



US00D631185S

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

(10) **Patent No.:** **US D631,185 S**  
(45) **Date of Patent:** **\*\* Jan. 18, 2011**

(54) **LED LENS**

(75) Inventors: **Chin-Long Ku**, Taipei Hsien (TW);  
**Wen-Jun Duan**, Shenzhen (CN)

(73) Assignee: **Foxconn Technology Co., Ltd.**,  
Tucheng, Taipei County (TW)

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

(21) Appl. No.: **29/353,325**

(22) Filed: **Jan. 7, 2010**

(51) **LOC (9) Cl.** ..... **26-99**

(52) **U.S. Cl.** ..... **D26/120**

(58) **Field of Classification Search** ..... D26/120,  
D26/144, 88, 71, 152, 124, 113, 118, 128,  
D26/135, 121, 25, 27, 72, 78, 132, 137, 74,  
D26/77, 80, 85, 86, 90, 119, 122, 123, 125,  
D26/127, 129, 130, 83, 28; D16/135, 101;  
D10/121, 60; D8/353; D13/156, 180, 133,  
D13/110, 147, 134, 102; 362/364, 365, 147,  
362/235, 257, 290, 296, 330, 335, 351, 354,  
362/355, 404; D9/418, 519, 504, 428; 439/552,  
439/121; 228/155; 446/392; D14/217;  
D7/391

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D137,085	S	*	1/1944	Cressaty	.....	D26/124
D140,840	S	*	4/1945	Cressaty	.....	D26/124
2,466,278	A	*	4/1949	Rupert	.....	446/392
2,684,528	A	*	7/1954	Rosshiem et al.	.....	228/155
3,461,009	A	*	8/1969	Snyder et al.	.....	156/69
D221,989	S	*	9/1971	Magi	.....	D26/131
D243,069	S	*	1/1977	Igelman	.....	D9/428
D248,838	S	*	8/1978	Pasquarette et al.	.....	D10/60
D255,883	S	*	7/1980	Ferenc	.....	D10/121
4,252,244	A	*	2/1981	Christian et al.	.....	220/626
D268,195	S	*	3/1983	Kalish	.....	D21/771
4,601,673	A	*	7/1986	Nasca	.....	446/389
D288,593	S	*	3/1987	Campbell	.....	D13/102
D297,717	S	*	9/1988	Chu	.....	D10/104

D333,296	S	*	2/1993	Stedham	.....	D13/171
D337,058	S	*	7/1993	Papanikolaou	.....	D10/60
D346,869	S	*	5/1994	Houssian	.....	D26/26
D367,829	S	*	3/1996	Takigawa	.....	D10/132
D395,715	S	*	6/1998	Queen	.....	D26/24
5,893,633	A	*	4/1999	Uchio et al.	.....	362/244
5,904,116	A	*	5/1999	Wyner et al.	.....	116/173
5,905,599	A	*	5/1999	Nomura et al.	.....	359/819
D436,532	S	*	1/2001	Richardson	.....	D9/428
D438,754	S	*	3/2001	Mendelson	.....	D7/391

(Continued)

*Primary Examiner*—Cathron C Brooks  
*Assistant Examiner*—Kevin K Rudzinski  
(74) *Attorney, Agent, or Firm*—Frank R. Niranjana

(57) **CLAIM**

The ornamental design for an LED lens, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of an LED lens showing our new design.

FIG. 2 is a front elevational view thereof, the rear elevational view being a mirror image of FIG. 2.

