



US00D930046S

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

(10) **Patent No.:** **US D930,046 S**
(45) **Date of Patent:** **** Sep. 7, 2021**

- (54) **CENTRALIZER FOR CENTRALIZING TUBING IN A WELLBORE**
- (71) Applicants: **Ian Kirk**, Aberdeenshire (GB); **Nathan Kirk**, Aberdeen (GB)
- (72) Inventors: **Ian Kirk**, Aberdeenshire (GB); **Nathan Kirk**, Aberdeen (GB)
- (73) Assignee: **VULCAN COMPLETION PRODUCTS UK LIMITED**, Aberdeen (GB)
- (**) Term: **15 Years**
- (21) Appl. No.: **29/637,795**
- (22) Filed: **Feb. 22, 2018**
- (51) **LOC (13) Cl.** **15-03**
- (52) **U.S. Cl.**
USPC **D15/21**
- (58) **Field of Classification Search**
USPC D15/10, 21
CPC .. E21B 17/10; E21B 17/1042; E21B 17/1078;
E21B 17/1064
See application file for complete search history.

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Primary Examiner — Mark A Goodwin
(74) *Attorney, Agent, or Firm* — Carlson, Gaskey & Olds, P.C.

(57) **CLAIM**
The ornamental design for a centralizer for centralizing tubing in a wellbore, as shown and described.

DESCRIPTION
FIG. 1 is a perspective view of a first embodiment of a centralizer for centralizing tubing in a wellbore.

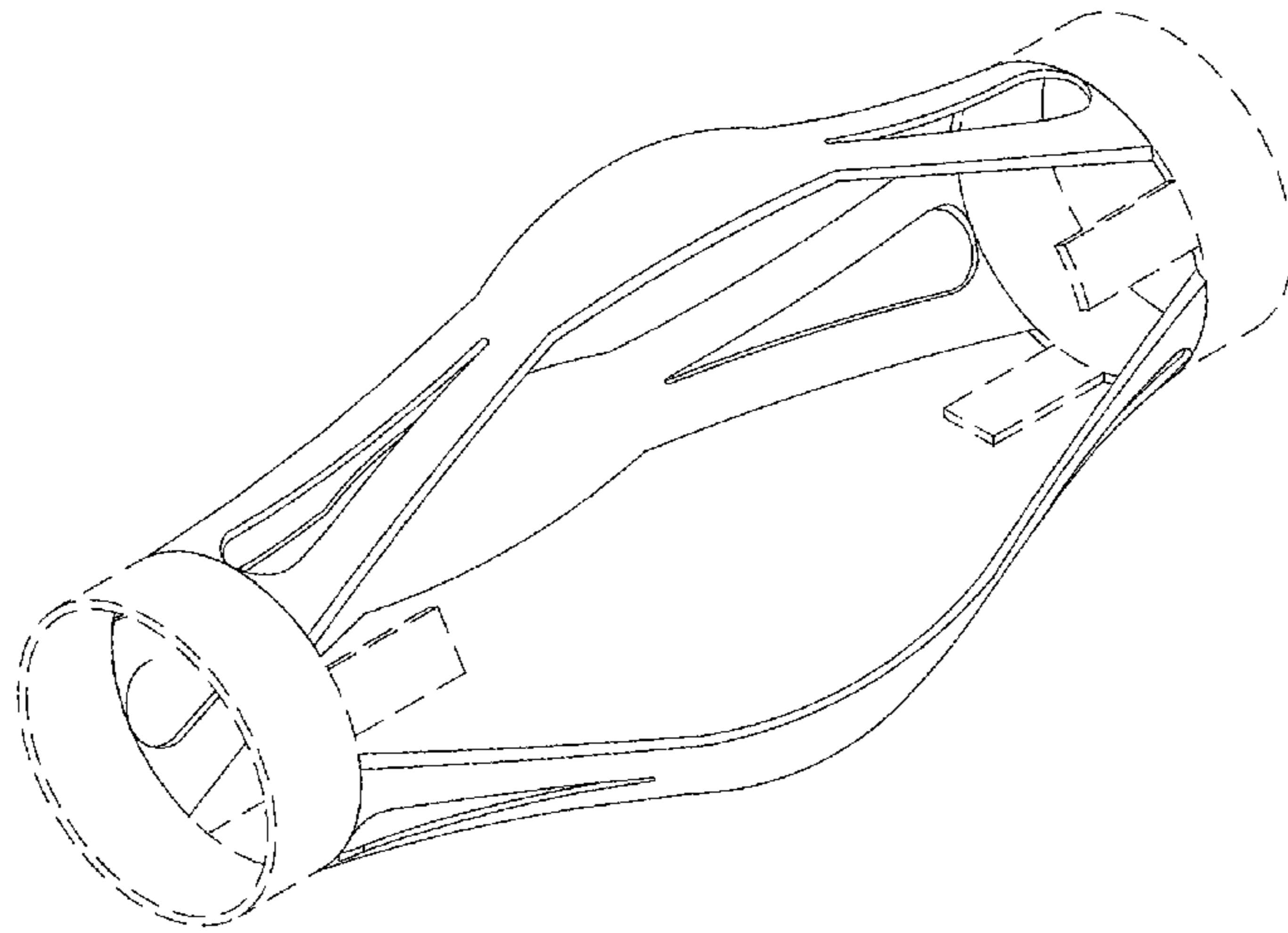


FIG. 2 is a first end view of the centralizer shown in FIG. 1.
FIG. 3 is a second end view of the centralizer shown in FIG. 1.

FIG. 4 is a first side view of the centralizer shown in FIG. 1.

FIG. 5 is a second side view of the centralizer shown in FIG. 1.

FIG. 6 is a third side view of the centralizer shown in FIG. 1.

FIG. 7 is a fourth side view of the centralizer shown in FIG. 1.

FIG. 8 is a perspective view of a second embodiment of a centralizer for centralizing tubing in a wellbore.

FIG. 9 is a first end view of the centralizer shown in FIG. 8.

FIG. 10 is a second end view of the centralizer shown in FIG. 8.

FIG. 11 is a first side view of the centralizer shown in FIG. 8.

FIG. 12 is a second side view of the centralizer shown in FIG. 8.

FIG. 13 is a third side view of the centralizer shown in FIG. 8.

FIG. 14 is a fourth side view of the centralizer shown in FIG. 8.

FIG. 15 is a perspective view of a third embodiment of a centralizer for centralizing tubing in a wellbore.

FIG. 16 is a first end view of the centralizer shown in FIG. 15.

FIG. 17 is a second end view of the centralizer shown in FIG. 15.

FIG. 18 is a first side view of the centralizer shown in FIG. 15.

FIG. 19 is a second side view of the centralizer shown in FIG. 15.

FIG. 20 is a third side view of the centralizer shown in FIG. 15.

FIG. 21 is a fourth side view of the centralizer shown in FIG. 15.

FIG. 22 is a perspective view of a fourth embodiment of a centralizer for centralizing tubing in a wellbore.

FIG. 23 is a first end view of the centralizer shown in FIG. 22.

FIG. 24 is a second end view of the centralizer shown in FIG. 22.

FIG. 25 is a first side view of the centralizer shown in FIG. 22.

FIG. 26 is a second side view of the centralizer shown in FIG. 22.

FIG. 27 is a third side view of the centralizer shown in FIG. 22.

FIG. 28 is a fourth side view of the fourth centralizer shown in FIG. 22.

FIG. 29 is a perspective view of a fifth embodiment of a centralizer for centralizing tubing in a wellbore.

FIG. 30 is a first end view of the centralizer shown in FIG. 29.

FIG. 31 is a second end view of the centralizer shown in FIG. 29.

FIG. 32 is a first side view of the centralizer shown in FIG. 29.

FIG. 33 is a second side view of the centralizer shown in FIG. 29.

FIG. 34 is a third side view of the centralizer shown in FIG. 29.

FIG. 35 is a fourth side view of the centralizer shown in FIG. 29.

FIG. 36 is a perspective view of a sixth embodiment of a centralizer for centralizing tubing in a wellbore.

FIG. 37 is a first end view of the centralizer shown in FIG. 36.

FIG. 38 is a second end view of the centralizer shown in FIG. 36.

FIG. 39 is a first side view of the centralizer shown in FIG. 36.

FIG. 40 is a second side view of the centralizer shown in FIG. 36.

FIG. 41 is a third side view of the centralizer shown in FIG. 36.

FIG. 42 is a fourth side view of the centralizer shown in FIG. 36.

FIG. 43 is a perspective view of a seventh embodiment of a centralizer for centralizing tubing in a wellbore.

FIG. 44 is a first end view of the centralizer shown in FIG. 43.

FIG. 45 is a second end view of the centralizer shown in FIG. 43.

FIG. 46 is a first side view of the centralizer shown in FIG. 43.

FIG. 47 is a second side view of the centralizer shown in FIG. 43.

FIG. 48 is a third side view of the centralizer shown in FIG. 43.

FIG. 49 is a fourth side view of the centralizer shown in FIG. 43.

FIG. 50 is a perspective view of an eighth embodiment of a centralizer for centralizing tubing in a wellbore.

FIG. 51 is a first end view of the centralizer shown in FIG. 50.

FIG. 52 is a second end view of the centralizer shown in FIG. 50.

FIG. 53 is a first side view of the centralizer shown in FIG. 50.

FIG. 54 is a second side view of the centralizer shown in FIG. 50.

FIG. 55 is a third side view of the centralizer shown in FIG. 50.

FIG. 56 is a fourth side view of the centralizer shown in FIG. 50.

FIG. 57 is a perspective view of a ninth embodiment of a centralizer for centralizing tubing in a wellbore.

FIG. 58 is a first end view of the centralizer shown in FIG. 57.

FIG. 59 is a second end view of the centralizer shown in FIG. 57.

FIG. 60 is a first side view of the centralizer shown in FIG. 57.

FIG. 61 is a second side view of the centralizer shown in FIG. 57.

FIG. 62 is a third side view of the centralizer shown in FIG. 57.

FIG. 63 is a fourth side view of the centralizer shown in FIG. 57.

FIG. 64 is a perspective view of a tenth embodiment of a centralizer for centralizing tubing in a wellbore.

FIG. 65 is a first end view of the centralizer shown in FIG. 64.

FIG. 66 is a second end view of the centralizer shown in FIG. 64.

FIG. **67** is a first side view of the centralizer shown in FIG. **64**.

FIG. **68** is a second side view of the centralizer shown in FIG. **64**.

FIG. **69** is a third side view of the centralizer shown in FIG. **64**; and,

FIG. **70** is a fourth side view of the centralizer shown in FIG. **64**.

The broken lines illustrate portions of the centralizer that form no part of the claimed design.

1 Claim, 46 Drawing Sheets

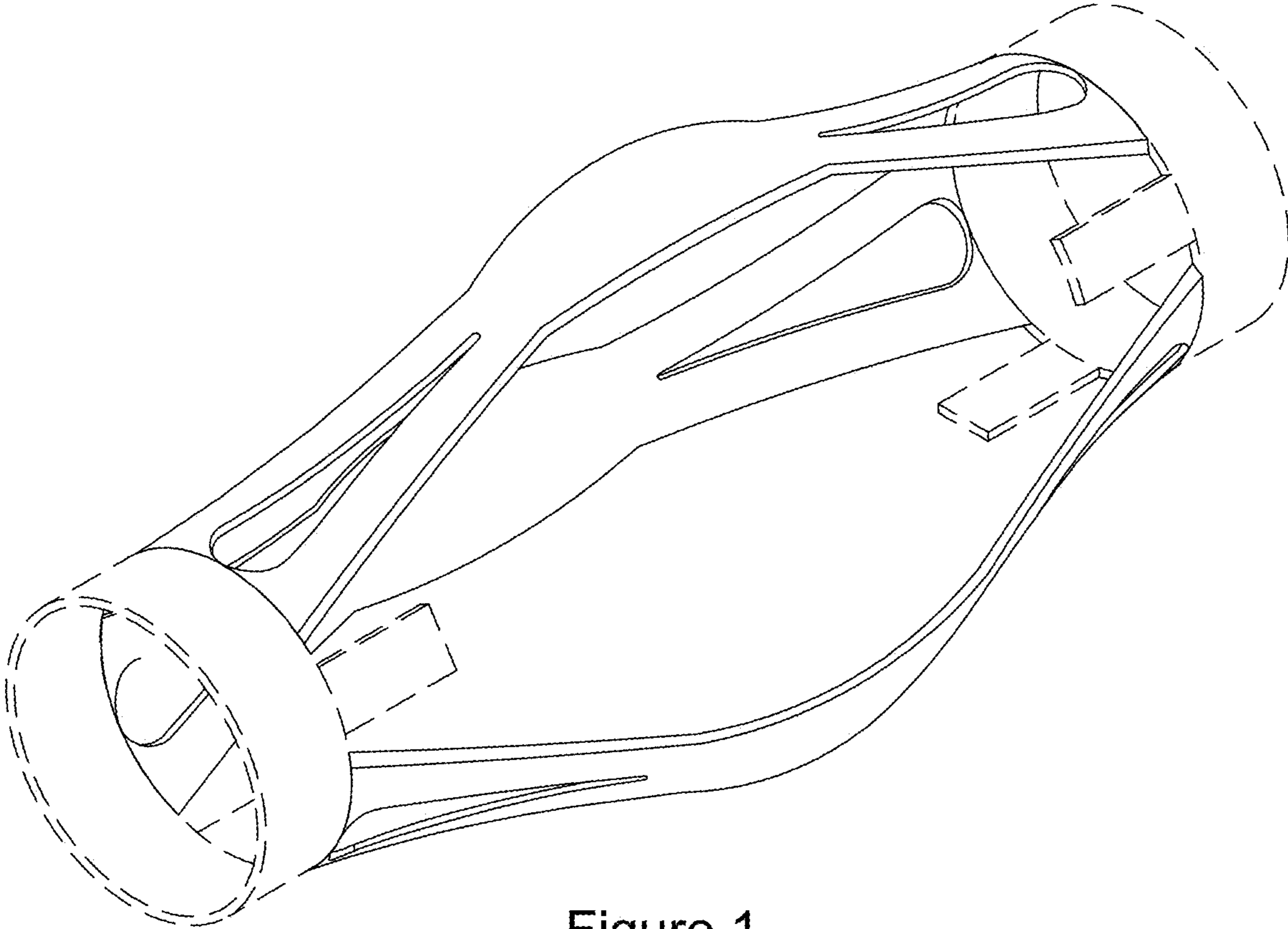


Figure 1

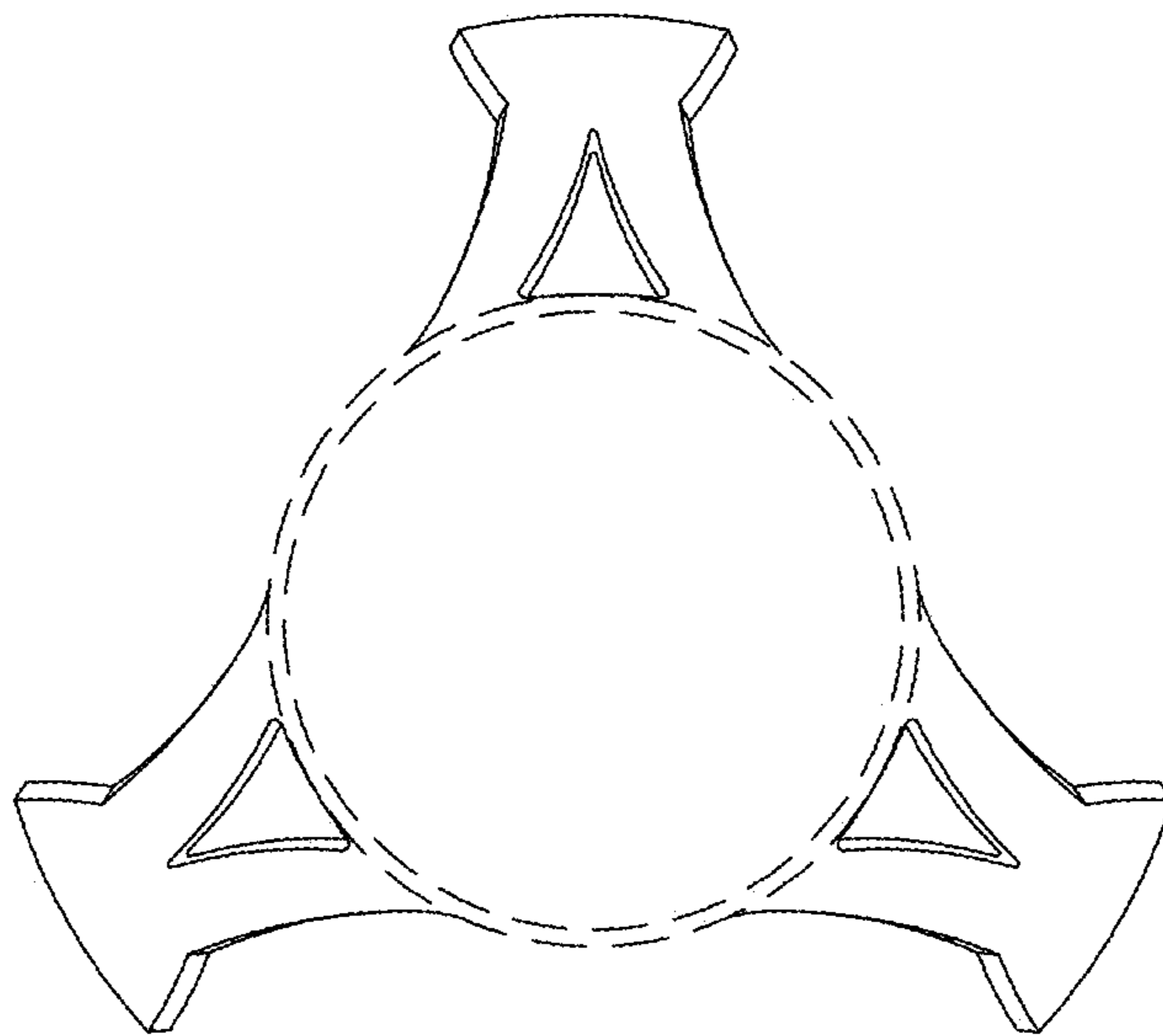


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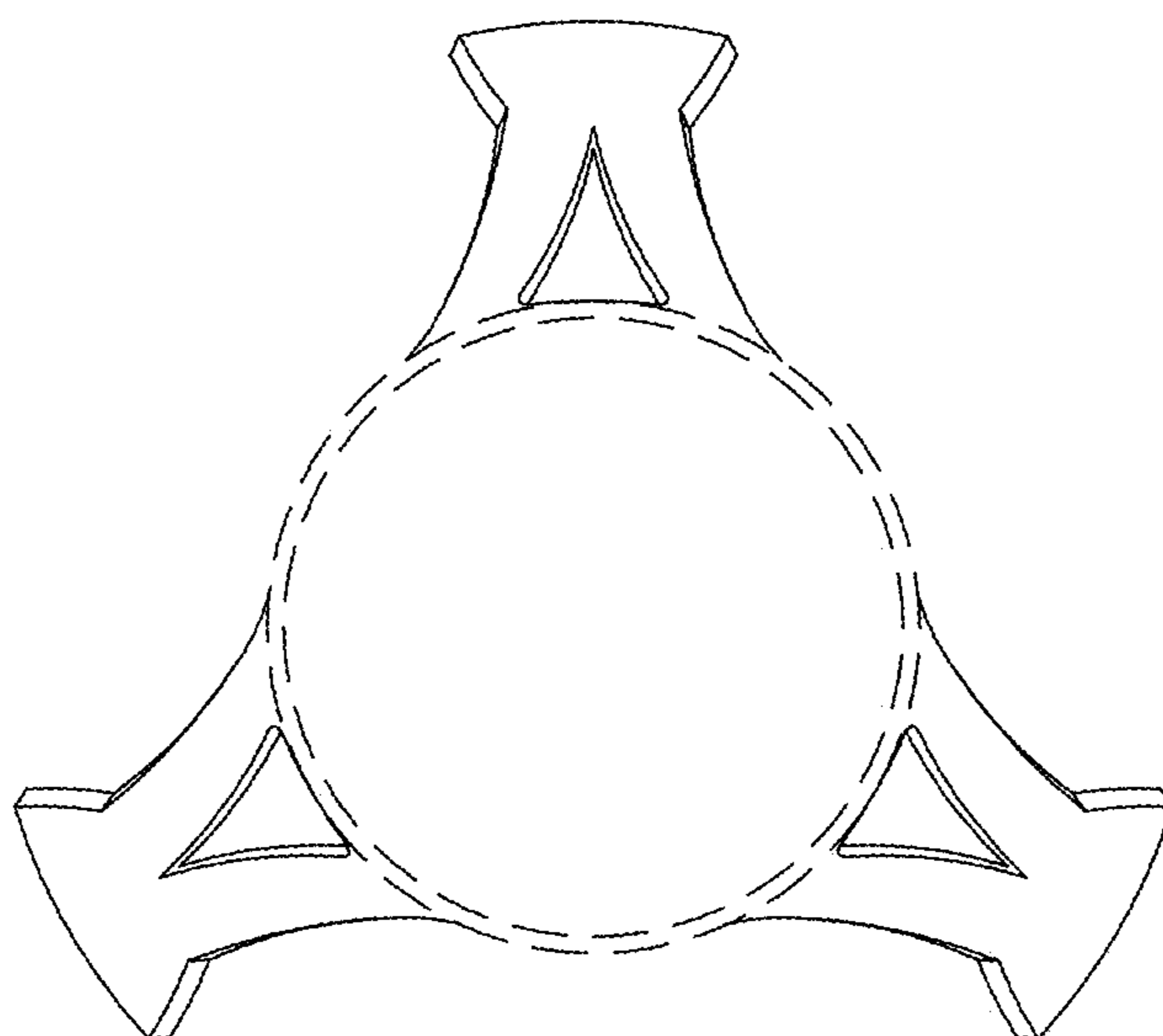


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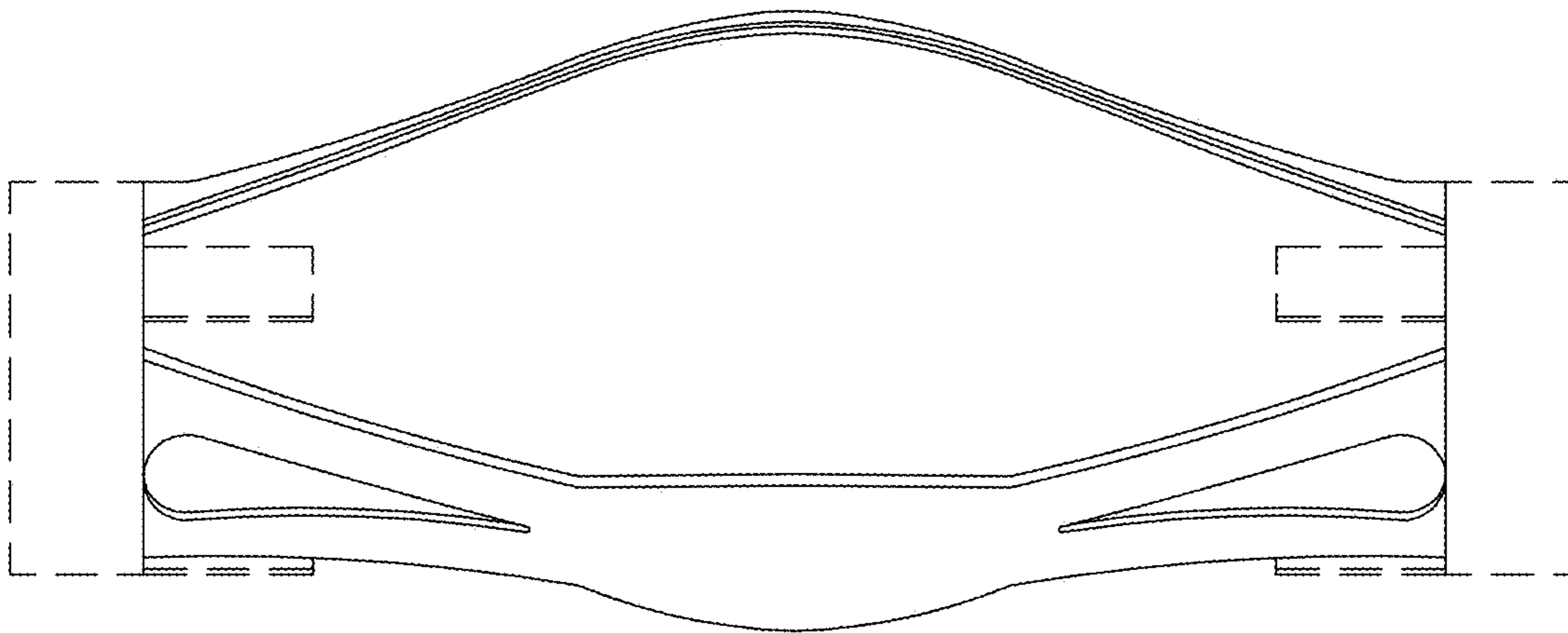


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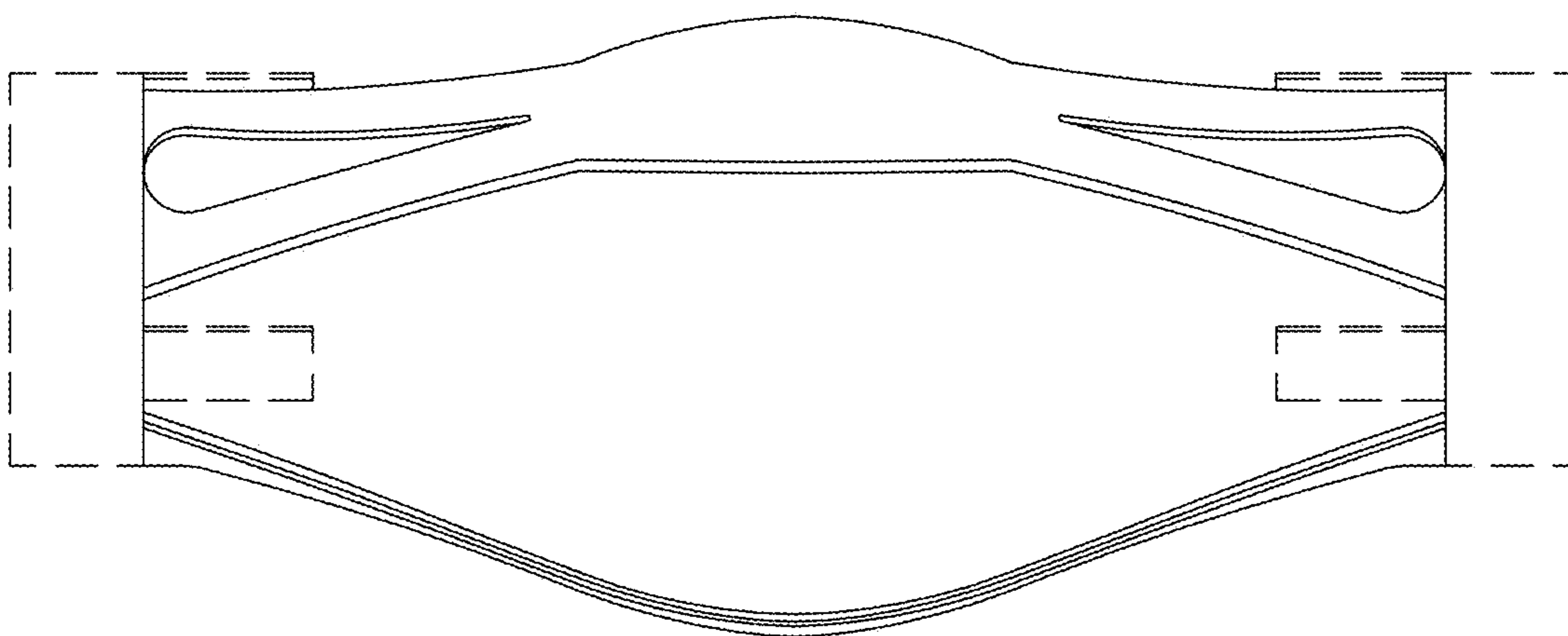


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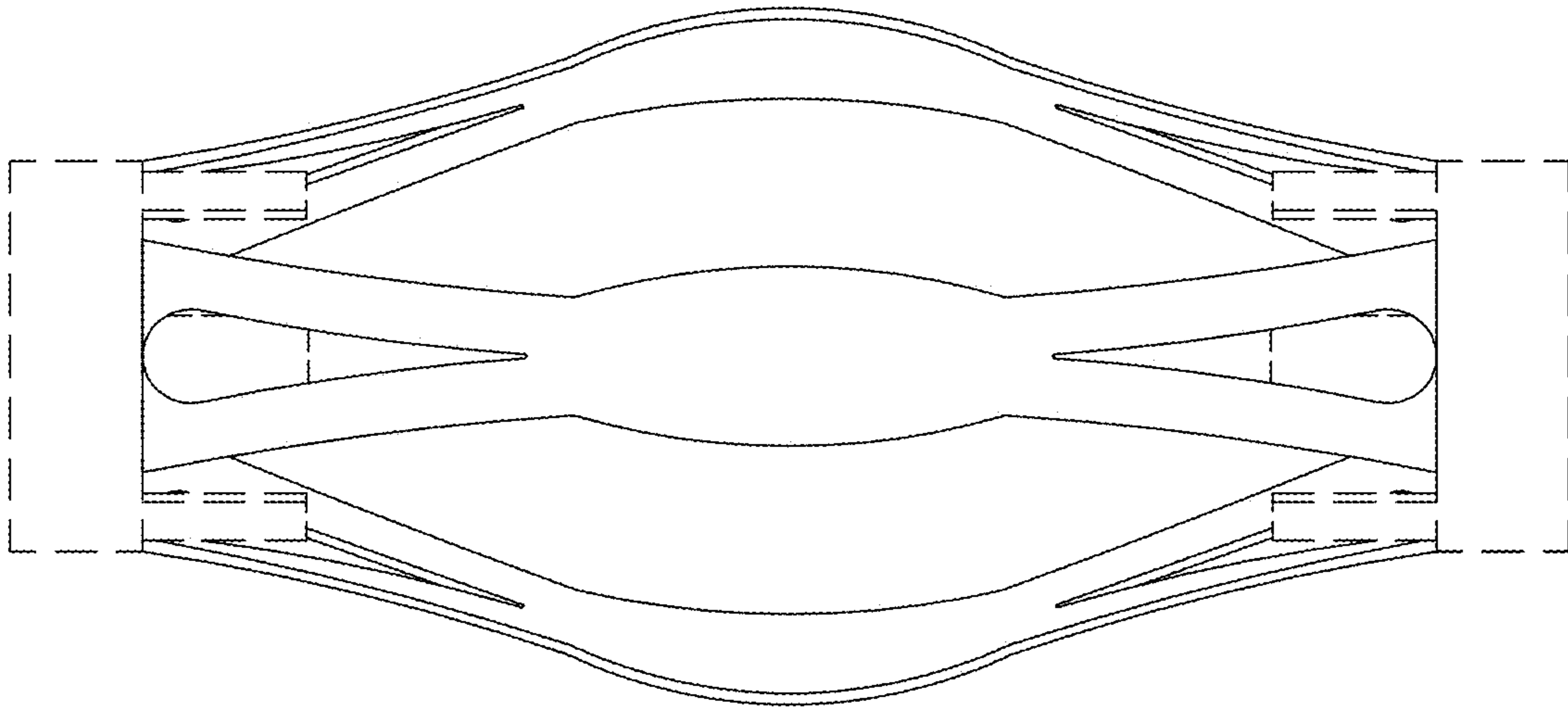


