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

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(54) **POLYMER ACTUATOR**

7/0016; B81B 7/0019; B81B 7/0022;
B81B 7/0025; B81B 7/0029; B81B 7/00

See application file for complete search history.

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

Primary Examiner — Elizabeth J Oswecki

(21) Appl. No.: **29/638,396**

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(30) **Foreign Application Priority Data**

(57) **CLAIM**

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- Sep. 29, 2017 (JP) 2017-021537
- Sep. 29, 2017 (JP) 2017-021538
- Sep. 29, 2017 (JP) 2017-021539

The ornamental design for a polymer actuator, as shown and described.

DESCRIPTION

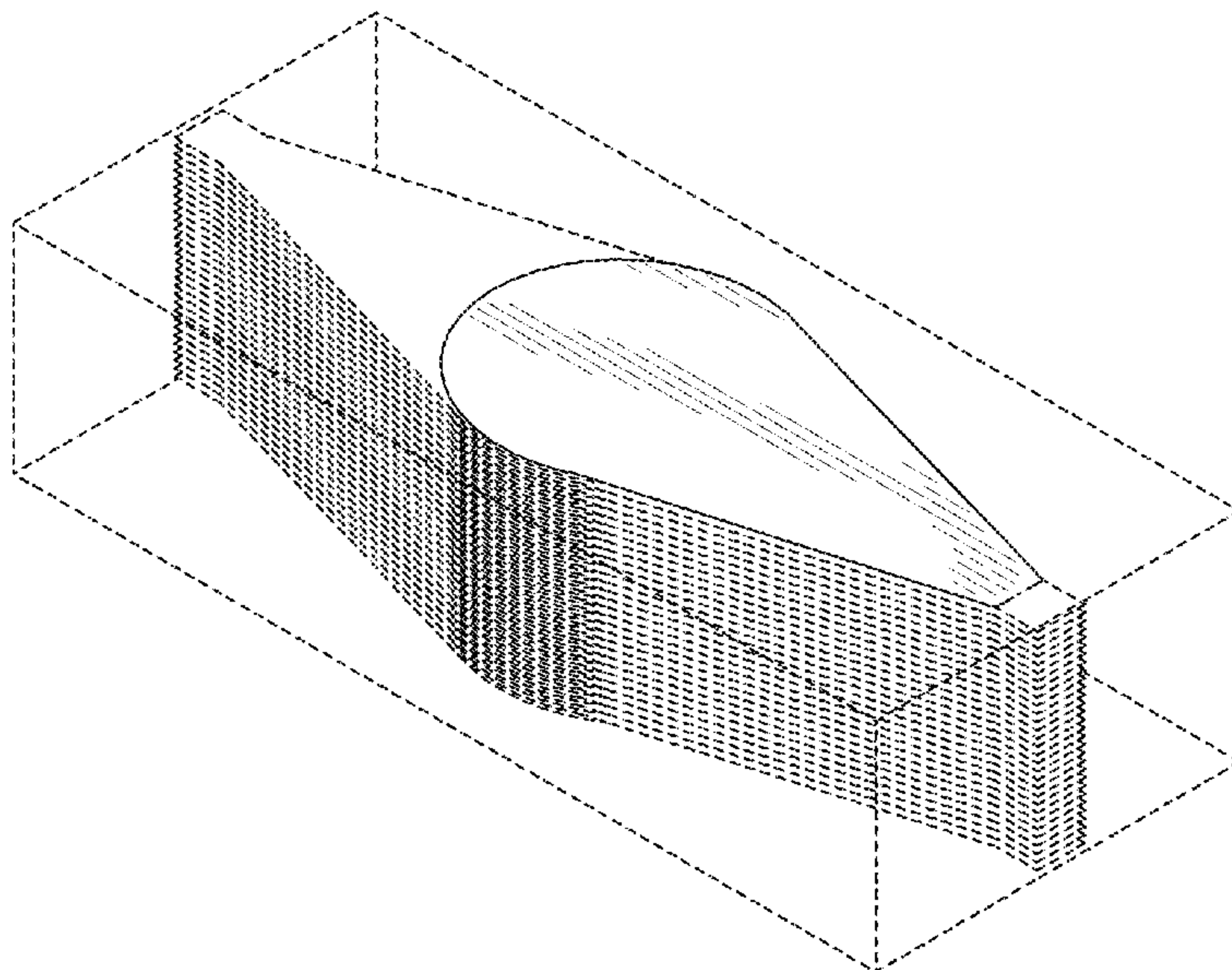
(51) **LOC (12) Cl.** **13-03**

(52) **U.S. Cl.**
USPC **D13/174; D13/101**

(58) **Field of Classification Search**
 USPC D13/101, 121, 123, 180, 182, 184, 199,
 D13/174, 110; 74/78, 77, 81, 606 R, 128,
 74/130, 141.5, 473.11, 473.12, 473.23,
 74/614, 615; 345/156; 310/300-311;
 359/224.1, 291, 295
 CPC ... H01L 41/047; H01L 41/04; H01L 41/0973;
 G02B 26/0825; B81B 3/0083; B81B
 3/0086; B81B 3/0089; B81B 3/0064;
 B81B 7/0009; B81B 7/0012; B81B

FIG. 1 is a perspective view of a polymer actuator showing our new design;
 FIG. 2 is a front view thereof;
 FIG. 3 is a rear view thereof;
 FIG. 4 is a left side view thereof;
 FIG. 5 is a right side view thereof;
 FIG. 6 is a top plan view thereof;
 FIG. 7 is a bottom plan view thereof; and,
 FIG. 8 is an exploded perspective view thereof, shown in a used condition with polymer thin film shown in broken lines. The broken lines shown in the drawings form no part of the claimed design.
 The dash-dot lines represent only the boundary between the claimed design and the unclaimed environment.

