



US00D848665S

(12) **United States Design Patent** (10) **Patent No.:** **US D848,665 S**
Stanley (45) **Date of Patent:** **** May 14, 2019**

(54) **HORTICULTURE GROW LIGHT**

- (71) Applicant: **HGCI, Inc.**, Las Vegas, NV (US)
- (72) Inventor: **John Stanley**, Vancouver, WA (US)
- (73) Assignee: **HGCI, Inc.**, Las Vegas, NV (US)
- (**) Term: **15 Years**

(21) Appl. No.: **29/625,315**

(22) Filed: **Nov. 8, 2017**

(51) **LOC (11) Cl.** **26-99**

(52) **U.S. Cl.**
USPC **D26/118**

(58) **Field of Classification Search**
 USPC ... D26/9, 10, 12, 13, 15, 16, 24, 51, 61, 72,
 D26/76, 80, 81, 85, 86, 88, 90, 113, 118,
 D26/119, 120, 122, 128, 129, 138, 143,
 D26/144
 CPC B60Q 1/04; B60Q 1/26; F21S 8/026; F21S
 8/04; F21L 19/00; F23D 11/443; F21Y
 2101/02; F21V 21/02; F21V 29/004;
 F21V 21/04; F21V 29/2212; F21V 7/22;
 F21V 29/83; F21V 37/002; F21V 7/00;
 A61L 9/037

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

32,722 A	7/1861	Schmidlin
D46,253 S	8/1914	Kopp
1,410,945 A	3/1922	Mayfield
1,547,026 A	7/1925	Canney
1,798,567 A	3/1931	Wagenhorst
D85,049 S	9/1931	Kopp
D85,382 S	10/1931	Guth

(Continued)

FOREIGN PATENT DOCUMENTS

CA	2034710	8/1991
CA	1314529	3/1993

(Continued)

OTHER PUBLICATIONS

Apollo Horticulture GLRCTAC 6" Air Cool Tube Grow Light Deluxe Glass Cylinder with Hood Reflector, image post date Oct. 15, 2010, site visted Oct. 3, 2014, (online), <http://www.amazon.com/apollo-horticulture-glrectac-cylinder-reflector/dp/b003qkvv04/ref=pd_sbs_lg_5?ie=utf8&refrid=1y9v9qhh4n5vnctjmfr>.

(Continued)

Primary Examiner — Brian N. Vinson

(74) *Attorney, Agent, or Firm* — J. Douglas Wells

(57) **CLAIM**

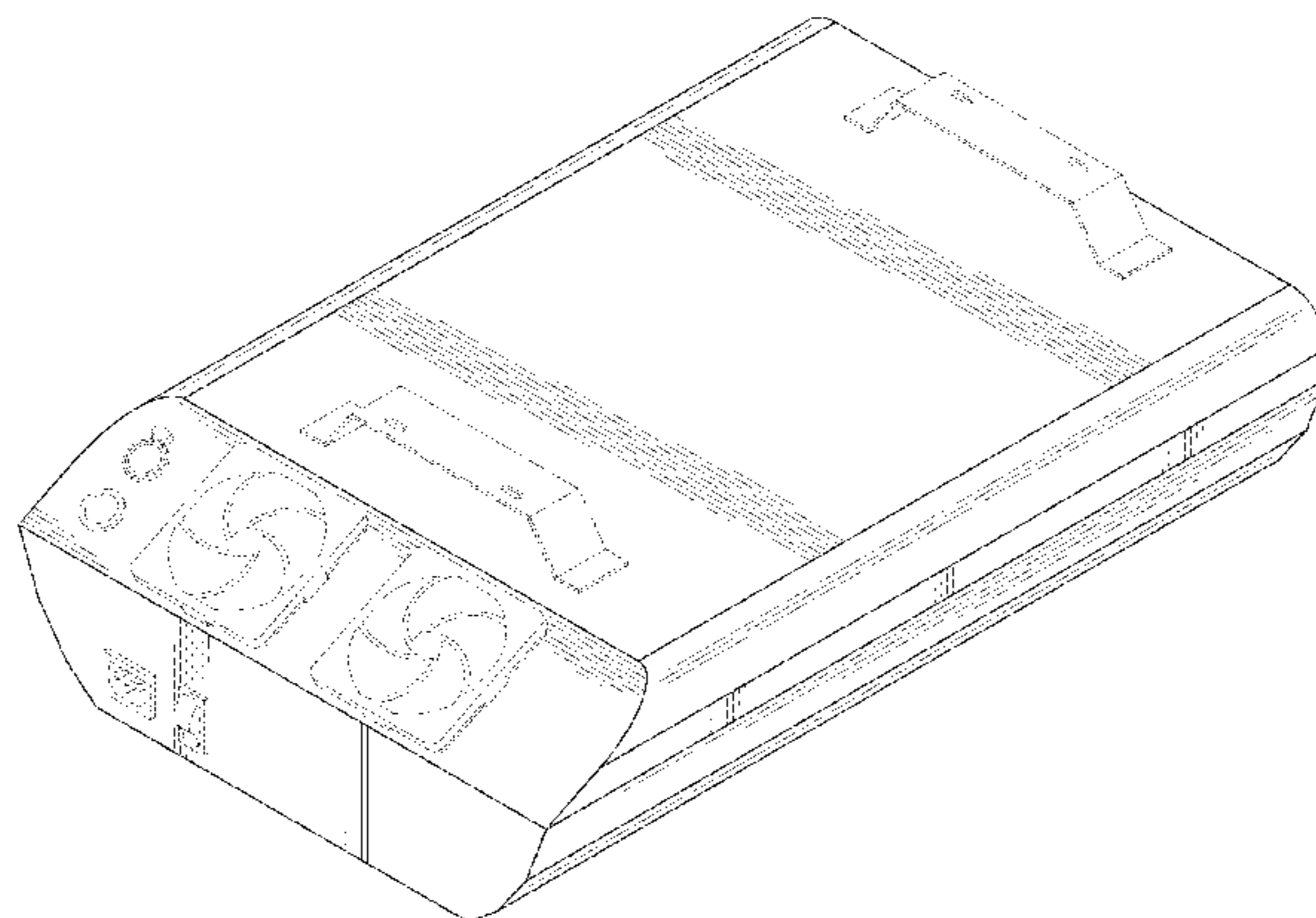
The ornamental design for a horticulture grow light, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a horticulture grow light, as viewed from above, showing my new design;
 FIG. 2 is a perspective view of the horticulture grow light shown in FIG. 1, as viewed from below;
 FIG. 3 is a left side view of the horticulture grow light shown in FIG. 1;
 FIG. 4 is a right side view of the horticulture grow light shown in FIG. 1;
 FIG. 5 is a front elevation view of the horticulture grow light shown in FIG. 1;
 FIG. 6 is a rear elevation view of the horticulture grow light shown in FIG. 1;
 FIG. 7 is a top plan view of the horticulture grow light shown in FIG. 1; and,
 FIG. 8 is a bottom plan view of the horticulture grow light shown in FIG. 1.

