



US00D844551S

(12) **United States Design Patent** (10) **Patent No.:** **US D844,551 S**
Wang et al. (45) **Date of Patent:** **** Apr. 2, 2019**

(54) **PHOTOVOLTAIC TILE**

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(73) Assignee: **Beijing Hanergy Solar Power Investment Co., Ltd.**, Beijing (CN)

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

(21) Appl. No.: **29/627,339**

(22) Filed: **Nov. 27, 2017**

(30) **Foreign Application Priority Data**

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Sep. 1, 2017 (CN) 2017 3 0412004
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(51) **LOC (11) Cl.** **13-02**

(52) **U.S. Cl.**
USPC **D13/102**

(58) **Field of Classification Search**

USPC D13/101, 102, 118, 184, 199
CPC H02J 7/0042; H02J 7/0045; H02J 7/0052;
H01R 31/06; H01R 24/38; H01L 31/042;
H01L 31/045; H01L 31/046; H01L
31/048; H01L 31/05; H01L 31/052; H01L
31/0525; H02S 30/00; H02S 20/10; H02S
20/23;

(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,284,065 A * 8/1981 Brill-Edwards F24S 20/67
126/668
D384,935 S * 10/1997 Fukuhara D13/102

(Continued)

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(57) **CLAIM**

The ornamental design for a photovoltaic tile, as shown and described.

DESCRIPTION

The patent or application file contains at least one drawing executed in color. Copies of this patent or patent application with color drawing(s) will be provided by the Office upon request and payment of the necessary fee.

FIG. 1 is a front view of a first embodiment of a photovoltaic tile showing the new design;

FIG. 2 is a rear view thereof;

FIG. 3 is a left side view thereof;

FIG. 4 is a right side view thereof;

FIG. 5 is a top view thereof;

FIG. 6 is a bottom view thereof;

FIG. 7 is a perspective view thereof;

FIG. 8 is another perspective view thereof;

FIG. 9 is a front view of a second embodiment of a photovoltaic tile showing the new design;

FIG. 10 is a rear view thereof;

FIG. 11 is a left side view thereof;

FIG. 12 is a right side view thereof;

FIG. 13 is a top view thereof;

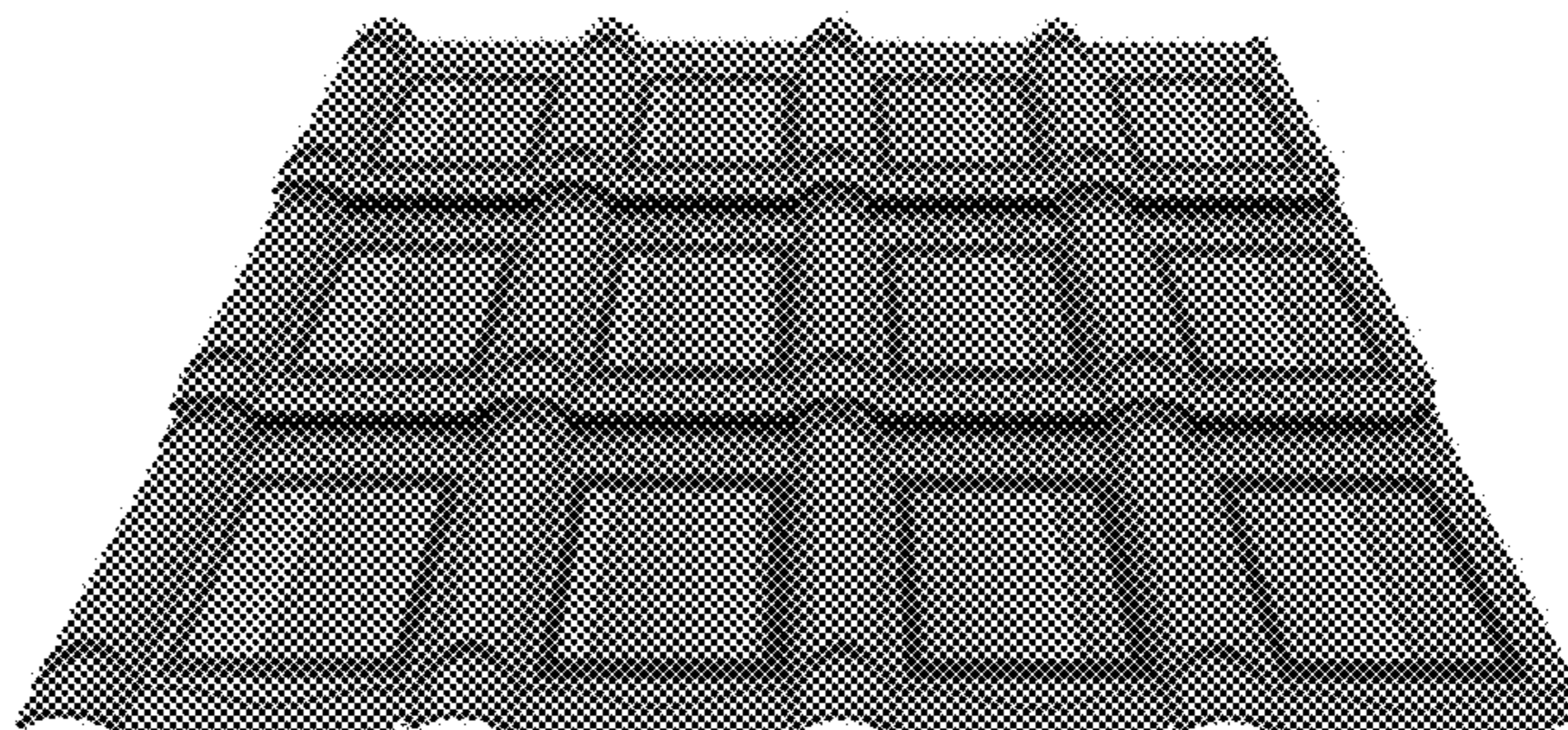
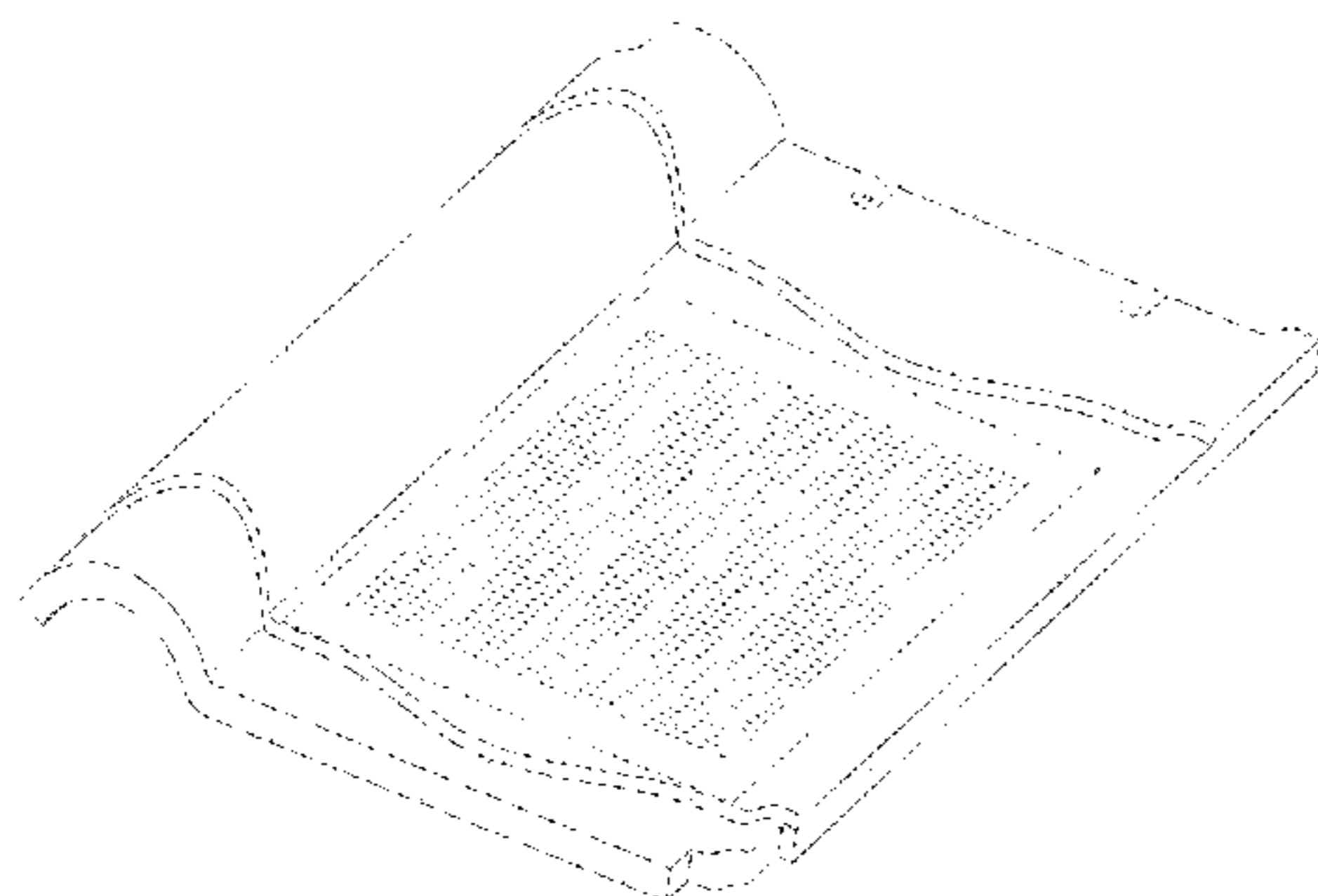
FIG. 14 is a bottom view thereof;

