US00D716742S

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

(10) **Patent No.: US D716,742 S**
(45) **Date of Patent: ** Nov. 4, 2014**

(54) **SUBSTRATE SUPPORTER FOR SEMICONDUCTOR DEPOSITION APPARATUS**

(71) Applicant: **ASM IP Holding B.V.**, Almere (NL)

(72) Inventors: **Hyun Soo Jang**, Daejeon (KR); **Dae Youn Kim**, Daejeon (KR); **Jeong Ho Lee**, Seoul (KR); **Seung Seob Lee**, Seoul (KR); **Hak Yong Kwon**, Osan-si (KR)

(73) Assignee: **ASM IP Holding B.V.**, Almere (NL)

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

(21) Appl. No.: **29/484,670**

(22) Filed: **Mar. 12, 2014**

(30) **Foreign Application Priority Data**

Sep. 13, 2013 (KR) 30-2013-0047450

(51) **LOC (10) Cl.** **13-03**

(52) **U.S. Cl.**
USPC **D13/182**

(58) **Field of Classification Search**
USPC D13/182; 118/500, 715, 728, 729; 156/345.51, 345.52, 345.53, 345.55; 279/128; 361/234; 414/217, 220.01, 414/416.03, 935, 936, 937, 938, 939, 940, 414/941
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,078,565	A	*	2/1963	Sanders	29/527.6
D320,361	S	*	10/1991	Karasawa	D10/103
D363,464	S	*	10/1995	Fukasawa	D13/182
D411,516	S	*	6/1999	Imafuku et al.	D13/182
D544,452	S	*	6/2007	Nakamura et al.	D13/182
D546,784	S	*	7/2007	Hayashi	D13/182
D548,705	S	*	8/2007	Hayashi	D13/182
D600,660	S	*	9/2009	Sato	D13/182
D606,952	S	*	12/2009	Lee et al.	D13/182
D609,652	S	*	2/2010	Nagasaka et al.	D13/182
D614,593	S	*	4/2010	Lee et al.	D13/182
D649,126	S	*	11/2011	Takahashi	D13/182
D651,991	S	*	1/2012	Nishiguchi et al.	D13/182
D651,992	S	*	1/2012	Nishiguchi et al.	D13/182
D654,883	S	*	2/2012	Honma et al.	D13/182
D654,884	S	*	2/2012	Honma et al.	D13/182
D655,257	S	*	3/2012	Honma et al.	D13/182
D655,259	S	*	3/2012	Honma et al.	D13/182
D674,759	S	*	1/2013	Chang et al.	D13/182
D686,582	S	*	7/2013	Krishnan et al.	D13/182
D690,671	S	*	10/2013	Gurary et al.	D13/182

(Continued)

