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(12) **United States Design Patent**
Turuvekere Gurudatt

(10) **Patent No.:** **US D777,212 S**
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(54) **NOZZLE RING**

(71) Applicant: **General Electric Company,**
Schenectady, NY (US)

(72) Inventor: **Praveen Turuvekere Gurudatt,**
Bangalore (IN)

(73) Assignee: **General Electric Company,**
Schenectady, NY (US)

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

(21) Appl. No.: **29/530,885**

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(51) **LOC (10) Cl.** **15-01**

(52) **U.S. Cl.**
USPC **D15/5**

(58) **Field of Classification Search**
USPC D15/1-5, 7, 9; 123/559.1; 29/888.02;
418/178, 179, 1, 206.5; 415/9, 173.4,
415/174.4, 118; 464/127, 72, 74, 75;
D23/370, 375, 376, 377, 379, 411, 413,
D23/414

(Continued)

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Primary Examiner — T. Chase Nelson

Assistant Examiner — Ania Aman

(74) *Attorney, Agent, or Firm* — John A. Kramer; Global Patent Operation

(57) **CLAIM**

The ornamental design for a nozzle ring, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of an ornamental design for a nozzle ring according to the invention.

FIG. 2 is a right view the nozzle ring of FIG. 1.

FIG. 3 is a left view of the nozzle ring of FIG. 1.

FIG. 4 is a top view of the nozzle ring of FIG. 1.

FIG. 5 is a bottom view of the nozzle ring of FIG. 1.

FIG. 6 is a back view of the nozzle ring of FIG. 1.

FIG. 7 is a front view of the nozzle ring of FIG. 1.

FIG. 8 is a detailed front perspective view of one of a plurality of nozzle vanes for the nozzle ring of FIG. 1.

FIG. 9 is a detailed front view of one of the plurality of nozzle vanes for the nozzle ring of FIG. 1.

FIG. 10 is a detailed back view of one of the plurality of nozzle vanes for the nozzle ring of FIG. 1.

FIG. 11 is a detailed left side view of one of the plurality of nozzle vanes for the nozzle ring of FIG. 1.

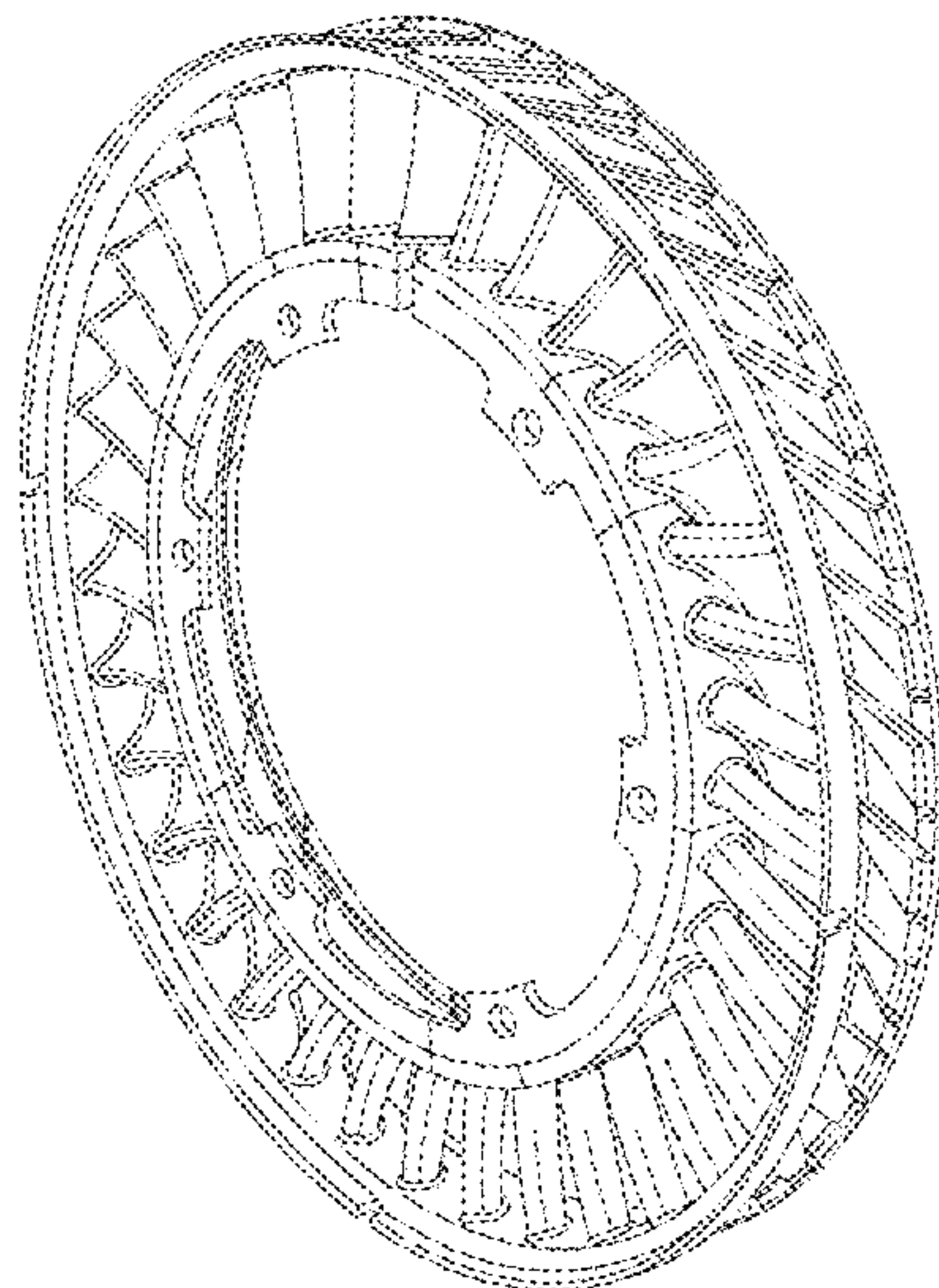
FIG. 12 is a detailed right side view of one of the plurality of nozzle vanes for the nozzle ring of FIG. 1.

FIG. 13 is a detailed top view of one of the plurality of nozzle vanes for the nozzle ring of FIG. 1; and,

FIG. 14 is a detailed bottom view of one of the plurality of nozzle vanes for the nozzle ring of FIG. 1.

