US00D674759S

(12) United States Design Patent

Chang et al.

(10) Patent No.: US D674,759 S
(45) Date of Patent: ** Jan. 22, 2013

(54) **WAFER CARRIER**

(75) Inventors: **Chung-Ying Chang**, Hsinchu (TW); **Tzu-Ching Yang**, Hsinchu (TW); **Chia-Sheng Chang**, Hsinchu (TW)

(73) Assignee: **Epistar Corporation**, Hsinchu (TW)

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

(21) Appl. No.: **29/385,727**

(22) Filed: **Feb. 18, 2011**
(Under 37 CFR 1.47)

(30) **Foreign Application Priority Data**

Aug. 19, 2010 (CN) 2010 3 0290123

(51) **LOC (9) Cl.** **13-03**
(52) **U.S. Cl.** **D13/182**
(58) **Field of Classification Search** D13/182; 118/500, 728, 729; 156/345.53; 279/128; 361/234; 451/287, 288, 289
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,731,435 A * 5/1973 Boettcher et al. 451/288
(Continued)

Primary Examiner — Selina Sikder
(74) *Attorney, Agent, or Firm* — Morris Manning & Martin LLP; Tim Tingkang Xia, Esq.

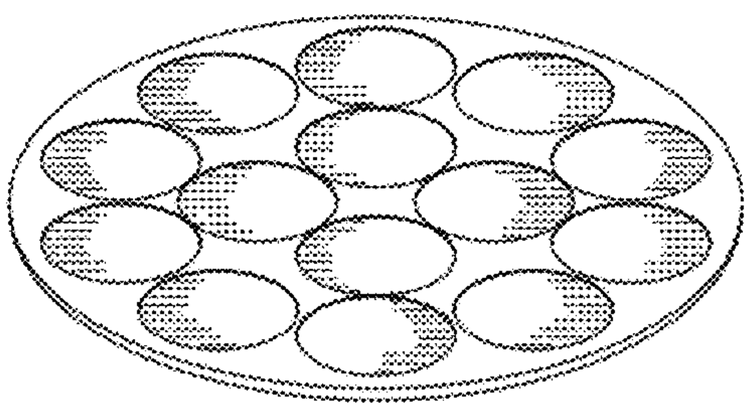
(57) **CLAIM**

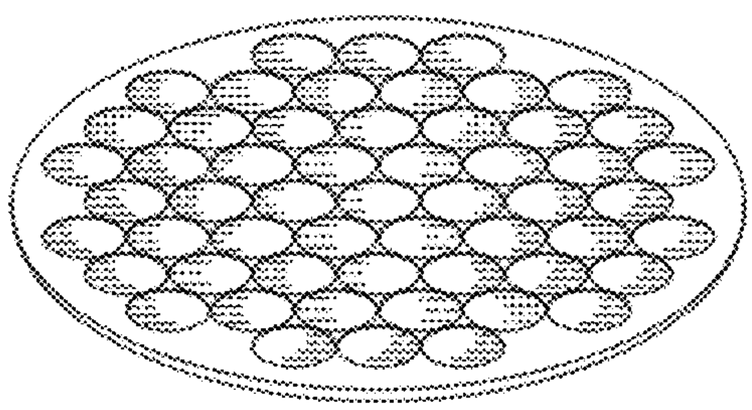
The ornamental design for a "wafer carrier," as shown and described.

DESCRIPTION

FIG. **1** is a perspective view of the first embodiment showing the claimed design;
FIG. **2** is a front elevational view of FIG. **1**;
FIG. **3** is a rear elevational view of FIG. **1**;
FIG. **4** is a right side elevational view of FIG. **1**, which is a mirror image of the left side elevational view;
FIG. **5** is a bottom plan view of FIG. **1**, which is a mirror image of the top plan view;
FIG. **6** is a perspective view of the second embodiment showing the claimed design;
FIG. **7** is a front elevational view of FIG. **6**;
FIG. **8** is a rear elevational view of FIG. **6**;
FIG. **9** is a right side elevational view of FIG. **6**, which is a mirror image of the left side elevational view;
FIG. **10** is a bottom plan view of FIG. **6**, which is a mirror image of the top plan view;
FIG. **11** is a perspective view of the third embodiment showing the claimed design;
FIG. **12** is a front elevational view of FIG. **11**;
FIG. **13** is a rear elevational view of FIG. **11**;
FIG. **14** is a right side elevational view of FIG. **11**, which is a mirror image of the left side elevational view;
FIG. **15** is a bottom plan view of FIG. **11**, which is a mirror image of the top plan view;
FIG. **16** is a perspective view of the fourth embodiment showing the claimed design;
FIG. **17** is a front elevational view of FIG. **16**;
FIG. **18** is a rear elevational view of FIG. **16**;
FIG. **19** is a right side elevational view of FIG. **16**, which is a mirror image of the left side elevational view;
FIG. **20** is a bottom plan view of FIG. **16**, which is a mirror image of the top plan view;
FIG. **21** is a perspective view of the fifth embodiment showing the claimed design;
FIG. **22** is a front elevational view of FIG. **21**;
FIG. **23** is a rear elevational view of FIG. **21**;
FIG. **24** is a right side elevational view of FIG. **21**, which is a mirror image of the left side elevational view;
FIG. **25** is a bottom plan view of FIG. **21**, which is a mirror image of the top plan view;
FIG. **26** is a perspective view of the sixth embodiment showing the claimed design;
FIG. **27** is a front elevational view of FIG. **26**;
FIG. **28** is a rear elevational view of FIG. **26**;
FIG. **29** is a right side elevational view of FIG. **26**, which is a mirror image of the left side elevational view; and,
FIG. **30** is a bottom plan view of FIG. **26**, which is a mirror image of the top plan view.

1 Claim, 18 Drawing Sheets





U.S. PATENT DOCUMENTS

4,165,584	A *	8/1979	Scherrer	451/289
5,191,738	A *	3/1993	Nakazato et al.	451/41
5,422,316	A *	6/1995	Desai et al.	438/693
6,315,649	B1 *	11/2001	Hu et al.	451/285
6,500,059	B2 *	12/2002	Chang et al.	451/388
6,666,948	B2 *	12/2003	Nguyen	156/345.12
6,988,942	B2 *	1/2006	Chen et al.	451/533
7,235,139	B2 *	6/2007	Boguslavskiy et al.	118/728
D546,784	S *	7/2007	Hayashi	D13/182
D548,705	S *	8/2007	Hayashi	D13/182
D552,565	S *	10/2007	Nakamura et al.	D13/182
8,177,993	B2 *	5/2012	Seah et al.	216/83
8,182,315	B2 *	5/2012	Nguyen	451/72
2002/0027762	A1 *	3/2002	Yamaguchi	361/234
2003/0057089	A1 *	3/2003	Nguyen	204/298.15
2004/0179323	A1 *	9/2004	Litman et al.	361/234
2009/0247057	A1 *	10/2009	Kobayashi et al.	451/287

