



US00D954662S

(12) **United States Design Patent**
Sonneman et al.(10) **Patent No.:** **US D954,662 S**
(45) **Date of Patent:** **** Jun. 14, 2022**(54) **HEAT SINK**

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(**) Term: **15 Years**(21) Appl. No.: **29/788,130**(22) Filed: **Mar. 24, 2021**(51) LOC (13) Cl. **13-03**

(52) U.S. Cl.

USPC **D13/179**(58) **Field of Classification Search**USPC D13/179, 182; D23/231; D14/230
CPC . H01Q 1/428; H01Q 1/02; H01Q 1/38; H01L
23/367; H01L 23/3672; H05K 7/20254;
F28F 3/022; F28F 3/04; F28F 21/065;
G02B 1/111; F21V 29/745; F21V 29/773;
F21V 29/75; F21V 29/70

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

- D634,279 S * 3/2011 Chua D13/179
D634,281 S * 3/2011 Chua D13/179
D691,315 S * 10/2013 Samson D26/74
8,567,987 B2 * 10/2013 Wronski F21V 29/74
362/236
D736,724 S * 8/2015 Shum D13/179
D762,181 S * 7/2016 Lin F21V 29/83
D13/179
D793,350 S * 8/2017 Kenchappa D13/179
10,378,733 B1 * 8/2019 McLellan F21S 41/143
D864,880 S * 10/2019 Mishim D13/179

D873,224 S *	1/2020	Mishim	D13/179
10,532,824 B2 *	1/2020	Ricca	F21V 23/009
10,697,615 B1 *	6/2020	Rashidi Doust	F21V 23/005
10,907,801 B1 *	2/2021	Zheng	F21V 13/02
11,067,254 B1 *	7/2021	Johnson	F21V 14/02
11,215,332 B2 *	1/2022	Spicer	F21S 8/026
2005/0063159 A1 *	3/2005	Ma	F28F 3/02 361/704
2016/0091192 A1 *	3/2016	Lin	F21V 29/83 362/294

(Continued)

OTHER PUBLICATIONS

3dprinting.lighting, "3D Printed Heatsinks Display Higher Efficiency", Published Jul. 12, 2019. (<https://www.3dprinting.lighting/3d-printed-heat-sinks-display-higher-efficiency/>) (Year: 2019).*

(Continued)

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(57)

CLAIM

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

DESCRIPTION

FIG. 1 is a perspective view of a heat sink of a lighting system showing our new design;

FIG. 2 is a first side elevational view thereof;

FIG. 3 is a second side elevational view thereof;

