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(12) **United States Design Patent**
Fletcher et al.

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(54) **LED LUMINAIRE HAVING A MOUNTING SYSTEM**

D234,712 S 4/1975 Kennedy
4,090,210 A 5/1978 Wehling et al.
4,138,716 A 2/1979 Muhlethaler et al.
D251,500 S 4/1979 Aigner

(Continued)

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FOREIGN PATENT DOCUMENTS

CA 2623604 A1 8/2009
CN 1536686 A 10/2004

(Continued)

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OTHER PUBLICATIONS

(**) Term: **15 Years**

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(Continued)

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(52) **U.S. Cl.** **D26/65**

(57) **CLAIM**

(58) **Field of Classification Search**
USPC D26/1, 24, 61, 63, 65, 85, 92
CPC F21V 21/14; F21V 15/01; F21V 14/02;
F21V 21/30; F21V 21/00; F21V 14/00;
F21S 8/00; F21S 8/003; F21S 8/043;
F21Y 2105/001

The ornamental design for a LED luminaire having a mounting system, as shown and described.

DESCRIPTION

See application file for complete search history.

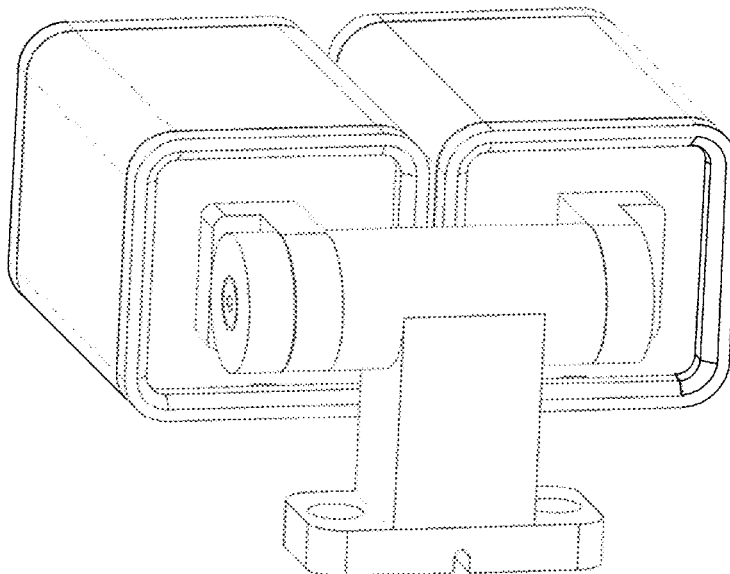
FIG. 1 is a front elevational view of the LED luminaire having a mounting system, of the present invention, wherein the elements that are shown in broken lines are disclaimed; FIG. 2 is a back elevational view thereof; FIG. 3 is a top, back, left perspective view thereof; FIG. 4 is a top, back, right perspective view thereof; FIG. 5 is a left elevational view thereof; FIG. 6 is a right elevational view thereof; FIG. 7 is a top plan view thereof; and, FIG. 8 is a bottom plan view thereof, wherein the elements that are shown in broken lines are disclaimed.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D122,711 S 9/1940 May
2,458,967 A 1/1949 Wiedenhoeft
3,220,471 A 11/1965 Coe
D205,082 S 6/1966 Morgan
3,435,891 A 4/1969 Parrish
D214,582 S * 7/1969 Routh D26/63
D231,559 S 4/1974 Darling

1 Claim, 8 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

| | | | | | | | |
|-----------|---|---------|-------------------|-----------|----|---------|---------------------|
| D258,314 | S | 2/1981 | Leon | 5,713,662 | A | 2/1998 | Kira |
| 4,258,413 | A | 3/1981 | Mausser | 5,757,144 | A | 5/1998 | Nilssen |
| 4,345,306 | A | 8/1982 | Summey | 5,788,533 | A | 8/1998 | Alvarado-Rodriguez |
| 4,423,471 | A | 12/1983 | Gordin et al. | 5,794,685 | A | 8/1998 | Dean |
| 4,445,164 | A | 4/1984 | Giles, III | 5,800,050 | A | 9/1998 | Leadford |
| 4,453,203 | A | 6/1984 | Pate | D408,823 | S | 4/1999 | Kirby |
| 4,467,403 | A | 8/1984 | May | 5,890,793 | A | 4/1999 | Stephens |
| 4,473,873 | A | 9/1984 | Quiogue | 5,894,196 | A | 4/1999 | McDermott |
| 4,564,888 | A | 1/1986 | Lewin | 5,898,267 | A | 4/1999 | McDermott |
| 4,578,742 | A | 3/1986 | Klein | 5,909,955 | A | 6/1999 | Roorda |
| 4,580,859 | A | 4/1986 | Franco | 5,912,477 | A | 6/1999 | Negley |
| 4,609,979 | A | 9/1986 | Kristofek | 5,938,316 | A | 8/1999 | Yan |
| 4,727,648 | A | 3/1988 | Savage | 6,022,130 | A | 2/2000 | Donato |
| 4,733,335 | A | 3/1988 | Serizawa | 6,051,940 | A | 4/2000 | Arun |
| D296,244 | S | 6/1988 | Donato | 6,072,160 | A | 6/2000 | Bahl |
| D296,717 | S | 7/1988 | Kane | 6,079,851 | A | 6/2000 | Altman |
| 4,755,918 | A | 7/1988 | Pristash | 6,083,021 | A | 7/2000 | Lau |
| 4,757,431 | A | 7/1988 | Cross | 6,120,600 | A | 9/2000 | Edmond et al. |
| 4,761,721 | A | 8/1988 | Willing | 6,124,673 | A | 9/2000 | Bishop |
| D300,876 | S | 4/1989 | Sakai | 6,149,112 | A | 11/2000 | Thieltges |
| 4,833,579 | A | 5/1989 | Skegin | 6,149,288 | A | 11/2000 | Huang |
| 4,837,927 | A | 6/1989 | Savage | 6,176,594 | B1 | 1/2001 | Yarconi |
| 4,872,097 | A | 10/1989 | Miller | D437,449 | S | 2/2001 | Soller |
| 4,882,667 | A | 11/1989 | Skegin | D437,652 | S | 2/2001 | Uhler |
| 4,918,497 | A | 4/1990 | Edmond | 6,187,606 | B1 | 2/2001 | Edmond et al. |
| D307,640 | S | 5/1990 | Titmarsh | 6,198,233 | B1 | 3/2001 | McConaughy |
| D308,114 | S | 5/1990 | Shemitz | 6,201,262 | B1 | 3/2001 | Edmond et al. |
| D308,260 | S | 5/1990 | Shemitz | D443,710 | S | 6/2001 | Chiu |
| 4,966,862 | A | 10/1990 | Edmond | 6,244,877 | B1 | 6/2001 | Asao |
| D315,030 | S | 2/1991 | Jacobs | 6,249,375 | B1 | 6/2001 | Silhengst |
| D316,303 | S | 4/1991 | Layne | D445,936 | S | 7/2001 | Mier-Langner et al. |
| D316,306 | S | 4/1991 | Shemitz | 6,260,981 | B1 | 7/2001 | Fiene |
| 5,027,168 | A | 6/1991 | Edmond | D446,592 | S | 8/2001 | Leen |
| D319,512 | S | 8/1991 | Lettenmayer | 6,273,588 | B1 | 8/2001 | Arakelian |
| D322,862 | S | 12/1991 | Miller | D448,508 | S | 9/2001 | Benghozi |
| 5,087,212 | A | 2/1992 | Hanami | 6,312,787 | B1 | 11/2001 | Hayashi et al. |
| D325,645 | S | 4/1992 | Grange | 6,318,883 | B1 | 11/2001 | Sugiyama et al. |
| 5,140,507 | A | 8/1992 | Harwood | D452,843 | S | 1/2002 | Henrici |
| D330,944 | S | 11/1992 | Wereley | 6,341,523 | B2 | 1/2002 | Lynam |
| 5,174,649 | A | 12/1992 | Alston | D457,673 | S | 5/2002 | Martinson |
| 5,210,051 | A | 5/1993 | Carter, Jr. | 6,386,723 | B1 | 5/2002 | Eberlein et al. |
| D336,536 | S | 6/1993 | Shaanan | 6,390,646 | B1 | 5/2002 | Yan |
| 5,235,470 | A | 8/1993 | Cheng | 6,392,360 | B2 | 5/2002 | McConaughy |
| D340,514 | S | 10/1993 | Liao | 6,426,704 | B1 | 7/2002 | Hutchison |
| 5,282,364 | A | 2/1994 | Cech | 6,435,693 | B1 | 8/2002 | Fiene |
| 5,303,124 | A | 4/1994 | Wrobel | 6,439,736 | B1 | 8/2002 | Fiene |
| 5,324,213 | A | 6/1994 | Frantz | 6,439,743 | B1 | 8/2002 | Hutchison |
| 5,325,281 | A | 6/1994 | Harwood | 6,439,749 | B1 | 8/2002 | Miller et al. |
| D348,744 | S | 7/1994 | Johnson | 6,441,943 | B1 | 8/2002 | Roberts |
| 5,335,159 | A | 8/1994 | Chen et al. | D462,801 | S | 9/2002 | Huang |
| 5,337,225 | A | 8/1994 | Brookman | 6,450,662 | B1 | 9/2002 | Hutchison |
| 5,338,944 | A | 8/1994 | Edmond et al. | 6,450,664 | B1 | 9/2002 | Kelly |
| 5,359,345 | A | 10/1994 | Hunter | D464,455 | S | 10/2002 | Fong |
| 5,367,229 | A | 11/1994 | Yang | D464,939 | S | 10/2002 | Chuang |
| 5,381,323 | A | 1/1995 | Osteen et al. | D465,046 | S | 10/2002 | Layne |
| 5,387,901 | A | 2/1995 | Hardt | 6,473,002 | B1 | 10/2002 | Hutchison |
| 5,393,993 | A | 2/1995 | Edmond et al. | 6,474,839 | B1 | 11/2002 | Hutchison |
| 5,410,462 | A | 4/1995 | Wolfe | 6,478,453 | B2 | 11/2002 | Lammers |
| 5,416,342 | A | 5/1995 | Edmond et al. | 6,488,386 | B1 | 12/2002 | Yan |
| 5,436,809 | A | 7/1995 | Brassier | 6,508,567 | B1 | 1/2003 | Fiene |
| 5,450,303 | A | 9/1995 | Markiewicz et al. | D470,962 | S | 2/2003 | Chen |
| 5,490,048 | A | 2/1996 | Brassier | 6,525,939 | B2 | 2/2003 | Liang |
| 5,504,665 | A | 4/1996 | Osteen et al. | D472,339 | S | 3/2003 | Russello et al. |
| 5,515,253 | A | 5/1996 | Sjobom | 6,527,422 | B1 | 3/2003 | Hutchison |
| 5,516,390 | A | 5/1996 | Tomita et al. | 6,530,674 | B2 | 3/2003 | Grierson et al. |
| 5,523,589 | A | 6/1996 | Edmond et al. | D473,529 | S | 4/2003 | Feinbloom |
| D373,437 | S | 9/1996 | Kira | 6,540,382 | B1 | 4/2003 | Simon |
| 5,584,574 | A | 12/1996 | Haddad | 6,561,690 | B2 | 5/2003 | Balestriero et al. |
| 5,599,091 | A | 2/1997 | Kira | D476,439 | S | 6/2003 | O'Rourke |
| 5,628,557 | A | 5/1997 | Huang | 6,600,175 | B1 | 7/2003 | Baretz et al. |
| 5,632,551 | A | 5/1997 | Roney | 6,601,970 | B2 | 8/2003 | Ueda |
| 5,634,822 | A | 6/1997 | Gunell | 6,618,231 | B2 | 9/2003 | McConaughy |
| 5,658,066 | A | 8/1997 | Hirsch | 6,632,006 | B1 | 10/2003 | Rippel |
| D383,236 | S | 9/1997 | Krogman | 6,636,003 | B2 | 10/2003 | Rahm et al. |
| D384,336 | S | 9/1997 | Gerber | D482,476 | S | 11/2003 | Kwong |
| | | | | 6,641,284 | B2 | 11/2003 | Stopa et al. |
| | | | | 6,662,211 | B1 | 12/2003 | Weller |
| | | | | 6,682,211 | B2 | 1/2004 | English |
| | | | | 6,683,419 | B2 | 1/2004 | Kriparos |

(56)

