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

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(45) **Date of Patent:** **** Jul. 31, 2018**

(54) **LED CHIP**

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

(21) Appl. No.: **29/589,383**

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(30) **Foreign Application Priority Data**

Jul. 27, 2016 (CN) 2016 3 0349617

(51) **LOC (11) Cl.** **13-03**

(52) **U.S. Cl.**
USPC **D13/180**

(58) **Field of Classification Search**

USPC D13/180; D26/1
CPC ... H01L 25/167; H01L 25/0753; H01L 27/15;
H01L 27/156; H01L 31/02; H01L 33/00;
H01L 33/04; H01L 33/08; H01L 33/10;

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Primary Examiner — Selina Sikder

(74) *Attorney, Agent, or Firm* — Merchant & Gould P.C.

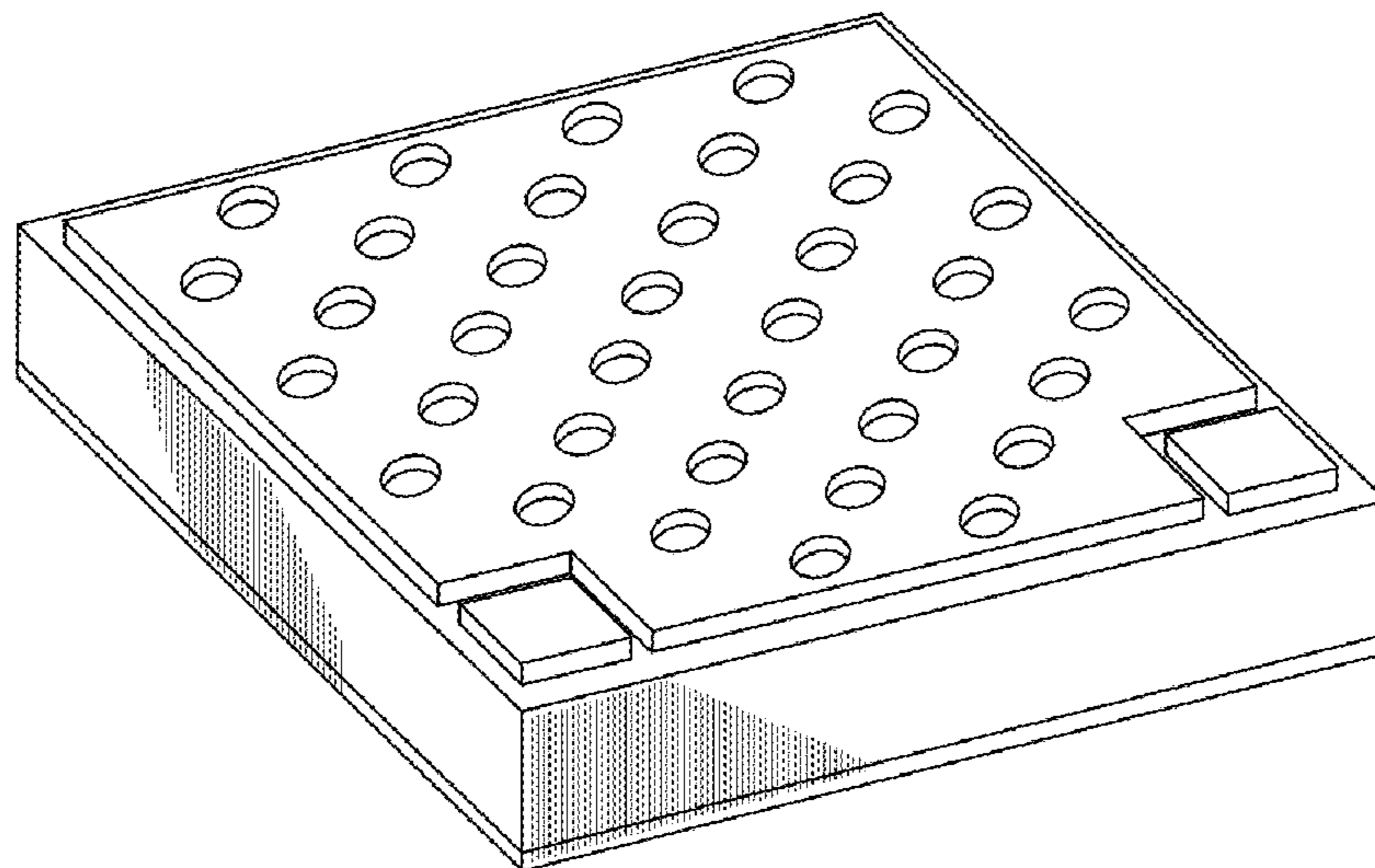
(57) **CLAIM**

The ornamental design for an LED chip, as shown and described.

DESCRIPTION

FIG. 1 is a 3D view of a LED chip according to a first embodiment of the present disclosure, in which the light emitting layer is provided with multiple holes penetrating through the light emitting layer and exposing the substrate; FIG. 2 is another 3D view of the LED chip according to the first embodiment of the present disclosure; FIG. 3 is a top view of the LED chip according to the first embodiment of the present disclosure; FIG. 4 is a left-side view of the LED chip according to the first embodiment of the present disclosure; FIG. 5 is a right-side view of the LED chip according to the first embodiment of the present disclosure; FIG. 6 is a front-side view of the LED chip according to the first embodiment of the present disclosure; FIG. 7 is a rear-side view of the LED chip according to the first embodiment of the present disclosure; FIG. 8 is a bottom view of the LED chip according to the first embodiment of the present disclosure; FIG. 9 is a 3D view of a LED chip according to a second embodiment of the present disclosure; FIG. 10 is another 3D view of the LED chip according to a second embodiment of the present disclosure; FIG. 11 is a top view of the LED chip according to a second embodiment of the present disclosure; FIG. 12 is a cross-sectional view of the LED chip along line 12-12 in FIG. 11; FIG. 13 is a left-side view of the LED chip according to a second embodiment of the present disclosure; FIG. 14 is a right-side view of the LED chip according to a second embodiment of the present disclosure; FIG. 15 is a front-side view of the LED chip according to a second embodiment of the present disclosure; FIG. 16 is a rear-side view of the LED chip according to a second embodiment of the present disclosure; and, FIG. 17 is a bottom view of the LED chip according to a second embodiment of the present disclosure.

1 Claim, 8 Drawing Sheets



(58) **Field of Classification Search**

CPC H01L 33/20; H01L 33/38; H01L 33/42;
H01L 33/48; H01L 33/483; H01L 33/486
See application file for complete search history.