The solid lines in FIGS. 1-7 illustrate a nozzle ring for a turbocharger according to the present disclosure. Specifically, FIGS. 1-7 illustrate the nozzle ring where the edges along the circumference of the nozzle ring (e.g., as looking at the nozzle ring from the perspectives of any of FIGS. 2-5) are solid and no apertures are present. FIGS. 8-14 show magnified and detailed views of one of a plurality of nozzle vanes of the nozzle ring.

1 Claim, 14 Drawing Sheets



(58) **Field of Classification Search**

CPC F16D 2500/1068; F16D 3/70; F16D 3/64;
 F16D 3/68; F16D 3/78; F16D 3/12; F16D
 41/20; F16D 3/00; F02B 39/12; F02B
 39/04; F02B 37/04; F02B 33/38; F02B
 33/00; F02B 39/16; F02B 39/00; F04C
 29/122; F04C 27/005; F04C 18/126; F16C
 1/00; F04D 29/005; F04D 27/0269; F04D
 29/424; F04D 29/4246; F04D
 29/4253; F04D 25/088; F04D
 29/22; F04D 17/08; F04D 29/28; F04D
 1/00; F01D 17/146; F01D 17/143; F01D
 17/16; F01D 17/148; F01D 9/042; F01D
 17/165; F01D 25/246; F05D
 2220/40; F05D 2250/70; F05D 2240/12;
 F21V 33/0096; Y10T 29/49316

See application file for complete search history.

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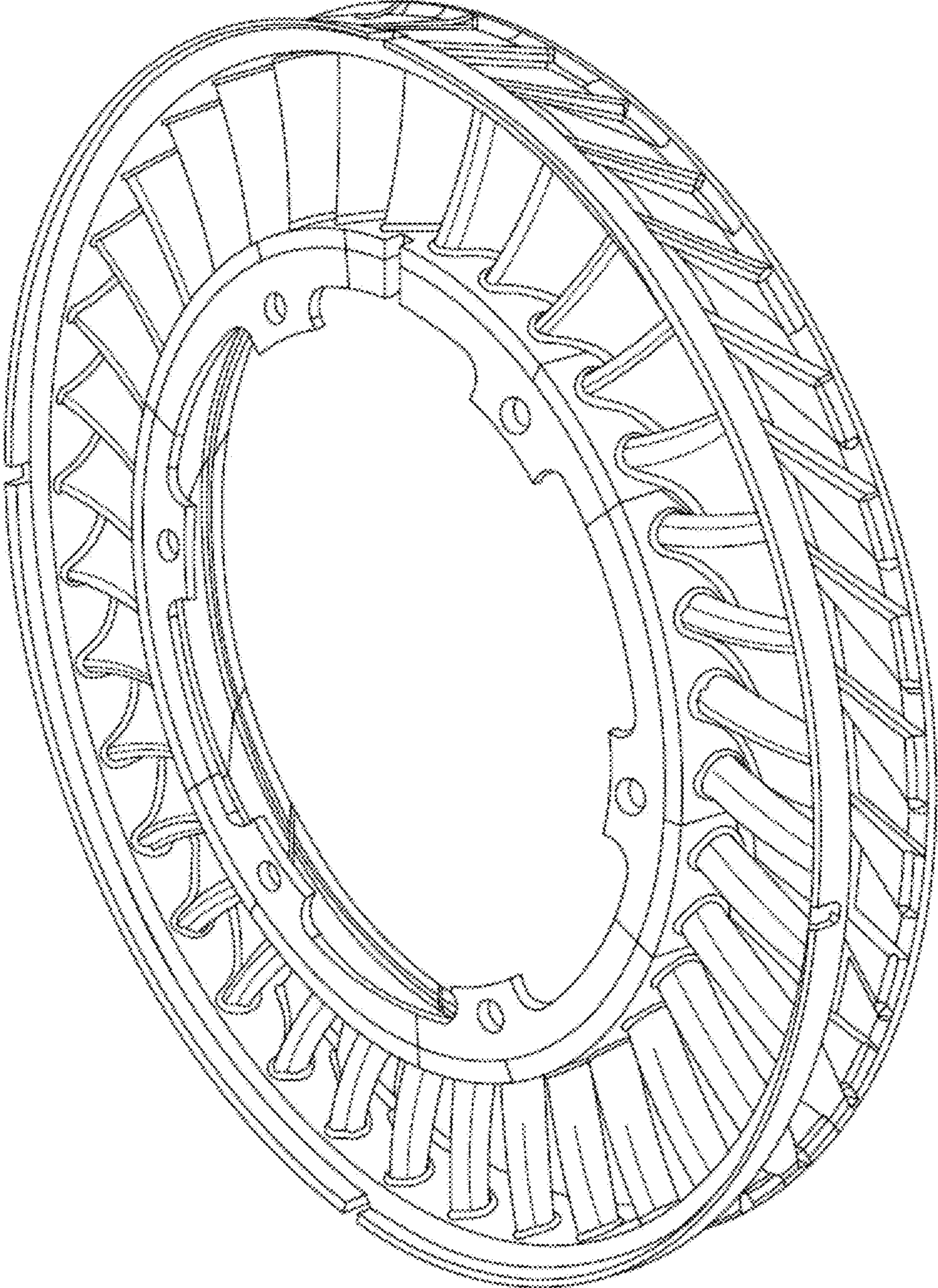


