



US00D891636S

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

(10) **Patent No.:** **US D891,636 S**
(45) **Date of Patent:** **** Jul. 28, 2020**

(54) **RING FOR A PLASMA PROCESSING APPARATUS**

D697,038 S	1/2014	Matsumoto et al.
8,703,249 B2 *	4/2014	Tong H01J 7/32082 427/569
9,123,661 B2 *	9/2015	Kellogg H01J 7/32623
9,165,812 B2 *	10/2015	Ouye H01L 21/683
D802,790 S *	11/2017	Tauchi D24/232
D810,705 S *	2/2018	Krishnan D13/182
D836,573 S *	12/2018	Ichino D13/182
10,170,283 B2 *	1/2019	Kubota H01J 37/32642
D840,365 S *	2/2019	Ichino D13/182
D871,608 S *	12/2019	Okuda D24/224
D871,609 S *	12/2019	Isozaki D24/224

(71) Applicant: **Hitachi High-Tech Corporation**,
Minato-ku, Tokyo (JP)

(72) Inventors: **Masakazu Isozaki**, Tokyo (JP);
Masahito Mori, Tokyo (JP); **Kenetsu Yokogawa**, Tokyo (JP); **Takao Arase**, Tokyo (JP); **Taku Iwase**, Tokyo (JP)

(73) Assignee: **Hitachi High-Tech Corporation**,
Tokyo (JP)

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

(21) Appl. No.: **29/688,724**

(22) Filed: **Apr. 24, 2019**

(30) **Foreign Application Priority Data**

Oct. 25, 2018 (JP) 2018-023399

(51) **LOC (12) Cl.** **24-02**

(52) **U.S. Cl.**
USPC **D24/224**

(58) **Field of Classification Search**
USPC ... D24/104, 110.6, 113, 129, 144, 193, 197,
D24/206, 216, 224; D23/200, 213, 214,
D23/215
CPC H01L 21/3065; H01L 21/31116; H01L
21/67069; H01L 21/6831; H01L
21/68785; H01J 37/32642; H01J
37/32715

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D694,790 S 12/2013 Matsumoto et al.
D694,791 S 12/2013 Matsumoto et al.

* cited by examiner

Primary Examiner — Susan Bennett Hattan

Assistant Examiner — Suzanne E Tisdell

(74) *Attorney, Agent, or Firm* — Crowell & Moring LLP

(57) **CLAIM**

The ornamental design for a ring for a plasma processing apparatus, as shown and described.

DESCRIPTION

FIG. 1 is a front, bottom and right side perspective view of a ring for a plasma processing apparatus according to the design;

FIG. 2 is a front elevational view thereof;

FIG. 3 is a left side elevational view thereof;

FIG. 4 is a right side elevational view thereof;

FIG. 5 is a top plan view thereof;

FIG. 6 is a bottom plan view thereof;