FOREIGN PATENT DOCUMENTS

KR	3020090000444	4/2009

Primary Examiner — Elizabeth J Oswecki

(74) *Attorney, Agent, or Firm* — Lexyoume IP Meister, PLLC

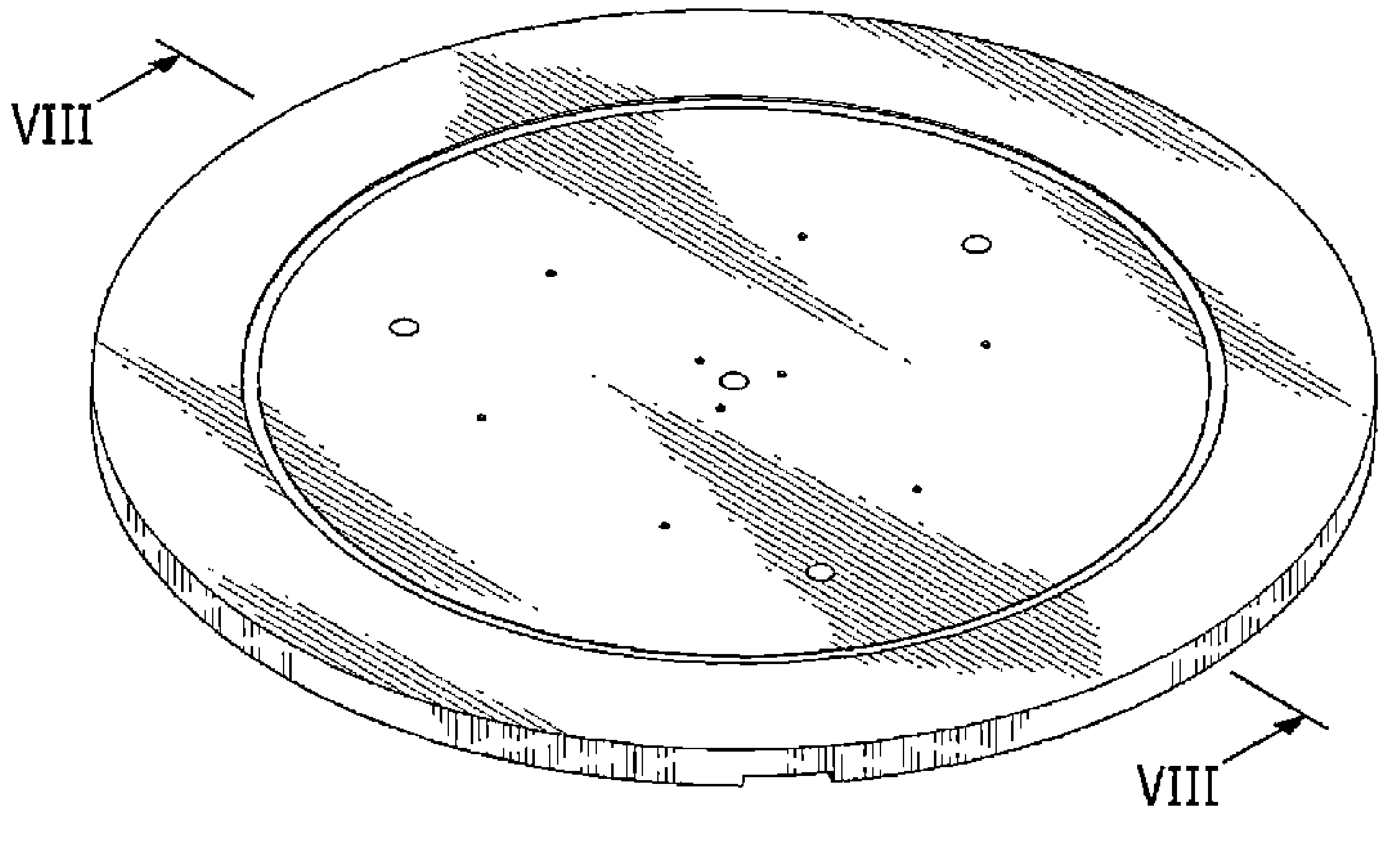
(57) **CLAIM**

The ornamental design for a substrate supporter for semiconductor deposition apparatus, as shown and described.

DESCRIPTION

FIG. **1** is a perspective view of a substrate supporter for semiconductor deposition apparatus showing our new design;
FIG. **2** is a front elevation view thereof;
FIG. **3** is a rear elevation view thereof;
FIG. **4** is a left side elevation view thereof;
FIG. **5** is a right side elevation view thereof;
FIG. **6** is a top plan view thereof;
FIG. **7** is a bottom plan view thereof; and,
FIG. **8** is a cross-sectional view taken along line VIII-VIII of FIG. **1** with two partially enlarged views showing a transition from a center recess on the top surface of the support and an outer edge at the outer portion of the support.

1 Claim, 8 Drawing Sheets



(56) References Cited

U.S. PATENT DOCUMENTS

D695,241	S *	12/2013	Gurary et al.	D13/182
D695,242	S *	12/2013	Gurary et al.	D13/182
D703,162	S *	4/2014	Tamaso	D13/182
2005/0035514	A1 *	2/2005	Hillman et al.	269/21
2005/0152089	A1 *	7/2005	Matsuda et al.	361/234
2005/0193952	A1 *	9/2005	Goodman et al.	118/728
2005/0252447	A1 *	11/2005	Zhao et al.	118/715

