



US00D875899S

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

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(45) **Date of Patent:** **** Feb. 18, 2020**

(54) **SEAL**

(71) Applicant: **NOK Corporation**, Tokyo (JP)

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(73) Assignee: **NOK CORPORATION**, Tokyo (JP)

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

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(30) **Foreign Application Priority Data**

Oct. 21, 2016 (JP) 2016002967

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(Continued)

(51) **LOC (12) Cl.** **23-01**

(52) **U.S. Cl.**

USPC **D23/269**

(58) **Field of Classification Search**

USPC D23/259, 269, 262; 277/311, 351-354,
277/357-358, 433-434, 458, 604, 305,

(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

D35,534 S * 12/1901 Conlin 277/608

2,954,264 A * 9/1960 Tisch F16J 15/32

277/630

(Continued)

Primary Examiner — Amy C Wierenga

(74) *Attorney, Agent, or Firm* — Pearne & Gordon LLP

(57) **CLAIM**

The ornamental design for a seal, as shown and described.

DESCRIPTION

FIG. 1 is front view of a first embodiment of a seal, the rear view being a mirror image of the front view;

FIG. 2 is a top plan view of the seal of FIG. 1;

FIG. 3 is a bottom plan view of the seal of FIG. 1;

FIG. 4 is a cross-sectional view of the seal of FIG. 1 taken along line 4-4;

FIG. 5 is an enlarged detail perspective view of the outer circumferential surface of the seal of FIG. 1;

FIG. 6 is front view of a second embodiment of the seal, the rear view being a mirror image of the front view;

FIG. 7 is a top plan view of the seal of FIG. 6;

FIG. 8 is a bottom plan view of the seal of FIG. 6;

FIG. 9 is a cross-sectional view of the seal of FIG. 6 taken along line 9-9;

FIG. 10 is an enlarged detail perspective view of the outer circumferential surface of the seal of FIG. 6;

FIG. 11 is front view of a third embodiment of the seal, the rear view being a mirror image of the front view;

FIG. 12 is a top plan view of the seal of FIG. 11;

FIG. 13 is a bottom plan view of the seal of FIG. 11;

FIG. 14 is a cross-sectional view of the seal of FIG. 11 taken along line 14-14;

FIG. 15 is an enlarged detail perspective view of the outer circumferential surface of the seal of FIG. 11;

FIG. 16 is front view of a fourth embodiment of the seal, the rear view being a mirror image of the front view;

FIG. 17 is a top plan view of the seal of FIG. 16;

FIG. 18 is a bottom plan view of the seal of FIG. 16;

FIG. 19 is a cross-sectional view of the seal of FIG. 16 taken along line 19-19;

FIG. 20 is an enlarged detail perspective view of the outer circumferential surface of the seal of FIG. 16;

FIG. 21 is front view of a fifth embodiment of the seal, the rear view being a mirror image of the front view;

FIG. 22 is a top plan view of the seal of FIG. 21;

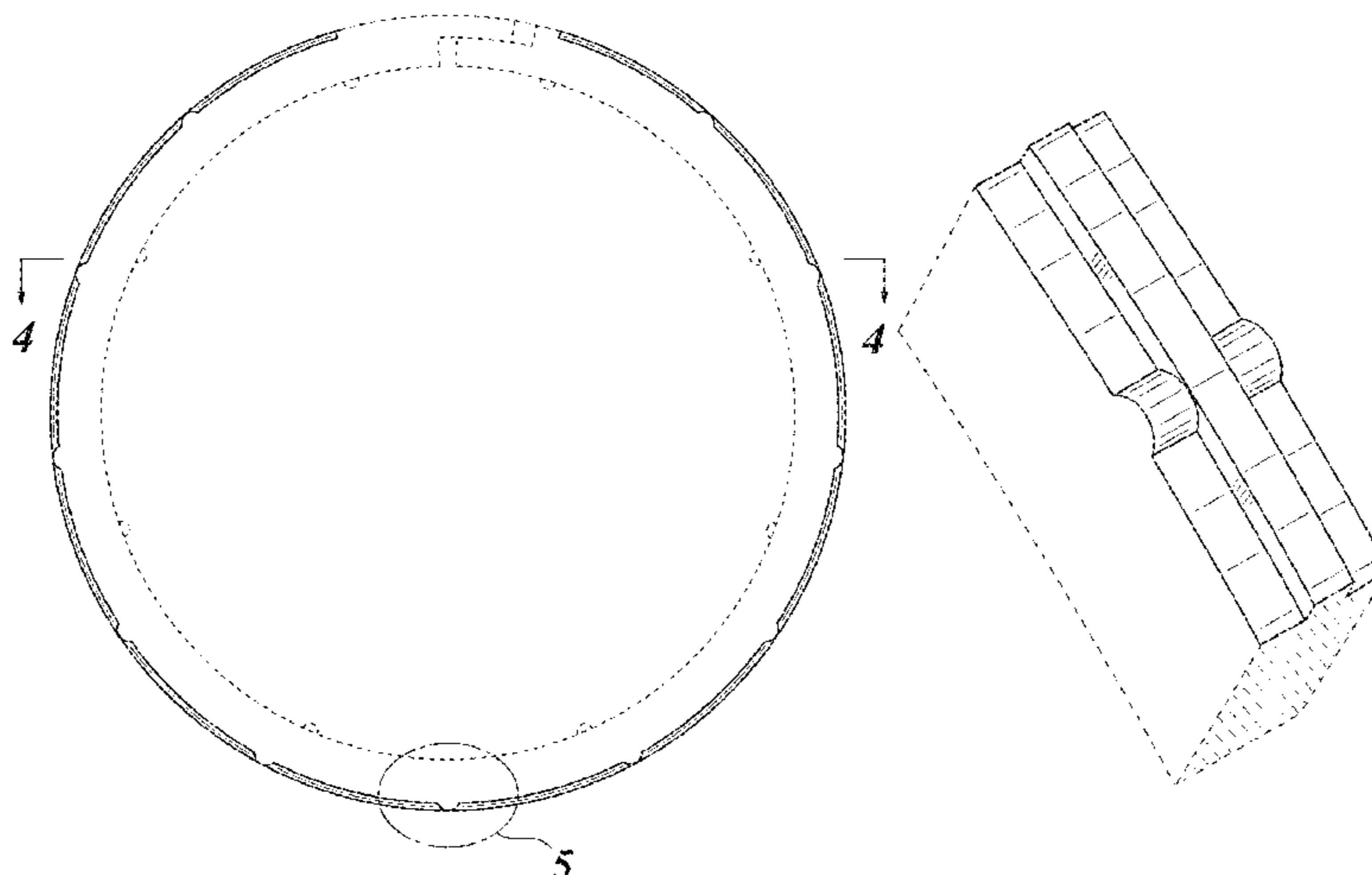
FIG. 23 is a bottom plan view of the seal of FIG. 21;

FIG. 24 is a cross-sectional view of the seal of FIG. 21 taken along line 24-24; and,

FIG. 25 is an enlarged detail perspective view of the outer circumferential surface of the seal of FIG. 21.

