. Plasma emitter bulbs are typically the size of a dime. Each bulb is filled with a gas and metal halide materials. In operation, an electric field is applied to the bulb, which ionizes the gas molecules to create a gas plasma. The metal halides then completely join the gas plasma which emits a powerful white light. Such plasma emitter bulbs are currently manufactured by Luxim[®] Corporation.

[0031] Lighting fixture **1** also includes a transparent cover **6** coupled to front side **5** of base plate **3**. Transparent cover **6** may be coupled to base plate **3** using any suitable fastening member such as bolts **8**. A pole mounting member **10** is coupled to rear side **7** of base plate **3**. Pole mounting member **10** includes a plurality of mounting holes **12** for receiving a fastening member (not shown) which allows a pole to be adjustably mounted to lighting fixture **1**. Lighting fixture **1** is configured to be mounted at a height sufficient to provide adequate lighting to a street or surface below. For instance, if lighting fixture **1** is mounted on a pole at a height of 30 feet above a street, lighting fixture **1** will provide a lighting pattern that extends about 23 feet from

the base of the pole and about 15 feet on either side of the pole. Additionally, a camera and/or motion detector (not shown) may be mounted on front side 5 of base plate 3 for surveillance purposes.

[0032] With reference to **FIGS. 4A** and **4B**, and with continuing reference to **FIGS. 1-3**, a reflector assembly 13 is mounted to front side 5 of base plate 3 such that side faces 41 extend at an angle from the top and the bottom of each of strips 9. Each reflector assembly 13 includes a base 43 with a pair of integral side faces 41 extending from opposite sides thereof at an angle. Base 43 includes a plurality of holes 45 used to fasten reflector assembly 13 to front side 5 of base plate 3 using any suitable fastening means. The base 43 also includes a plurality of gaps 47 formed therein. Base 43 of reflector assembly 13 is mounted on front side 5 of base plate 3 over one of the strips 9 such that surface-mount LEDs 11 positioned on strips 9 extend through gaps 47 and side faces 41 of reflector assembly 13 extend at an angle from strip 9.

[0033] Each of the side faces 41 of the reflector assembly 13 has several angles therein as shown in **FIG. 4A**. Each side face 41 of reflector assembly 13 extends from base 43 at an initial angle of, for example, about 123° from an axis of symmetry X. Side faces 41 then angle back towards the axis of symmetry X at an angle of, for example, about 170°. Thereafter, side faces 41 are again angled back towards axis of symmetry X at an angle of, for example, about 170°. This configuration creates an angle of about 40° between the ends 49 of each of the side faces 41 of reflector assembly 13. The combination of these angles creates facets in the reflector which amplify the light provided by LEDs 11. In addition, side faces 41 of reflector assemblies 13 direct the light from each of the three strips 9 of LEDs 11 and focus the light into what appears to be a single beam of light.

[0034] With specific reference to **FIG. 4B**, reflector assembly 13 is constructed from a sheet of silver-coated aluminum with a protective polymer coating. Such a material has a reflectivity that is from 95% to 98% reflective. Additionally, the polymer coating prevents corrosion on reflector assembly 13. However, the use of silver-coated aluminum reflectors is not to be construed as limiting as any highly-reflective material may be used to construct the reflector assemblies. Once the sheet of silver-coated aluminum is obtained, reflector assembly 13 is cut from the sheet desirably using a laser thereby forming a reflector assembly blank 48. Reflector assembly blank 48 is a flat sheet that includes side faces 41, base 43, a plurality of holes 45, and a plurality of gaps 47 cut therein using the laser. Reflector blank 48 is then bent into the shape

discussed hereinabove using a brake press. While **FIGS. 4A** and **4B** illustrate one possible configuration of reflector assembly **13**, this is not to be construed as limiting as other suitable configurations may be constructed.

[0035] With reference to **FIG. 5**, and with continuing reference to **FIGS. 1-3**, lighting fixture **1** includes a power supply and control circuitry **15** positioned within a housing **17** mounted on rear side **7** of base plate **3**. Power supply and control circuitry **15** is electrically coupled to the plurality of LEDs **11**. Housing **17** includes a window **19** with a light detector **21** positioned thereunder. In order to efficiently transfer light from window **19** to light detector **21**, an acrylic rod or fiber optic array (not shown) may be positioned between window **19** and light detector **21**. Light detector **21** causes LEDs **11** to turn on when surrounding ambient light has dropped below a predetermined level as will be described hereinafter. An exemplary embodiment of power supply and control circuitry **15** is illustrated in **FIG. 5**. However, this is not to be construed as limiting as the use of other circuitry configurations, microprocessors, and microcontrollers may be substituted.

[0036] An LED light (not shown) may also be mounted on rear side **7** of base plate **3** and coupled to power supply and control circuitry **15** so that when utility workers are working on the pole where light fixture **1** is mounted, the utility workers will be able to turn it on and see above lighting fixture **1**. This LED light may be turned on manually through the use of a magnetic switch, by an infrared sensor or by an ultrasonic sensor, as examples.

[0037] Power supply and control circuitry **15** includes a controller that works in conjunction with light detector **21** to automatically turn lighting fixture **1** on and off. With reference to **FIG. 6**, the controller functions generally as follows. First, power is supplied to the controller thereby initializing the controller at block **600**. Then, at block **610**, light detector **21** looks for diminished ambient light signaling, for example, the arrival of dusk. Once sufficient diminished light (such as at dusk) is detected by light detector **21**, lighting fixture **1** is turned on at full power at block **620**. At blocks **630** and **640**, after a predetermined period of time, the power of the light is reduced by 25% to 75%. Thereafter, at block **650**, light detector **21** looks for increased ambient light signaling the arrival of dawn. Once sufficient ambient light (such as at dawn) is detected by light detector **21**, lighting fixture **1** is turned off by the controller and the process returns to block **610**. Accordingly, by reducing power by 25% to 75% after lighting fixture **1** has been on for a predetermined period of time, a savings of up to 90% of power over a current mercury vapor

streetlight or high pressure sodium streetlight can be achieved. Additionally, this process extends the life of LEDs 11.

[0038] In addition, the controller also provides a safety start feature. The safety start feature allows the LEDs 11 to turn on slowly over a 2 to 3 second interval. The LEDs 11 start at an off position. Once the controller sends a signal to turn on the LEDs 11, the LEDs are turned on at a low power and the power is gradually increased over a 2 to 3 second interval until full power is reached. The purpose of this safety start feature is to protect the human eye from sudden blinding brightness created when the LEDs 11 are turned on at full power. This feature also prevents welder's flash when the LEDs 11 are turned on.

[0039] With reference to FIGS. 7-9, a lighting fixture 1', for use as office lighting, includes a base plate 3' having a front side 5' and a rear side 7'. Three strips 9' are mounted on front side 5' of base plate 3'. Each strip 9' includes a plurality of surface-mount LEDs 11' mounted thereto. Base plate 3' functions as a heat sink for LEDs 11' and is oversized compared to strips 9' to ensure that LEDs 11' stay cool. Base plate 3' includes a plurality of grooves 23 along a periphery thereof. Grooves 23 provide additional square inches of cooling which also extends LED life. Lighting fixture 1' is intended for indoor use. Accordingly, a transparent cover 6 is not required.