Figure 6

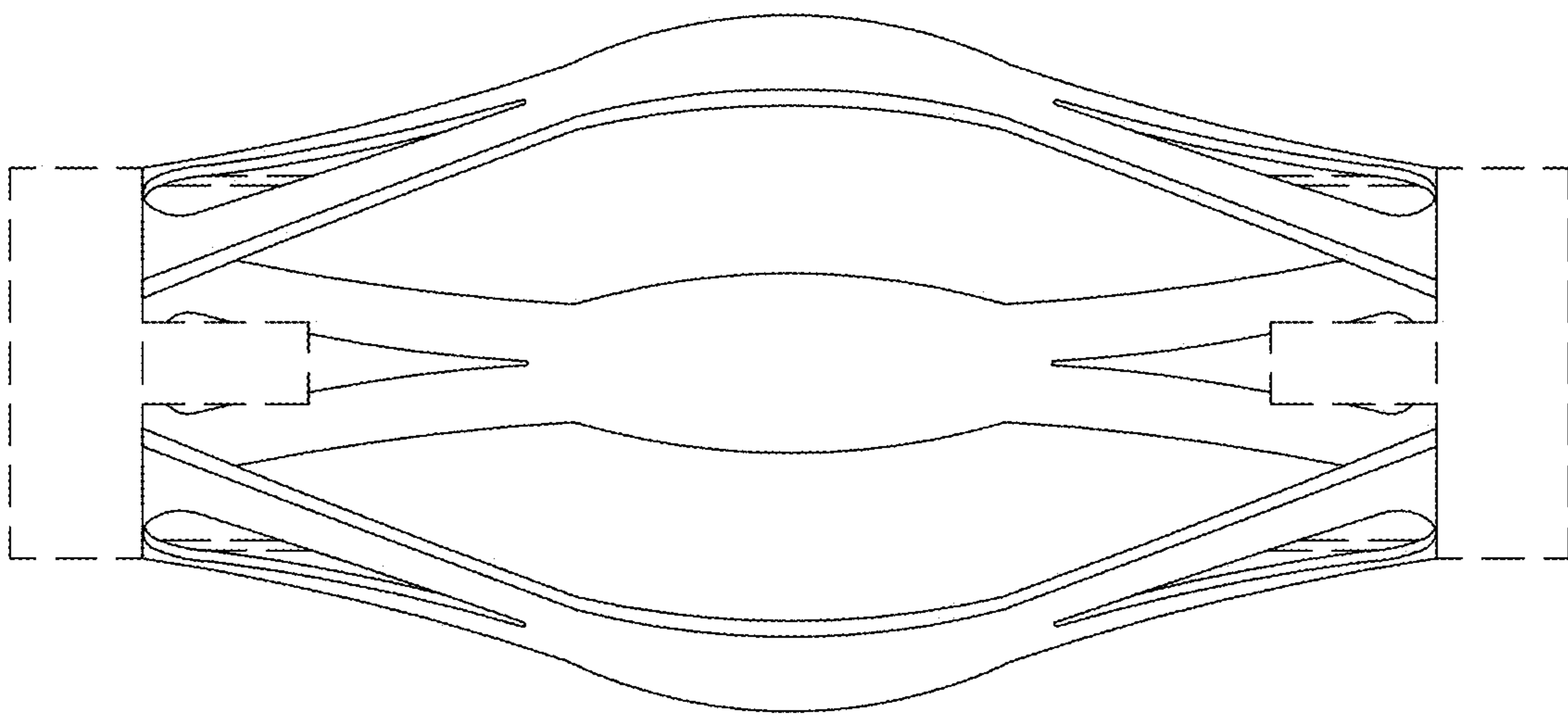


Figure 7

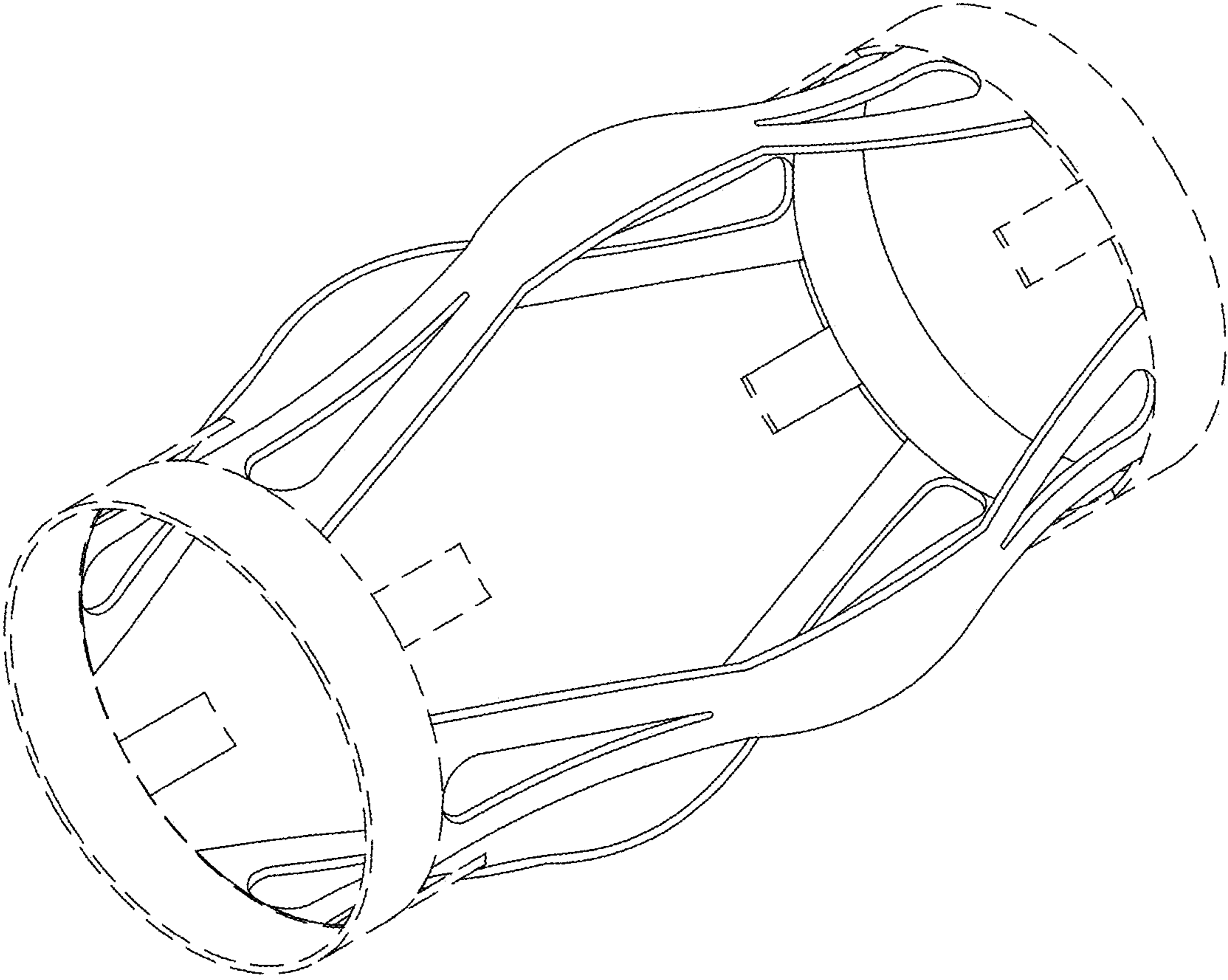


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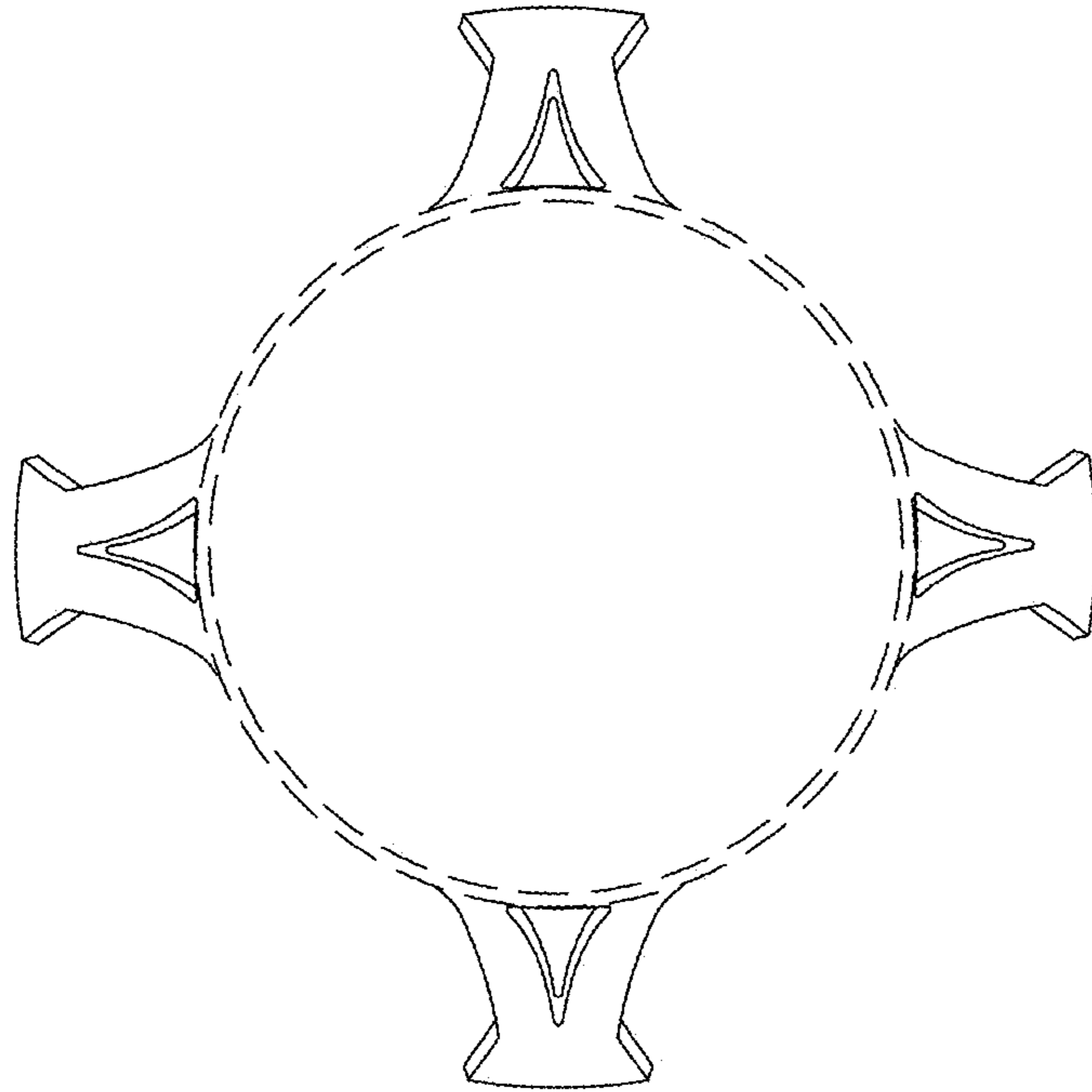


Figure 9

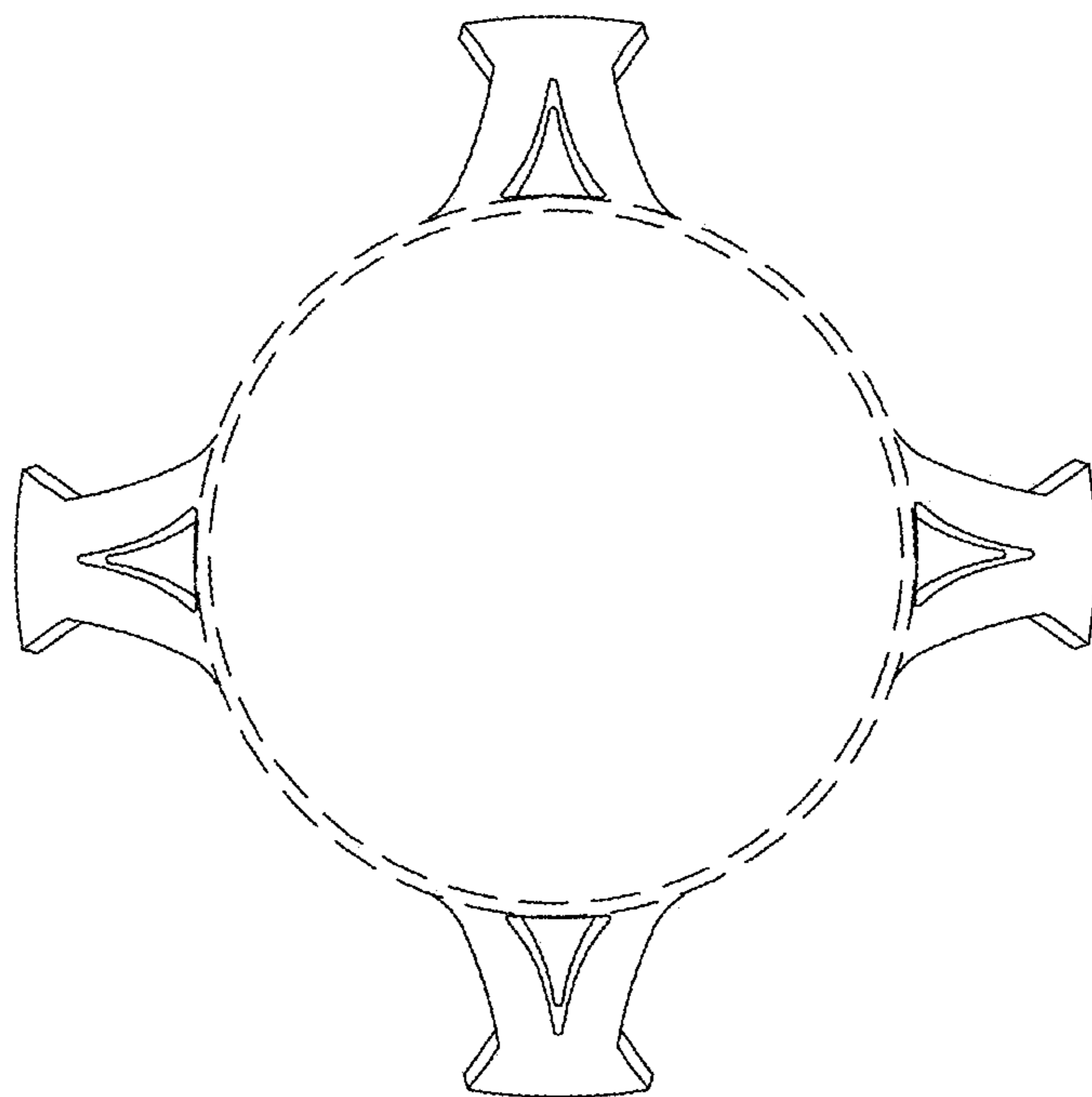


Figure 10

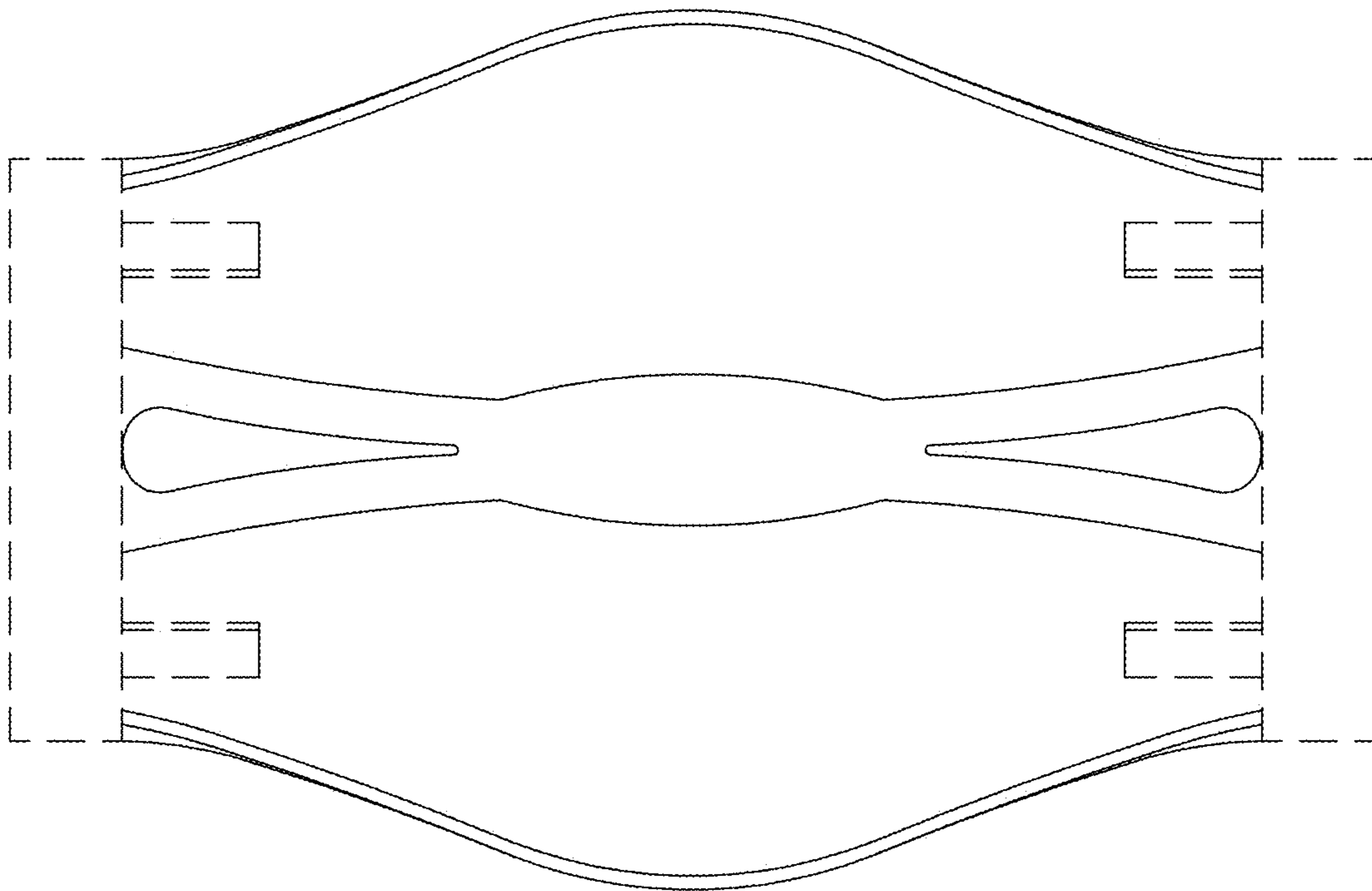


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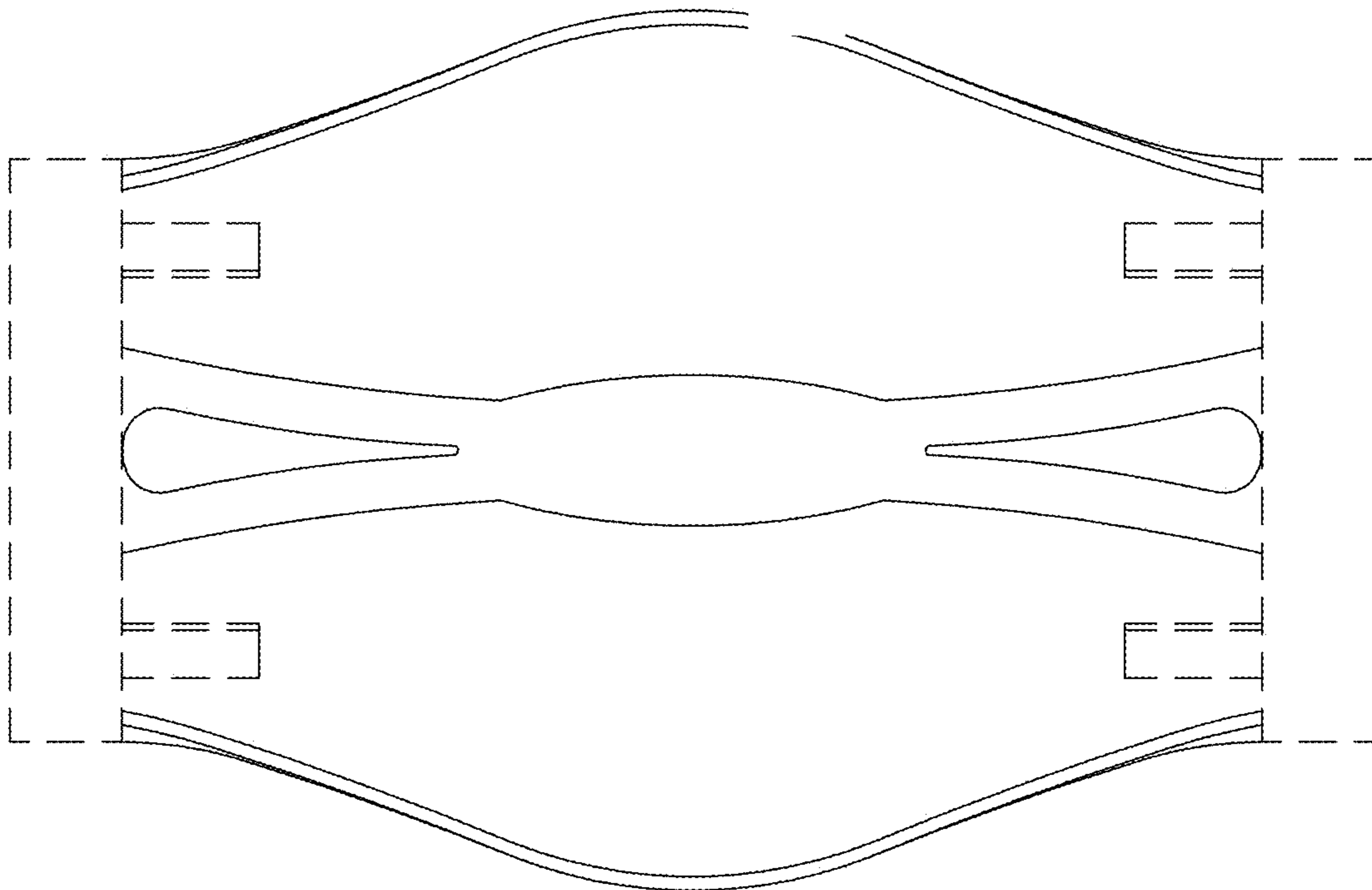


Figure 12

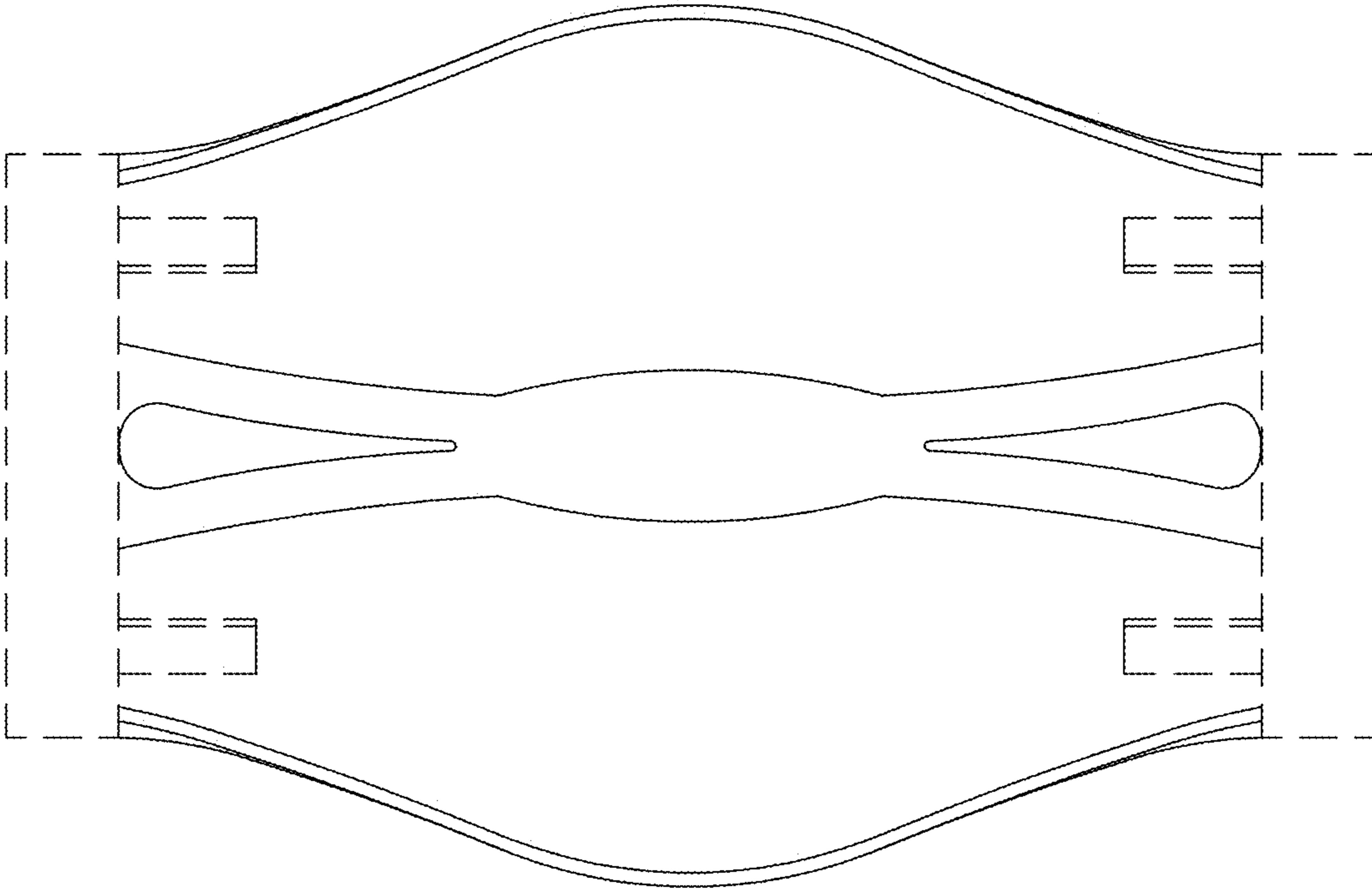


Figure 13

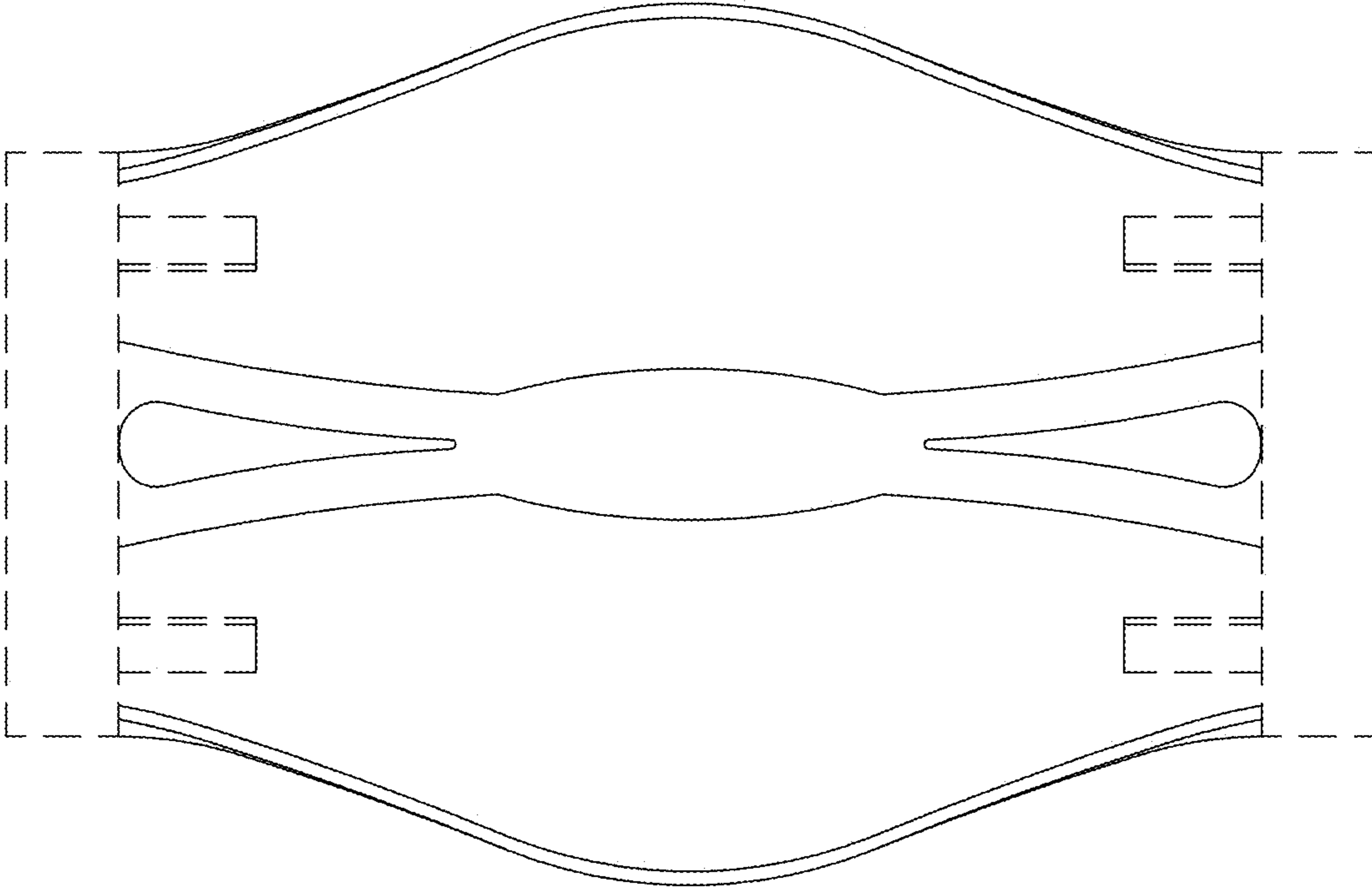


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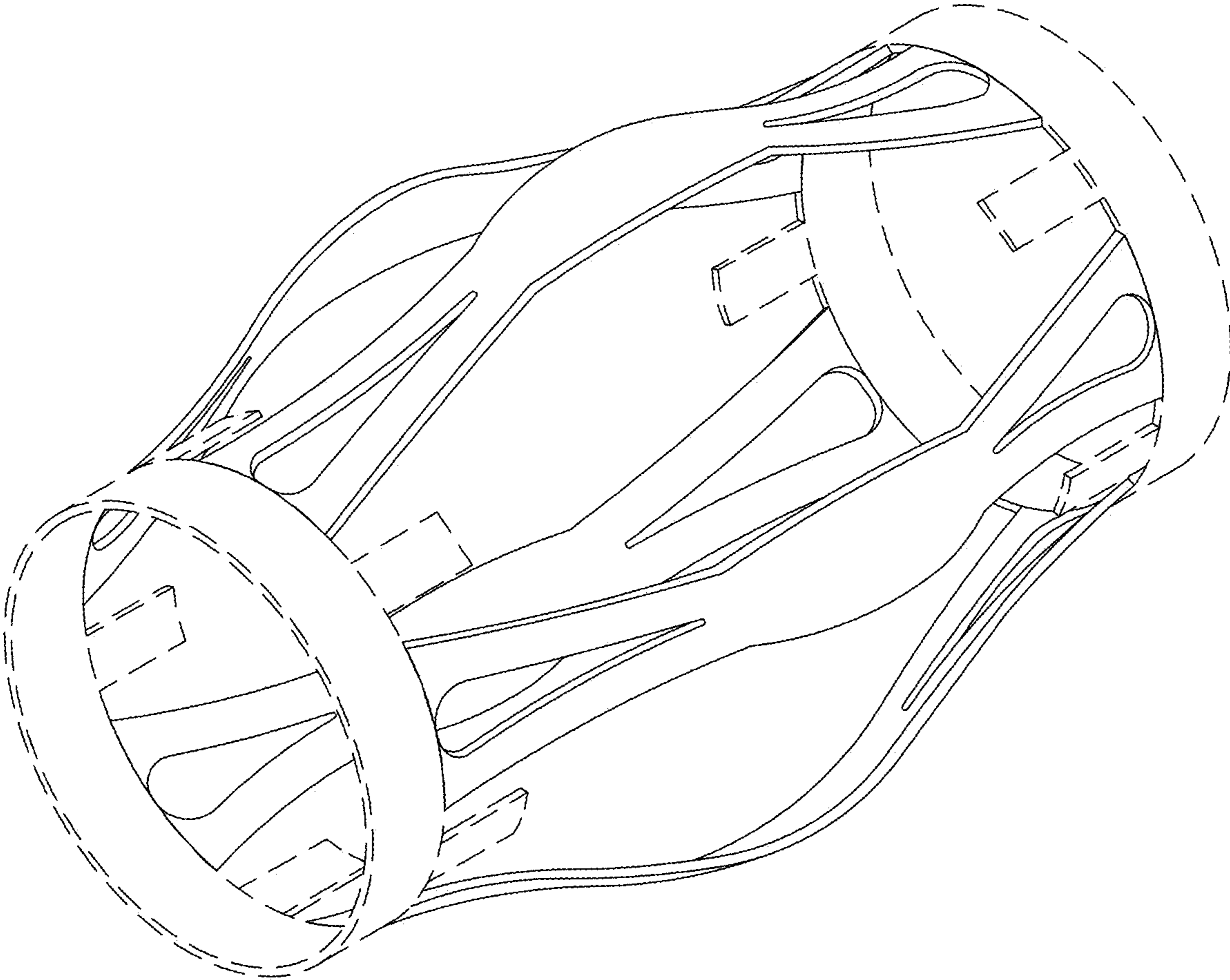


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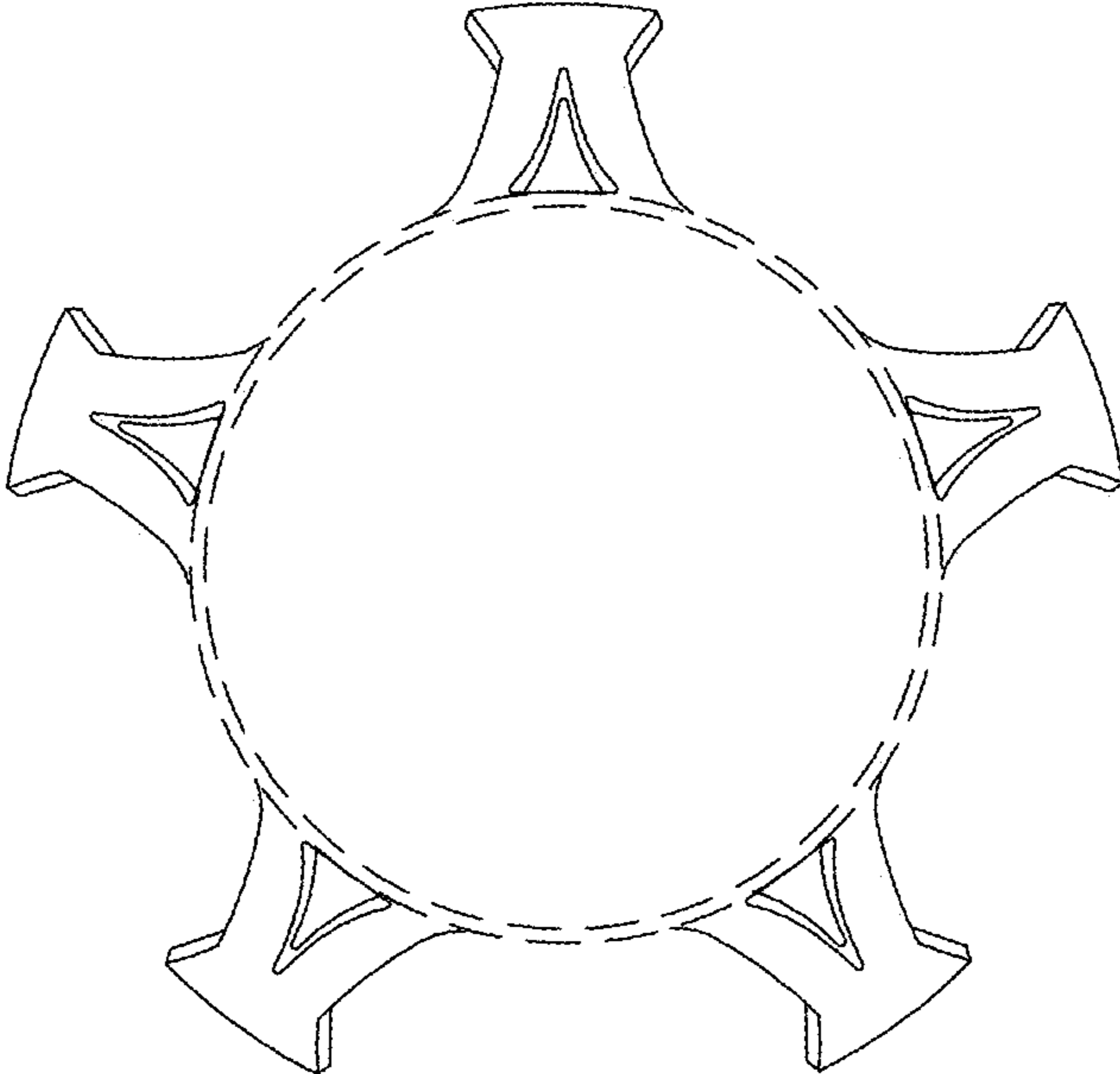