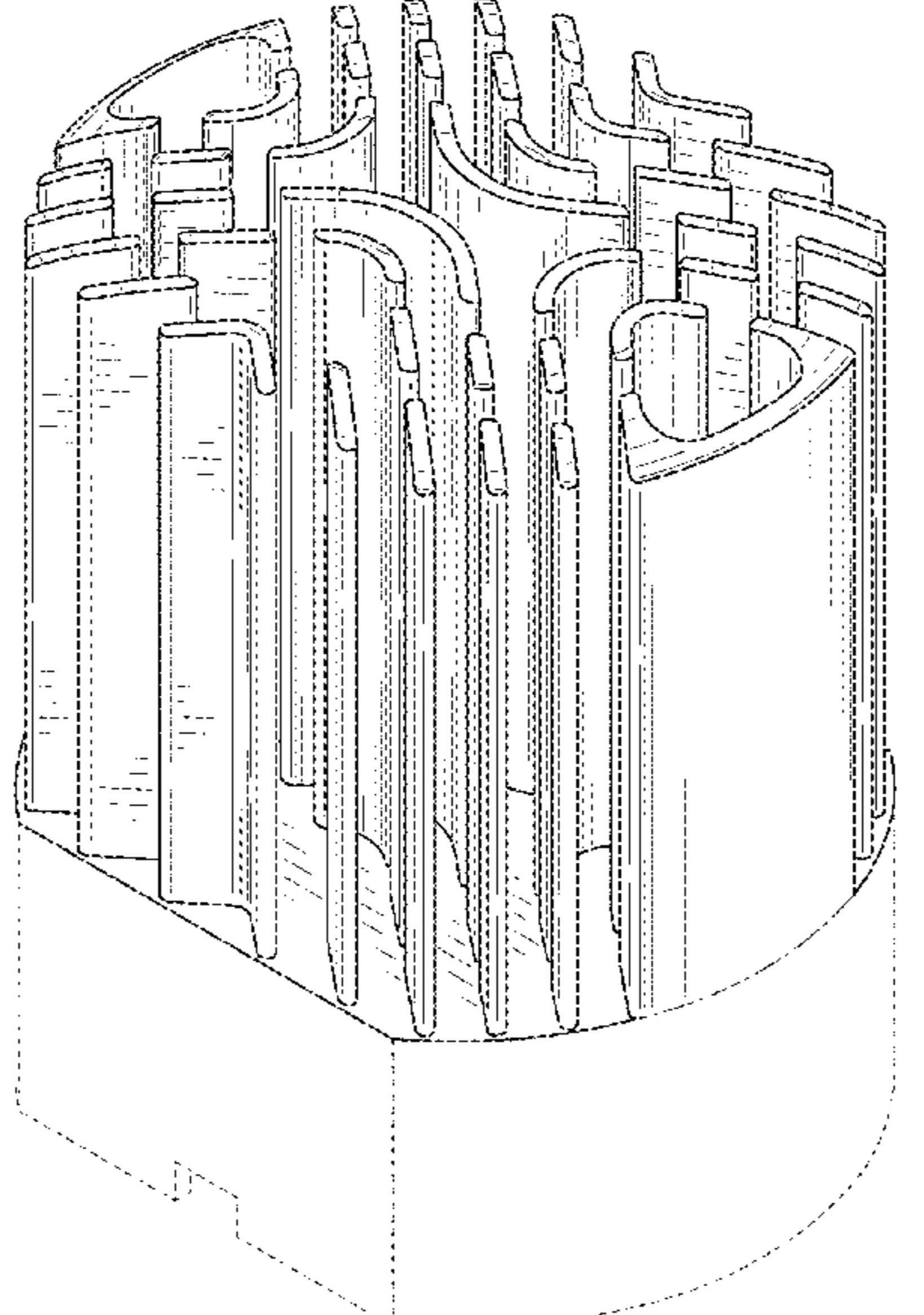
FIG. 4 is a third side elevational view thereof;

FIG. 5 is a fourth side elevational view thereof;

FIG. 6 is a top plan view thereof; and,

FIG. 7 is a bottom plan view thereof.

The broken lines shown in the drawings are included for the purpose of illustrating elements of the heat sink of a lighting system and form no part of the claimed design.

1 Claim, 4 Drawing Sheets

(56)