1 Claim, 8 Drawing Sheets



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FIG. 1

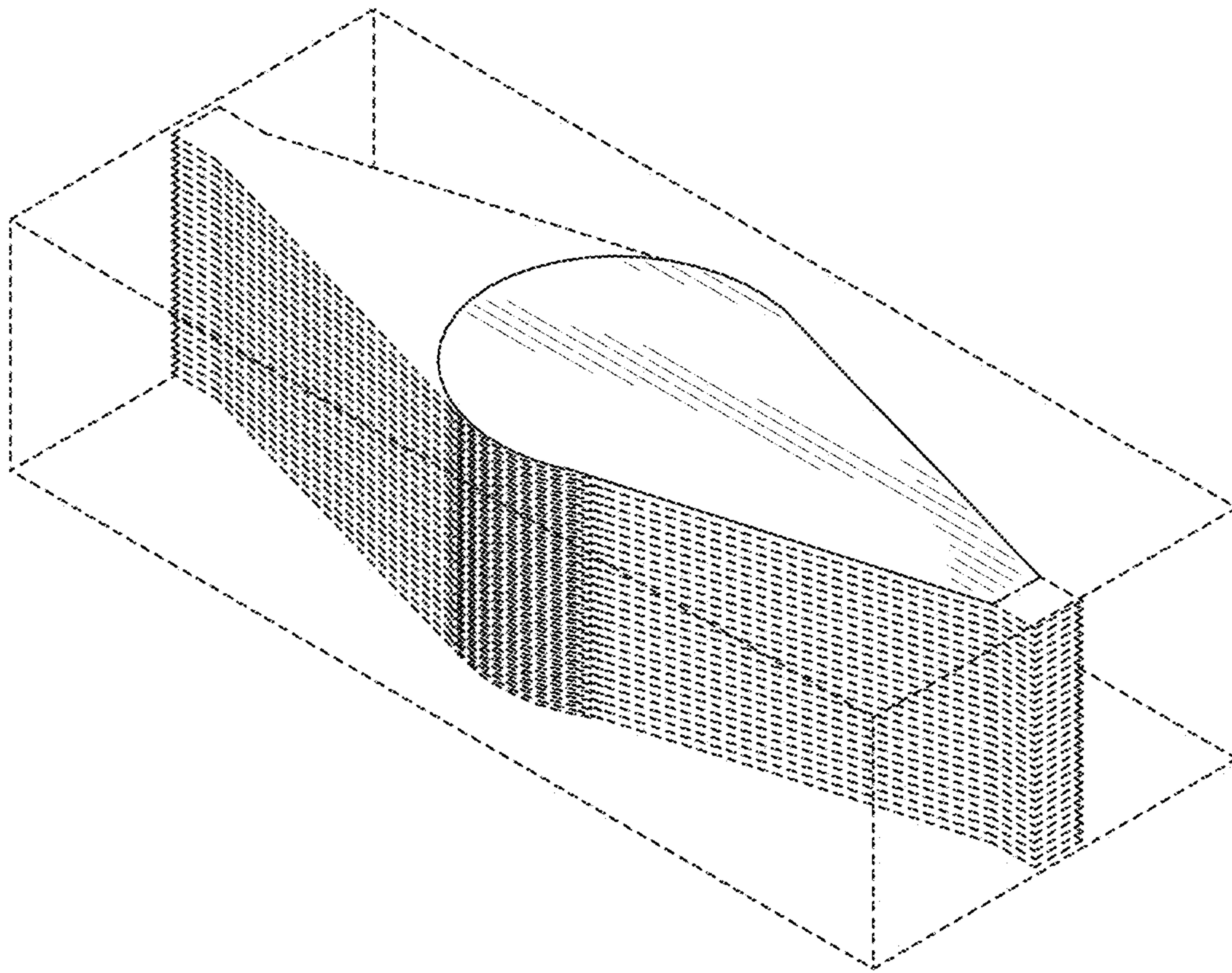


FIG. 2