The broken-line disclosure shown in the views is understood to represent portions of the article in which the claimed design is embodied, but which form no part of the claimed design.

1 Claim, 6 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

6,601,972 B2	8/2003	Sei	D634,240 S	3/2011	Junkeer
6,658,652 B1	12/2003	Alexander	D634,468 S	3/2011	Hargreaves
6,679,619 B2	1/2004	Saieva	D634,469 S	3/2011	Hargreaves
D486,593 S	2/2004	Griffin	D637,162 S	5/2011	Bridgman
6,688,759 B1	2/2004	Hadjimichael	D637,341 S	5/2011	Wardenburg
6,709,131 B1	3/2004	Herst	D637,752 S	5/2011	Mekhtarian
6,729,383 B1	5/2004	Cannell	D640,404 S	6/2011	Chipperfield
6,783,263 B1	8/2004	Cronk	7,959,331 B2	6/2011	Ho
D496,121 S	9/2004	Santoro	D641,100 S	7/2011	Li
D499,504 S	12/2004	Meyer	7,972,044 B2	7/2011	Burkhauser
D499,505 S	12/2004	Benensohn	D644,185 S	8/2011	Hargreaves
D504,343 S	4/2005	Ek	7,987,632 B2	8/2011	May
6,885,134 B2	4/2005	Kurashima	8,018,630 B2	9/2011	Herloski
6,908,212 B2	6/2005	Schultz	8,038,318 B2	10/2011	Plunk
7,011,424 B1	3/2006	Poulson	D648,652 S	11/2011	Hawkins
7,083,309 B2	8/2006	Chan	D649,685 S	11/2011	Trzesniowski
7,101,060 B2	9/2006	Oppenheimer	D650,515 S	12/2011	Bradley
7,131,753 B1	11/2006	Edwards, Jr.	D650,935 S	12/2011	Beghelli
7,156,539 B2	1/2007	Cronk	D653,376 S	1/2012	Kong
7,175,309 B2	2/2007	Craw	8,113,696 B2	2/2012	Striebel
D542,460 S	5/2007	Hargreaves	D655,403 S	3/2012	Zakula
D543,652 S	5/2007	Hargreaves	D657,748 S	4/2012	Hargreaves
D543,654 S	5/2007	Hargreaves	D660,252 S	5/2012	Hargreaves
D543,655 S	5/2007	Hargreaves	D661,370 S	6/2012	Imajo
D544,982 S	5/2007	Hargreaves	D661,833 S	6/2012	Imajo
7,213,948 B2	5/2007	Hein	8,209,912 B2	7/2012	Hargreaves
D544,136 S	6/2007	Hargreaves	8,215,799 B2	7/2012	Vanden Eynden
D544,138 S	6/2007	Hargreaves	D667,584 S	9/2012	Beghelli
D544,139 S	6/2007	Hargreaves	D668,370 S	10/2012	Guercio
D544,626 S	6/2007	Hargreaves	D671,259 S	11/2012	Chen
D544,980 S	6/2007	Hargreaves	D672,908 S	12/2012	Wilcox
D544,981 S	6/2007	Hargreaves	D672,911 S	12/2012	Mayfield, III
D544,983 S	6/2007	Hargreaves	D673,324 S	12/2012	Mayfield
D544,984 S	6/2007	Hargreaves	8,334,640 B2	12/2012	Reed
D544,985 S	6/2007	Hargreaves	D675,369 S	1/2013	Michaud
D544,987 S	6/2007	Hargreaves	8,348,481 B2	1/2013	Chang
D544,994 S	6/2007	Hargreaves	D675,772 S	2/2013	Tran
D544,995 S	6/2007	Hargreaves	8,371,726 B2	2/2013	Collins
D545,460 S	6/2007	Mason, II	D678,597 S	3/2013	Lehman
D545,484 S	6/2007	Hargreaves	D678,599 S	3/2013	Boyer
D545,485 S	6/2007	Hargreaves	D679,848 S	4/2013	Pickard
D545,990 S	7/2007	Hargreaves	D683,064 S	5/2013	Tuck
D545,994 S	7/2007	Hargreaves	8,505,224 B2	8/2013	Huang
D545,996 S	7/2007	Hargreaves	D689,238 S	9/2013	Halsey
D549,869 S	8/2007	Ward	D689,986 S	9/2013	Lord
D553,781 S	10/2007	Pickard	D690,875 S	10/2013	McKenzie
7,296,914 B1	11/2007	Russello	D693,959 S	11/2013	Boyer
7,360,927 B2	4/2008	Oka	D697,663 S	1/2014	Speier
D569,024 S	5/2008	Redfern	D698,074 S	1/2014	Hargreaves
D572,858 S	7/2008	Santoro	D698,075 S	1/2014	Klus
7,445,363 B2	11/2008	Vanden Eynden	D698,986 S	2/2014	Reynolds
7,524,090 B2	4/2009	Hargreaves	D698,987 S	2/2014	Stanley
7,534,011 B2	5/2009	Townsley	D699,386 S	2/2014	Park
D595,894 S	7/2009	Verfuertth	D702,827 S	4/2014	Mase
D602,625 S	10/2009	Santoro	8,702,283 B2	4/2014	Bradley, Jr.
D603,087 S	10/2009	Mo	D705,474 S	5/2014	Philips
7,617,057 B2	11/2009	May	D705,974 S	5/2014	Blessitt
D605,342 S	12/2009	Chung	8,723,086 B2	5/2014	McMahan
D608,490 S	1/2010	Chung	D707,385 S	6/2014	Wardenburg
7,641,367 B2	1/2010	Hargreaves	D708,390 S	7/2014	Roos
7,654,702 B1	2/2010	Ding	D710,528 S	8/2014	Wardenburg
D611,183 S	3/2010	Duarte	8,801,235 B2	8/2014	Yurich
D613,900 S	4/2010	Hargreaves	D713,953 S	9/2014	Jepson
D614,801 S	4/2010	Collins	D714,988 S	10/2014	Park
7,722,228 B2	5/2010	Broer	D715,994 S	10/2014	Klus
D617,028 S	6/2010	Verfuertth	D716,995 S	11/2014	Zhu
D620,190 S	7/2010	Chung	D717,487 S	11/2014	Guzzini
D621,993 S	8/2010	Jong	D717,636 S	11/2014	Stanley
7,771,086 B2	8/2010	Goverde	D720,488 S	12/2014	Toyohisa
D628,335 S	11/2010	Hyland	D720,505 S	12/2014	Kersten
7,854,534 B2	12/2010	Liu	8,905,575 B2	12/2014	Durkee
D632,419 S	2/2011	Ng	D720,876 S	1/2015	Havertield
D633,247 S	2/2011	Kong	D721,844 S	1/2015	Lay
D633,640 S	3/2011	Wauters	D722,654 S	2/2015	Martone
D634,060 S	3/2011	Wardenburg	D725,820 S	3/2015	Hargreaves
			8,967,821 B2	3/2015	Pickard
			D726,359 S	4/2015	Grigore
			8,998,473 B1	4/2015	Anderson
			9,016,892 B1	4/2015	Scribante

