



US00D806249S

(12) **United States Design Patent** (10) **Patent No.:** **US D806,249 S**  
**Sakurai et al.** (45) **Date of Patent:** **\*\* Dec. 26, 2017**

(54) **RADIATION IMAGE CONVERSION PLATE**

(71) Applicant: **HAMAMATSU PHOTONICS K.K.**,  
Hamamatsu-shi, Shizuoka (JP)

(72) Inventors: **Jun Sakurai**, Hamamatsu (JP);  
**Katsuhiko Suzuki**, Hamamatsu (JP);  
**Ichinobu Shimizu**, Hamamatsu (JP);  
**Gouji Kamimura**, Hamamatsu (JP)

(73) Assignee: **HAMAMATSU PHOTONICS K.K.**,  
Hamamatsu-shi, Shizuoka (JP)

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

(21) Appl. No.: **29/530,182**

(22) Filed: **Jun. 15, 2015**

(30) **Foreign Application Priority Data**

Dec. 16, 2014 (JP) ..... 2014-028028

Dec. 16, 2014 (JP) ..... 2014-028029

(Continued)

(51) **LOC (10) Cl.** ..... **24-01**

(52) **U.S. Cl.**  
USPC ..... **D24/158**

(58) **Field of Classification Search**

USPC ..... D24/158-161, 186, 89, 206; D16/250;  
D14/435, 482; D20/22-29; D19/2;  
D6/582, 583, 616; D32/40-42; D13/182

(Continued)

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D276,820 S \* 12/1984 Lill ..... D19/10

D393,001 S \* 3/1998 Mayo ..... D19/113

(Continued)

**FOREIGN PATENT DOCUMENTS**

JP 2000-346997 12/2000

JP 2007-315866 12/2007

(Continued)

*Primary Examiner* — Anhdao Doan

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

(57) **CLAIM**

The ornamental design for a radiation image conversion  
plate, as shown and described.

**DESCRIPTION**

FIG. 1 is a front view of a first embodiment of a radiation  
image conversion plate of the present invention.

FIG. 2 is a rear view of the radiation image conversion plate  
of FIG. 1.

FIG. 3 is a top plan view of the radiation image conversion  
plate of FIG. 1.

FIG. 4 is a bottom view of the radiation image conversion  
plate of FIG. 1.

FIG. 5 is a right side view of the radiation image conversion  
plate of FIG. 1.

FIG. 6 is a left side view of the radiation image conversion  
plate of FIG. 1.

FIG. 7 is a perspective view of the radiation image conver-  
sion plate of FIG. 1.

FIG. 8 is a sectional view of the radiation image conversion  
plate of FIG. 1, taken along the line 8-8 of FIG. 1.

FIG. 9 is an enlarged sectional view of the radiation image  
conversion plate of FIG. 1, taken along the line 9-9 of FIG.  
8.

FIG. 10 is a front view of a second embodiment of a  
radiation image conversion plate of the present invention.

FIG. 11 is a rear view of the radiation image conversion plate  
of FIG. 10.

FIG. 12 is a top plan view of the radiation image conversion  
plate of FIG. 10.

FIG. 13 is a bottom view of the radiation image conversion  
plate of FIG. 10.

FIG. 14 is a right side view of the radiation image conver-  
sion plate of FIG. 10.

FIG. 15 is a left side view of the radiation image conversion  
plate of FIG. 10.

FIG. 16 is a perspective view of the radiation image con-  
version plate of FIG. 10.

(Continued)

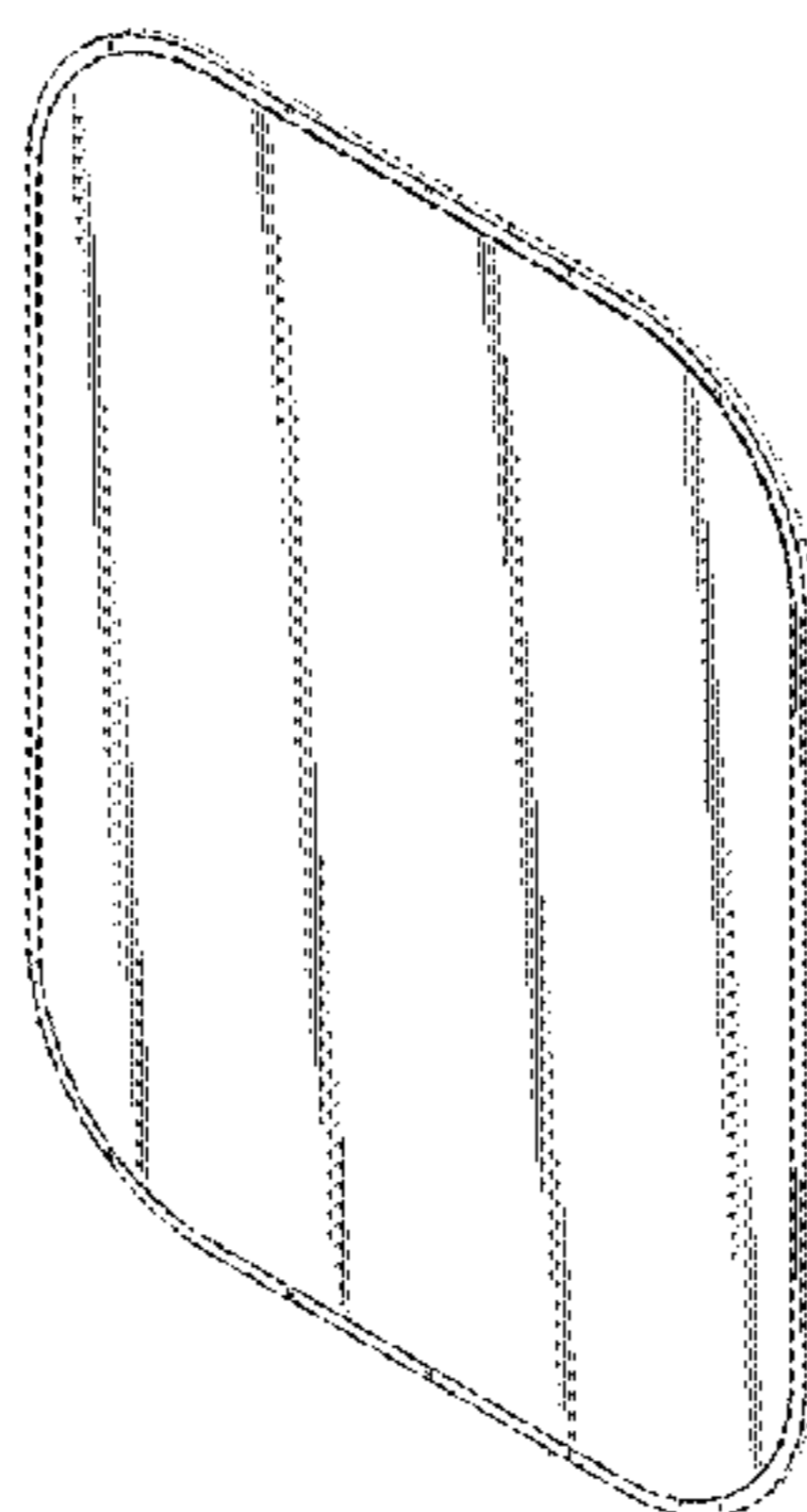


FIG. 17 is a sectional view of the radiation image conversion plate of FIG. 10, taken along the line 17-17 of FIG. 10.

