



US00D895552S

(12) **United States Design Patent**
Somanathapura Ramanna et al.

(10) **Patent No.:** **US D895,552 S**
(45) **Date of Patent:** **** Sep. 8, 2020**

(54) **CONNECTOR**

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

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

(57) **CLAIM**

(72) Inventors: **Nrupathunga Chakravarthy**
Somanathapura Ramanna, Bangalore
(IN); **Pierre Perez**, Aurora, IL (US)

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

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

DESCRIPTION

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

(21) Appl. No.: **29/676,414**

(22) Filed: **Jan. 10, 2019**

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

(52) **U.S. Cl.**
USPC **D13/133; D13/147**

(58) **Field of Classification Search**
USPC D3/203.1–203.3; D13/133, 146, 147,
D13/154, 184, 153, 110, 118, 120, 123
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

D410,629 S * 6/1999 Bandura D13/147
D426,194 S * 6/2000 Ko D13/147
(Continued)

FOREIGN PATENT DOCUMENTS

CN 304893087 11/2018
JP D1606274 6/2018

OTHER PUBLICATIONS

Connector Housing, Oct. 27, 2017, [online], [site visited Apr. 16, 2020], Available from Internet URL: <https://canada.newark.com/molex/43020-0400/plug-socket-housing-plug-polyester/dp/01H6823> (Year: 2017).*

(Continued)

Primary Examiner — Karen E Kearney

Assistant Examiner — Michael Chong

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 left side view thereof;
FIG. 5 is a right side view thereof;
FIG. 6 is a top view thereof;
FIG. 7 is a bottom view thereof;
FIG. 8 is a front perspective view of an alternate embodiment of a connector showing our new design;
FIG. 9 is a front view thereof;
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 front perspective view of an alternate embodiment of a connector showing our new design;
FIG. 16 is a front view thereof;
FIG. 17 is a rear view thereof;
FIG. 18 is a left side view thereof;
FIG. 19 is a right 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 showing our new design;
FIG. 23 is a front view thereof;
FIG. 24 is a rear view thereof;
FIG. 25 is a left side view thereof;
FIG. 26 is a right 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 a connector showing our new design;

(Continued)

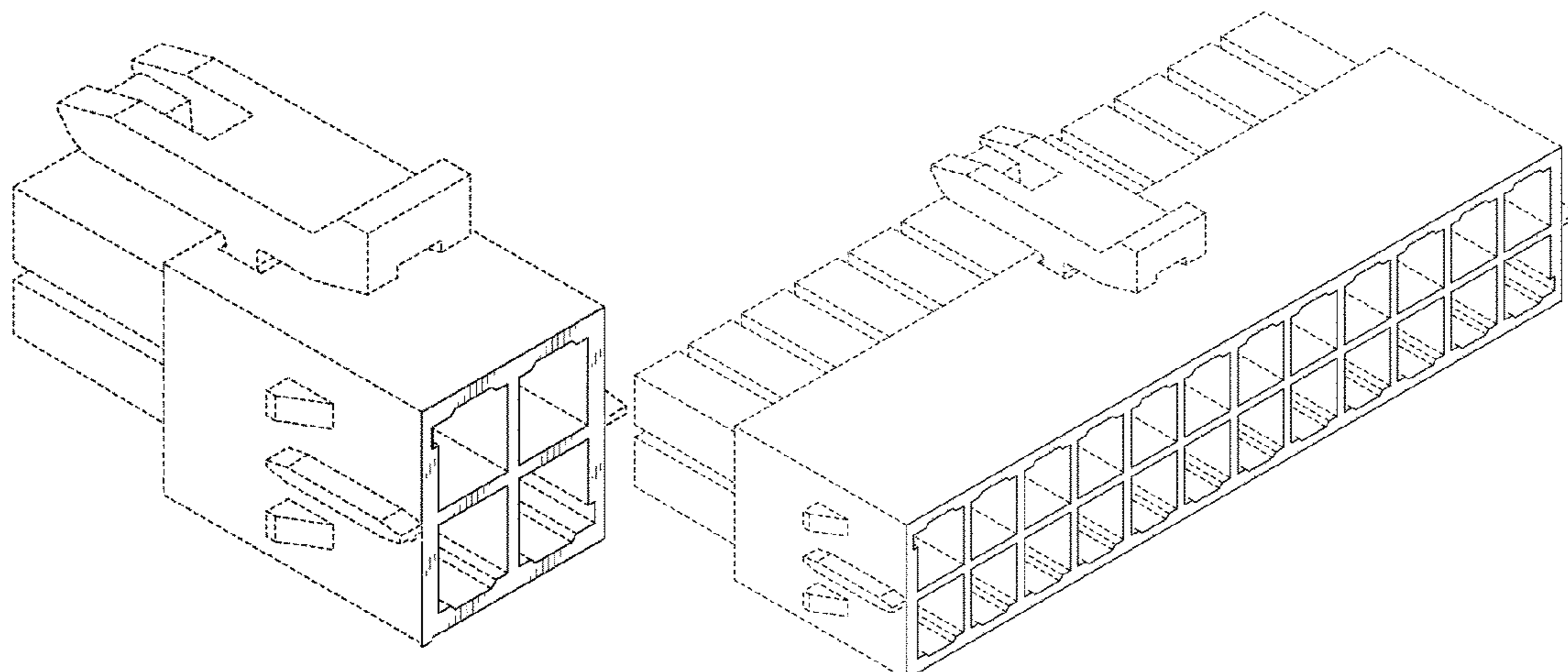


FIG. 30 is a front view thereof;
 FIG. 31 is a rear view thereof;
 FIG. 32 is a left side view thereof;
 FIG. 33 is a right side view thereof;
 FIG. 34 is a top view thereof;
 FIG. 35 is a bottom view thereof;
 FIG. 36 is a front perspective view of an alternate embodiment of a connector showing our new design;
 FIG. 37 is a front view thereof;
 FIG. 38 is a rear view thereof;
 FIG. 39 is a left side view thereof;
 FIG. 40 is a right 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 a connector showing our new design;
 FIG. 44 is a front view thereof;
 FIG. 45 is a rear view thereof;
 FIG. 46 is a left side view thereof;
 FIG. 47 is a right 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 showing our new design;
 FIG. 51 is a front view thereof;
 FIG. 52 is a rear view thereof;
 FIG. 53 is a left side view thereof;
 FIG. 54 is a right 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 a connector showing our new design;
 FIG. 58 is a front view thereof;
 FIG. 59 is a rear view thereof;
 FIG. 60 is a left side view thereof;
 FIG. 61 is a right 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 showing our new design;
 FIG. 65 is a front view thereof;
 FIG. 66 is a rear view thereof;
 FIG. 67 is a left side view thereof;
 FIG. 68 is a right side view thereof;
 FIG. 69 is a top view thereof;
 FIG. 70 is a bottom view thereof;
 FIG. 71 is a front perspective view of an alternate embodiment of a connector showing our new design;

FIG. 72 is a front view thereof;
 FIG. 73 is a rear view thereof;
 FIG. 74 is a left side view thereof;
 FIG. 75 is a right side view thereof;
 FIG. 76 is a top view thereof; and,
 FIG. 77 is a bottom view thereof.

The broken lines immediately adjacent to the shaded areas represent the bounds of the claimed design and form no part thereof. The broken lines depicting the remainder of the connector show features that form no part of the claimed design.

1 Claim, 50 Drawing Sheets

(58) **Field of Classification Search**

CPC .. H01R 13/506; H01R 13/516; H01R 13/518;
 H01R 13/58; H01R 13/627; H01R
 13/6315; H01R 13/6586; H01R 13/5897;
 H01R 13/24; H01R 13/5205

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

| | | | | | |
|-----------|---|---|---------|----------------|------------------------|
| 6,113,414 | A | * | 9/2000 | Fukuda | H01R 13/639 439/352 |
| D524,755 | S | * | 7/2006 | Kudo | D13/147 |
| D604,248 | S | * | 11/2009 | Sakamoto | D13/147 |
| D608,285 | S | * | 1/2010 | Sato | D13/146 |
| D610,997 | S | * | 3/2010 | Sakamoto | D13/147 |
| D750,562 | S | * | 3/2016 | Makimura | D13/133 |
| D773,998 | S | * | 12/2016 | Endo | D13/147 |
| D826,165 | S | * | 8/2018 | Mastel | |
| D832,788 | S | * | 11/2018 | Li | D13/147 |

OTHER PUBLICATIONS

Receptacle Housing, date not available, [online], [site visited Apr. 17, 2020], Available from Internet URL: <https://americas.rsdelivers.com/product/jst/psip-08v-1e/psi-4mm-receptacle-housing-plug-8p/1385613> (Year: N/A).*

Receptacle Housing, date not available, [online], [site visited Apr. 17, 2020], Available from Internet URL: <https://americas.rsdelivers.com/product/jst/psip-05v-1e/psi-4mm-receptacle-housing-plug-5p/1385609> (Year: N/A).*

