



US00D614593S

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

(10) **Patent No.:** **US D614,593 S**
(45) **Date of Patent:** **** *Apr. 27, 2010**

- (54) **SUBSTRATE SUPPORT FOR A SEMICONDUCTOR DEPOSITION APPARATUS**
- (75) Inventors: **Jeong Ho Lee**, Seoul (KR); **Sang Jin Jeong**, Daejeon-si (KR); **Dong Rak Jung**, Cheonan-si (KR)
- (73) Assignee: **ASM Genitech Korea Ltd**, Chungcheongnam-Do (KR)

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

(21) Appl. No.: **29/331,023**

(22) Filed: **Jan. 16, 2009**

(30) **Foreign Application Priority Data**
Jul. 21, 2008 (KR) 30-2008-0031461

- (51) **LOC (9) Cl.** **13-03**
- (52) **U.S. Cl.** **D13/182**
- (58) **Field of Classification Search** D13/182;
118/715; 156/345.53; 279/128; 361/234
See application file for complete search history.

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

5,098,501	A *	3/1992	Nishiguchi	.....	156/275.5
5,403,401	A *	4/1995	Haafkens et al.	.....	118/728
6,053,982	A *	4/2000	Halpin et al.	.....	118/728
6,203,622	B1 *	3/2001	Halpin et al.	.....	118/730
6,893,507	B2 *	5/2005	Goodman et al.	.....	118/725
D552,565	S *	10/2007	Nakamura et al.	.....	D13/182
D587,222	S *	2/2009	Sasaki et al.	.....	D13/182
7,582,166	B2 *	9/2009	Lampe et al.	.....	118/728
2003/0168174	A1	9/2003	Foree		
2005/0152089	A1 *	7/2005	Matsuda et al.	.....	361/234
2005/0193952	A1	9/2005	Goodman et al.		

2007/0076345 A1* 4/2007 Bang et al. 361/234
OTHER PUBLICATIONS

Givens et al., Substrate Holder With Varying Density, U.S. Appl. No. 12/266,317, filed on Nov. 6, 2008.

* cited by examiner

Primary Examiner—Selina Sikder

(74) *Attorney, Agent, or Firm*—Knobbe, Martens, Olson & Bear LLP

(57) **CLAIM**

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

DESCRIPTION

FIG. 1 is a perspective view of a substrate support that may be positioned in a reaction space of a chamber in a semiconductor deposition apparatus, showing our new design, wherein the four small circles on the top surface of the support represent through-holes;

FIG. 2 is a front view thereof;

FIG. 3 is a rear view thereof;

FIG. 4 is a left-side view thereof;

FIG. 5 is a right-side view thereof;

FIG. 6 is a top plan view thereof;

FIG. 7 is a bottom plan view thereof;

FIG. 8 is a perspective view of the substrate support cut along a line passing through the center of the support with a partial enlarged view showing a transition from a center recess on the top surface of the support and an outer shoulder at the outer portion of the support; and,

FIG. 9 is a cross-sectional view thereof, along a line passing through the center of the support.

The ornamental design which is claimed is shown in solid lines in the drawings.