References Cited

U.S. PATENT DOCUMENTS

| | | | | | | | | |
|-----------|----|---------|--------------------|-----------|-----|---------|----------------------|--------|
| 6,691,768 | B2 | 2/2004 | Hsieh | D552,779 | S * | 10/2007 | Starck | D26/63 |
| 6,703,640 | B1 | 3/2004 | Hembree | D552,782 | S | 10/2007 | Korpi | |
| 6,733,164 | B1 | 5/2004 | Smith, Jr. | 7,282,840 | B2 | 10/2007 | Chih | |
| D491,306 | S | 6/2004 | Zucker | 7,288,902 | B1 | 10/2007 | Melanson | |
| 6,744,693 | B2 | 6/2004 | Brockmann | 7,293,908 | B2 | 11/2007 | Beeson et al. | |
| 6,752,645 | B2 | 6/2004 | Nakamura | 7,303,301 | B2 | 12/2007 | Koren | |
| 6,773,138 | B2 | 8/2004 | Coushaine | D561,924 | S | 2/2008 | Yiu | |
| 6,787,999 | B2 | 9/2004 | Stimac | D563,013 | S | 2/2008 | Levine | |
| 6,788,510 | B2 | 9/2004 | McConaughy | 7,329,907 | B2 | 2/2008 | Pang et al. | |
| 6,791,119 | B2 | 9/2004 | Slater, Jr. et al. | D564,119 | S | 3/2008 | Metlen | |
| 6,814,462 | B1 | 11/2004 | Fiene | 7,344,279 | B2 | 3/2008 | Mueller | |
| 6,824,296 | B2 | 11/2004 | Souza | 7,344,296 | B2 | 3/2008 | Matsui | |
| 6,824,390 | B2 | 11/2004 | Brown | 7,357,534 | B2 | 4/2008 | Snyder | |
| 6,827,469 | B2 | 12/2004 | Coushaine | 7,358,657 | B2 | 4/2008 | Koelger | |
| 6,853,010 | B2 | 2/2005 | Slater, Jr. et al. | 7,358,679 | B2 | 4/2008 | Lys et al. | |
| 6,860,617 | B2 | 3/2005 | Fiene | 7,360,925 | B2 | 4/2008 | Coushaine | |
| 6,863,424 | B2 | 3/2005 | Smith | D568,829 | S | 5/2008 | Yamashita | |
| 6,864,513 | B2 | 3/2005 | Lin | 7,369,386 | B2 | 5/2008 | Rasmussen | |
| 6,869,206 | B2 | 3/2005 | Zimmerman | D570,505 | S | 6/2008 | Maxik | |
| 6,871,993 | B2 | 3/2005 | Hecht | 7,381,942 | B2 | 6/2008 | Chin et al. | |
| D504,967 | S | 5/2005 | Kung | D574,095 | S | 7/2008 | Hill | |
| 6,893,144 | B2 | 5/2005 | Fan | 7,396,139 | B2 | 7/2008 | Savage | |
| D506,065 | S | 6/2005 | Sugino | 7,396,146 | B2 | 7/2008 | Wang | |
| 6,902,200 | B1 | 6/2005 | Beadle | D574,987 | S | 8/2008 | Waldmann | |
| 6,902,291 | B2 | 6/2005 | Rizkin | 7,413,326 | B2 | 8/2008 | Tain | |
| 6,903,380 | B2 | 6/2005 | Barnett | D576,545 | S | 9/2008 | Mandel | |
| 6,905,232 | B2 | 6/2005 | Lin | D576,964 | S | 9/2008 | Shaner | |
| 6,946,806 | B1 | 9/2005 | Choi | D577,453 | S | 9/2008 | Metlen | |
| 6,958,497 | B2 | 10/2005 | Emerson et al. | D577,836 | S | 9/2008 | Engebrigtzen | |
| 6,966,677 | B2 | 11/2005 | Galli | 7,422,347 | B2 | 9/2008 | Miyairi et al. | |
| 6,979,097 | B2 | 12/2005 | Elam | D579,421 | S | 10/2008 | Chu | |
| D516,020 | S | 2/2006 | Wong | D581,080 | S | 11/2008 | Mier-Langner | |
| D516,229 | S | 2/2006 | Tang | D581,554 | S | 11/2008 | To | |
| 6,998,650 | B1 | 2/2006 | Wu | D581,583 | S | 11/2008 | Peng | |
| 7,040,774 | B2 | 5/2006 | Beeson et al. | 7,452,115 | B2 | 11/2008 | Alcelik | |
| 7,063,130 | B2 | 6/2006 | Huang | 7,456,499 | B2 | 11/2008 | Loh et al. | |
| 7,063,440 | B2 | 6/2006 | Mohacsi et al. | D583,975 | S | 12/2008 | Kushinskaya | |
| 7,066,617 | B2 | 6/2006 | Mandy | 7,458,820 | B2 | 12/2008 | Ohta | |
| D524,975 | S | 7/2006 | Oas | 7,467,888 | B2 | 12/2008 | Fiene | |
| 7,070,301 | B2 | 7/2006 | Magarill | D585,588 | S | 1/2009 | Alexander | |
| 7,077,546 | B2 | 7/2006 | Yamauchi | D585,589 | S | 1/2009 | Alexander | |
| D527,119 | S | 8/2006 | Maxik | 7,481,552 | B2 | 1/2009 | Mayfield, III et al. | |
| D527,131 | S | 8/2006 | McCarthy, III | D586,498 | S | 2/2009 | Wu | |
| 7,093,958 | B2 | 8/2006 | Coushaine | D587,389 | S | 2/2009 | Benensohn | |
| 7,095,056 | B2 | 8/2006 | Vitta et al. | 7,494,248 | B2 | 2/2009 | Li | |
| 7,097,332 | B2 | 8/2006 | Vamberi | 7,497,581 | B2 | 3/2009 | Beeson et al. | |
| 7,098,397 | B2 | 8/2006 | Lange | D590,085 | S | 4/2009 | Irvine | |
| 7,111,963 | B2 | 9/2006 | Zhang | 7,513,675 | B2 | 4/2009 | Mier-Langner | |
| 7,111,971 | B2 | 9/2006 | Coushaine | D591,894 | S | 5/2009 | Flank | |
| 7,112,916 | B2 | 9/2006 | Goh | D592,799 | S | 5/2009 | Scott | |
| D530,683 | S | 10/2006 | Rivas | 7,532,324 | B2 | 5/2009 | Liu et al. | |
| 7,131,749 | B2 | 11/2006 | Wimberly | 7,537,464 | B2 | 5/2009 | Brandenburg | |
| 7,132,804 | B2 | 11/2006 | Lys | 7,539,028 | B2 | 5/2009 | Baurle et al. | |
| 7,138,667 | B2 | 11/2006 | Barnett | D593,512 | S | 6/2009 | Lin | |
| 7,149,089 | B2 | 12/2006 | Blasko | 7,540,761 | B2 | 6/2009 | Weber | |
| 7,150,553 | B2 | 12/2006 | English | 7,549,786 | B2 | 6/2009 | Higley | |
| D535,774 | S | 1/2007 | Weston et al. | D597,246 | S | 7/2009 | Meyer, IV | |
| 7,159,997 | B2 | 1/2007 | Reo et al. | D597,247 | S | 7/2009 | Meyer, IV | |
| 7,160,004 | B2 | 1/2007 | Peck | 7,559,784 | B2 | 7/2009 | Hsiao | |
| 7,172,319 | B2 | 2/2007 | Holder et al. | 7,564,180 | B2 | 7/2009 | Brandes | |
| D538,951 | S | 3/2007 | Maxik | D597,704 | S | 8/2009 | Peng | |
| D539,459 | S | 3/2007 | Benghozi | D599,040 | S | 8/2009 | Alexander | |
| 7,198,386 | B2 | 4/2007 | Zampini | 7,575,332 | B2 | 8/2009 | Cok | |
| 7,207,696 | B1 | 4/2007 | Lin | 7,575,338 | B1 | 8/2009 | Verfuert | |
| D541,957 | S | 5/2007 | Wang | 7,580,192 | B1 | 8/2009 | Chu | |
| 7,210,957 | B2 | 5/2007 | Mrakovich et al. | D601,276 | S | 9/2009 | Grajcar | |
| 7,213,940 | B1 | 5/2007 | Van De Ven et al. | 7,591,572 | B1 | 9/2009 | Levine | |
| 7,221,374 | B2 | 5/2007 | Dixon | 7,594,738 | B1 | 9/2009 | Lin | |
| D544,110 | S | 6/2007 | Hooker | D602,868 | S | 10/2009 | Vogt | |
| D545,457 | S | 6/2007 | Chen | 7,604,365 | B2 | 10/2009 | Chang | |
| 7,234,950 | B1 | 6/2007 | Wickett | 7,607,802 | B2 | 10/2009 | Kang | |
| 7,237,930 | B2 | 7/2007 | Onishi et al. | 7,626,345 | B2 | 12/2009 | Young | |
| D548,691 | S | 8/2007 | Krieger | 7,628,506 | B2 | 12/2009 | Verfuert | |
| D551,372 | S | 9/2007 | Korpi | 7,637,635 | B2 | 12/2009 | Xiao | |
| 7,273,299 | B2 | 9/2007 | Parkyn et al. | D608,043 | S | 1/2010 | Ko | |
| | | | | D610,543 | S | 2/2010 | Coushaine | |
| | | | | D610,723 | S | 2/2010 | Grajcar | |
| | | | | D610,729 | S | 2/2010 | Kushinskaya | |
| | | | | 7,665,862 | B2 | 2/2010 | Villard | |

(56)

