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

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(45) **Date of Patent:** **** May 23, 2017**

(54) **GAS SUPPLY PLATE FOR SEMICONDUCTOR MANUFACTURING APPARATUS**

16/45559; C23C 16/45563; C23C 16/45565; C23C 16/45568; C23C 16/4557; C23C 16/45587; C23C 16/458; C23C

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(Continued)

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(73) Assignee: **ASM IP Holding B.V.**, Almere (NL)

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

(Continued)

(21) Appl. No.: **29/555,303**

Primary Examiner — Elizabeth J Oswecki

(22) Filed: **Feb. 19, 2016**

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

(30) **Foreign Application Priority Data**

(57) **CLAIM**

Nov. 18, 2015 (KR) 30-2015-0058066

The ornamental design for a gas supply plate for a semiconductor manufacturing apparatus, as shown and described.

(51) **LOC (10) Cl.** **13-03**

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

DESCRIPTION

(58) **Field of Classification Search**

USPC D13/182; D23/213

CPC H01J 37/32623; H01J 37/32633; H01J

37/32642; H01J 37/32; H01J 37/3244;

H01J 37/32449; H01L 21/67; H01L

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21/67069; H01L 21/6708; H01L

21/68098; H01L 21/67109; H01L

21/6875; H01L 21/68714; F27B 15/00;

F27B 15/006; F27B 15/10; C30B 31/10;

C30B 31/16; C30B 31/165; C30B 31/14;

C30B 33/12; F27D 5/00; F27D 5/0037;

F27D 7/02; F27D 7/00; F27D 7/023;

G21D 9/673; G21D 9/675; G21D 9/677;

G21D 9/42; G21D 9/54; G21D 9/0025;

B21C 47/26; C23C 16/4412; C23C 16/44;

C23C 16/4401; C23C 16/4402; C23C

16/4404; C23C 16/4405; C23C 16/4408;

C23C 16/455; C23C 16/45517; C23C

16/45519; C23C 16/45521; C23C

FIG. 1 is a perspective view of a gas supply plate for a semiconductor manufacturing apparatus showing our new design;

FIG. 2 is a front elevational view thereof;

FIG. 3 is a rear elevational view thereof;

FIG. 4 is a left side elevational view thereof;

FIG. 5 is a right side elevational view thereof;

FIG. 6 is a top plan view thereof;

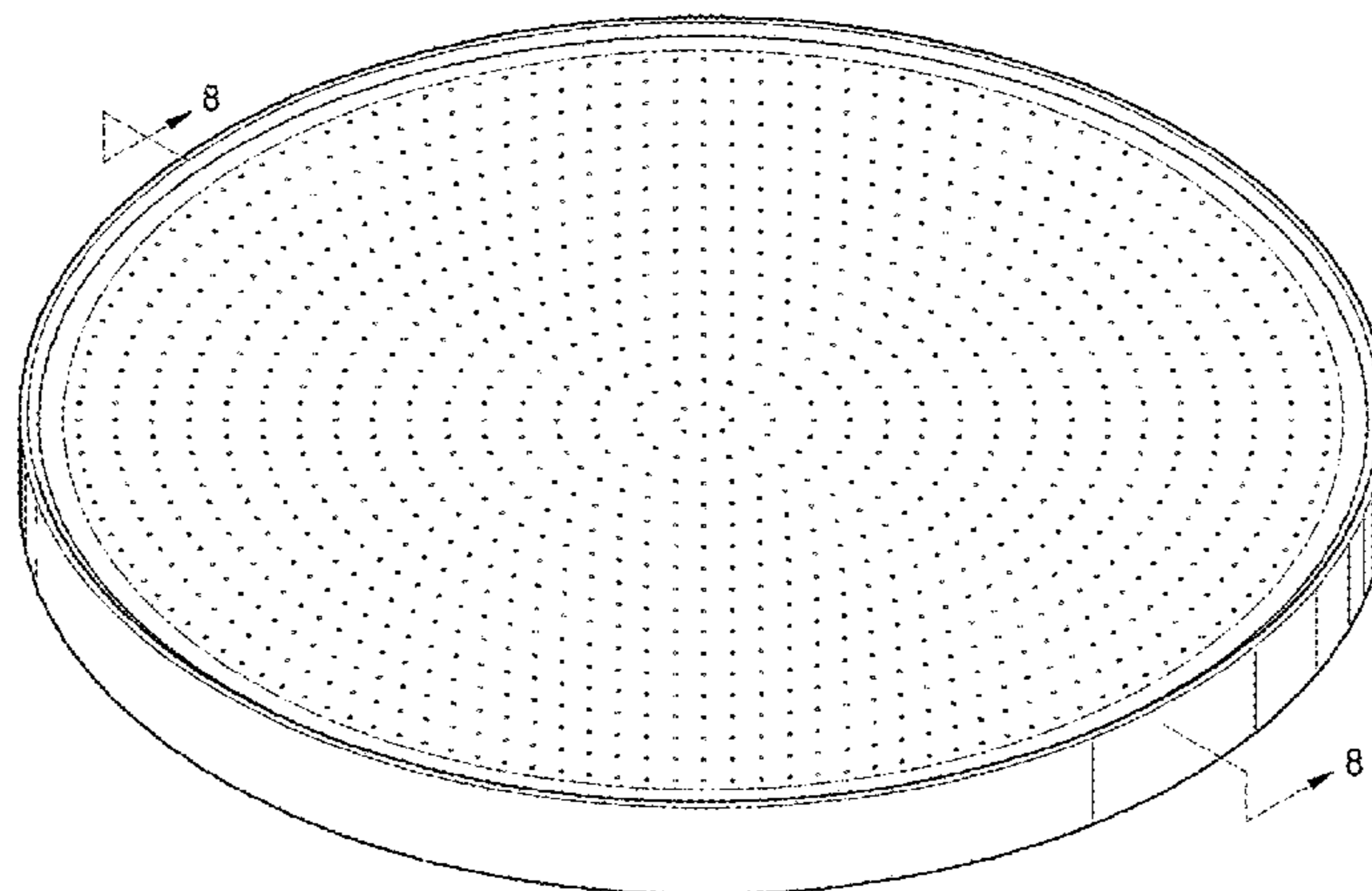
FIG. 7 is a bottom plan view thereof;