(56) References Cited			D780,985 S *	3/2017 Stanley D26/118
	U.S. PATENT DOCUMENTS			
9,016,907 B2	4/2015	Stanley	D780,986 S	3/2017 Reynolds
D728,848 S	5/2015	Reyes	D781,492 S	3/2017 Reynolds
D729,435 S	5/2015	Arndt	D783,887 S	4/2017 Stanley
D730,556 S	5/2015	Toyohisa	D783,888 S	4/2017 Reynolds
D725,819 S	6/2015	Reynolds	D786,477 S	5/2017 Lauderdale
D731,103 S	6/2015	Wilke	D786,488 S	5/2017 Reynolds
D731,109 S	6/2015	Wardenburg	D786,489 S	5/2017 Stanley
D731,701 S	6/2015	Hargreaves	D786,490 S	5/2017 Stanley
D732,233 S	6/2015	Reynolds	D786,491 S	5/2017 Reynolds
D732,234 S	6/2015	Rashidi Doust	D792,635 S	7/2017 Reynolds
D732,235 S	6/2015	Reynolds	D793,616 S	8/2017 Reynolds
D732,236 S	6/2015	Reynolds	D796,727 S	9/2017 Reynolds
D733,347 S	6/2015	Dungan	D796,728 S	9/2017 Reynolds
9,052,075 B2	6/2015	Demuynck	D797,350 S	9/2017 Reynolds
D733,952 S	7/2015	Lay	D797,353 S *	9/2017 Stanley D26/118
D733,960 S	7/2015	Howe	9,750,199 B2	9/2017 Stanley
D734,534 S	7/2015	Howe	9,752,766 B2	9/2017 Stanley
D735,391 S	7/2015	Blessitt	D802,826 S	11/2017 Stanley
D735,401 S	7/2015	Clements	D802,828 S *	11/2017 Stanley D26/118
D736,450 S	8/2015	Reynolds	D802,829 S	11/2017 Reynolds
D737,498 S	8/2015	Stanley	D802,830 S	11/2017 Stanley
9,110,209 B2	8/2015	Blessitt	D811,647 S *	2/2018 Stanley D26/118
D738,031 S	9/2015	Martins	D826,469 S *	8/2018 Reynolds D26/118
D739,595 S	9/2015	Reynolds	2002/0073285 A1	6/2002 Butterworth
9,127,826 B2	9/2015	Boyer	2002/0141195 A1	10/2002 Wardenburg
D740,486 S	10/2015	Reynolds	2003/0031011 A1	2/2003 Miller
D740,996 S	10/2015	Tragatschnig	2003/0191783 A1	10/2003 Wolczko
D745,993 S	12/2015	Reynolds	2004/0240214 A1	12/2004 Whitlow
D747,029 S	1/2016	Reynolds	2005/0117333 A1	6/2005 Yoshida
D747,538 S	1/2016	Reynolds	2005/0160481 A1	7/2005 Todd
D747,825 S	1/2016	Reynolds	2005/0233691 A1	10/2005 Horton
D747,849 S	1/2016	Reynolds	2006/0231081 A1	10/2006 Kirakosyan
D747,923 S	1/2016	Cornu	2006/0232984 A1	10/2006 Schuknecht
D748,319 S	1/2016	Johnson	2006/0282457 A1	12/2006 Williams
D748,320 S	1/2016	Johnson	2007/0051321 A1	3/2007 Chang
D748,847 S	1/2016	Johnson	2007/0070633 A1	3/2007 Eynden
D748,850 S	1/2016	Johnson	2007/0228993 A1	10/2007 Stuer
D748,849 S	2/2016	Stanley	2007/0246631 A1	10/2007 Brown
D749,773 S	2/2016	Waible	2007/0282806 A1	12/2007 Hoffman
D750,312 S	2/2016	Reynolds	2008/0059799 A1	3/2008 Scarlata
D750,313 S	2/2016	Reynolds	2008/0117617 A1	5/2008 Hargreaves
D750,316 S	2/2016	Reynolds	2008/0130304 A1	6/2008 Rash
9,255,690 B2	2/2016	Dimitriadis	2008/0205030 A1	8/2008 Hargreaves
D750,831 S	3/2016	Clements	2008/0205071 A1	8/2008 Townsley
D751,244 S	3/2016	Reynolds	2008/0212326 A1	9/2008 Chon
D751,245 S	3/2016	Stanley	2008/0178957 A1	11/2008 Pickard
D751,247 S	3/2016	Reynolds	2008/0278950 A1	11/2008 Pickard
9,279,553 B1	3/2016	Scribante	2009/0166250 A1	5/2009 Hargreaves
D753,654 S	4/2016	Eastwood	2009/0231840 A1	9/2009 Boehme
9,310,037 B2	4/2016	Cercone	2009/0262540 A1	10/2009 Hargreaves
D756,016 S	5/2016	Hargreaves	2009/0276478 A1	11/2009 Soman
D756,023 S	5/2016	Hoffer	2009/0310373 A1	12/2009 Burkhauser
D756,026 S	5/2016	Reynolds	2009/0316404 A1	12/2009 Mo
D757,323 S	5/2016	Reynolds	2009/0323335 A1	12/2009 Yang
D757,326 S	5/2016	Reynolds	2010/0214789 A1	8/2010 Hawkes
D757,346 S	5/2016	Stanley	2010/0238661 A1	9/2010 Pfund
9,335,038 B2	5/2016	Stanley	2010/0277908 A1	11/2010 Hu
9,366,947 B2	6/2016	Miyata	2010/0277929 A1	11/2010 Hargreaves
D762,320 S	7/2016	Reynolds	2010/0295468 A1	11/2010 Pedersen
D765,306 S	8/2016	Wardenburg	2010/0302768 A1	12/2010 Collins
D766,756 S	9/2016	Franc	2011/0169412 A1	7/2011 Yurich
9,451,743 B2	9/2016	Koerner	2011/0203096 A1	8/2011 Hargreaves
D769,513 S	10/2016	Reynolds	2011/0259665 A1	10/2011 Morgan
D769,514 S	10/2016	Reynolds	2012/0051041 A1	3/2012 Edmond
D770,079 S	10/2016	Stanley	2012/0092859 A1	4/2012 Gregoris
D770,082 S	10/2016	Reynolds	2012/0145699 A1	6/2012 McMahan
D770,670 S	11/2016	Reynolds	2012/0212883 A1	8/2012 Hargreaves
D770,671 S	11/2016	Reynolds	2012/0230035 A1	9/2012 Bradley, Jr.
D771,301 S	11/2016	Stanley	2012/0302768 A1	11/2012 Janka et al.
D771,304 S	11/2016	Goltche	2013/0083539 A1	1/2013 Dimitriadis
D773,107 S	11/2016	Stanley	2013/0077329 A1	3/2013 Hessling
D774,234 S	12/2016	Plourde	2013/0155685 A1	6/2013 Stanley
D775,406 S	12/2016	Hargreaves	2013/0242573 A1	9/2013 Petrsoki
D775,760 S	1/2017	Reynolds	2013/0250567 A1	9/2013 Edmond
9,551,482 B2	1/2017	Seward	2014/0378283 A1	12/2014 Qiu
			2015/0023022 A1	1/2015 Stanley
			2015/0098215 A1	4/2015 Torabifard
			2015/0252992 A1	9/2015 Stanley