The dashed broken lines in the drawings represent portions of the seal that form no part of the claim. The dash-dot-dash broken lines define surface boundaries of the claim, and

(Continued)



indicate cutoff boundaries for enlarged detail portion views that form no part of the claim.

(56)

References Cited

U.S. PATENT DOCUMENTS

1 Claim, 10 Drawing Sheets

(30) **Foreign Application Priority Data**

Oct. 21, 2016 (JP) 2016002970
 Oct. 21, 2016 (JP) 2016002971
 Oct. 21, 2016 (JP) 2016002972

(58) **Field of Classification Search**

USPC 277/314, 316, 361–364, 374, 382,
 277/393–395, 397, 399, 416–420, 465,
 277/479, 487, 504, 512, 521, 543–549;
 285/105, 110, 337, 339, 368, 374
 CPC F16J 15/02; F16J 15/06; F16J 15/08; F16J
 15/18; F16J 15/20; F16J 15/24; F16J
 15/106; F16J 15/164; F16J 15/441; F16J
 15/025; F16J 15/10; F16J 15/061; F16J
 15/002; F16J 15/102; F16J 15/104; F16L
 15/121; F16L 21/007; F16L 21/08; F16L
 21/035; F16L 21/04; F16L 9/045; F16L
 37/0845; F16K 5/0207; F16K 5/0271;
 F16K 5/0457; F16K 5/0478; F16K
 5/0689

See application file for complete search history.

D368,516	S	*	4/1996	Matsumura	.....	D23/269
D447,223	S	*	8/2001	Mattsson	.....	D23/269
D515,675	S	*	2/2006	Tremoulet, Jr.	.....	D23/269
D527,445	S	*	8/2006	Wortmann	.....	D23/269
D614,271	S	*	4/2010	Weston	.....	D23/269
D631,948	S	*	2/2011	Yoshida	.....	D23/269
D638,522	S	*	5/2011	Yoshida	.....	D23/269
D638,523	S	*	5/2011	Yoshida	.....	D23/269
D655,401	S	*	3/2012	Muramatsu	.....	D23/269
D655,797	S	*	3/2012	Muramatsu	.....	D23/269
D728,757	S	*	5/2015	Graham	.....	D23/269
D743,513	S	*	11/2015	Yamagishi	.....	D23/269
D754,308	S	*	4/2016	Nakagawa	.....	D23/269
9,316,119	B2	*	4/2016	Sonokawa	.....	F01D 25/183
D815,385	S	*	4/2018	Kirkland	.....	D34/29
2007/0075505	A1	*	4/2007	Itoi	.....	F16J 15/104 277/650
2012/0018957	A1	*	1/2012	Watanabe	.....	F16J 15/441 277/387
2014/0030072	A1	*	1/2014	Hillier	.....	F01D 11/001 415/173.1
2015/0048574	A1	*	2/2015	Seki	.....	F16J 15/3208 277/589
2015/0362074	A1	*	12/2015	Seki	.....	F16J 15/24 277/512
2016/0116066	A1	*	4/2016	Watanabe	.....	F16J 9/14 277/500