1 Claim, 5 Drawing Sheets

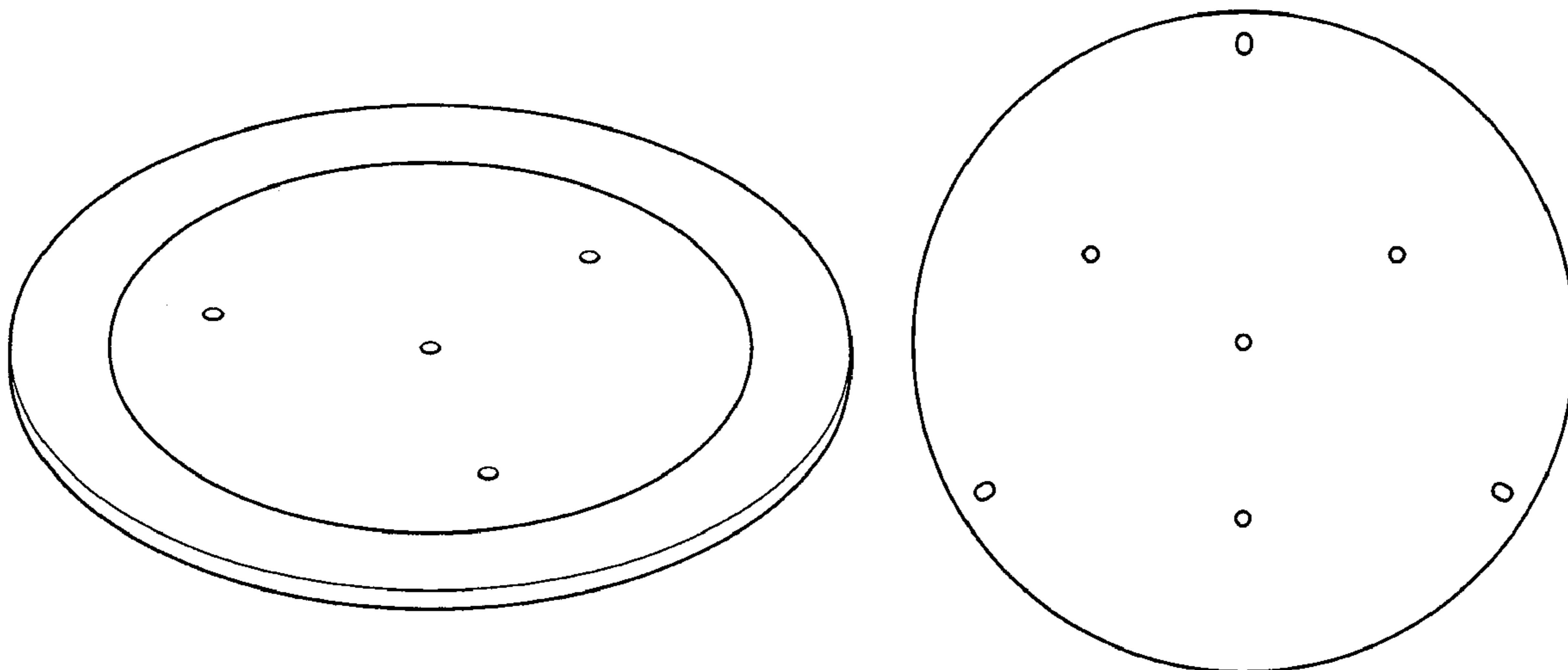


FIG.1

