



US00D924141S

(12) **United States Design Patent** (10) **Patent No.:** **US D924,141 S**
Thyagaraj et al. (45) **Date of Patent:** **** Jul. 6, 2021**

(54) **CONNECTOR**

(71) Applicant: **Molex, LLC**, Lisle, IL (US)

(72) Inventors: **Harsha Thyagaraj**, Bangalore (IN);
Pierre Perez, Aurora, IL (US)

(73) Assignee: **Molex, LLC**, Lisle, IL (US)

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

(21) Appl. No.: **29/678,985**

(22) Filed: **Jan. 31, 2019**

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

(52) **U.S. Cl.**

USPC **D13/133; D13/147**

(58) **Field of Classification Search**

USPC D13/133, 146, 147, 153, 154, 155, 184
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

D322,956 S * 1/1992 Takenouchi D13/146
5,169,336 A * 12/1992 Taguchi H01R 13/64
439/354

(Continued)

FOREIGN PATENT DOCUMENTS

CN 304431754 12/2017
JP D1524813 6/2015

(Continued)

Primary Examiner — Brandon M Rosati

Assistant Examiner — Michael Chong

(74) *Attorney, Agent, or Firm* — Banner & Witcoff, Ltd.

(57) **CLAIM**

The ornamental design for a connector, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of a connector showing our new design;

FIG. 2 is a front view thereof;

FIG. 3 is a rear view thereof;

FIG. 4 is a right side view thereof;

FIG. 5 is a left side view thereof;

FIG. 6 is a top view thereof; and

FIG. 7 is a bottom view thereof.

FIG. 8 is a front perspective view of an alternate embodiment of a connector which is a mirror image of the connector of FIGS. 1-8;

FIG. 9 is a front view thereof;

FIG. 10 is a rear view thereof;

FIG. 11 is a right side view thereof;

FIG. 12 is a left side view thereof;

FIG. 13 is a top view thereof;

FIG. 14 is a bottom view thereof;

FIG. 15 is a front perspective view of an alternate embodiment of the connector showing our new design;

FIG. 16 is a front view thereof;

FIG. 17 is a rear view thereof;

FIG. 18 is a right side view thereof;

FIG. 19 is a left side view thereof;

FIG. 20 is a top view thereof;

FIG. 21 is a bottom view thereof;

FIG. 22 is a front perspective view of an alternate embodiment of a connector which is a mirror image of the connector of FIGS. 15-21;

FIG. 23 is a front view thereof;

FIG. 24 is a rear view thereof;

FIG. 25 is a right side view thereof;

FIG. 26 is a left side view thereof;

FIG. 27 is a top view thereof;

FIG. 28 is a bottom view thereof;

FIG. 29 is a front perspective view of an alternate embodiment of the connector showing our new design;

FIG. 30 is a front view thereof;

FIG. 31 is a rear view thereof;

FIG. 32 is a right side view thereof;

FIG. 33 is a left side view thereof;

FIG. 34 is a top view thereof;

FIG. 35 is a bottom view thereof;

FIG. 36 is a front perspective view of an alternate embodiment of a connector which is a mirror image of the connector of FIGS. 29-35;

(Continued)

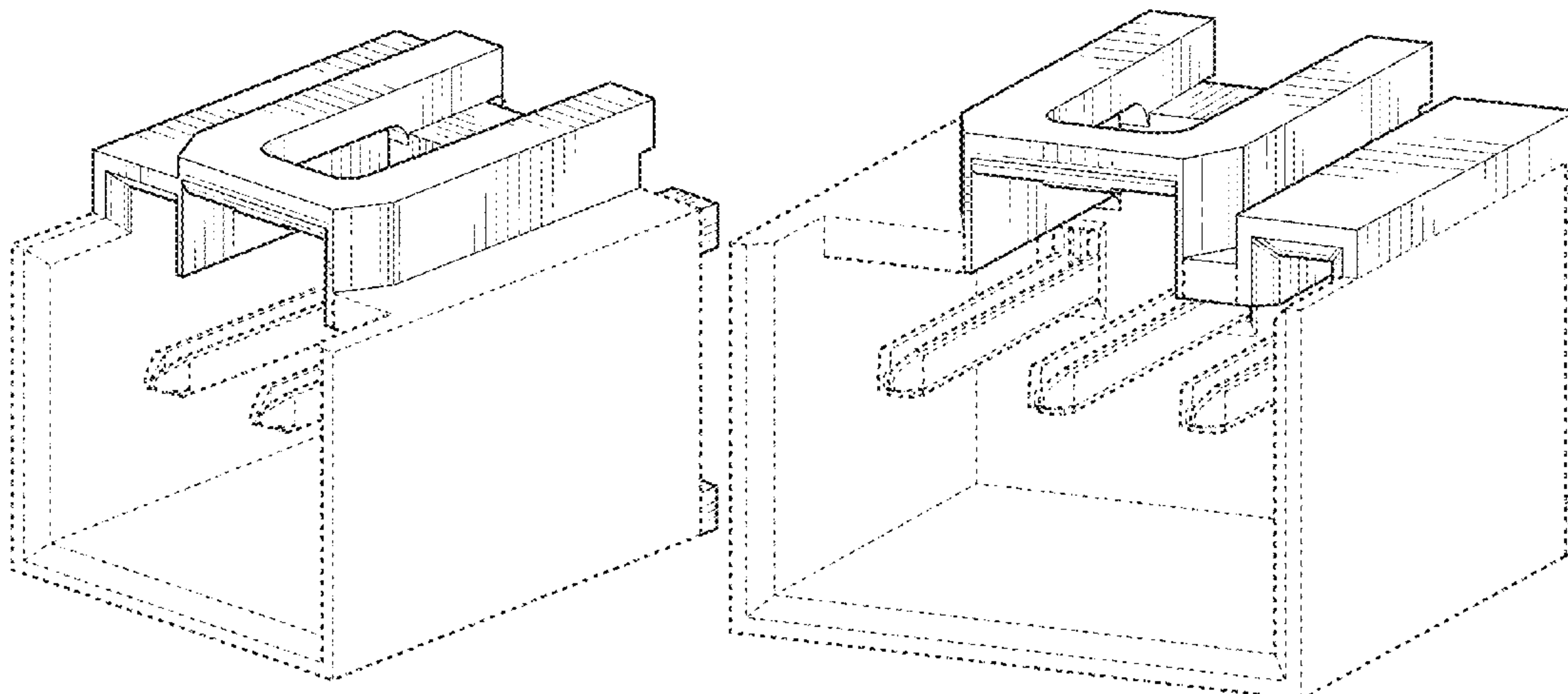


FIG. 37 is a front view thereof;
 FIG. 38 is a rear view thereof;
 FIG. 39 is a right side view thereof;
 FIG. 40 is a left side view thereof;
 FIG. 41 is a top view thereof;
 FIG. 42 is a bottom view thereof;
 FIG. 43 is a front perspective view of an alternate embodiment of the connector showing our new design;
 FIG. 44 is a front view thereof;
 FIG. 45 is a rear view thereof;
 FIG. 46 is a right side view thereof;
 FIG. 47 is a left side view thereof;
 FIG. 48 is a top view thereof;
 FIG. 49 is a bottom view thereof;
 FIG. 50 is a front perspective view of an alternate embodiment of a connector which is a mirror image of the connector of FIGS. 43-49;
 FIG. 51 is a front view thereof;
 FIG. 52 is a rear view thereof;
 FIG. 53 is a right side view thereof;
 FIG. 54 is a left side view thereof;
 FIG. 55 is a top view thereof;
 FIG. 56 is a bottom view thereof;
 FIG. 57 is a front perspective view of an alternate embodiment of the connector showing our new design;
 FIG. 58 is a front view thereof;
 FIG. 59 is a rear view thereof;
 FIG. 60 is a right side view thereof;
 FIG. 61 is a left side view thereof;
 FIG. 62 is a top view thereof;
 FIG. 63 is a bottom view thereof;
 FIG. 64 is a front perspective view of an alternate embodiment of a connector which is a mirror image of the connector of FIGS. 57-63;
 FIG. 65 is a front view thereof;
 FIG. 66 is a rear view thereof;
 FIG. 67 is a right side view thereof;
 FIG. 68 is a left side view thereof;
 FIG. 69 is a top view thereof; and,
 FIG. 70 is a bottom view thereof.
 The broken lines depicting the remainder of the connector show features that form no part of the claimed design. The

broken lines immediately adjacent to the shaded areas represent the bounds of the claimed design and form no part thereof.

1 Claim, 44 Drawing Sheets

(58) Field of Classification Search

CPC H01R 13/02; H01R 13/436; H01R 13/502;
 H01R 13/504; H01R 13/506; H01R
 13/58; H01R 13/627; H01R 13/6315;
 H01R 13/6586; H01R 13/62; H01R
 13/64; H01R 13/641

See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

5,876,230	A *	3/1999	Nishide	H01R 13/6272
				439/352
D425,869	S *	5/2000	Yokomizo	D13/147
6,241,547	B1 *	6/2001	Fukuda	H01R 13/641
				439/352
D645,405	S	9/2011	Huss, Jr. et al.	
D745,461	S *	12/2015	Cho	D13/146
D748,586	S *	2/2016	Endo	D13/147
D791,704	S	7/2017	Li et al.	
D791,705	S *	7/2017	Li	D13/147
D791,706	S *	7/2017	Li	D13/147
D791,707	S *	7/2017	Li	D13/147
D792,851	S *	7/2017	Li	D13/147
D792,852	S *	7/2017	Li	D13/147
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D802,538	S *	11/2017	Li	D13/147
10,461,458	B2 *	10/2019	Kim	H01R 13/4362
10,741,967	B2 *	8/2020	Zheng	H01R 13/6272
10,777,934	B2 *	9/2020	Yi	H01R 13/5219
2020/0251857	A1 *	8/2020	Takeuchi	H01R 13/629
2020/0274285	A1 *	8/2020	Kawashima	H01R 13/6272