[0040] With reference to FIG. 10, an alternative embodiment of the lighting fixture is illustrated. Lighting fixture 101 includes a base plate 103 having a front side 105 and a rear side 107. A plurality of LED mounting strips 109 are mounted on front side 105 of base plate 103. Each strip 109 includes a plurality of surface-mount LEDs (not shown) mounted thereto. Base plate 103 has an exemplary thickness about 1/8 to 1/4 of an inch thick and is constructed from anodized aluminum or any other suitable material. Base plate 103 functions as a heat sink for the LEDs and is oversized compared to strips 109 to ensure that the LEDs stay cool regardless of the outdoor temperature. Additionally, base plate 103 has an outer peripheral edge 111 that is curved away from a body of the base plate 103 at an angle of approximately 90°.

[0041] With reference to FIG. 11, and with continuing reference to FIG. 10, lighting fixture 101 also includes a transparent cover 106. Transparent cover 106 may be manufactured from any suitable material such as, but not limited to, Lexan® (polycarbonate resin thermoplastic). Transparent cover 106 is fitted such that an outer edge 108 is positioned adjacent to outer peripheral edge 111 of base plate 103. A gasket 113 is positioned between outer edge 108 of transparent cover 106 and outer peripheral edge 111 of base plate 103 to provide a fluid tight seal

therebetween. Thereafter, a suitable clamp, such as spring clip **115**, is positioned over outer edge **108** of transparent cover **106** and outer peripheral edge **111** of base plate **103** to fixedly hold transparent cover **106** to base plate **103**. Spring clip **115** is configured to include teeth **117** positioned on an inner surface thereof. This configuration allows for transparent cover **106** to be quickly and easily removed. In particular, a special tool is used to open and remove spring clip **115**. If this tool is not used, teeth **117** on spring clip **115** will scratch transparent cover **106** and base plate **103** when removal of spring clip **115** is attempted. These scratches provide clear evidence that someone has tampered with lighting fixture **101**.

[0042] With reference to **FIGS. 12 and 13**, and with continuing reference to **FIG. 11**, a pole mounting member **119** is coupled to rear side **107** of base plate **103**. Pole mounting member **119** includes a first clamp member **121** and a second clamp member **123**. First clamp member includes a first arcuate surface **125** and second clamp member includes a second arcuate surface **127**. First arcuate surface **125** and second arcuate surface **127** are configured to face one another and capture a pole (not shown) therebetween. Once the pole is captured between first clamp member **121** and second clamp member **123**, a first bolt **129** and a second bolt **131** are tightened thereby securing the pole between first clamp member **121** and second clamp member **123**. First clamp member **121** and second clamp member **123** each have an inside surface having a waffle pattern thereon. This waffle-pattern grips the pole when it is positioned between first clamp member **121** and second clamp member **123**, thereby preventing rotation of the pole. First clamp member **121** and second clamp member **123** each also include a pair of arcuate slots **133**, **135**. Arcuate slots **133**, **135** are configured to receive mounting bars **137**. Mounting bars **137** are designed to move within arcuate slots **133**, **135** to allow lighting fixture **101** to be adjusted up and down.

[0043] With reference to **FIGS. 14 and 15**, and with continuing reference to **FIG. 11**, lighting fixture **101** includes a plurality of LED mounting strips **109** on front side **105** of base plate **103**. Each strip **109** includes a plurality of surface-mount LEDs **139** and a reflector assembly **141** mounted thereto. Each strip **109** also includes an extension member **143** that includes a plurality of grooves **145** formed therein. Each of the grooves **145** is configured to receive a fastening member **147** therein to mount strip **109** to front side **105** of base plate **103**. Each strip **109** also includes an electrical connector **149** that allows strip **109** to be operatively connected to a power supply and control circuitry (not shown). This configuration allows for a quick and easy change

of LED mounting strips **109** if one of LED mounting strips **109** is damaged or defective using the following steps. First, fastening members **147** positioned in grooves **145** are loosened and removed using an appropriate tool. Next, LED mounting strip **109** is removed from front side **105** of base plate **103**. Then, electrical connector **149** is disconnected from the power supply and control circuitry. Finally, a LED mounting strip **109** is replaced with a new LED mounting strip.

[0044] Although the invention has been described in detail for the purpose of illustration based on what is currently considered to be the most practical and preferred embodiments, it is to be understood that such detail is solely for that purpose and that the invention is not limited to the disclosed embodiments, but, on the contrary, is intended to cover modifications and equivalent arrangements. Furthermore, it is to be understood that this disclosure contemplates that, to the extent possible, one or more features of any embodiment can be combined with one or more features of any other embodiment.

THE INVENTION CLAIMED IS:

1. A lighting fixture comprising:
a base plate having a front side and a rear side;
a plurality of strips removably mounted on the front side of the base plate, each of the plurality of strips including a plurality of light emitting diodes (LEDs) coupled thereto;
a reflector assembly mounted to each of the plurality of strips such that it extends from the front side of the base plate at an angle;
a transparent cover coupled to the front side of the base plate; and
a pole mounting member coupled to the rear side of the base plate.
2. The lighting fixture of claim 1, wherein each of the plurality of strips comprises an extension member that includes a plurality of grooves formed therein.
3. The lighting fixture of claim 2, wherein each of the plurality of grooves is configured to receive a fastening member therein to mount the strip to the front side of the base plate.
4. The lighting fixture of claim 1, wherein each strip comprises an electrical connector that allows the strip to be operatively connected to a power supply and control circuitry.
5. The lighting fixture of claim 1, wherein the pole mounting member allows a pole to be adjustably mounted to the lighting fixture.
6. The lighting fixture of claim 1, wherein the pole mounting member comprises a first clamp member having a first arcuate surface and a second clamp member having a second arcuate surface, wherein the first arcuate surface and the second arcuate surface are configured to face one another and capture a pole therebetween.

7. The lighting fixture of claim 6, wherein the pole mounting member further includes a first fastener and a second fastener that are configured to be tightened to secure the pole between the first clamp member and the second clamp member.

8. The lighting fixture of claim 6, wherein the first clamp member and the second clamp member each include a pair of arcuate slots configured to receive mounting bars positioned on the rear side of the base plate such that the mounting bars are moveable within the arcuate slots to allow the lighting fixture to be adjusted up and down.

9. The lighting fixture of claim 1, wherein the transparent cover is coupled to the front side of the base plate using at least one clamping member.

10. The lighting fixture of claim 9, wherein the at least one clamping member is a spring clip.

LIGHTING FIXTURE WITH IMPROVED COVER AND MOUNTING ASSEMBLY

ABSTRACT OF THE INVENTION

A lighting fixture includes a base plate having a front side and a rear side, a plurality of strips removably mounted on the front side of the base plate, a reflector assembly mounted to each of the plurality of strips such that it extends from the front side of the base plate at an angle, a transparent cover coupled to the front side of the base plate, and a pole mounting member coupled to the rear side of the base plate. Each of the plurality of strips including a plurality of light emitting diodes (LEDs) coupled thereto.