* cited by examiner

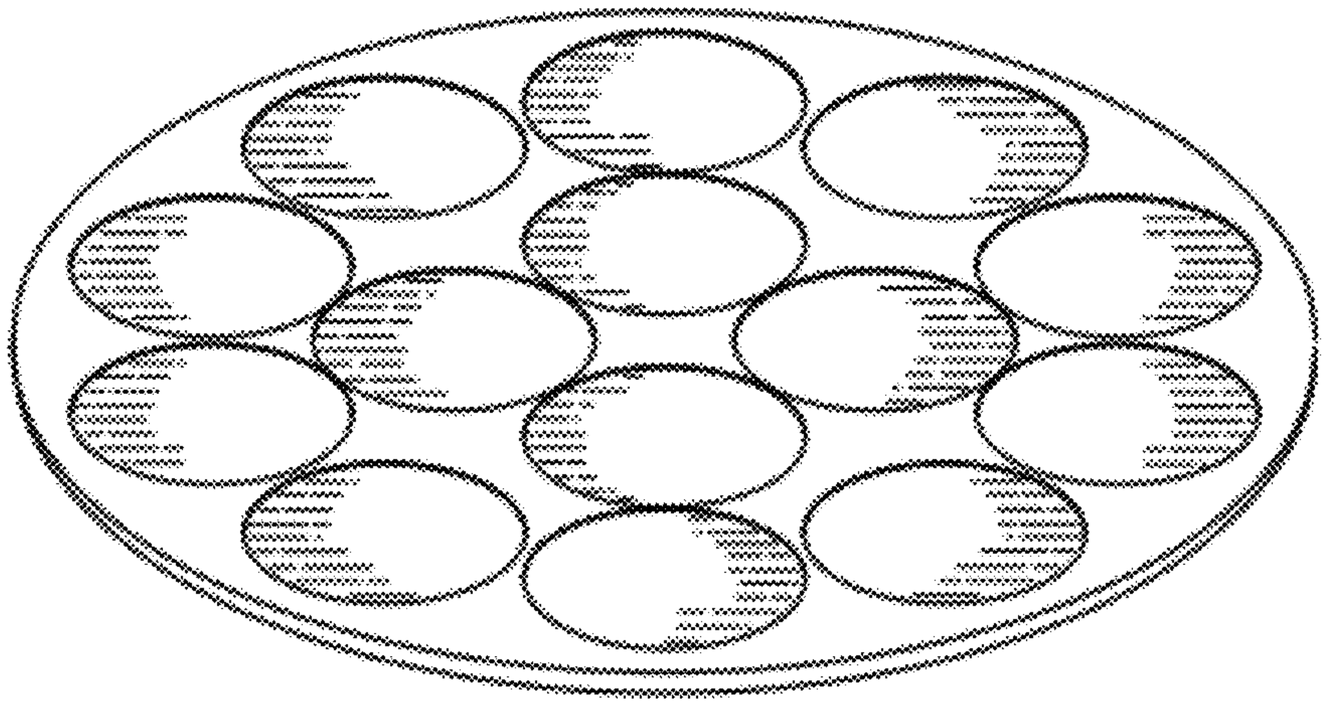


FIG.1

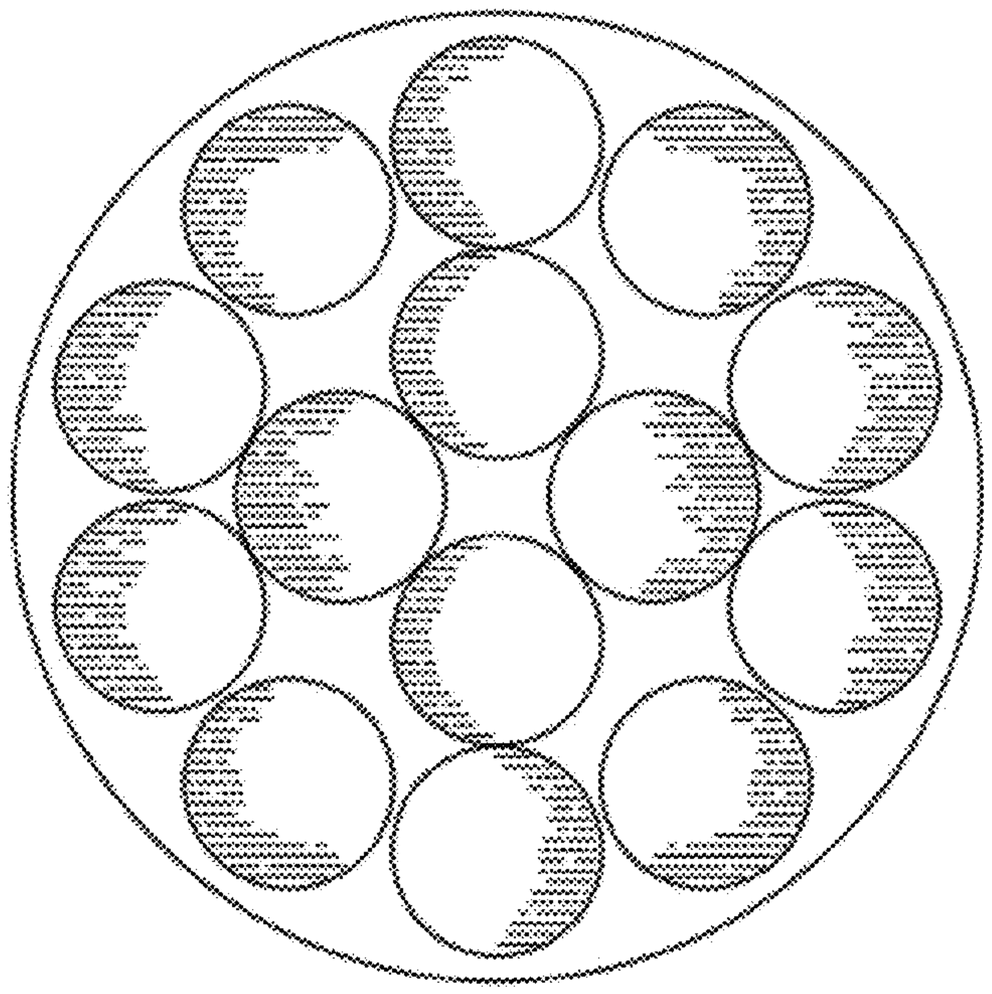


FIG.2

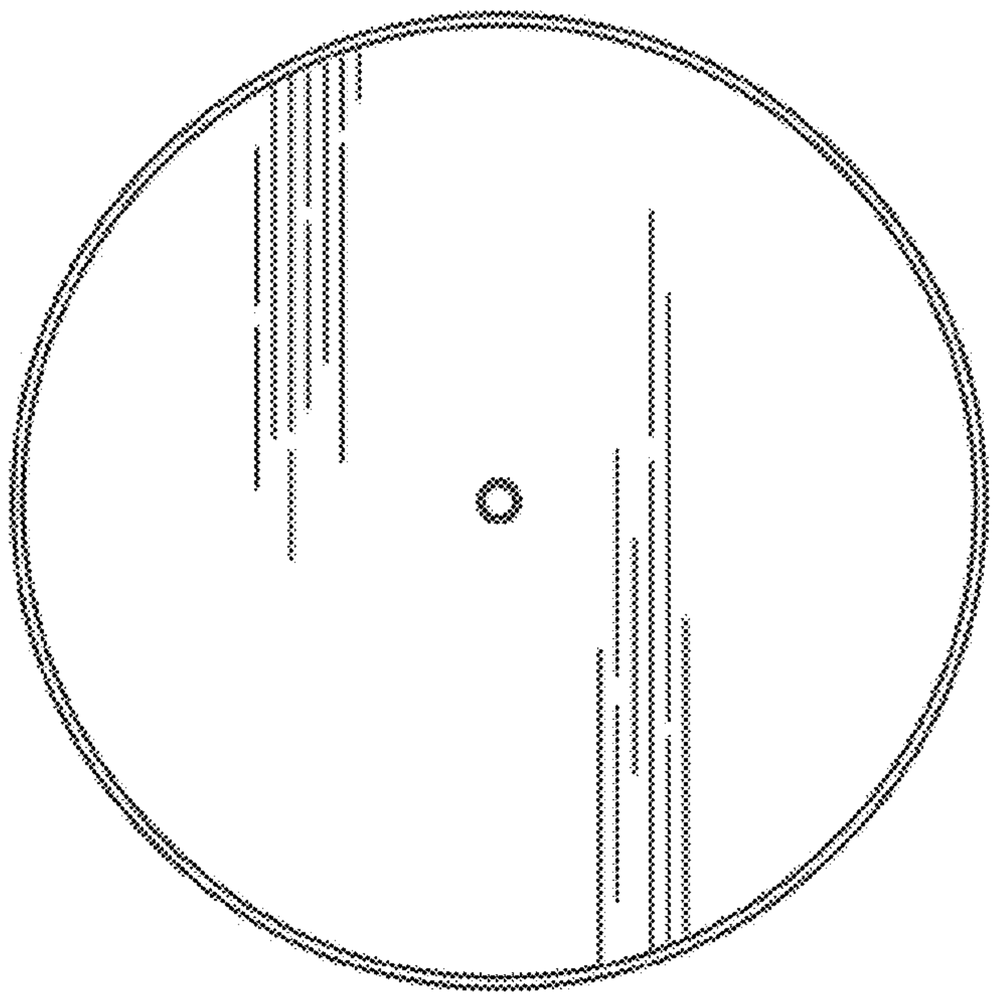


FIG.3

