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

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(54) **TURBINE BLADE**
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2008/0181779 A1* 7/2008 Decardenas F01D 5/22
416/219 R
2008/0286108 A1* 11/2008 Lui F01D 5/20
416/229 R
2010/0074759 A1* 3/2010 Dierksmeier F01D 5/147
416/241 B
2010/0239409 A1* 9/2010 Draper F01D 5/005
415/1
2011/0243749 A1* 10/2011 Praisner F01D 5/225
416/223 A

(Continued)

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FOREIGN PATENT DOCUMENTS

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

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Primary Examiner — Derrick E Holland

(21) Appl. No.: **29/749,375**

(22) Filed: **Sep. 4, 2020**

(57) **CLAIM**

We claim the ornamental design for a turbine blade, as shown and described.

(51) **LOC (13) Cl.** **13-01**

(52) **U.S. Cl.**
USPC **D13/122; D13/115**

DESCRIPTION

(58) **Field of Classification Search**
USPC D13/101, 112, 114, 115, 118, 122, 199;
D12/344, 345
CPC .. F05D 2250/14; F05D 2250/71; B23P 15/02;
F01D 5/14; F01D 5/16; F01D 5/18; F01D
5/28; F01D 5/147; F01D 5/186; F01D
5/187; F01D 11/006; F01D 11/008; F01D
11/08

See application file for complete search history.

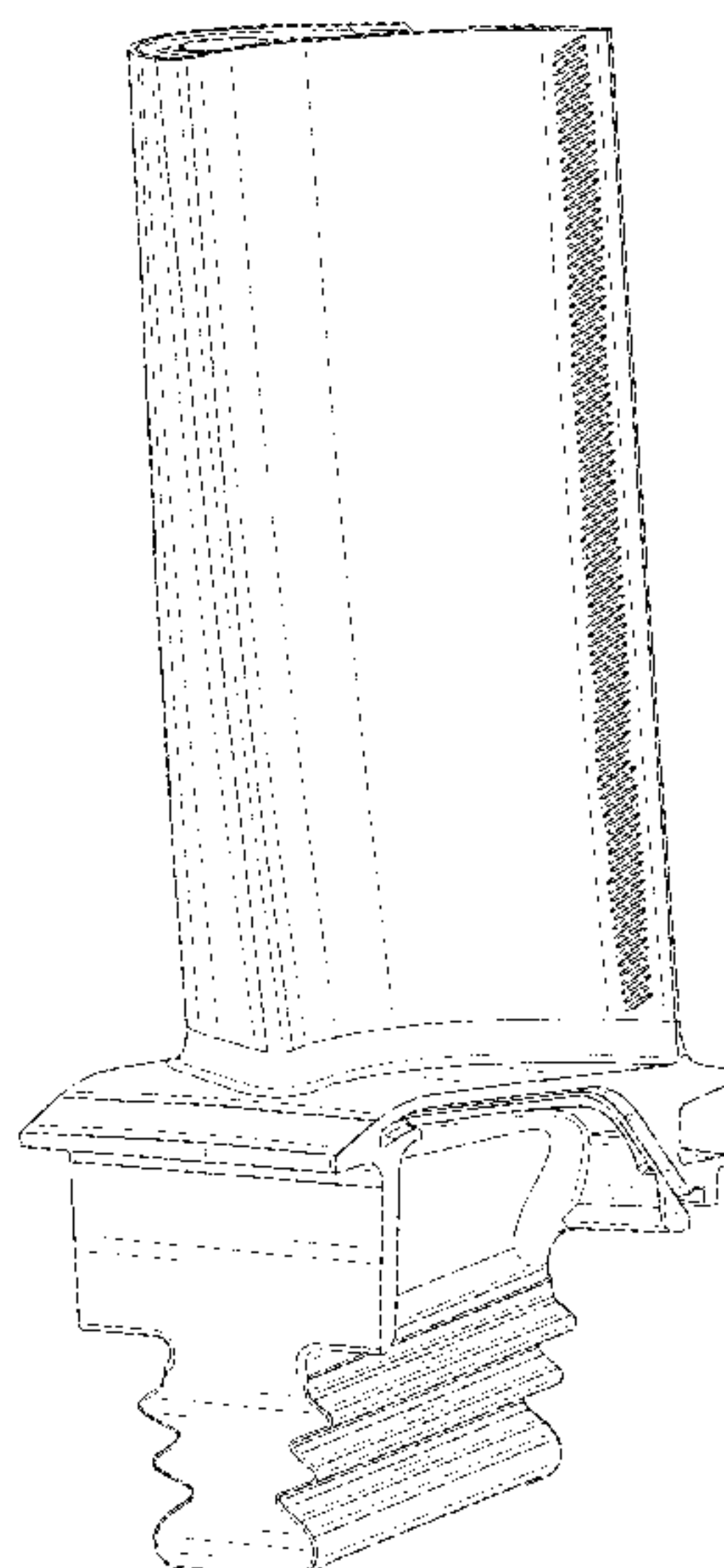
FIG. 1 is a perspective view of a first embodiment of a turbine blade showing the new design.
FIG. 2 is a front side view of the turbine blade of FIG. 1.
FIG. 3 is a rear side view of the turbine blade of FIG. 1.
FIG. 4 is a left view of the turbine blade of FIG. 1.
FIG. 5 is a right view of the turbine blade of FIG. 1.
FIG. 6 is a top view of the turbine blade of FIG. 1.
FIG. 7 is a bottom view of the turbine blade of FIG. 1.
FIG. 8 is a perspective view of a second embodiment of a turbine blade showing the new design.
FIG. 9 is a front side view of the turbine blade of FIG. 8.
FIG. 10 is a rear side view of the turbine blade of FIG. 8.
FIG. 11 is a left view of the turbine blade of FIG. 8.
FIG. 12 is a right view of the turbine blade of FIG. 8.
FIG. 13 is a top view of the turbine blade of FIG. 8; and, FIG. 14 is a bottom view of the turbine blade of FIG. 8.
The broken lines shown represent the portions of the turbine blade that form no part of the claimed design.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,924,706 A * 5/1990 Moore G01H 13/00
73/579
D598,376 S * 8/2009 Cheung D13/115
D675,983 S * 2/2013 Berdan D13/115
D715,736 S * 10/2014 Gong D13/112
9,394,793 B1 * 7/2016 Atkins F01D 5/16
D770,383 S * 11/2016 Lurie D13/115
10,287,898 B2 5/2019 Bluck
D869,395 S * 12/2019 Huang D13/115

1 Claim, 14 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2011/0293436 A1* 12/2011 Di Florio F01D 5/16
416/233
2015/0089809 A1* 4/2015 Guo B23P 15/02
29/889.7
2015/0354366 A1* 12/2015 Simpson F01D 5/147
60/772
2019/0368359 A1* 12/2019 Quach F01D 5/187
2020/0063570 A1* 2/2020 Parker F01D 5/225

