

US00D673697S

(12) **United States Design Patent**
Van De Ven et al.

(10) **Patent No.:** **US D673,697 S**
(45) **Date of Patent:** **** Jan. 1, 2013**

(54) **LIGHTING UNIT**

(75) Inventors: **Antony Paul Van De Ven**, Hong Kong (CN); **Wai Kwan Chan**, Hong Kong (CN)

(73) Assignee: **Cree, Inc.**, Durham, NC (US)

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

(21) Appl. No.: **29/383,042**

(22) Filed: **Jan. 11, 2011**

Related U.S. Application Data

(63) Continuation of application No. 12/795,290, filed on Jun. 7, 2010.

(51) **LOC (9) Cl.** **26-04**

(52) **U.S. Cl.** **D26/2**

(58) **Field of Classification Search** D26/1-4;
313/313, 315, 316, 317, 318, 493; 315/52,
315/53, 56, 57, 58

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,755,697 A	8/1973	Miller	
3,787,752 A	1/1974	Delay	
4,090,189 A	5/1978	Fisler	
4,717,868 A	1/1988	Peterson	
4,918,487 A	4/1990	Coulter, Jr.	
5,151,679 A	9/1992	Dimmick	
5,175,528 A	12/1992	Choi et al.	
5,345,167 A	9/1994	Hasegawa et al.	
5,631,190 A	5/1997	Negley	
5,661,645 A	8/1997	Hochstein	
5,736,881 A	4/1998	Ortiz	
5,844,377 A	12/1998	Anderson et al.	
5,912,477 A	6/1999	Negley	
5,912,568 A	6/1999	Kiley	
6,149,283 A	11/2000	Conway et al.	
6,150,771 A	11/2000	Perry	
D435,577 S *	12/2000	McBride D16/203

6,161,910 A	12/2000	Reisenauer et al.
6,222,172 B1	4/2001	Fossum et al.
6,285,139 B1	9/2001	Ghanem
6,329,760 B1	12/2001	Bebenroth
6,340,868 B1	1/2002	Lys et al.
6,350,041 B1	2/2002	Tarsa et al.
6,362,578 B1	3/2002	Swanson et al.
6,388,393 B1	5/2002	Illingworth
6,400,101 B1	6/2002	Biebl et al.

(Continued)

FOREIGN PATENT DOCUMENTS

EP 1 881 259 1/2008

(Continued)

OTHER PUBLICATIONS

U.S. Appl. No. 29/353,900, filed Jan. 15, 2010, Van de Ven.

(Continued)

Primary Examiner — Marcus Jackson

(74) *Attorney, Agent, or Firm* — Burr & Brown

(57) **CLAIM**

The ornamental design for a lighting unit, as shown and described.

DESCRIPTION

FIG. 1 is a left side view of the lighting unit in accordance with our new design (the right side view thereof is identical to the left side view thereof);

FIG. 2 is a front view thereof (the back view thereof is identical to the front view thereof);

FIG. 3 is a top view thereof;