* cited by examiner

FIG. 1

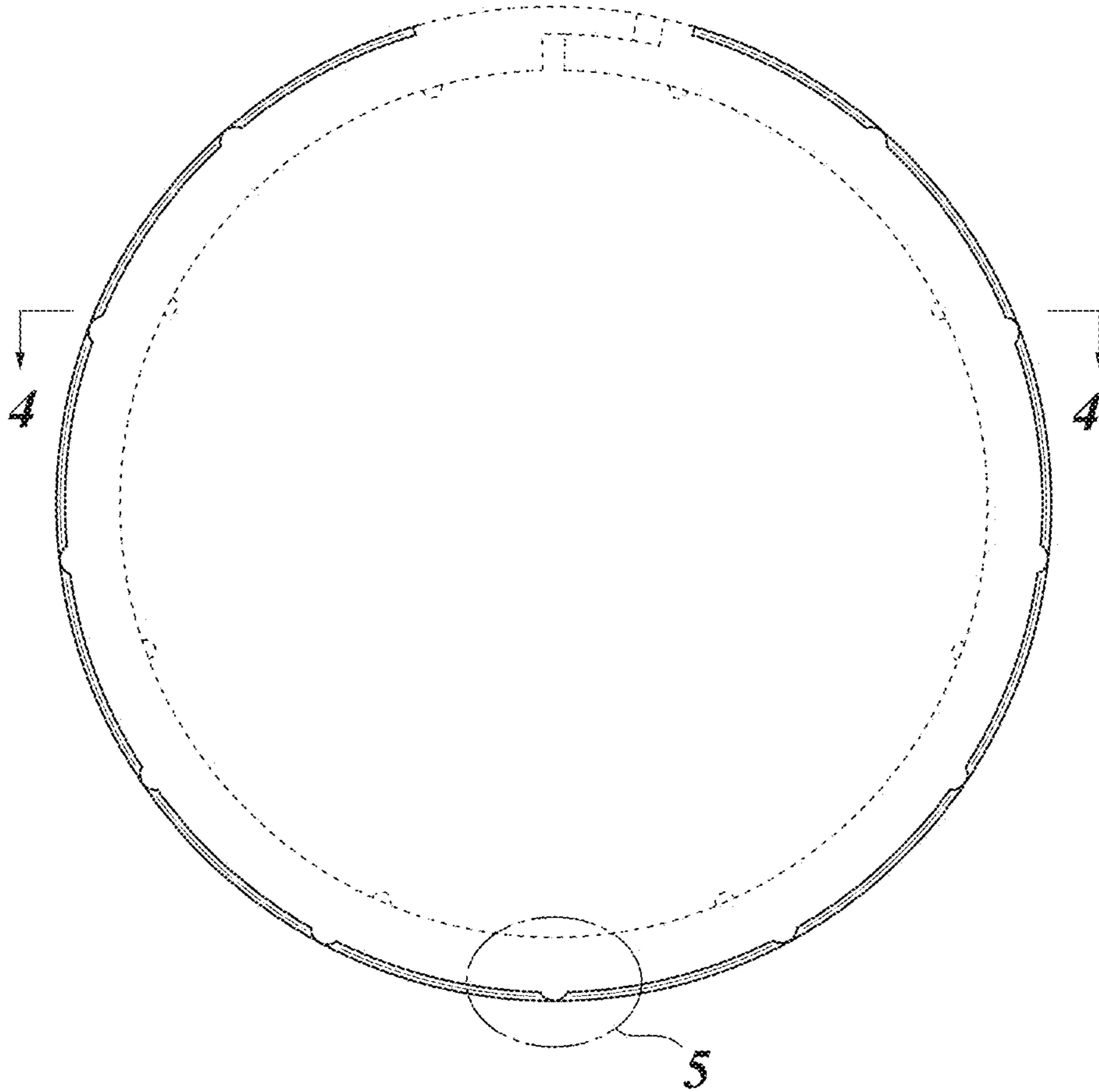


FIG. 2

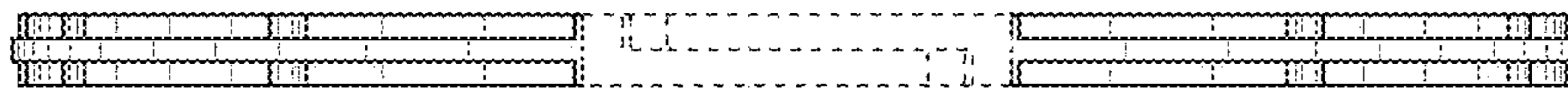


FIG. 3



FIG. 4

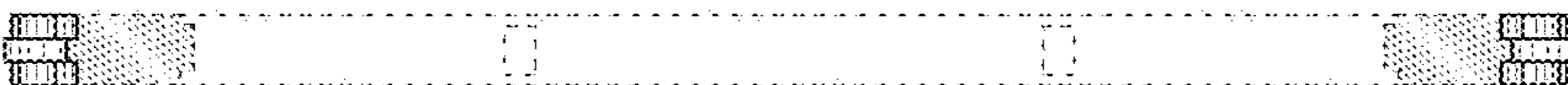


FIG. 5

