



US00D754640S

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

(10) **Patent No.:** **US D754,640 S**  
(45) **Date of Patent:** **\*\* Apr. 26, 2016**

- (54) **GPS PATCH ANTENNA**
- (71) Applicants: **Eleazar Zuniga**, Ensenada (MX); **Javier Ruben Flores-Cuadras**, Tijuana (MX)
- (72) Inventors: **Eleazar Zuniga**, Ensenada (MX); **Javier Ruben Flores-Cuadras**, Tijuana (MX)
- (73) Assignee: **TAOGLAS GROUP HOLDINGS LIMITED**, Wexford (IE)
- (\*\*) Term: **14 Years**
- (21) Appl. No.: **29/445,020**
- (22) Filed: **Feb. 6, 2013**
- (51) **LOC (10) Cl.** ..... **14-03**
- (52) **U.S. Cl.**  
USPC ..... **D14/230**
- (58) **Field of Classification Search**  
USPC ..... D14/230–238, 299, 358;  
343/700 R–705, 711–713, 871–908;  
455/90.2–90.3; 333/193  
CPC ..... H01Q 7/00; H01Q 13/10; H01Q 9/285;  
H01Q 19/30; H01Q 19/12; H01Q 1/38;  
H04B 1/0475; H04B 1/034; H05K 11/00  
See application file for complete search history.

- D582,905 S \* 12/2008 Takisawa et al. .... D14/230
- D593,078 S \* 5/2009 Sato et al. .... D14/230
- D596,626 S \* 7/2009 Andre et al. .... D14/240

(Continued)

**FOREIGN PATENT DOCUMENTS**

- CN 300912577 \* 4/2009
- CN 301216968 \* 5/2010

(Continued)

**OTHER PUBLICATIONS**

Marine Electronics, TV antennas for boats—All boating and marine industry manufacturers in this category, google publish adate May 5, 2013, online, <http://www.nauticexpo.com/cat/marine-electronics/tv-antennas-boats-WA-1560.html>, [site visited Apr. 25, 2015 6:05:25 PM].\*

(Continued)

*Primary Examiner* — John Windmuller  
*Assistant Examiner* — John R Yeh  
(74) *Attorney, Agent, or Firm* — Coastal Patent Law Group, P.C.

(57) **CLAIM**  
We claim the ornamental design for a GPS patch antenna, as shown and described.