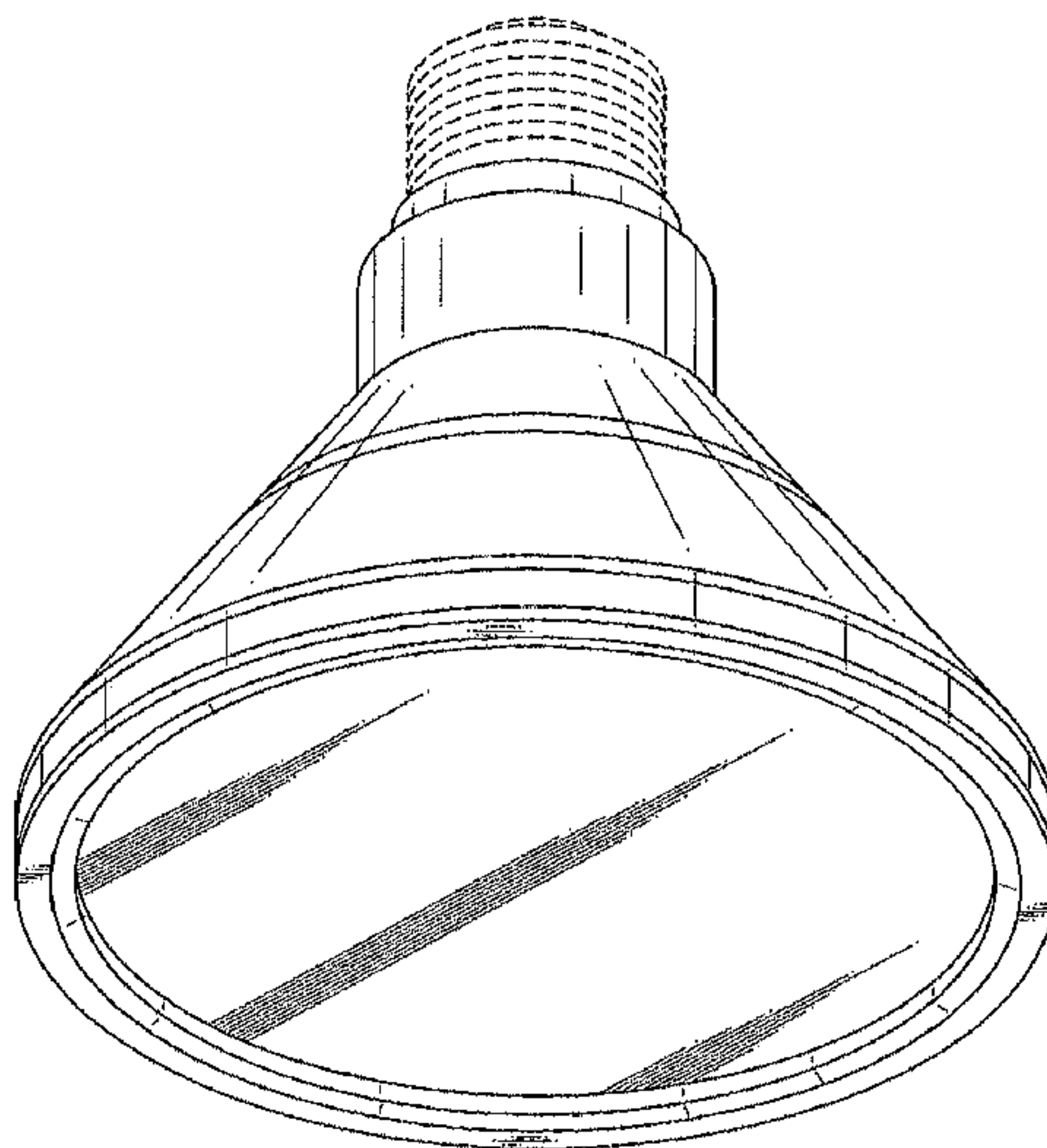
FIG. 4 is a bottom view thereof;

FIG. 5 is a first perspective view thereof; and,

FIG. 6 is a second perspective view thereof.

The portions of the drawings shown in broken lines represent environmental structure and form no part of the claimed design.

1 Claim, 6 Drawing Sheets



U.S. PATENT DOCUMENTS

6,528,954	B1	3/2003	Lys et al.	
6,577,072	B2	6/2003	Saito et al.	
6,586,890	B2	7/2003	Min et al.	
6,600,175	B1	7/2003	Baretz et al.	
6,614,358	B1	9/2003	Hutchison et al.	
6,636,003	B2	10/2003	Rahm et al.	
6,724,376	B2	4/2004	Sakura et al.	
6,747,420	B2	6/2004	Barth et al.	
6,808,287	B2	10/2004	Lebens et al.	
6,836,081	B2	12/2004	Swanson et al.	
6,841,947	B2	1/2005	Berg-johansen	
6,873,203	B1	3/2005	Latham, II et al.	
6,987,787	B1	1/2006	Mick	
6,995,518	B2	2/2006	Havlik et al.	
7,038,399	B2	5/2006	Lys et al.	
7,071,762	B2	7/2006	Xu et al.	
7,119,498	B2	10/2006	Baldwin et al.	
D532,532	S *	11/2006	Maxik	D26/2
7,180,487	B2	2/2007	Kamikawa et al.	
7,202,608	B2	4/2007	Robinson et al.	
7,213,940	B1	5/2007	Van de Ven et al.	
D544,110	S *	6/2007	Hooker et al.	D26/2
D566,300	S *	4/2008	Lo	D26/2
D581,555	S *	11/2008	To et al.	D26/2
D584,838	S *	1/2009	To et al.	D26/2
D610,722	S *	2/2010	Bi	D26/2
D633,099	S	2/2011	Van de Ven	
D662,627	S *	6/2012	Pan	D26/2
2007/0137074	A1	6/2007	Van de Ven	
2007/0139920	A1	6/2007	Van de Ven	
2007/0139923	A1	6/2007	Negley	
2007/0170447	A1	7/2007	Negley	
2007/0171145	A1	7/2007	Coleman	
2007/0236911	A1	10/2007	Negley	
2007/0247414	A1	10/2007	Roberts	
2007/0263393	A1	11/2007	Van de Ven	
2007/0267983	A1	11/2007	Van de Ven	
2007/0274063	A1	11/2007	Negley	
2007/0274080	A1	11/2007	Negley	
2007/0278503	A1	12/2007	Van de Ven	
2007/0278934	A1	12/2007	Van de Ven	
2007/0278974	A1	12/2007	Van de Ven	
2007/0279440	A1	12/2007	Negley	
2007/0279903	A1	12/2007	Negley	
2007/0280624	A1	12/2007	Negley	
2008/0030993	A1	2/2008	Narendran et al.	
2008/0054281	A1	3/2008	Narendran et al.	
2008/0084685	A1	4/2008	Van de Ven	
2008/0084700	A1	4/2008	Van de Ven	
2008/0084701	A1	4/2008	Van de Ven	
2008/0088248	A1	4/2008	Myers	
2008/0089053	A1	4/2008	Negley	
2008/0094829	A1	4/2008	Narendran et al.	
2008/0105887	A1	5/2008	Narendran et al.	
2008/0106895	A1	5/2008	Van de Ven	
2008/0106907	A1	5/2008	Trott	
2008/0112168	A1	5/2008	Pickard	
2008/0112170	A1	5/2008	Trott	
2008/0112183	A1	5/2008	Negley	
2008/0117500	A1	5/2008	Narendran et al.	
2008/0128718	A1	6/2008	Sumitani	
2008/0130285	A1	6/2008	Negley	
2008/0136313	A1	6/2008	Van de Ven	
2008/0137347	A1	6/2008	Trott	
2008/0259589	A1	10/2008	Van de Ven	
2008/0278928	A1	11/2008	Van de Ven	
2008/0278940	A1	11/2008	Van de Ven	