(56)

References Cited

U.S. PATENT DOCUMENTS

2015/0252993 A1 9/2015 Stanley
 2015/0252994 A1 9/2015 Stanley
 2015/0260381 A1 9/2015 Verfuert
 2017/0211801 A1 7/2017 Stanley

FOREIGN PATENT DOCUMENTS

EP 0325003 7/1989
 EP 0440274 8/1991
 WO 2002063210 8/2002
 WO 2003060379 7/2003
 WO 2008018000 2/2008
 WO 2009096775 8/2009
 WO 2011119451 9/2011

OTHER PUBLICATIONS

Apollo Horticulture GLRLS24 6" Air Cooled Hydroponic Grow Light Glass Reflector Hood, image post date Oct. 15, 2010, site visited Oct. 3, 2014, (online), <http://www.amazon.com/apollo-horticulture-GLRLS24-hydroponic-reflector/dp/B00BMVK8HG/ref=cm_cd_ql_qh_dp_i>.

Adjustable Reflector, image post date Apr. 23, 2012, site visited Sep. 23, 2015, http://web.archive.org/web/2012043260757/http://hydroponics-products.en.alibaba.com/product/519225678-213056444/adjustable_reflector_grow_light_hydroponics_greenhouse_horticulture_reflector_hood.html.

Agrotech Magnum Reflector, image post date Feb. 5, 2012, site visited Oct. 31, 2014, www.hydroponics.net/i/136580.

Cree CR22, image post date Apr. 28, 2011, site visited Nov. 15, 2014, <http://ledsmagazine.com/content/dam/leds/migrated/objects/news/8/4/19/cree204272011.jpg>.

ZR series High Efficacy Troffer, image post date Apr. 13, 2012, site visited Oct. 31, 2014, www.cree.com/lighting/products.

Grow Lights Home Depot: Find many types of grow lights for your plant, published Dec. 22, 2012, online. Site visited Jun. 25, 2014. <http://besthomedecorfurniture.com/gardening-d%C3%A9cor/grow-lights-home-depot-few-things-to-consider-when-buying-grow-lighting-plants-online.html>.

LED Grow Light Comparison Test Review, Youtube.com, published Jun. 29, 2012, online. Site visited Jun. 25, 2014. www.youtube.com/watch?v=f-8oy0qbgrs.

Illuminator Pro-Series Hybrid 350W, wordpress.com, published Dec. 22, 2010, online, site visited Jun. 25, 2014. <http://growsetup.wordpress.com/category/grow-lights/>.

California Lightworks New SolarStorm 440W LED Grow Light with UVB, hydrobuilder.com, online. Site visited Jun. 25, 2014. http://hydrobuilder.com/solarstorm-440w-led-grow-light-with-uvb.html?dzid=strands_CLW-SS-440.

2013 Sunlight Supply Cataog, Issuu.com, published Aug. 1, 2013, online. Site visited Feb. 2, 2015. http://issuu.com/sunlightsupply/docs/2013_sunlightproductcatalog/49.

Pages 29 and 54 from 2014-2015 dealer catalog showing and describing Super Sun DE Reflector published by Sunlight Supply, Inc. 2014.

Dominator XXXL Non AC Reflector pack of 3 Spec Sheet, GreenTreesHydroponics.com, date available Mar. 12, 2014, online. Site visited Feb. 3, 2015, <https://www.hydroponics.net/i/141477>.

Low Rider Air-Cooled Reflector—TinEye, image post date Oct. 11, 2012, site visited Oct. 1, 2015, www.tineye.com/search/1b0e187c5ed9e4e9cfb55d0472271385a2c0e88/?pluginver.

OG Air Cooled Parabolic Reflector Only—Make the Most of Your Grow Light, GroWell Hydroponics, <http://www.growell.co.uk/og-air-cooled-parabolic-reflector-only.html>, pp. 1-2, accessed Aug. 26, 2014.

Air Resistance: Distinguishing Between Laminar and Turbulent Flow, www.docstoc.com, Dec. 29, 2010, p. 1-6.

Sun Systems LEC 630 Light Emitting Ceramic Fixture, Spec Sheet for 906217—Sun System LEC 630 120 Volt w/3100 K Lamps, www.sunlightsupply.com/shop/bycategory/led-lighting/sun-system-lec-630-light-emitting-ceramic-Fixture, online, updated Feb. 9, 2015. Site visited Mar. 30, 2015, p. 1.

Mohri, Mineko, International Preliminary Report on Patentability for PCT/US2014/014959, dated Jan. 19, 2016.

A3V Reflector, Titaness Light Shop, www.titanesslightshop.com/products-page/reflectors/a3v-reflector, online. Site visited Jan. 14, 2015.

G2V Grow Light Reflector, Titaness Light Shop, www.titanesslightshop.com/products-page/reflectors/g2v-grow-light-reflector, online. Site visited Jan. 4, 2015.

1000 Watt Galaxy Grow Amp Double Ended Grow Light Packages, image post date Jan. 30, 2014, site visited Jul. 8, 2016, <<http://www.ehydroponics.com/100-watt-galaxy-grow-amp-double-ended-grow-light-package.html>>.

2009-10-watt-light-set—TinEye, image post date May 23, 2012, site visited Jul. 8, 2016, <<https://www.tineye.com/search/2de39cf51f7a031139a80ce555e2f30d0abd5216/>>.

Square 10 Watt LED Grow Light, image post date Aug. 1, 2011, site visited Jul. 8, 2016, <<http://www.dhgate.com/store/product/hydroponic-vegetable-10-watt-led-grow-light/216755031.html>>.

Sun System 630 Ceramic Metal Halide 120v Specifications, GrowersHouse.com, update on Sep. 9, 2014, Online. Site visited Feb. 3, 2015. <http://growershouse.com/aitdownloadablefiles/download/aitfile/aitfile_id/583/>.

Growlite HDE 600W-1000W Double Ended Lamp Concealed Vacuum Airflow Technology, Indoor Grow Science, site visited Aug. 3, 2016, <<http://www.indoorgrowscience.net/downloads/specs/hde.pdf>>.

Sun Systems LEC 315—Reviews?, rollitup.com forum, published Oct. 23, 2013, online. Visited Nov. 8, 2016. <<http://rollitup.org/t/sun-systems-lec-315-reviews.742794>>.

Sun System LEC 315 120v Light Emitting Ceramic Metal Halide Fixture w/ Free Ratchet Light Hangers, Amazon.com, earliest review of Jul. 2, 2014, online. Visited Nov. 8, 2016 <<https://www.amazon.com/sun-system-emitting-ceramic-fixture/dp/B00HBCV8TM>>. LEC 315 Watt Grow Light Great Yield Reports!, YouTube.com, published Mar. 31, 2014, online. Visited Nov. 8, 2016. <<https://www.youtube.com/watch?v=QqcoW19KnUk>>.