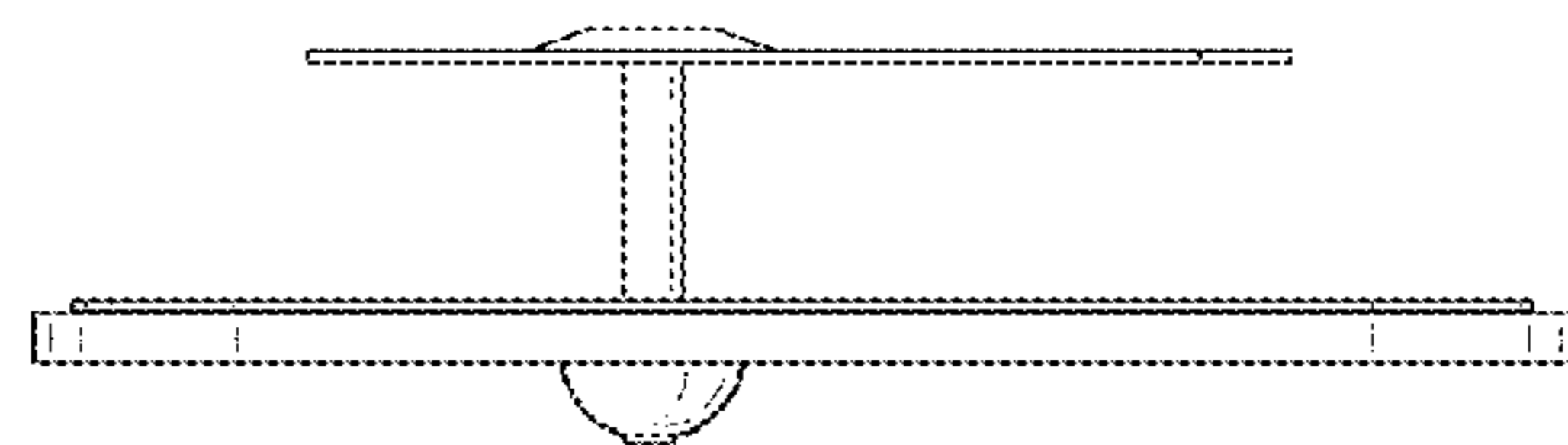
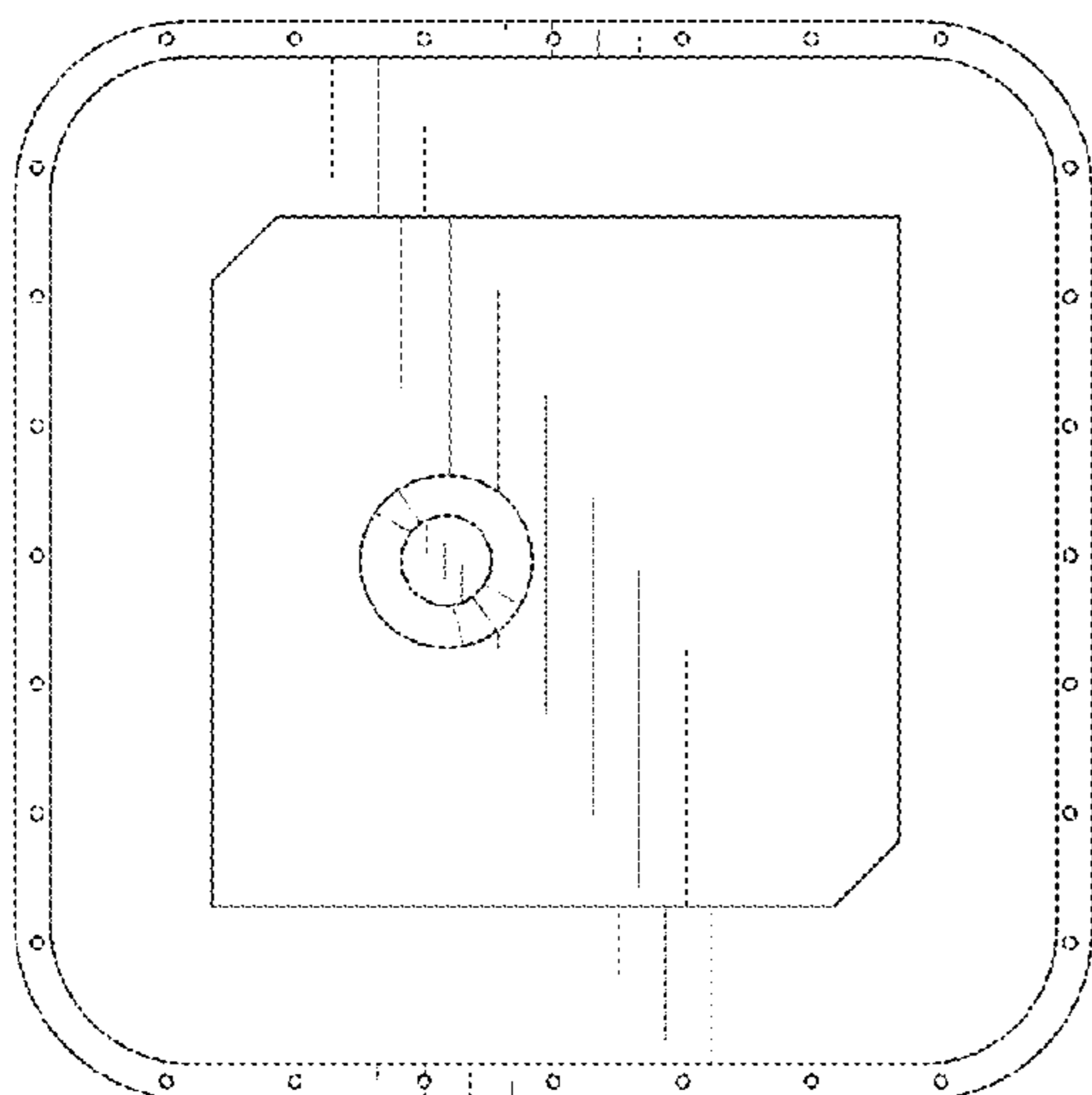
**DESCRIPTION**