* cited by examiner

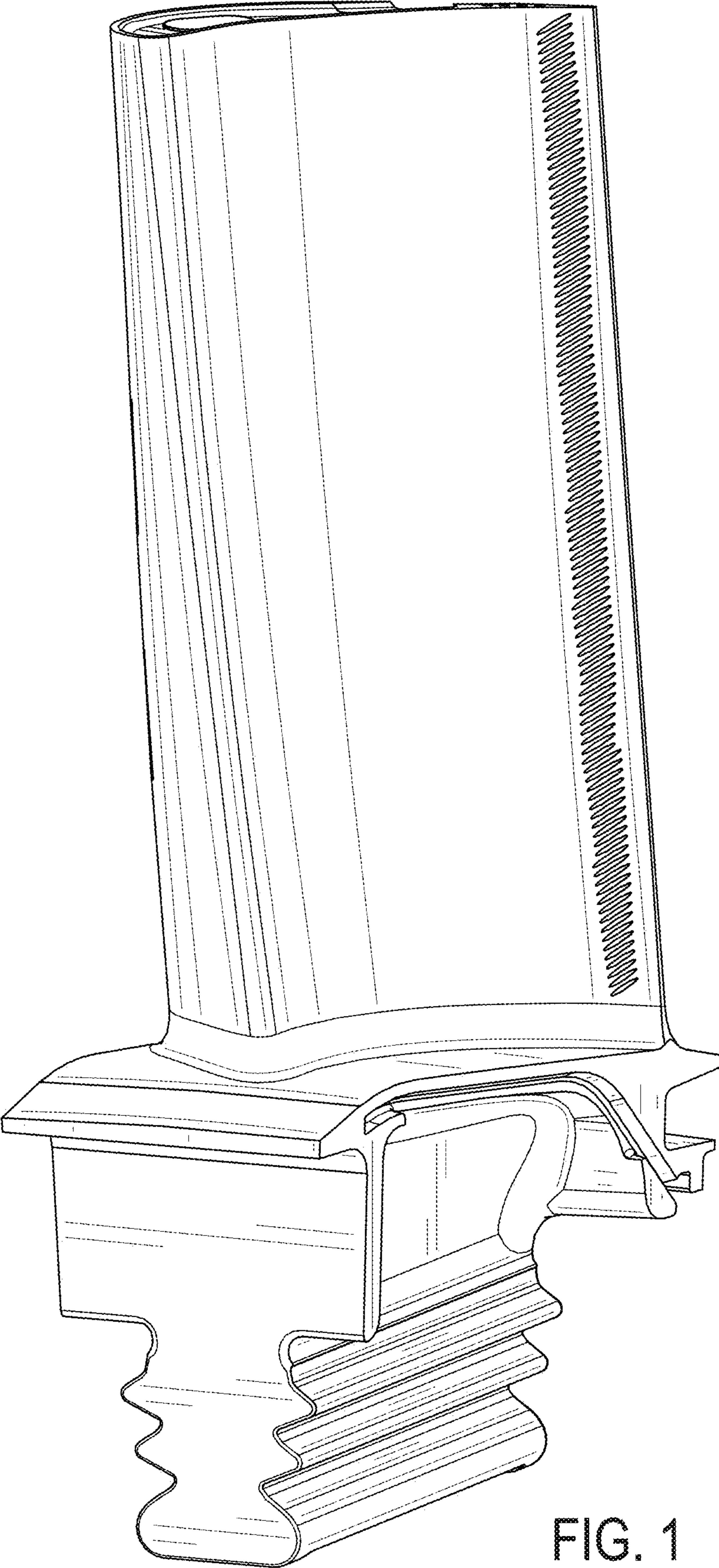


FIG. 1

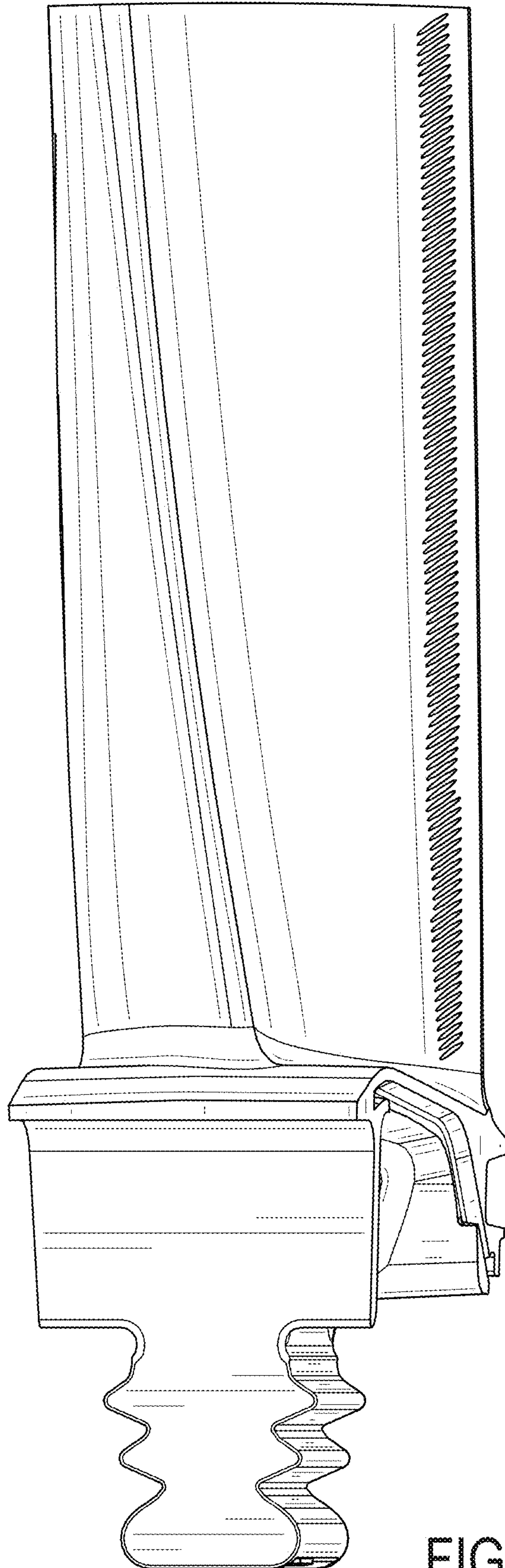