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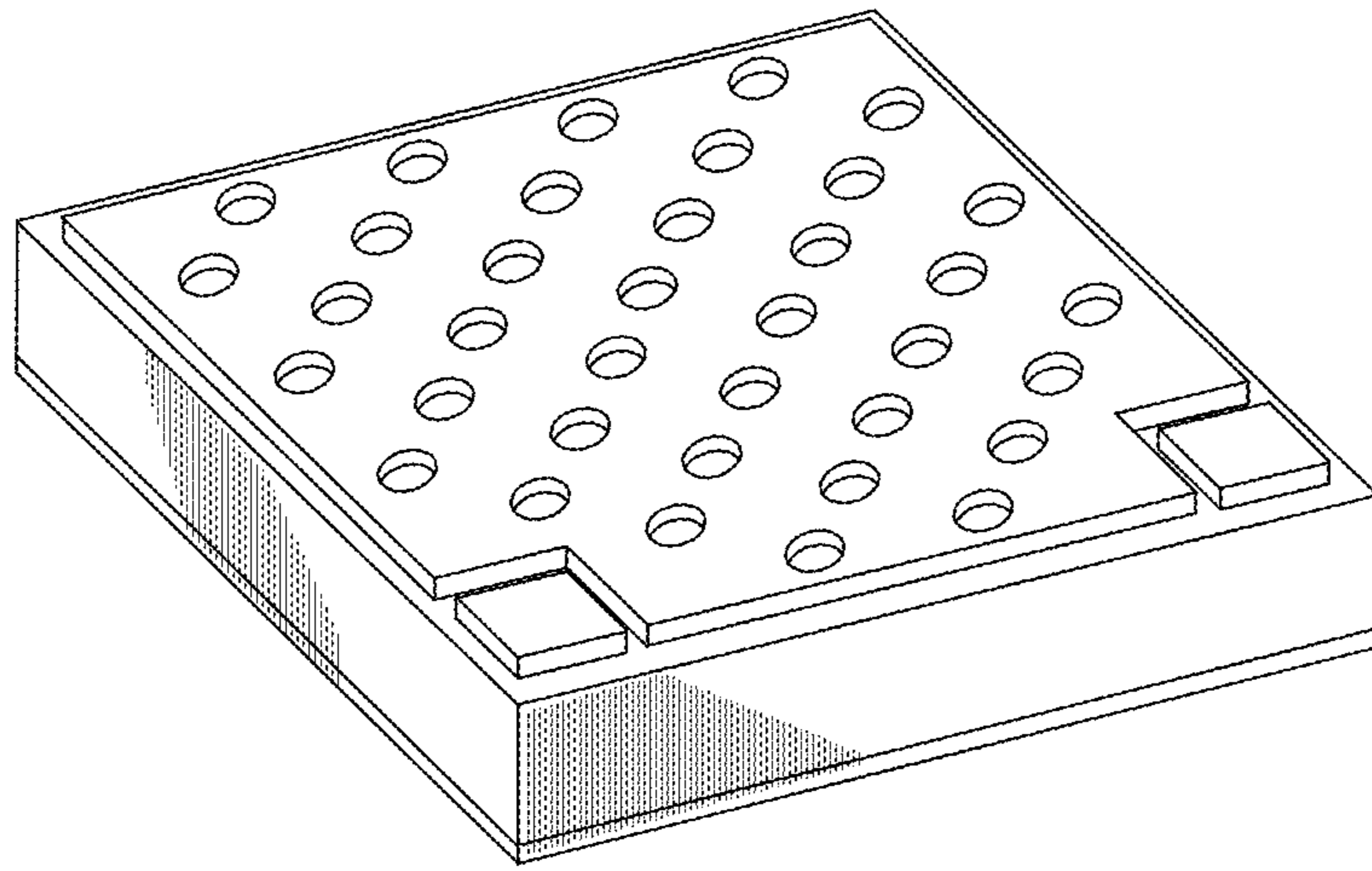