* cited by examiner

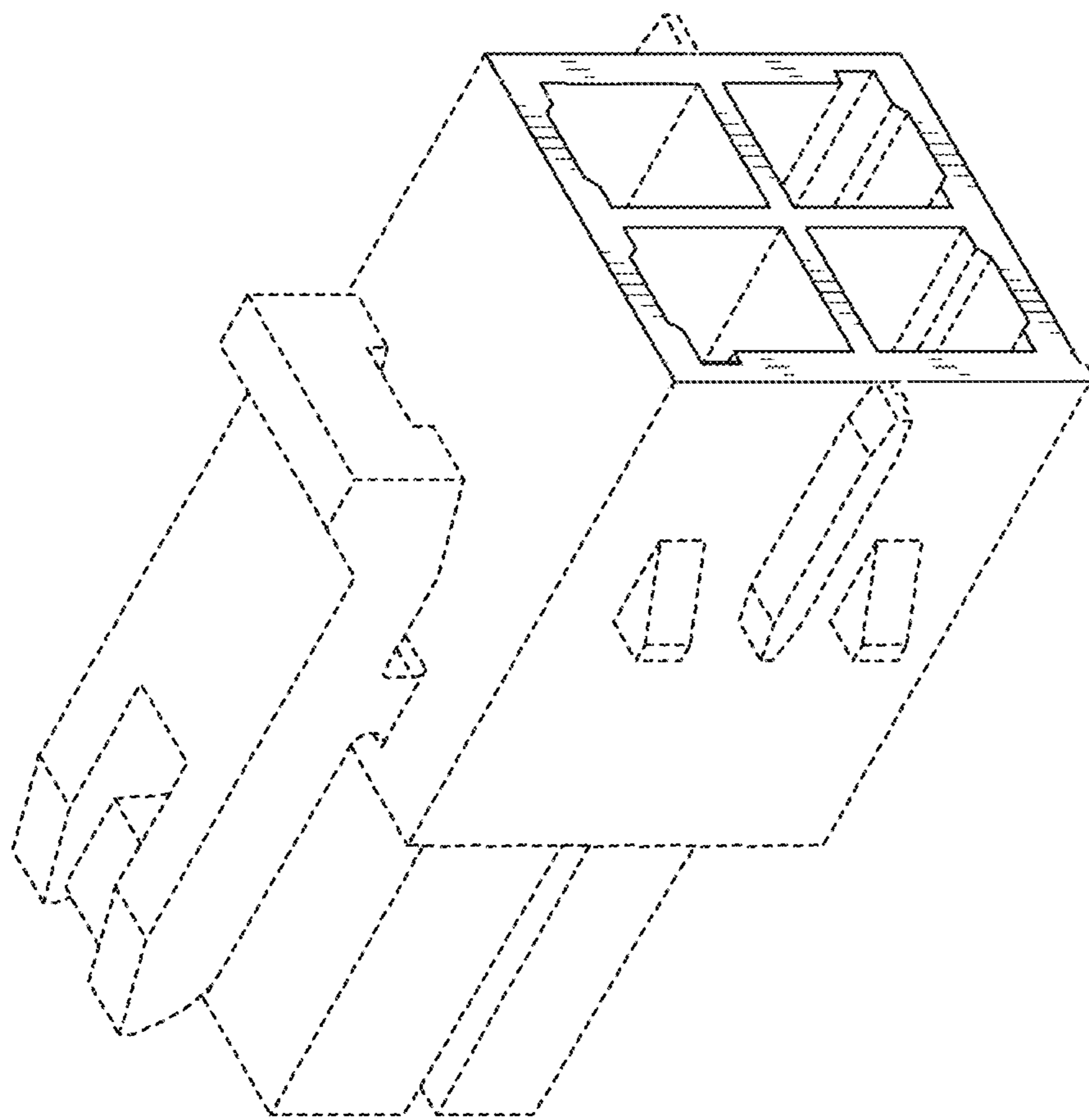


FIG. 1

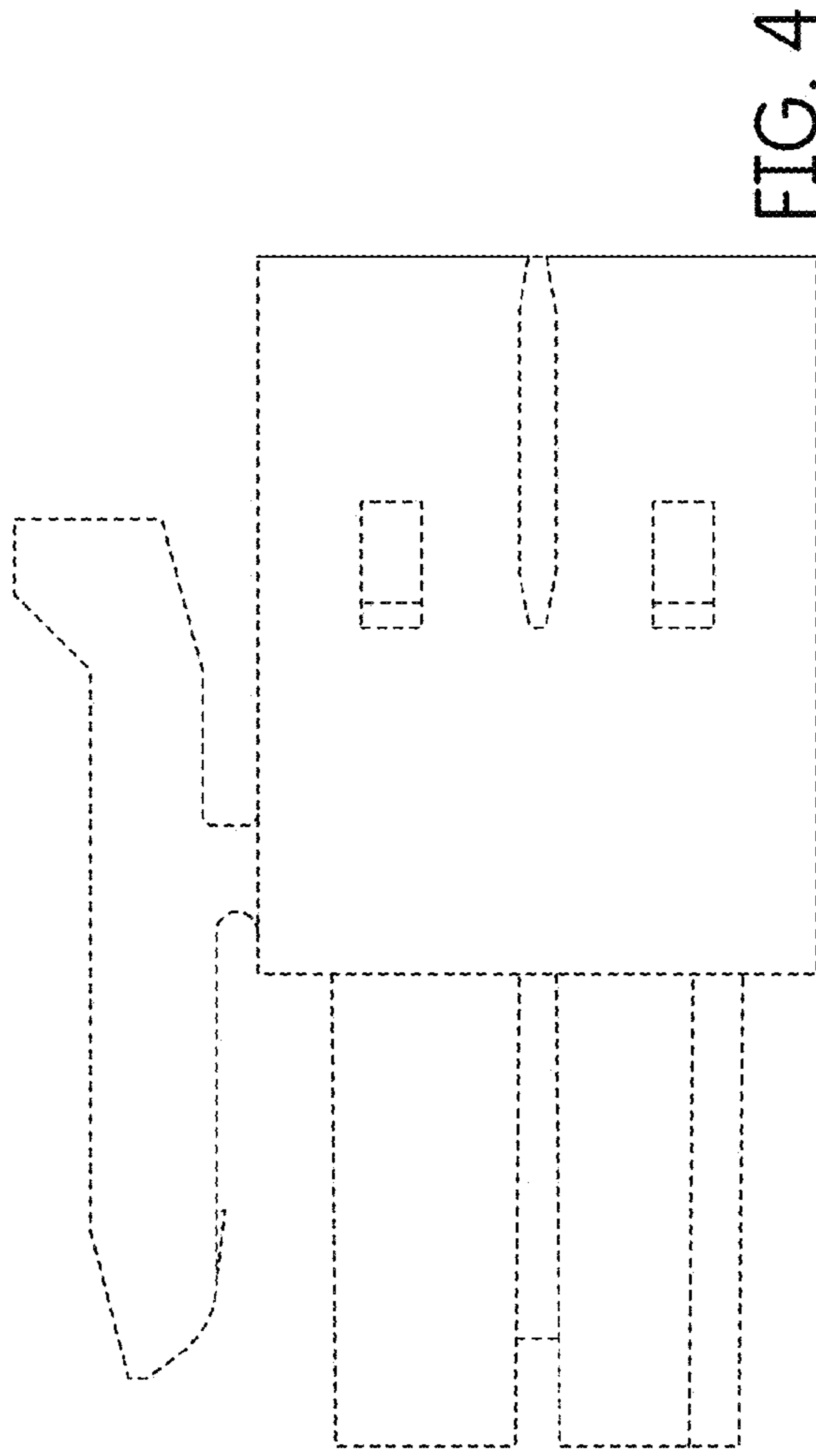


FIG. 4

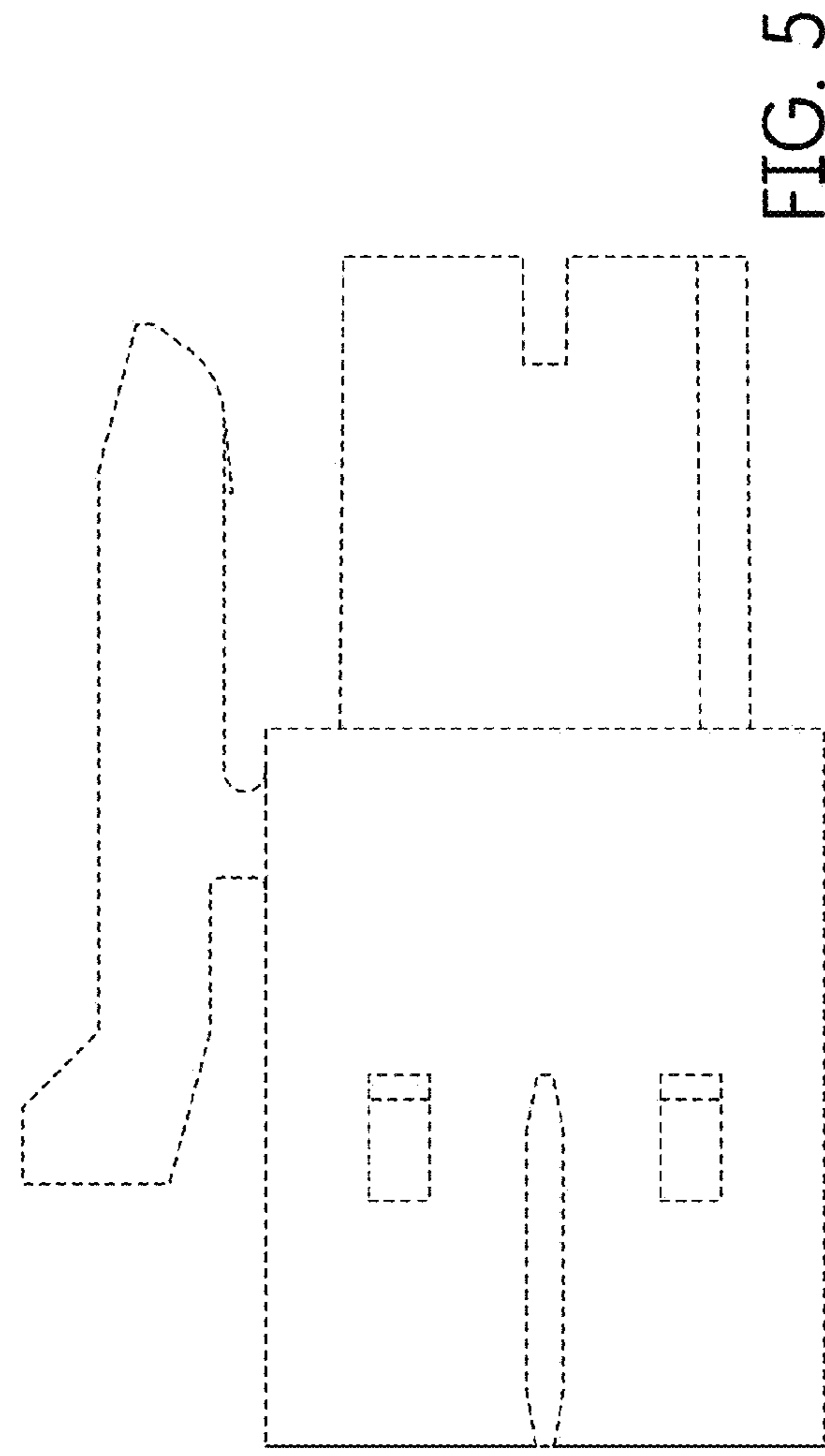


FIG. 5

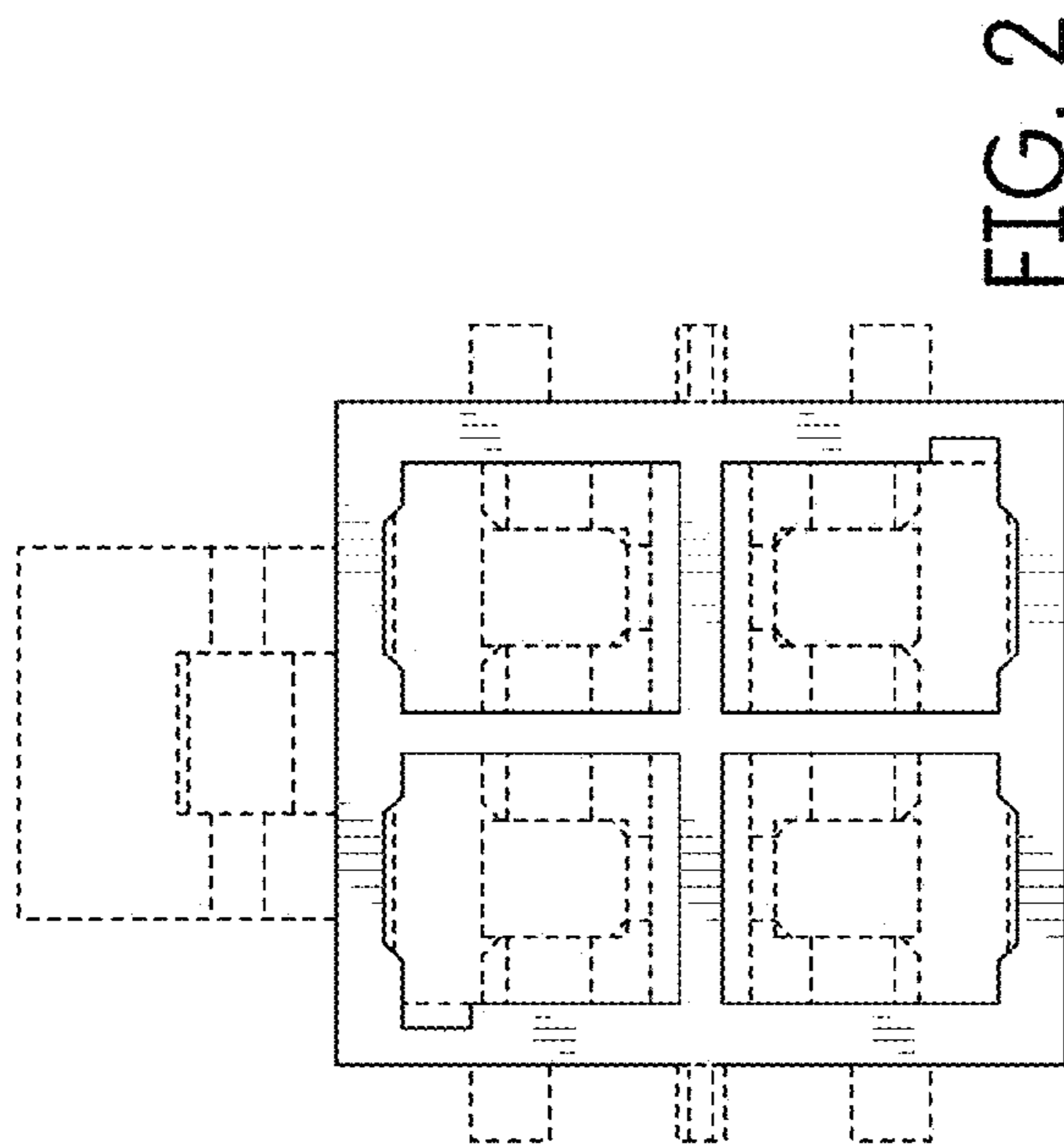


FIG. 2

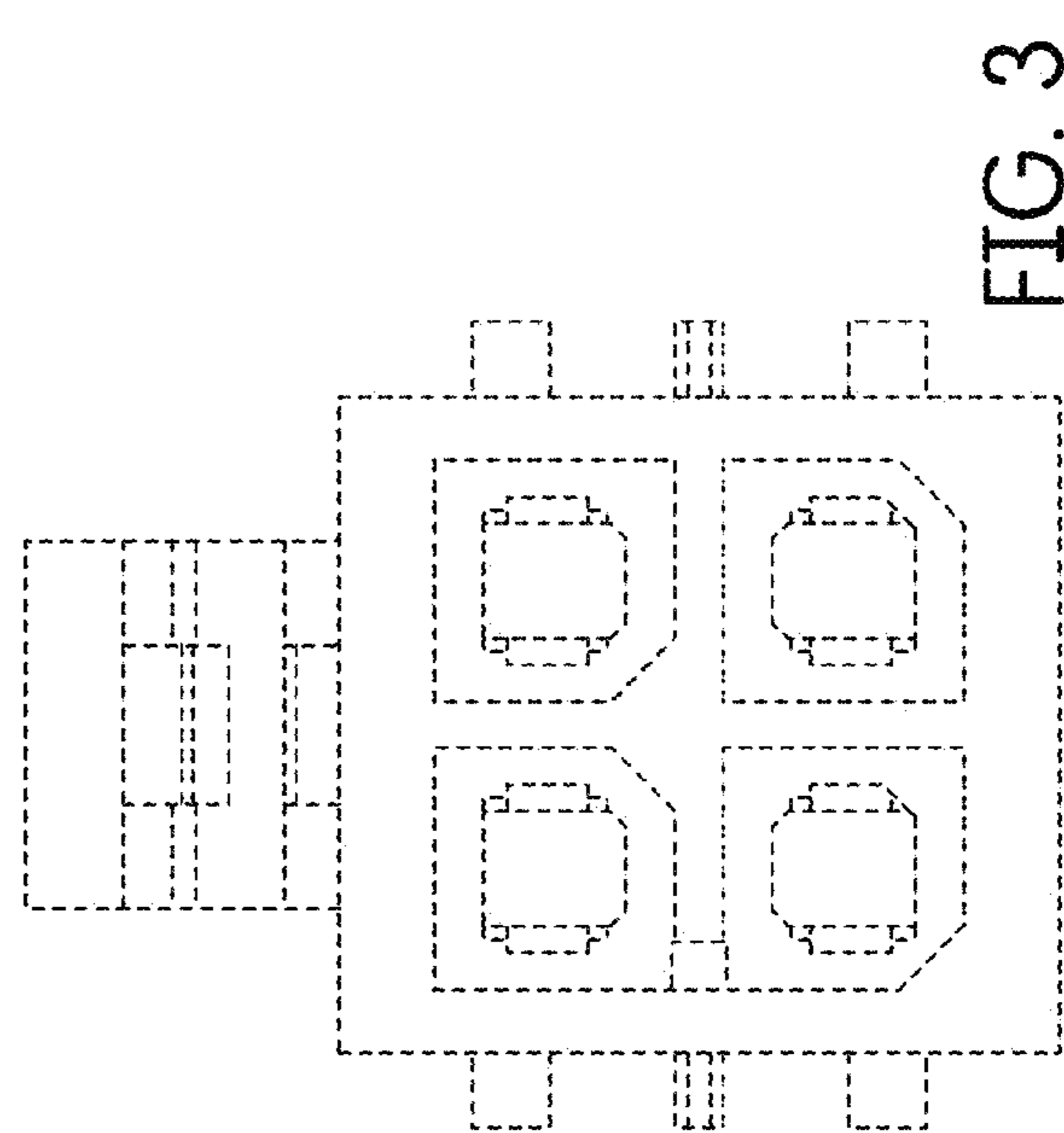


FIG. 3

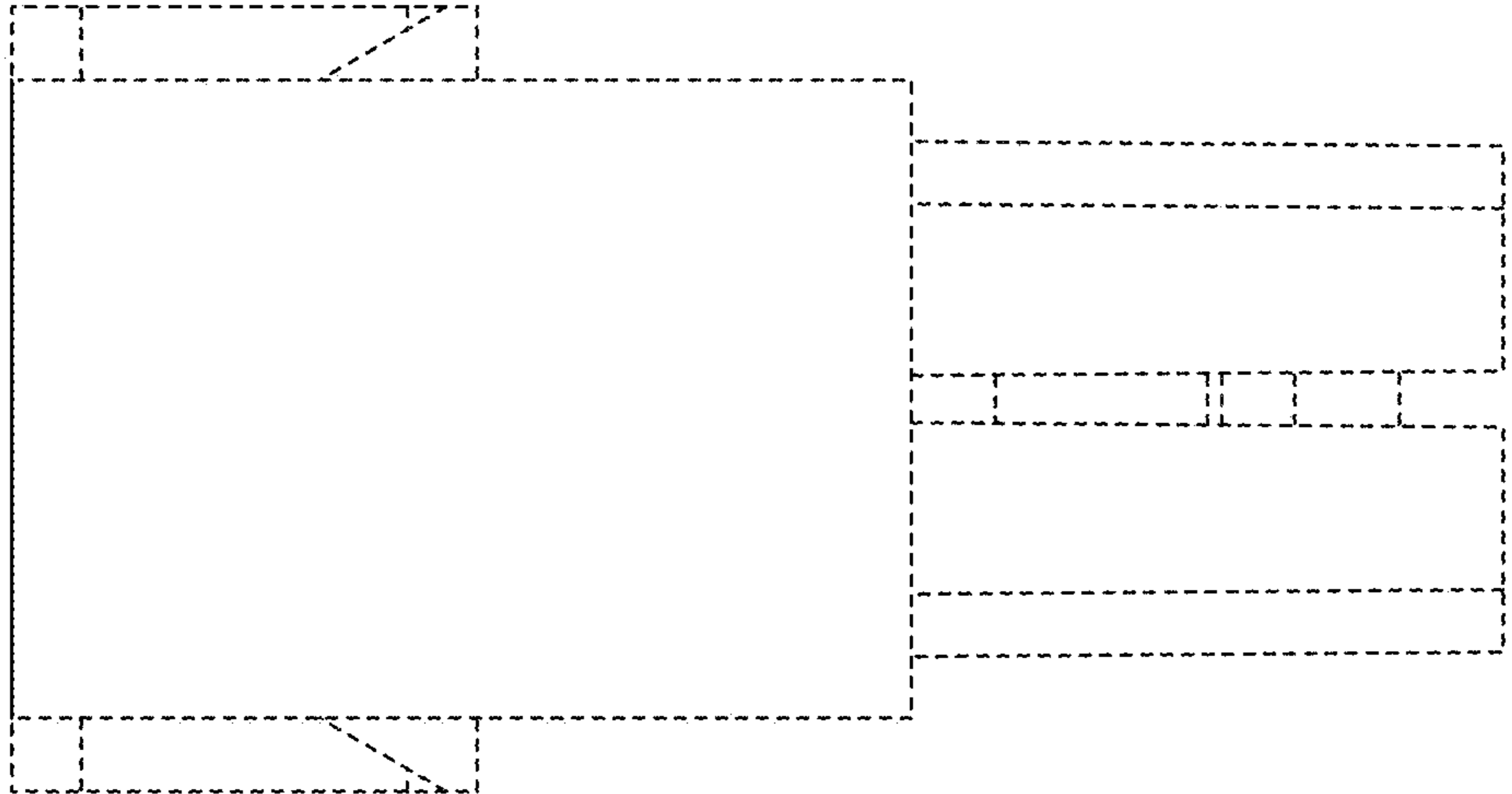


FIG. 7

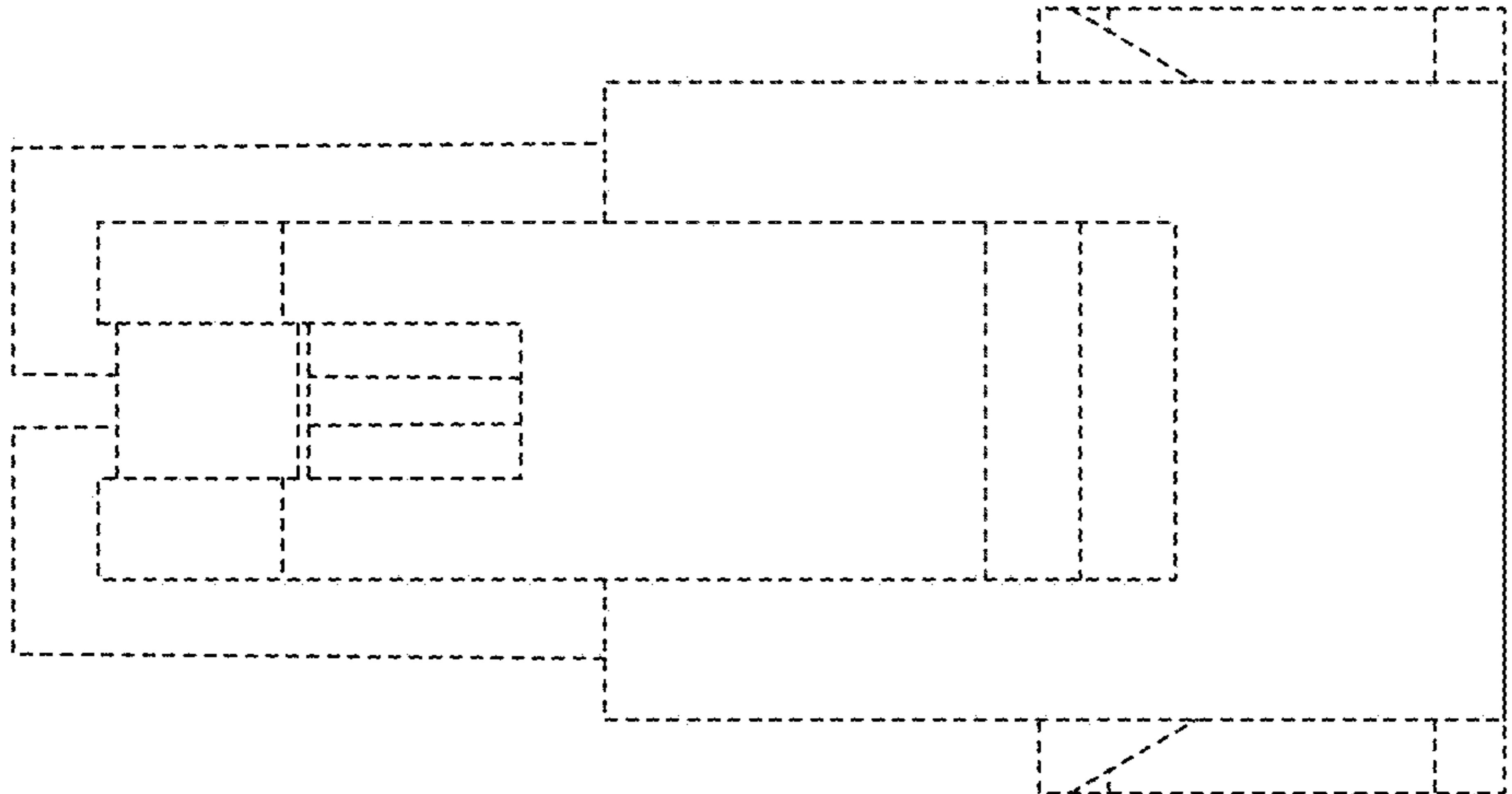


FIG. 6

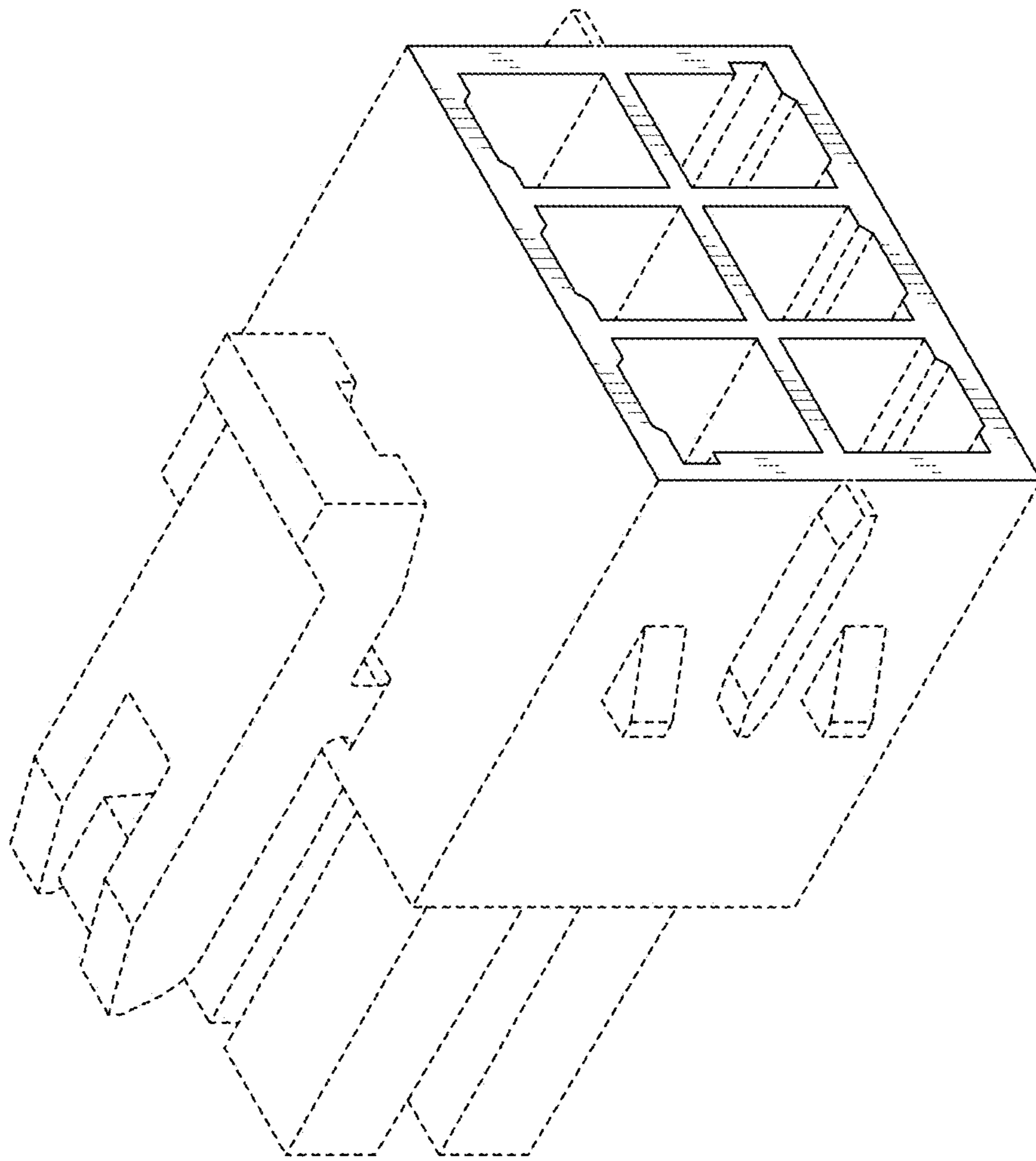


FIG. 8

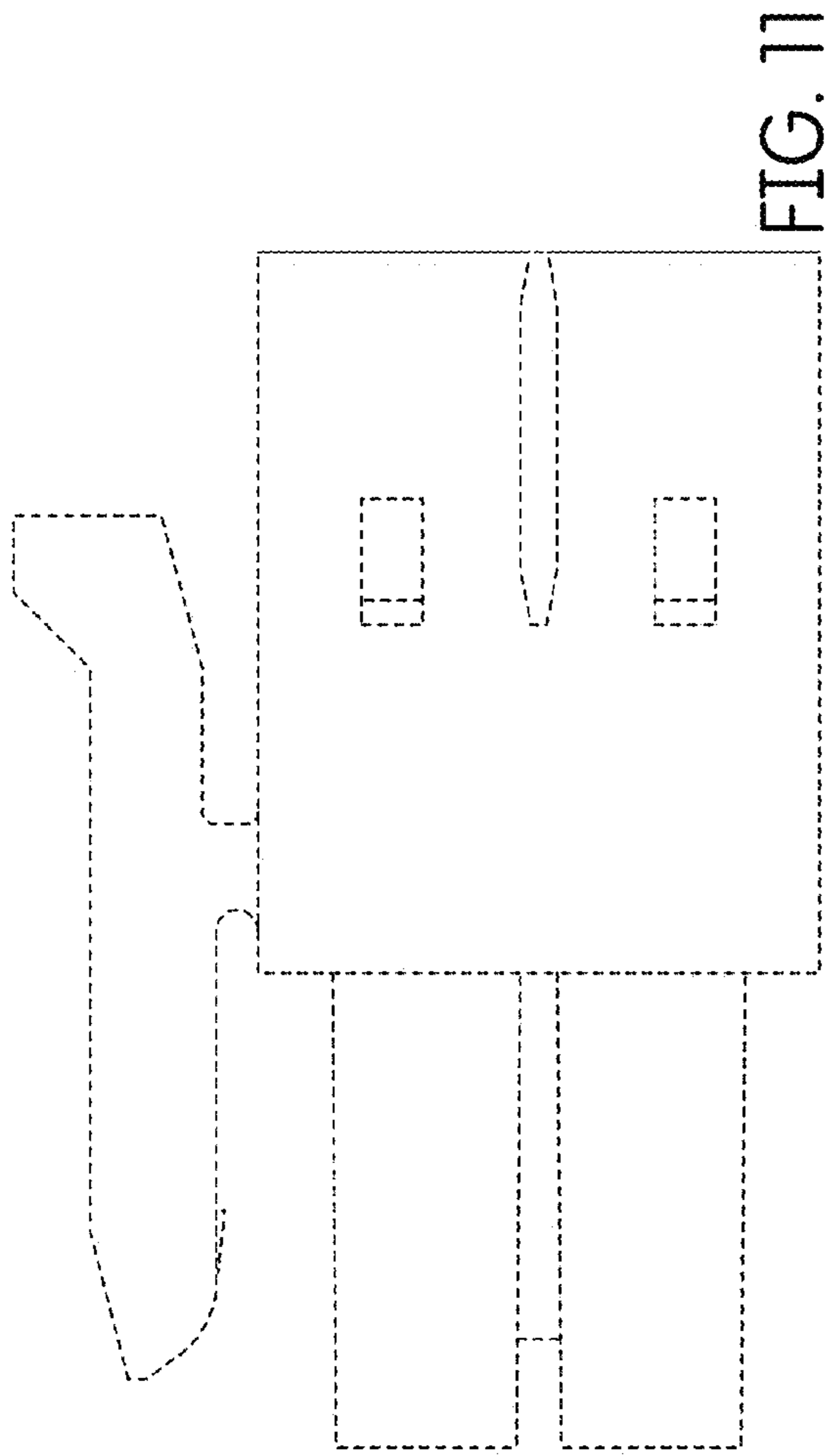


FIG. 11

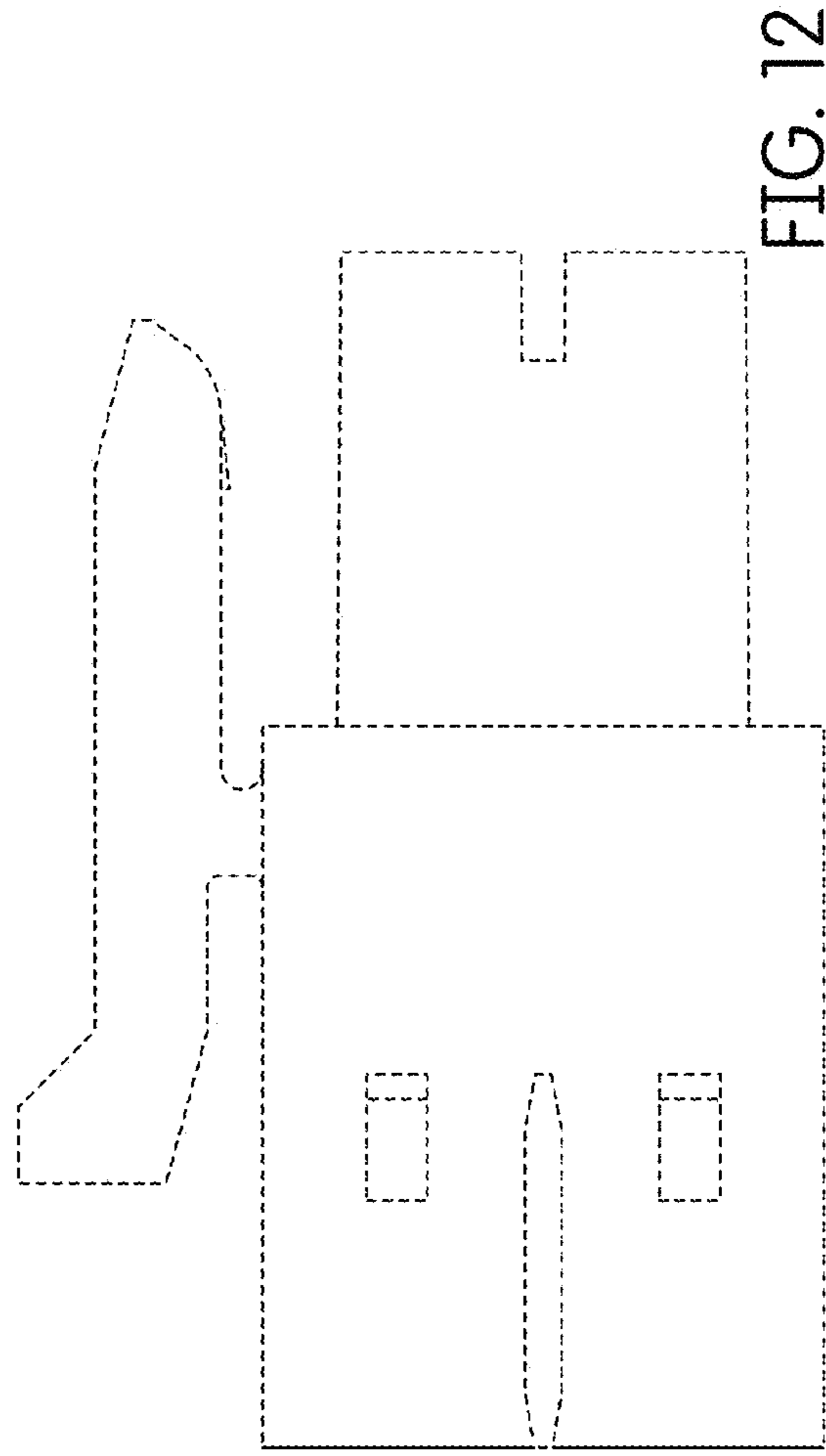


FIG. 12

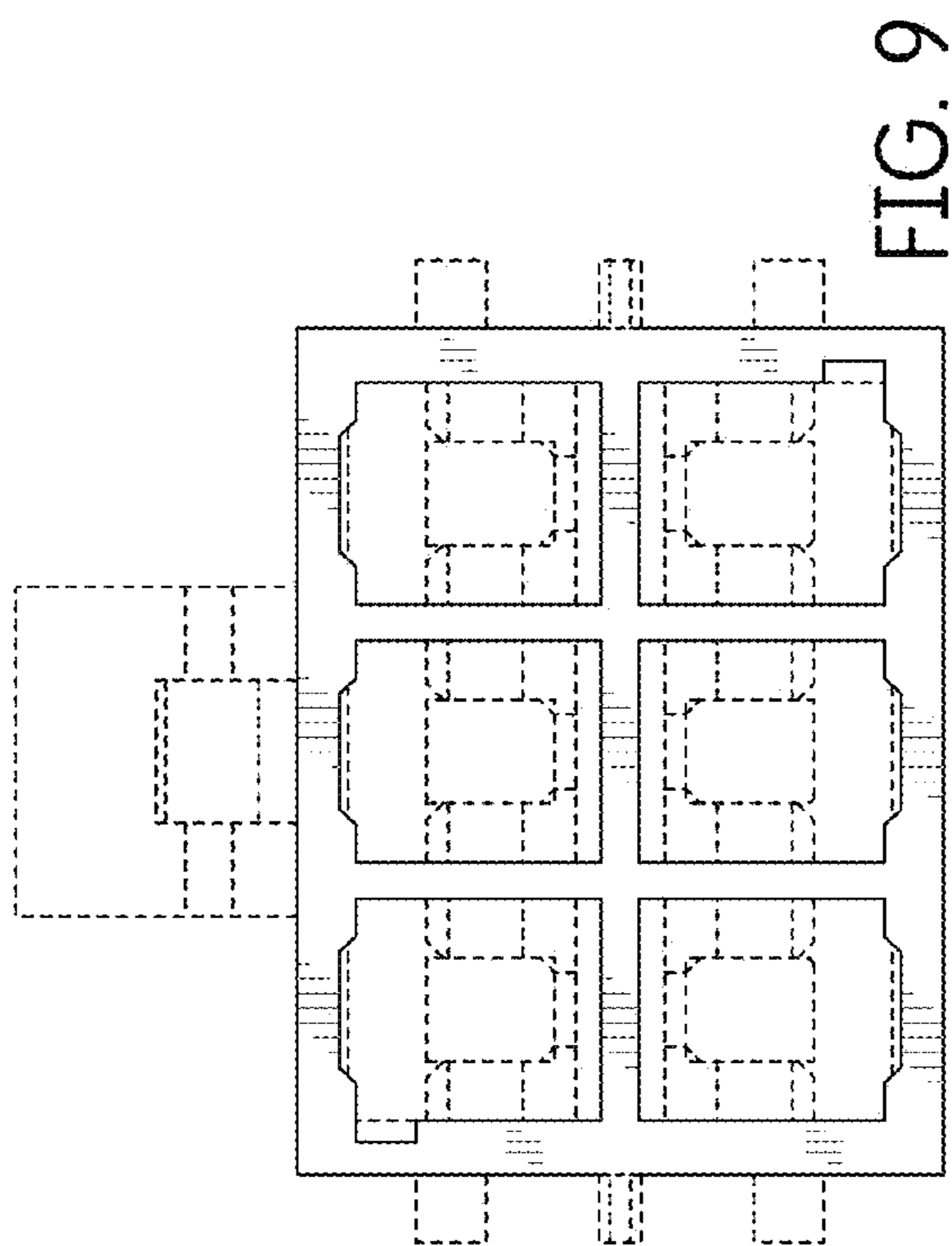


FIG. 9

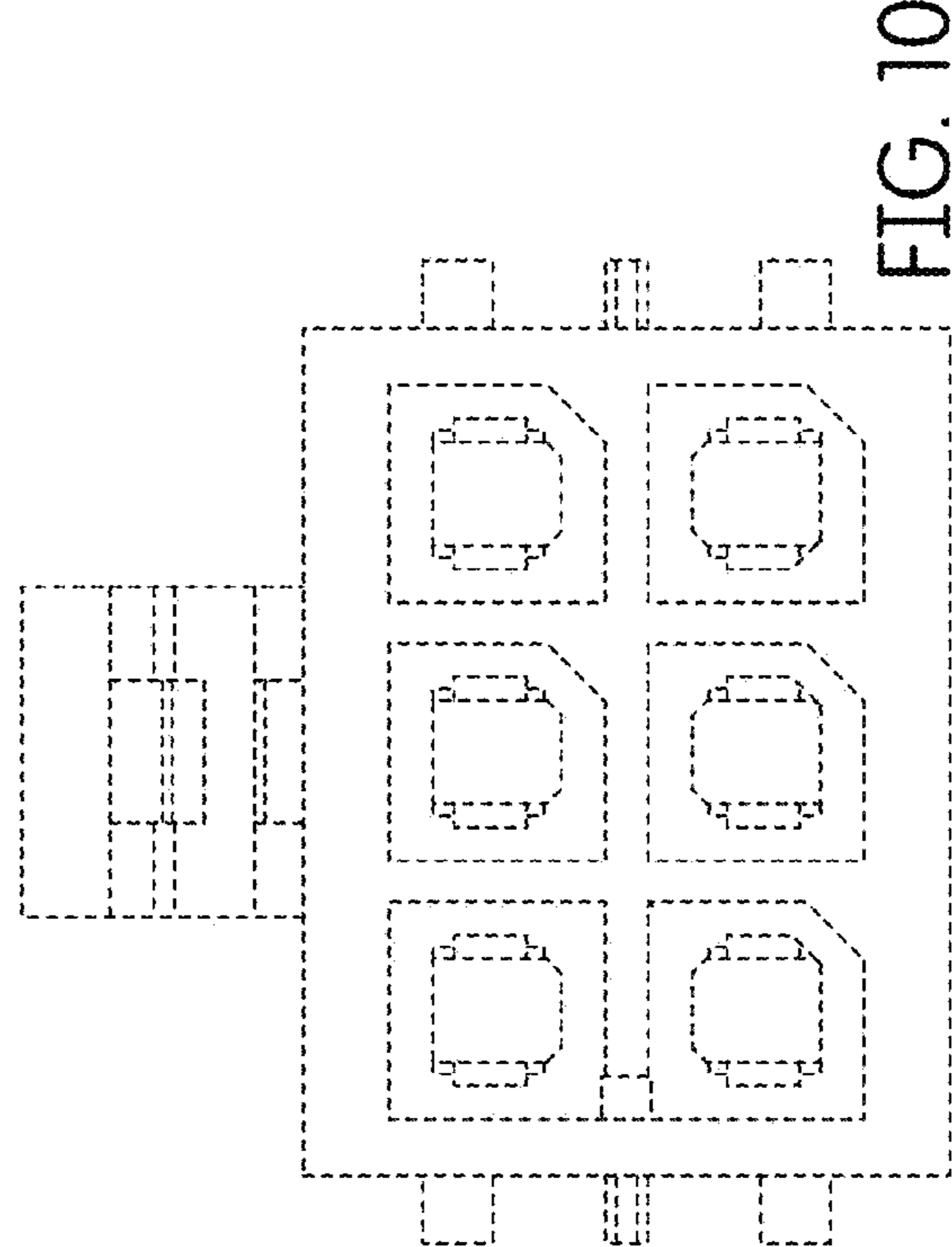


FIG. 10

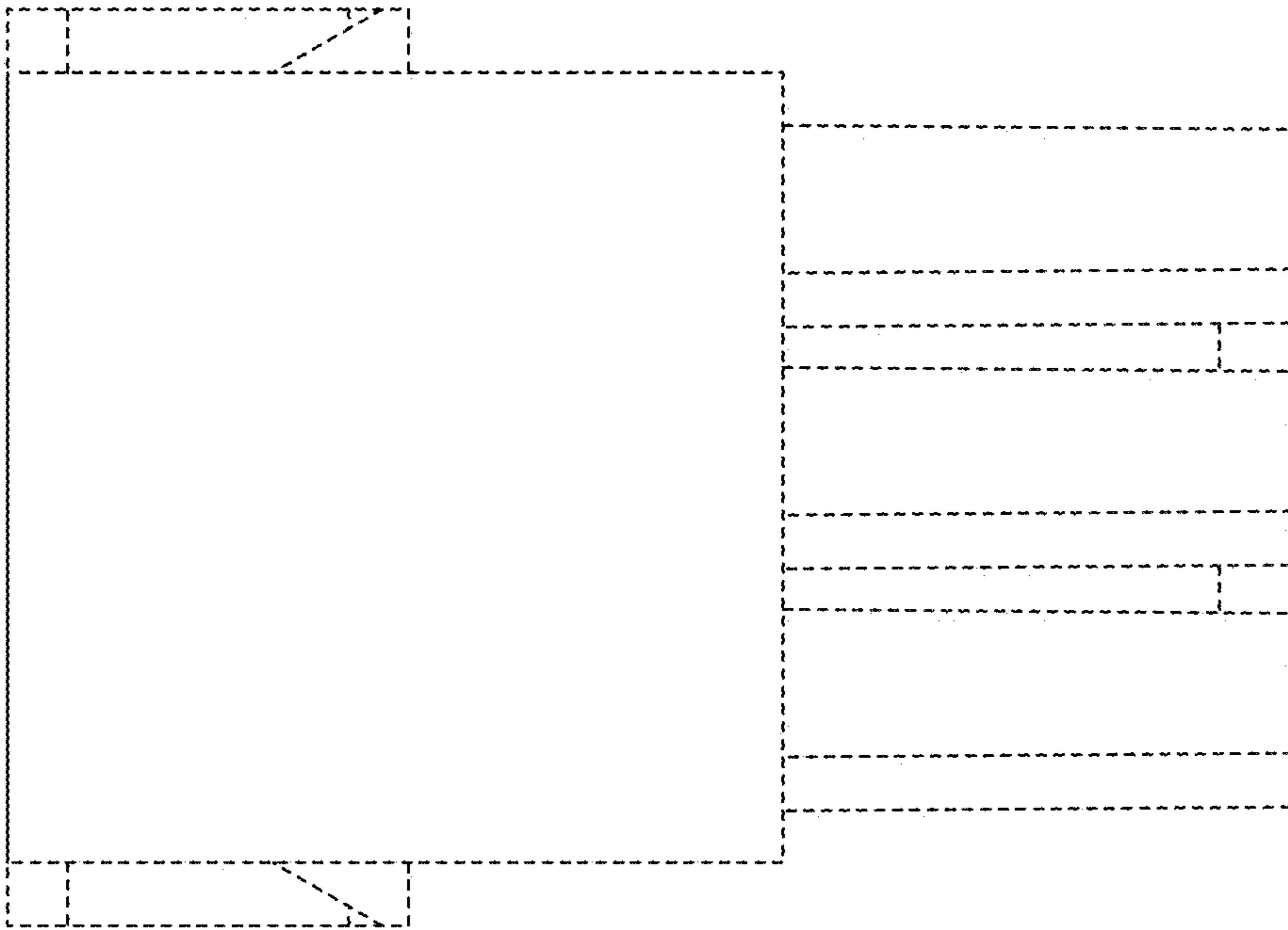


