



US00D911963S

(12) **United States Design Patent** (10) **Patent No.:** **US D911,963 S**
Ganamukhi et al. (45) **Date of Patent:** **** Mar. 2, 2021**

(54) **CONNECTOR**

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

(72) Inventors: **Ishwarappa Ganamukhi**, Bangalore (IN); **Pierre Perez**, Aurora, IL (US)

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

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

(21) Appl. No.: **29/685,537**

(22) Filed: **Mar. 28, 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, 184**

(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

D388,767 S * 1/1998 Akins D13/133

D389,121 S * 1/1998 Kuprewicz D13/133

(Continued)

FOREIGN PATENT DOCUMENTS

WO D205298-006 * 3/2020

WO D205298-007 * 3/2020

Primary Examiner — Karen E Kearney

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 right perspective view of a connector showing our new design;

FIG. 2 is a front left perspective view thereof;
FIG. 3 is a rear view thereof;
FIG. 4 is a front view thereof;
FIG. 5 is a right side view thereof;
FIG. 6 is a left side view thereof;
FIG. 7 is a top view thereof;
FIG. 8 is a bottom view thereof;
FIG. 9 is a rear perspective view thereof;
FIG. 10 is a front left perspective view of an alternate embodiment of the connector showing our new design which is a mirror image of the connector of FIGS. 1-9;
FIG. 11 is a front right perspective view thereof;
FIG. 12 is a rear view thereof;
FIG. 13 is a front view thereof;
FIG. 14 is a right side view thereof;
FIG. 15 is a left side view thereof;
FIG. 16 is a top view thereof;
FIG. 17 is a bottom view thereof;
FIG. 18 is a rear perspective view thereof;
FIG. 19 is a front right perspective view of an alternate embodiment of the connector showing our new design;
FIG. 20 is a front left perspective view thereof;
FIG. 21 is a rear view thereof;
FIG. 22 is a front view thereof;
FIG. 23 is a right side view thereof;
FIG. 24 is a left side view thereof;
FIG. 25 is a top view thereof;
FIG. 26 is a bottom view thereof;
FIG. 27 is a rear perspective view thereof;
FIG. 28 is a front left perspective view of an alternate embodiment of the connector showing our new design which is a mirror image of the connector of FIGS. 19-27;
FIG. 29 is a front right perspective view thereof;
FIG. 30 is a rear view thereof;
FIG. 31 is a front 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 rear perspective view thereof;
FIG. 37 is a front right perspective view of an alternate embodiment of the connector showing our new design;
FIG. 38 is a front left perspective view thereof;

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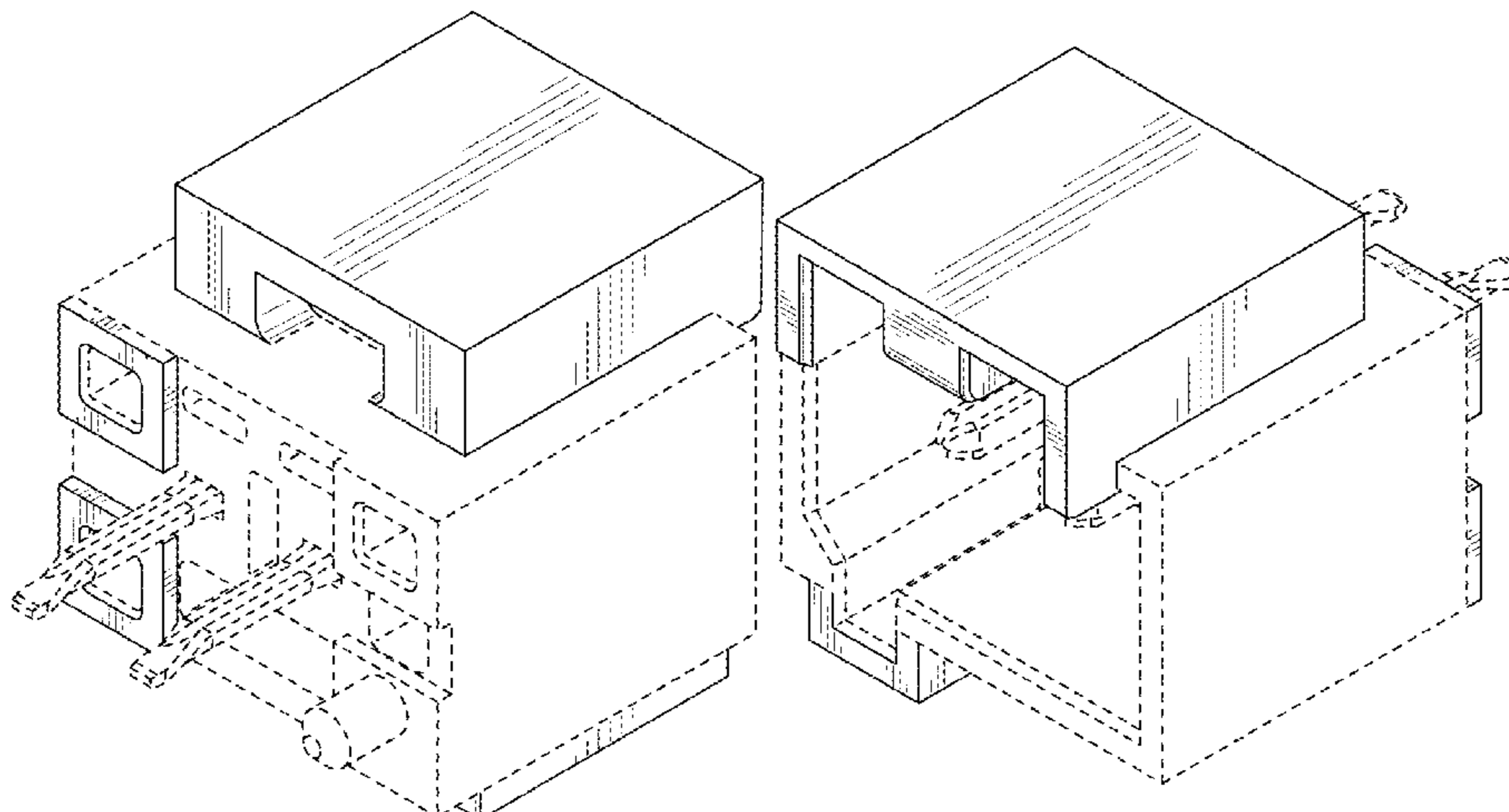


