



US00D655256S

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

(10) **Patent No.:** **US D655,256 S**
(45) **Date of Patent:** **** Mar. 6, 2012**

(54) **SEMICONDUCTOR SUBSTRATE**

(75) Inventors: **Taro Nishiguchi**, Itami (JP); **Makoto Sasaki**, Itami (JP); **Shin Harada**, Osaka (JP); **Shinsuke Fujiwara**, Itami (JP); **Yasuo Namikawa**, Osaka (JP)

(73) Assignee: **Sumitomo Electric Industries, Ltd.**, Osaka-shi, Osaka (JP)

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

(21) Appl. No.: **29/379,471**

(22) Filed: **Nov. 19, 2010**

(30) **Foreign Application Priority Data**

Aug. 17, 2010 (JP) D2010-019916

(51) **LOC (9) Cl.** **13-03**

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

(58) **Field of Classification Search** D13/182;
D6/300, 309; D7/541; D9/428, 433, 456;
D25/103, 109, 138-140, 155-157; 117/95;
257/77, 255, 627, 628; 438/149, 150, 689-692,
438/697

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D217,594	S *	5/1970	Bardell	.....	D9/456
D262,962	S *	2/1982	Strumpell	.....	D13/182
4,630,093	A *	12/1986	Yamaguchi et al.	.....	428/66.7
5,182,233	A *	1/1993	Inoue	.....	83/35
6,927,416	B2 *	8/2005	Arai et al.	.....	257/48
7,112,952	B2 *	9/2006	Arai et al.	.....	438/17
7,205,639	B2 *	4/2007	Hierlemann et al.	.....	257/628
7,476,575	B2 *	1/2009	Tsurume et al.	.....	438/149
D589,473	S *	3/2009	Takamoto et al.	.....	D13/182
D614,593	S *	4/2010	Lee et al.	.....	D13/182
7,705,430	B2 *	4/2010	Sekiya	.....	257/619
D638,382	S *	5/2011	Kuzuoka	.....	D13/180
2005/0106839	A1 *	5/2005	Shimoda et al.	.....	438/458

(Continued)

FOREIGN PATENT DOCUMENTS

JP 8-32038 2/1996
(Continued)

OTHER PUBLICATIONS

U.S. Appl. No. 29/379,485, Nov. 19, 2010, Taro Nishiguchi et al.
U.S. Appl. No. 29/379,460, Nov. 19, 2010, Taro Nishiguchi et al.
U.S. Appl. No. 29/379,488, Nov. 19, 2010, Taro Nishiguchi et al.
U.S. Office Action dated Jul. 22, 2011, issued in U.S. Appl. No. 29/379,488.

(Continued)