Air Cooled Grow Lights, greensteamhydroponics.com, published May 24, 2014, online. Site visited Nov. 16, 2016. <http://web.archive.org/web/20140524103407/http://www.greensteamhydroponics.com/aircooled-reflector-range-from-greensteam-hydroponics/prod_699.html>.

AplusChoice—Hydroponics, image post date Dec. 2, 2014, site visited Jul. 13, 2017, (online), <https://www.tineye.com/search/6589596c8738268de70acceca20d64855d0f1d2/?sort=crawl_date&order=asc>.

Power 600 watt HPS MH Grow Light Digital Dimm System Indoor Garden Set, image post date 2013, site visited Jul. 13, 2017, (online), <https://bidjapon.com/item_View.aspx?itemId=150928769289>.

* cited by examiner

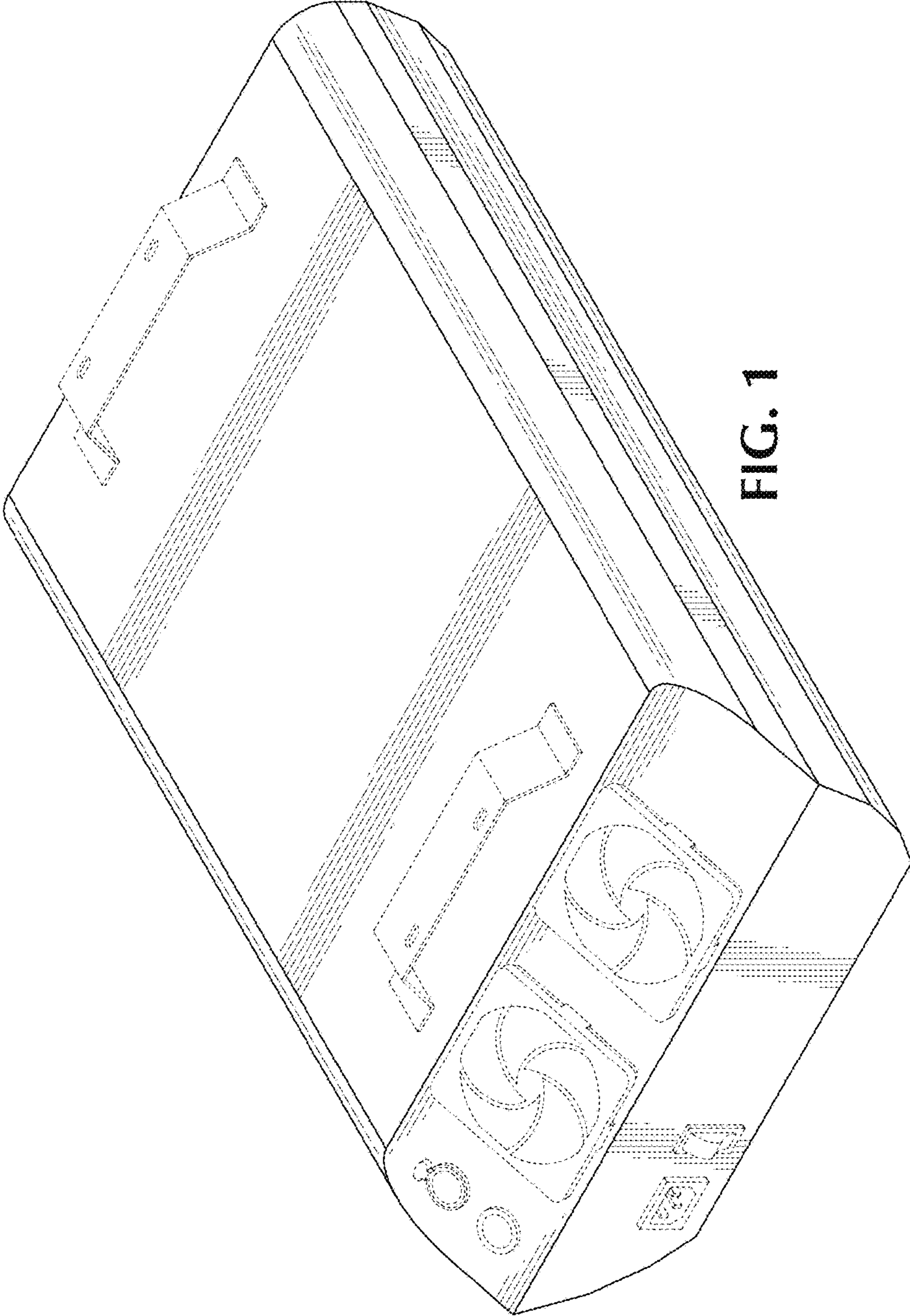


FIG. 1

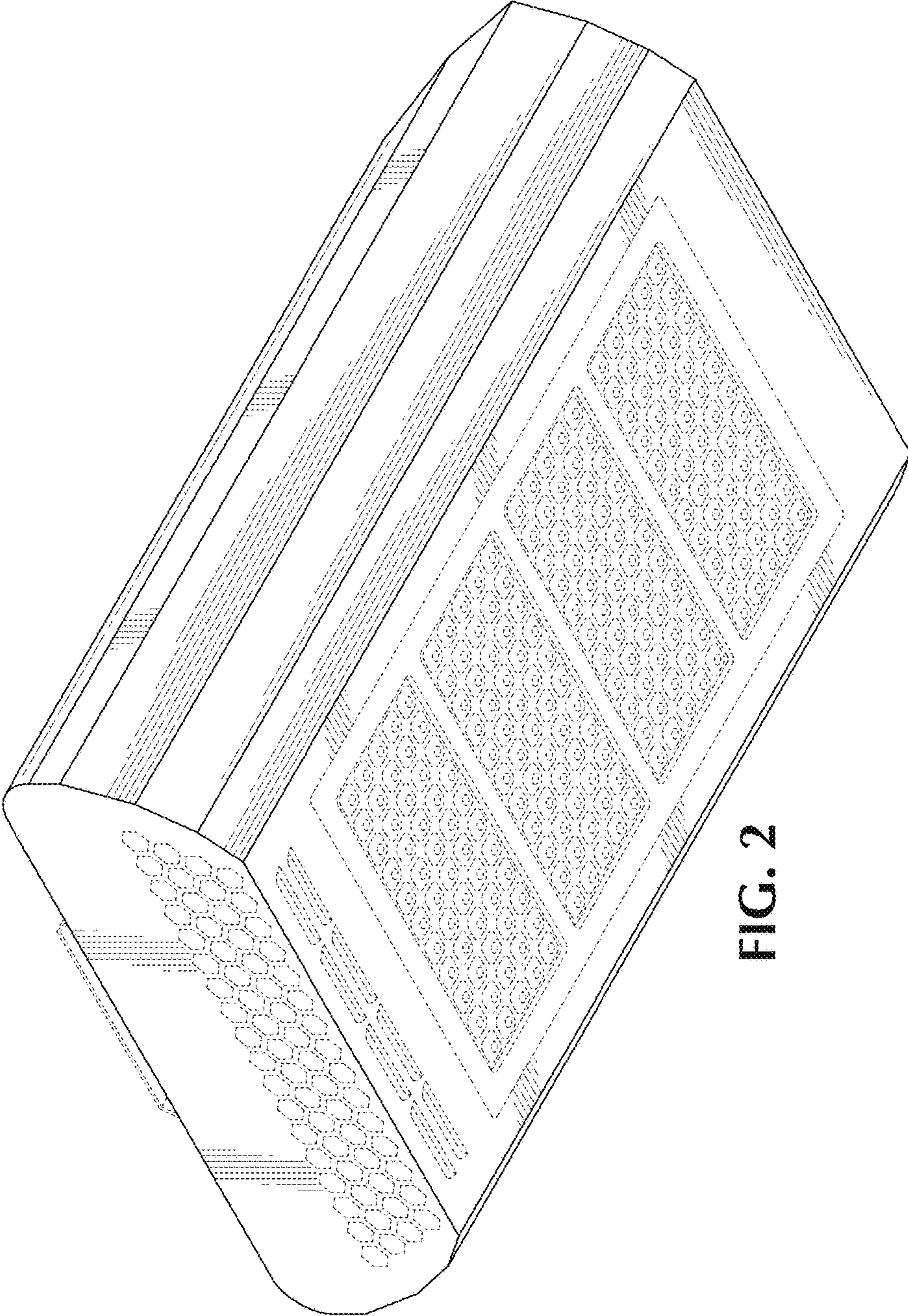


FIG. 2

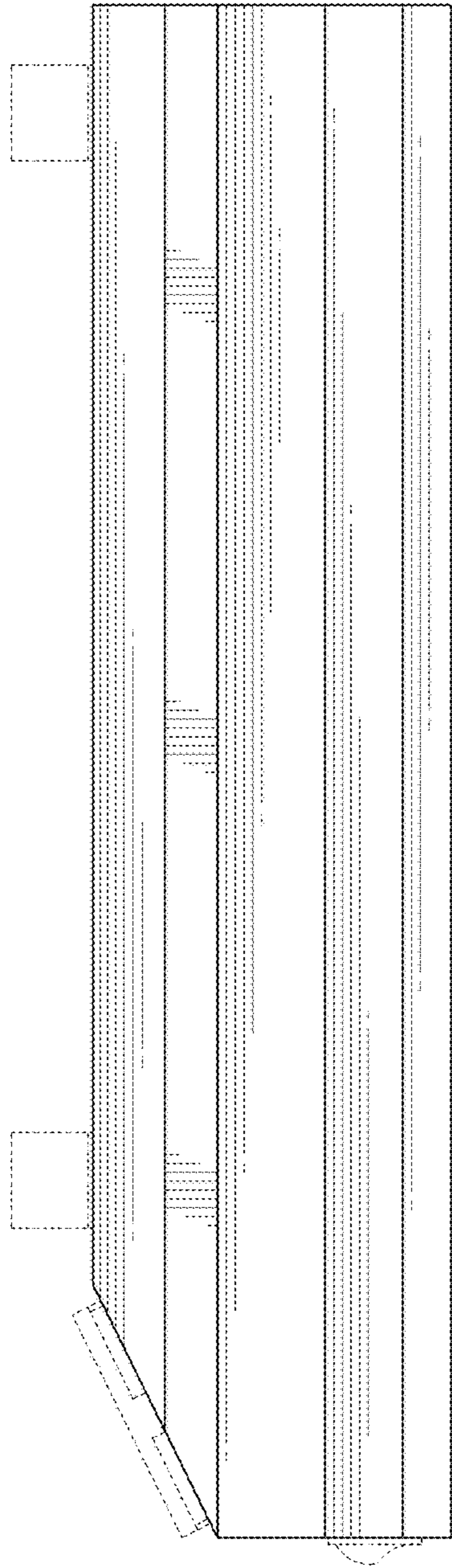