References Cited

U.S. PATENT DOCUMENTS

| | | | | | | | |
|-----------|-----|---------|-------------------------|-----------|-----|---------|-----------------------|
| 7,674,018 | B2 | 3/2010 | Holder et al. | 8,102,167 | B2 | 1/2012 | Irissou et al. |
| 7,679,281 | B2 | 3/2010 | Kim et al. | 8,102,683 | B2 | 1/2012 | Gaknoki et al. |
| 7,686,481 | B1 | 3/2010 | Condon et al. | D654,207 | S | 2/2012 | Fletcher |
| 7,690,810 | B2 | 4/2010 | Saitoh et al. | D654,607 | S | 2/2012 | Kim et al. |
| 7,703,951 | B2 | 4/2010 | Piepgas | 8,118,450 | B2 | 2/2012 | Villard |
| 7,722,227 | B2 | 5/2010 | Zhang | 8,118,454 | B2 | 2/2012 | Rains, Jr. et al. |
| D618,374 | S | 6/2010 | Guercio | 8,123,376 | B2 | 2/2012 | Van De Ven et al. |
| 7,727,009 | B2 | 6/2010 | Goto | D655,432 | S | 3/2012 | Beghelli |
| 7,731,395 | B2 | 6/2010 | Parkyn et al. | D655,840 | S | 3/2012 | Heaton |
| 7,731,396 | B2 | 6/2010 | Fay | D655,842 | S * | 3/2012 | Sabernig D26/63 |
| 7,736,029 | B2 | 6/2010 | Chen et al. | 8,129,669 | B2 | 3/2012 | Chen et al. |
| 7,737,634 | B2 | 6/2010 | Leng et al. | 8,136,958 | B2 | 3/2012 | Verfuert |
| 7,740,380 | B2 | 6/2010 | Thraillkill | 8,138,690 | B2 | 3/2012 | Chemel et al. |
| 7,744,259 | B2 | 6/2010 | Walczak | 8,142,047 | B2 | 3/2012 | Acampora |
| 7,744,266 | B2 | 6/2010 | Higley | 8,143,803 | B2 | 3/2012 | Beij et al. |
| 7,748,870 | B2 | 7/2010 | Chang | 8,154,864 | B1 | 4/2012 | Nearman |
| 7,759,881 | B1 | 7/2010 | Melanson | 8,162,498 | B2 | 4/2012 | Ramer et al. |
| 7,766,508 | B2 | 8/2010 | Villard et al. | D659,871 | S | 5/2012 | Lee |
| 7,766,518 | B2 | 8/2010 | Piepgas | D660,229 | S | 5/2012 | Tseng |
| 7,784,966 | B2 | 8/2010 | Verfuert | 8,172,425 | B2 | 5/2012 | Wen et al. |
| 7,785,124 | B2 | 8/2010 | Lin | 8,172,436 | B2 | 5/2012 | Coleman |
| D625,870 | S * | 10/2010 | Feigenbaum D26/63 | 8,182,122 | B2 | 5/2012 | Chiu |
| D626,094 | S | 10/2010 | Alexander | 8,191,613 | B2 | 6/2012 | Yuan |
| 7,806,562 | B2 | 10/2010 | Behr | 8,193,738 | B2 | 6/2012 | Chu et al. |
| 7,810,951 | B1 | 10/2010 | Lee et al. | 8,201,965 | B2 | 6/2012 | Yamada |
| 7,810,955 | B2 | 10/2010 | Stimac et al. | 8,205,998 | B2 | 6/2012 | Ramer et al. |
| 7,810,995 | B2 | 10/2010 | Fadler et al. | 8,210,722 | B2 | 7/2012 | Holder et al. |
| 7,813,111 | B2 | 10/2010 | Anderson | 8,212,469 | B2 | 7/2012 | Rains, Jr. et al. |
| 7,819,549 | B2 | 10/2010 | Narendran et al. | 8,215,798 | B2 | 7/2012 | Rains, Jr. et al. |
| D627,507 | S | 11/2010 | Lai | 8,232,745 | B2 | 7/2012 | Chemel et al. |
| D627,727 | S | 11/2010 | Alexander | D665,340 | S | 8/2012 | Obata |
| D628,156 | S | 11/2010 | Alexander | 8,242,766 | B2 | 8/2012 | Gaknoki et al. |
| 7,828,576 | B2 | 11/2010 | Lin | 8,292,482 | B2 | 10/2012 | Harbers |
| 7,837,348 | B2 | 11/2010 | Narendran et al. | 8,297,788 | B2 | 10/2012 | Bishop |
| 7,841,753 | B2 | 11/2010 | Liu | 8,297,792 | B1 | 10/2012 | Wang |
| D629,365 | S | 12/2010 | Garcia De Vicuna | 8,297,808 | B2 | 10/2012 | Yuan |
| 7,845,393 | B2 | 12/2010 | Kao | 8,319,437 | B2 | 11/2012 | Carlin |
| 7,857,482 | B2 | 12/2010 | Reo et al. | 8,324,838 | B2 | 12/2012 | Shah et al. |
| 7,857,498 | B2 | 12/2010 | Smith | 8,330,378 | B2 | 12/2012 | Machara et al. |
| 7,874,700 | B2 | 1/2011 | Patrick | 8,337,043 | B2 | 12/2012 | Verfuert |
| D633,244 | S | 2/2011 | Kramer et al. | 8,344,602 | B2 | 1/2013 | Lai |
| D633,248 | S | 2/2011 | Alexander | 8,360,609 | B2 | 1/2013 | Lee et al. |
| 7,889,421 | B2 | 2/2011 | Narendran | 8,360,621 | B2 | 1/2013 | Avila |
| 7,896,517 | B2 | 3/2011 | Mandy | 8,385,071 | B2 | 2/2013 | Lin |
| 7,901,108 | B2 | 3/2011 | Kabuki et al. | 8,403,541 | B1 | 3/2013 | Rashidi |
| 7,914,162 | B1 | 3/2011 | Huang | 8,410,716 | B2 | 4/2013 | Yao et al. |
| 7,914,198 | B2 | 3/2011 | Mier-Langner | 8,434,898 | B2 | 5/2013 | Sanfilippo et al. |
| 7,918,581 | B2 | 4/2011 | Van De Ven | 8,436,556 | B2 | 5/2013 | Eisele et al. |
| 7,918,589 | B2 | 4/2011 | Mayfield, III et al. | 8,454,193 | B2 | 6/2013 | Simon et al. |
| 7,922,364 | B2 | 4/2011 | Tessnow | 8,459,841 | B2 | 6/2013 | Huang |
| 7,923,907 | B2 | 4/2011 | Tessnow | 8,462,523 | B2 | 6/2013 | Gaknoki et al. |
| 7,942,559 | B2 | 5/2011 | Holder et al. | 8,469,542 | B2 | 6/2013 | Zampini, II et al. |
| 7,952,114 | B2 | 5/2011 | Gingrich, III | 8,503,083 | B2 | 8/2013 | Seo |
| 7,965,494 | B1 | 6/2011 | Morris | 8,529,102 | B2 | 9/2013 | Pickard et al. |
| 7,972,038 | B2 | 7/2011 | Albright | 8,531,134 | B2 | 9/2013 | Chemel et al. |
| 7,976,194 | B2 | 7/2011 | Wilcox et al. | 8,536,802 | B2 | 9/2013 | Chemel et al. |
| 7,988,336 | B1 | 8/2011 | Harbers | 8,536,805 | B2 | 9/2013 | Shah et al. |
| 7,993,031 | B2 | 8/2011 | Grajcar | 8,543,249 | B2 | 9/2013 | Chemel et al. |
| 8,002,438 | B2 | 8/2011 | Ko | D690,859 | S | 10/2013 | Mollaghaffari |
| 8,007,131 | B2 | 8/2011 | Liu et al. | 8,545,045 | B2 | 10/2013 | Tress |
| D645,007 | S | 9/2011 | Alexander | 8,545,049 | B2 | 10/2013 | Davis et al. |
| D645,183 | S | 9/2011 | Cucinella | 8,547,034 | B2 | 10/2013 | Melanson et al. |
| D645,594 | S * | 9/2011 | Grawe D26/63 | 8,552,664 | B2 | 10/2013 | Chemel et al. |
| 8,021,008 | B2 | 9/2011 | Ramer | 8,556,469 | B2 | 10/2013 | Pickard |
| 8,029,157 | B2 | 10/2011 | Li et al. | 8,558,518 | B2 | 10/2013 | Irissou et al. |
| 8,033,680 | B2 | 10/2011 | Sharra | 8,569,972 | B2 | 10/2013 | Melanson |
| 8,052,310 | B2 | 11/2011 | Gingrich, III | 8,573,807 | B2 | 11/2013 | Borkar et al. |
| 8,066,403 | B2 | 11/2011 | Sanfilippo et al. | 8,573,816 | B2 | 11/2013 | Negley et al. |
| D650,504 | S | 12/2011 | Kim et al. | 8,575,858 | B2 | 11/2013 | Policy et al. |
| D650,935 | S | 12/2011 | Beghelli | 8,579,467 | B1 | 11/2013 | Szeto |
| 8,080,819 | B2 | 12/2011 | Mueller et al. | 8,581,504 | B2 | 11/2013 | Kost et al. |
| 8,083,364 | B2 | 12/2011 | Allen | 8,581,521 | B2 | 11/2013 | Welten et al. |
| 8,096,668 | B2 | 1/2012 | Abu-Ageel | 8,585,245 | B2 | 11/2013 | Black et al. |
| 8,100,560 | B2 | 1/2012 | Ahland, III et al. | 8,587,211 | B2 | 11/2013 | Melanson |
| 8,100,564 | B2 | 1/2012 | Ono | 8,593,074 | B2 | 11/2013 | Hatley et al. |
| | | | | 8,593,129 | B2 | 11/2013 | Gaknoki et al. |
| | | | | 8,593,814 | B2 | 11/2013 | Ji |
| | | | | D694,925 | S * | 12/2013 | Fukasawa D26/63 |
| | | | | 8,598,809 | B2 | 12/2013 | Negley et al. |

| (56) | | References Cited | | | | | |
|--------------|-----|-----------------------|-----------------------|--------------|----|---------|-----------------------|
| | | U.S. PATENT DOCUMENTS | | | | | |
| 8,602,591 | B2 | 12/2013 | Lee | 2006/0076672 | A1 | 4/2006 | Petroski |
| 8,610,364 | B2 | 12/2013 | Melanson et al. | 2006/0141851 | A1 | 6/2006 | Matsui |
| 8,610,365 | B2 | 12/2013 | King et al. | 2006/0146531 | A1 | 7/2006 | Reo et al. |
| 8,611,106 | B2 | 12/2013 | Fang | 2006/0221272 | A1 | 10/2006 | Negley et al. |
| 8,616,724 | B2 | 12/2013 | Pickard | 2006/0262544 | A1 | 11/2006 | Piepgas |
| 8,624,505 | B2 | 1/2014 | Huang | 2006/0262545 | A1 | 11/2006 | Piepgas |
| D699,179 | S | 2/2014 | Alexander | 2007/0025103 | A1 | 2/2007 | Chan |
| 8,646,944 | B2 | 2/2014 | Villard | 2007/0064428 | A1 | 3/2007 | Beauchamp |
| 8,646,949 | B2 | 2/2014 | Brunt, Jr. et al. | 2007/0096057 | A1 | 5/2007 | Hampden-Smith |
| 8,652,357 | B2 | 2/2014 | Ryu | 2007/0109795 | A1 | 5/2007 | Gabrius |
| 8,653,750 | B2 | 2/2014 | Deurenberg et al. | 2007/0139923 | A1 | 6/2007 | Negley et al. |
| D700,728 | S * | 3/2014 | Fukasawa D26/63 | 2007/0153521 | A1 | 7/2007 | Konuma |
| 8,684,556 | B2 | 4/2014 | Negley et al. | 2007/0158668 | A1 | 7/2007 | Tarsa et al. |
| 8,684,569 | B2 | 4/2014 | Pickard et al. | 2007/0170447 | A1 | 7/2007 | Negley et al. |
| 8,690,383 | B2 | 4/2014 | Zampini, II et al. | 2007/0223219 | A1 | 9/2007 | Medendorp, Jr. et al. |
| 8,698,421 | B2 | 4/2014 | Ludorf | 2007/0238327 | A1 | 10/2007 | Hsu |
| D704,369 | S | 5/2014 | Lindsley et al. | 2007/0242461 | A1 | 10/2007 | Reisenauer |
| 8,723,427 | B2 | 5/2014 | Collins et al. | 2007/0253201 | A1 | 11/2007 | Blincoe |
| 8,740,444 | B2 | 6/2014 | Reynolds et al. | 2007/0253202 | A1 | 11/2007 | Wu |
| 8,742,684 | B2 | 6/2014 | Melanson | 2007/0253209 | A1 | 11/2007 | Loh et al. |
| 8,749,131 | B2 | 6/2014 | Rains, Jr. et al. | 2007/0268698 | A1 | 11/2007 | Chen et al. |
| 8,749,173 | B1 | 6/2014 | Melanson et al. | 2007/0269915 | A1 | 11/2007 | Leong et al. |
| 8,757,840 | B2 | 6/2014 | Pickard et al. | 2007/0275576 | A1 | 11/2007 | Yang |
| 8,760,073 | B2 | 6/2014 | Ko | 2007/0285028 | A1 | 12/2007 | Tsinker et al. |
| 8,760,080 | B2 | 6/2014 | Yu | 2007/0295969 | A1 | 12/2007 | Chew et al. |
| 8,764,225 | B2 | 7/2014 | Narendran et al. | 2007/0297177 | A1 | 12/2007 | Wang |
| 8,777,455 | B2 | 7/2014 | Pickard et al. | 2008/0012036 | A1 | 1/2008 | Loh et al. |
| 8,783,938 | B2 | 7/2014 | Alexander | 2008/0013316 | A1 | 1/2008 | Chiang |
| 8,786,201 | B2 | 7/2014 | Hamamoto et al. | 2008/0043470 | A1 | 2/2008 | Wimberly |
| 8,786,210 | B2 | 7/2014 | Delucia | 2008/0076272 | A1 | 3/2008 | Hsu |
| 8,786,211 | B2 | 7/2014 | Gilliom | 2008/0080190 | A1 | 4/2008 | Walczak |
| 8,786,212 | B2 | 7/2014 | Terazawa | 2008/0084700 | A1 | 4/2008 | Van De Ven |
| 8,786,213 | B2 | 7/2014 | Yang et al. | 2008/0106907 | A1 | 5/2008 | Trott |
| 8,791,642 | B2 | 7/2014 | Van De Ven | 2008/0112121 | A1 | 5/2008 | Cheng |
| 8,796,948 | B2 | 8/2014 | Weaver | 2008/0117500 | A1 | 5/2008 | Narendran et al. |
| 8,810,227 | B2 | 8/2014 | Flaibani et al. | 2008/0121921 | A1 | 5/2008 | Loh et al. |
| 8,814,385 | B2 | 8/2014 | Onaka et al. | 2008/0130275 | A1 | 6/2008 | Higley |
| 8,816,593 | B2 | 8/2014 | Lys et al. | 2008/0142194 | A1 | 6/2008 | Zhou |
| 8,876,322 | B2 | 11/2014 | Alexander | 2008/0157112 | A1 | 7/2008 | He |
| 8,888,506 | B2 | 11/2014 | Nishimura | 2008/0158887 | A1 | 7/2008 | Zhu |
| 8,944,647 | B2 | 2/2015 | Bueeler | 2008/0165530 | A1 | 7/2008 | Hendrikus |
| D724,773 | S * | 3/2015 | Ryu D26/63 | 2008/0173884 | A1 | 7/2008 | Chitnis et al. |
| 9,010,967 | B2 | 4/2015 | Jensen | 2008/0179611 | A1 | 7/2008 | Chitnis et al. |
| 9,052,100 | B2 | 6/2015 | Blackstone | 2008/0192478 | A1 | 8/2008 | Chen |
| 2001/0006463 | A1 | 7/2001 | Fischer | 2008/0198112 | A1 | 8/2008 | Roberts |
| 2001/0053628 | A1 | 12/2001 | Hayakawa | 2008/0219002 | A1 | 9/2008 | Sommers et al. |
| 2002/0046826 | A1 | 4/2002 | Kao | 2008/0219303 | A1 | 9/2008 | Chen et al. |
| 2002/0067613 | A1 | 6/2002 | Grove | 2008/0224598 | A1 | 9/2008 | Baretz |
| 2002/0106925 | A1 | 8/2002 | Yamagishi | 2008/0224631 | A1 | 9/2008 | Melanson |
| 2002/0117692 | A1 | 8/2002 | Lin | 2008/0274641 | A1 | 11/2008 | Weber |
| 2003/0058658 | A1 | 3/2003 | Lee | 2008/0308825 | A1 | 12/2008 | Chakraborty et al. |
| 2003/0072156 | A1 | 4/2003 | Pohlert | 2009/0021936 | A1 | 1/2009 | Stimac et al. |
| 2003/0128543 | A1 | 7/2003 | Rekow | 2009/0026913 | A1 | 1/2009 | Mrakovich |
| 2003/0174517 | A1 | 9/2003 | Kiraly et al. | 2009/0034283 | A1 | 2/2009 | Albright |
| 2003/0185005 | A1 | 10/2003 | Sommers | 2009/0046464 | A1 | 2/2009 | Liu |
| 2003/0209963 | A1 | 11/2003 | Altgilbers | 2009/0050907 | A1 | 2/2009 | Yuan et al. |
| 2004/0005800 | A1 | 1/2004 | Hou | 2009/0050908 | A1 | 2/2009 | Yuan et al. |
| 2004/0090781 | A1 | 5/2004 | Yeoh | 2009/0052158 | A1 | 2/2009 | Bierhuizen |
| 2004/0090784 | A1 | 5/2004 | Ward | 2009/0080185 | A1 | 3/2009 | McMillan |
| 2004/0212991 | A1 | 10/2004 | Galli | 2009/0086474 | A1 | 4/2009 | Chou |
| 2004/0218372 | A1 | 11/2004 | Hamasaki | 2009/0091935 | A1 | 4/2009 | Tsai |
| 2005/0032402 | A1 | 2/2005 | Takanashi | 2009/0103299 | A1 | 4/2009 | Boyer et al. |
| 2005/0047170 | A1 | 3/2005 | Hilburger | 2009/0129084 | A1 | 5/2009 | Tsao |
| 2005/0083698 | A1 | 4/2005 | Zampini | 2009/0141500 | A1 | 6/2009 | Peng |
| 2005/0122713 | A1 | 6/2005 | Hutchins | 2009/0154166 | A1 | 6/2009 | Zhang |
| 2005/0146884 | A1 | 7/2005 | Scheithauer | 2009/0167203 | A1 | 7/2009 | Dahlman et al. |
| 2005/0174780 | A1 | 8/2005 | Park | 2009/0184616 | A1 | 7/2009 | Van De Ven et al. |
| 2005/0205878 | A1 | 9/2005 | Kan | 2009/0195168 | A1 | 8/2009 | Greenfeld |
| 2005/0242362 | A1 | 11/2005 | Shimizu | 2009/0225551 | A1 | 9/2009 | Chang et al. |
| 2005/0269060 | A1 | 12/2005 | Ku | 2009/0236997 | A1 | 9/2009 | Liu |
| 2005/0270775 | A1 | 12/2005 | Harbers | 2009/0294114 | A1 | 12/2009 | Yang |
| 2005/0286265 | A1 | 12/2005 | Zampini et al. | 2009/0296388 | A1 | 12/2009 | Wu et al. |
| 2006/0001381 | A1 | 1/2006 | Robinson | 2009/0310354 | A1 | 12/2009 | Zampini, II et al. |
| 2006/0039156 | A1 | 2/2006 | Chen | 2009/0317988 | A1 | 12/2009 | Lin |
| 2006/0062019 | A1 | 3/2006 | Young | 2010/0015821 | A1 | 1/2010 | Hsu |
| | | | | 2010/0019697 | A1 | 1/2010 | Korsunsky |
| | | | | 2010/0026158 | A1 | 2/2010 | Wu |
| | | | | 2010/0027258 | A1 | 2/2010 | Maxik |
| | | | | 2010/0060202 | A1 | 3/2010 | Melanson et al. |