Primary Examiner — Selina Sikder

(74) *Attorney, Agent, or Firm* — Drinker Biddle & Reath LLP

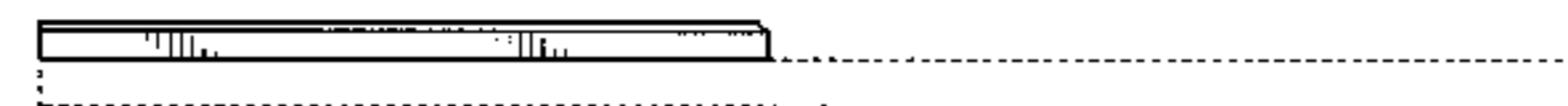
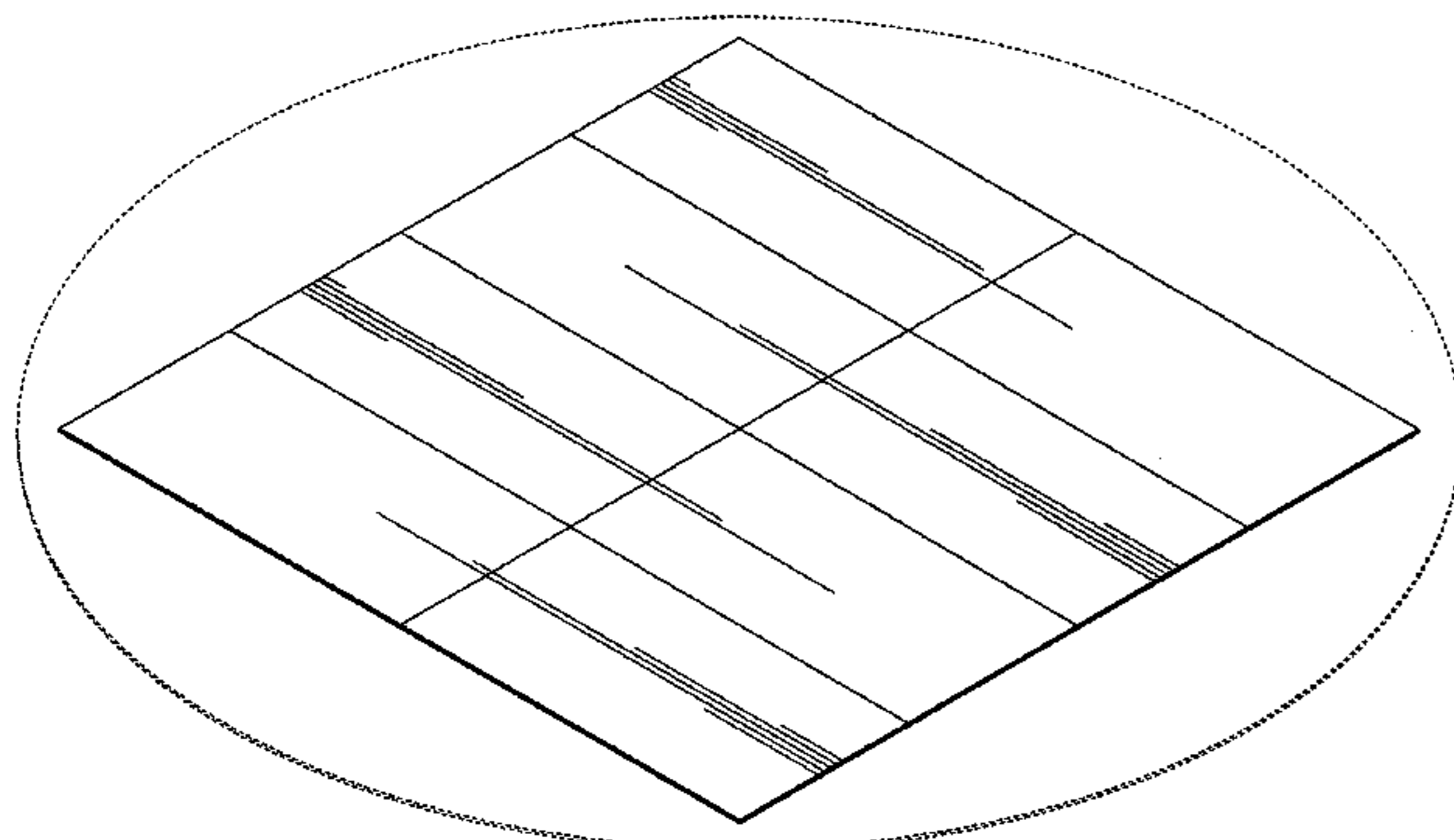
(57) **CLAIM**

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

DESCRIPTION

FIG. 1 is a front, right, and top perspective view of a semiconductor substrate showing our new design;
FIG. 2 is a front view thereof, a rear view being a mirror image thereof;
FIG. 3 is a top plan view thereof;
FIG. 4 is a bottom plan view thereof;
FIG. 5 is a right-side view thereof, a left side view being a mirror image thereof;
FIG. 6 is a partially enlarged view at 6 shown in FIG. 2 thereof;
FIG. 7 is a partially enlarged view at 7 shown in FIG. 2 thereof;
FIG. 8 is an enlarged cross sectional view at 8-8 shown in FIG. 3 thereof; and,
FIG. 9 is a partially enlarged sectional view at 9 shown in FIG. 8 thereof.
The broken line showing of the semiconductor substrate is for the purpose of illustrating environmental structure and forms no part of the claimed design.