FIG. 15 is a perspective view thereof; and,

FIG. 16 is a perspective view showing multiple photovoltaic tiles assembled, for instance, on the roof of a building.

The broken line showing of the photovoltaic tile is for environmental purposes only and forms no part of the claimed design. Color is claimed as a feature of the claimed design for the second embodiment shown in FIGS. 9-16 only.

1 Claim, 12 Drawing Sheets
(6 of 12 Drawing Sheet(s) Filed in Color)



(58) **Field of Classification Search**

CPC H02S 20/30; H02S 40/34; H02S 40/44;
F24J 2/52; F03G 6/00

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D395,090	S	*	6/1998	Saarenko	.....	D25/140
D396,118	S	*	7/1998	Saarenko	.....	D25/140
D632,246	S	*	2/2011	Park	.....	D13/102
D653,611	S	*	2/2012	Lee	.....	D13/102
D821,614	S	*	6/2018	Labesque	.....	D25/140
D823,787	S	*	7/2018	Hood	.....	D13/102

* cited by examiner

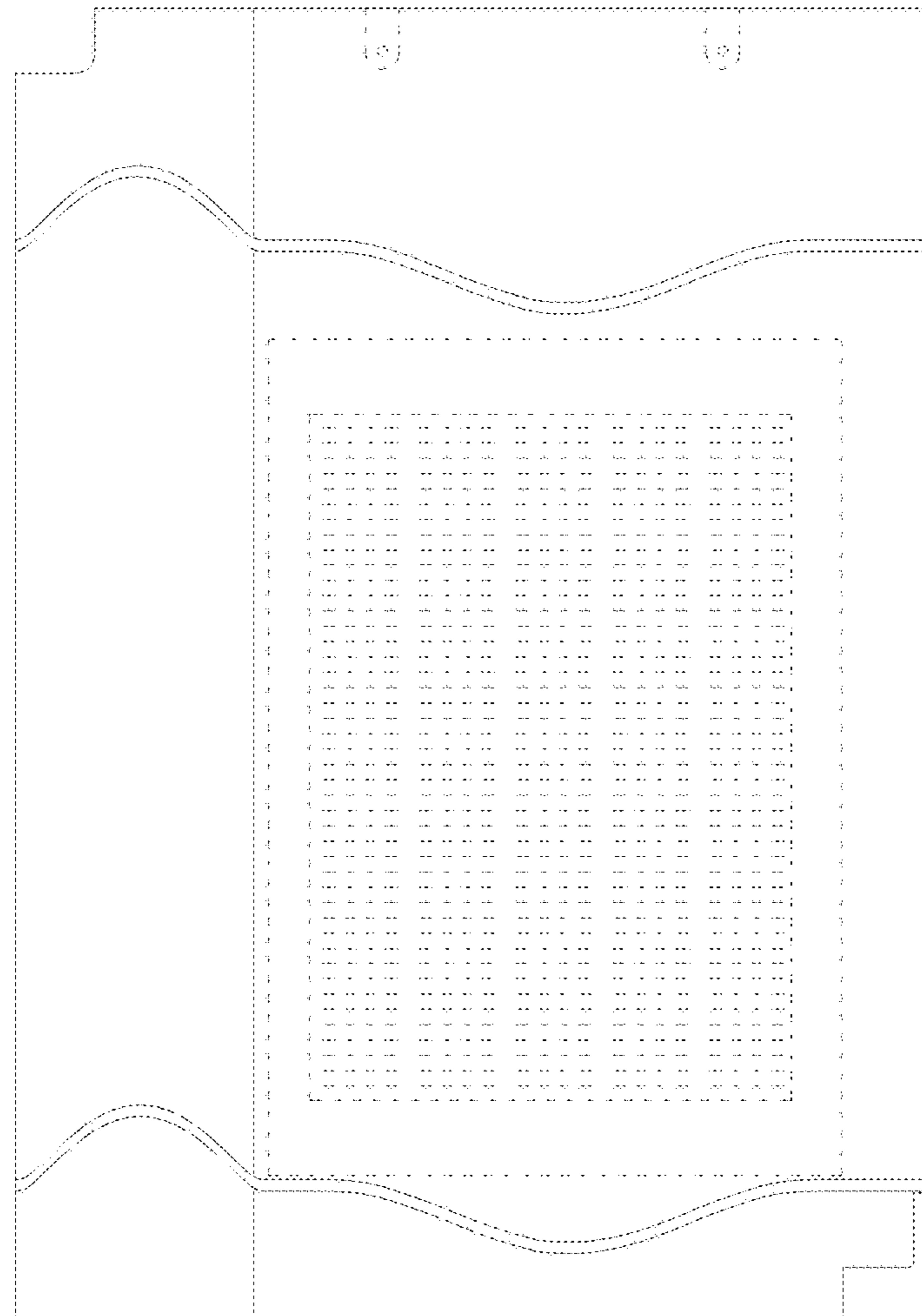


FIG. 1

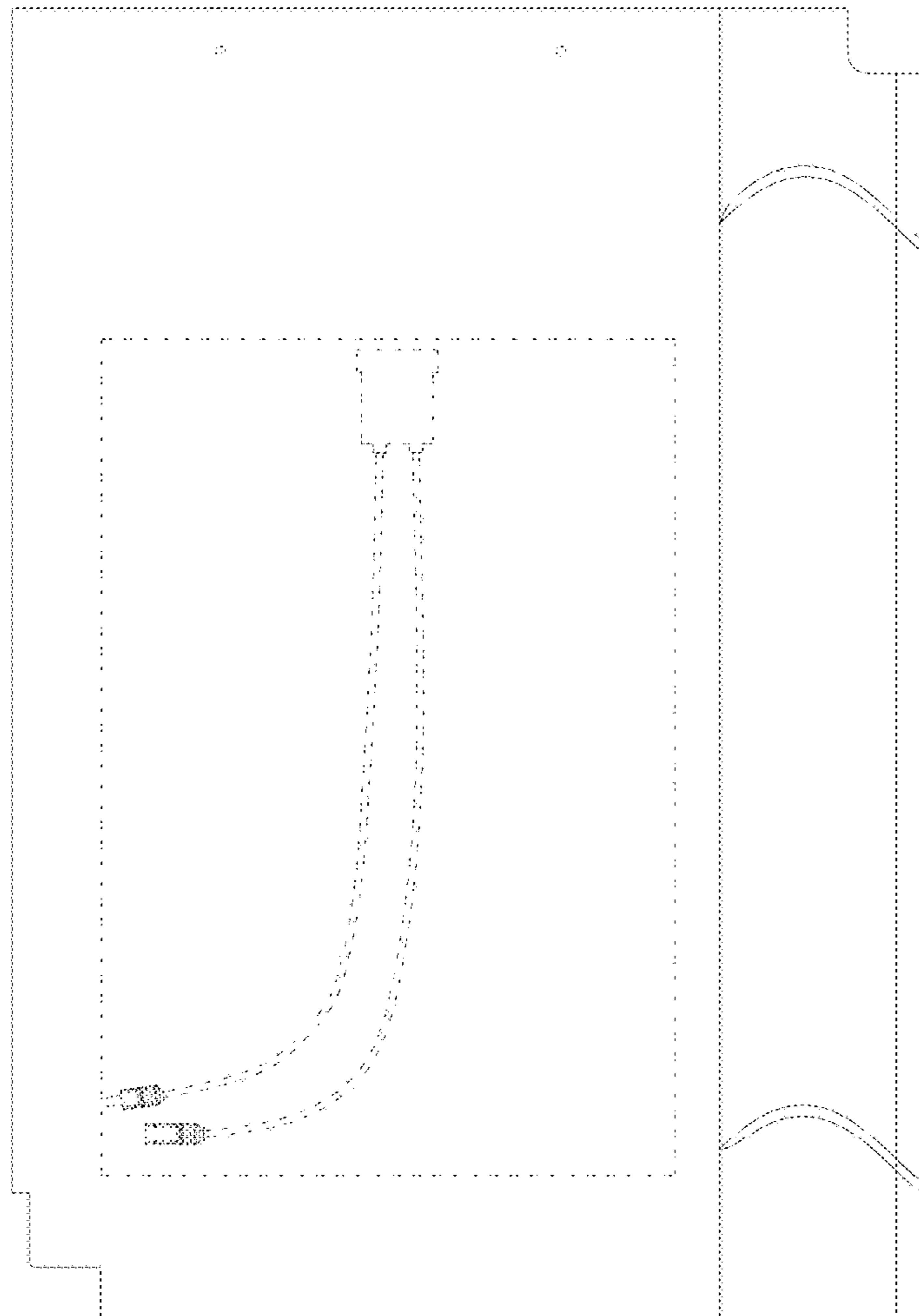


FIG. 2

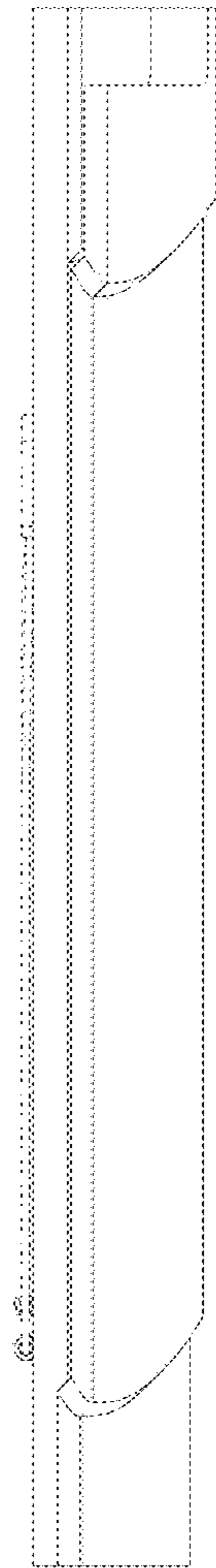


FIG. 3

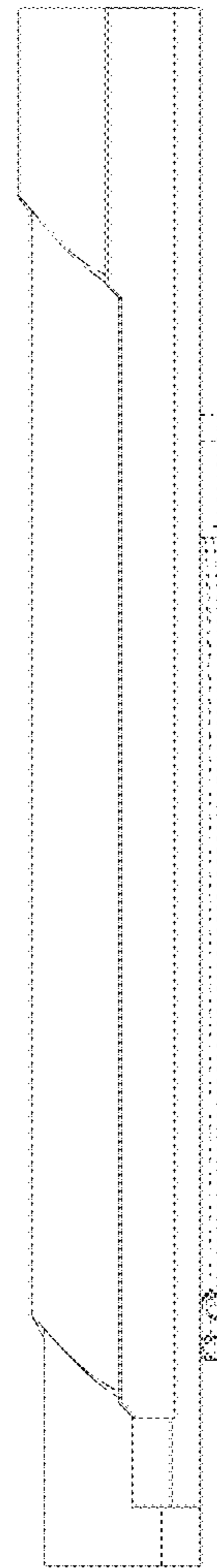
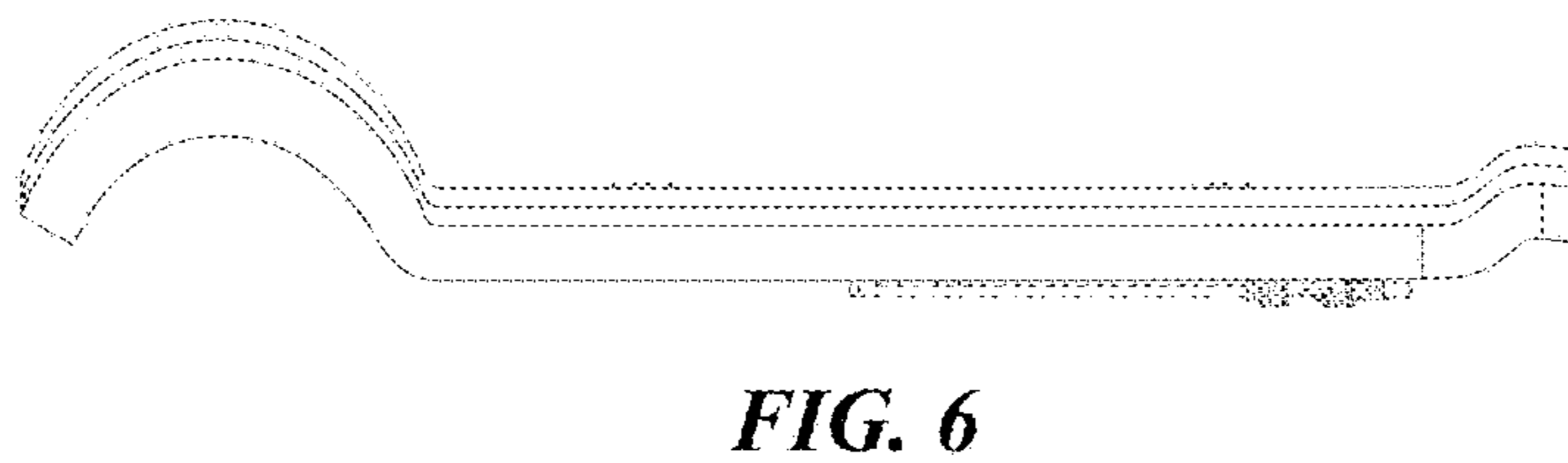
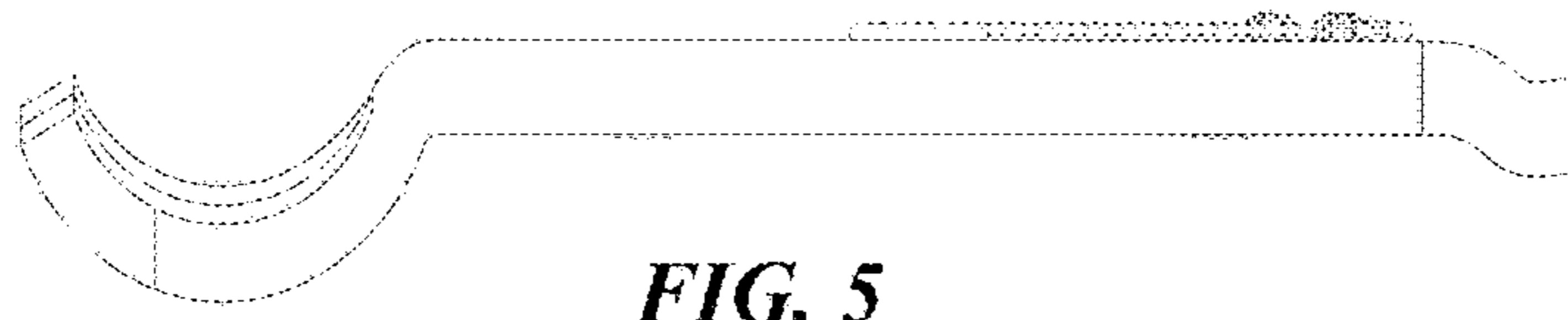