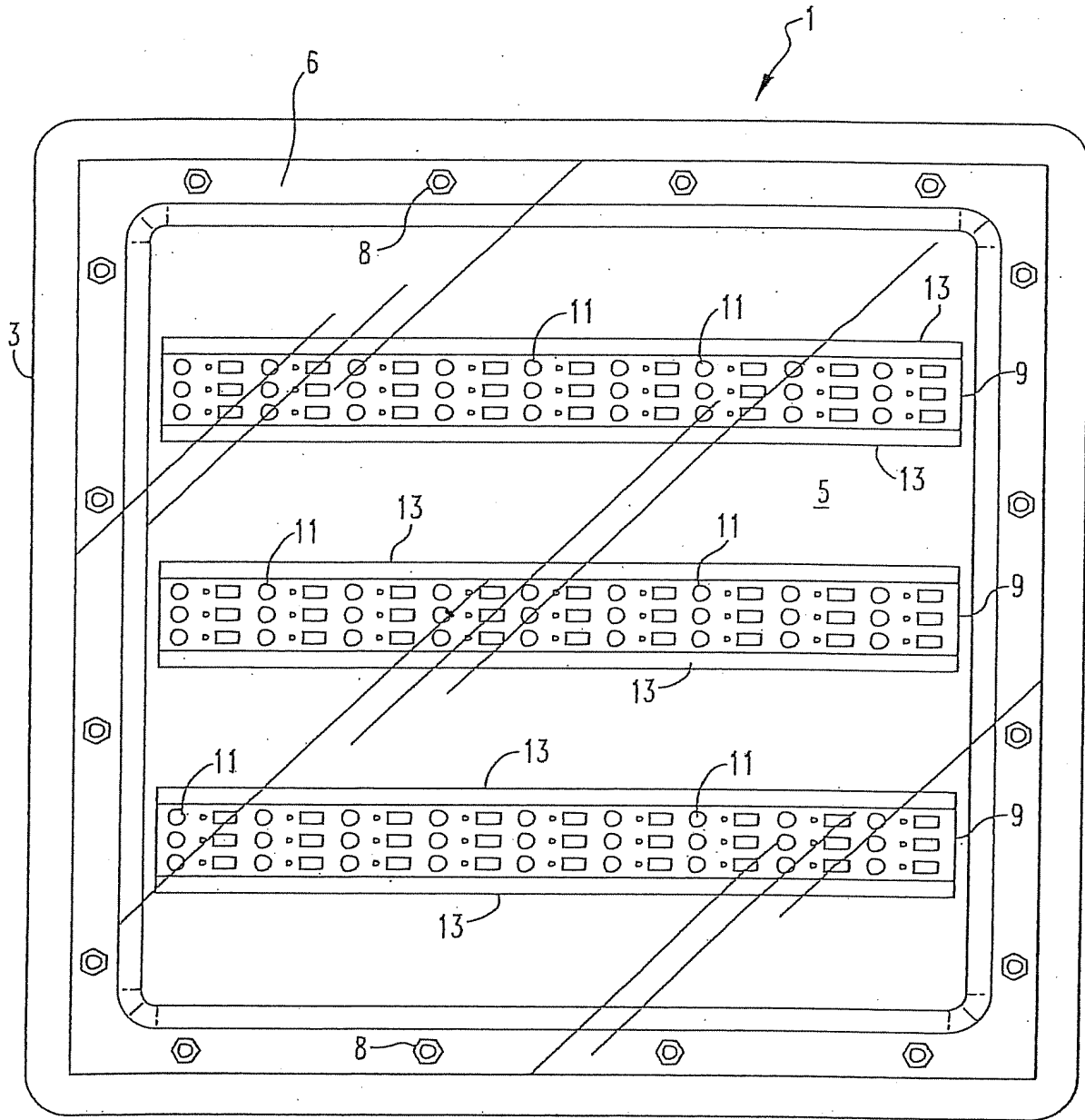


FIG. 1

"LIGHTING FIXTURE WITH IMPROVED COVER AND MOUNTING ASSEMBLY"

Inventor: James J. Wassel

Attorney Docket No.: 5641-081720

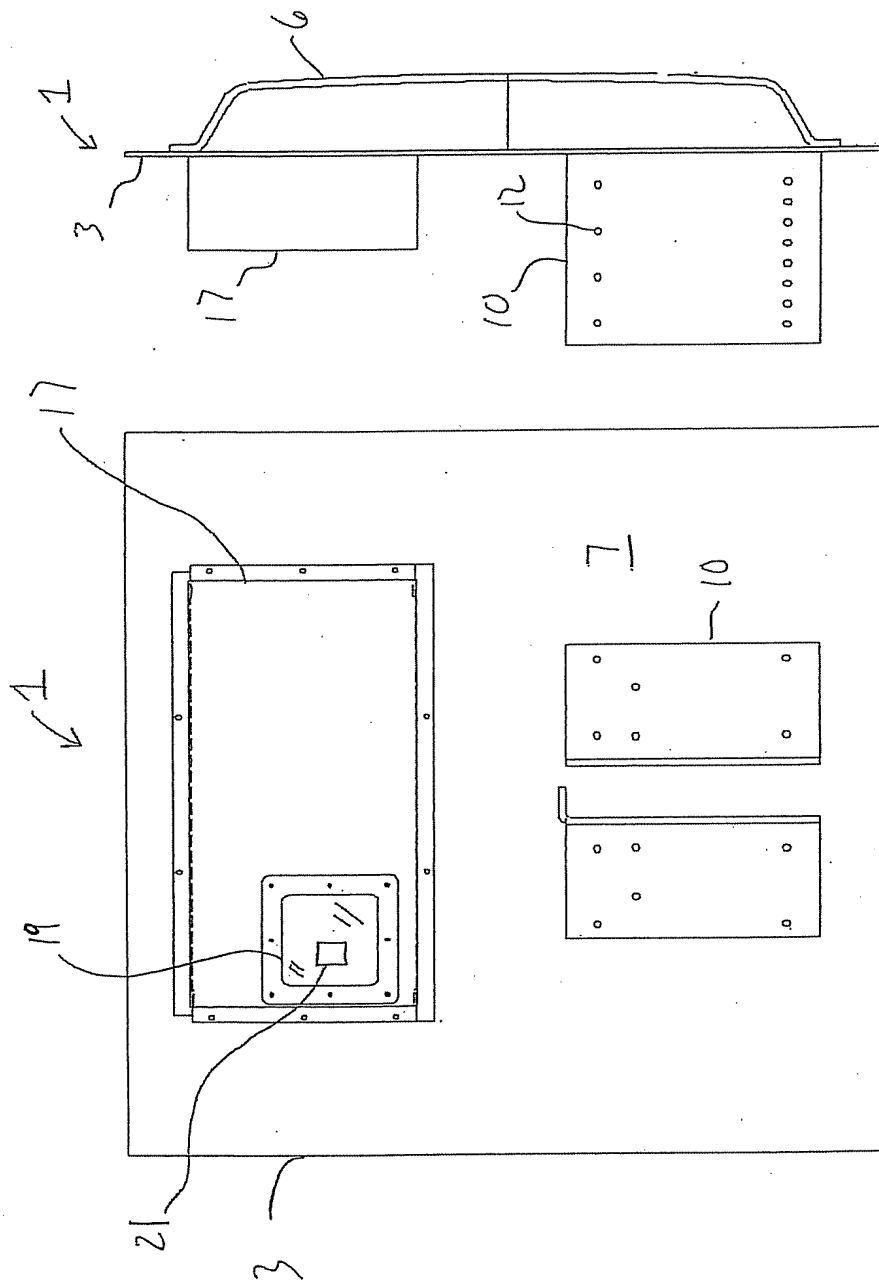


FIG. 3

FIG. 2

"LIGHTING FIXTURE WITH IMPROVED COVER AND MOUNTING ASSEMBLY"