FIG. 39 is a rear view thereof;
FIG. 40 is a front view thereof;
FIG. 41 is a right side view thereof;
FIG. 42 is a left side view thereof;
FIG. 43 is a top view thereof;
FIG. 44 is a bottom view thereof;
FIG. 45 is a rear perspective view thereof;
FIG. 46 is a front left perspective view of an alternate embodiment of the connector showing our new design which is a mirror image of the connector of FIGS. 37-45;
FIG. 47 is a front right perspective view thereof;
FIG. 48 is a rear view thereof;
FIG. 49 is a front view thereof;
FIG. 50 is a right side view thereof;
FIG. 51 is a left side view thereof;
FIG. 52 is a top view thereof;
FIG. 53 is a bottom view thereof;
FIG. 54 is a rear perspective view thereof;
FIG. 55 is a front right perspective view of an alternate embodiment of the connector showing our new design;
FIG. 56 is a front left perspective view thereof;
FIG. 57 is a rear view thereof;
FIG. 58 is a front view thereof;
FIG. 59 is a right side view thereof;
FIG. 60 is a left side view thereof;
FIG. 61 is a top view thereof;
FIG. 62 is a bottom view thereof;
FIG. 63 is a rear perspective view thereof;
FIG. 64 is a front left perspective view of an alternate embodiment of the connector showing our new design which is a mirror image of the connector of FIGS. 55-63;
FIG. 65 is a front right perspective view thereof;
FIG. 66 is a rear view thereof;
FIG. 67 is a front view thereof;
FIG. 68 is a right side view thereof;
FIG. 69 is a left side view thereof;
FIG. 70 is a top view thereof;
FIG. 71 is a bottom view thereof;
FIG. 72 is a rear perspective view thereof;
FIG. 73 is a front right perspective view of an alternate embodiment of the connector showing our new design;
FIG. 74 is a front left perspective view thereof;
FIG. 75 is a rear view thereof;
FIG. 76 is a front view thereof;
FIG. 77 is a right side view thereof;
FIG. 78 is a left side view thereof;
FIG. 79 is a top view thereof;
FIG. 80 is a bottom view thereof;
FIG. 81 is a rear perspective view thereof;
FIG. 82 is a front left perspective view of an alternate embodiment of the connector showing our new design which is a mirror image of the connector of FIGS. 73-81;
FIG. 83 is a front right perspective view thereof;
FIG. 84 is a rear view thereof;
FIG. 85 is a front view thereof;
FIG. 86 is a right side view thereof;
FIG. 87 is a left side view thereof;
FIG. 88 is a top view thereof;
FIG. 89 is a bottom view thereof;
FIG. 90 is a rear perspective view thereof;
FIG. 91 is a front right perspective view of an alternate embodiment of the connector showing our new design;
FIG. 92 is a front left perspective view thereof;
FIG. 93 is a rear view thereof;
FIG. 94 is a front view thereof;
FIG. 95 is a right side view thereof;
FIG. 96 is a left side view thereof;
FIG. 97 is a top view thereof;
FIG. 98 is a bottom view thereof;
FIG. 99 is a rear perspective view thereof;
FIG. 100 is a front left perspective view of an alternate embodiment of the connector showing our new design which is a mirror image of the connector of FIGS. 91-99;
FIG. 101 is a front right perspective view thereof;
FIG. 102 is a rear view thereof;
FIG. 103 is a front view thereof;
FIG. 104 is a right side view thereof;
FIG. 105 is a left side view thereof;
FIG. 106 is a top view thereof;
FIG. 107 is a bottom view thereof;
FIG. 108 is a rear perspective view thereof;
FIG. 109 is a front right perspective view of an alternate embodiment of the connector showing our new design;
FIG. 110 is a front left perspective view thereof;
FIG. 111 is a rear view thereof;
FIG. 112 is a front view thereof;
FIG. 113 is a right side view thereof;
FIG. 114 is a left side view thereof;
FIG. 115 is a top view thereof;
FIG. 116 is a bottom view thereof;
FIG. 117 is a rear perspective view thereof;
FIG. 118 is a front left perspective view of an alternate embodiment of the connector showing our new design which is a mirror image of the connector of FIGS. 109-117;
FIG. 119 is a front right perspective view thereof;
FIG. 120 is a rear view thereof;
FIG. 121 is a front view thereof;
FIG. 122 is a right side view thereof;
FIG. 123 is a left side view thereof;
FIG. 124 is a top view thereof;
FIG. 125 is a bottom view thereof;
FIG. 126 is a rear perspective view thereof;
FIG. 127 is a front right perspective view of an alternate embodiment of the connector showing our new design;
FIG. 128 is a front left perspective view thereof;
FIG. 129 is a rear view thereof;
FIG. 130 is a front view thereof;
FIG. 131 is a right side view thereof;
FIG. 132 is a left side view thereof;
FIG. 133 is a top view thereof;
FIG. 134 is a bottom view thereof;
FIG. 135 is a rear perspective view thereof;
FIG. 136 is a front left perspective view of an alternate embodiment of the connector showing our new design which is a mirror image of the connector of FIGS. 127-135;
FIG. 137 is a front right perspective view thereof;
FIG. 138 is a rear view thereof;
FIG. 139 is a front view thereof;
FIG. 140 is a right side view thereof;
FIG. 141 is a left side view thereof;
FIG. 142 is a top view thereof;
FIG. 143 is a bottom view thereof;
FIG. 144 is a rear perspective view thereof;
FIG. 145 is a front right perspective view of an alternate embodiment of the connector showing our new design;
FIG. 146 is a front left perspective view thereof;
FIG. 147 is a rear view thereof;