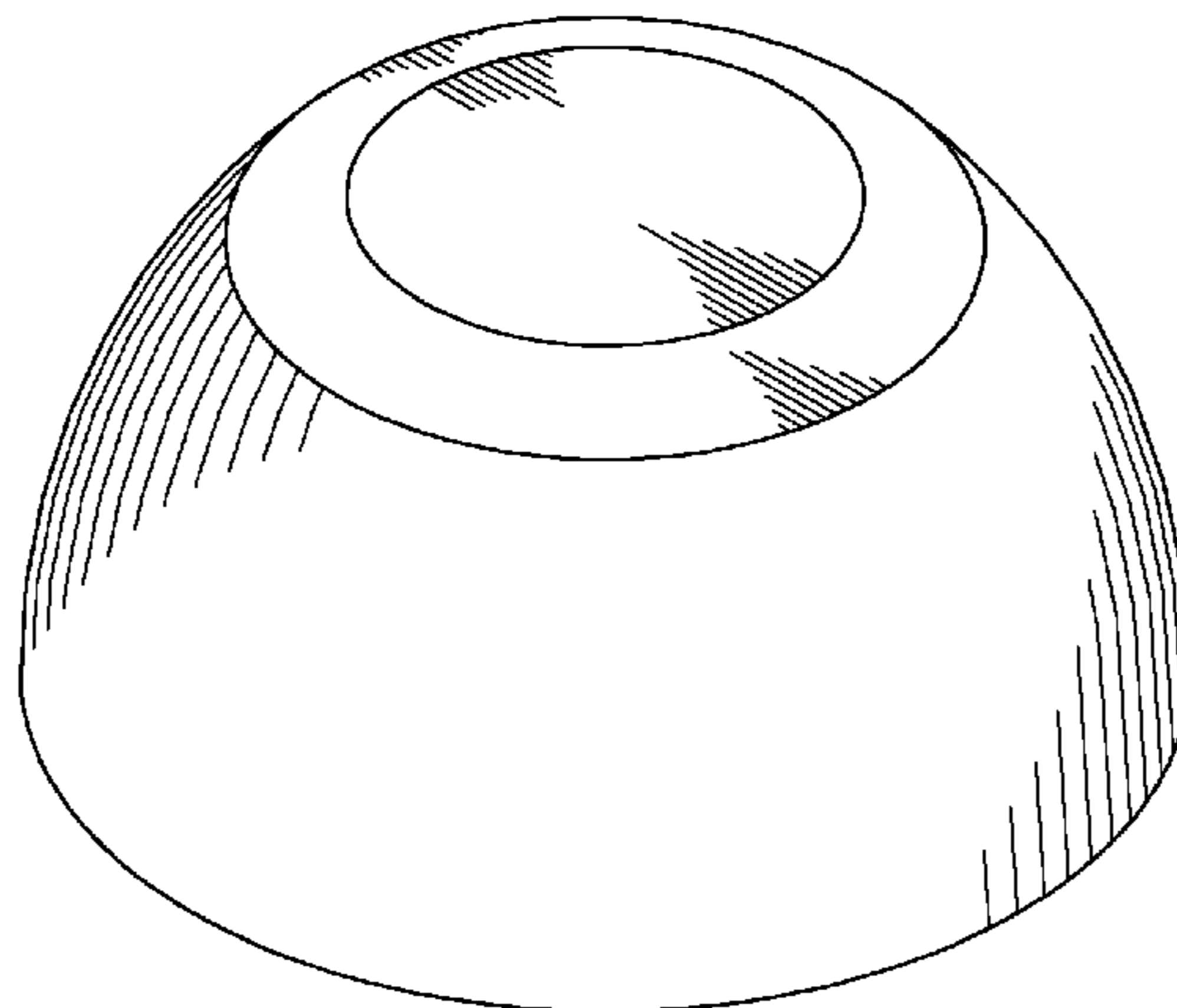
FIG. 3 is a left-side, elevational view thereof, the right-side, elevational view being a mirror image of FIG. 3.

FIG. 4 is a top plan view thereof.

FIG. 5 is a bottom plan view thereof; and,

FIG. 6 is a perspective view showing the LED lens of FIG. 1 being mounted on an LED subassembly, wherein the LED subassembly which consists of a rectangular substrate and an annular base is shown in broken lines for illustrative purposes only and forms no part of the claimed design.