FIG. 1 shows a top view of a GPS patch antenna; FIG. 2 shows bottom view of the GPS patch antenna; FIG. 3 shows a right side view of the GPS patch antenna; FIG. 4 shows a left side view of the GPS patch antenna; FIG. 5 shows a front view of the GPS patch antenna; and, FIG. 6 shows a rear side view of the GPS patch antenna. The holes shown throughout the bottom of the GPS patch antenna have a depth equal to the material thickness of the bottom plate.

**1 Claim, 2 Drawing Sheets**

(56) **References Cited**  
**U.S. PATENT DOCUMENTS**

- D217,256 S \* 4/1970 Kahn ..... D14/230
- 4,224,602 A \* 9/1980 Anderson et al. .... 340/321
- 4,319,249 A \* 3/1982 Evans et al. .... 343/703
- 6,054,961 A \* 4/2000 Gong et al. .... 343/713
- D515,075 S \* 2/2006 Kusanagi et al. .... D14/230
- D531,172 S \* 10/2006 Noro et al. .... D14/230
- D531,173 S \* 10/2006 Aizawa et al. .... D14/230
- D531,995 S \* 11/2006 Shinkawa et al. .... D14/230
- D580,420 S \* 11/2008 Takisawa et al. .... D14/230



(56)

**References Cited**

U.S. PATENT DOCUMENTS

D606,052 S \* 12/2009 Noro et al. .... D14/230  
D619,140 S \* 7/2010 Sin et al. .... D14/480.6  
7,804,450 B2 \* 9/2010 Sullivan et al. .... 343/700 MS  
8,803,745 B2 \* 8/2014 Dabov ..... 343/702  
2003/0085057 A1 \* 5/2003 Hashimoto ..... 174/261  
2004/0051673 A1 \* 3/2004 Moren et al. .... 343/702  
2005/0001768 A1 \* 1/2005 Sekiguchi et al. .... 343/700 MS  
2005/0068236 A1 \* 3/2005 Noro ..... 343/713  
2006/0061512 A1 \* 3/2006 Asano et al. .... 343/702  
2007/0164917 A1 \* 7/2007 Takisawa et al. .... 343/713