FIG. 1

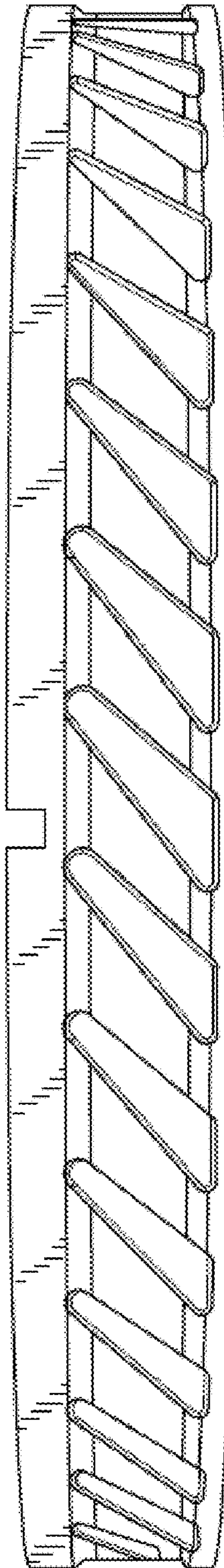


FIG. 2

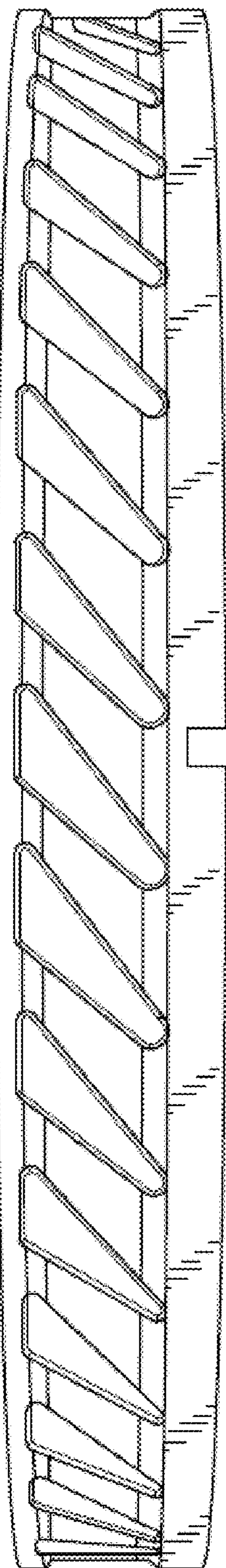


FIG. 3