(56)

References Cited

U.S. PATENT DOCUMENTS

| | | | | | | | |
|--------------|----|---------|-------------------|--------------|----|---------|-------------------|
| 2010/0072505 | A1 | 3/2010 | Gingrich, III | 2012/0268894 | A1 | 10/2012 | Alexander |
| 2010/0073783 | A1 | 3/2010 | Sun | 2012/0286304 | A1 | 11/2012 | Letoquin |
| 2010/0073884 | A1 | 3/2010 | Peloza | 2012/0286319 | A1 | 11/2012 | Lee |
| 2010/0091487 | A1 | 4/2010 | Shin | 2012/0287642 | A1 | 11/2012 | Zeng |
| 2010/0091497 | A1 | 4/2010 | Chen | 2012/0292660 | A1 | 11/2012 | Kanno |
| 2010/0102696 | A1 | 4/2010 | Sun | 2012/0307494 | A1 | 12/2012 | Zlotnikov et al. |
| 2010/0110684 | A1 | 5/2010 | Abdelsamed et al. | 2013/0003370 | A1 | 1/2013 | Watanabe |
| 2010/0110728 | A1 | 5/2010 | Dubrow et al. | 2013/0003388 | A1 | 1/2013 | Jensen |
| 2010/0128484 | A1 | 5/2010 | Peng | 2013/0026942 | A1 | 1/2013 | Ryan |
| 2010/0132918 | A1 | 6/2010 | Lin | 2013/0042510 | A1 | 2/2013 | Nall et al. |
| 2010/0141173 | A1 | 6/2010 | Negrete | 2013/0049603 | A1 | 2/2013 | Bradford |
| 2010/0142189 | A1 | 6/2010 | Hong | 2013/0049627 | A1 | 2/2013 | Roberts |
| 2010/0149818 | A1 | 6/2010 | Ruffin | 2013/0069561 | A1 | 3/2013 | Melanson et al. |
| 2010/0157605 | A1 | 6/2010 | Chang | 2013/0070442 | A1 | 3/2013 | Negley |
| 2010/0195323 | A1 | 8/2010 | Schaefer et al. | 2013/0082612 | A1 | 4/2013 | Kim |
| 2010/0230709 | A1 | 9/2010 | Kanno | 2013/0094225 | A1 | 4/2013 | Leichner |
| 2010/0238630 | A1 | 9/2010 | Xu | 2013/0095673 | A1 | 4/2013 | Brandon |
| 2010/0243219 | A1 | 9/2010 | Yang | 2013/0140490 | A1 | 6/2013 | Fujinaga |
| 2010/0246179 | A1 | 9/2010 | Long | 2013/0162140 | A1 | 6/2013 | Shamoto et al. |
| 2010/0260945 | A1 | 10/2010 | Kites | 2013/0170220 | A1 | 7/2013 | Bueeler |
| 2010/0284181 | A1 | 11/2010 | O'Brien et al. | 2013/0170221 | A1 | 7/2013 | Isogai et al. |
| 2010/0296289 | A1 | 11/2010 | Villard et al. | 2013/0176728 | A1 | 7/2013 | Bizzotto et al. |
| 2010/0301360 | A1 | 12/2010 | Van De Ven | 2013/0193869 | A1 | 8/2013 | Hong et al. |
| 2010/0301774 | A1 | 12/2010 | Chemel et al. | 2013/0221489 | A1 | 8/2013 | Cao et al. |
| 2010/0308742 | A1 | 12/2010 | Melanson | 2013/0229114 | A1 | 9/2013 | Eisele et al. |
| 2010/0319953 | A1 | 12/2010 | Yochum | 2013/0229804 | A1 | 9/2013 | Holder et al. |
| 2011/0013397 | A1 | 1/2011 | Catone et al. | 2013/0235555 | A1 | 9/2013 | Tanaka |
| 2011/0043129 | A1 | 2/2011 | Koolen | 2013/0235579 | A1 | 9/2013 | Smith |
| 2011/0044046 | A1 | 2/2011 | Abu-Ageel | 2013/0235580 | A1 | 9/2013 | Smith |
| 2011/0049749 | A1 | 3/2011 | Bailey | 2013/0241392 | A1 | 9/2013 | Pickard et al. |
| 2011/0050100 | A1 | 3/2011 | Bailey | 2013/0241440 | A1 | 9/2013 | Gaknoki et al. |
| 2011/0050101 | A1 | 3/2011 | Bailey | 2013/0250573 | A1 | 9/2013 | Taskar et al. |
| 2011/0050124 | A1 | 3/2011 | Bailey | 2013/0250581 | A1 | 9/2013 | Tang et al. |
| 2011/0051407 | A1 | 3/2011 | St. Ives et al. | 2013/0265777 | A1 | 10/2013 | Zollers et al. |
| 2011/0051414 | A1 | 3/2011 | Bailey | 2013/0300303 | A1 | 11/2013 | Liu |
| 2011/0090684 | A1 | 4/2011 | Logan et al. | 2013/0301252 | A1 | 11/2013 | Hussell et al. |
| 2011/0097921 | A1 | 4/2011 | Hsu | 2013/0322072 | A1 | 12/2013 | Pu et al. |
| 2011/0103070 | A1 | 5/2011 | Zhang et al. | 2014/0015419 | A1 | 1/2014 | Shah et al. |
| 2011/0115381 | A1 | 5/2011 | Carlin | 2014/0016318 | A1 | 1/2014 | Pokrajac |
| 2011/0122643 | A1 | 5/2011 | Spork | 2014/0036510 | A1 | 2/2014 | Preston et al. |
| 2011/0134634 | A1 | 6/2011 | Gingrich, III | 2014/0043813 | A1 | 2/2014 | Dube' et al. |
| 2011/0136374 | A1 | 6/2011 | Mostoller | 2014/0048743 | A1 | 2/2014 | Le-Mercier |
| 2011/0140620 | A1 | 6/2011 | Lin et al. | 2014/0049241 | A1 | 2/2014 | Gaknoki et al. |
| 2011/0180841 | A1 | 7/2011 | Chang | 2014/0049962 | A1 | 2/2014 | Holder et al. |
| 2011/0193490 | A1 | 8/2011 | Kumar | 2014/0055038 | A1 | 2/2014 | Cappitelli et al. |
| 2011/0222270 | A1 | 9/2011 | Porciatti | 2014/0055054 | A1 | 2/2014 | Borkar et al. |
| 2011/0253358 | A1 | 10/2011 | Huang | 2014/0062330 | A1 | 3/2014 | Neundorfer |
| 2011/0255287 | A1 | 10/2011 | Li | 2014/0063779 | A1 | 3/2014 | Bradford |
| 2011/0285308 | A1 | 11/2011 | Crystal | 2014/0071685 | A1 | 3/2014 | Black et al. |
| 2011/0285314 | A1 | 11/2011 | Carney et al. | 2014/0071696 | A1 | 3/2014 | Park, II et al. |
| 2011/0292483 | A1 | 12/2011 | Pakhchyan et al. | 2014/0078715 | A1 | 3/2014 | Pickard et al. |
| 2011/0306219 | A1 | 12/2011 | Swanger | 2014/0078722 | A1 | 3/2014 | Caldwell et al. |
| 2011/0316441 | A1 | 12/2011 | Huynh | 2014/0078746 | A1 | 3/2014 | Caldwell et al. |
| 2011/0316446 | A1 | 12/2011 | Kang et al. | 2014/0126205 | A1 | 5/2014 | Davis et al. |
| 2012/0002417 | A1 | 1/2012 | Li | 2014/0126224 | A1 | 5/2014 | Brunt, Jr. et al. |
| 2012/0014115 | A1 | 1/2012 | Park et al. | 2014/0134880 | A1 | 5/2014 | Yeh |
| 2012/0018754 | A1 | 1/2012 | Lowes | 2014/0140052 | A1 | 5/2014 | Villard |
| 2012/0021623 | A1 | 1/2012 | Gorman | 2014/0159077 | A1 | 6/2014 | Kuenzler |
| 2012/0025729 | A1 | 2/2012 | Melanson et al. | 2014/0167646 | A1 | 6/2014 | Zukauskas et al. |
| 2012/0038280 | A1 | 2/2012 | Zoorob et al. | 2014/0176016 | A1 | 6/2014 | Li |
| 2012/0038291 | A1 | 2/2012 | Hasnain | 2014/0198531 | A1 | 7/2014 | Iwasaki |
| 2012/0051048 | A1 | 3/2012 | Smit | 2014/0218909 | A1 | 8/2014 | Tetsuo et al. |
| 2012/0051056 | A1 | 3/2012 | Derks | 2014/0225511 | A1 | 8/2014 | Pickard et al. |
| 2012/0051068 | A1 | 3/2012 | Pelton | 2014/0225532 | A1 | 8/2014 | Groeneveld |
| 2012/0092860 | A1 | 4/2012 | Blackstone | 2014/0233193 | A1 | 8/2014 | Alexander |
| 2012/0106152 | A1 | 5/2012 | Zheng | 2014/0268631 | A1 | 9/2014 | Pickard |
| 2012/0119658 | A1 | 5/2012 | McDaniel | 2014/0268724 | A1 | 9/2014 | Yanping |
| 2012/0140468 | A1 | 6/2012 | Chang | 2014/0268737 | A1 | 9/2014 | Athalve et al. |
| 2012/0140474 | A1 | 6/2012 | Jurik et al. | 2014/0286016 | A1 | 9/2014 | Montagne |
| 2012/0169242 | A1 | 7/2012 | Olson | 2014/0286018 | A1 | 9/2014 | Zhang et al. |
| 2012/0175653 | A1 | 7/2012 | Weber | 2014/0361701 | A1 | 12/2014 | Siessegger et al. |
| 2012/0187830 | A1 | 7/2012 | Shum | 2014/0367633 | A1 | 12/2014 | Bibl |
| 2012/0223657 | A1 | 9/2012 | Van De Ven | 2015/0029717 | A1 | 1/2015 | Shen et al. |
| 2012/0224177 | A1 | 9/2012 | Harbers et al. | 2015/0036339 | A1 | 2/2015 | Ashdown et al. |
| 2012/0250309 | A1 | 10/2012 | Handsaker | 2015/0295144 | A1 | 10/2015 | Weiler |
| | | | | 2016/0174319 | A1 | 6/2016 | Li |