References Cited

U.S. PATENT DOCUMENTS

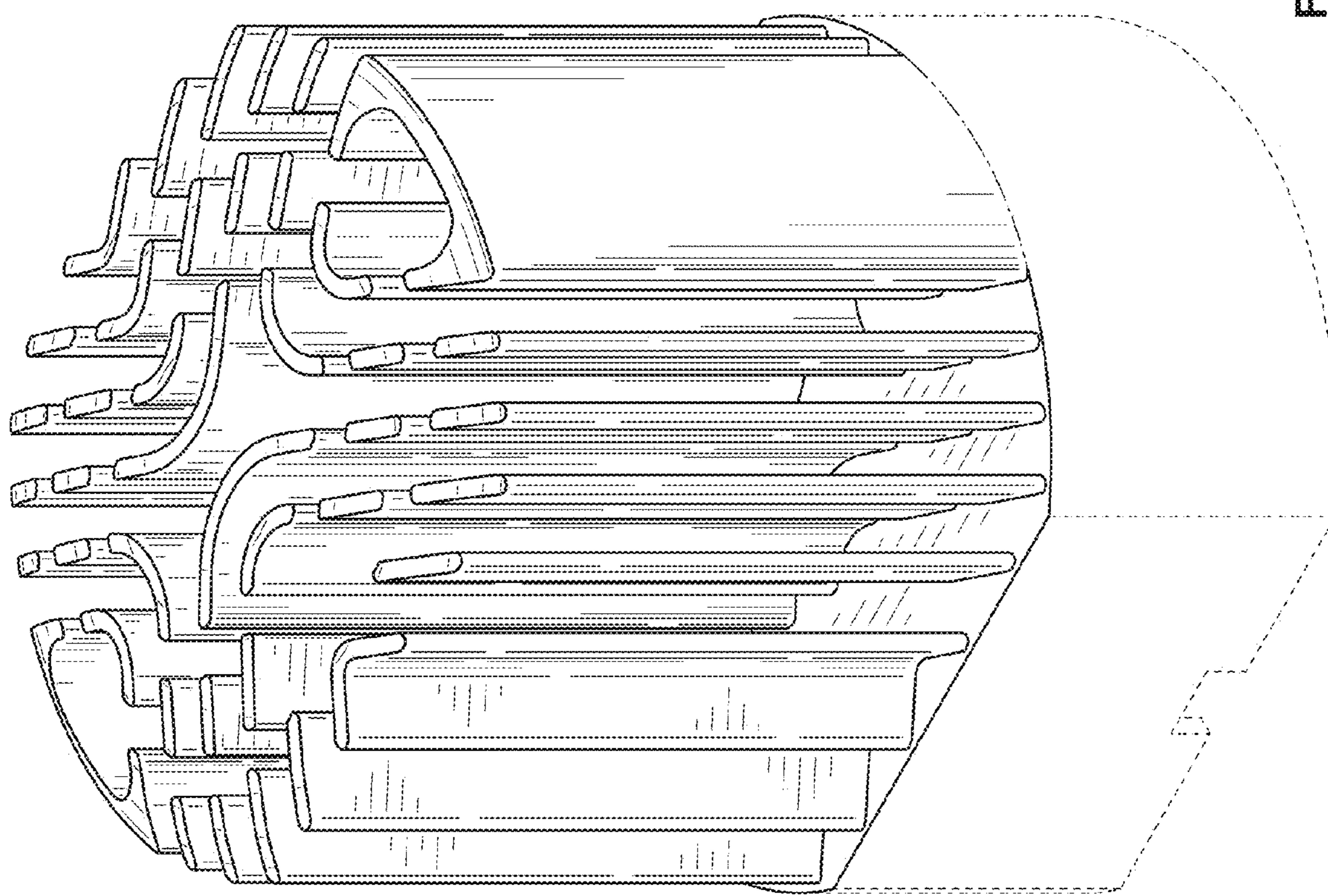
2016/0298913 A1 * 10/2016 Guo F28F 3/048

OTHER PUBLICATIONS

Cooliance, "Successful Case", Accessed Jan. 26, 2022. (<http://www.cooliance.cn/en/photo/photo-56-610.html>) (Year: 2022).*