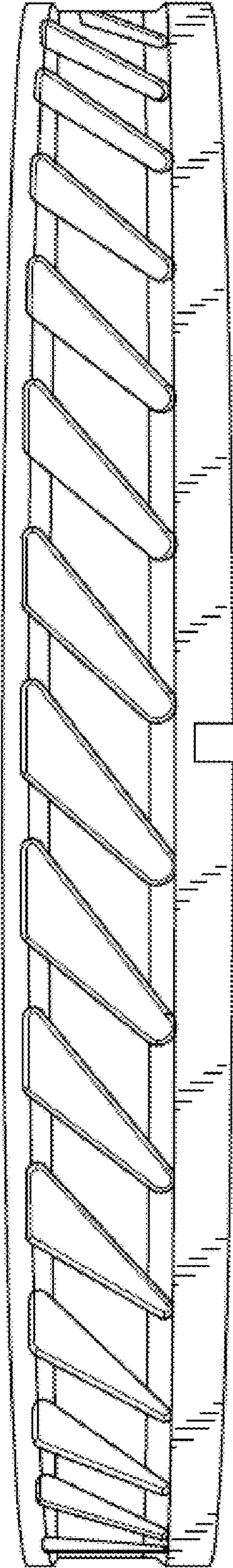


FIG. 4

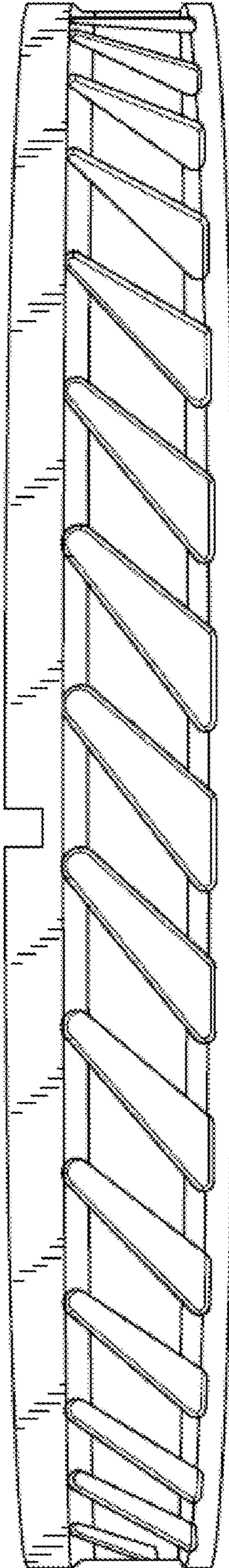


FIG. 5