FIG. 14

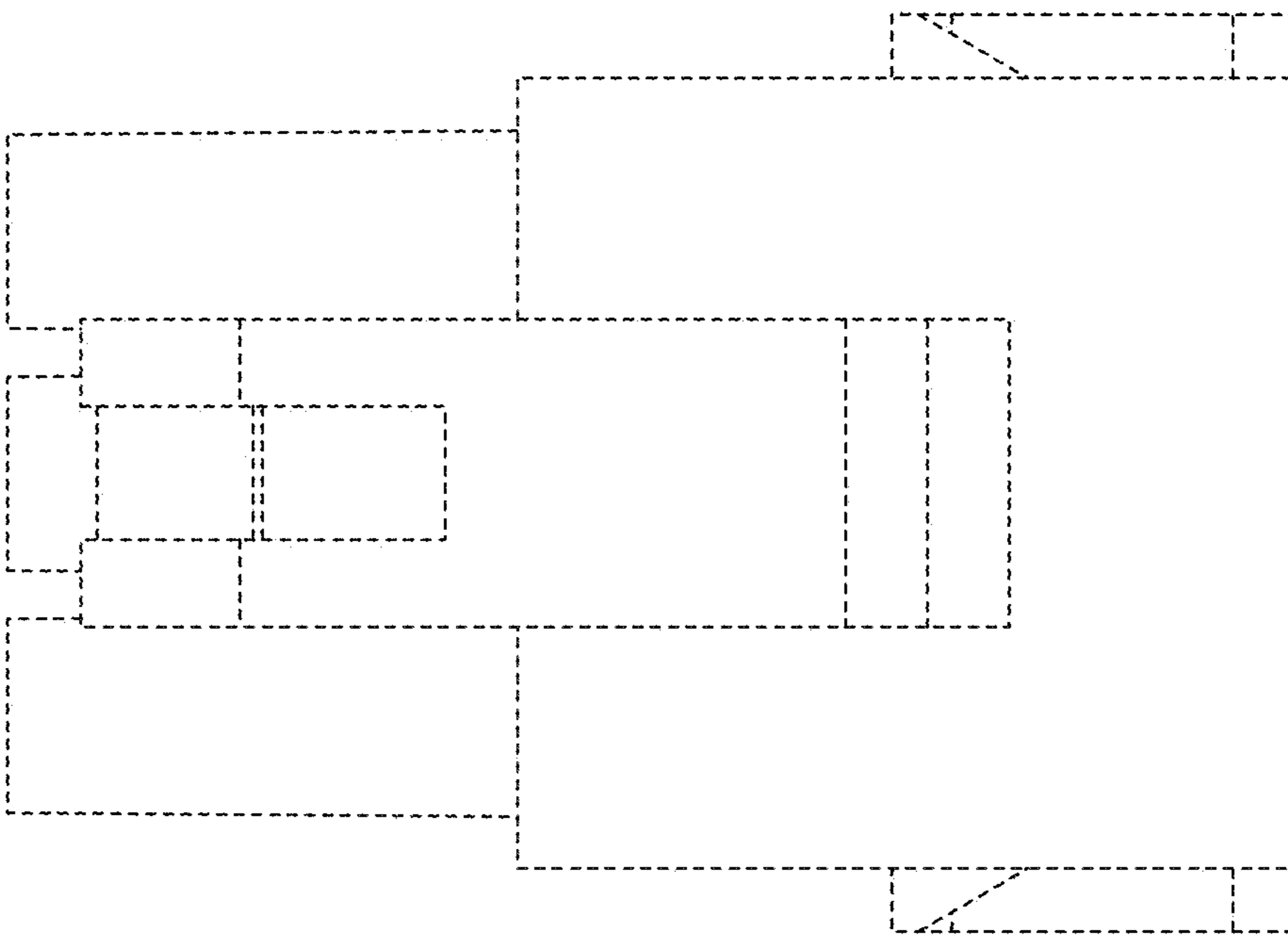


FIG. 13

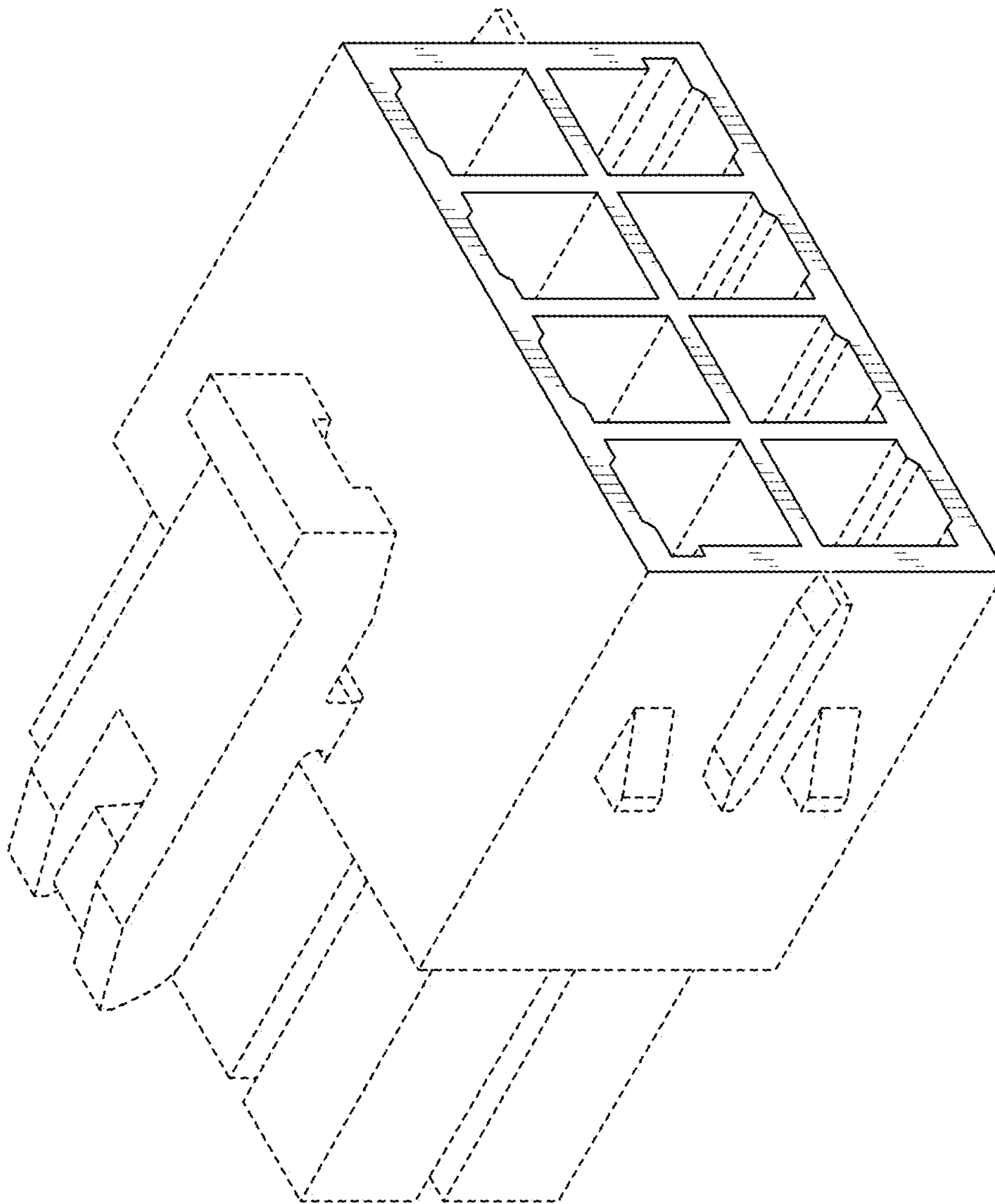


FIG. 15

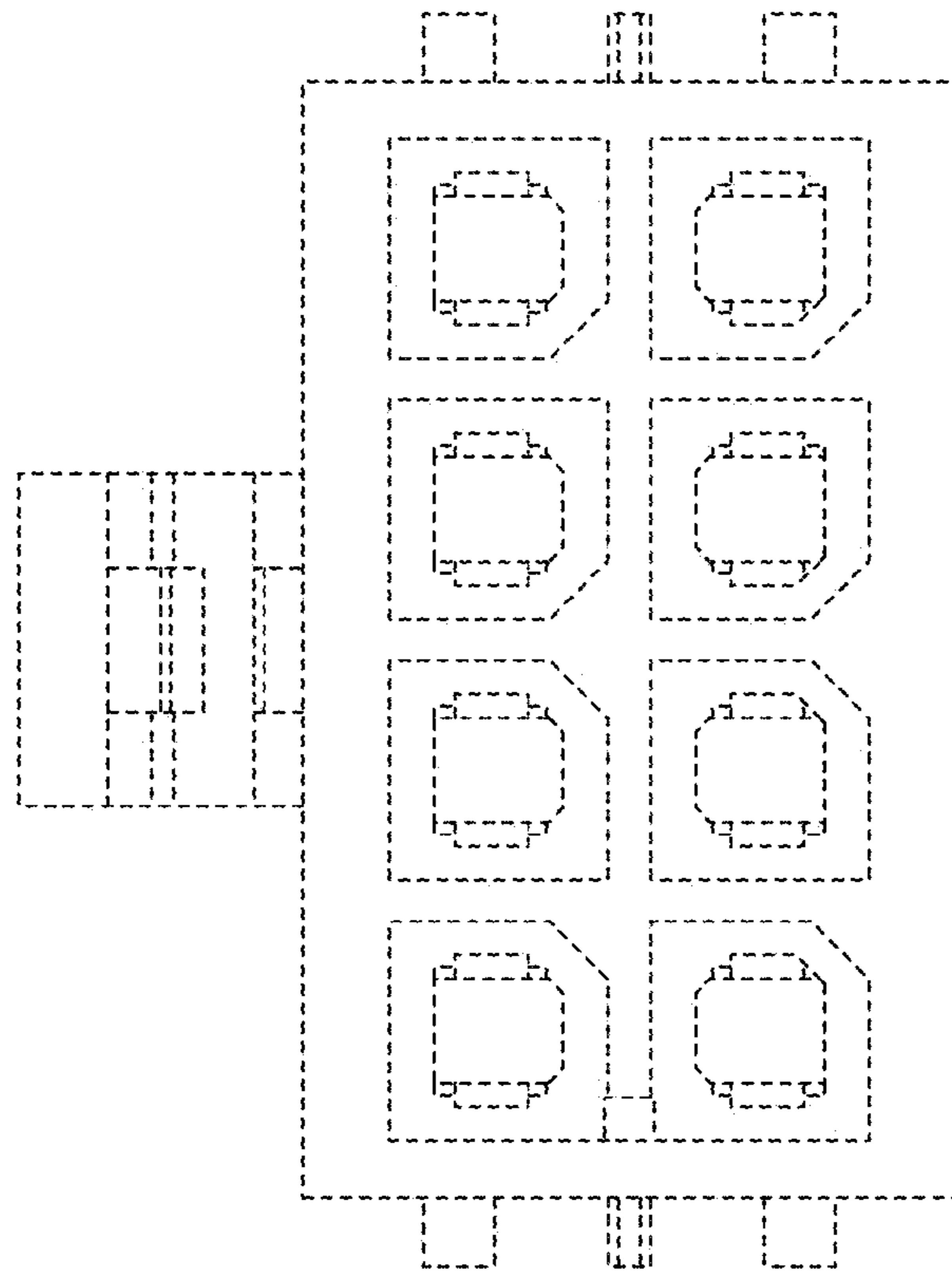


FIG. 17

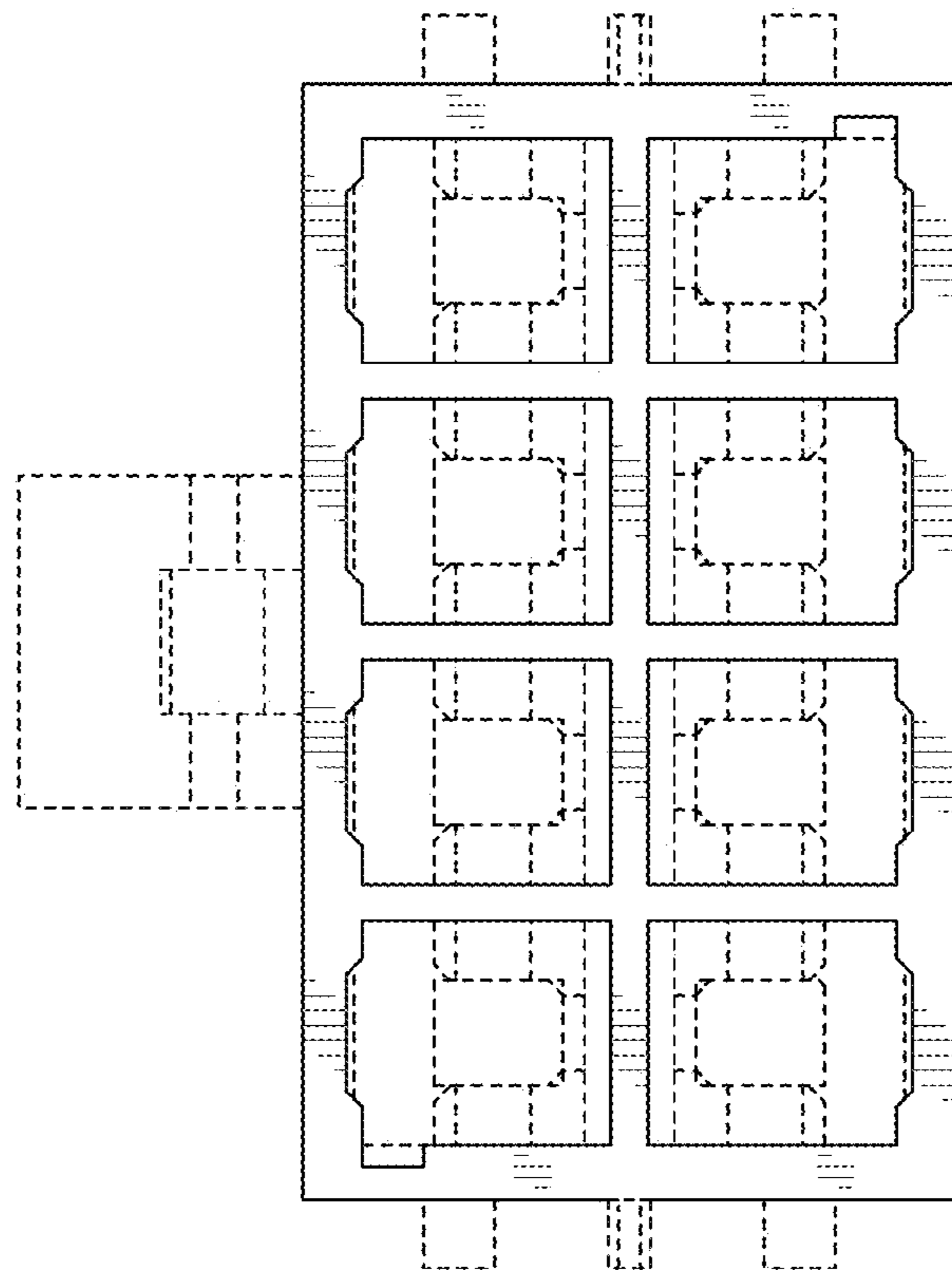


FIG. 16

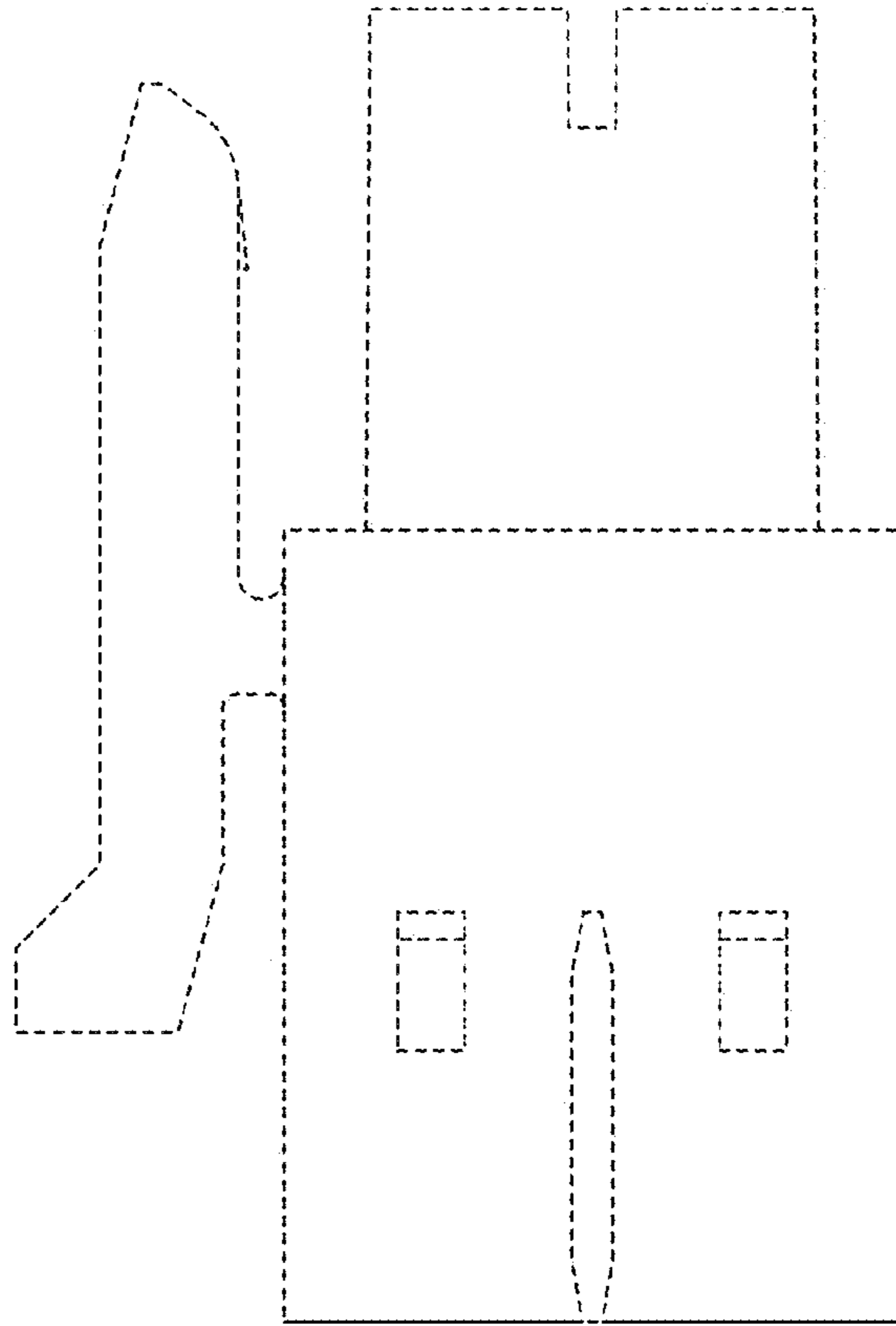


FIG. 19

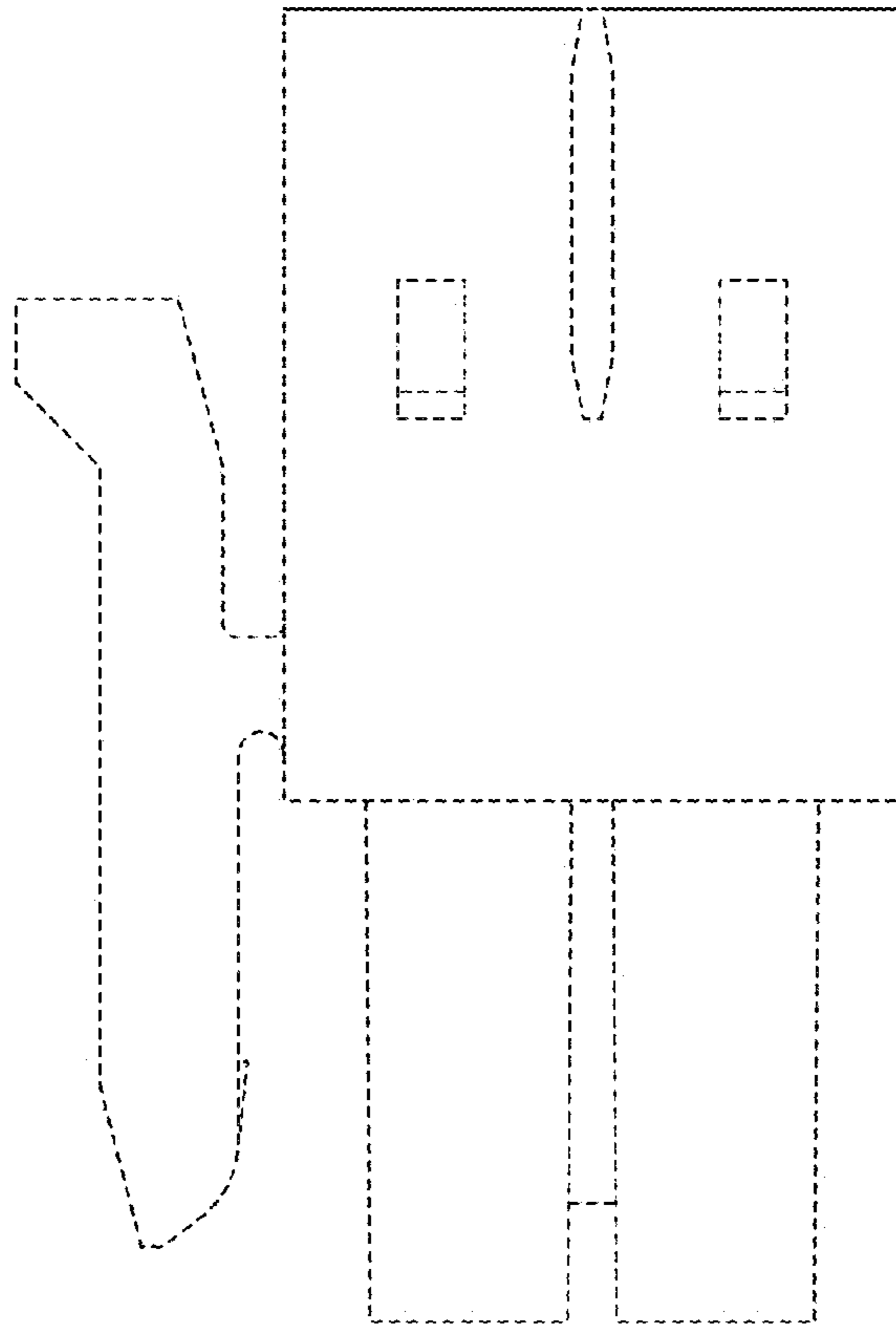


FIG. 18

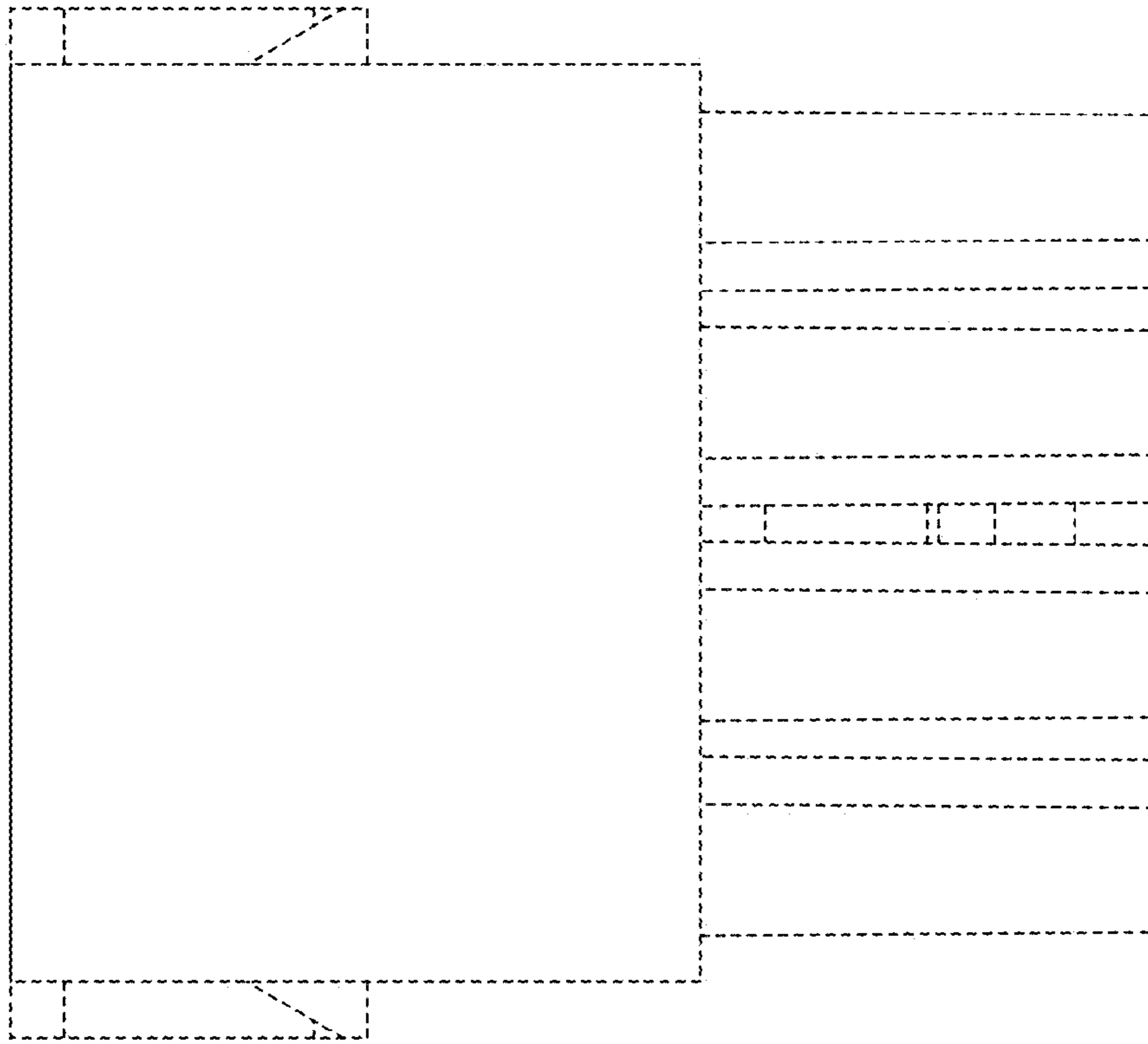


FIG. 21

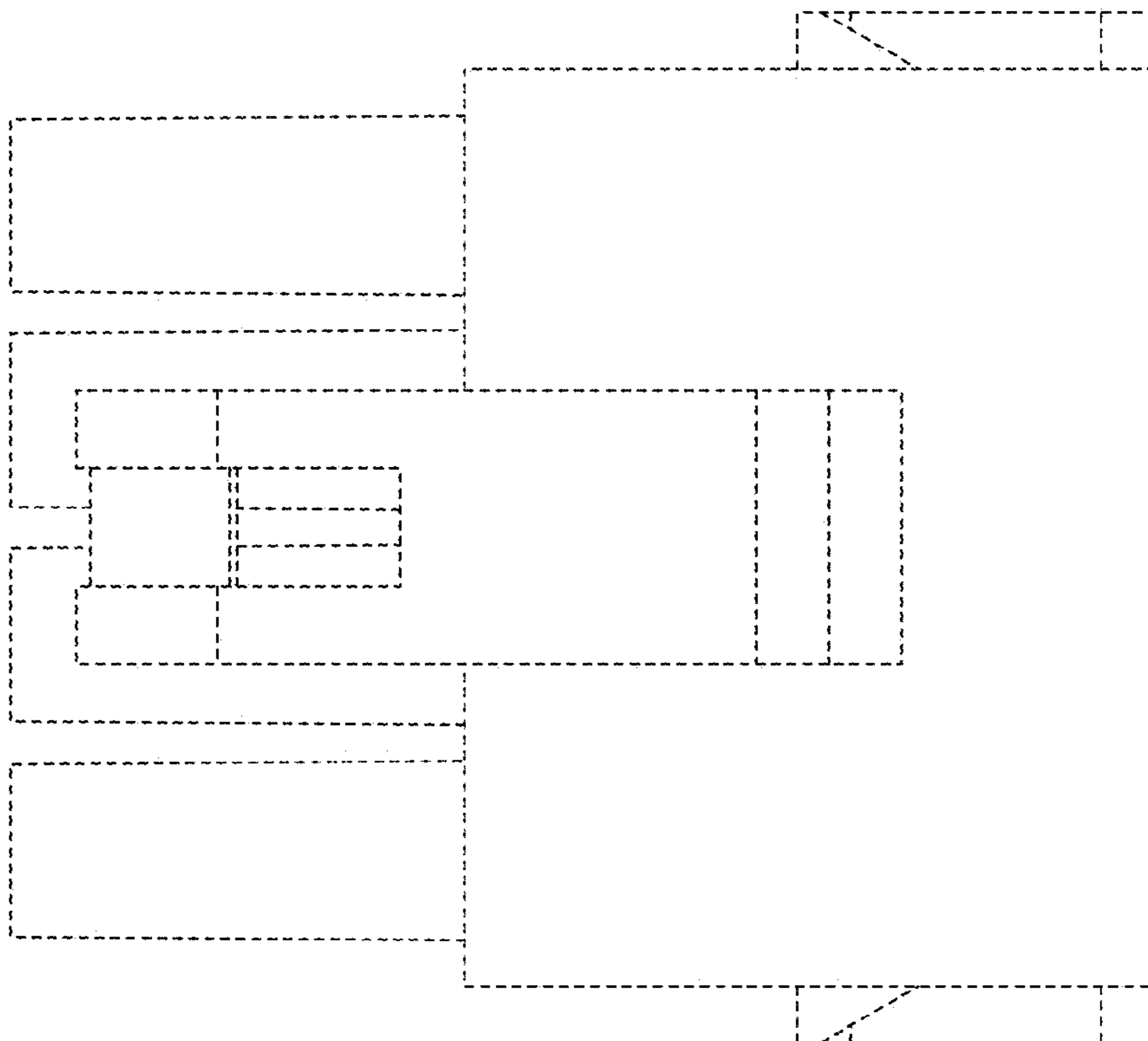


FIG. 20

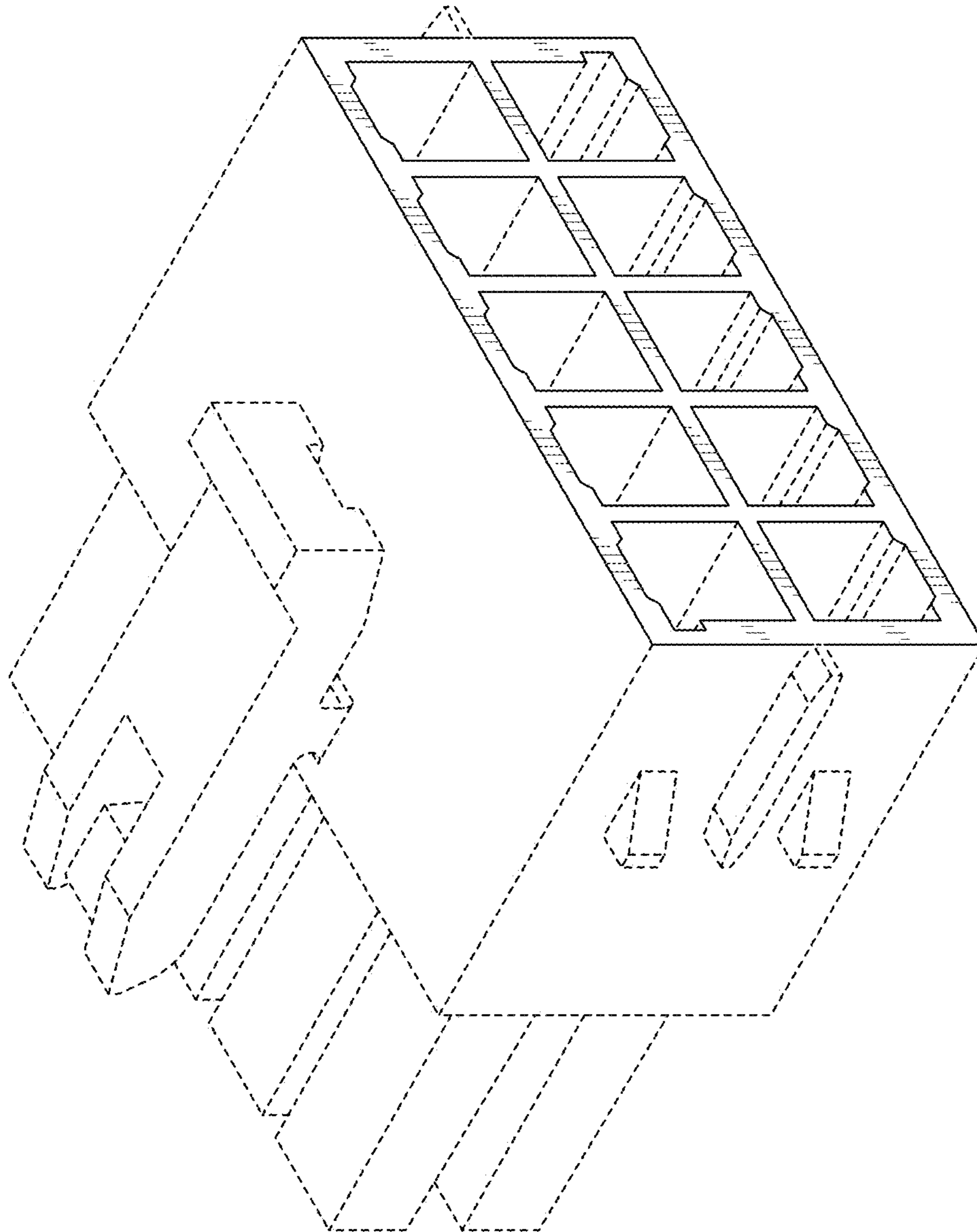


FIG. 22

FIG. 23

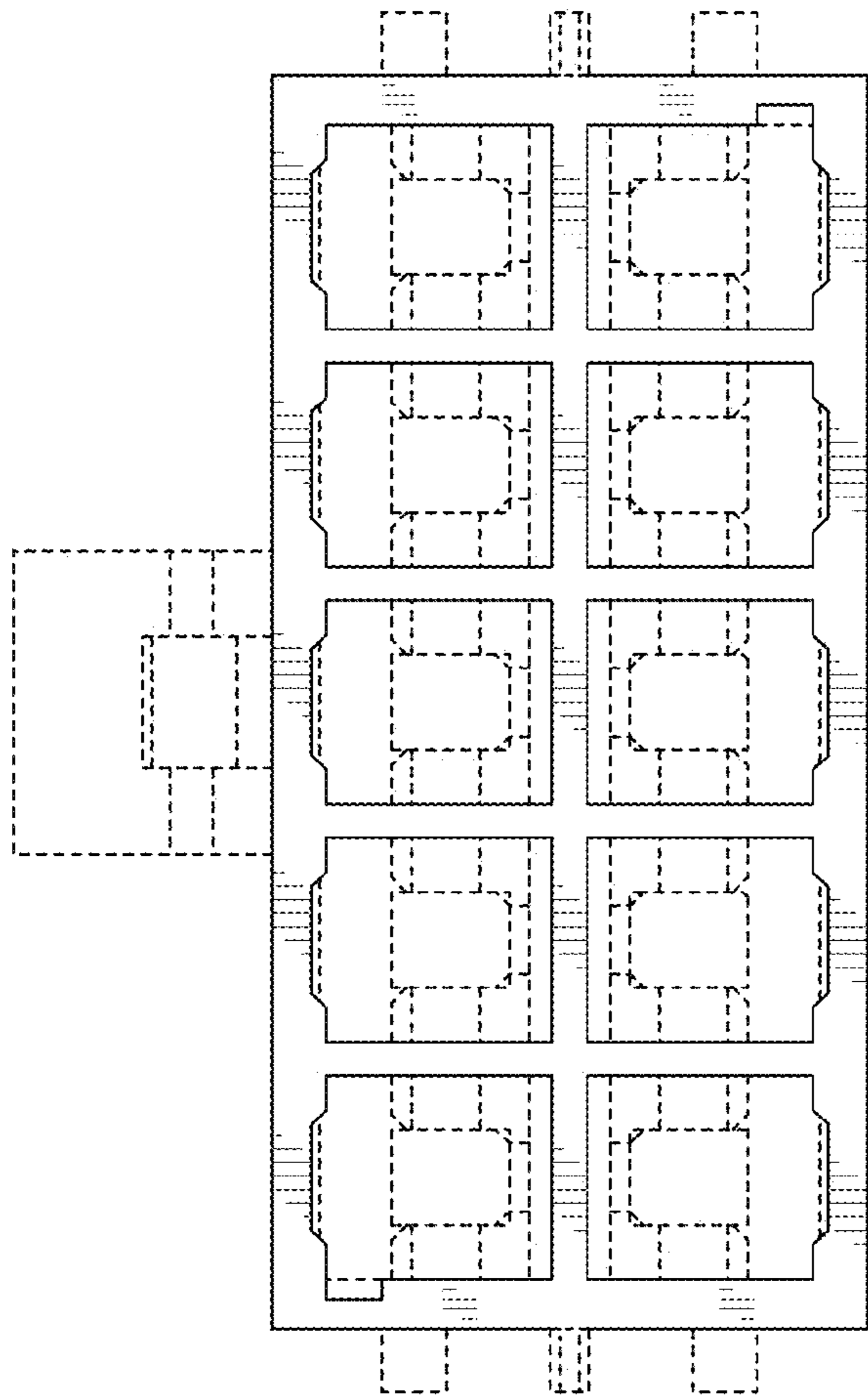


FIG. 24

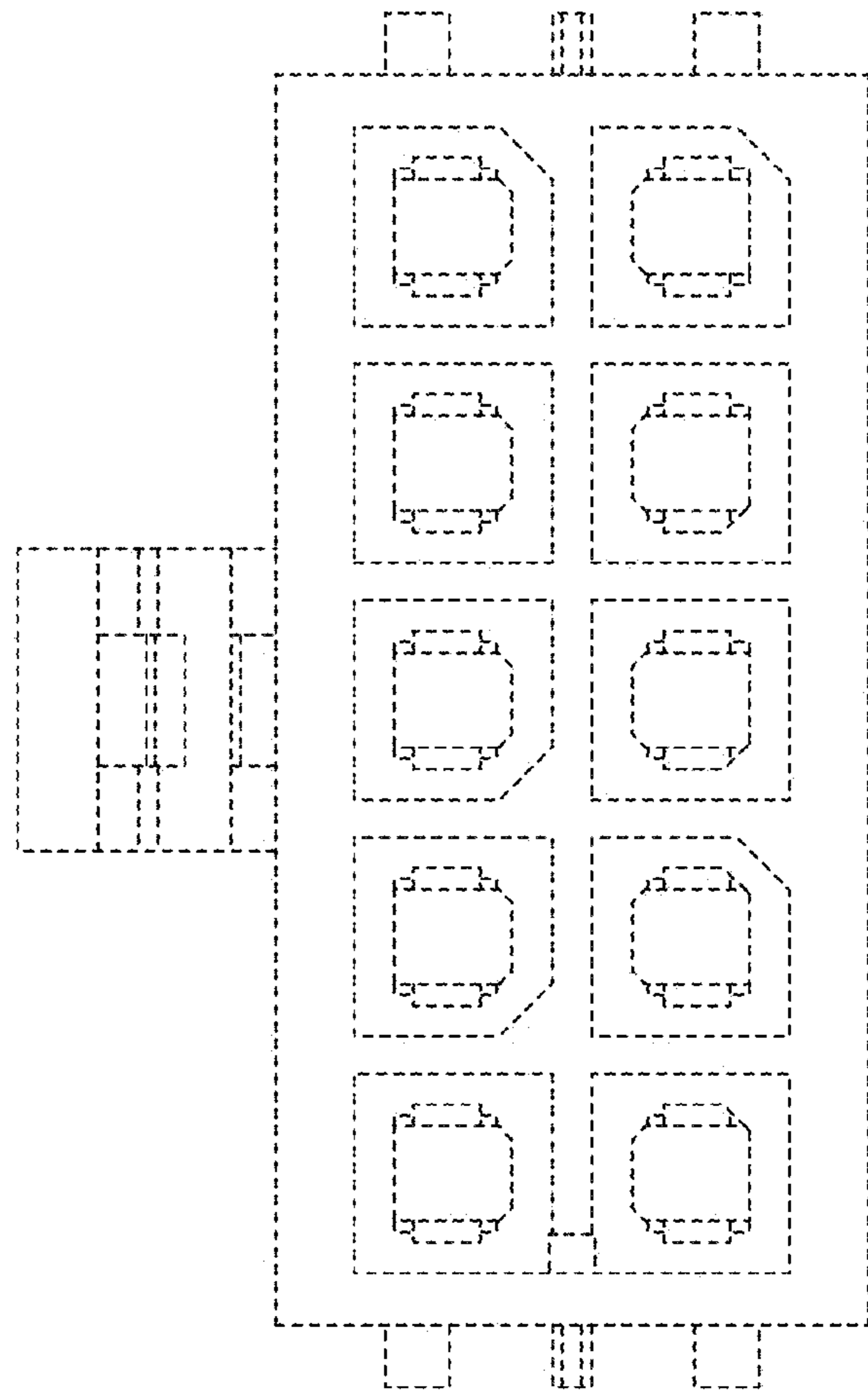


FIG. 25

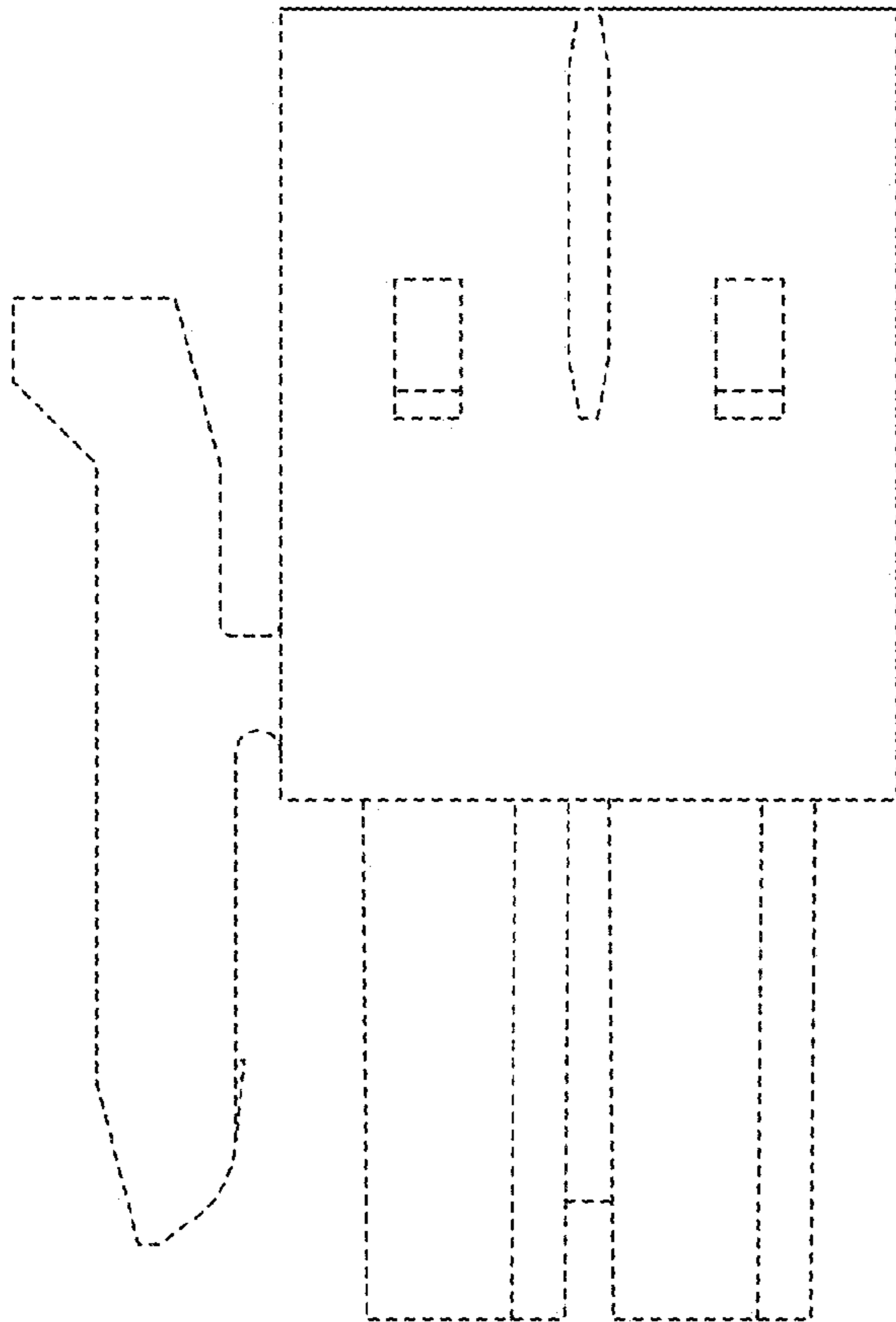
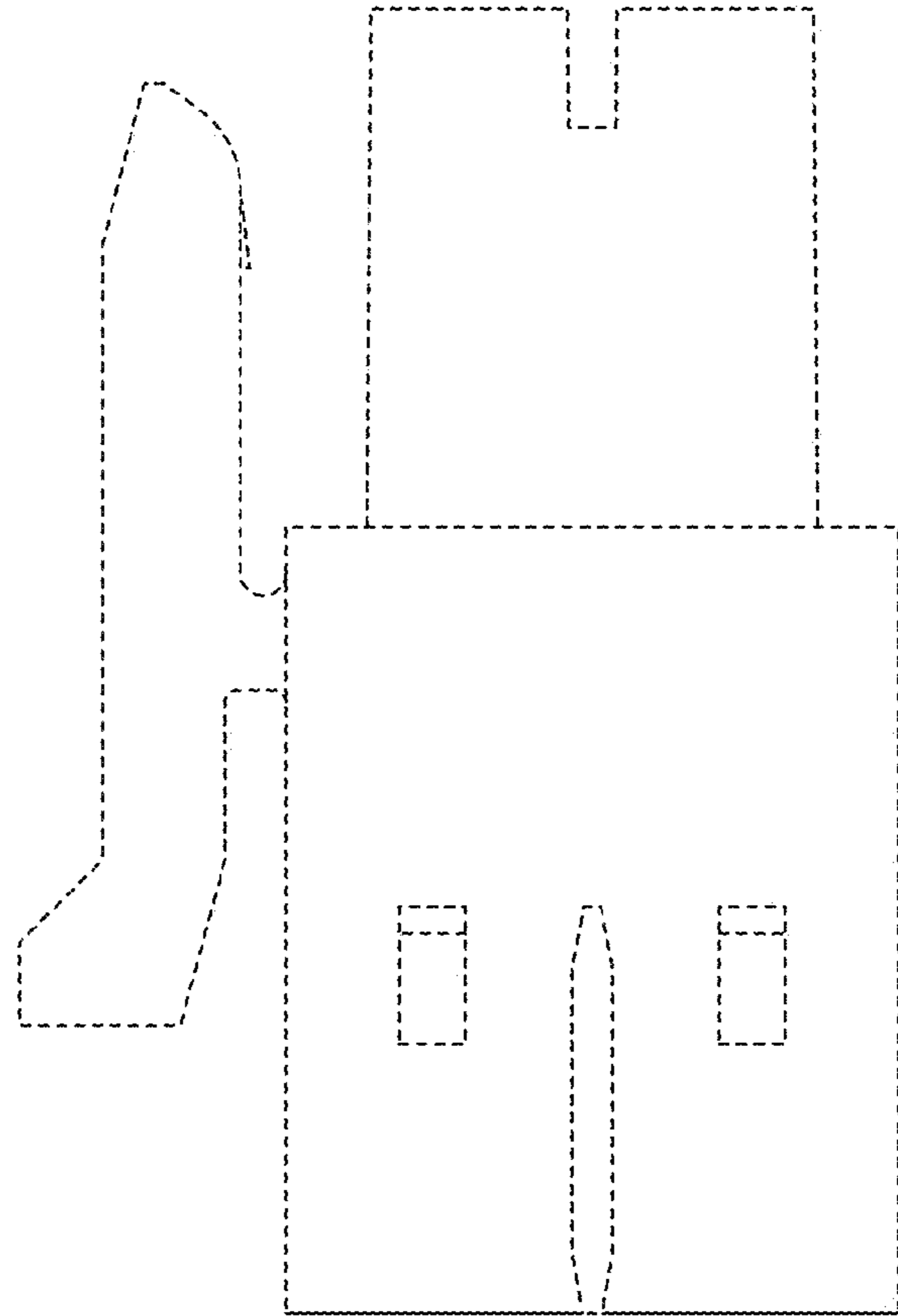