Inventor: James J. Wassel

Attorney Docket No.: 5641-081720

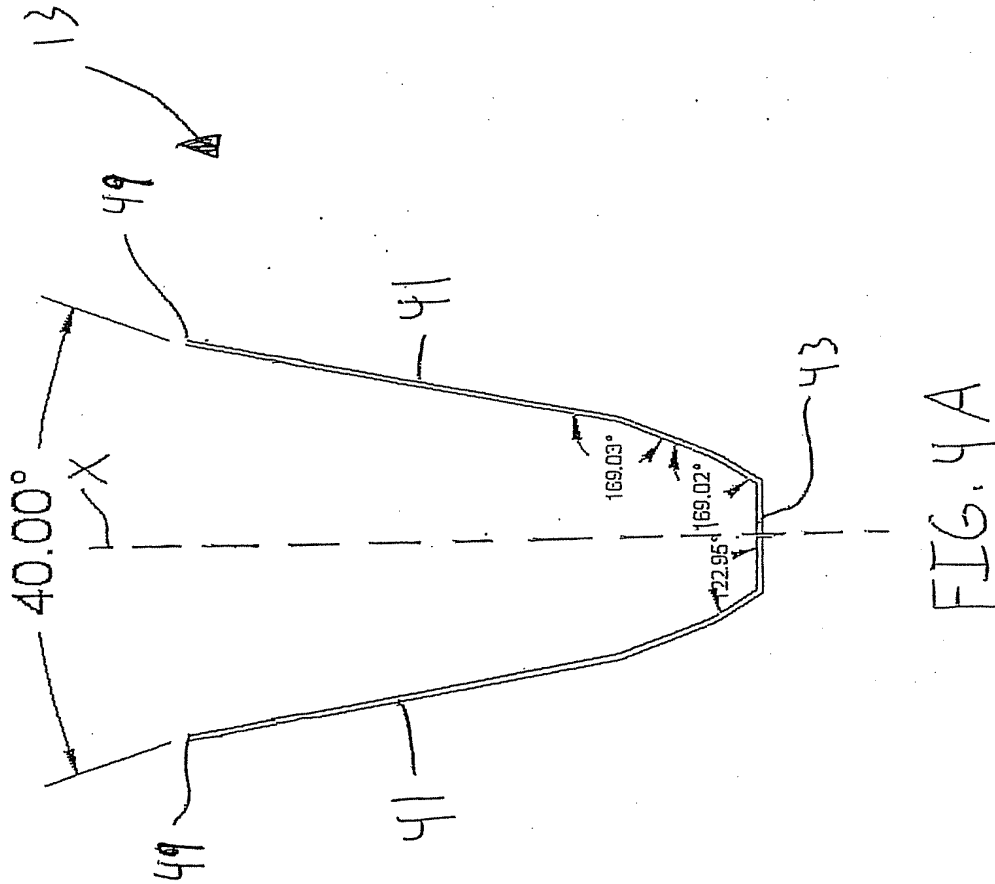
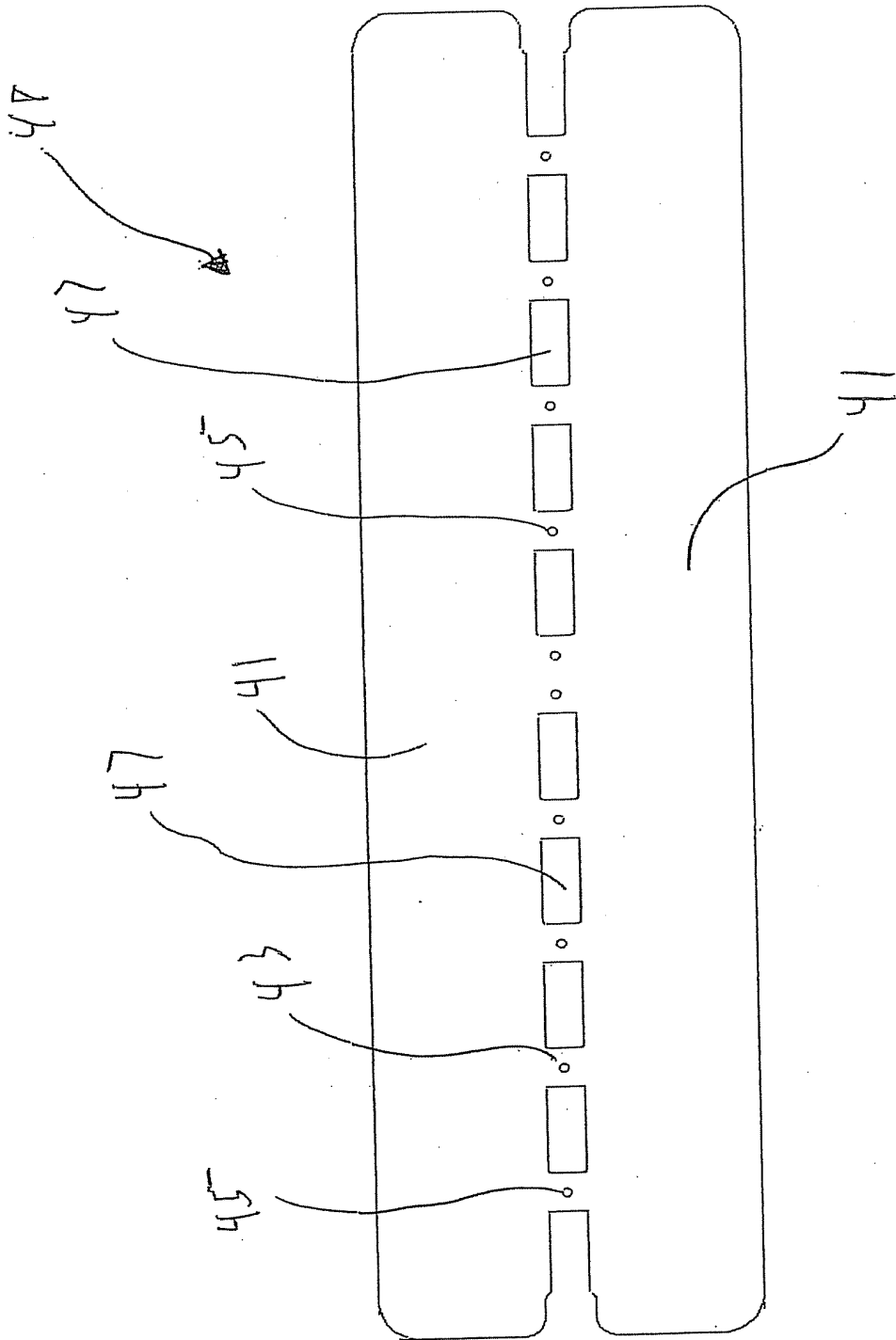