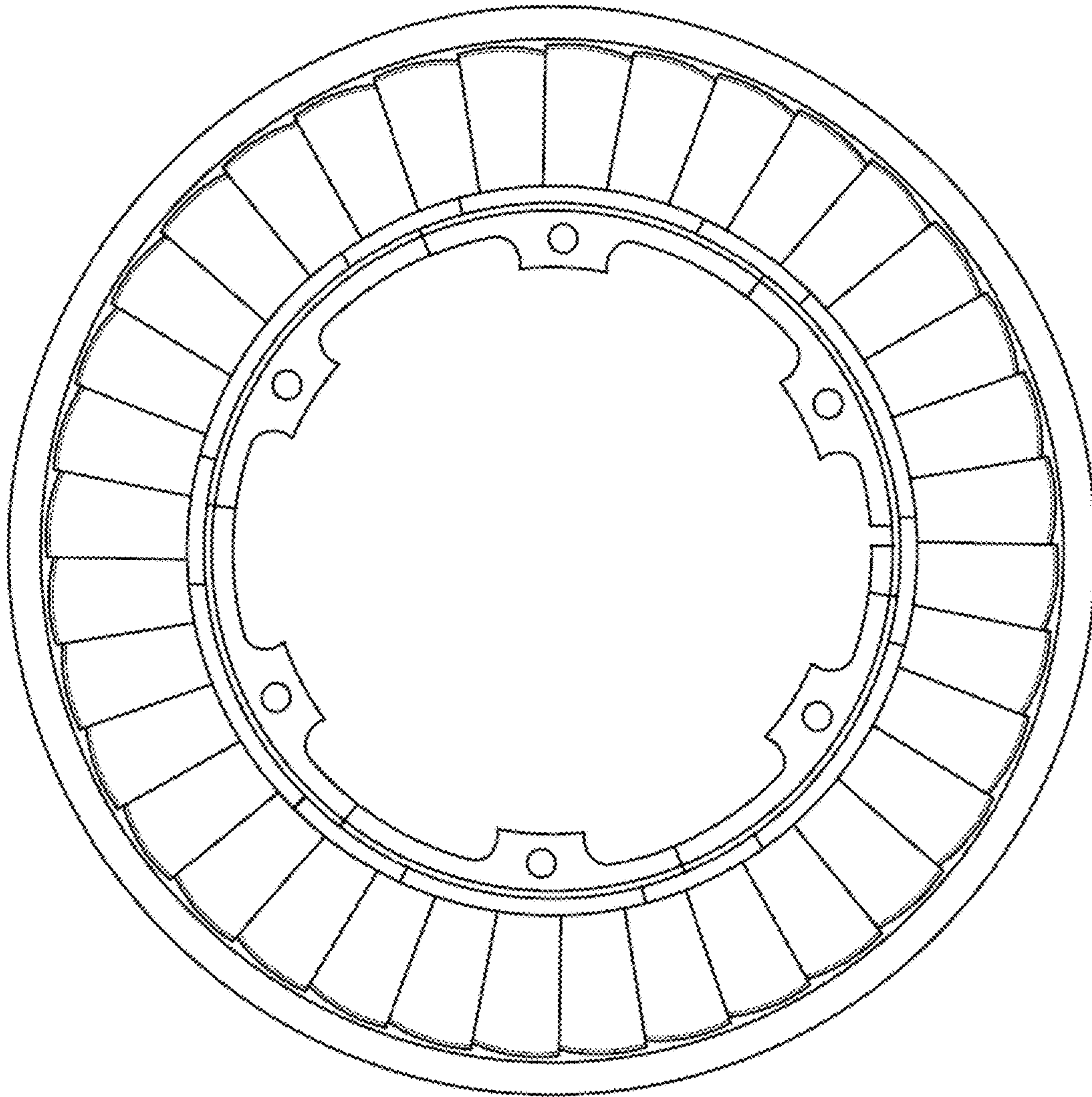


FIG. 6

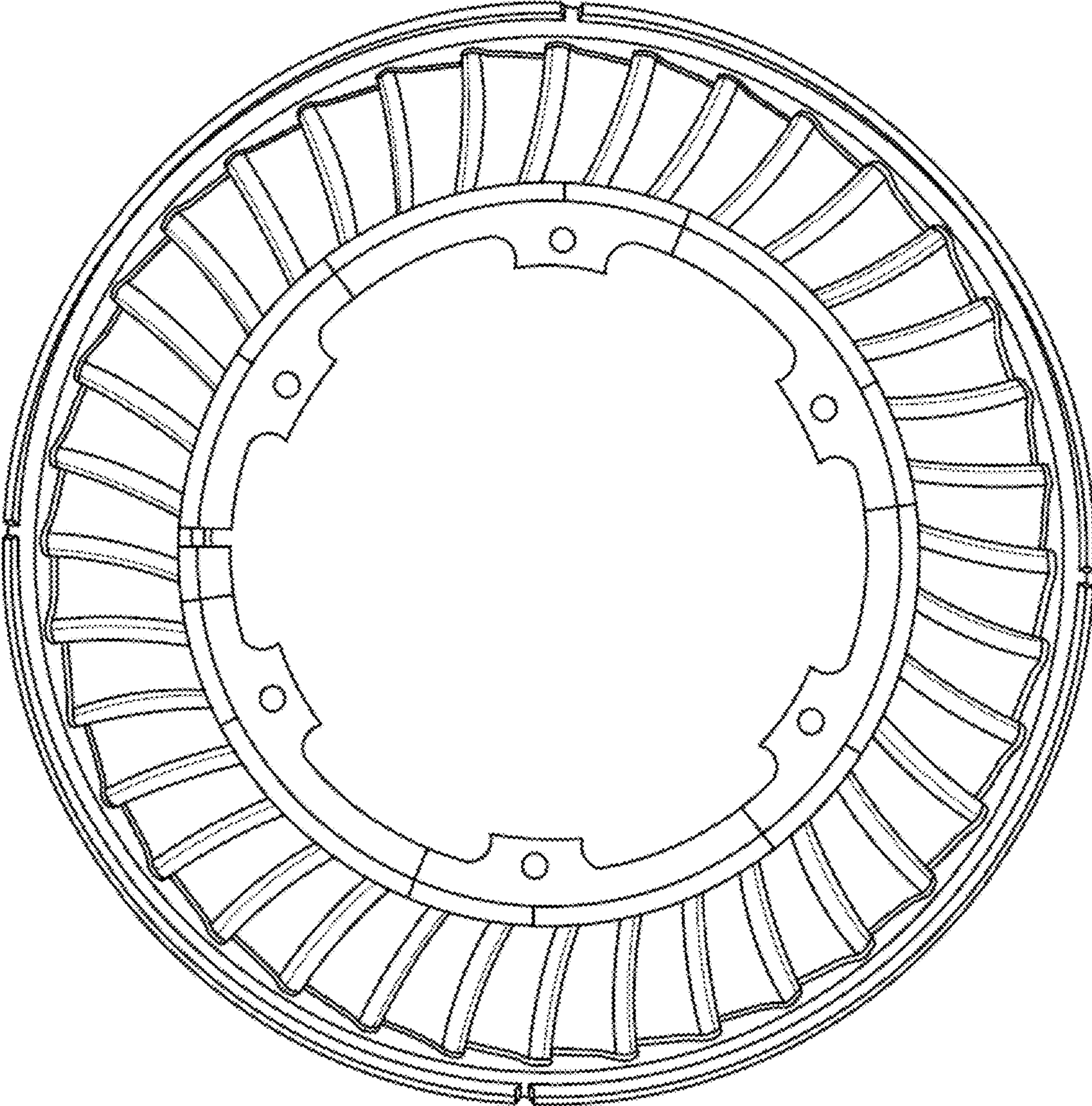


FIG. 7

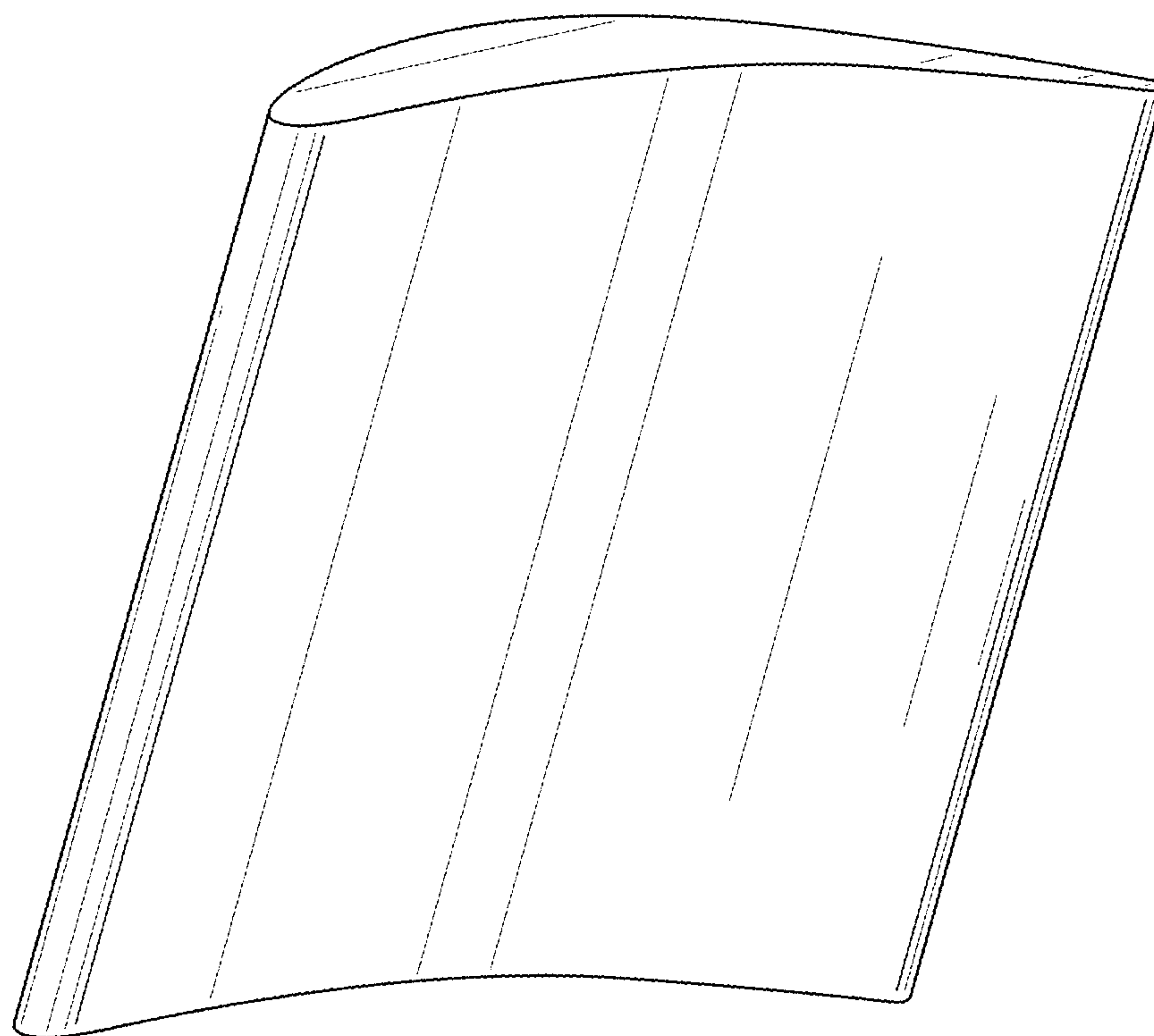