FIG. 148 is a front view thereof;
 FIG. 149 is a right side view thereof;
 FIG. 150 is a left side view thereof;
 FIG. 151 is a top view thereof;
 FIG. 152 is a bottom view thereof;
 FIG. 153 is a rear perspective view thereof;
 FIG. 154 is a front left perspective view of an alternate embodiment of the connector showing our new design which is a mirror image of the connector of FIGS. 145-153;
 FIG. 155 is a front right perspective view thereof;
 FIG. 156 is a rear view thereof;
 FIG. 157 is a front view thereof;
 FIG. 158 is a right side view thereof;
 FIG. 159 is a left side view thereof;
 FIG. 160 is a top view thereof;
 FIG. 161 is a bottom view thereof; and,
 FIG. 162 is a rear perspective view thereof.
 The broken lines immediately adjacent to the shaded areas depict 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, 114 Drawing Sheets

(58) **Field of Classification Search**

CPC H01R 13/02; H01R 13/436; H01R 13/502;
 H01R 13/504; H01R 13/506; H01R
 13/64; H01R 13/4362
 See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

| | | | | | |
|----------|---|---|---------|-----------------|------------|
| D524,751 | S | * | 7/2006 | Lee | D13/147 |
| D655,677 | S | * | 3/2012 | Gouhl | D13/146 |
| D676,386 | S | * | 2/2013 | Gassauer | H01R 13/64 |
| | | | | | D13/133 |
| D676,392 | S | * | 2/2013 | Gassauer | D13/147 |
| D748,580 | S | * | 2/2016 | Endo | D13/146 |
| D748,588 | S | * | 2/2016 | Endo | 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 |
| D792,853 | S | * | 7/2017 | Li | D13/147 |
| D802,538 | S | * | 11/2017 | Li | D13/147 |
| D803,162 | S | * | 11/2017 | Li | D13/147 |
| D899,367 | S | * | 10/2020 | Thyagaraj | D13/133 |
| D899,369 | S | * | 10/2020 | Thyagaraj | D13/133 |
| D899,370 | S | * | 10/2020 | Thyagaraj | D13/133 |
| D900,030 | S | * | 10/2020 | Thyagaraj | D13/133 |