FIG. 18 is an enlarged sectional view of the radiation image conversion plate of FIG. 10, taken along the line 18-18 of FIG. 17.

FIG. 19 is a front view of a third embodiment of a radiation image conversion plate of the present invention.

FIG. 20 is a rear view of the radiation image conversion plate of FIG. 19.

FIG. 21 is a top plan view of the radiation image conversion plate of FIG. 19.

FIG. 22 is a bottom view of the radiation image conversion plate of FIG. 19.

FIG. 23 is a right side view of the radiation image conversion plate of FIG. 19.

FIG. 24 is a left side view of the radiation image conversion plate of FIG. 19.

FIG. 25 is a perspective view of the radiation image conversion plate of FIG. 19.

FIG. 26 is a sectional view of the radiation image conversion plate of FIG. 19, taken along the line 26-26 of FIG. 19; and, FIG. 27 is an enlarged sectional view of the radiation image conversion plate of FIG. 19, taken along the line 27-27 of FIG. 26.

The features shown in dotted lines depict environmental subject matter only and form no part of the claimed design.

**1 Claim, 27 Drawing Sheets**

(30) **Foreign Application Priority Data**

Dec. 16, 2014 (JP) ..... 2014-028030  
 Dec. 16, 2014 (JP) ..... 2014-028031

(58) **Field of Classification Search**

CPC ..... G03B 42/04; G03B 42/08; Y10T 428/256;  
 Y10T 428/259; Y10T 156/1044; G01T

1/2018; G01T 1/105; G21K 4/00; G21K  
 2004/02; G21K 2004/06

See application file for complete search history.

(56)

**References Cited**

U.S. PATENT DOCUMENTS

D501,111	S *	1/2005	Lan	.....	D6/582
D545,441	S *	6/2007	Miyachika	.....	D24/189
7,465,932	B1 *	12/2008	Suzuki	.....	G03B 42/02 250/370.09
D584,360	S *	1/2009	Yuengling	.....	D20/19
D636,882	S *	4/2011	Kibele	.....	D24/189
D649,596	S *	11/2011	Hancock	.....	D20/29
D655,256	S *	3/2012	Nishiguchi	.....	D13/182
D685,335	S *	7/2013	Tiner	.....	D13/199
D685,544	S *	7/2013	Clarke	.....	D32/40
8,866,088	B2 *	10/2014	Osawa	.....	C09K 11/628 250/366
D726,184	S *	4/2015	Burton	.....	D14/388
D727,502	S *	4/2015	Sul	.....	D24/158
D740,440	S *	10/2015	Ito	.....	D24/225
2004/0169150	A1 *	9/2004	Nakajo	.....	G03B 42/04 250/484.4
2006/0263521	A1 *	11/2006	Sato	.....	G01T 1/2018 427/248.1
2009/0010396	A1 *	1/2009	Allmer	.....	G03B 42/042 378/169
2009/0261273	A1 *	10/2009	Sakurai	.....	G21K 4/00 250/484.4
2016/0081638	A1 *	3/2016	Ogura	.....	A61B 6/4283 378/185
2016/0081649	A1 *	3/2016	Enomoto	.....	A61B 6/56 378/189
2016/0345920	A1 *	12/2016	Tajima	.....	A61B 6/4283