2008/0278950	A1	11/2008	Pickard
2008/0278952	A1	11/2008	Trott
2008/0278957	A1	11/2008	Pickard
2008/0304260	A1	12/2008	Van de Ven
2008/0304261	A1	12/2008	Van de Ven
2008/0304269	A1	12/2008	Pickard
2008/0309255	A1	12/2008	Myers
2009/0059582	A1	3/2009	Kulkarni
2009/0101930	A1	4/2009	Li
2009/0108269	A1	4/2009	Negley
2009/0124666	A1	5/2009	Myers et al.
2009/0160363	A1	6/2009	Negley
2009/0161356	A1	6/2009	Negley
2009/0184616	A1	7/2009	Van de Ven
2009/0184662	A1	7/2009	Given
2009/0296384	A1	12/2009	Van de Ven
2010/0102199	A1	4/2010	Negley
2010/0102697	A1	4/2010	Van de Ven
2010/0103678	A1	4/2010	Van de Ven
2010/0225220	A1	9/2010	Tanaka et al.
2011/0074289	A1	3/2011	Van de Ven et al.
2011/0075411	A1	3/2011	Van de Ven
2011/0075414	A1	3/2011	Van de Ven

FOREIGN PATENT DOCUMENTS

WO	2006/007388	1/2006
----	-------------	--------

OTHER PUBLICATIONS

U.S. Appl. No. 29/344,219, filed Sep. 25, 2009, Van de Ven.
U.S. Appl. No. 29/344,218, filed Sep. 25, 2009, Van de Ven.
“Assist Recommends . . . LED Life For General Lighting: Definition of Life”, vol. 1, Issue 1, Feb. 2005.
“Bright Tomorrow Lighting Competition (L prize™)”, May 28, 2008, Document No. 08NT006643.
“ENERGY STAR® Program Requirements for Solid State Lighting Luminaires, Eligibility Criteria—Version 1.1”, Final: Dec. 19, 2008. Application Note: CLD-AP06.006, entitled “Cree® Xlamp® XR Family & 4550 LED Reliability”, published at cree.com/xlamp, Sep. 2008.
Bulborama, Lighting Terms Reference and Glossary, <http://www.bulborama.com/store/lightingreferenceglossary-13.html>, 6 pages.
DuPont “DuPont™ Light Reflector”, Publication K-20044, May 2008, 2 pages.
Furukawa Electric Co., Ltd., Data Sheet, “New Material for Illuminated Panels Microcellular Reflective Sheet MCPET”, updated Apr. 8, 2008, 2 pages.
Illuminating Engineering Society Standard LM-80-08, entitled “IES Approved Method for Measuring Lumen Maintenance of LED Light Sources”, Sep. 22, 2008, ISBN No. 978-0-87995-227-3.
Kim et al., “Strongly Enhanced Phosphor Efficiency in GaInN White Light-Emitting Diodes Using Remote Phosphor Configuration and Diffuse Reflector Cup”, Japanese Journal of Applied Physics 44(21):L649-L651 (2005).
LEDs Magazine, Press Release May 23, 2007, “Furukawa America Debuts MCPET Reflective Sheets to Improve Clarity, Efficiency of Lighting Fixtures”, downloaded Jun. 25, 2009 from <http://www.ledsmagazine.com/press/15145>, 2 pages.
Philips Lumileds, Technology White Paper: “Understanding power LED lifetime analysis”, downloaded from <http://www.philipslumileds.com/pdfs/WP12.pdf>, Document No. WP12, Last Modified May 22, 2007.
MCPET—Microcellular Reflective Sheet Properties, <http://www.trocellen.com>, downloaded Jun. 25, 2009, 2 pages.