* cited by examiner

FIG.1

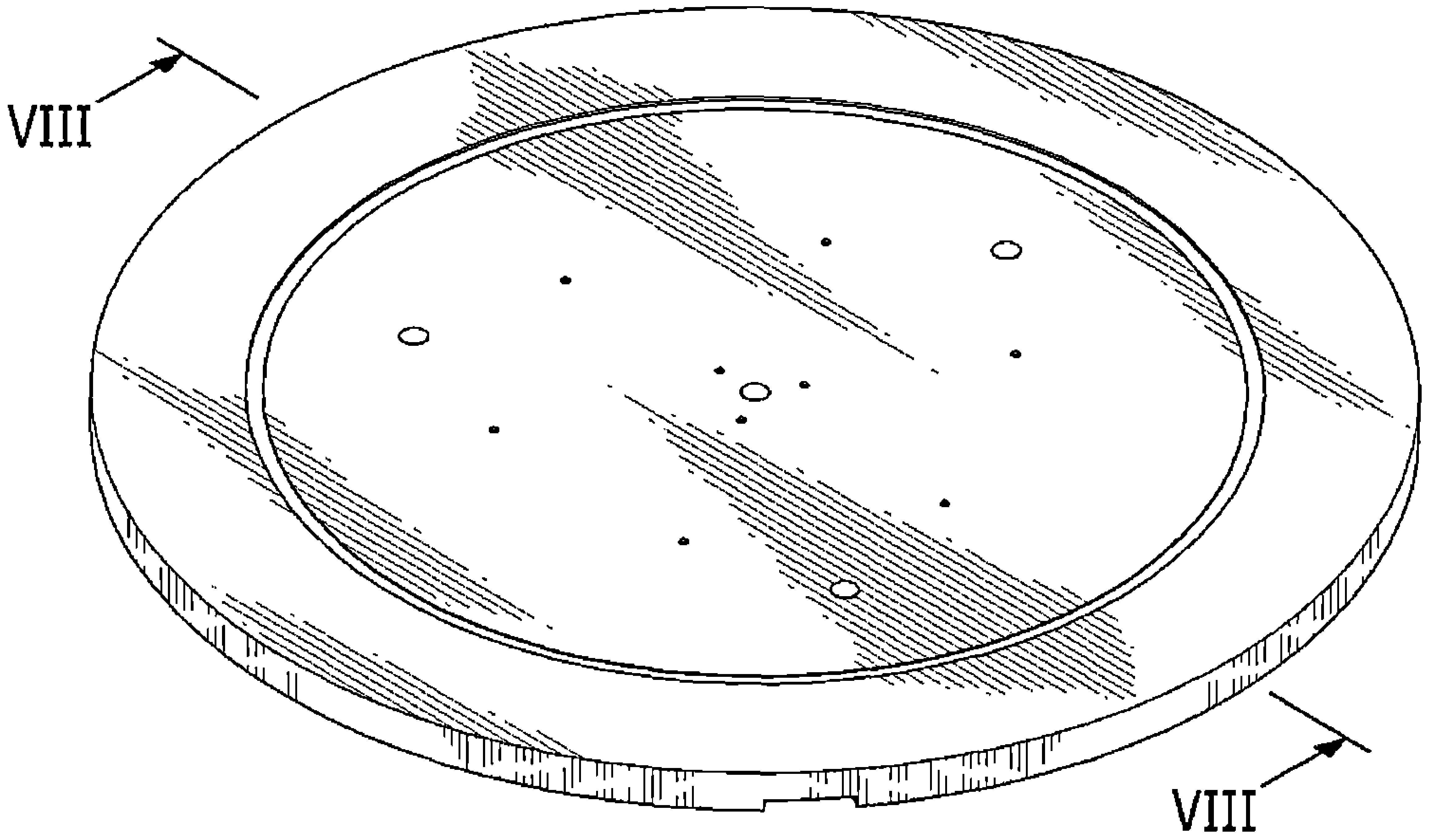


FIG.2

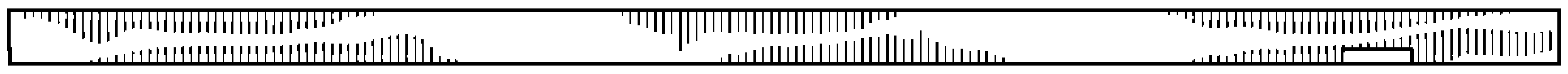


FIG.3