FIG.4

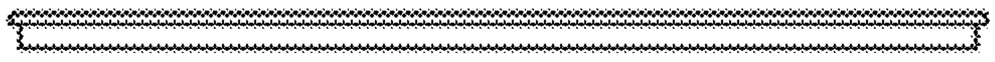


FIG.5

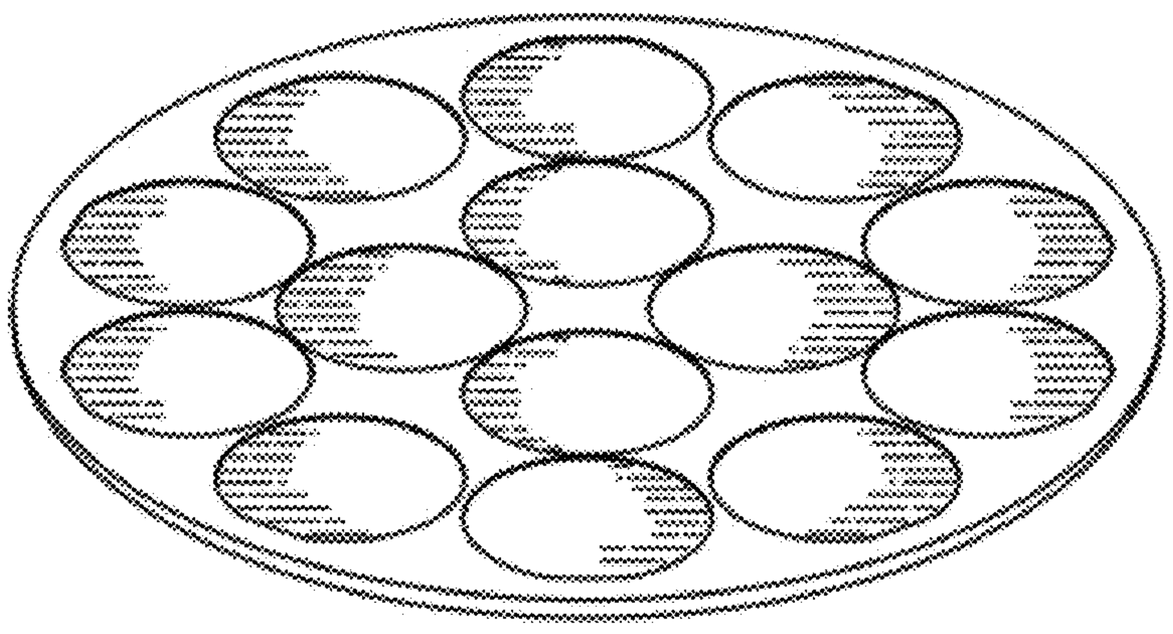


FIG.6

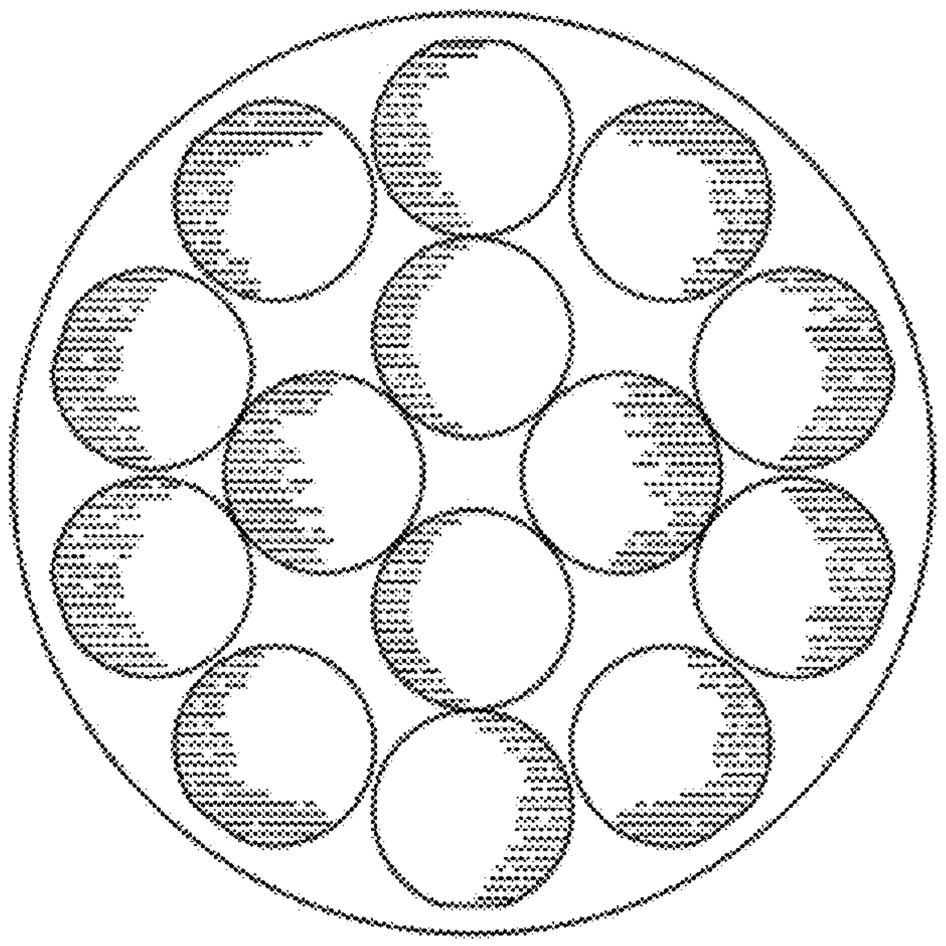


FIG.7

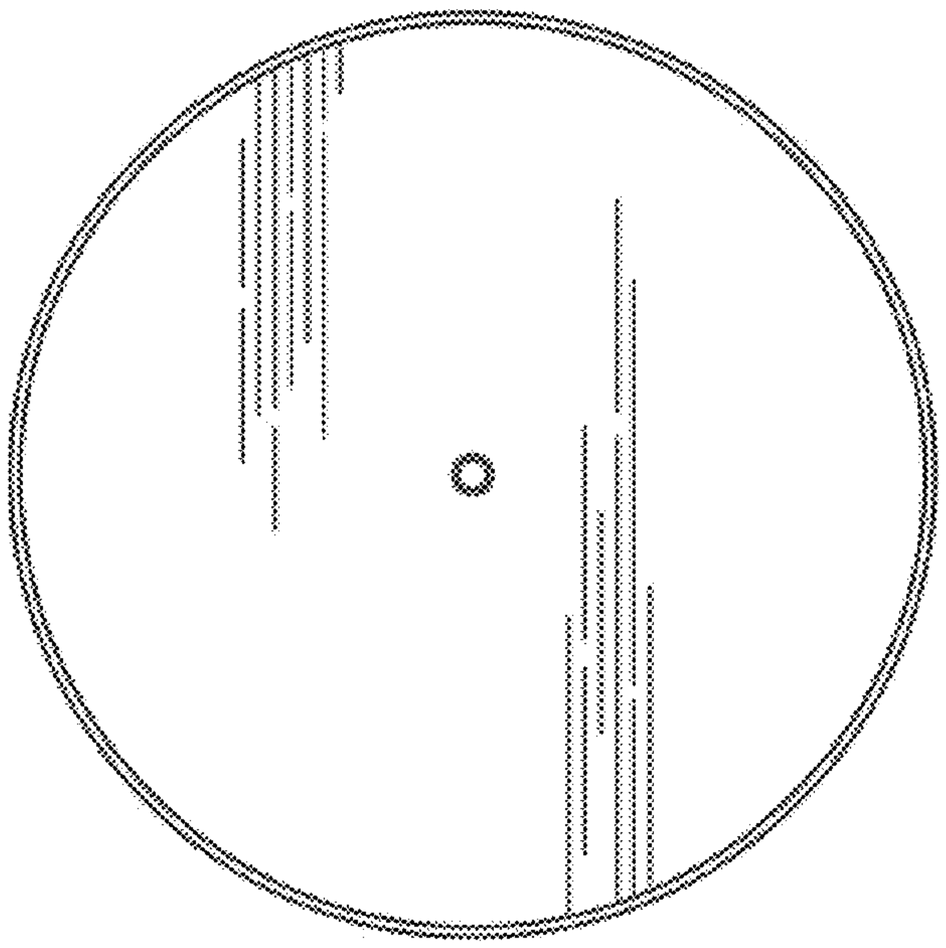