**1 Claim, 6 Drawing Sheets**



# US D631,185 S

Page 2

## U.S. PATENT DOCUMENTS

D445,675 S *	7/2001	Richardson	.....	D28/8.1	D555,111 S *	11/2007	Yen	.....	D13/180
D447,964 S *	9/2001	Kompa	.....	D10/60	D563,588 S *	3/2008	Mullen	.....	D26/85
D461,200 S *	8/2002	Pierotti et al.	.....	D16/101	D567,773 S *	4/2008	Kamada	.....	D13/180
D465,599 S *	11/2002	Thompson	.....	D26/89	D568,830 S *	5/2008	Park et al.	.....	D13/180
D465,614 S *	11/2002	Petit	.....	D28/76	D573,554 S *	7/2008	Kobayakawa	.....	D13/180
6,474,831 B1 *	11/2002	Ruuttu et al.	.....	362/148	D574,551 S *	8/2008	Park	.....	D26/120
D480,263 S *	10/2003	Lillelund et al.	.....	D7/392.1	D576,569 S *	9/2008	Chen et al.	.....	D13/180
D483,511 S *	12/2003	Lay et al.	.....	D26/80	D576,572 S *	9/2008	Hata et al.	.....	D13/180
6,730,244 B1 *	5/2004	Lipscomb et al.	.....	264/1.38	D576,575 S *	9/2008	Kanayama et al.	.....	D13/180
D491,897 S *	6/2004	Kamada	.....	D13/180	D579,424 S *	10/2008	Kim et al.	.....	D13/180
D491,898 S *	6/2004	Kamada	.....	D13/180	7,458,703 B2 *	12/2008	Han et al.	.....	362/267
D495,822 S *	9/2004	Yoneda	.....	D26/124	7,473,013 B2 *	1/2009	Shimada	.....	362/327
D506,280 S *	6/2005	Chen	.....	D26/67	D586,935 S *	2/2009	Lassen	.....	D26/72
D511,787 S *	11/2005	Galli	.....	D16/134	D592,615 S *	5/2009	Imai et al.	.....	D13/180
6,972,439 B1 *	12/2005	Kim et al.	.....	257/98	D596,592 S *	7/2009	Yong et al.	.....	D13/180
D520,143 S *	5/2006	Yoneda	.....	D24/209	7,618,160 B2 *	11/2009	Chinniah et al.	.....	362/326
D523,333 S *	6/2006	Moretti	.....	D9/444	2004/0212998 A1 *	10/2004	Mohacsi	.....	362/294
D523,826 S *	6/2006	Kamada	.....	D13/180	2004/0264199 A1 *	12/2004	Shu et al.	.....	362/327
D524,260 S *	7/2006	Ishizaka et al.	.....	D13/180	2006/0284209 A1 *	12/2006	Kim et al.	.....	257/100
D525,949 S *	8/2006	Kamada	.....	D13/180	2007/0045823 A1 *	3/2007	Miller	.....	257/706
7,121,691 B2 *	10/2006	Coushaine et al.	.....	362/298	2007/0063321 A1 *	3/2007	Han et al.	.....	257/675
7,153,000 B2 *	12/2006	Park et al.	.....	362/268	2007/0114559 A1 *	5/2007	Sayers et al.	.....	257/100
7,198,539 B2 *	4/2007	Lam et al.	.....	446/392	2007/0126020 A1 *	6/2007	Lin et al.	.....	257/100
7,217,004 B2 *	5/2007	Park et al.	.....	362/240	2008/0007936 A1 *	1/2008	Liu et al.	.....	362/84
					2008/0203412 A1 *	8/2008	Shyu et al.	.....	257/98