(56)

References Cited

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

| | | | |
|----|---------------|----|---------|
| CN | 201739849 | A | 2/2011 |
| CN | 202040752 | A | 11/2011 |
| CN | 102269351 | A | 12/2011 |
| GB | 2457016 | A | 8/2009 |
| JP | 61-070306 | U | 5/1986 |
| JP | 2003-092022 | A | 3/2003 |
| JP | 2004-179048 | A | 6/2004 |
| JP | 2004-265626 | A | 9/2004 |
| JP | 2005-017554 | A | 1/2005 |
| JP | 2005-071818 | A | 3/2005 |
| JP | 2005-235778 | A | 9/2005 |
| JP | 2005-267964 | A | 9/2005 |
| JP | 2006-236796 | A | 9/2006 |
| JP | 2006-253274 | A | 9/2006 |
| JP | 2006-310138 | A | 11/2006 |
| JP | D1307268 | B | 8/2007 |
| JP | D1307434 | B | 8/2007 |
| JP | 2007-273205 | A | 10/2007 |
| JP | 2007-273209 | A | 10/2007 |
| JP | 2011-508406 | A | 3/2011 |
| JP | 2011-204495 | A | 10/2011 |
| JP | 2011-204658 | A | 10/2011 |
| KR | 1020070039683 | A | 4/2007 |
| KR | 1020090013704 | A | 2/2009 |
| KR | 100974942 | B1 | 8/2010 |
| KR | 1020120050280 | A | 5/2012 |
| TW | 2004-25542 | A | 11/2004 |
| TW | 290967 | M | 5/2006 |
| TW | 296481 | M | 8/2006 |
| TW | 1273858 | B | 2/2007 |
| TW | 1318461 | B | 12/2009 |
| WO | DM/057383 | B | 9/2001 |
| WO | 02/12788 | A1 | 2/2002 |
| WO | 02/15281 | A2 | 2/2002 |
| WO | 2004/071143 | A1 | 8/2004 |
| WO | 2005/093862 | A2 | 10/2005 |
| WO | 2006/066531 | A1 | 6/2006 |
| WO | 2006/066531 | A1 | 6/2006 |
| WO | 2007/128070 | A1 | 11/2007 |
| WO | 2008/108832 | A1 | 9/2008 |
| WO | 2009/044330 | A1 | 4/2009 |
| WO | 2009/108799 | A1 | 9/2009 |
| WO | 2009/120555 | A1 | 10/2009 |
| WO | 2010/016002 | A1 | 2/2010 |
| WO | 2010059647 | A1 | 5/2010 |
| WO | 2011019945 | A1 | 2/2011 |
| WO | 2013059298 | A1 | 4/2013 |
| WO | 2013192014 | A2 | 12/2013 |
| WO | 2013192014 | A3 | 12/2013 |
| WO | 2014099681 | A2 | 6/2014 |
| WO | 2014099681 | A3 | 12/2014 |

OTHER PUBLICATIONS

Petluri et al., U.S. Appl. No. 14/636,204, filed Mar. 3, 2015, entitled "Lighting Systems Including Lens Modules For Selectable Light Distribution" 119pp.

Pickard et al., U.S. Appl. No. 14/617,849, filed Feb. 9, 2015, entitled "Lighting Systems Generating Controlled and Wavelength-Converted Light Emissions," 83pp.

Rodgers et al., U.S. Appl. No. 14/702,800, filed May 4, 2015, entitled "Lighting Systems Including Asymmetric Lens Modules for Selectable Light Distribution," 116pp.

Pickard et al., U.S. Appl. No. 14/636,205, filed Mar. 3, 2015, entitled "Low-Profile Lighting System Having Pivotal Lighting Enclosure," 56pp.

Fletcher et al., U.S. Appl. No. 14/702,765, filed May 4, 2015, entitled "Lighting System Having a Sealing System," 92pp.

Fletcher et al., U.S. Appl. No. 29/519,149, filed Mar. 3, 2015, entitled "LED Luminaire," 8pp.

Fletcher et al., U.S. Appl. No. 29/519,153, filed Mar. 3, 2015, entitled "LED Luminaire," 8pp.

Rodgers et al., U.S. Appl. No. 62/202,936, filed Aug. 10, 2015, entitled "Optical Devices and Systems Having a Converging Lens With Grooves," 133pp.

PCT/US2007/023110, Journee Lighting Inc., International Preliminary Report on Patentability Dated Sep. 8, 2009.

PCT/US2009/035321, Journee Lighting Inc., International Preliminary Report on Patentability Dated Aug. 31, 2010.

PCT/US2009/064858, Journee Lighting Inc., International Preliminary Report on Patentability Dated May 24, 2011.

PCT/US2010/045361, Journee Lighting Inc., International Preliminary Report on Patentability Dated Feb. 14, 2012.

PCT/US2012/060588, Ecosense Lighting Inc., Filed on Oct. 17, 2012.

PCT/US2012/060588, Ecosense Lighting Inc., International Search Report and Opinion Dated Mar. 29, 2013.

PCT/US2012/060588, Ecosense Lighting Inc., International Preliminary Report on Patentability Dated Apr. 22, 2014.

PCT/US2013/045708, Journee Lighting Inc., International Search Report and Opinion Dated Nov. 27, 2013.

PCT/US2013/045708, Journee Lighting Inc., International Preliminary Report on Patentability Dated May 12, 2015.

PCT/US2013/075172, Ecosense Lighting Inc., Filed on Dec. 13, 2013.

PCT/US2013/075172, Ecosense Lighting Inc., International Search Report and Opinion Dated Sep. 26, 2014.

PCT/US2013/075172, Ecosense Lighting Inc., International Preliminary Report on Patentability Dated Jun. 23, 2015.

PCT/US2016/020521, Ecosense Lighting Inc., Filed on Mar. 2, 2016.

PCT/US2016/020521, Ecosense Lighting Inc., International Search Report and Opinion Dated May 3, 2016.

PCT/US2016/016972, Ecosense Lighting Inc., Filed on Feb. 8, 2016.

PCT/US2016/016972, Ecosense Lighting Inc., International Search Report and Opinion Dated Apr. 11, 2016.

PCT/US2016/030613, Ecosense Lighting Inc., Filed on May 3, 2016.

PCT/US2016/020523, Ecosense Lighting Inc., Filed on Mar. 2, 2016.

PCT/US2016/020523, Ecosense Lighting Inc., International Search Report and Opinion Dated May 6, 2016.

PCT/US2016/015470, Ecosense Lighting Inc., Filed on Jan. 28, 2016, Entitled "Zoned Optical Cup".

Petluri et al., U.S. Appl. No. 62/288,368, filed Jan. 28, 2016, entitled "Multizone Mixing Cup".

PCT/US2016/015473, Ecosense Lighting Inc., Filed on Jan. 28, 2016, Entitled "Illuminating With a Multizone Mixing Cup".

PCT/US2016/015473, Ecosense Lighting Inc., International Search Report and Opinion Mailed On Apr. 22, 2016.

Petluri et al., U.S. Appl. No. 15/170,806, filed Jun. 1, 2016, entitled "Illuminating With a Multizone Mixing Cup".

PCT/US2016/015318, Ecosense Lighting Inc., Filed on Jan. 28, 2016, Entitled "Compositions for LED Light Conversions".

PCT/US2016/015318, Ecosense Lighting Inc., International Search Report and Opinion, Mailed on Apr. 11, 2016.

PCT/US2016/015348, Ecosense Lighting Inc., Filed on Jan. 28, 2016, Entitled "Systems for Providing Tunable White Light With High Color Rendering".

PCT/US2016/015348, Ecosense Lighting Inc., International Search Report and Opinion Mailed on Apr. 11, 2016.

PCT/US2016/015368, Ecosense Lighting Inc., Filed on Jan. 28, 2016, Entitled "Systems for Providing Tunable White Light With High Color Rendering".

PCT/US2016/015368, Ecosense Lighting Inc., International Search Report and Opinion Mailed On Apr. 19, 2016.

Petluri et al., U.S. Appl. No. 15/173,538, filed Jun. 3, 2016, entitled "System for Providing Tunable White Light With High Color Rendering".

Petluri et al., U.S. Appl. No. 15/173,554, filed Jun. 3, 2016, entitled "System for Providing Tunable White Light With High Color Rendering".