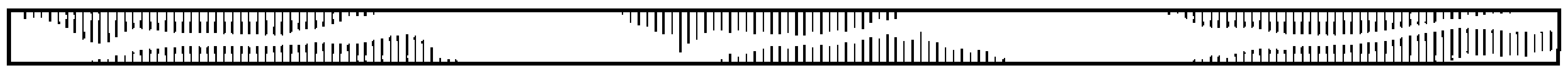


FIG.4

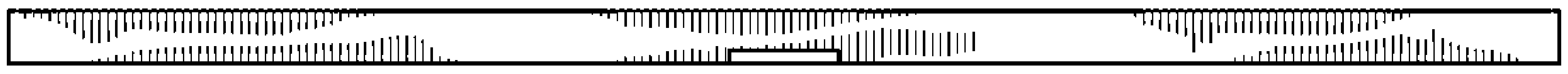


FIG.5

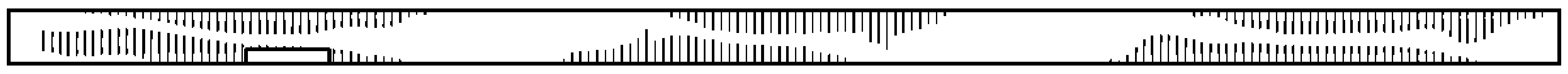