FOREIGN PATENT DOCUMENTS

TW	D195134	1/2019
WO	D205298-008	* 3/2020
WO	D205298-018	* 3/2020

* cited by examiner

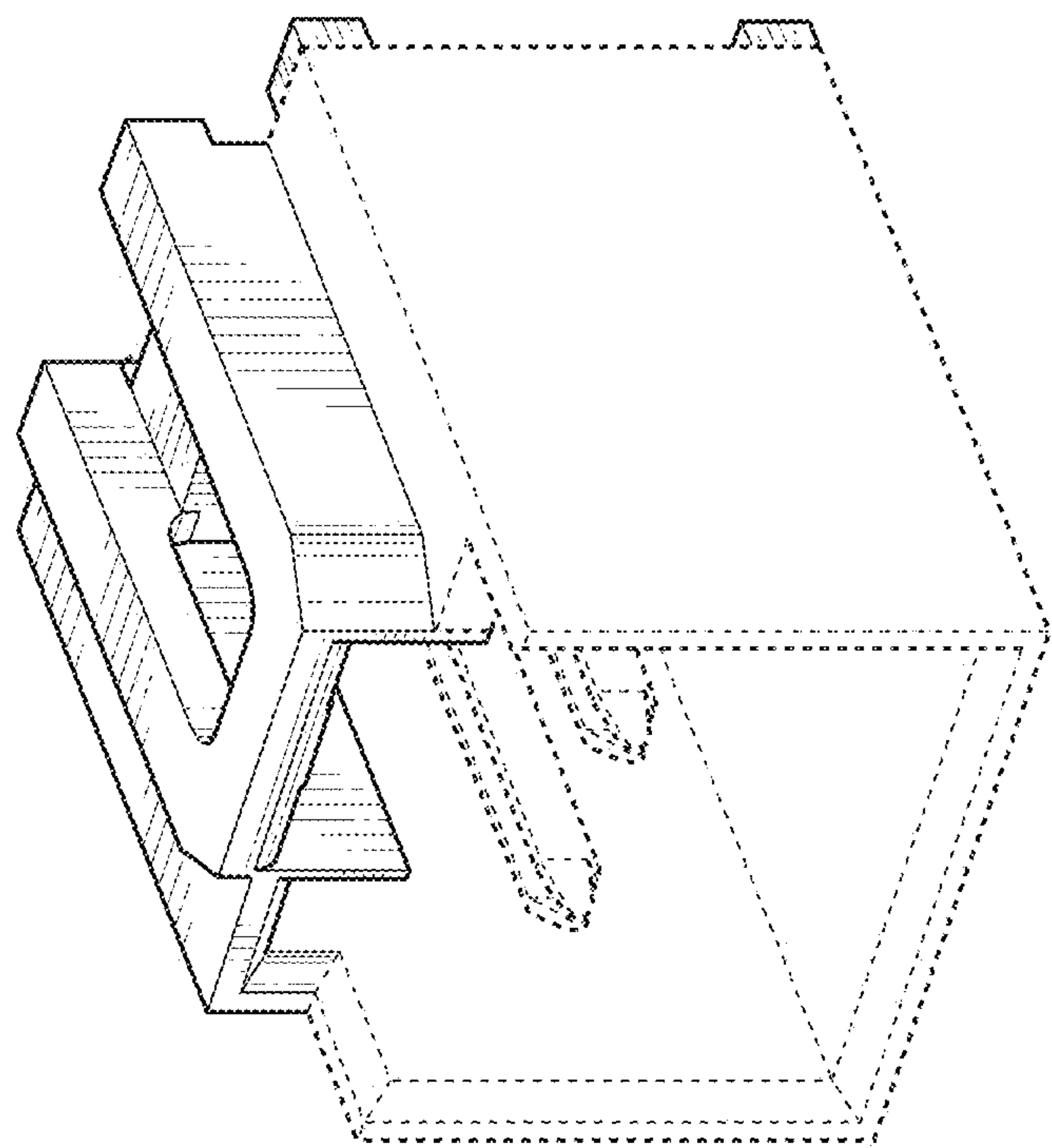


FIG. 1

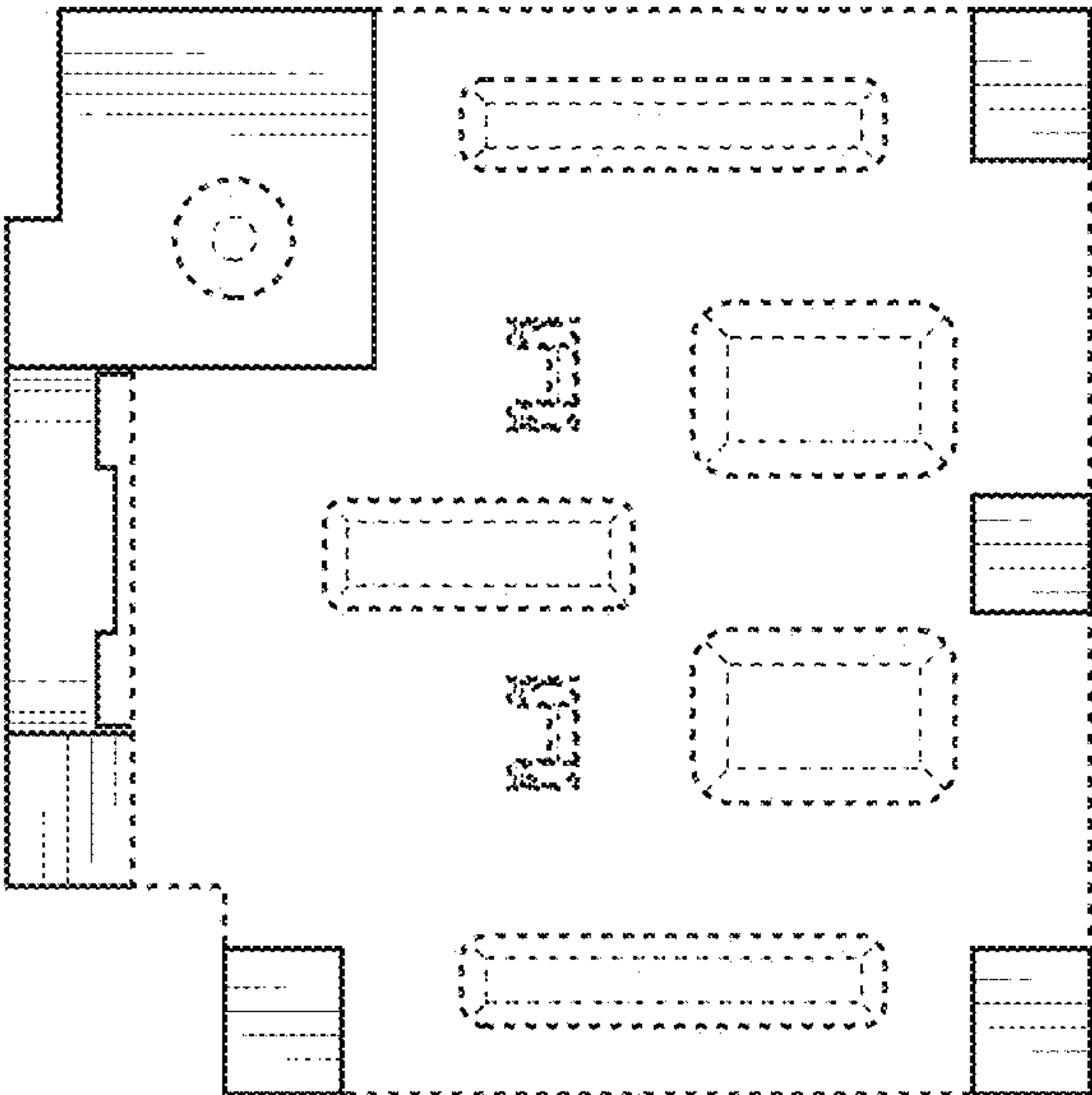


FIG. 2

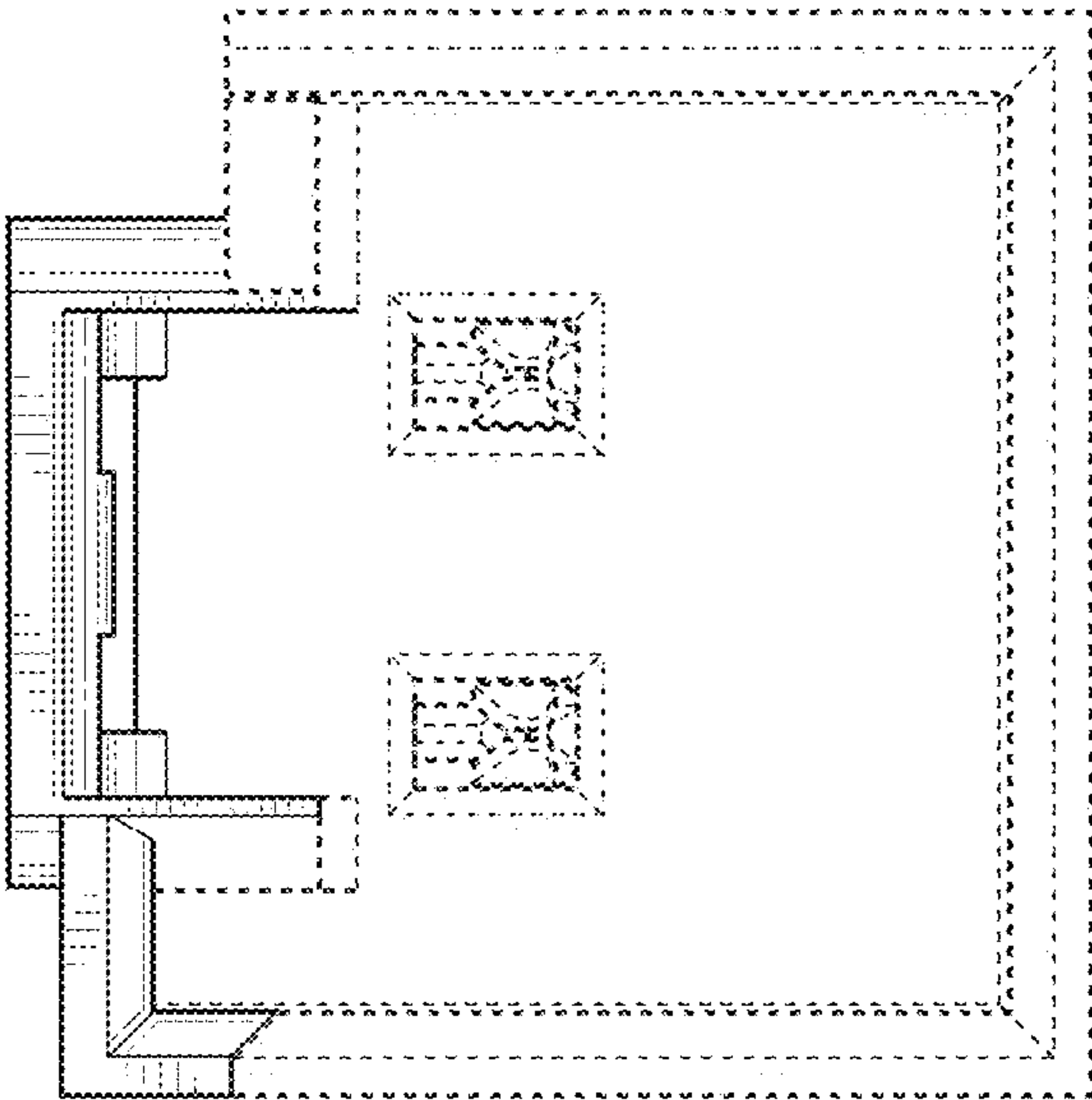


FIG. 3

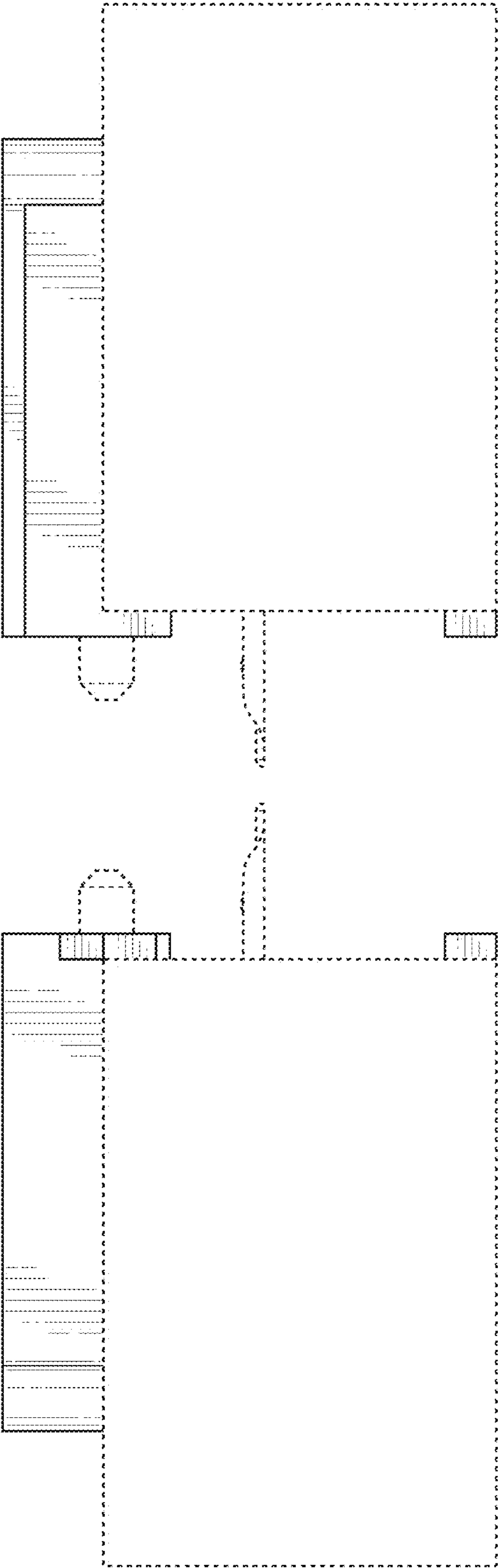


FIG. 5

FIG. 4

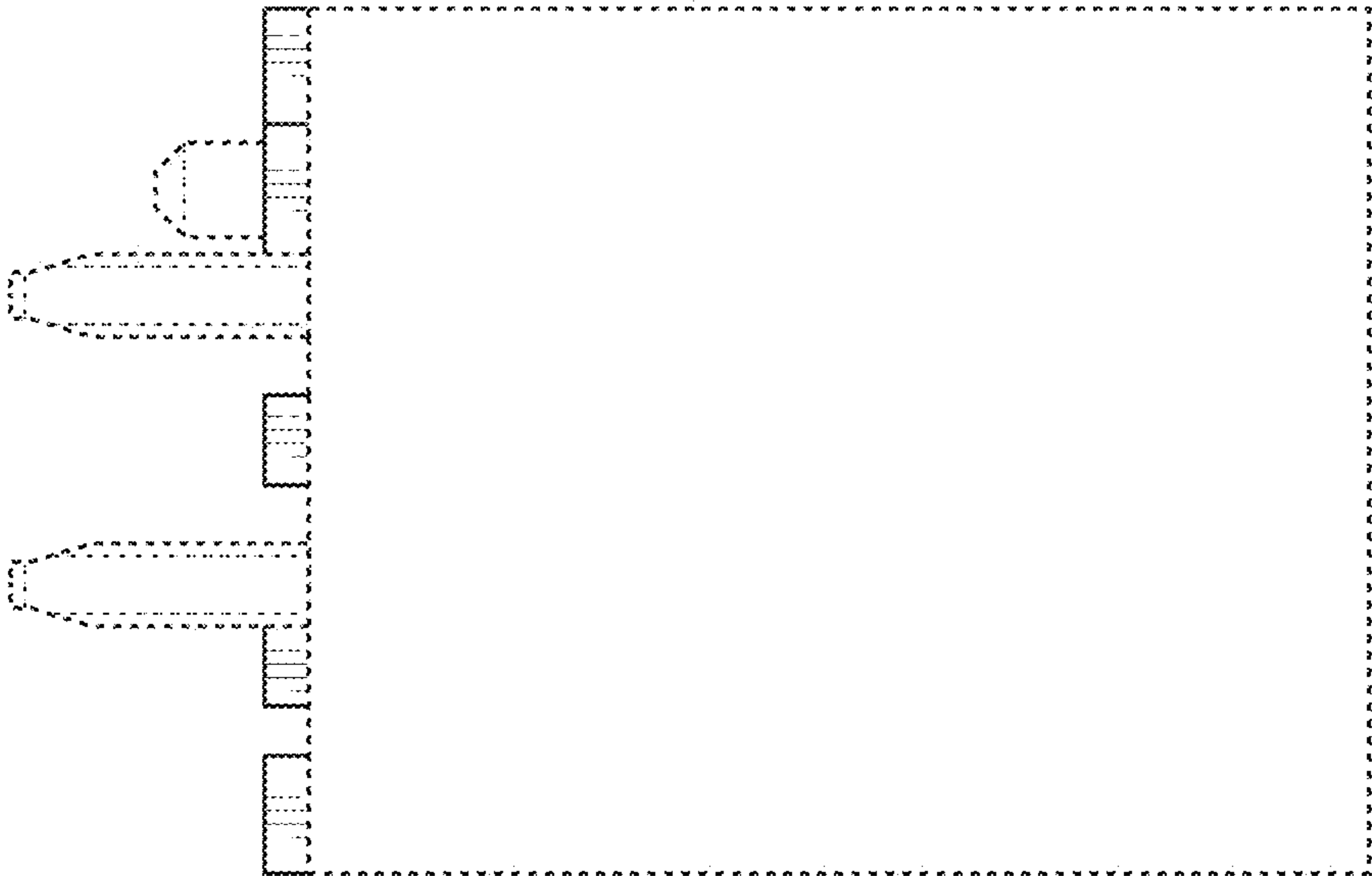


FIG. 7

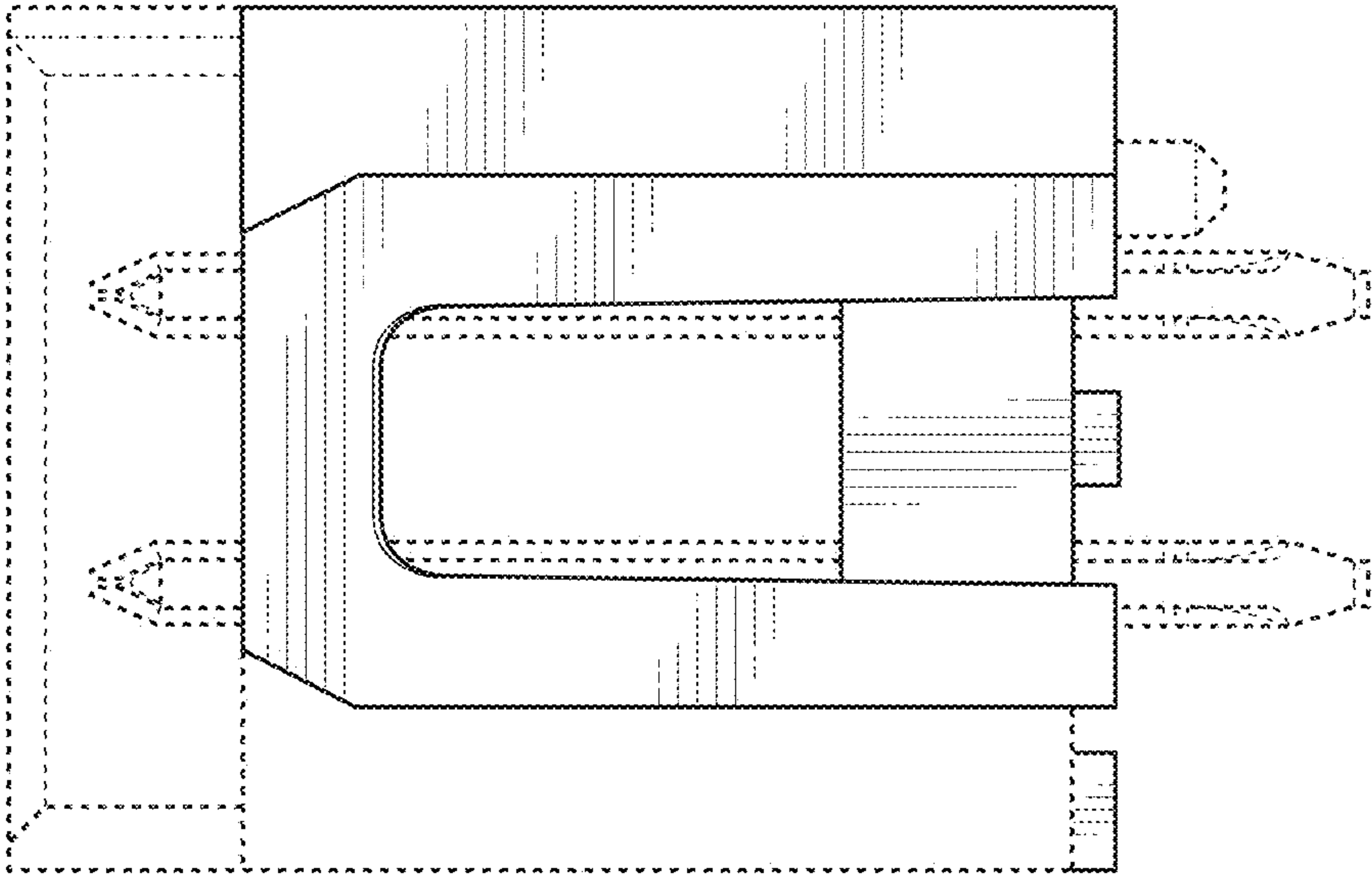


FIG. 6

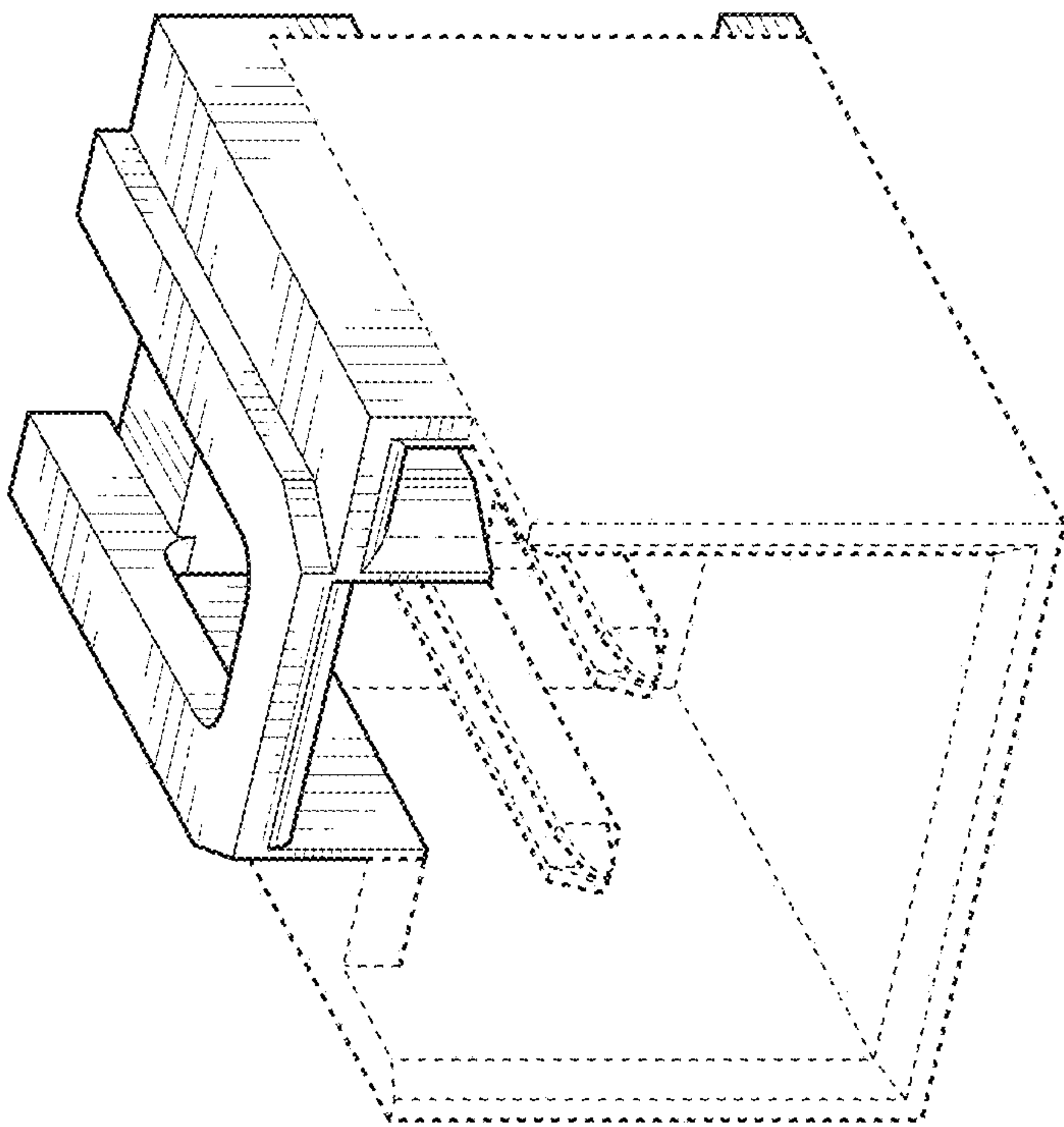


FIG. 8

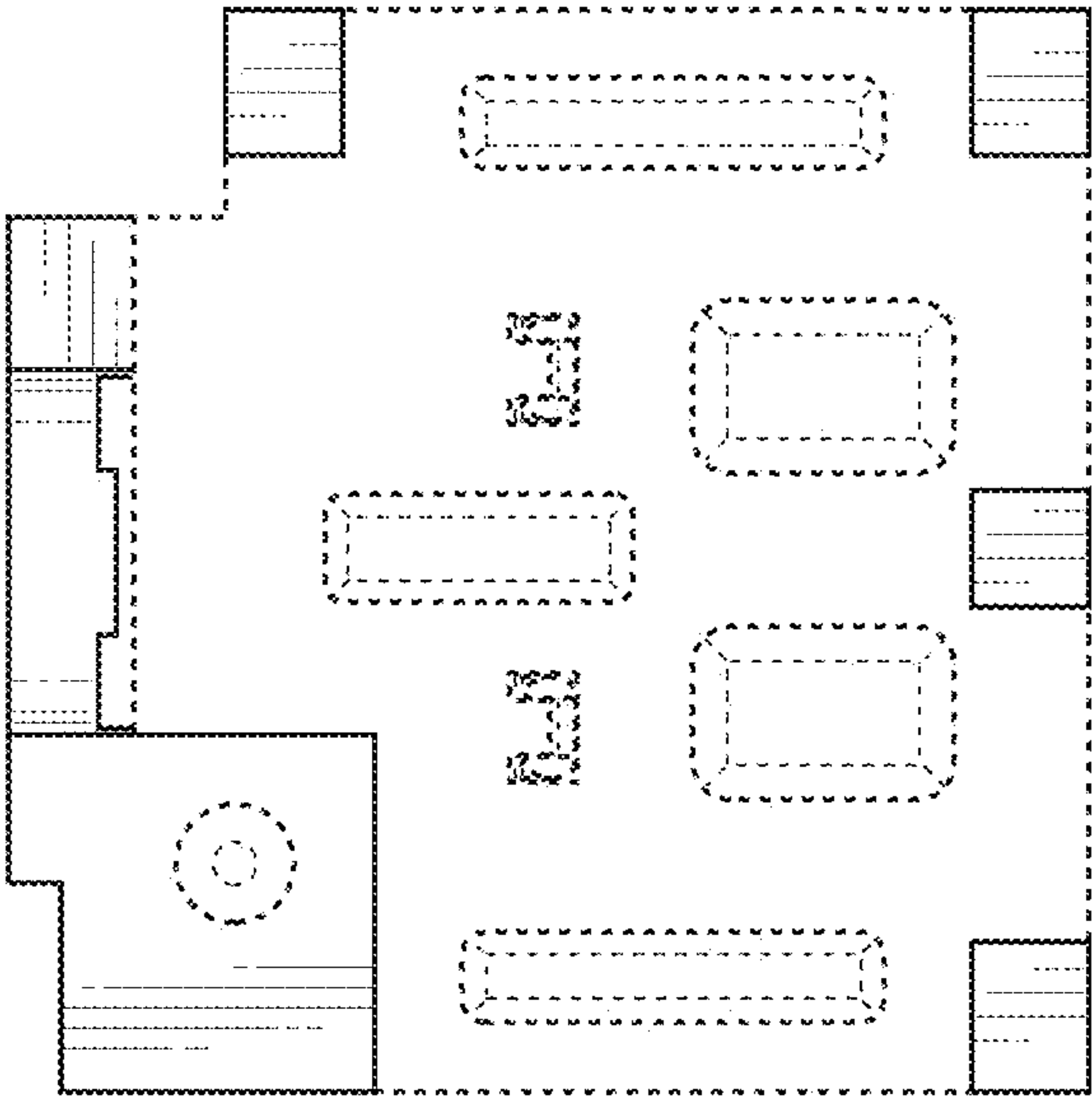


FIG. 10

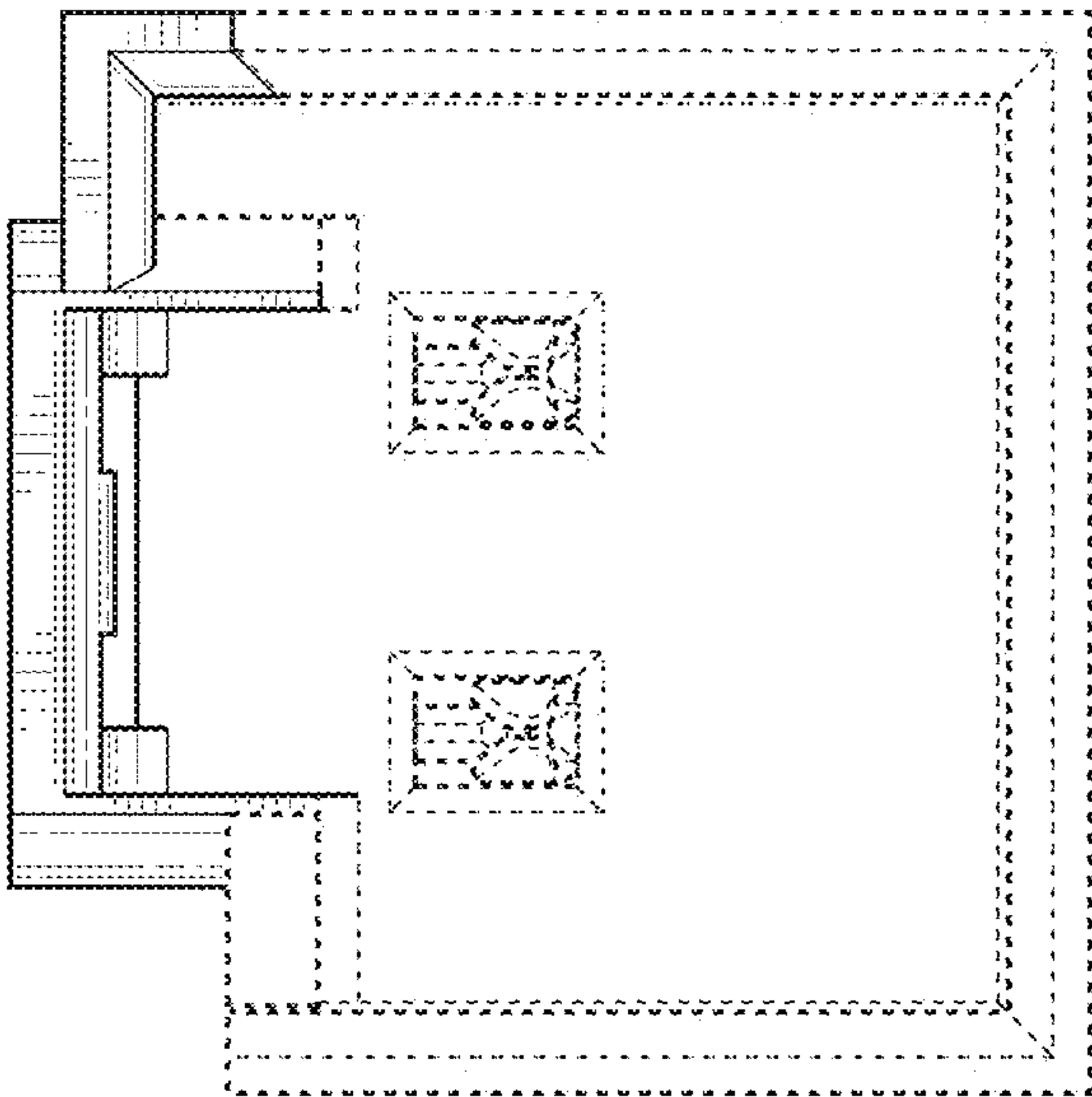


