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Mira et al.

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(54) **FLEXIBLE FOLDED FIN HEATSINK WITH STRAIGHT AND RADIAL FIN PATTERNS**

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

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

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7/20272; H01L 23/34; H01L 23/3672;
H01L 23/40; H01L 23/4006; H01L
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F28D 15/0275; F28D 1/0426; F28D
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2215/00; G06F 1/20

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D400,188 S * 10/1998 Chu D13/179
6,260,610 B1 * 7/2001 Biber H01L 21/4871
165/80.3
D481,017 S * 10/2003 Hsia D13/179
6,681,847 B1 * 1/2004 Lee B22F 7/062
165/185

D586,763 S * 2/2009 Hua D13/179
D638,376 S * 5/2011 Herrmann D13/179
D672,730 S * 12/2012 Lin D13/179
D698,740 S * 2/2014 Schubert D13/179
D717,745 S * 11/2014 Schubert D13/179
D747,278 S * 1/2016 Murphy D13/179
D755,740 S * 5/2016 Chen D13/179
2002/0093789 A1 * 7/2002 Sloan H01L 23/4093
361/679.54
2002/0105785 A1 * 8/2002 Davis H01L 23/4006
361/703
2002/0121365 A1 * 9/2002 Kozyra F28F 3/025
165/185
2002/0139833 A1 * 10/2002 Armstrong B23K 1/0012
228/248.1
2003/0155110 A1 * 8/2003 Joshi F28F 3/02
165/185
2005/0150633 A1 * 7/2005 Lee F28F 13/00
165/80.3

(Continued)

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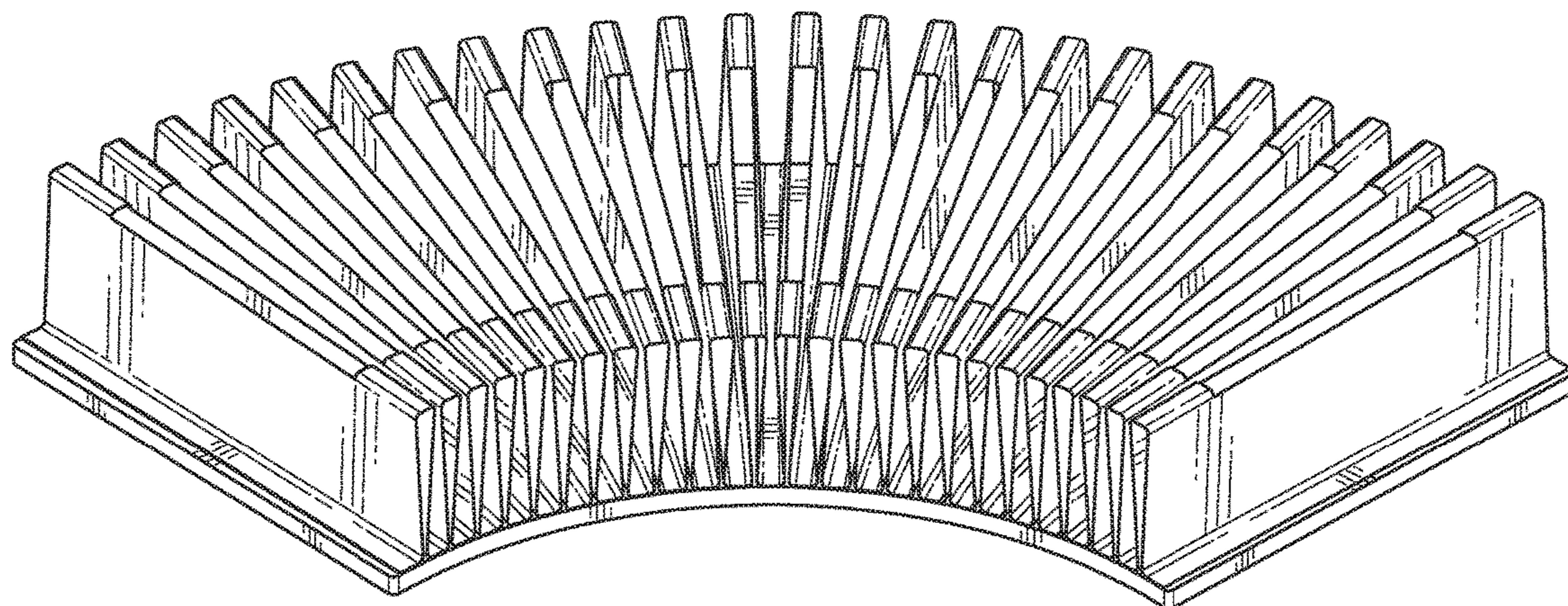
(57) **CLAIM**