* cited by examiner

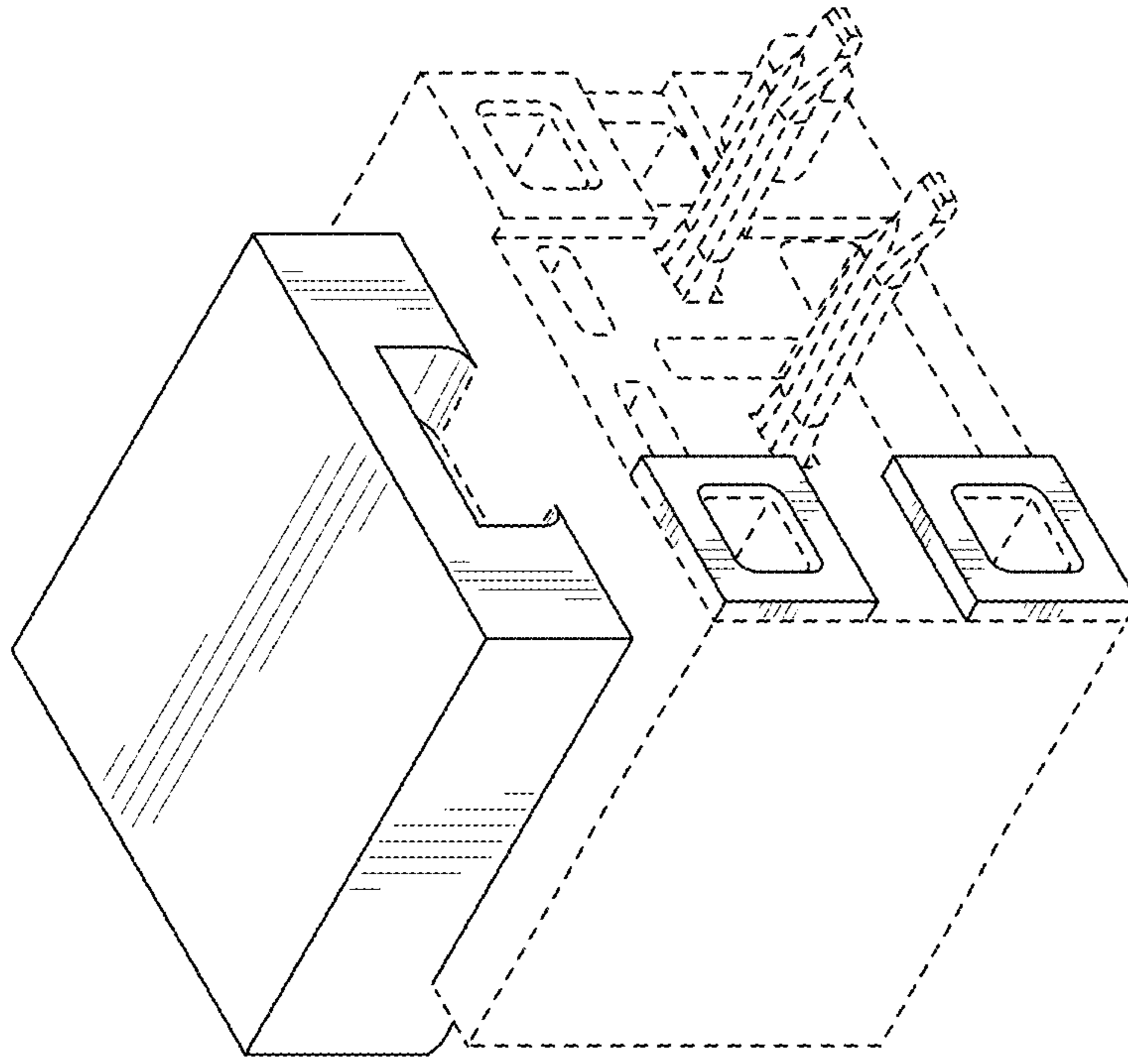


FIG. 2

