



US00D634281S

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

(10) **Patent No.:** **US D634,281 S**
(45) **Date of Patent:** **** Mar. 15, 2011**

(54) **HEAT SINK**

(75) Inventors: **Beng Wah Chua**, Singapore (SG);
Raymond Ong, Singapore (SG); **Meng Kwong Ho**, Singapore (SG); **Su Yin Lim**, Singapore (SG)

(73) Assignee: **Agency for Science, Technology and Research**, Singapore (SG)

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

(21) Appl. No.: **29/363,385**

(22) Filed: **Jun. 8, 2010**

(30) **Foreign Application Priority Data**

Dec. 8, 2009 (SG) D2009/1096/A

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

(52) **U.S. Cl.** **D13/179**

(58) **Field of Classification Search** D13/179;
165/80.3, 104.33, 151, 122, 185; 257/706,
257/707, 718-722; 361/687, 695, 697, 700,
361/702, 704, 709, 710, 711, 719
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

6,053,240 A * 4/2000 Johnston et al. 165/80.3
6,942,025 B2 * 9/2005 Nair et al. 165/185
7,172,017 B2 * 2/2007 Tan et al. 165/185

7,408,777 B2 * 8/2008 Jeong 361/704
D616,381 S * 5/2010 Chang et al. D13/179
7,812,487 B2 * 10/2010 Bi et al. 310/64
2003/0056938 A1 * 3/2003 McCullough 165/80.3
2004/0174678 A1 * 9/2004 Kojima 361/697
2005/0063159 A1 * 3/2005 Ma 361/704
2006/0042782 A1 * 3/2006 Chen 165/80.3
2006/0207746 A1 * 9/2006 Bhatti et al. 165/80.3
2006/0254750 A1 * 11/2006 Miyazawa et al. 165/80.3

* cited by examiner

Primary Examiner — Selina Sikder

(74) *Attorney, Agent, or Firm* — Kauth, Pomeroy, Peck & Bailey LLP

(57) **CLAIM**

The ornamental design for a heat sink, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a heat sink in accordance with our design;

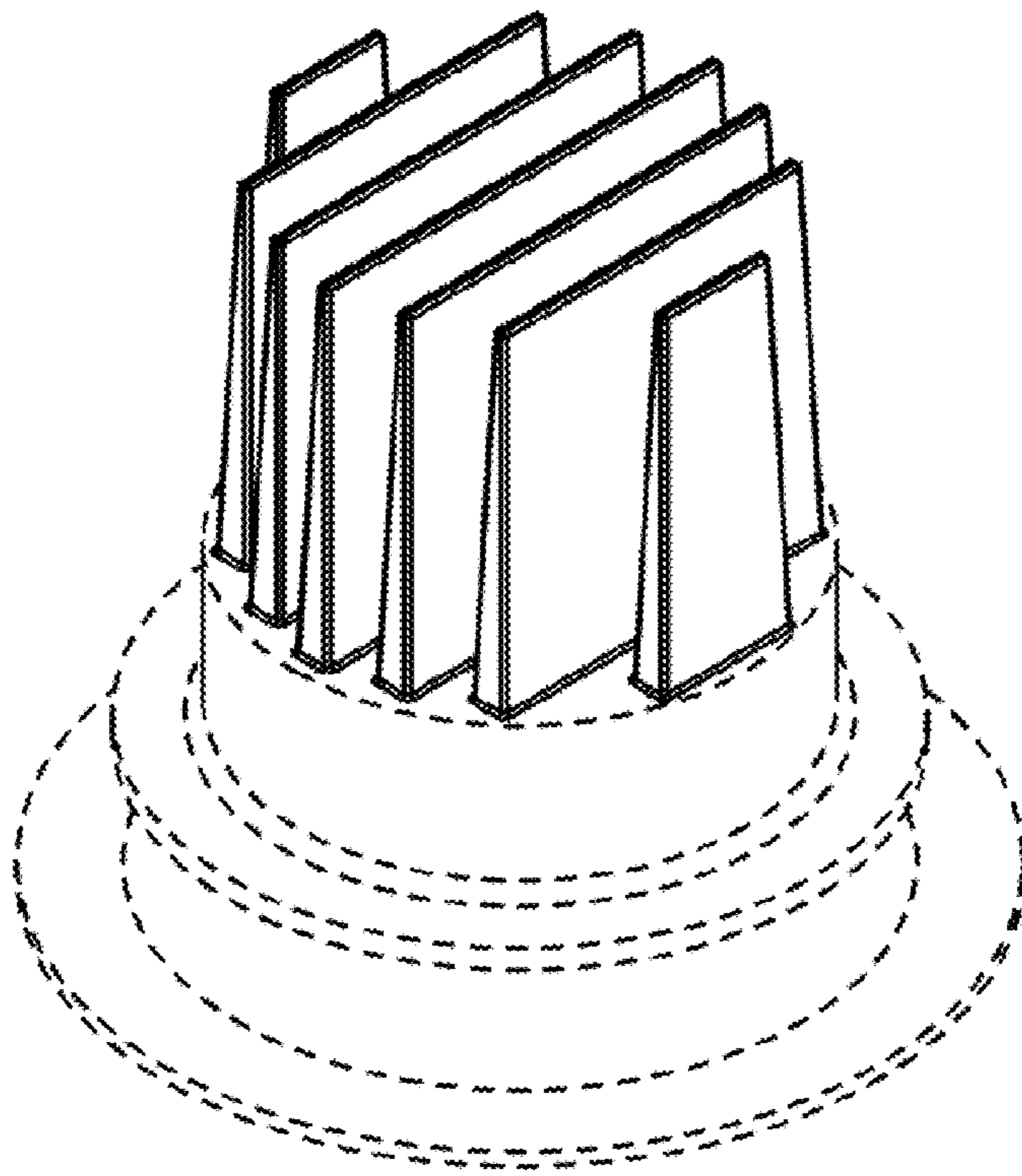
FIG. 2 is a top view thereof;