FIG. 3

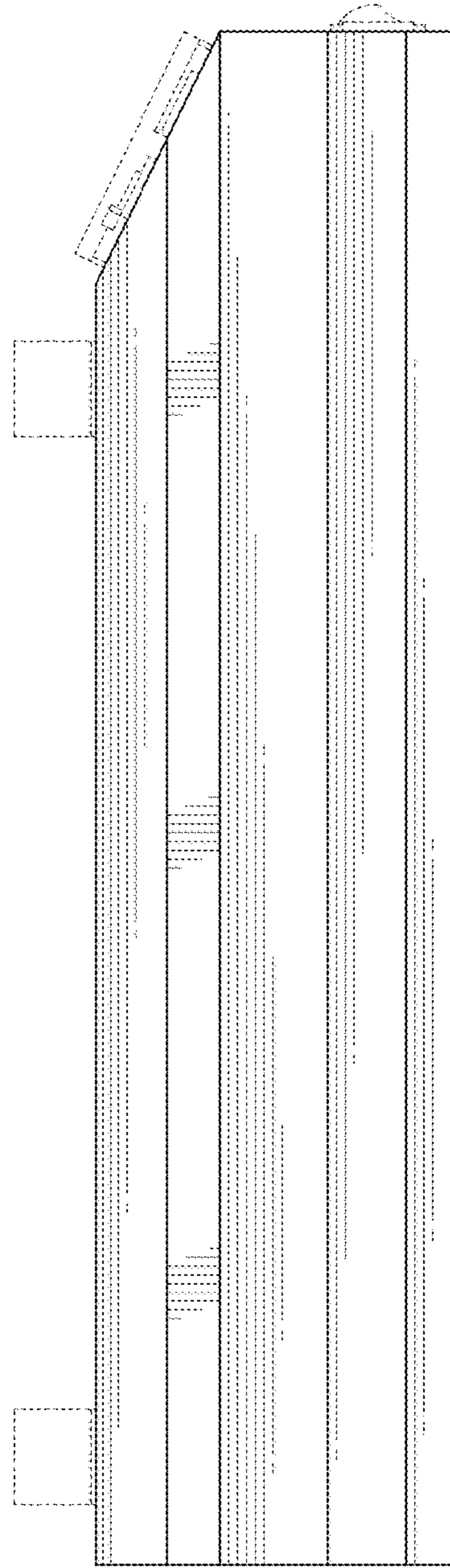


FIG. 4

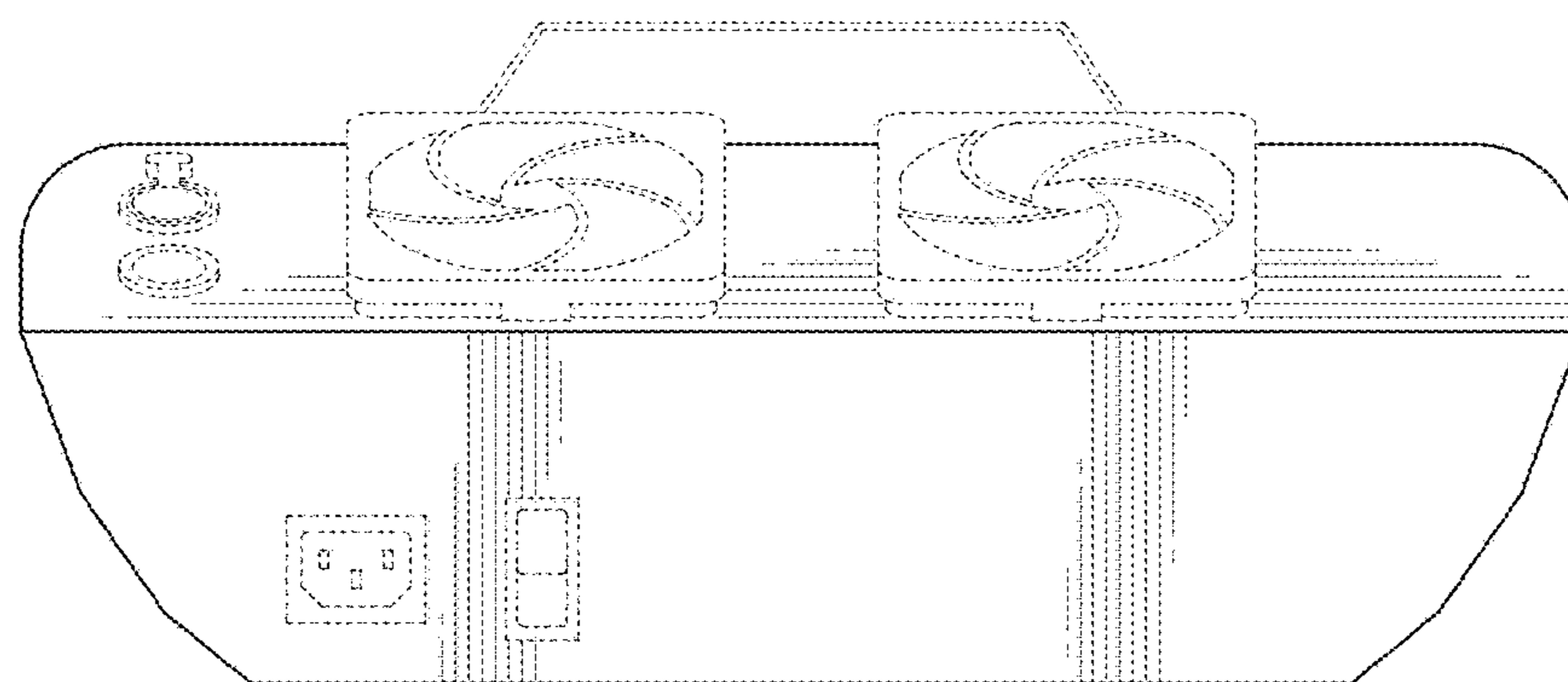


FIG. 5

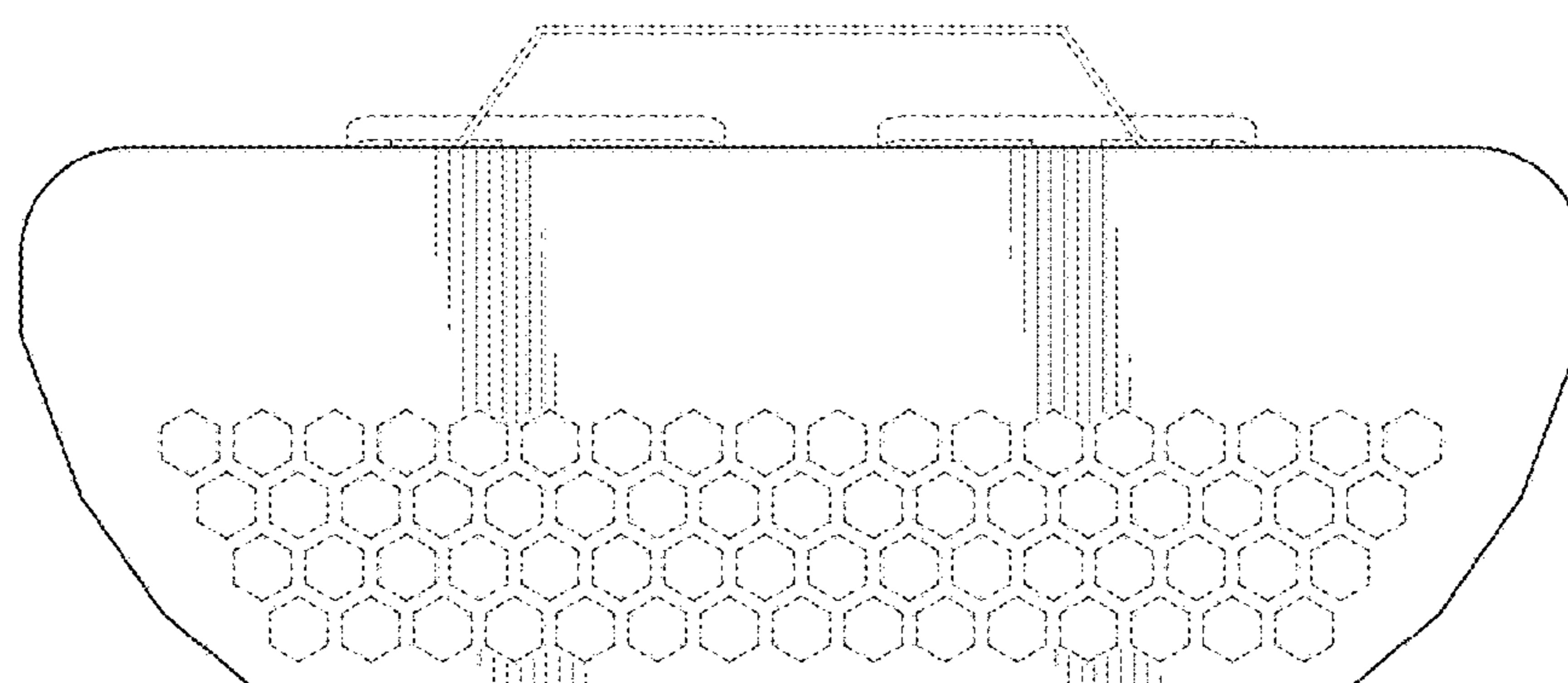


FIG. 6

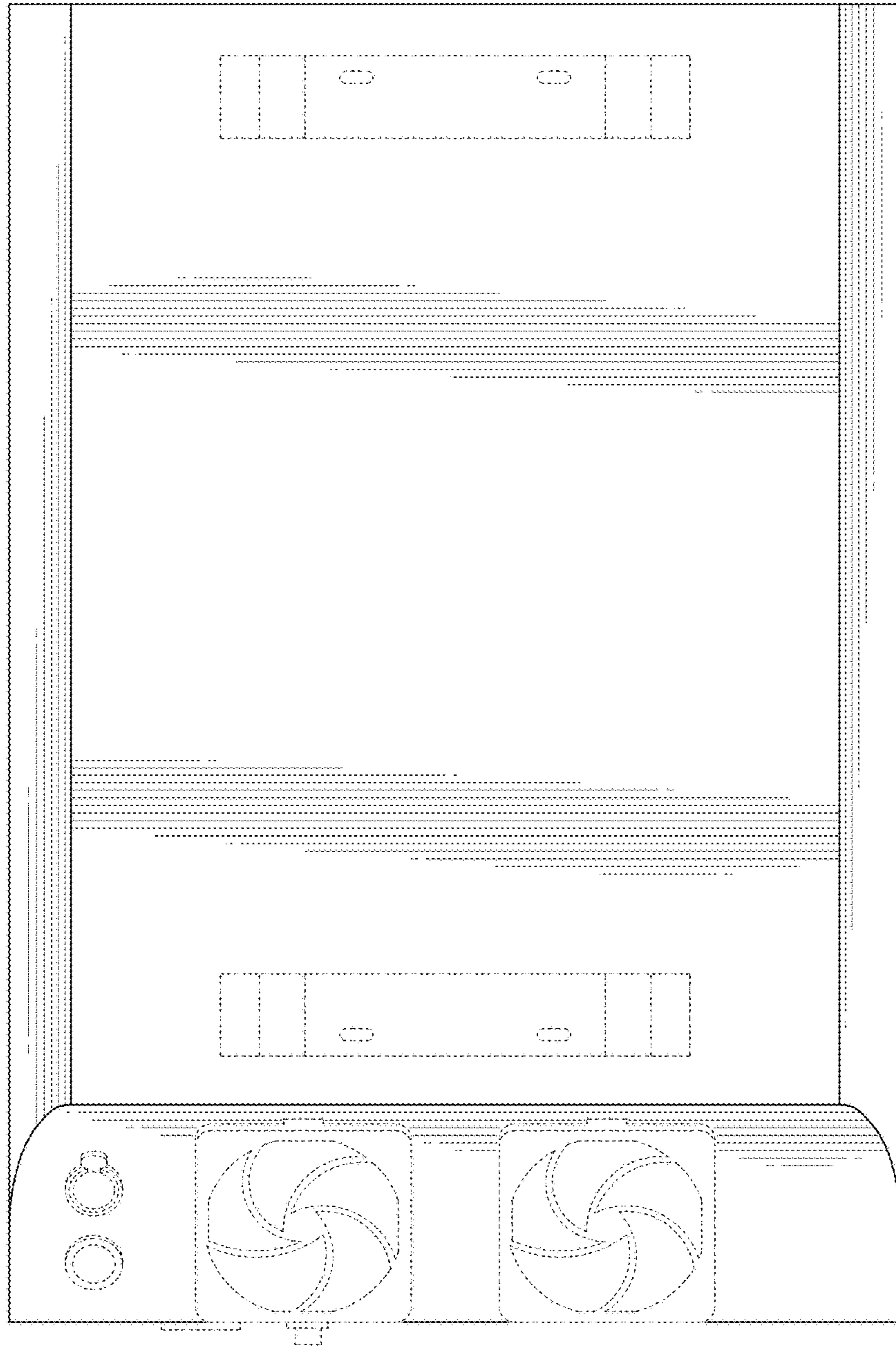


FIG. 7

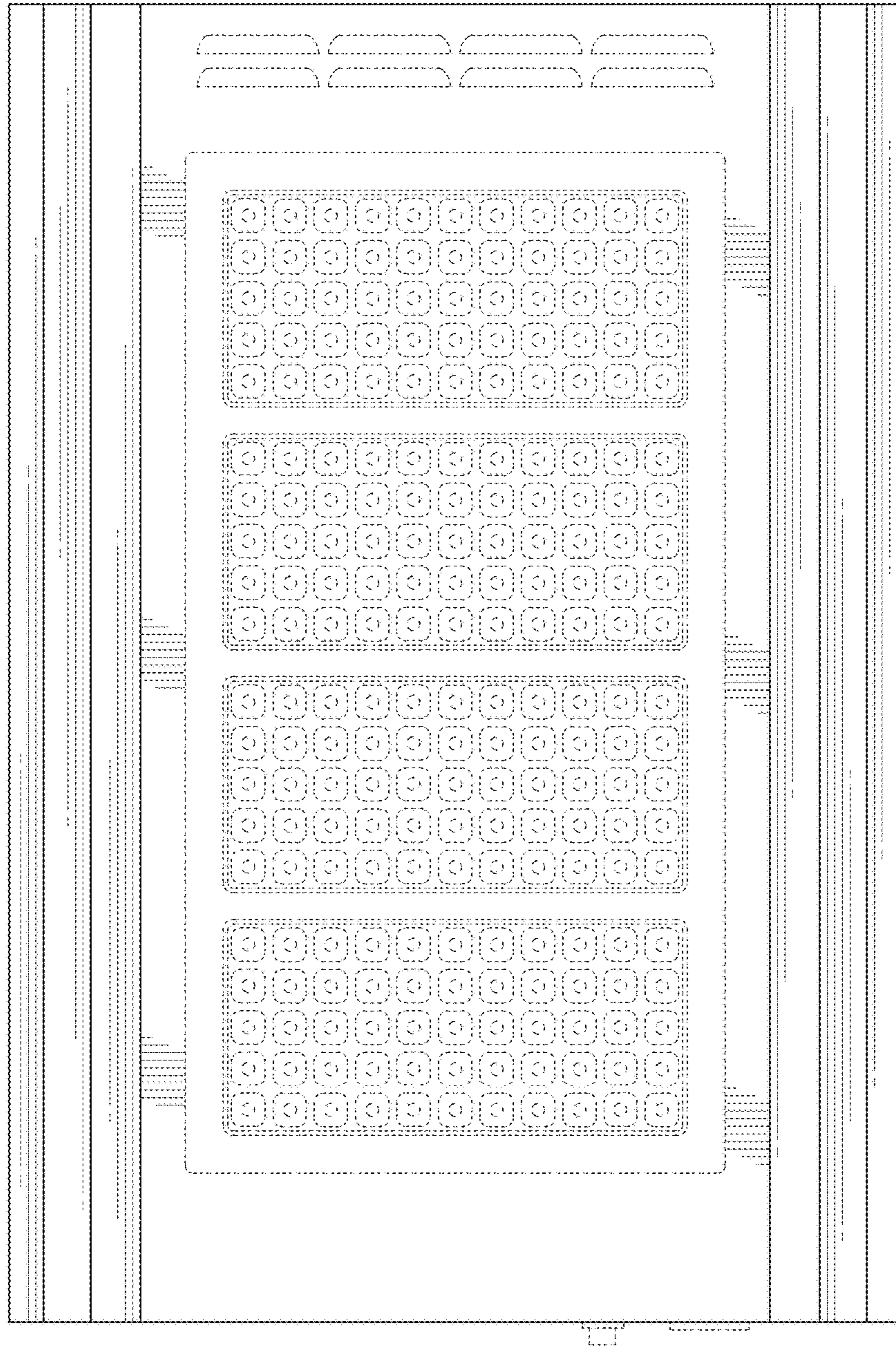


FIG. 8