\* cited by examiner

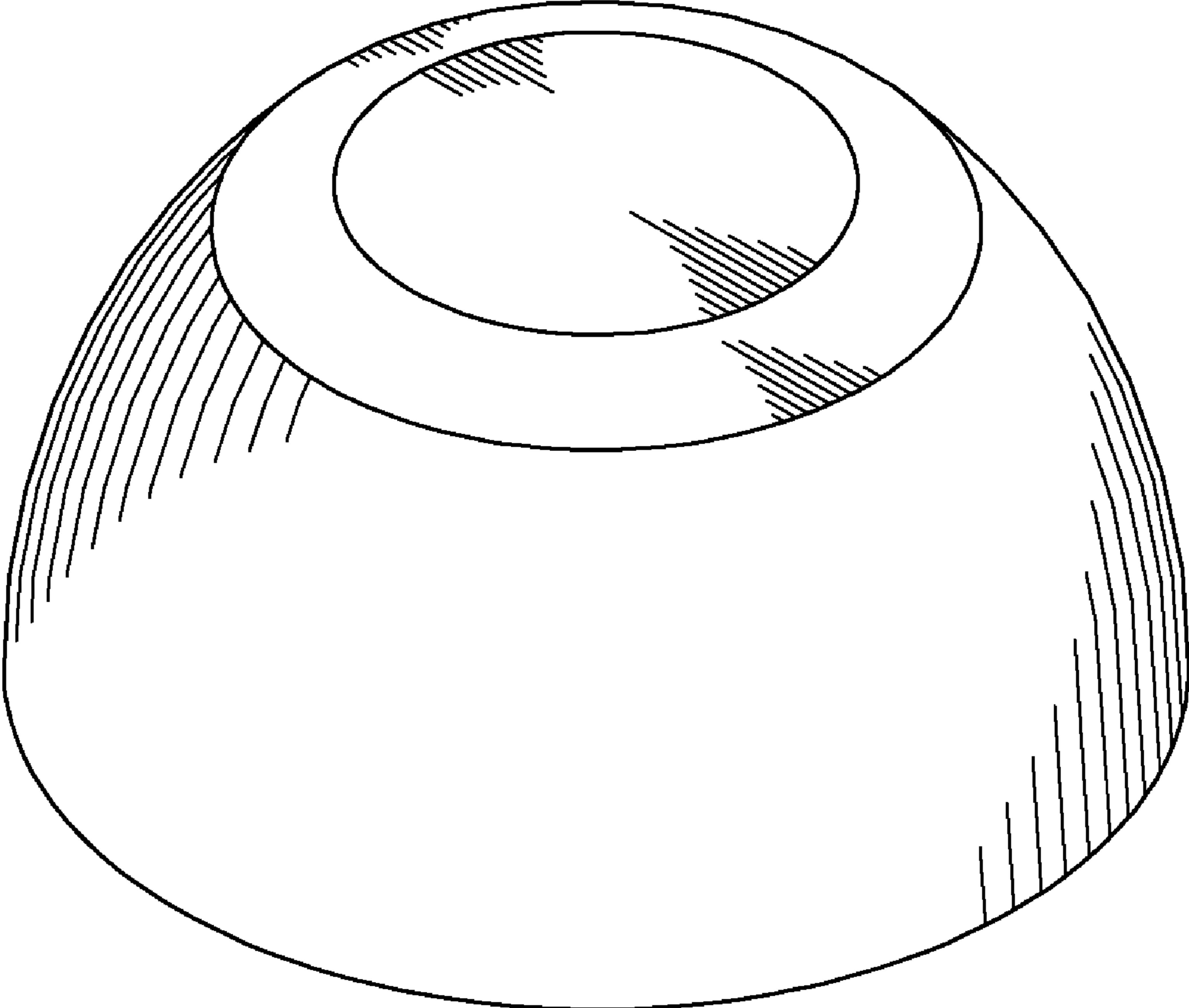