FIG. 8 is a cross sectional view taken along line 8-8 of FIG. 1; and,

FIG. 9 is an enlarged portion view taken along line 9 in FIG. 8.

The even dashed broken lines shown in the drawings represent portions of the gas supply plate for semiconductor manufacturing apparatus, that form no part of the claimed design. The dashed-dot-dashed lines represent the boundary lines of the claimed design.

1 Claim, 7 Drawing Sheets



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(58) **Field of Classification Search**

CPC 16/4581; C23C 16/4582; C23C 16/4584;
C23C 16/46; C23C 16/466

See application file for complete search history.

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FIG. 1

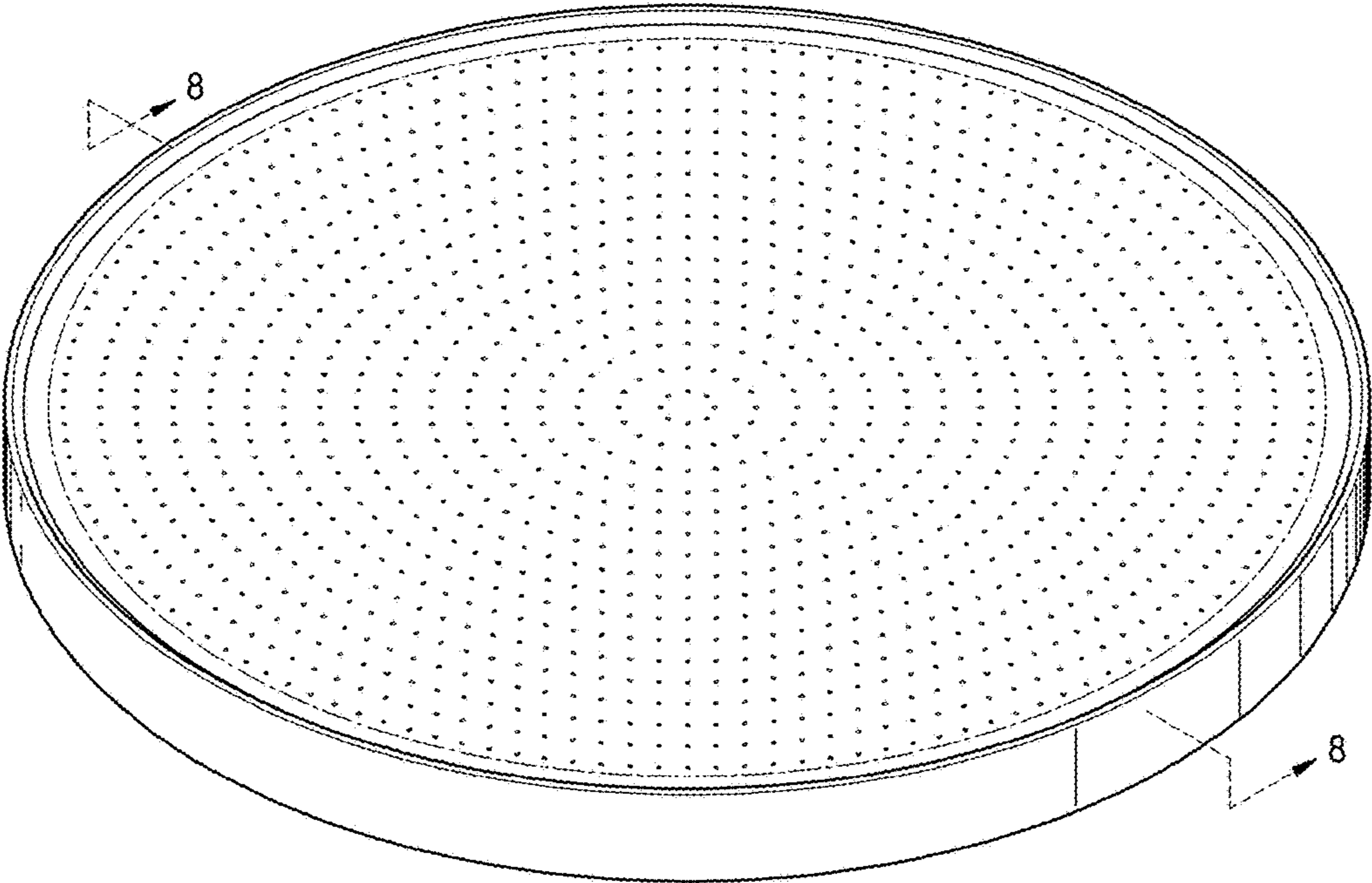


FIG. 2

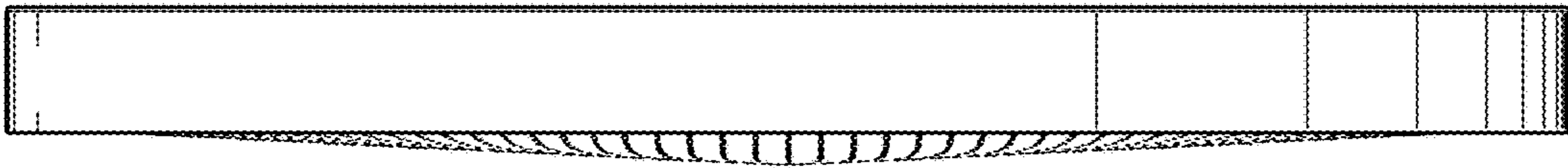


FIG. 3

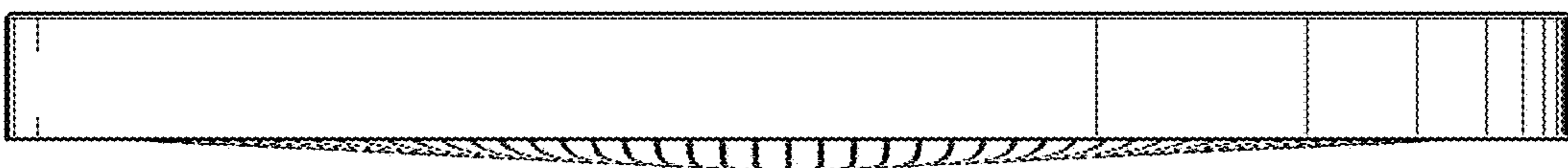


FIG. 4

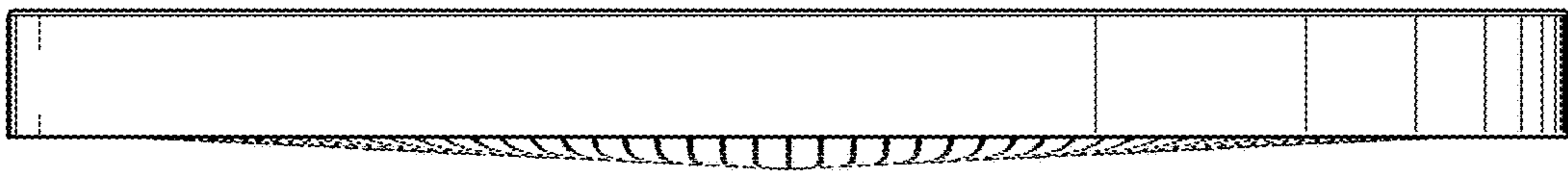