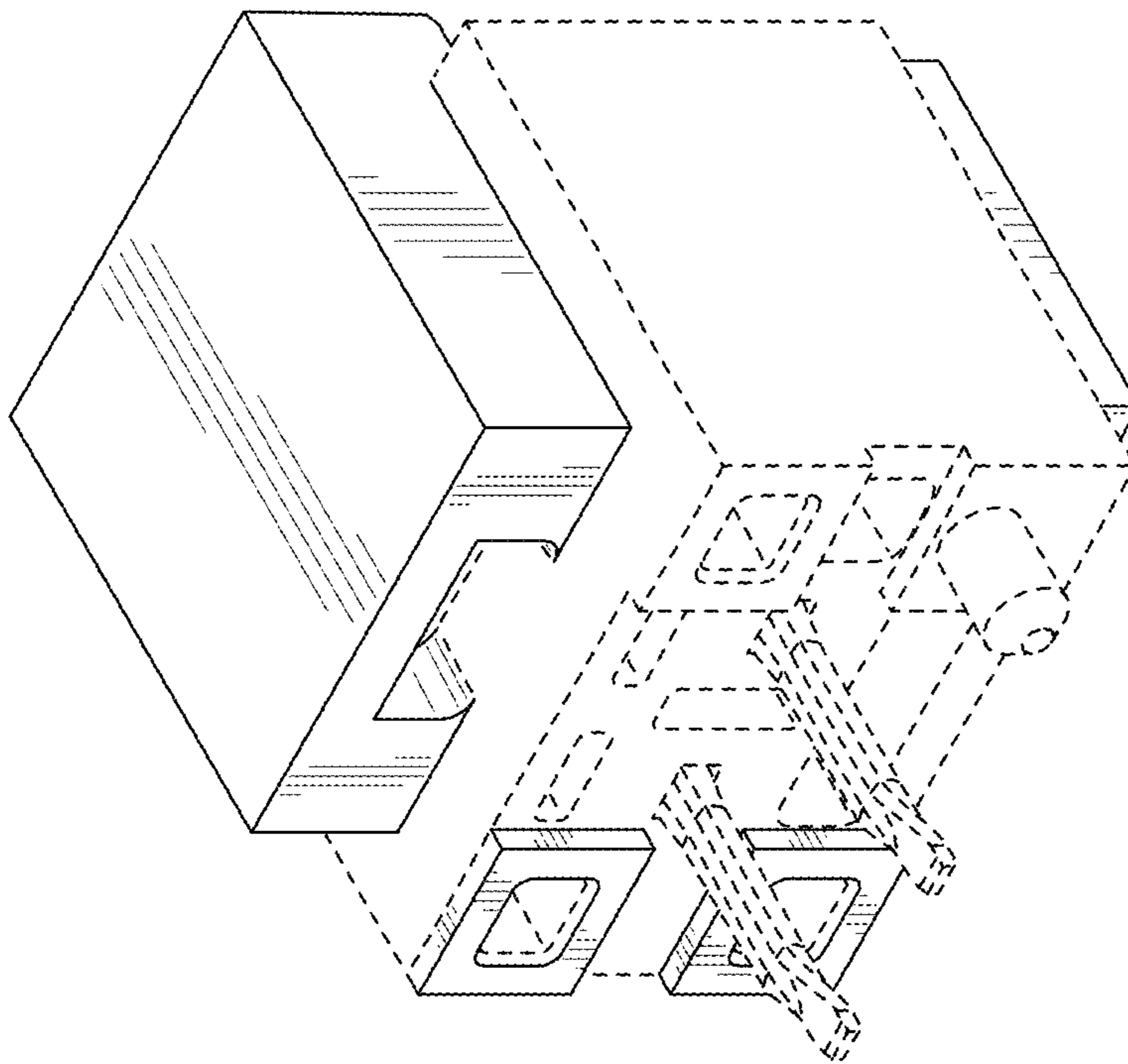


FIG. 1

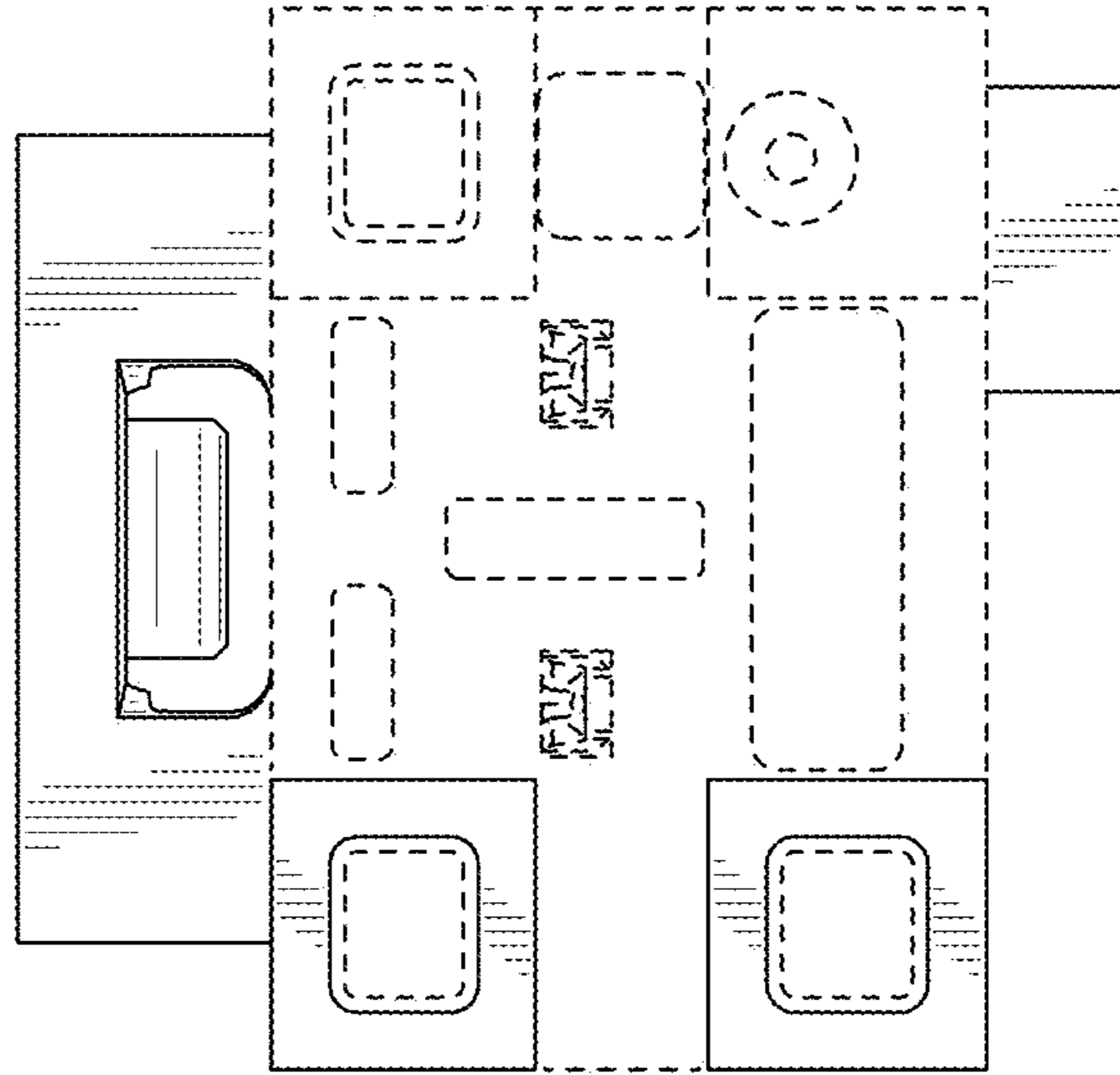


FIG. 4