FIG. 4



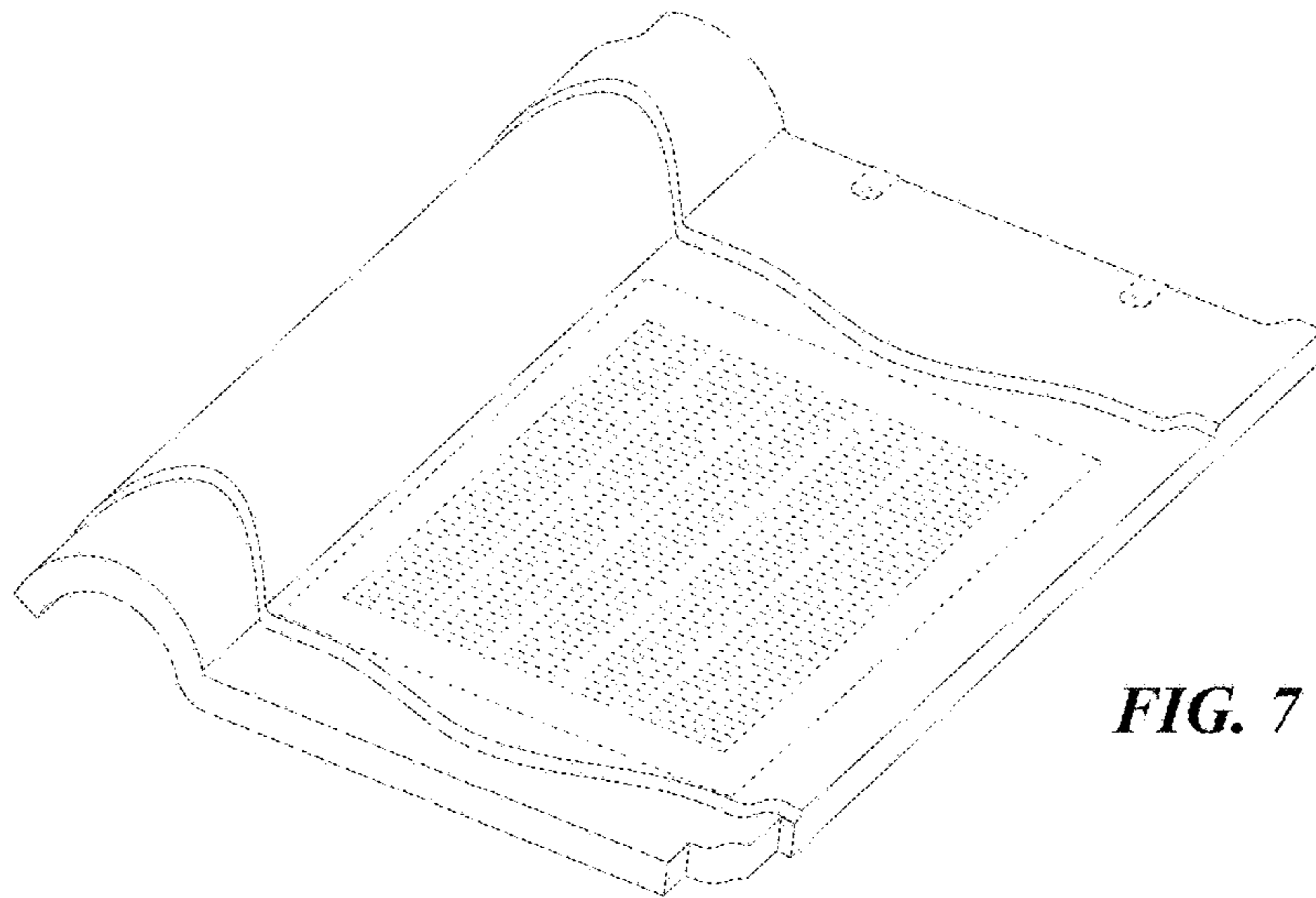


FIG. 7

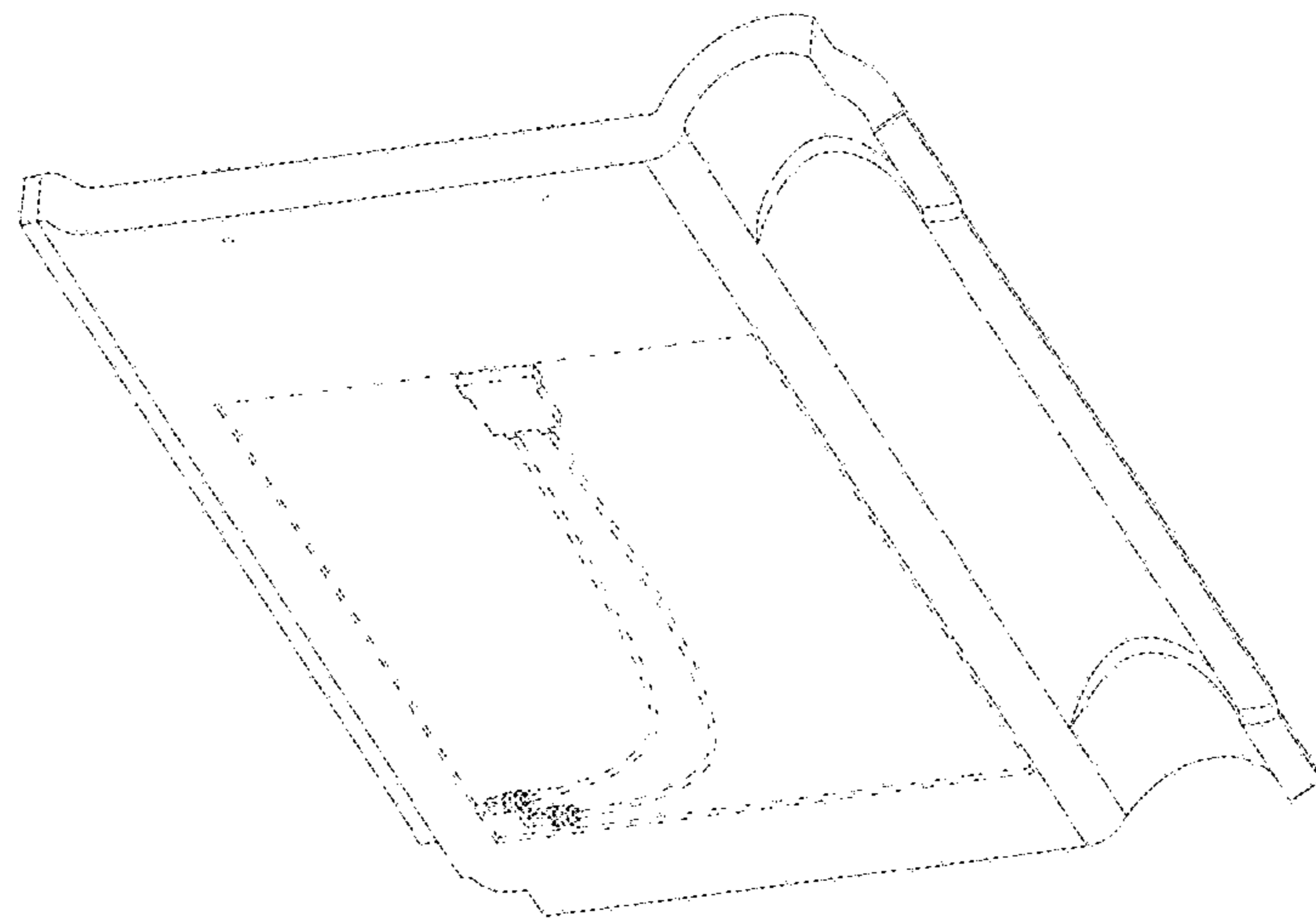


FIG. 8