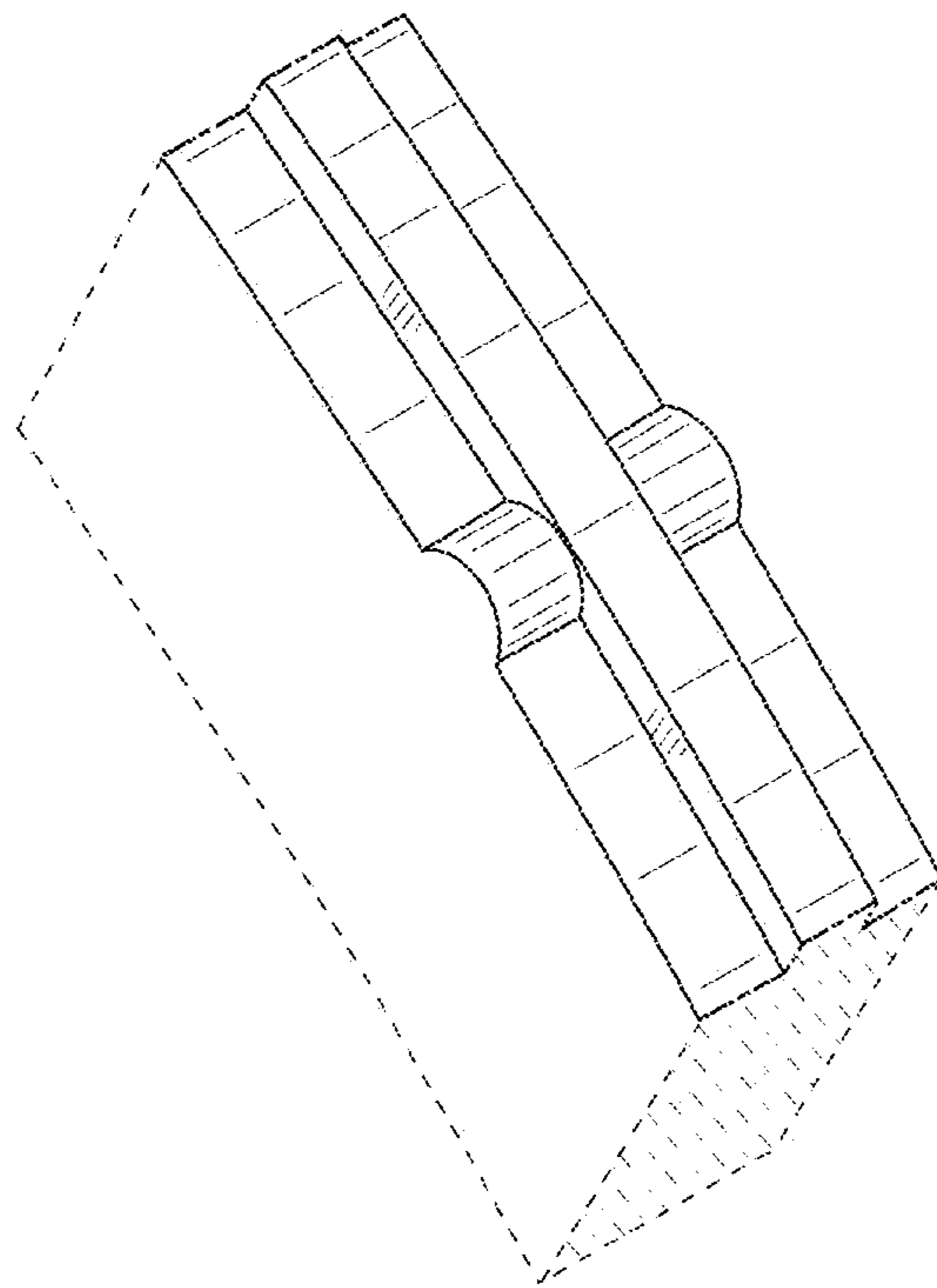


FIG. 6

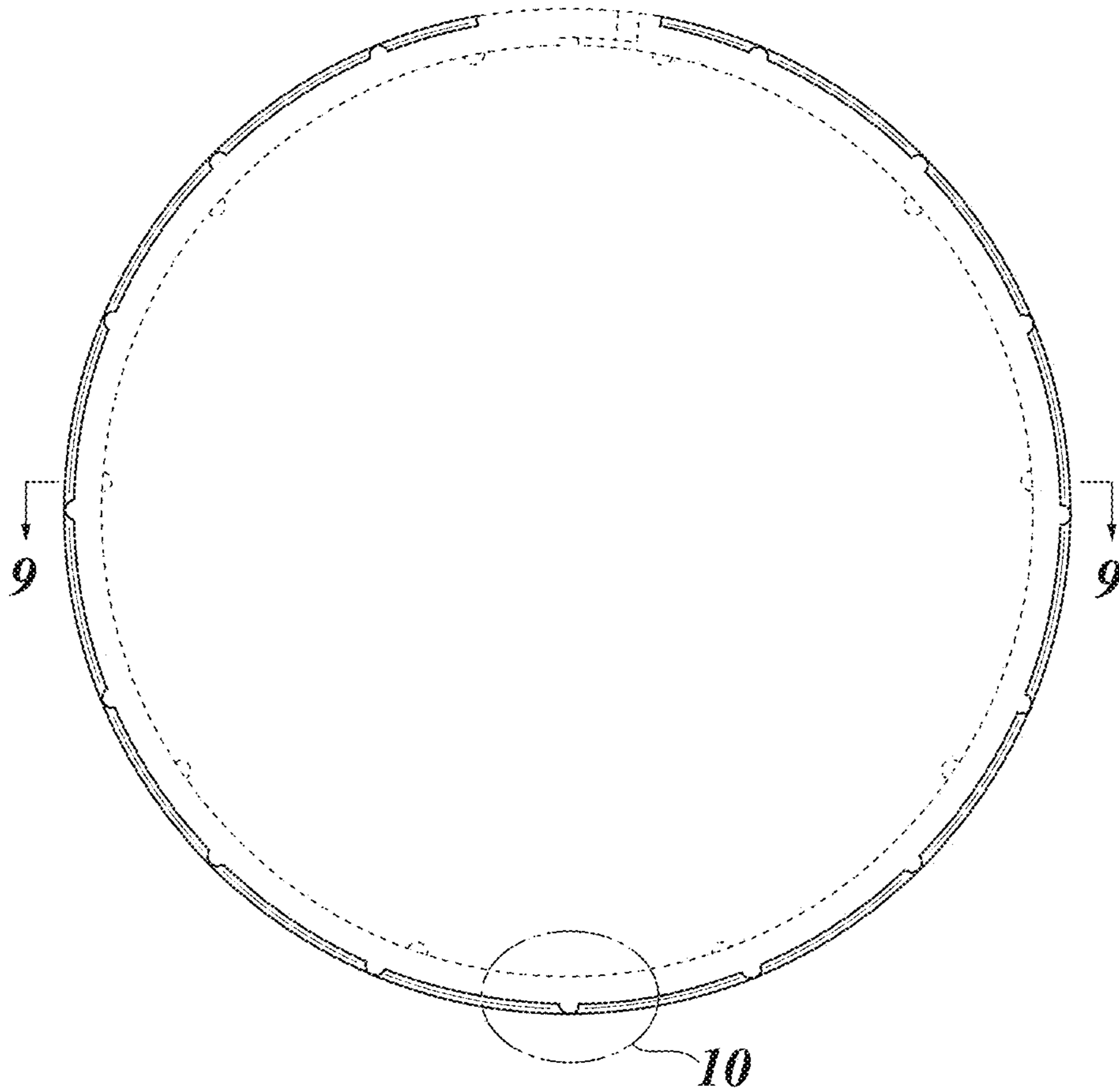


FIG. 7

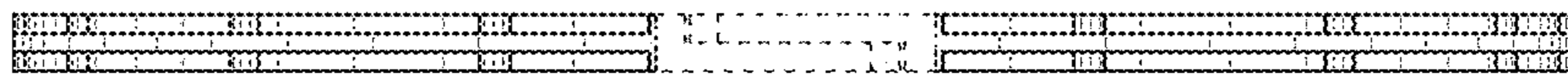


FIG. 8

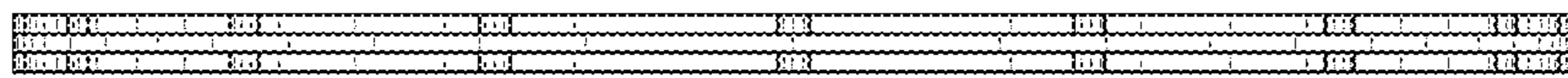


FIG. 9

