



US00D903187S

(12) **United States Design Patent**
Merriam

(10) **Patent No.:** **US D903,187 S**

(45) **Date of Patent:** **** Nov. 24, 2020**

(54) **OPTICAL STRUCTURE**

(71) Applicant: **Eaton Intelligent Power Limited,**
Dublin (IE)

(72) Inventor: **Virginia Merriam,** Clay, NY (US)

(73) Assignee: **Eaton Intelligent Power Limited,**
Dublin (IE)

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

(21) Appl. No.: **29/678,154**

(22) Filed: **Jan. 25, 2019**

(51) **LOC (12) Cl.** **26-99**

(52) **U.S. Cl.**
USPC **D26/120; D26/122**

(58) **Field of Classification Search**
USPC D13/180; D24/1; D26/1, 24, 120, 122,
D26/123, 124
CPC ... H01L 25/167; H01L 25/0753; H01L 27/15;
H01L 27/156; H01L 31/02; H01L 33/00;
H01L 33/04; H01L 33/08; H01L 33/10;
H01L 33/20; H01L 33/38; H01L 33/42;
H01L 33/48; H01L 33/483; H01L 33/486;
F21K 9/00; F21V 5/002; F21V 5/02;
F21V 5/045; G02B 3/08
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D27,336 S *	7/1897	Ewen	D25/103
5,710,671 A	1/1998	Bichlmaier	
5,806,955 A	9/1998	Parkyn, Jr. et al.	
6,607,286 B2	8/2003	West et al.	
D528,226 S *	9/2006	Nagai	D26/1
D591,695 S *	5/2009	Oh	D13/180
7,674,018 B2	3/2010	Holder et al.	
7,686,481 B1	3/2010	Condon et al.	
D621,804 S *	8/2010	Sip	D13/180

7,874,703 B2	1/2011	Shastry et al.	
D634,883 S *	3/2011	Kim	D26/120
D636,925 S *	4/2011	Kawagoe	D26/120
D683,482 S *	5/2013	Bierhuizen	D13/180
D700,584 S *	3/2014	Bhat	D13/180
D715,991 S *	10/2014	Zhang	D26/120
D723,211 S *	2/2015	Hsu	D26/122
D735,400 S *	7/2015	Vasylyev	D26/120
D744,155 S *	11/2015	Radl	D26/120
D744,694 S *	12/2015	Goltche	D26/120
9,267,666 B2	2/2016	Takayama	
9,341,341 B1 *	5/2016	Wu	G02B 3/06
9,494,300 B2	11/2016	Takayama et al.	

(Continued)

FOREIGN PATENT DOCUMENTS

WO	1999009349	2/1999
WO	2015144990	10/2015

Primary Examiner — Selina Sikder

(74) *Attorney, Agent, or Firm* — Merchant & Gould P.C.