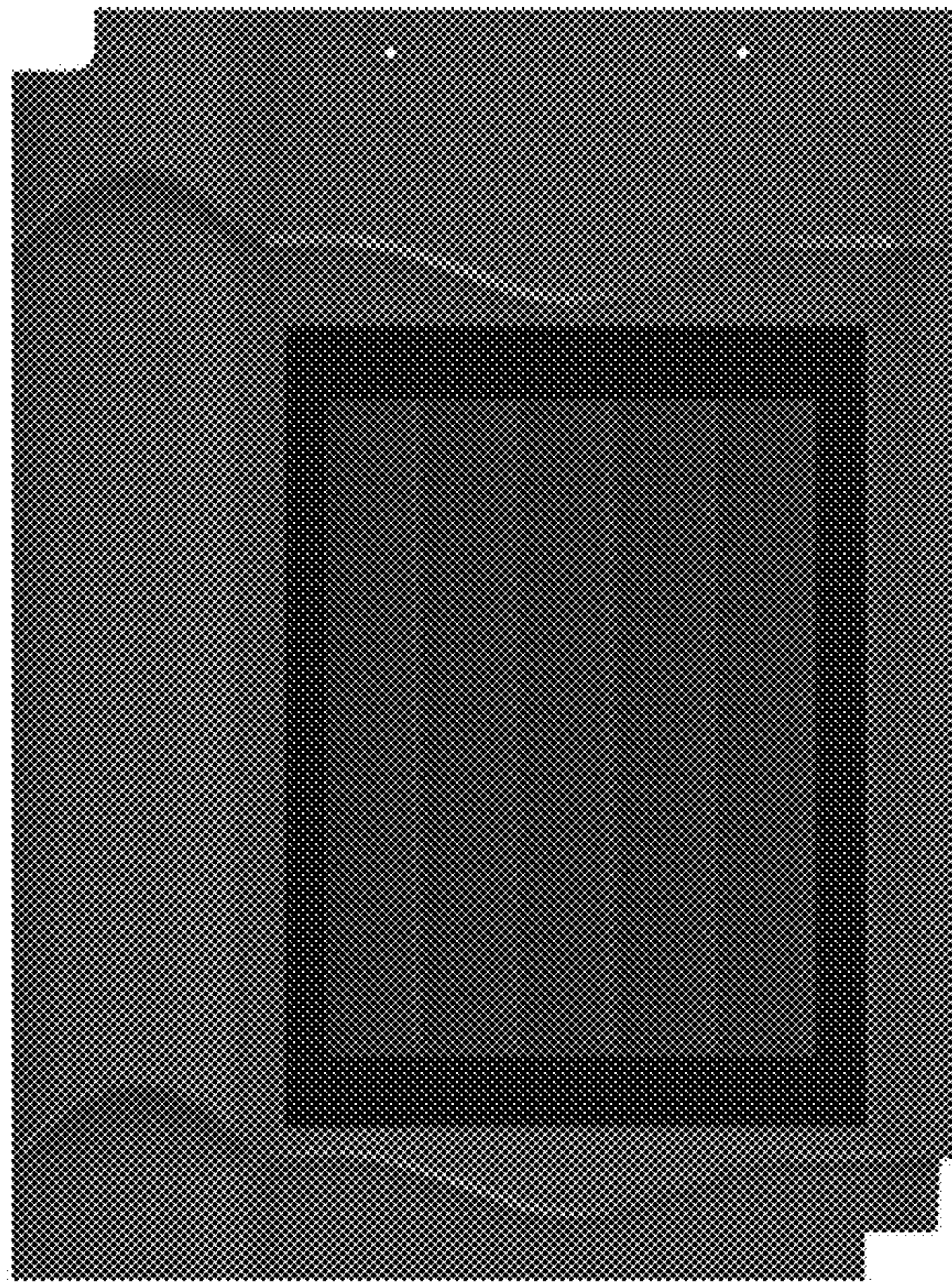


FIG. 9

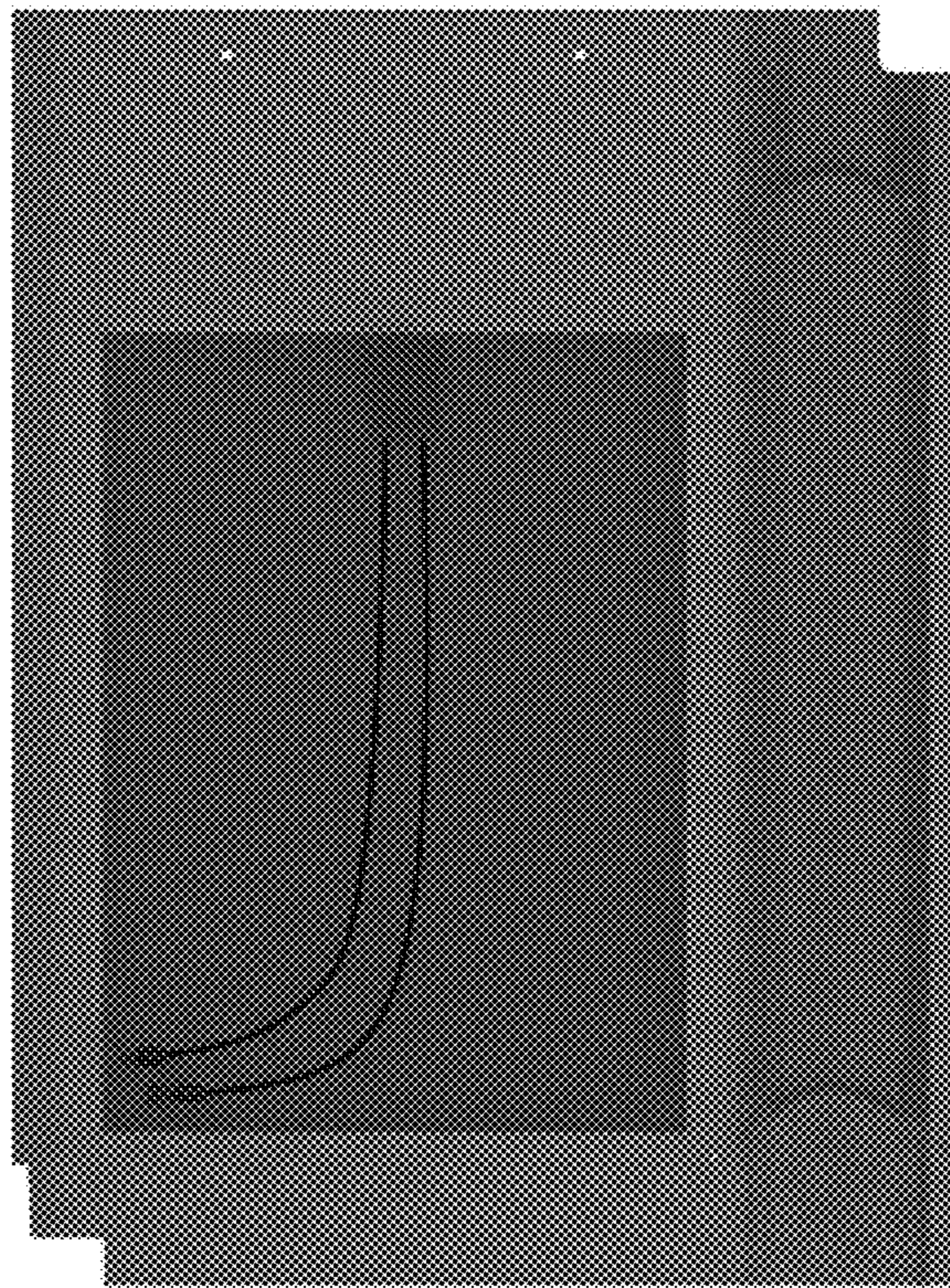


FIG. 10