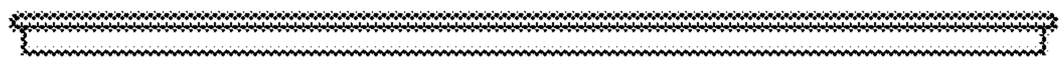


FIG.8

FIG.9



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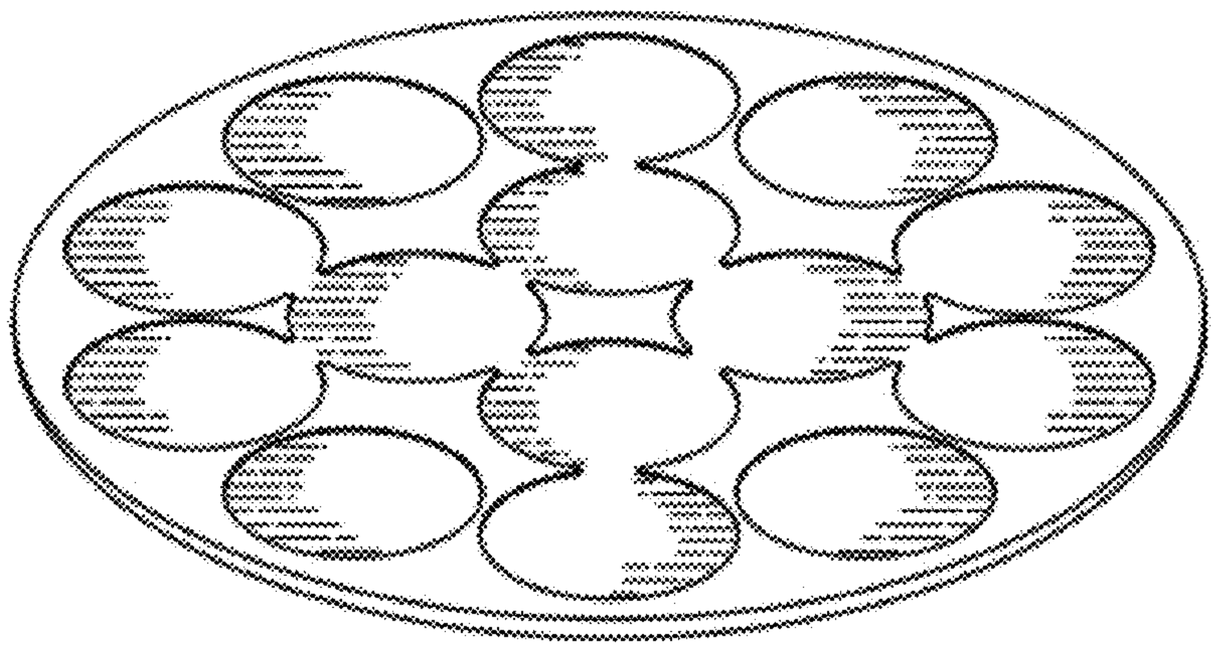