(57) **CLAIM**

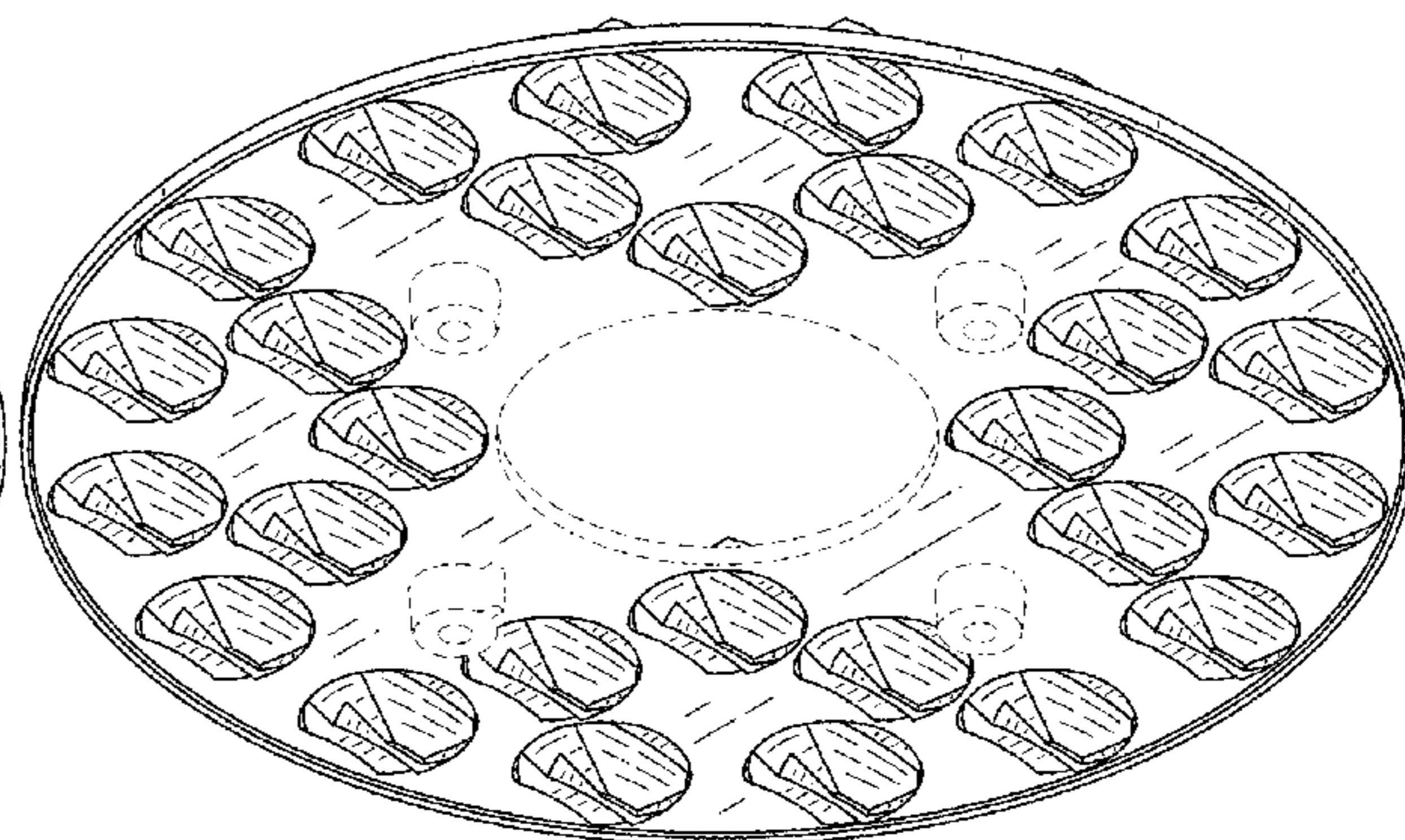
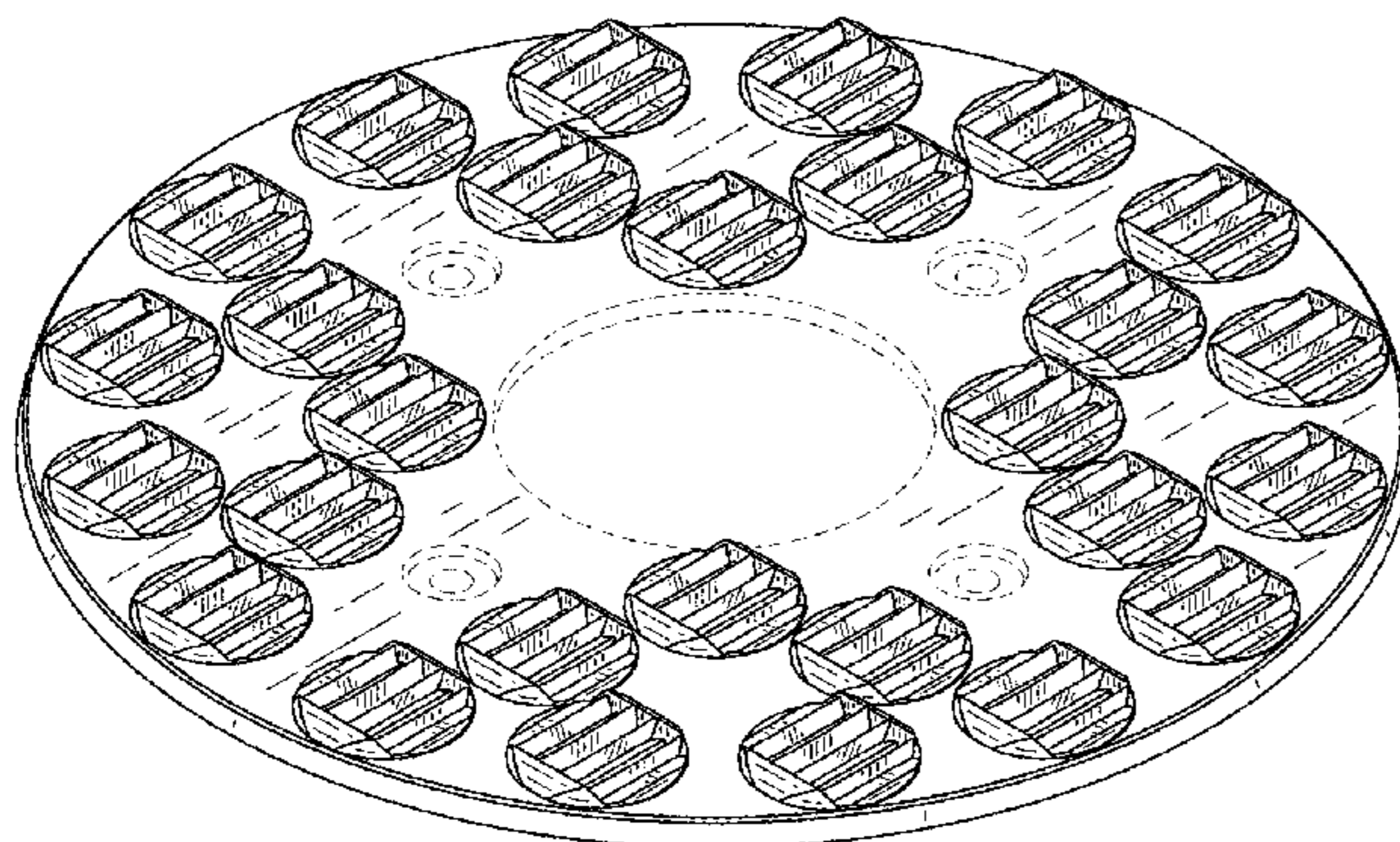
The ornamental design for an optical structure, as shown and described.