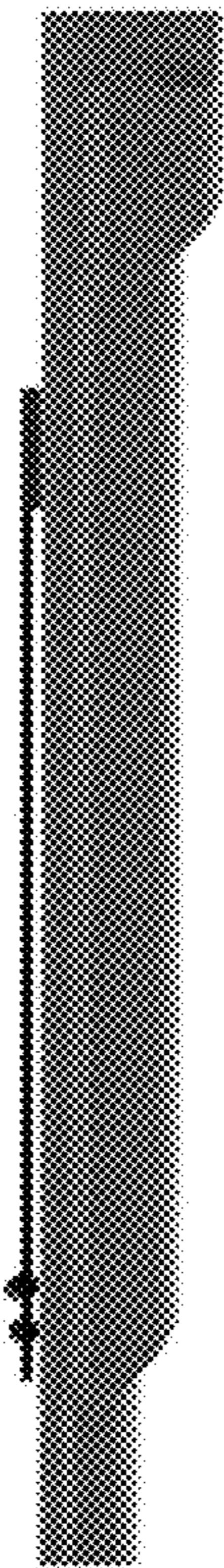


FIG. 11

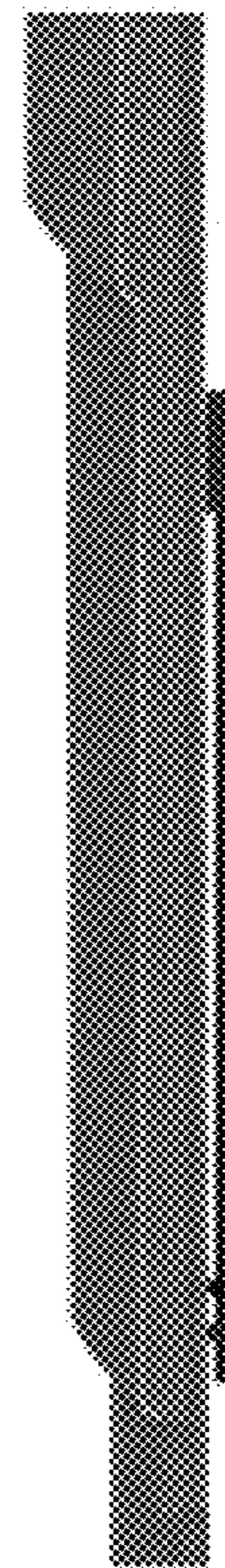


FIG. 12



FIG. 13