1 Claim, 5 Drawing Sheets



US D655,256 S

Page 2

U.S. PATENT DOCUMENTS

2005/0287846 A1* 12/2005 Dozen et al. 439/85
2006/0038182 A1* 2/2006 Rogers et al. 257/77
2006/0091402 A1* 5/2006 Shiomi et al. 257/77
2007/0082508 A1* 4/2007 Chiang et al. 438/800
2009/0011598 A1* 1/2009 Nagaya et al. 438/692
2010/0176403 A1* 7/2010 Sasaki et al. 257/77
2011/0111593 A1* 5/2011 Kanno 438/689

FOREIGN PATENT DOCUMENTS

JP 2003-68592 3/2003
JP 2005-260154 A 9/2005

OTHER PUBLICATIONS

U.S. Notice of Allowance dated Jul. 25, 2011, issued in U.S. Appl.
No. 29/379,460.
U.S. Notice of Allowance dated Aug. 3, 2011, issued in U.S. Appl.
No. 29/379,485.
U.S. Notice of Allowance dated Aug. 30, 2011, issued in U.S. Appl.
No. 29/379,485.

* cited by examiner

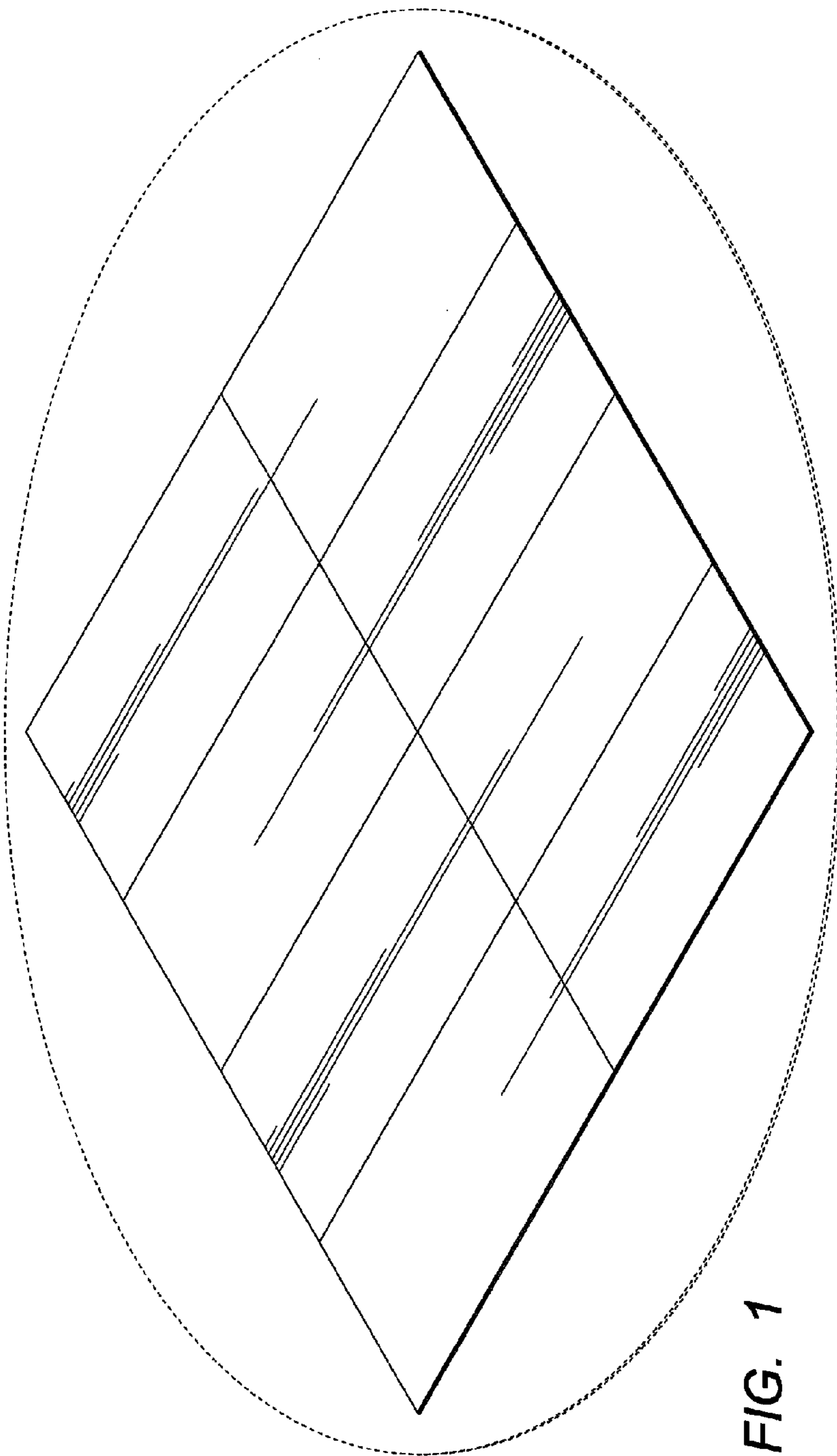


FIG. 1

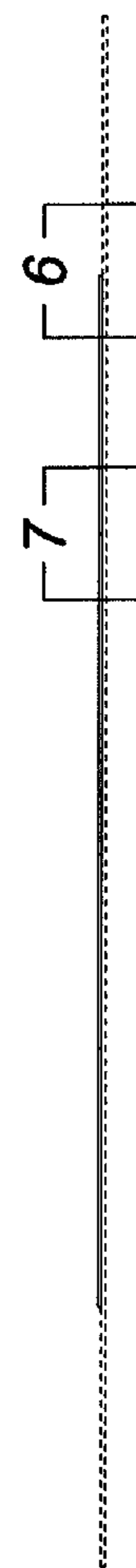