* cited by examiner

FIG. 1



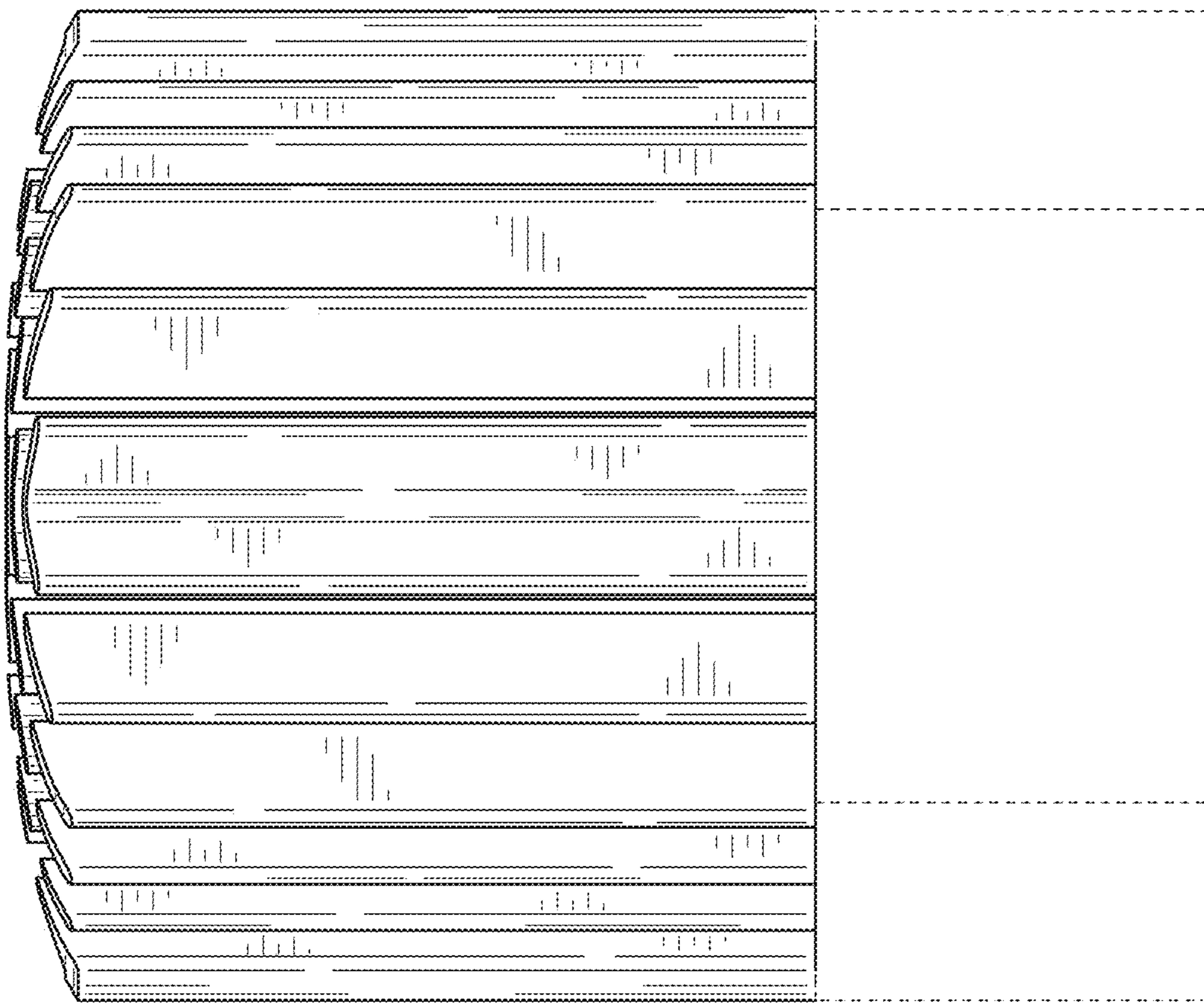