FIG. 1

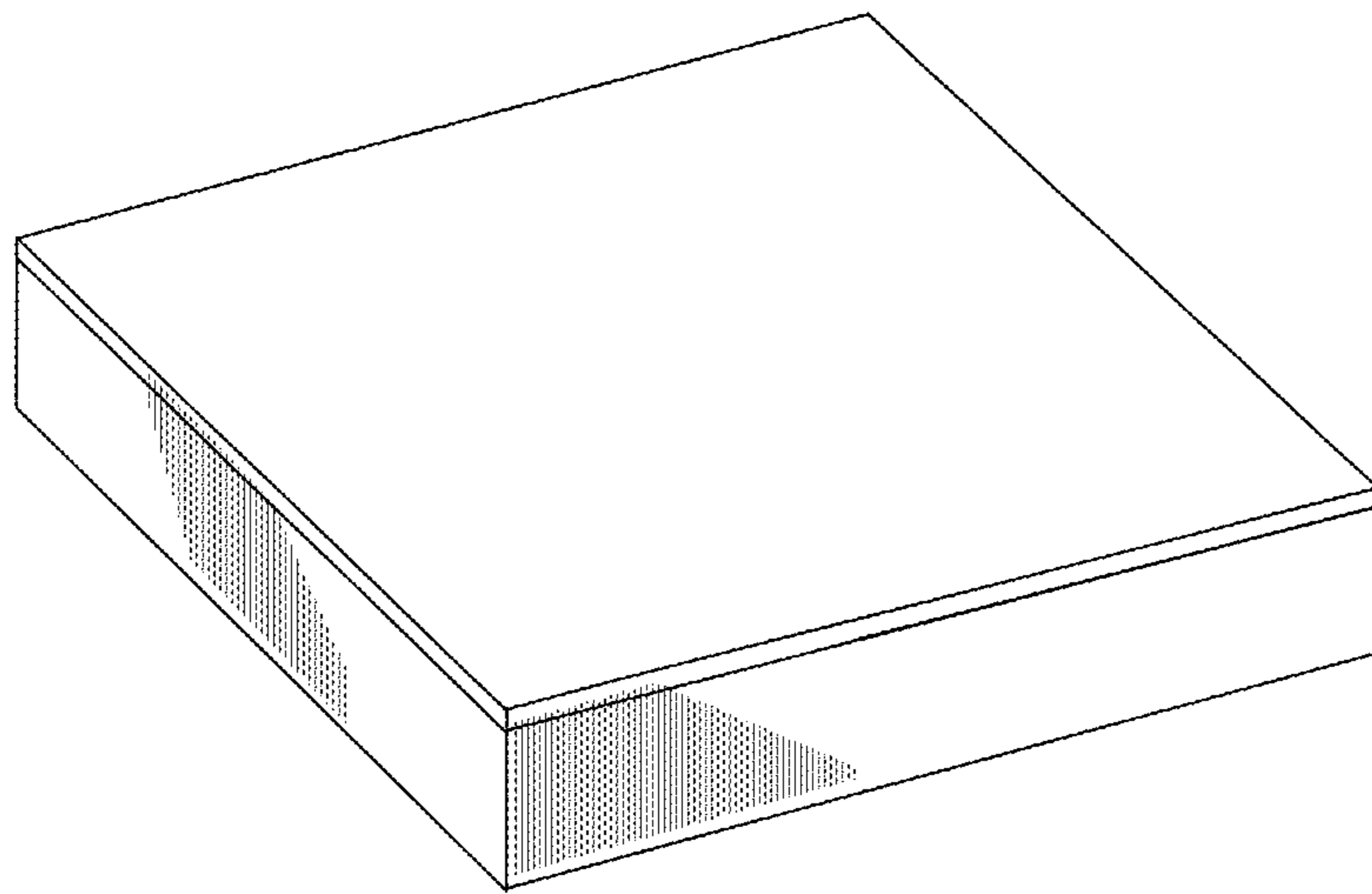


FIG. 2

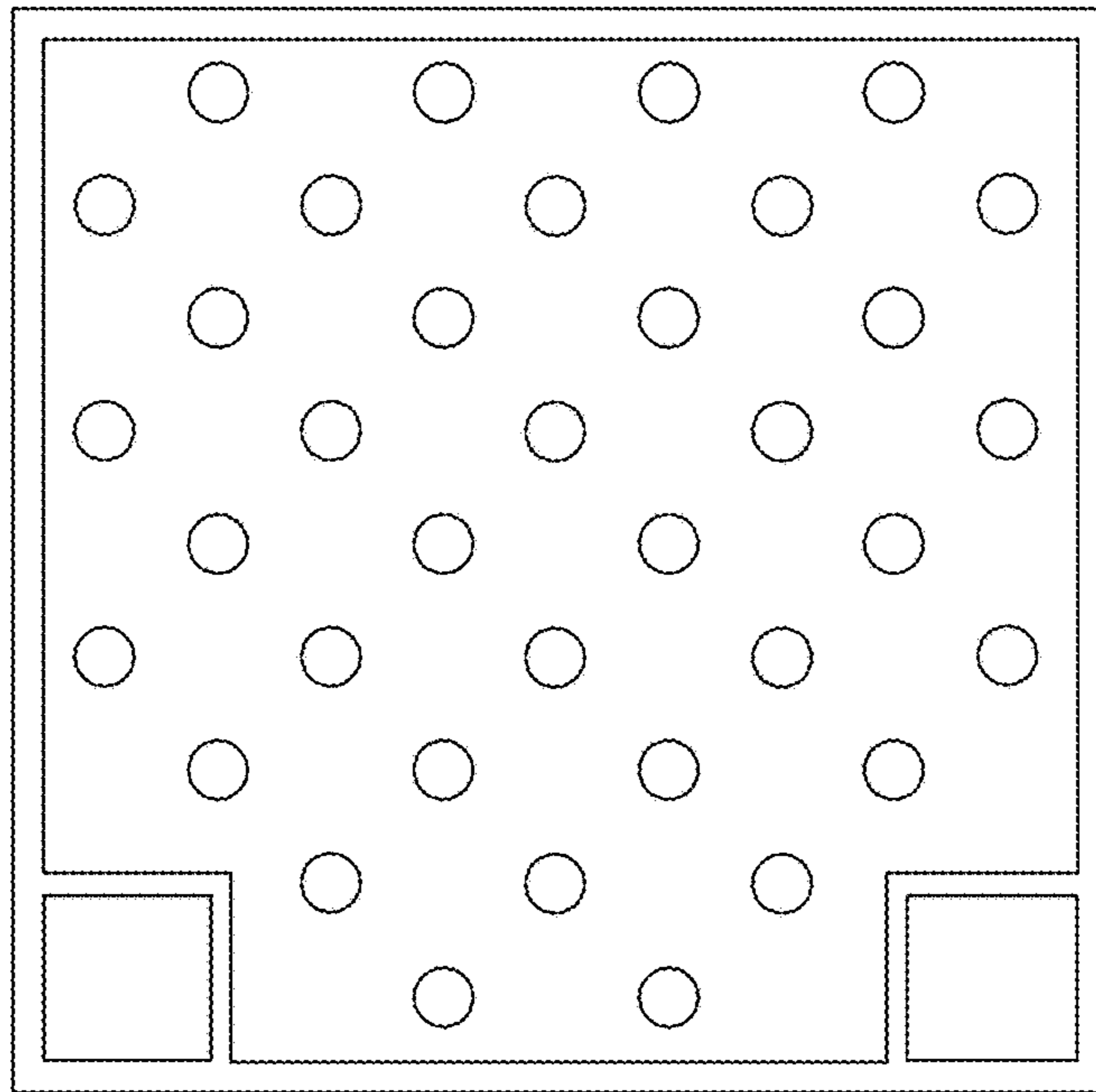


FIG. 3

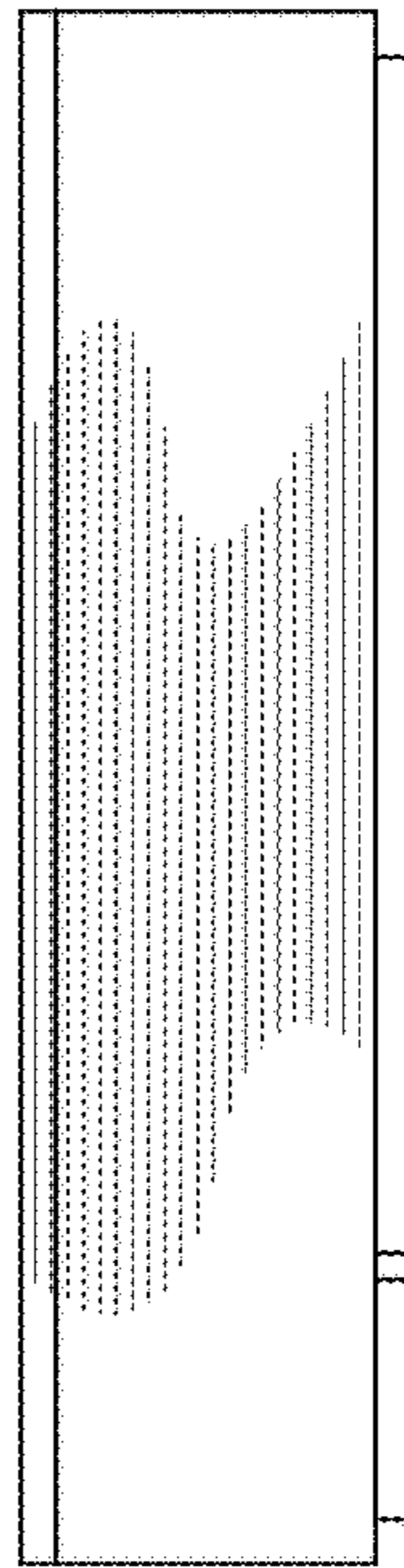