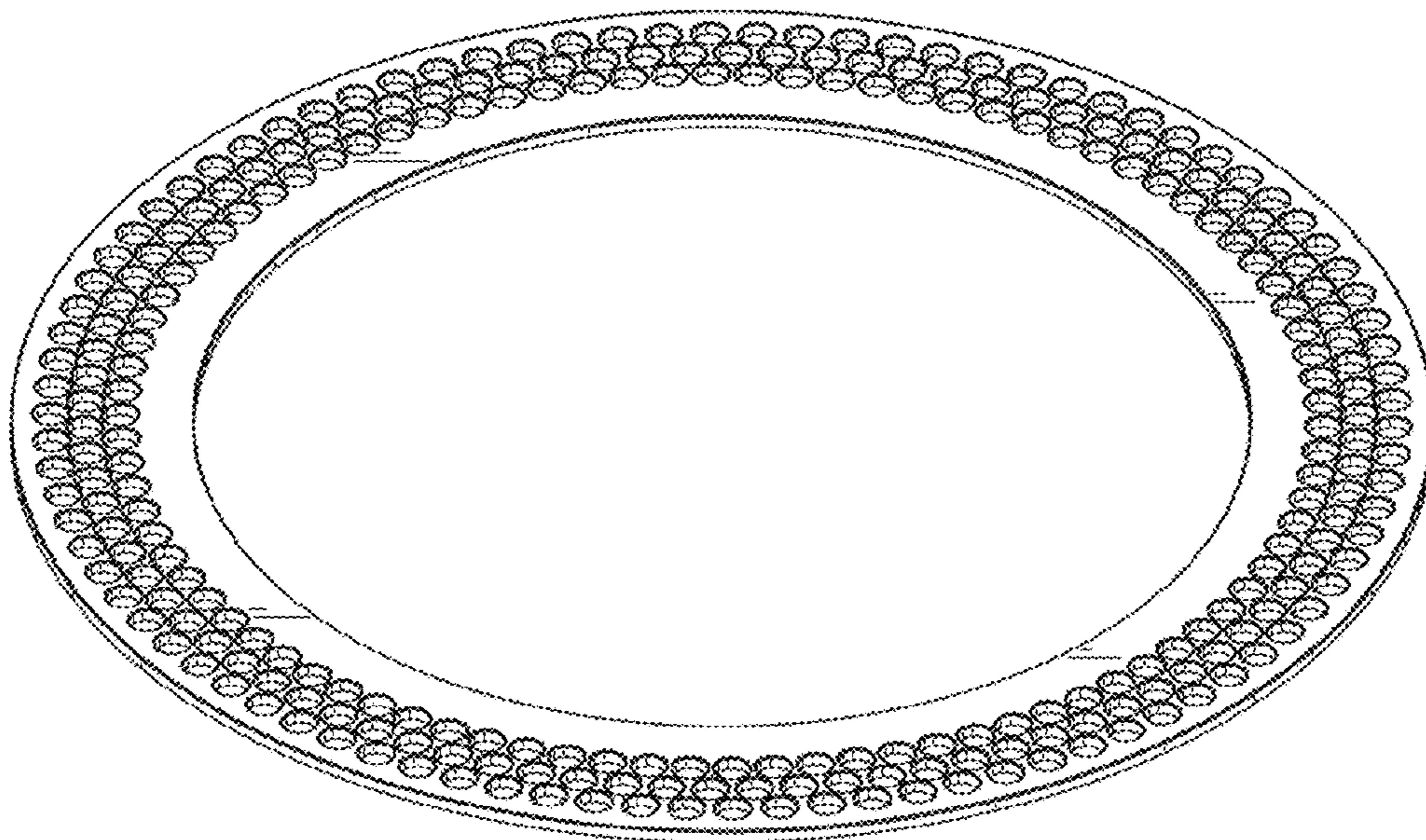
FIG. 7 is a rear elevational view thereof;

FIG. 8 is a cross-sectional view taken along line 8-8 of FIG. 2; and,

FIG. 9 is an enlarged view of the portion shown in BOX 9 in FIG. 8.

The box labelled as 9 in FIG. 8 is shown in broken lines and forms no part of the claimed design.