FIG. 2

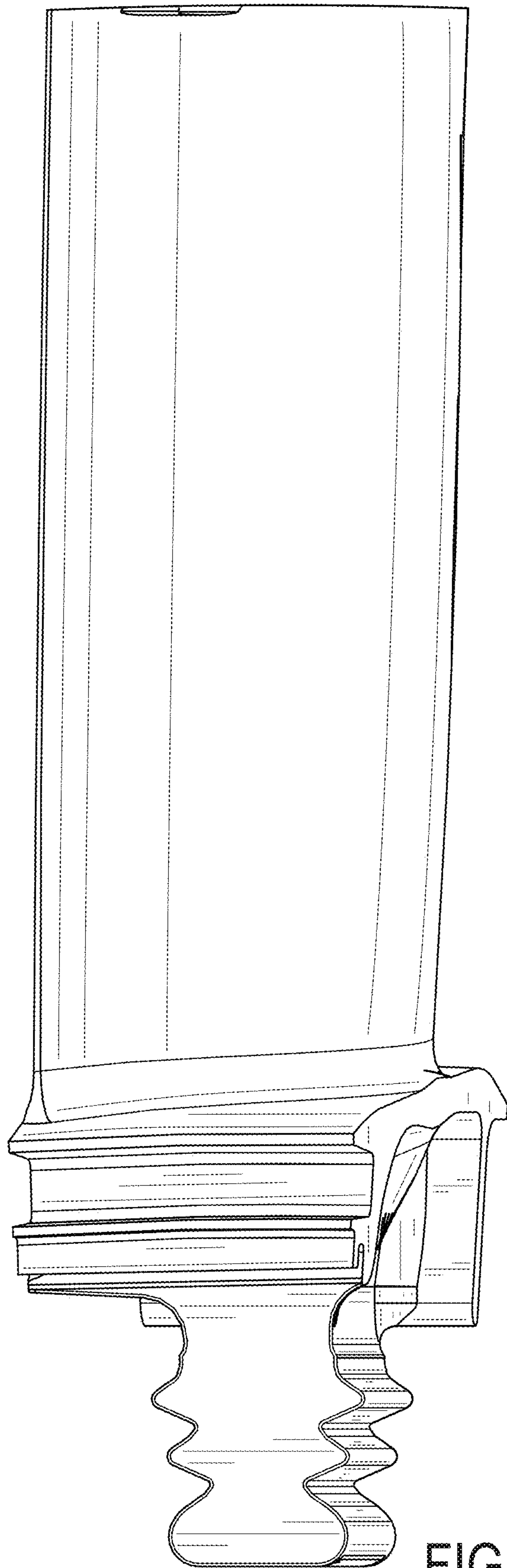


FIG. 3

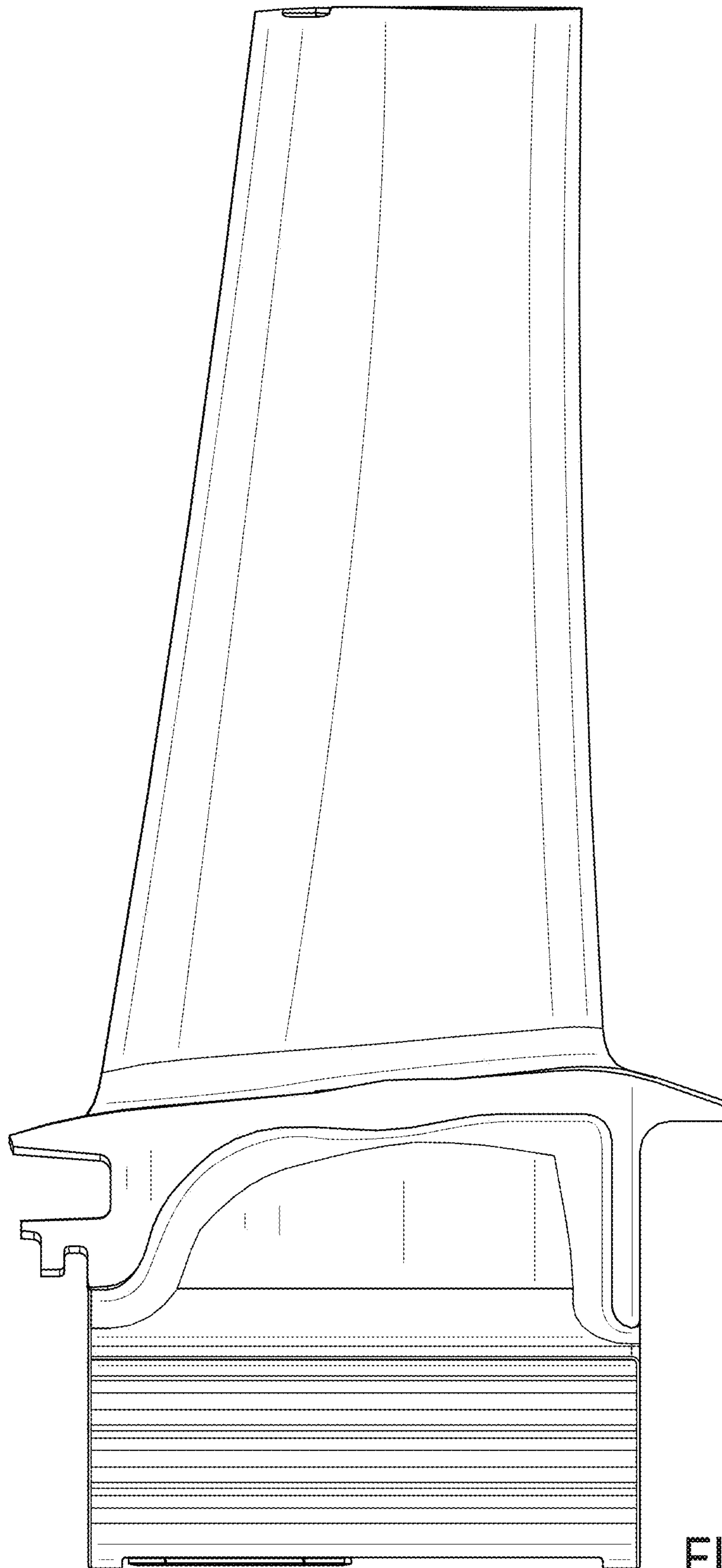