FIG. 9

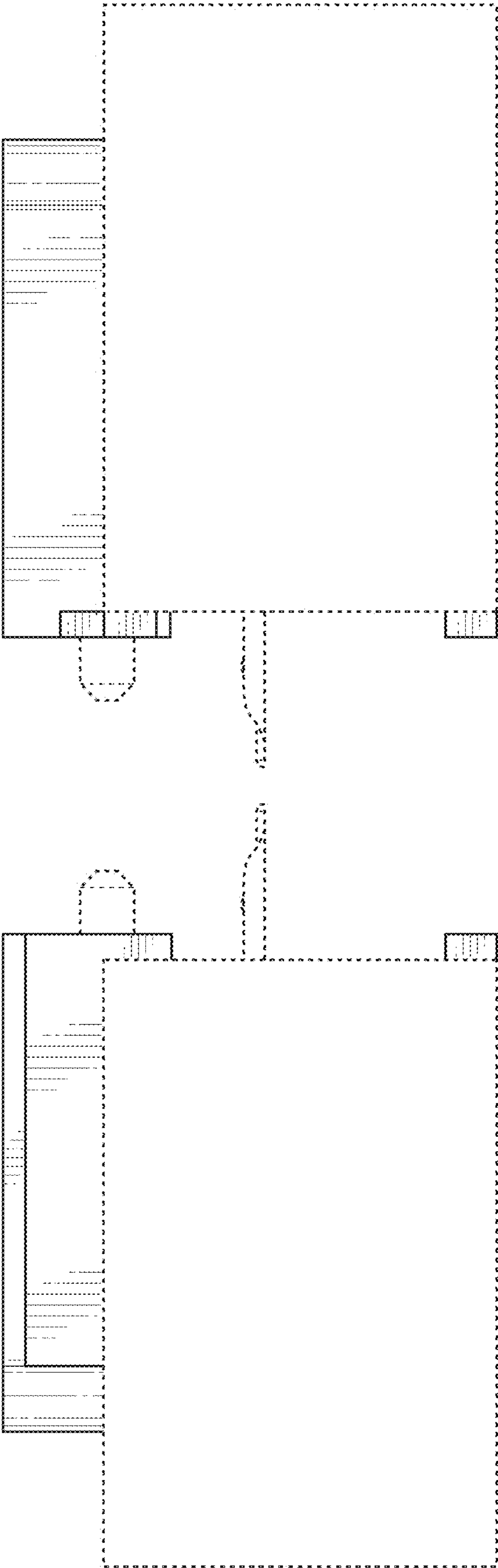


FIG. 11

FIG. 12

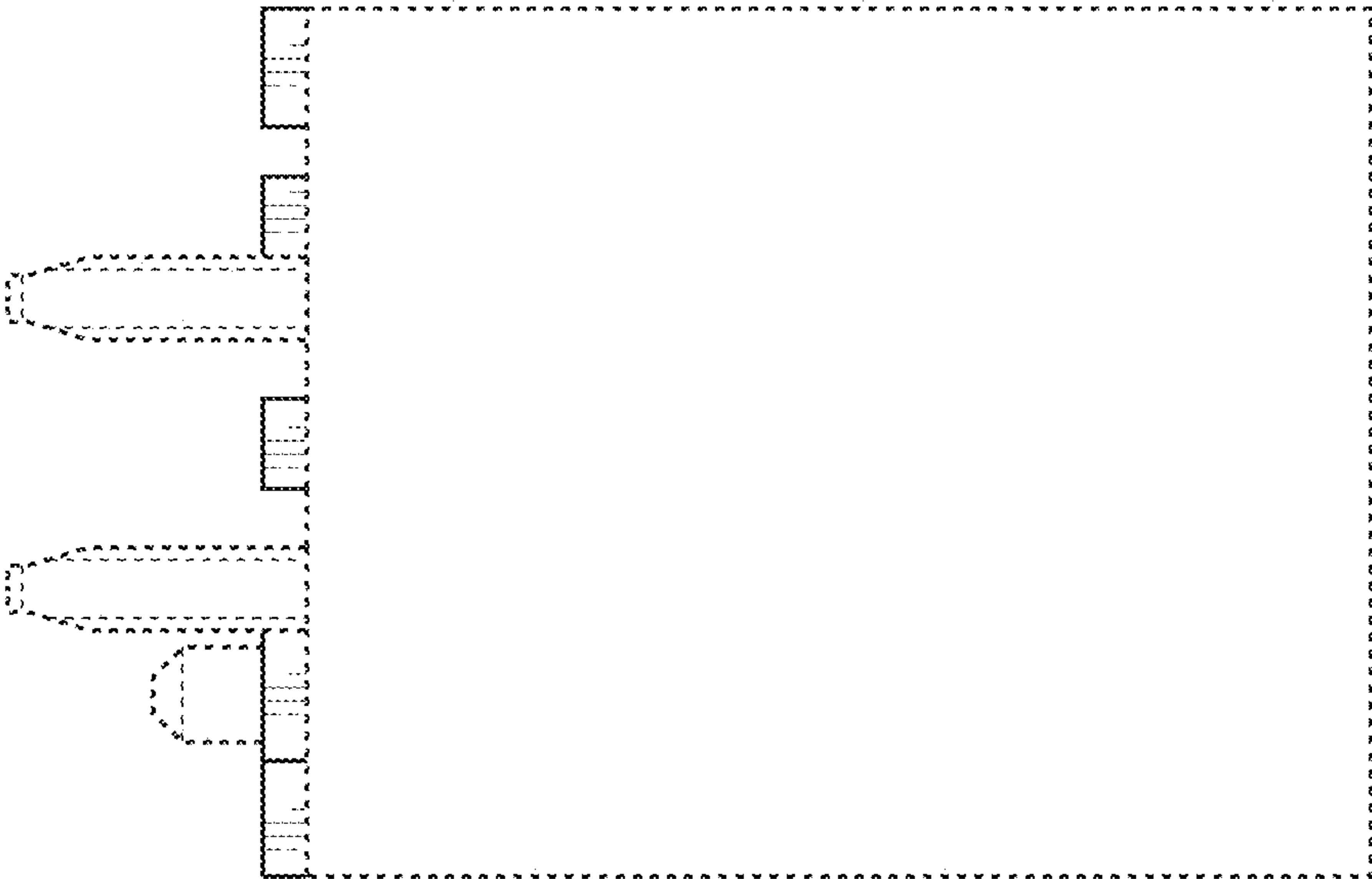


FIG. 14

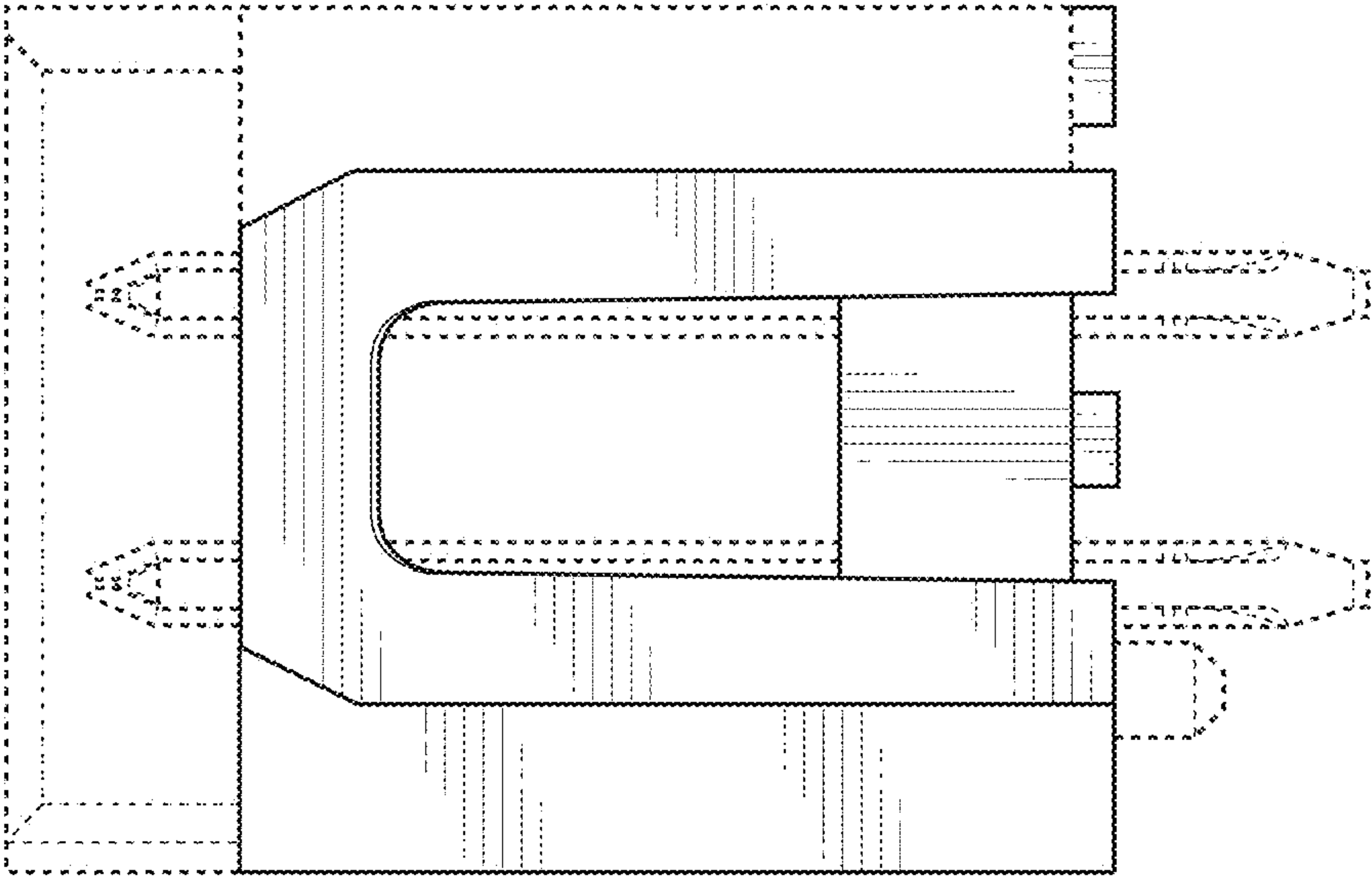


FIG. 13

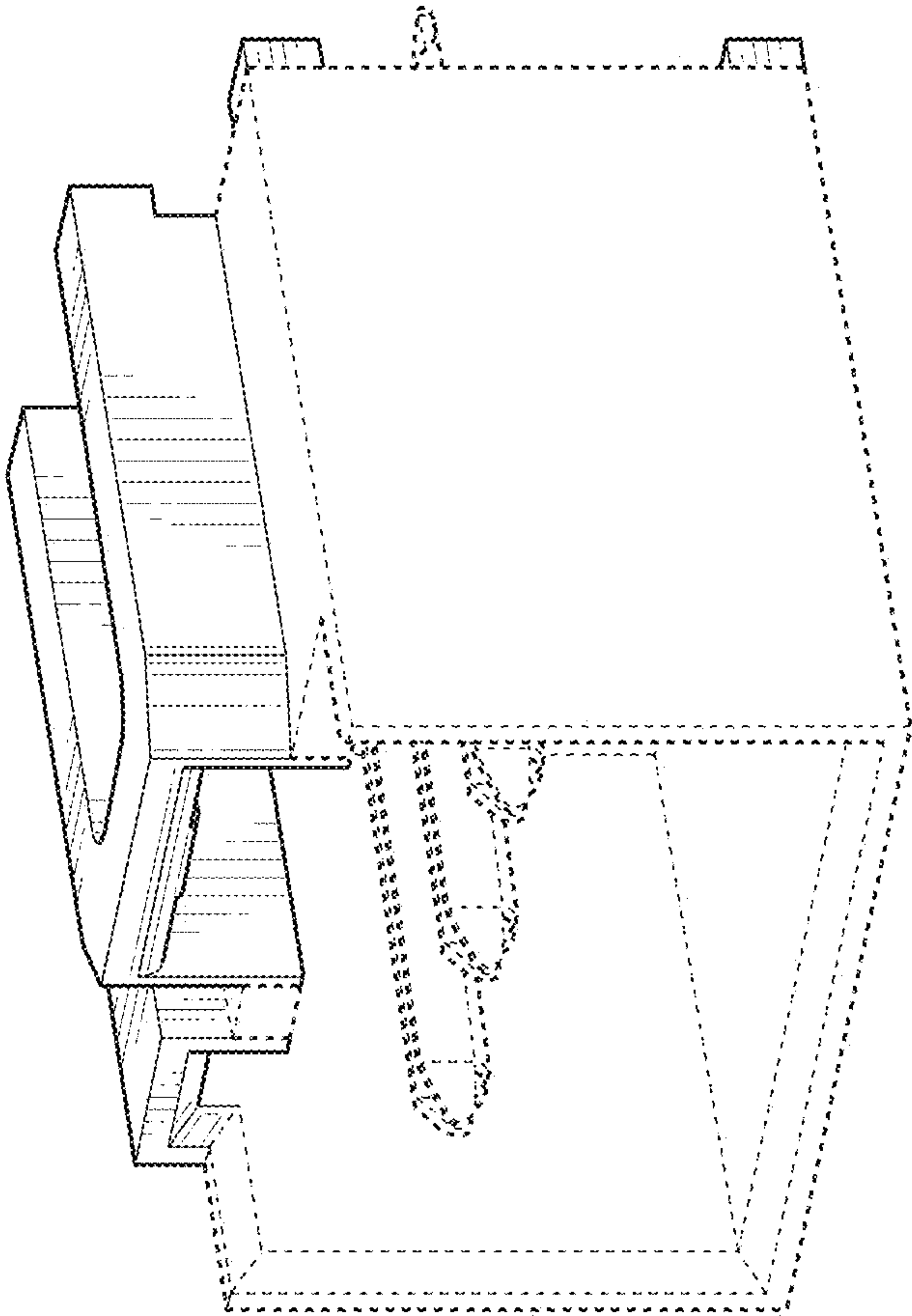


FIG. 15

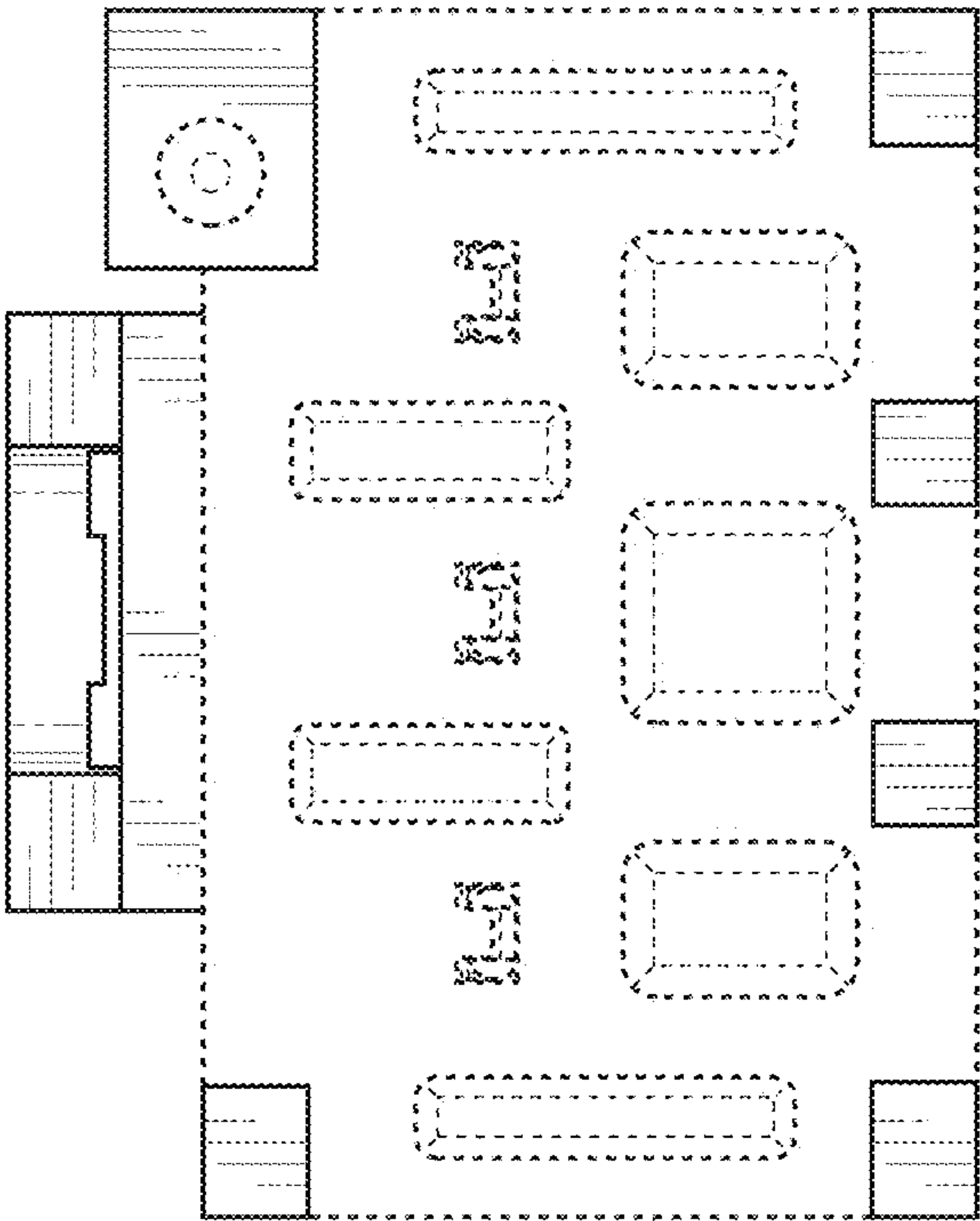


FIG. 17

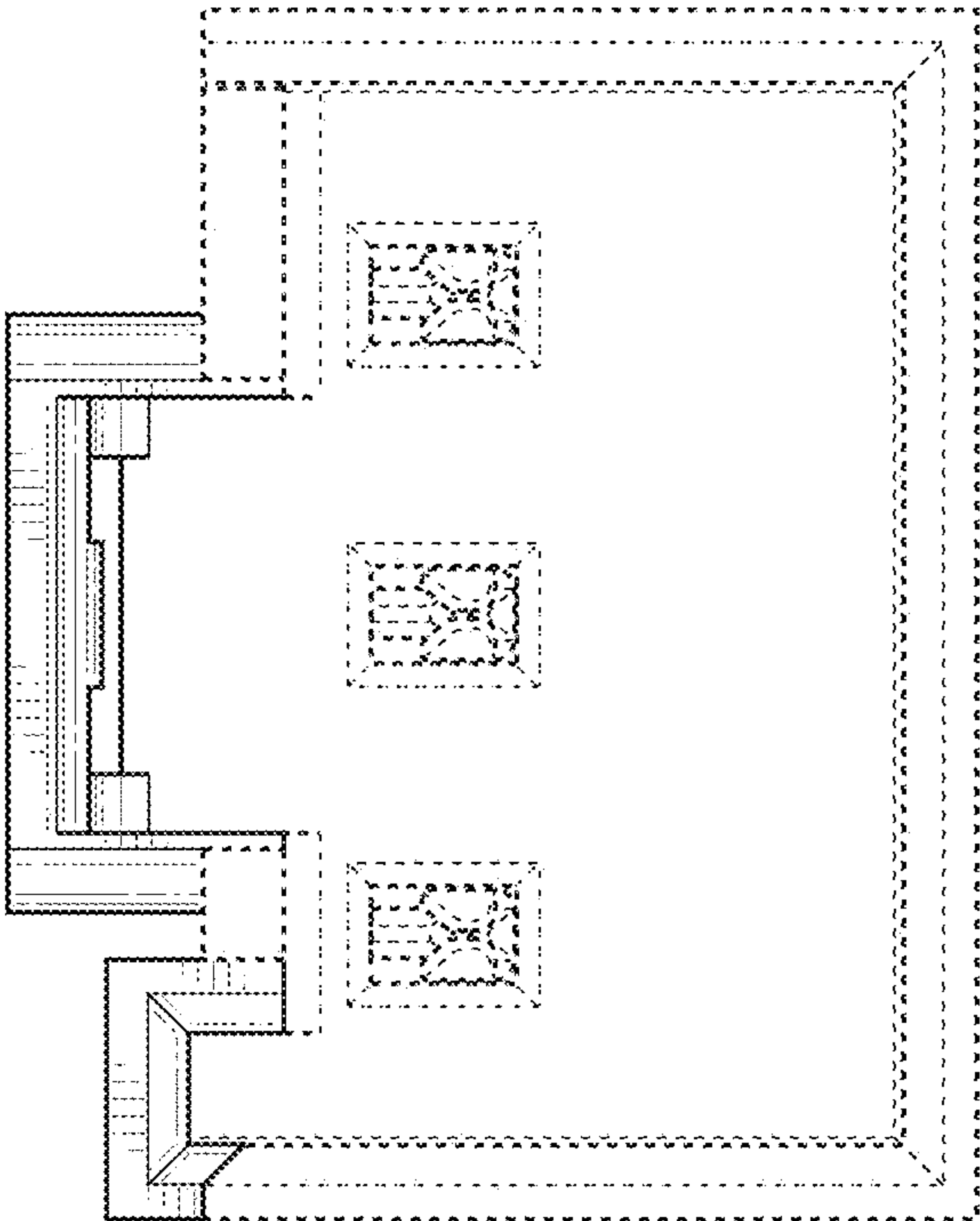


FIG. 16

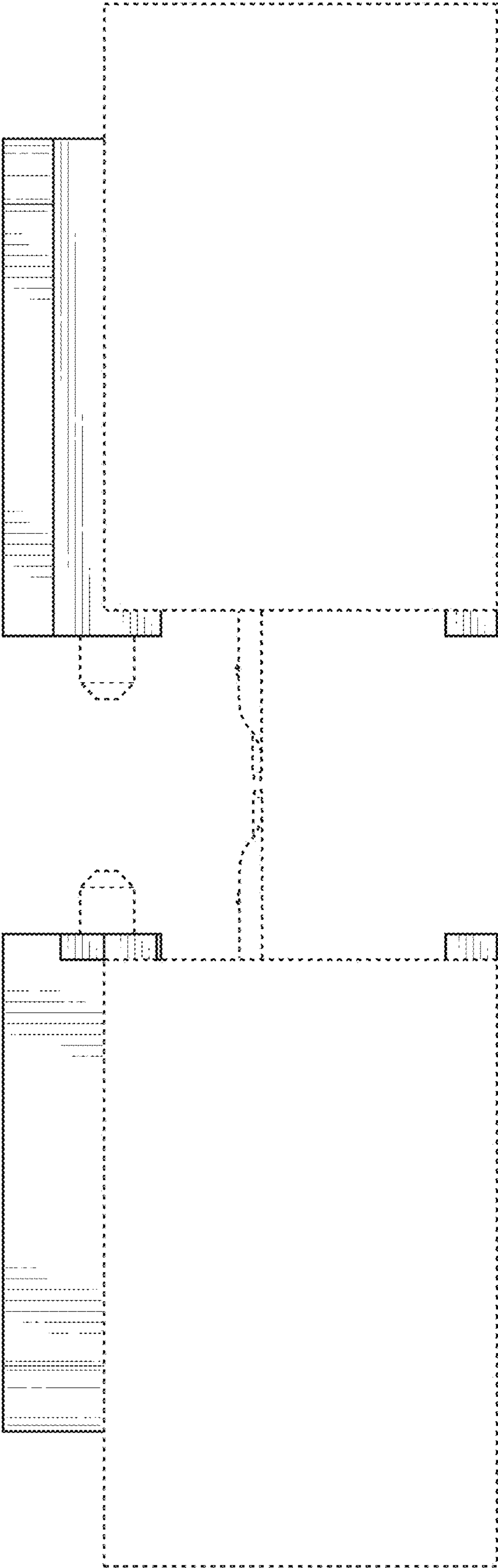


FIG. 19

FIG. 18

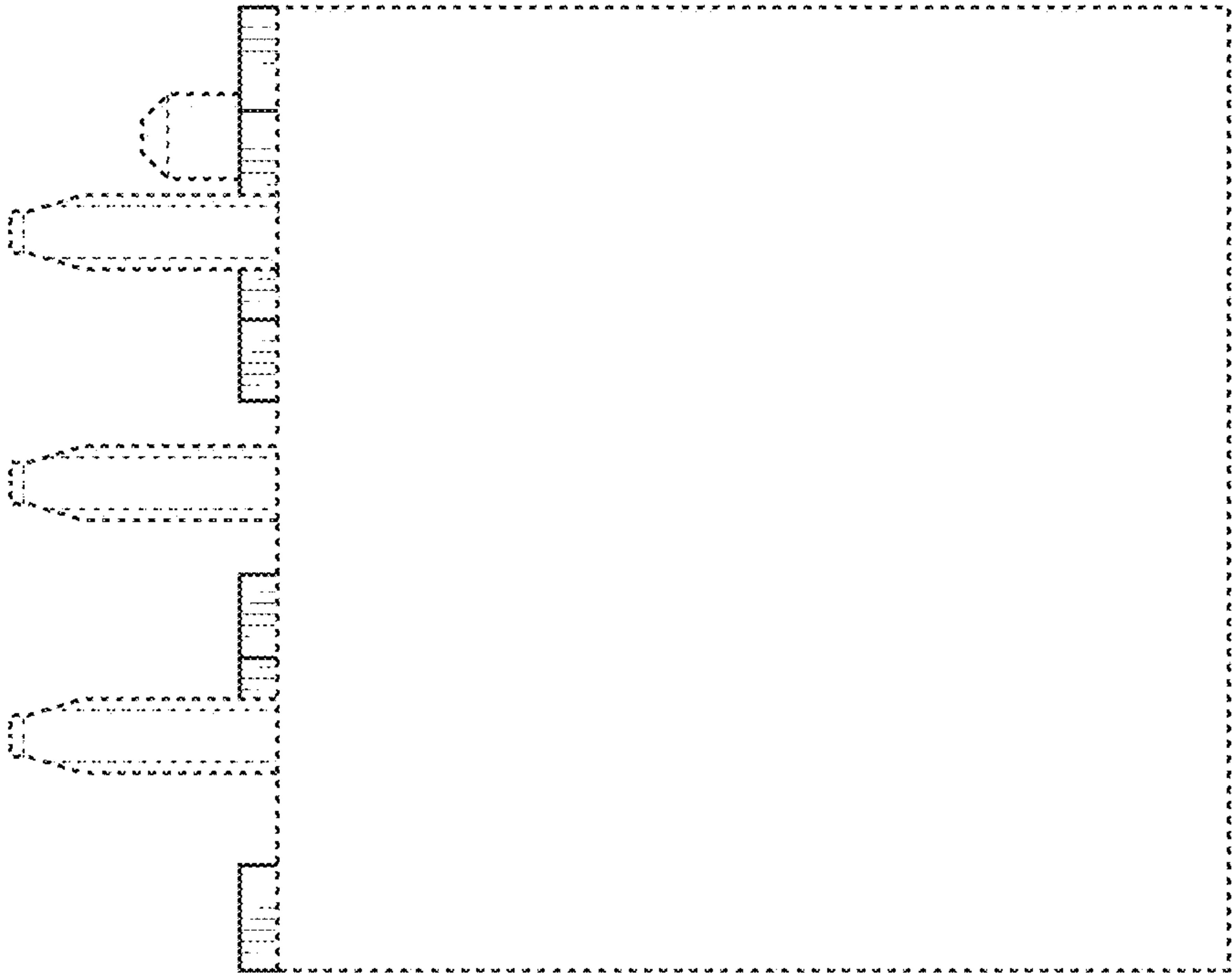


FIG. 21

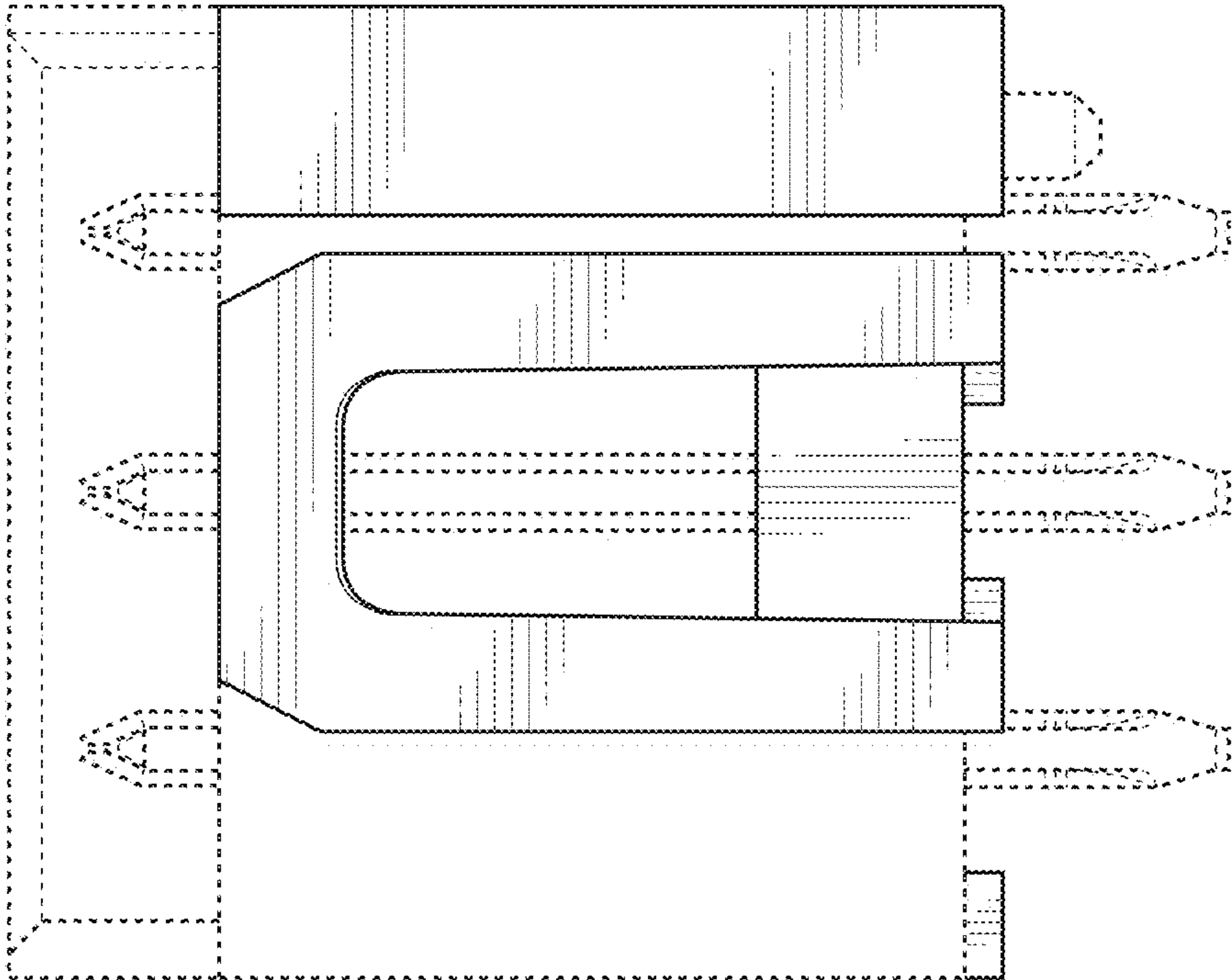


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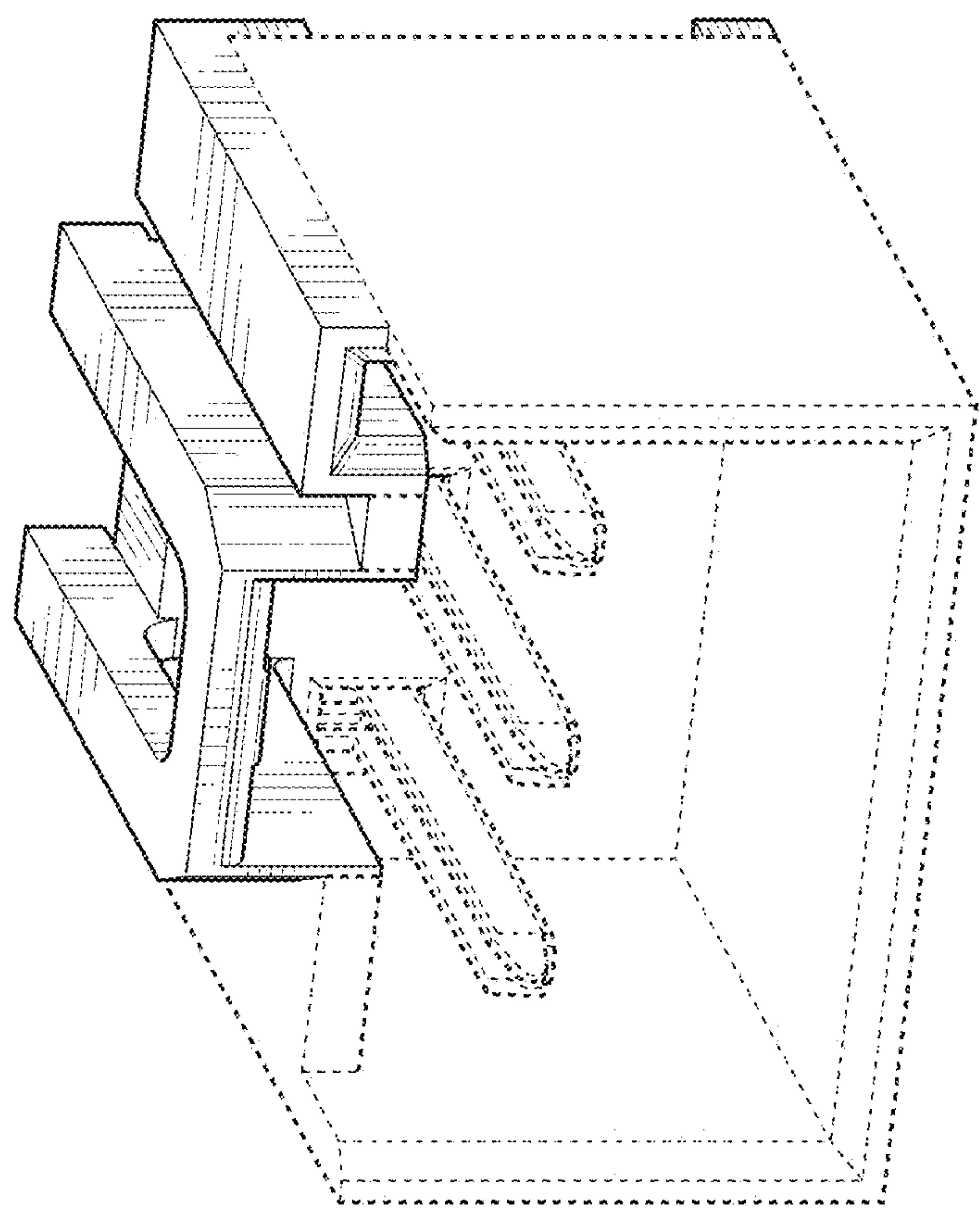