The ornamental design for a flexible folded fin heatsink with straight and radial fin patterns, as shown and described.

DESCRIPTION

FIG. 1 is a top perspective view of a flexible folded fin heatsink with straight and radial fin patterns in a curved and compressed configuration showing our new design; FIG. 2 is a left side elevational view thereof; FIG. 3 a right side elevational view thereof; FIG. 4 is a rear elevational view thereof; FIG. 5 is a front elevational view thereof; FIG. 6 is a top plan view thereof; and, FIG. 7 is a bottom plan view thereof.

1 Claim, 7 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2005/0156013 A1* 7/2005 Bhatti F28F 3/025
228/193
2008/0017360 A1* 1/2008 Campbell F28F 1/32
165/148
2012/0147562 A1* 6/2012 Feng F28D 15/0266
361/696
2013/0306273 A1* 11/2013 Iyengar H01L 23/473
165/104.19
2014/0177166 A1* 6/2014 Nardi H01L 23/3672
361/679.54
2016/0029517 A1* 1/2016 Kim H05K 7/20409
361/710
2016/0341488 A1* 11/2016 Wan F28D 15/0266
2017/0055370 A1* 2/2017 Tsai H01L 23/473

* cited by examiner

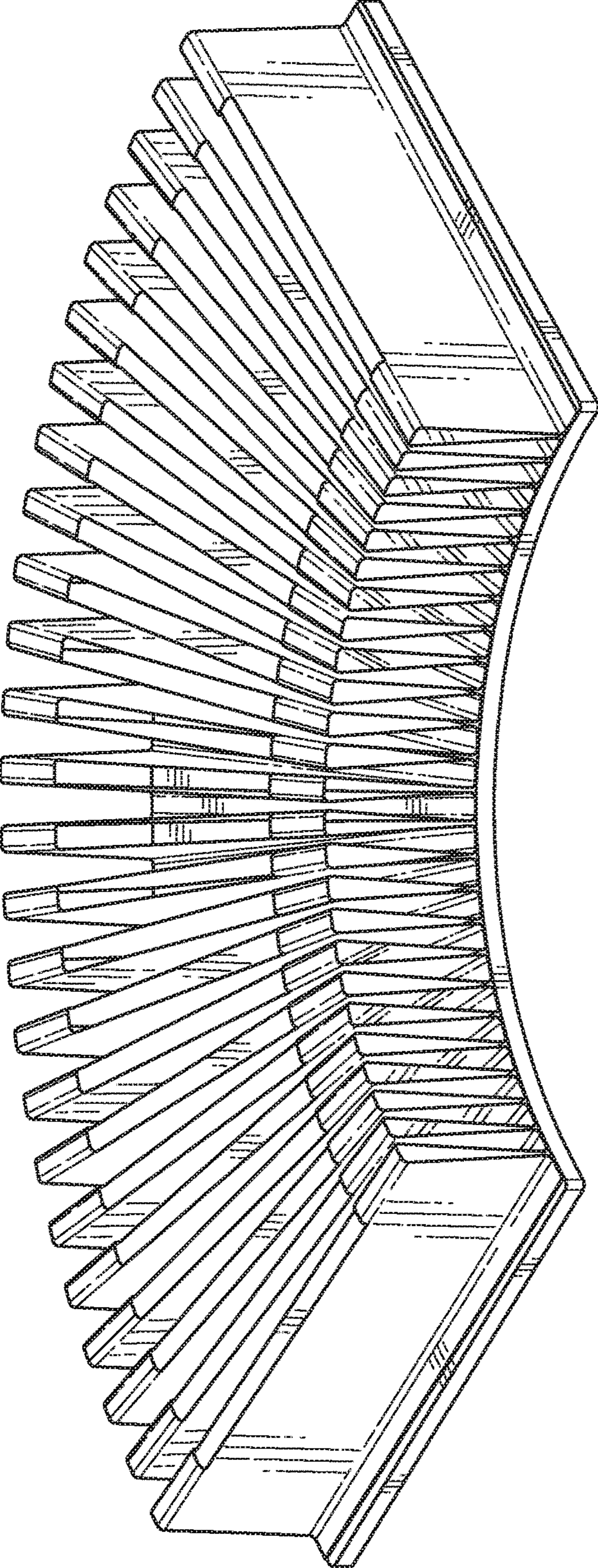


FIG. 1

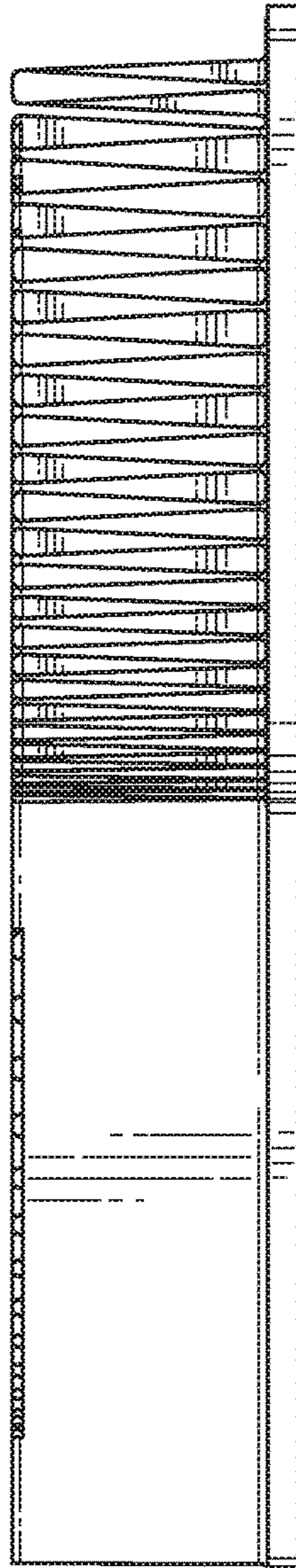