FIG.11

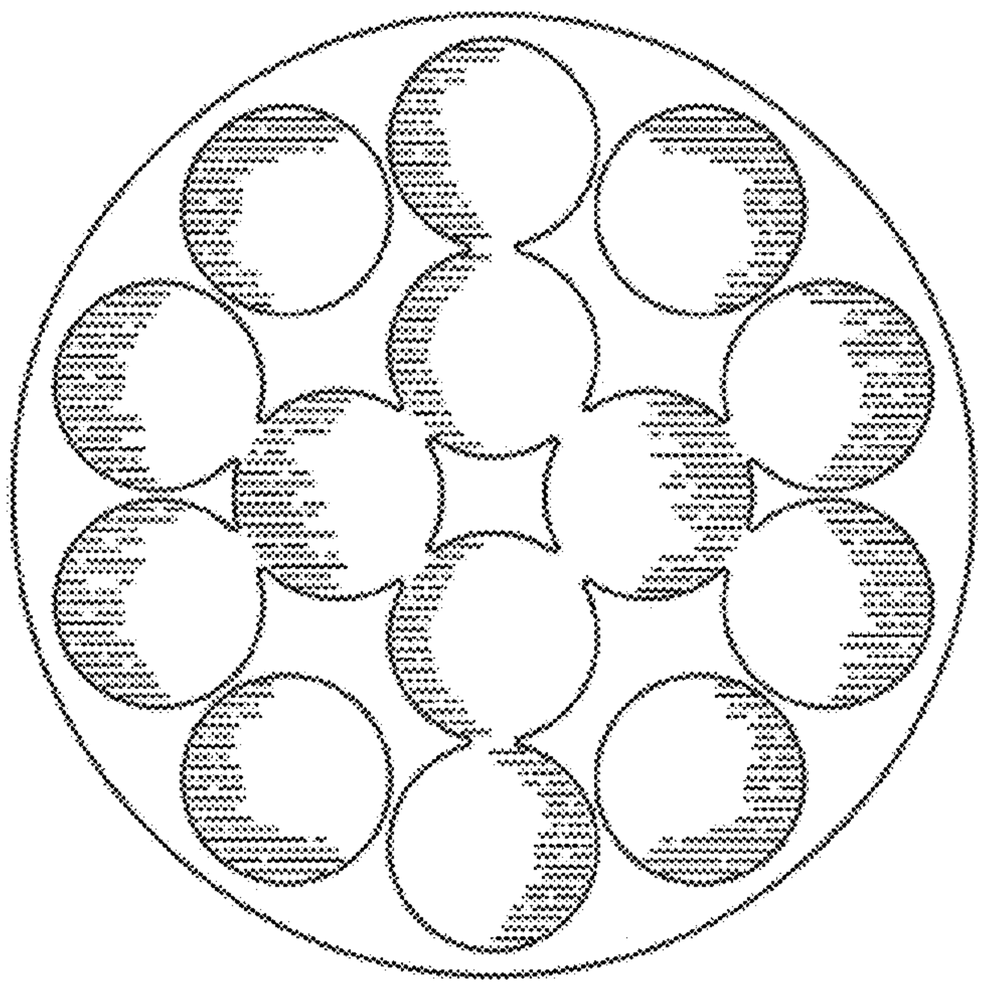

FIG.12

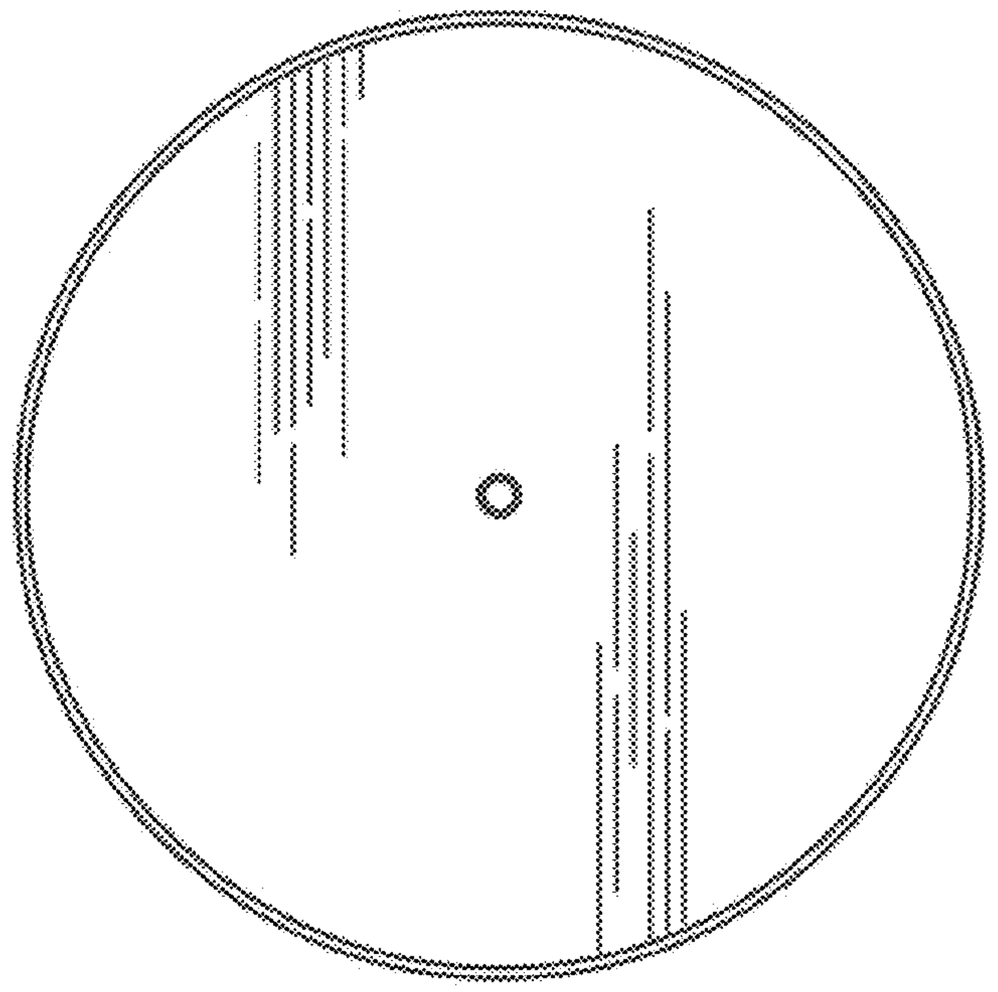

FIG.13

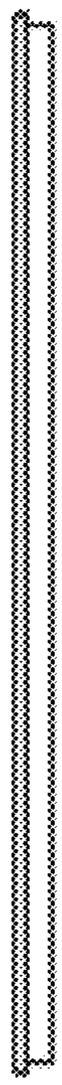

FIG.14

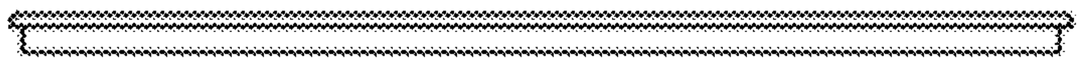

FIG.15