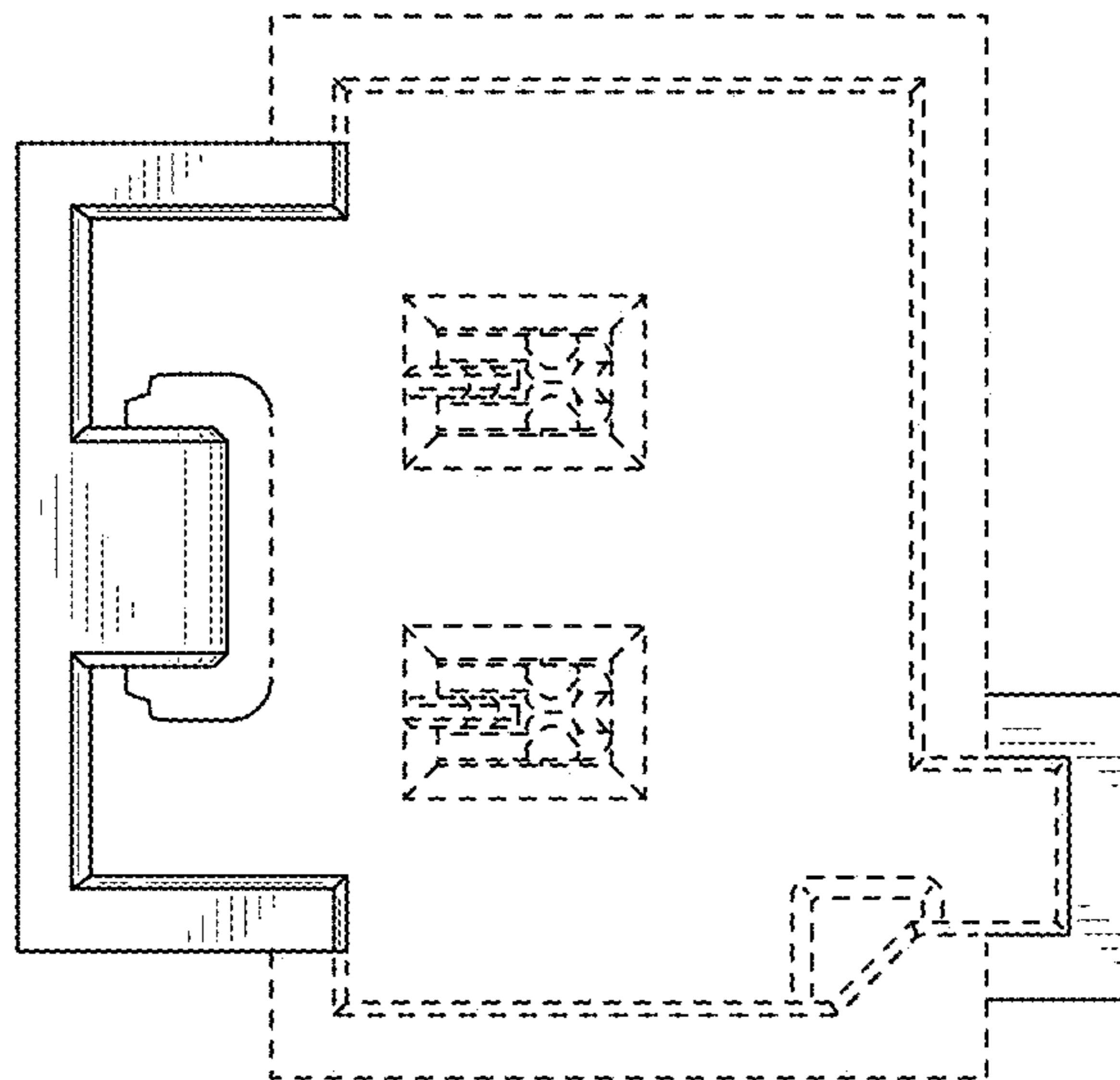


FIG. 3

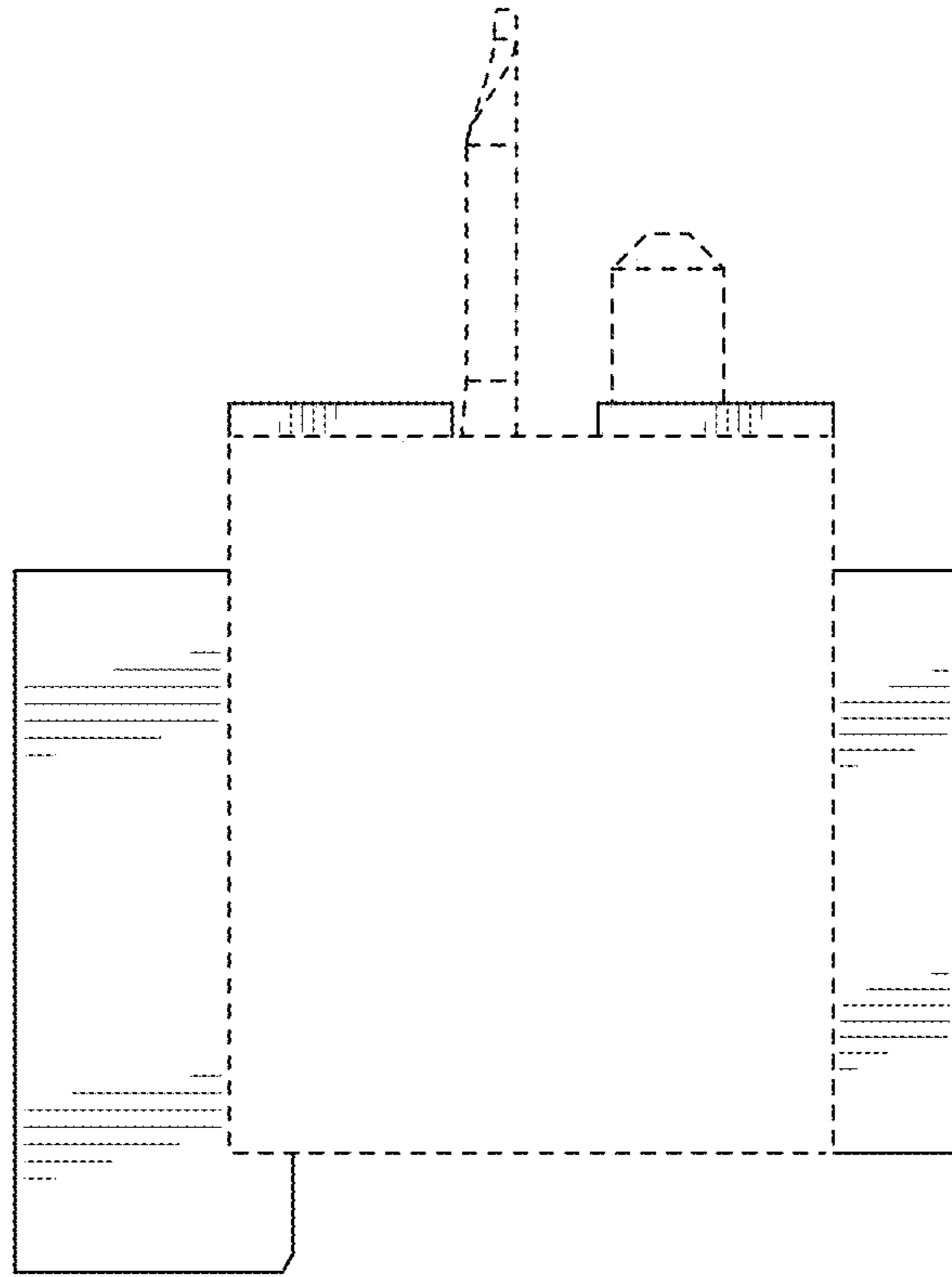