(56) **References Cited**

OTHER PUBLICATIONS

- PCT/US2016/015385, Ecosense Lighting Inc., Filed on Jan. 28, 2016, Entitled "Methods for Generating Tunable White Light With High Color Rendering."
- PCT/US2016/015402, Ecosense Lighting Inc., Filed on Jan. 28, 2016, Entitled "Methods for Generating Tunable White Light With High Color Rendering."
- PCT/US2016/015435, Ecosense Lighting Inc., Filed on Jan. 28, 2016, Entitled "Methods for Generating Melatonin-Response-Tuned White Light With High Color Rendering."
- PCT/US2016/015437, Ecosense Lighting Inc., Filed on Jan. 28, 2016, Entitled "Methods for Generating Melatonin-Response-Tuned White Light With High Color Rendering."
- PCT/US2016/015441, Ecosense Lighting Inc., Filed on Jan. 28, 2016, Entitled "Methods for Generating Melatonin-Response-Tuned White Light With High Color Rendering."
- Petluri et al., U.S. Appl. No. 15/176,083, filed Jun. 7, 2016, entitled "Compositions for LED Light Conversions."
- Acuity Brands, "Acuity Brands Introduces Luminaire for Tunable White Technology," downloaded from <http://news.acuitybrands.com/US/acuity-brands-introduces-luminaires-with-tunable-white-technology/s/54ae242f-1222-4b8b-be0d-36637bde8cd2> on May 28, 2014, 2pp.
- Acuity Brands Lighting Inc. Product Catalog, downloaded from www.acuitybrands.com, dated Apr. 2013, 90pp.
- Acuity Brands, "A Guided Tour of Area Light Sources—Past, Present and Future," downloaded from www.acuitybrands.com, version dated Jun. 20, 2013, 72pp.
- Alanod GmbH, "WhiteOptics," downloaded from www.alanod.com, dated Apr. 2014, 12pp.
- Altman Lighting, "Spectra Cube," downloaded from <http://altmanstagelighting.com/altman-led-green-lighting/led-spectra-cube/Altman-Spectra-Cube-Data-Sheet-v3.pdf> on May 28, 2014, 1p.
- Bega Lighting, "In-ground luminaire RGBW IP 67 Product data sheet," downloaded from <http://www.bega.com/download/datenblaetter/en/7926.pdf> on May 28, 2014, 1p.
- CORM 2011 Conference, Gaithersburg, MD, "Calculation of CCT and Duv and Practical Conversion Formulae," dated May 3-5, 2011, National Institute of Standards and Technology, 28pp.
- Lumitronix, "Carlo lens for side emitting 360 degrees," downloaded from <http://www.leds.de/en/High-Power-LEDs/Lenses-and-optics/Carlo-lens-for-side-emitting-360.html> on May 28, 2014, 2pp.
- "Introduction to Catmull-Rom Splines," downloaded on Aug. 7, 2015 from www.mvps.org/directx/articles/catmull/, 2pp.
- Wikipedia, "CIE 1931 color space," version dated Apr. 23, 2014, downloaded from www.wikipedia.org, 12pp.
- Osram Sylvania, "ColorCalculator User Guide", downloaded on Jun. 3, 2014 from www.sylvania.com, 44pp.
- Osram Sylvania, "ColorCalculator User Guide", downloaded on Oct. 19, 2015 from www.sylvania.com, 50pp.
- Kenneth Kelly, "Color Designations for Lights," U.S. Department of Commerce, National Bureau of Standards, Research Paper RP1565, Journal of Research of the National Bureau of Standards, vol. 31, Nov. 1943, pp. 271-278.
- Philips Color Kinetics, "LED Cove Lighting," downloaded on May 28, 2014 from <http://www.colorkinetics.com/ls/guides-brochures/pck-led-cove-lighting.pdf>, 32pp.
- Philips Color Kinetics, "IntelliWhite LED Lighting Systems," downloaded on May 28, 2014 from <http://www.colorkinetics.com/ls/intelliwhite/>, 2pp.
- Philips Color Kinetics, "Color-Changing LED Lighting Systems," downloaded on May 27, 2014 from <http://www.colorkinetics.com/ls/rgb/>, 2pp.
- Wikipedia, "Color temperature," version dated May 21, 2014, downloaded on Jun. 3, 2014 from www.wikipedia.org, 17pp.
- Cree, "LED Color Mixing: Basics and Background," downloaded on Sep. 24, 2014 from www.cree.com, 24pp.
- Cree, "Cree(r) LMH2 LED Modules," Product Family Data Sheet, downloaded on May 27, 2014 from http://www.cree.com/~/media/Files/Cree/LED%20Components%20and%20Modules/Modules/Data%20Sheets/LEDModules_LMH2.pdf, 18pp.
- "Dialight ES Series RGB LED Luminaire," downloaded on May 28, 2014 from http://www.dialight.com/Assets/Brochures_And_Catalogs/Illumination/MDEXESTEMORGB_A.pdf, 2pp.
- Naomi Miller, "Color Spaces and Planckian Loci: Understanding all those Crazy Color Metrics," U.S. Department of Energy, Pacific Northwest National Laboratory, Portland, Oregon, downloaded on May 30, 2014, 49pp.
- Kahen, Keith, "High-Efficiency Colloidal Quantum Dot Phosphors," University at Buffalo, SUNY, DOE SSL R&D Workshop, Long Beach, California, Jan. 29-31, 2013, 12pp.
- Bush, Steve, "Chip gives dim-to-warm LED lighting without MCU," dated Apr. 1, 2014, downloaded from <http://www.electronicweekly.com/news/components/led-lighting/chip-gives-dim-warm-led-lighting-without-mcu-2014-04/>, 6pp.
- "Ecosense to reveal new TROV LED Linear Platform at 2015 Lighfair International in New York City," May 4, 2015, blog downloaded from www.ecosense.com, 3pp.
- "Ecosense to reveal new TROV LED Linear Platform at 2015 Lighfair International in New York City," May 4, 2015, press release downloaded from www.ecosense.com, 2pp.
- Freyssinier, Jean P. et al., "Class A Color Designation for Light Sources Used in General Illumination," J. Light & Vis. Env., vol. 37, Nos. 2-3, Nov. 7, 2013, pp. 10-14.
- Freyssinier, Jean P. et al., "White Lighting: A Provisional Model for Predicting Perceived Tint in 'White' Illumination," Color Res. & App'n, vol. 39, No. 5, Oct. 2014, pp. 466-479.
- Freyssinier, Jean P. et al., "The Class A Color Designation for Light Sources," Rensselaer Polytechnic Institute, 2013 DOE Solid-State Lighting R&D Workshop, Hilton Long Beach, California, Jan. 29-31, 2013, 26pp.
- Freyssinier, Jean P. et al., "Class A Lighting," Rensselaer Polytechnic Institute, Strategies in Light 2012, 27 pp.
- Freyssinier, Jean P. et al., "White Lighting," Color Res. & App'n, (vol. unknown), Sep. 3, 2011, downloaded from http://www.Irc.rpi.edu/programs/solidstate/assist/pdf/SIL-2012_FreyssinierRea_WhiteLighting.pdf, 12pp.
- Rea et al., "White lighting for residential applications," Lighting Res. Technol., Mar. 27, 2012, downloaded from www.sagepublications.com at <http://lrt.sagepub.com/content/early/2012/03/27/1477153512442936>, 15pp.
- Oh, Jeong et al., "Full down-conversion of amber-emitting phosphor-converted light-emitting diodes with powder phosphors and a long-wave pass filter," Optics Express, vol. 18, No. 11, May 24, 2010, pp. 11063-11072.
- "Microcellular Reflective Sheet MCPET," downloaded on Feb. 3, 2015 from www.furukawa.co.jp/foam/, 6pp.
- "Aculux—Black Body Dimming and Tunable White Responsive Technologies," downloaded on May 28, 2014 from <http://www.junlightinggroup.com/literature/LIT-AX-LED-BBD-TW.pdf>, 28pp.
- "Khatod—Symmetric & Asymmetric STRIP LENS," downloaded on May 5, 2015 from www.khatod.com, 3pp.
- "KKDC Catalog 2.0," downloaded on May 28, 2014 from <http://www.kkdc.co.uk/media/kkdc-catalogue.pdf>, 134pp.
- "KKDC UK—Linear LED Lighting," downloaded from www.kkdc.co.uk/application/interior.php on Oct. 22, 2015, 5pp.
- Overton, Gail, "LEDS: White LED comprises blue LED and inexpensive dye," LaserFocusWorld, Feb. 12, 2013, downloaded from <http://www.laserfocusworld.com/articles/print/volume-49/issue-02/world-news/leds-white-led-comprises-blue-led-and-inexpensive-dye.html>, 5pp.
- "LEDIL TIR Lens Guide," downloaded from www.ledil.com on Jan. 22, 2015, 8pp.
- "LED Linear—linear lighting solutions, product overview," downloaded on May 28, 2014 from <http://www.led-linear.com/en/product-overview/system-catalogue/>, 3pp.
- "LEDnovation—BR30 Warm Dimming," downloaded on May 28, 2014 from www.lednovation.com/products/BR30_LED.asp, 2pp.

(56)

References Cited

OTHER PUBLICATIONS

Wikipedia, "Lenticular lens," downloaded on Feb. 18, 2015 from www.wikipedia.org, 5pp.

"Lenticular Sheets," downloaded on Feb. 24, 2015 from www.lenticular-sheets.Ipceurope.eu/, 2pp.

Unzner, Norbert, "Light Analysis in lighting technology," B&S Electronische Geralte GmbH, 2001, 14pp.

"Lightolier—Solid-State Lighting," downloaded on May 28, 2014 from http://www.lightolier.com/prospots/leds_solidstate.jsp, 1p.

Wikipedia, "Line of purples," downloaded on Oct. 20, 2015 from www.wikipedia.org, 2pp.

"Lumenbeam Catalog," downloaded on May 27, 2014 from 11_160_en_lumenpulse_lumenbeam_rgb_lbl_rgb_brochure.zip, 63pp.

"Lumenetix—Araya Technology," downloaded on May 28, 2014 from www.lumenetix.com/araya-technology, 3pp.

"Lumenpulse—Lumenbeam Large Color Changing," downloaded on May 27, 2014 from www.lumenpulse.com/en/product/11/lumenbeam-large-color-changing, 4pp.

"Lumenpulse—Lumencove Family," downloaded on May 28, 2014 from <http://www.lumenpulse.com/en/products/#13/0/0/0/0/0>, 2pp.

Knight, Colette, "XICATO—Investigations on the use of LED modules for optimized color appearance in retail applications," downloaded on May 28, 2014 from http://www.xicato.com/sites/default/files/documents/Summary_Investigations_on_the_use_of_LED_modules_for_optimized_color_appearance_in_retail_applications.pdf, 5pp.

"Zumtobel—IYON Tunable White," downloaded on Oct. 19, 2015 from http://www.zumtobel.com/tunablewhite/en/index.html#topic_04, 1p.

"Zumtobel—IYON LED Spotlight Catalog," downloaded on Oct. 19, 2015 from <http://www.zumtobel.com/PDB/Ressource/teaser/en/com/Iyon.pdf>, 40pp.

"Lumenpulse—Lumenbeam Large Pendant Dynamic White," downloaded on May 28, 2014 from <http://www.lumenpulse.com/en/product/72/lumenbeam-large-pendant-dynamic-white>, 1p.

"Lumileds Application Brief AB08—Optical Testing for SuperFlux, SnapLED and Luxeon Emitters," downloaded on Sep. 24, 2014 from www.lumileds.com, 15pp.

"CandlePowerForums—SOLD: Luxeon III side-emitter white LED," downloaded on May 28, 2014 from <http://www.candlepowerforums.com/vb/showthread.php?140276-SOLD-Luxeon-III-side-emitter-white-LED>, 4pp.

"Lumileds LUXEON Z," downloaded on May 2, 2015 from www.lumileds.com, 2pp.

"Alanod MIRO Catalog," downloaded on Jan. 30, 2015 from www.alanod.com, 8pp.

"Nanoco Group—Cadmium Free Quantum Dots," downloaded on May 30, 2014 from www.nanocotechnologies.com/what-we-do/products/cadmium-free-quantum-dots, 3pp.

"Nanosys—Quantum Dots," downloaded on May 30, 2014 from www.nanosysinc.com/what-we-do/quantum-dots/, 3pp.

"Ocean NanoTech—Products," downloaded on May 30, 2014 from www.oceannanotech.com/Products.php, 1p.

"NNCrystal—blog post—May 17, 2010," downloaded from <http://led-lights-led.blogspot.com/2010/05/nncrystal-us-corporation-to-supply.html>, 4pp.

"A Warmer, Cozier White Light: NXP Transforms LED Color Quality," dated Jan. 9, 2013, downloaded from <http://www.nxp.com/news/press-releases/2013/01/a-warmer-cozier-white-light-nxp-transforms-led-color-quality.html>, 2pp.

"Lighting Global Technical Notes, Optical Control Techniques for Off-grid Lighting Products," Jul. 2011 and May 2012, 6pp.

"Pacific Light Technologies—Quantum Dots in Solid State Lighting," downloaded on Oct. 23, 2015 from www.pacificlighttech.com/quantum-dots-in-ssl/, 2pp.

"Philips Lighting—Dim Tone," downloaded on May 27, 2014 from www.usa.lighting.philips.com/lightcommunity/trends/led/dimtone/, 1p.

"Philips—Dimmable to warm light for the perfect ambience," downloaded on May 27, 2014 from www.usa.lighting.philips.com, 2pp.

"Philips—Turn up Ambience and Tone Down Energy Use with Philips BR30 DimTone," downloaded on May 27, 2014 from www.usa.lighting.philips.com, 11pp.

Wikipedia, "Planckian locus," downloaded on May 30, 2014 from www.wikipedia.org, 5pp.

Wikipedia, "Quantum dot," downloaded on May 30, 2014 from http://en.wikipedia.org/wiki/Quantum_dot, 15pp.

"Phosphortech—Flexible Phosphor Sheet—RadiantFlex Datasheet," Aug. 2014, downloaded from www.phosphortech.com, 10pp.

Wikipedia, "Reflectivity," downloaded on Jan. 22, 2015 from www.wikipedia.org, 3pp.

"Refraction by lenses," downloaded on Feb. 17, 2015 from www.physicsclassroom.com, 5pp.