FIG. 22

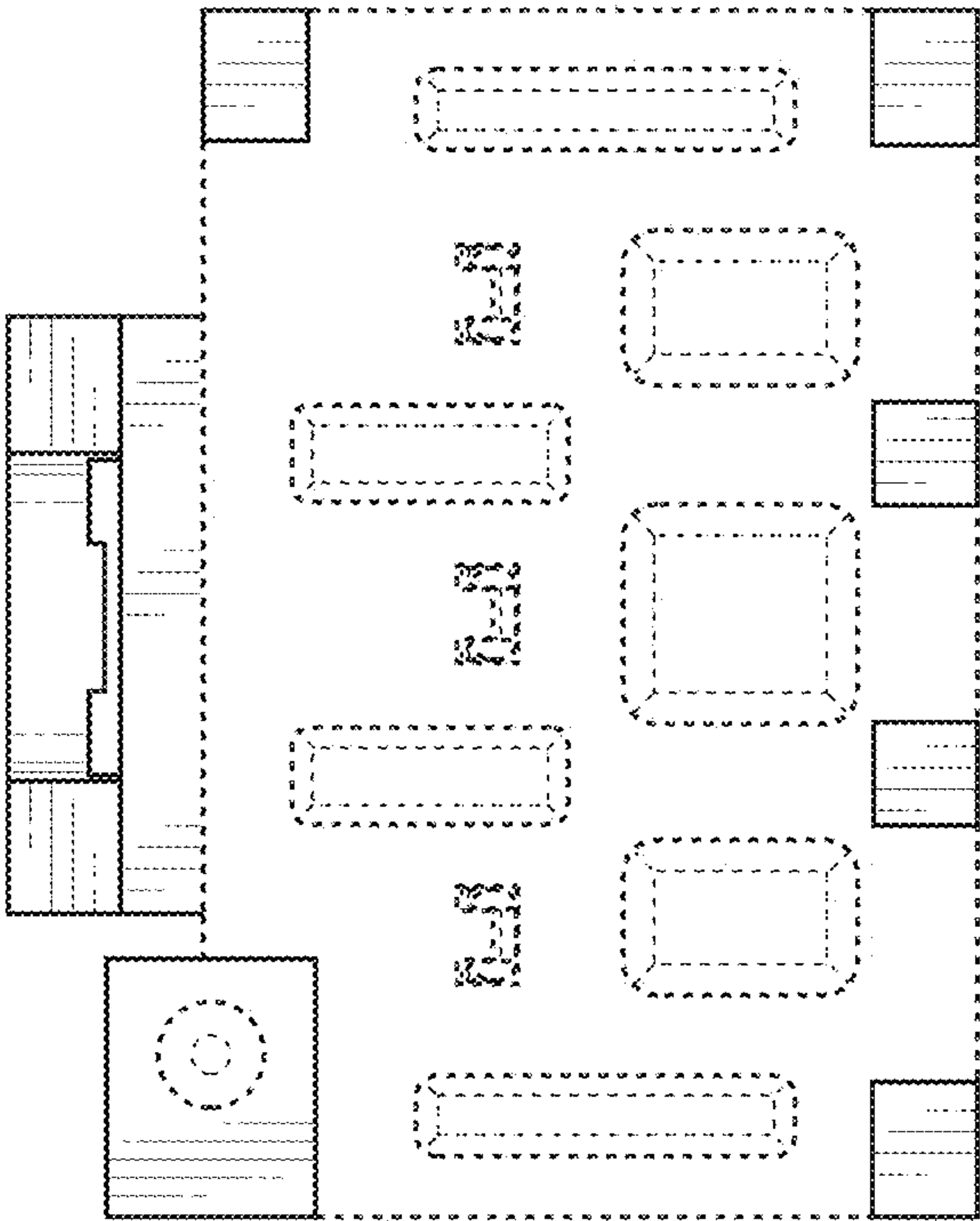


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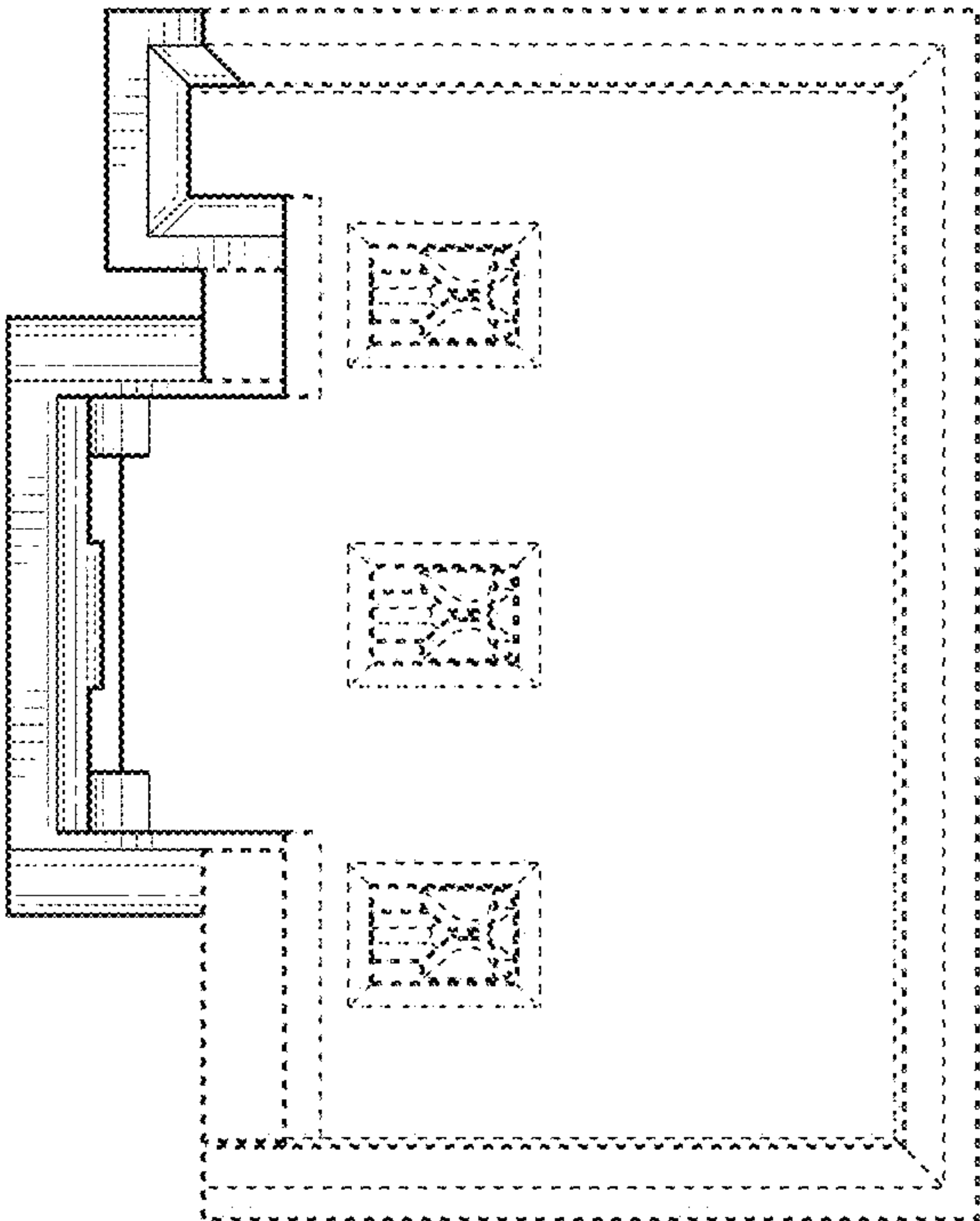


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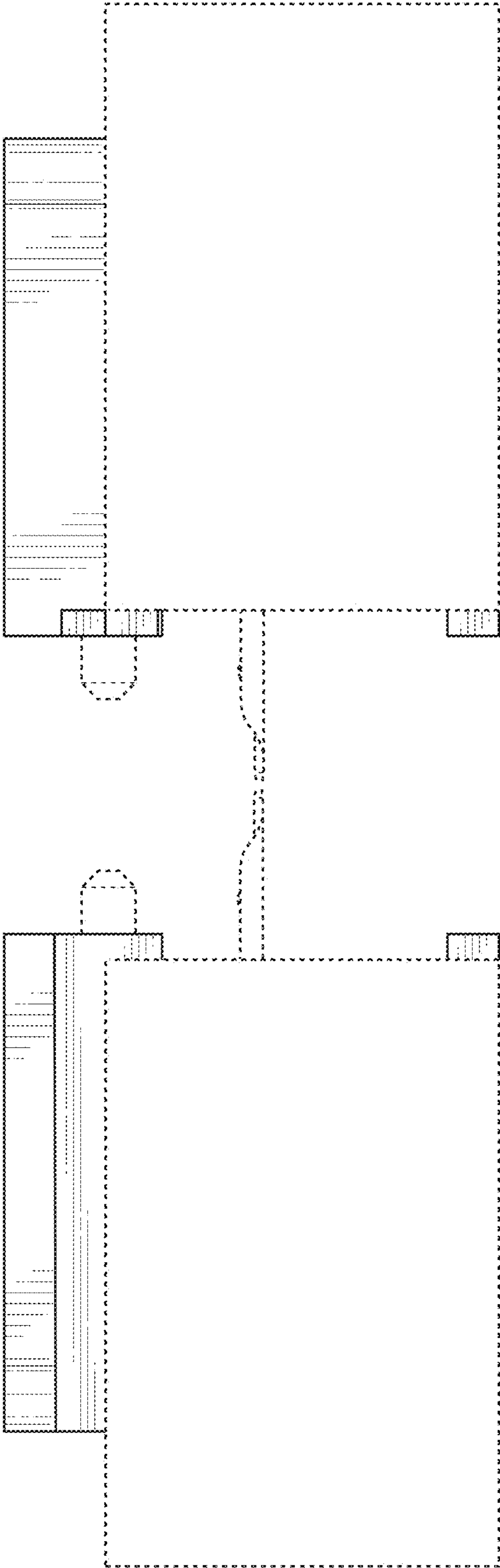