FIG. 26



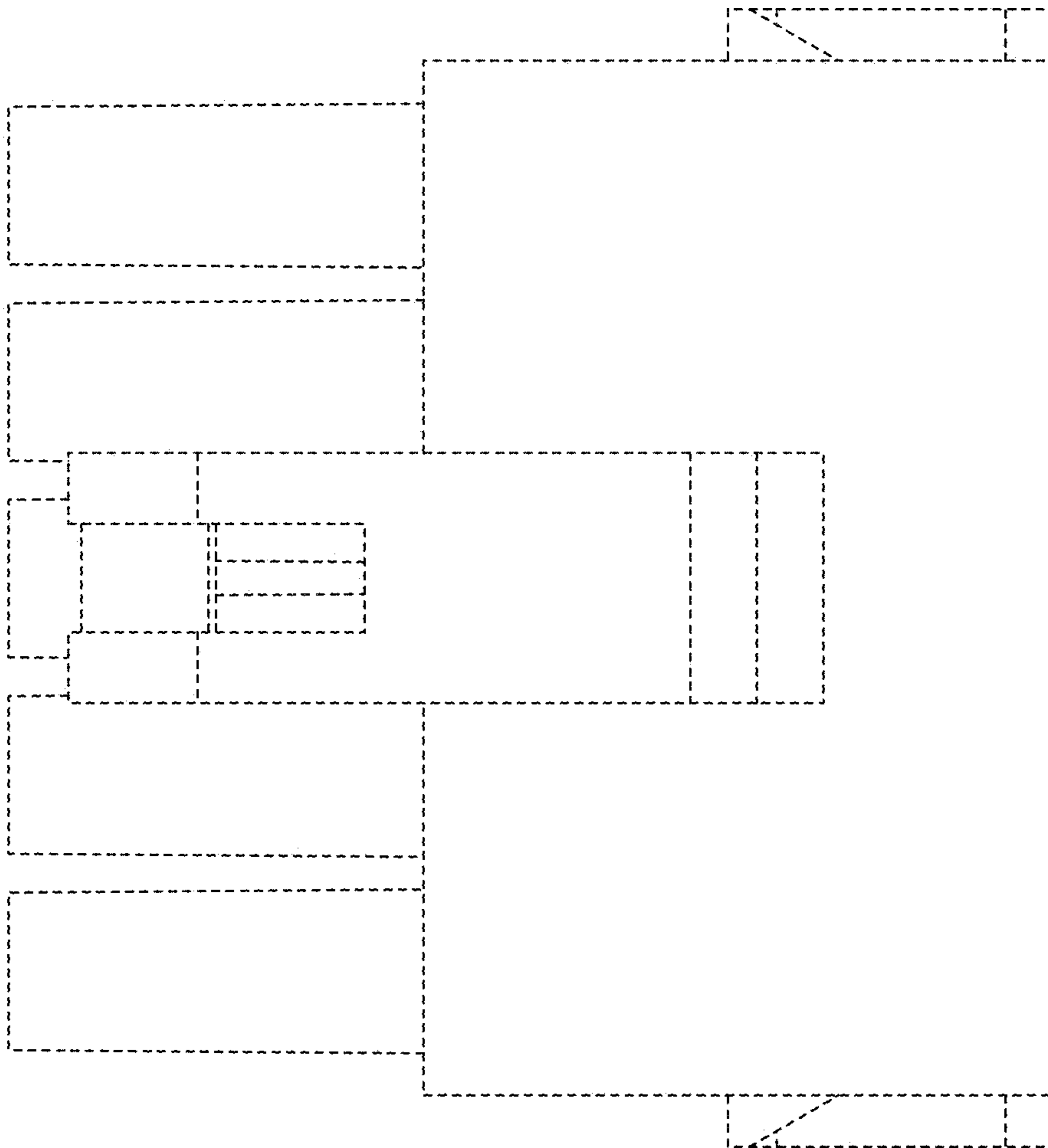


FIG. 27

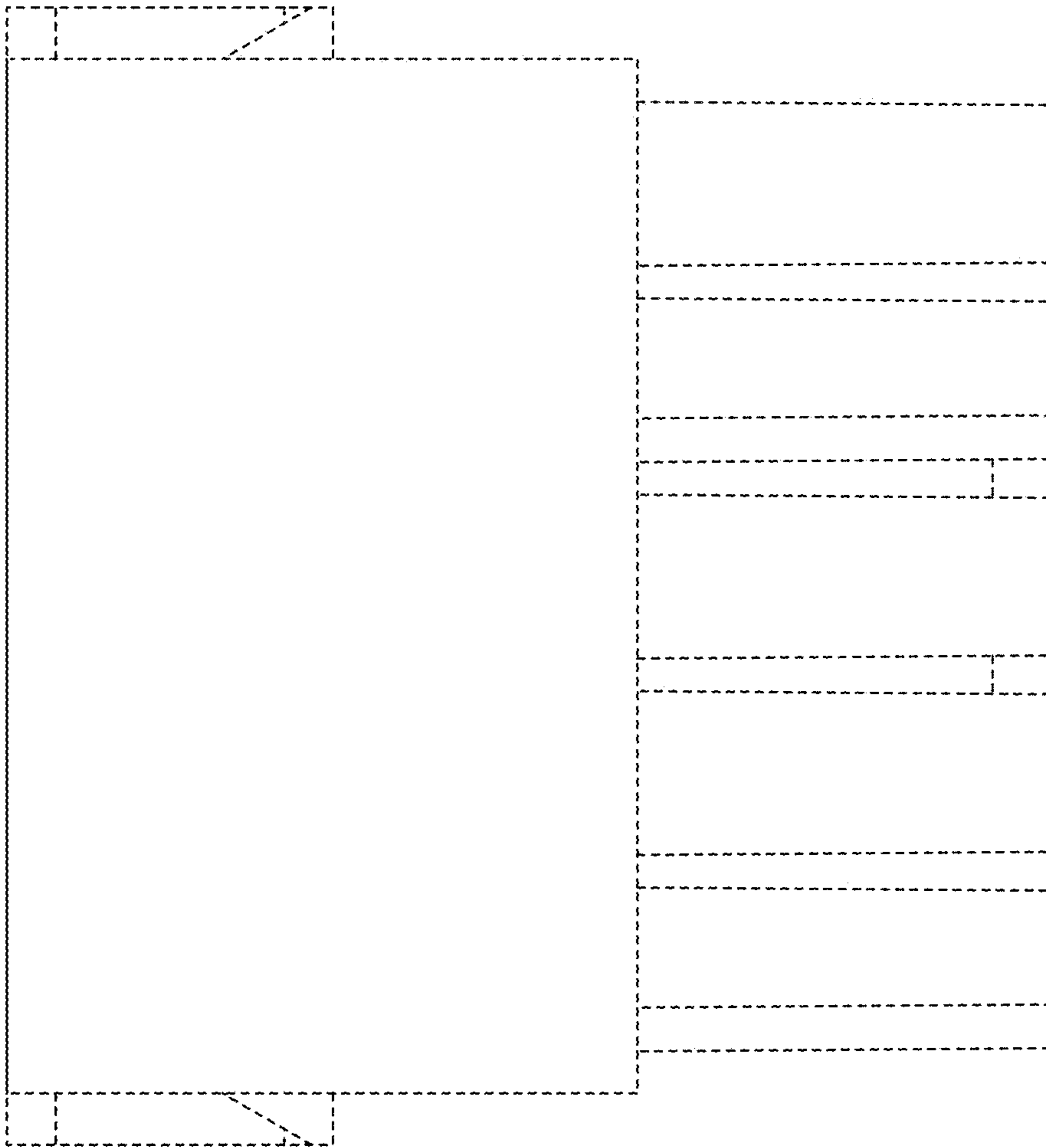


FIG. 28

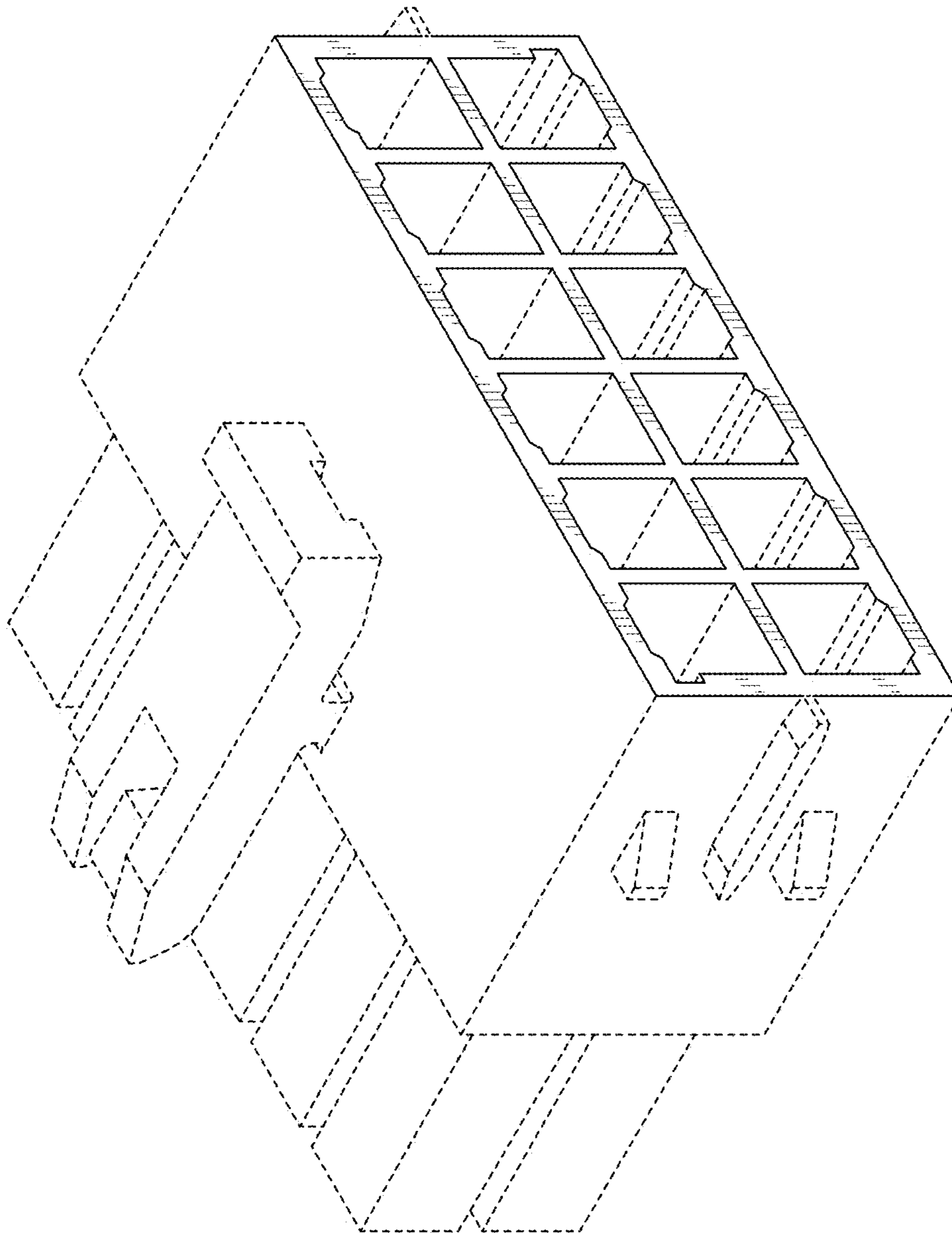


FIG. 29

FIG. 30

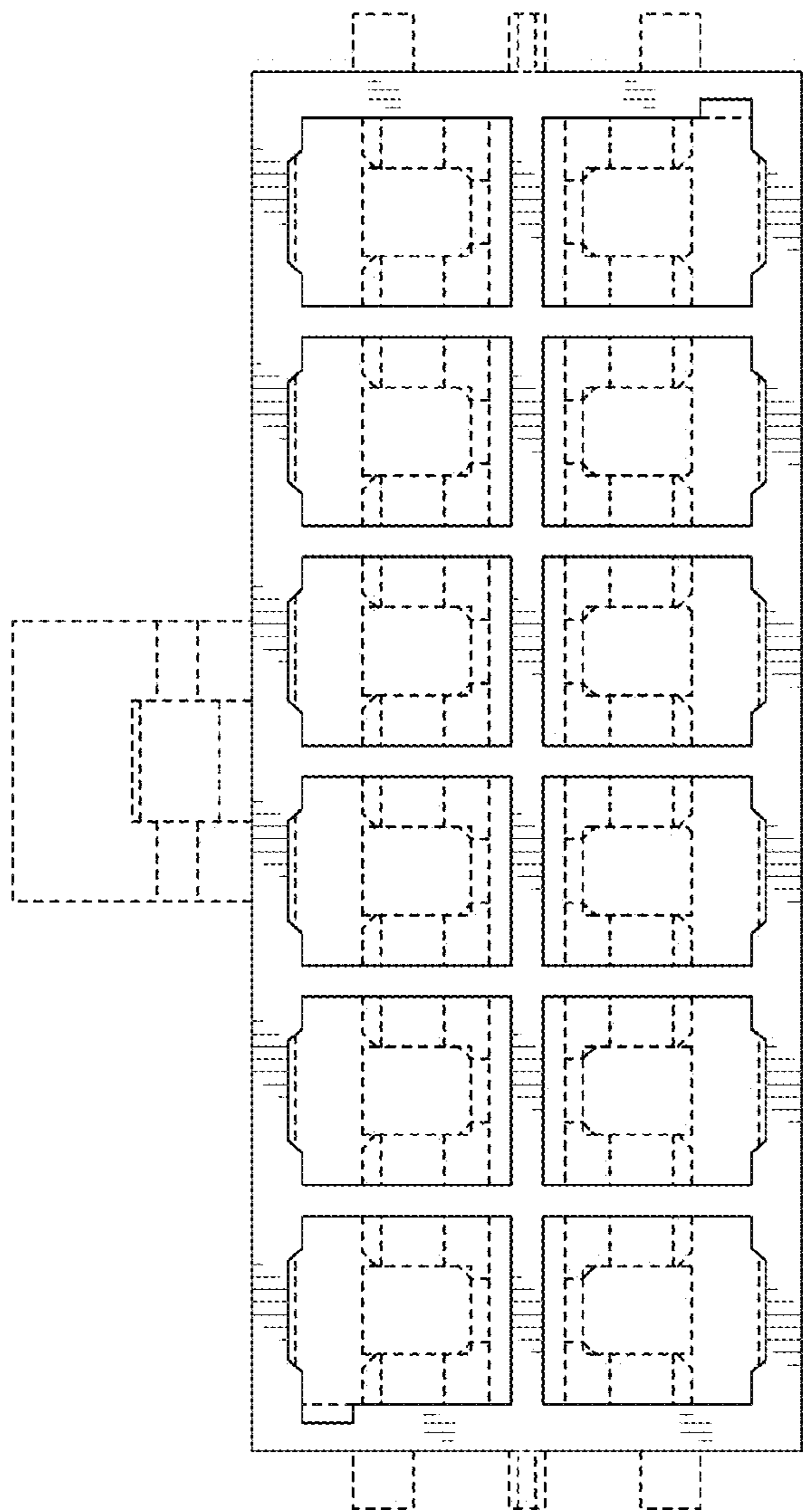


FIG. 31

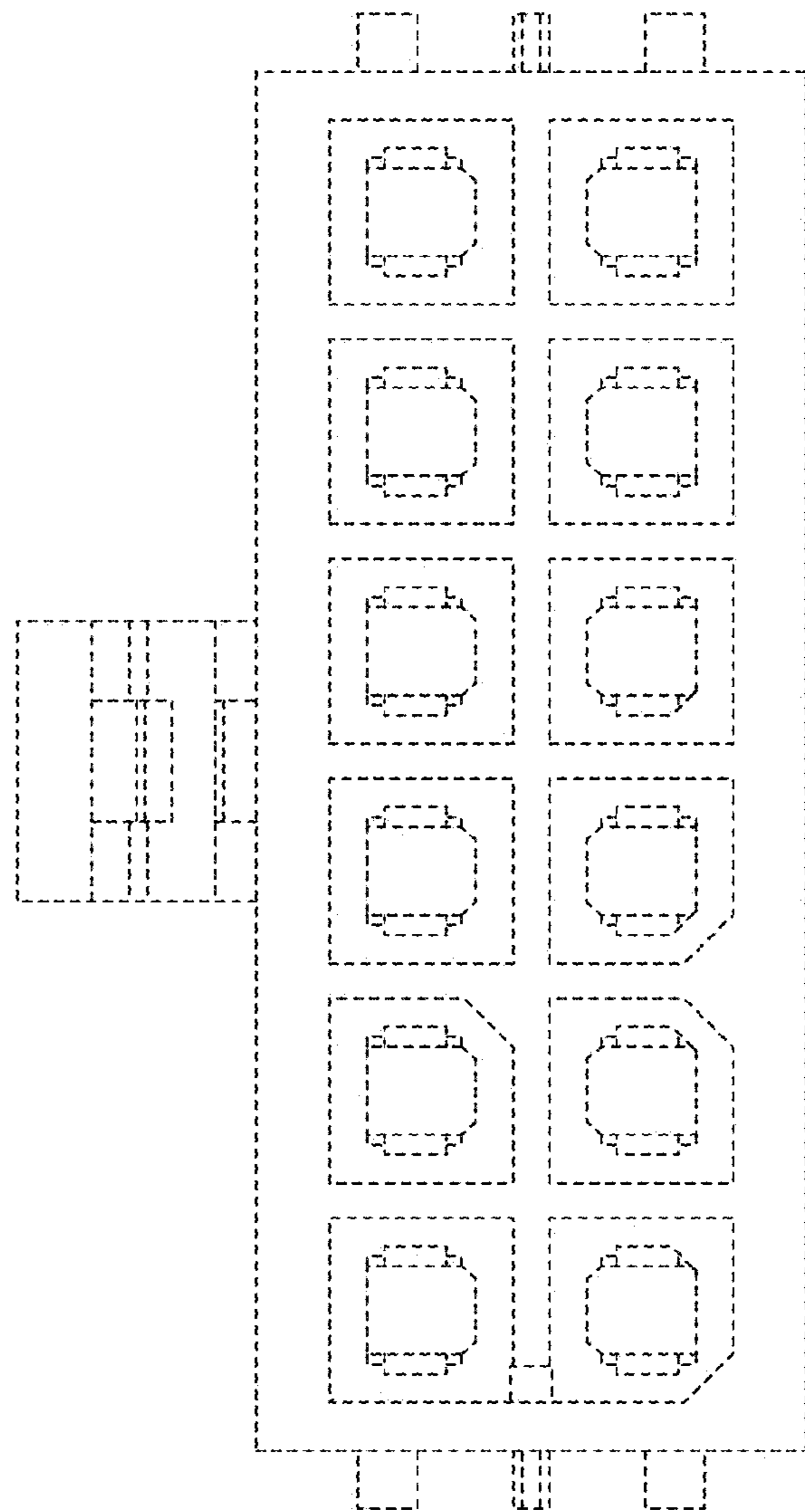


FIG. 32

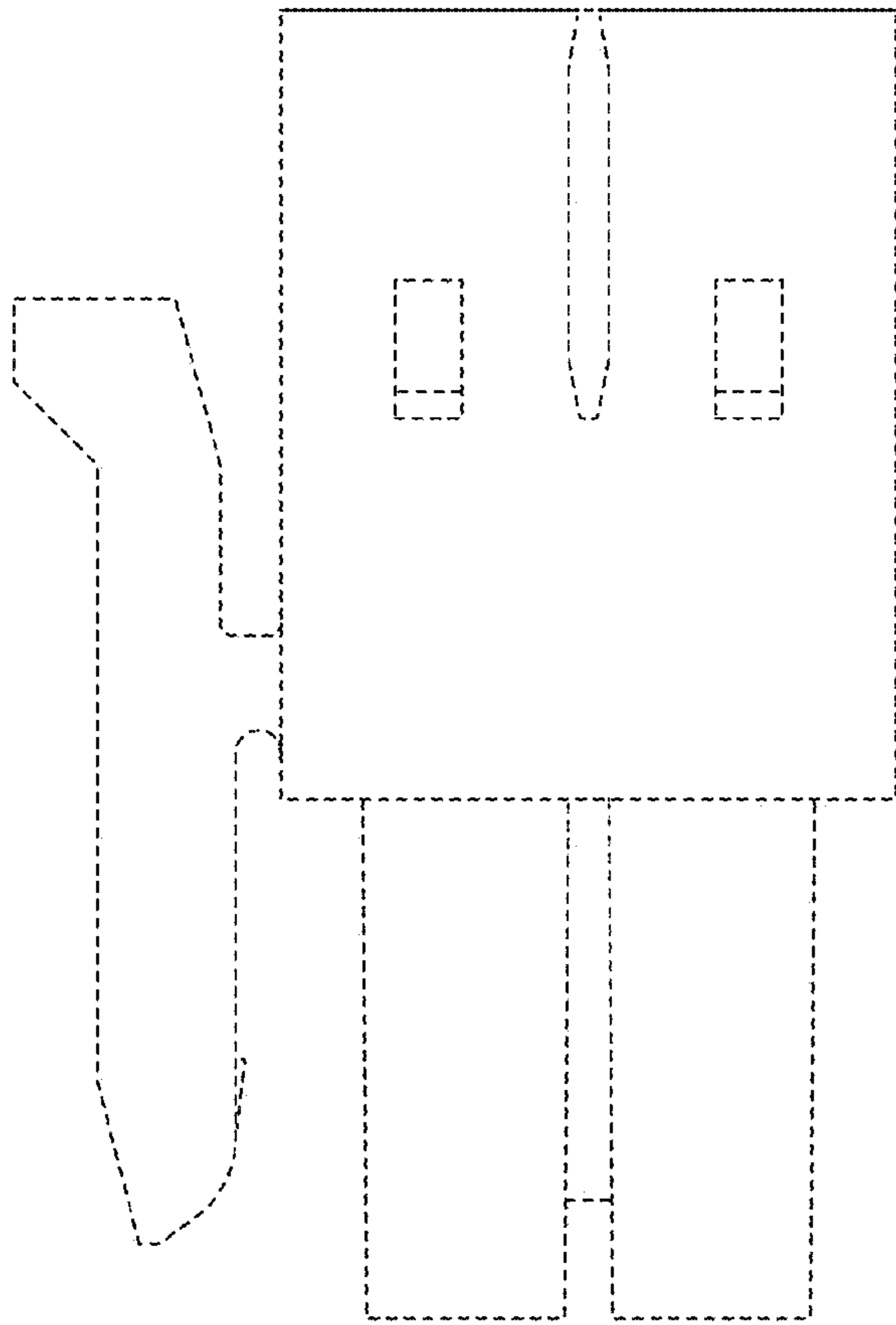
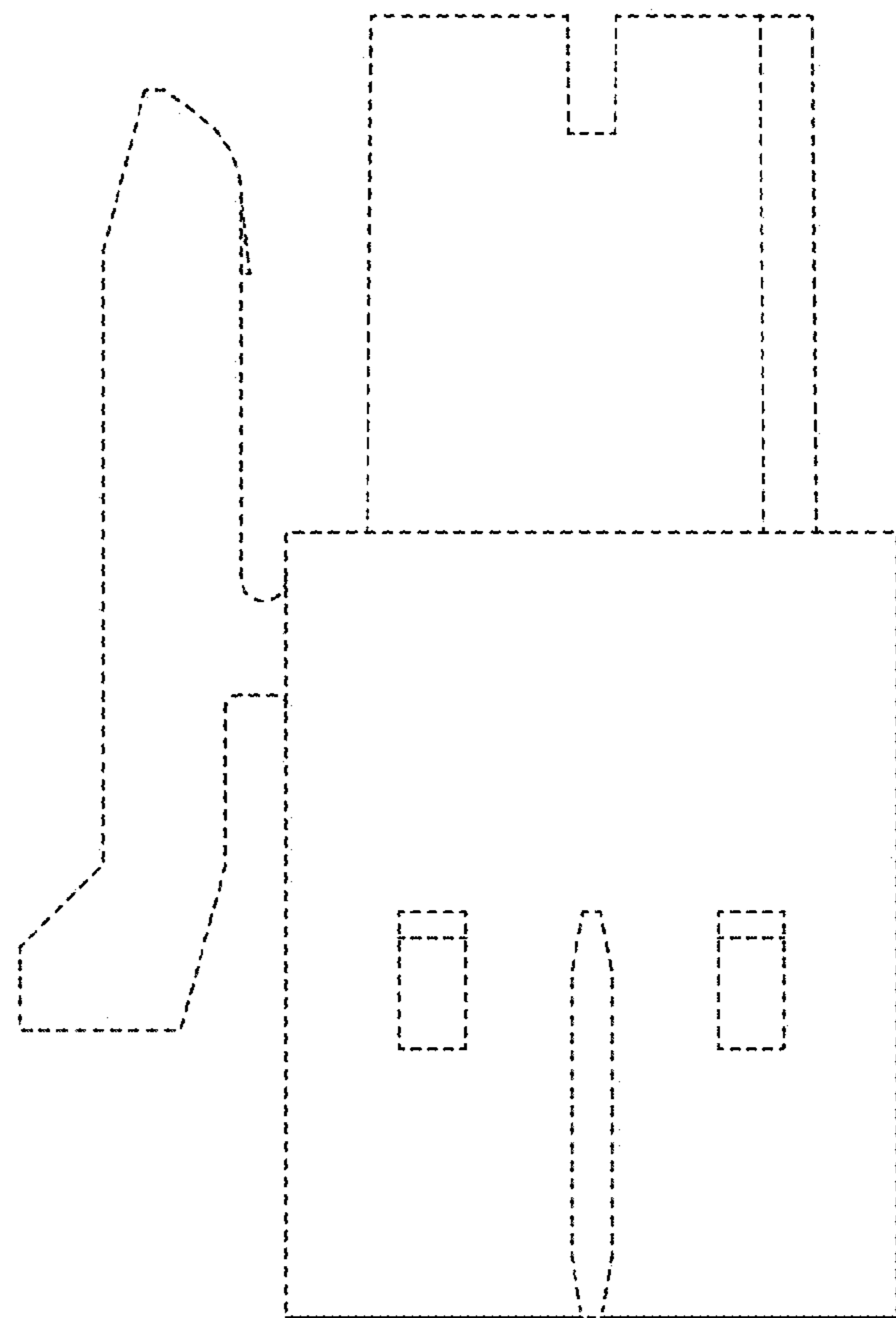