FIG. 3

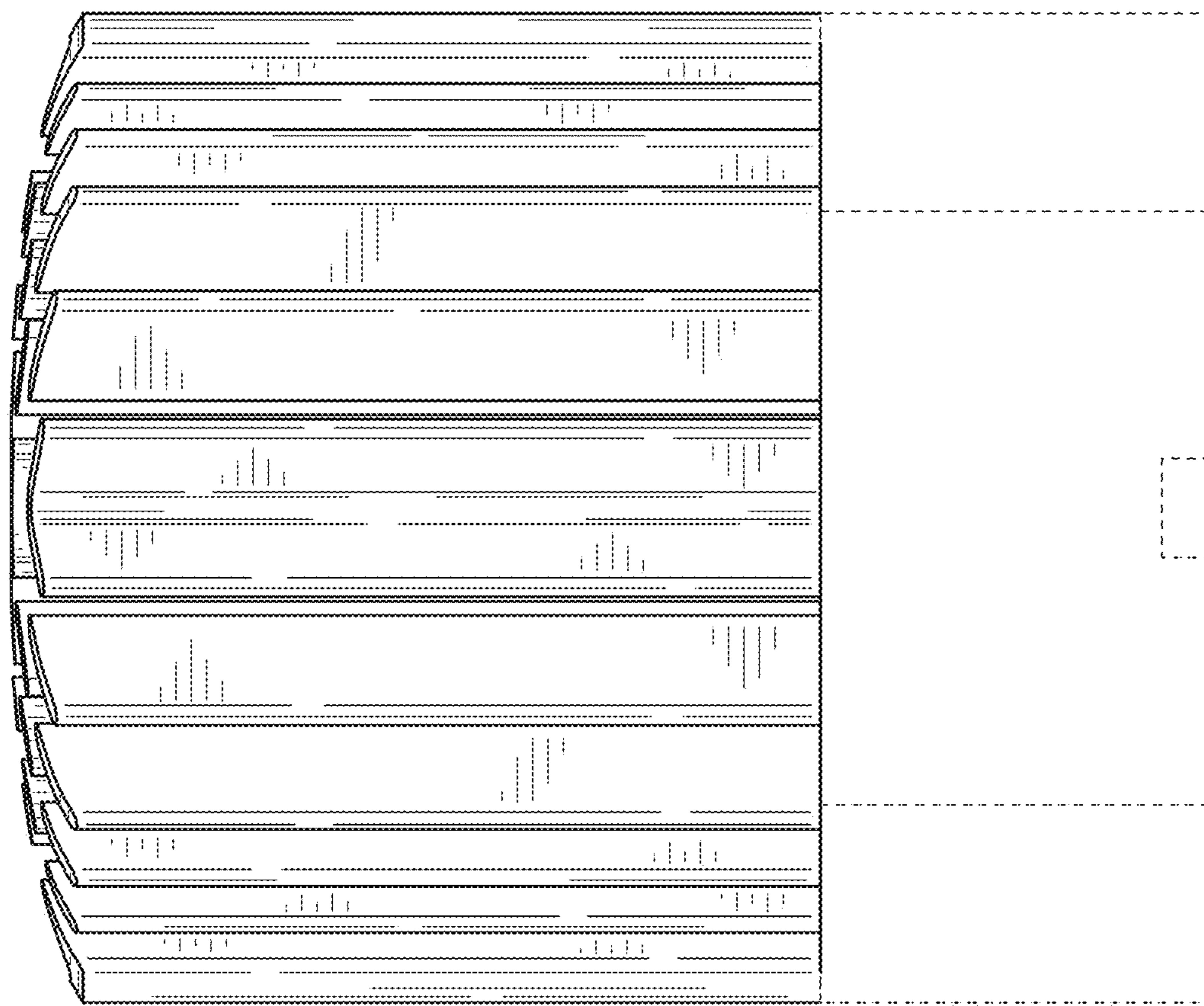


FIG. 2