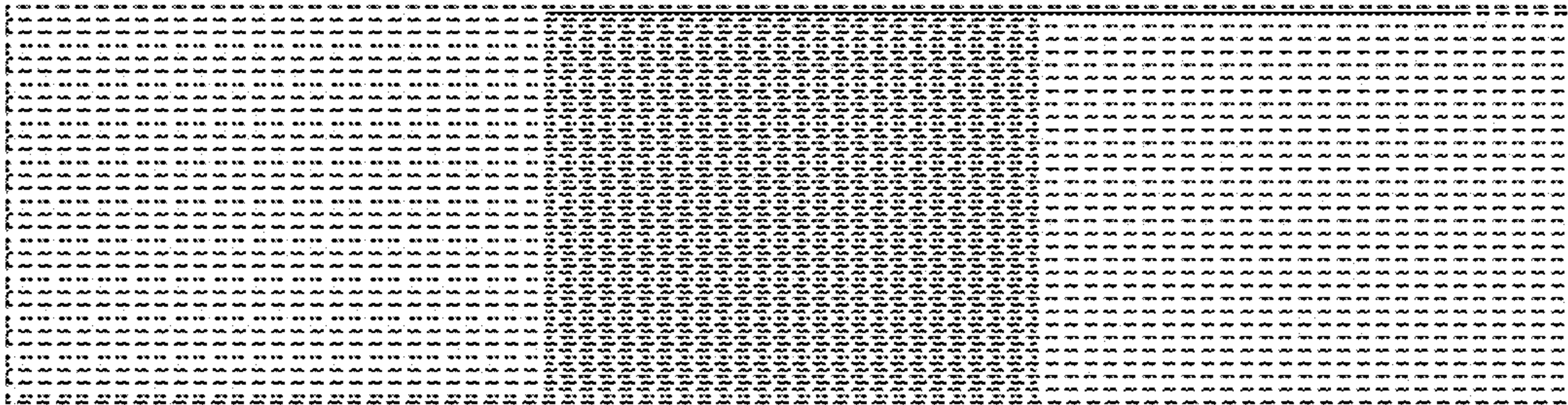


FIG. 3

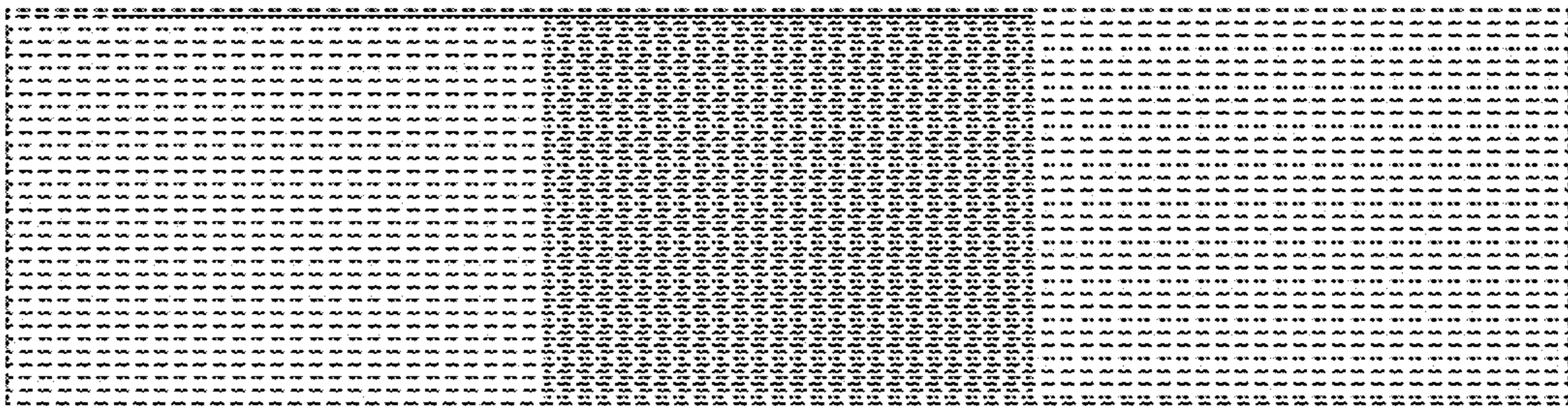