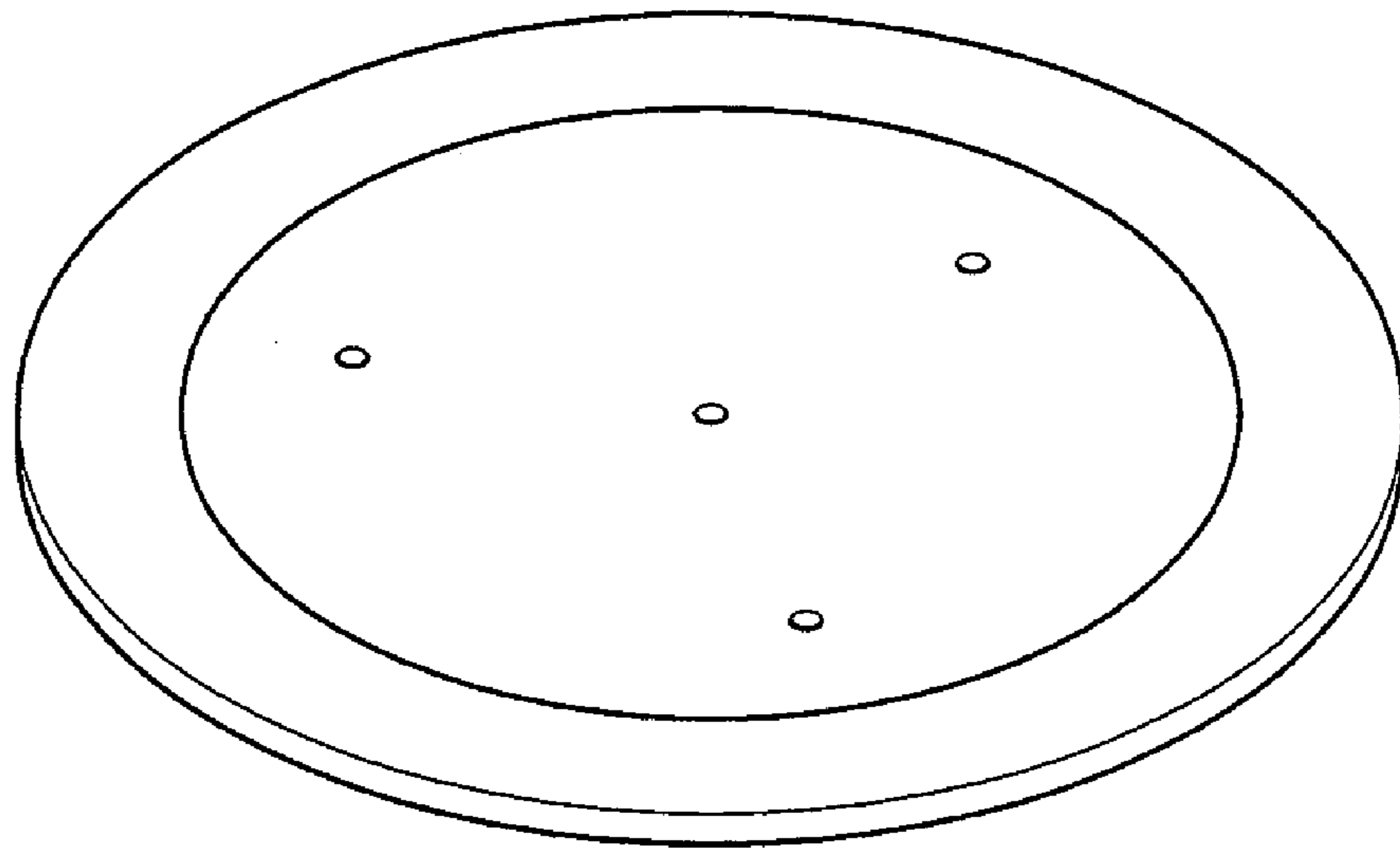


FIG.2



FIG.3



FIG.4



FIG.5