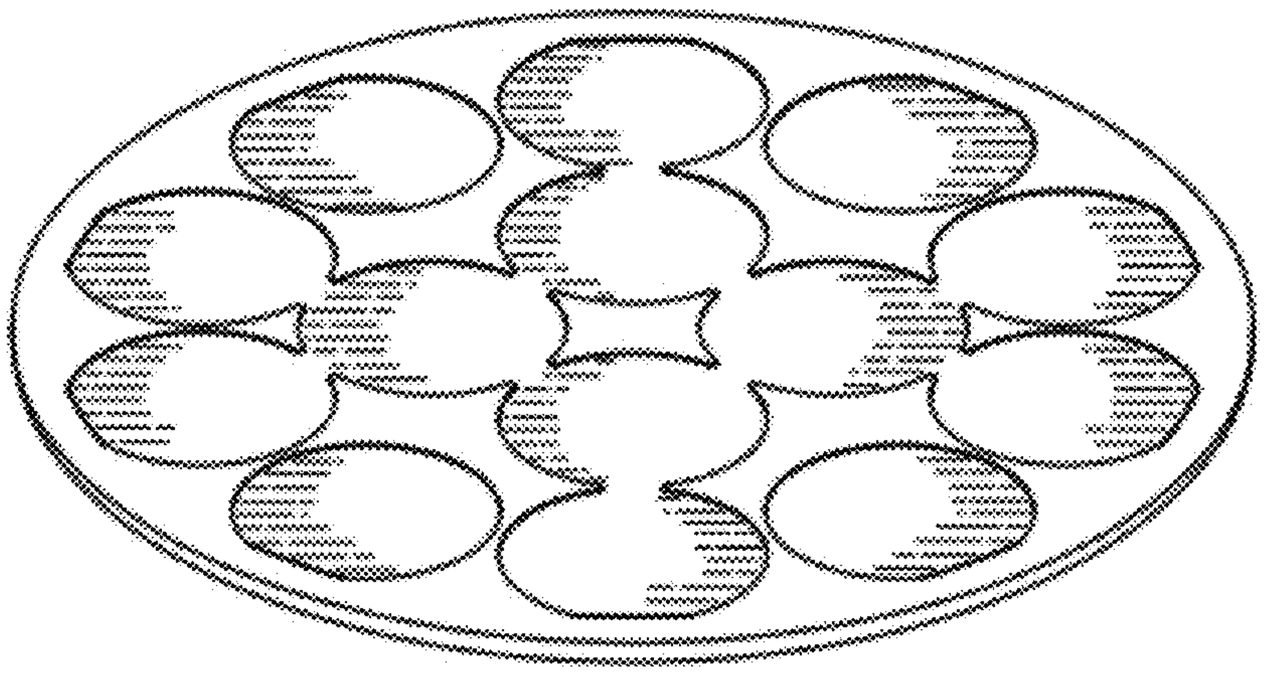

FIG.16

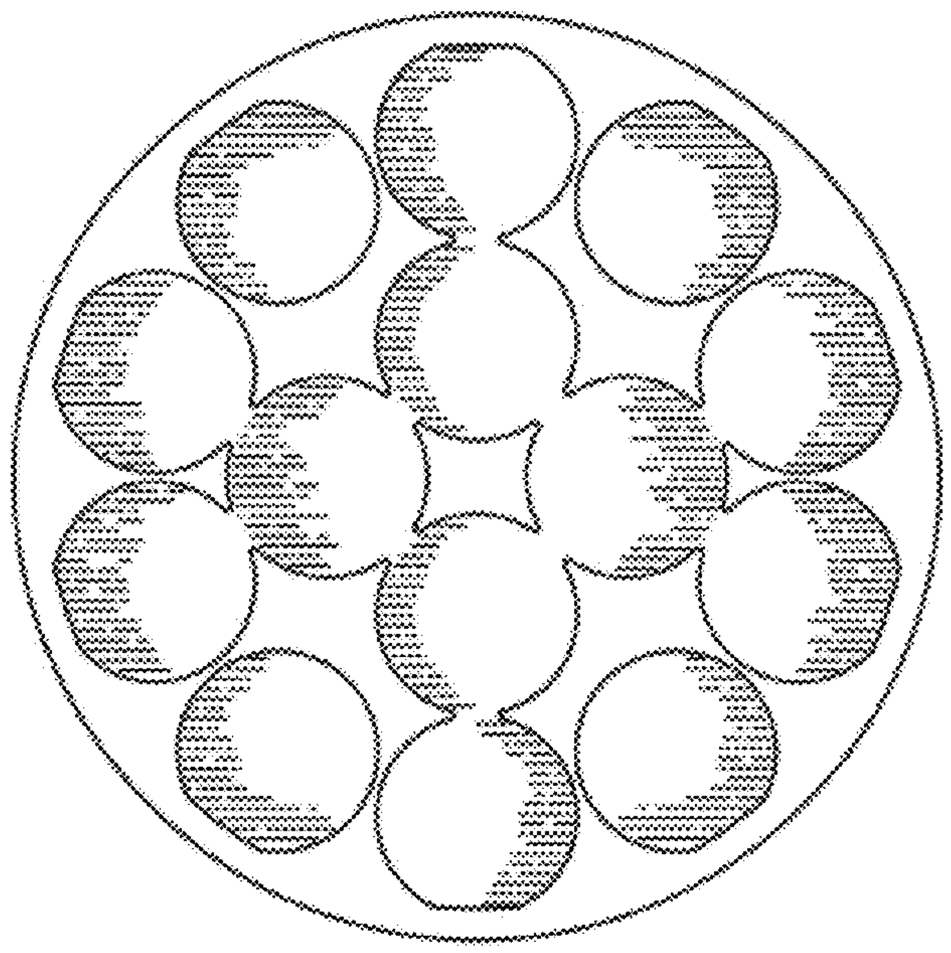

FIG.17

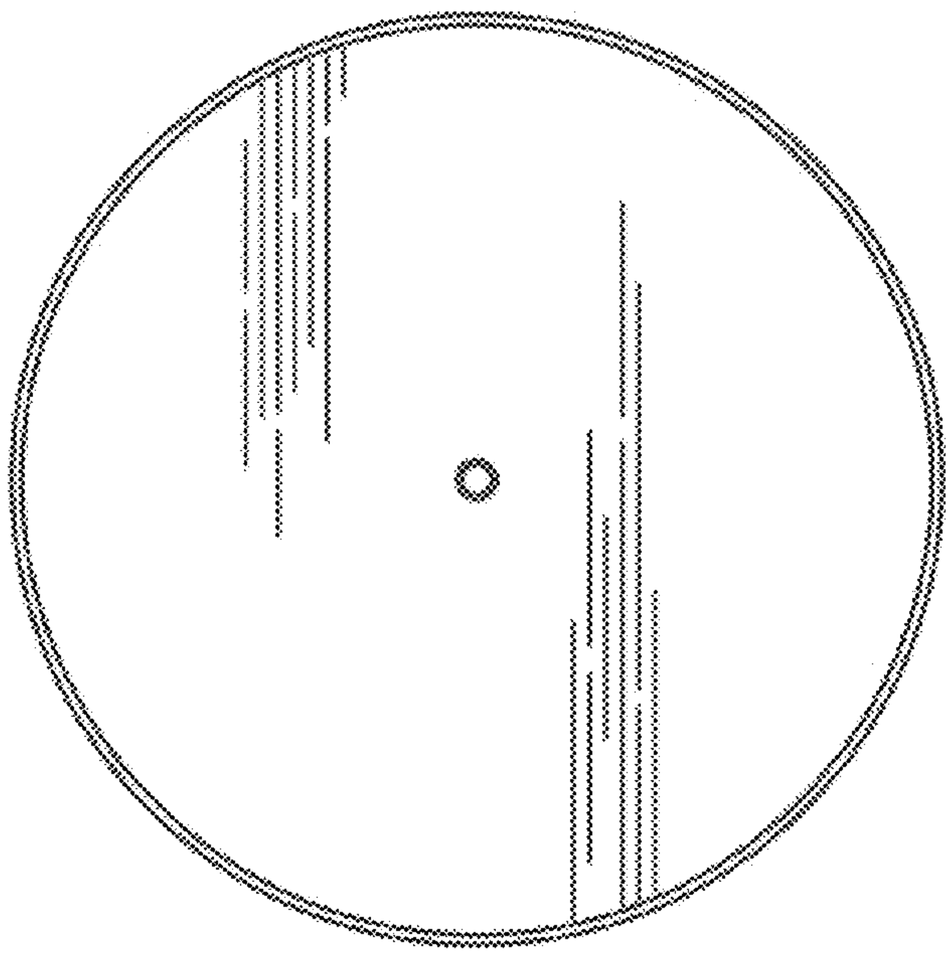

FIG.18

FIG.19

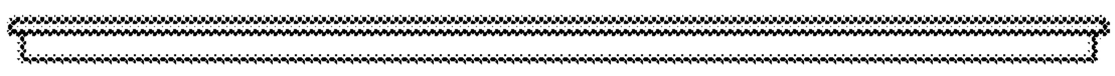

FIG.20