DESCRIPTION

FIG. 1 is a top perspective view of an exemplary optical structure according to the present disclosure; FIG. 2 is a bottom perspective view of the optical structure of FIG. 1; FIG. 3 is a top view of the optical structure of FIG. 1; FIG. 4 is a bottom view of the optical structure of FIG. 1; FIG. 5 is a first side view of the optical structure of FIG. 1; FIG. 6 is a second side view of the optical structure of FIG. 1 and rotated 90° from FIG. 5; and, FIG. 7 is a third side view of the optical structure of FIG. 1 and rotated 270° from FIG. 5.

The broken lines represent portions of the structure that form no part of the claim.

1 Claim, 6 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

9,534,761 B2 1/2017 Harada
 D779,709 S * 2/2017 Liu D26/120
 9,651,206 B2 5/2017 Vasta et al.
 9,689,554 B1 * 6/2017 Householder F21V 5/08
 9,732,933 B2 8/2017 Watanabe
 9,784,430 B2 10/2017 Shen et al.
 9,803,834 B2 10/2017 Beijer et al.
 9,810,403 B2 11/2017 Wang
 9,829,689 B2 11/2017 Hukkanen
 D809,188 S * 1/2018 Li D26/120
 D816,892 S * 5/2018 Wang D26/120
 D881,447 S * 4/2020 Hu D26/120
 2004/0105171 A1 6/2004 Minano et al.
 2004/0189933 A1 9/2004 Sun et al.
 2006/0109673 A1 5/2006 Godoy
 2009/0129084 A1 5/2009 Tsao
 2009/0279311 A1 * 11/2009 Yu F21V 5/045
 362/310
 2010/0134043 A1 * 6/2010 Kadotani H05B 45/40
 315/294
 2010/0246173 A1 9/2010 Wei et al.
 2011/0038151 A1 2/2011 Carraher et al.