FIG.6

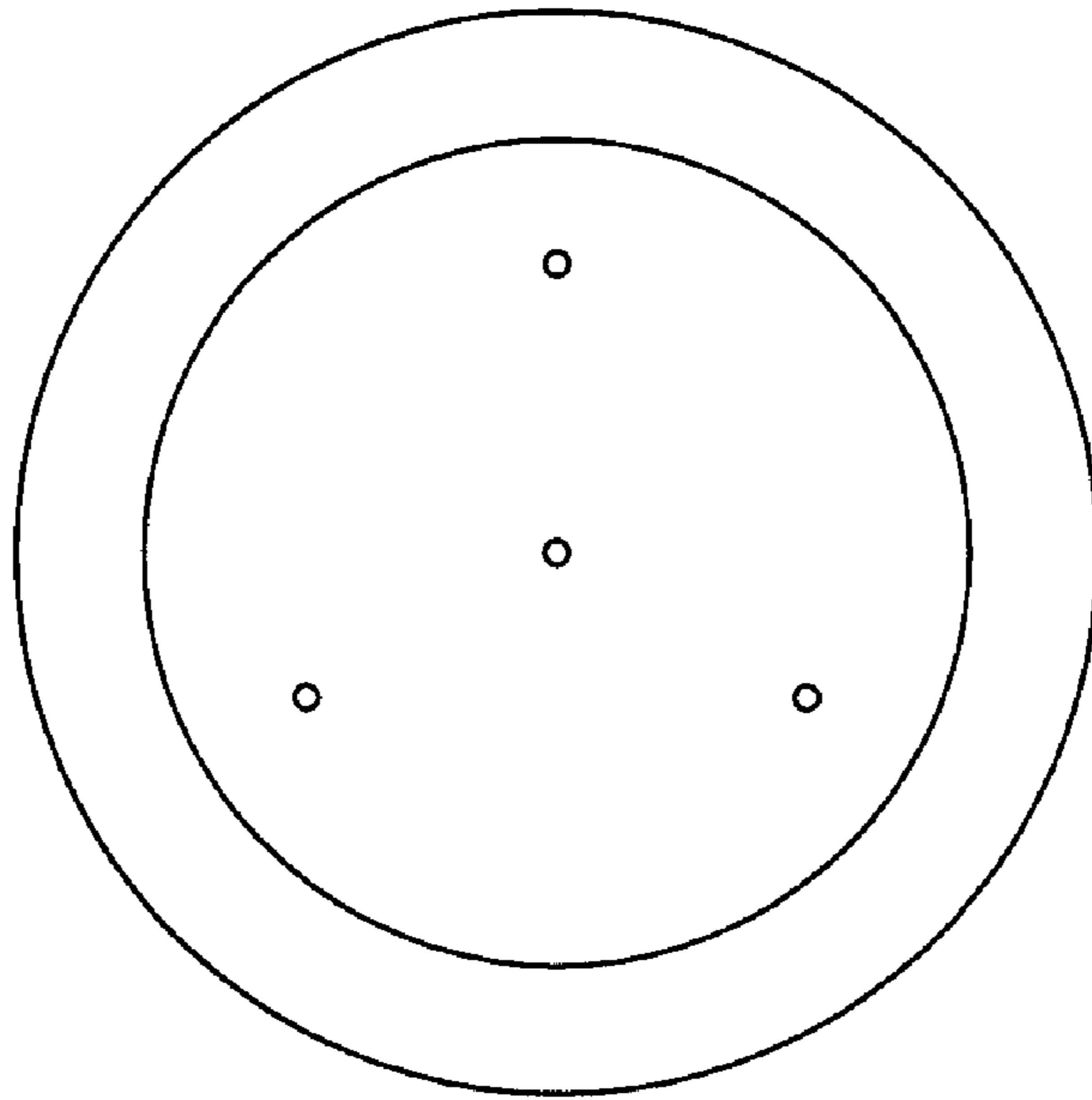


FIG.7

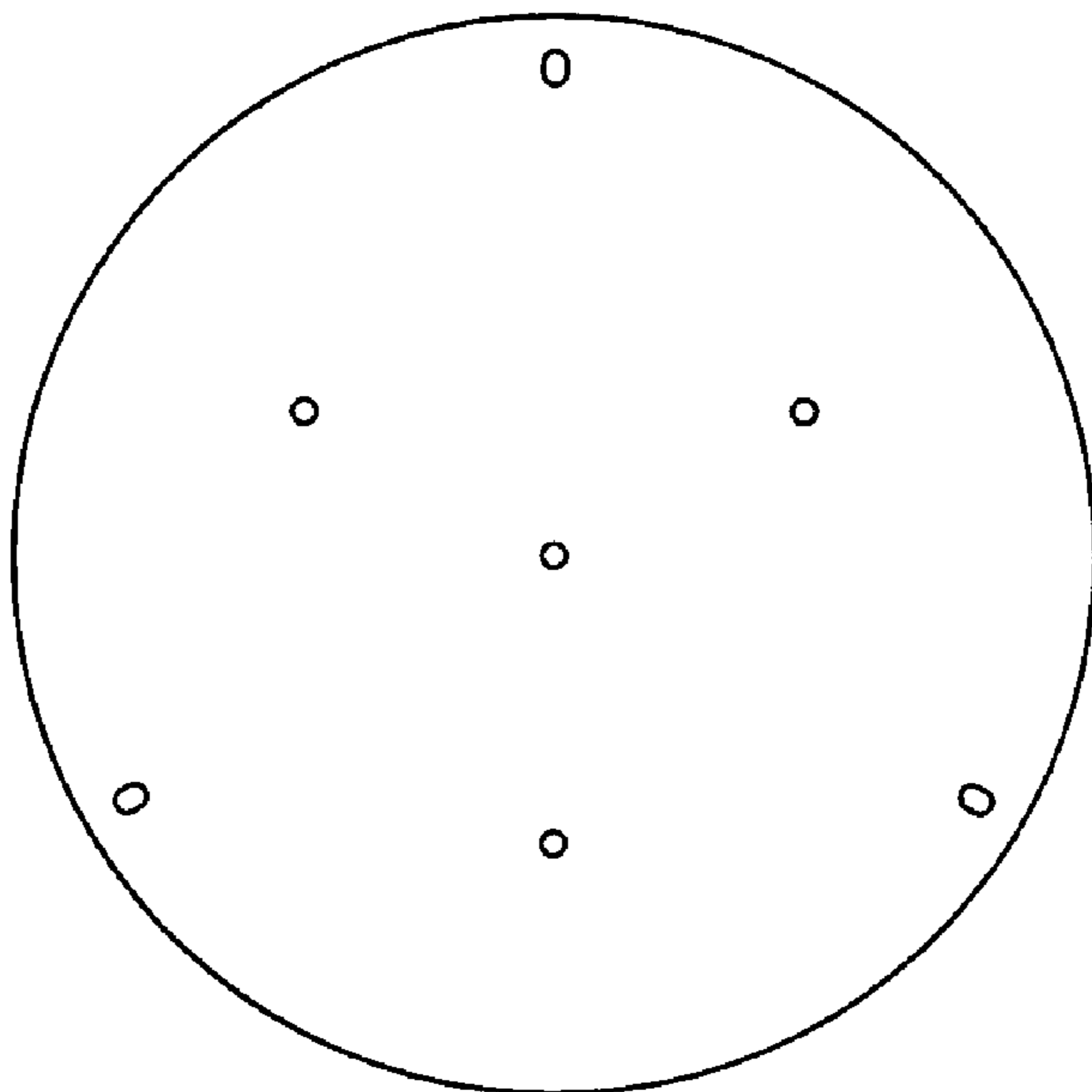