FIG. 4

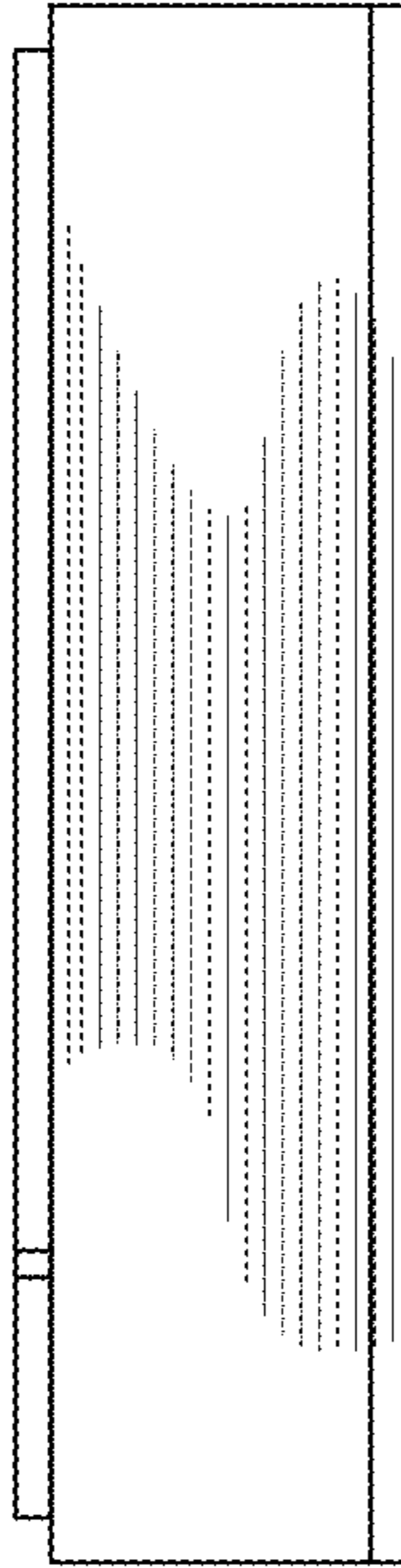


FIG. 5

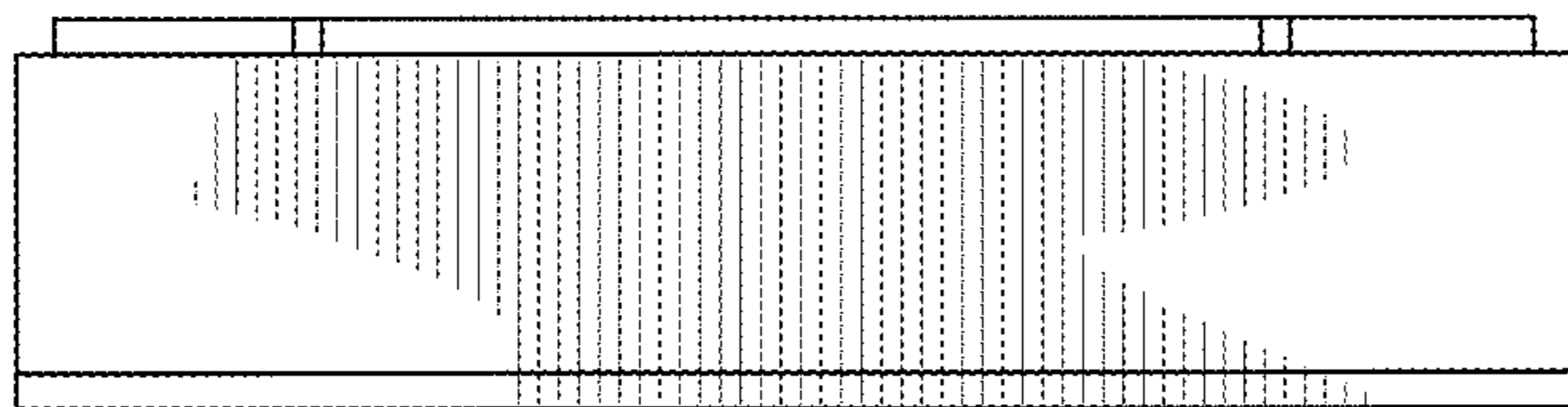


FIG. 6