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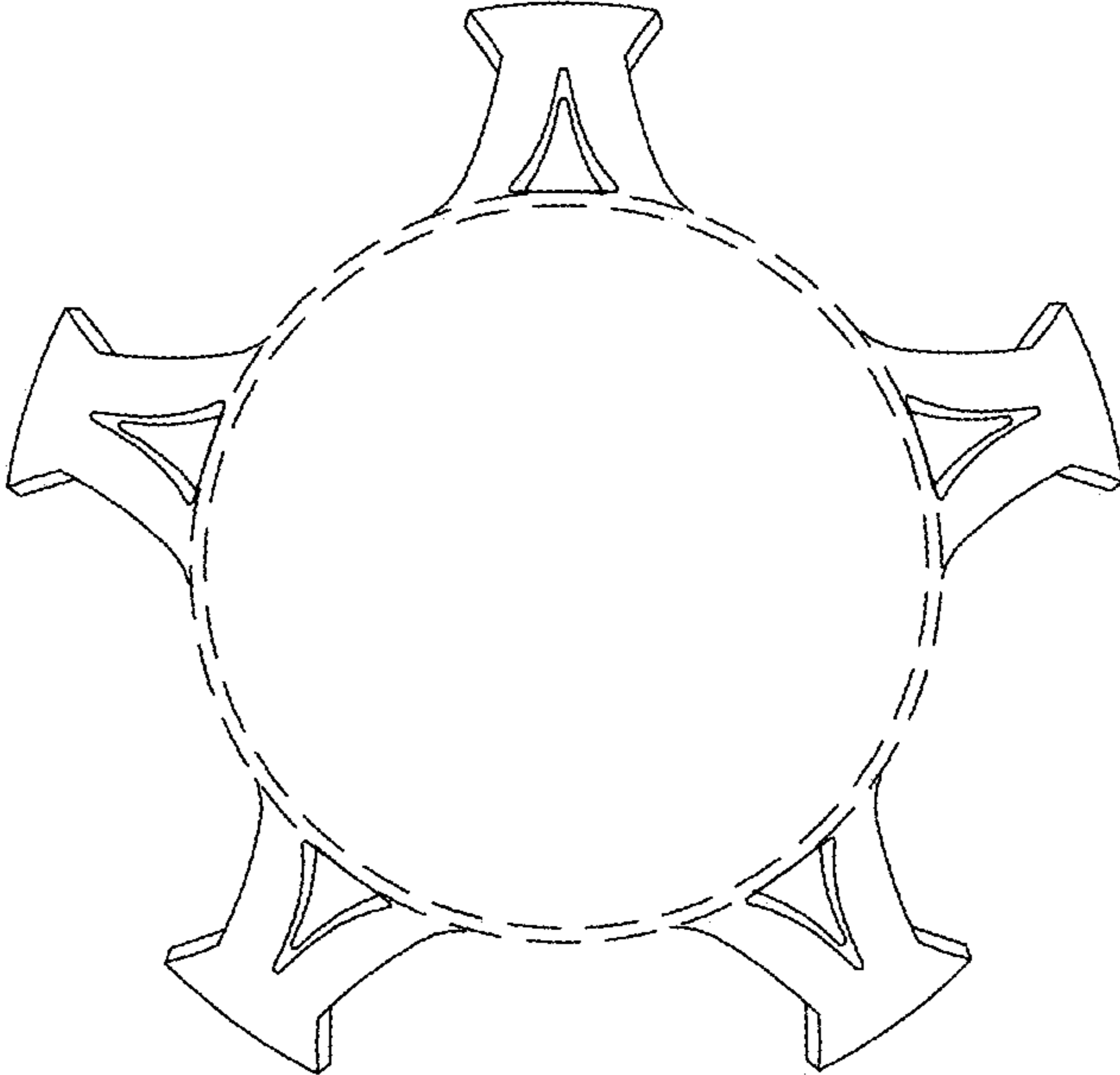


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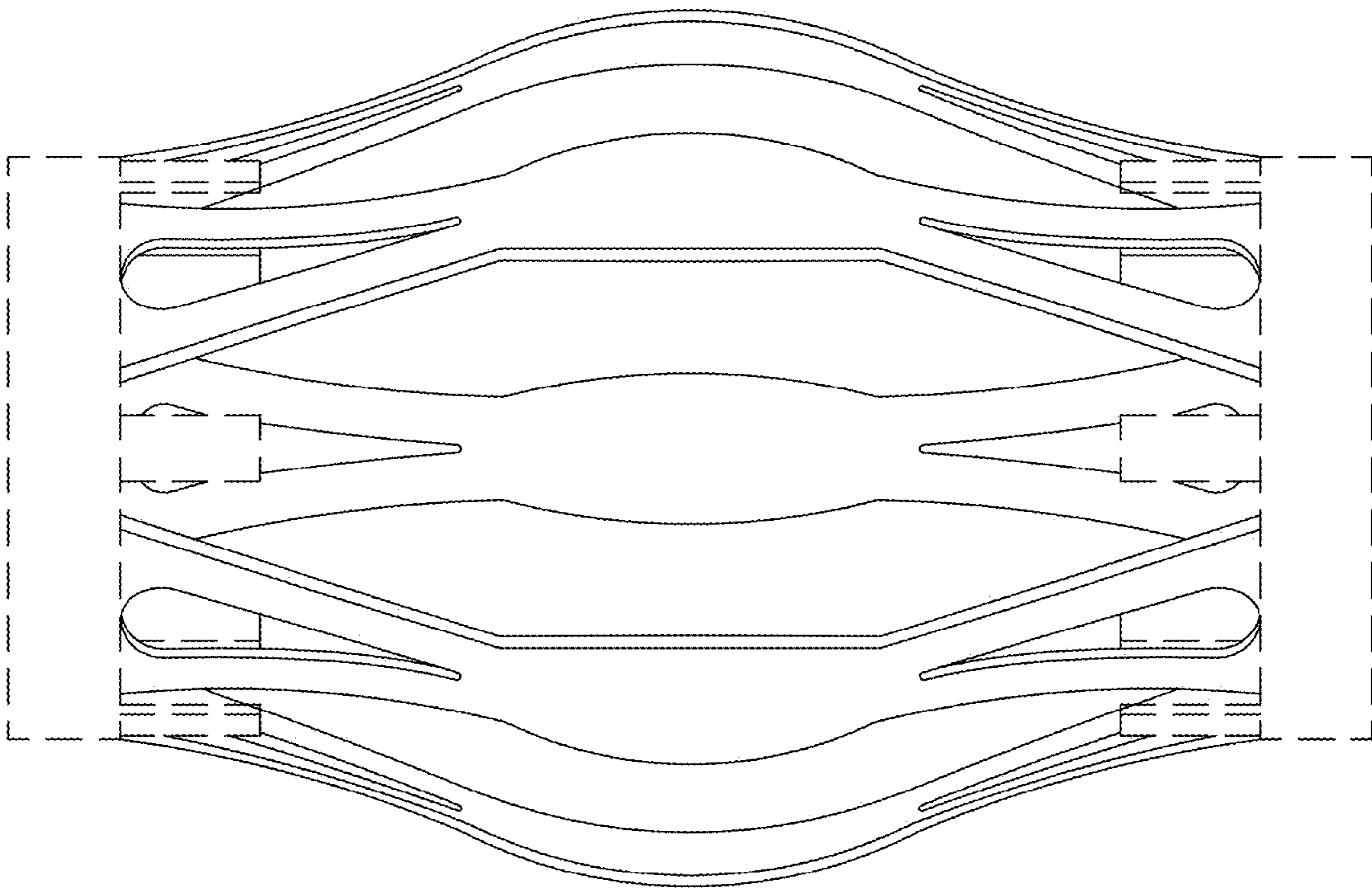


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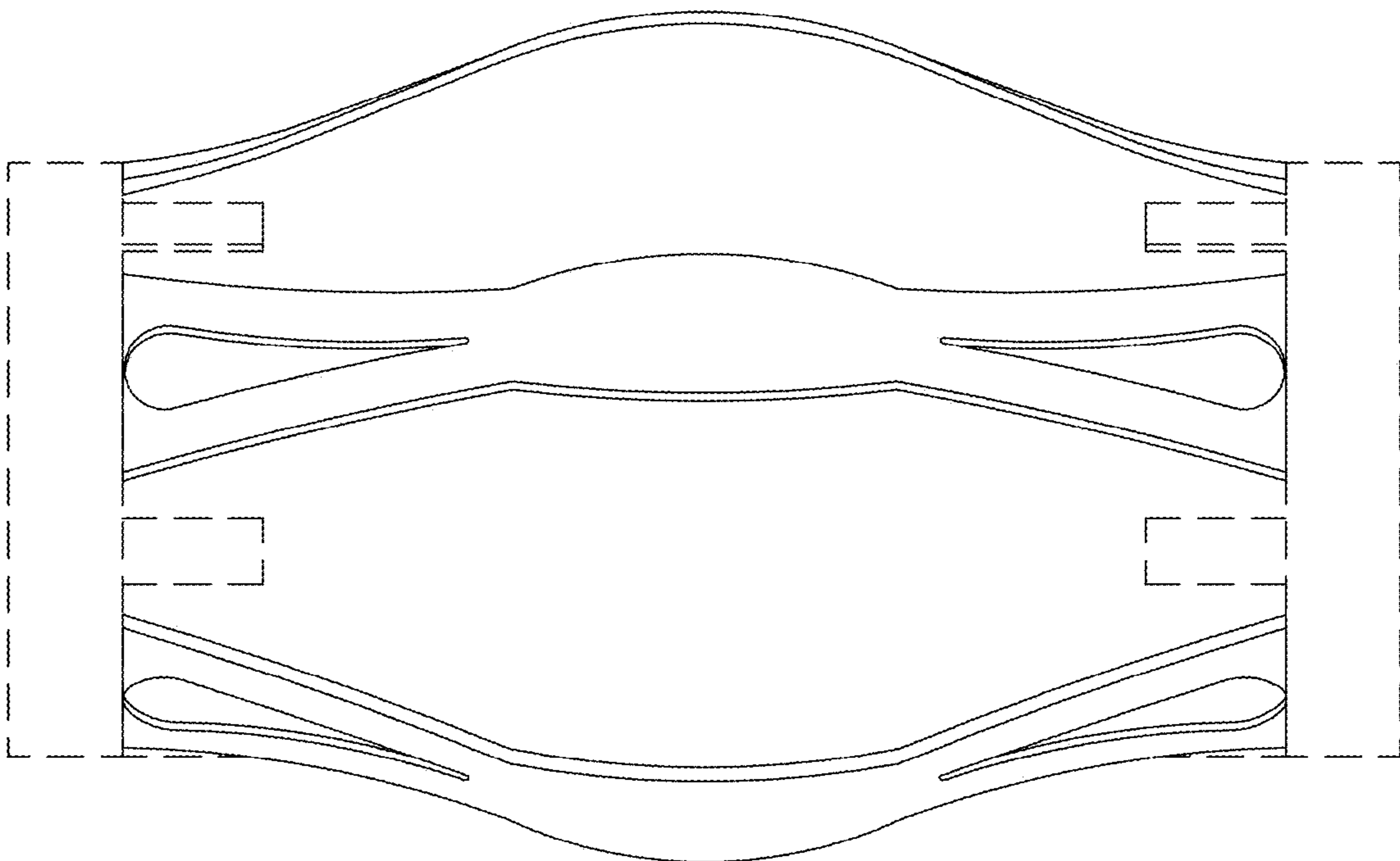


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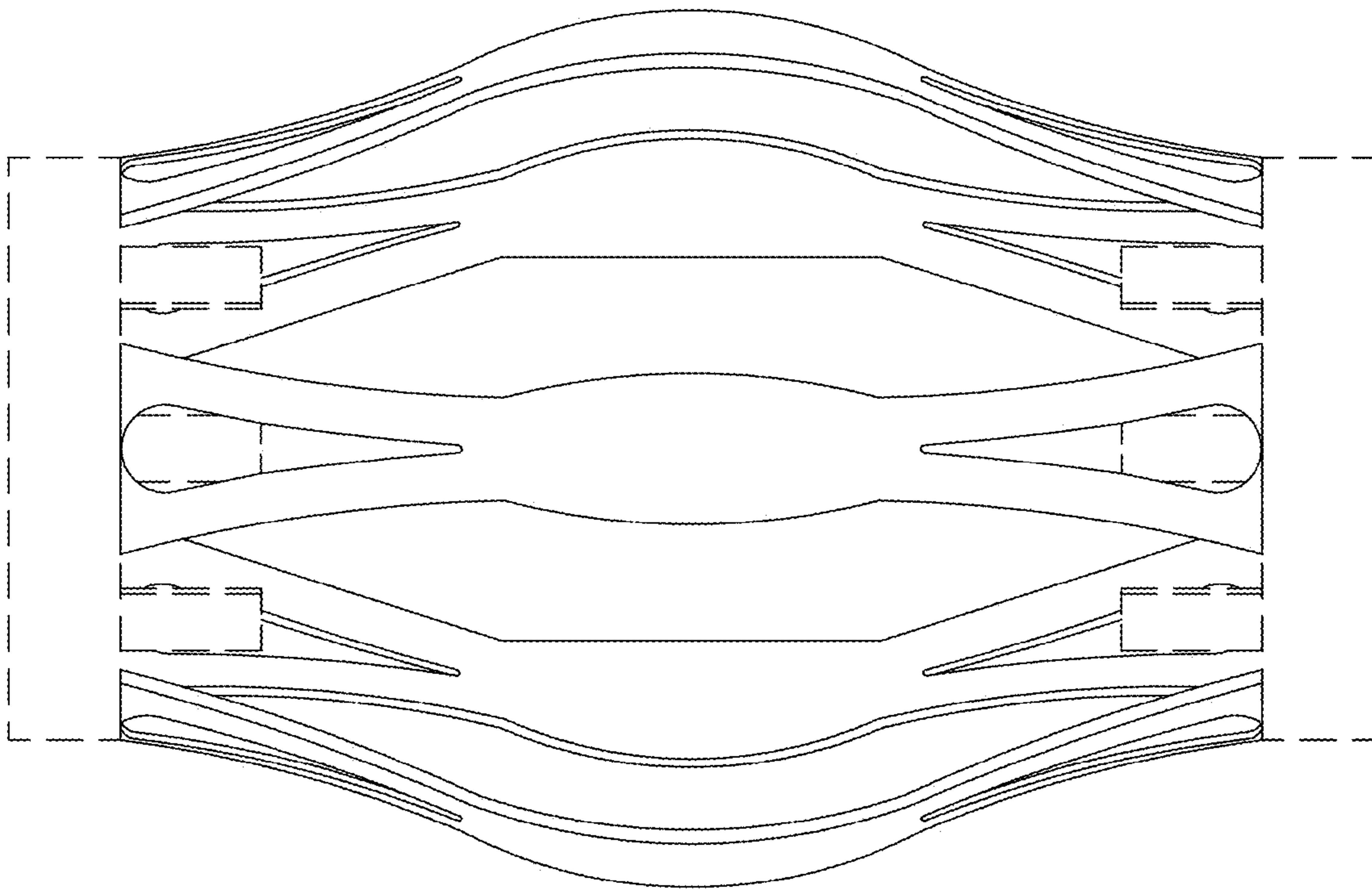


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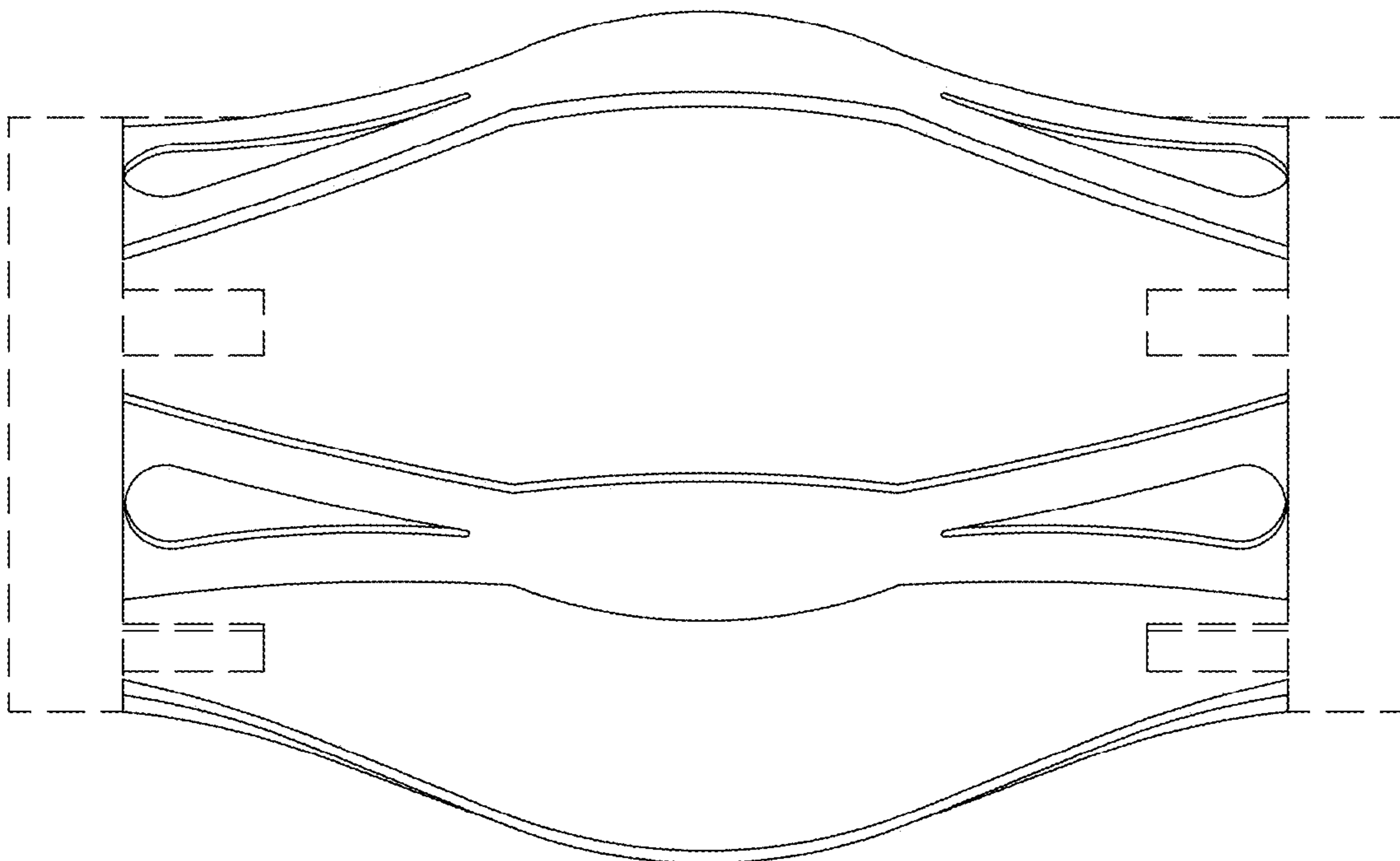


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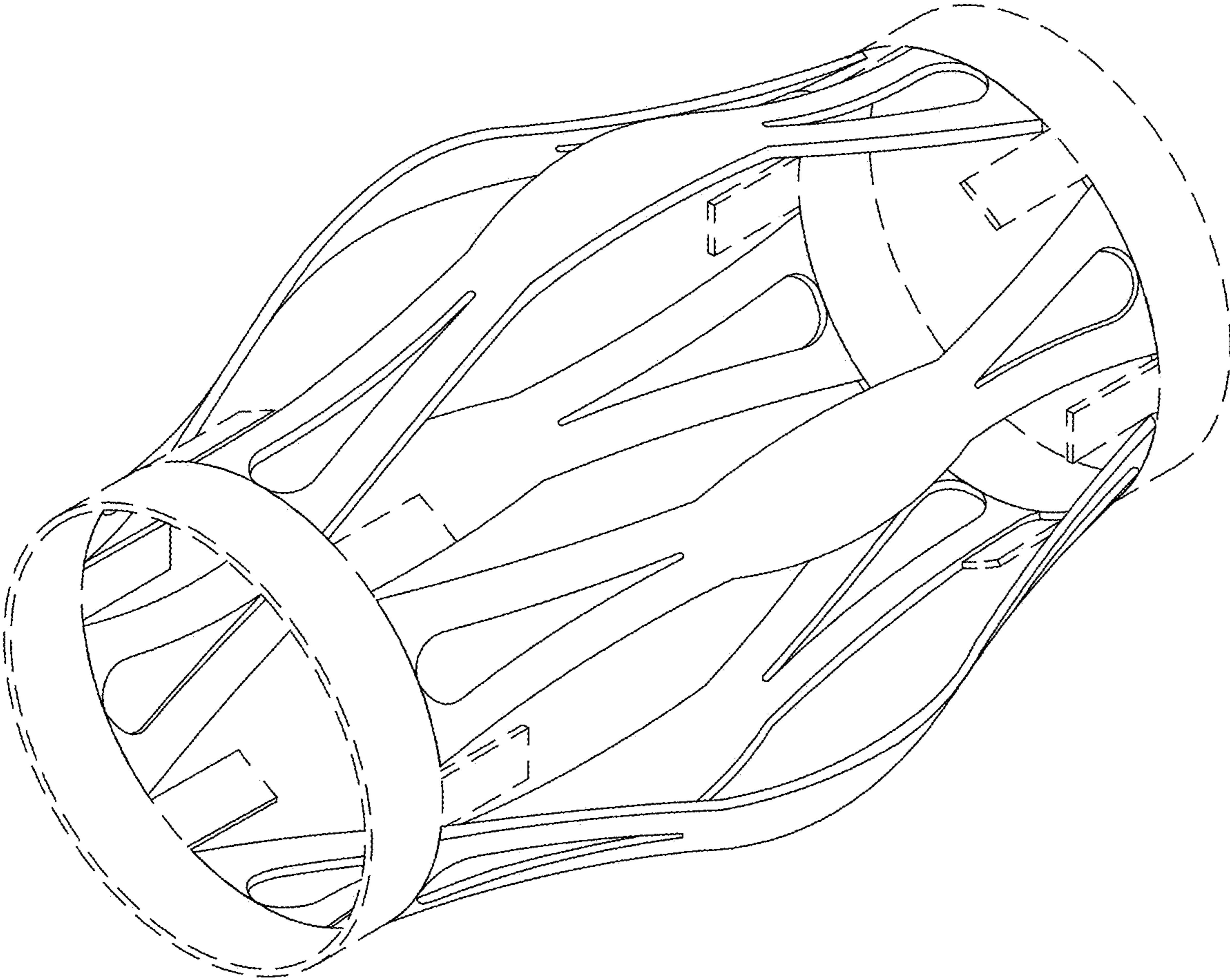


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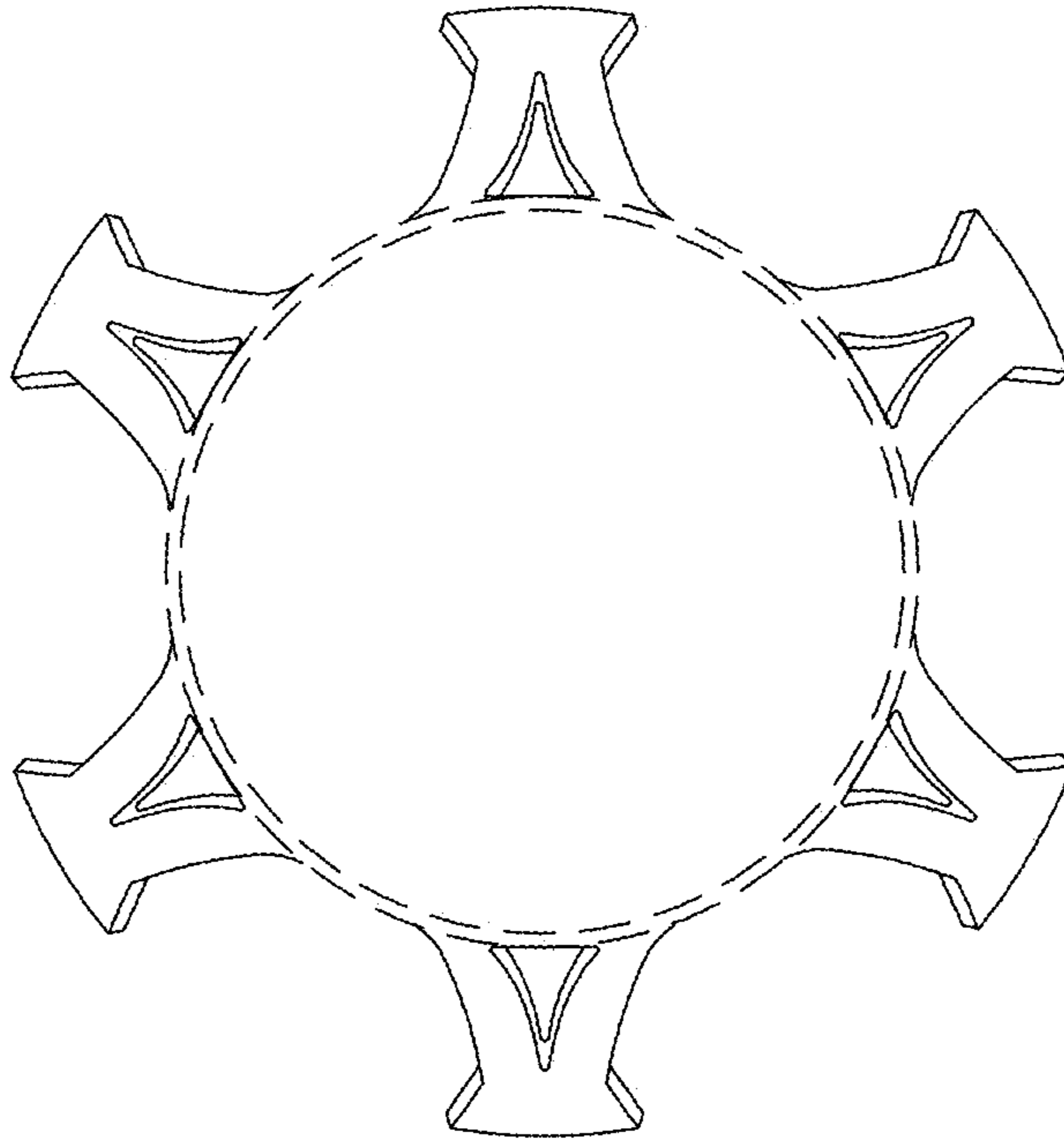


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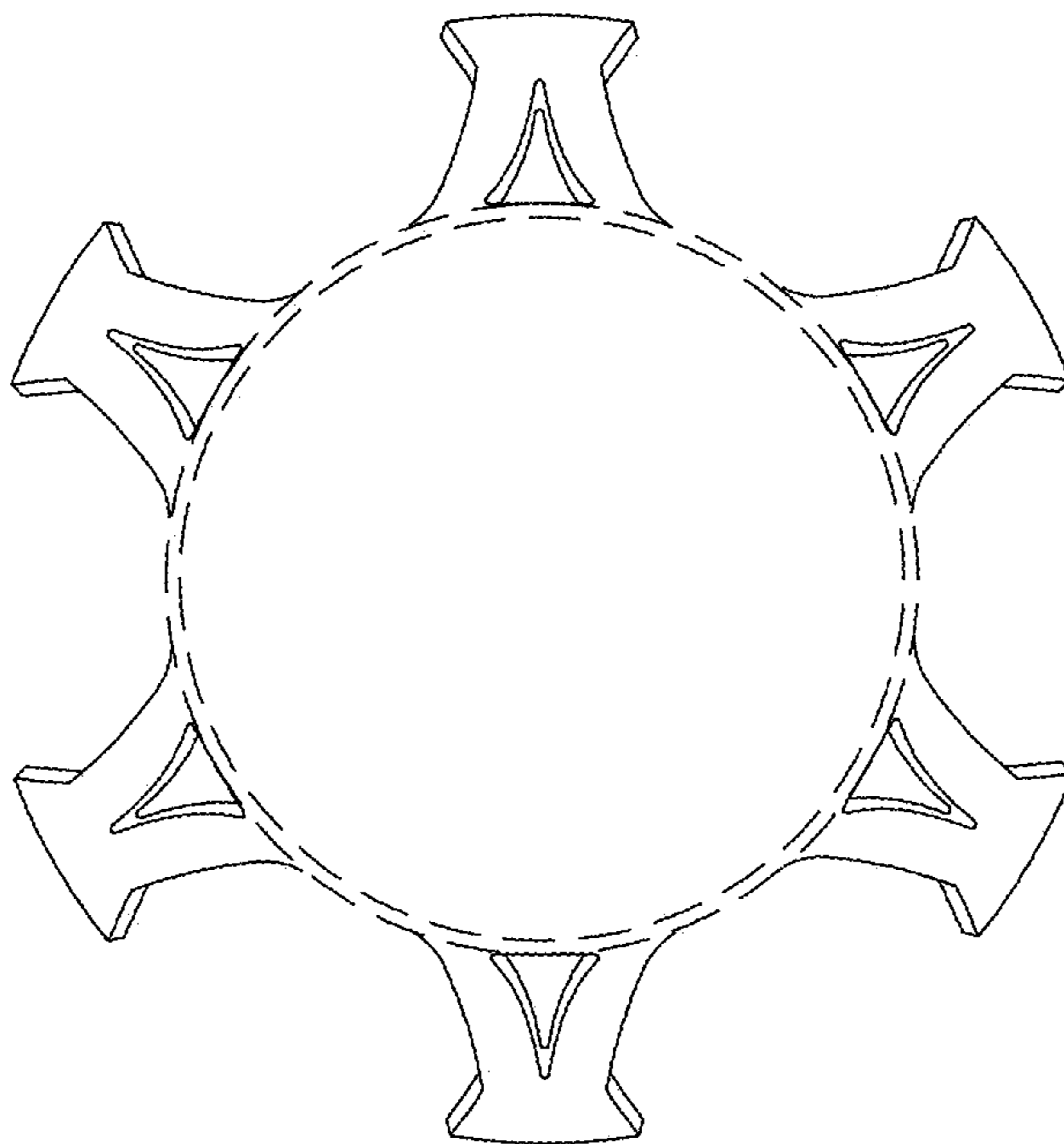


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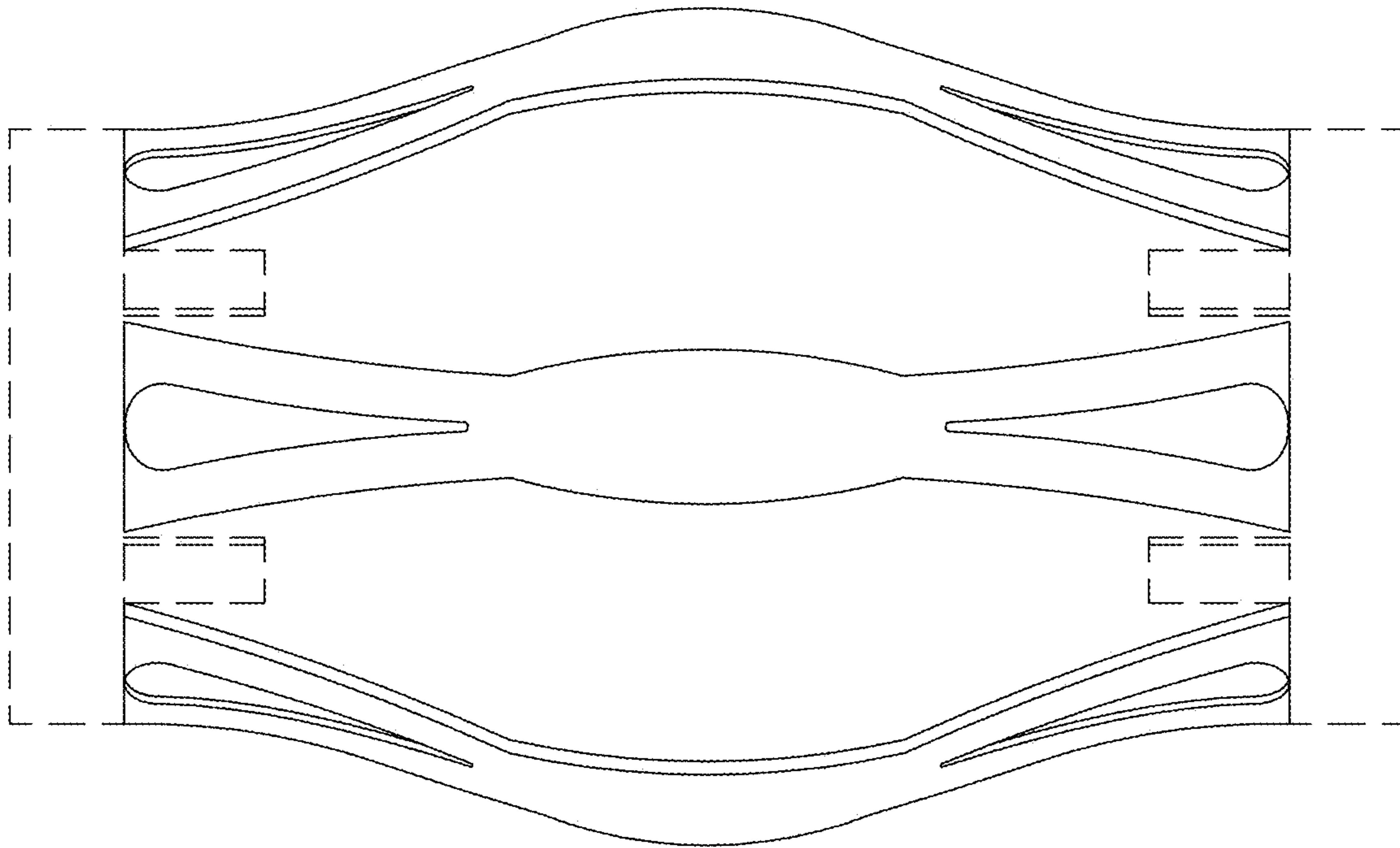