2011/0228403 A1 * 9/2011 Masuda G02B 27/0018
 359/630
 2012/0140483 A1 * 6/2012 Chang F21V 5/045
 362/309
 2012/0211779 A1 * 8/2012 Yamamoto F21V 23/005
 257/89
 2014/0015405 A1 * 1/2014 Hsin H05K 1/0306
 315/71
 2015/0129910 A1 * 5/2015 Sekowski H05K 1/00
 257/91
 2016/0033689 A1 * 2/2016 Streppel G02B 5/0278
 257/98
 2016/0072030 A1 * 3/2016 Streppel G02B 27/0977
 257/98
 2016/0146426 A1 * 5/2016 Wu G02B 19/0066
 362/337
 2016/0348874 A1 12/2016 Aruga
 2017/0227190 A1 * 8/2017 Fujikawa F21V 5/006
 2017/0350573 A1 12/2017 Fleszewski et al.
 2018/0196167 A1 * 7/2018 Fujikawa B29C 39/24
 2018/0292071 A1 10/2018 Tarsa et al.
 2018/0306405 A1 * 10/2018 Kong H04N 5/2354
 2019/0204529 A1 * 7/2019 Yu G02B 19/0061
 2019/0305180 A1 * 10/2019 Lee F21V 5/045
 2020/0028037 A1 * 1/2020 Kumar H01L 25/0753