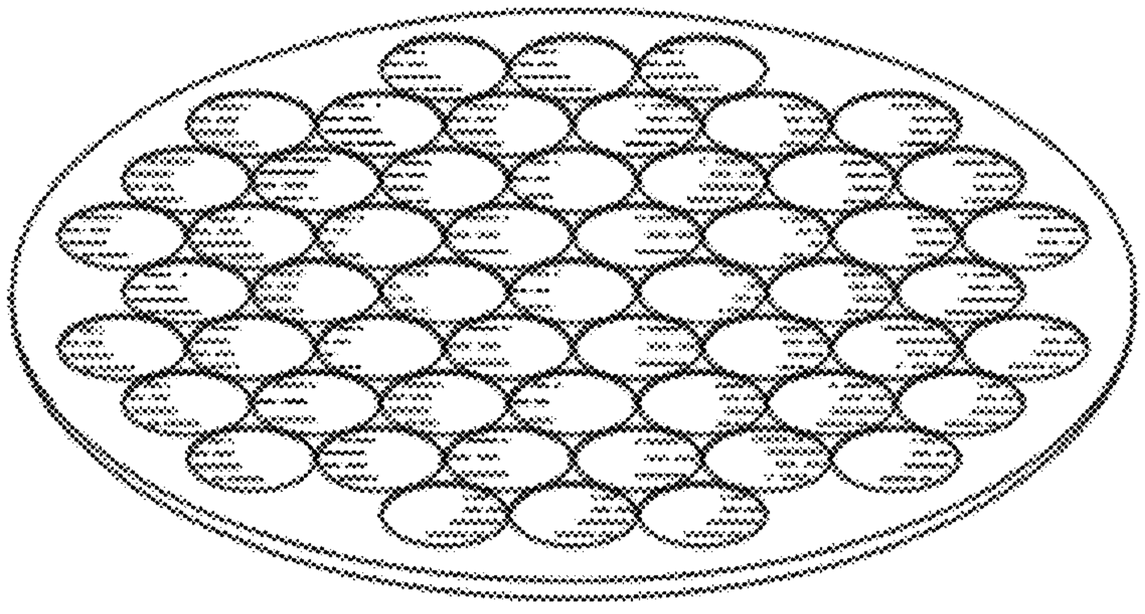

FIG.21

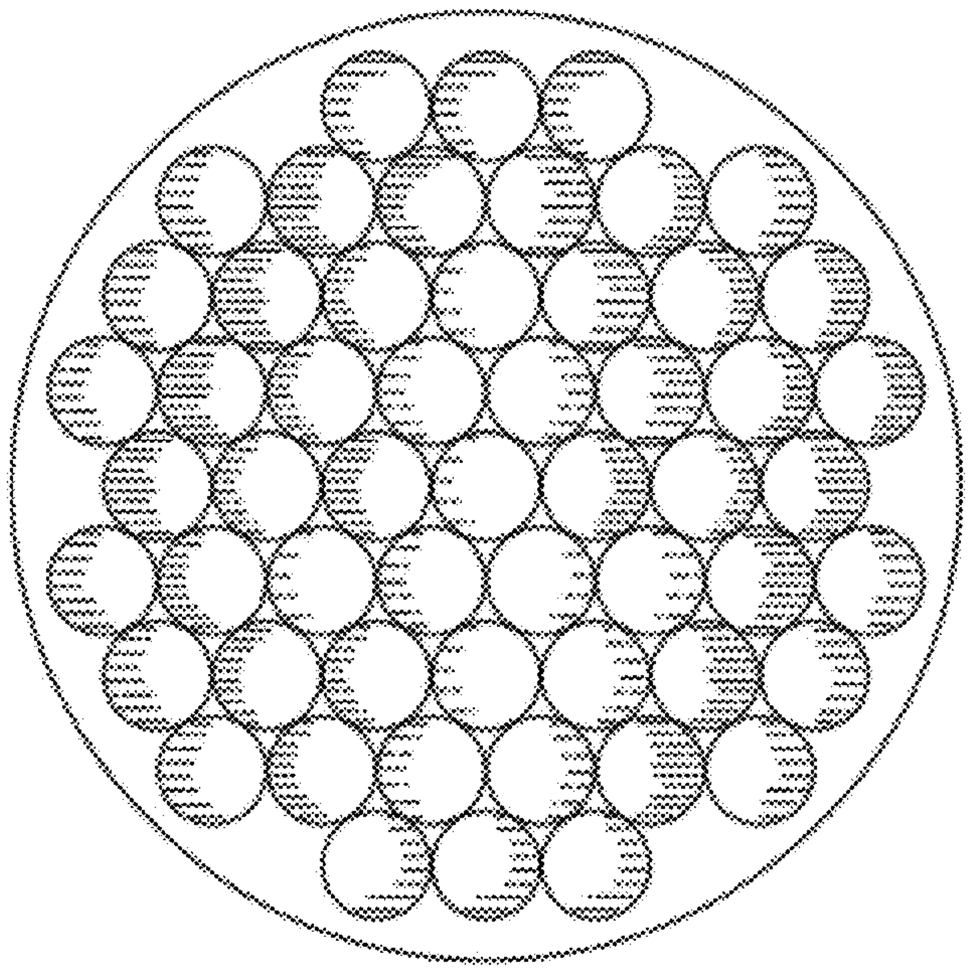

FIG.22

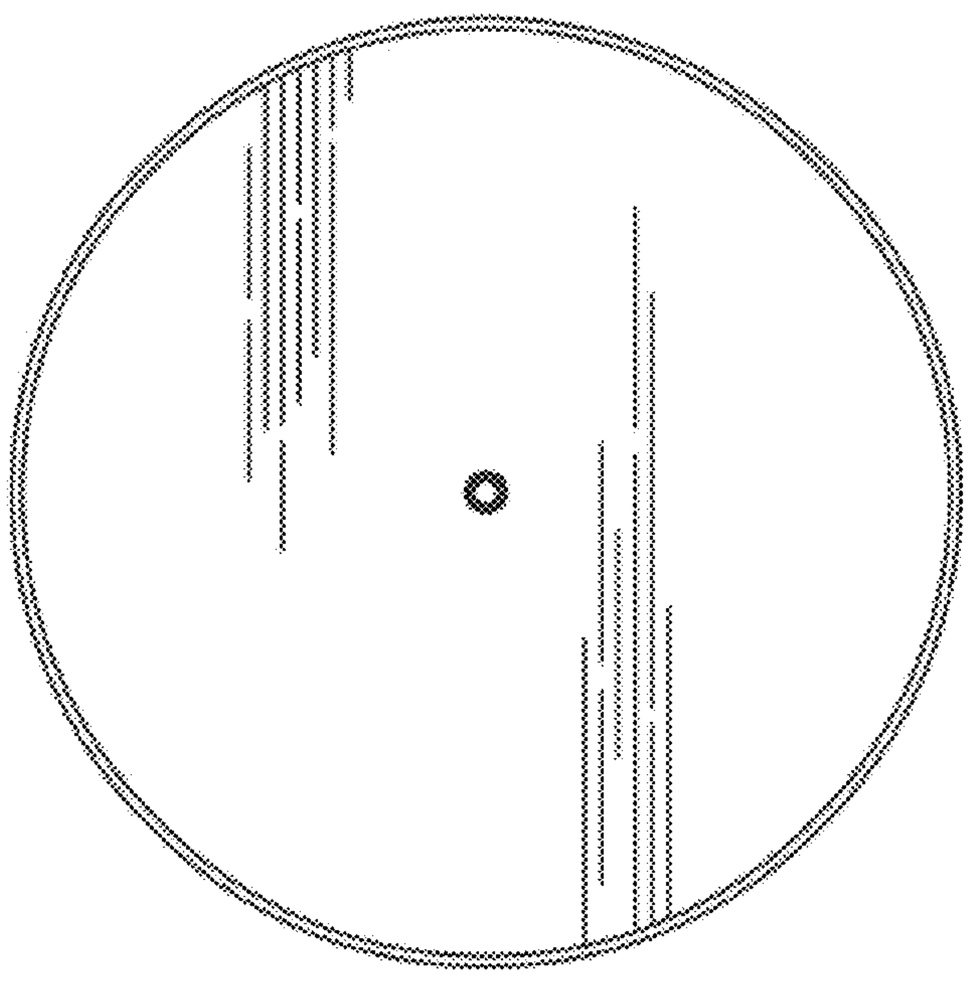

FIG.23

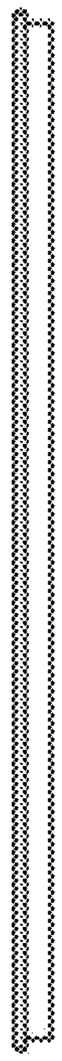

FIG.24

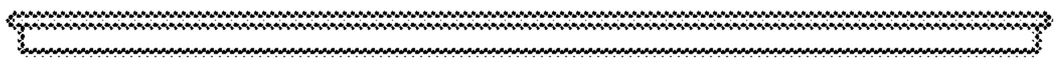