FIG. 26

FIG. 25

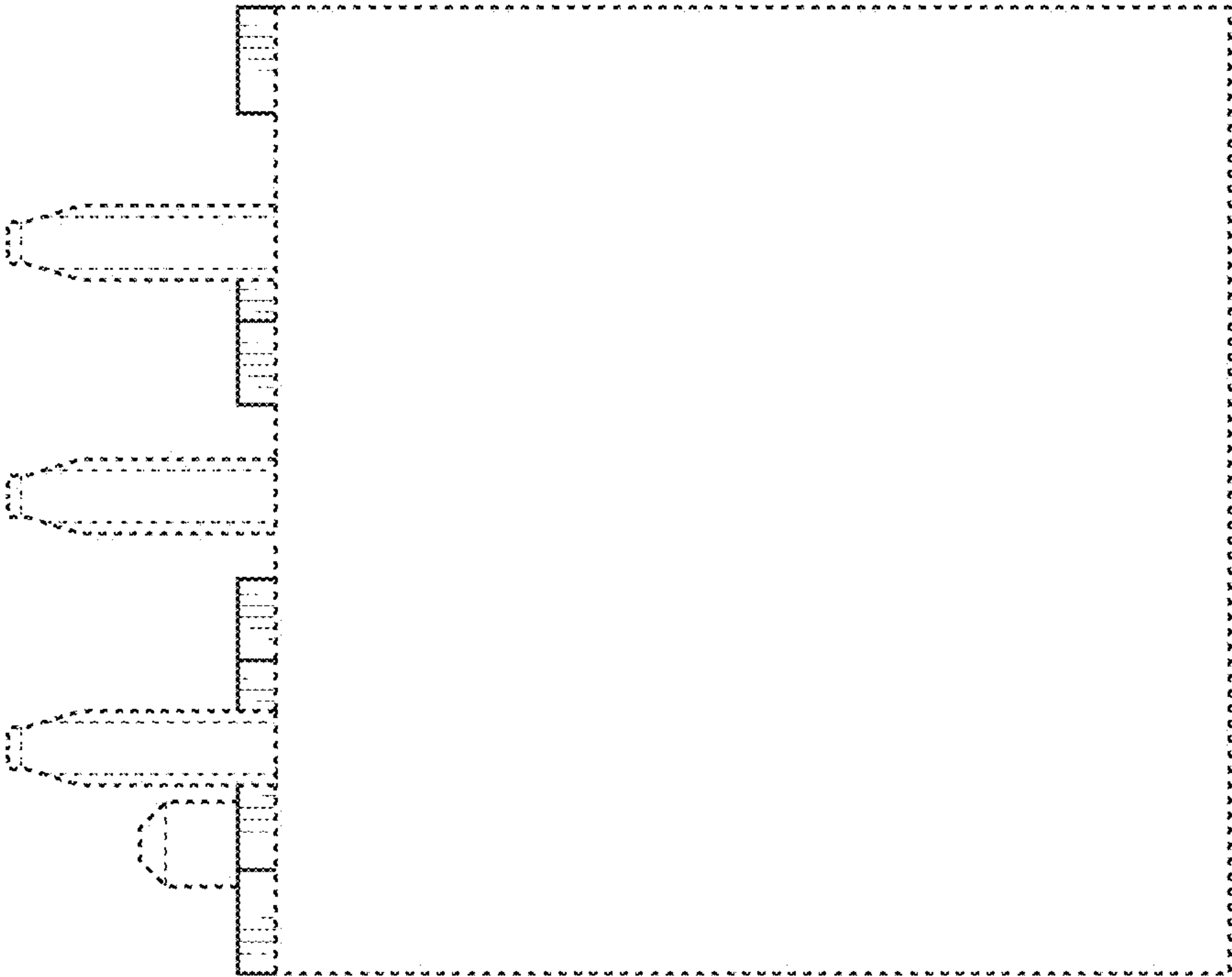


FIG. 28

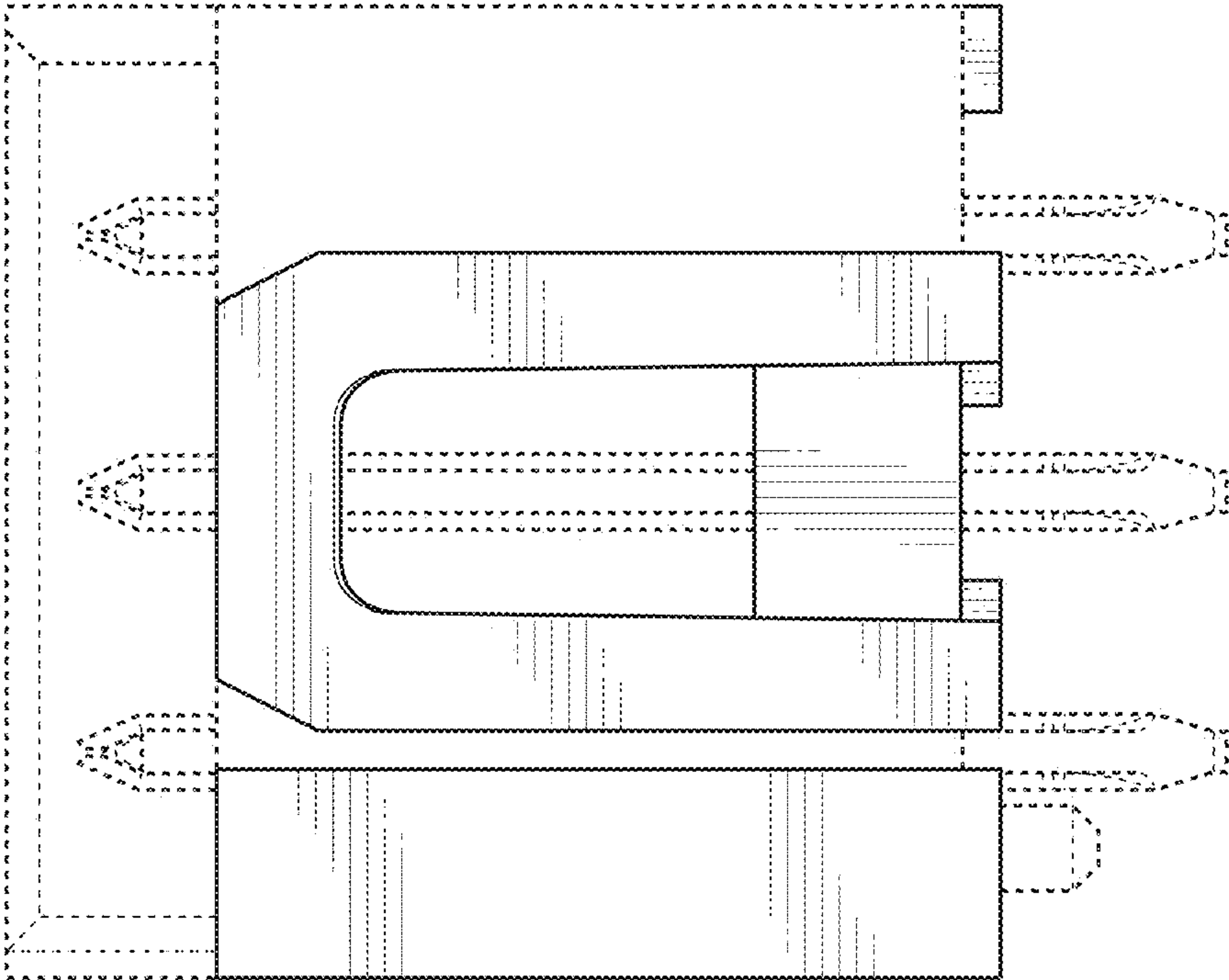


FIG. 27

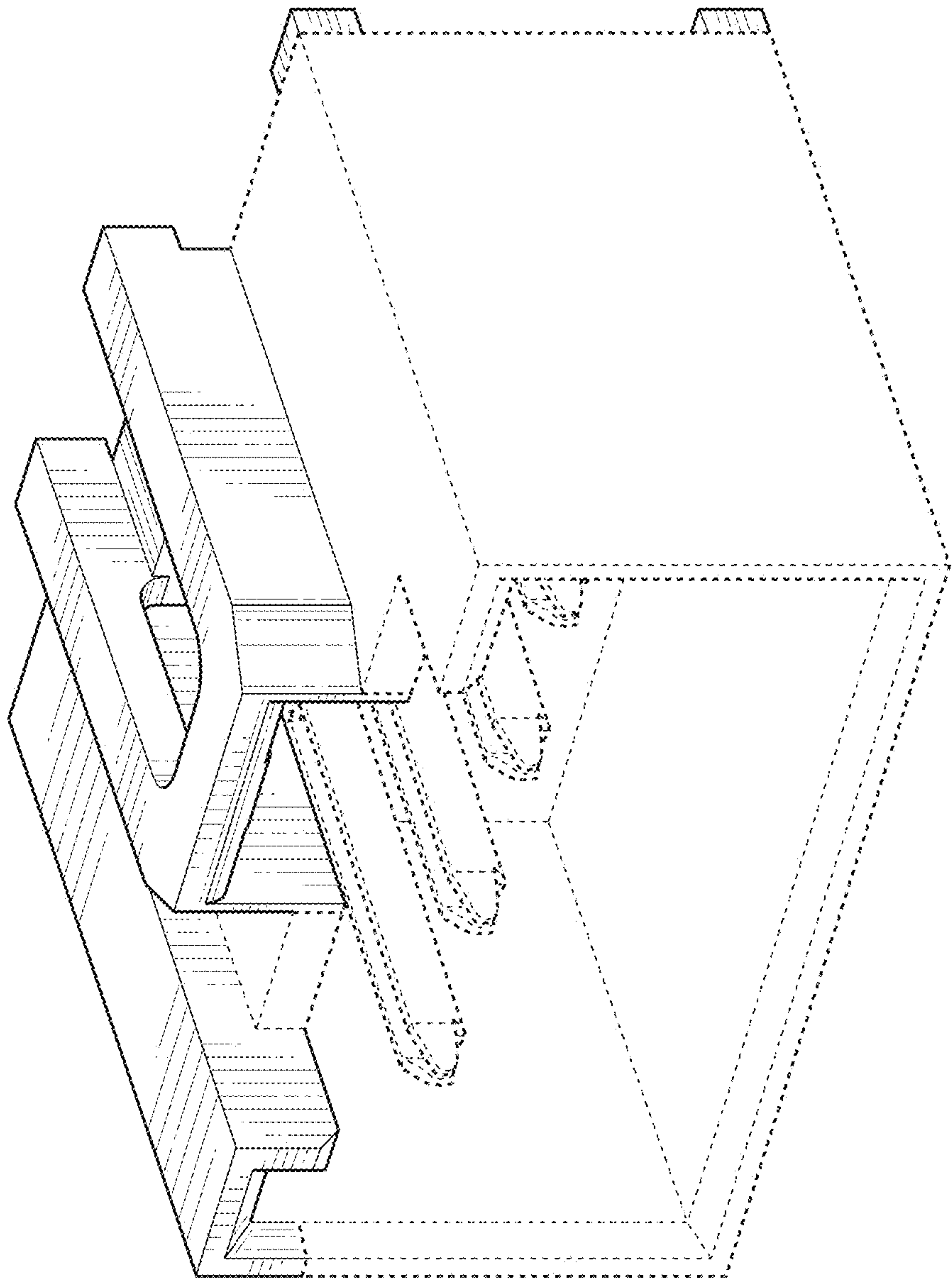


FIG. 29

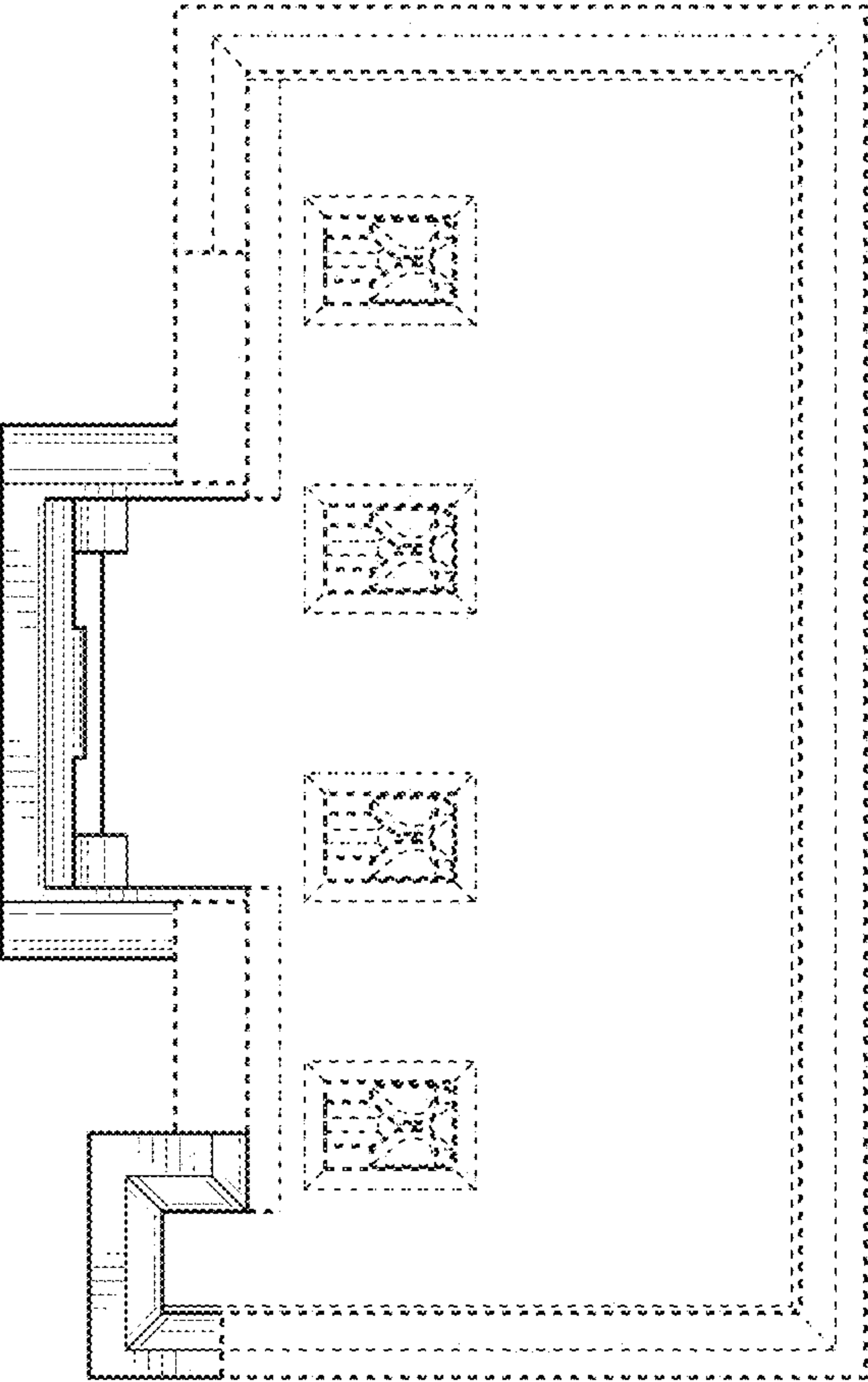


FIG. 30

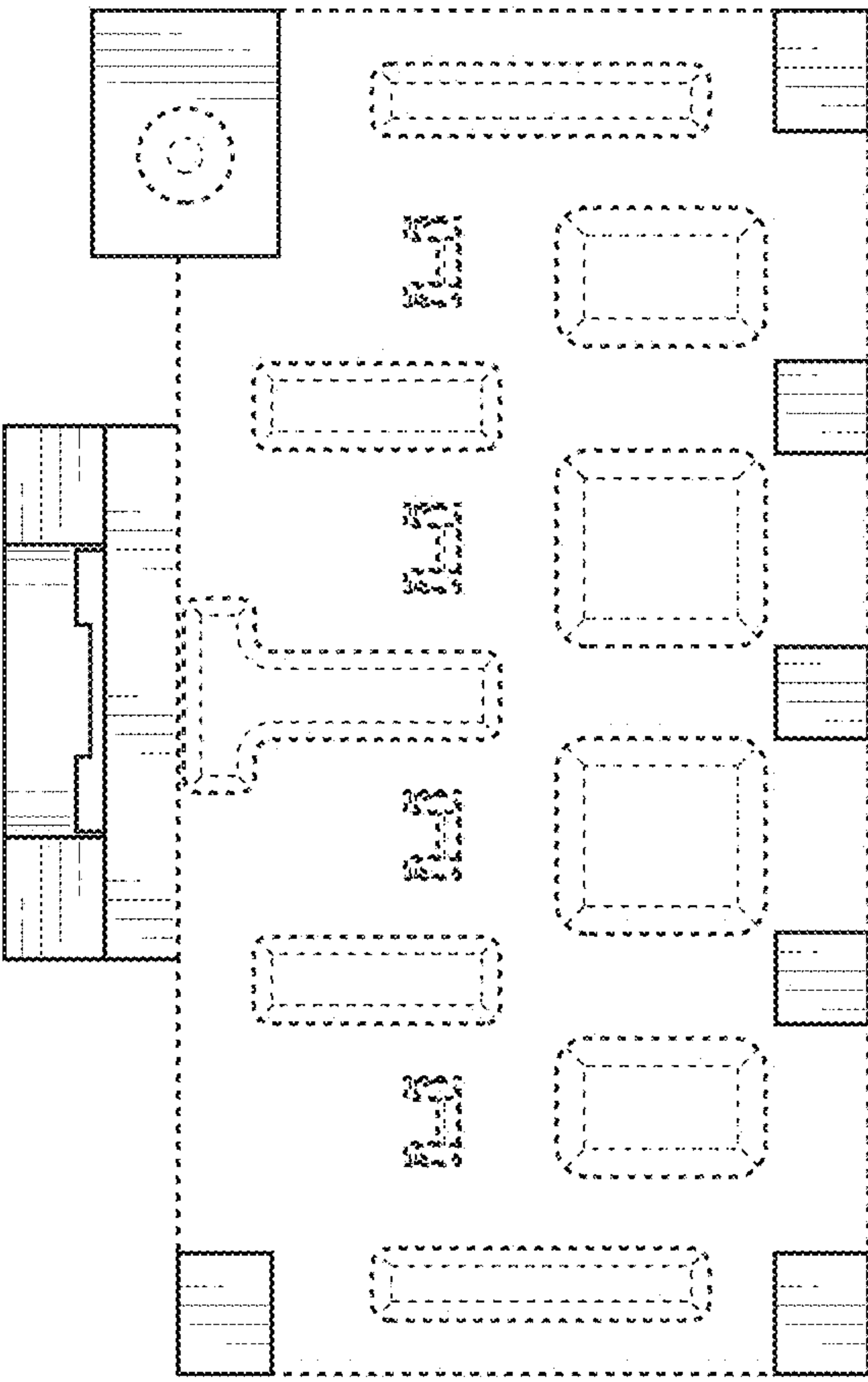


FIG. 31

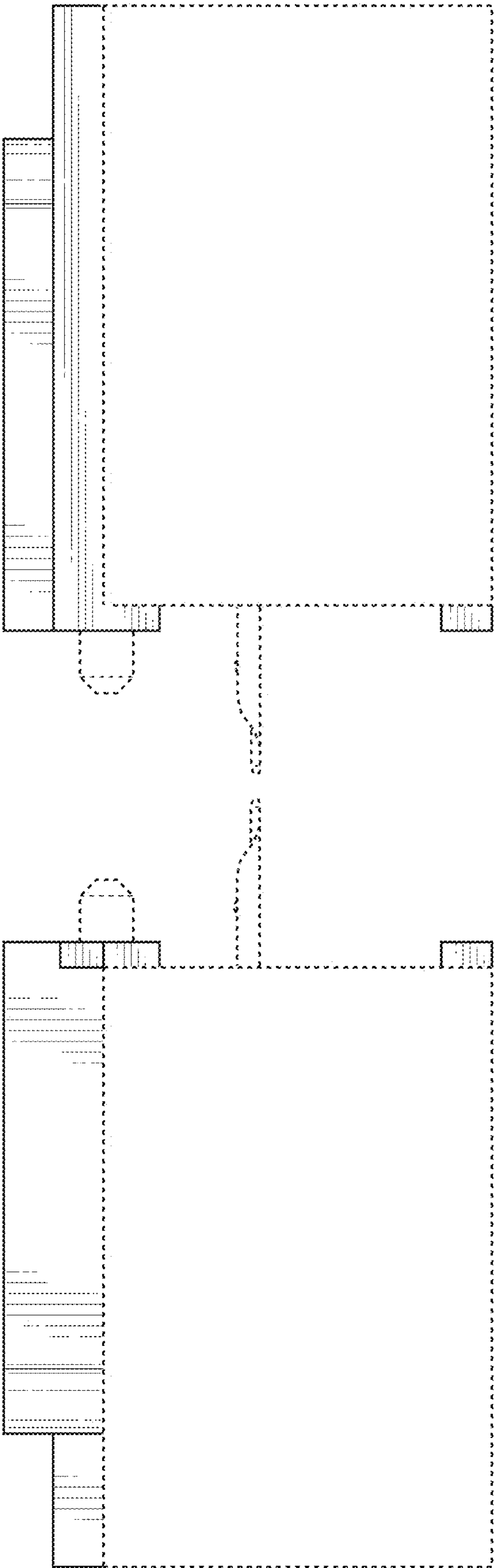


FIG. 33

FIG. 32

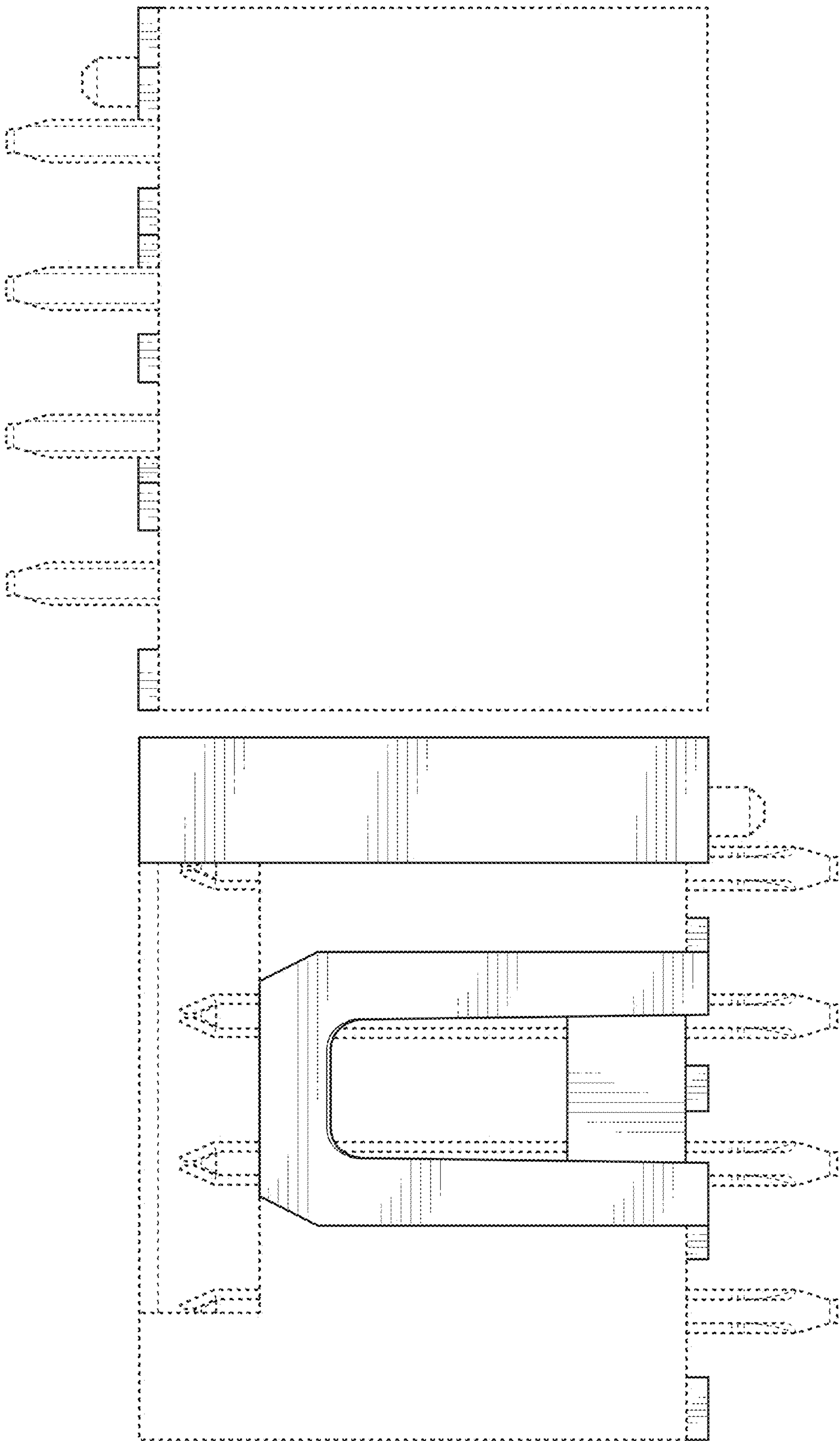


FIG. 35

FIG. 34

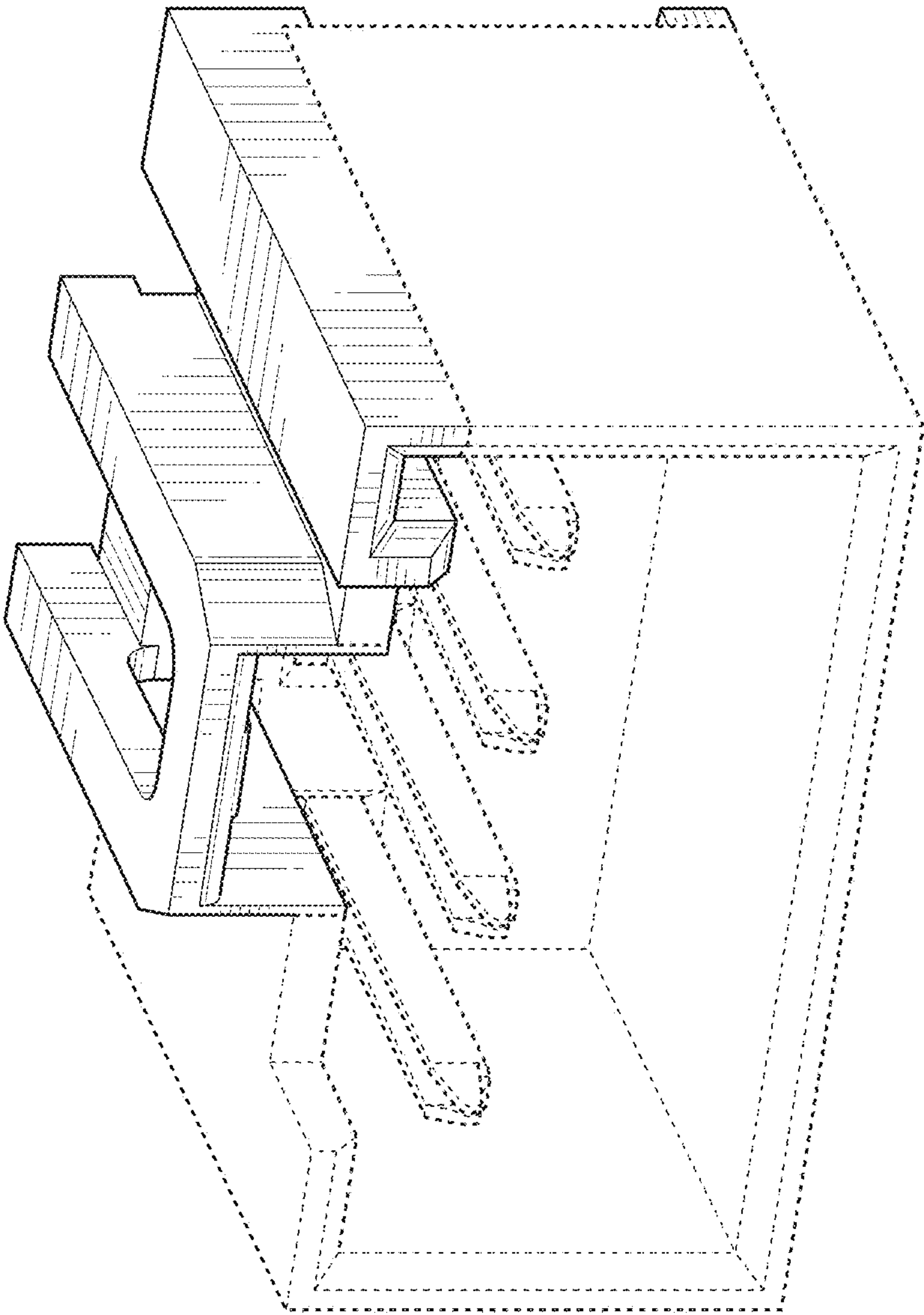


FIG. 36

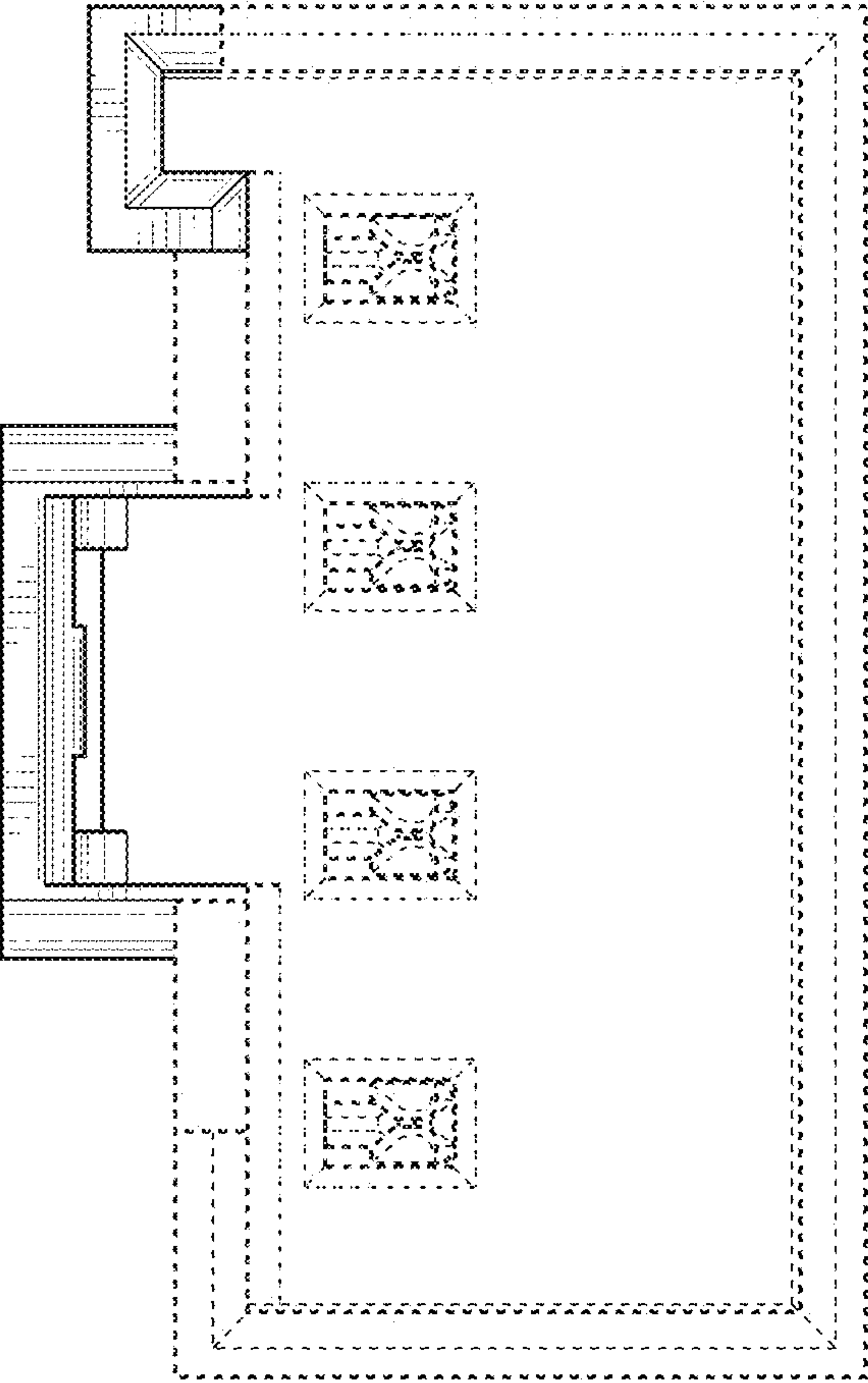


FIG. 37

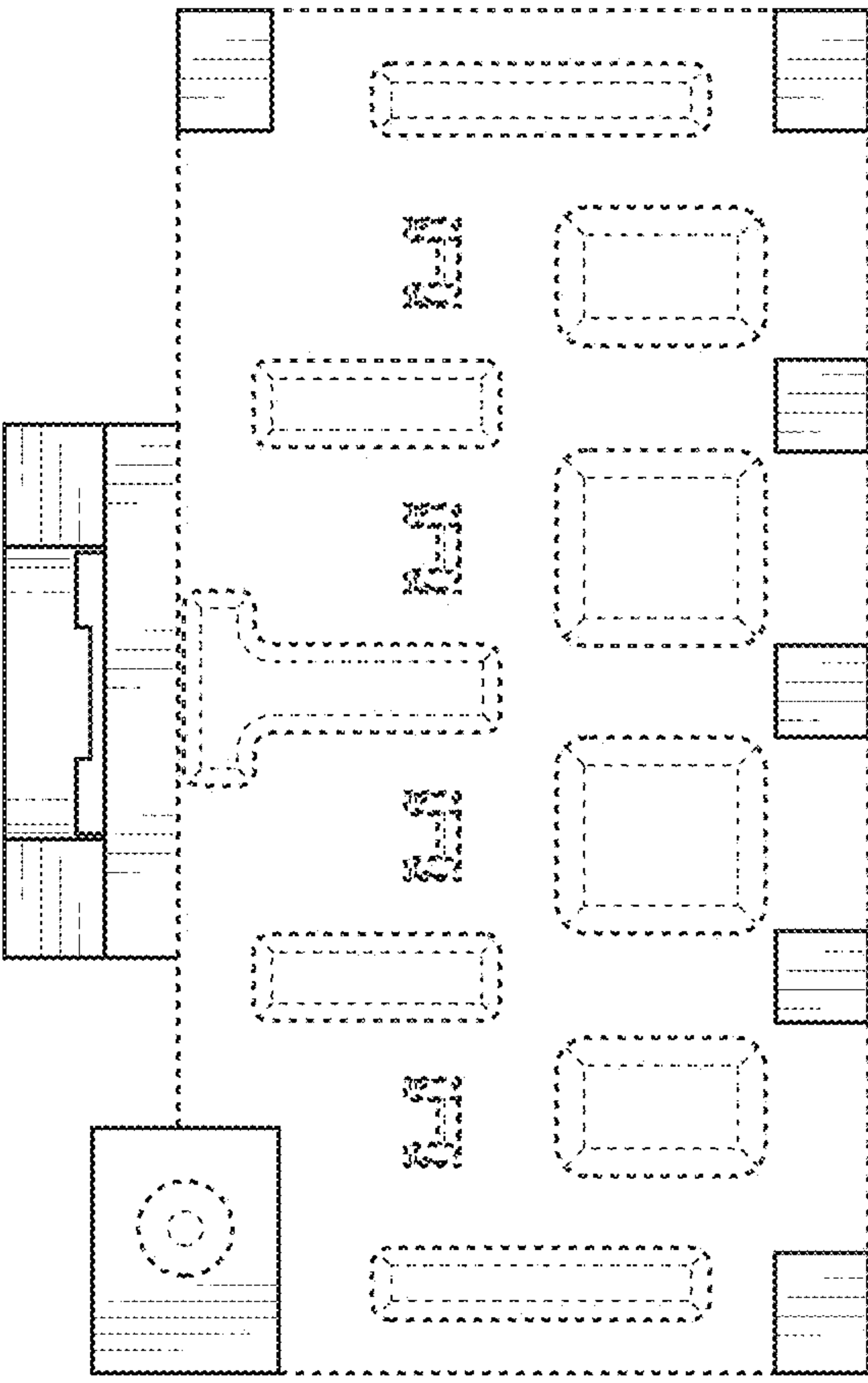