* cited by examiner

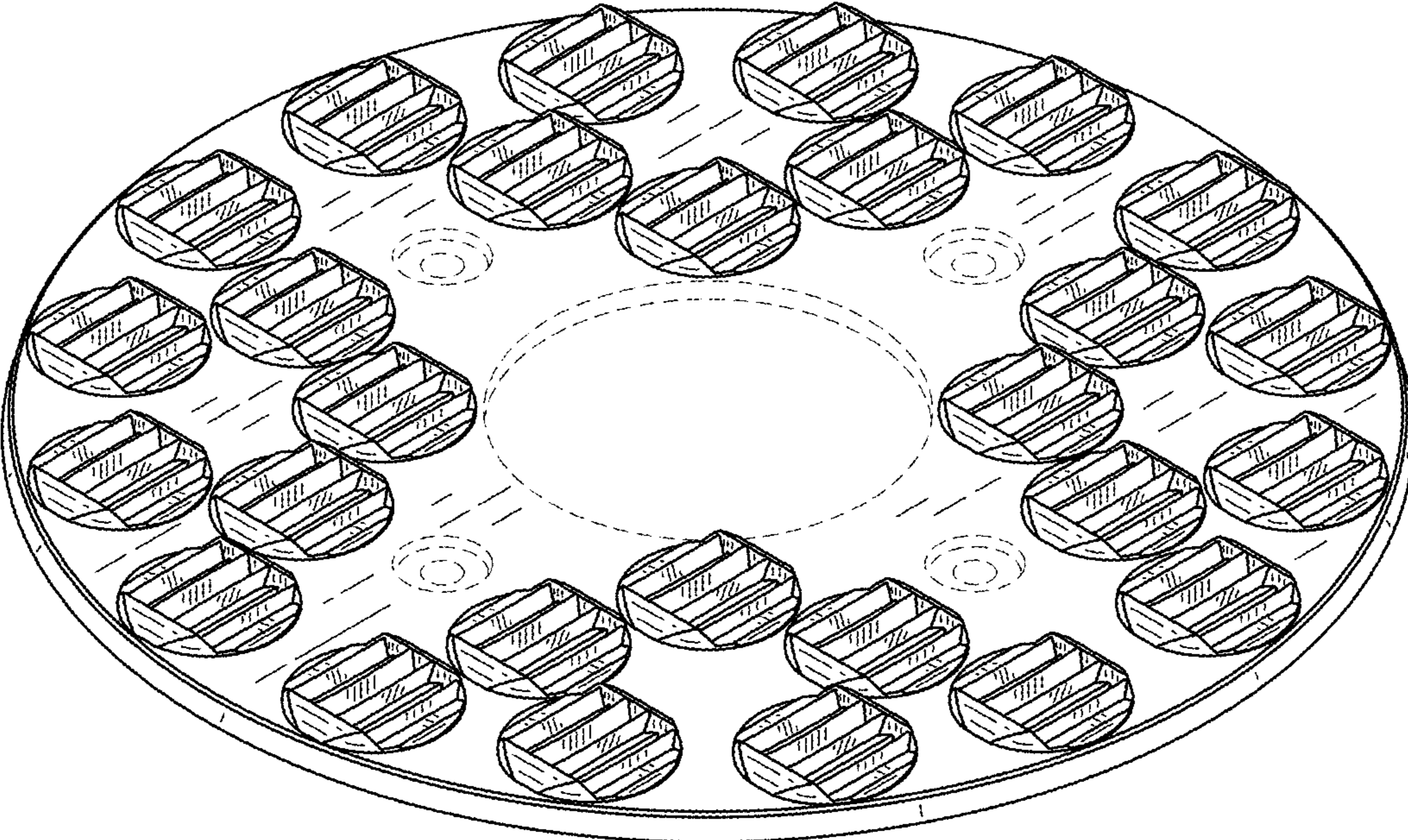


FIG.1

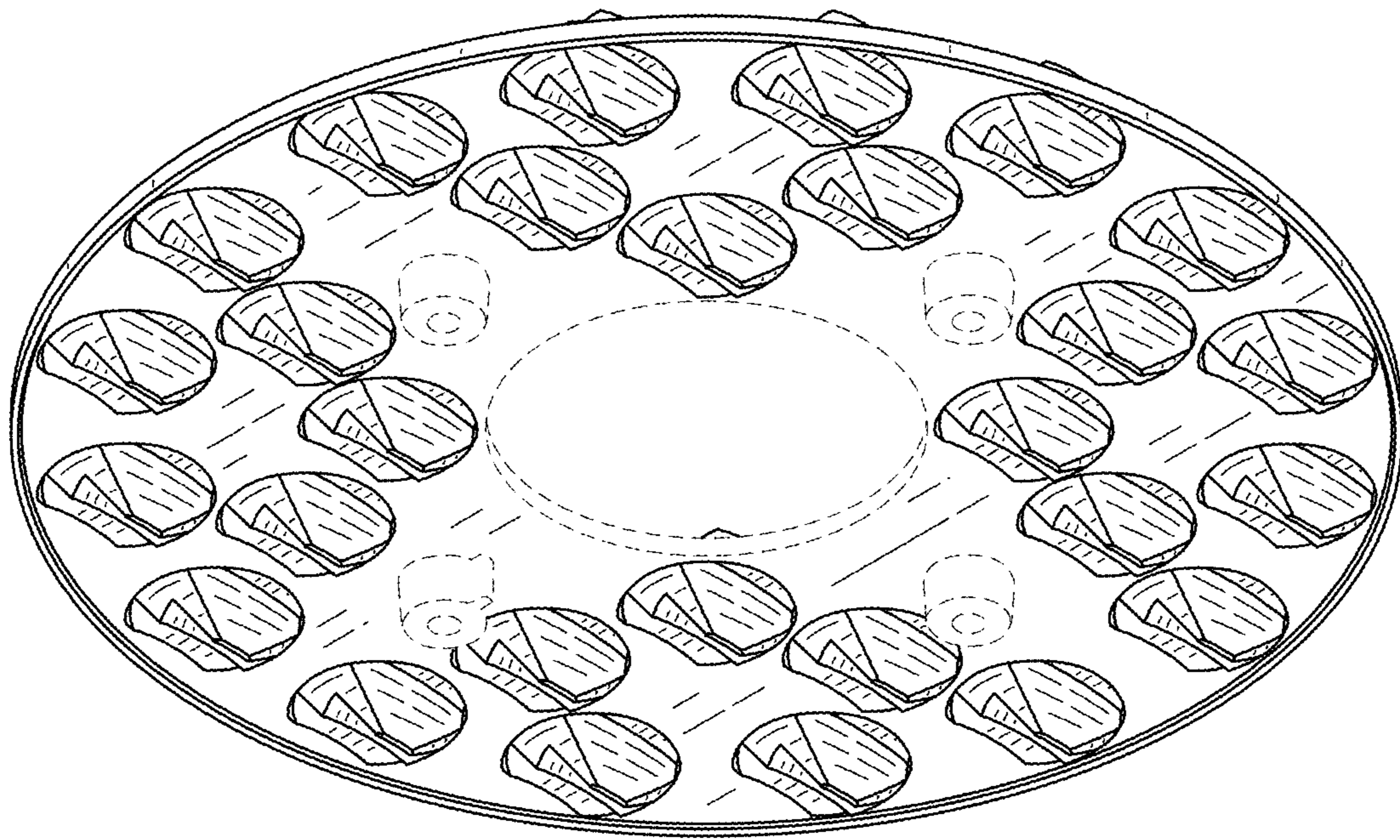