FOREIGN PATENT DOCUMENTS

JP	2009-080032	4/2009
JP	2014-071031	4/2014

\* cited by examiner

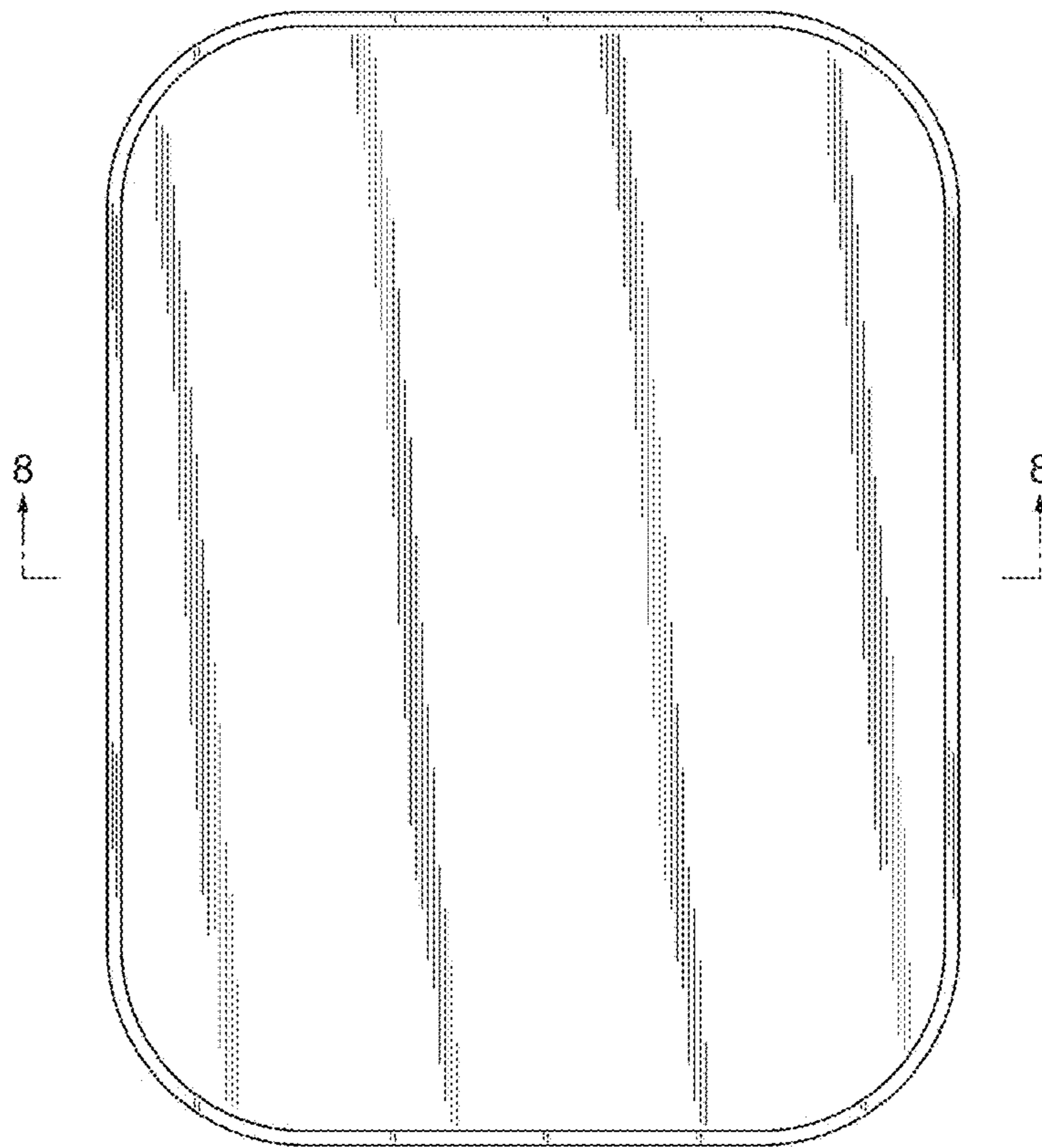


FIG. 1

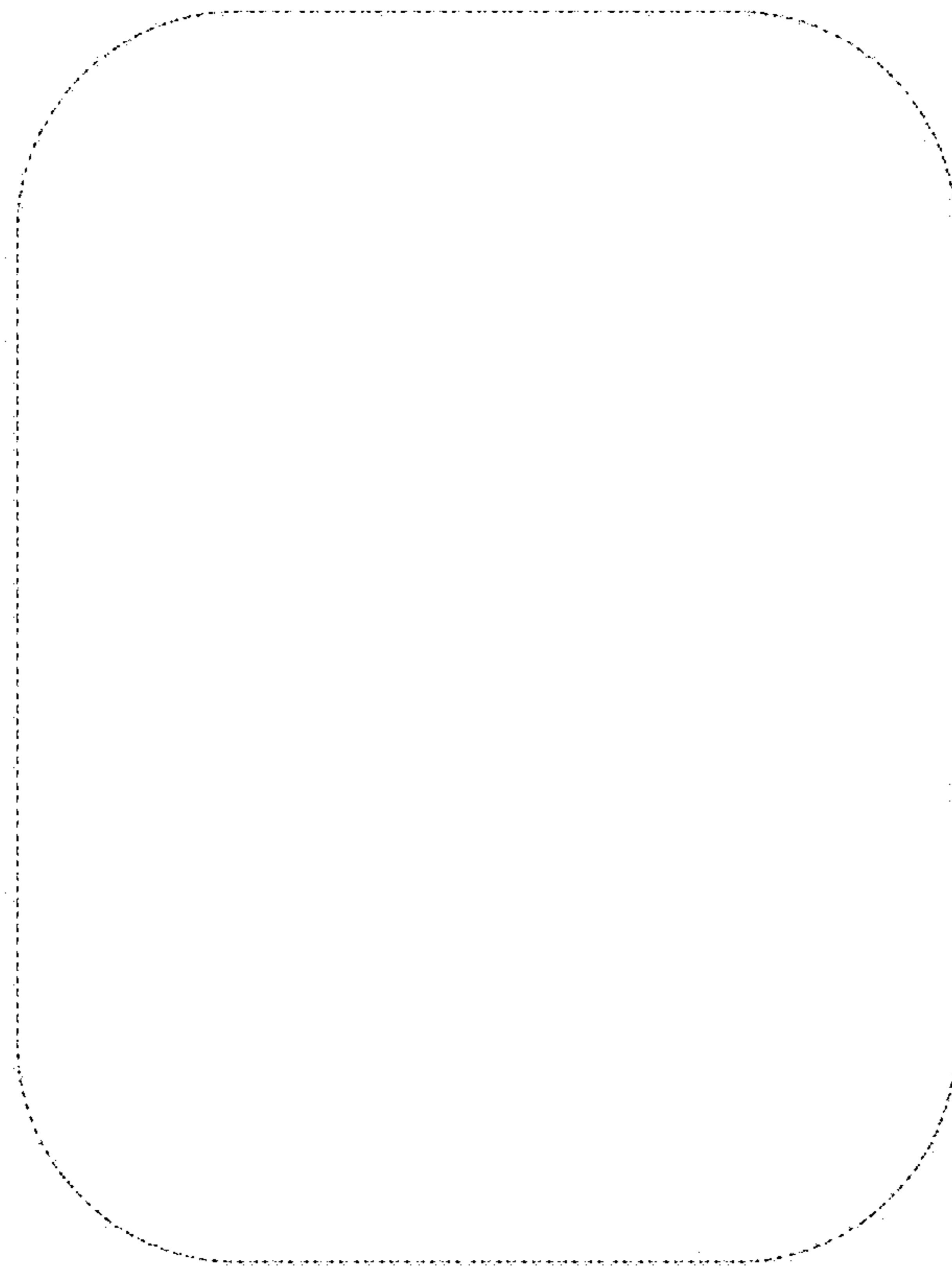
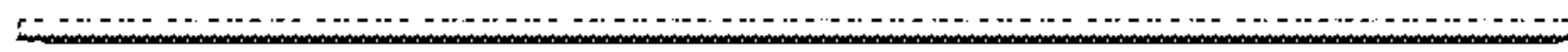
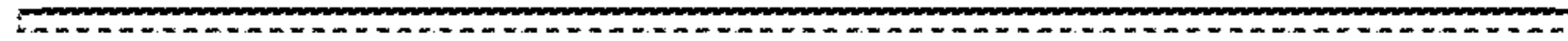