FIG. 8

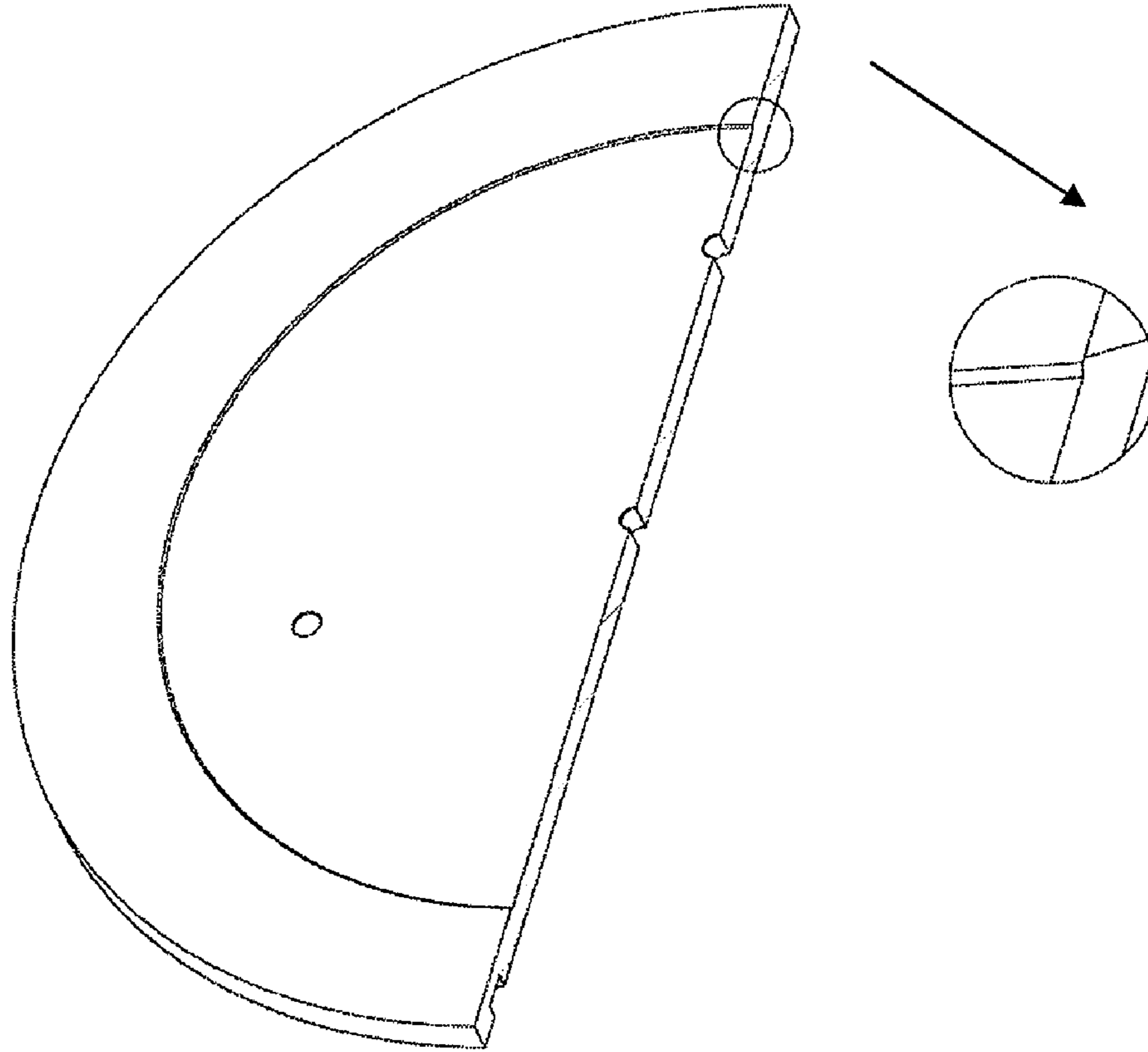


FIG. 9