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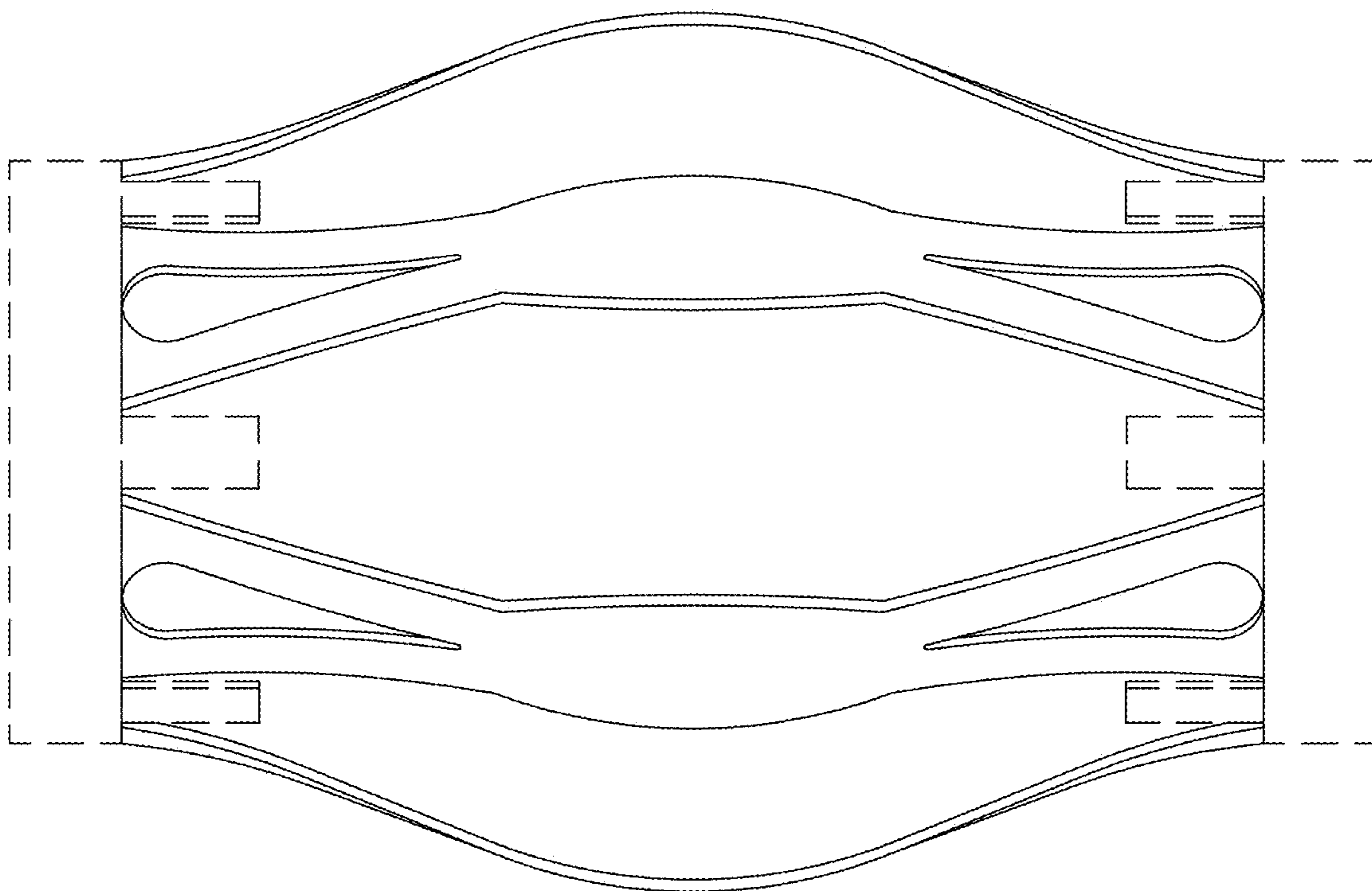


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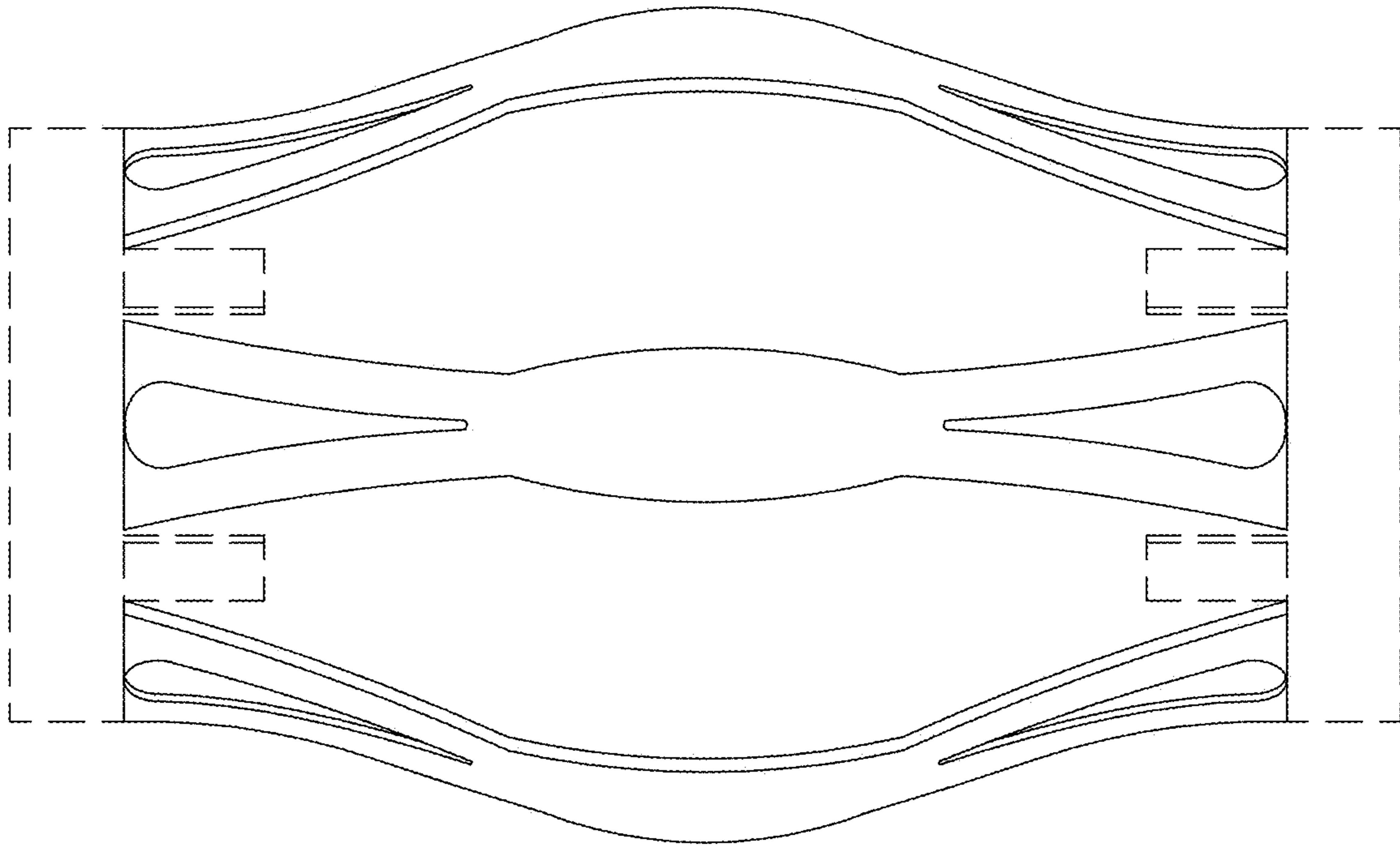


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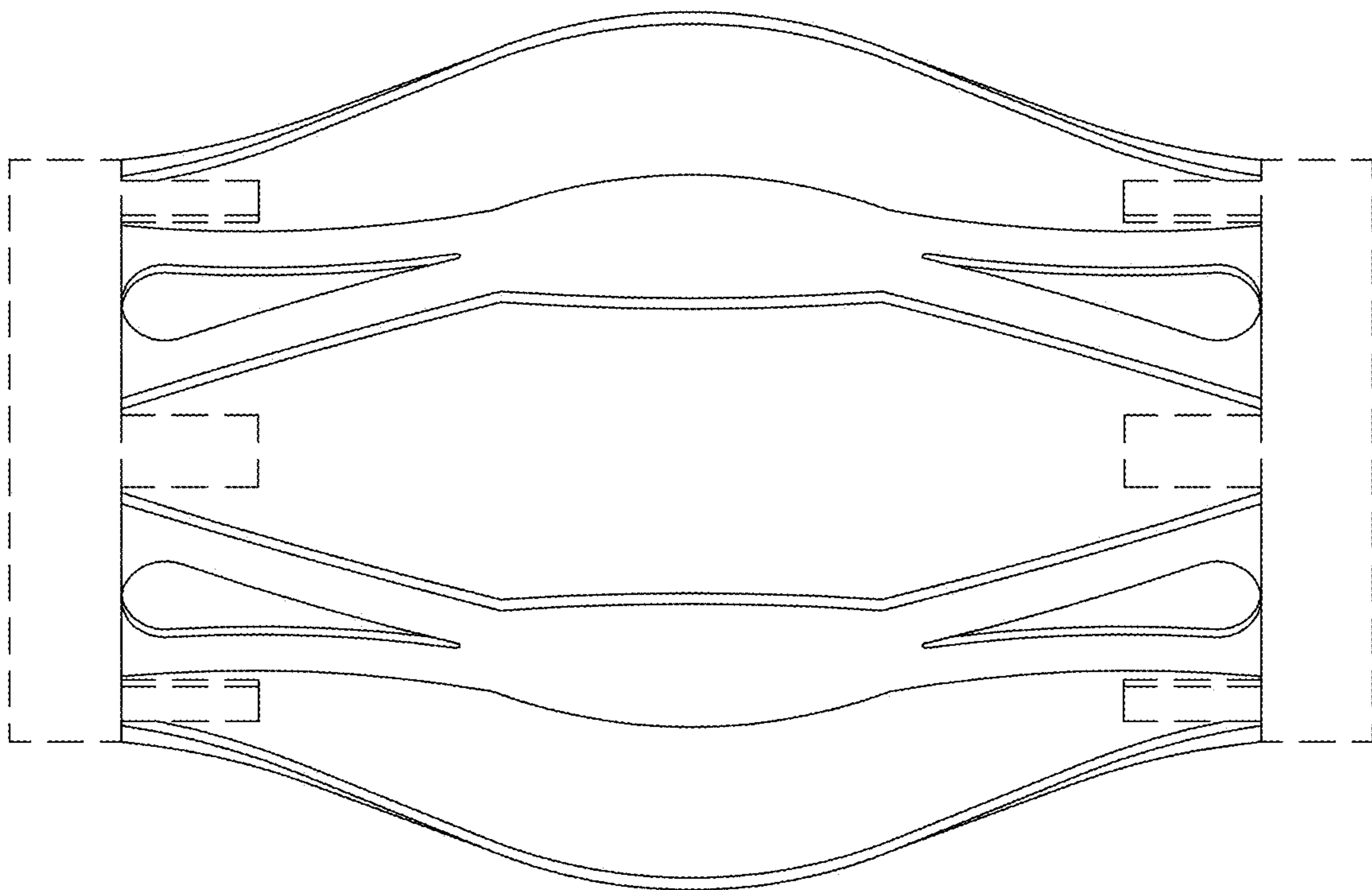


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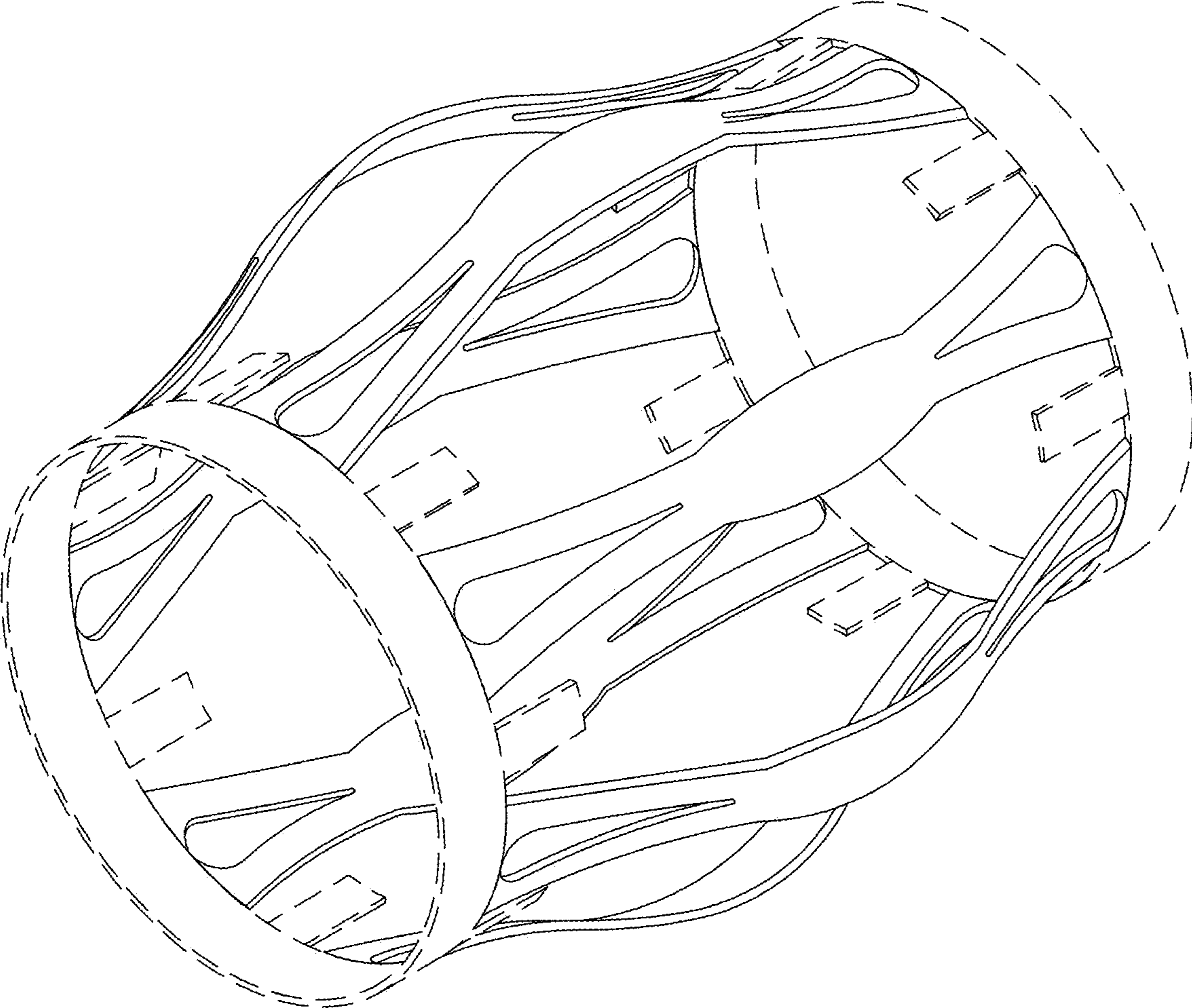


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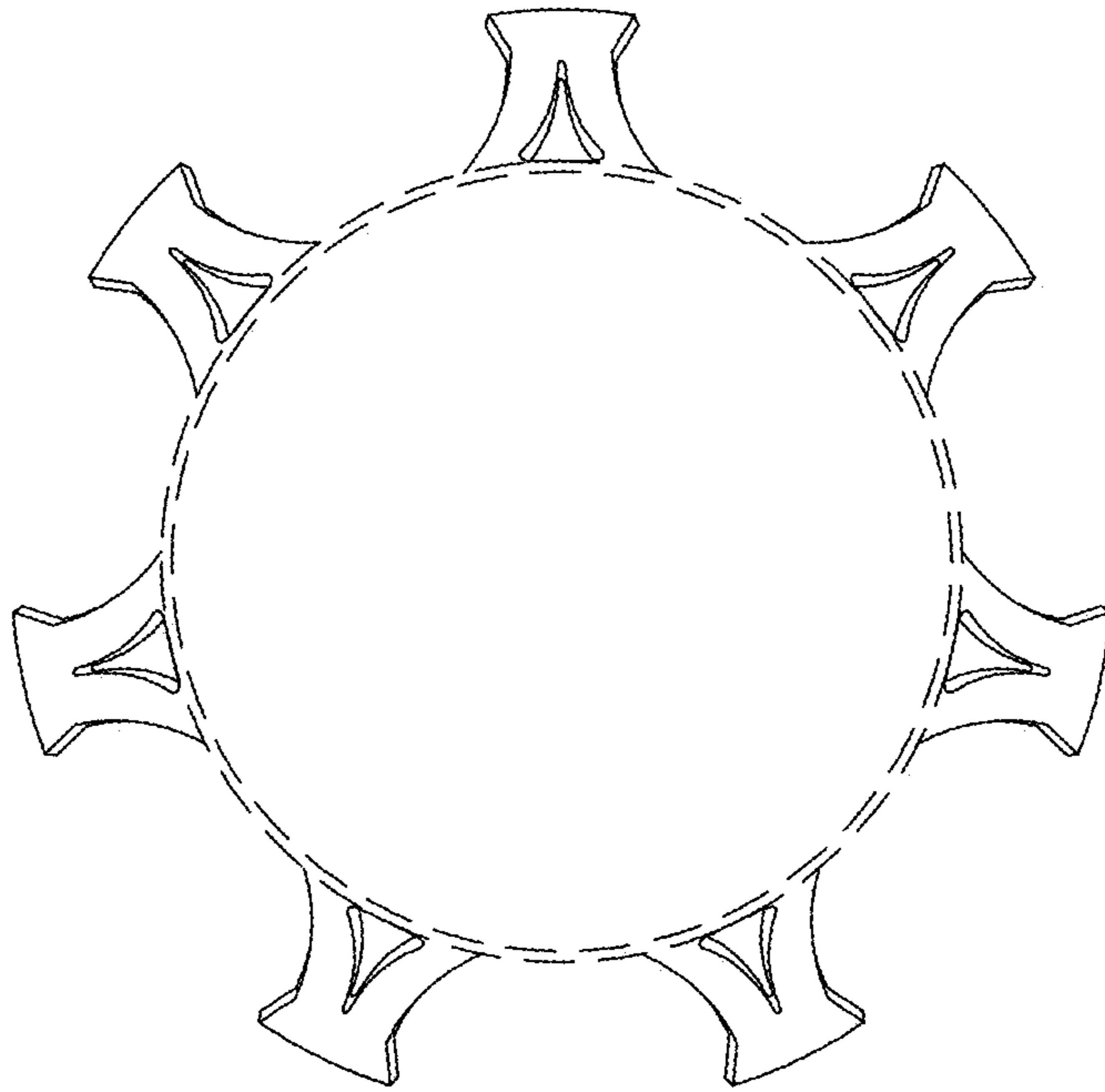


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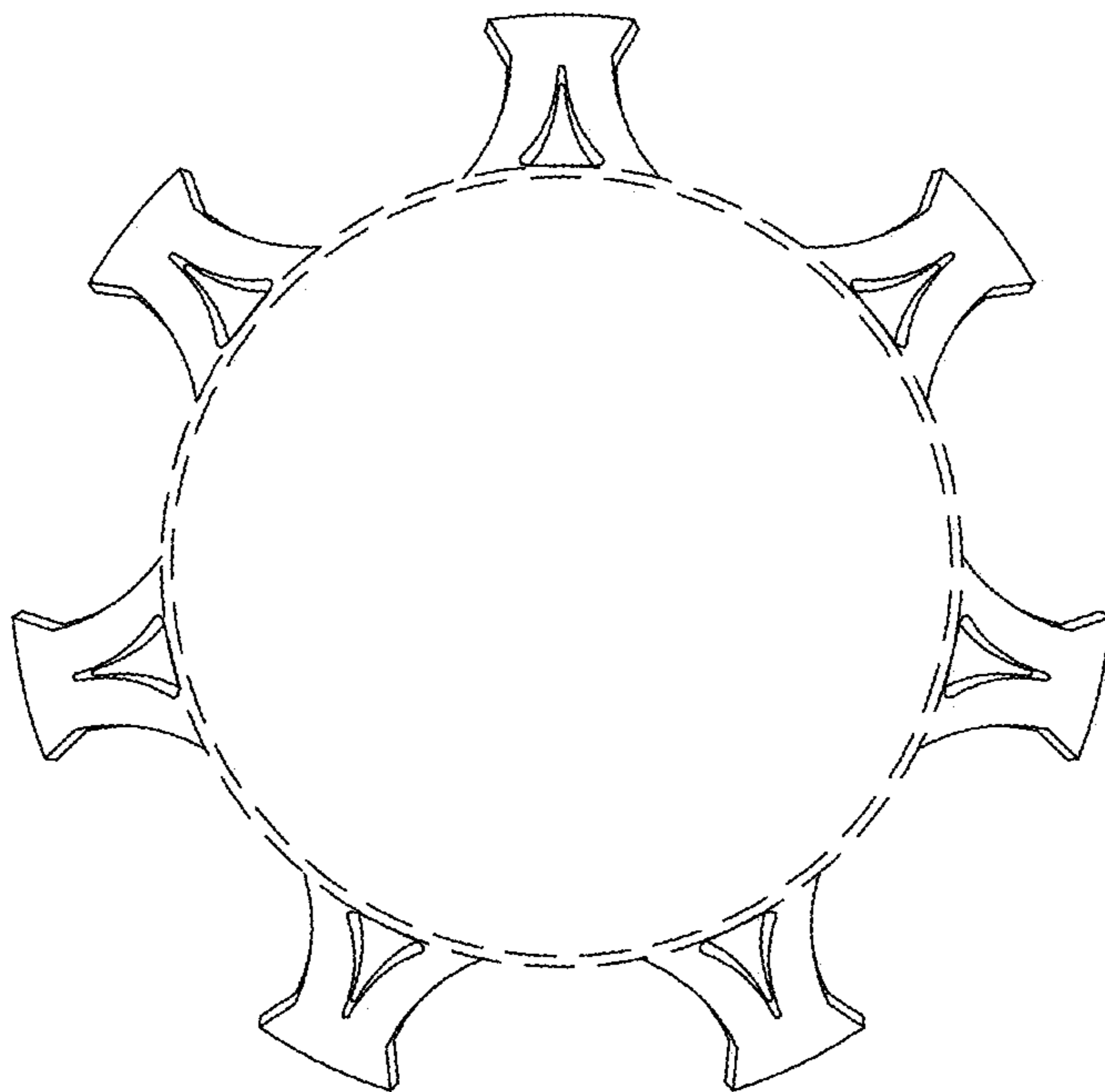


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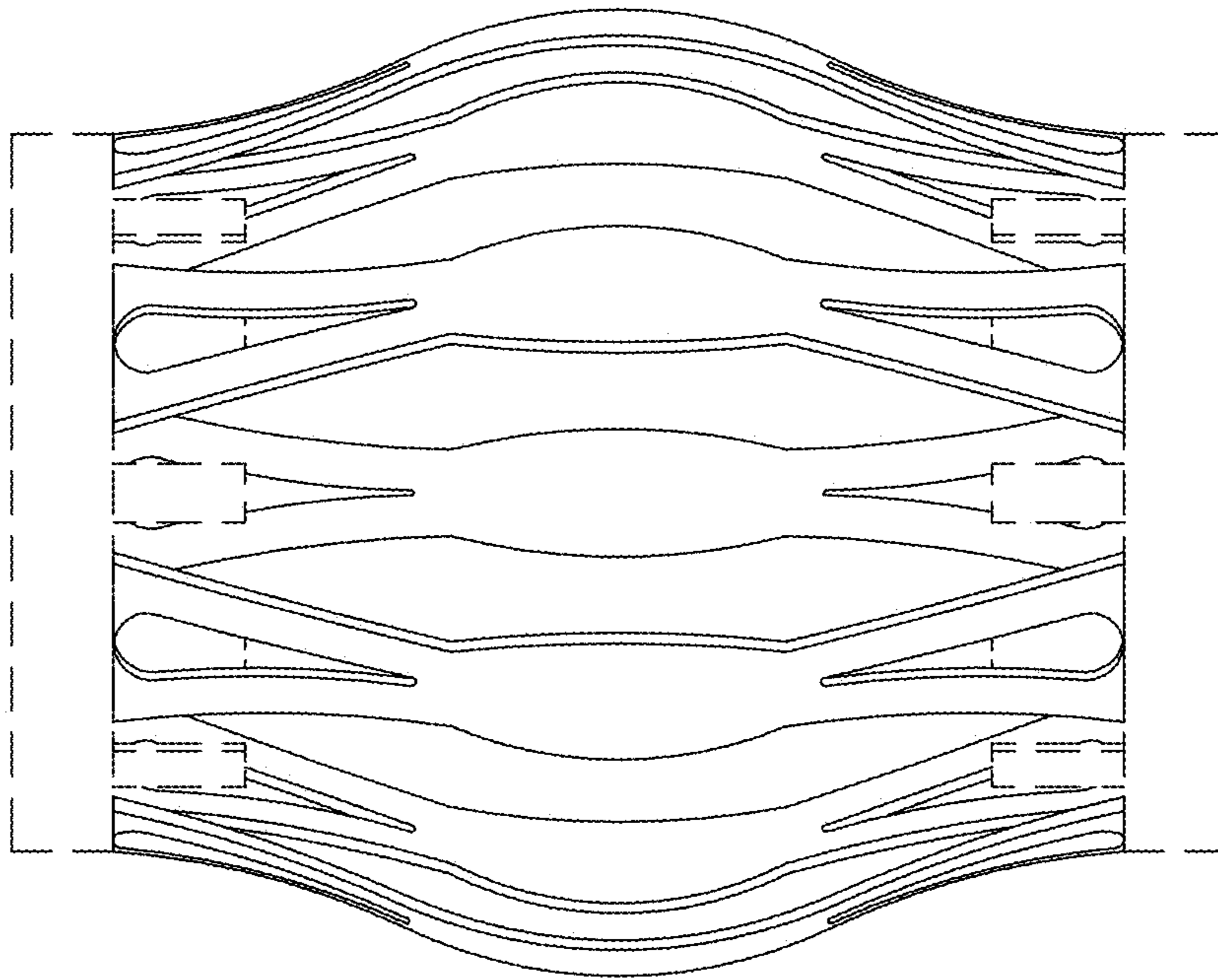


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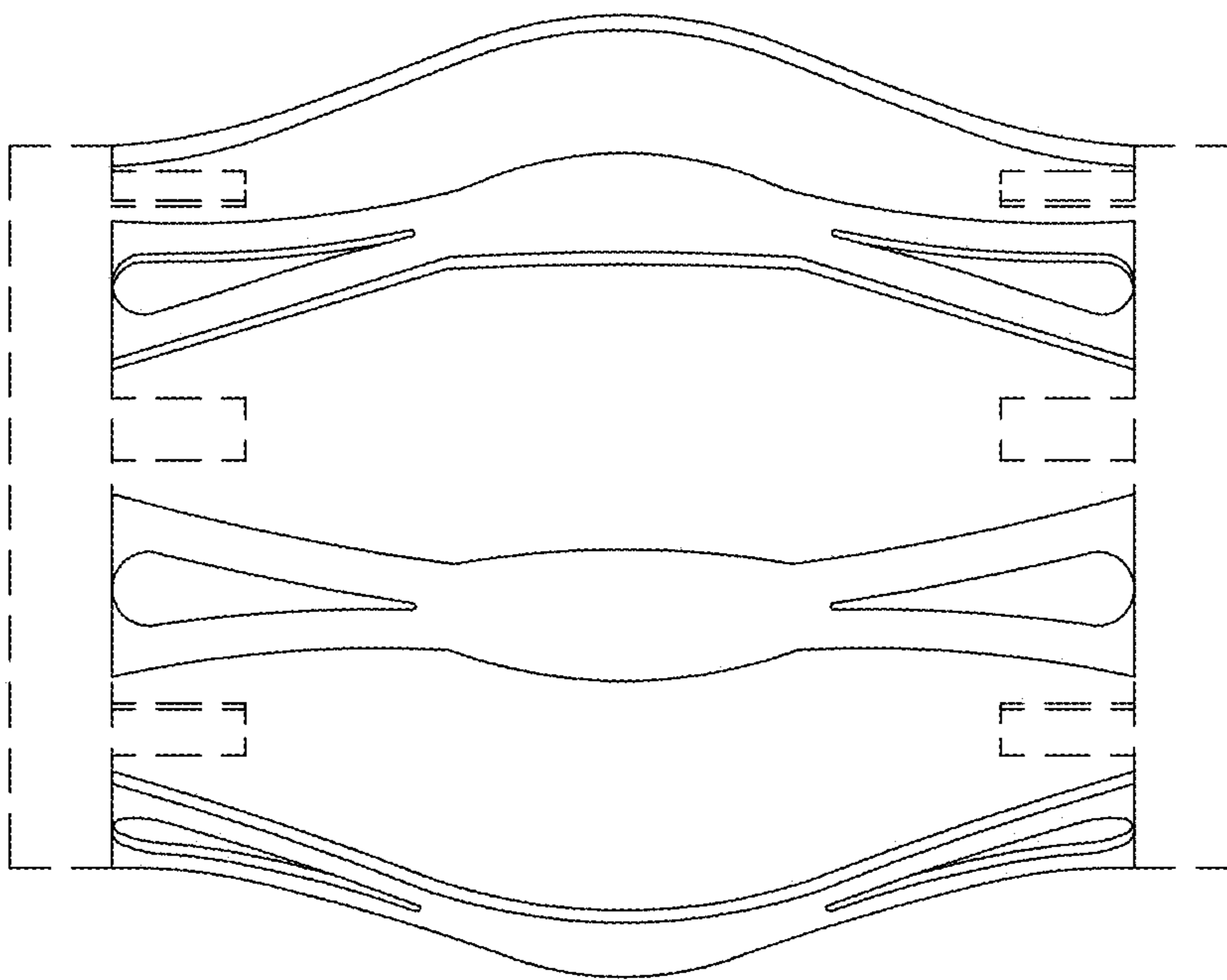