FIG. 3 is a sectional view taken along line 3—3 in FIG. 2; and, FIG. 4 is a bottom view thereof.

Any shading on the figures is provided only to distinguish between the flat and contoured portions of the device, such shading patterns are not intended to be viewed as part of the claimed heat sink design.

The broken line showing portions of the heat sink is for illustrative purposes only and forms no part of the claimed design.

1 Claim, 1 Drawing Sheet



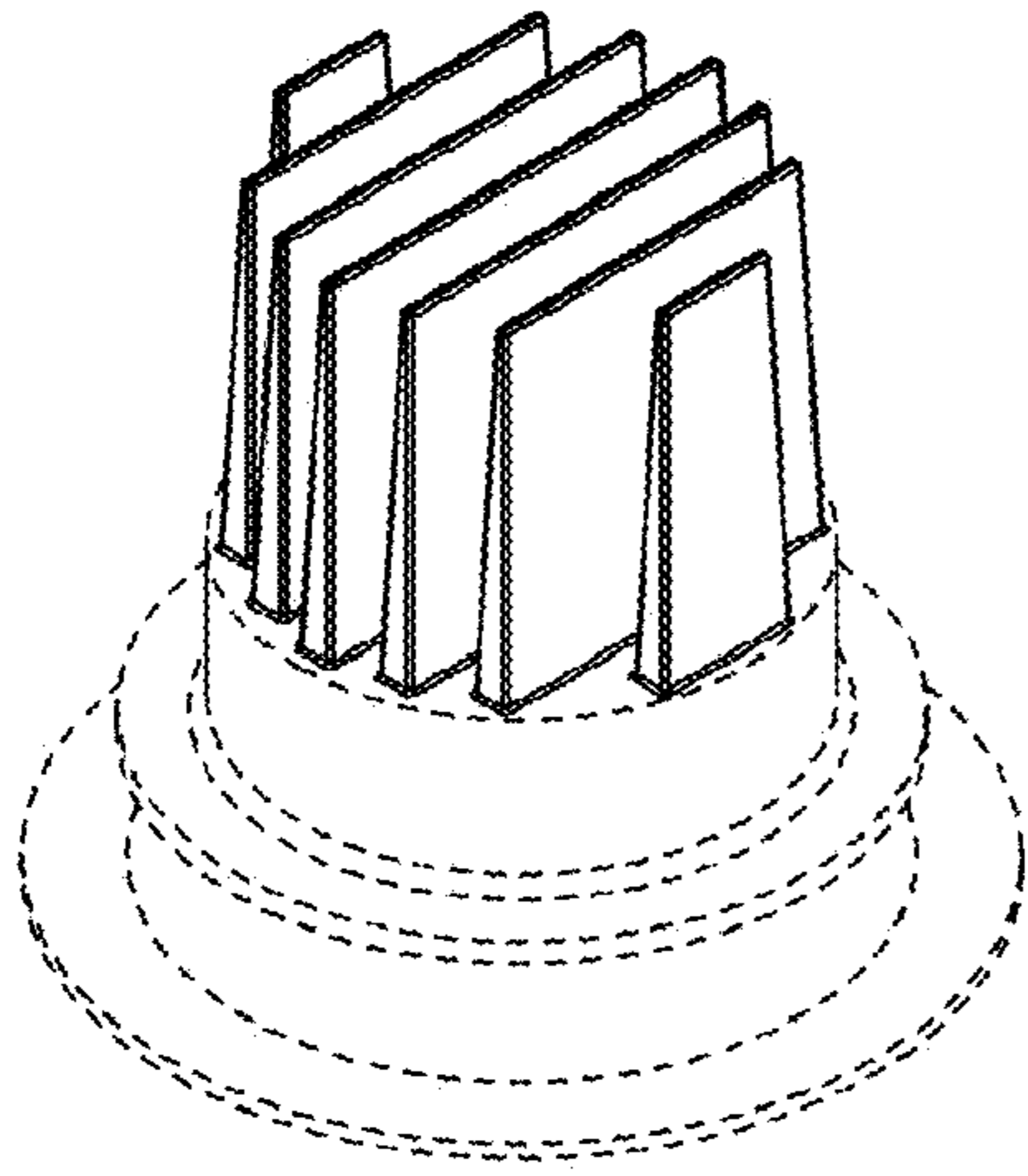