FIG. 4A

"LIGHTING FIXTURE WITH IMPROVED COVER AND MOUNTING ASSEMBLY"

Inventor: James J. Wassel

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Attorney Docket No.: 5641-081720



"LIGHTING FIXTURE WITH IMPROVED COVER AND MOUNTING ASSEMBLY"

Inventor: James J. Wassel

Attorney Docket No.: 5641-081720

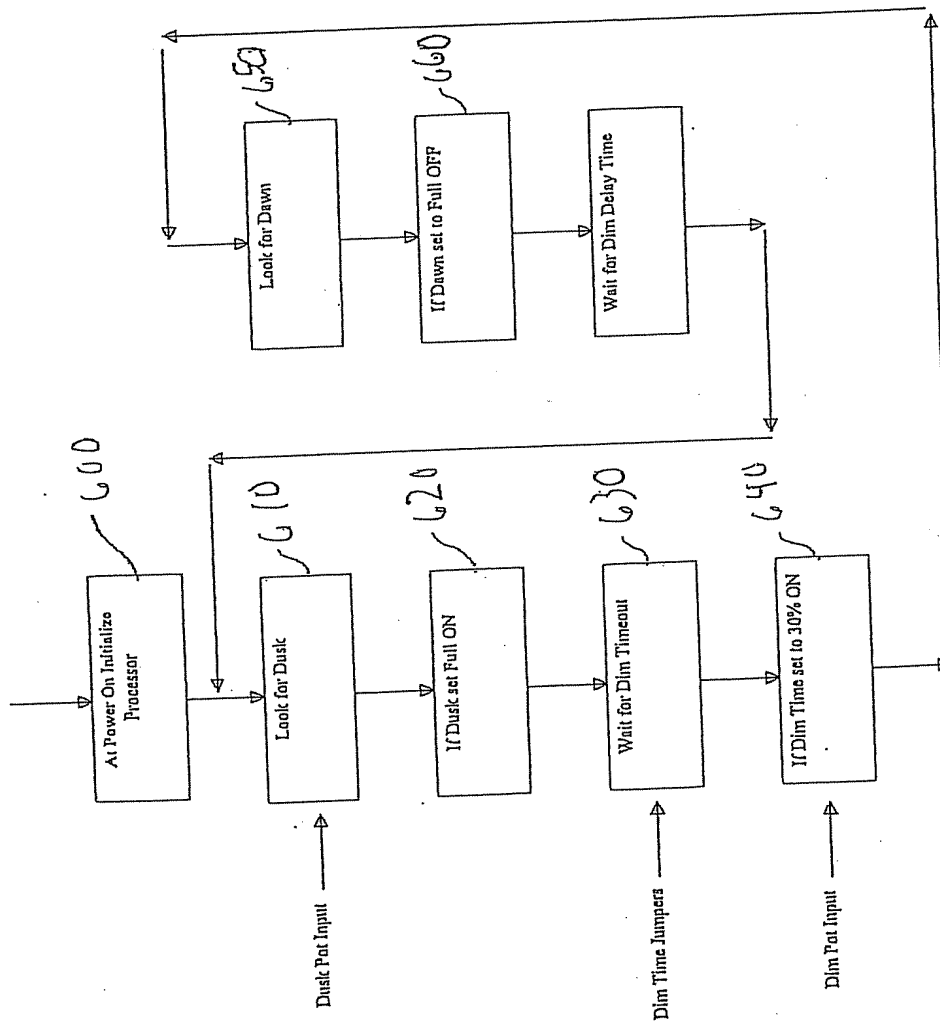
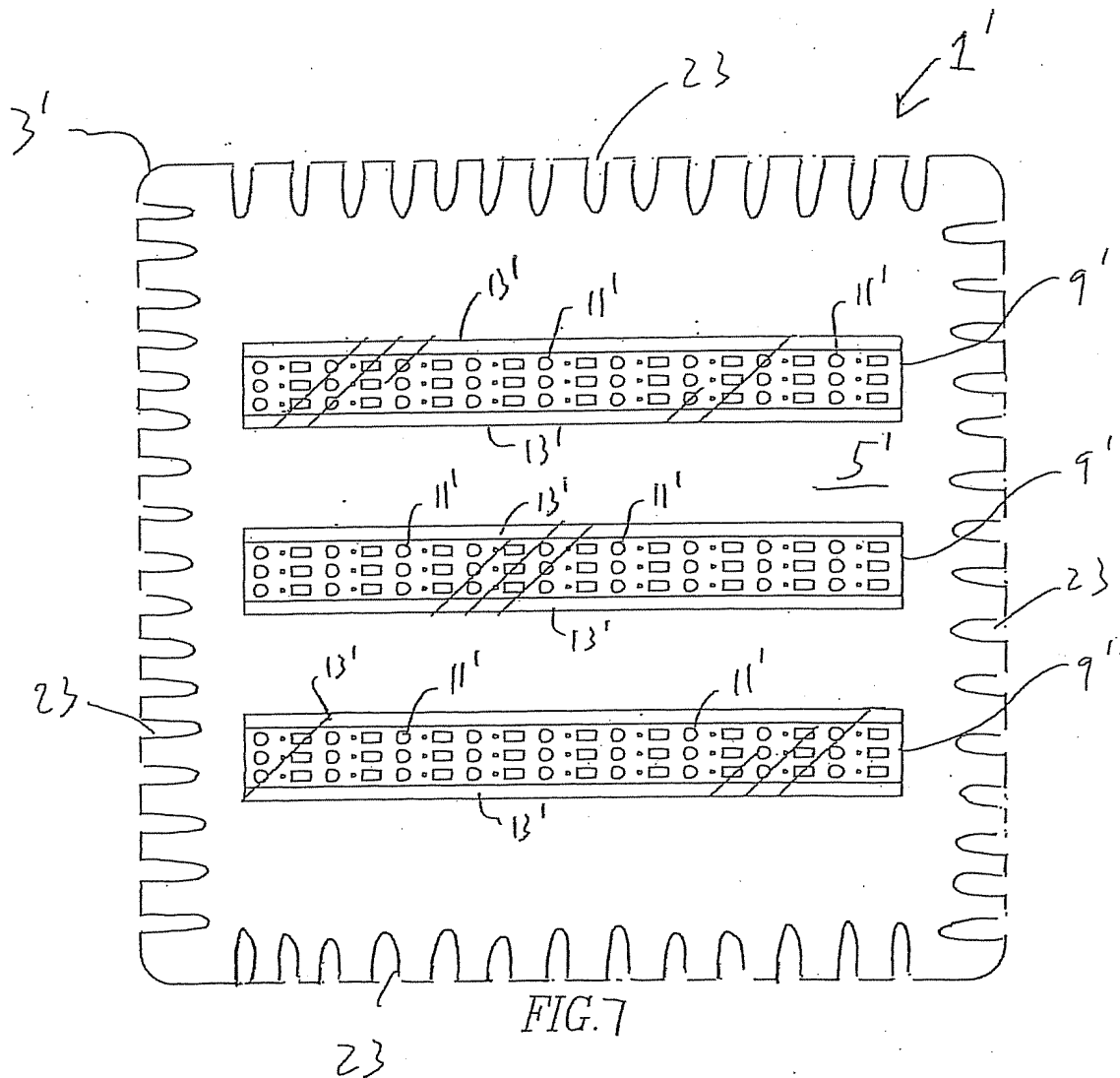