FIG. 33



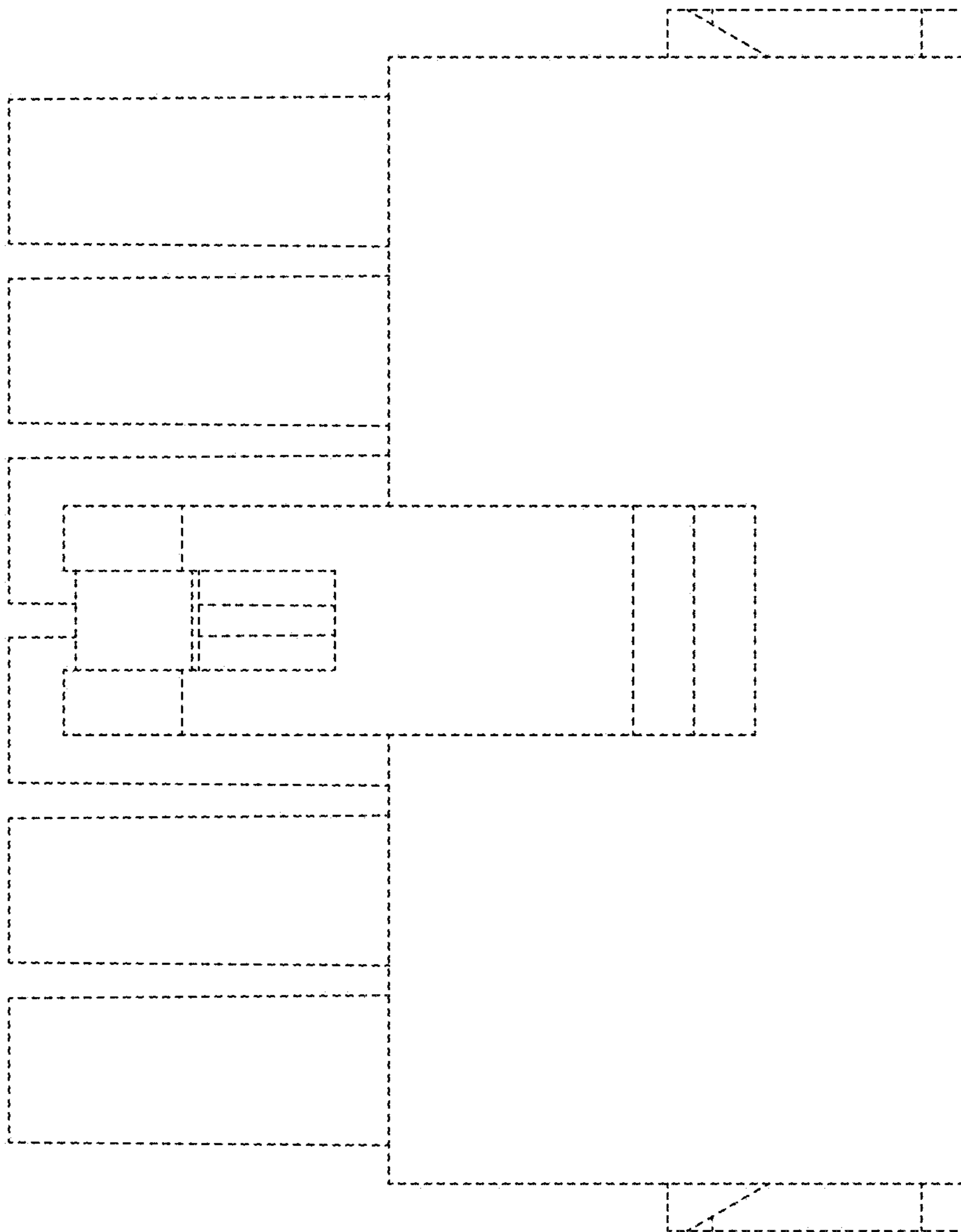


FIG. 34

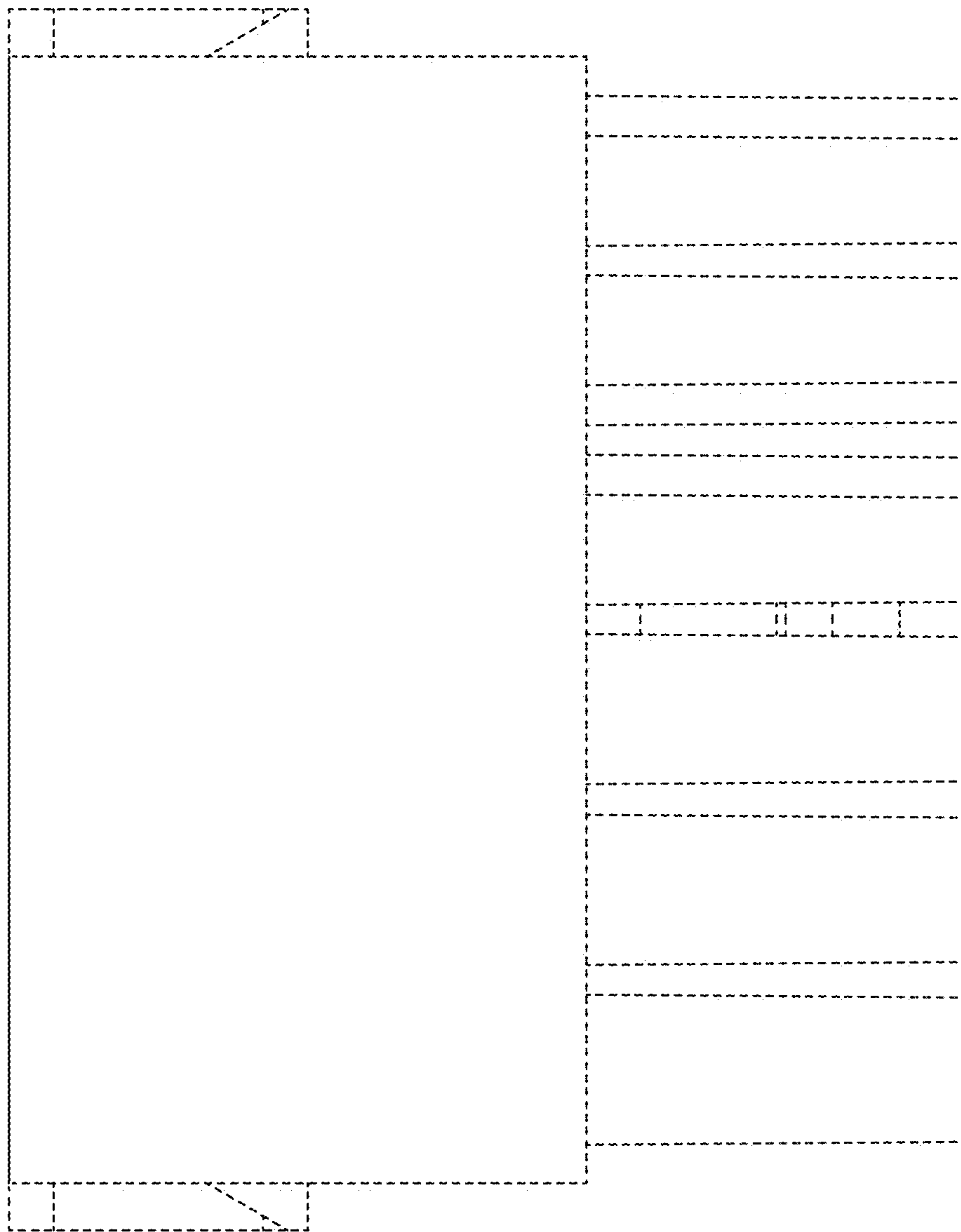


FIG. 35

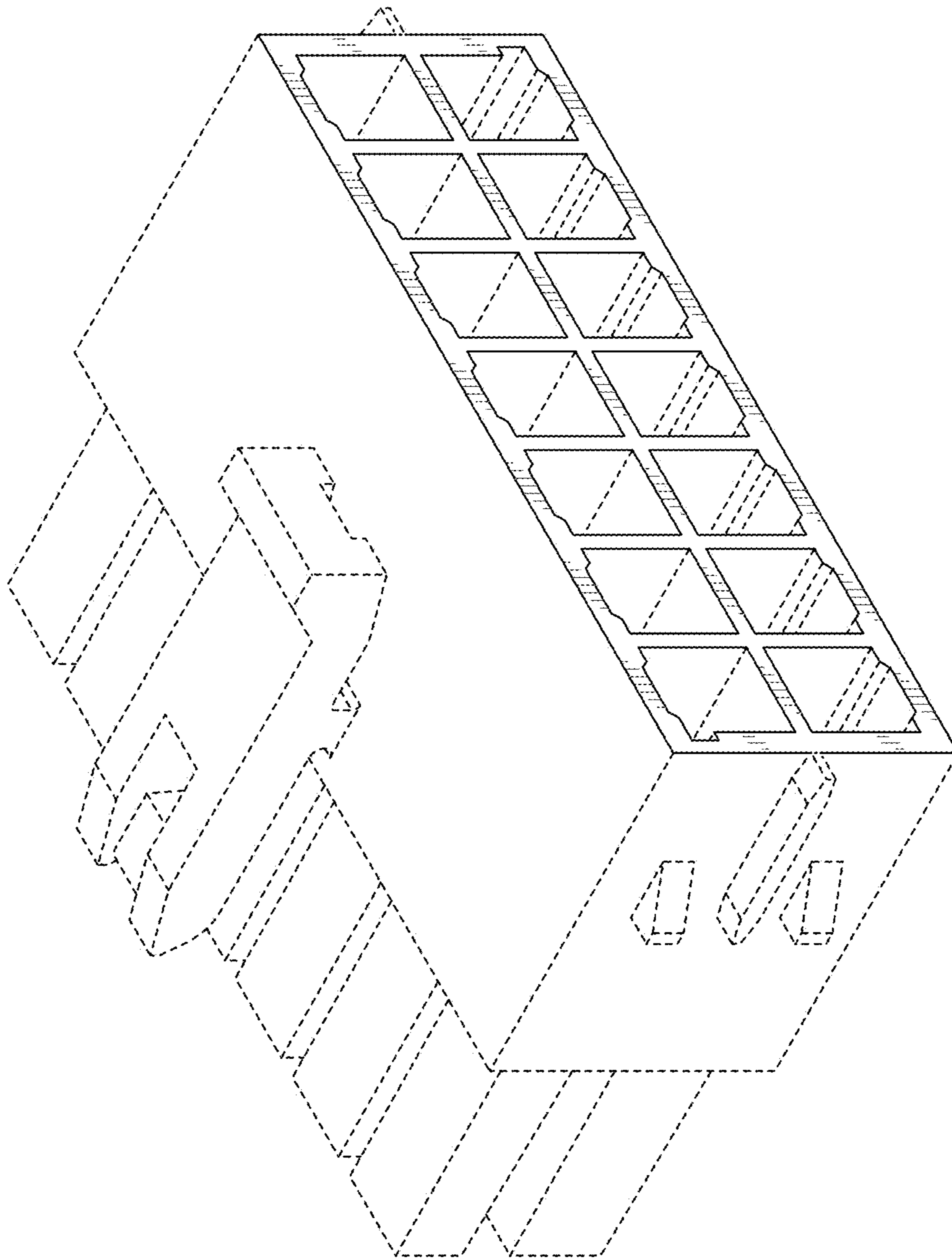


FIG. 36

FIG. 37

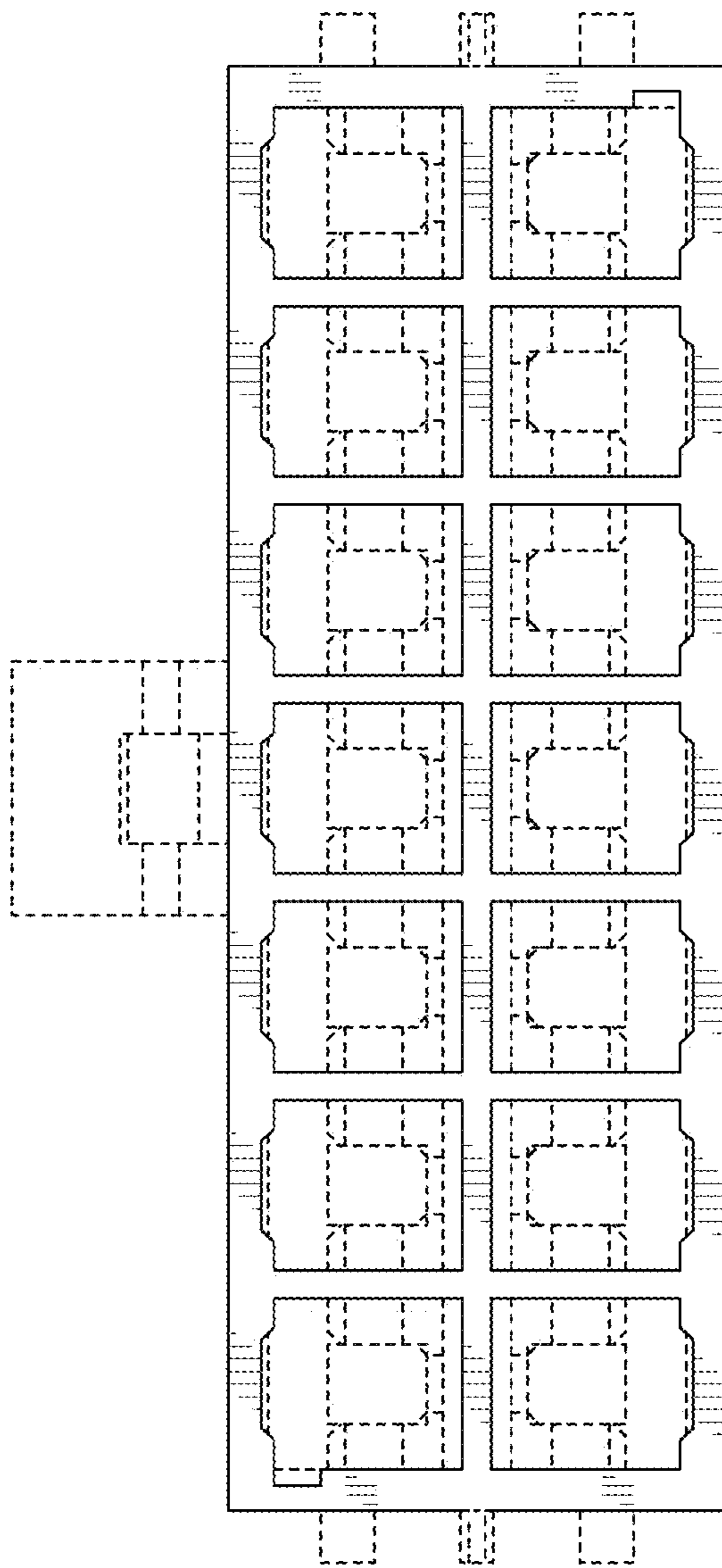
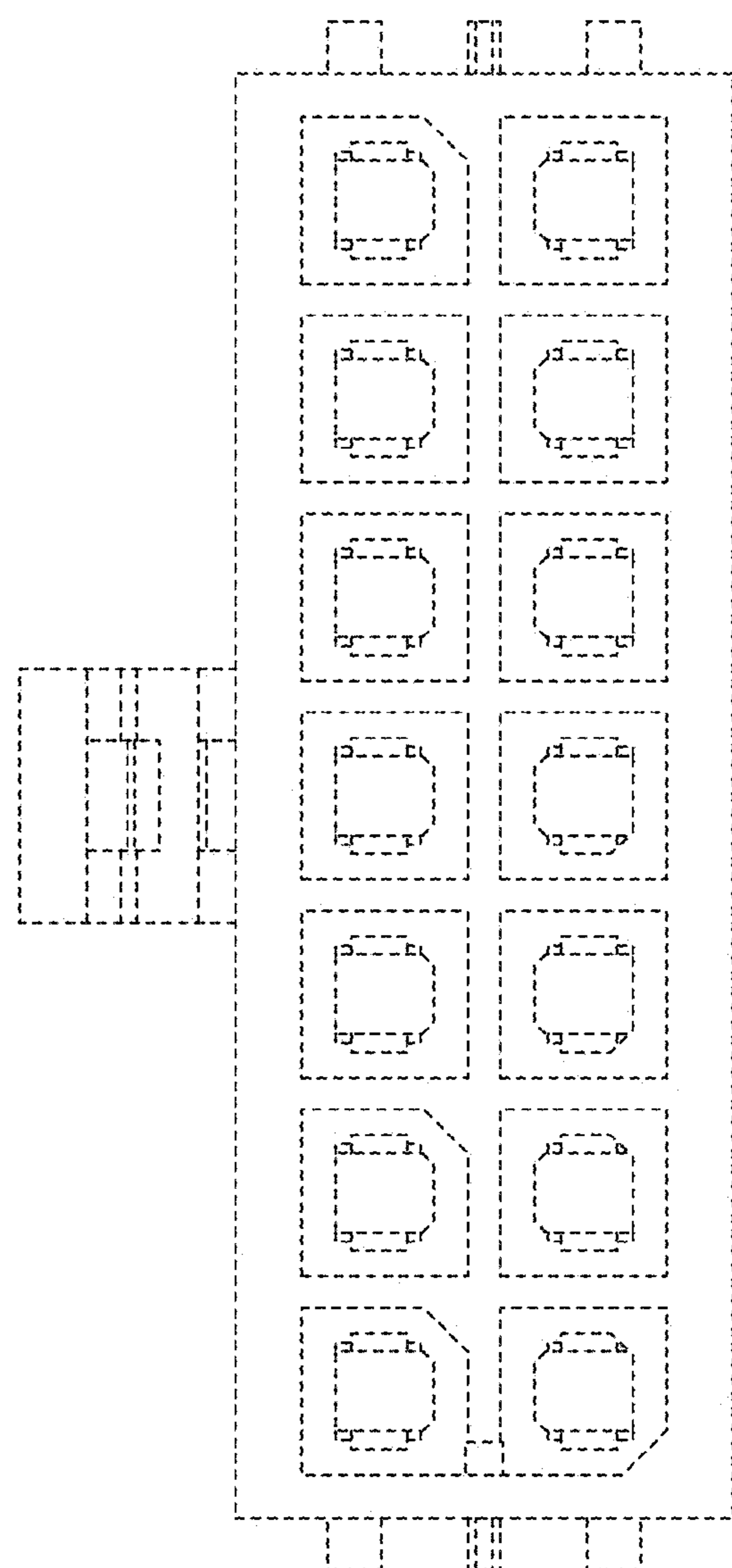