FIG. 8

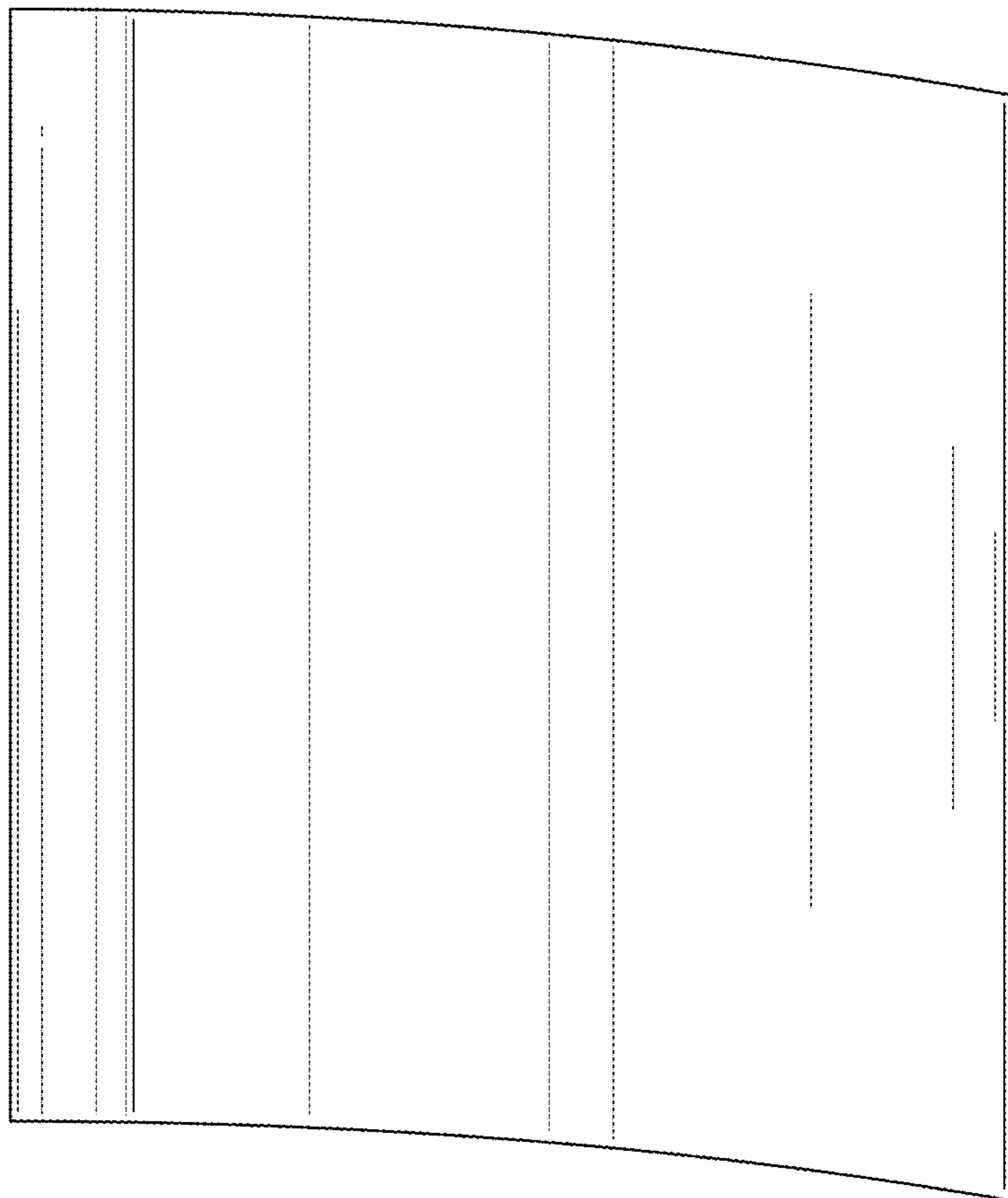


FIG. 9

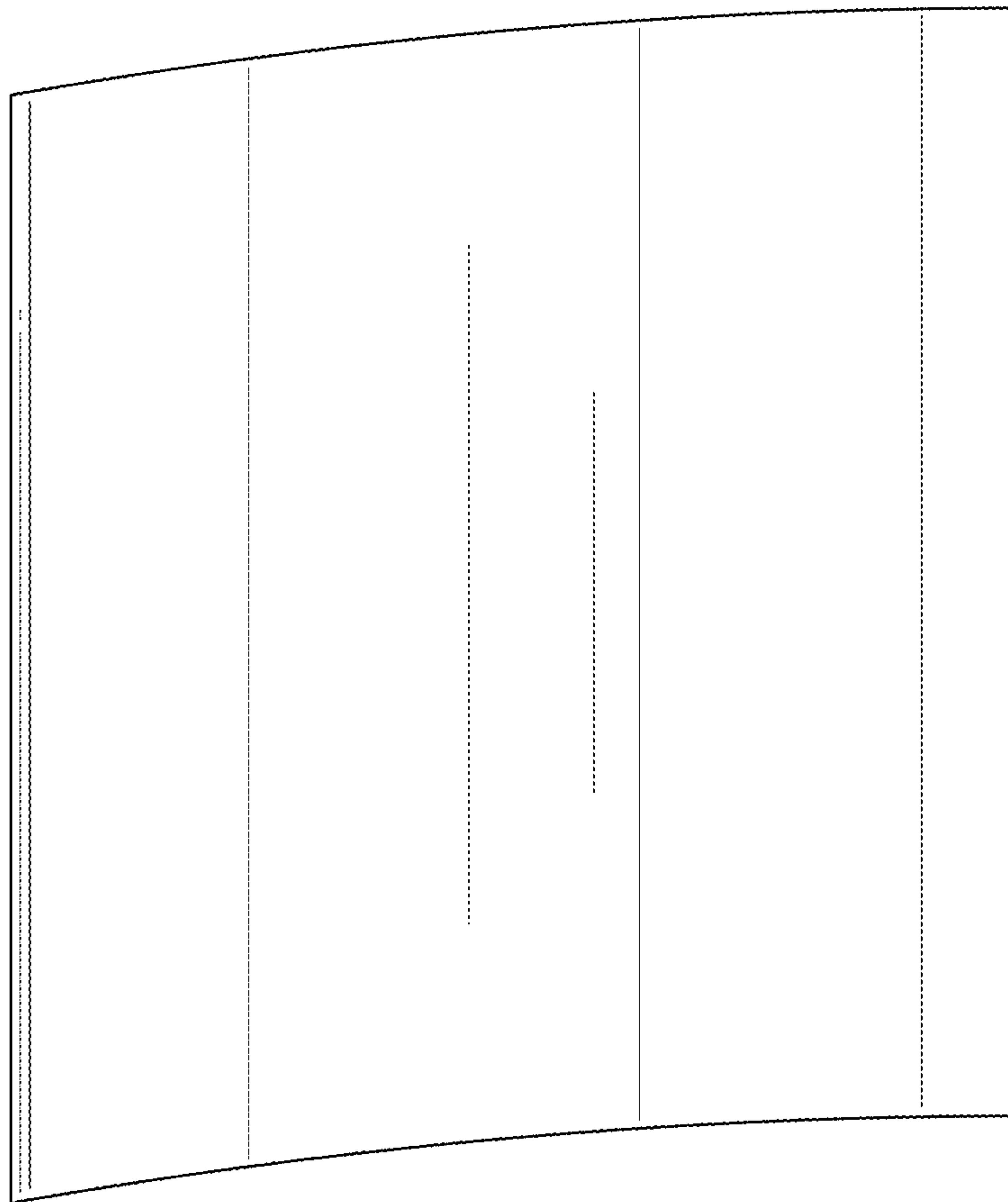