FIG. 6

"LIGHTING FIXTURE WITH IMPROVED COVER AND MOUNTING ASSEMBLY"

Inventor: James J. Wassel

Attorney Docket No.: 5641-081720



"LIGHTING FIXTURE WITH IMPROVED COVER AND MOUNTING ASSEMBLY"

Inventor: James J. Wassel

Attorney Docket No.: 5641-081720

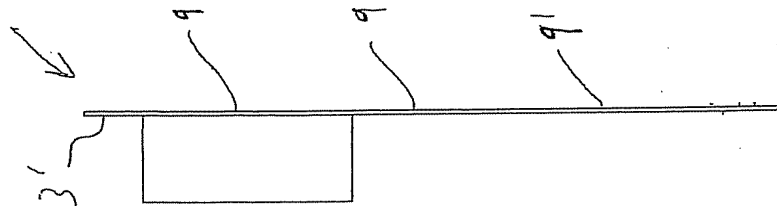


FIG. 9

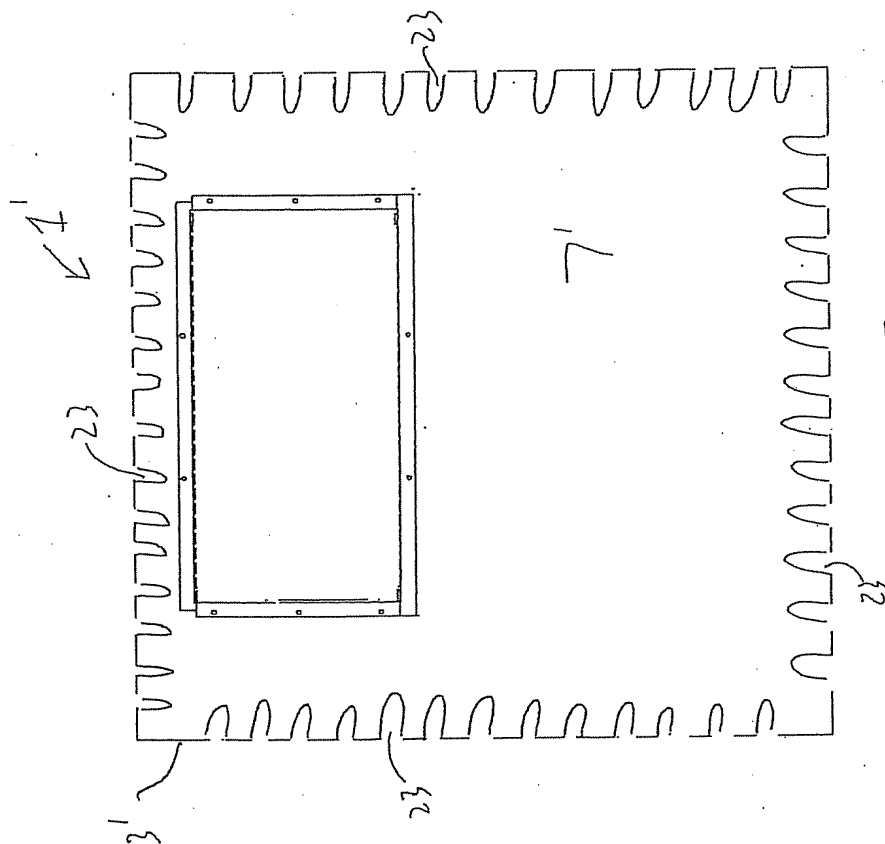
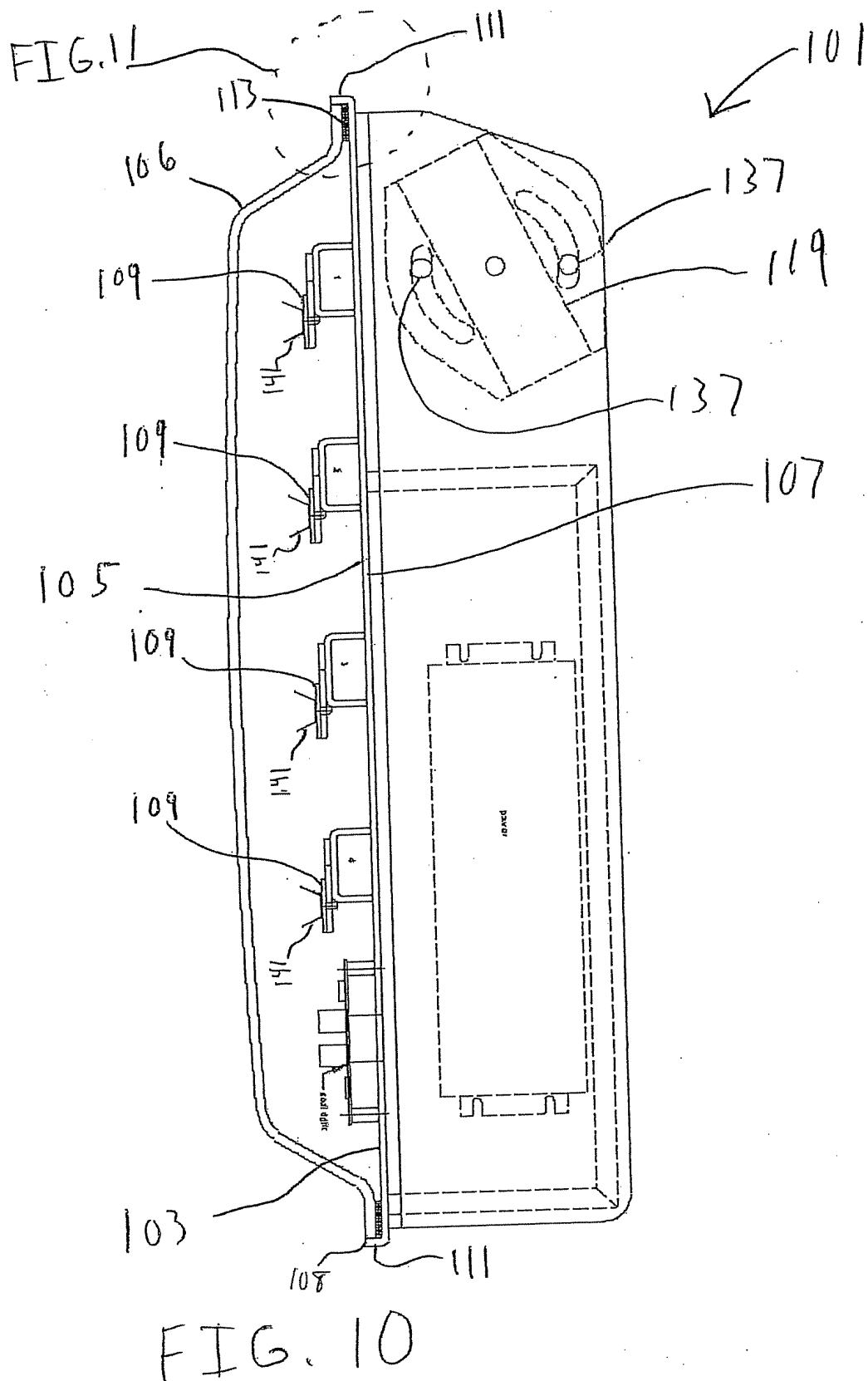