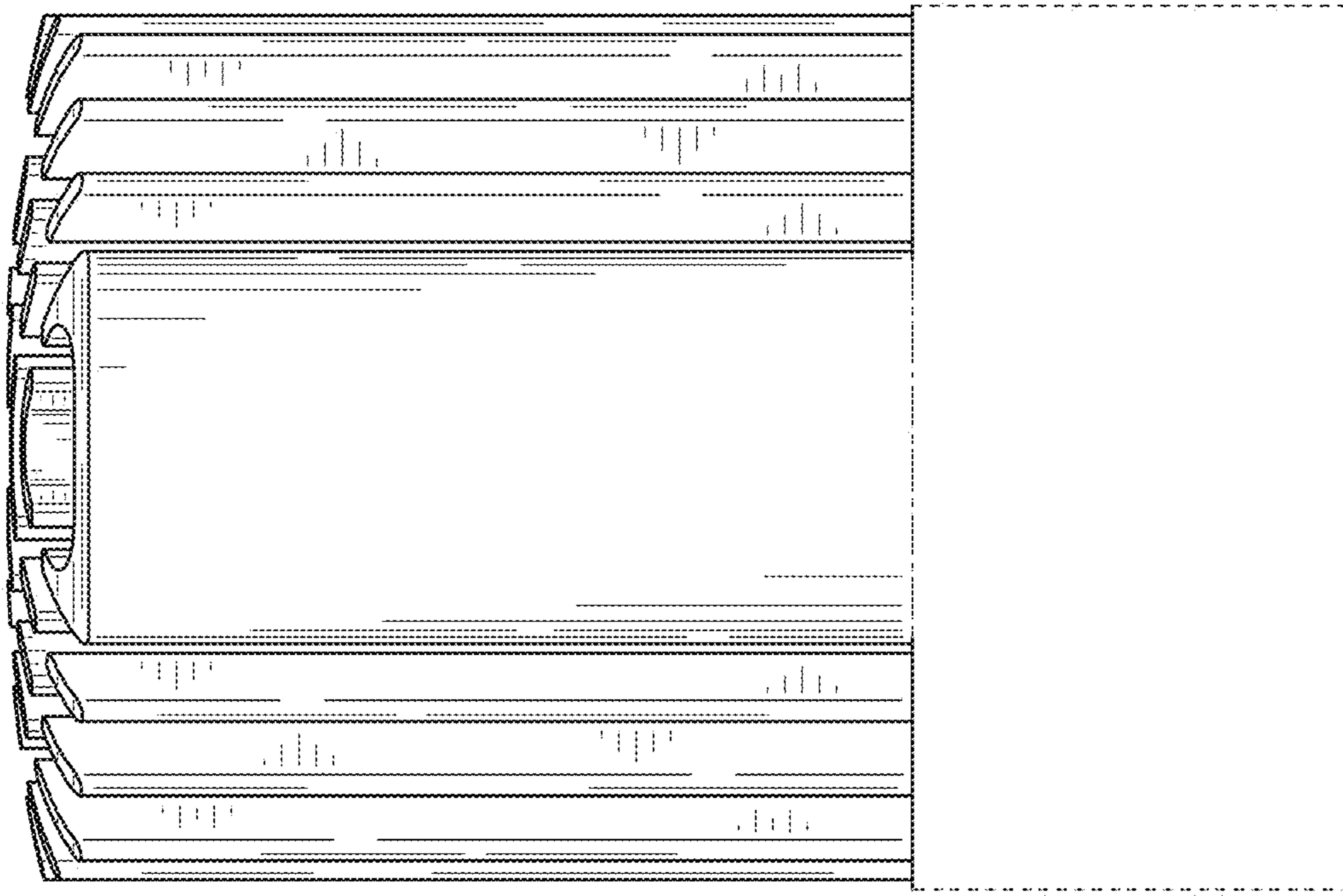


FIG. 5