FIG. 2

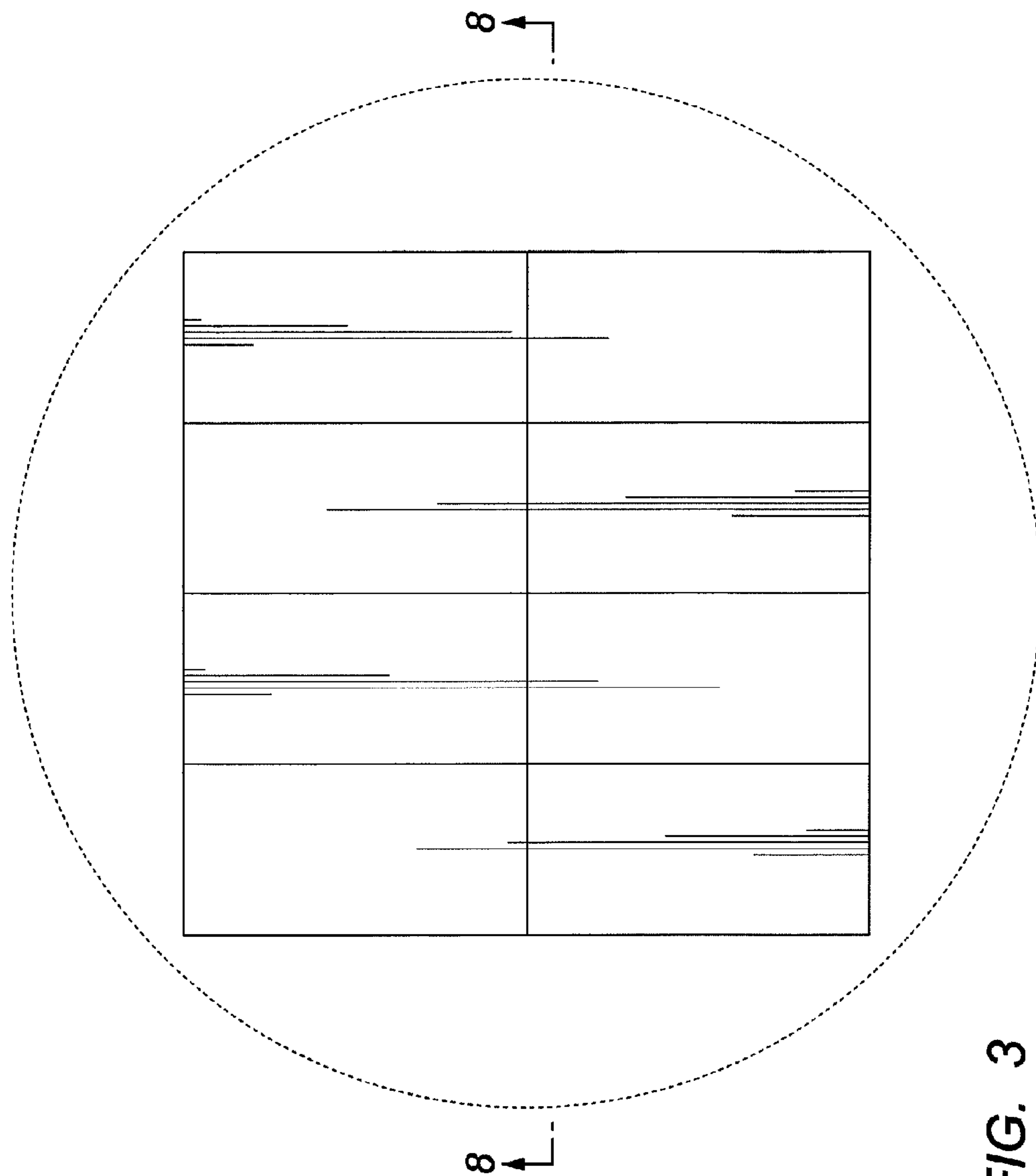


FIG. 3

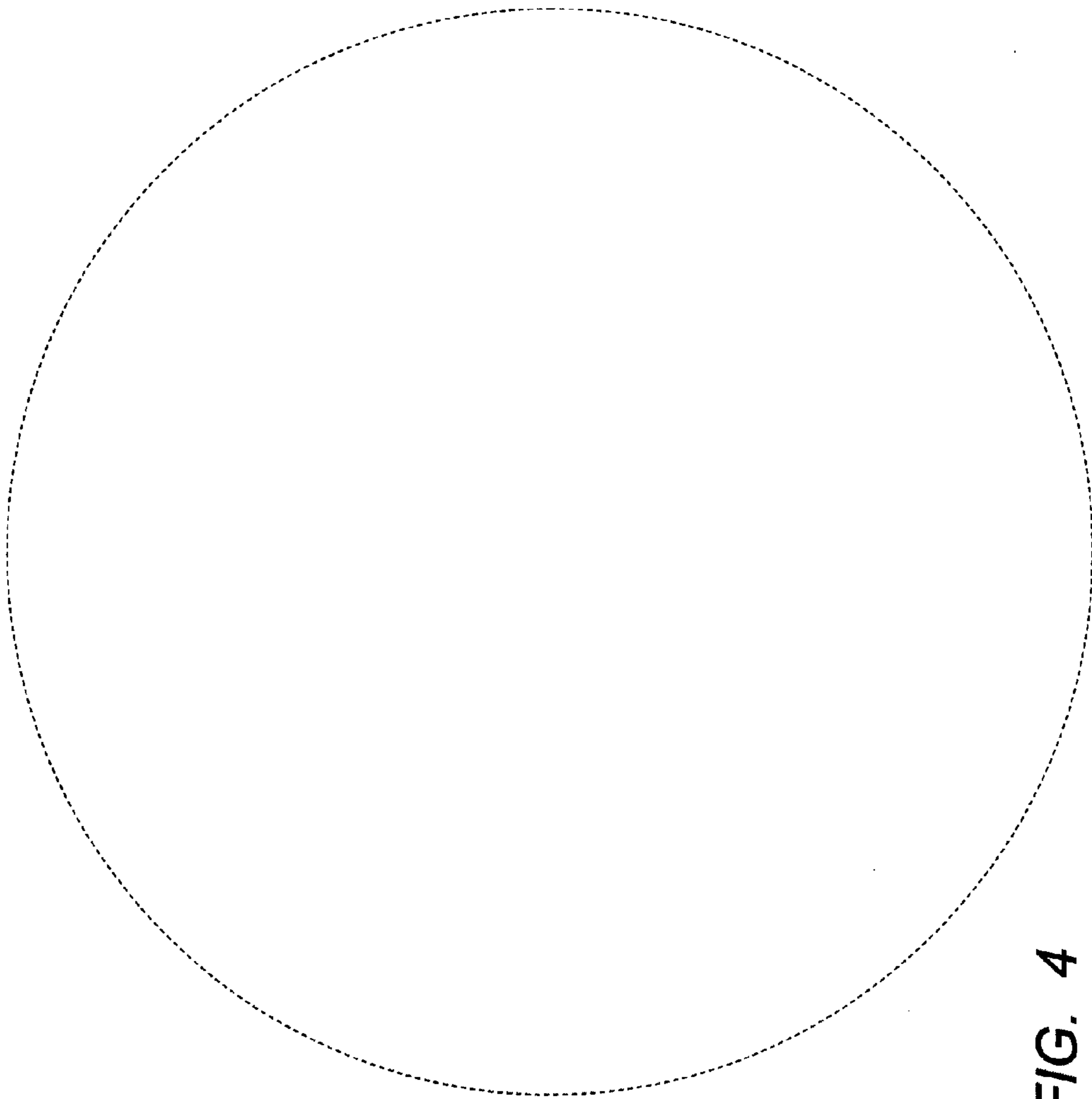


FIG. 4



FIG. 5

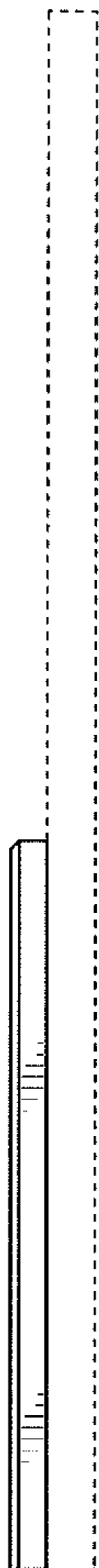


FIG. 6



FIG. 7

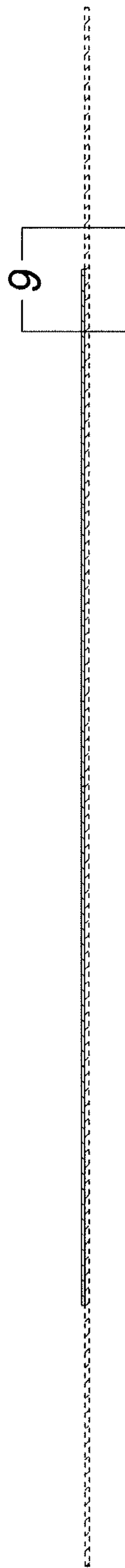


FIG. 8

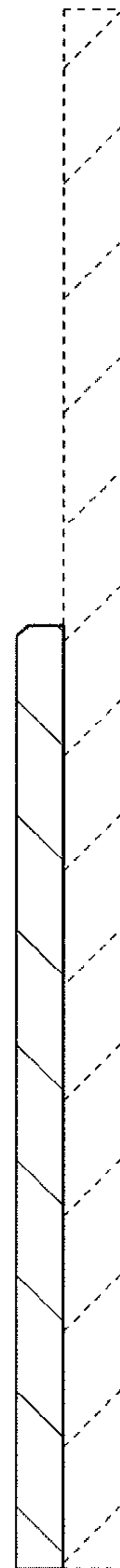


FIG. 9