FIG. 8

"LIGHTING FIXTURE WITH IMPROVED COVER AND MOUNTING ASSEMBLY"

Inventor: James J. Wassel

Attorney Docket No.: 5641-081720



"LIGHTING FIXTURE WITH IMPROVED COVER AND MOUNTING ASSEMBLY"

Inventor: James J. Wassel

Attorney Docket No.: 5641-081720

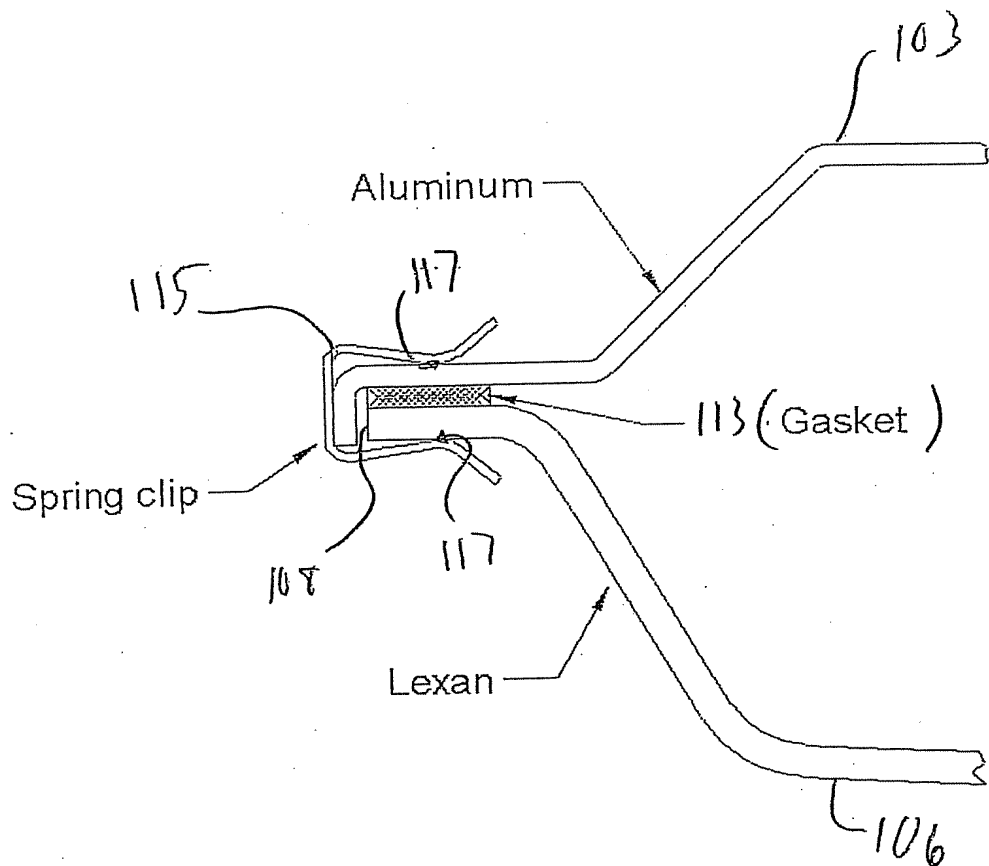


FIG. 11

"LIGHTING FIXTURE WITH IMPROVED COVER AND MOUNTING ASSEMBLY"

Inventor: James J. Wassel

Attorney Docket No.: 5641-081720

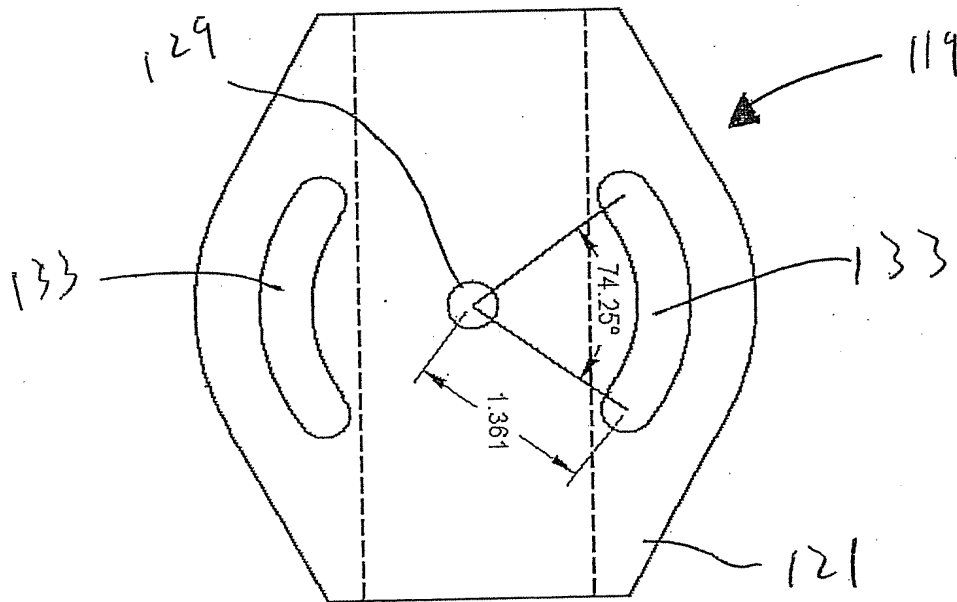


FIG. 12

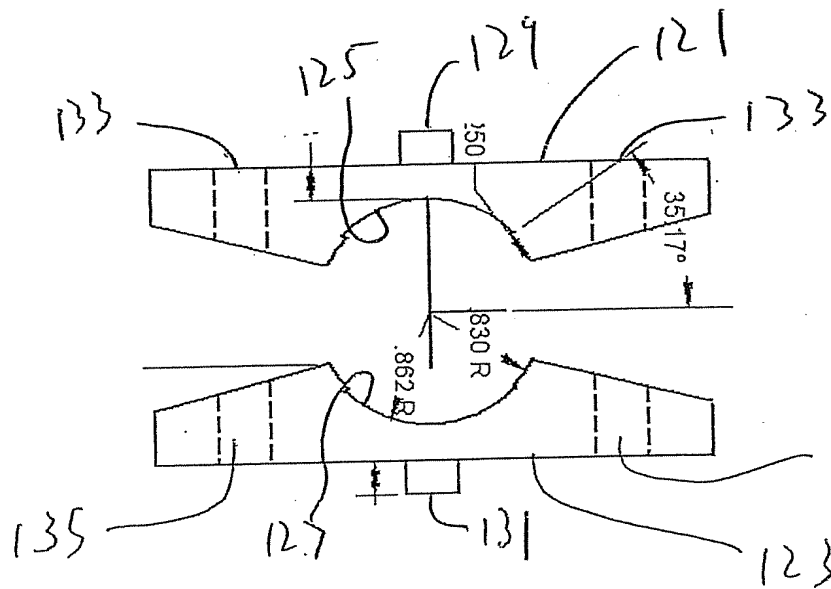


FIG. 13

"LIGHTING FIXTURE WITH IMPROVED COVER AND MOUNTING ASSEMBLY"