1 Claim, 3 Drawing Sheets



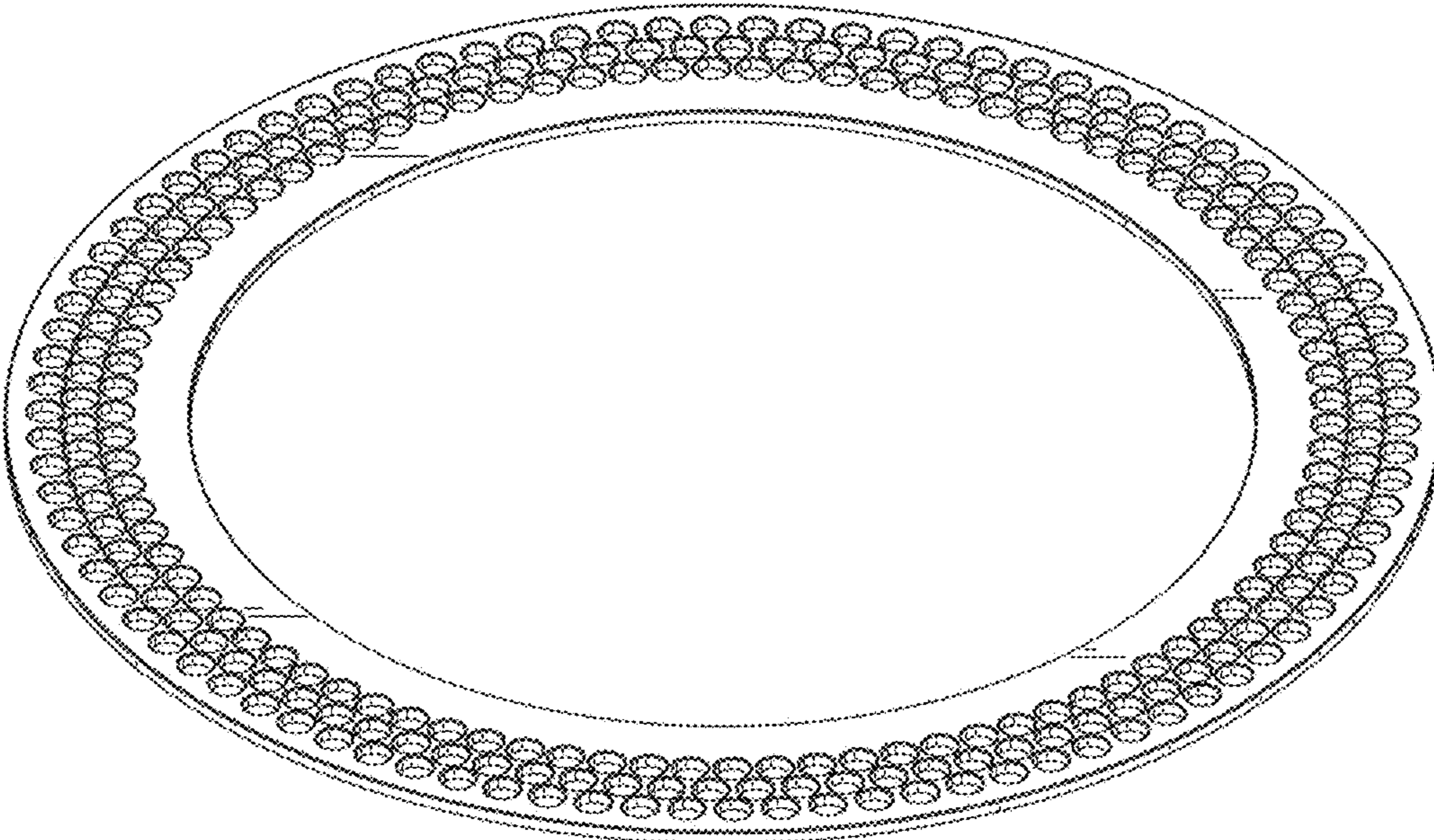


FIG. 1

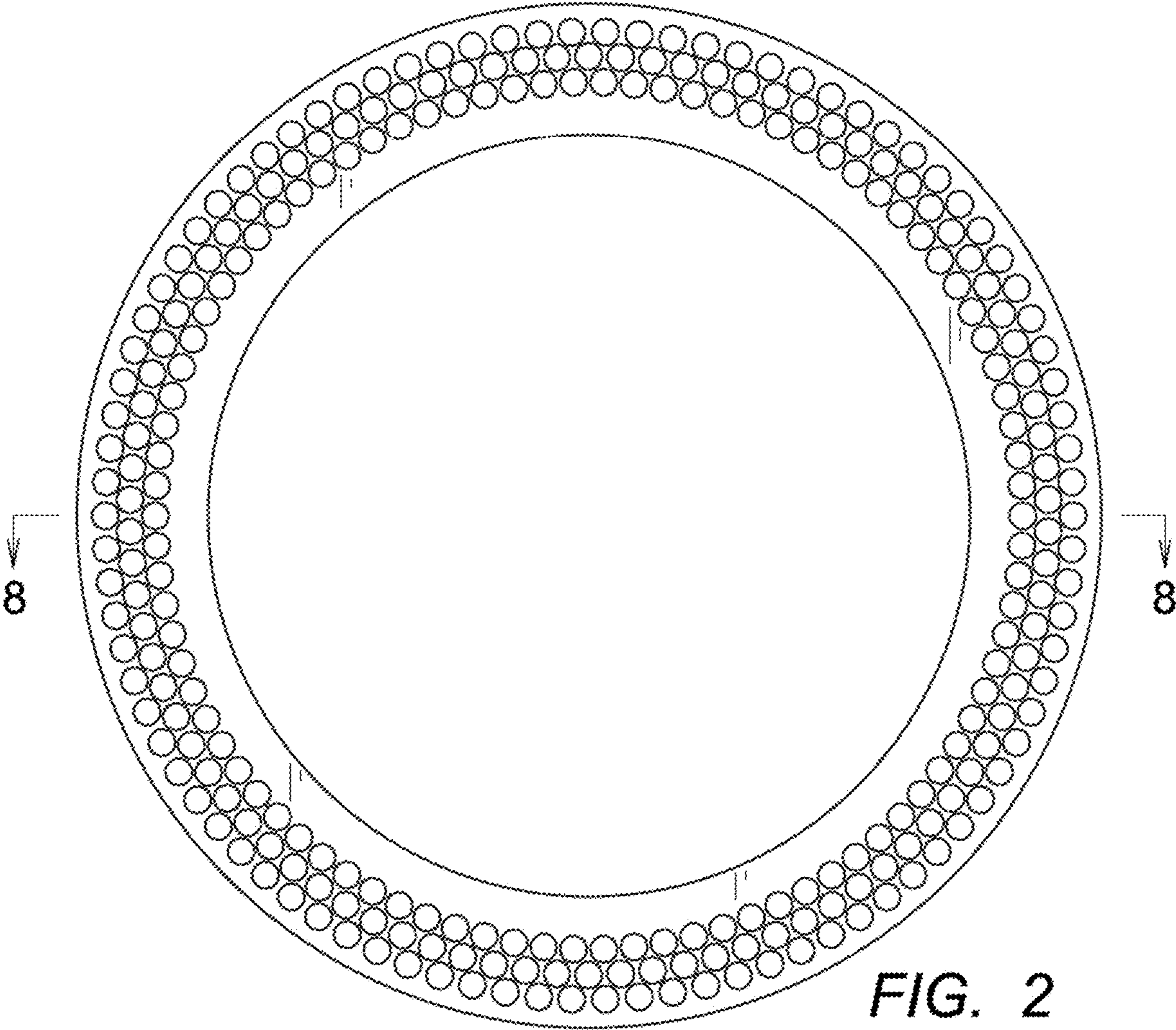


FIG. 2