FIG. 5

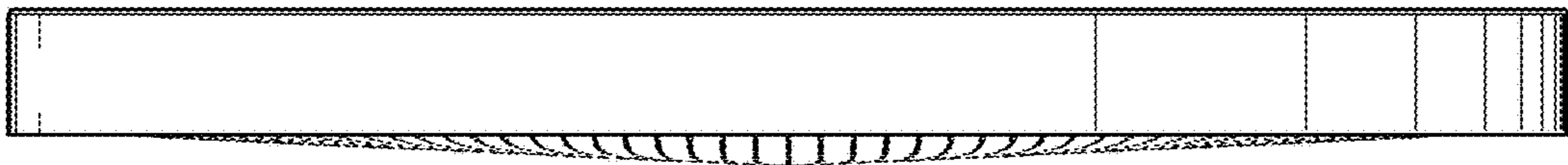


FIG. 6

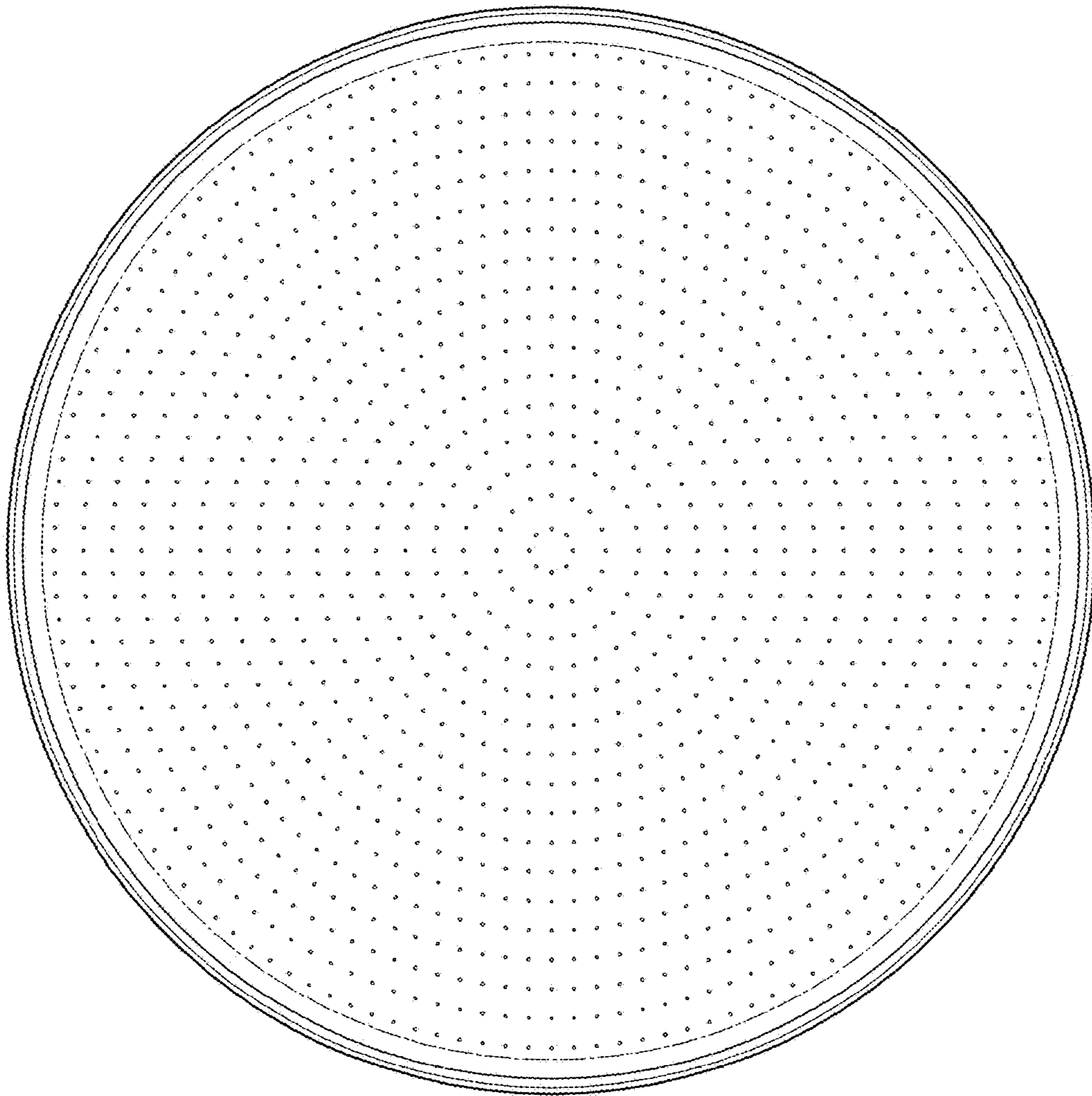


FIG. 7

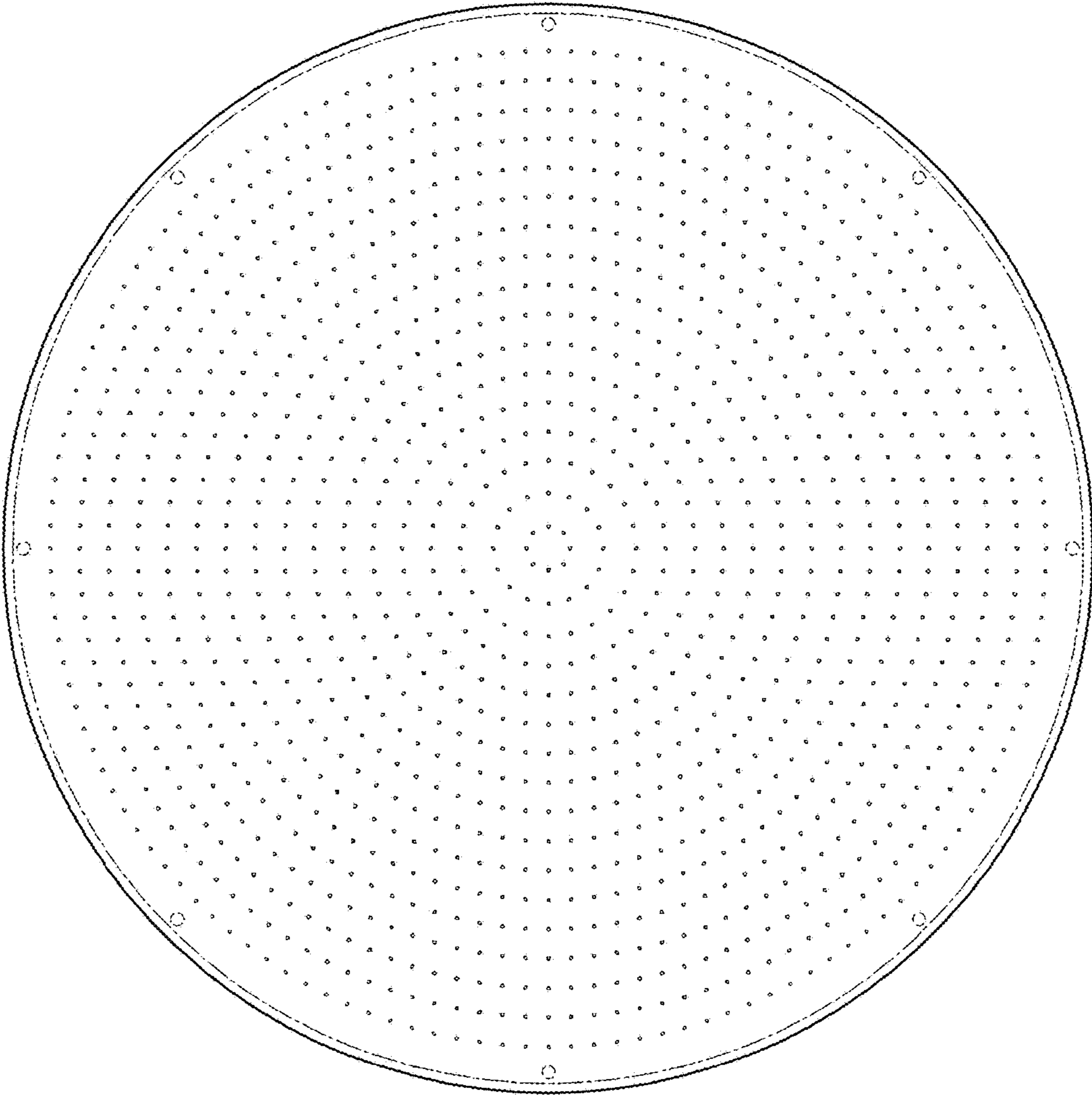


FIG. 8

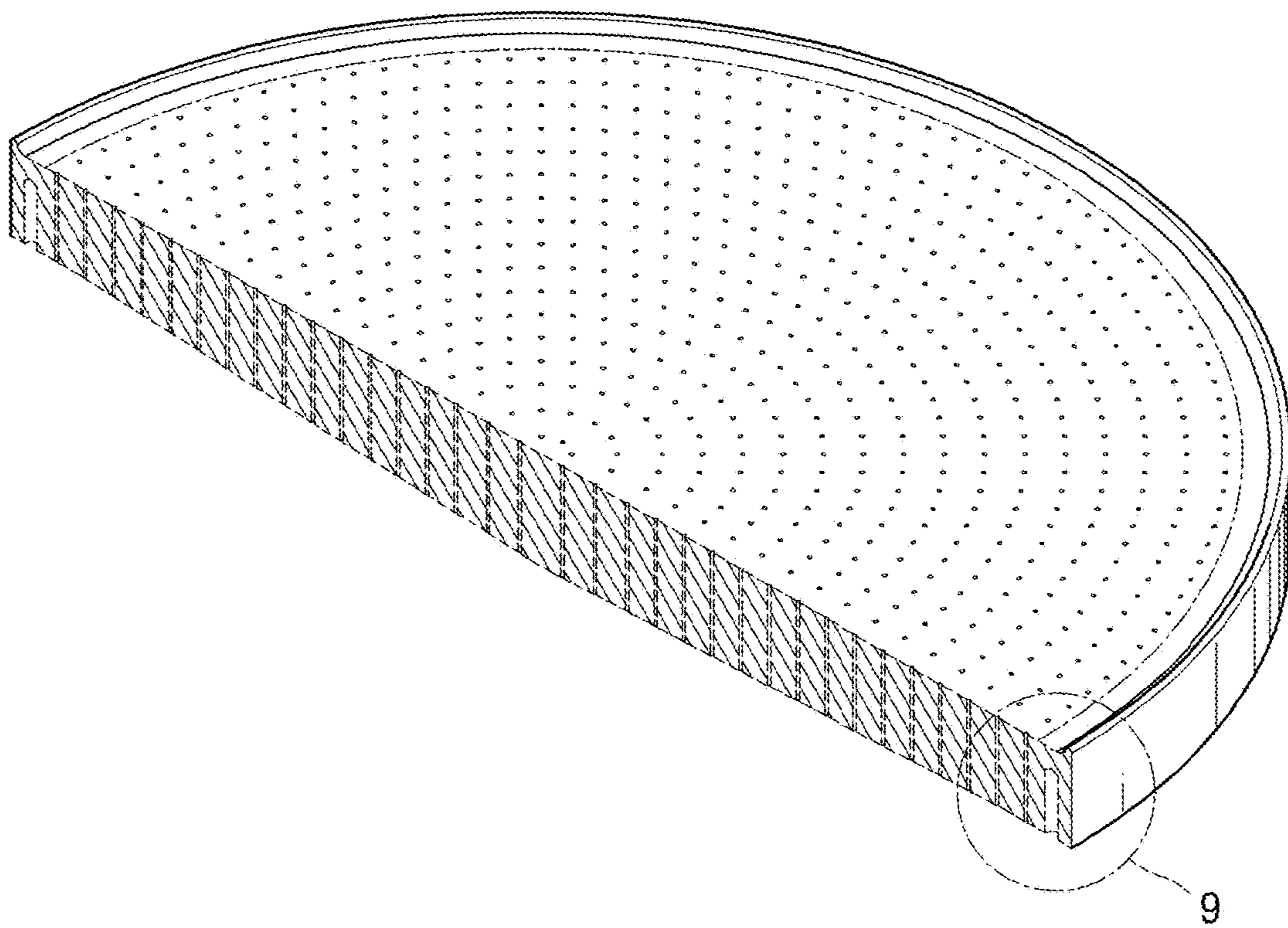


FIG. 9