FIG. 4

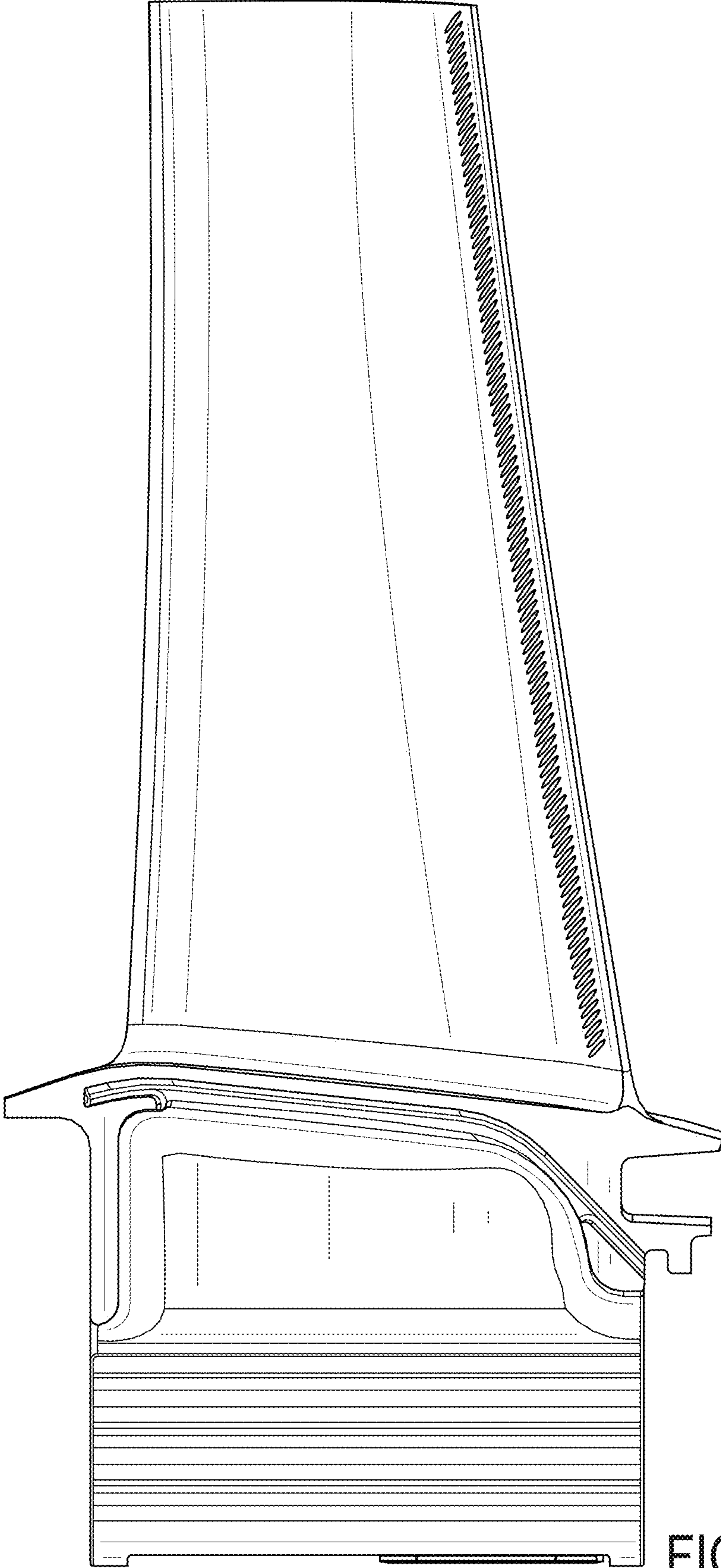


FIG. 5

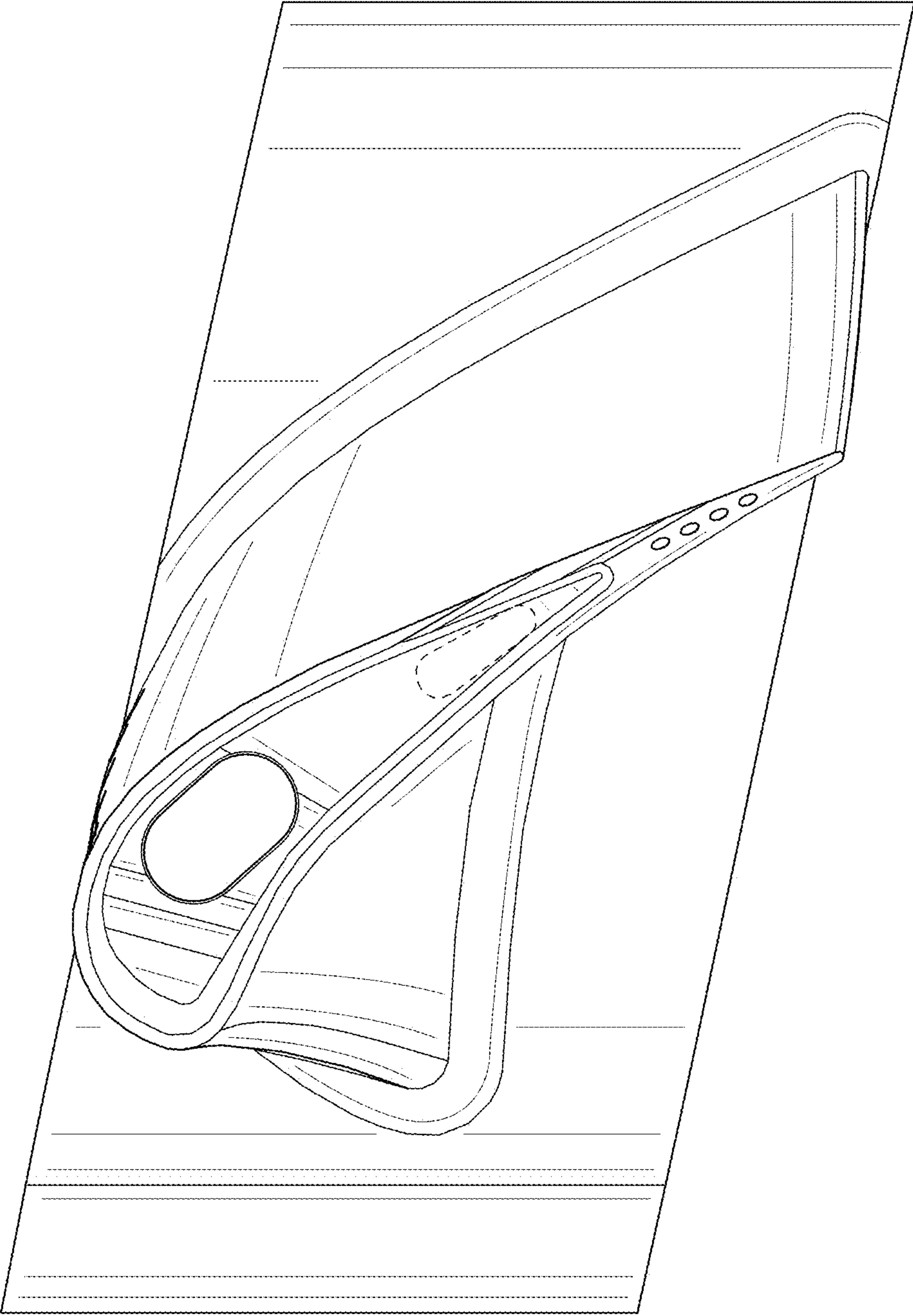