FIG. 2

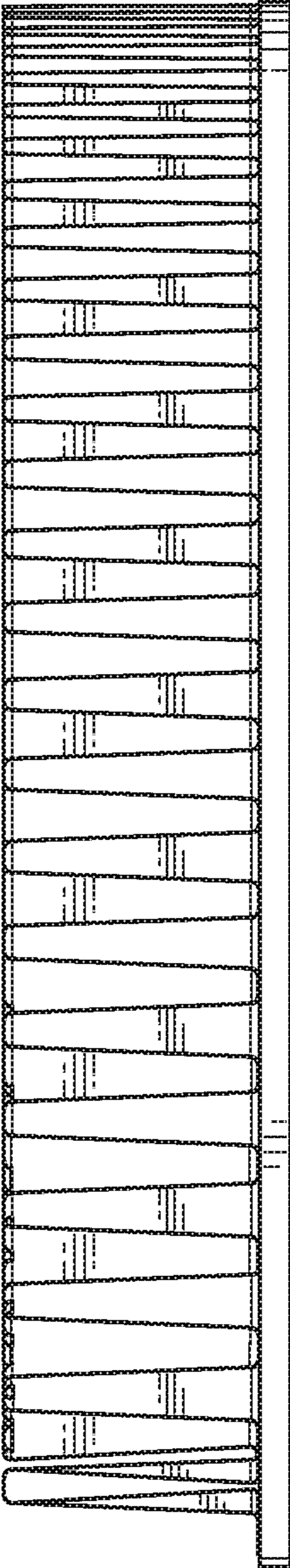


FIG. 3

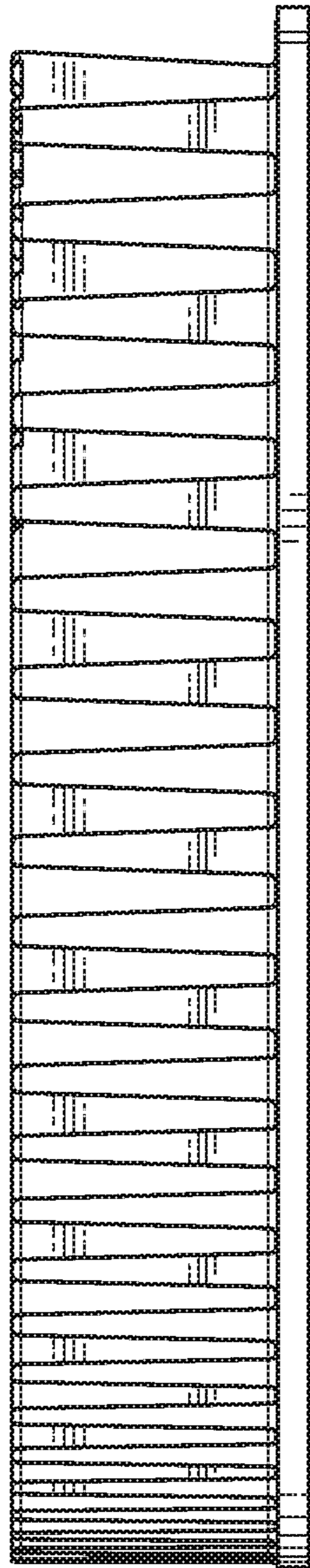


FIG. 4

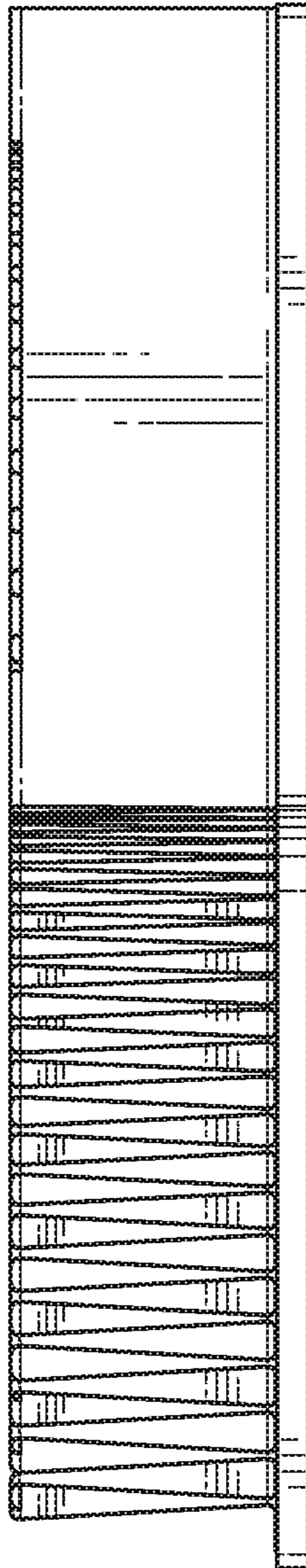


FIG. 5

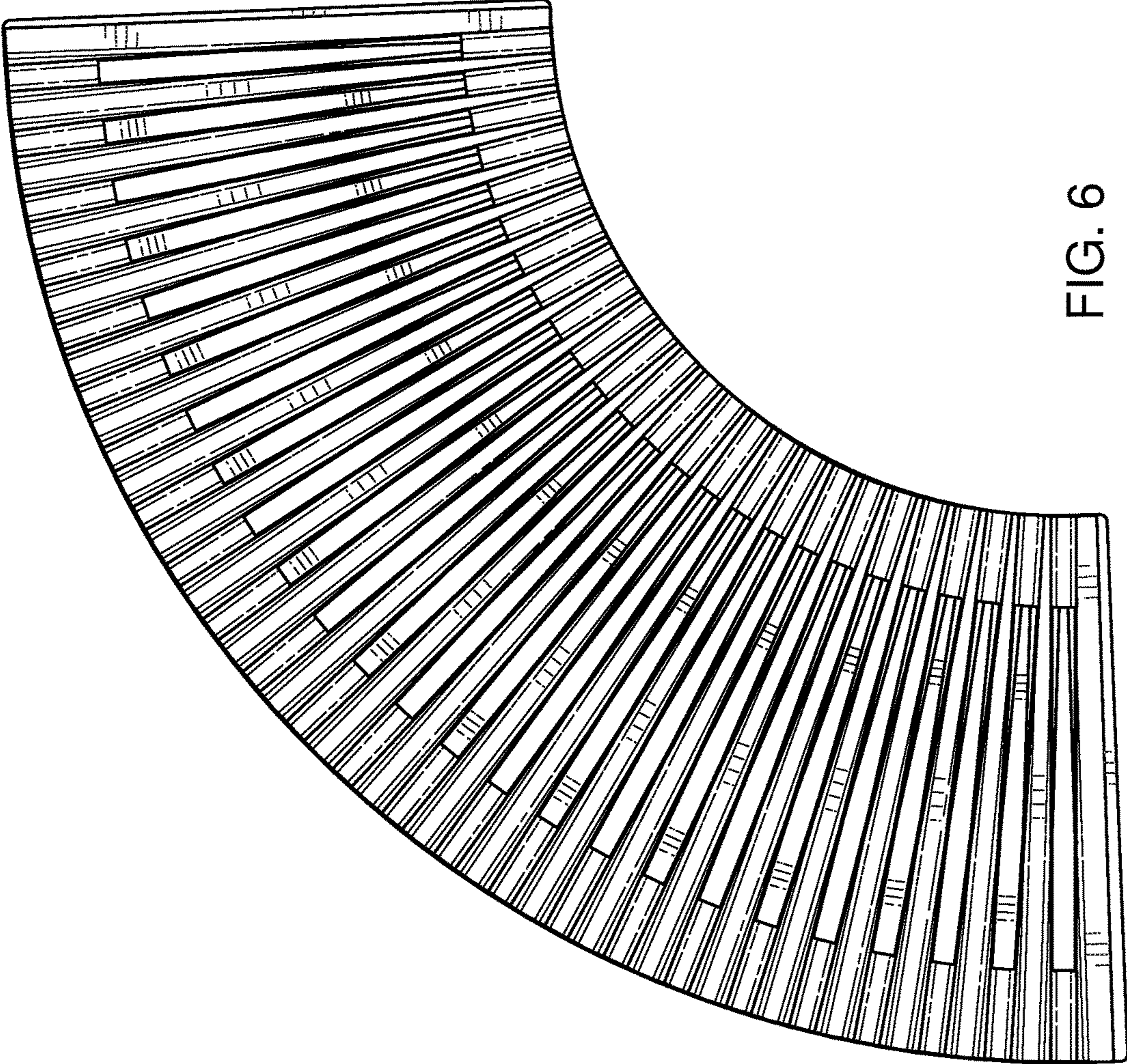


FIG. 6

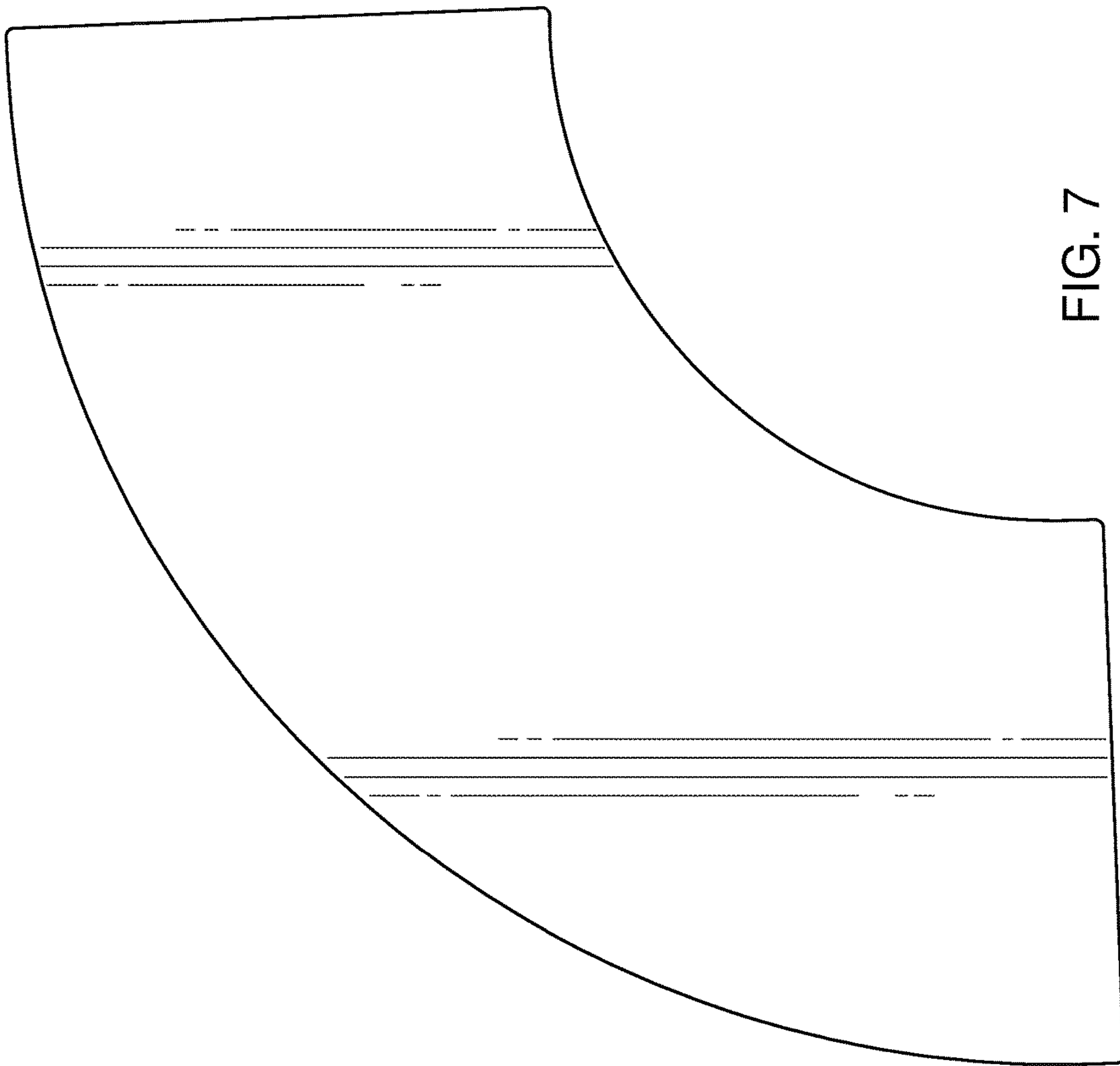


FIG. 7