Figure 33

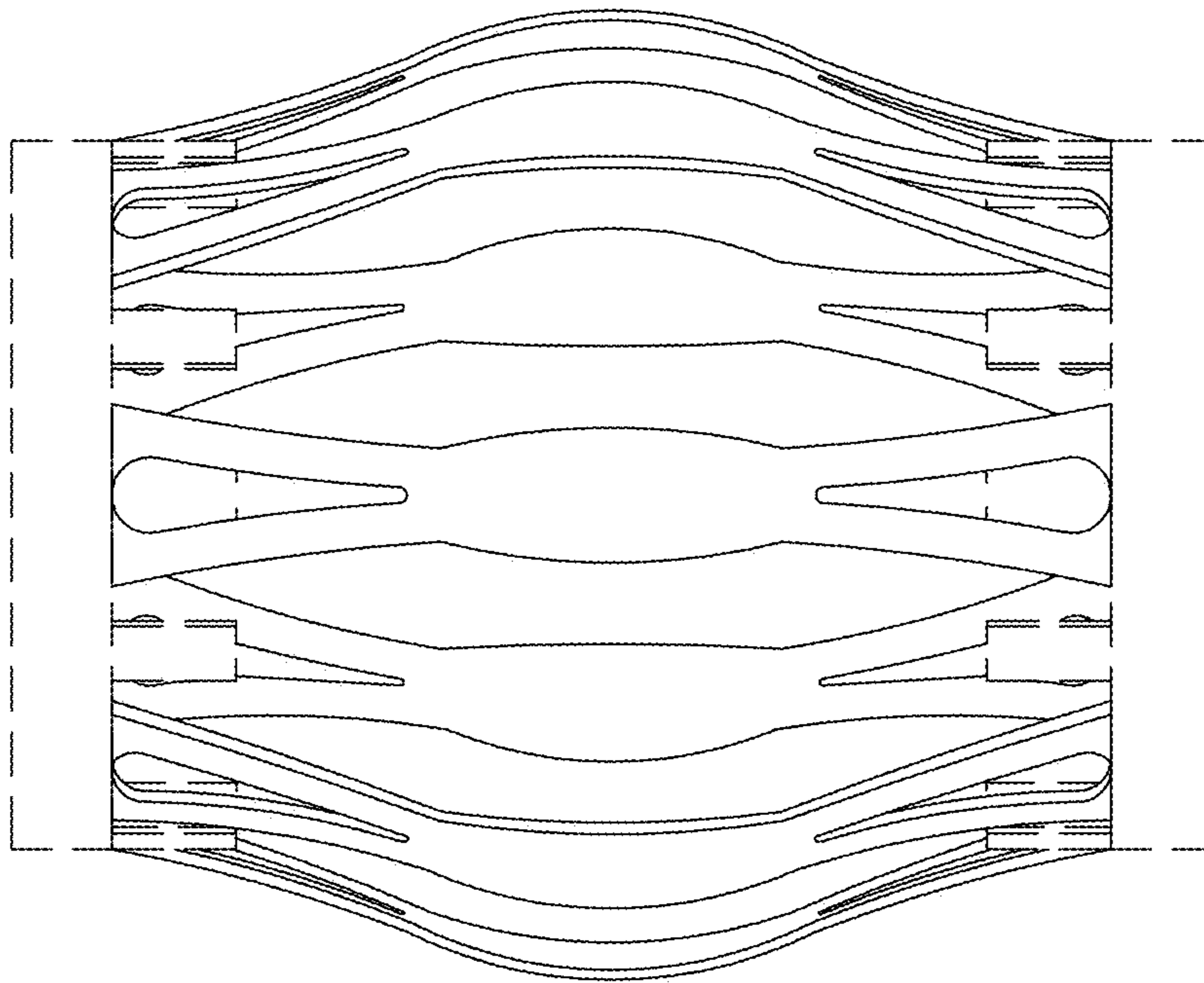


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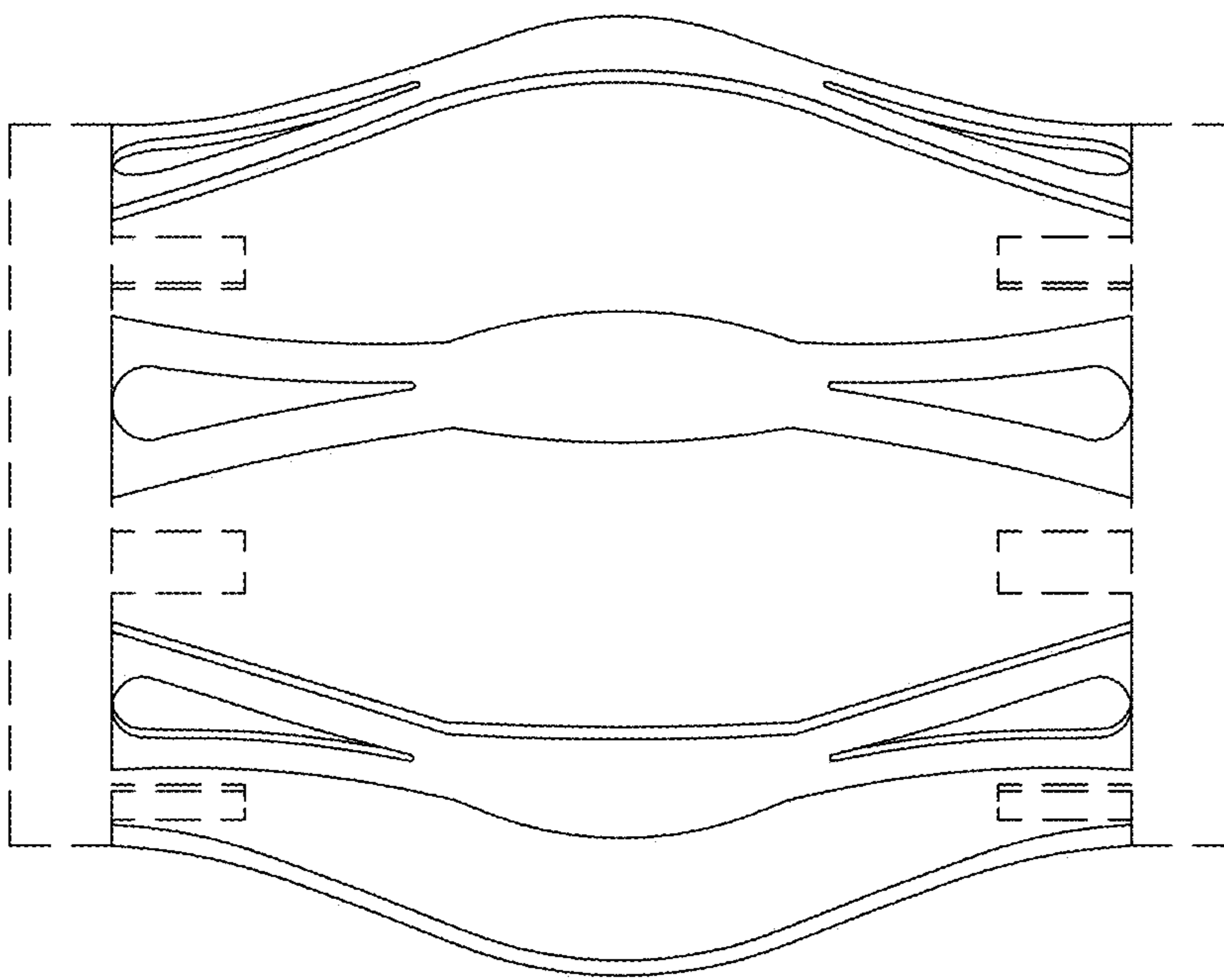


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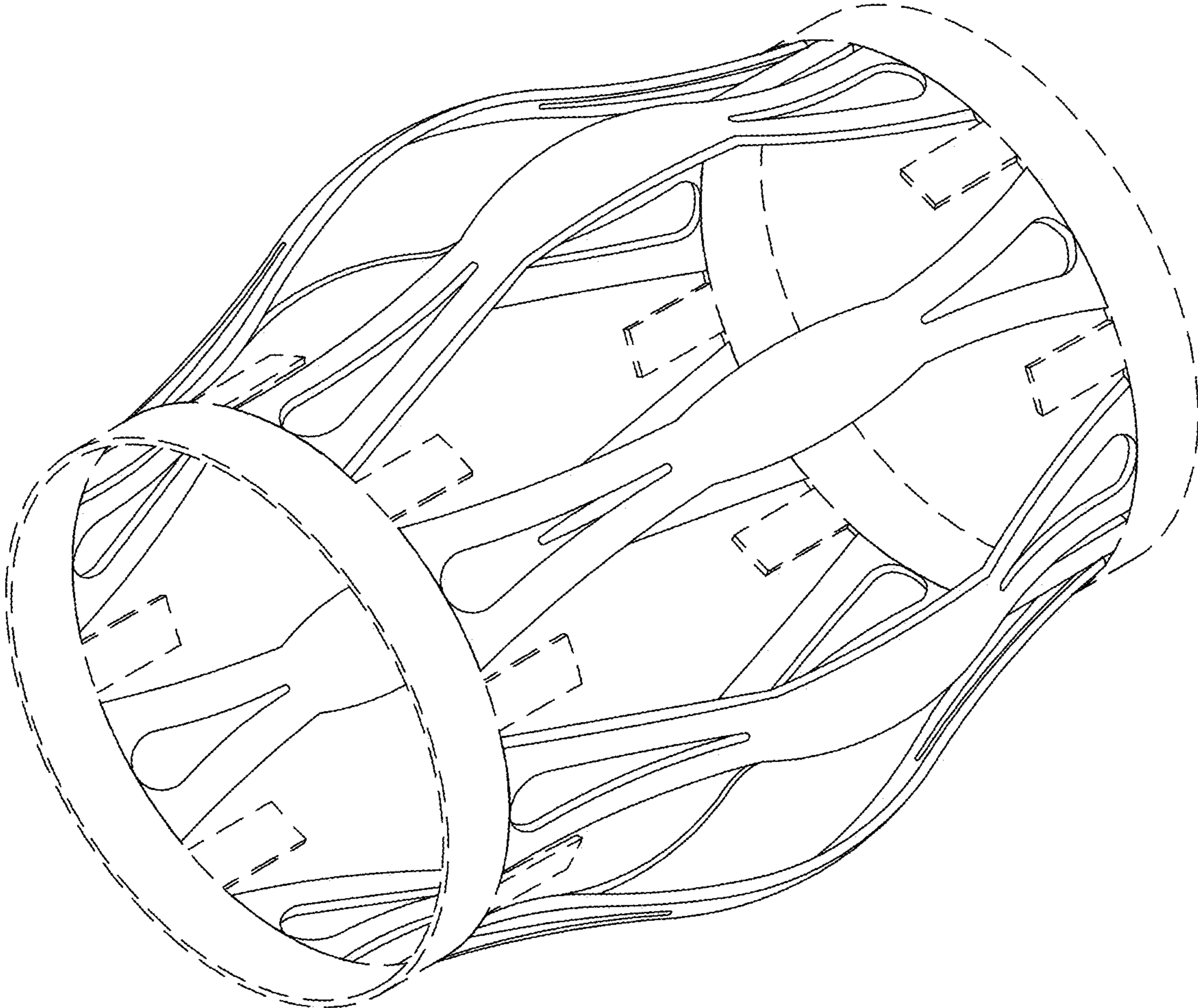


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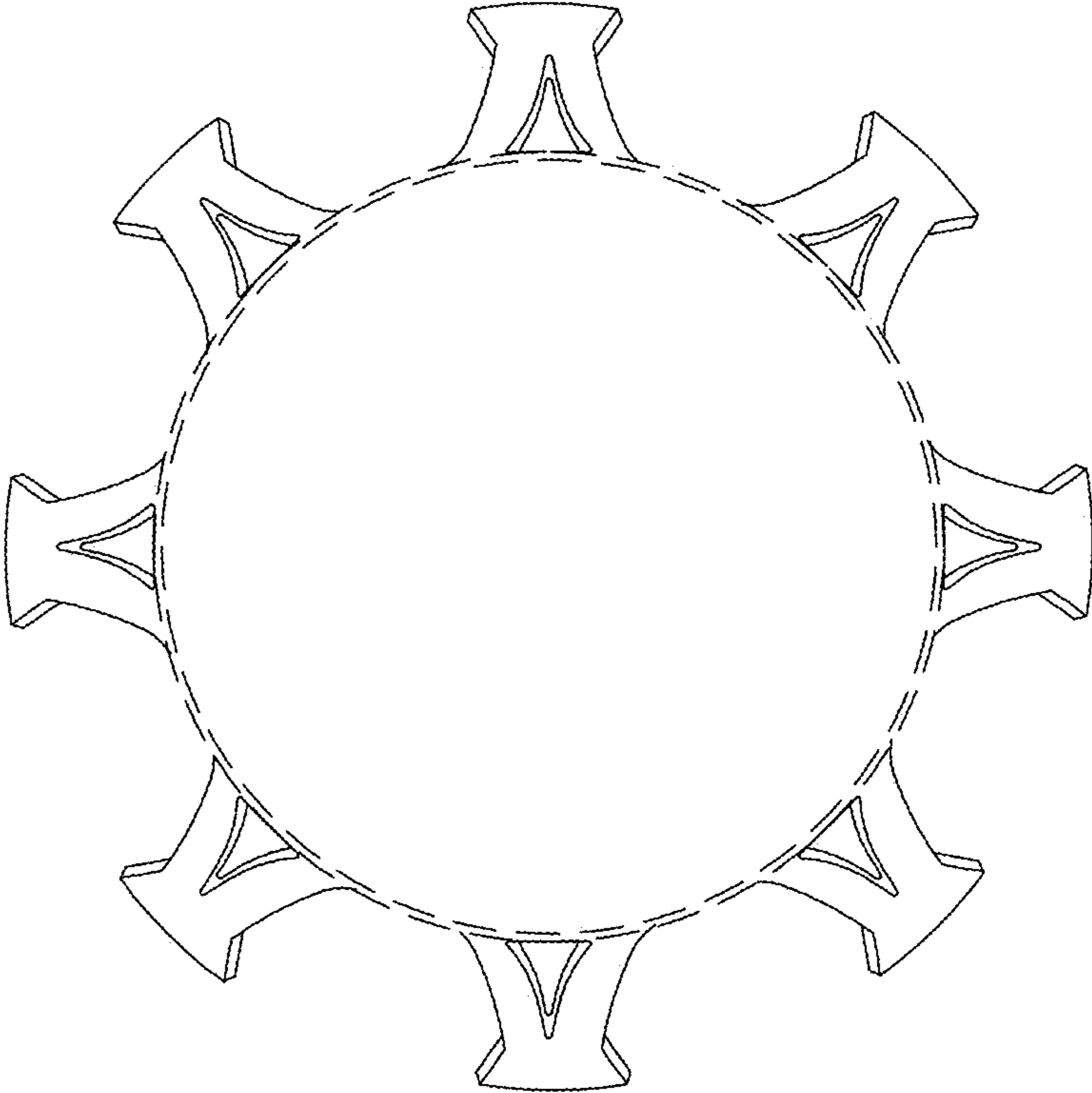


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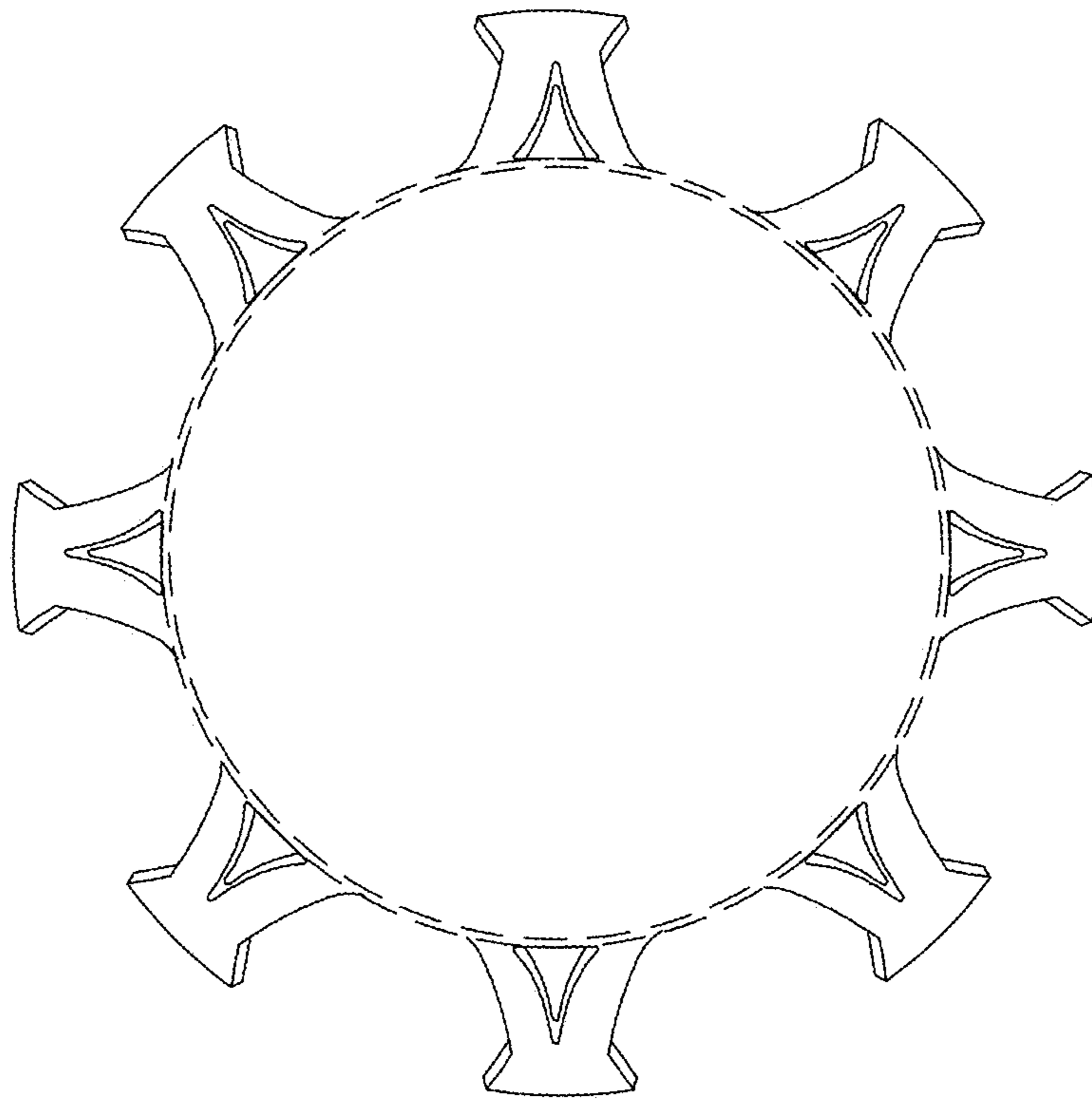


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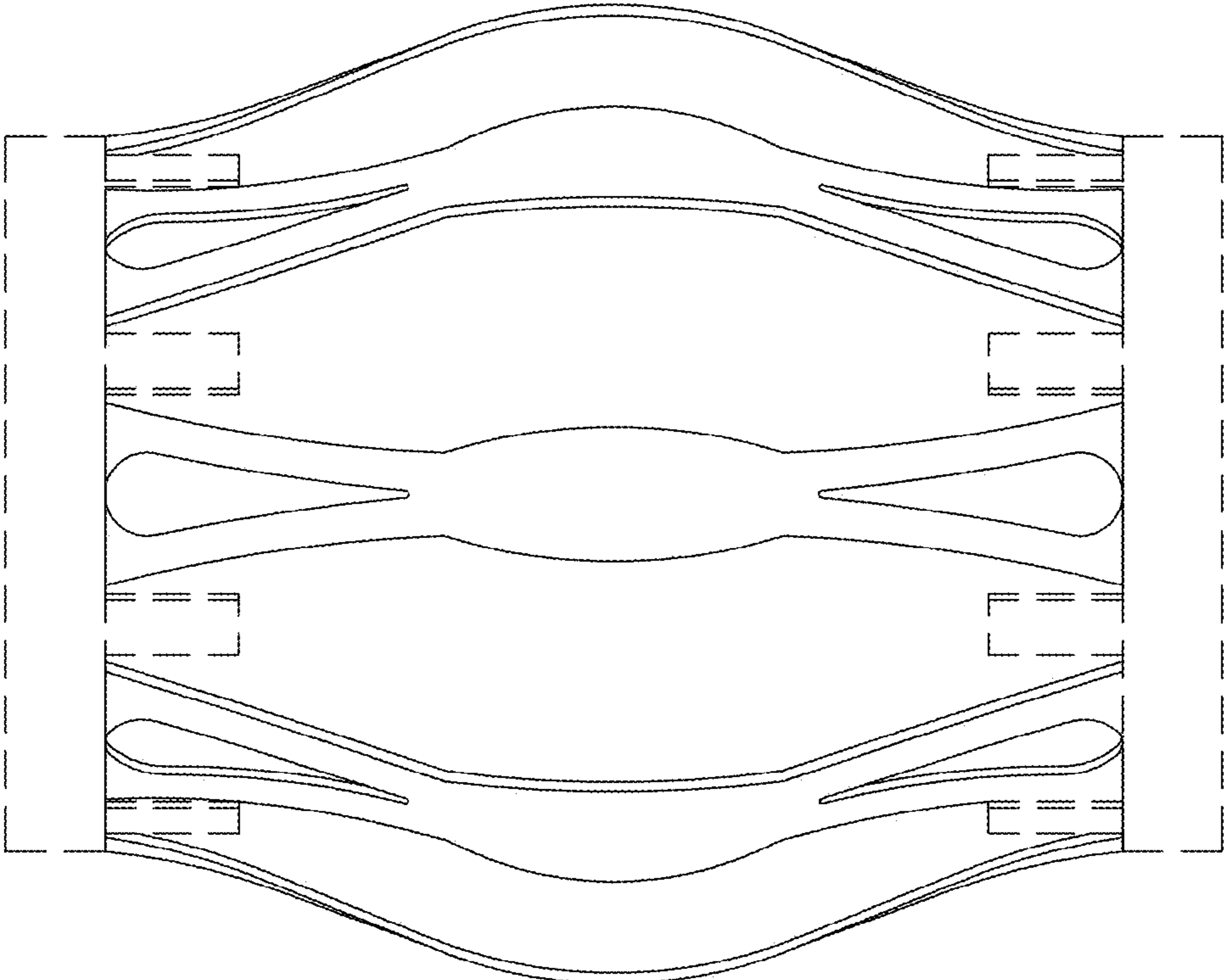


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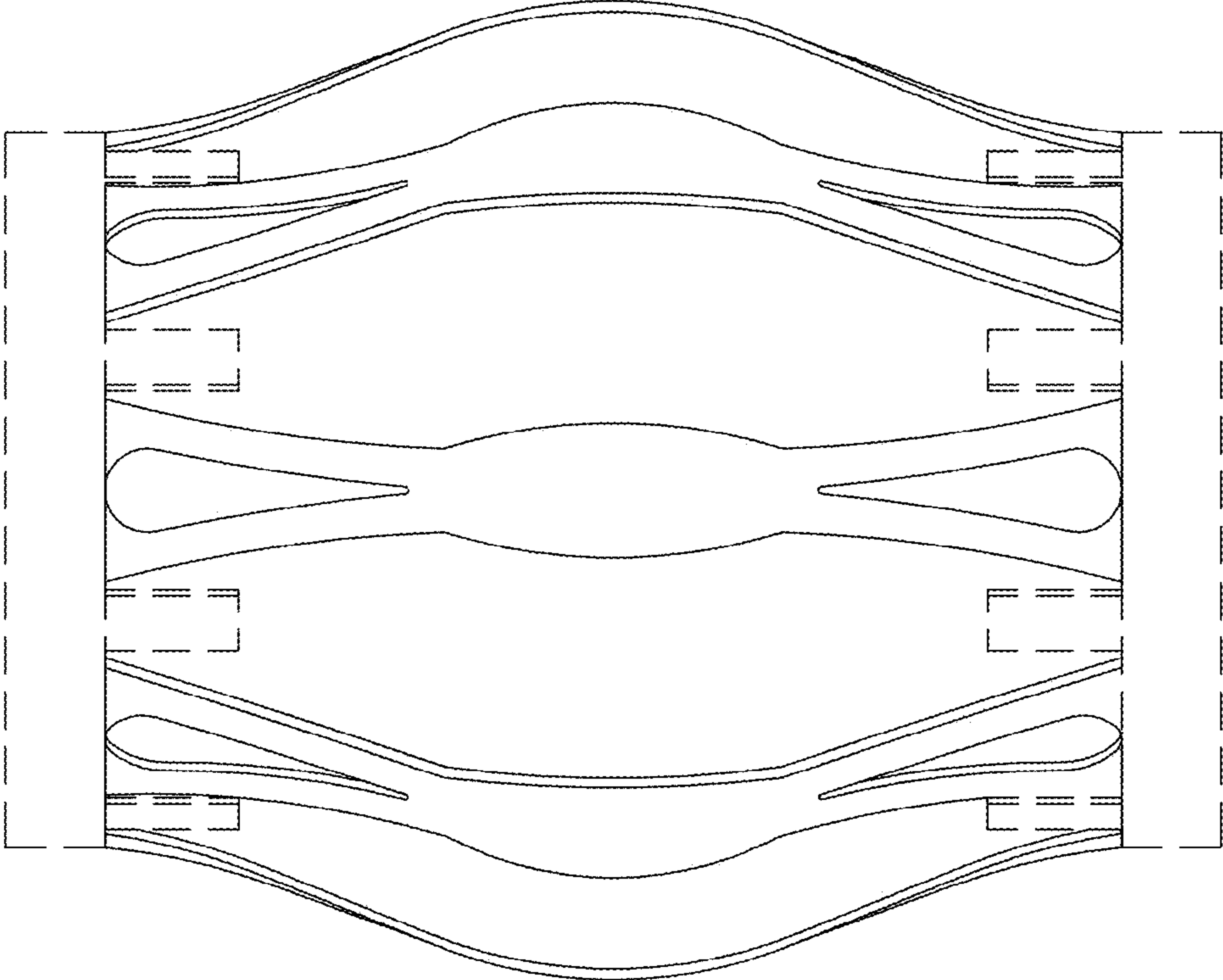


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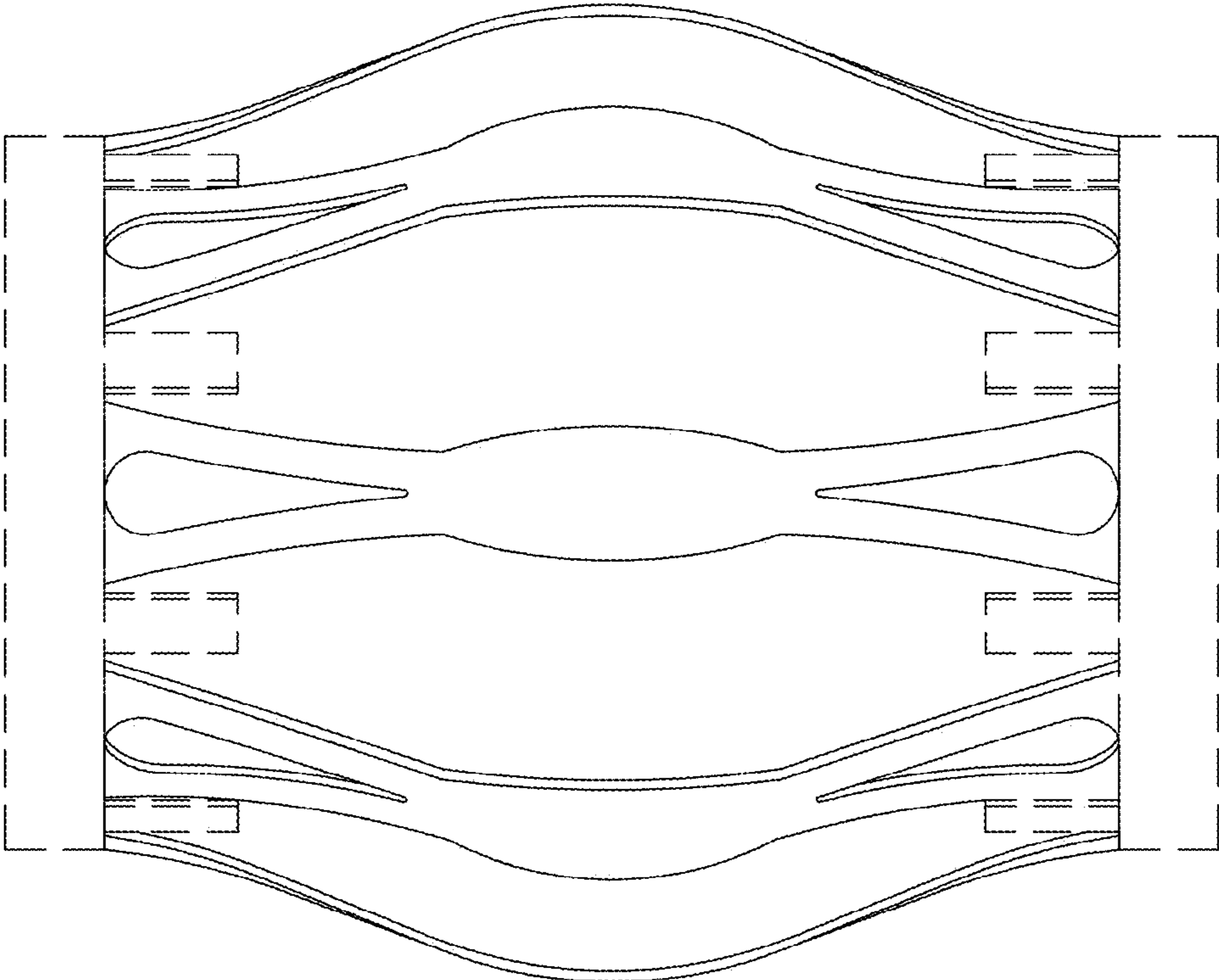


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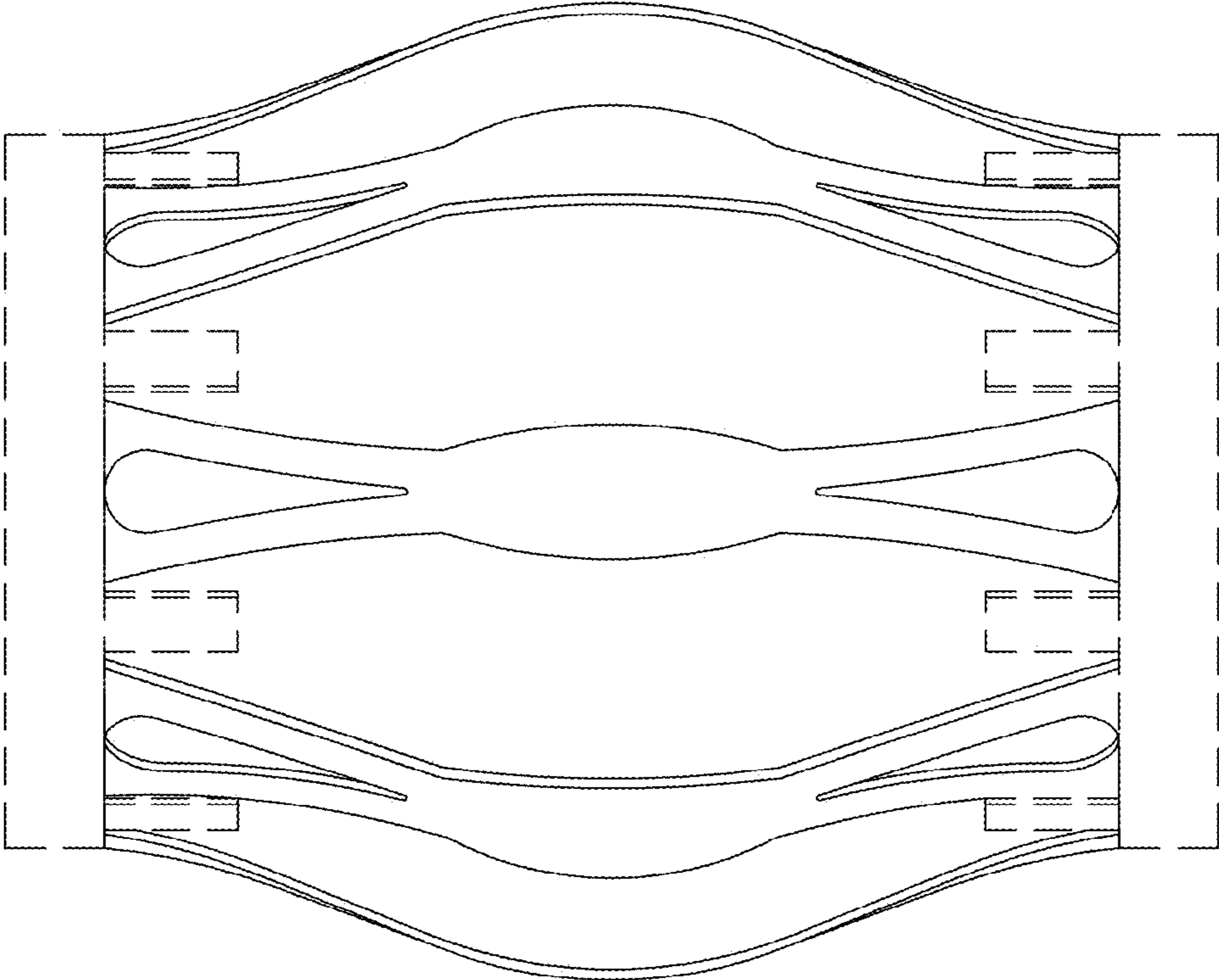


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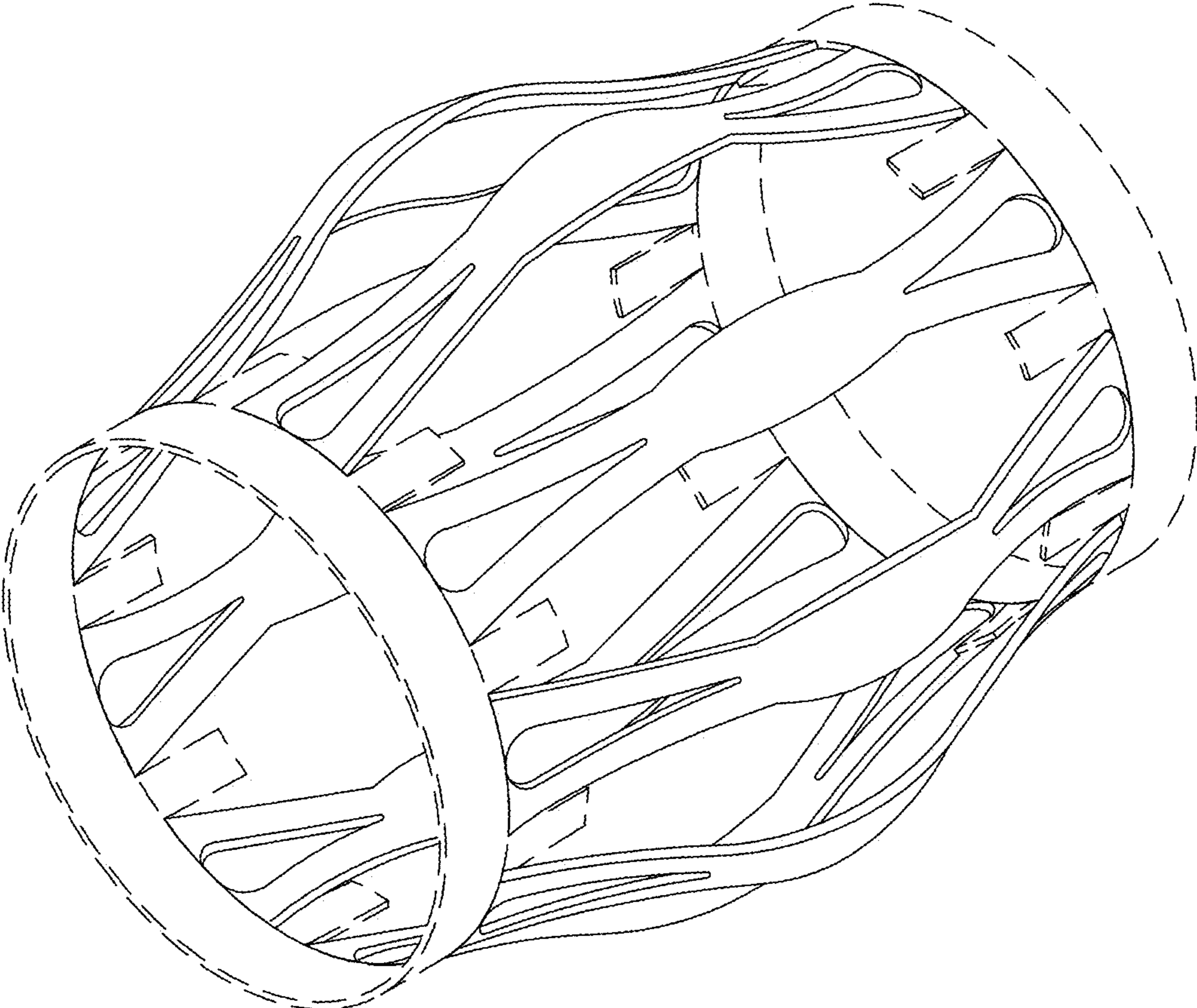