FIG. 10

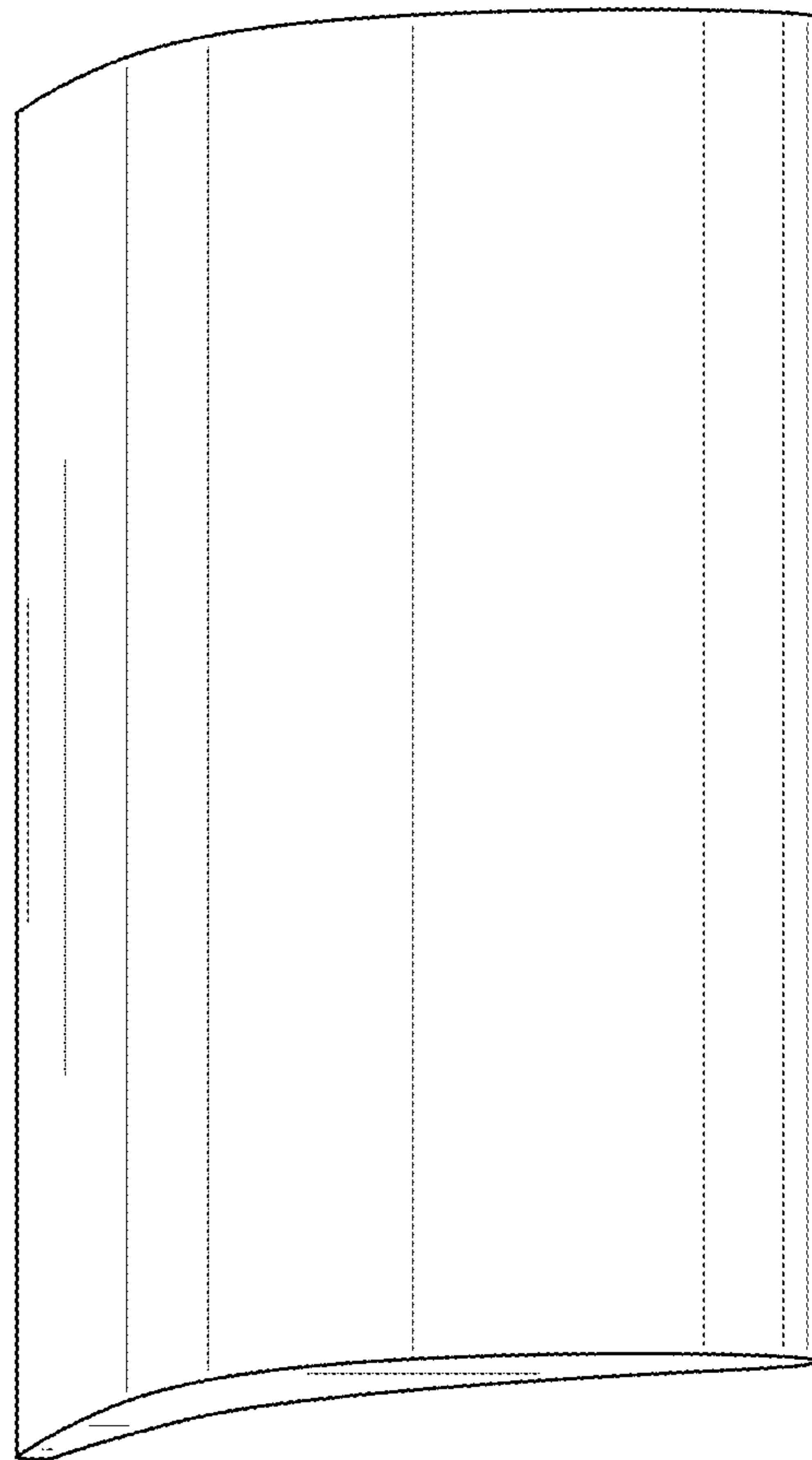


FIG. 11

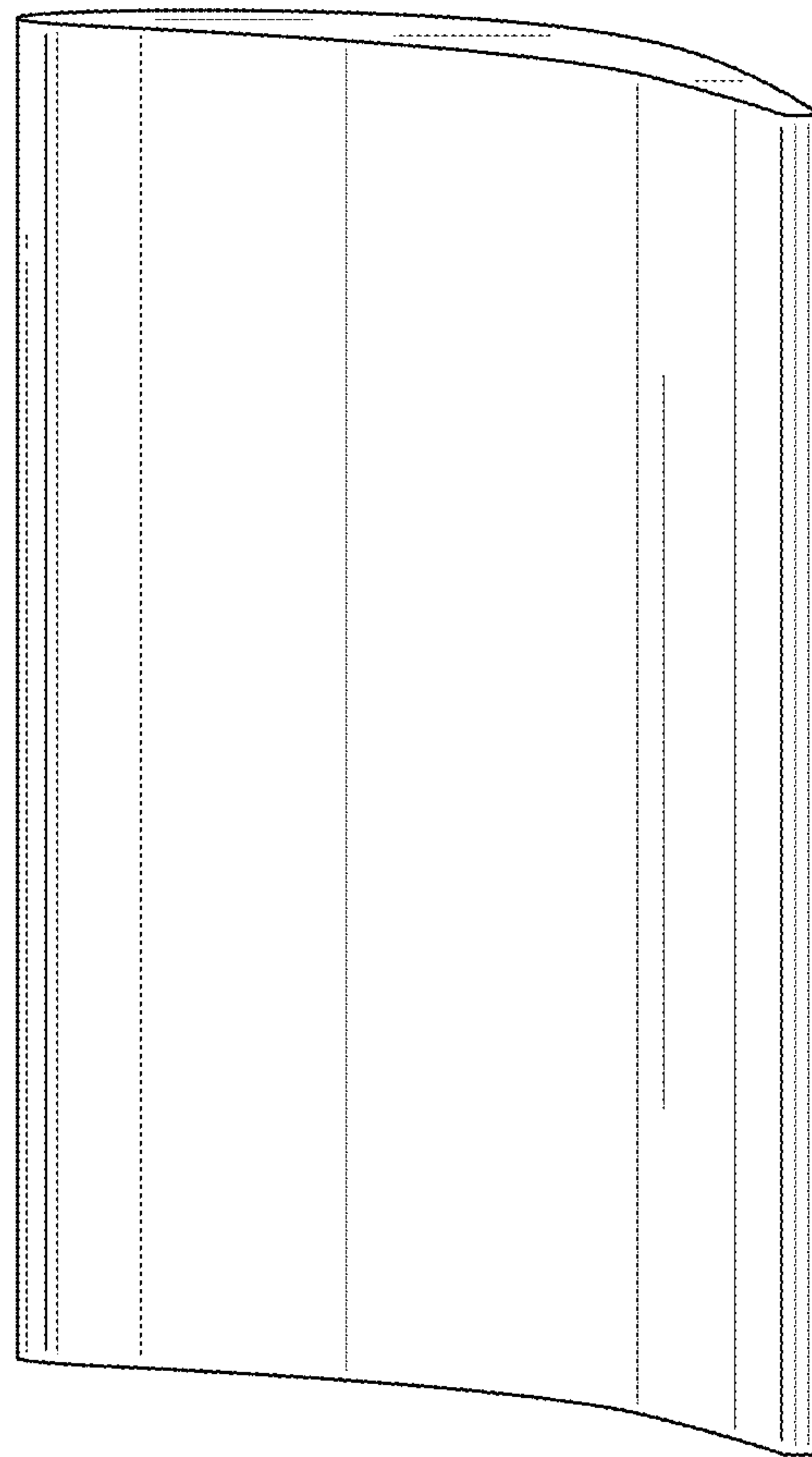