FIG. 6

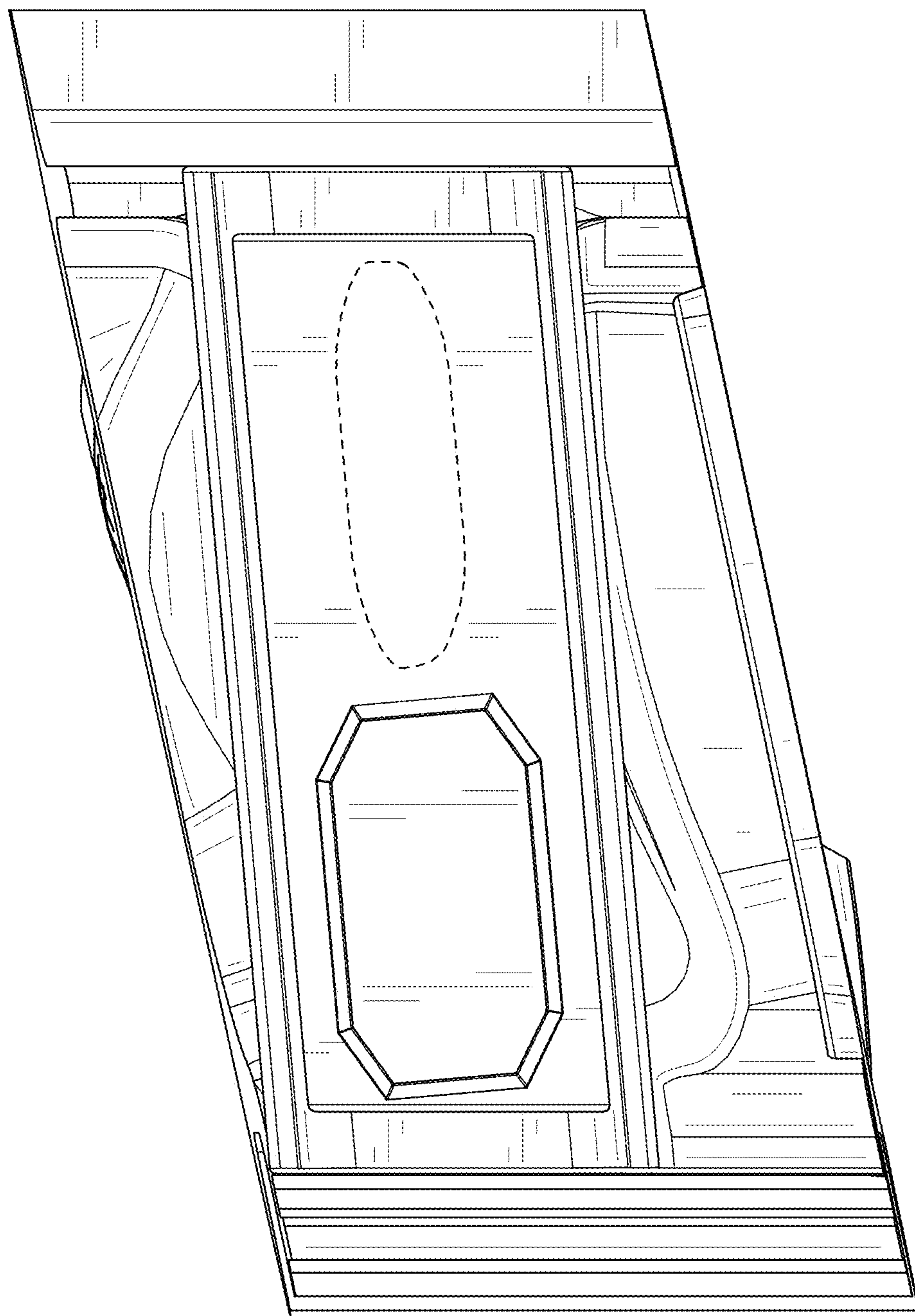


FIG. 7

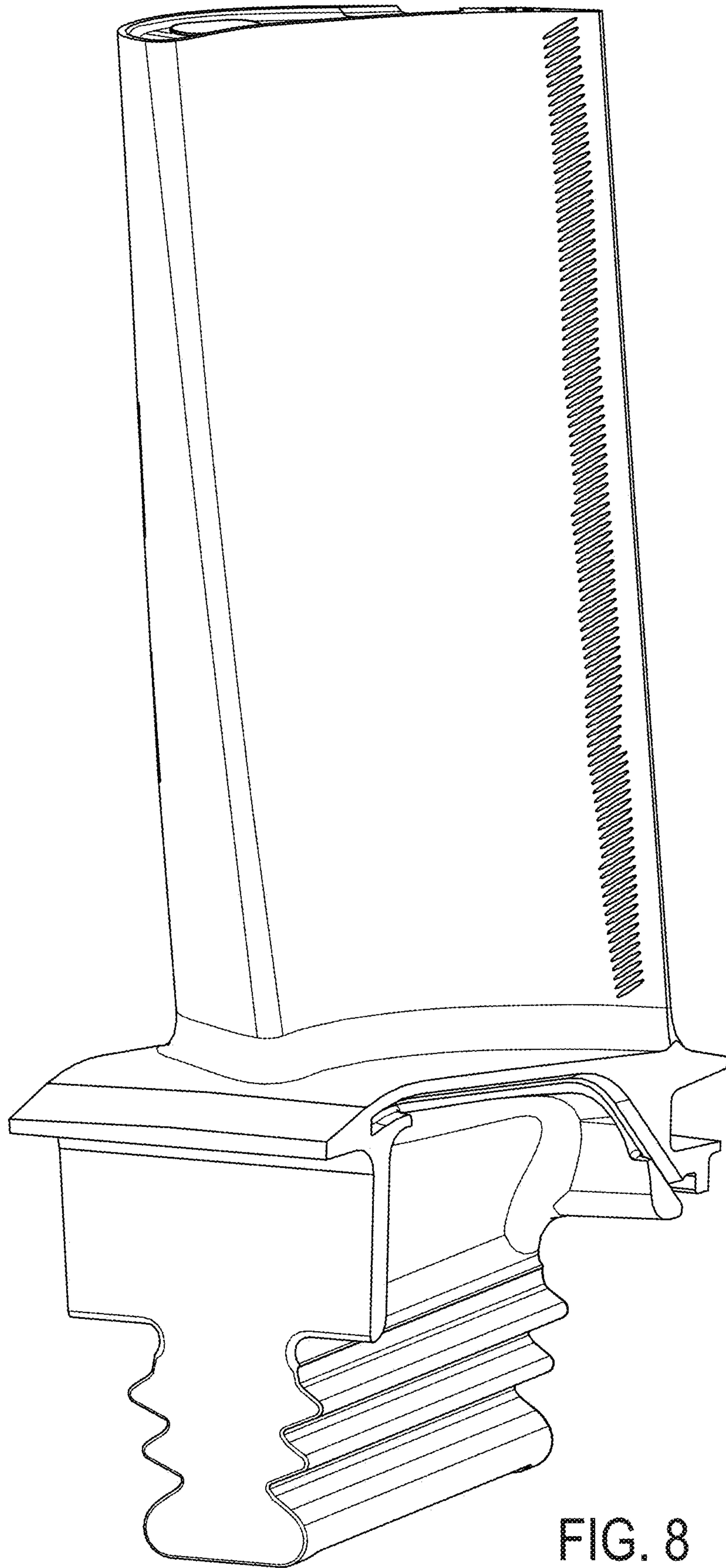