FIG. 38



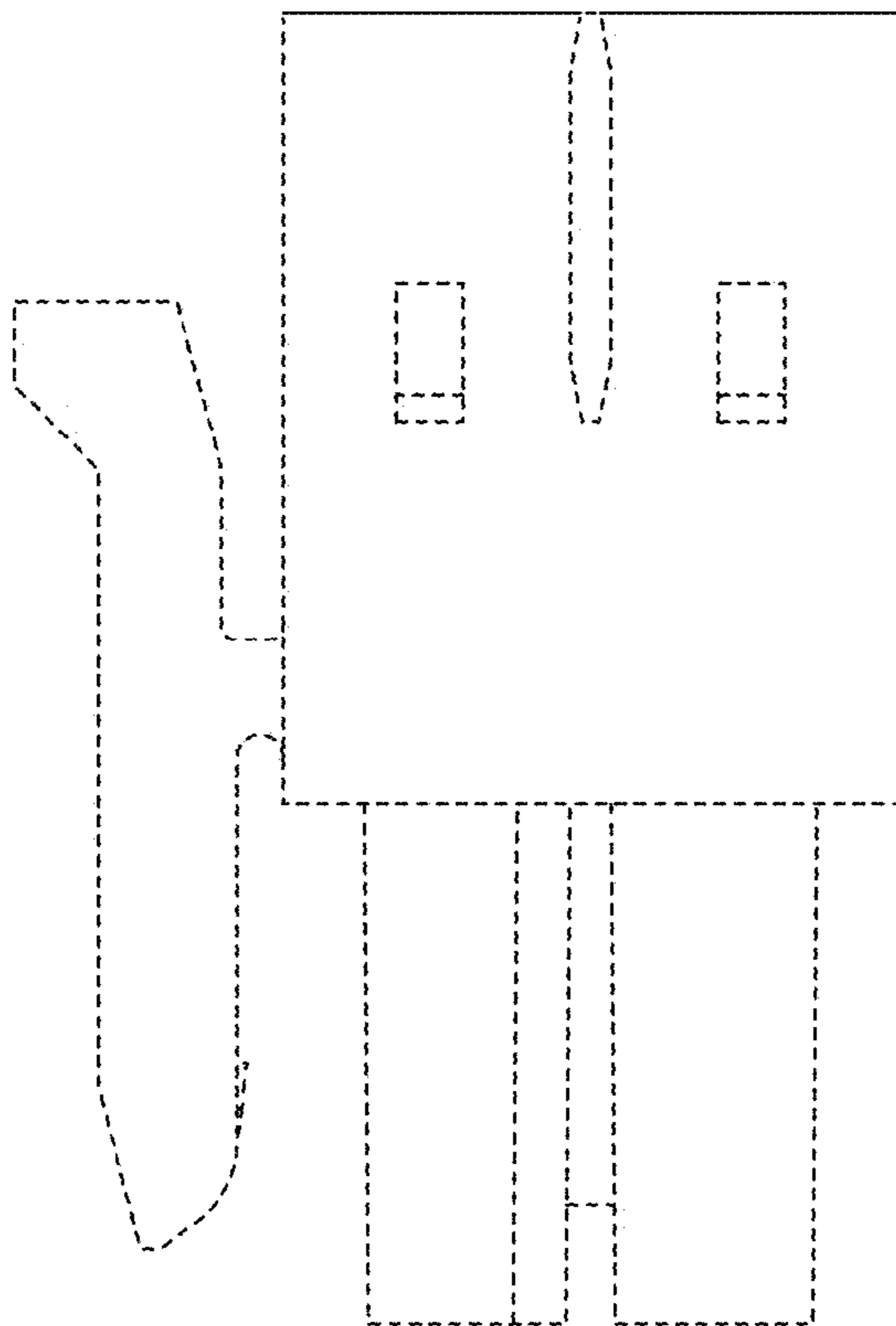


FIG. 39

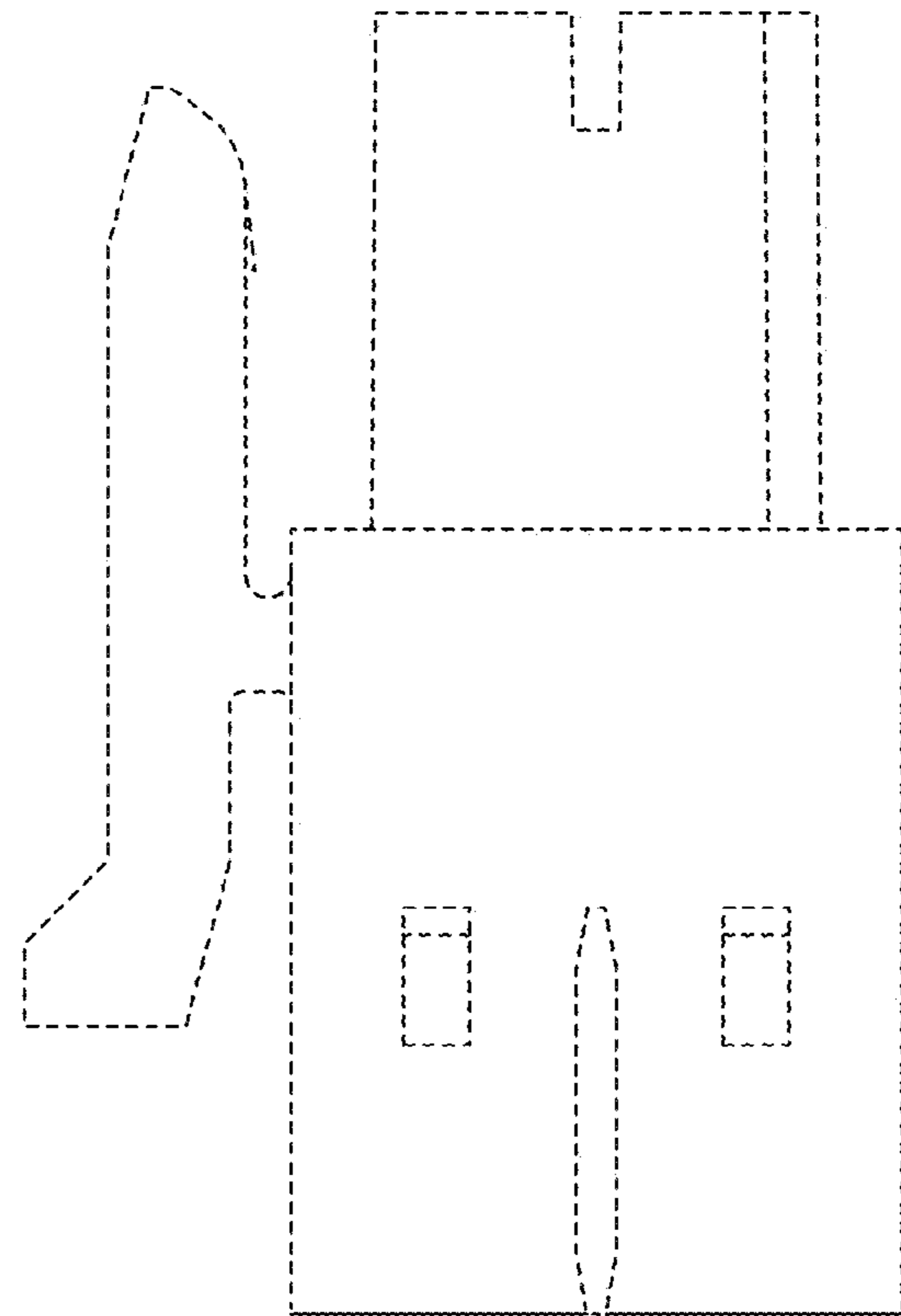


FIG. 40

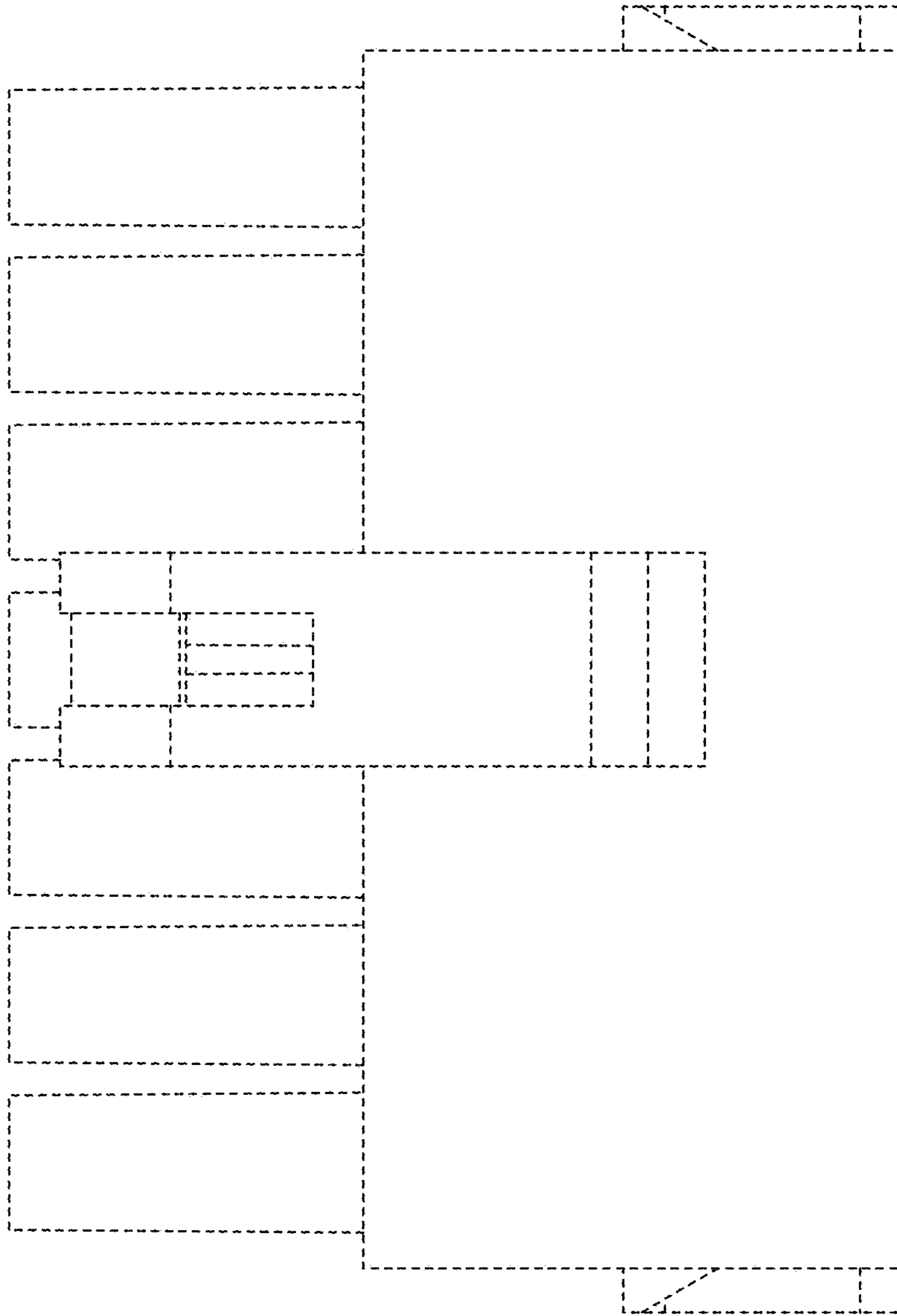


FIG. 41

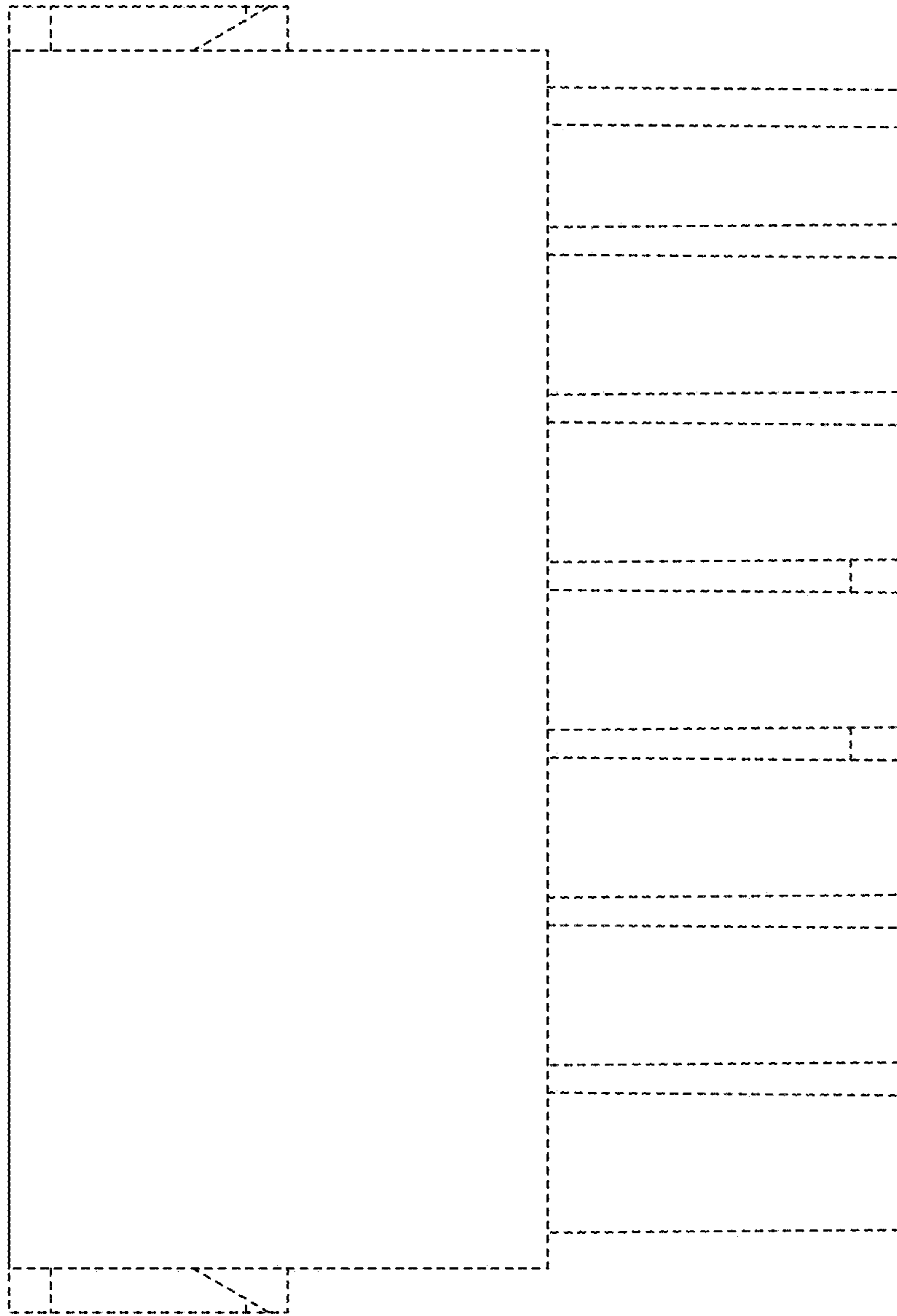


FIG. 42

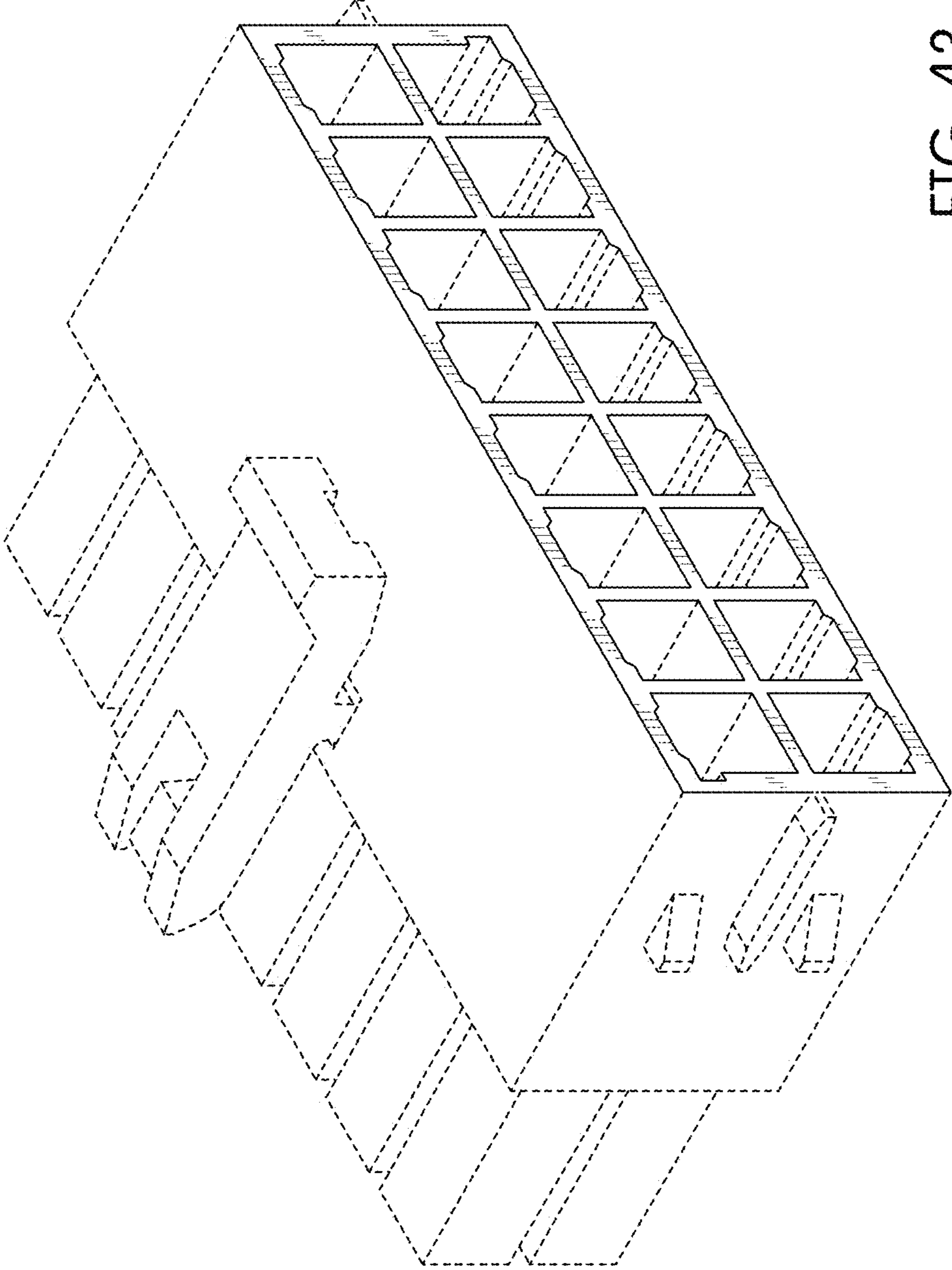


FIG. 43

FIG. 44

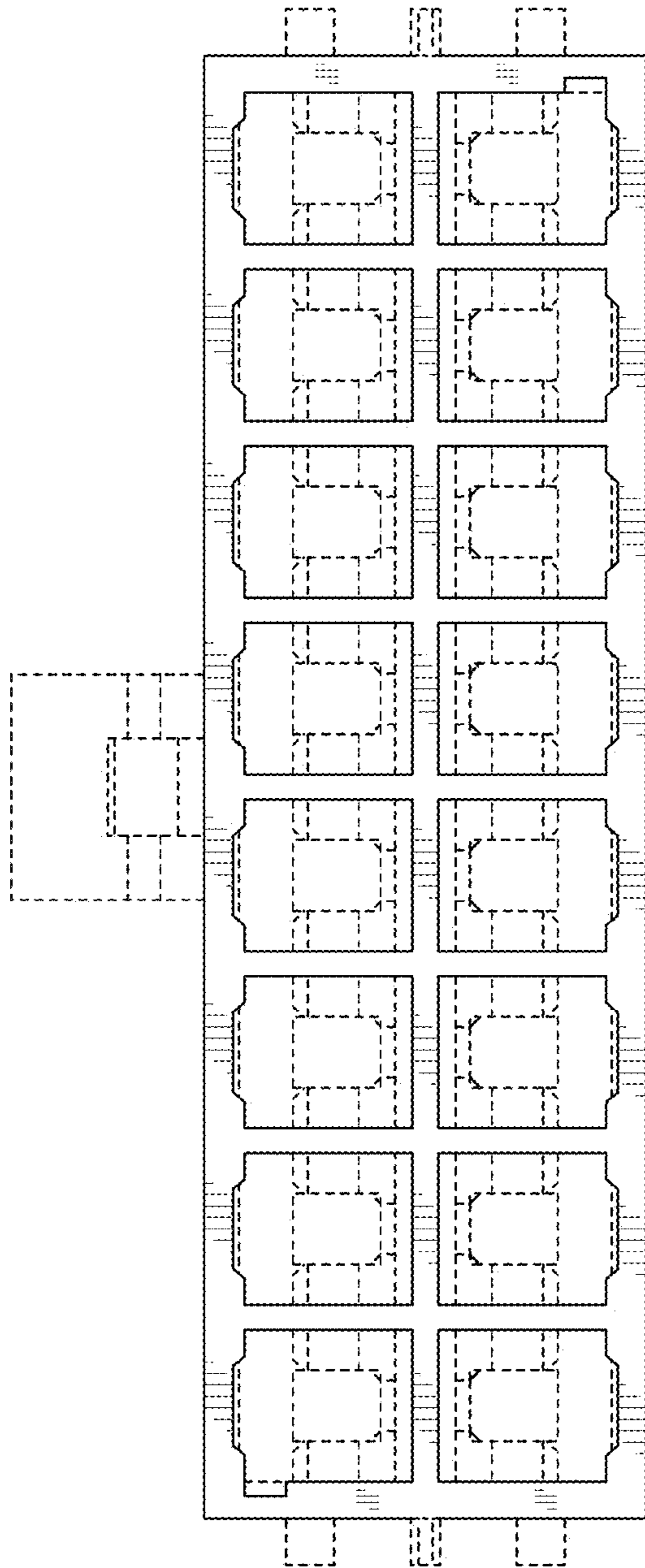


FIG. 45

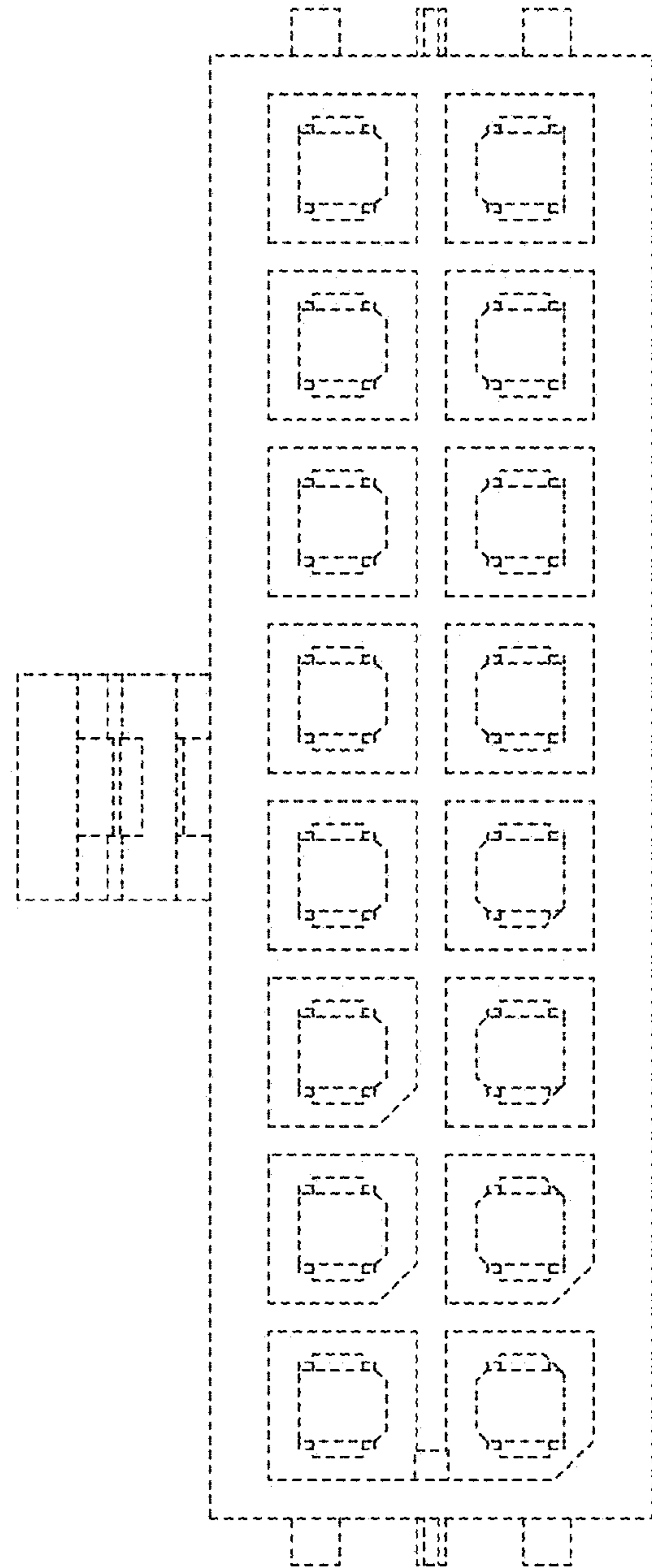


FIG. 46

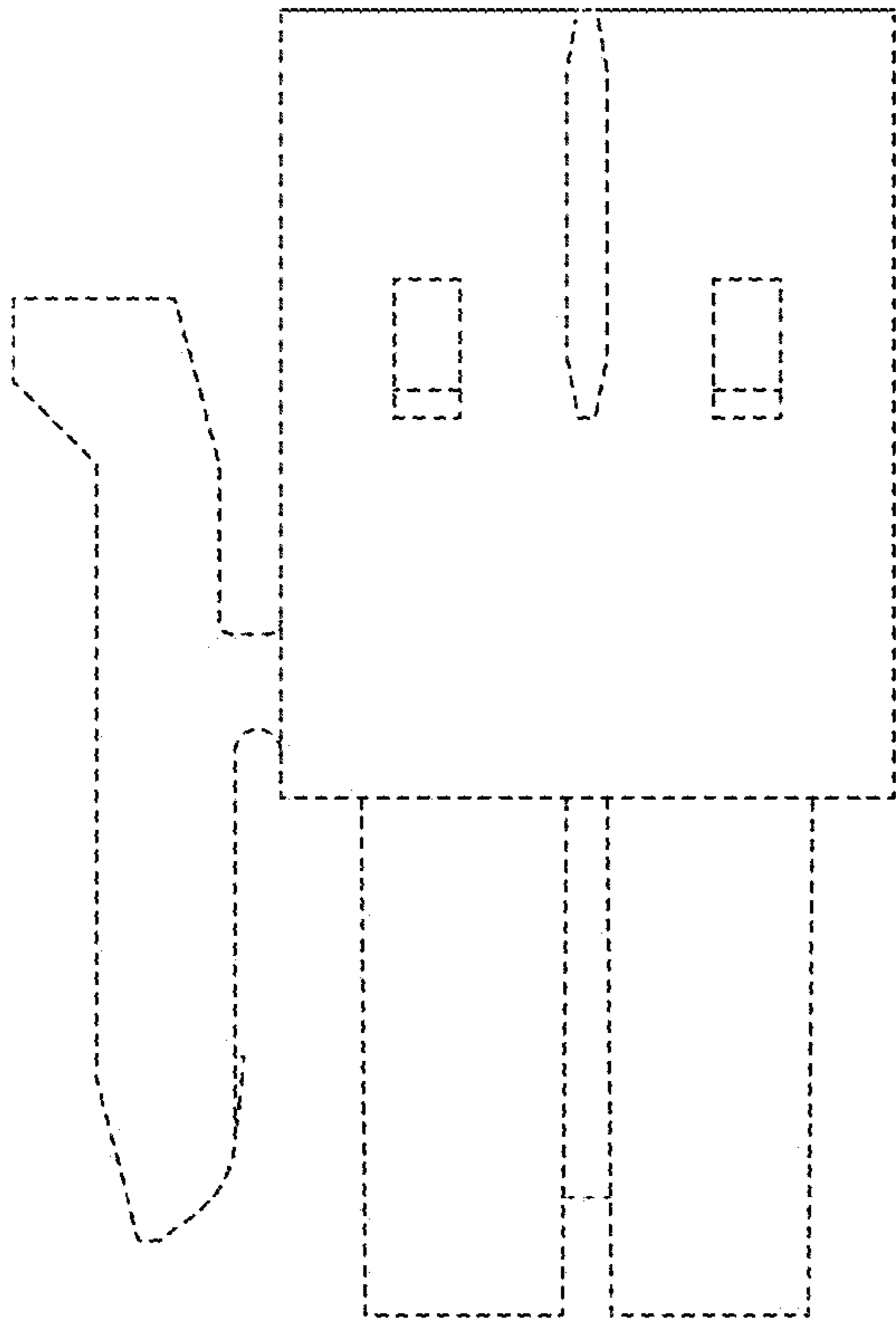
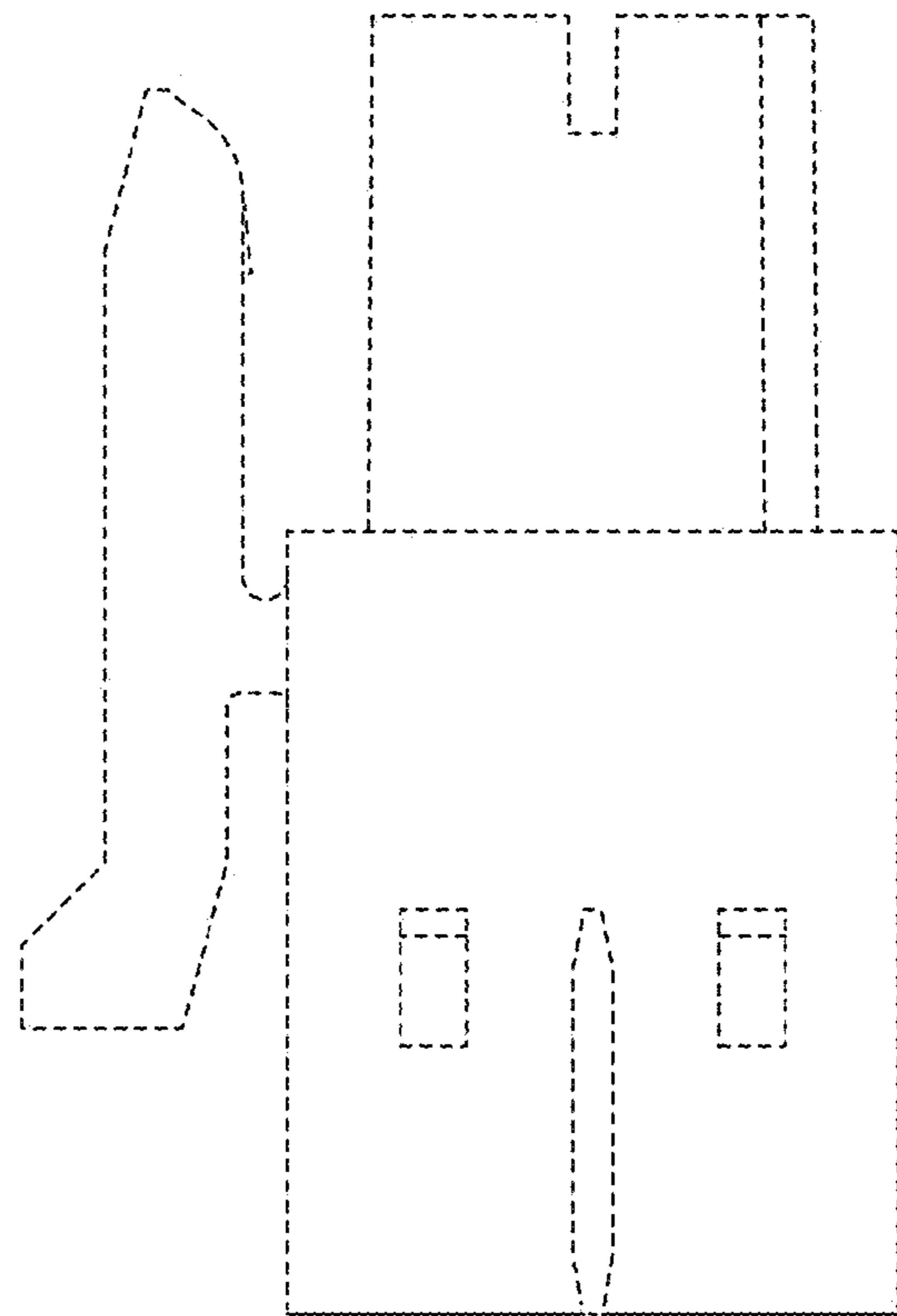


FIG. 47



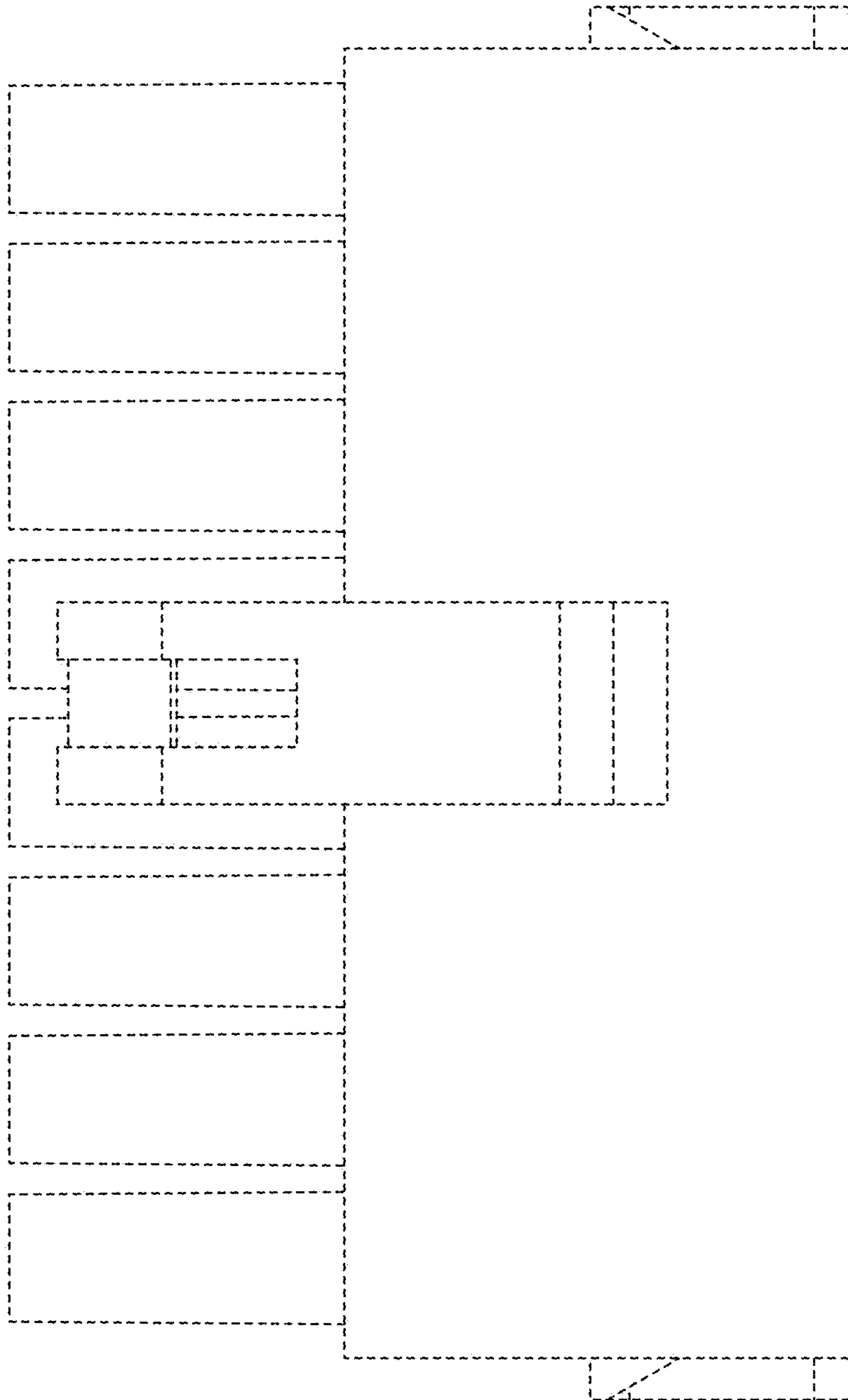


FIG. 48

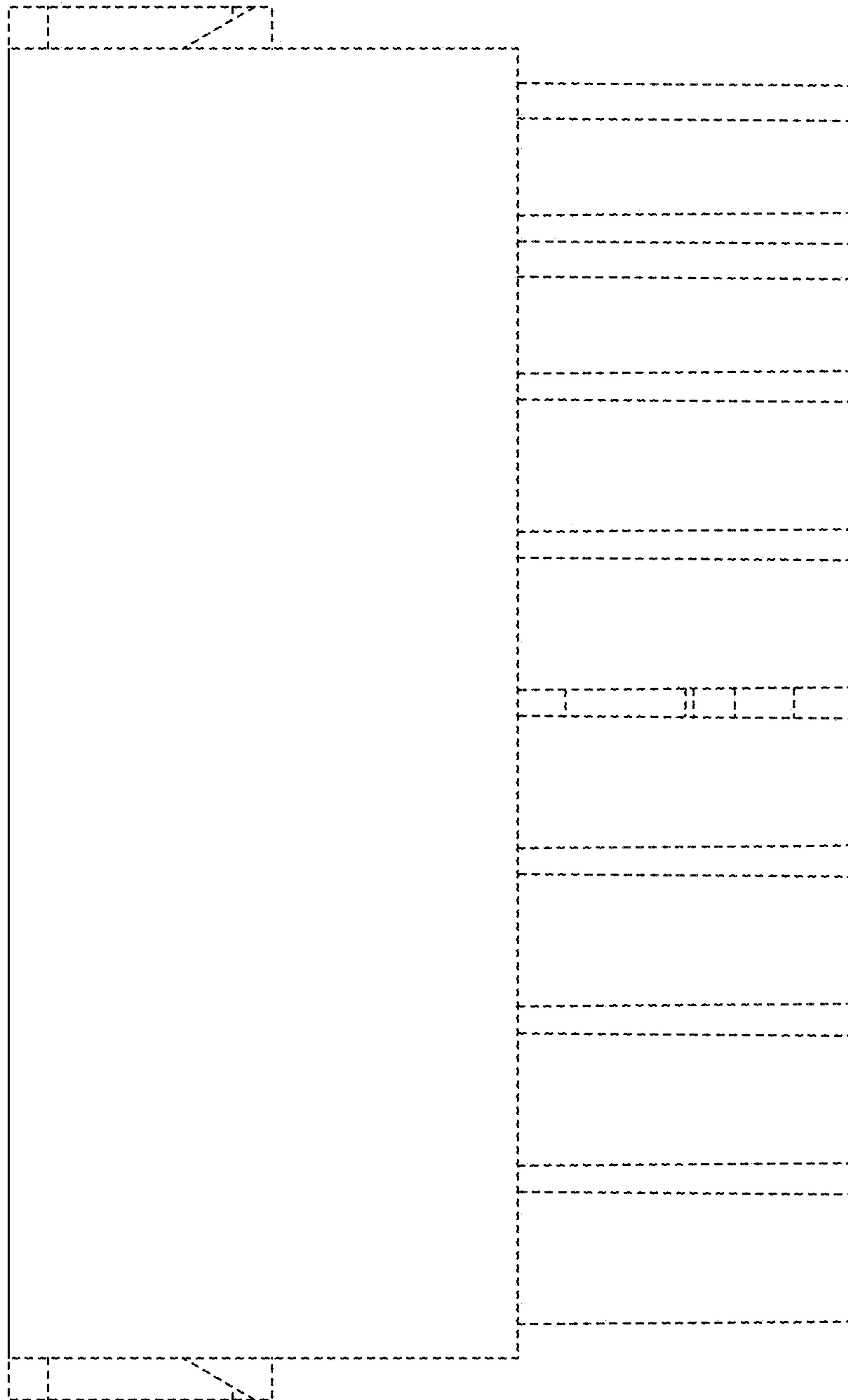


FIG. 49

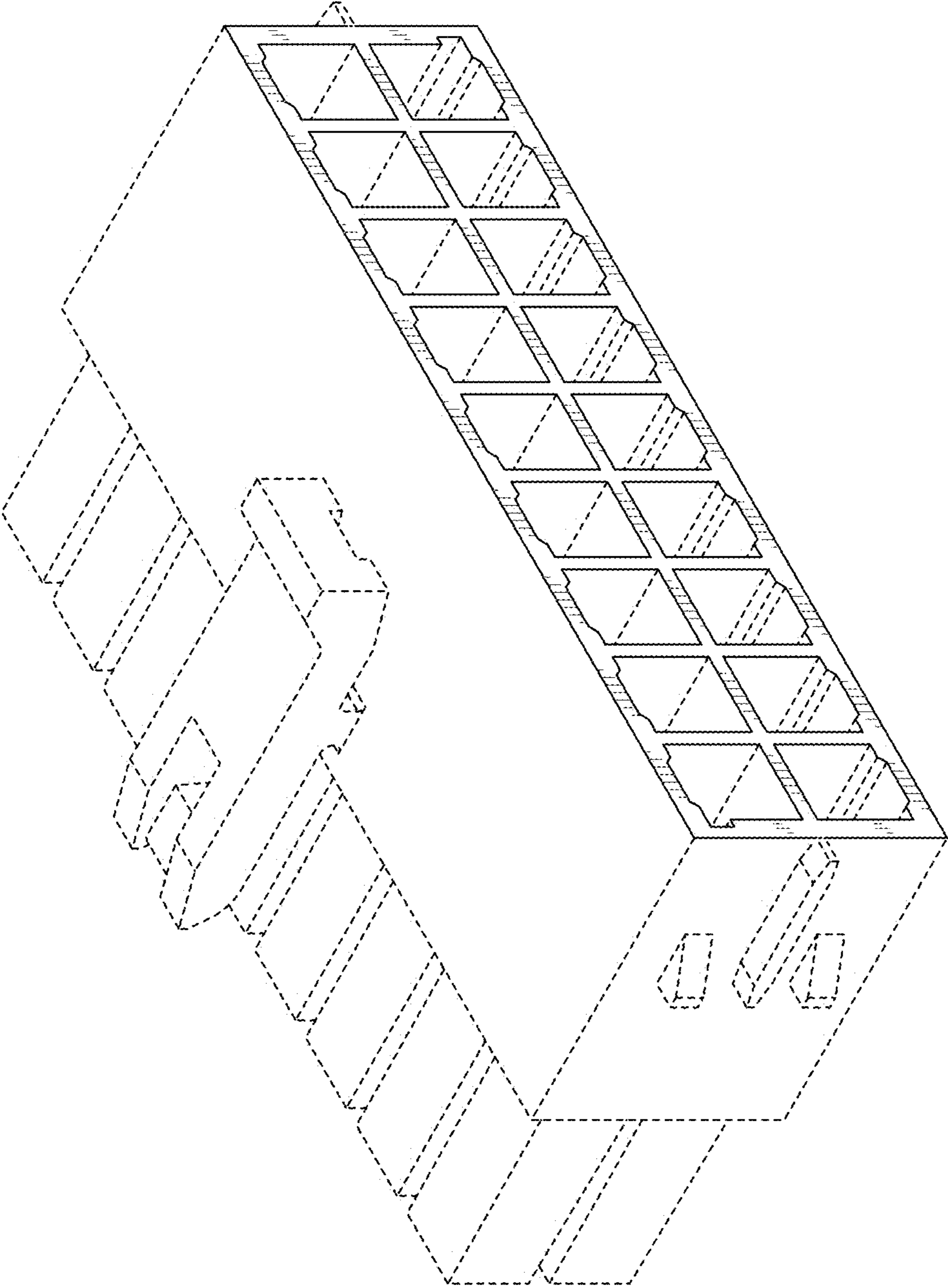


FIG. 50

FIG. 51

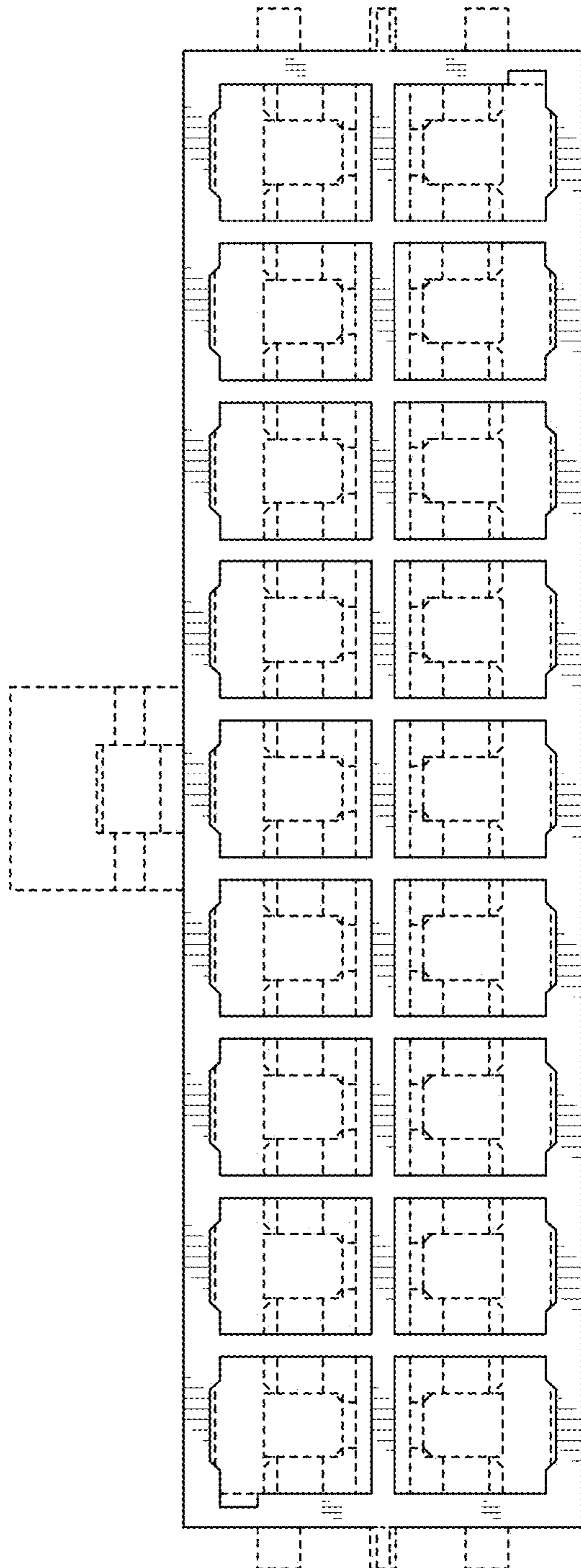
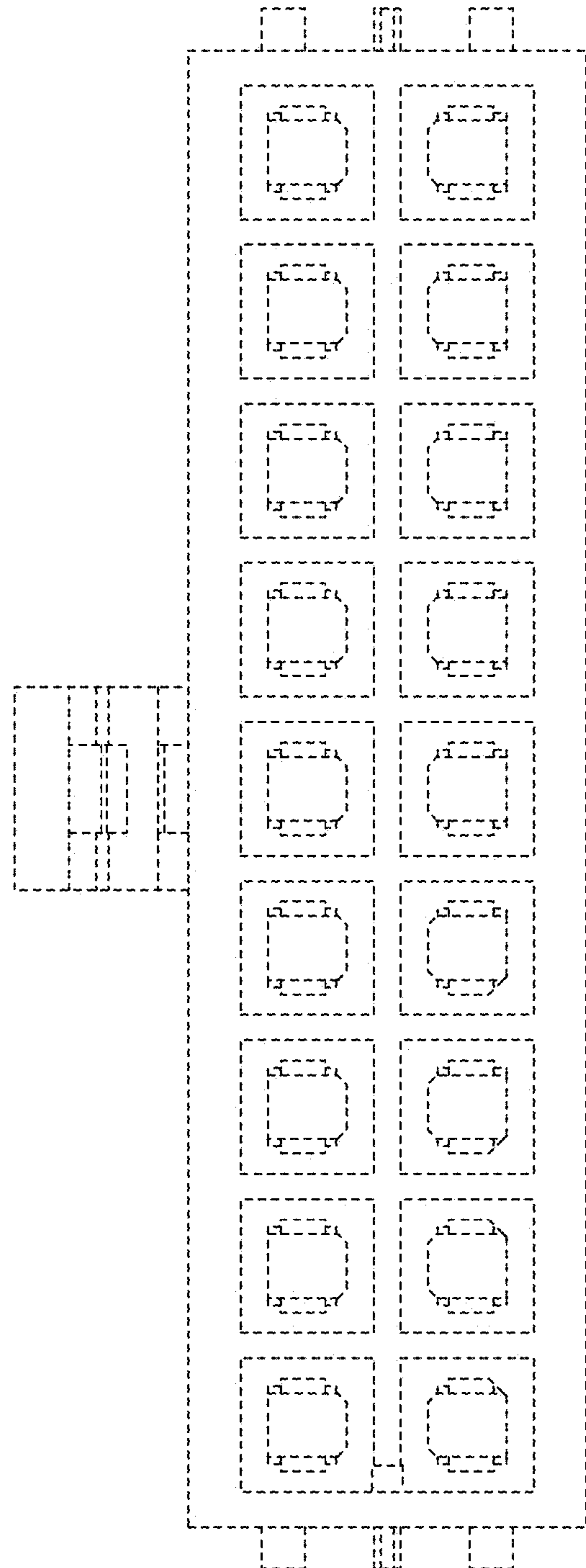