FIG. 2



**FIG. 3**



**FIG. 4**

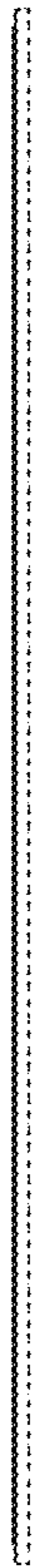


FIG. 5





FIG. 6



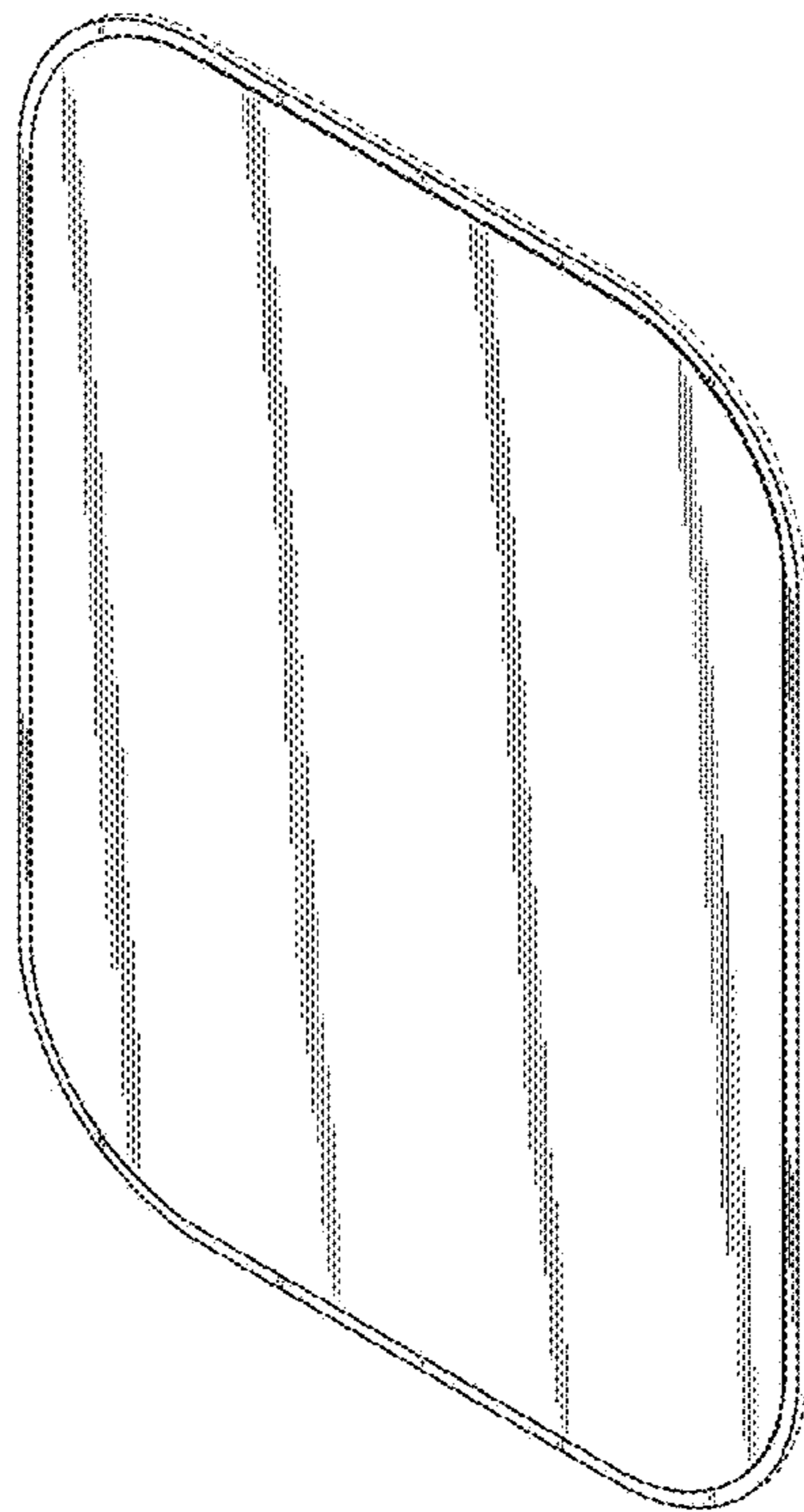


FIG. 7

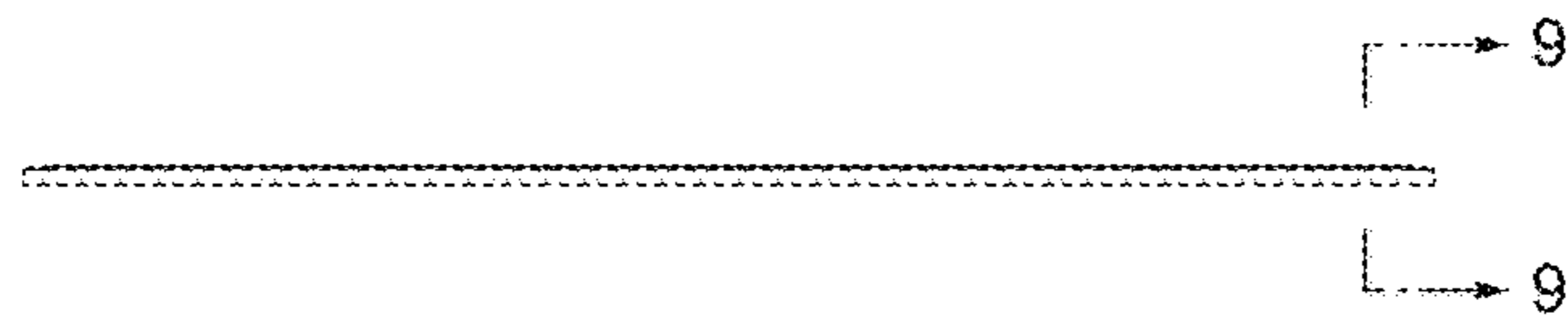


FIG. 8