FIG. 5

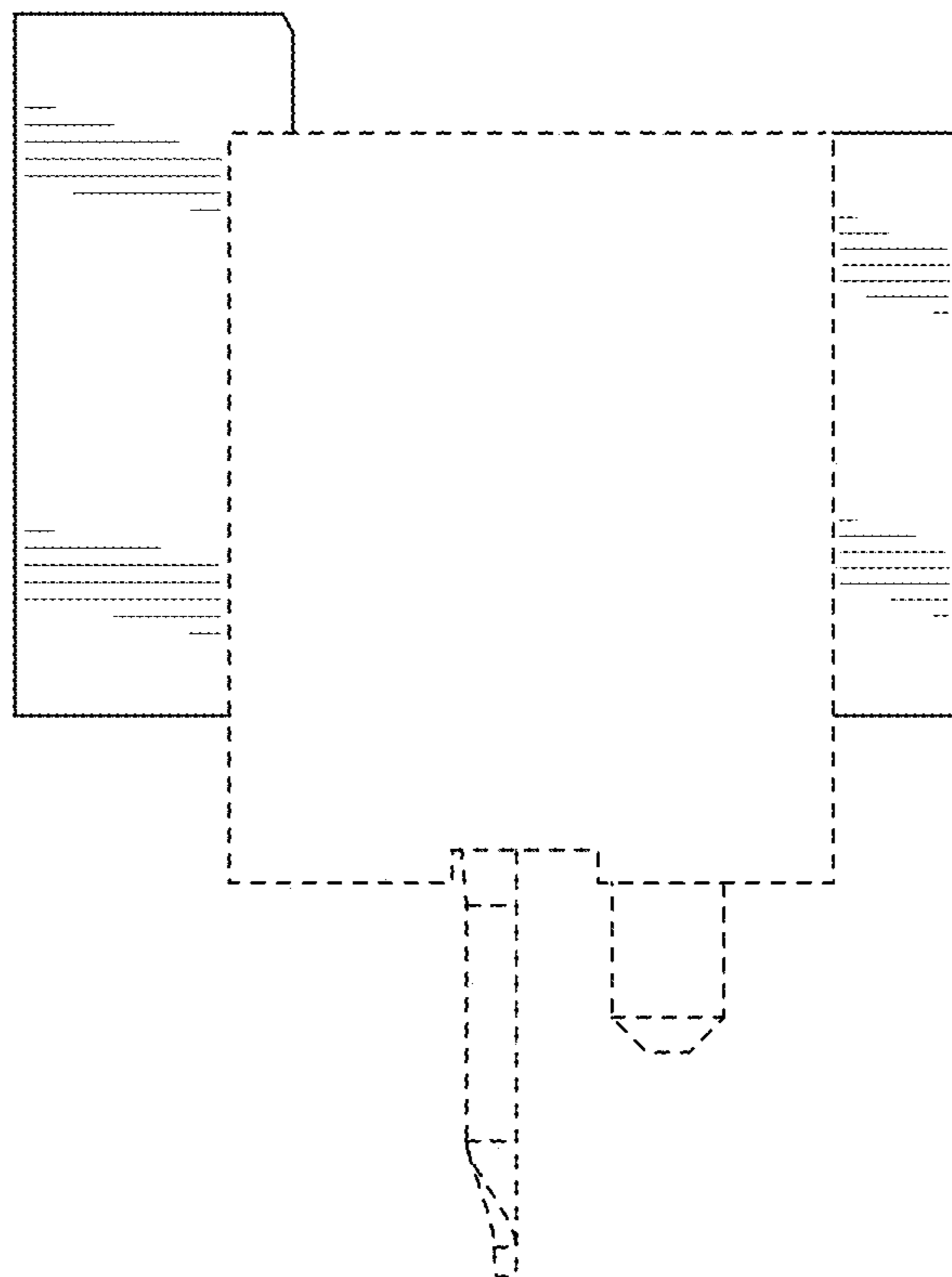


FIG. 6