FIG. 4

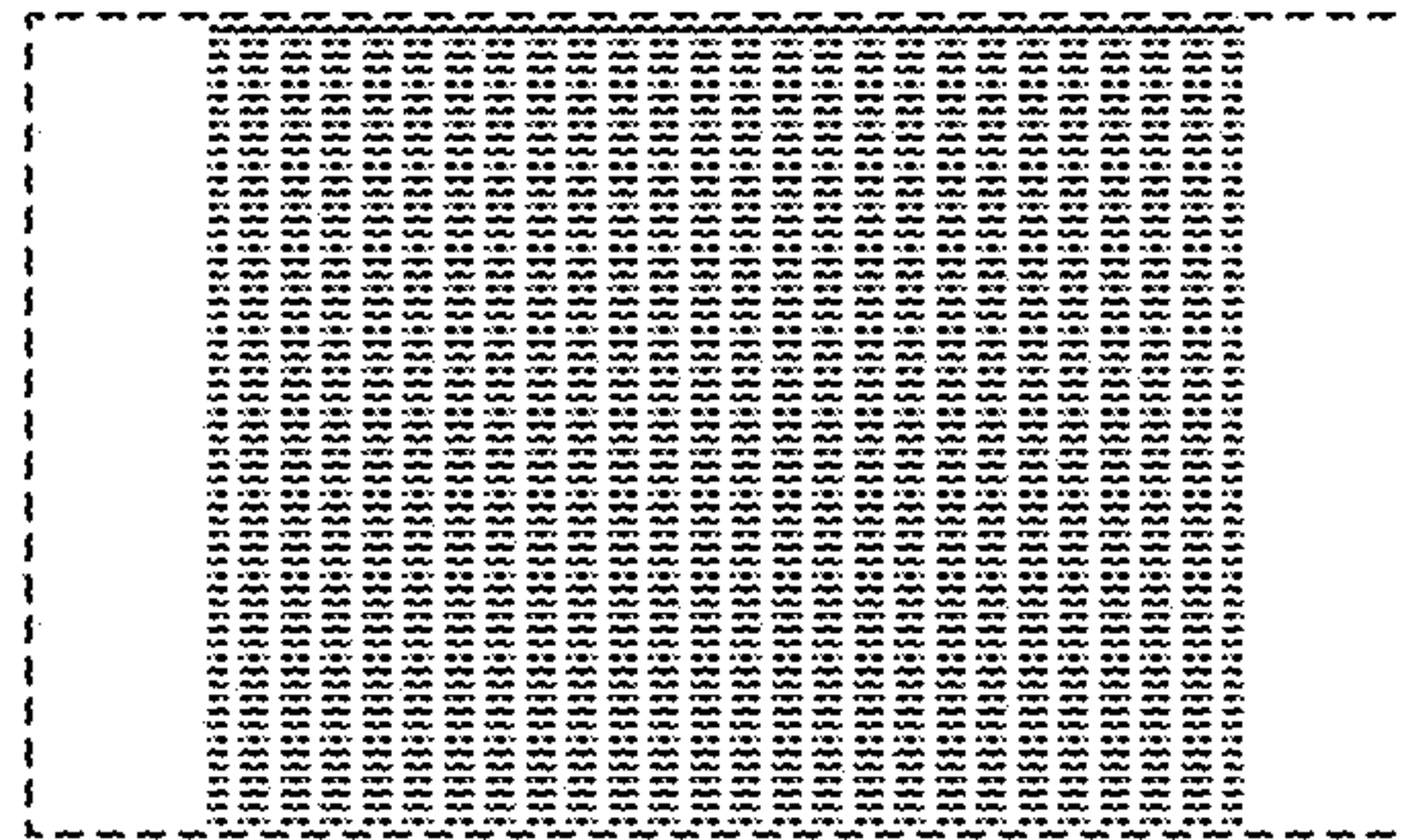


FIG. 5