FIG. 52



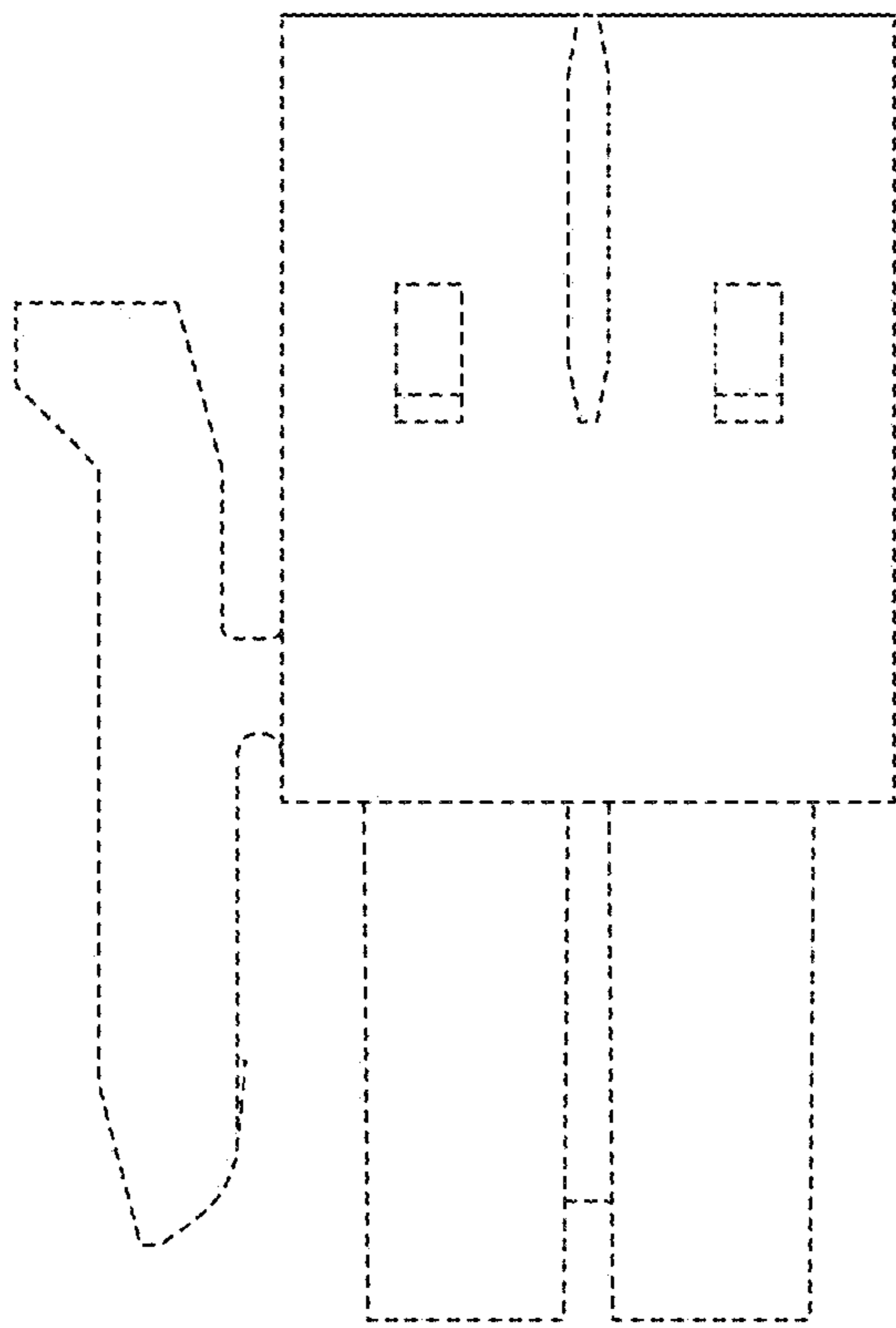


FIG. 53

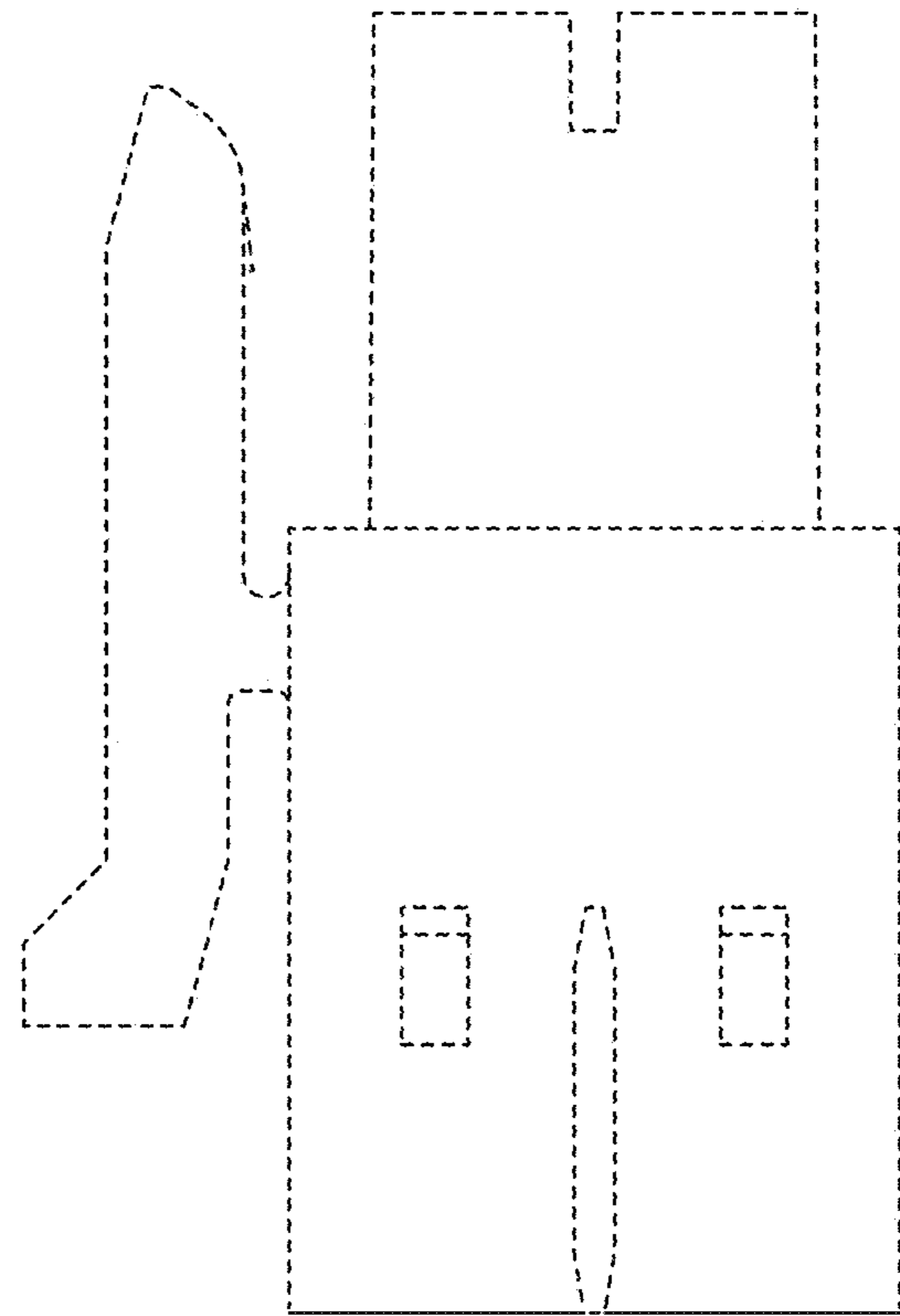


FIG. 54

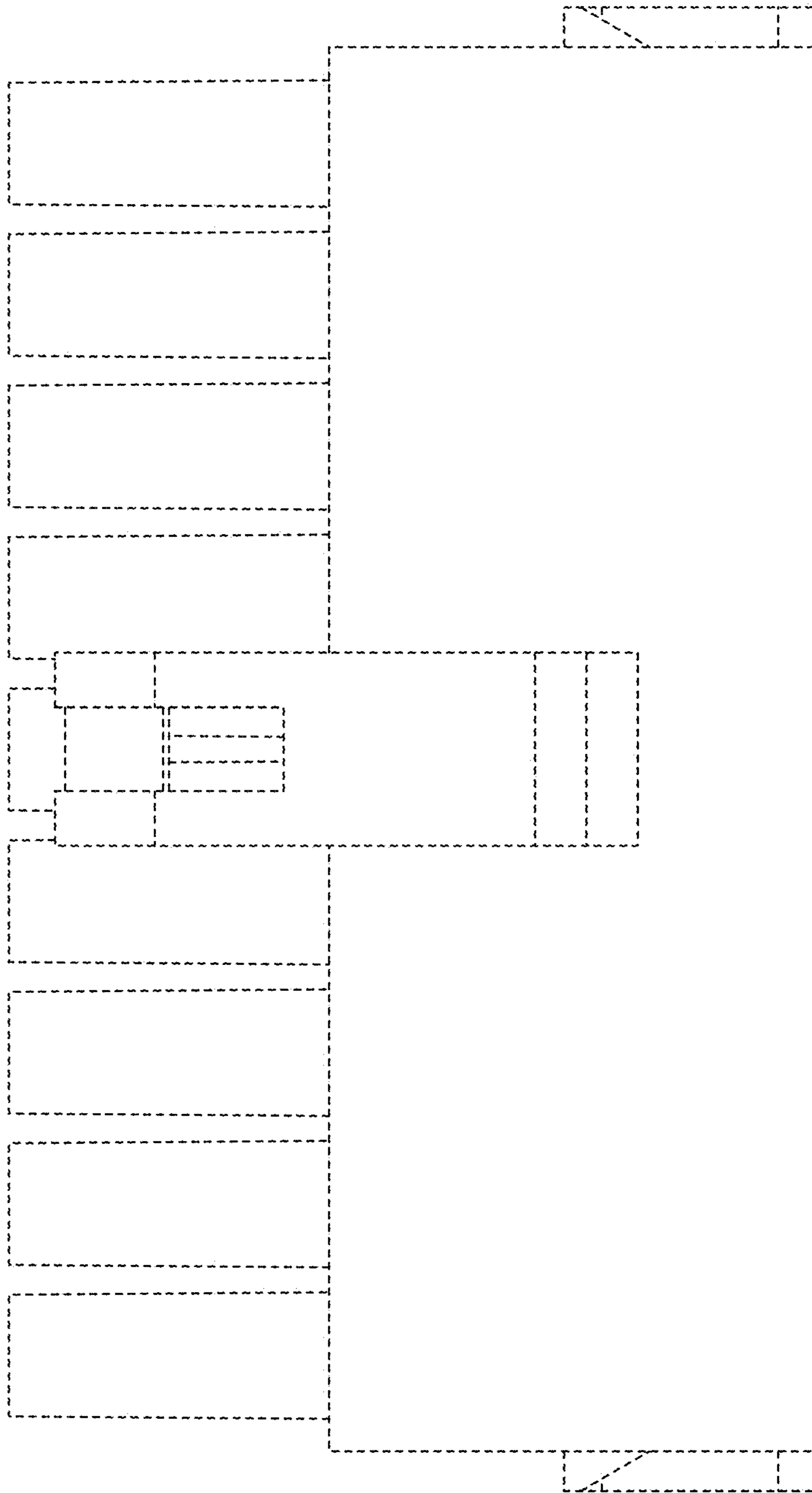


FIG. 55

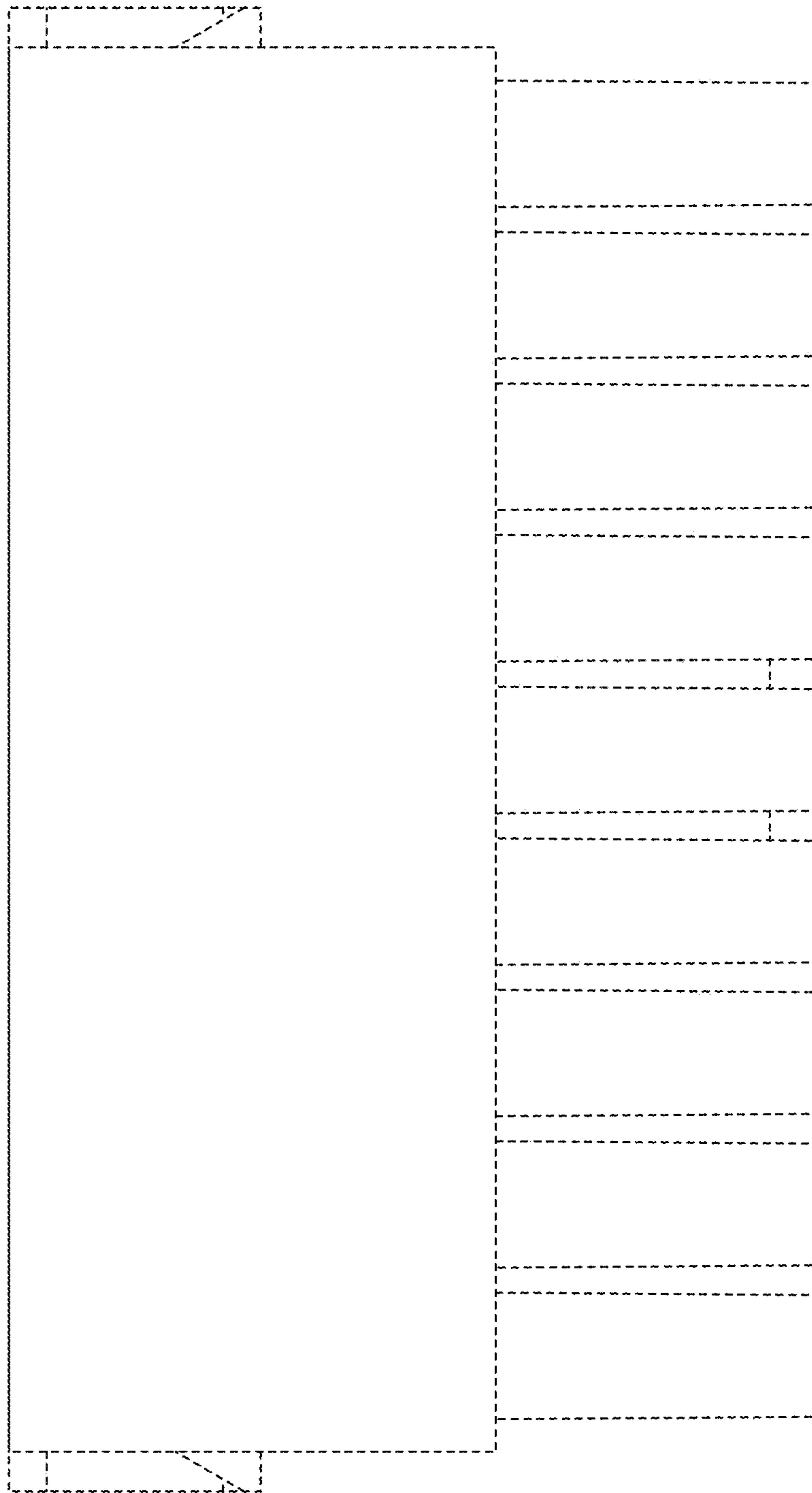


FIG. 56

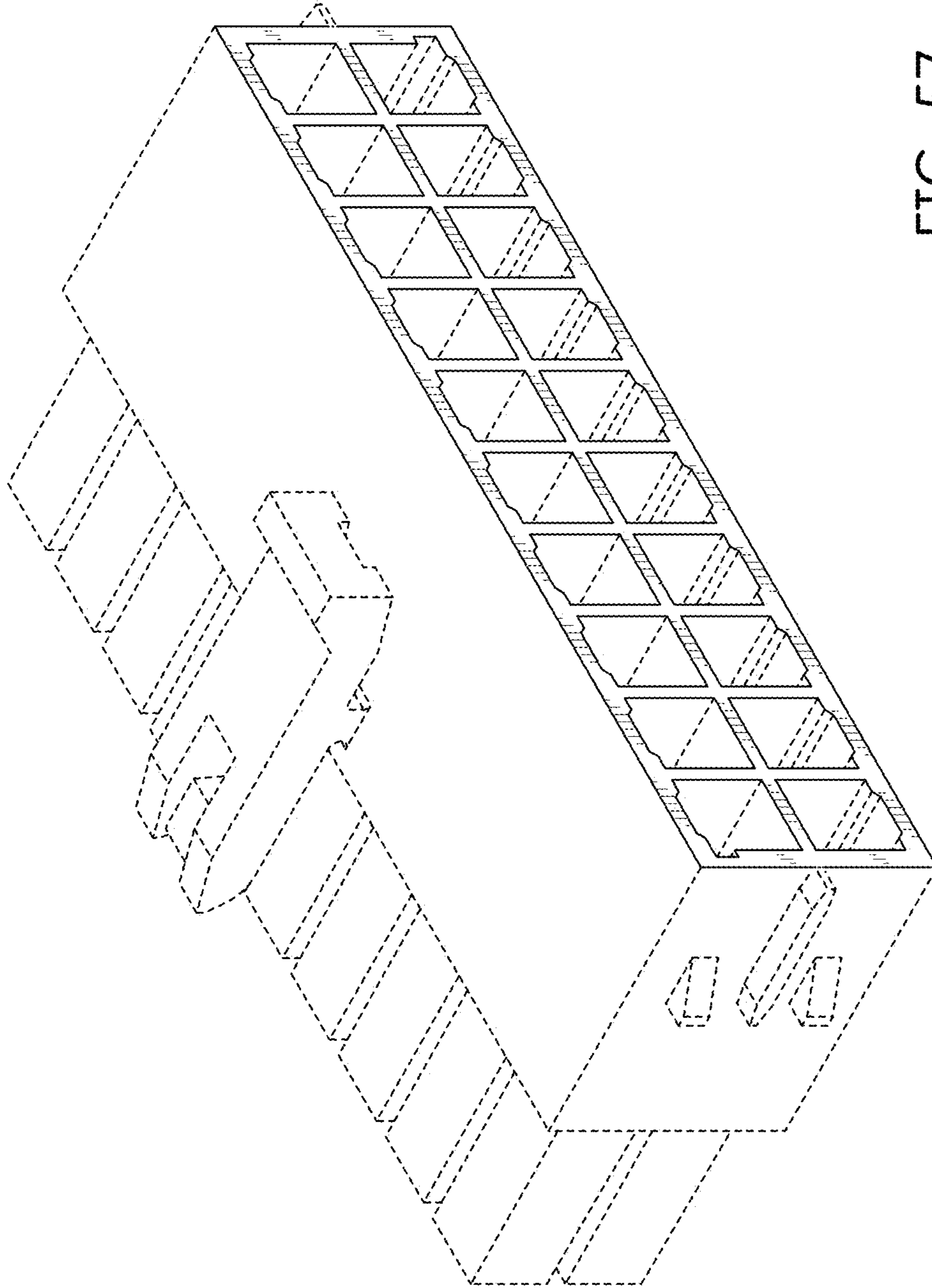


FIG. 57

FIG. 58

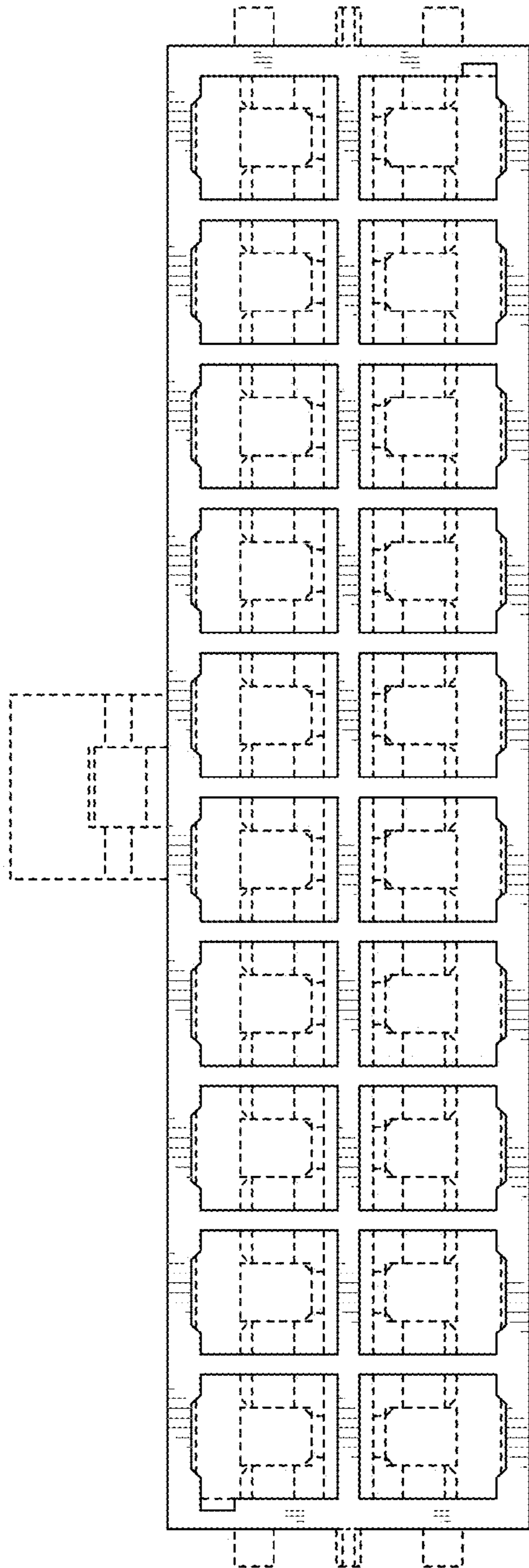


FIG. 59

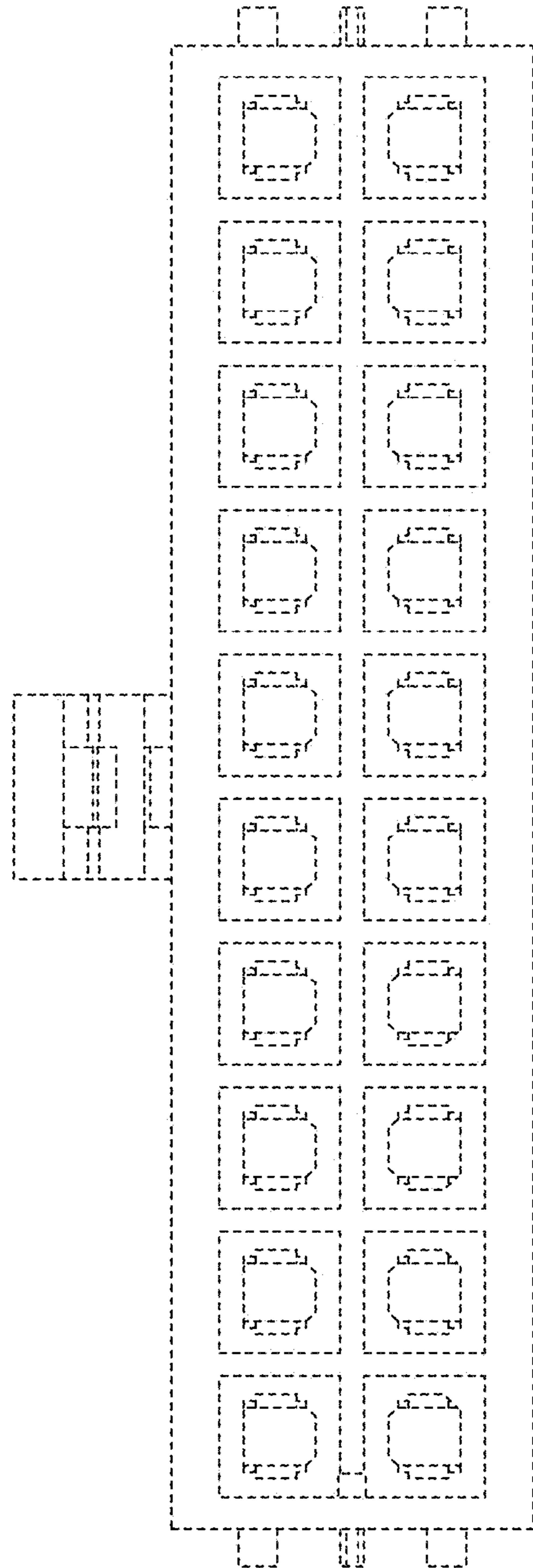


FIG. 60

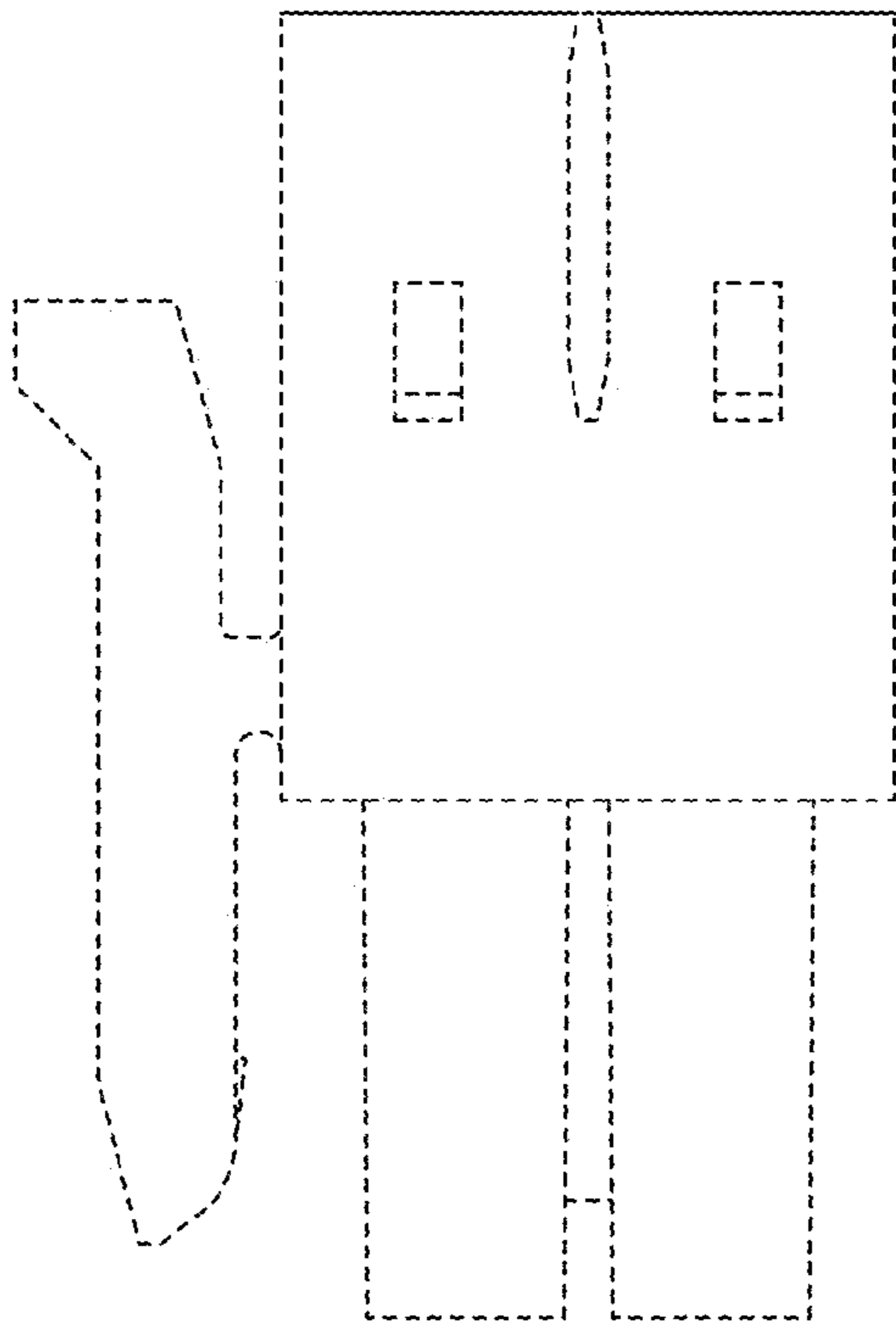
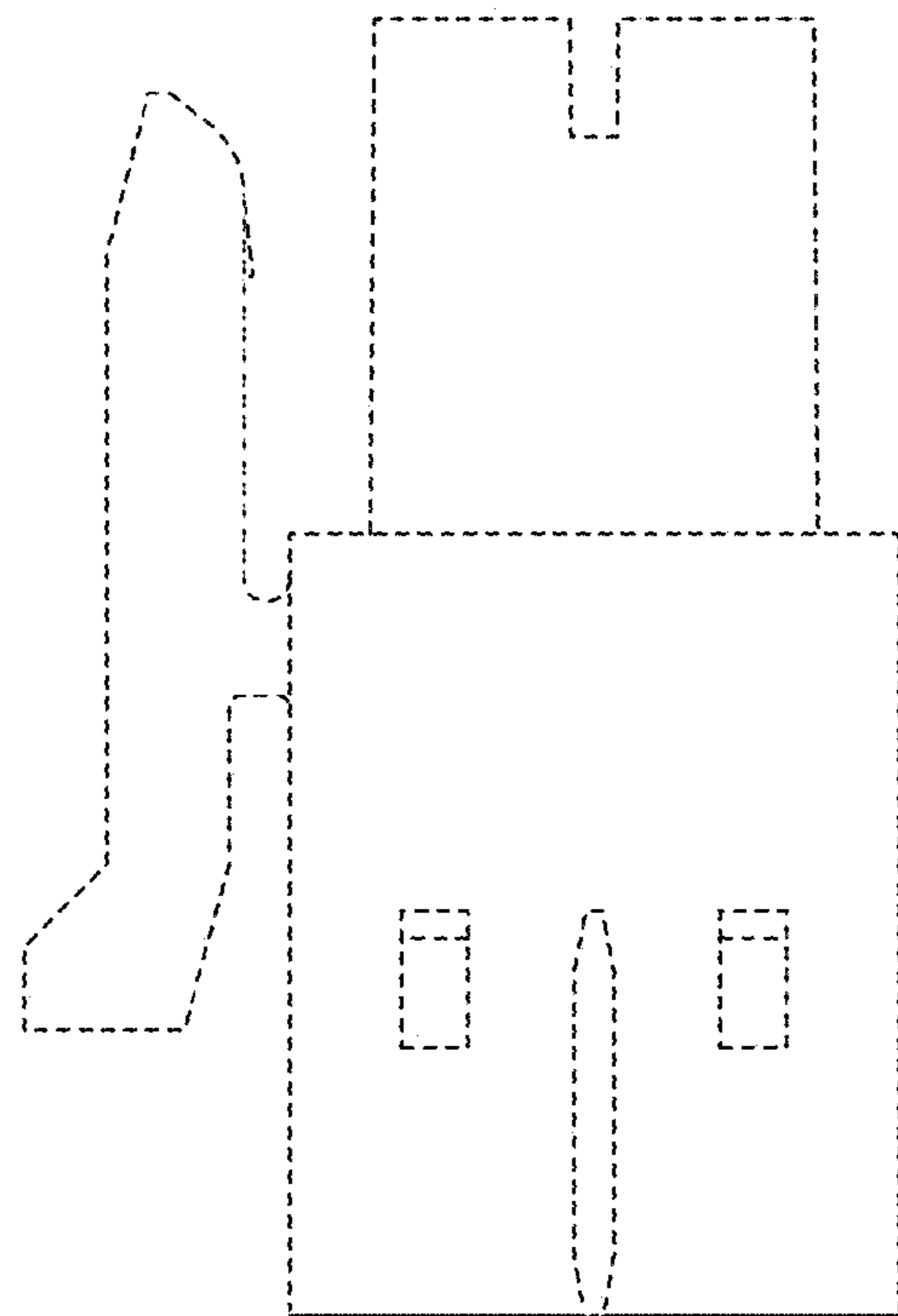


FIG. 61



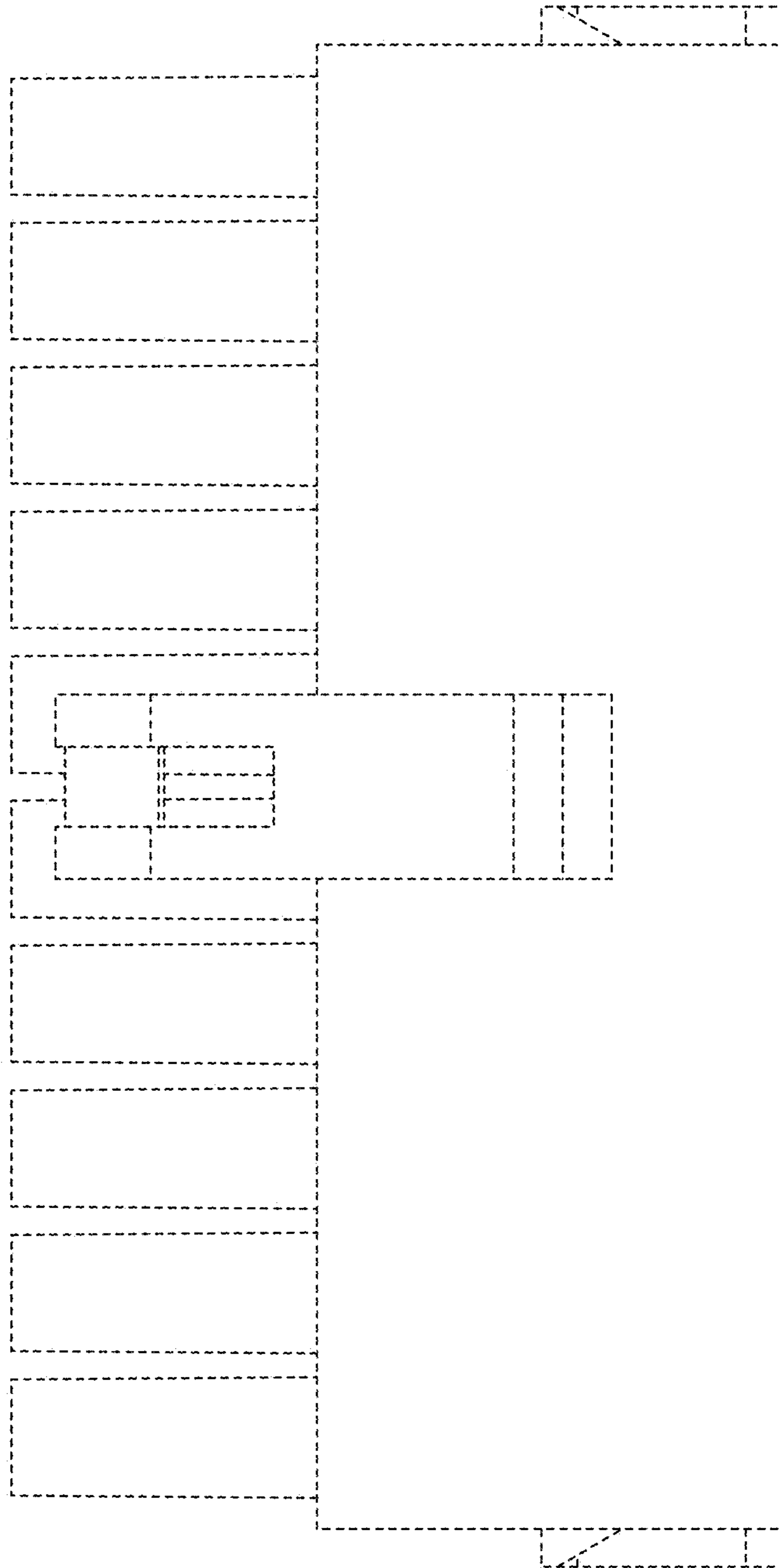


FIG. 62

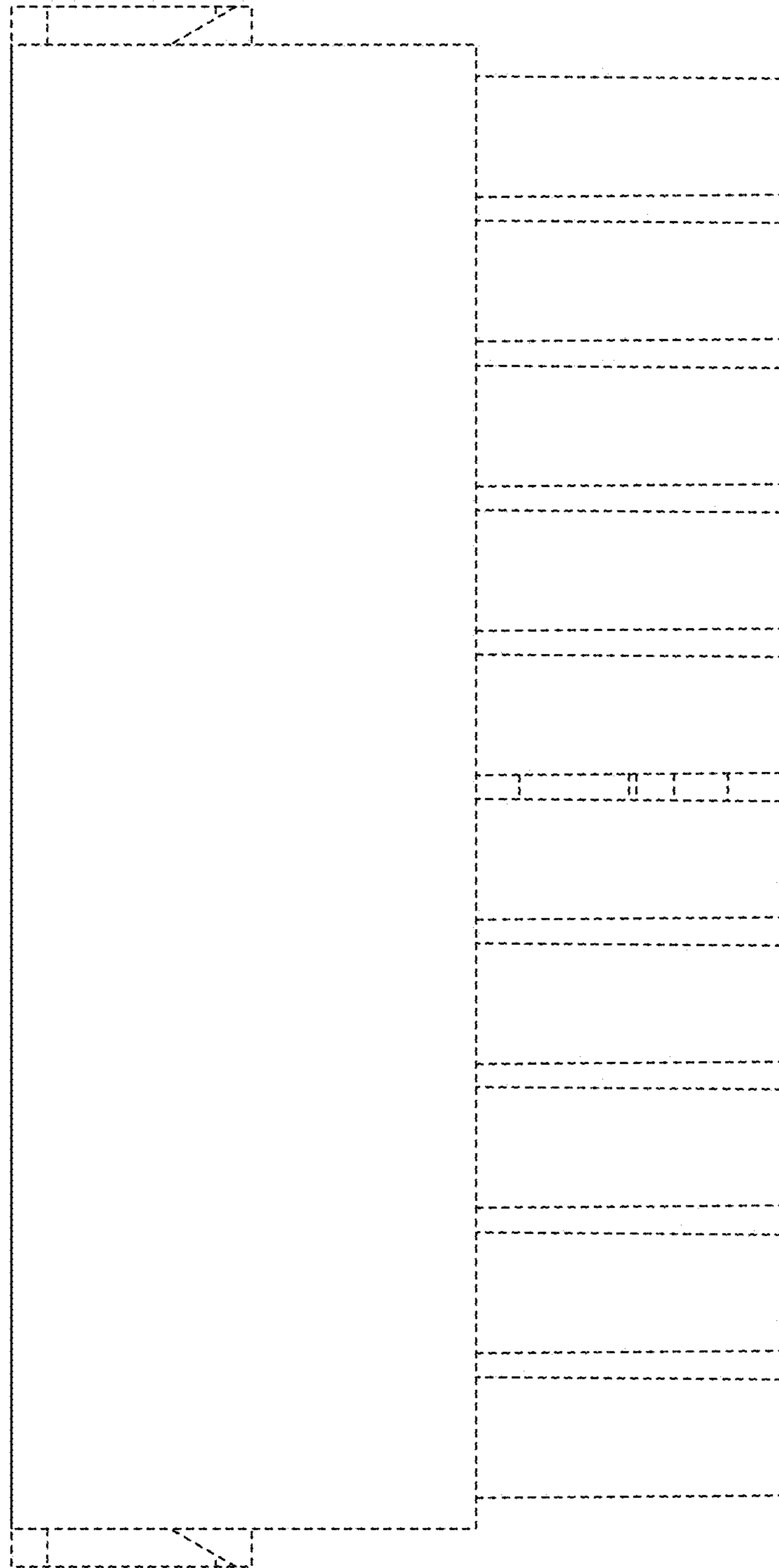


FIG. 63

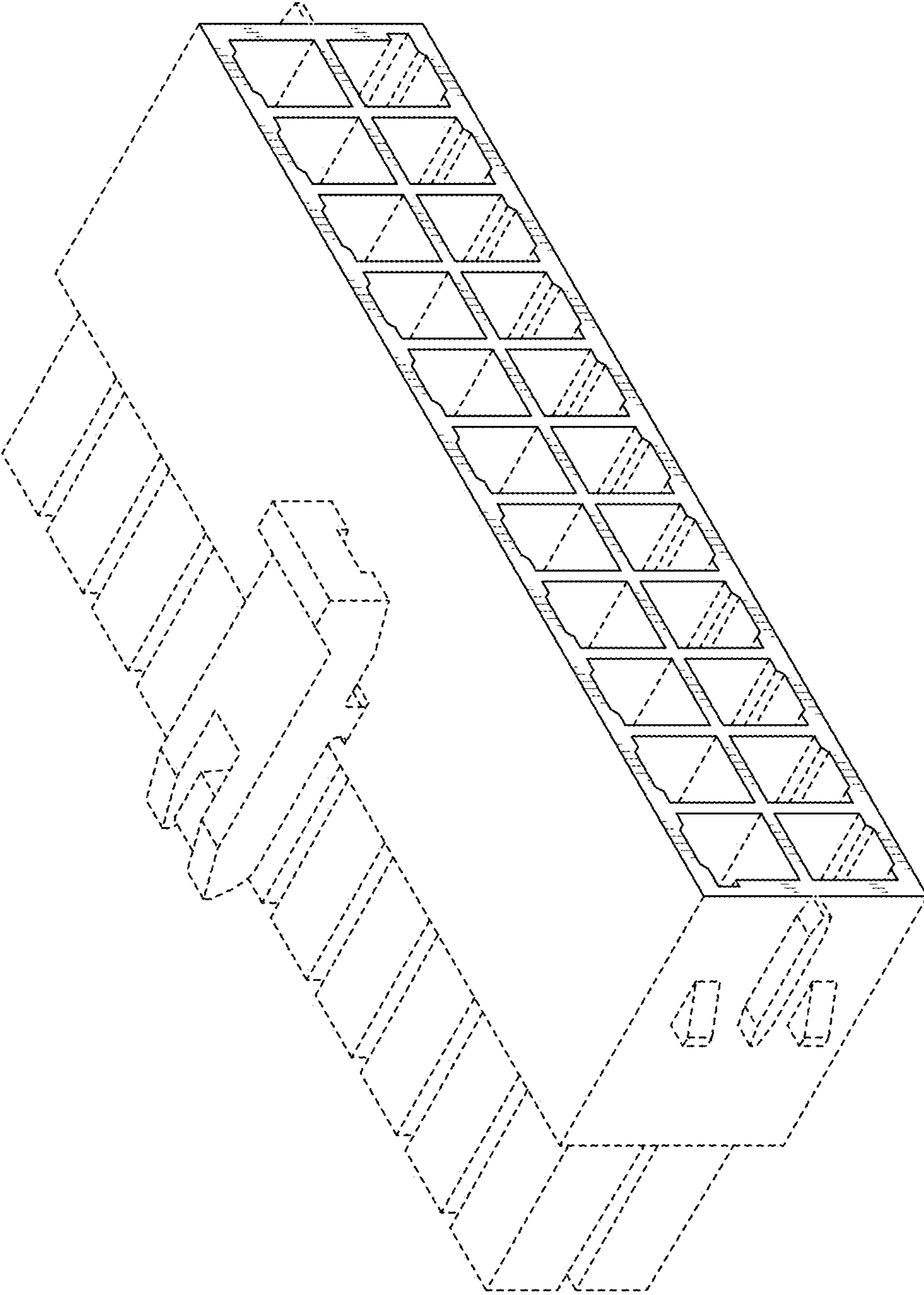


FIG. 64

FIG. 65

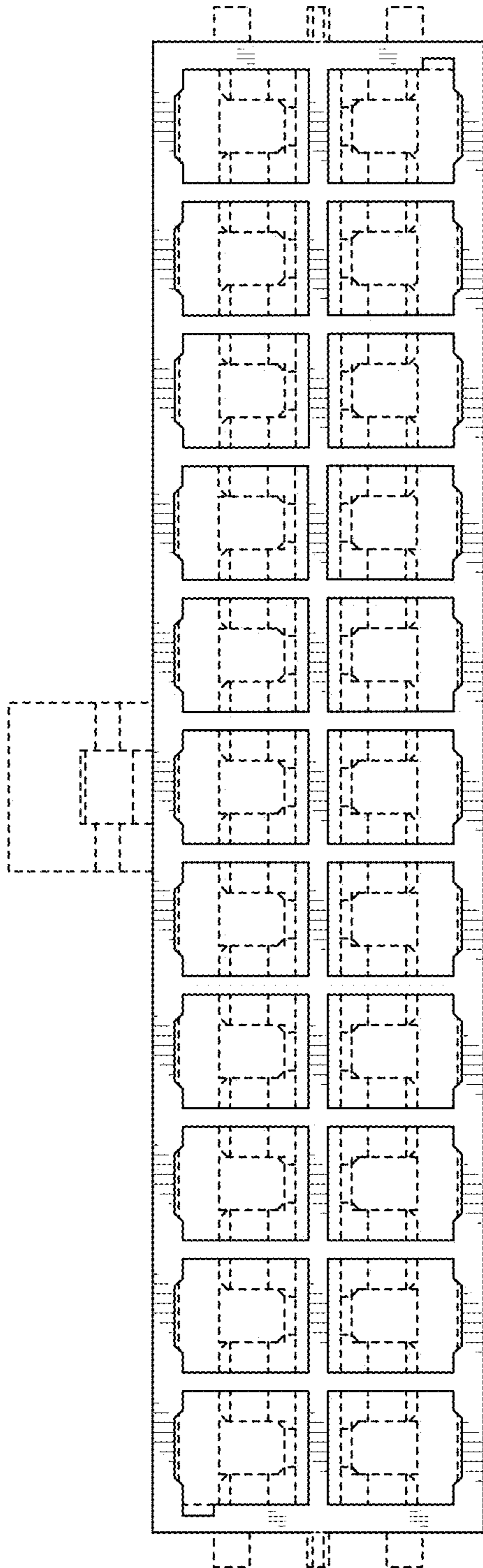
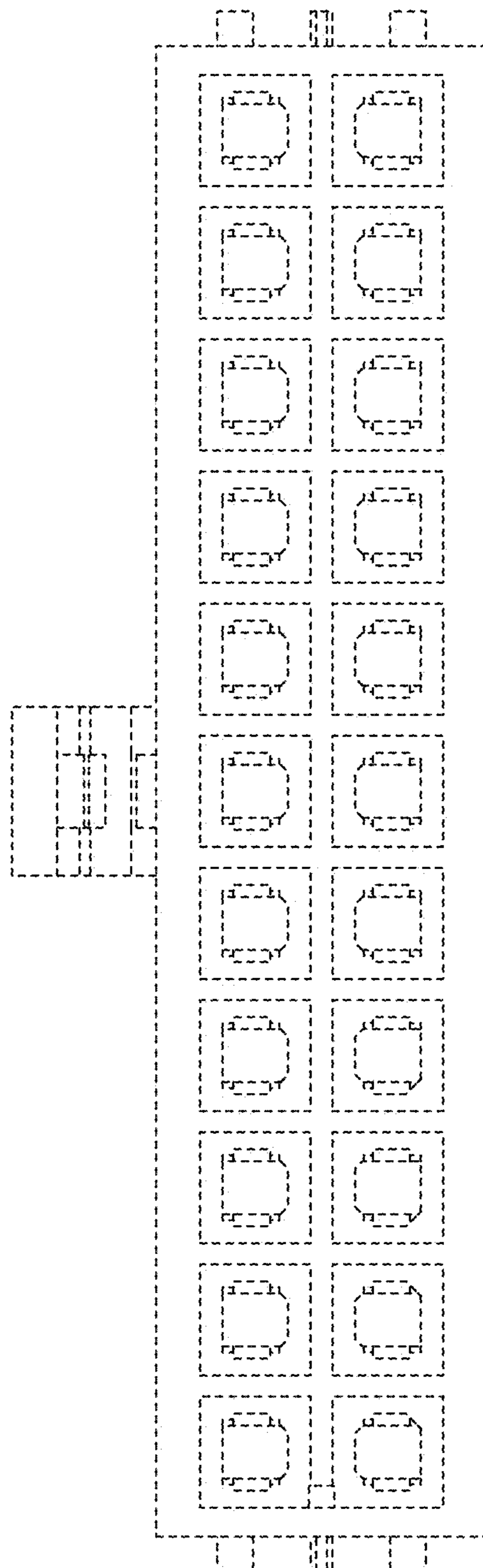