FIG.25

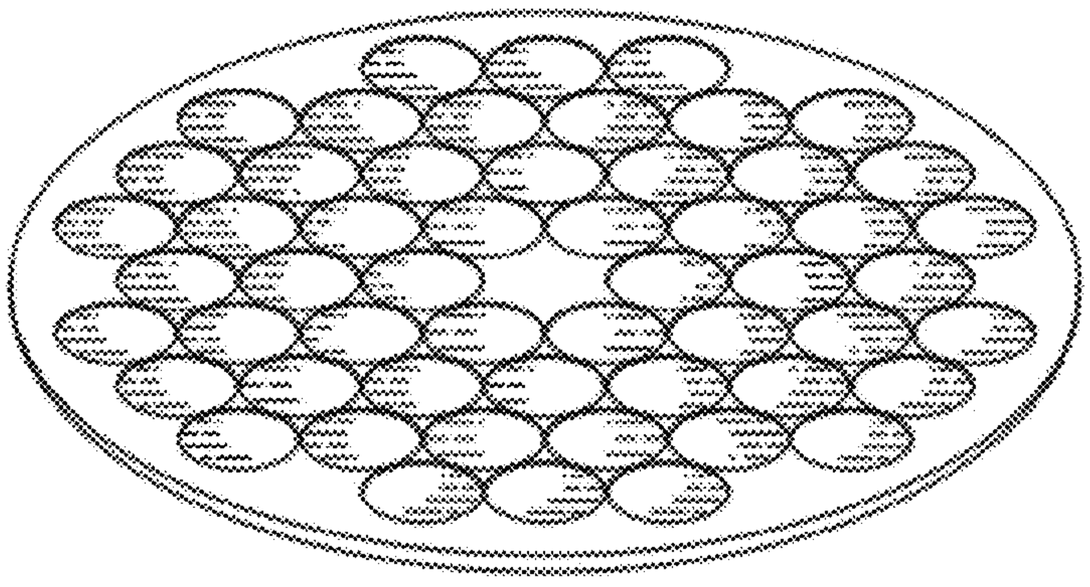

FIG.26

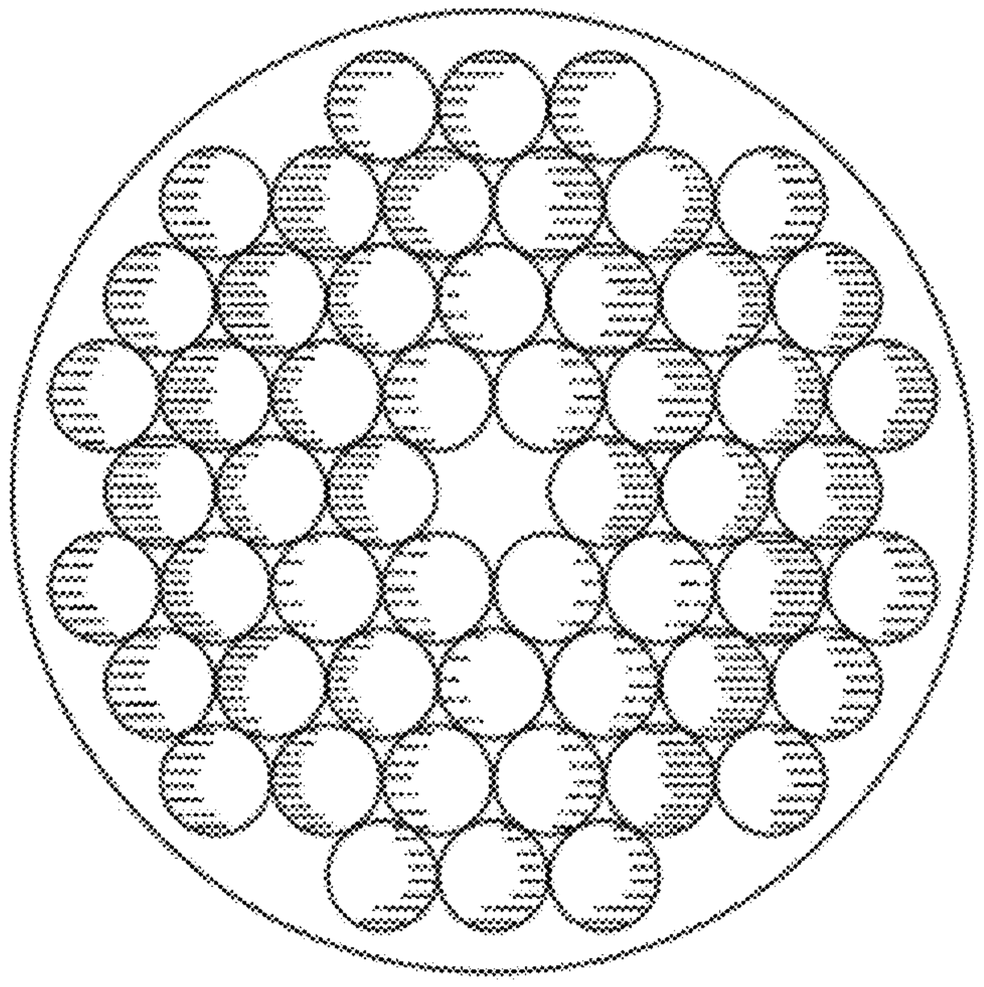

FIG.27

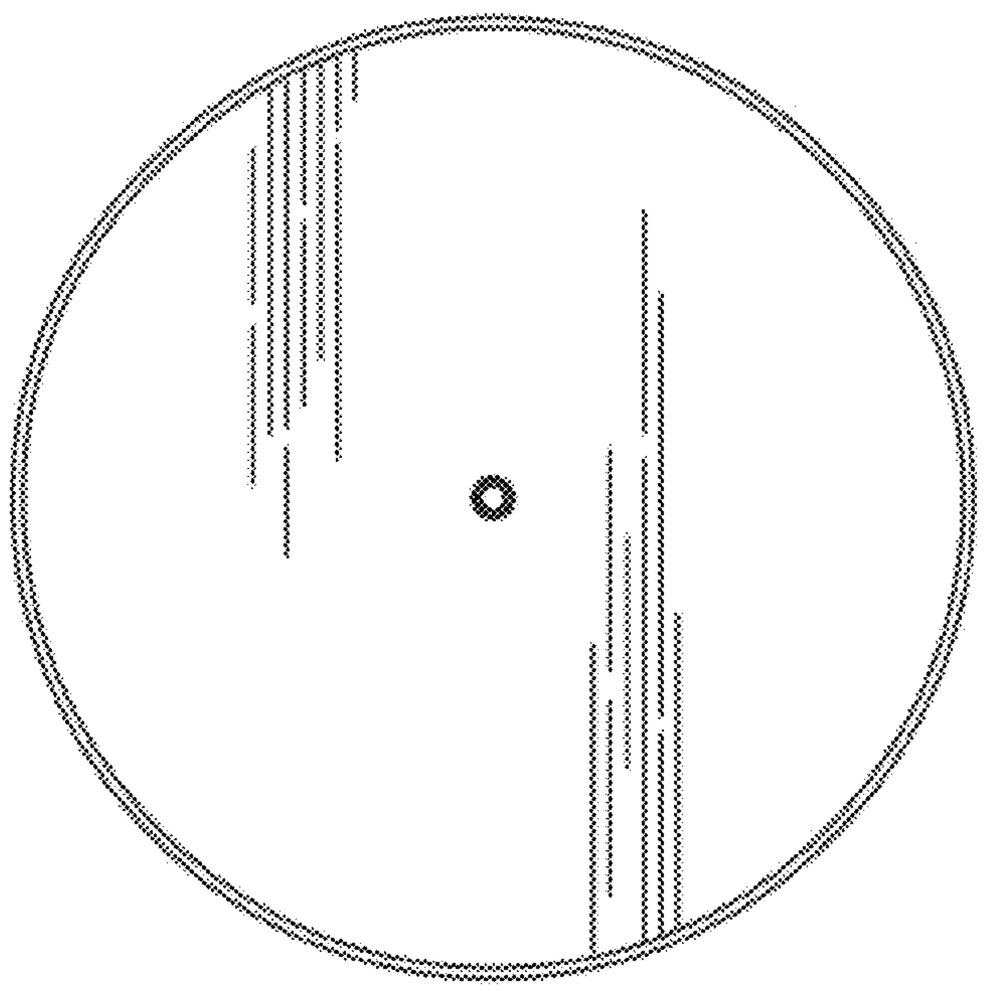

FIG.28

FIG.29

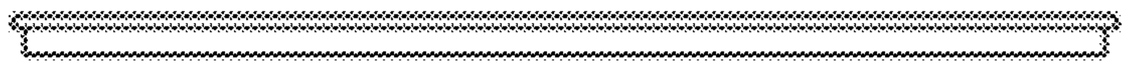

FIG.30