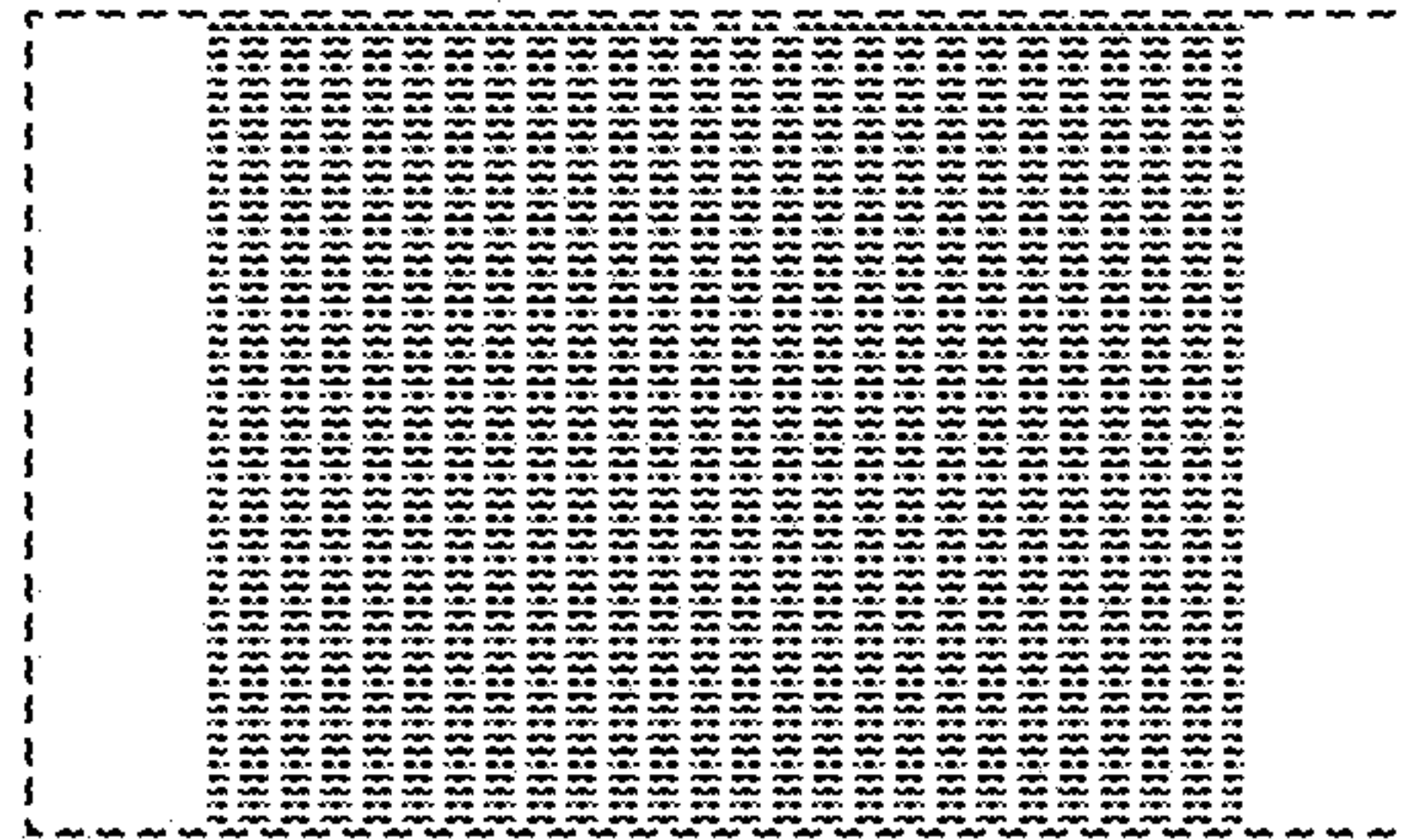


FIG. 6

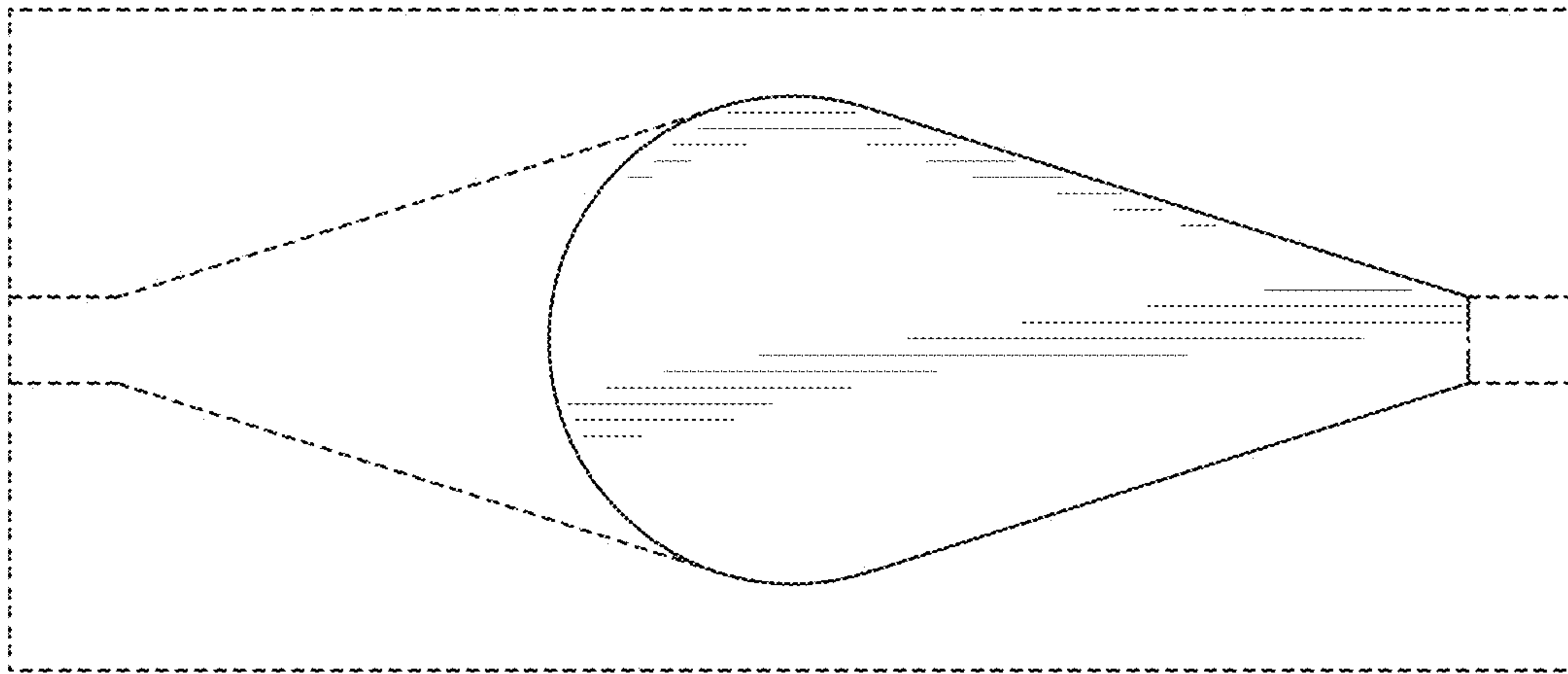