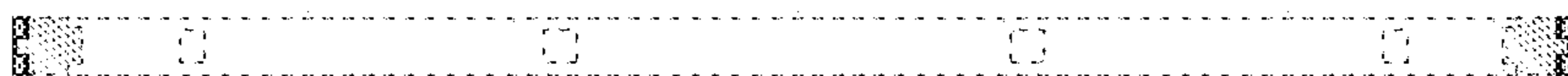


FIG. 10

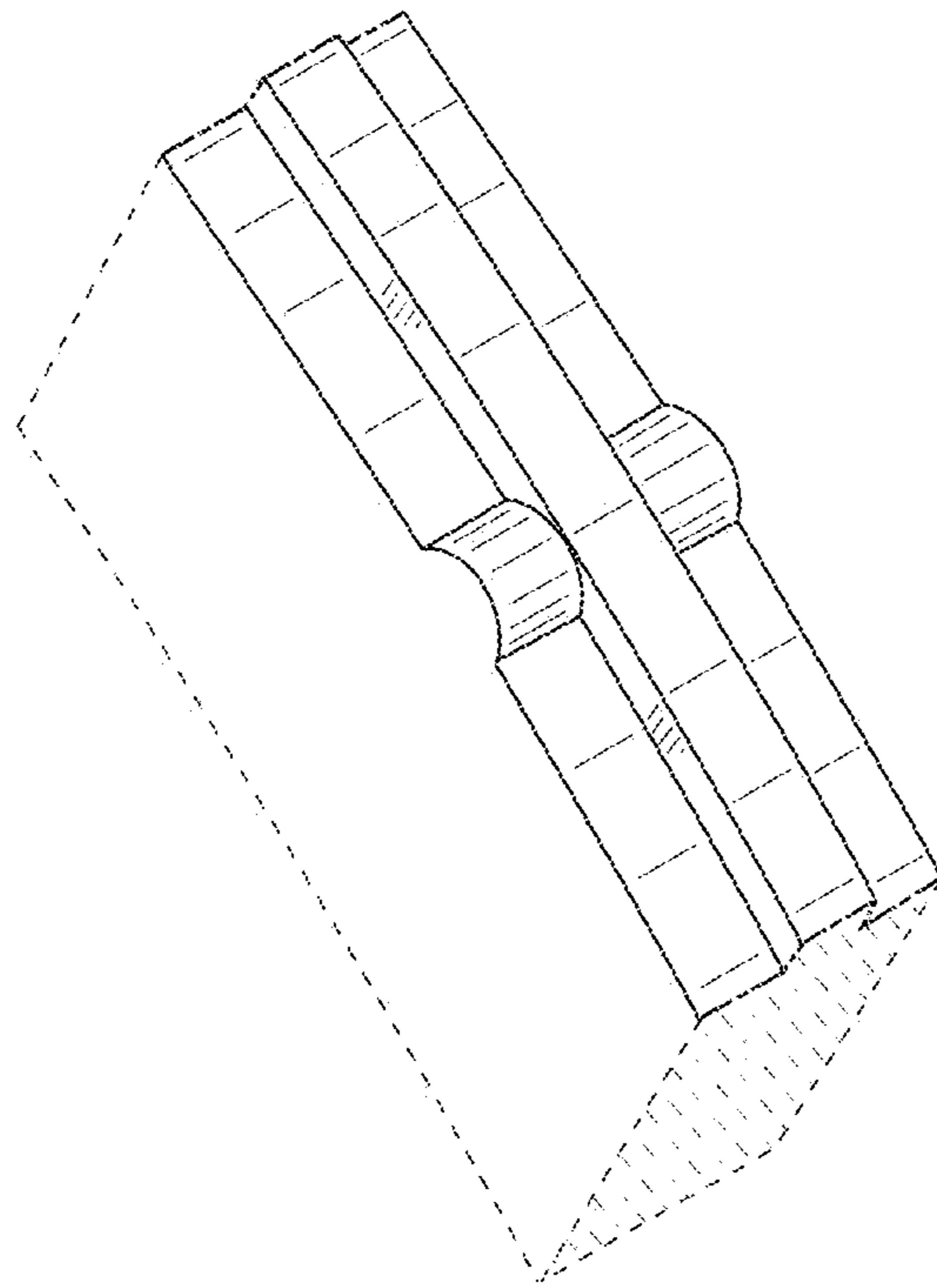


FIG. 11

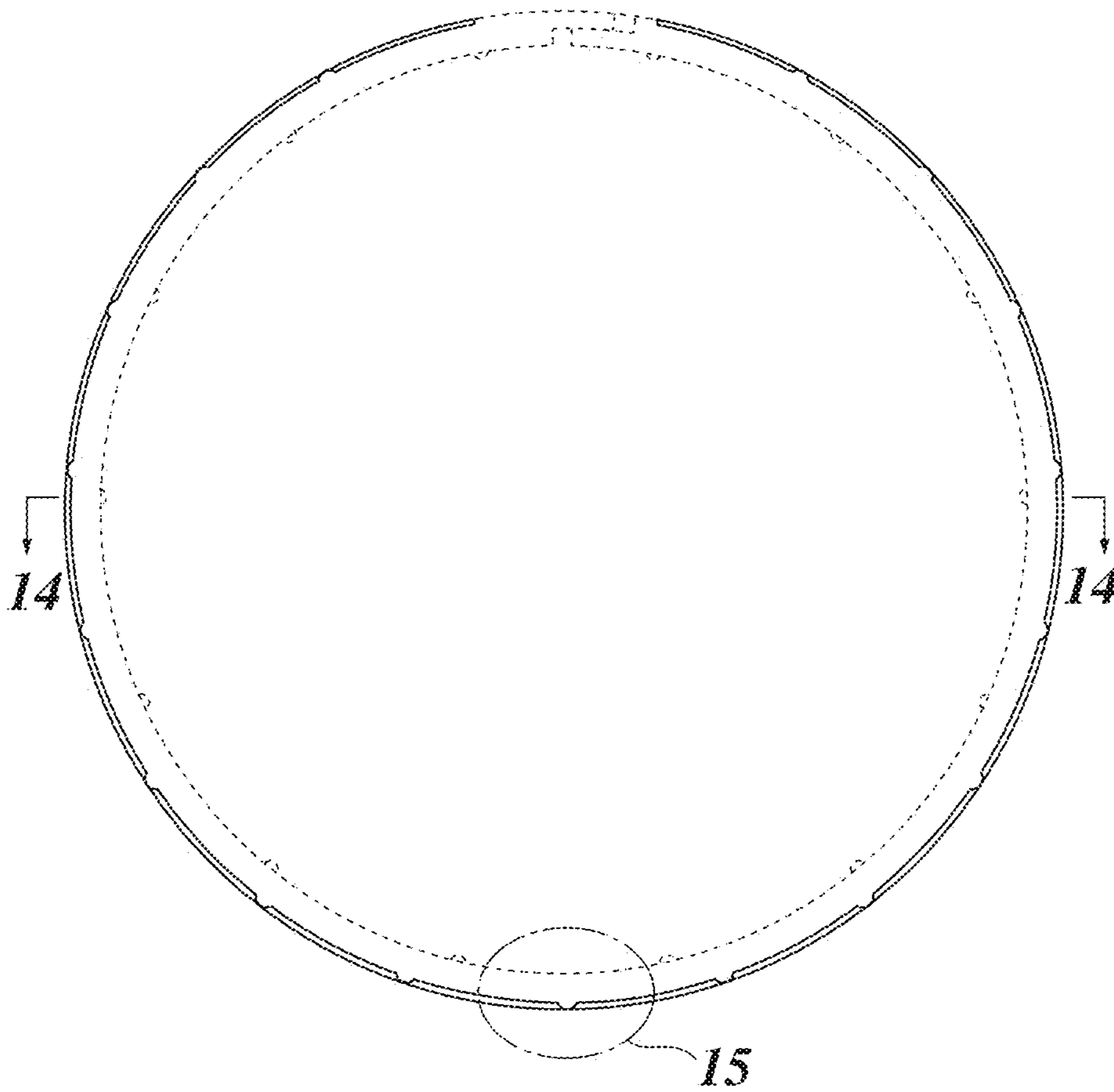


FIG. 12

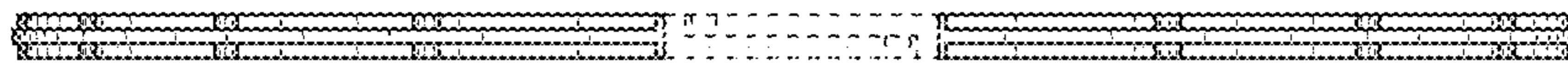