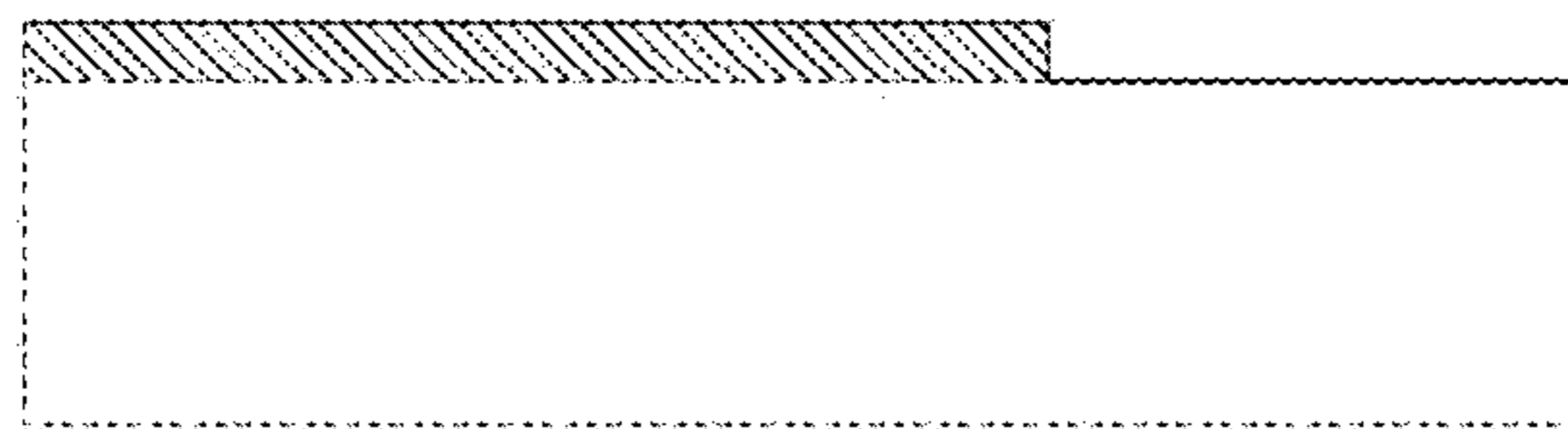


FIG. 9

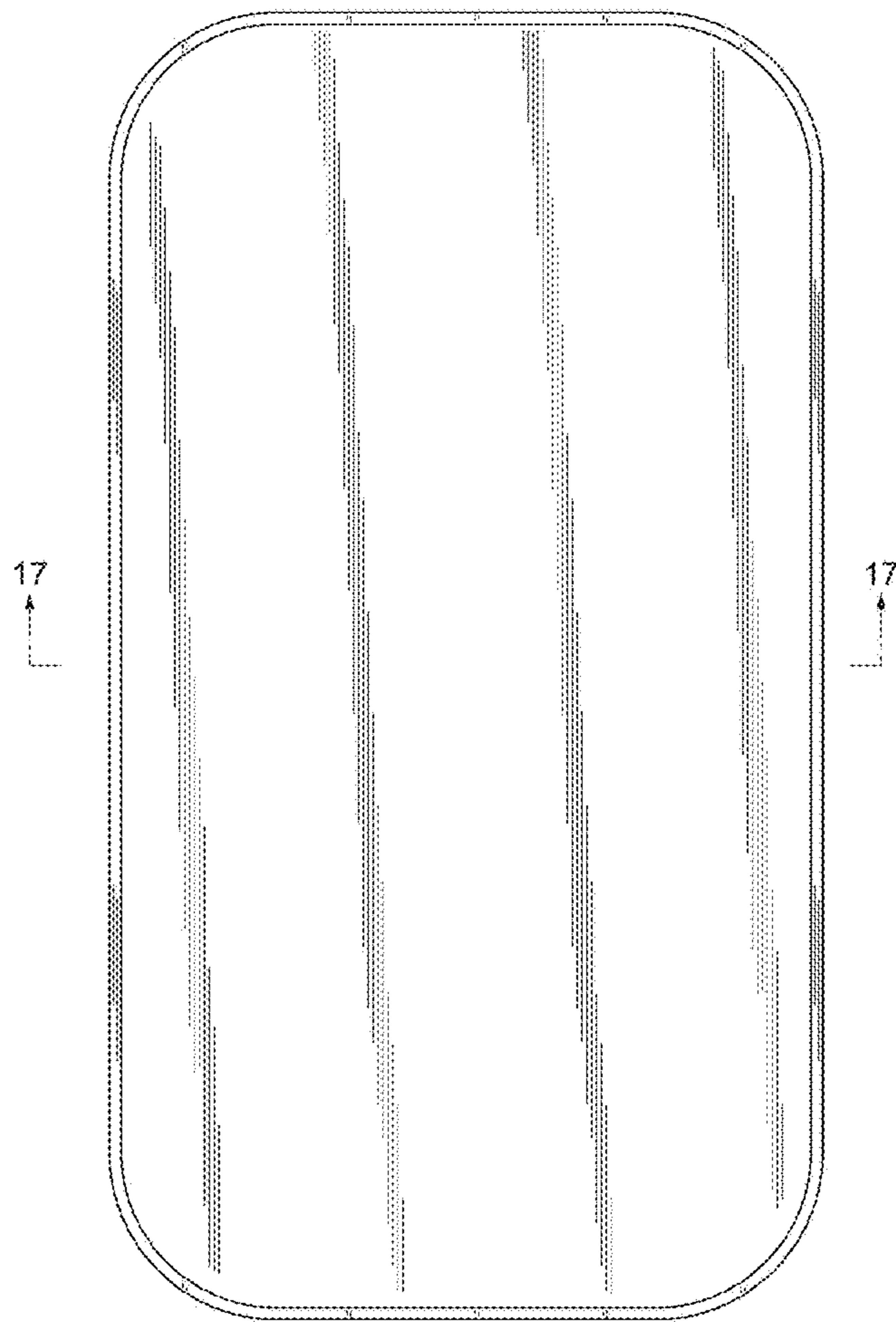


FIG. 10

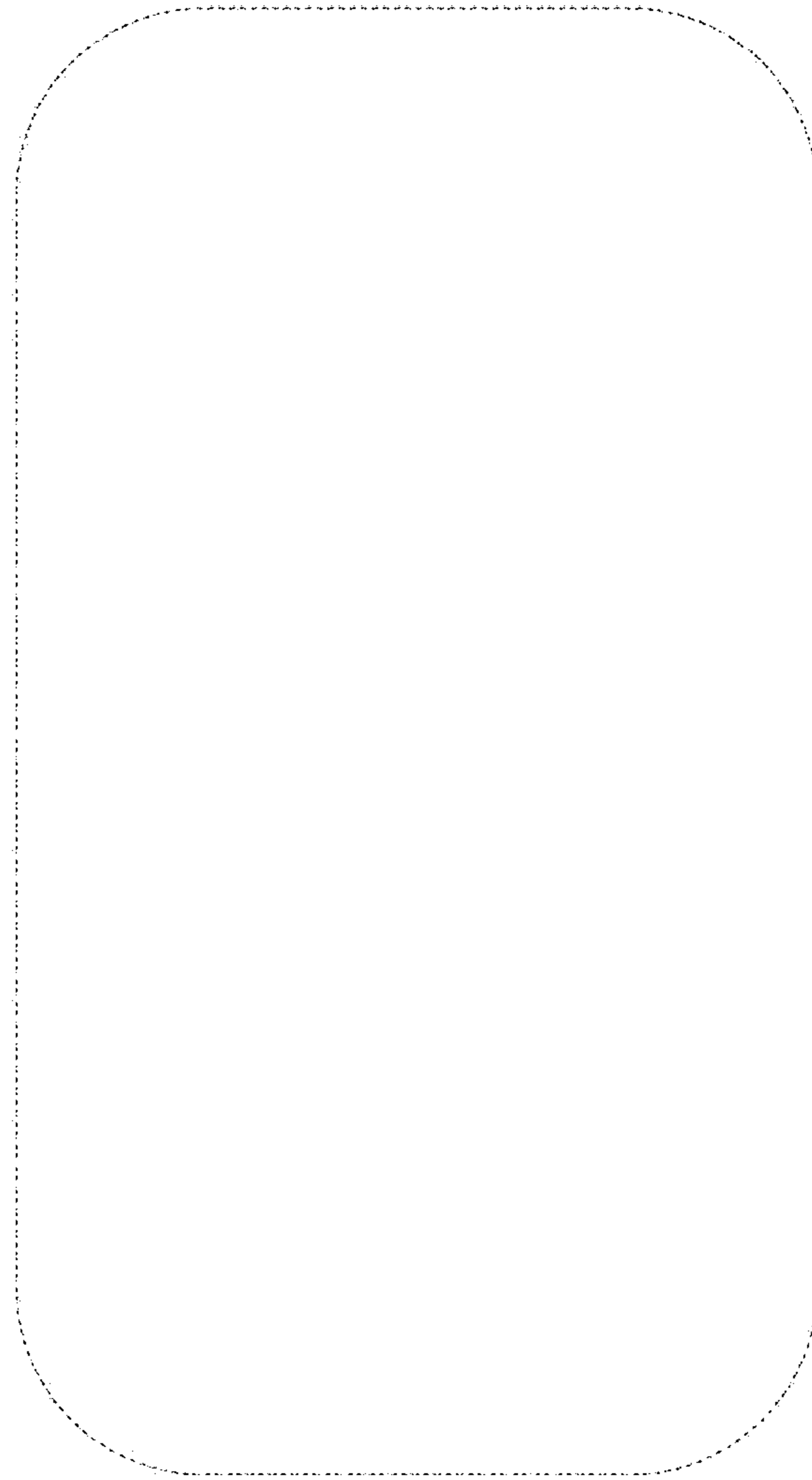
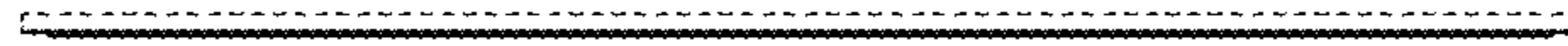
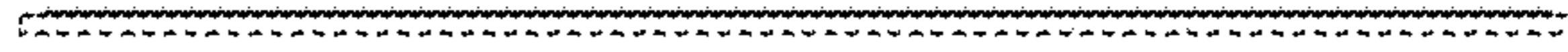