FIG. 3

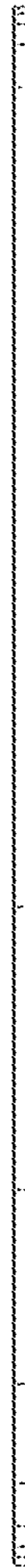


FIG. 4

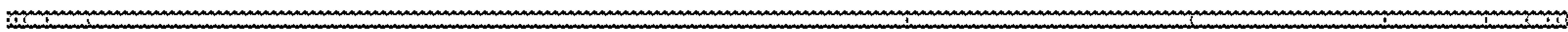


FIG. 5

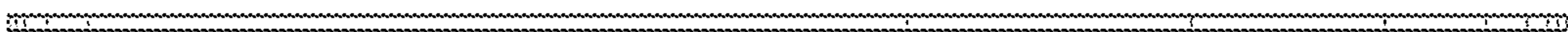


FIG. 6

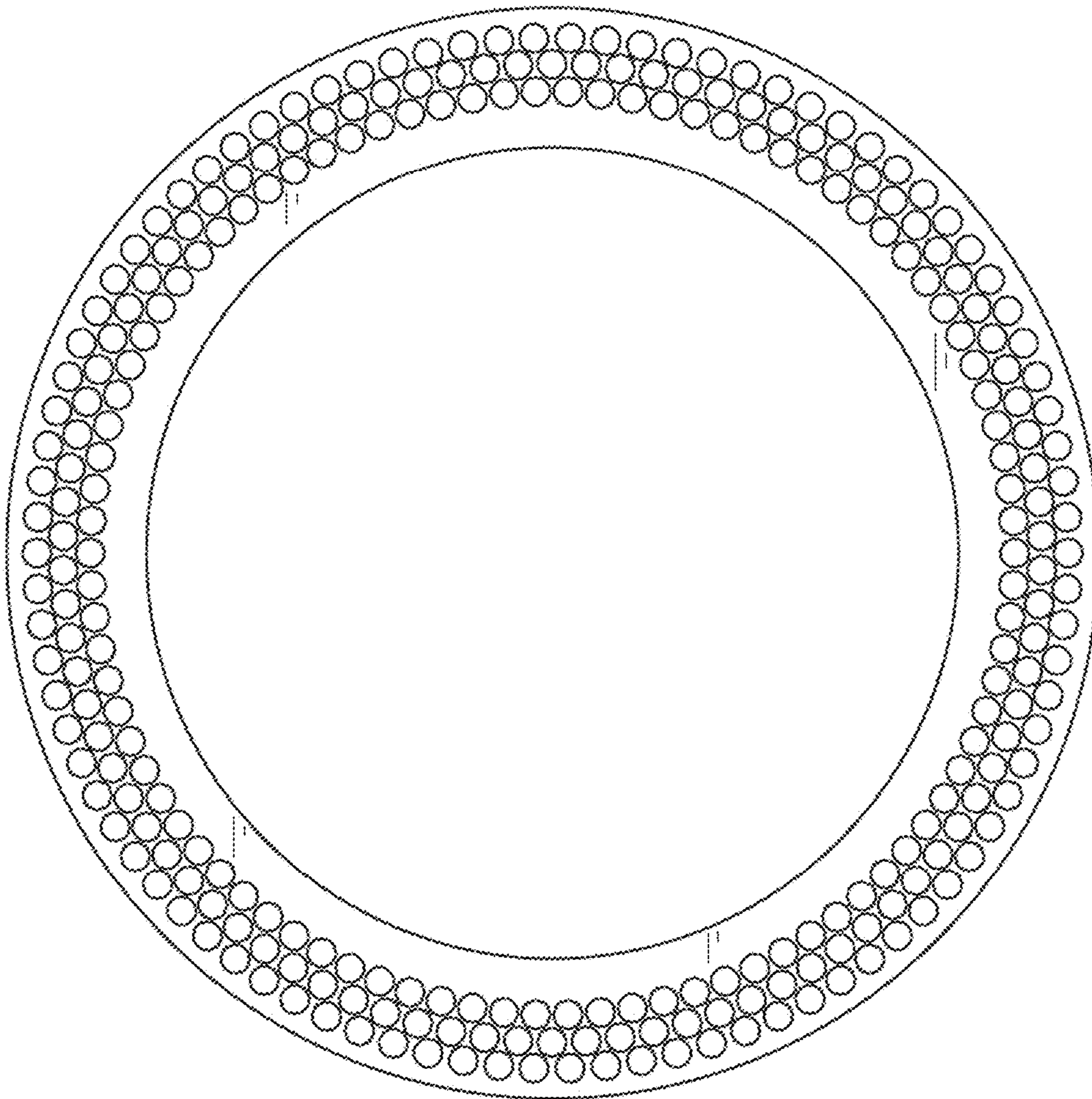


FIG. 7

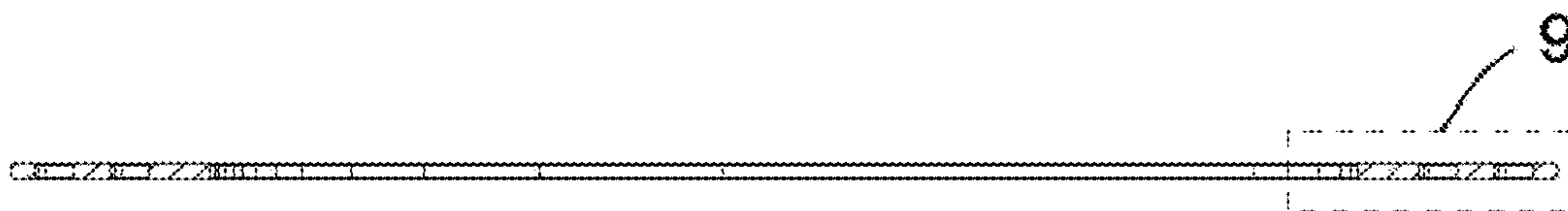


FIG. 8



FIG. 9