FIG. 13

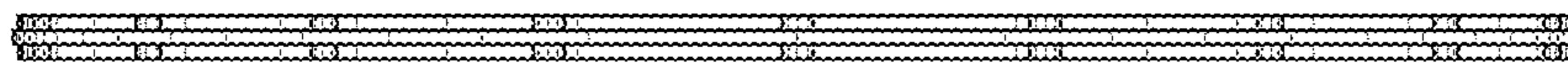


FIG. 14

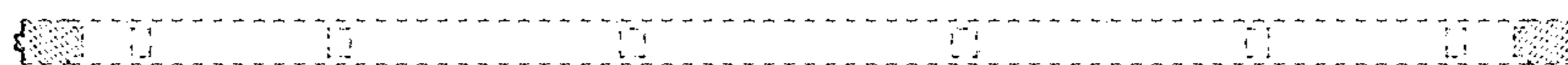


FIG. 15

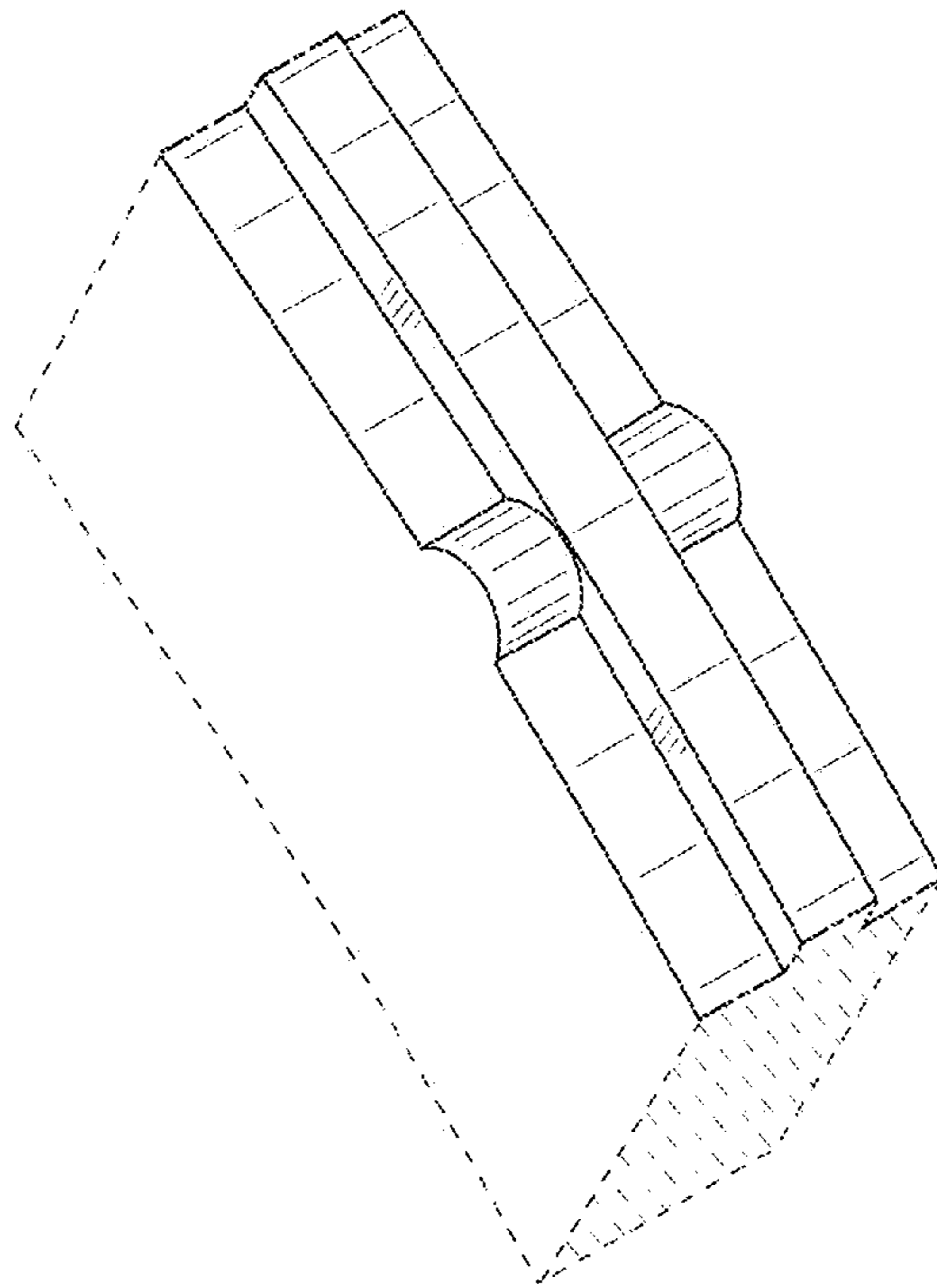


FIG. 16

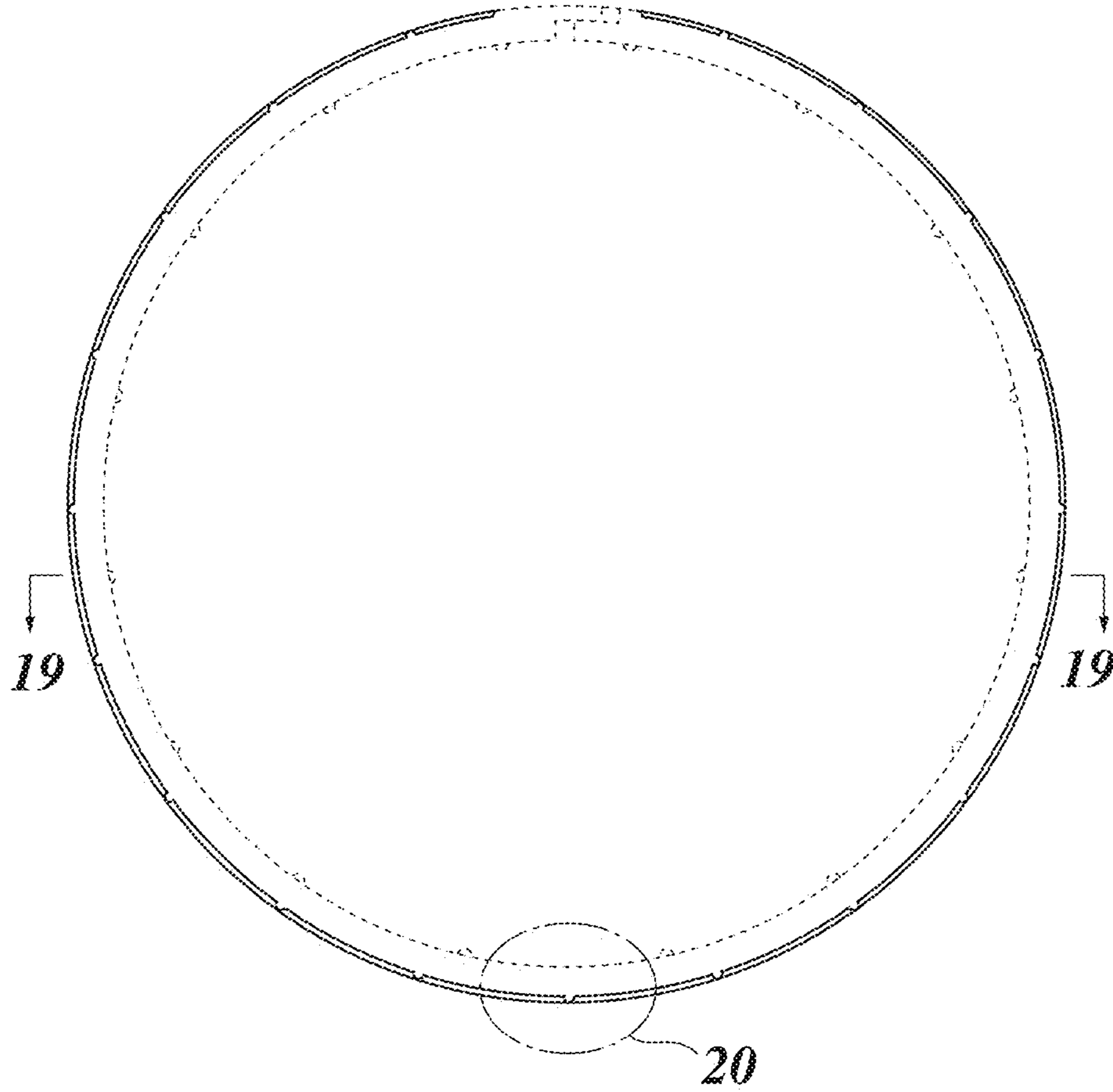