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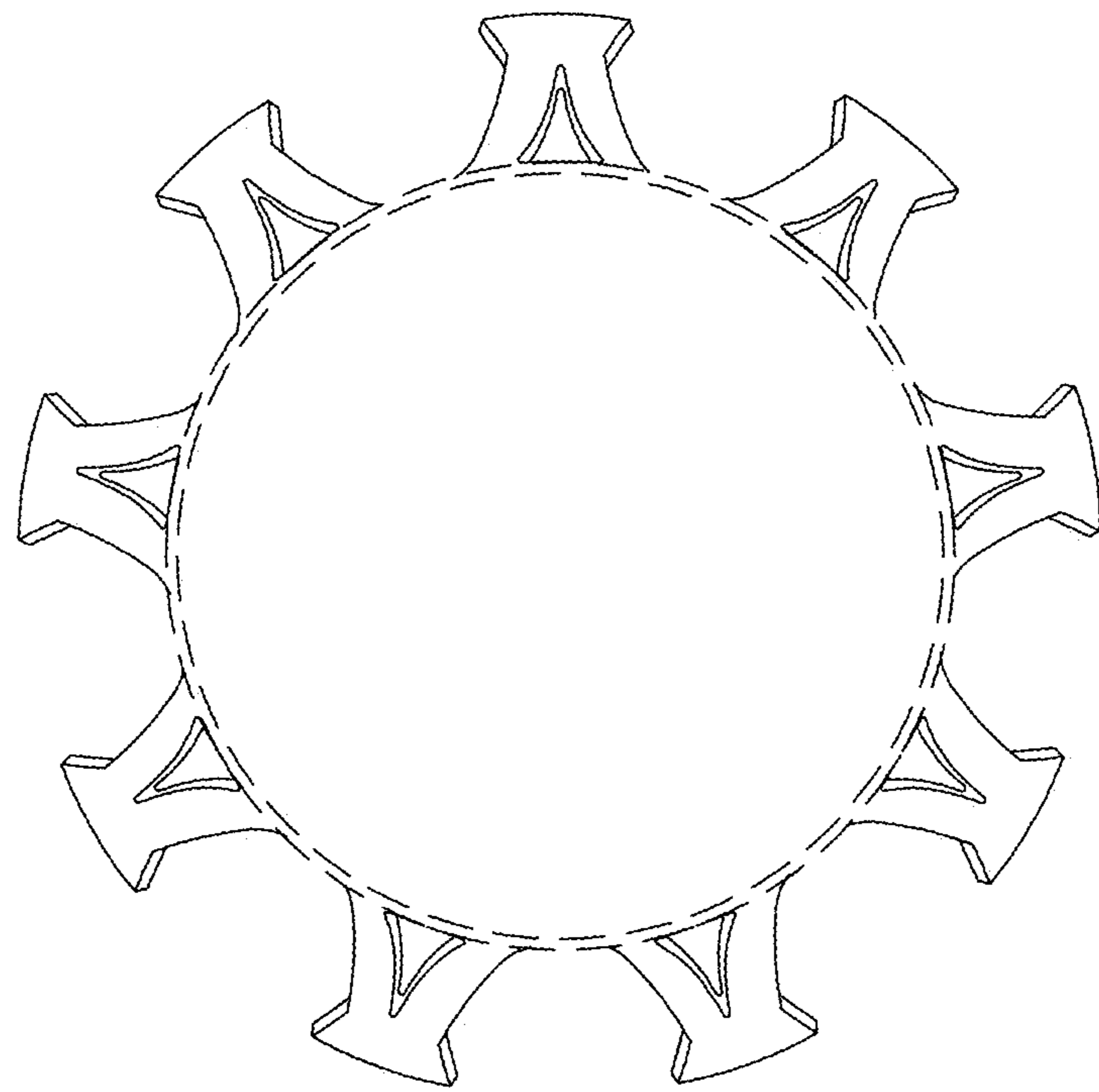


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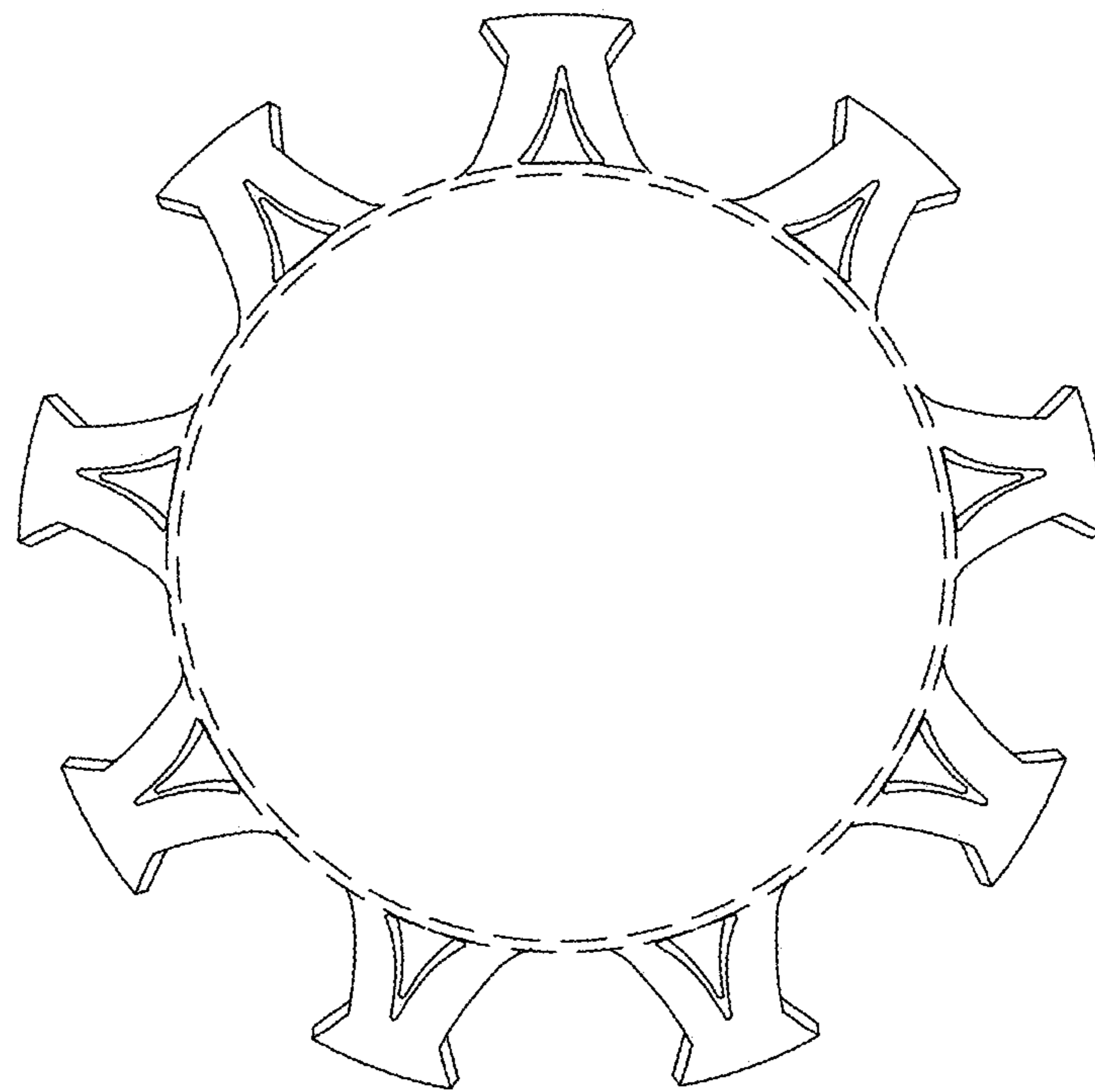


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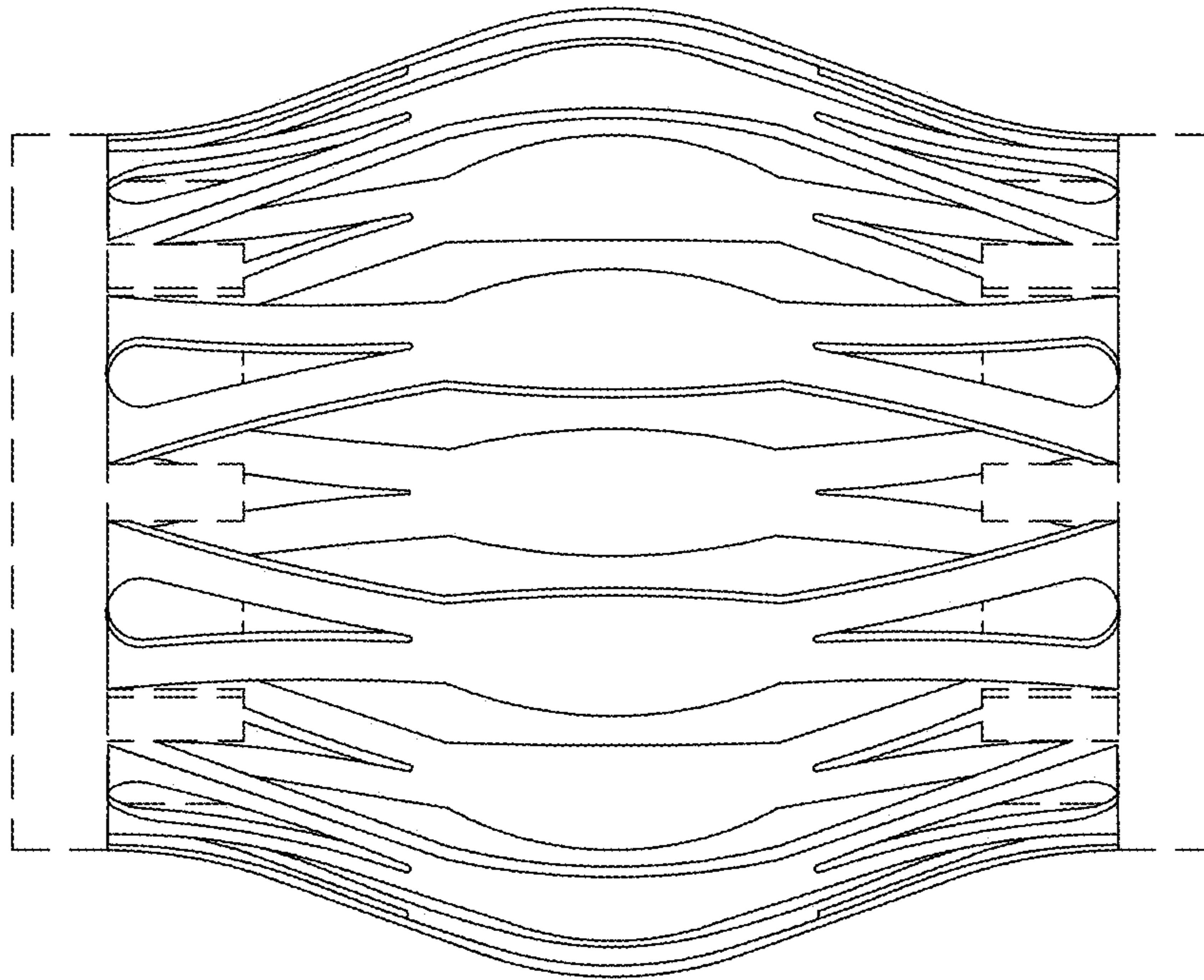


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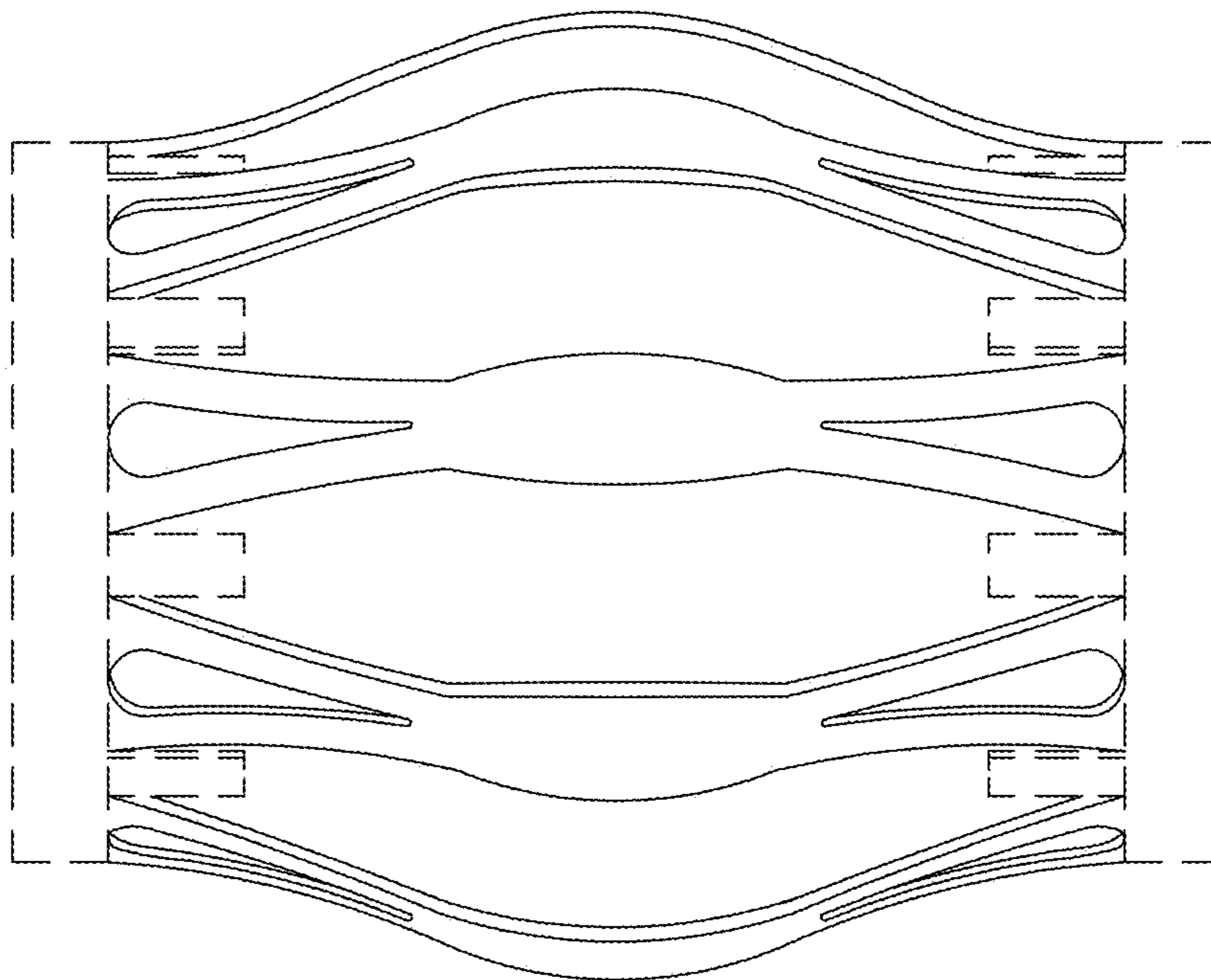


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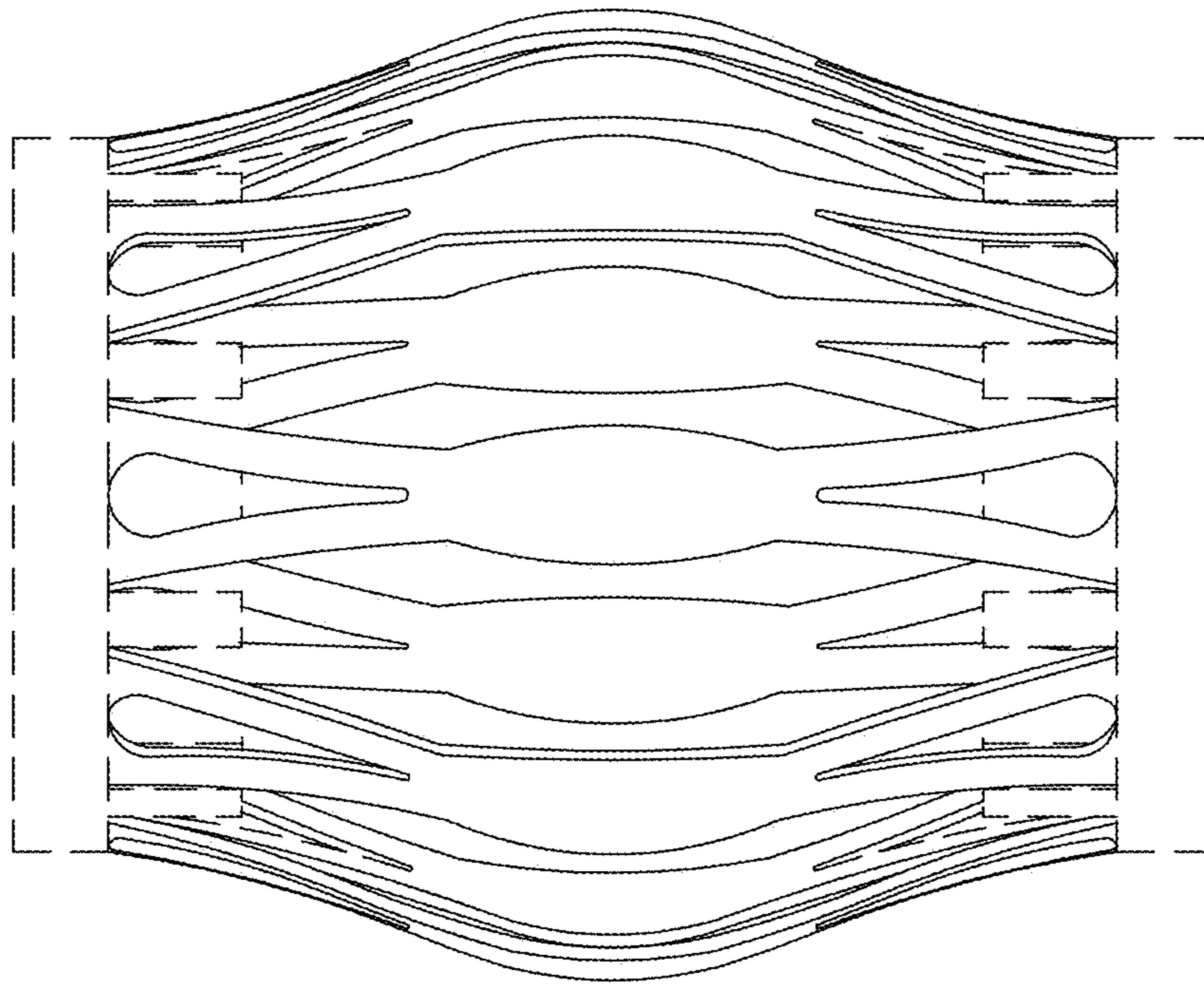


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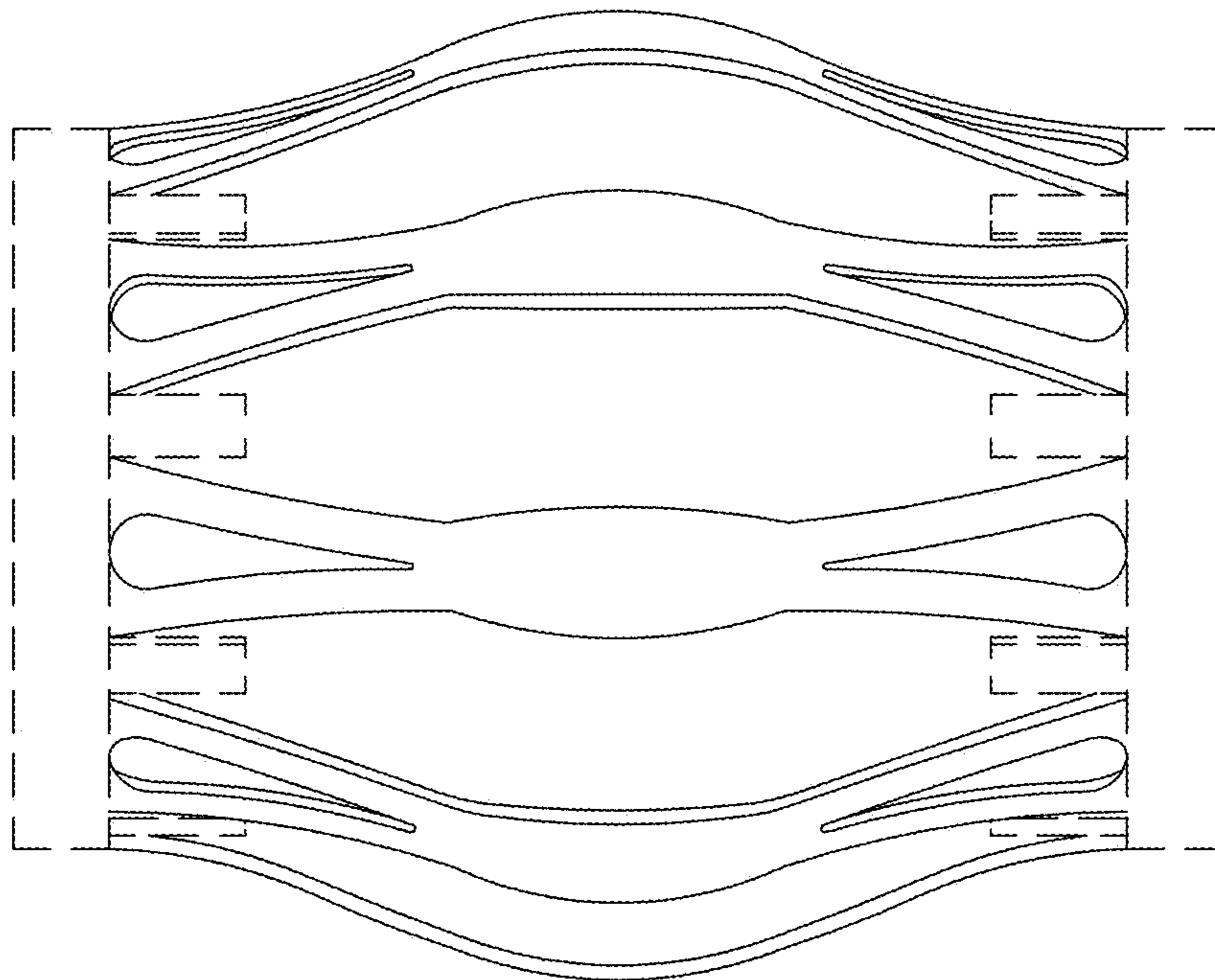


Figure 49

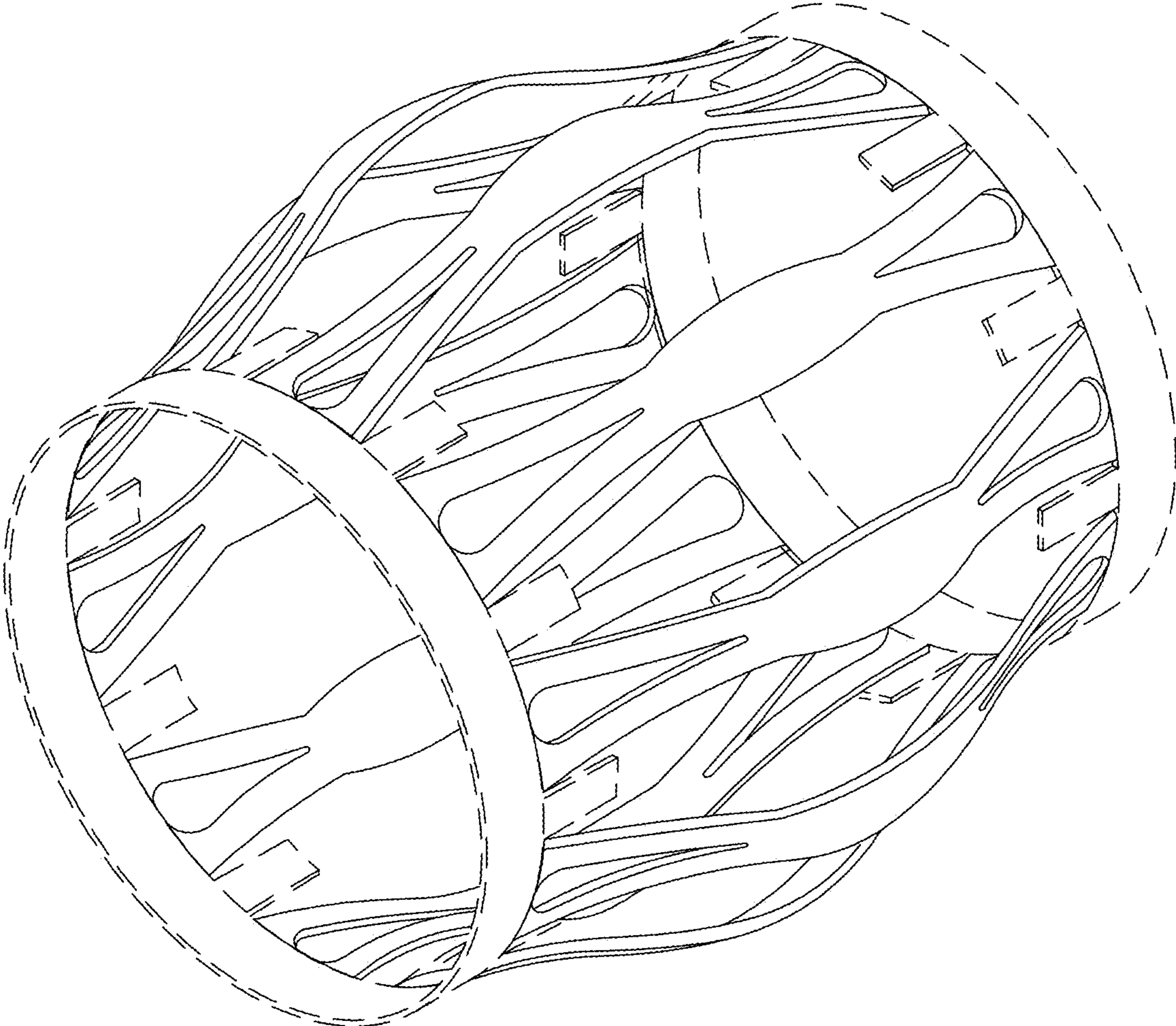


Figure 50

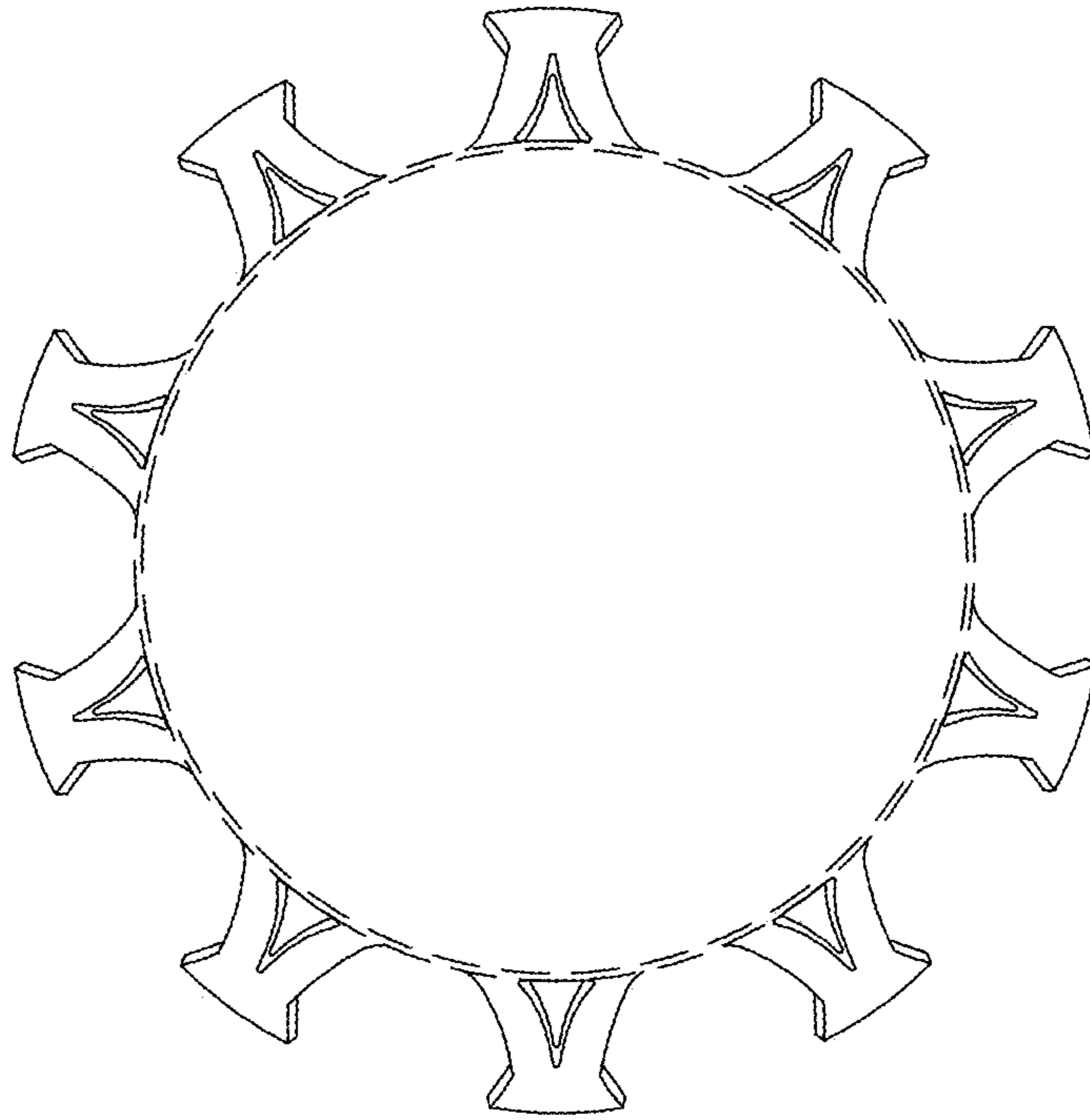


Figure 51

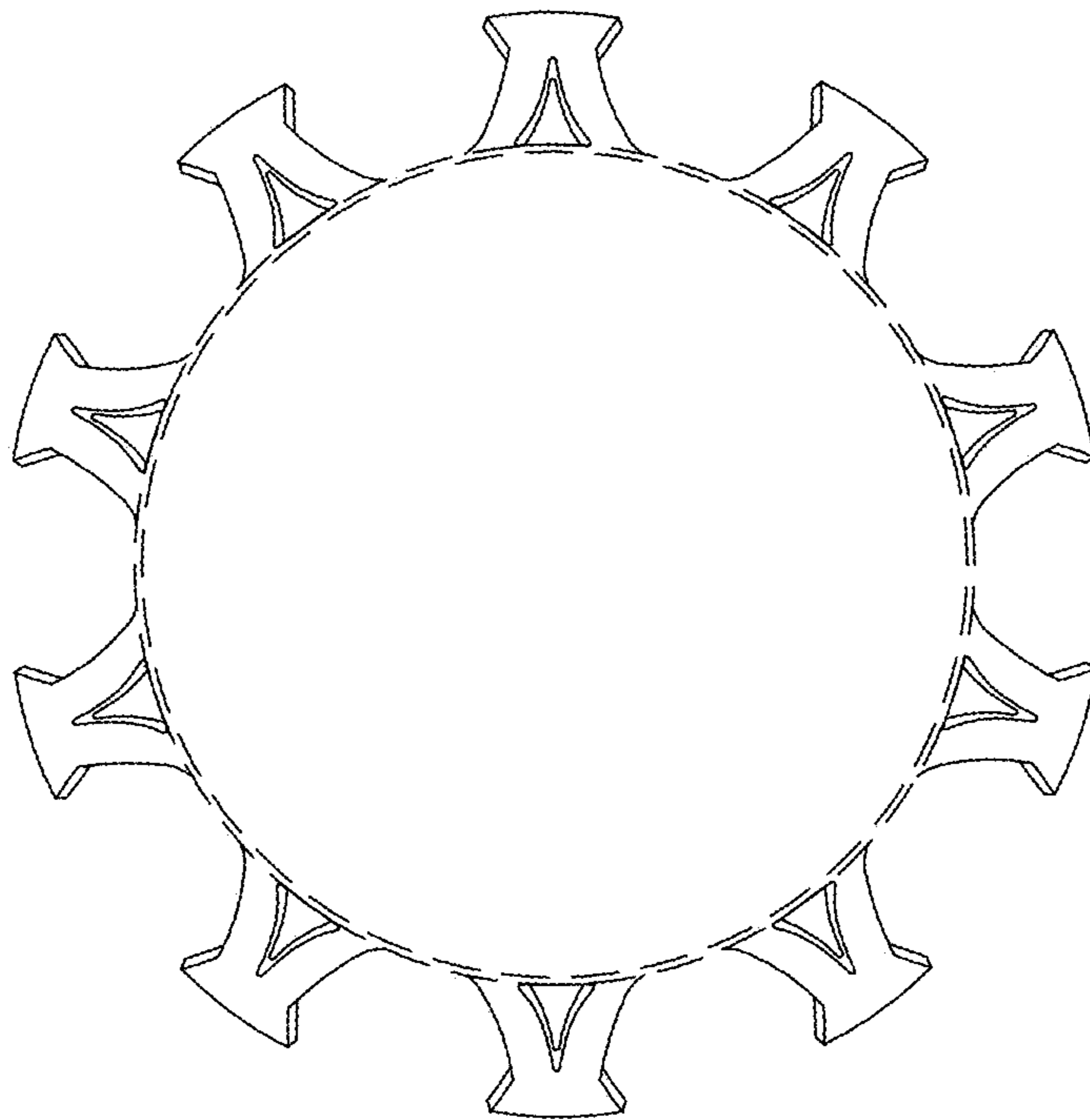


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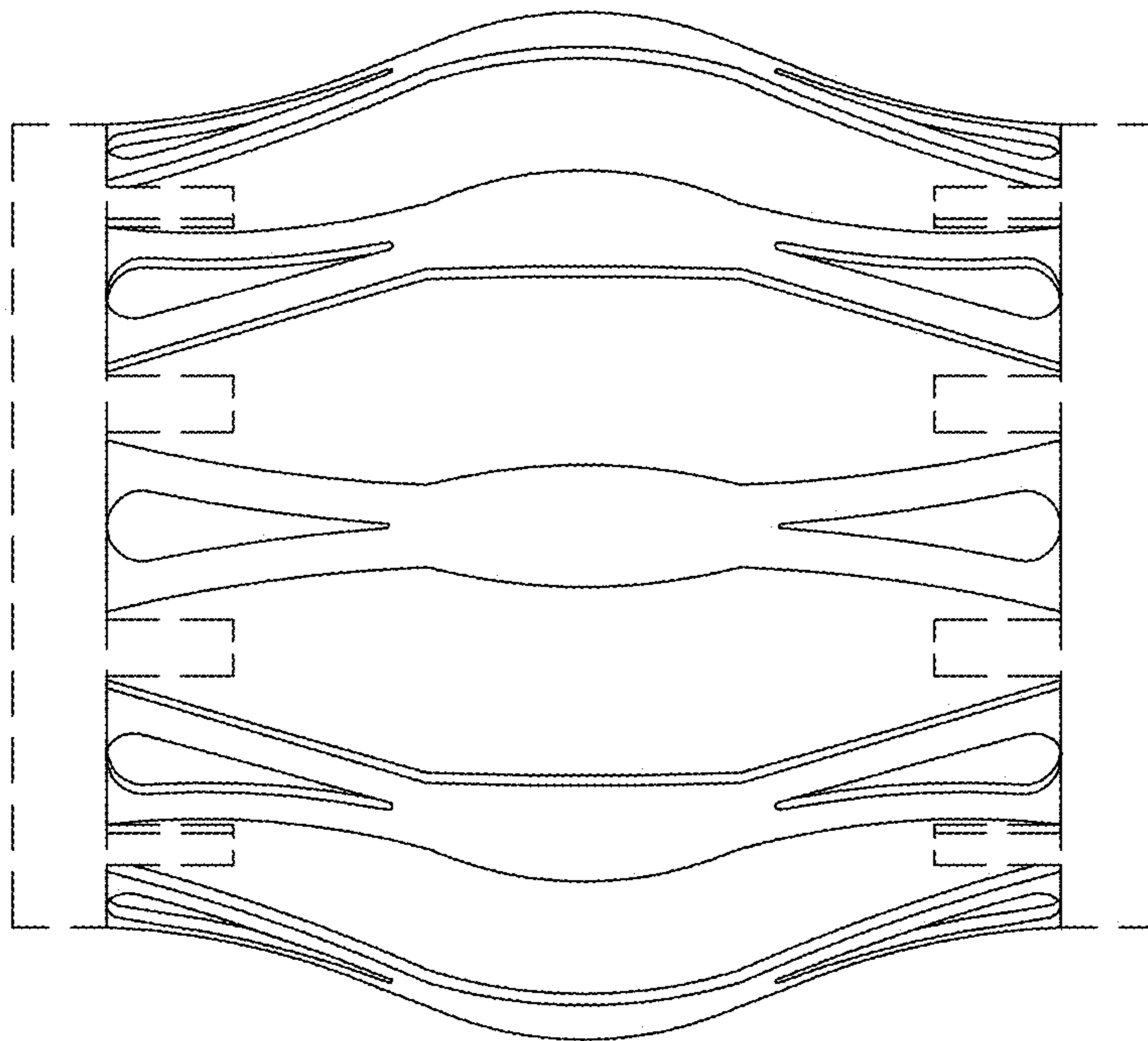