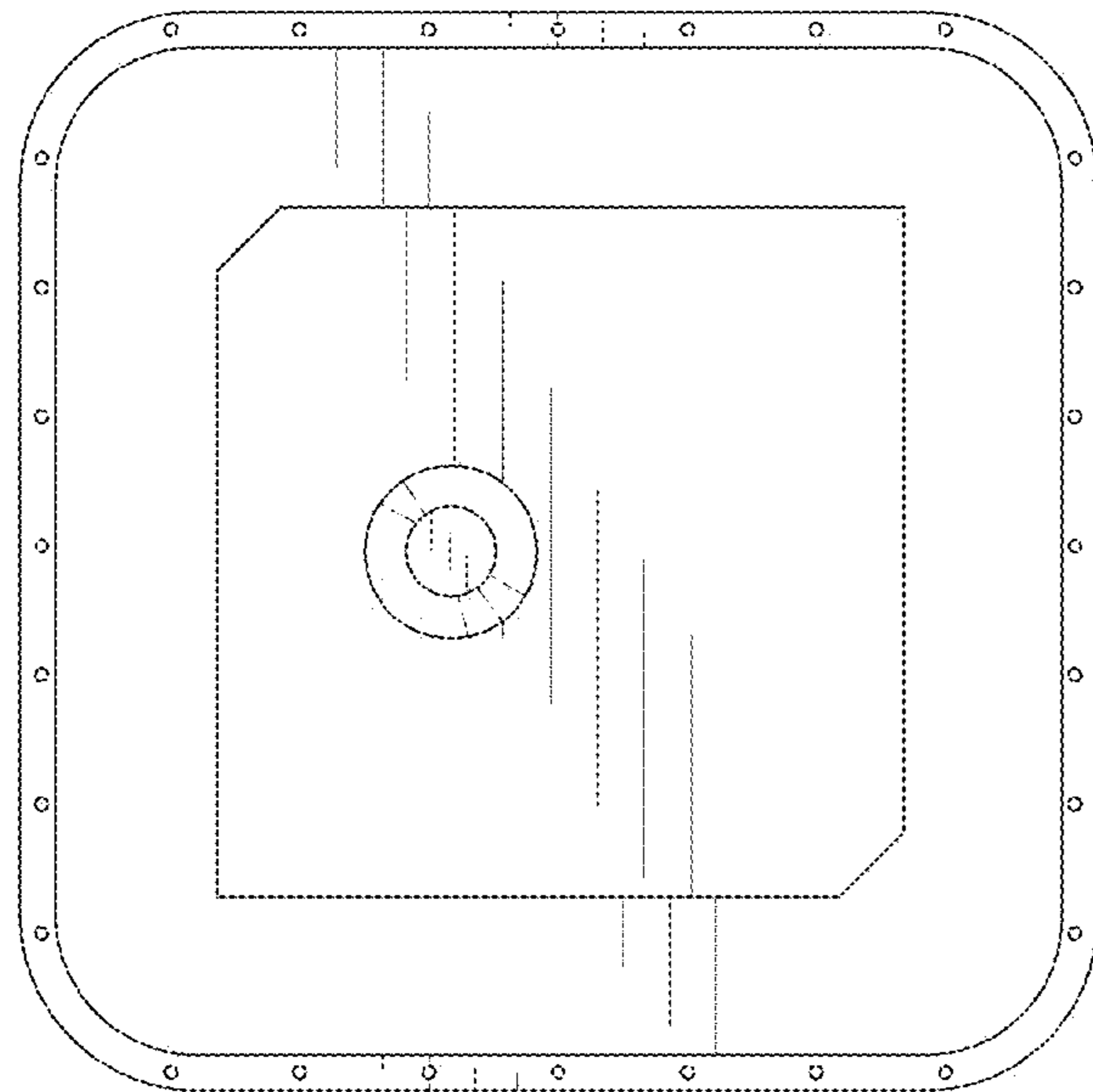
FOREIGN PATENT DOCUMENTS

CN 301714848 \* 11/2011  
JP D1282659 \* 10/2006  
JP D1408259 \* 2/2011  
JP D1421249 \* 8/2011

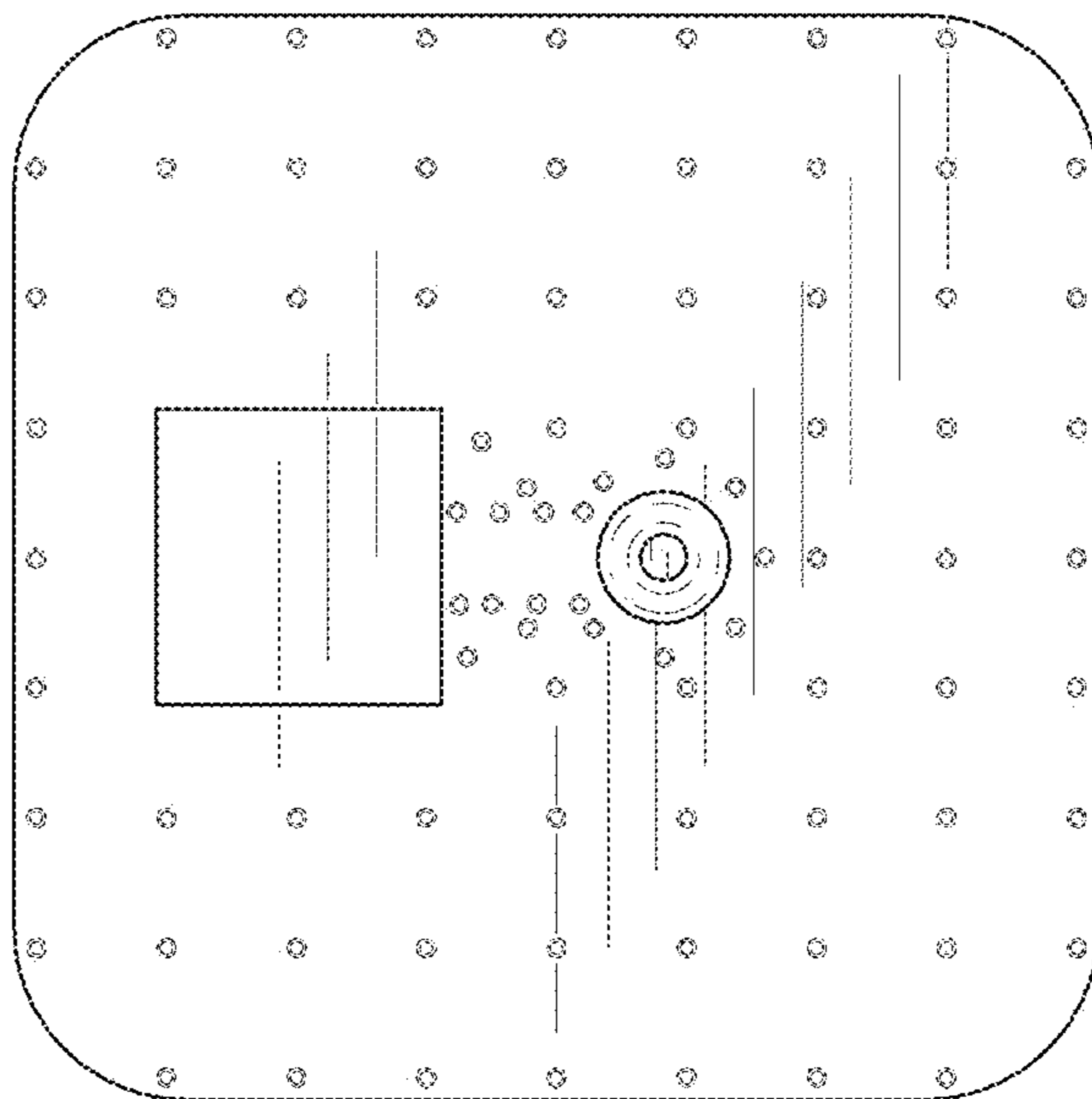
OTHER PUBLICATIONS

NPL [www.worldproducts.com/pdfs/Wireless/WPANT65018-R1A.pdf](http://www.worldproducts.com/pdfs/Wireless/WPANT65018-R1A.pdf), create date Mar. 27, 2014, online, site visited Apr. 25, 2015, <http://www.worldproducts.com/pdfs/Wireless/WPANT65018-R1A.pdf>.\*