FIG. 38

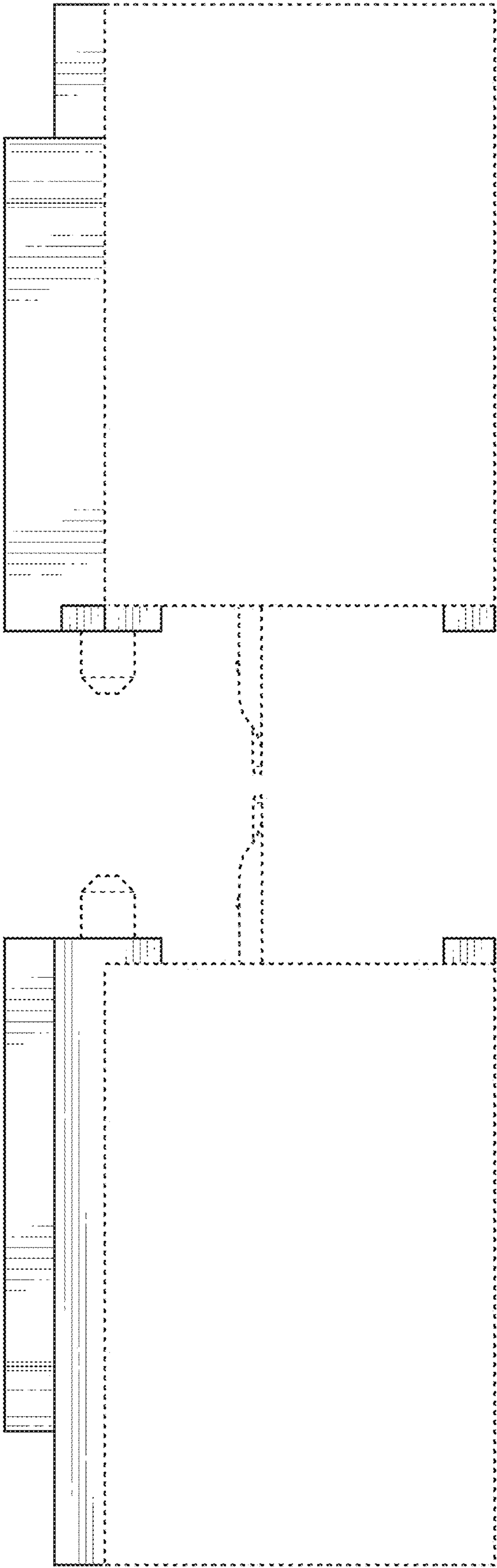


FIG. 39

FIG. 40

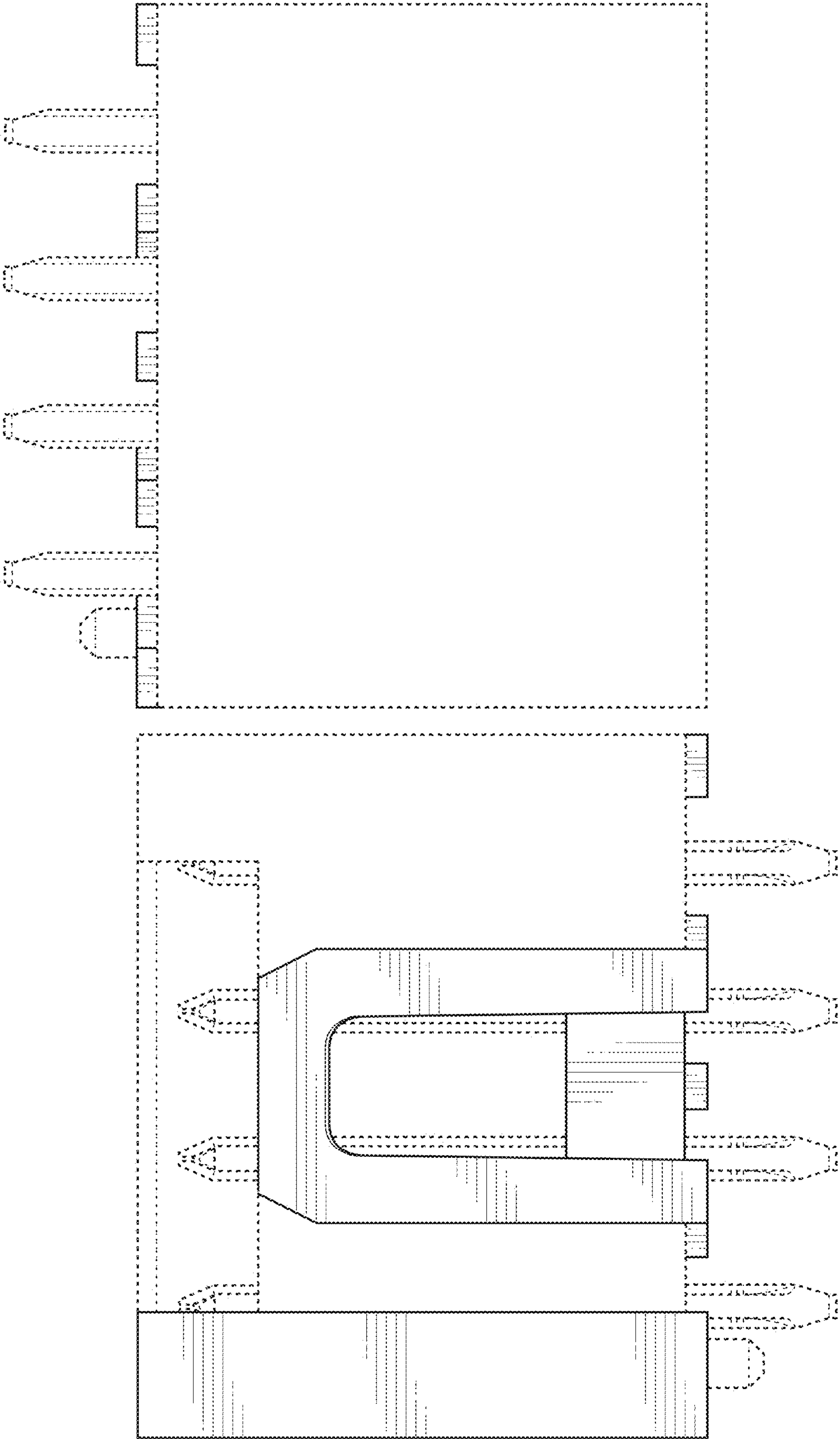


FIG. 41

FIG. 42

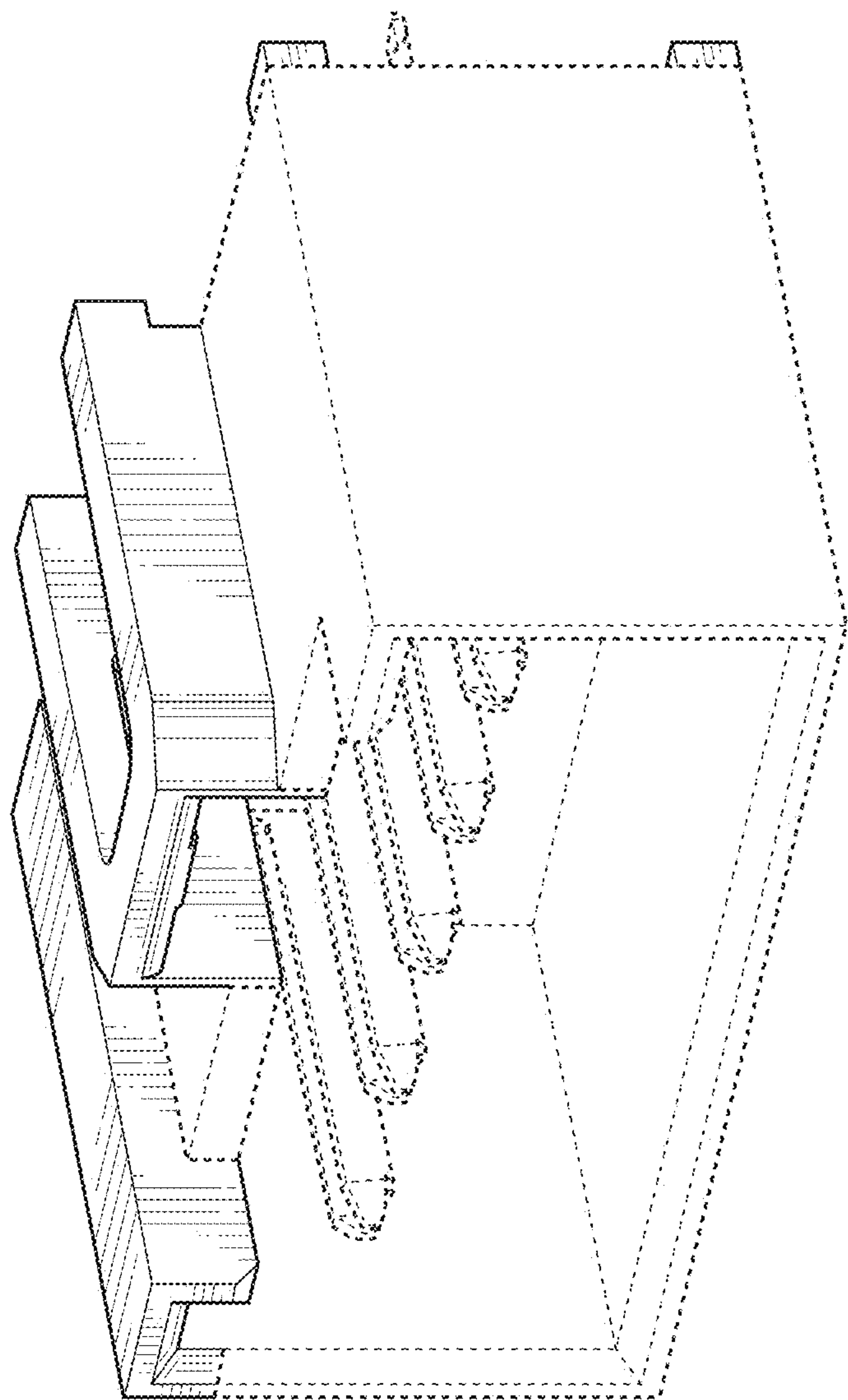


FIG. 43

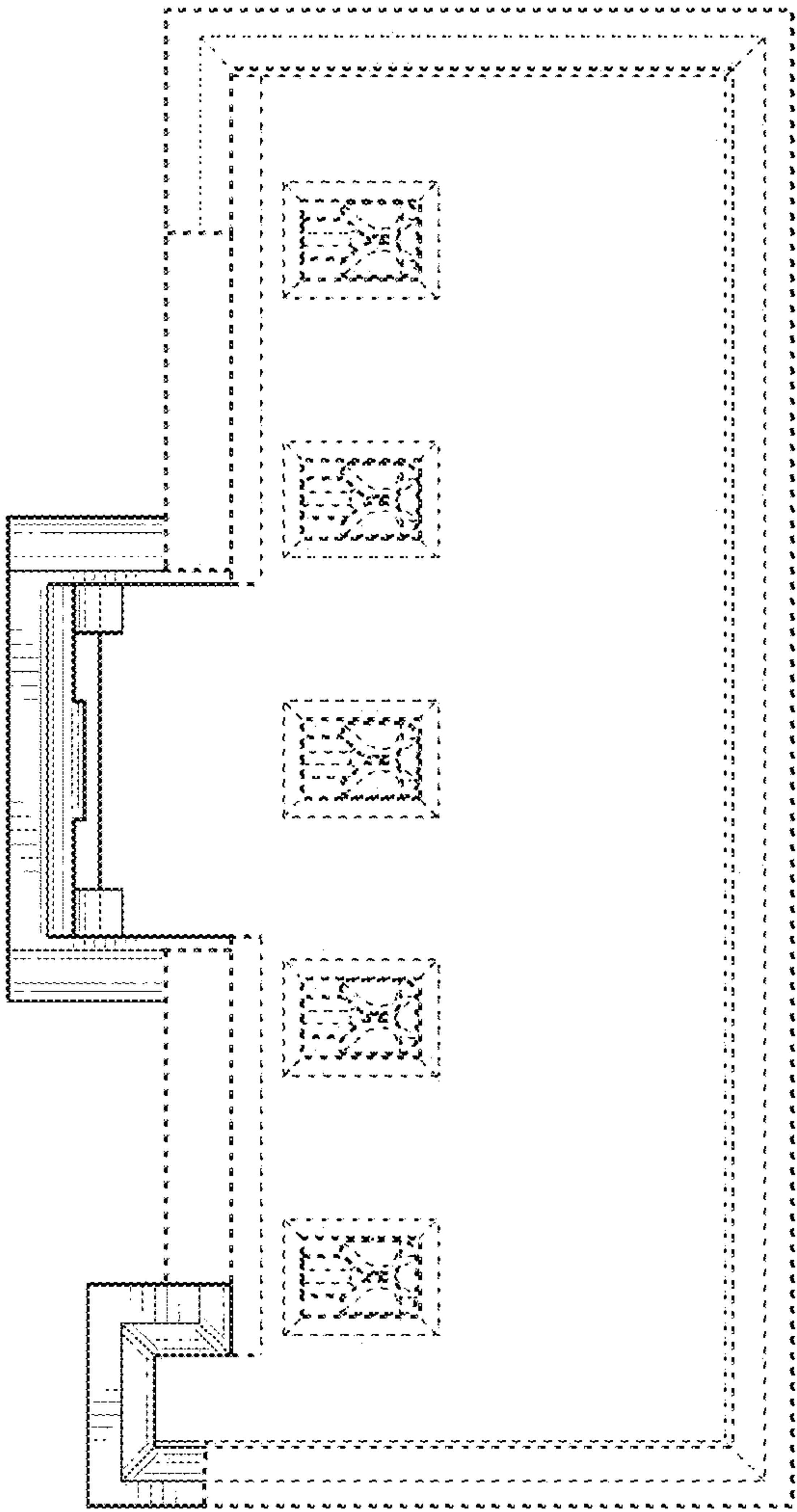


FIG. 44

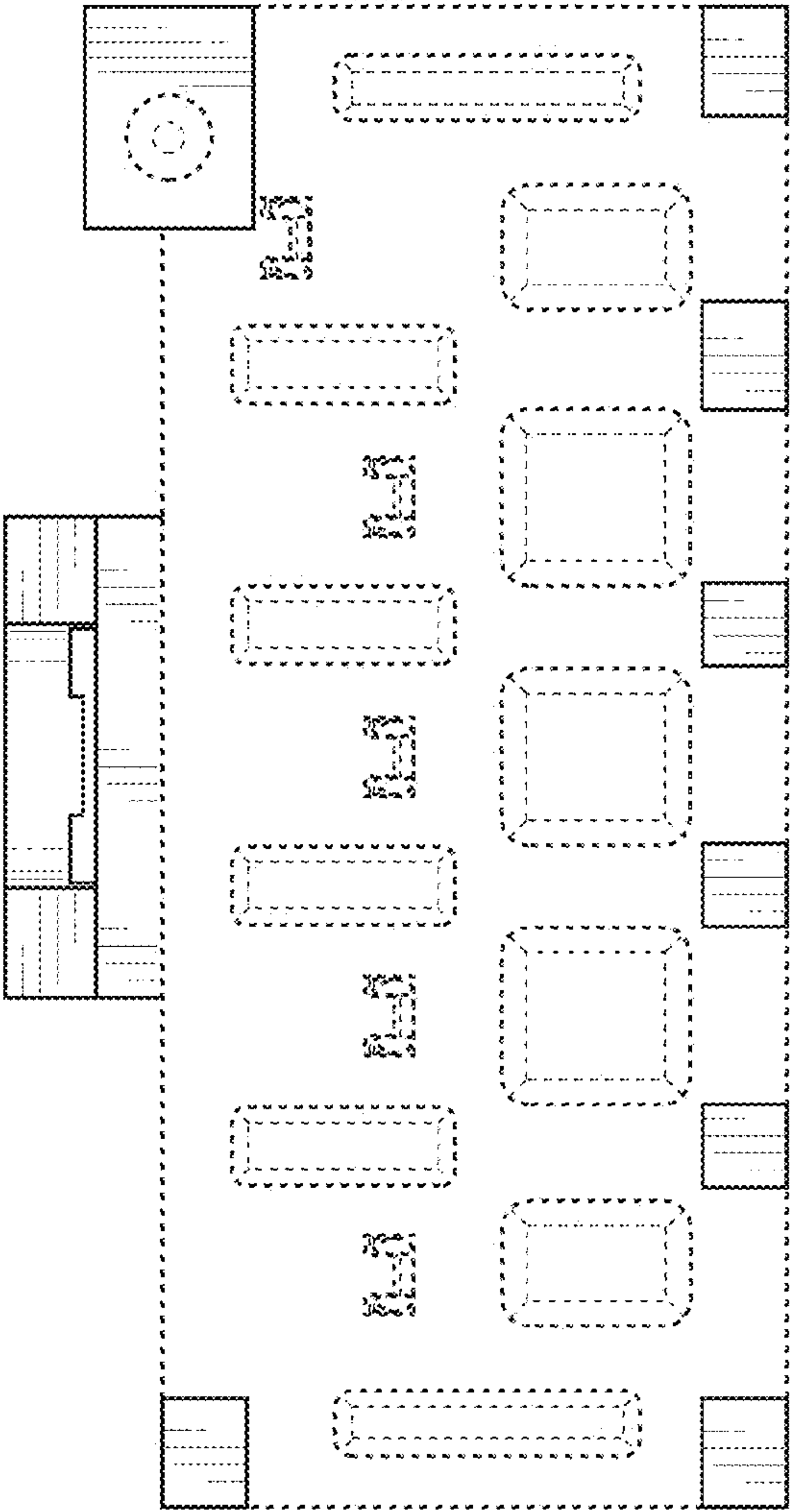


FIG. 45

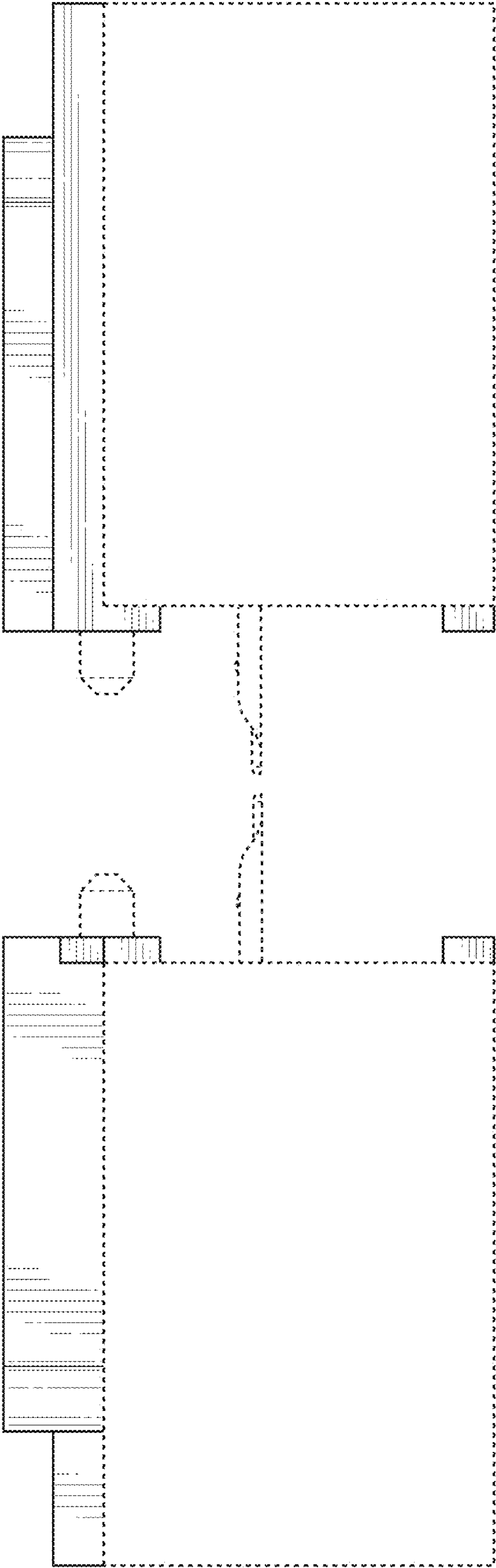


FIG. 47

FIG. 46

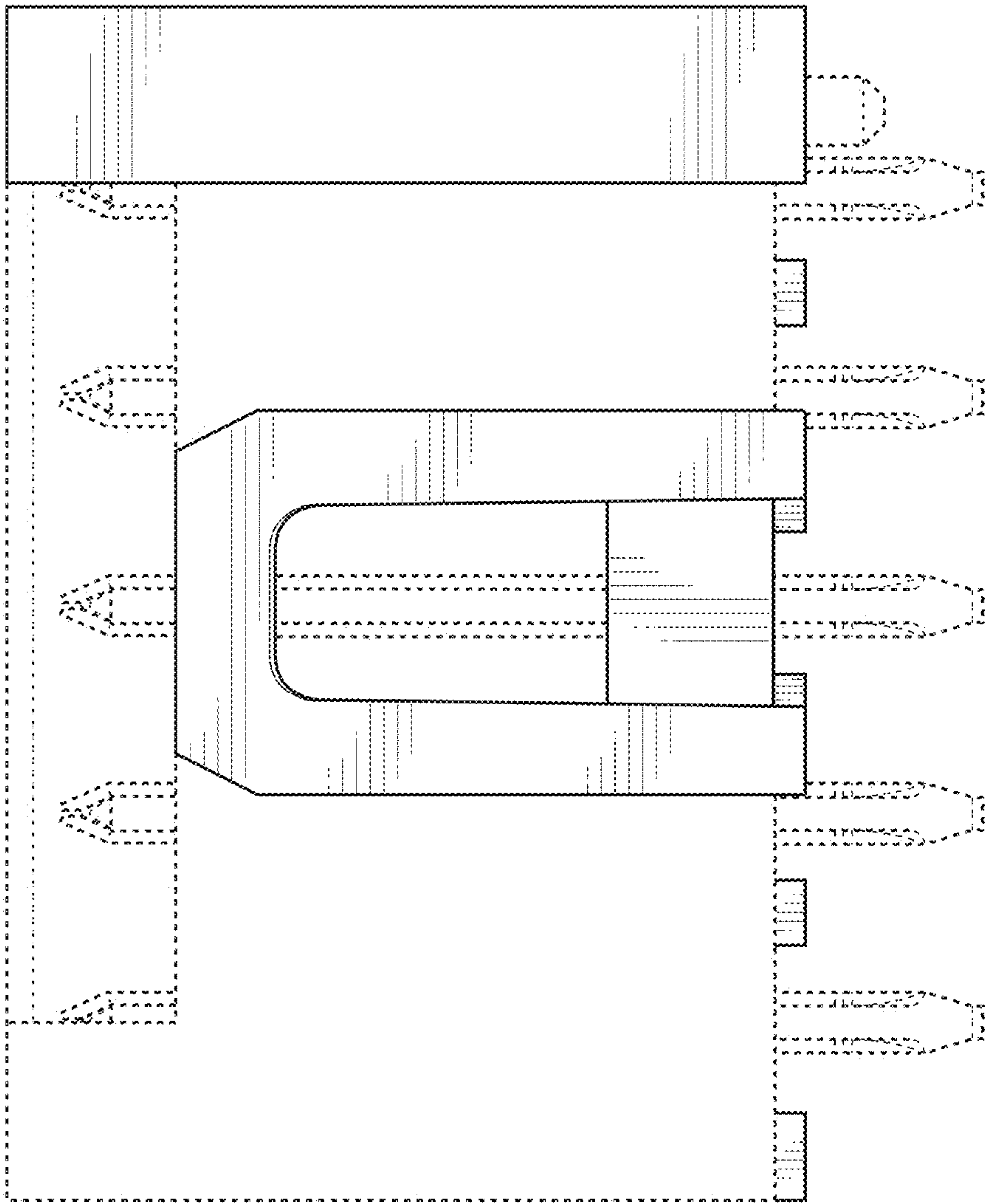


FIG. 48

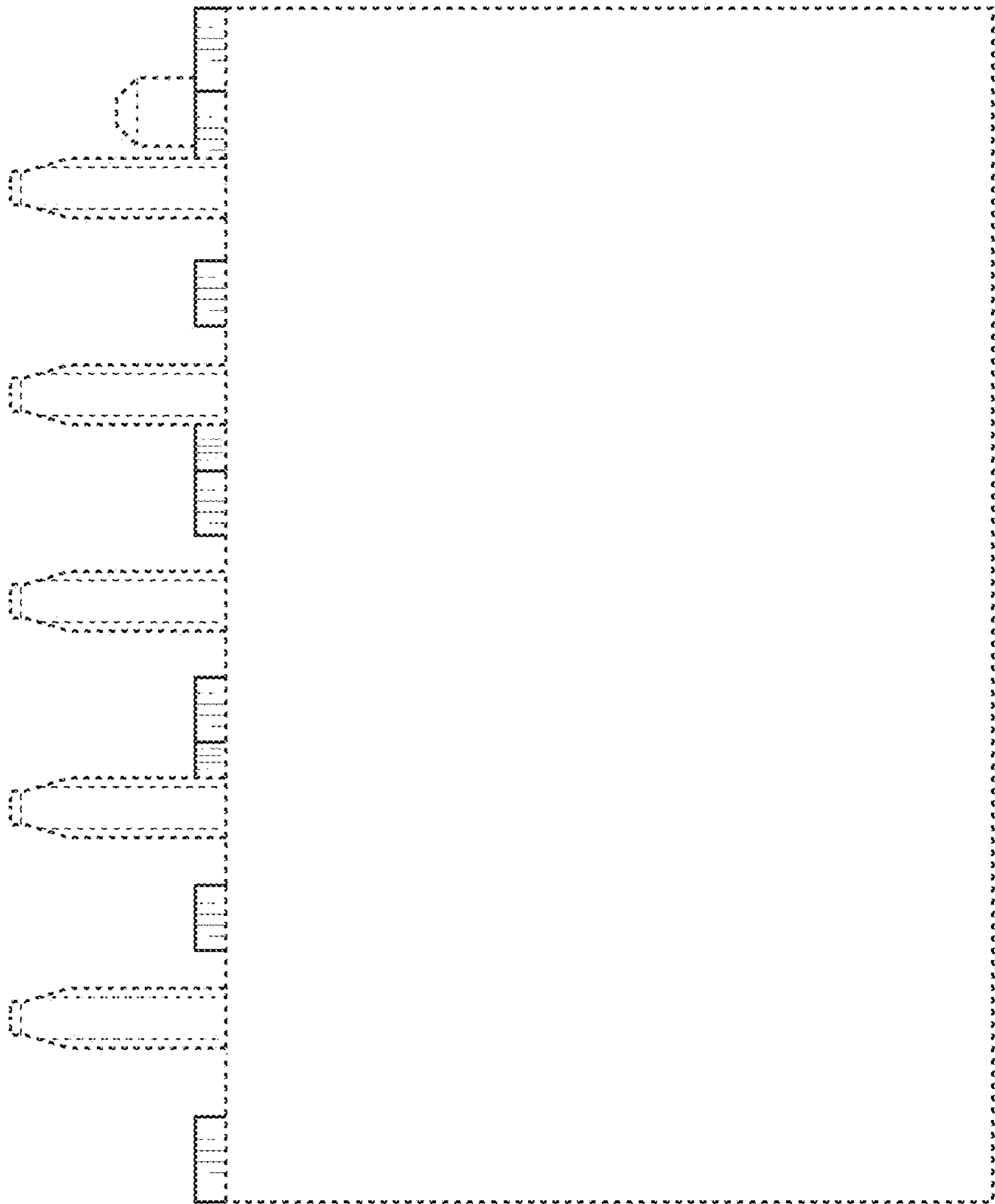


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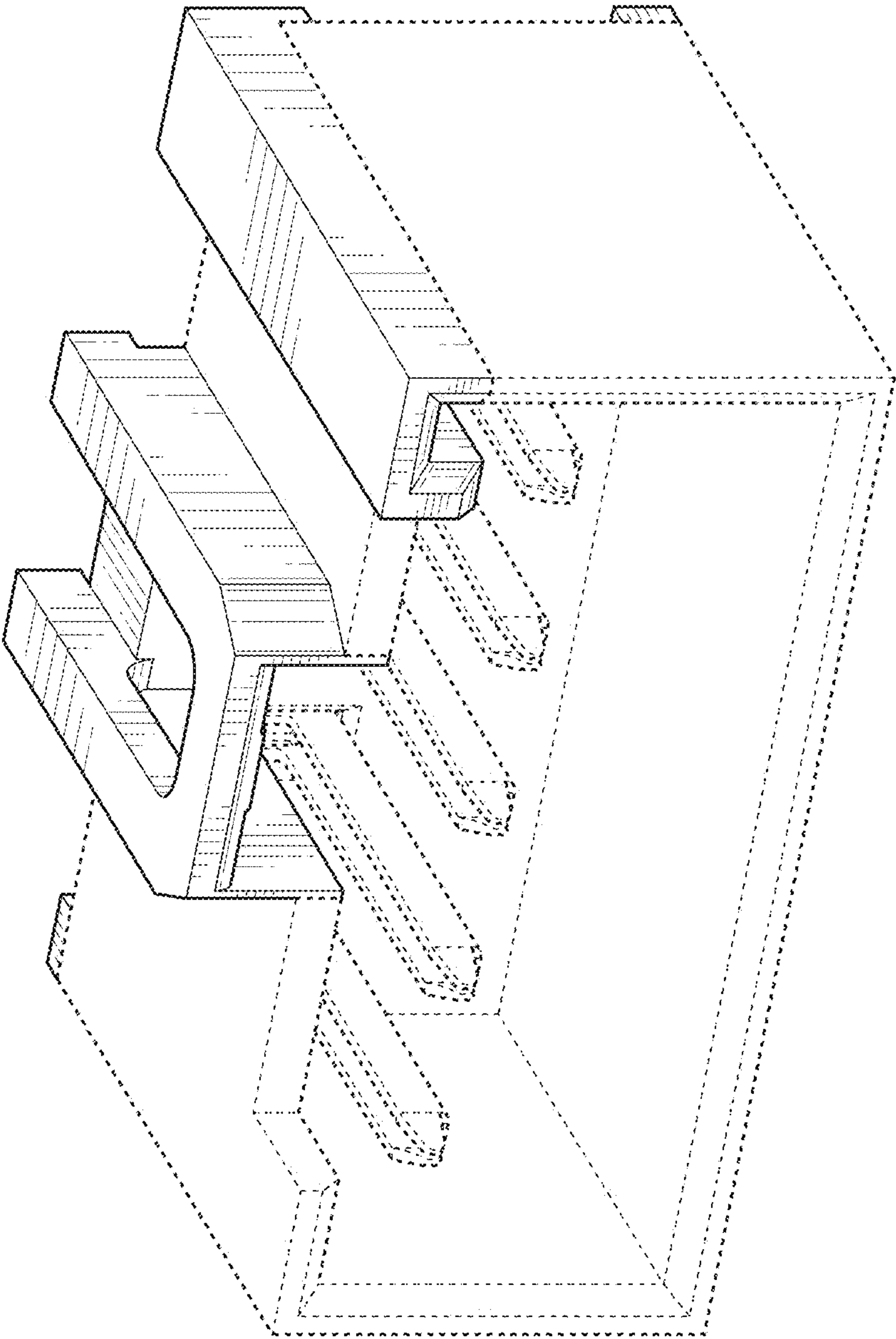