* cited by examiner

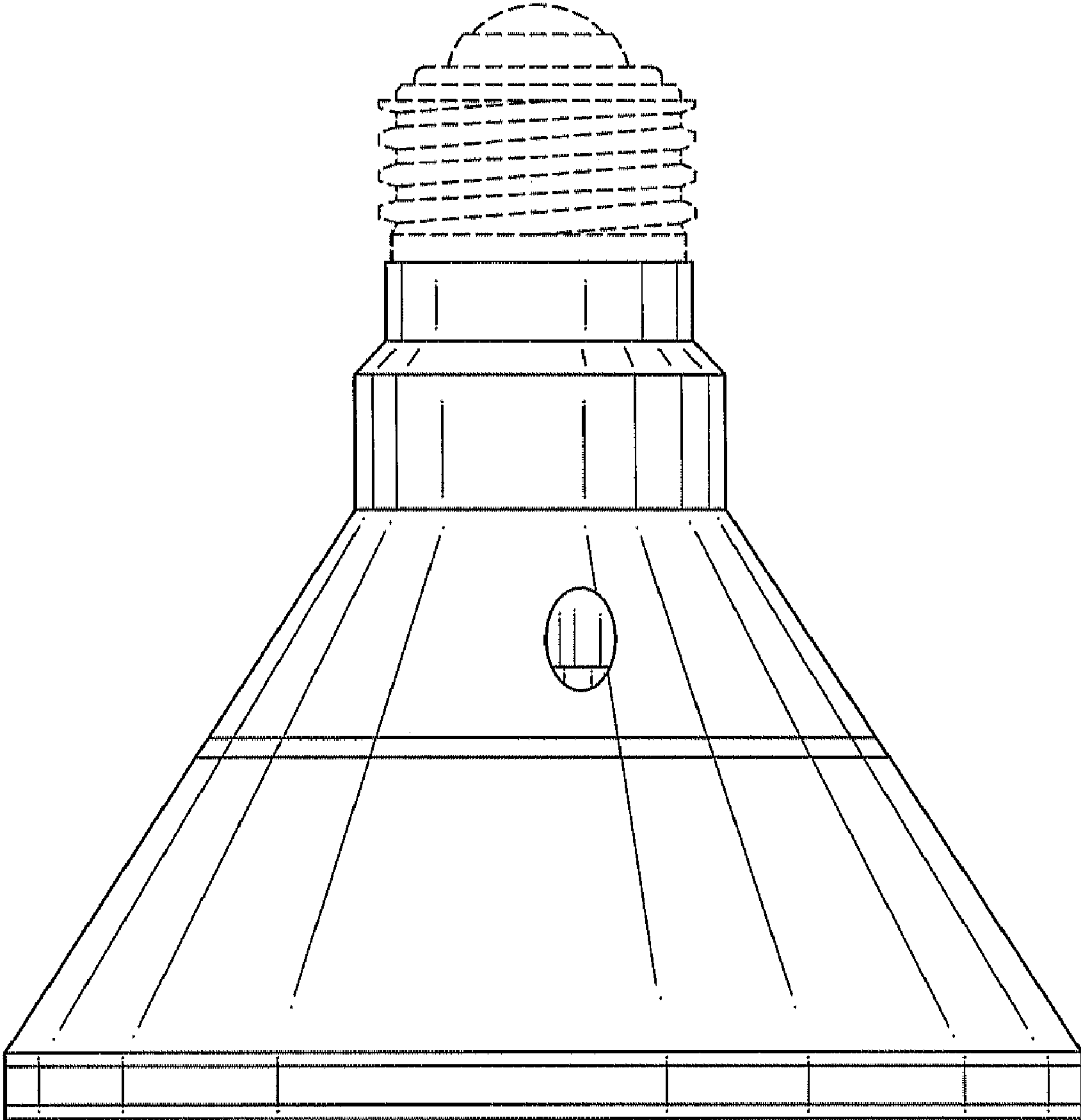


FIG. 1

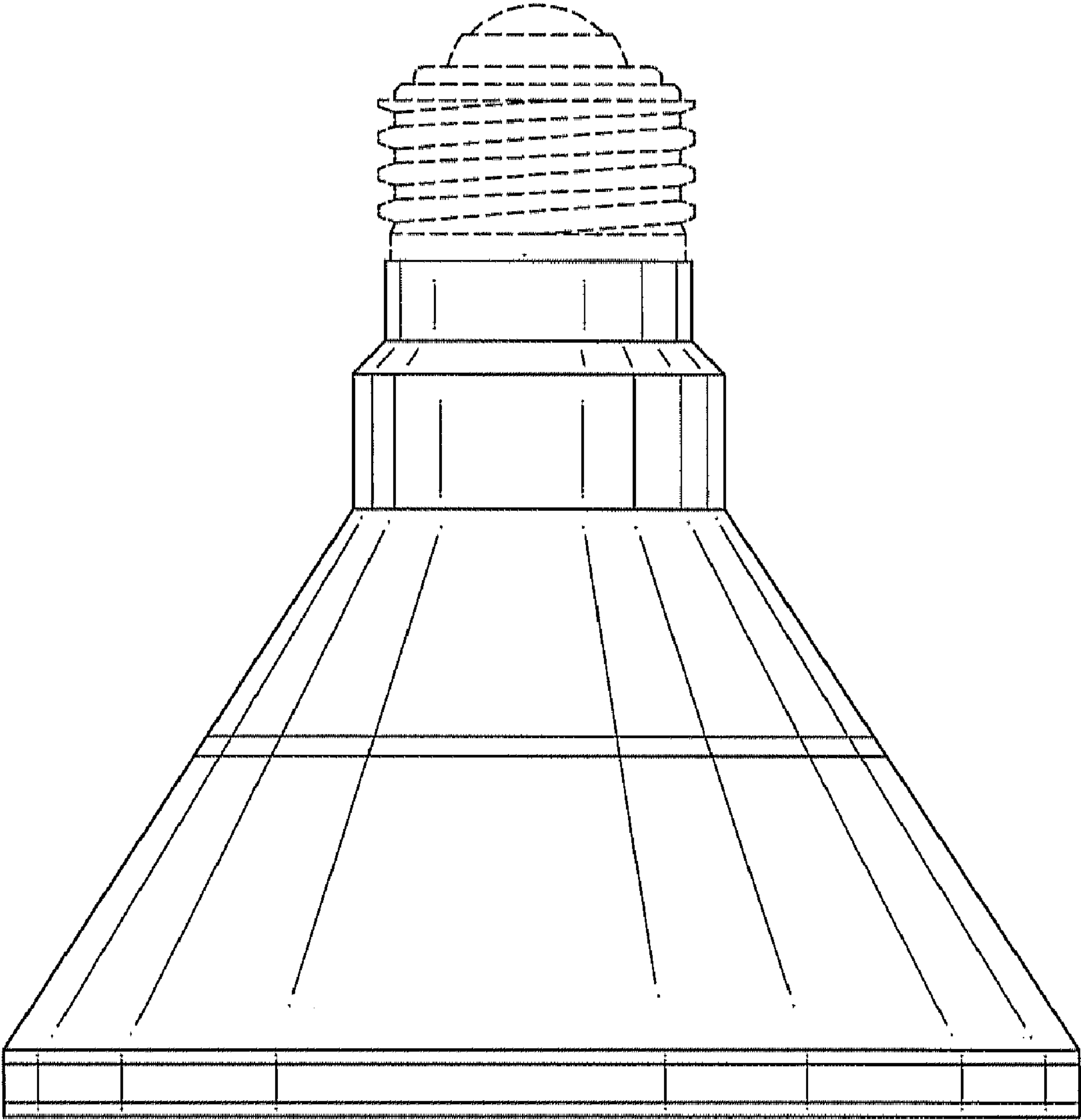


FIG.2

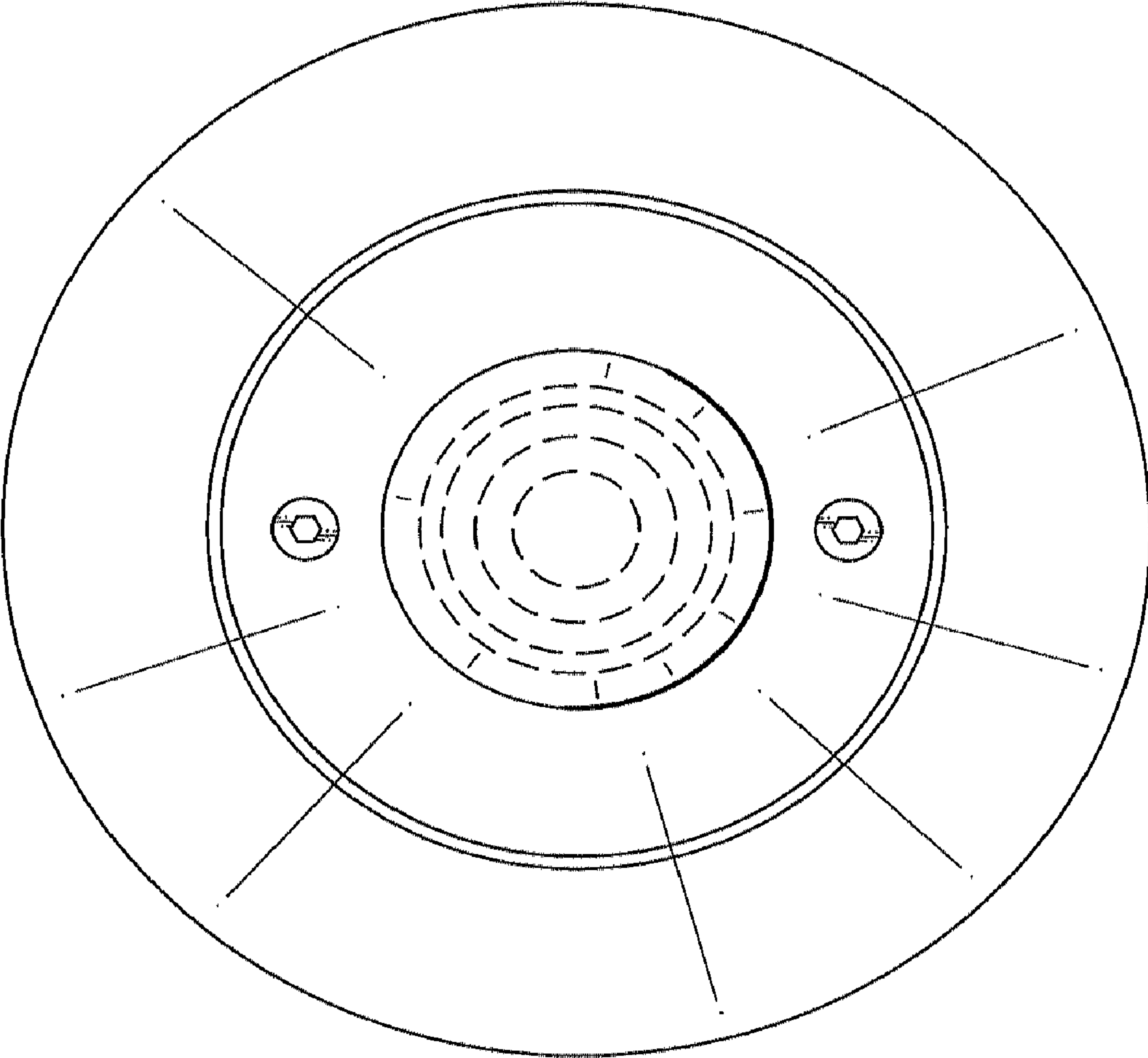


FIG.3