FIG. 17

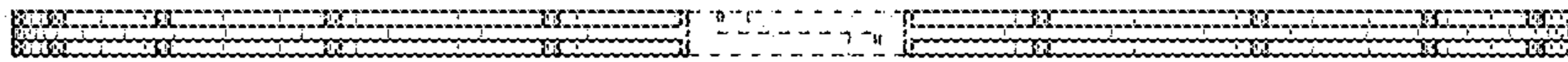


FIG. 18

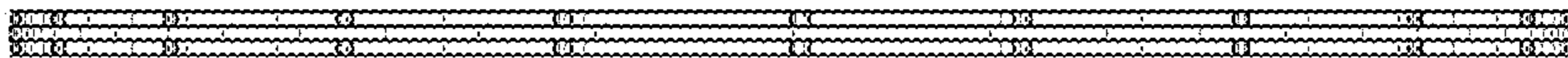


FIG. 19

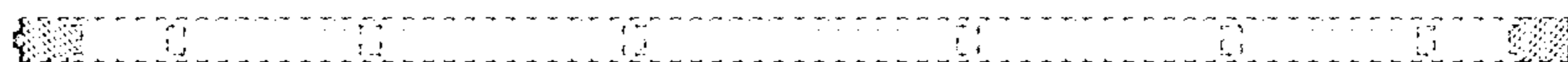


FIG. 20