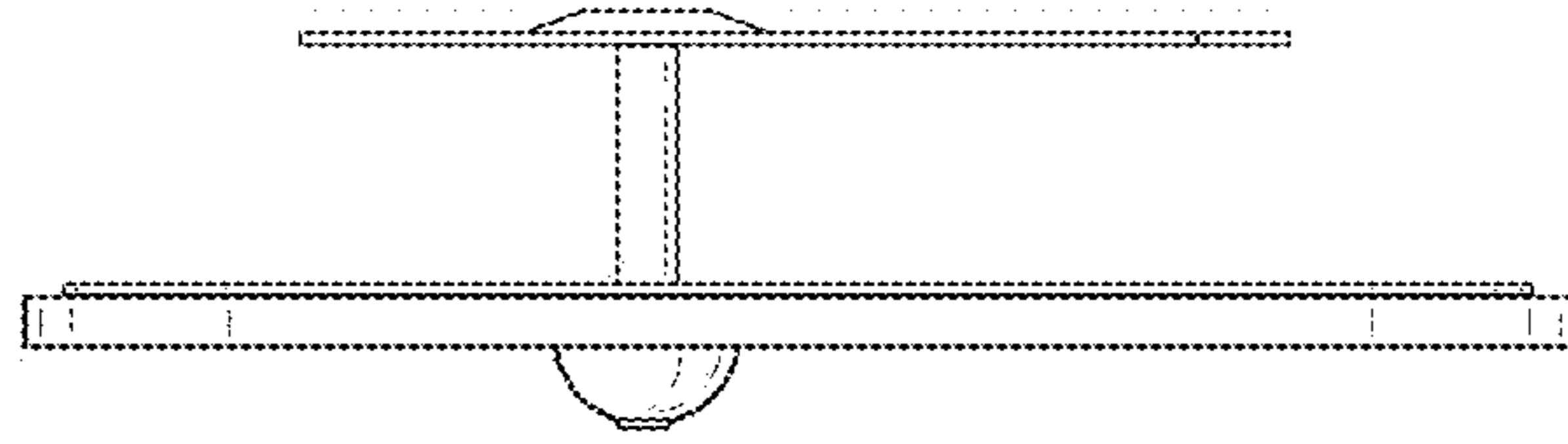
\* cited by examiner



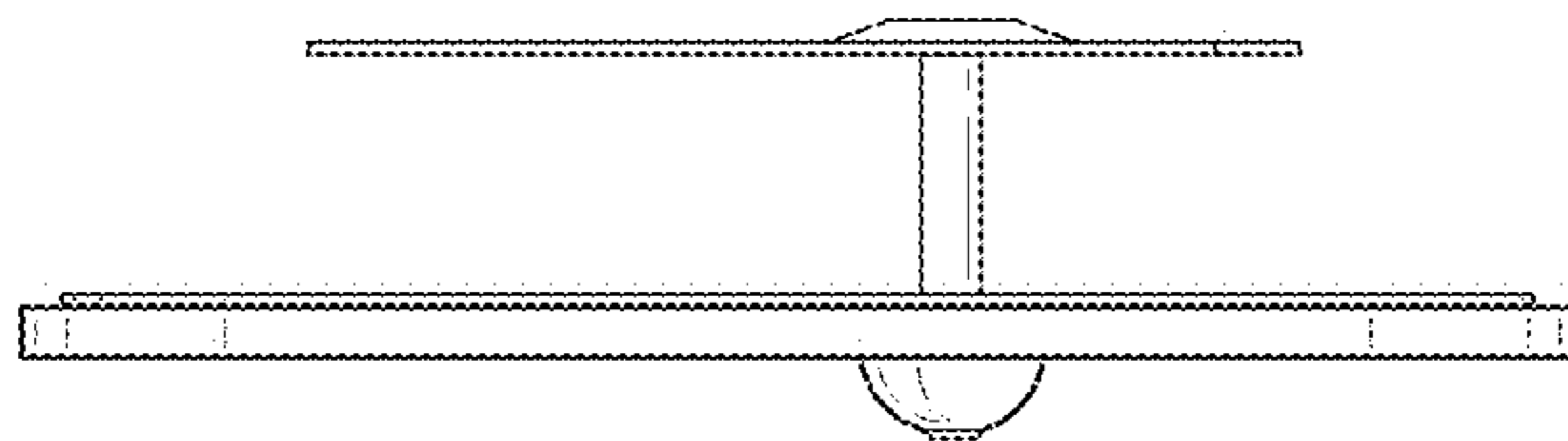
**FIG. 1**