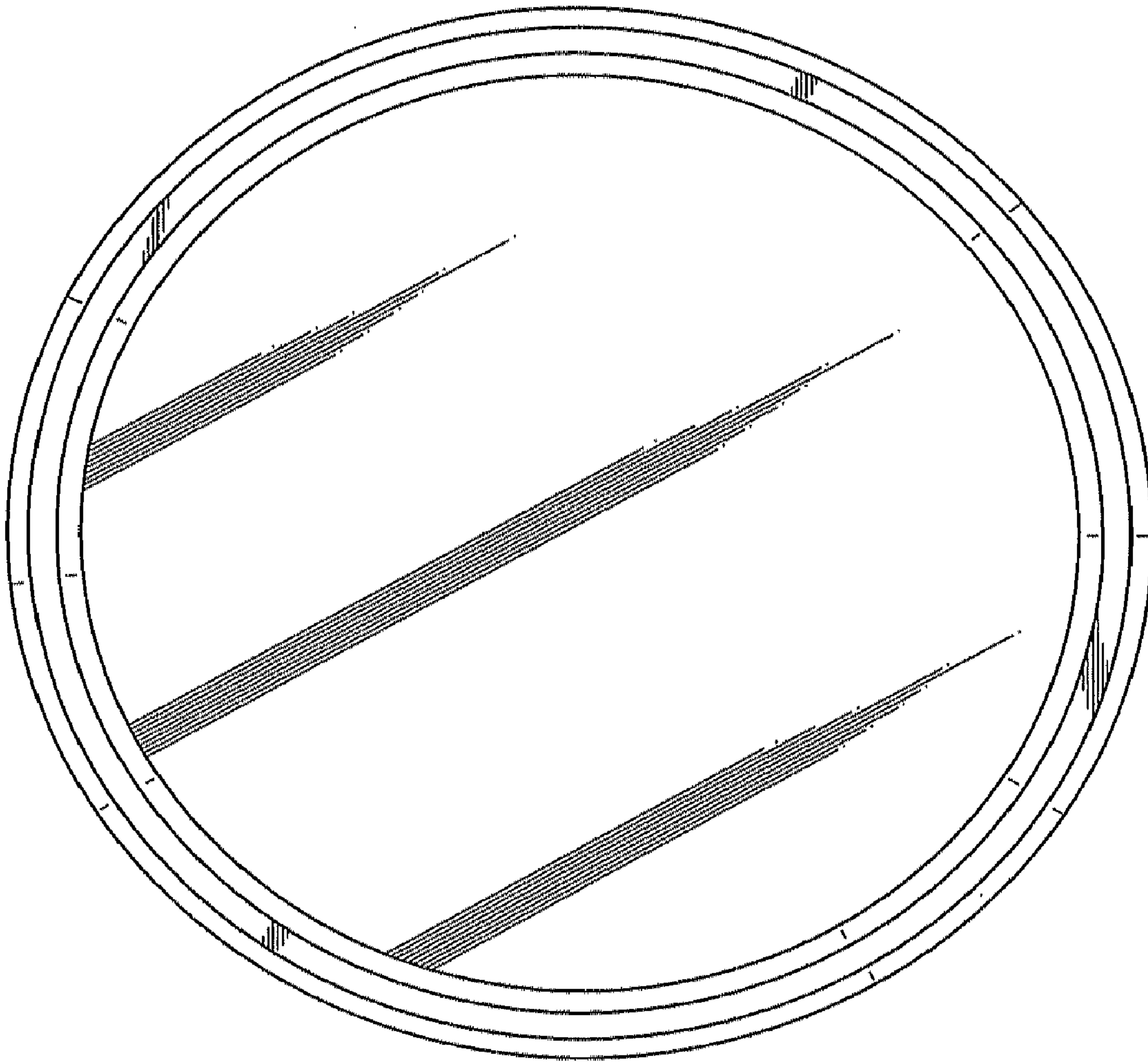


FIG.4

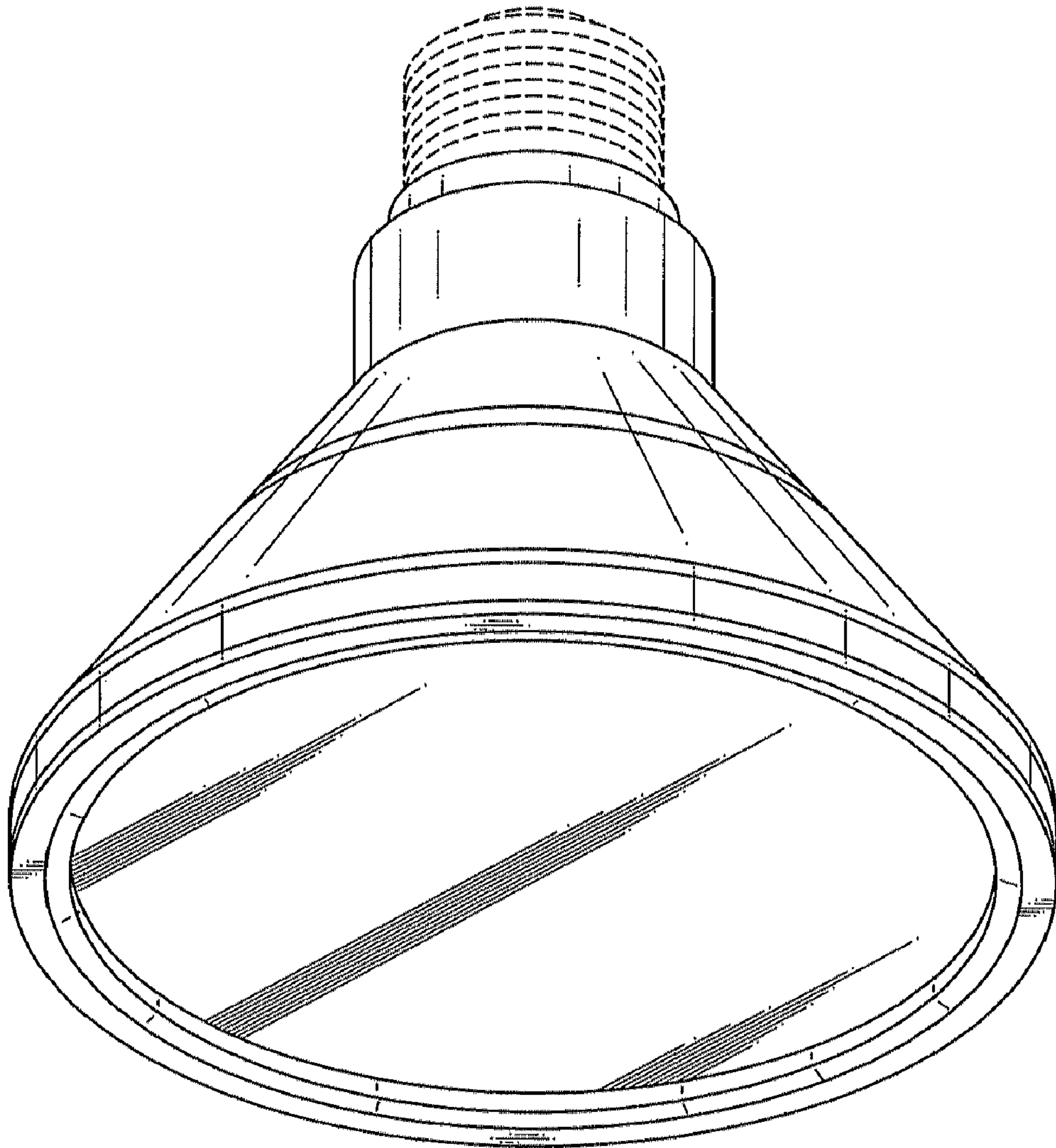


FIG.5

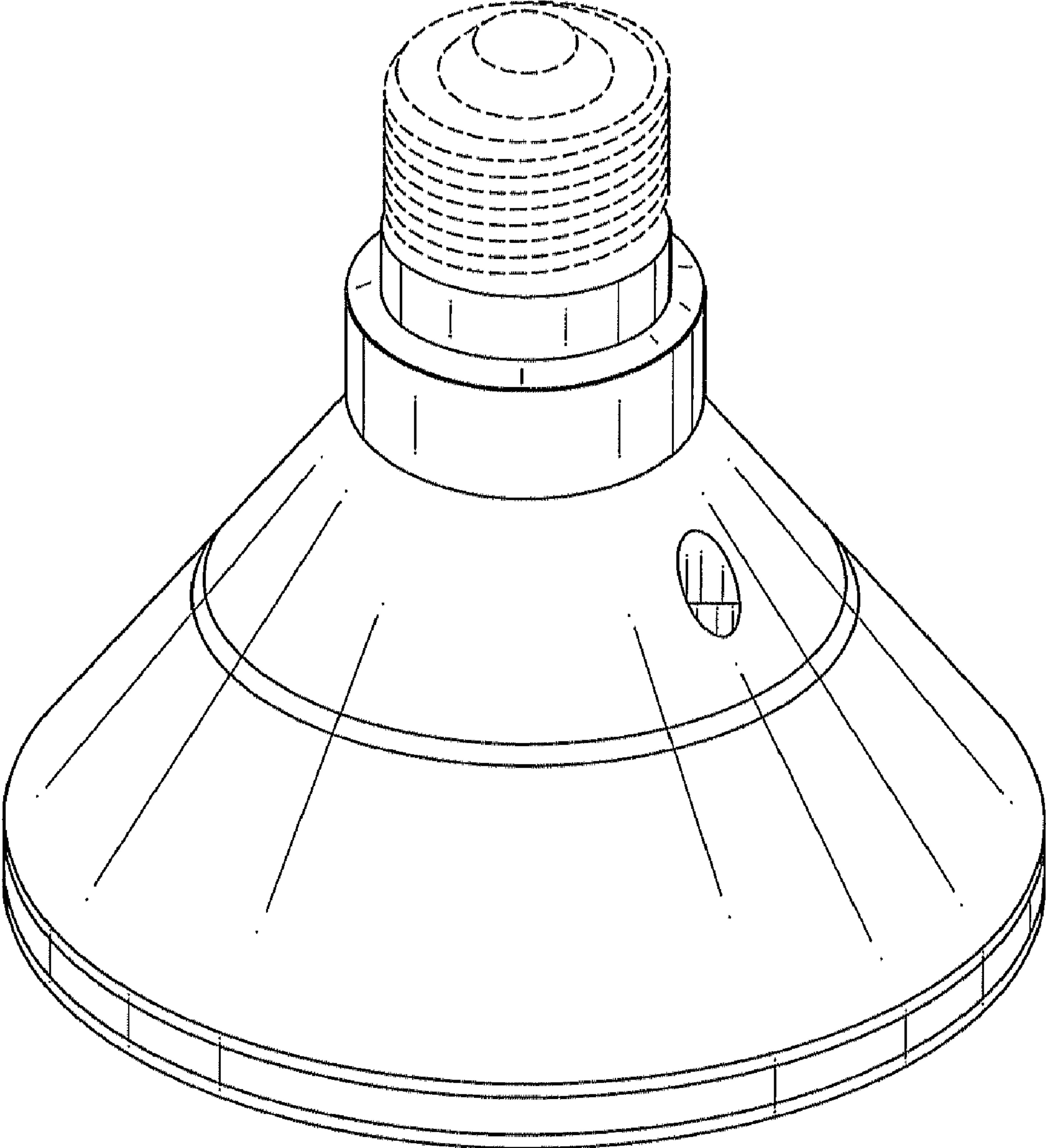


FIG.6

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : D673,697 S
APPLICATION NO. : 29/383042
DATED : January 1, 2013
INVENTOR(S) : Antony Paul Van De Ven and Wai Kwan Chan

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title page, Item (56) References Cited

U.S. DOCUMENTS, page 2 (second Column, line 11): Please change: "2009/0124666

A1 5/2009 Myers et al." to -- 2009/0184666 A1 7/2009 Myers et al. --

Signed and Sealed this
Sixteenth Day of April, 2013



Teresa Stanek Rea
Acting Director of the United States Patent and Trademark Office