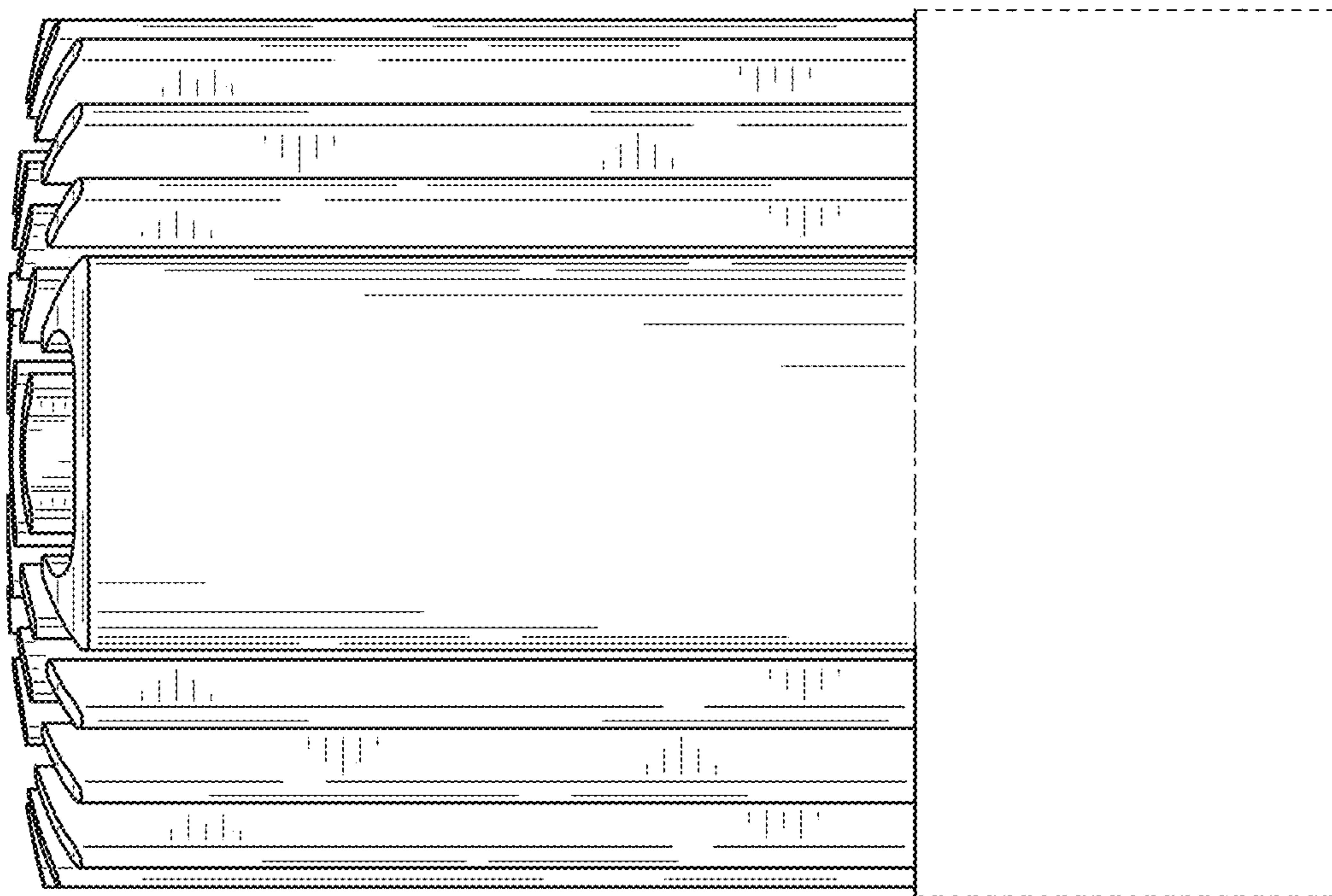


FIG. 4

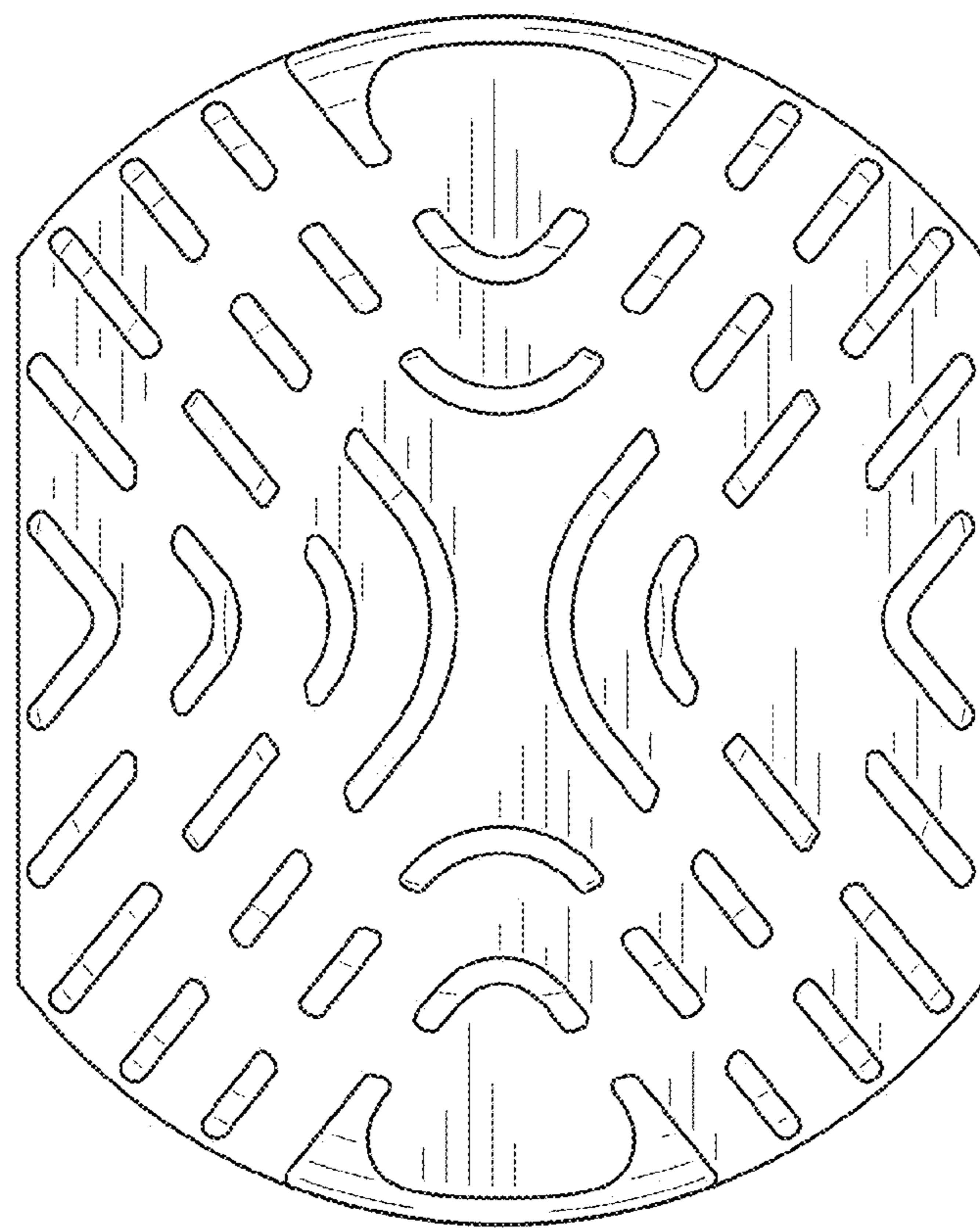