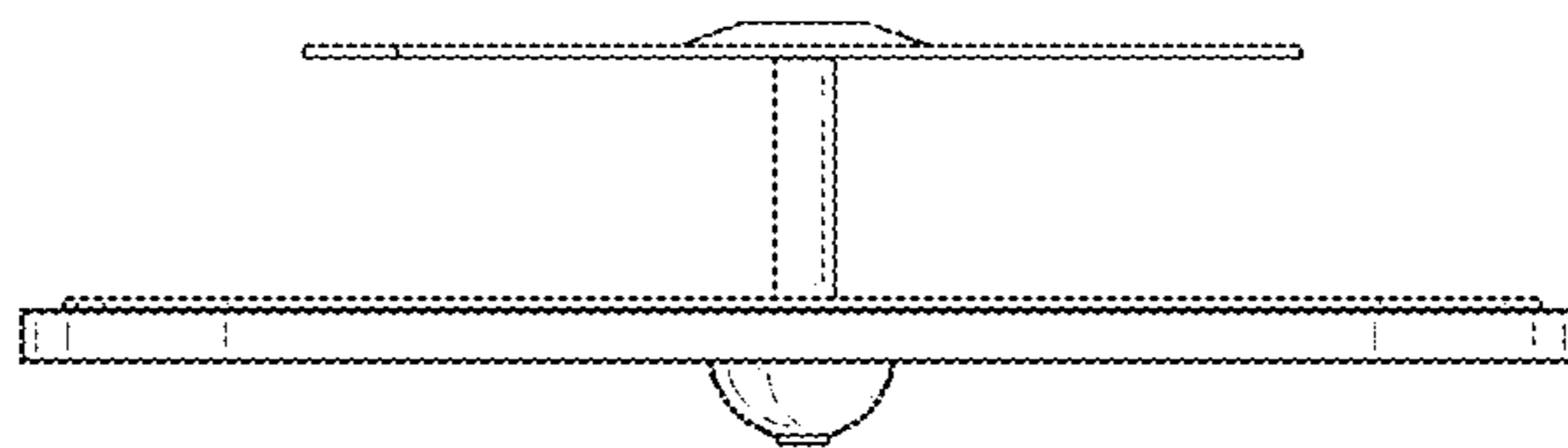
**FIG. 2**



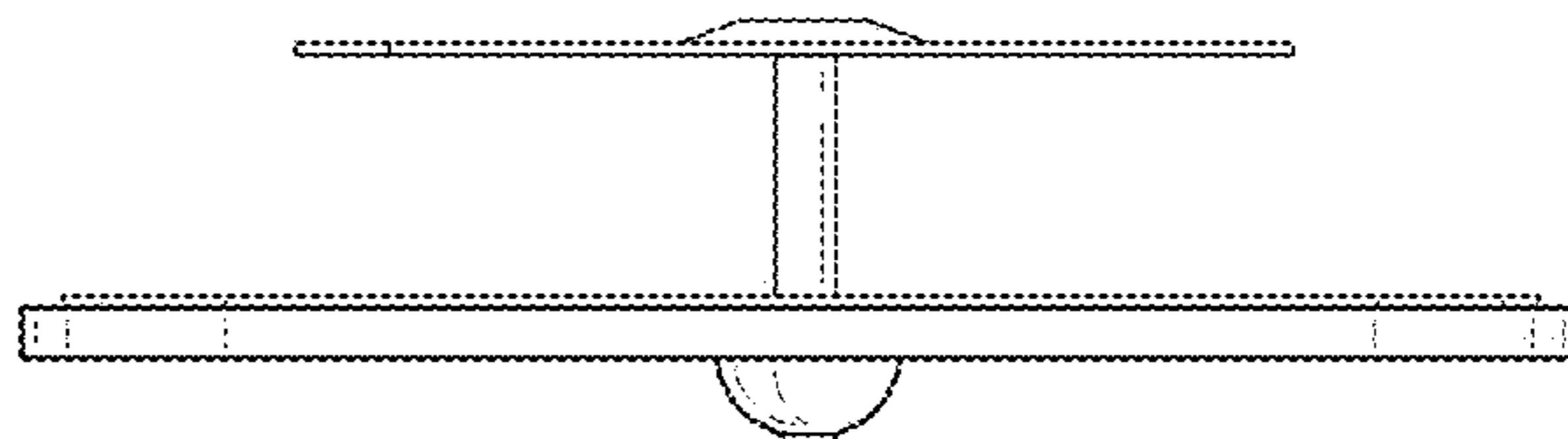
*FIG. 3*



*FIG. 4*



*FIG. 5*



*FIG. 6*