FIG. 11



**FIG. 12**



**FIG. 13**





FIG. 14



FIG. 15

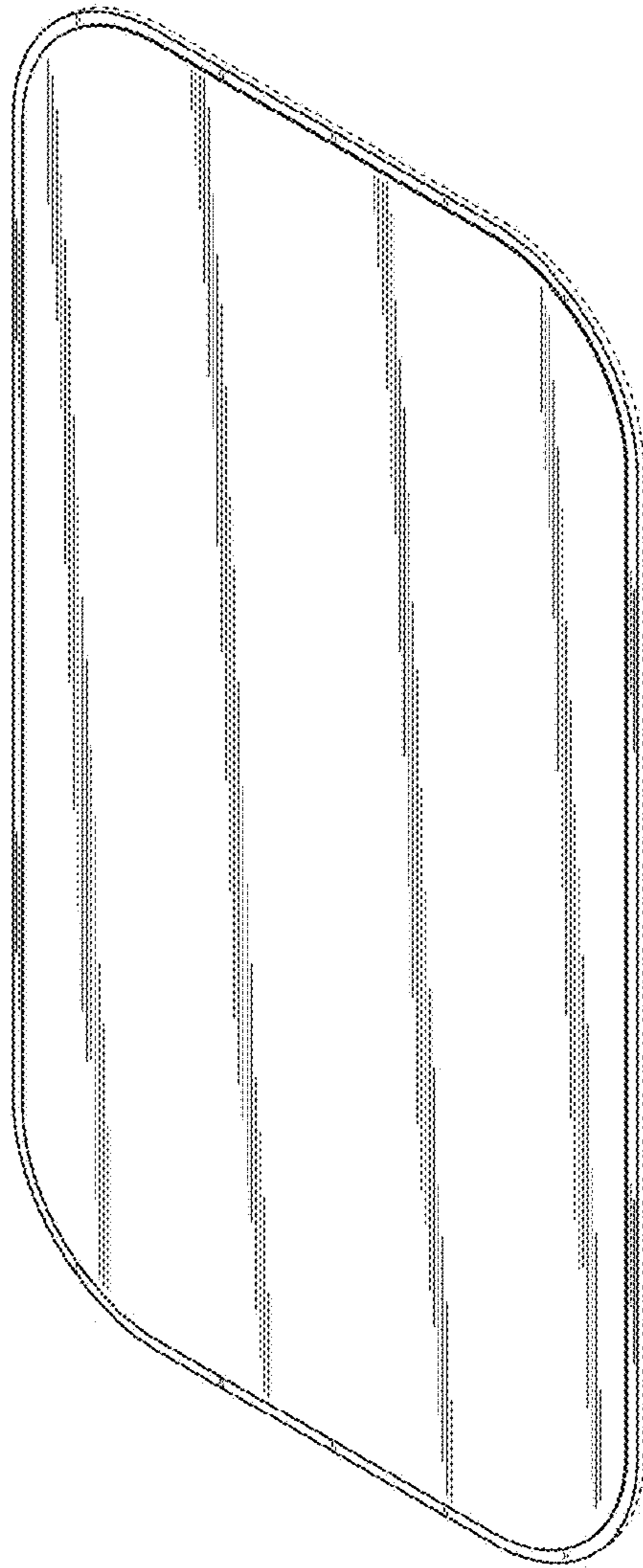


FIG. 16

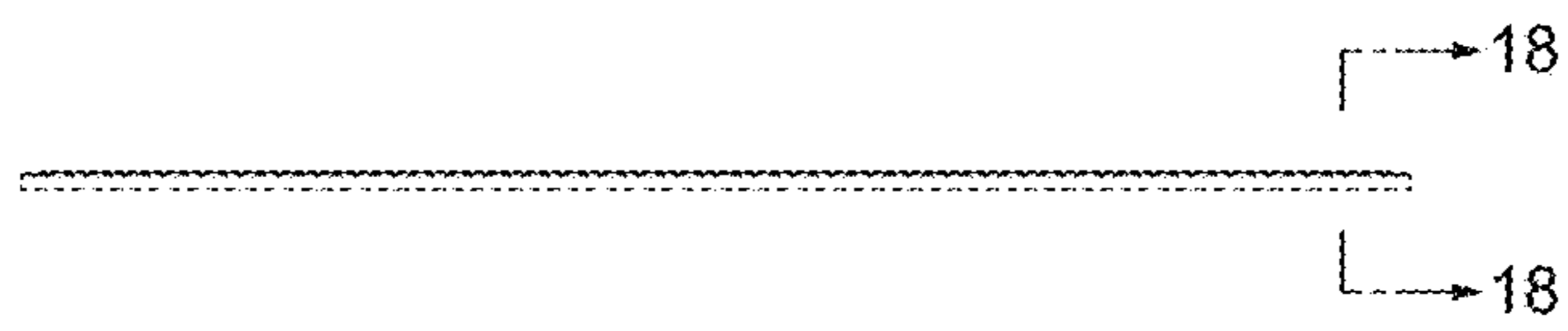


FIG. 17