FIG. 1

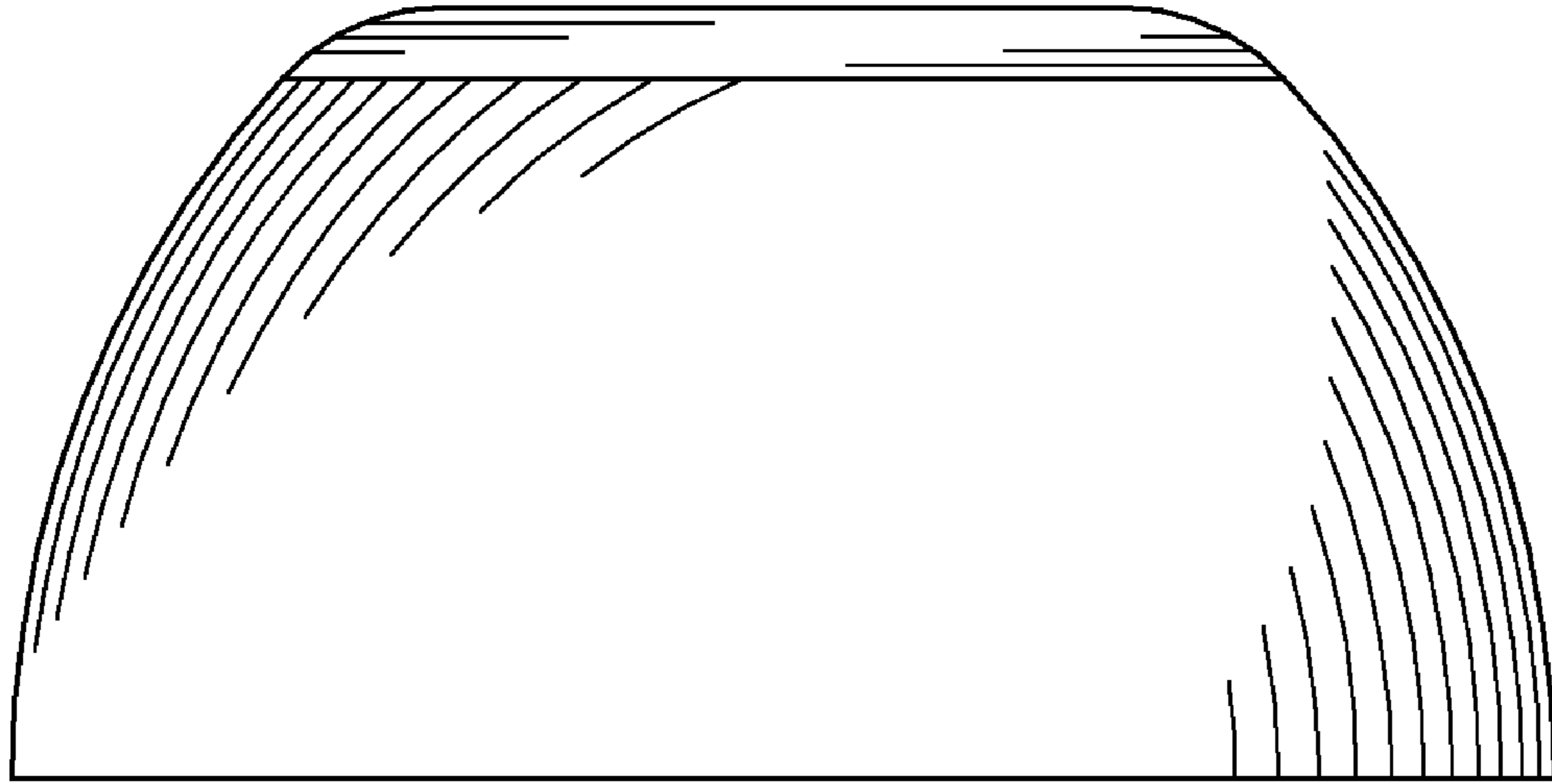


FIG. 2