FIG. 14

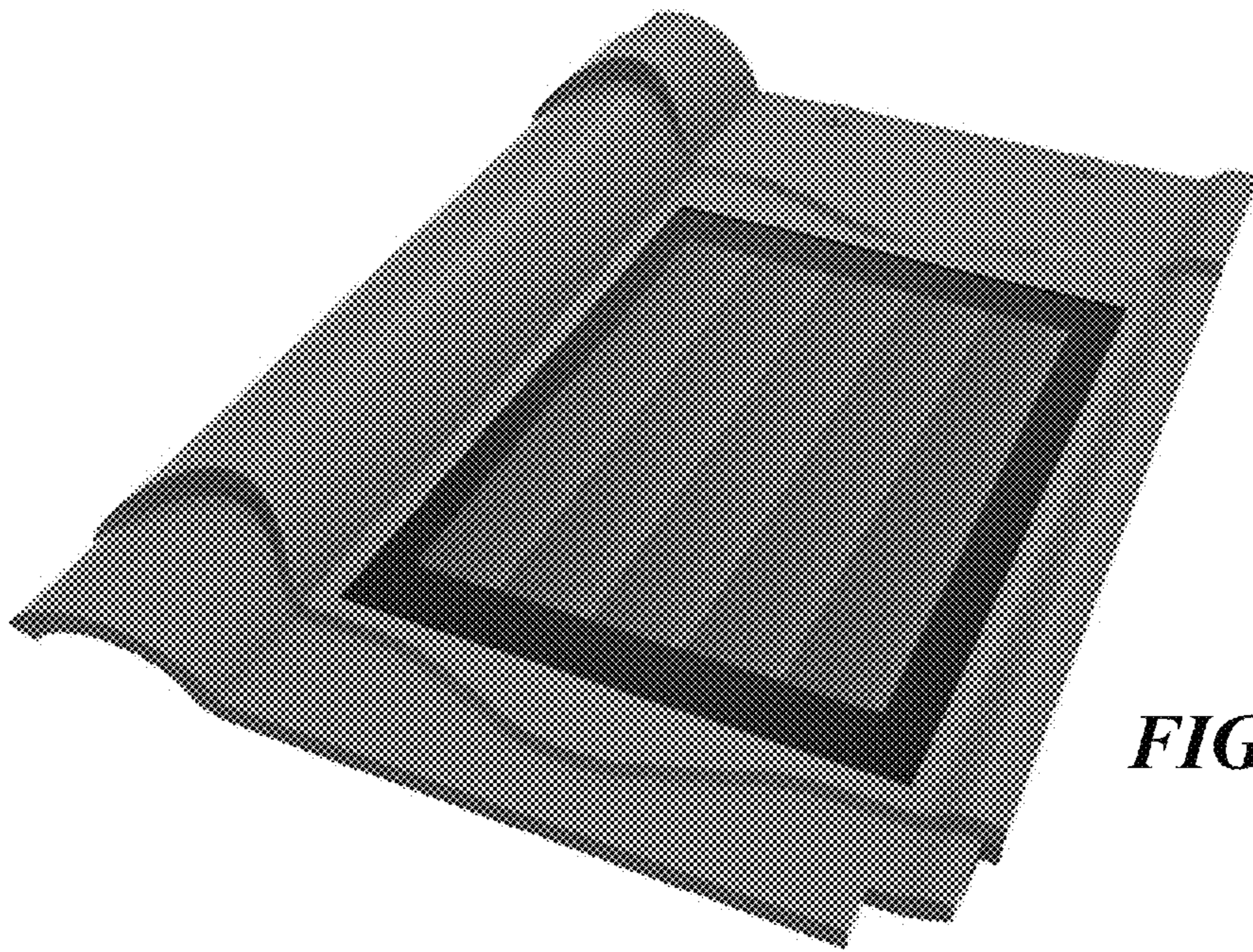


FIG. 15

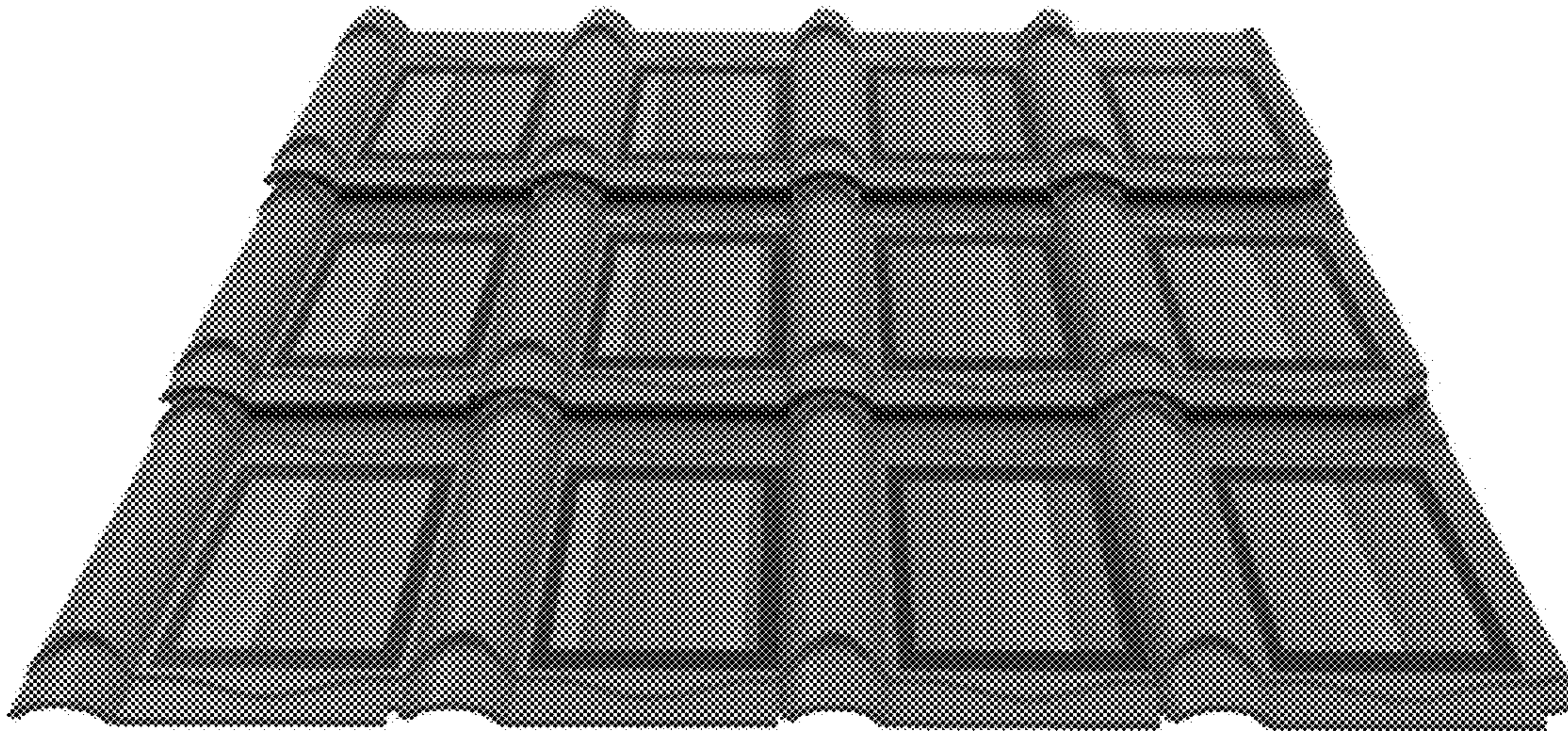


FIG. 16