FIG. 50

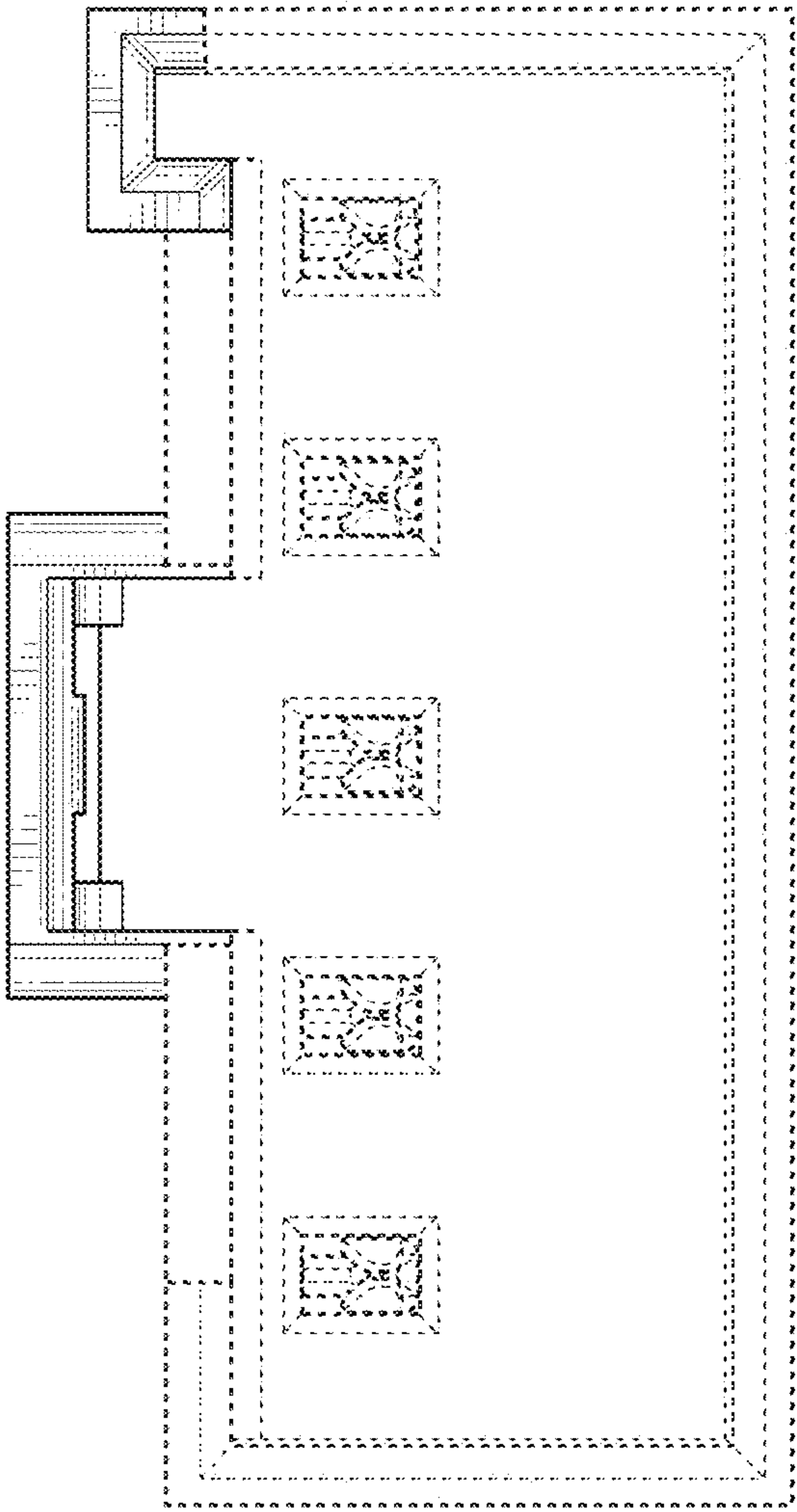


FIG. 51

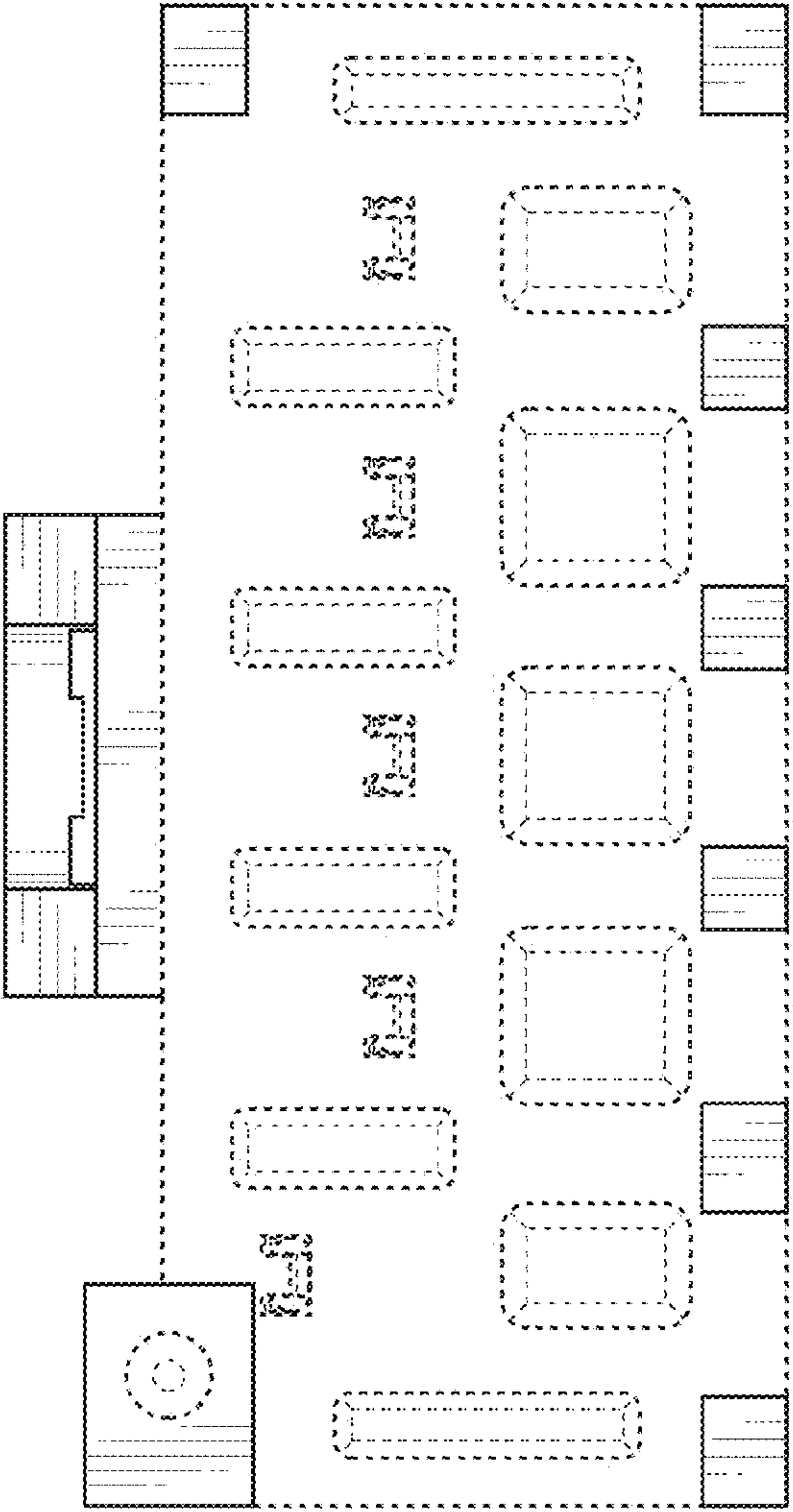


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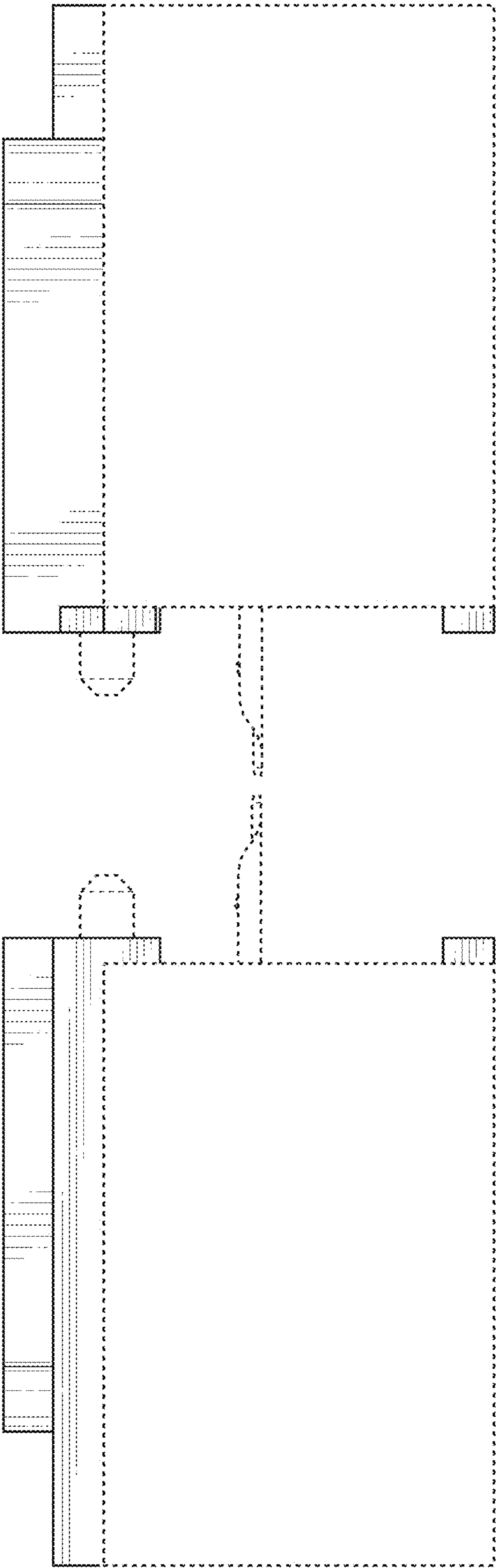