"RTLED—White Paper: Binning and LED," downloaded on Oct. 13, 2014 from www.rtlcd.com, 3pp.

Near, Al, "Seeing Beyond CRI," LED Testing & Application, Nov. 2011, downloaded from www.ies.org/lda/hottopics/led/4.pdf, 2pp.

"Selux—Olivio luminaire," press release dated Mar. 26, 2014, downloaded from <http://www.selux.com/be/en/news/press/press-detail/article/evolutionary-progress-the-olivio-family-of-system-luminaires-now-with-premium-quality-white-and.html>, 3pp.

"LEDIL—Strada-F Series," downloaded on May 5, 2015 from www.ledil.com, 7pp.

"Sylvania—Ultra SE(tm) LED Lamp Family," downloaded on May 27, 2014 from www.sylvania.com, 3pp.

"Sylvania Ultra SE(tm) LED Light Bulbs with Color Dimming Sunset Effects," downloaded on May 27, 2014 from <https://www.youtube.com/watch?v=oZEc-VI8EU>, 2pp.

Wikipedia, "Transmittance," downloaded on Jan. 22, 2015 from www.wikipedia.org, 4pp.

"United Lumen—A Volumetric Displaced Phosphor Light Engine which elegantly and efficiently distributes light in a pattern similar to an incandescent bulb," downloaded on Jul. 9, 2014 from www.unitedlumen.com, 1p.

"United Lumen—Solid State Volumetric Technology," downloaded on Jul. 9, 2014 from www.unitedlumen.com, 1p.

"United Lumen—High Brightness V-LED Technology," downloaded on May 15, 2014 from www.unitedlumen.com, 1p.

"USAI Lighting Catalog," downloaded on May 27, 2014 from http://www.usaillumination.com/pdf/Warm_Glow_Dimming.pdf, 50pp.

"Winona—Parata 700 Series Cove," downloaded on May 28, 2014 from www.acuitybrands.com, 2pp.

"Winona Parata Catalog," downloaded on May 28, 2014 from www.acuitybrands.com, 24pp.

Fletcher et al., U.S. Appl. No. 14/816,827, filed Aug. 3, 2015, entitled "Lighting System Having a Mounting Device," 126pp.

Fletcher et al., U.S. Appl. No. 29/532,383, filed Jul. 6, 2015, entitled "LED Luminaire Having a Mounting System," 10pp.

Fletcher et al., U.S. Appl. No. 29/533,635, filed Jul. 20, 2015, entitled "LED Luminaire Having a Mounting System," 10pp.

Fletcher et al., U.S. Appl. No. 29/533,666, filed Jul. 20, 2015, entitled "LED Luminaire Having a Mounting System," 10pp.

Fletcher et al., U.S. Appl. No. 15/268,781, filed Sep. 19, 2016, entitled "Lighting System Having a Mounting Device," 93pp.

Fletcher et al., U.S. Appl. No. 29/578,082, filed Sep. 19, 2016, entitled "LED Luminaire Having a Mounting System," 10pp.

Fletcher et al., U.S. Appl. No. 29/578,086, filed Sep. 19, 2016, entitled "LED Luminaire Having a Mounting System," 10pp.

Fletcher et al., U.S. Appl. No. 29/578,094, filed Sep. 19, 2016, entitled "LED Luminaire Having a Mounting System," 10pp.

Fletcher et al., U.S. Appl. No. 29/578,095, filed Sep. 19, 2016, entitled "LED Luminaire Having a Mounting System," 10pp.