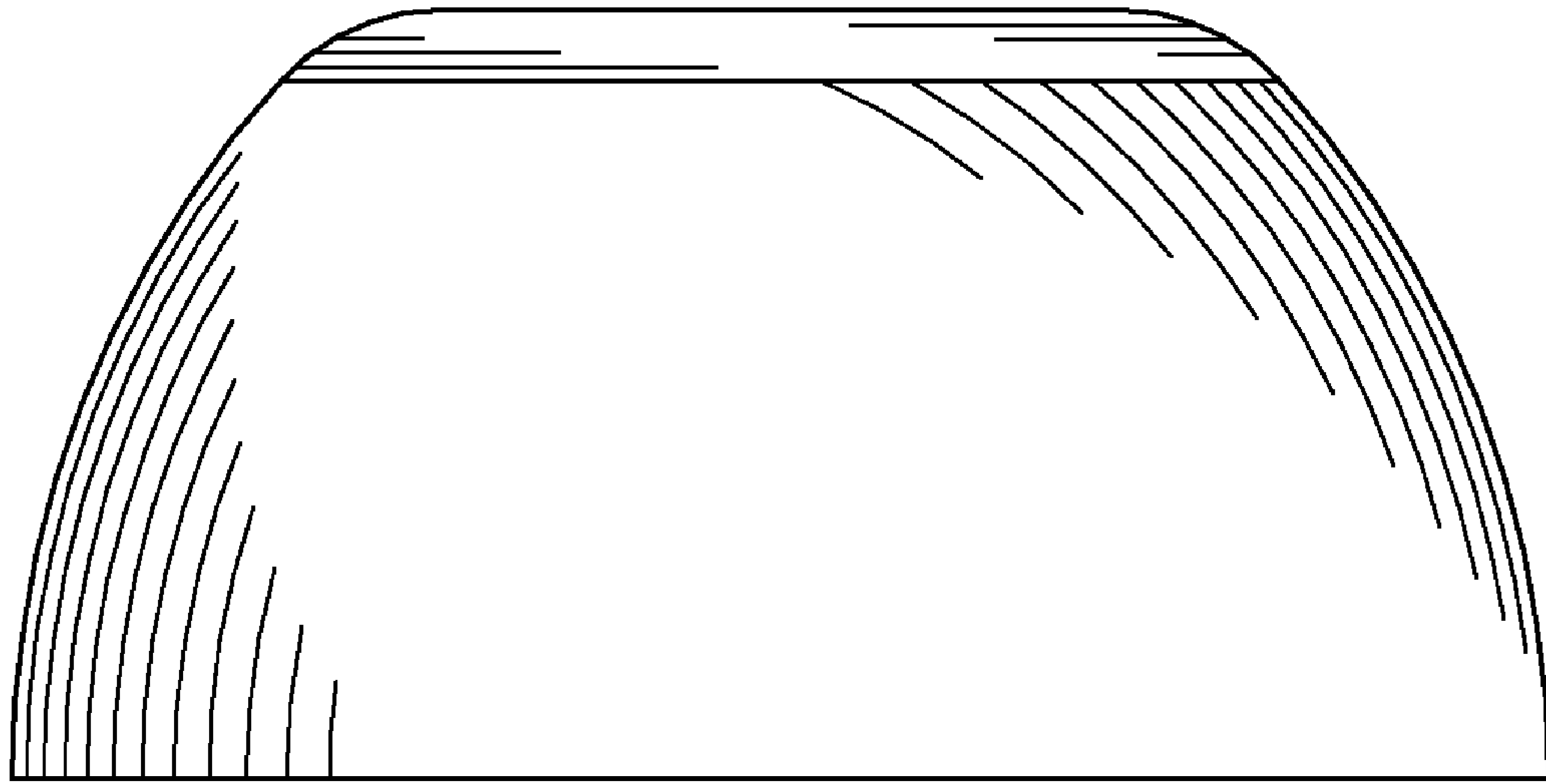


FIG. 3

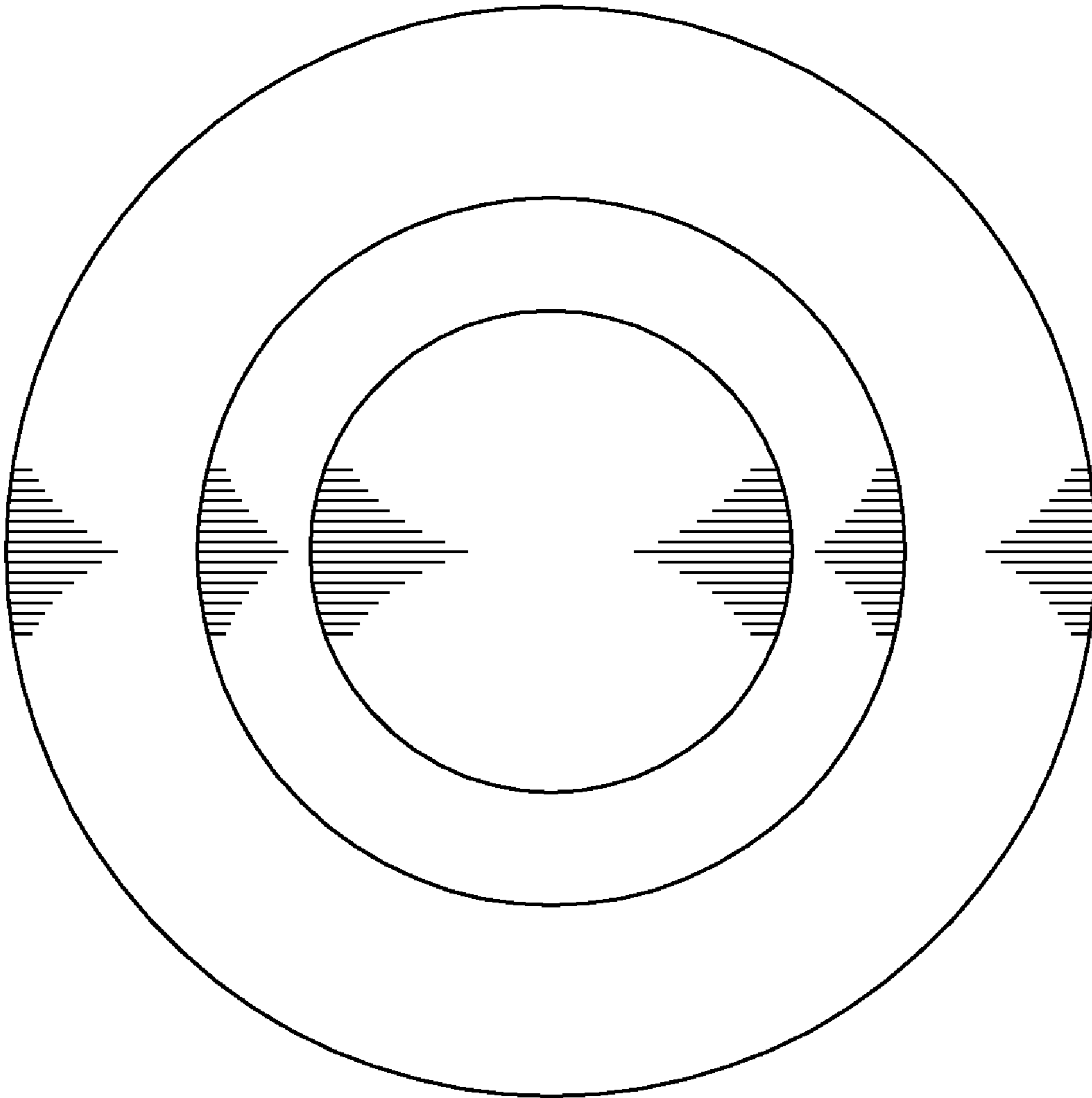