FIG. 54

FIG. 53

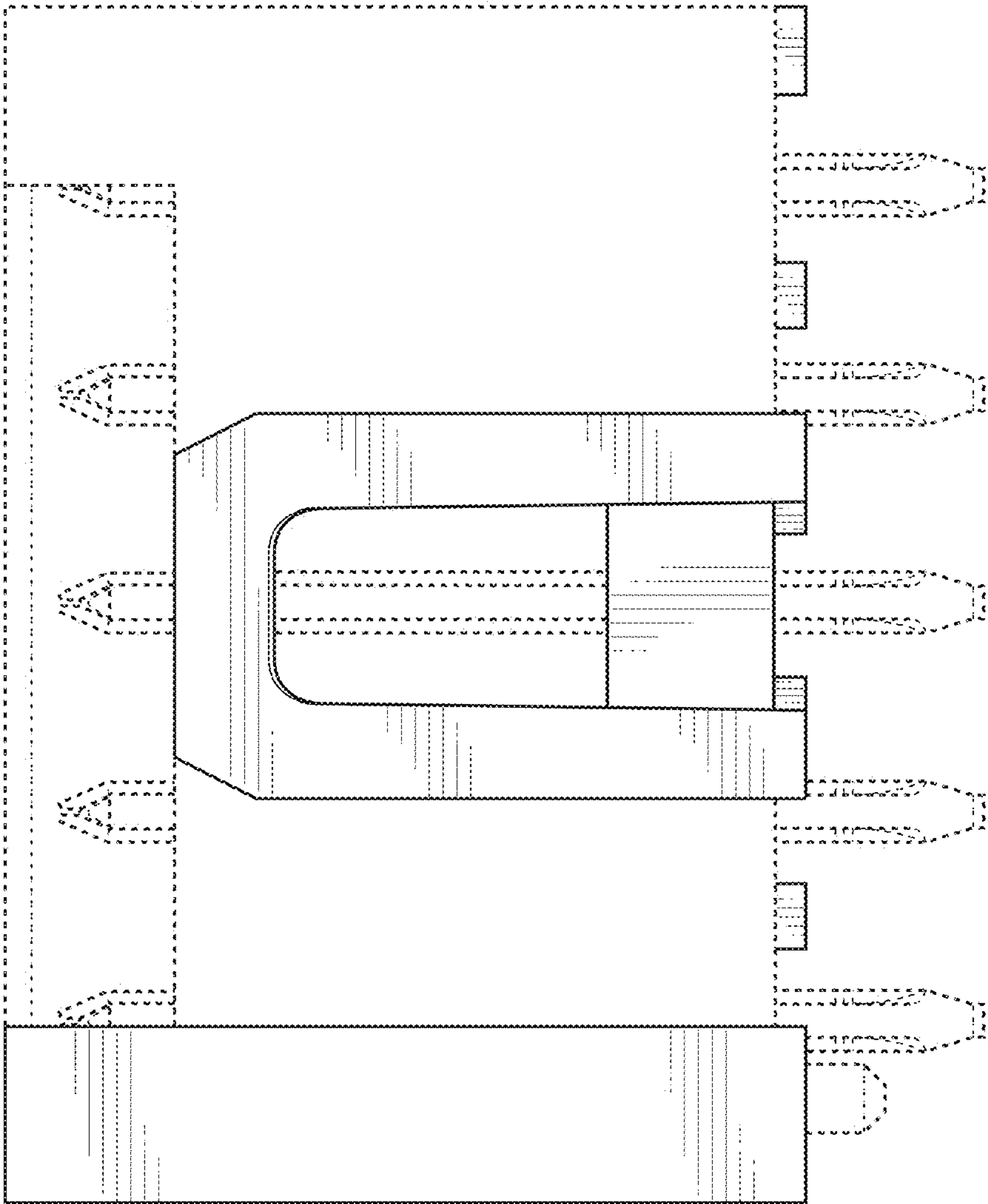


FIG. 55

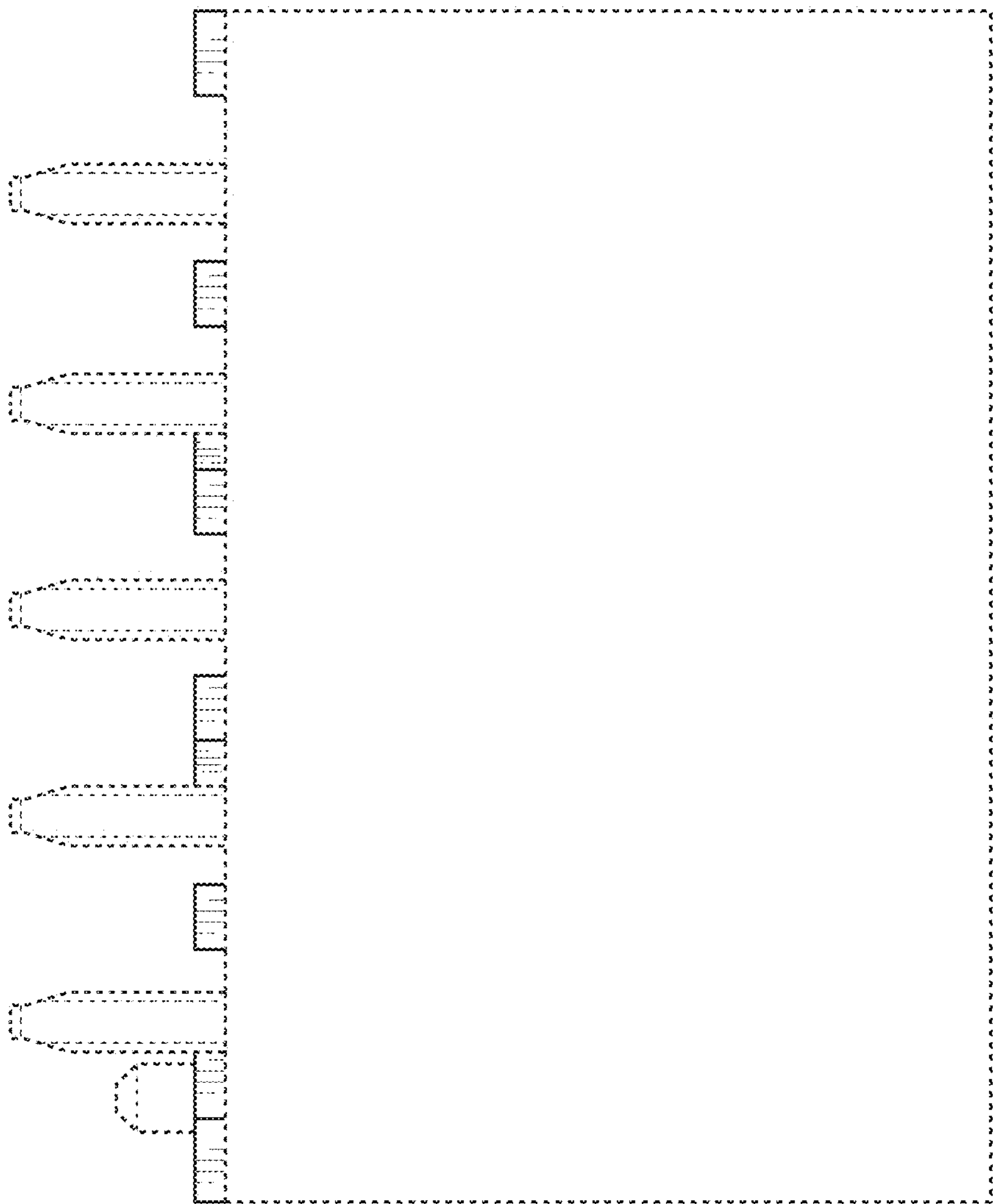


FIG. 56

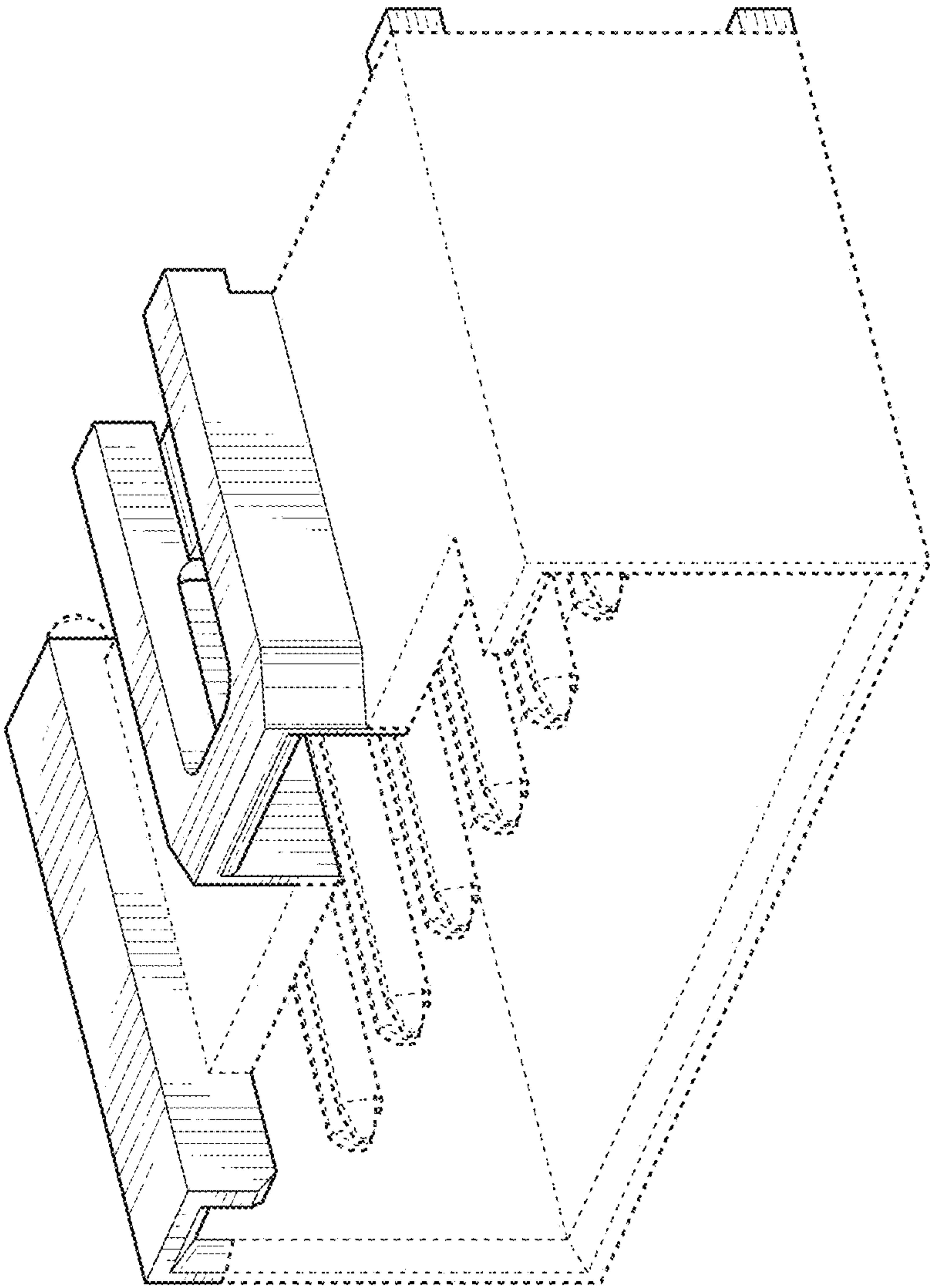


FIG. 57

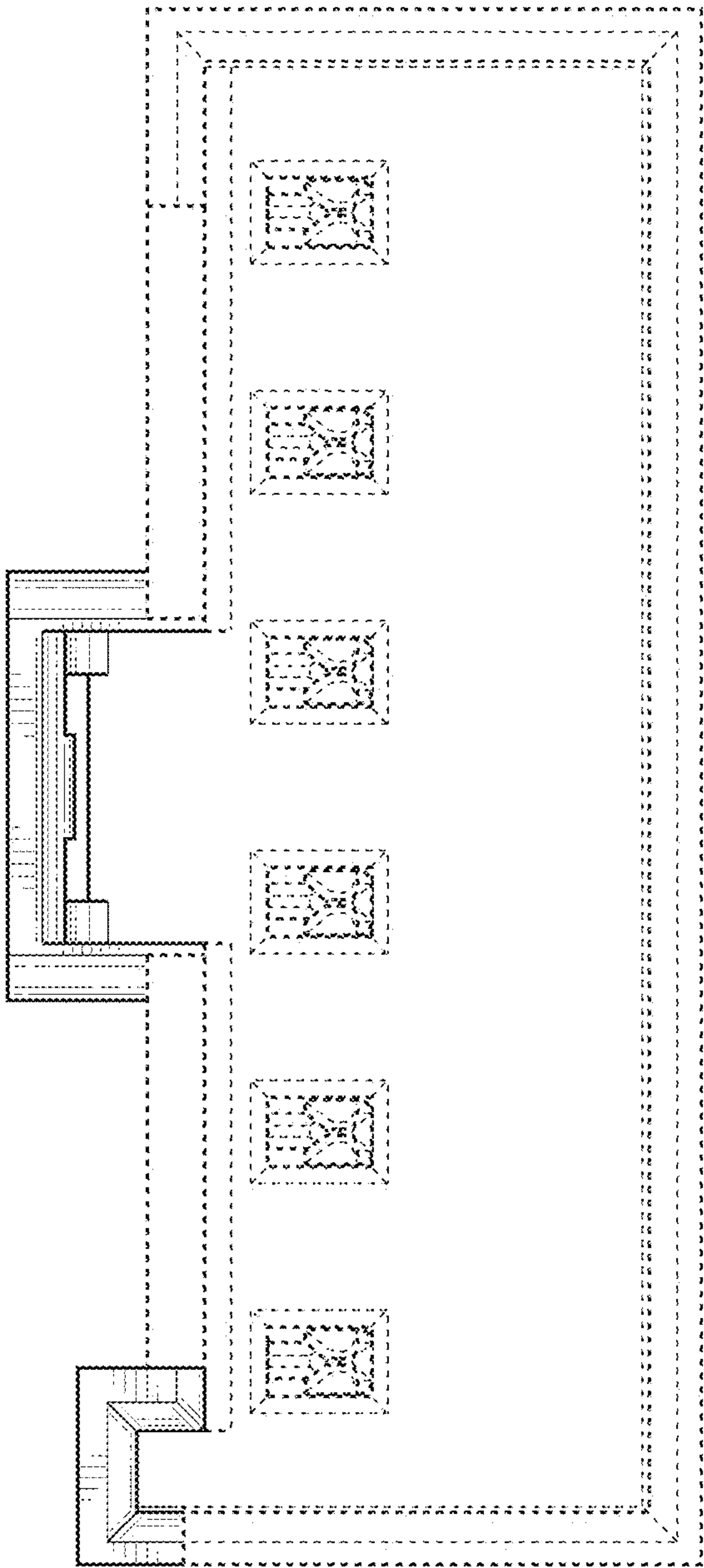


FIG. 58

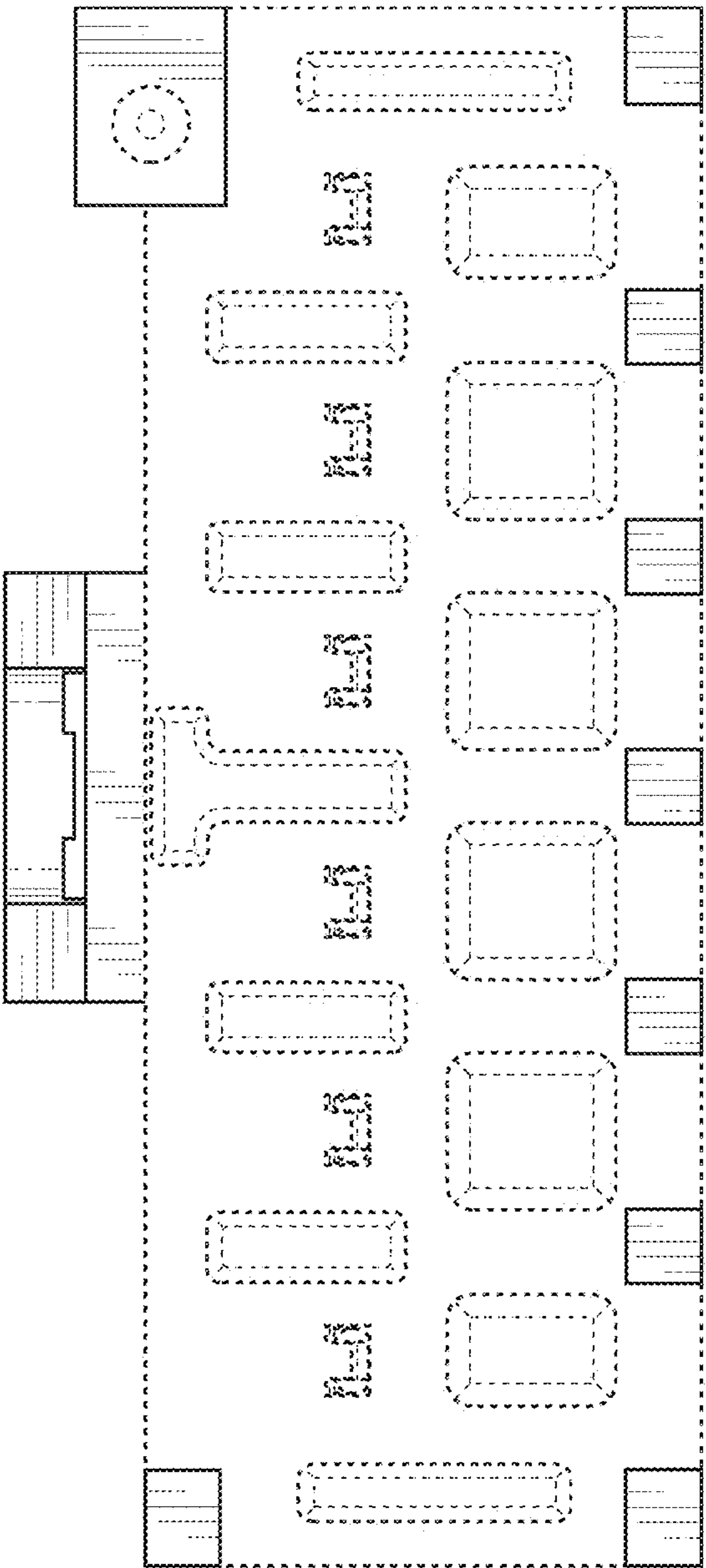


FIG. 59

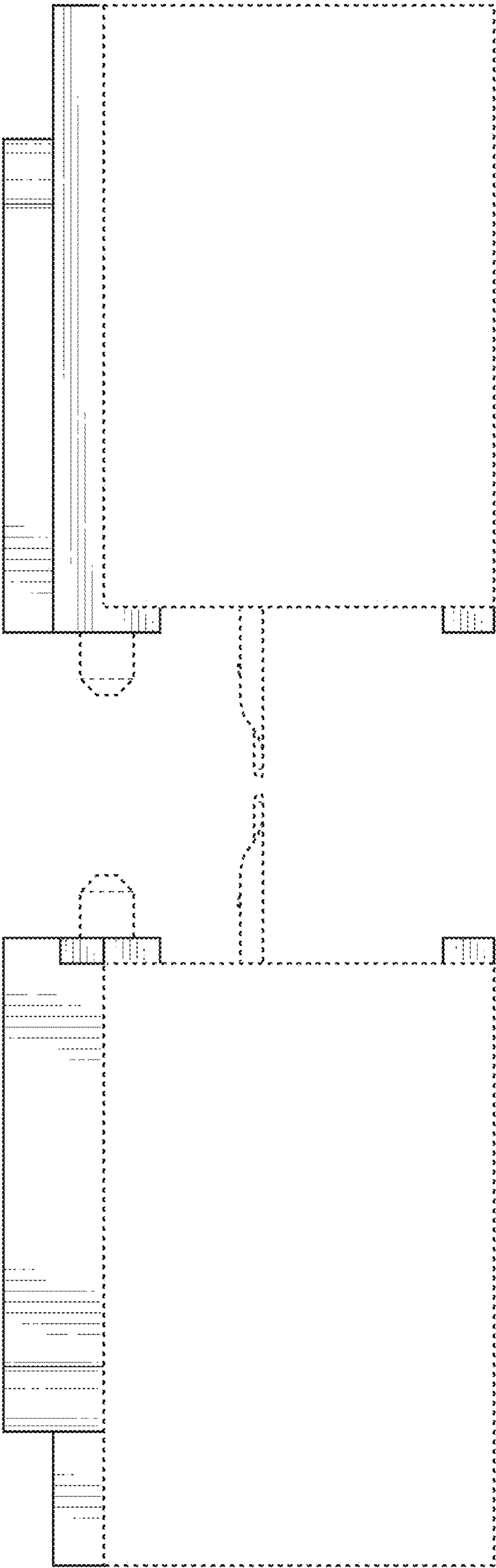


FIG. 61

FIG. 60

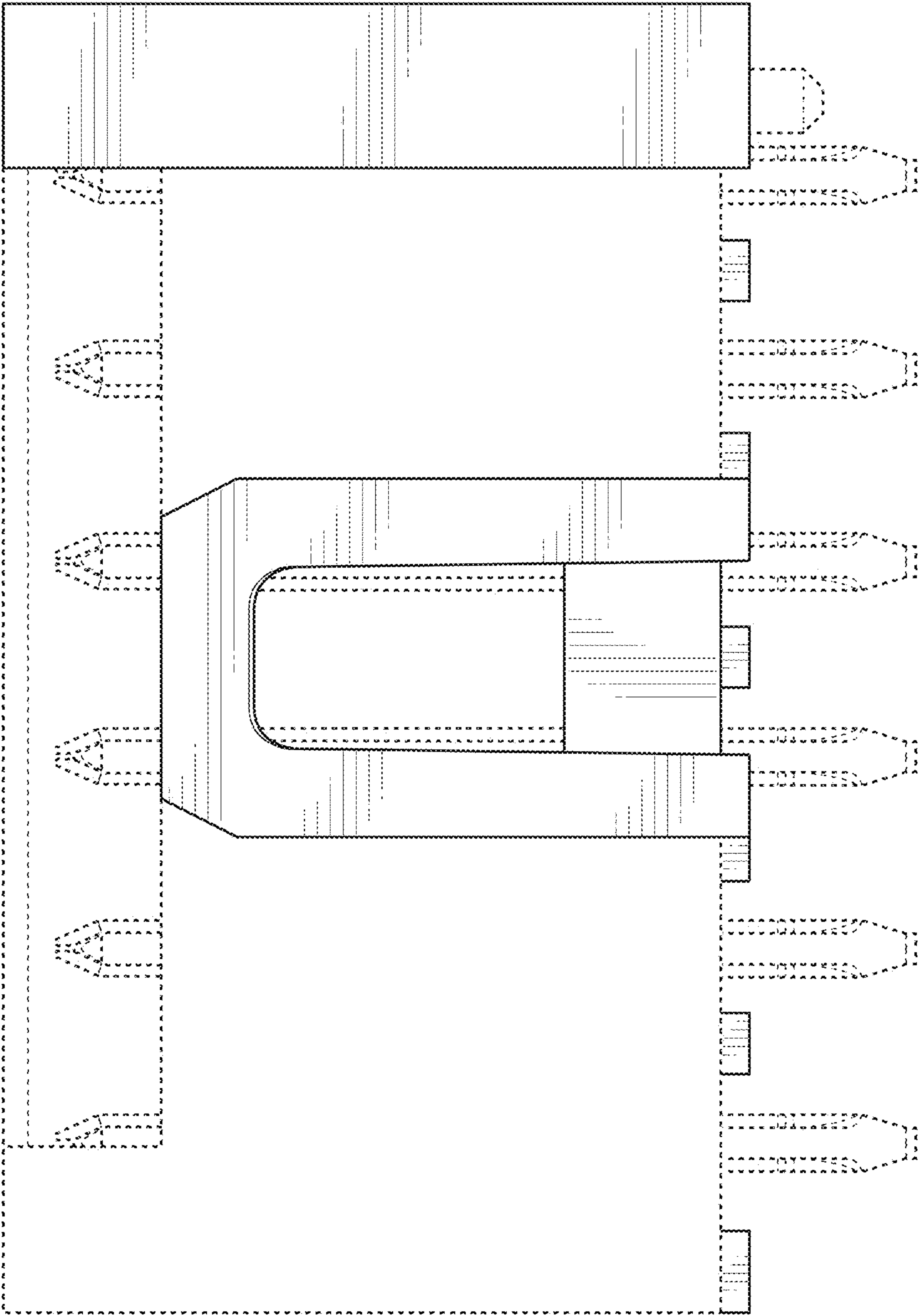


FIG. 62

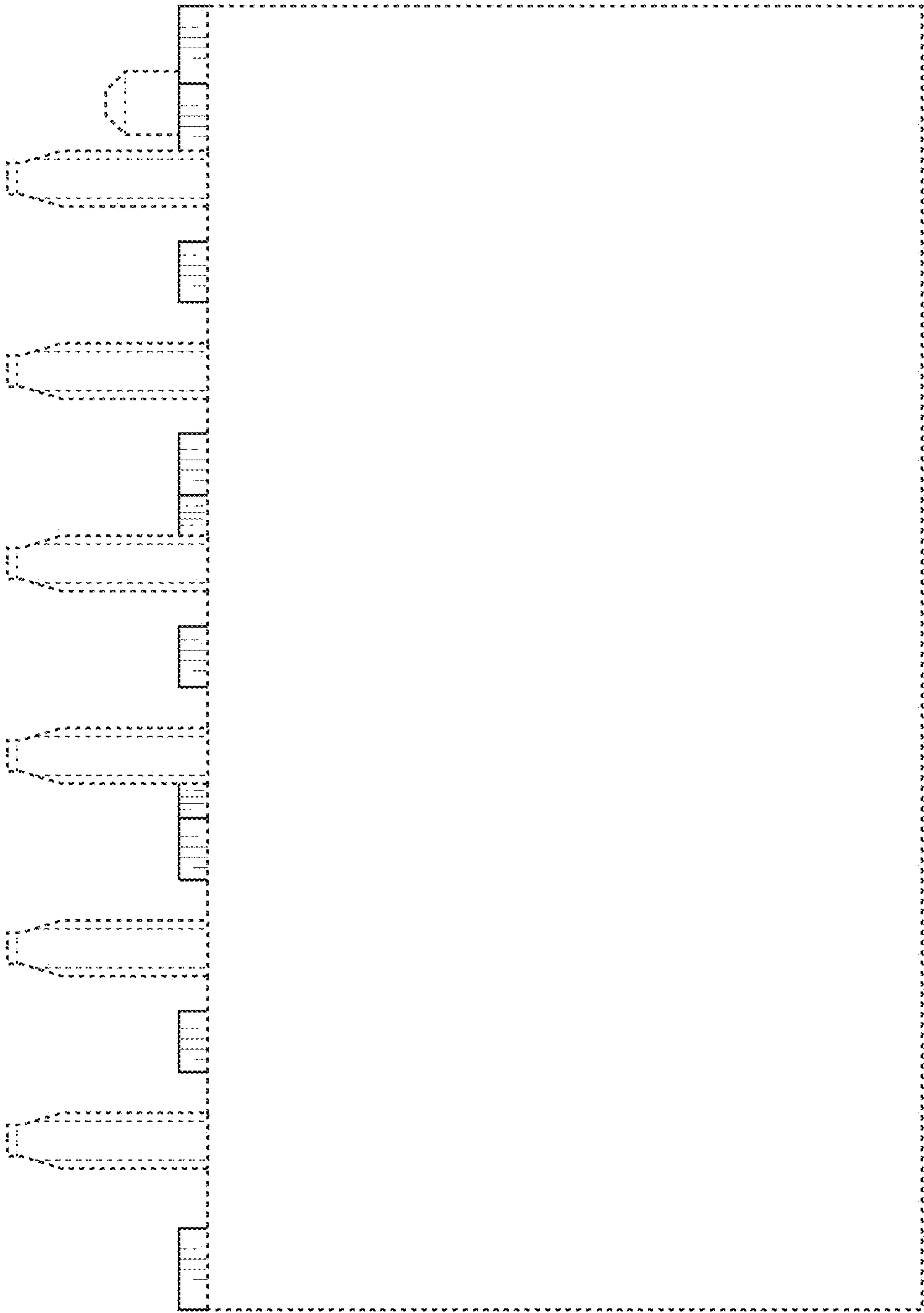


FIG. 63

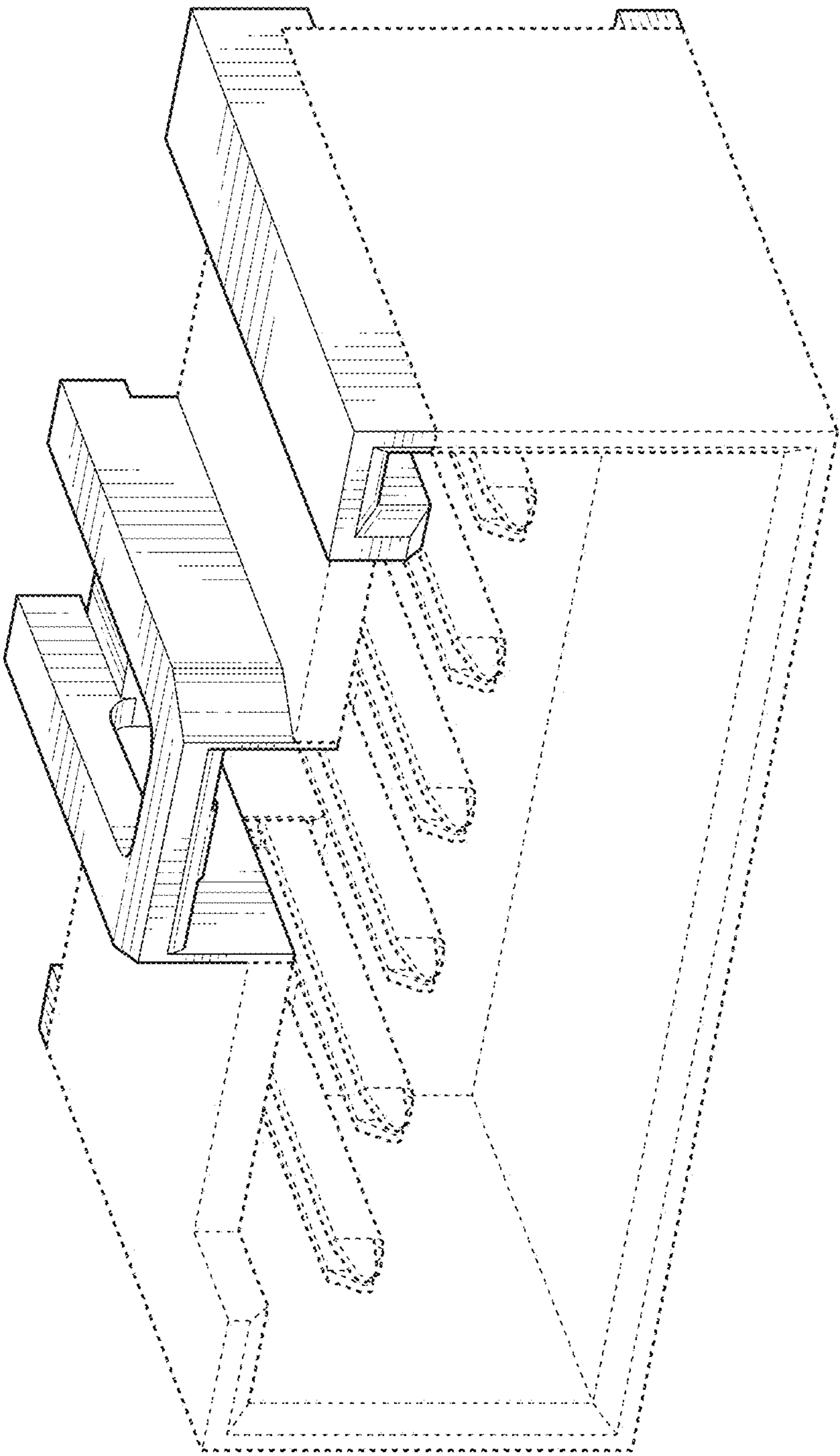


FIG. 64

FIG. 65

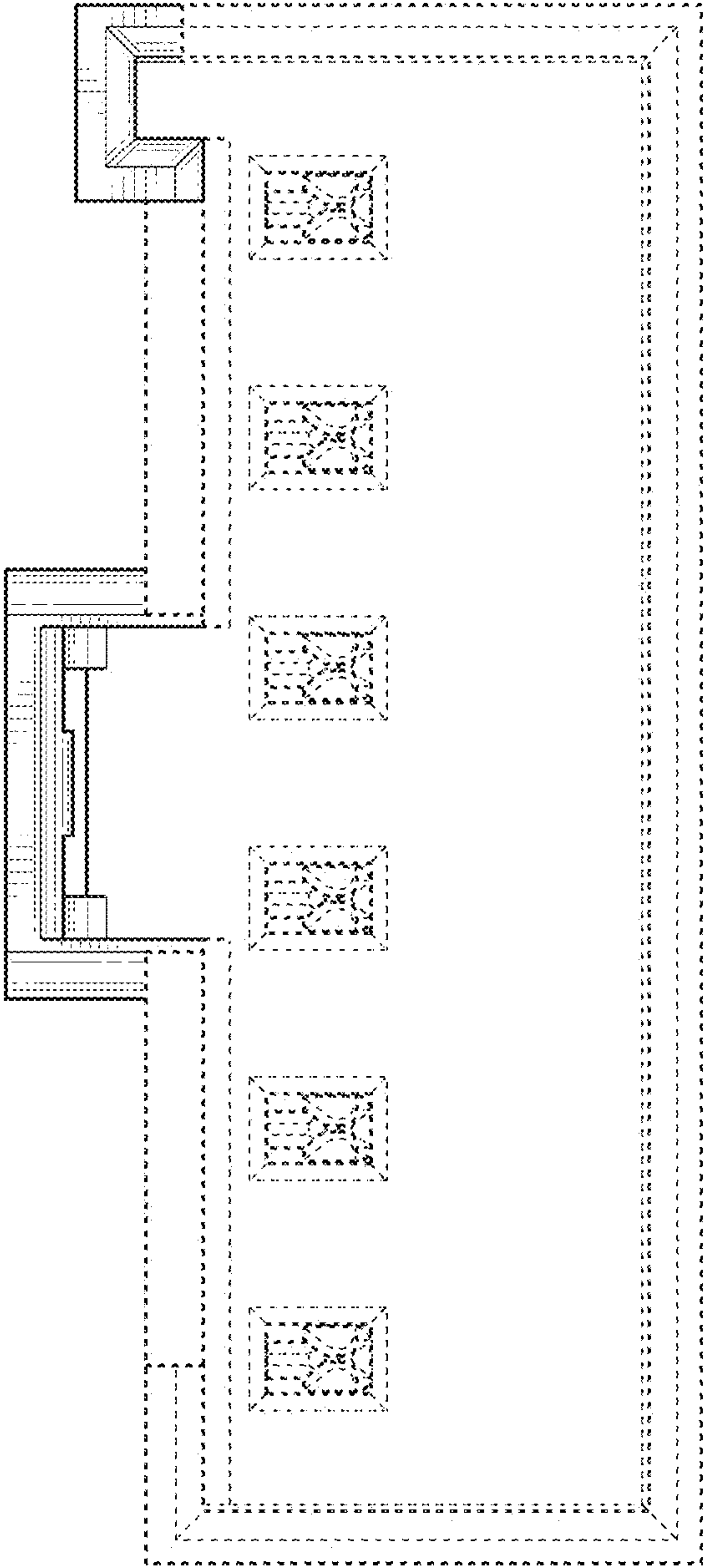
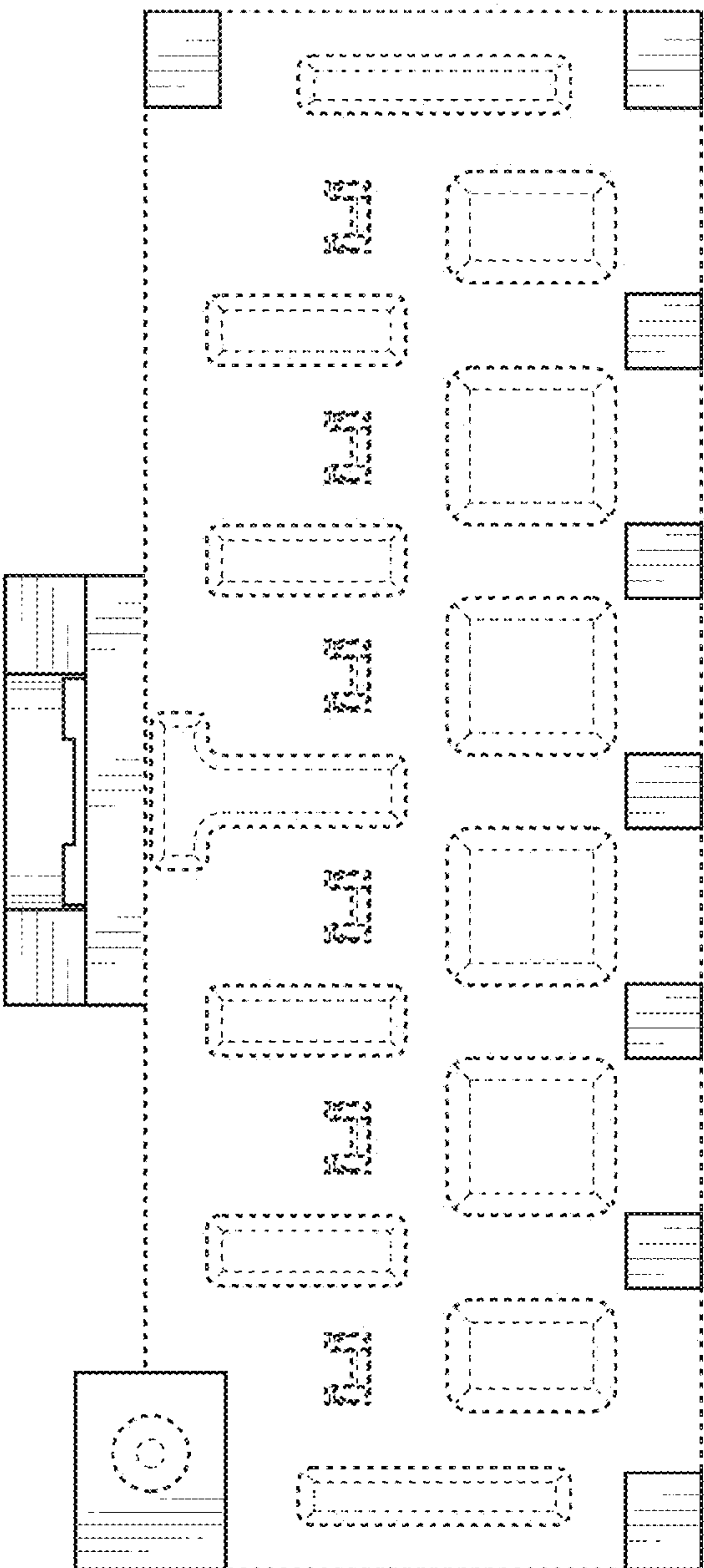


FIG. 66



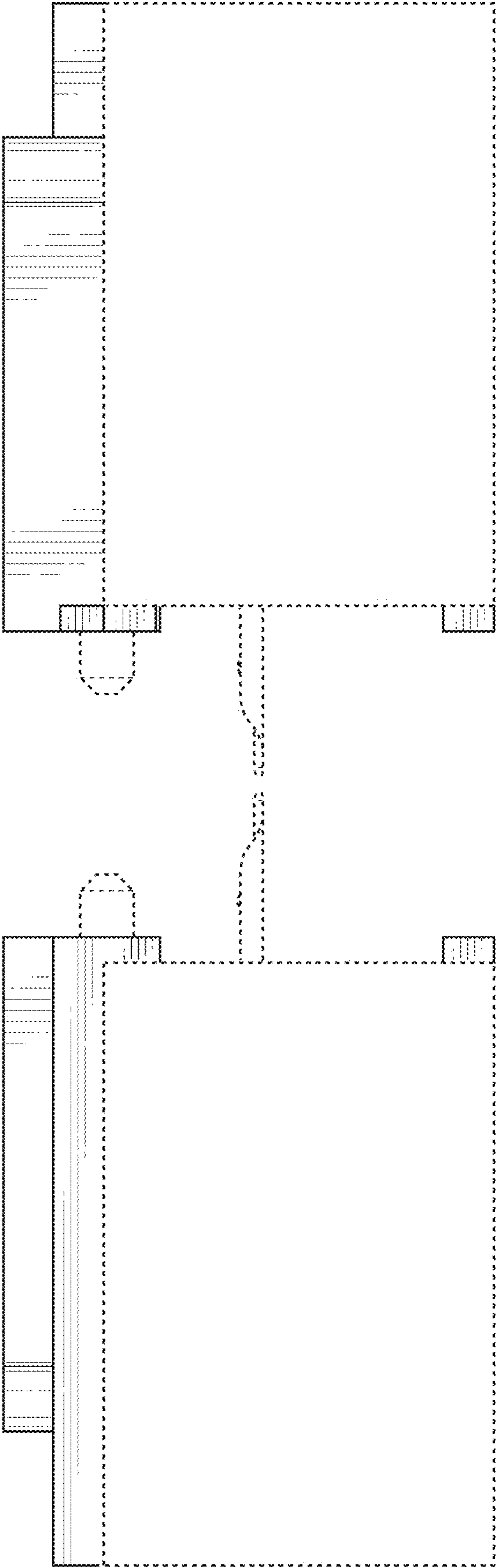


FIG. 68

FIG. 67

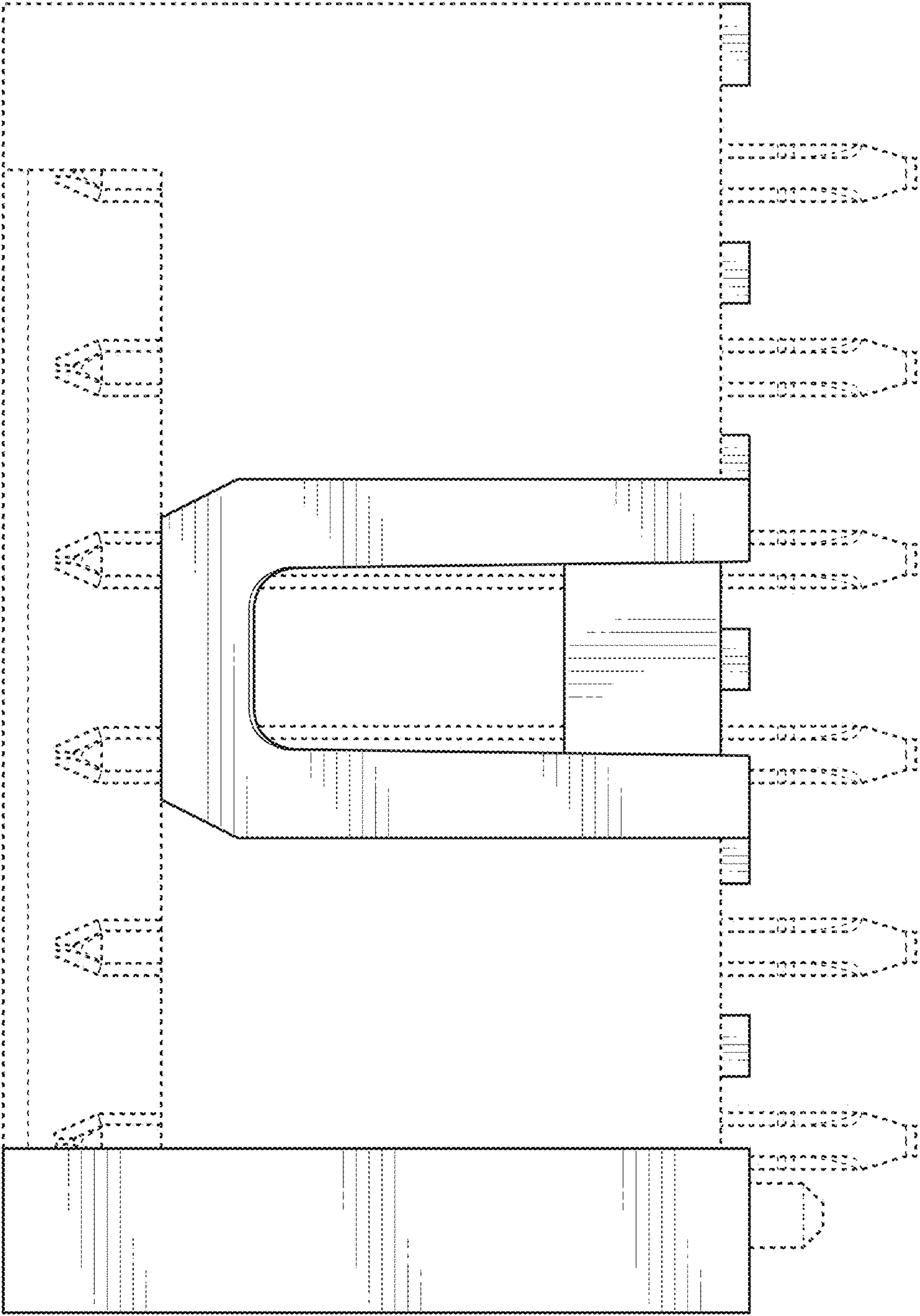


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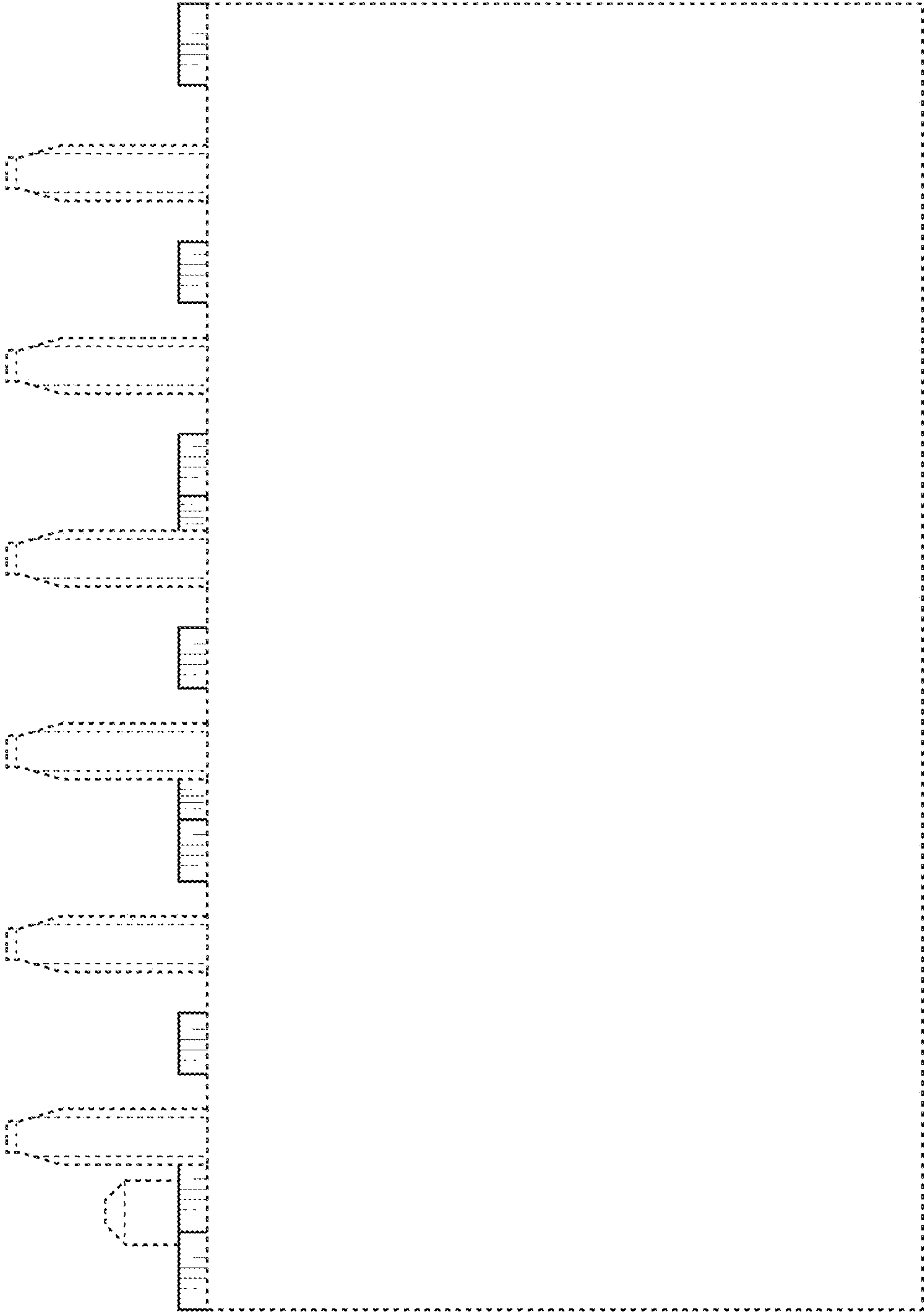


FIG. 70