FIG. 7

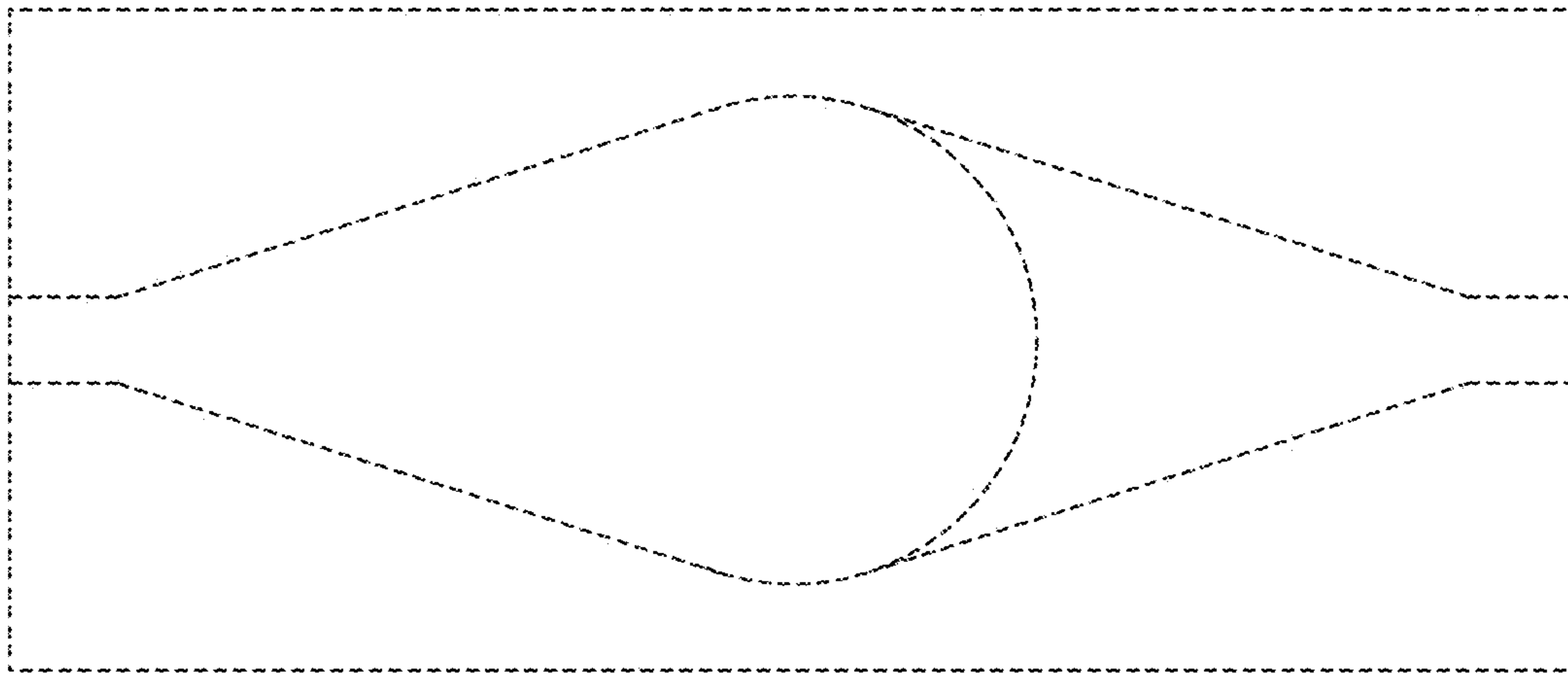


FIG. 8