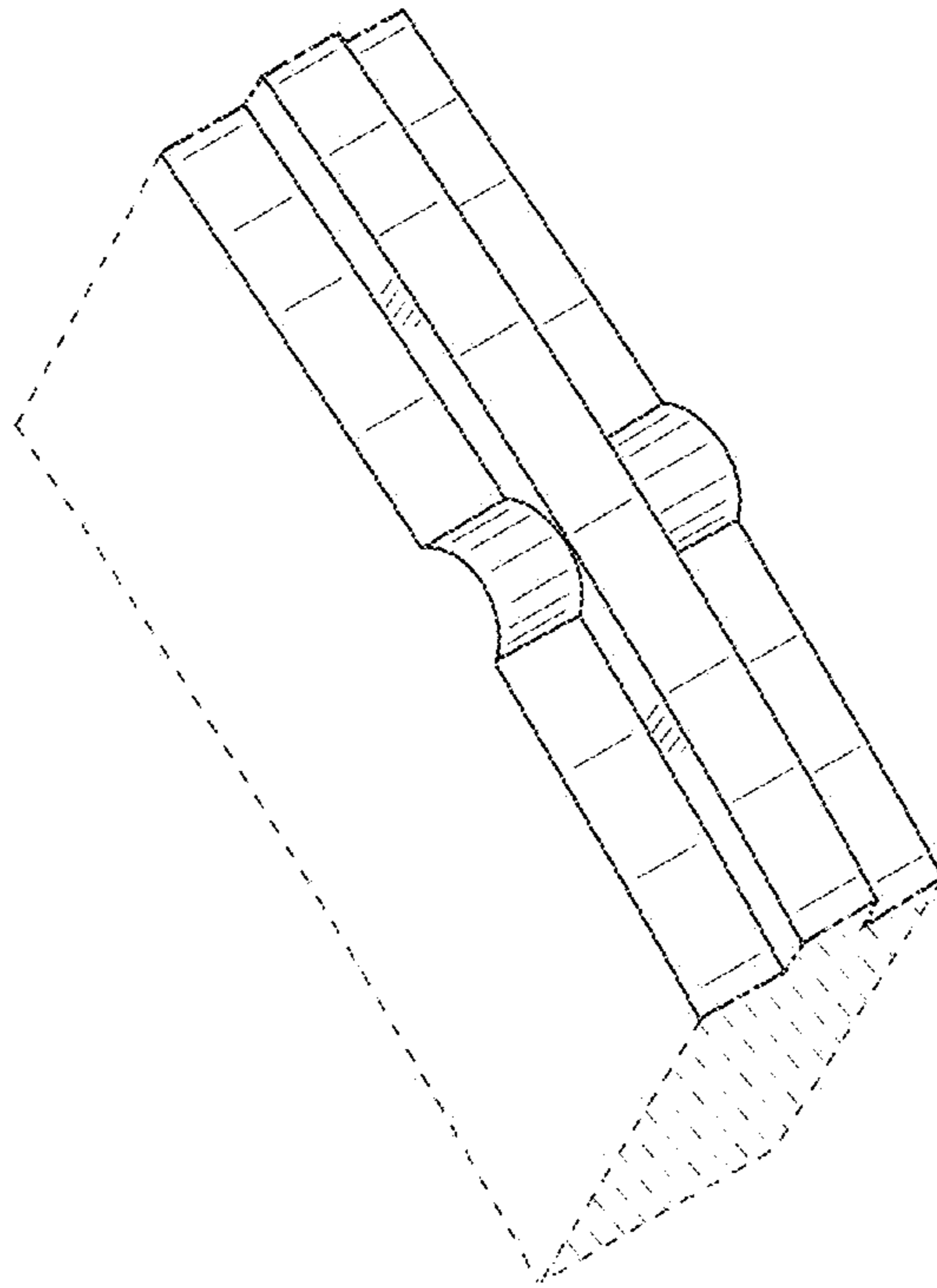


FIG. 21

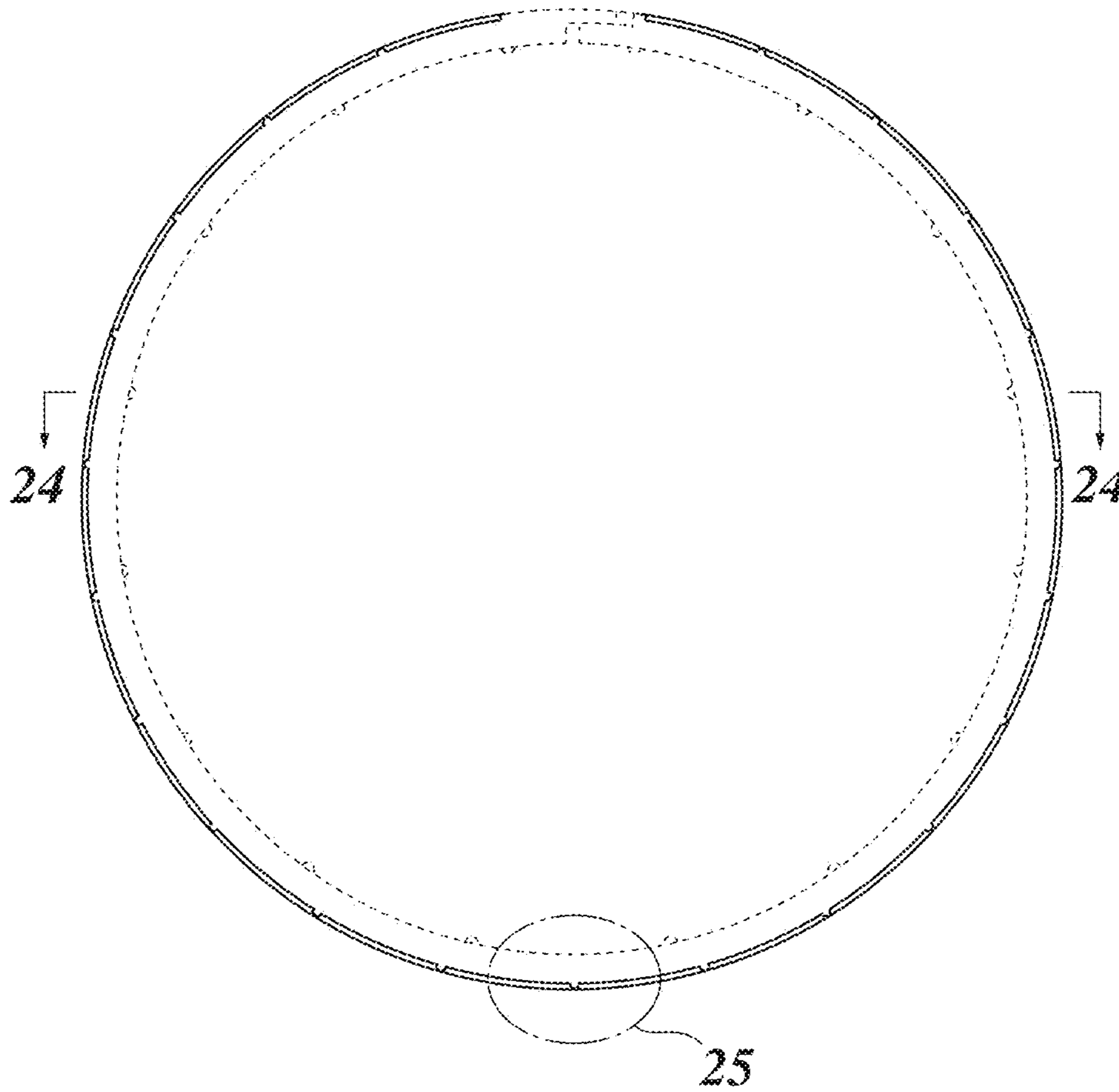


FIG. 22



FIG. 23

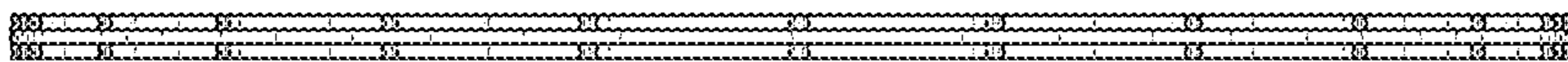


FIG. 24

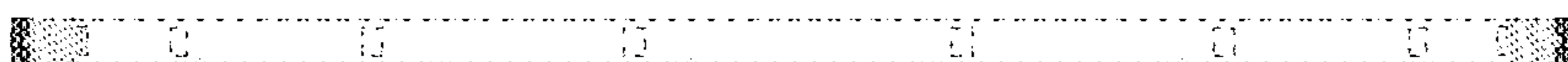


FIG. 25