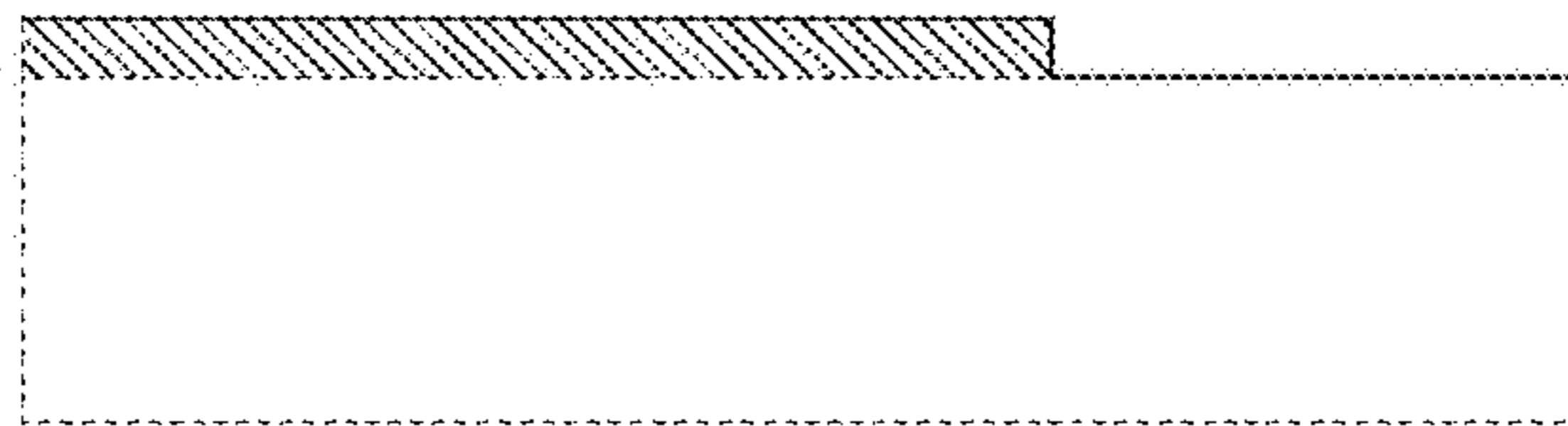


FIG. 18

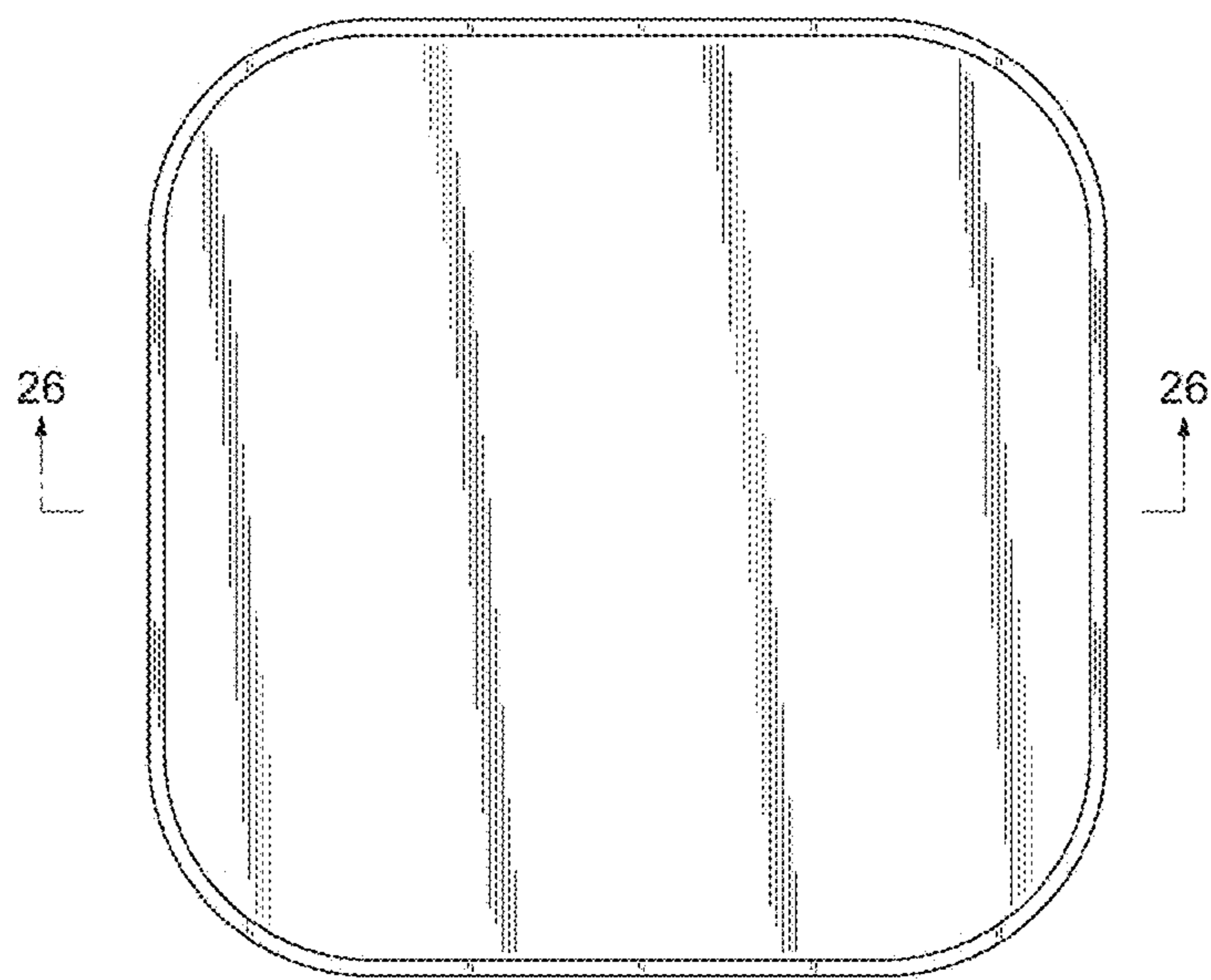


FIG. 19

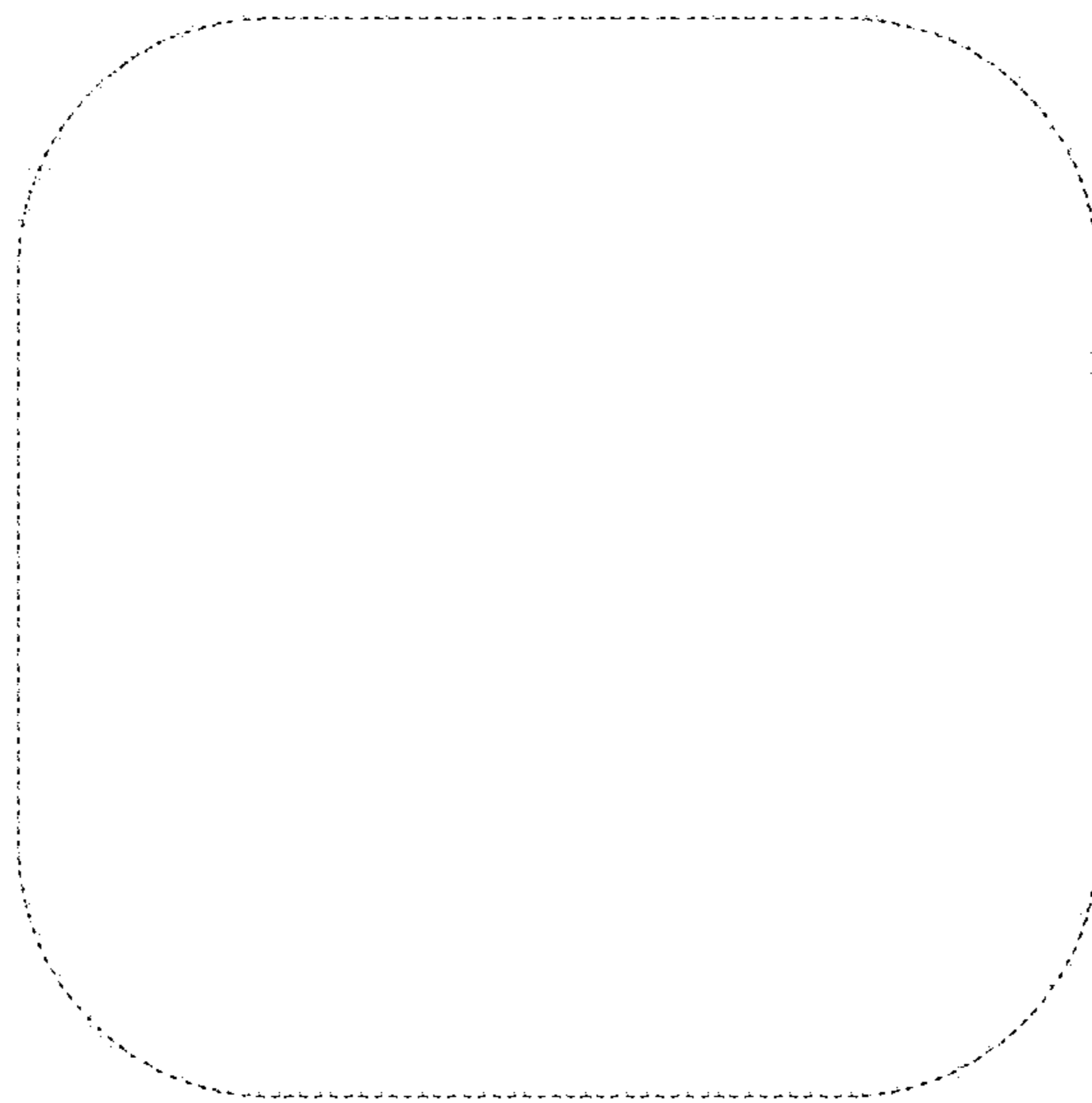
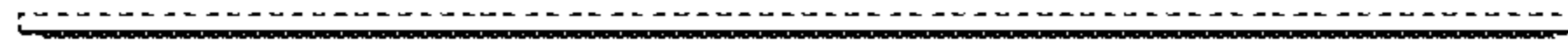