FIG. 8

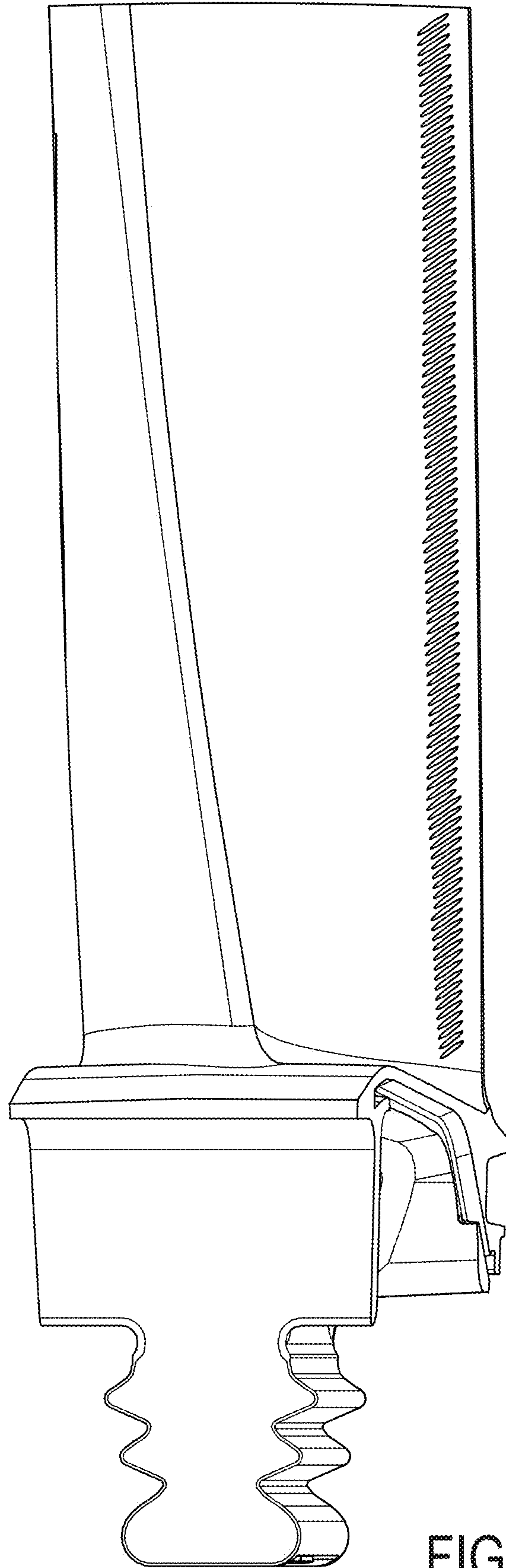


FIG. 9

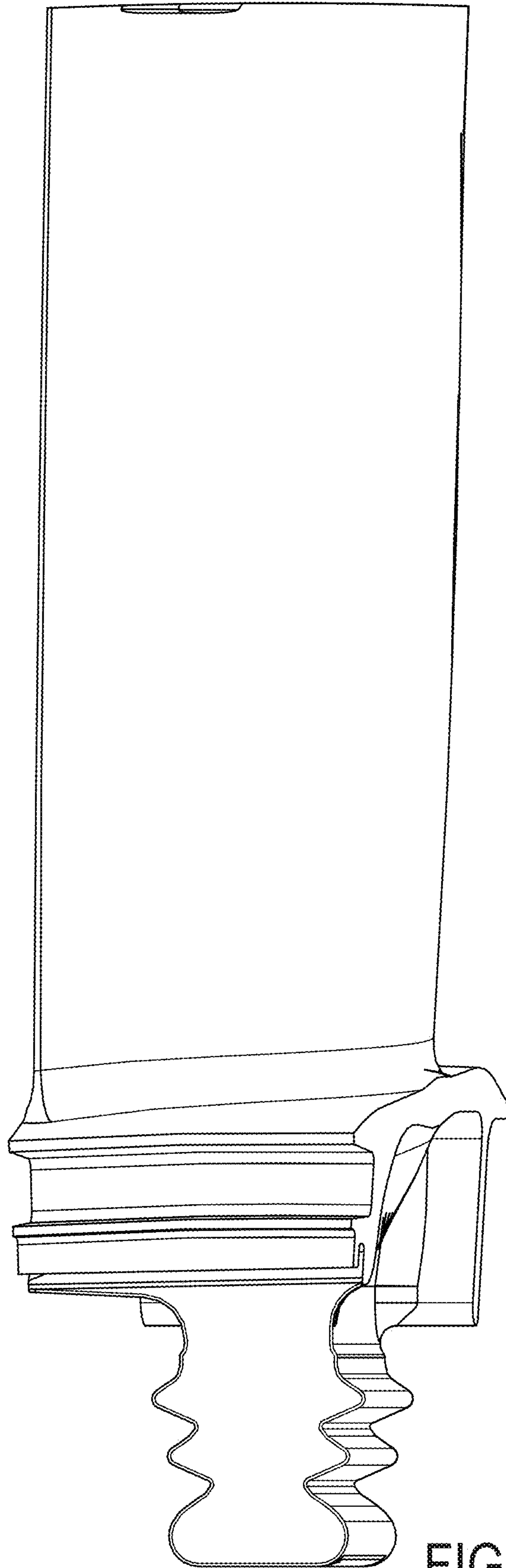