FIG.6

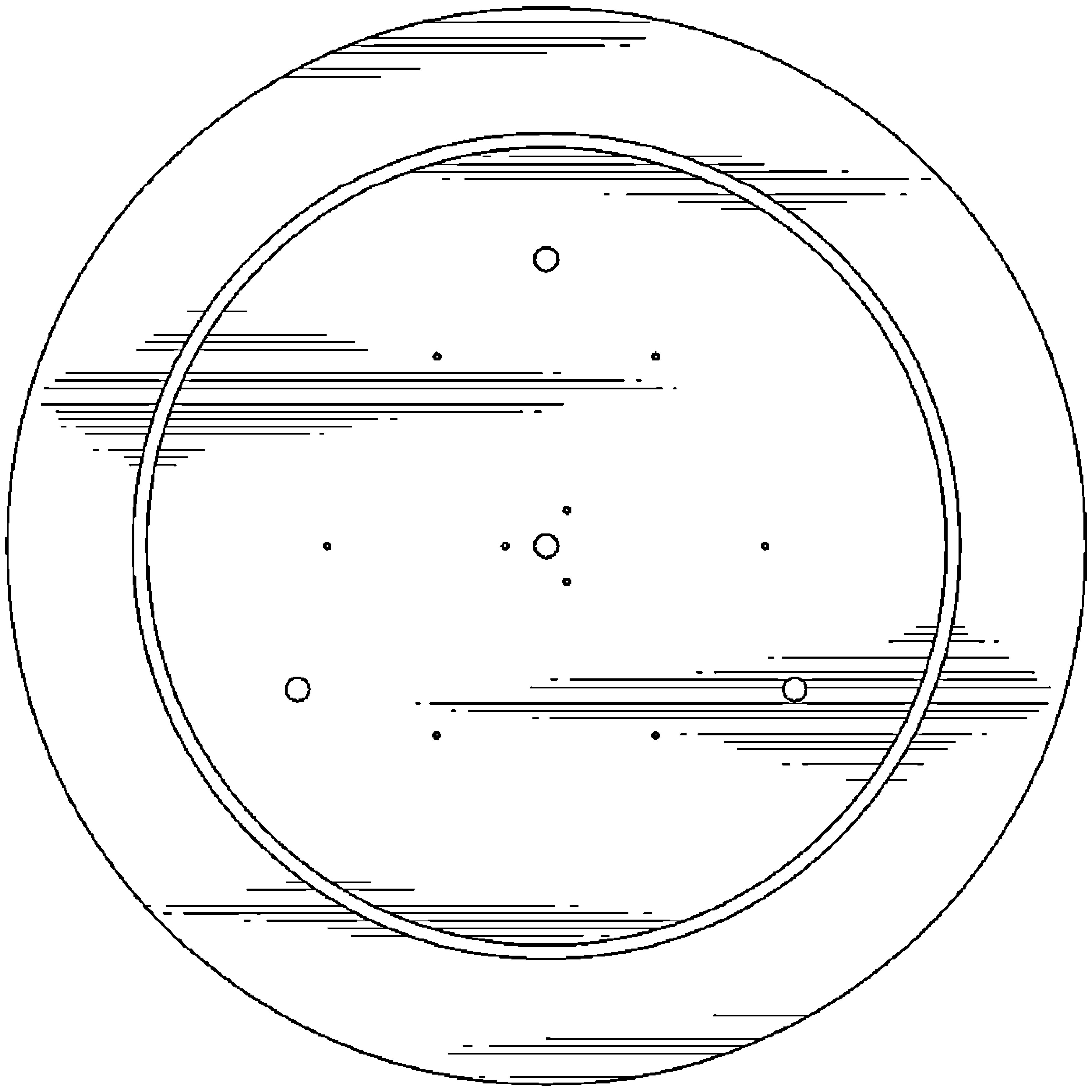


FIG.7

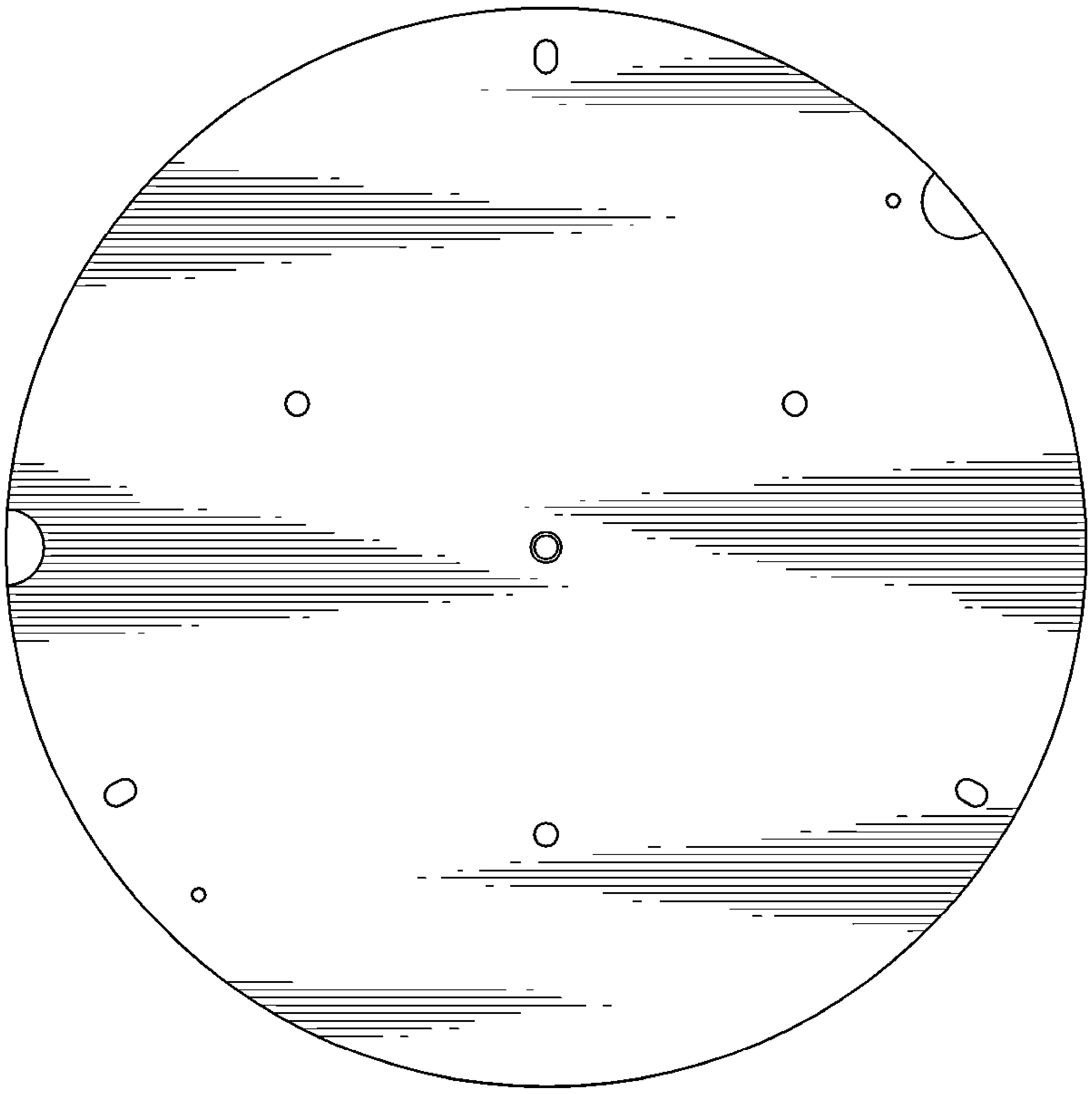


FIG.8