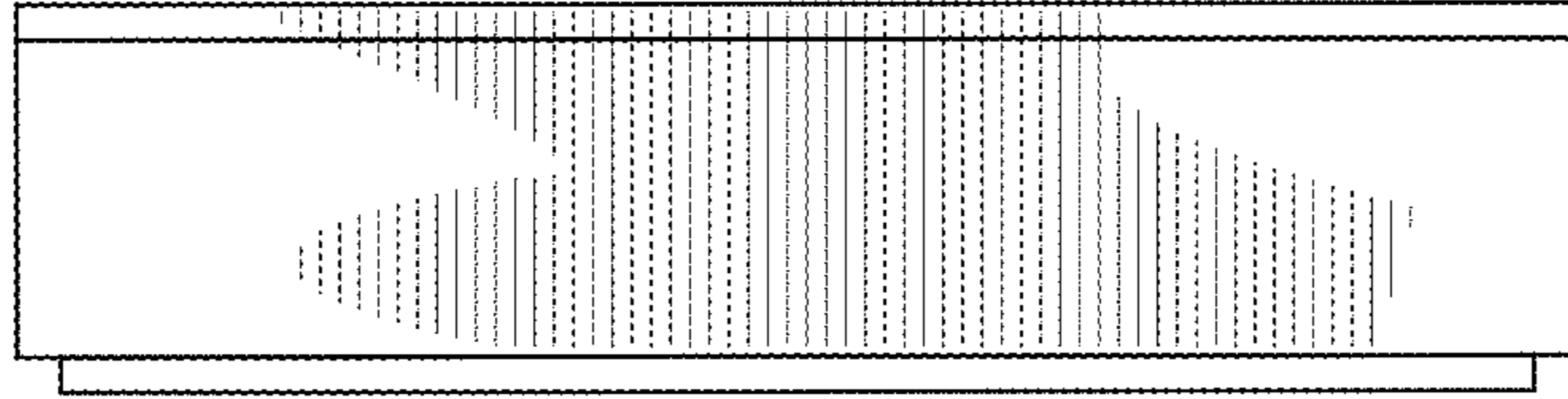


FIG. 7

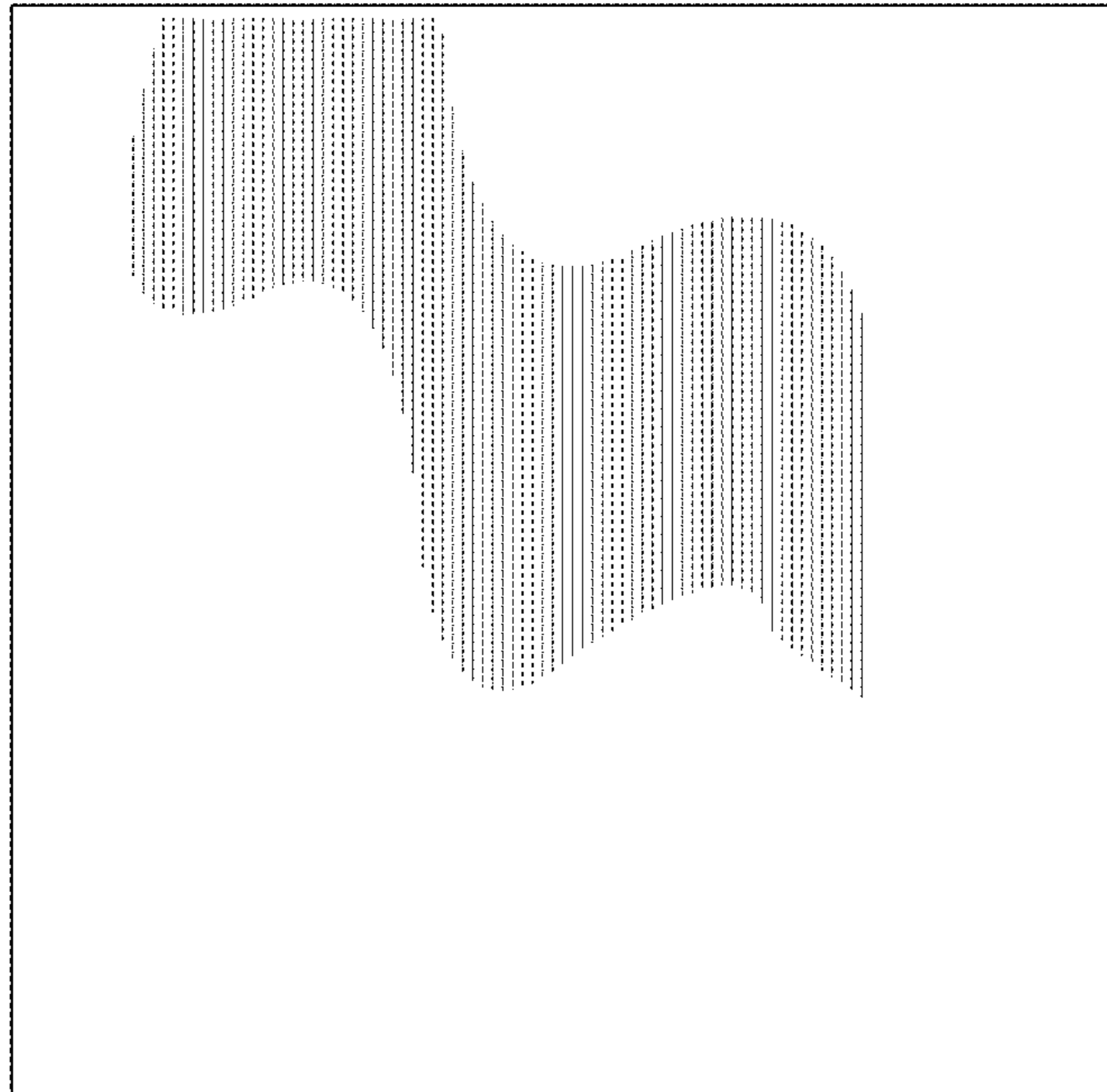


FIG. 8

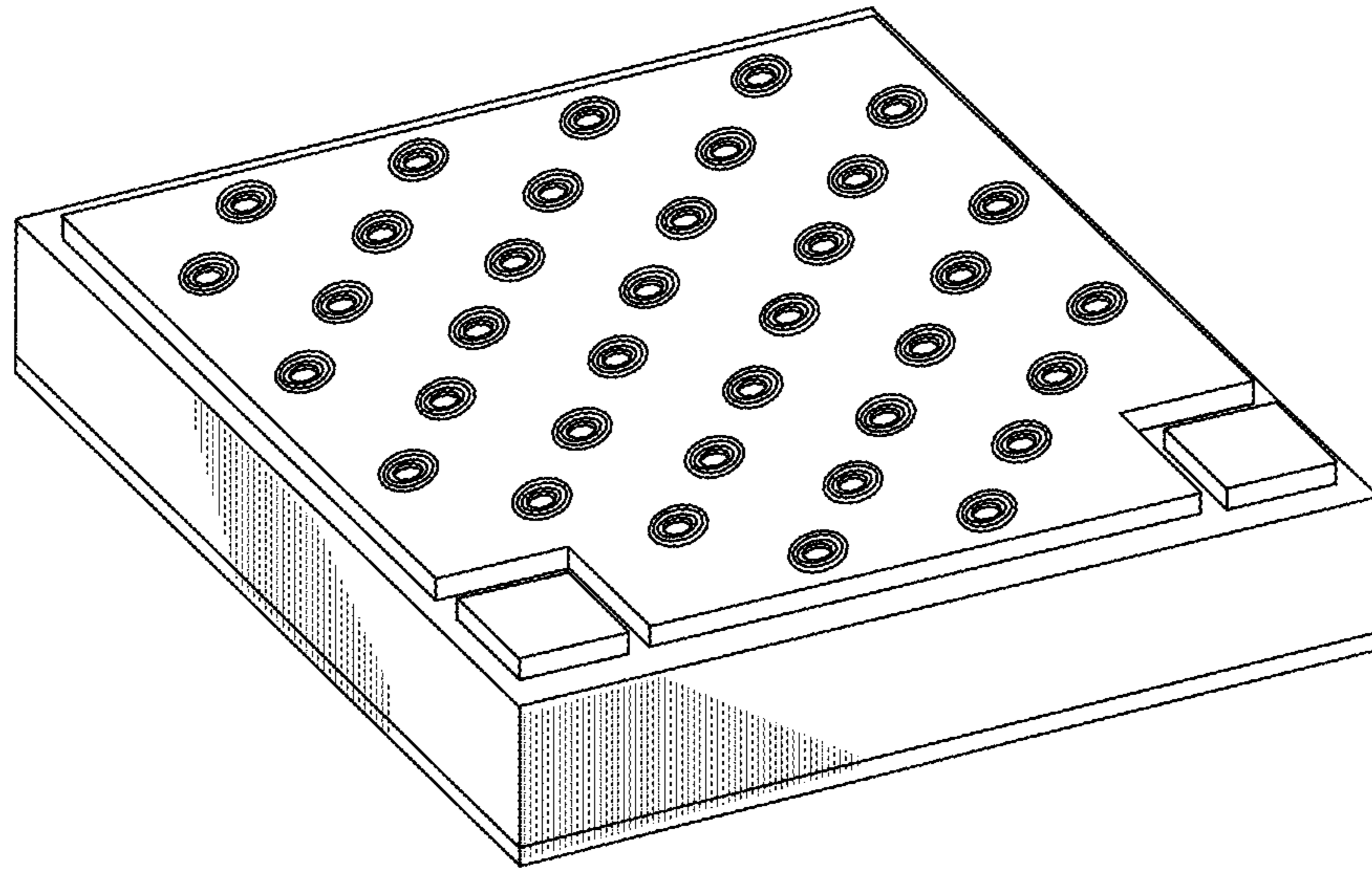


FIG. 9