FIG. 4

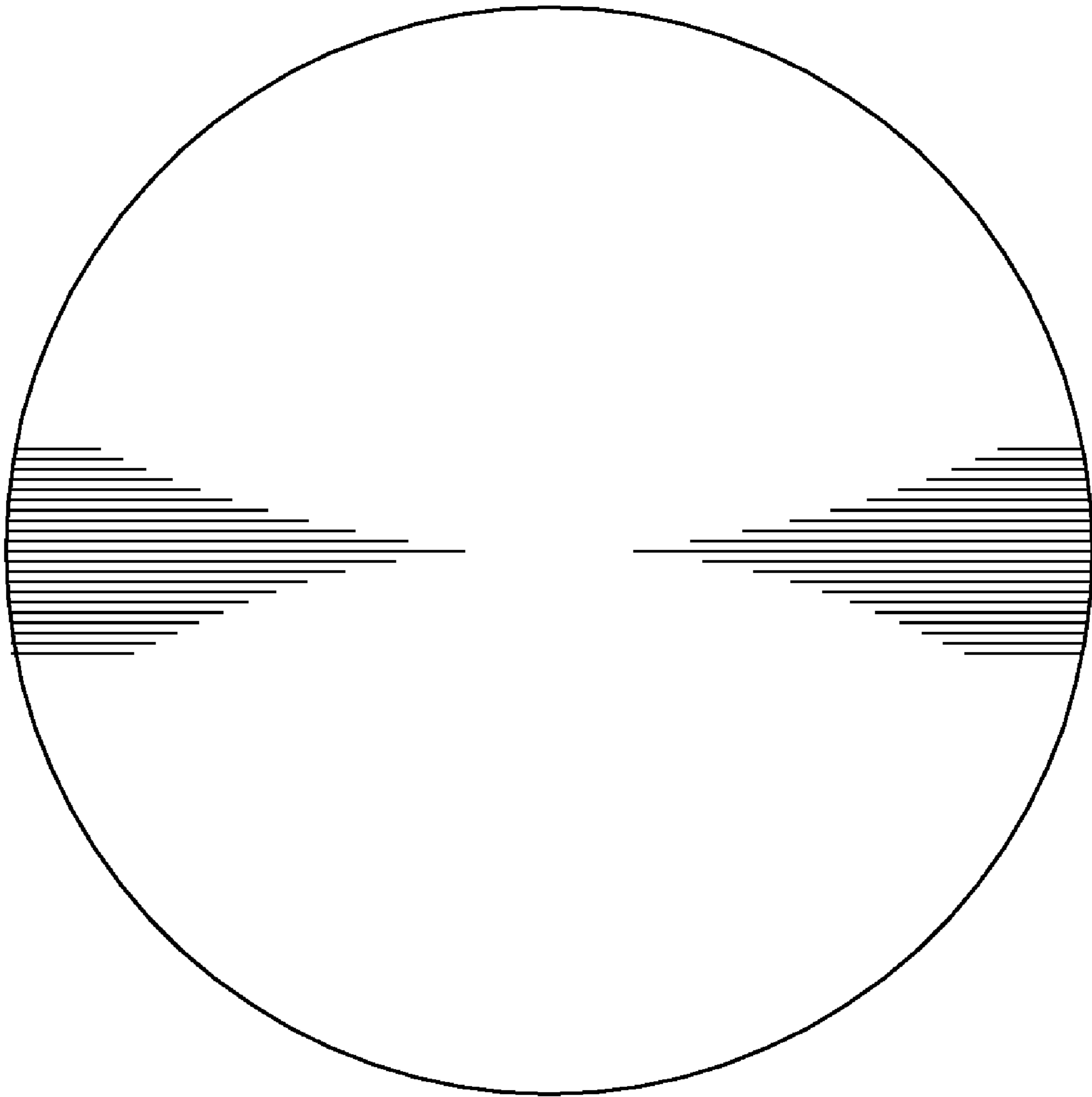