Inventor: James J. Wassel

Attorney Docket No.: 5641-081720

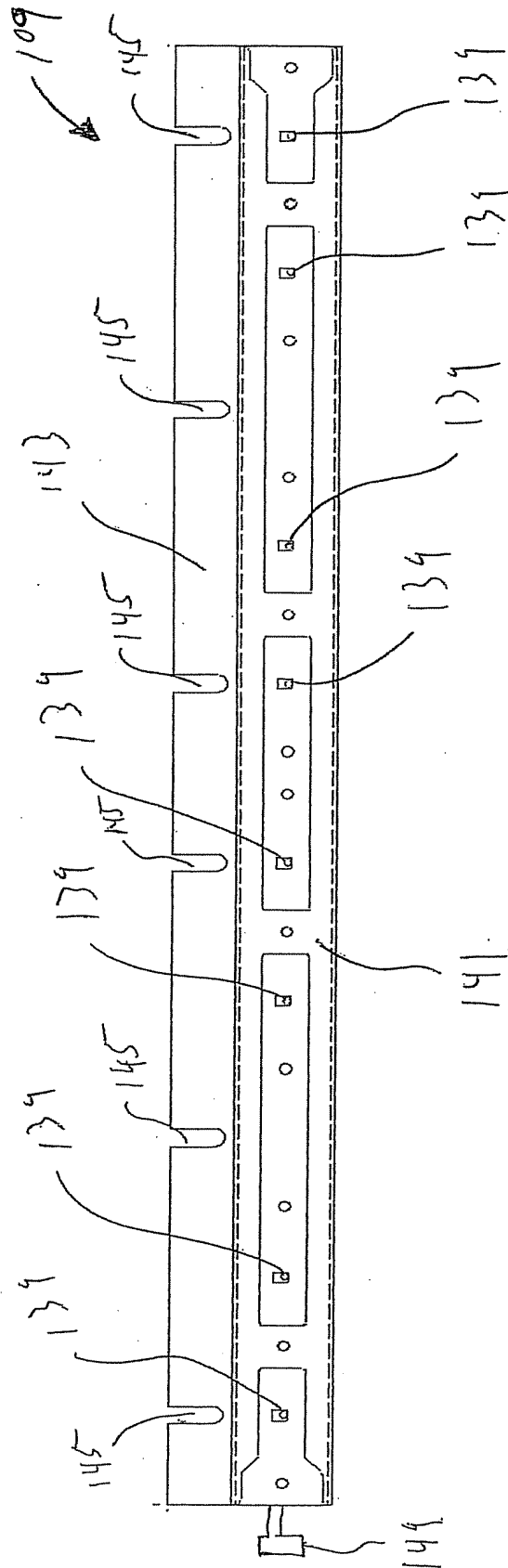


FIG. 14

"LIGHTING FIXTURE WITH IMPROVED COVER AND MOUNTING ASSEMBLY"

Inventor: James J. Wassel

Attorney Docket No.: 5641-081720

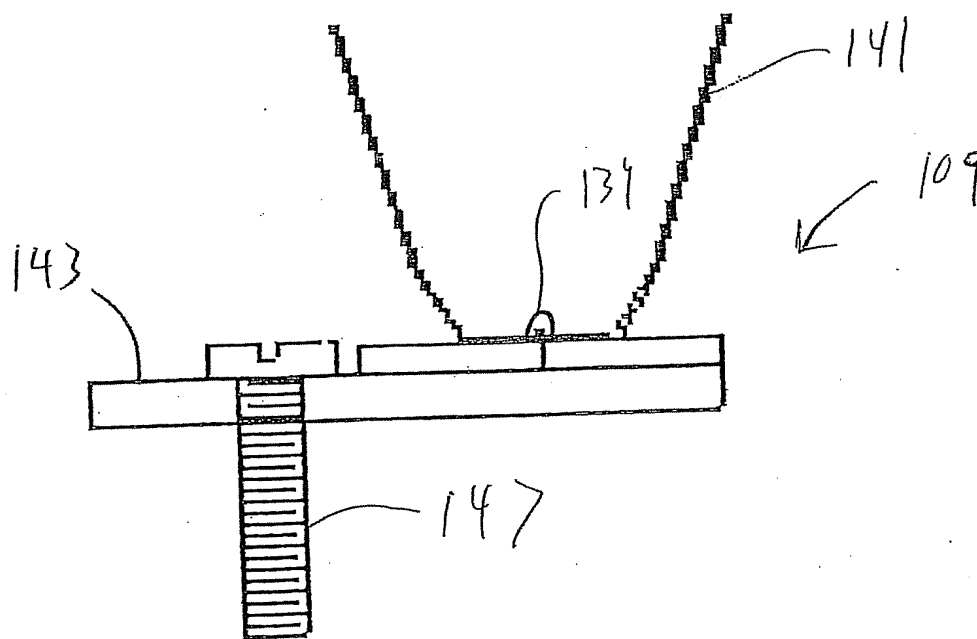


FIG. 15

Electronic Patent Application Fee Transmittal

Application Number:

Filing Date:

Title of Invention:

Lighting Fixture with Improved Cover and Mounting Assembly

First Named Inventor/Applicant Name:

James J. Wassel

Filer:

Kirk M. Miles/Sharyn Beck

Attorney Docket Number:

5641-081720

Filed as Small Entity

Provisional Filing Fees

Description

Fee Code

Quantity

Amount

**Sub-Total in
USD(\$)**

Basic Filing:

Provisional Application filing fee

2005

1

105

105

Pages:

Claims:

Miscellaneous-Filing:

Petition:

Patent-Appeals-and-Interference:

Post-Allowance-and-Post-Issuance:

Extension of Time:

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Total in USD (\$)				105

Electronic Acknowledgement Receipt

EFS ID:	3895776
Application Number:	61094558
International Application Number:	
Confirmation Number:	6443
Title of Invention:	Lighting Fixture with Improved Cover and Mounting Assembly
First Named Inventor/Applicant Name:	James J. Wassel
Customer Number:	28289
Filer:	Kirk M. Miles/Sharyn Beck
Filer Authorized By:	Kirk M. Miles
Attorney Docket Number:	5641-081720
Receipt Date:	05-SEP-2008
Filing Date:	
Time Stamp:	15:15:03
Application Type:	Provisional

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$ 105
RAM confirmation Number	587
Deposit Account	
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part (.zip)	Pages (if appl.)
Page 34 of 36				CURRENT	Ex. 1007

1	Transmittal of New Application	ProvAppCover.pdf	200087	no	2
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Warnings:					
Information:					
2	Miscellaneous Incoming Letter	FeeTransmittal.pdf	141496	no	1
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Warnings:					
Information:					
3		Specs.pdf	1318612	yes	12
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	Document Description		Start	End	
	Specification		1	9	
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4	Drawings-only black and white line drawings	Drawings.pdf	723269	no	13
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Total Files Size (in bytes):			2413188		

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

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.