* cited by examiner

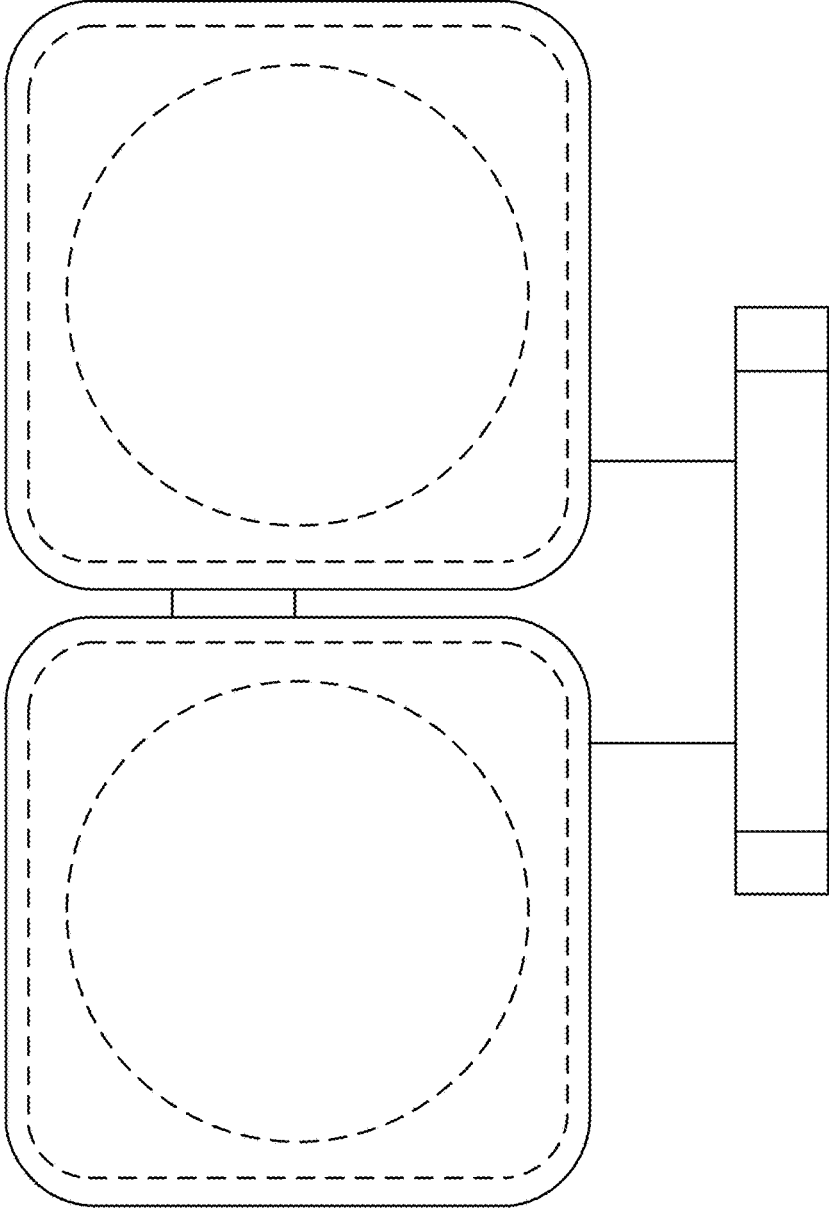


FIG. 1

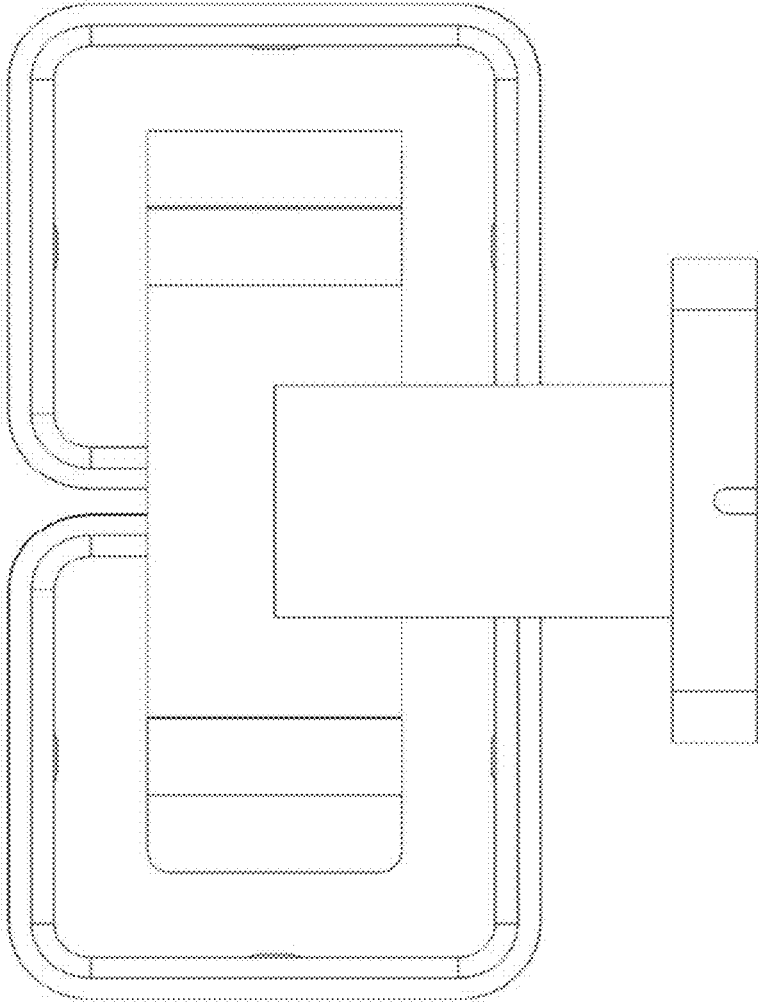


FIG. 2

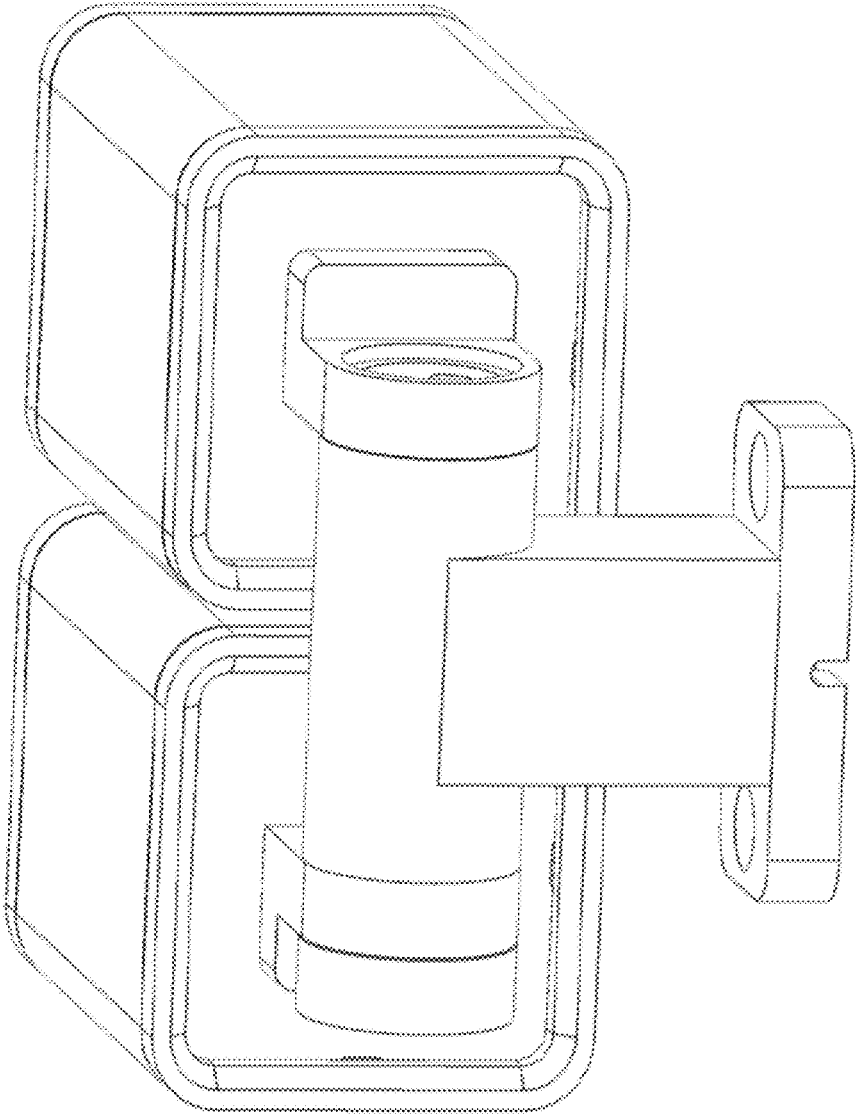


FIG. 3

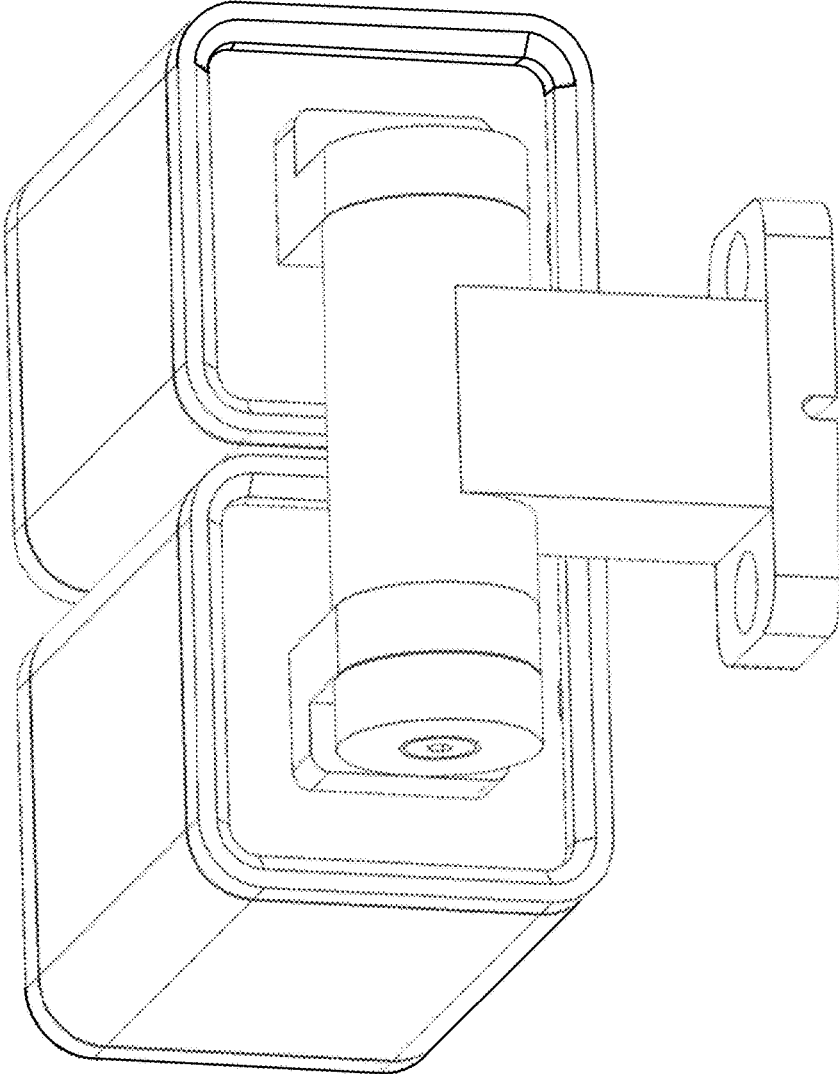


FIG. 4

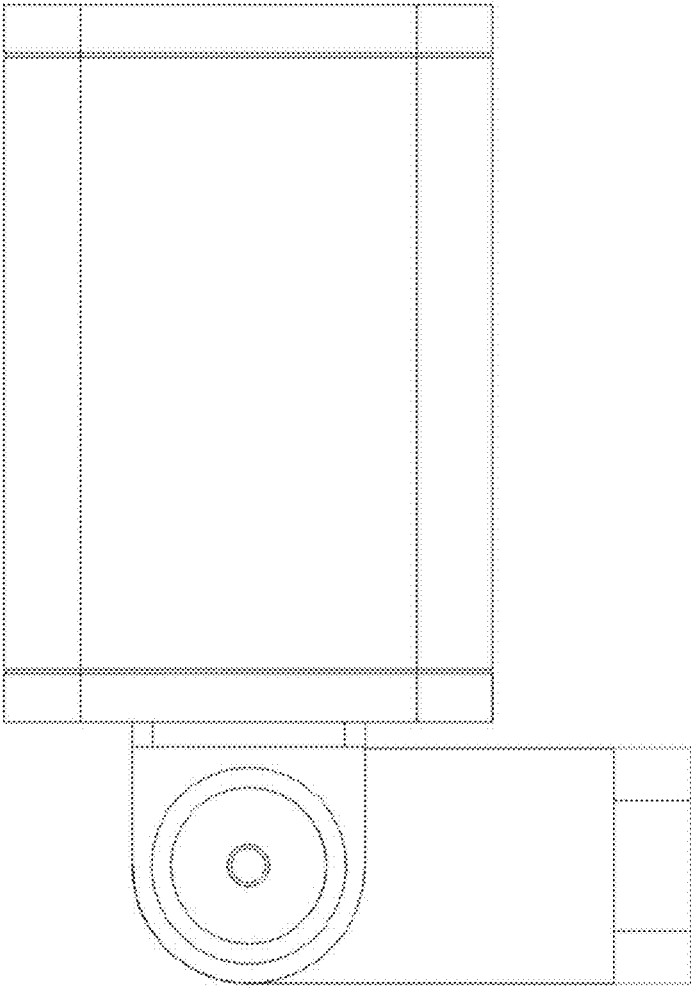


FIG. 5

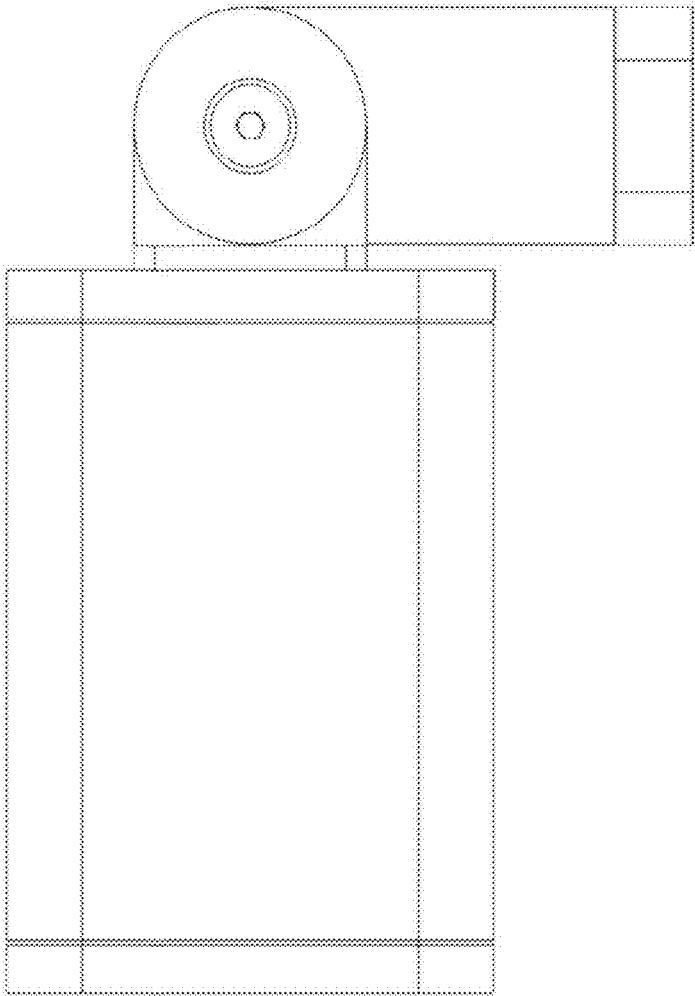


FIG. 6

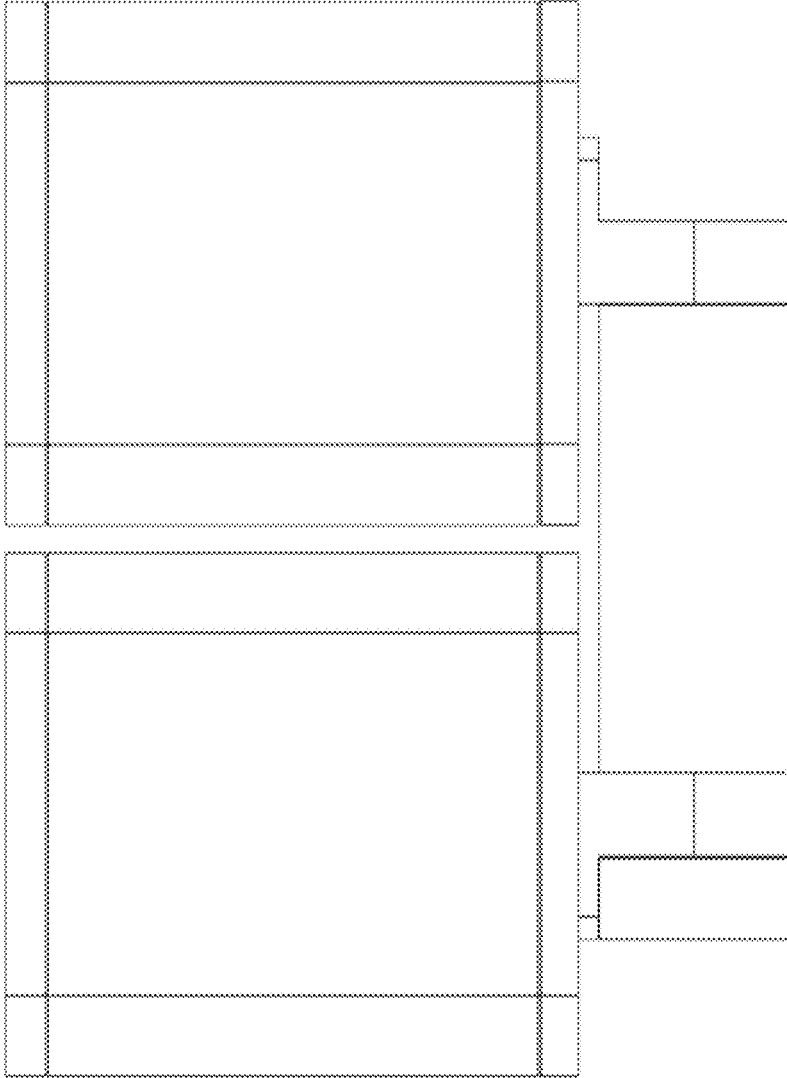


FIG. 7

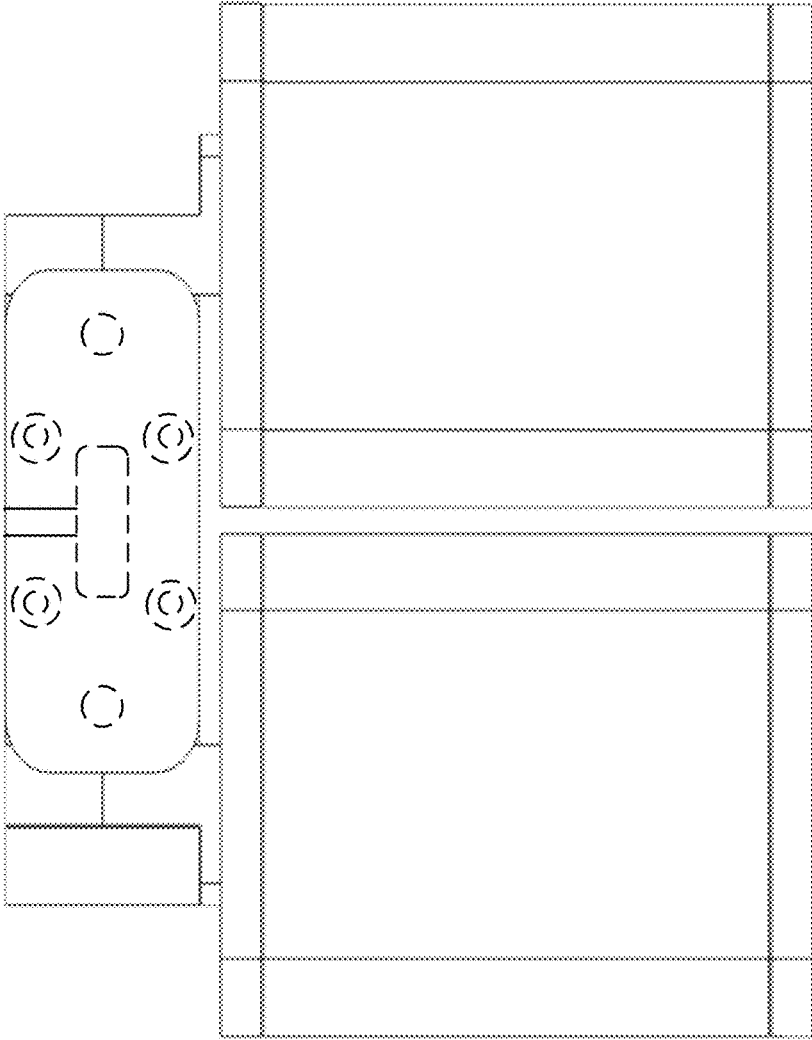


FIG. 8