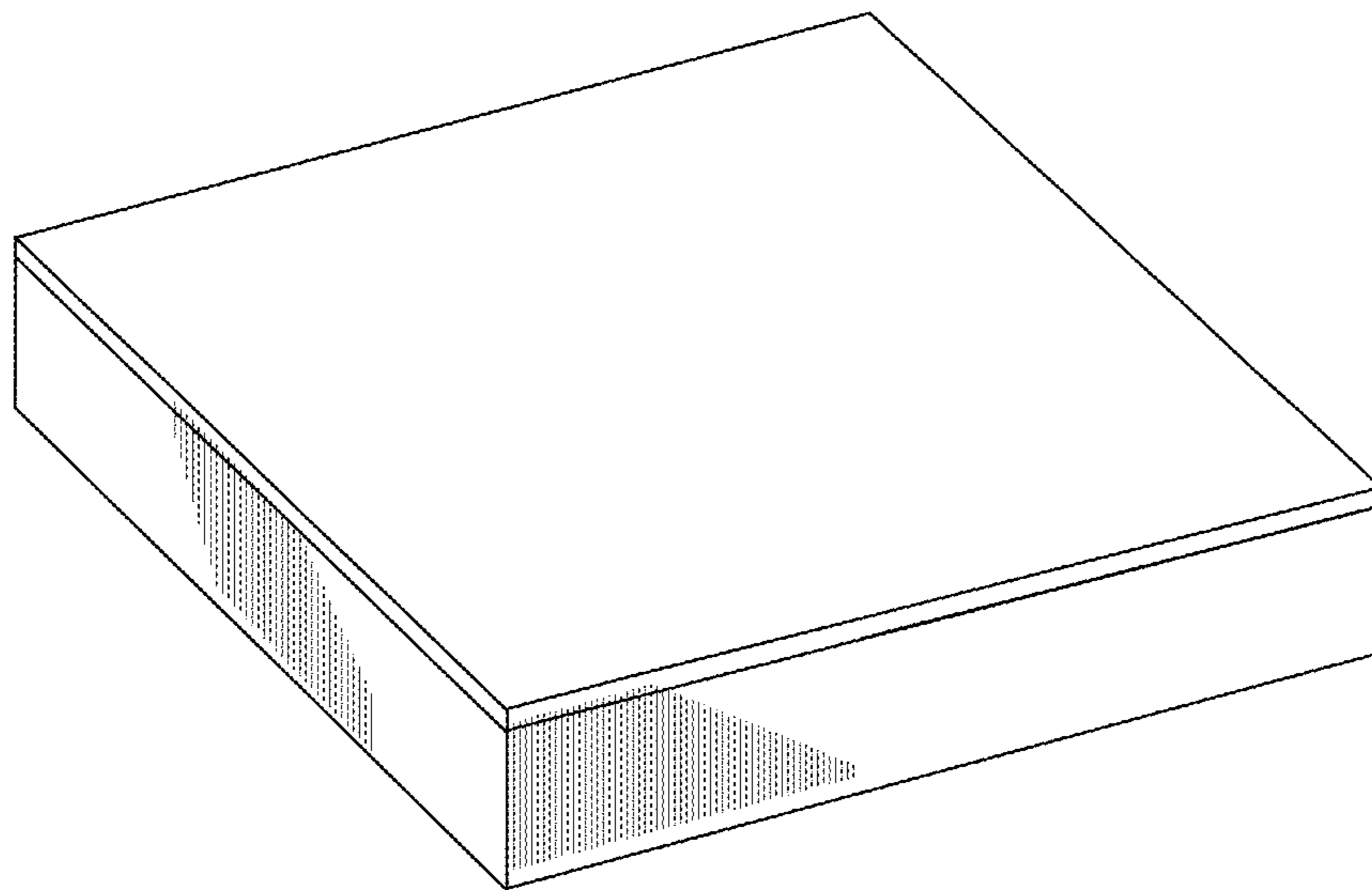


FIG. 10

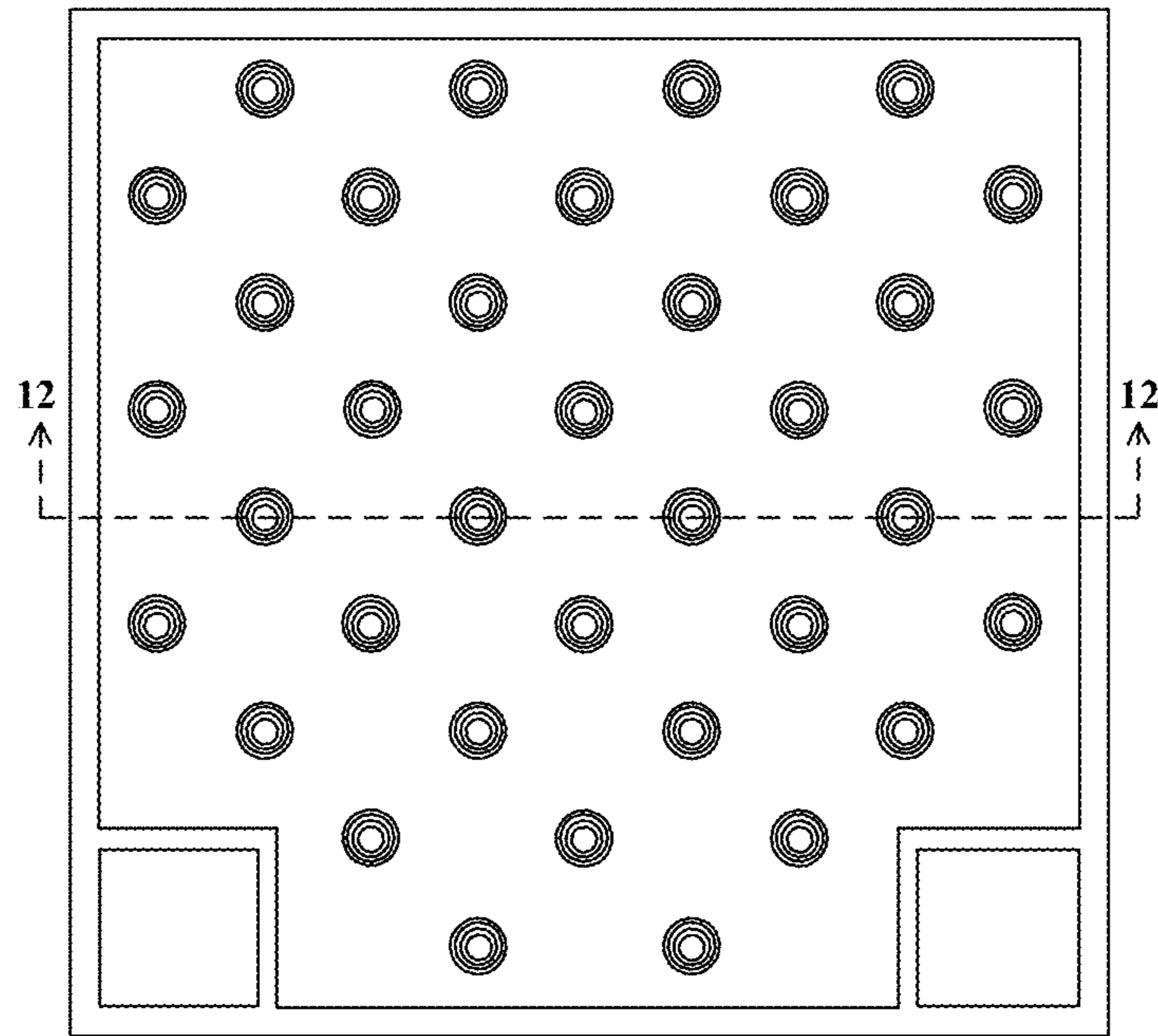


FIG. 11

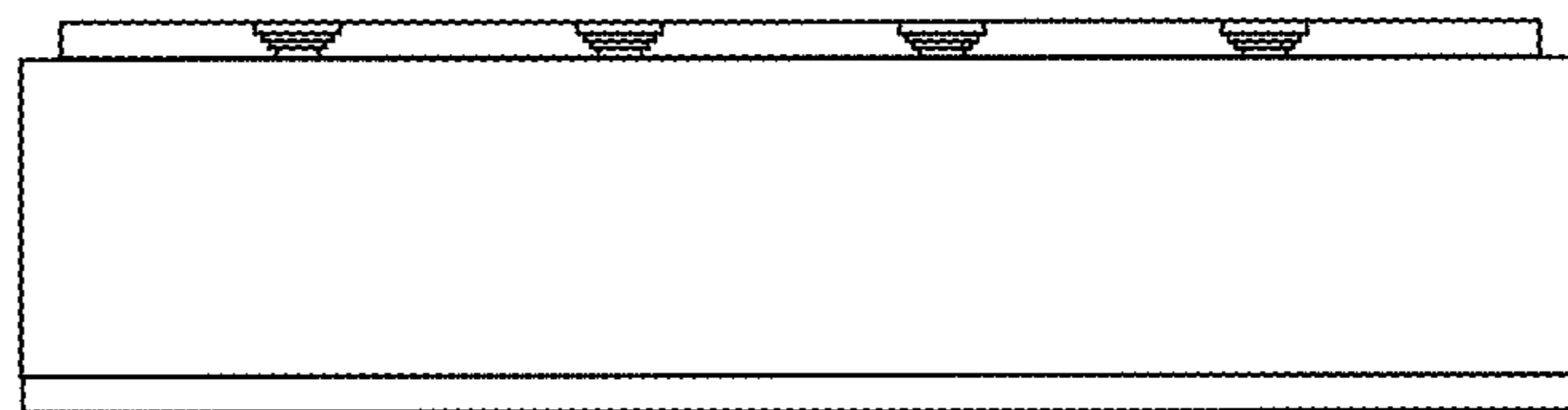