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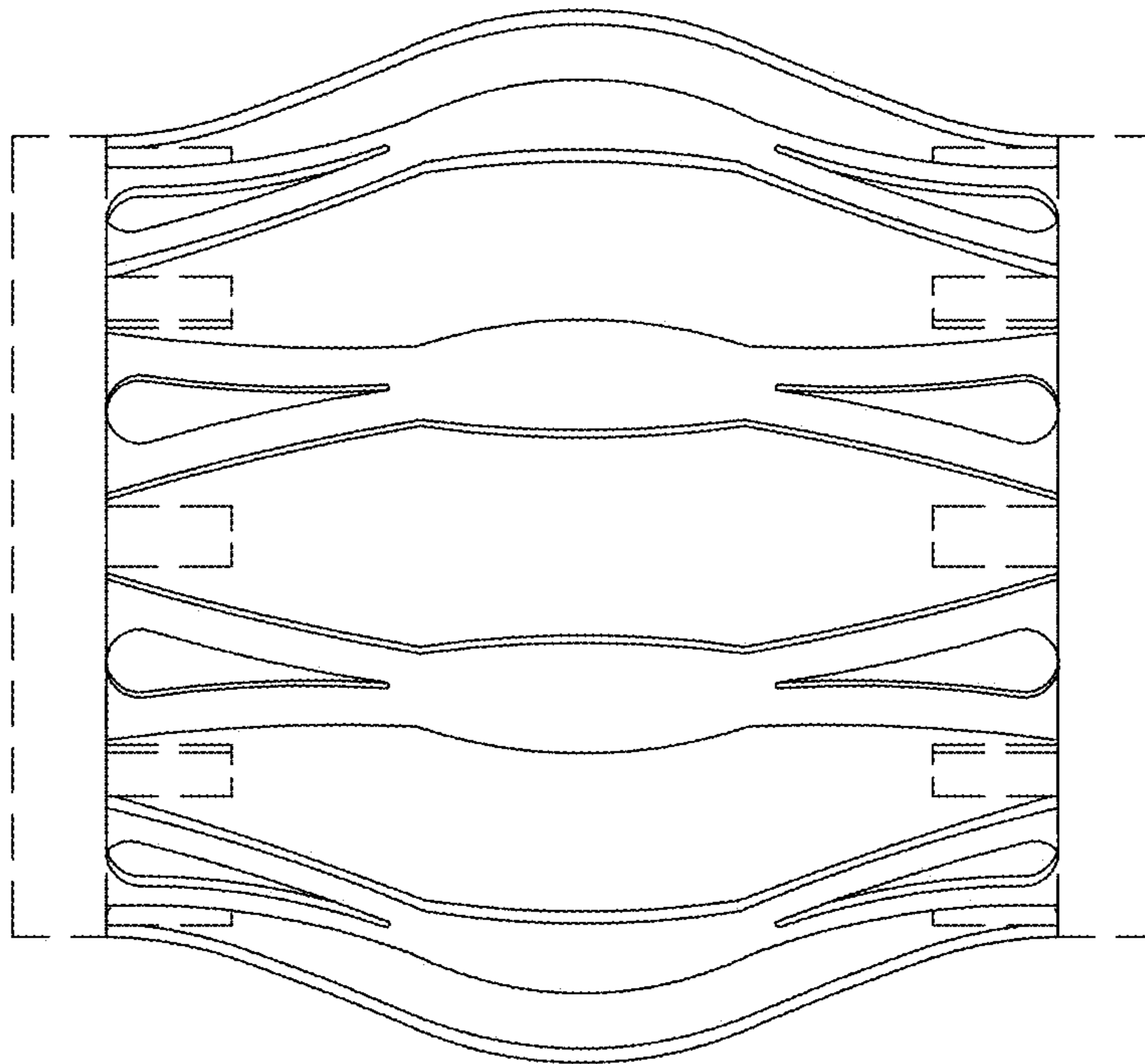


Figure 54

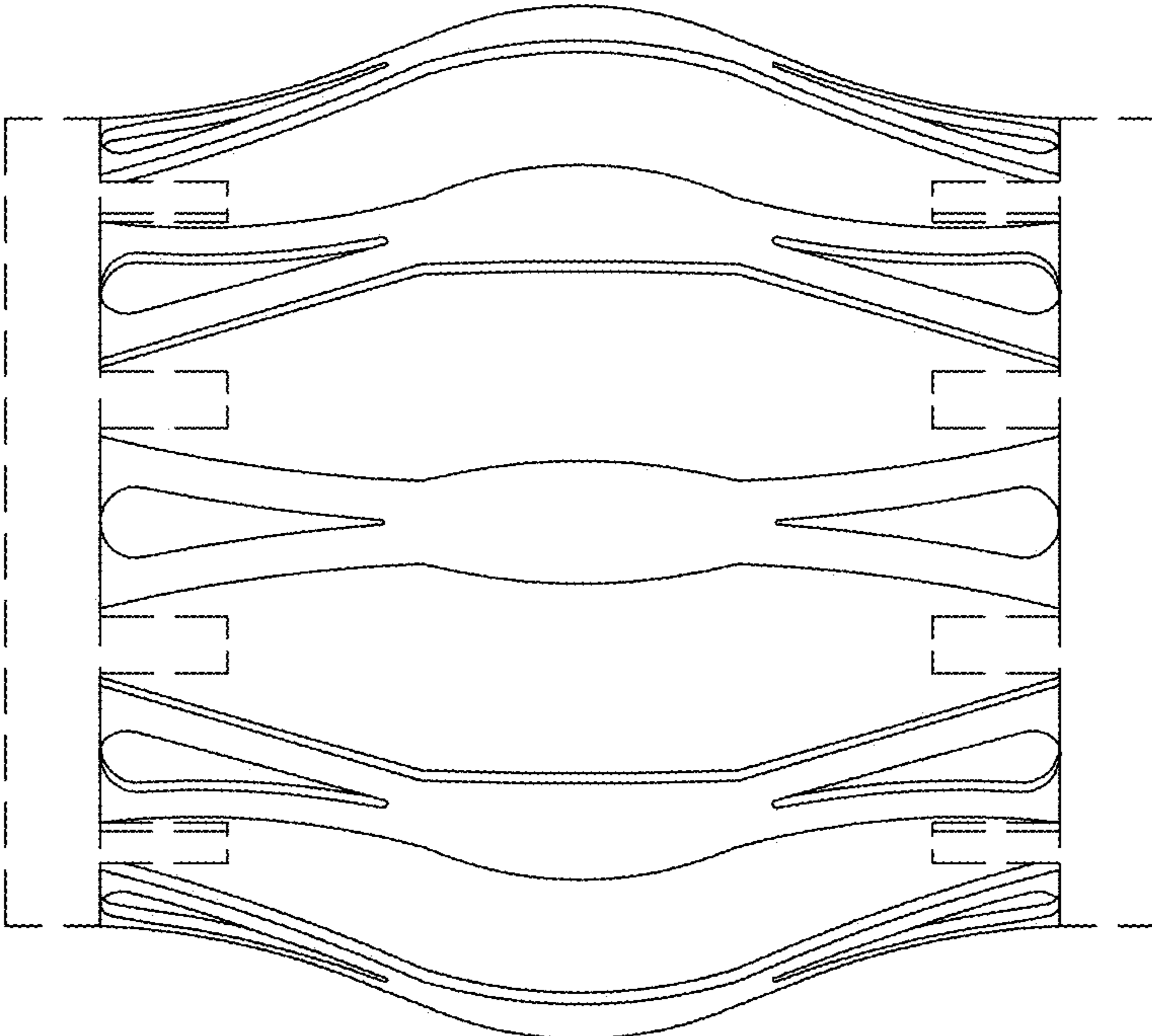


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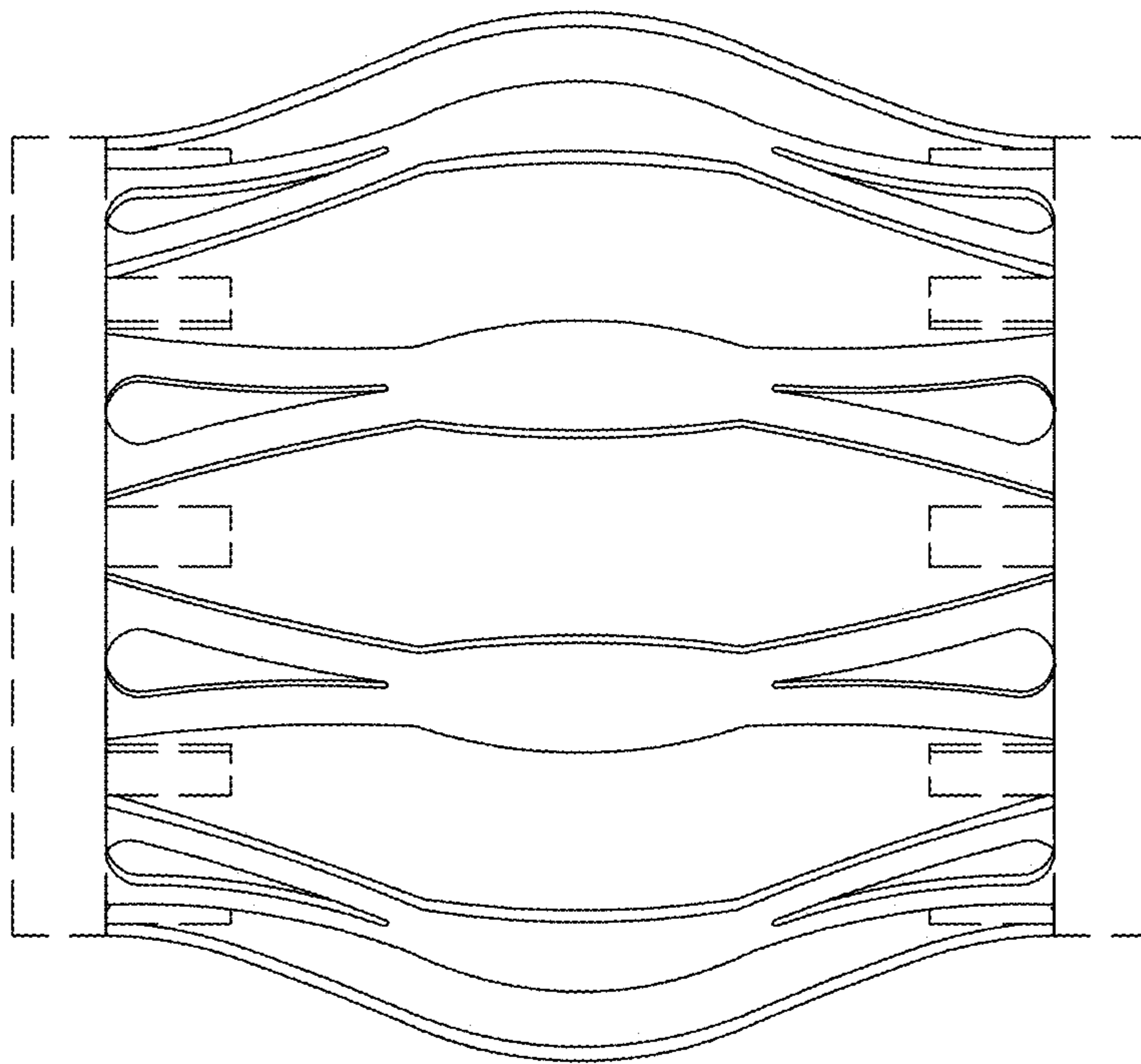


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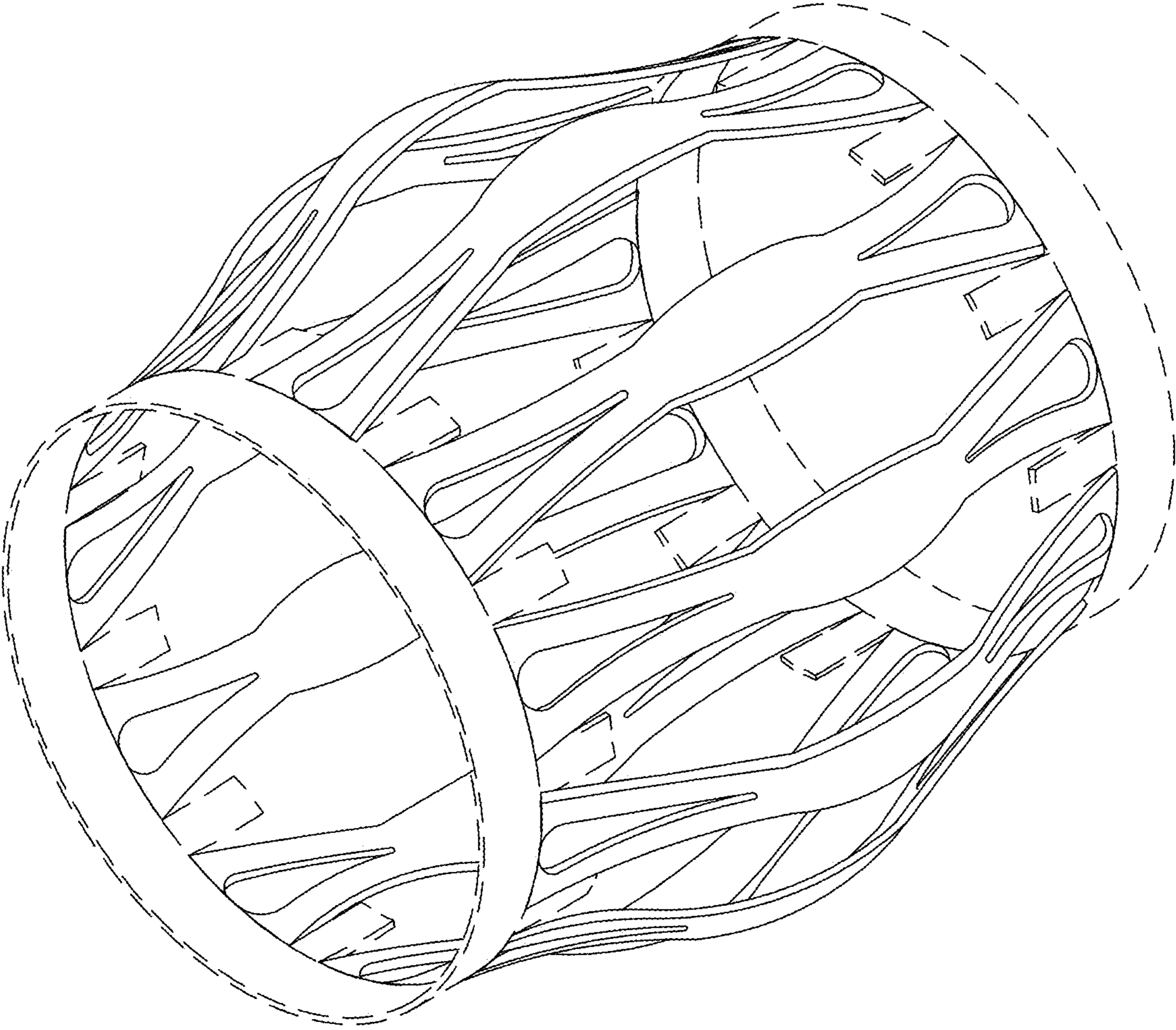


Figure 57

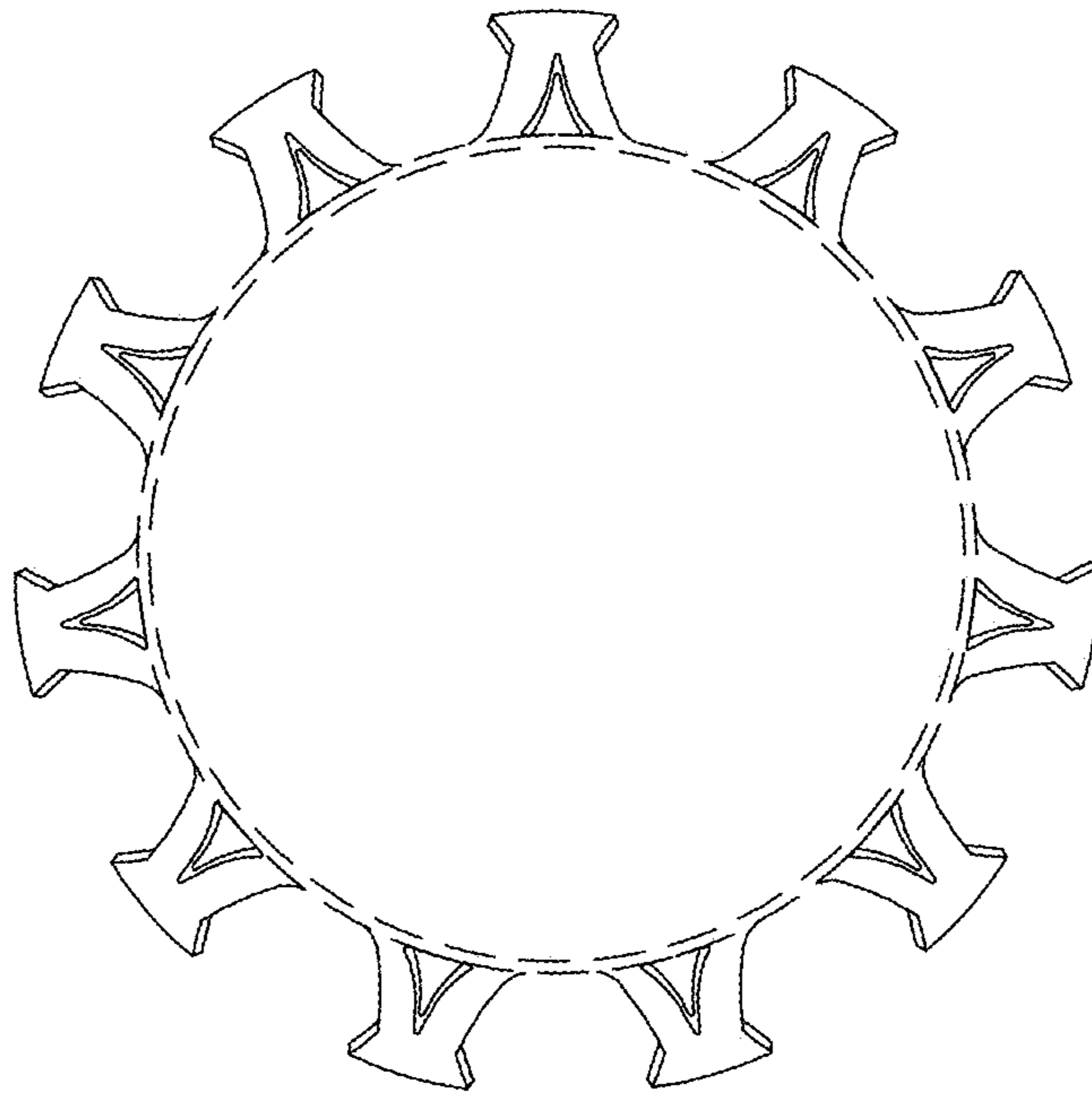


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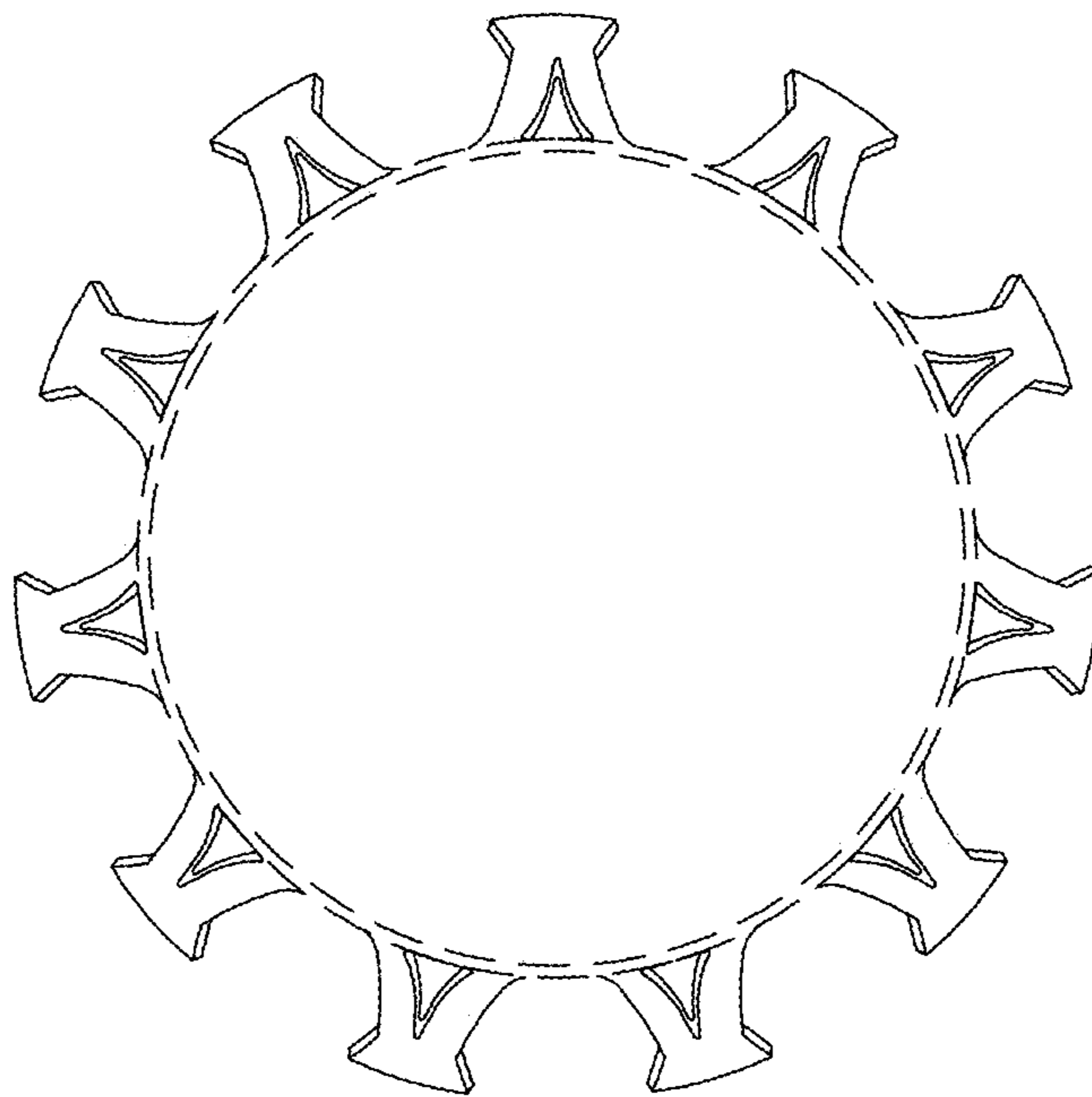