FIG. 10

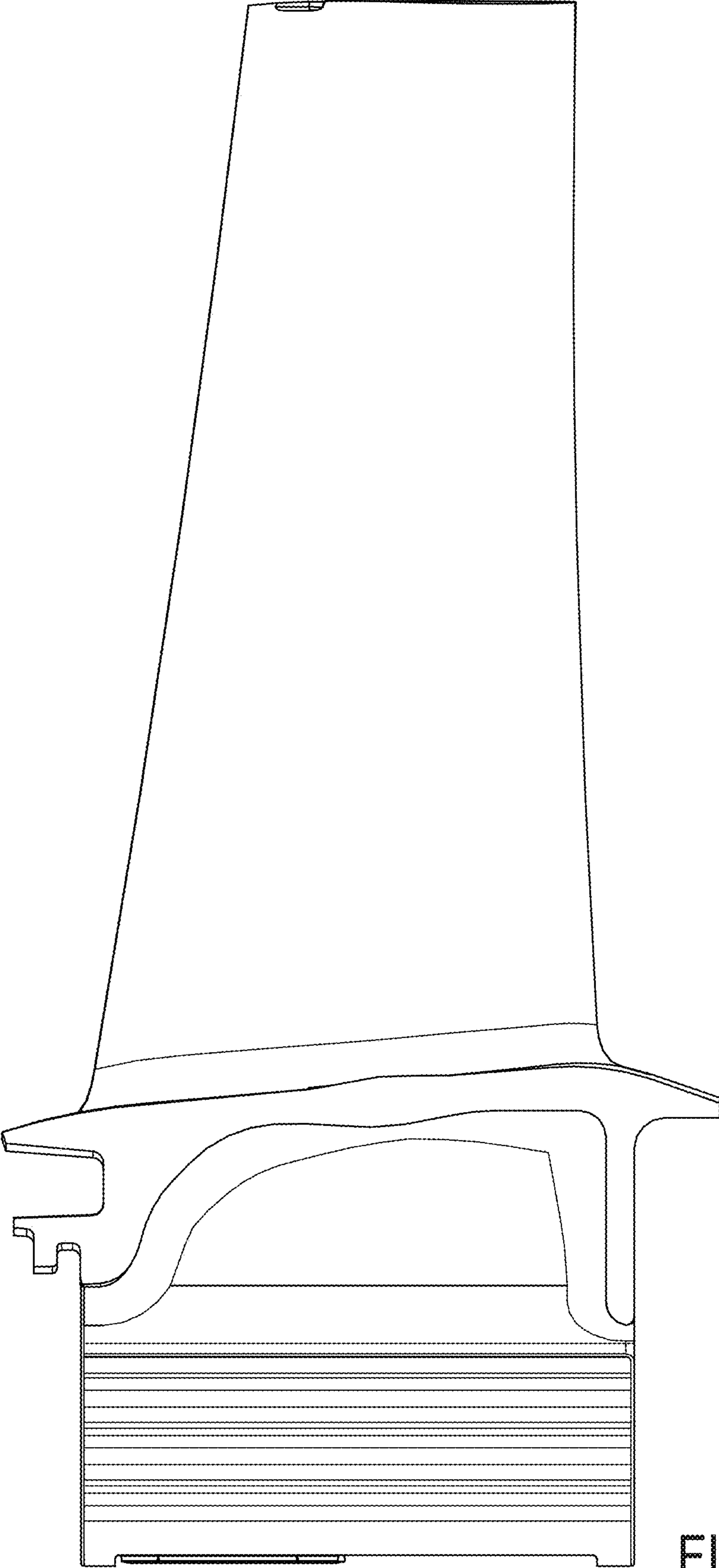


FIG. 11

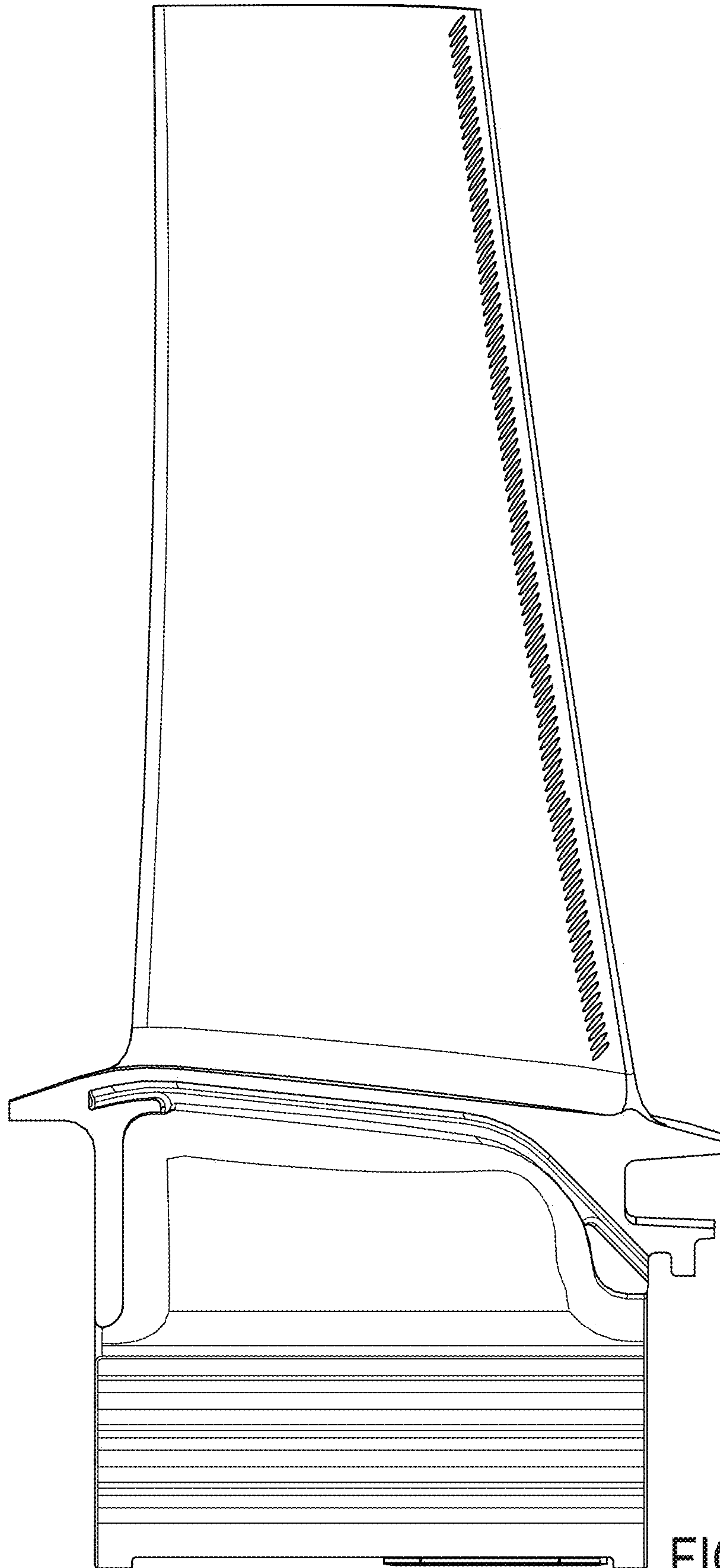


FIG. 12