FIG. 1

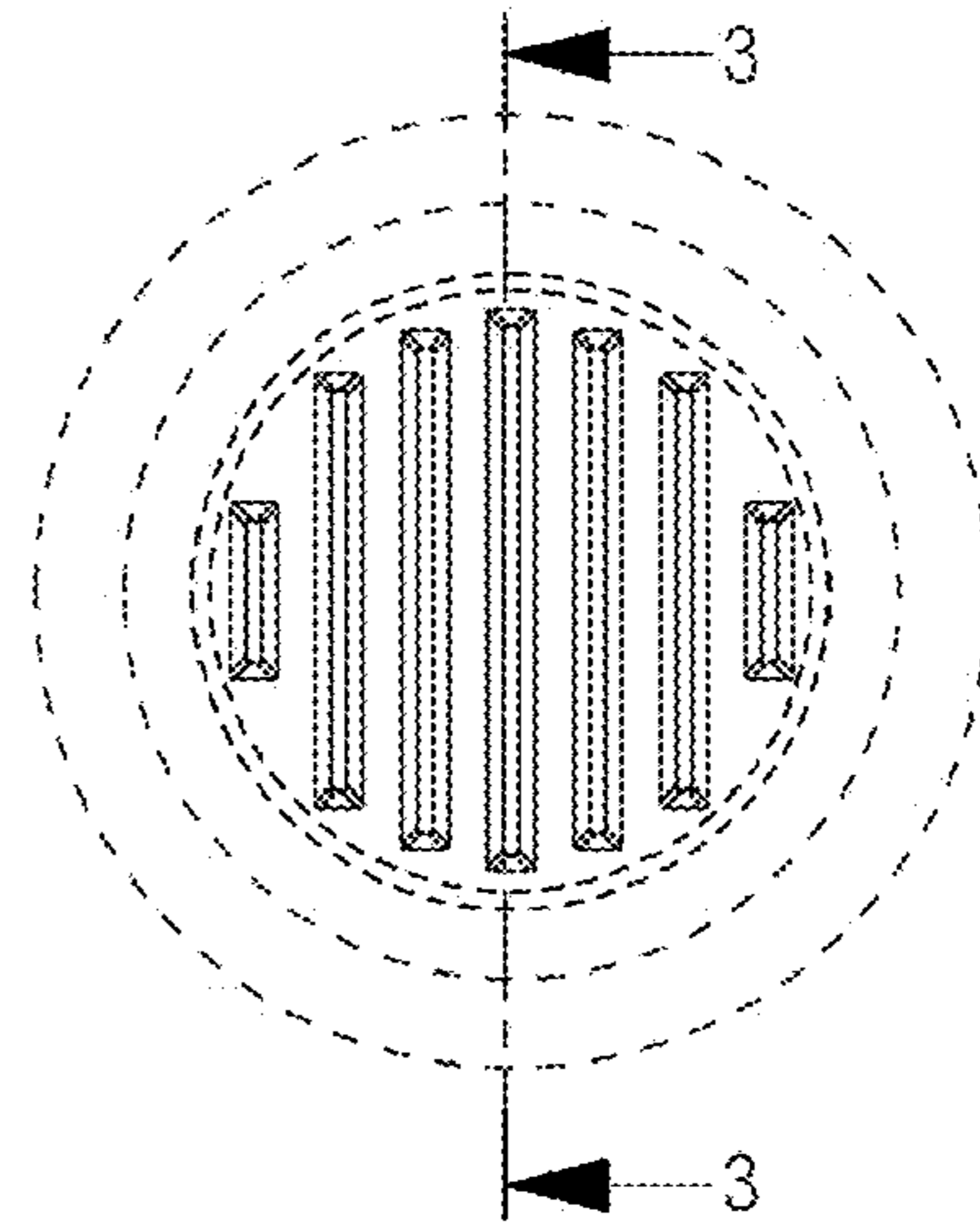


FIG. 2

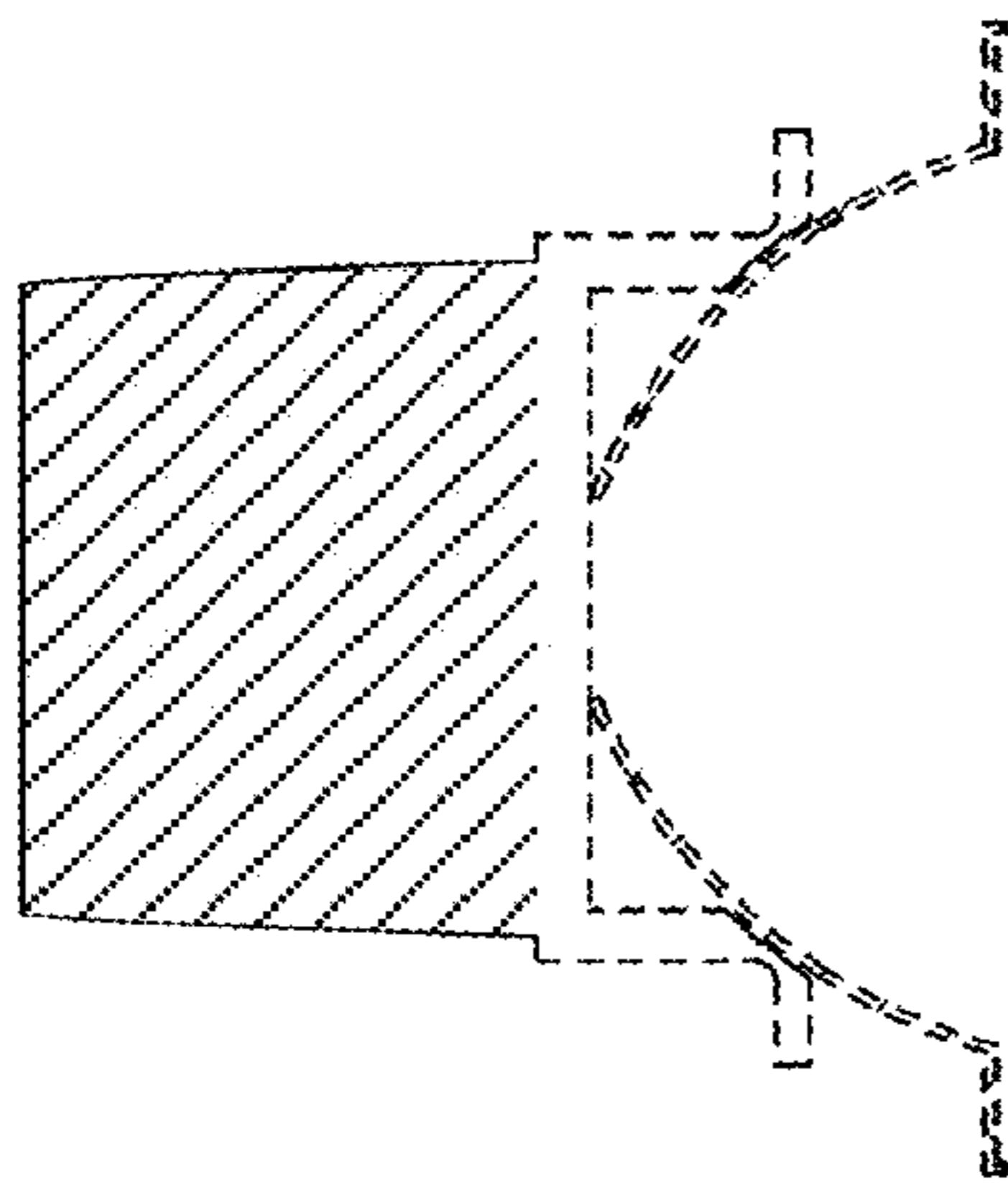


FIG. 3

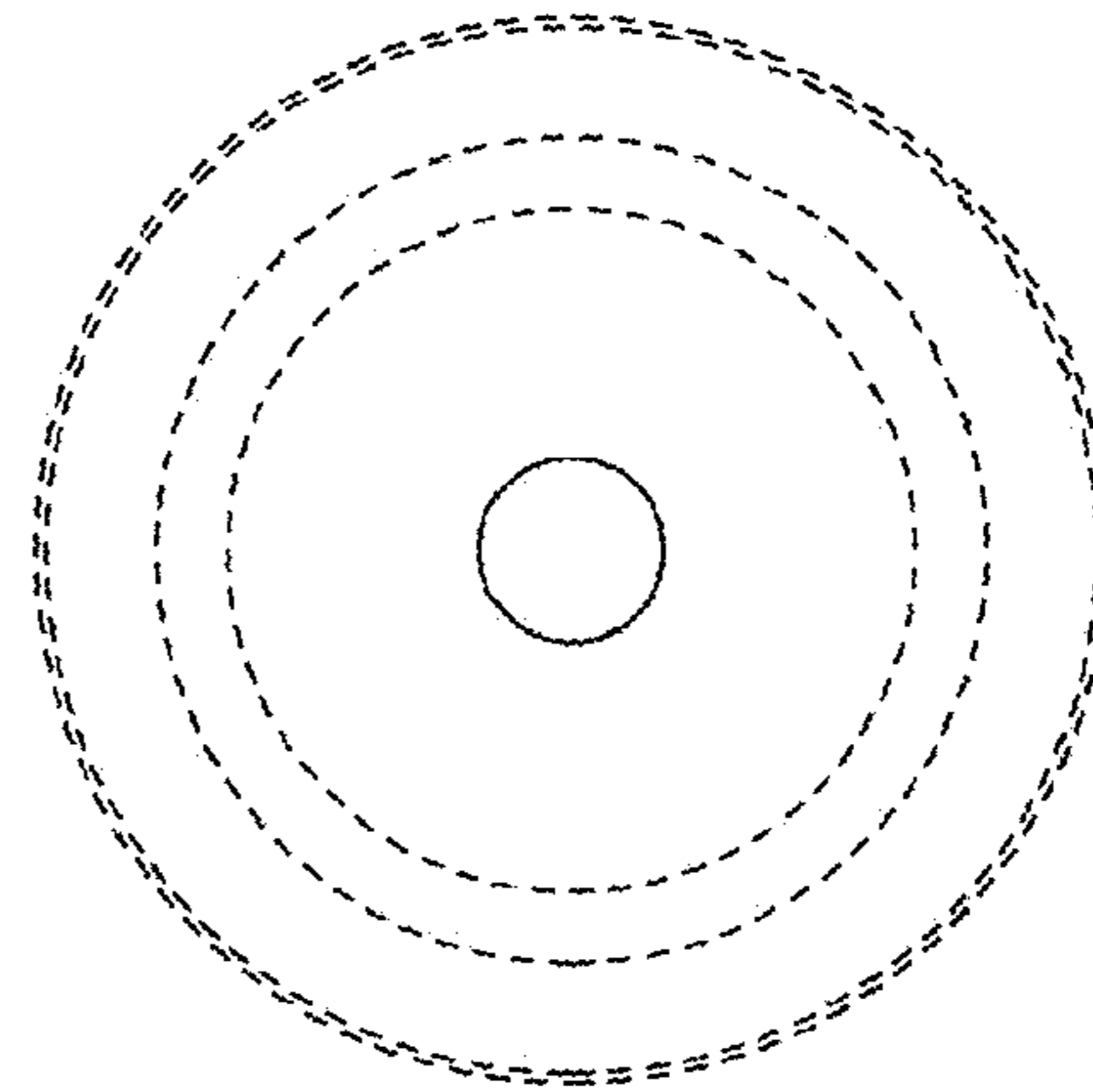


FIG. 4