Figure 59

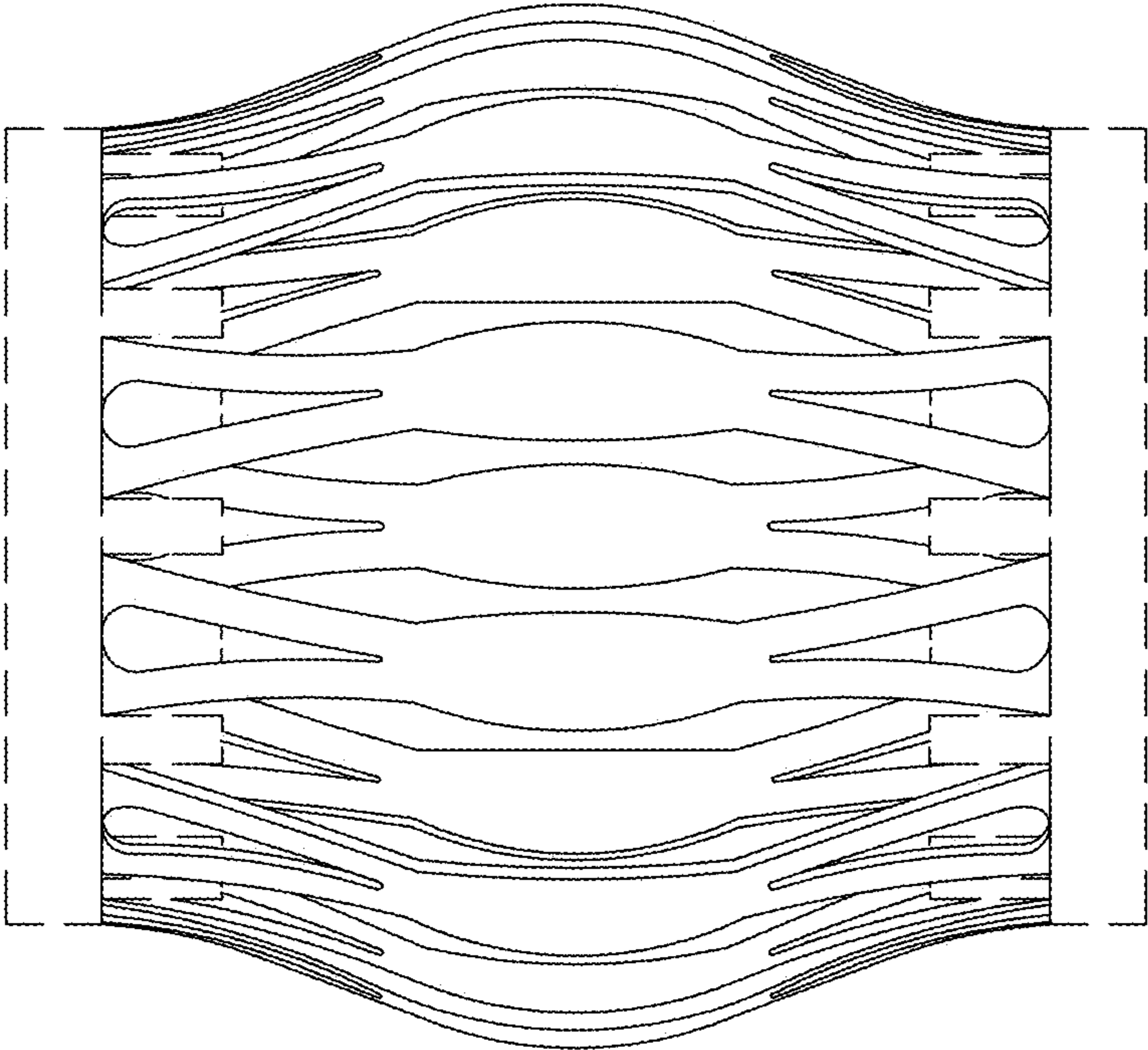


Figure 60

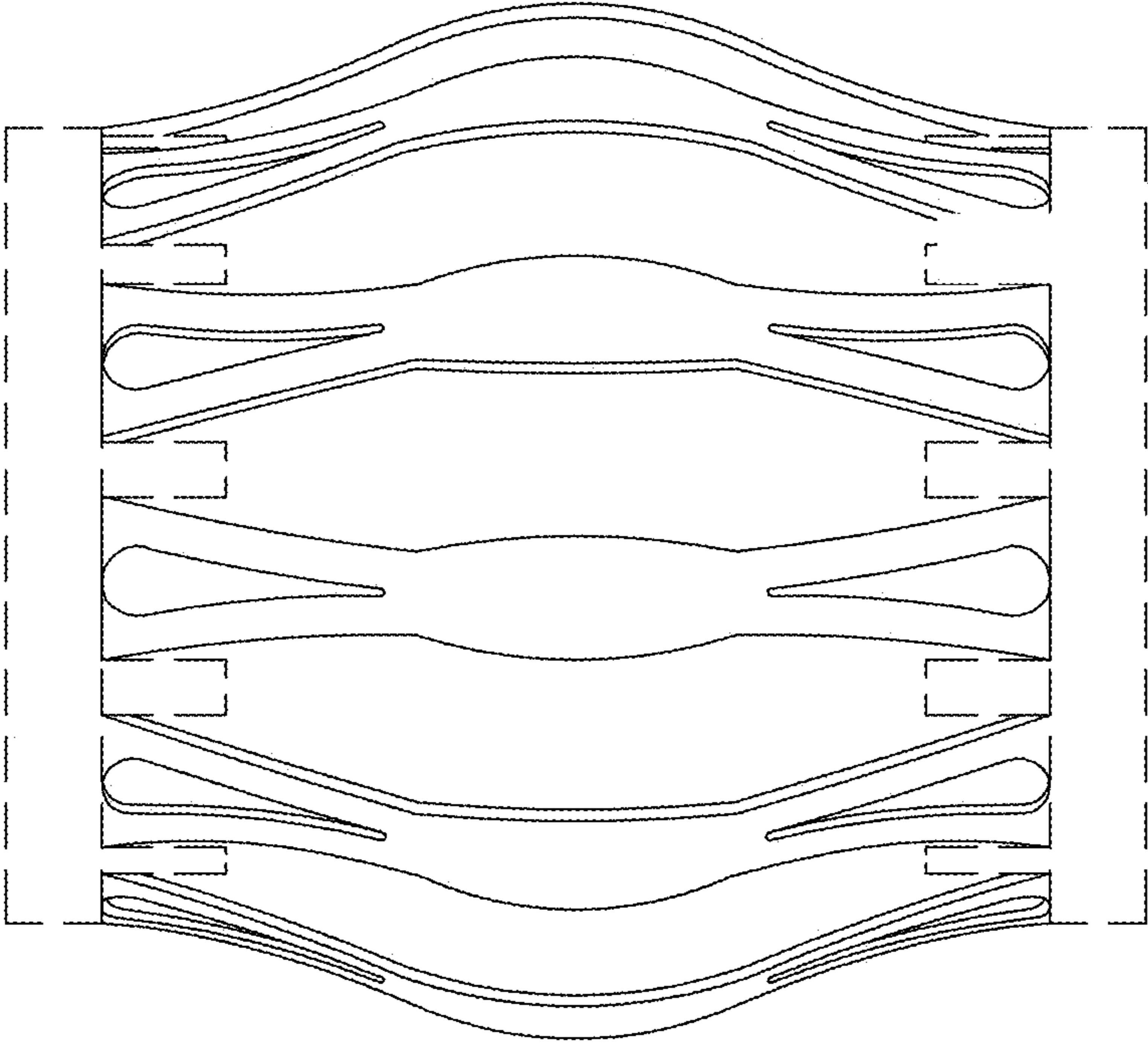


Figure 61

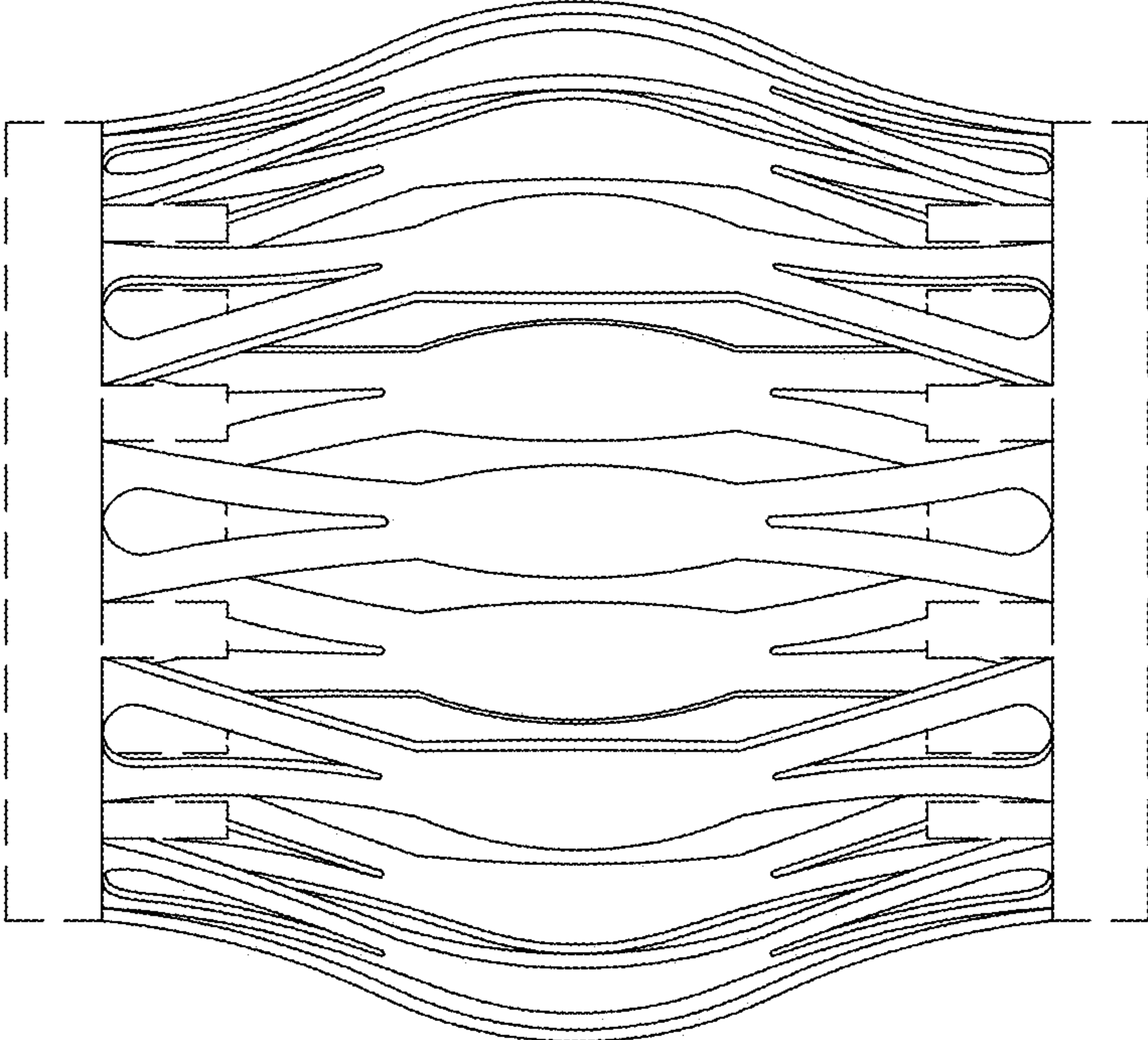


Figure 62

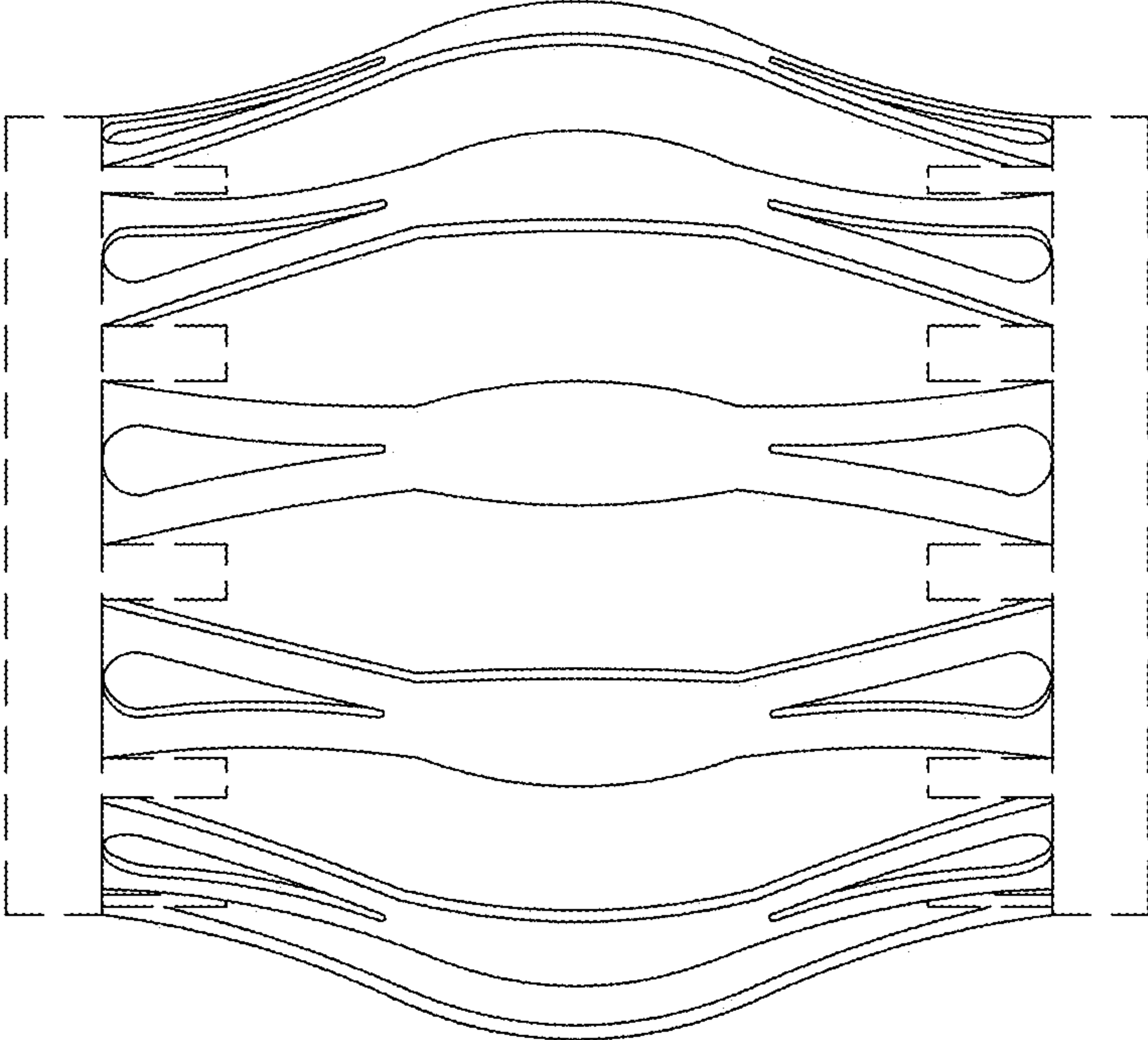


Figure 63

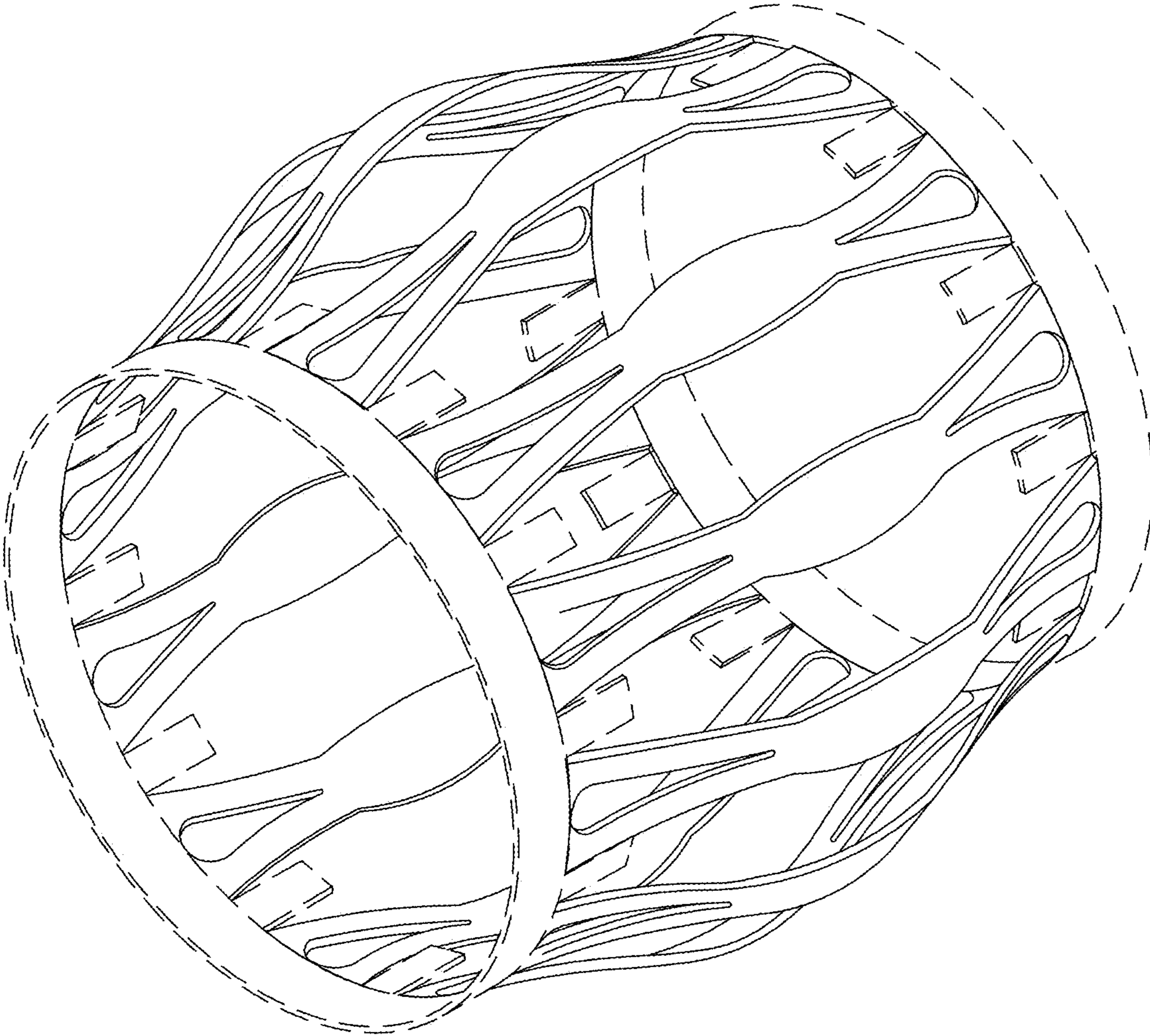


Figure 64

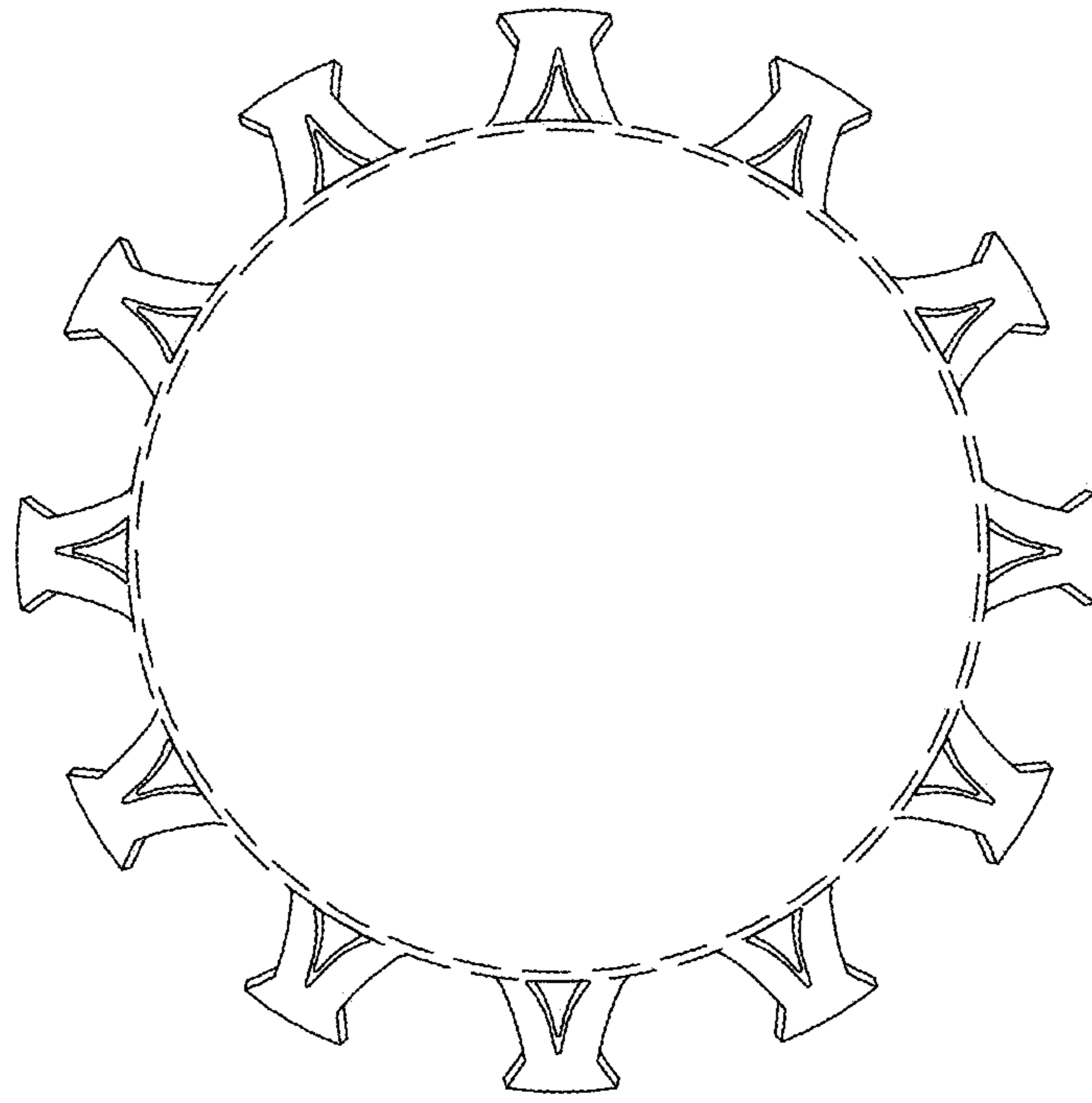


Figure 65

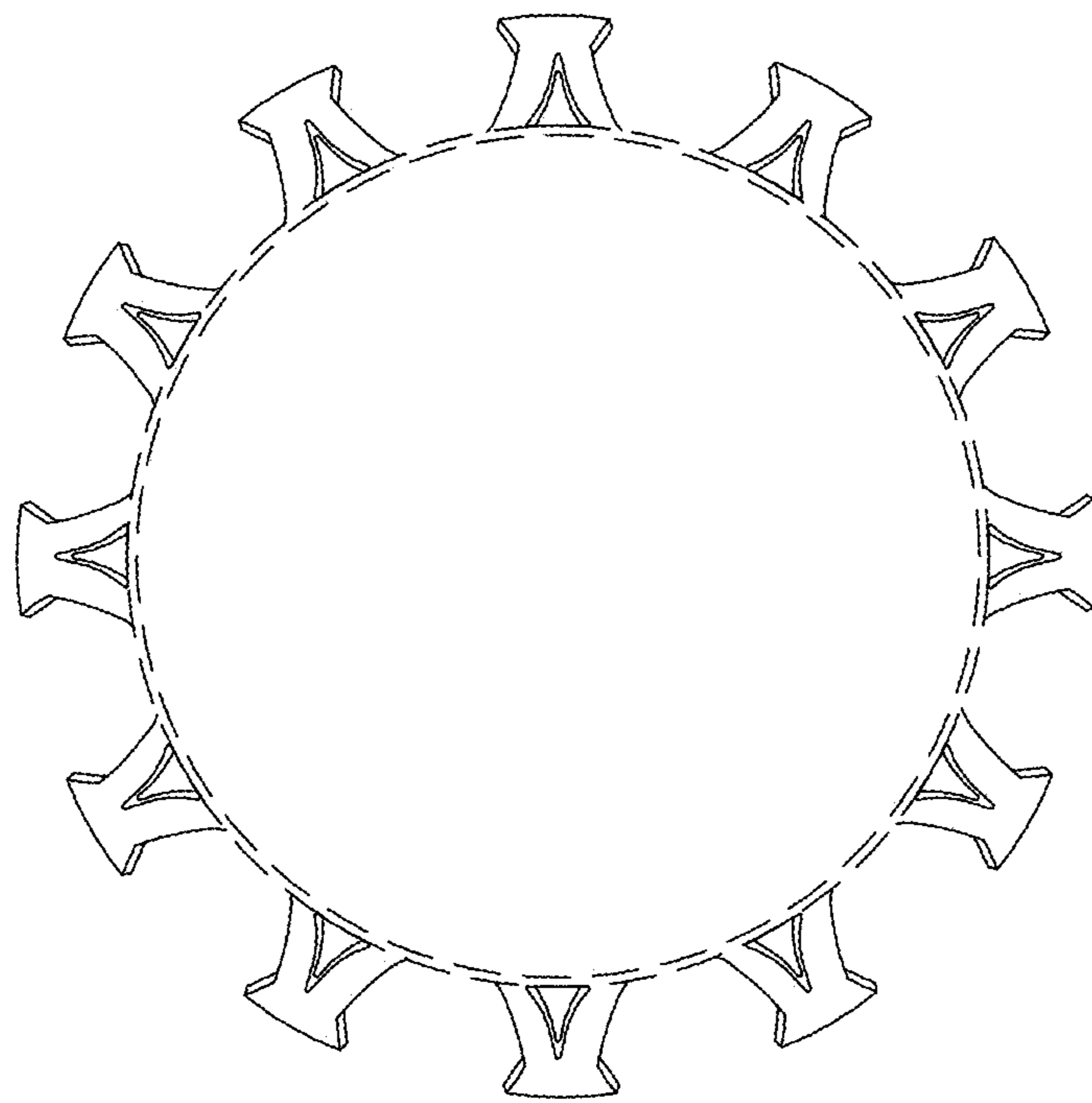


Figure 66

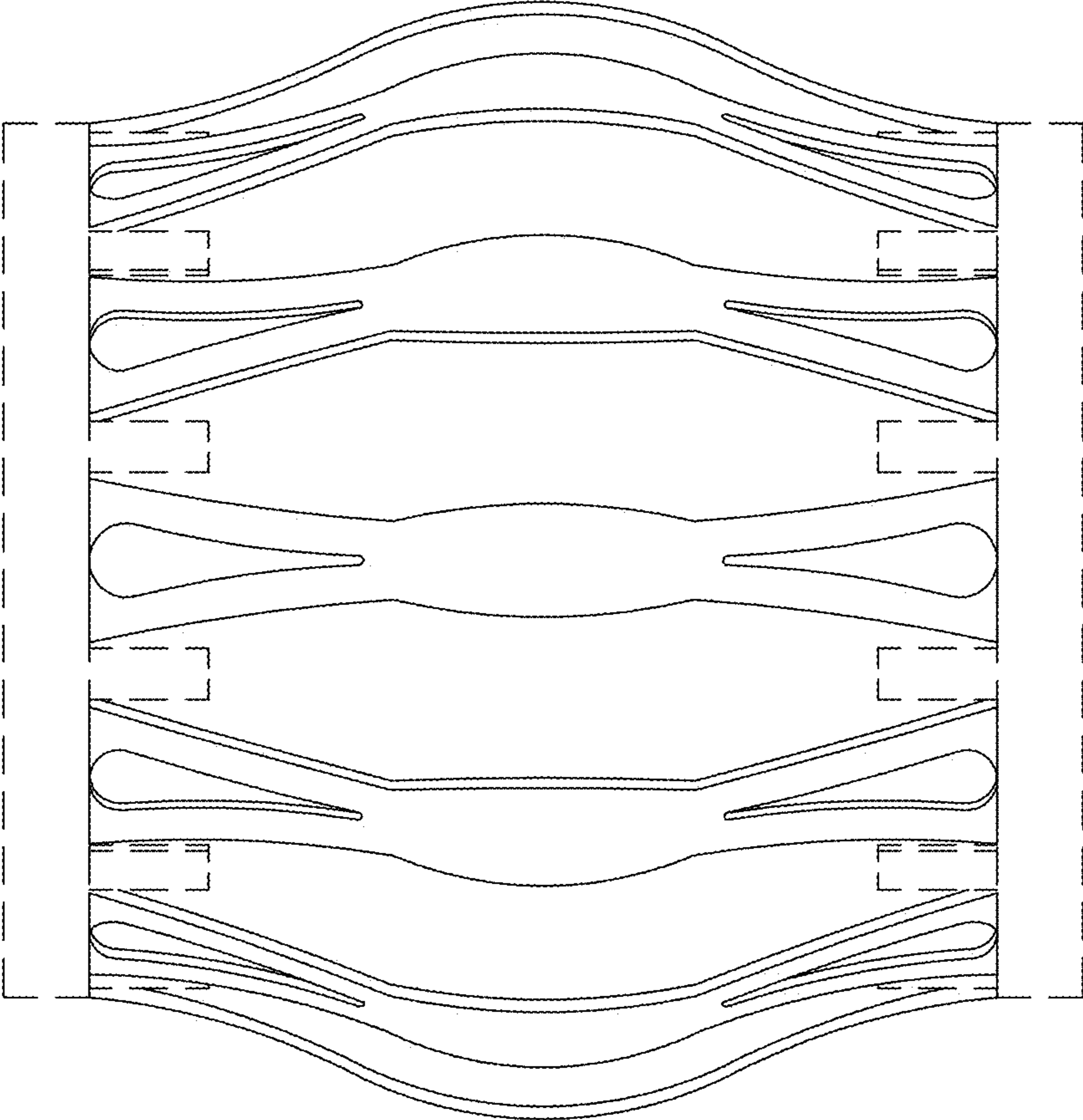


Figure 67

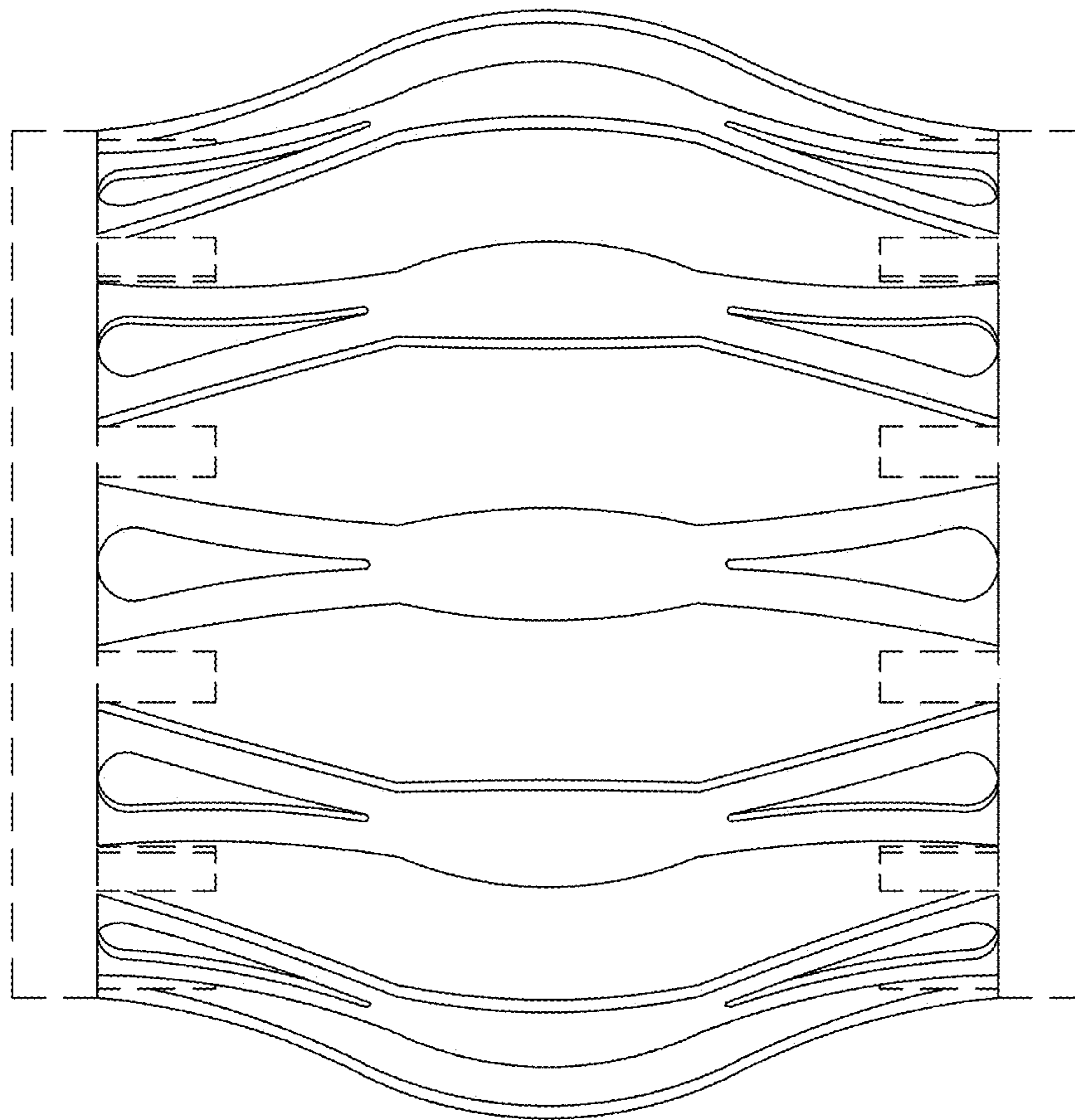


Figure 68

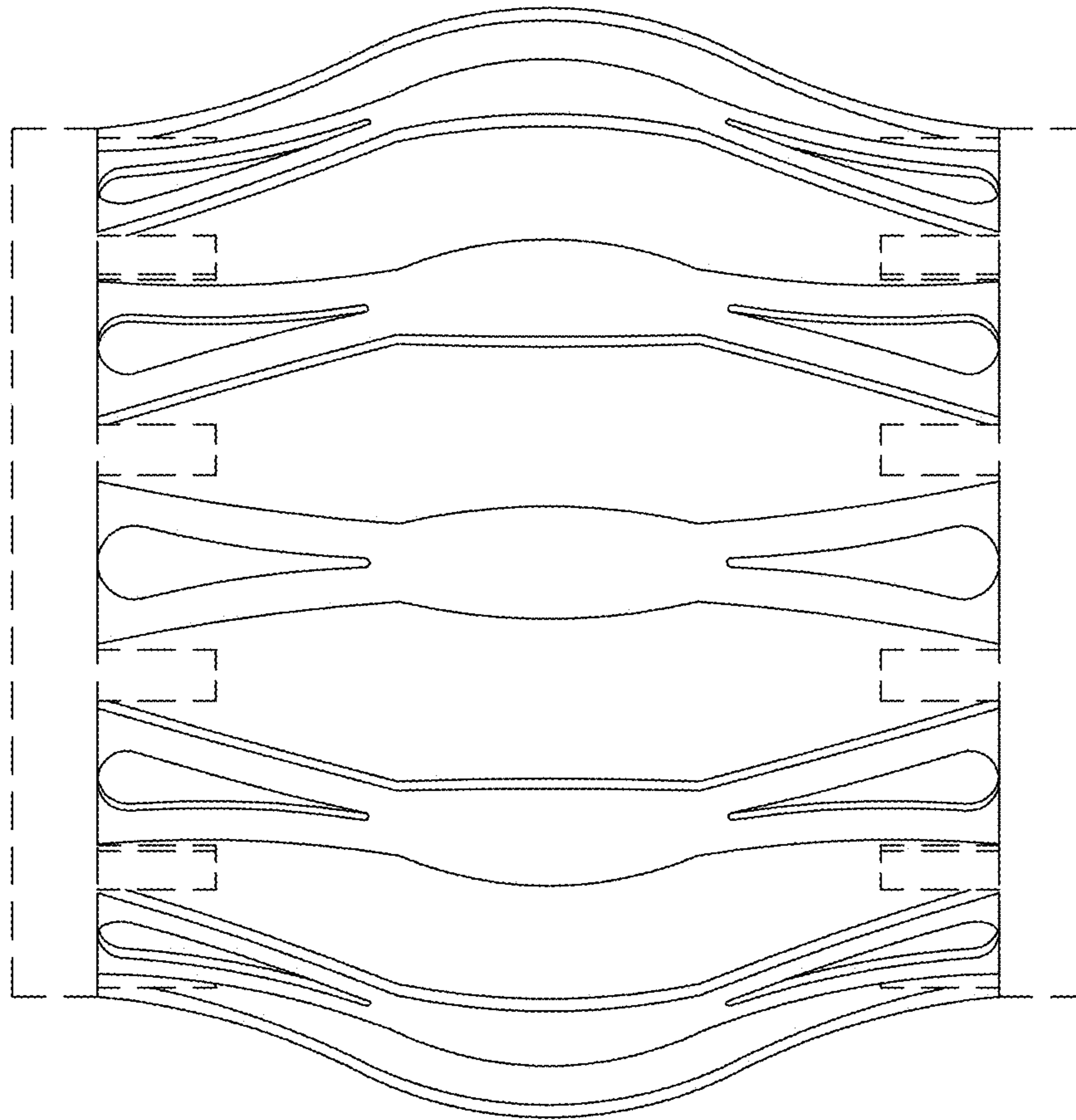


Figure 69

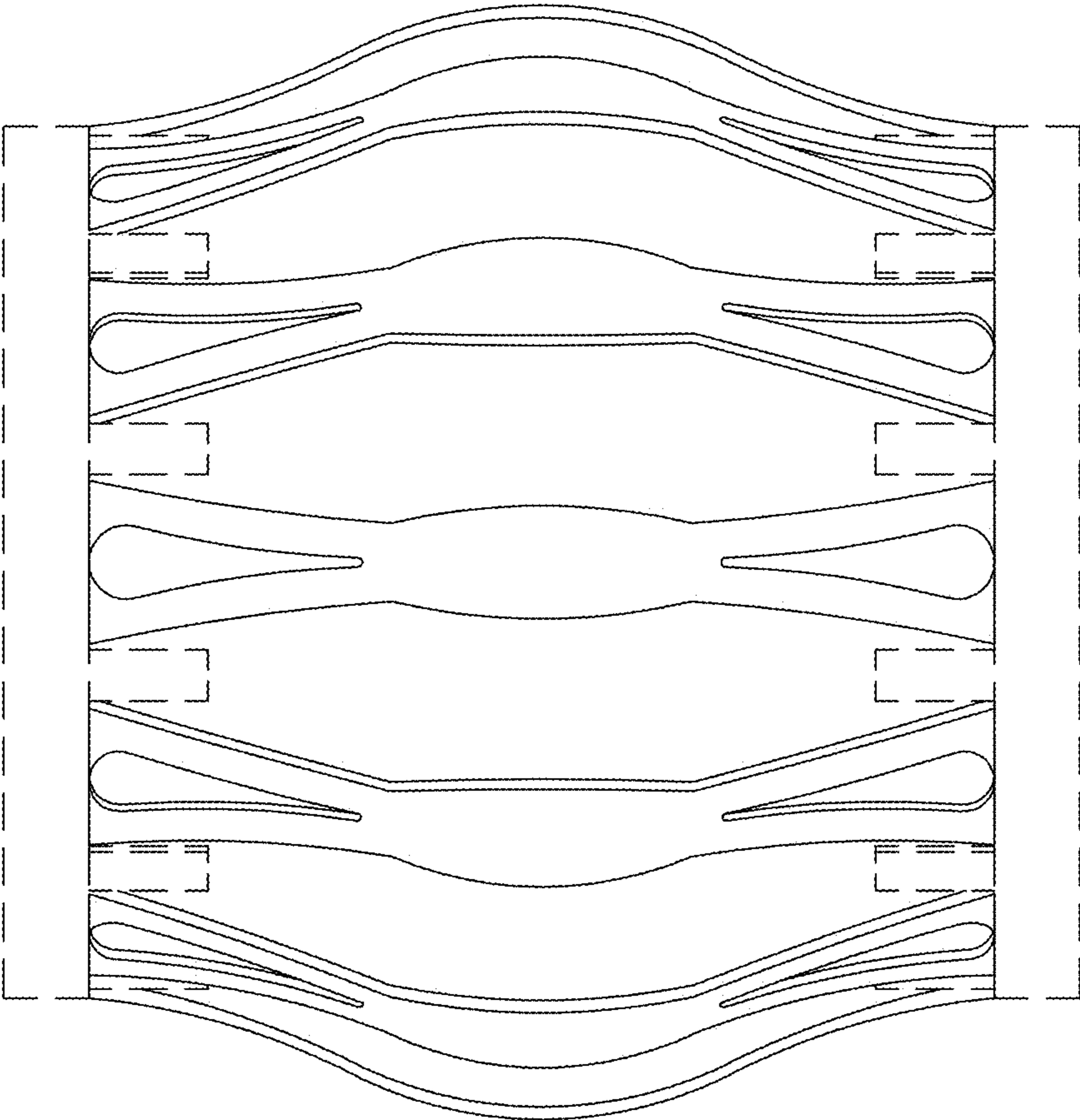


Figure 70