FIG. 66



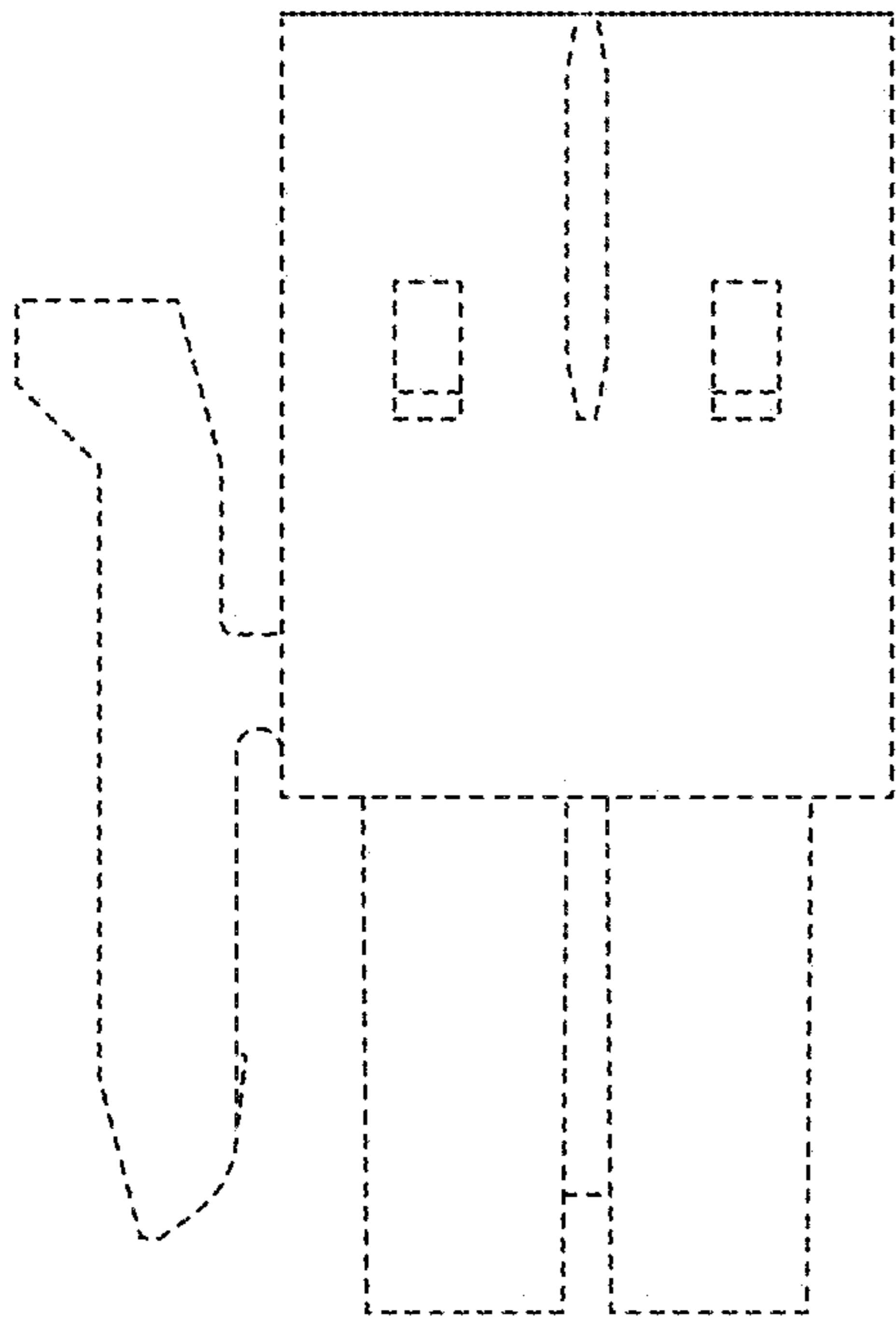


FIG. 67

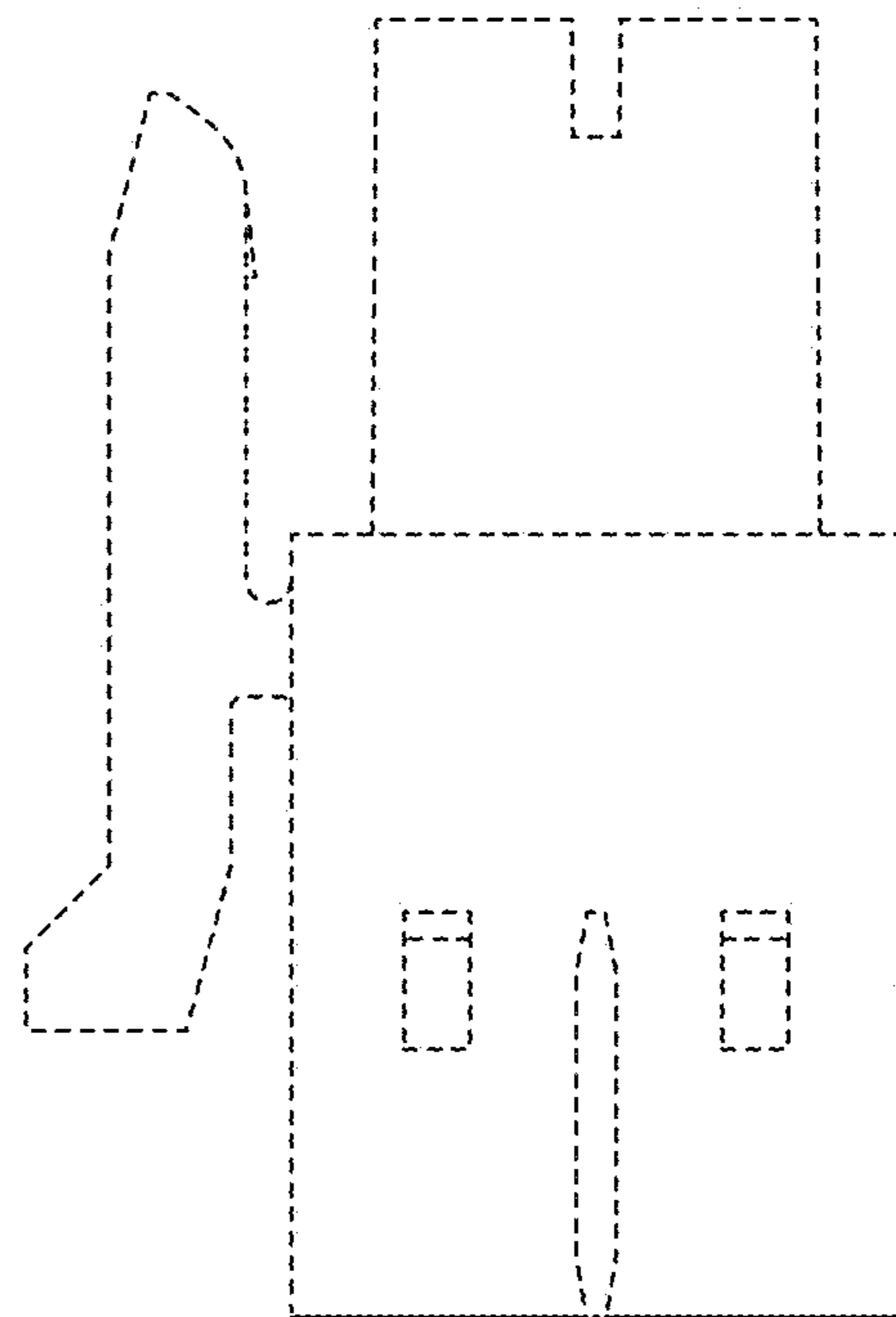


FIG. 68

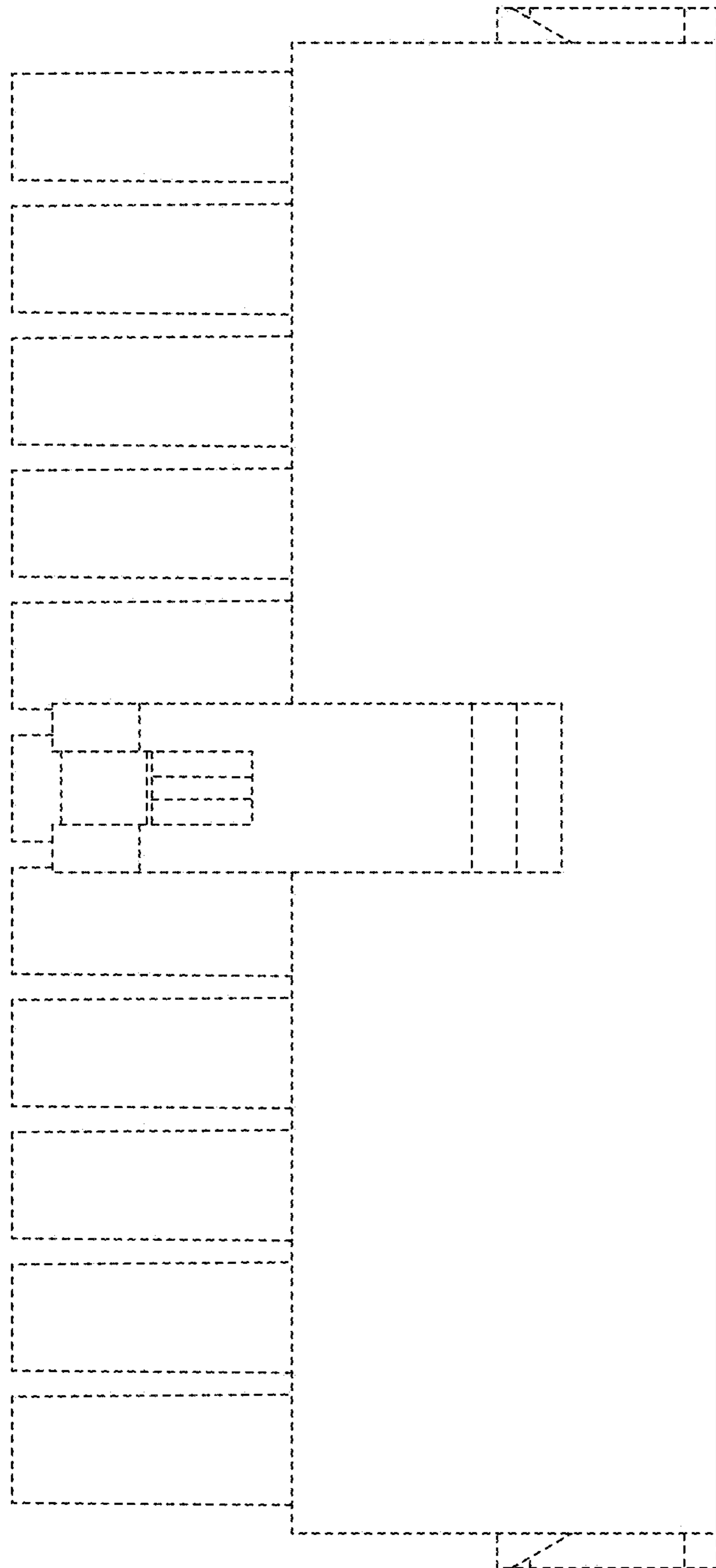


FIG. 69

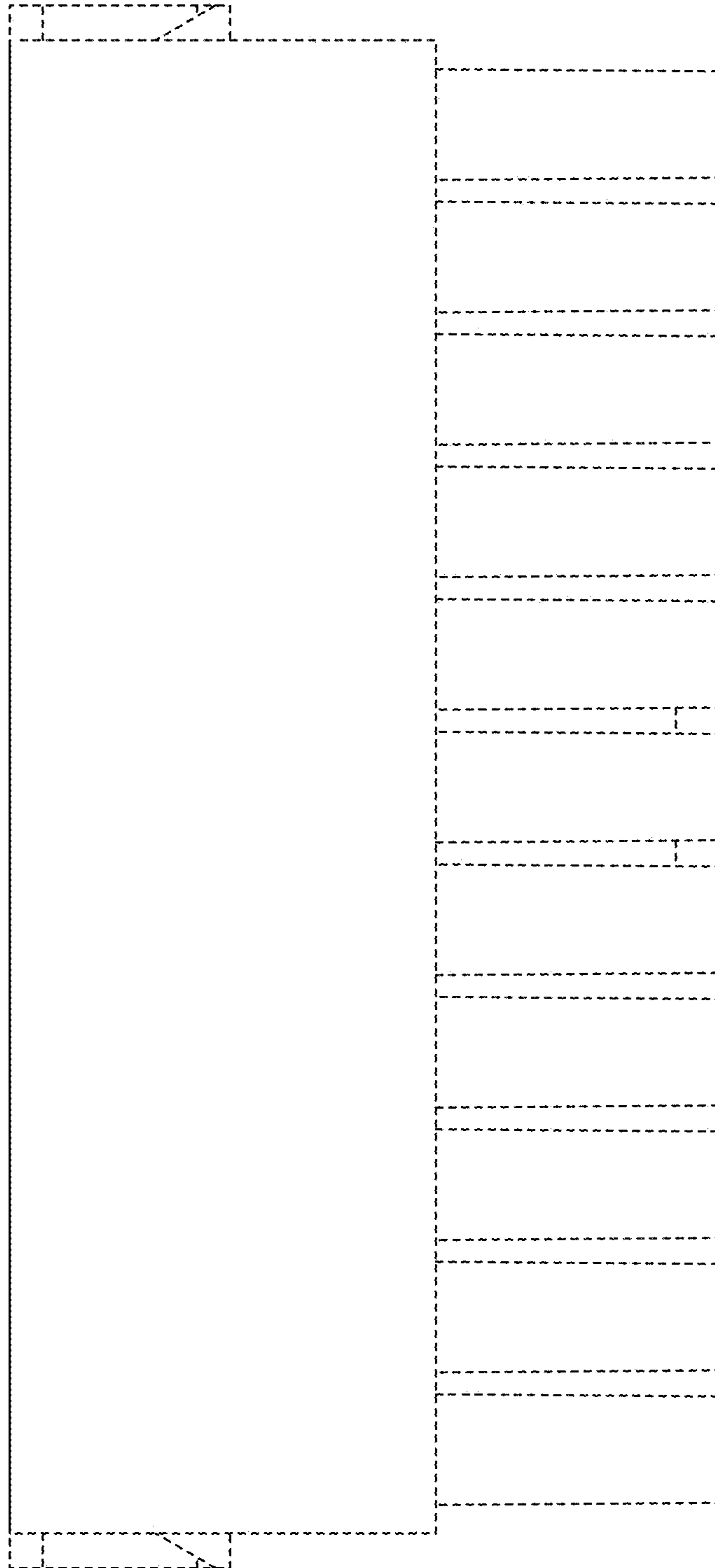


FIG. 70

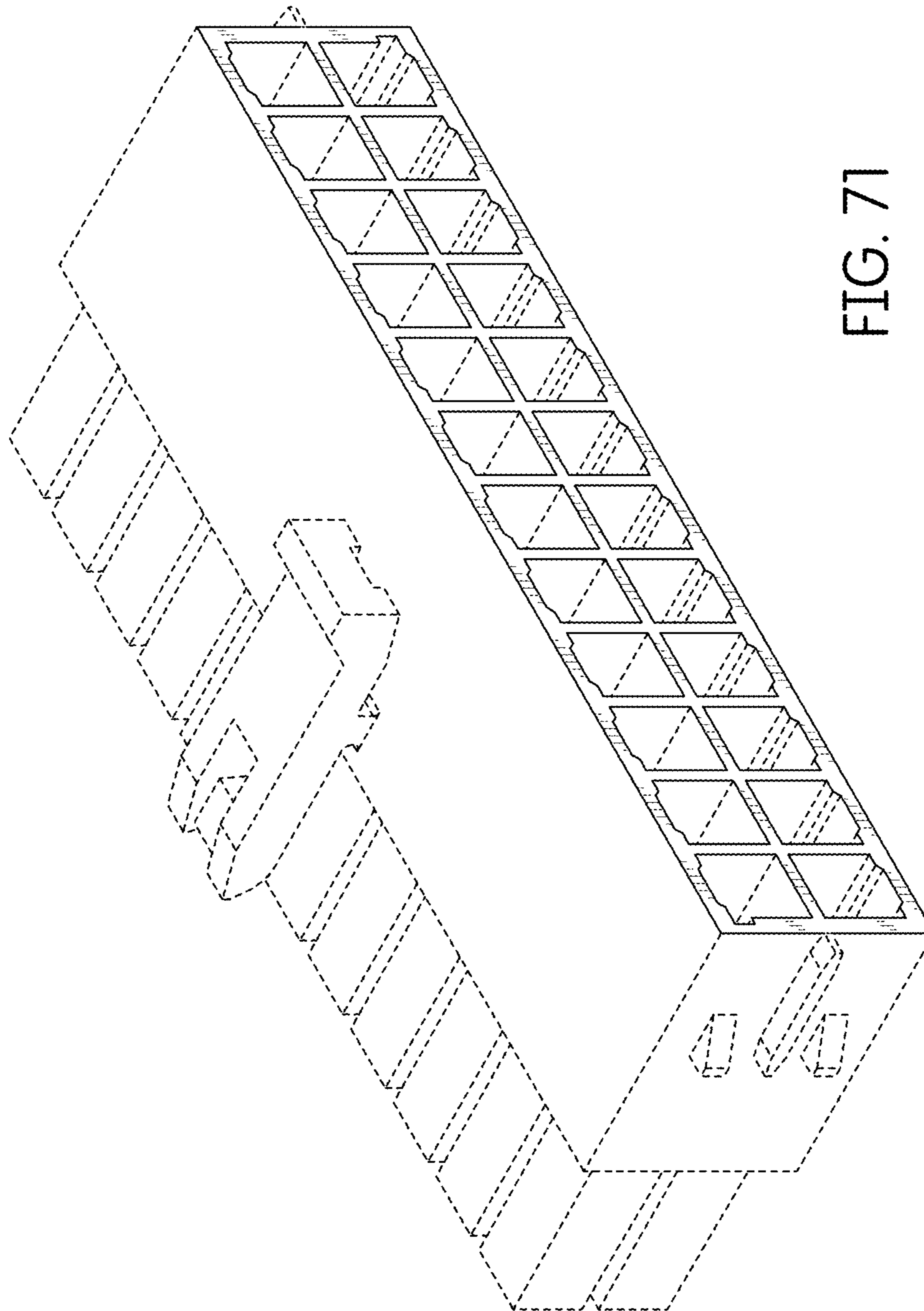


FIG. 71

FIG. 72

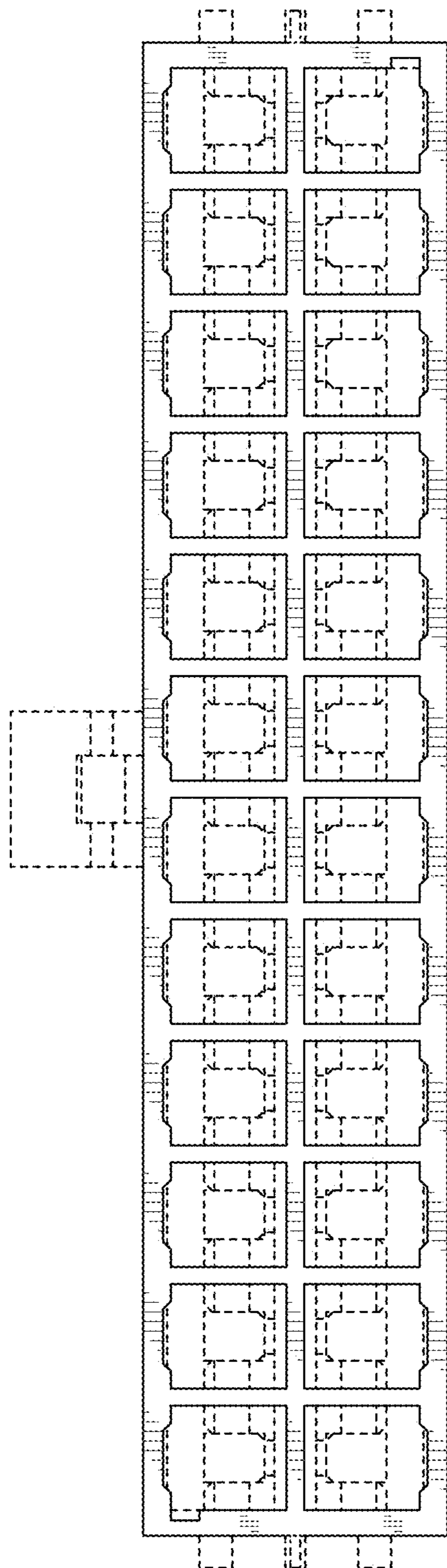


FIG. 73

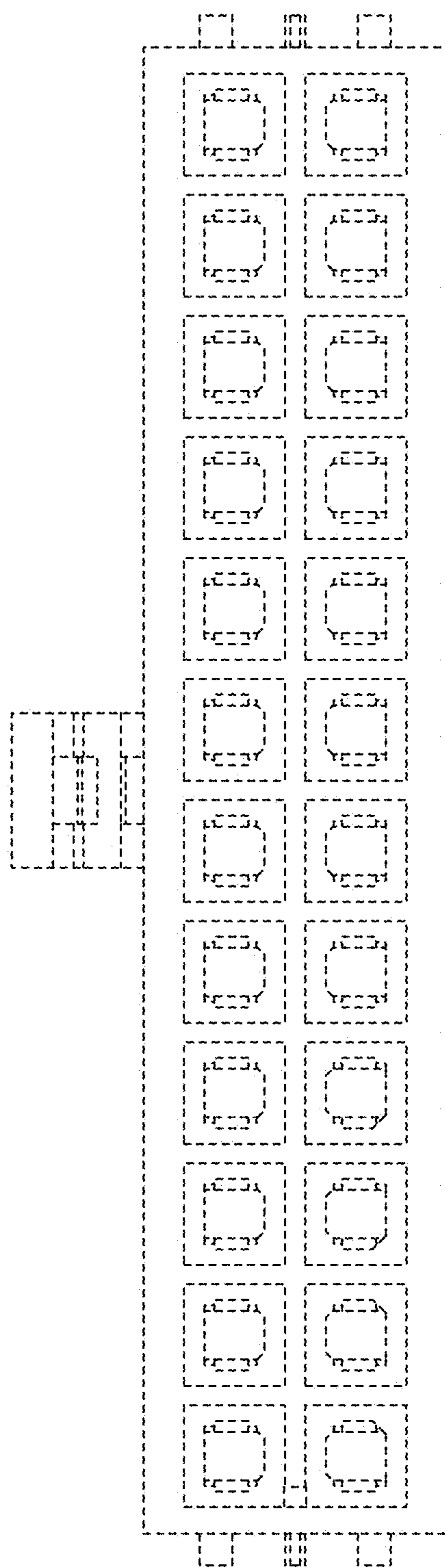


FIG. 74

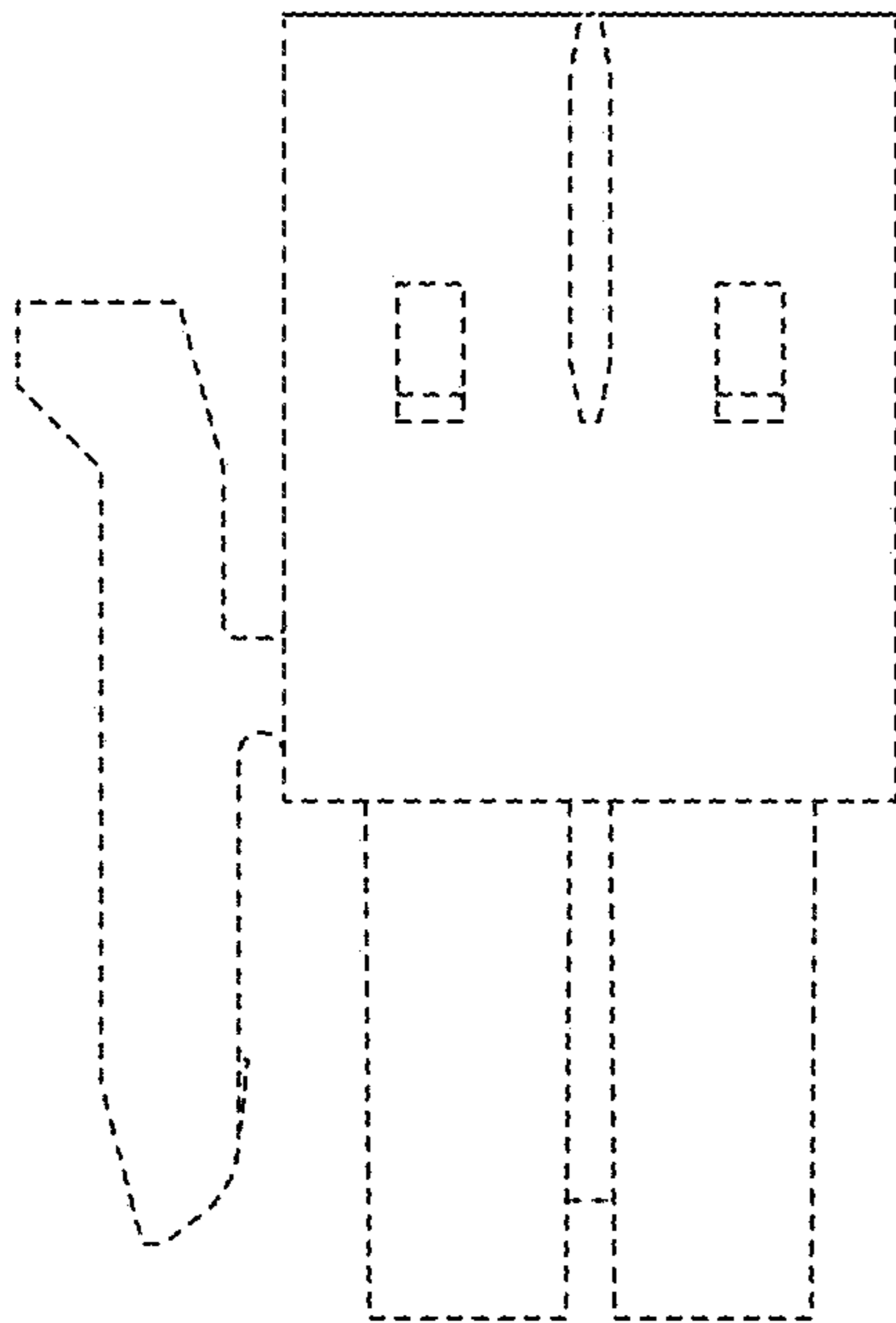
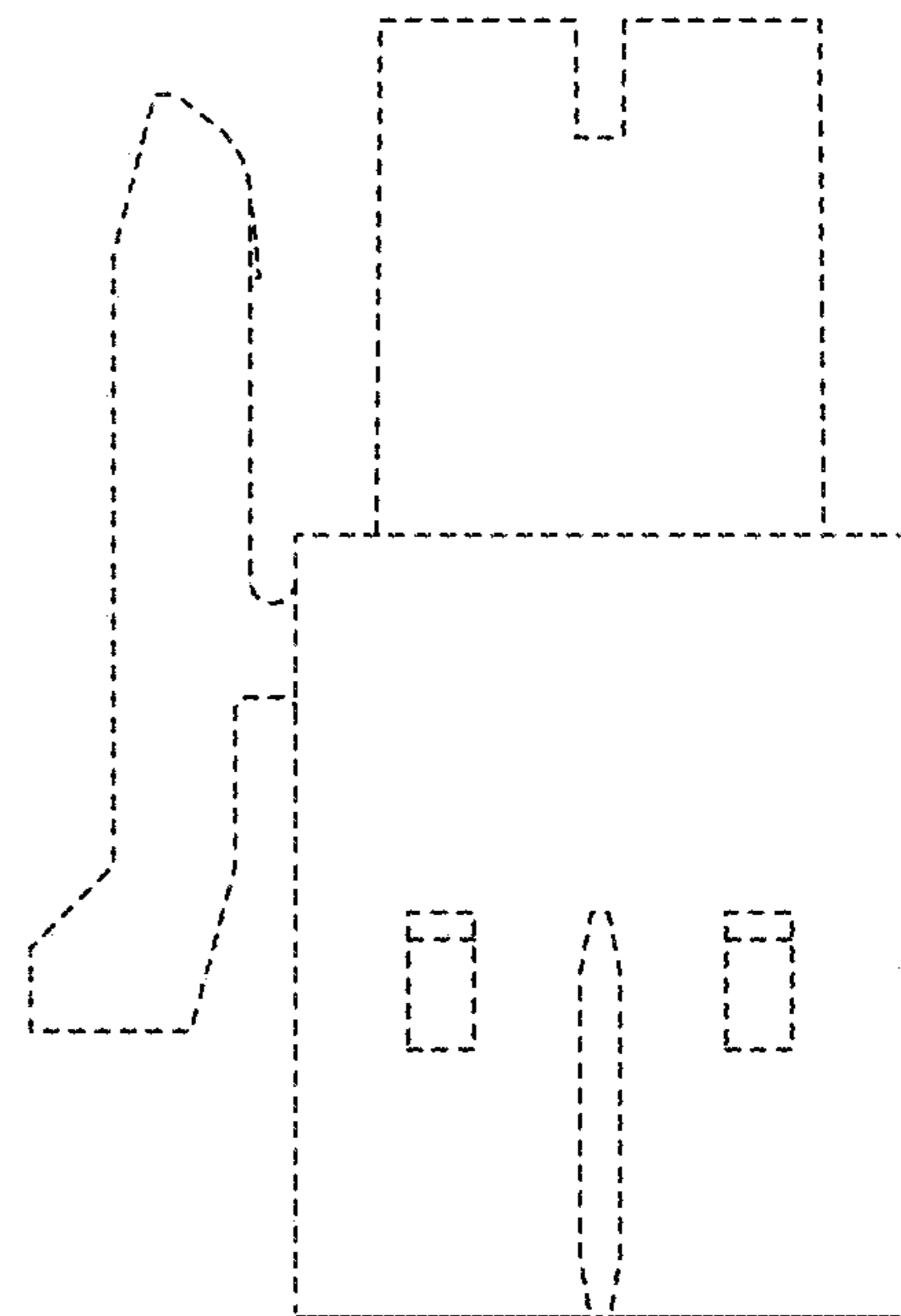


FIG. 75



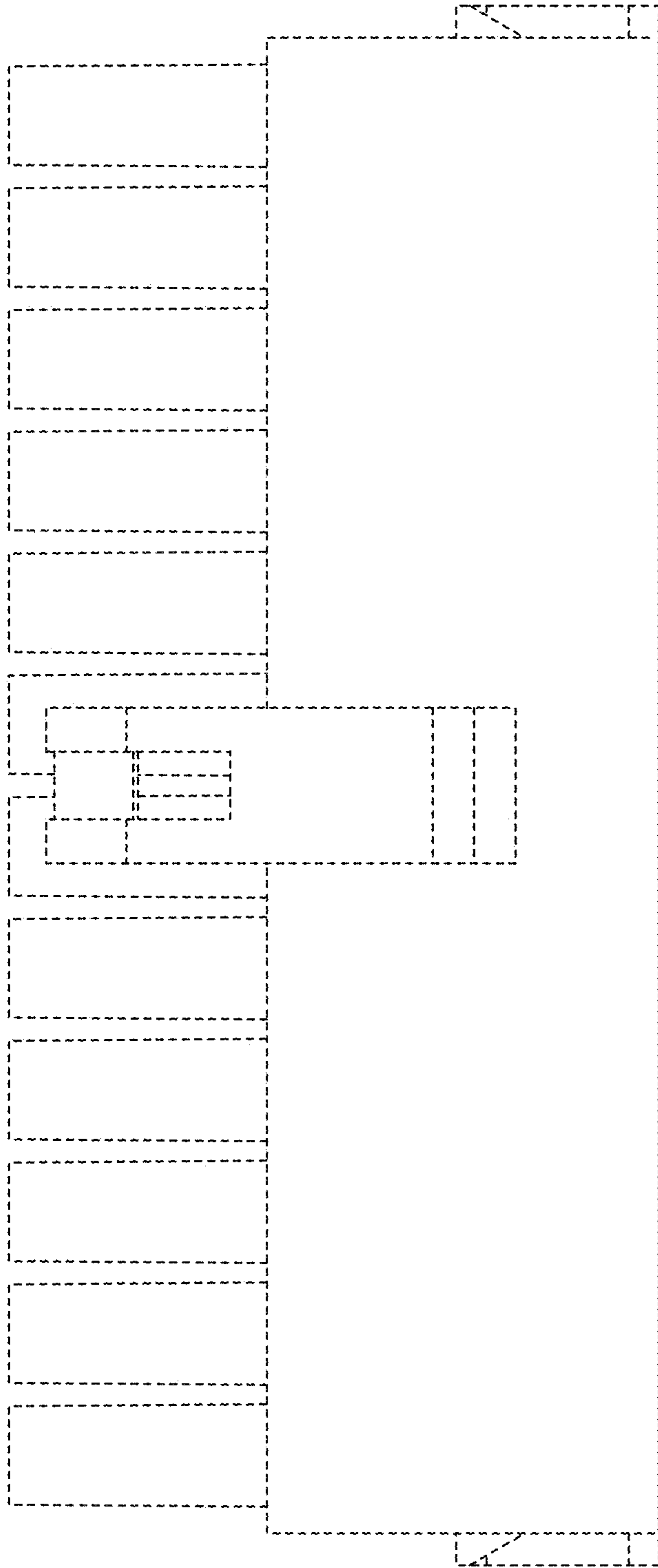


FIG. 76

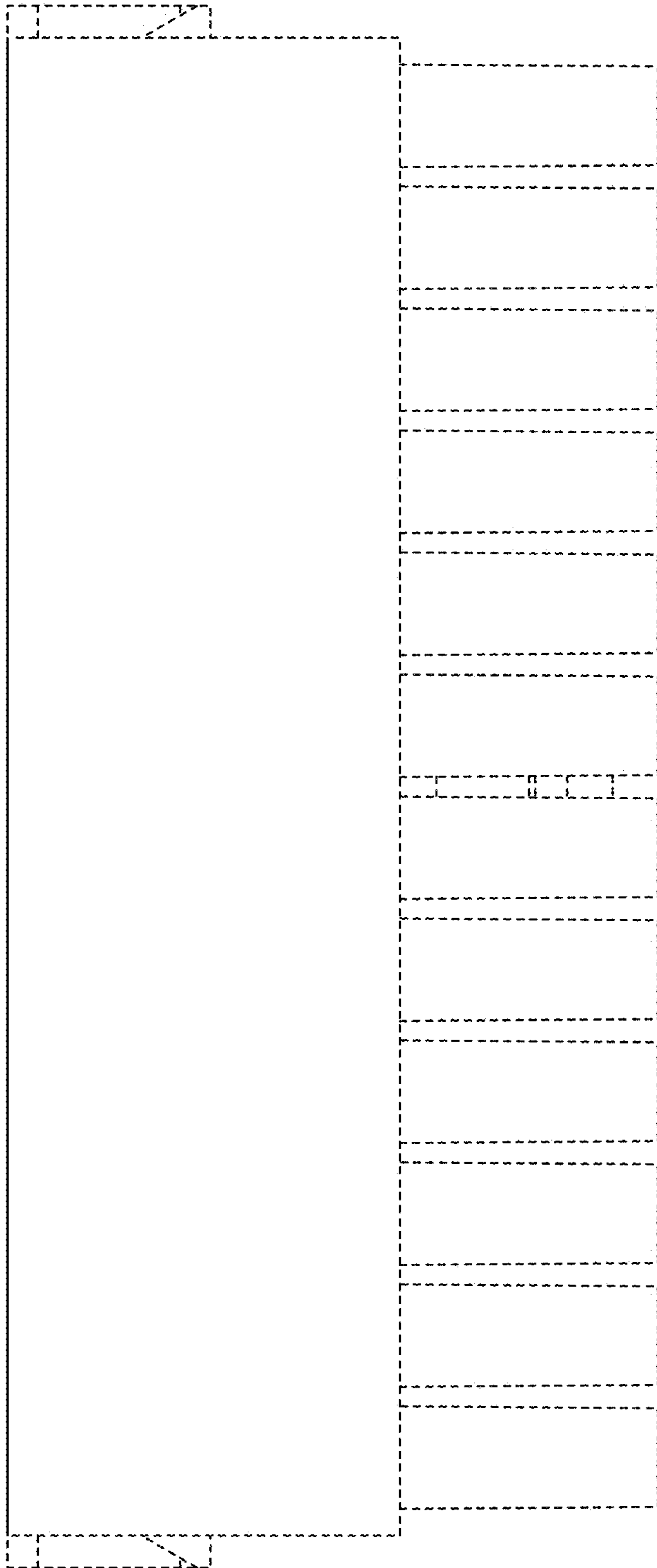


FIG. 77