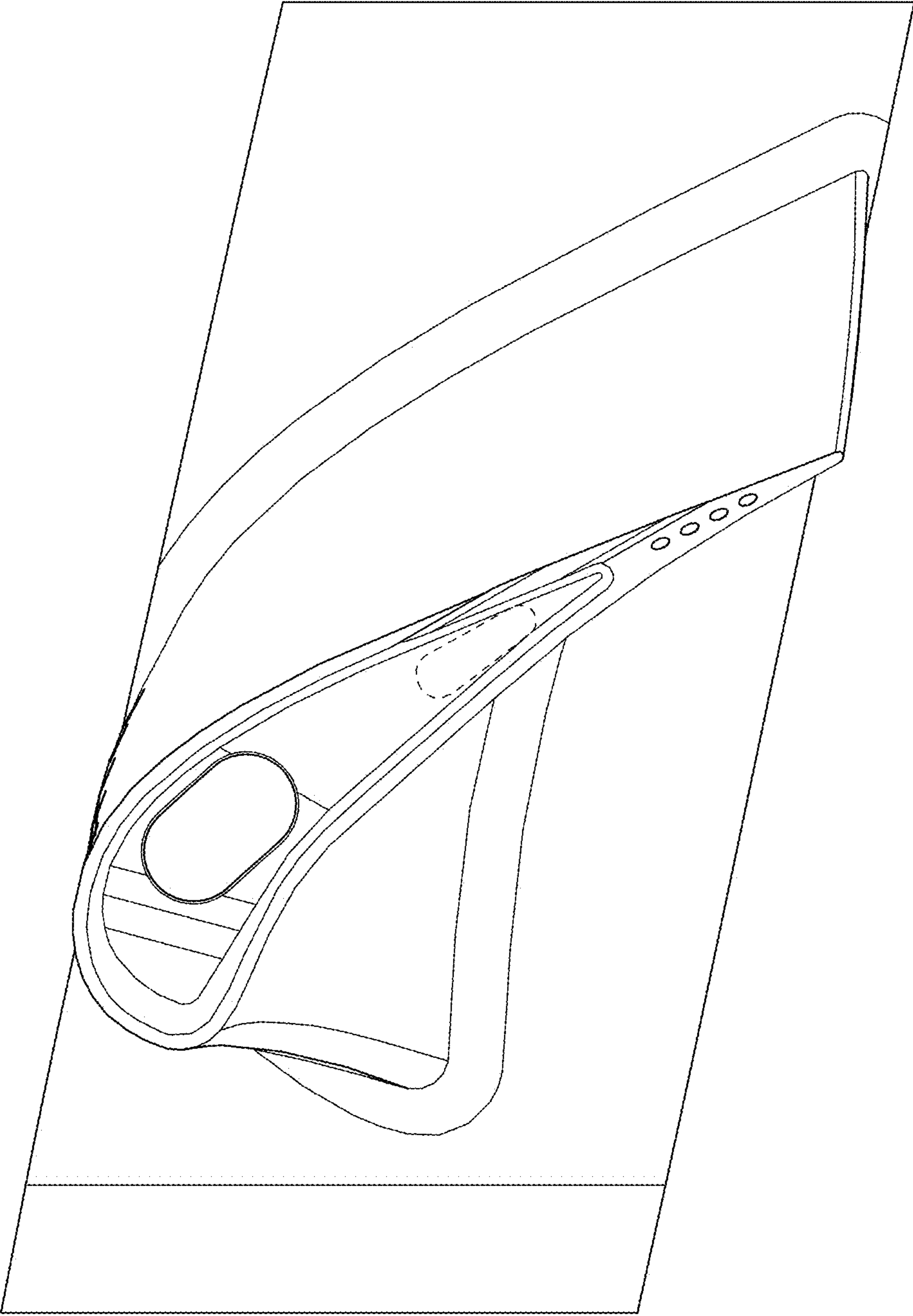


FIG. 13

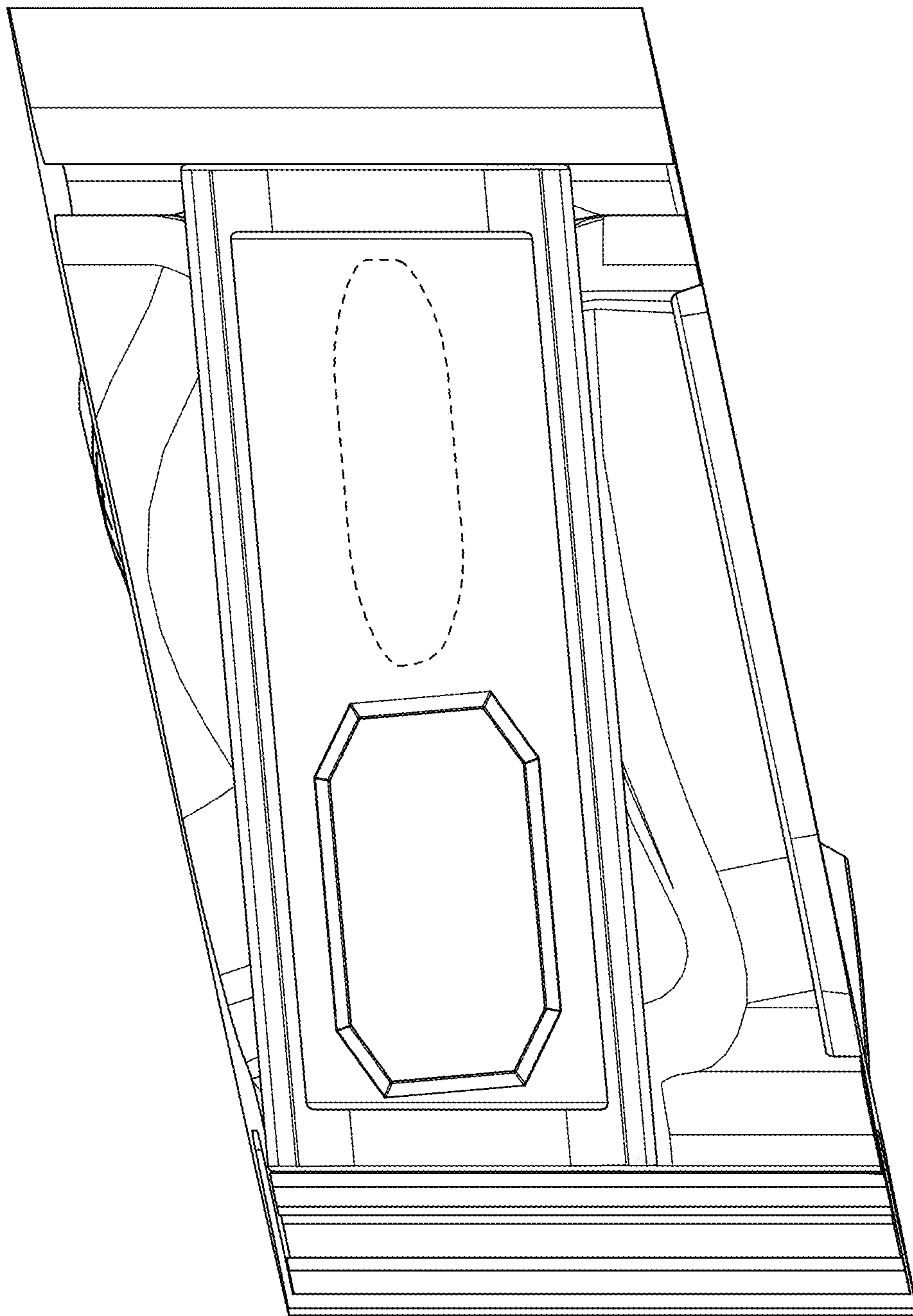


FIG. 14