FIG. 5

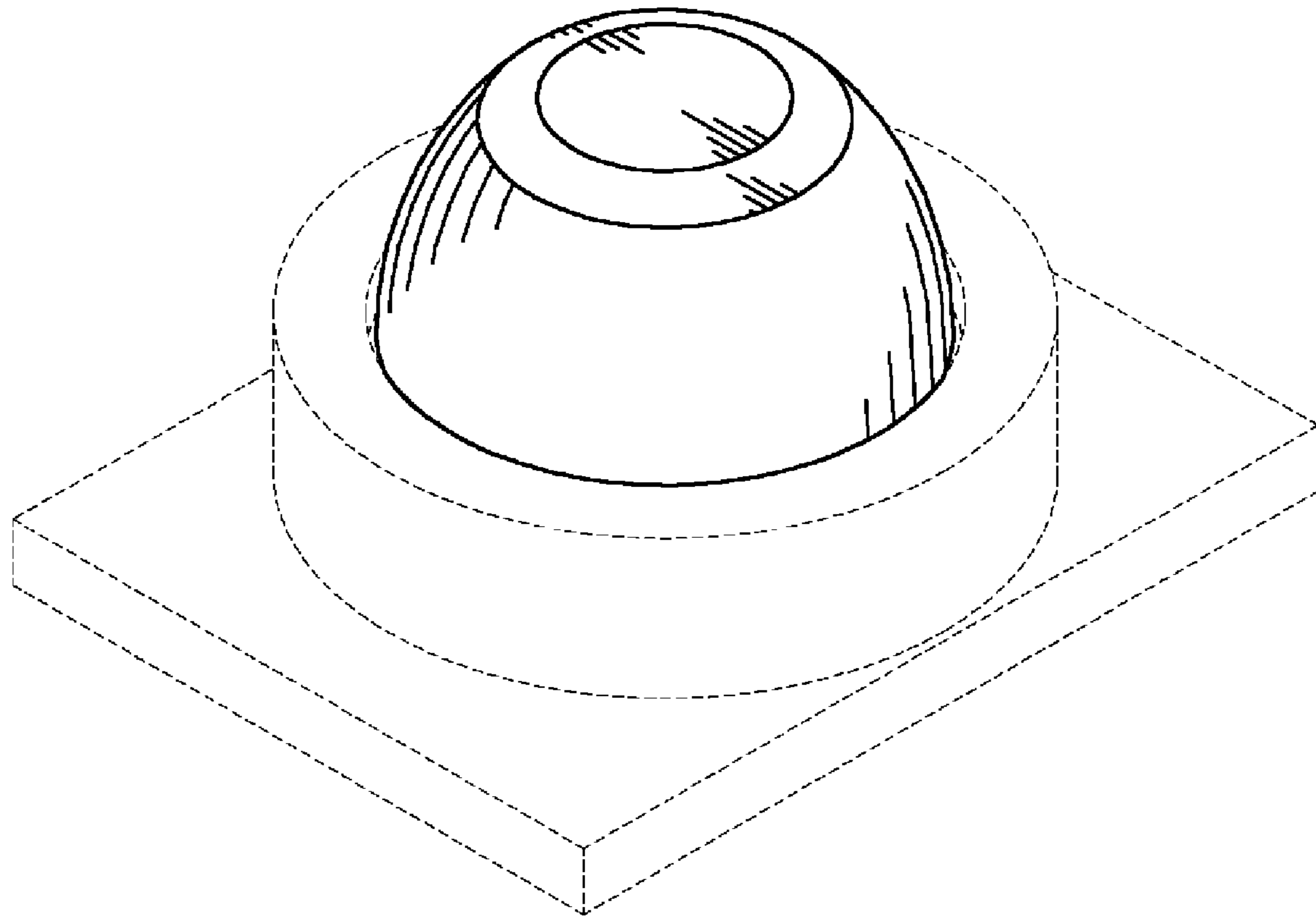


FIG. 6