FIG. 12

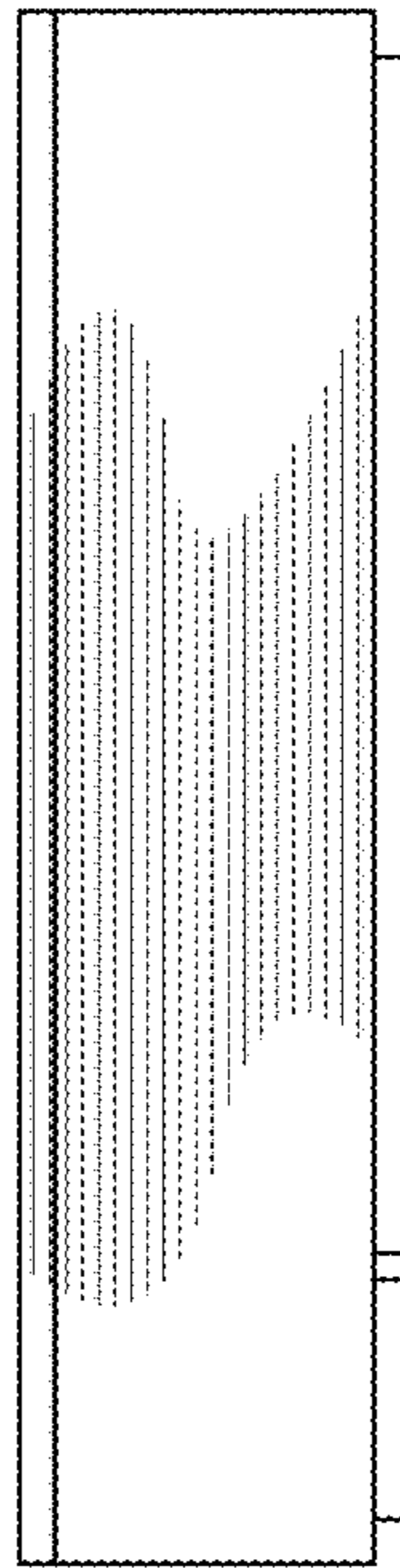


FIG. 13

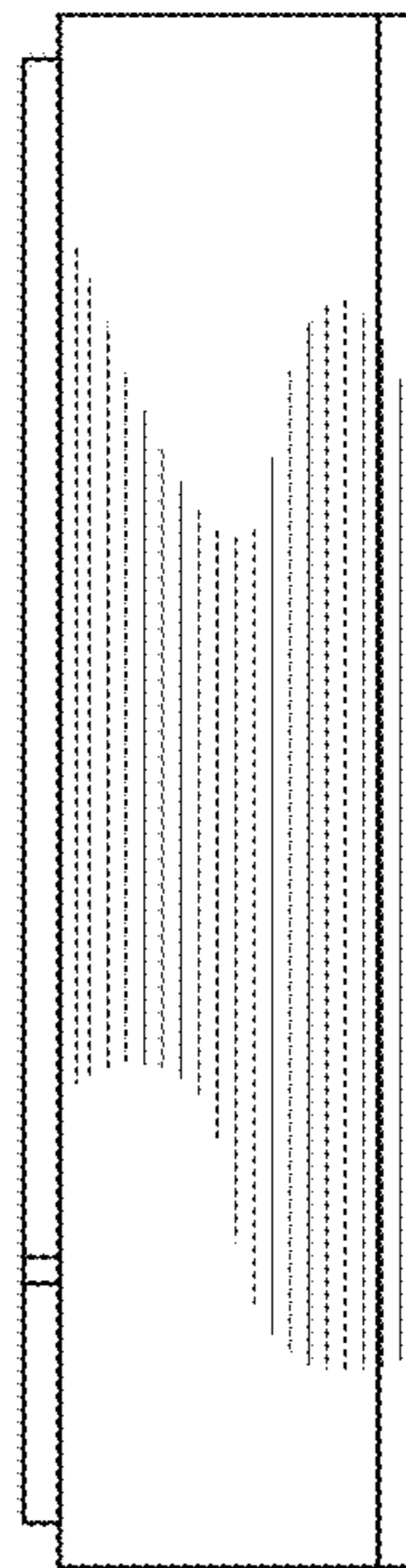


FIG. 14