FIG. 12

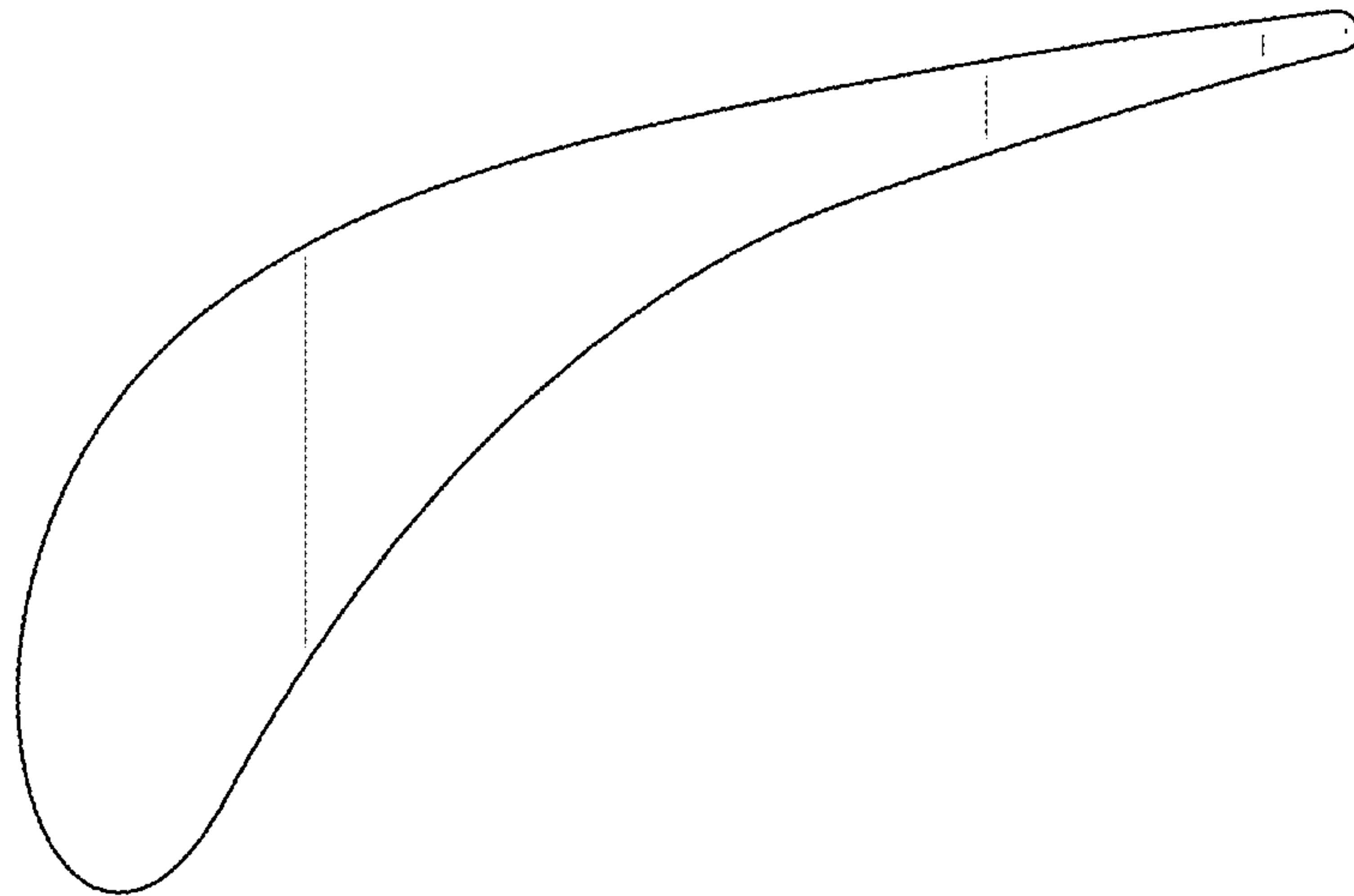


FIG. 13

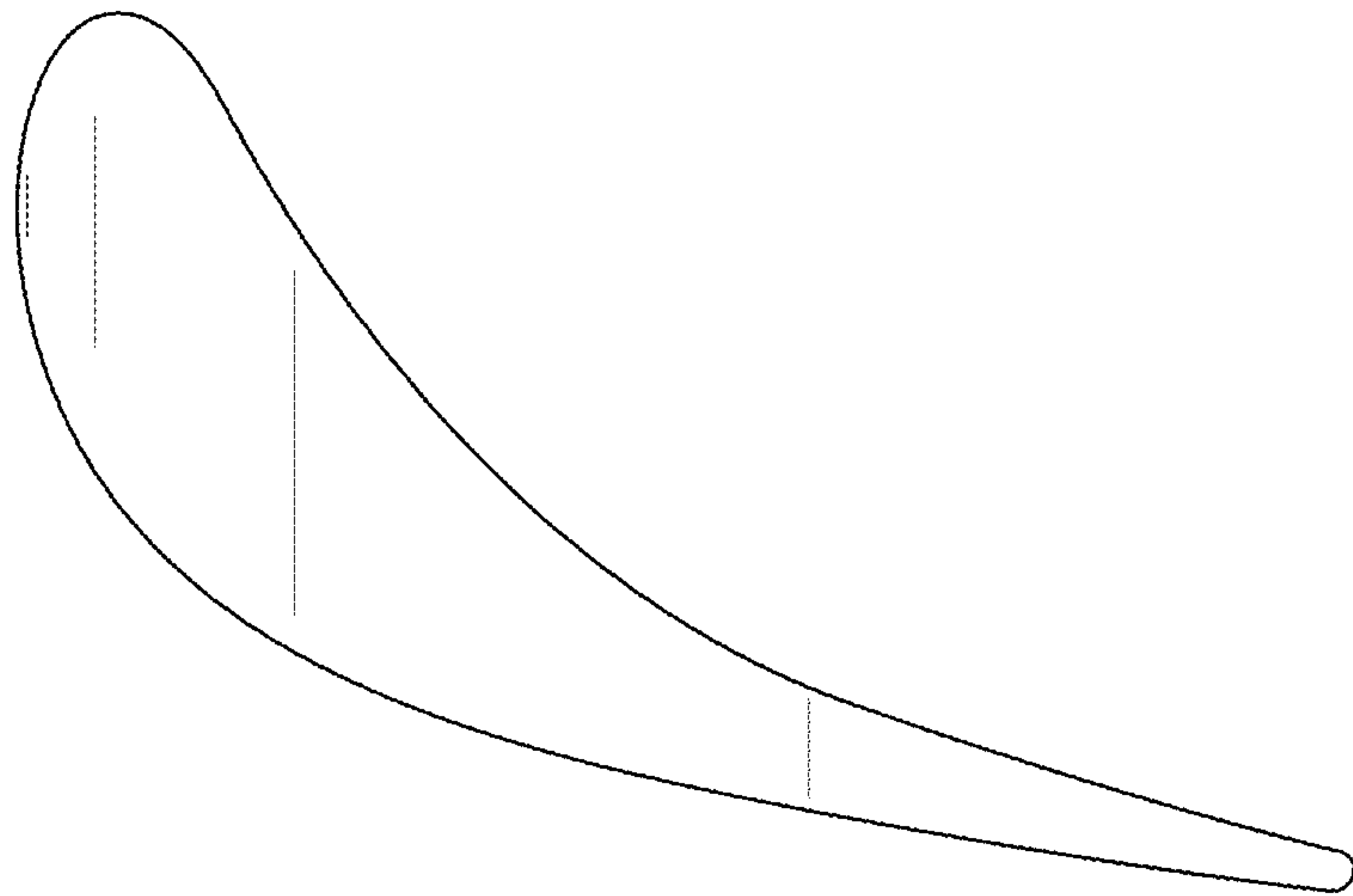


FIG. 14