FIG. 6

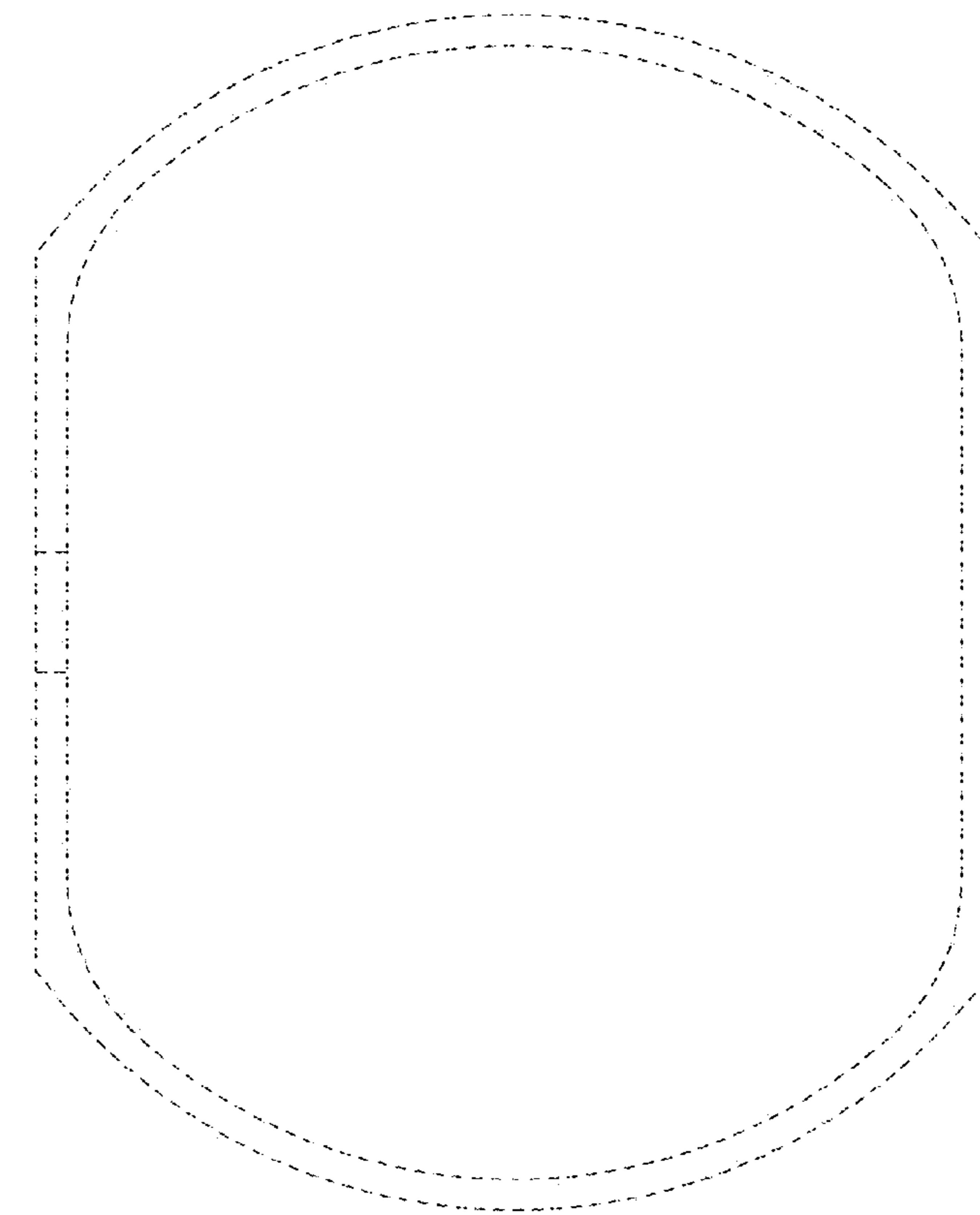


FIG. 7