FIG. 20





**FIG. 21**



**FIG. 22**

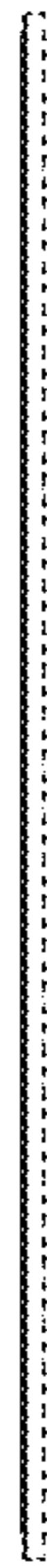


FIG. 23



FIG. 24

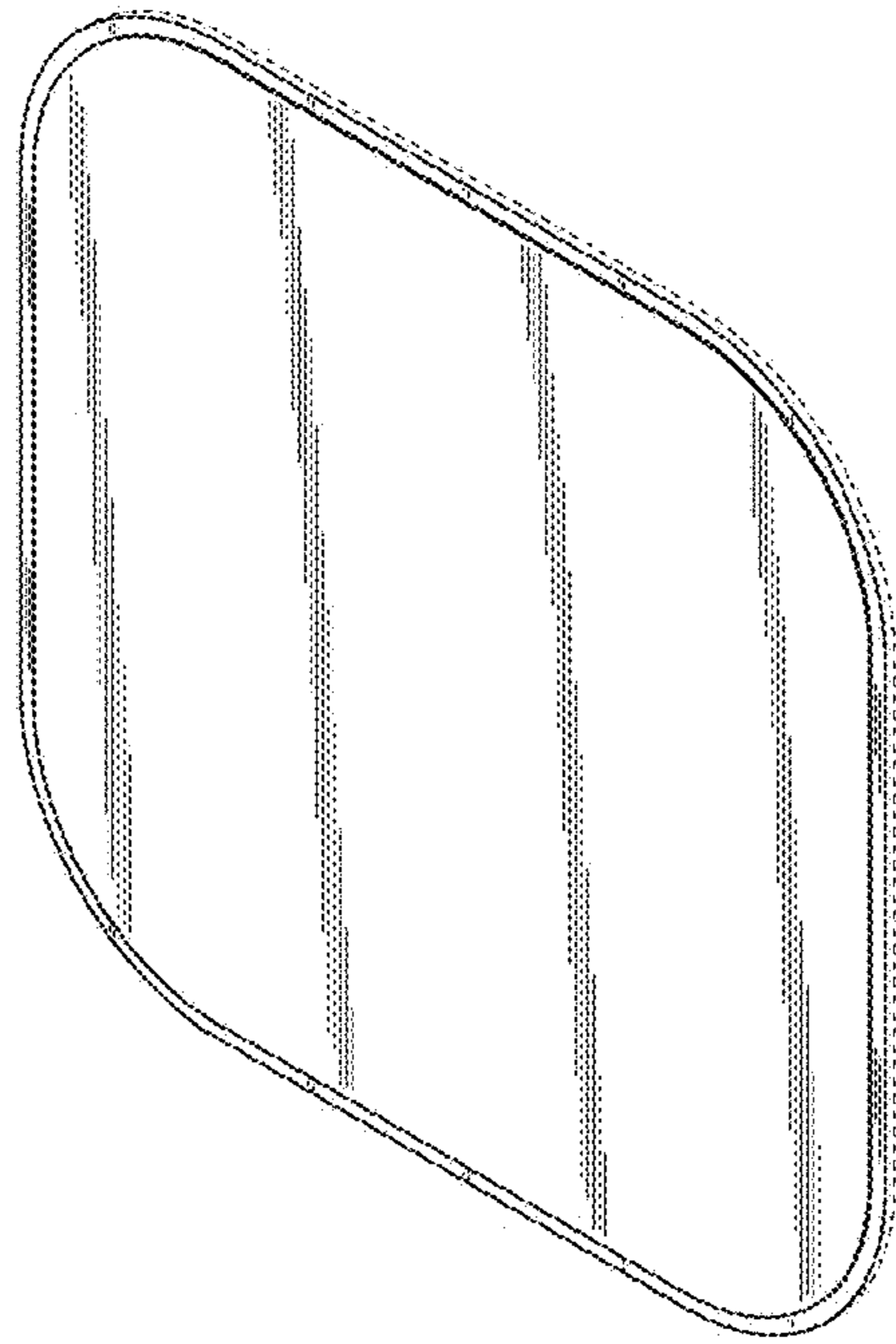


FIG. 25

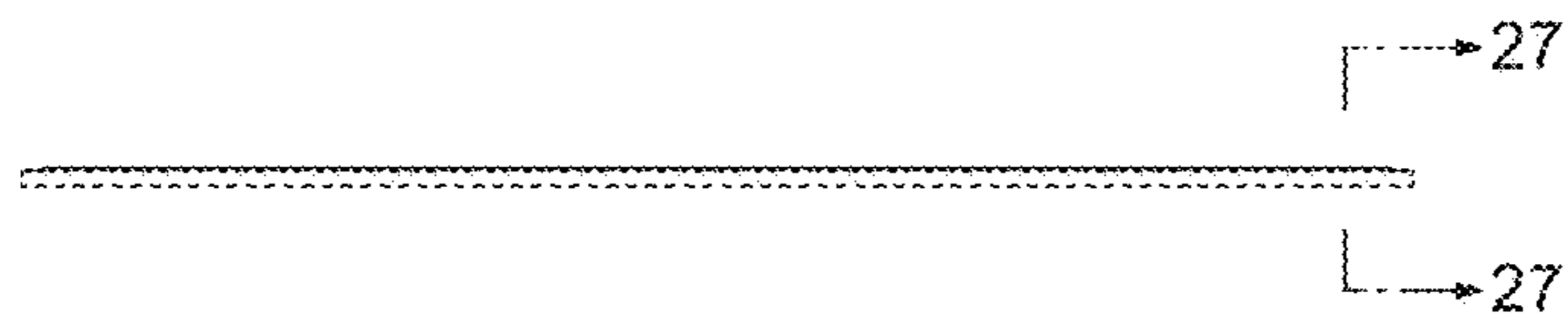


FIG. 26

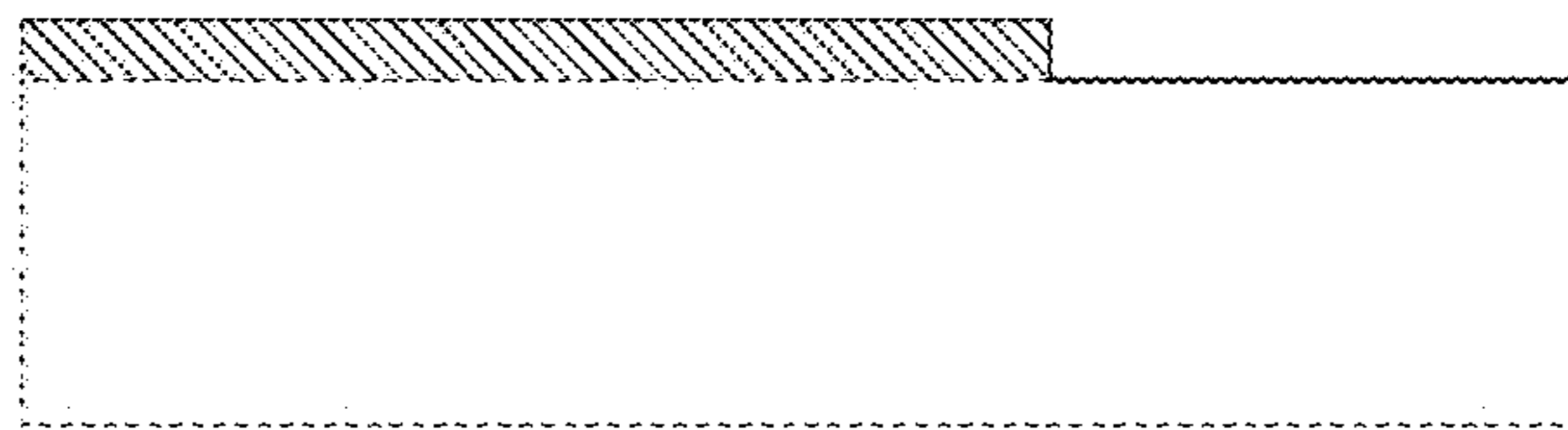


FIG. 27