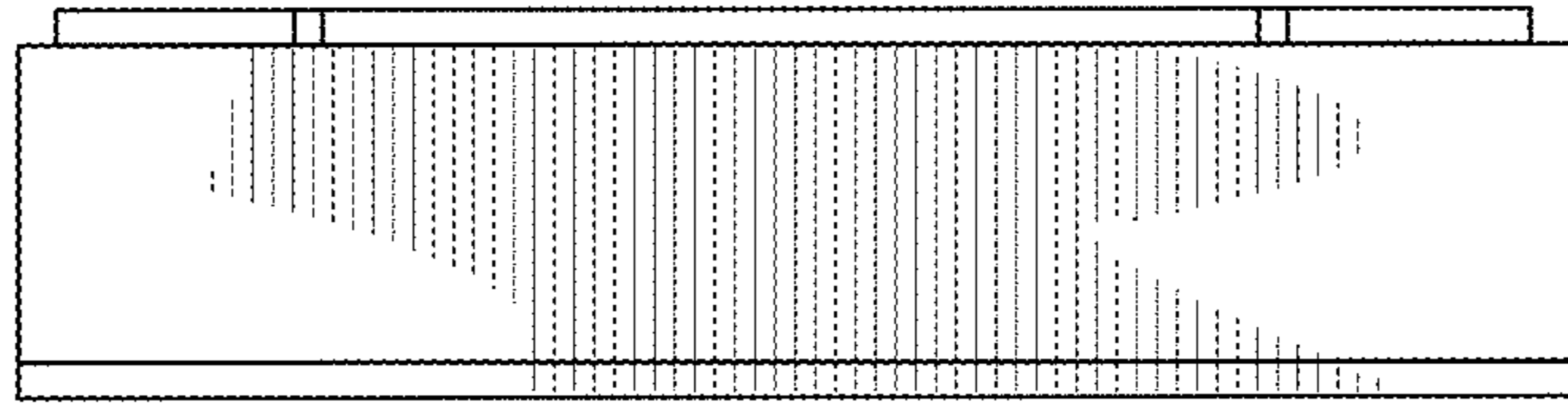


FIG. 15

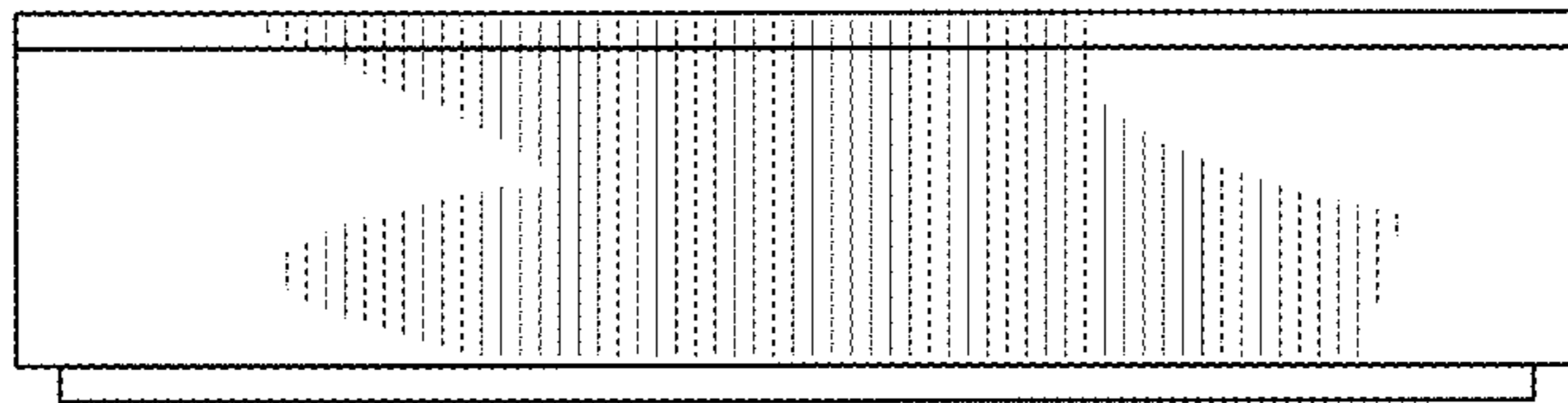


FIG. 16

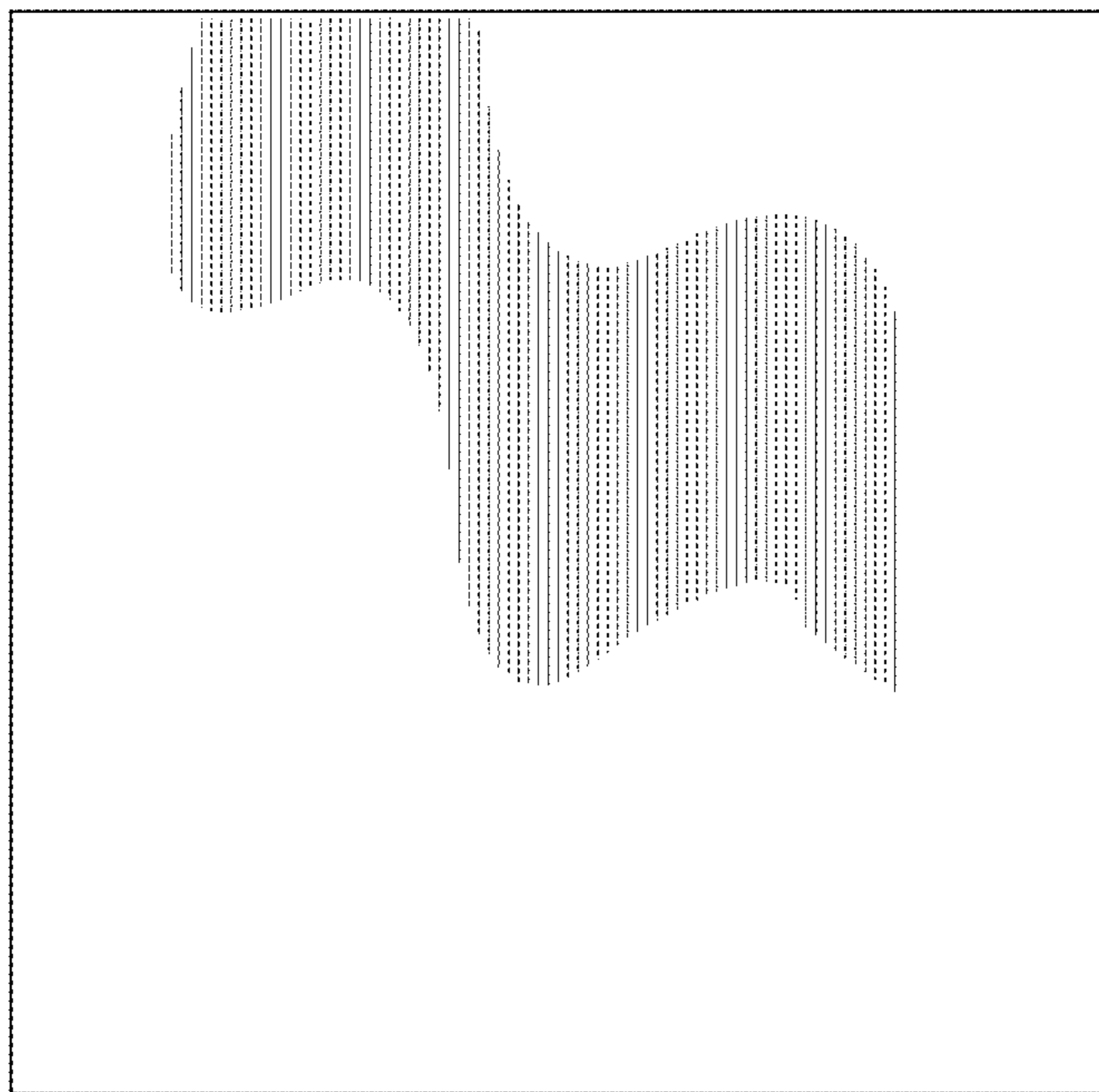


FIG. 17