FIG.2

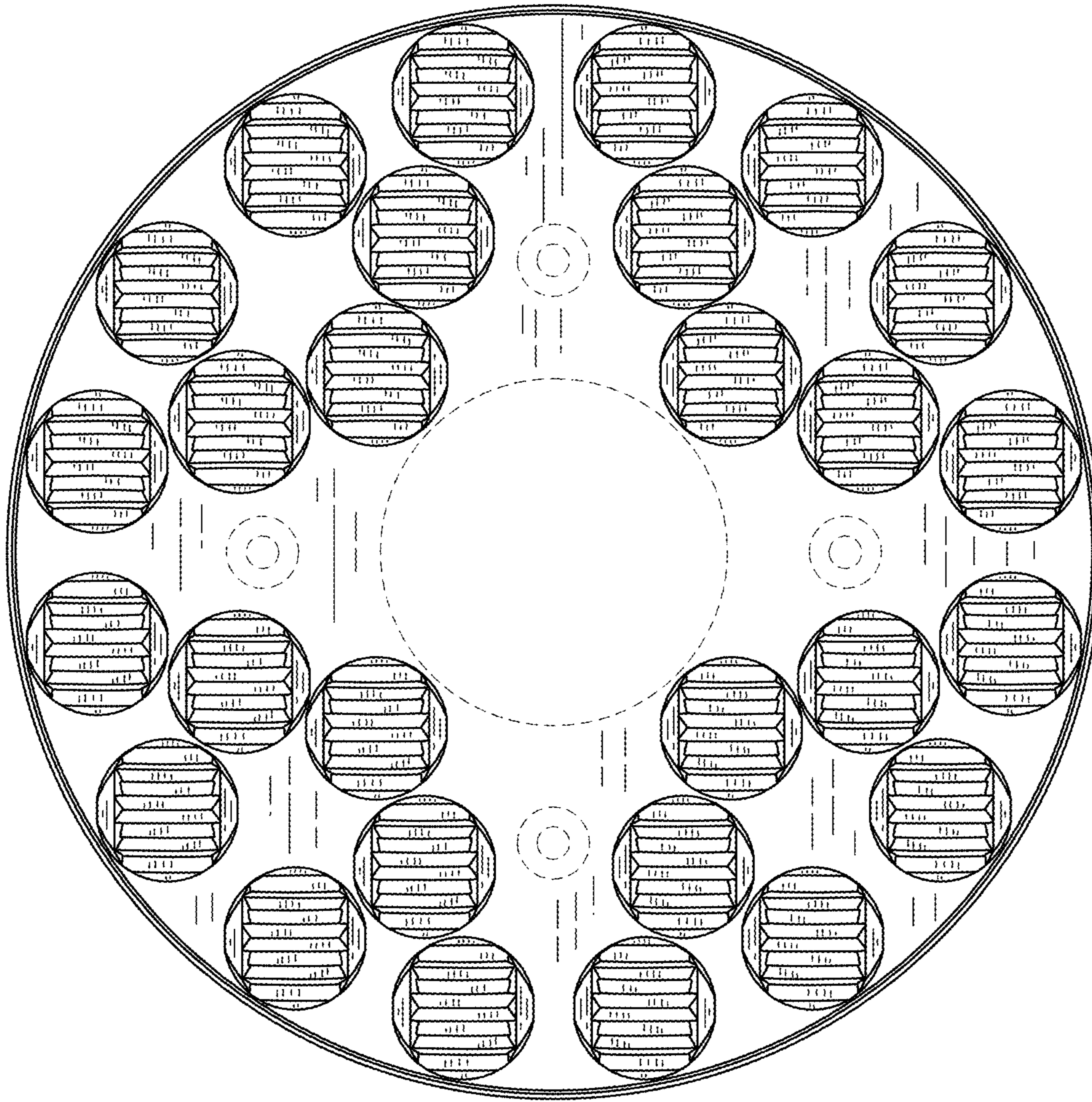


FIG.3

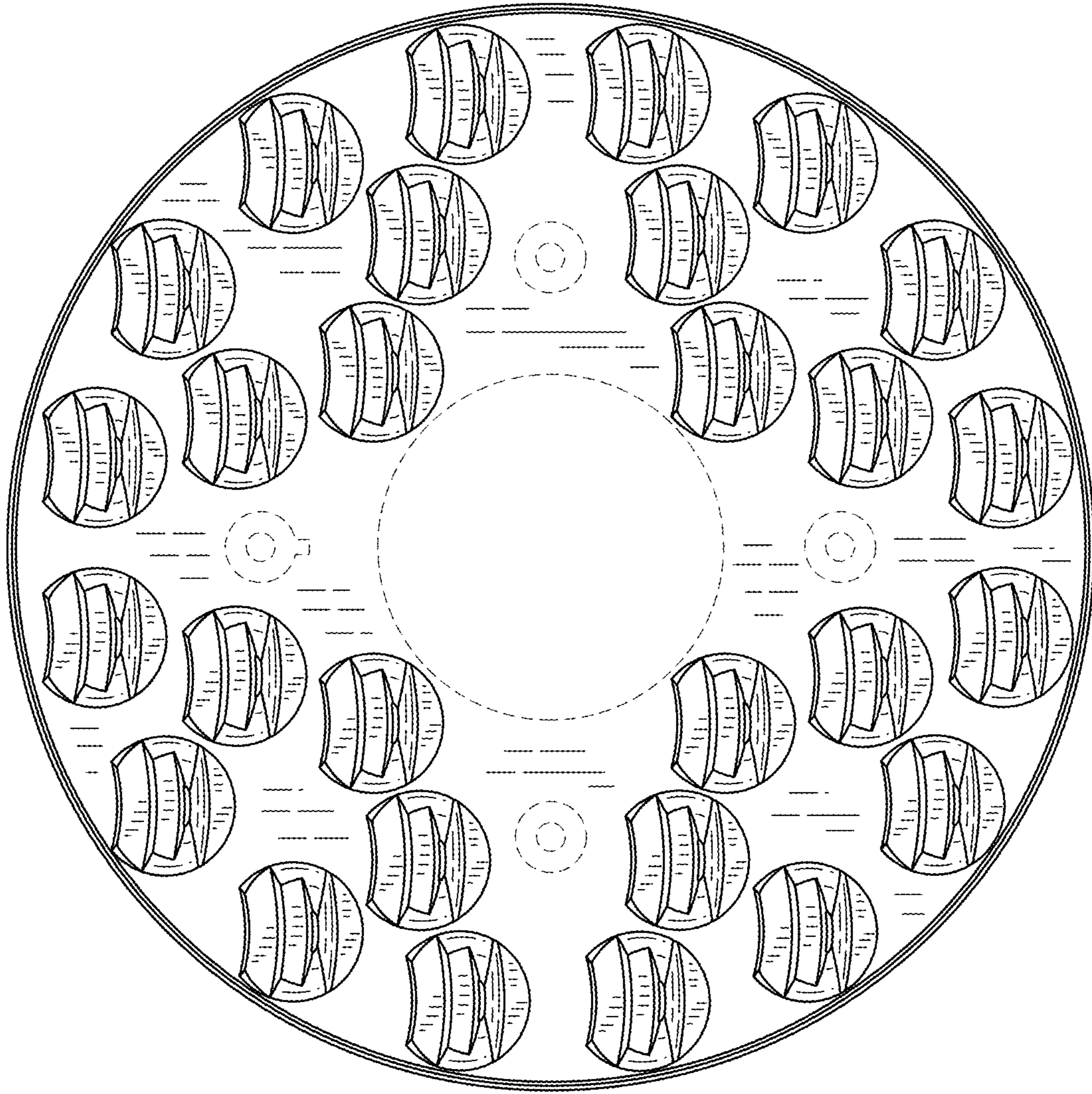


FIG.4



FIG.5

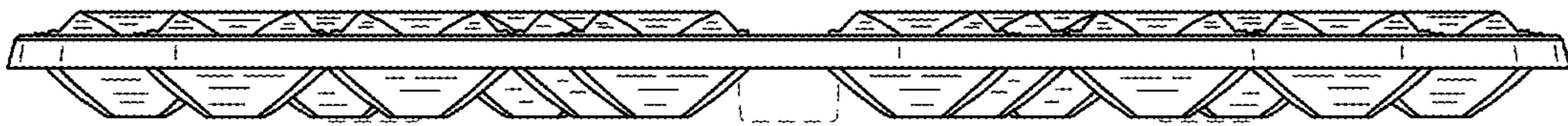


FIG. 6



FIG. 7