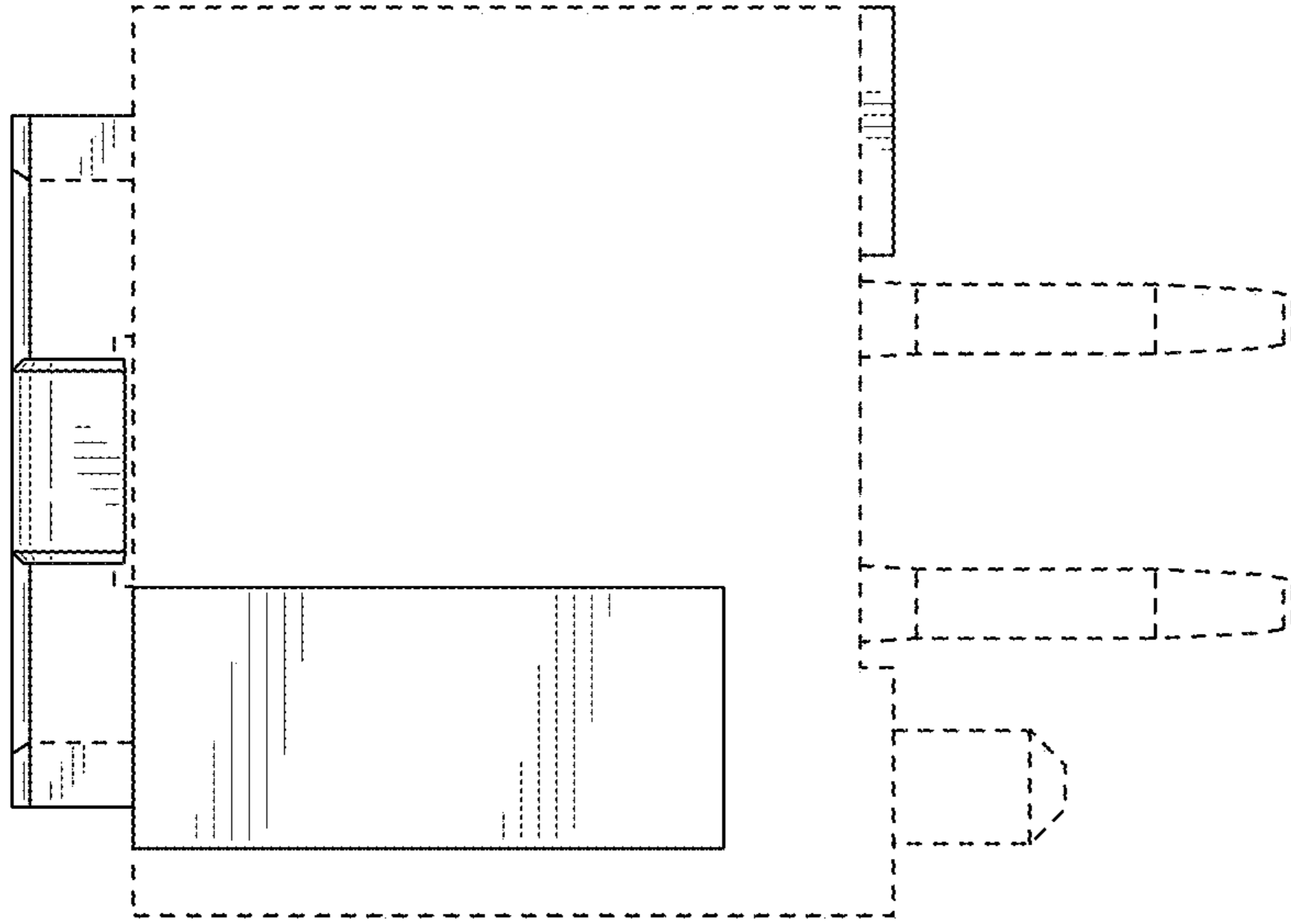


FIG. 7

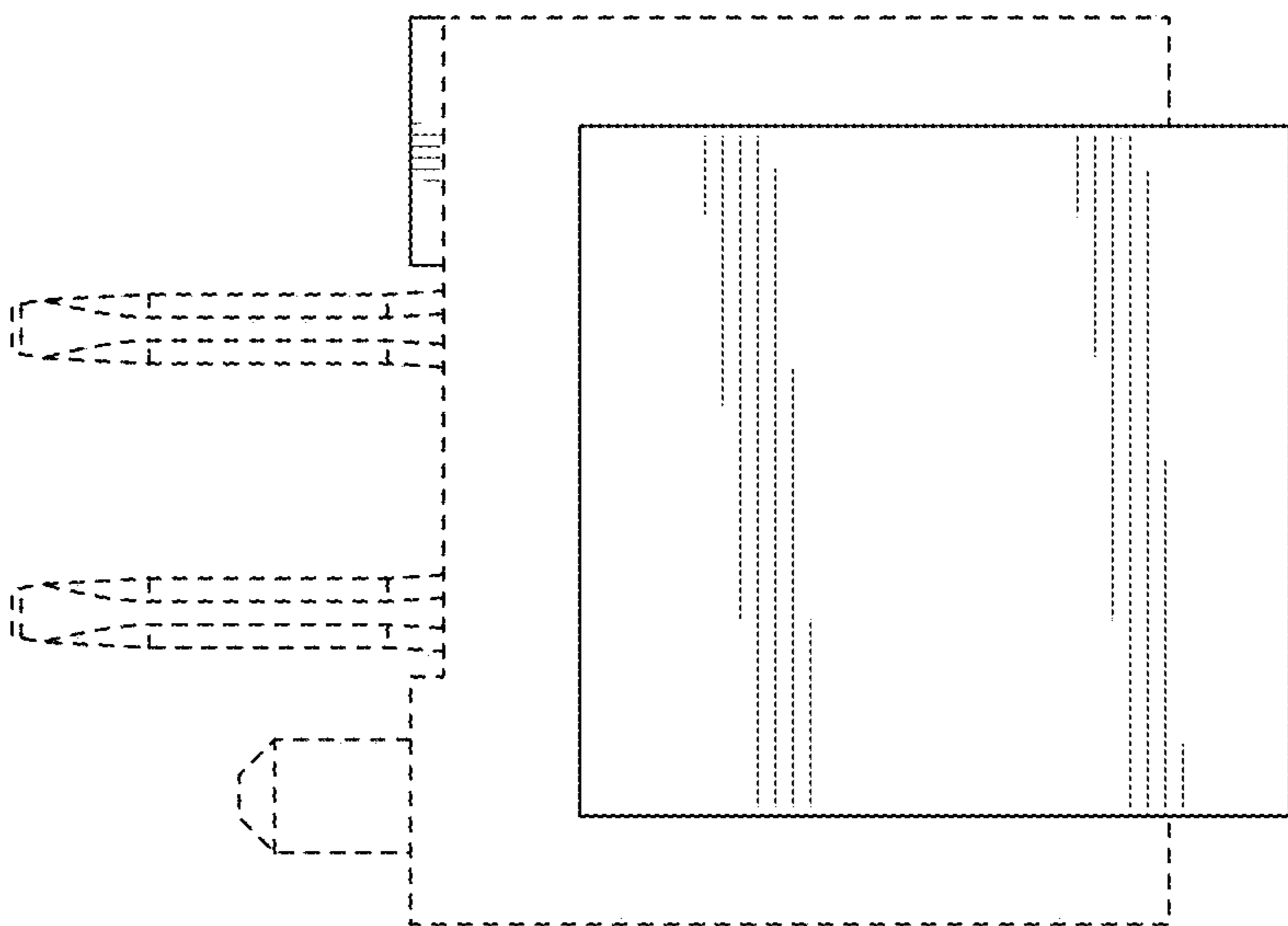


FIG. 8

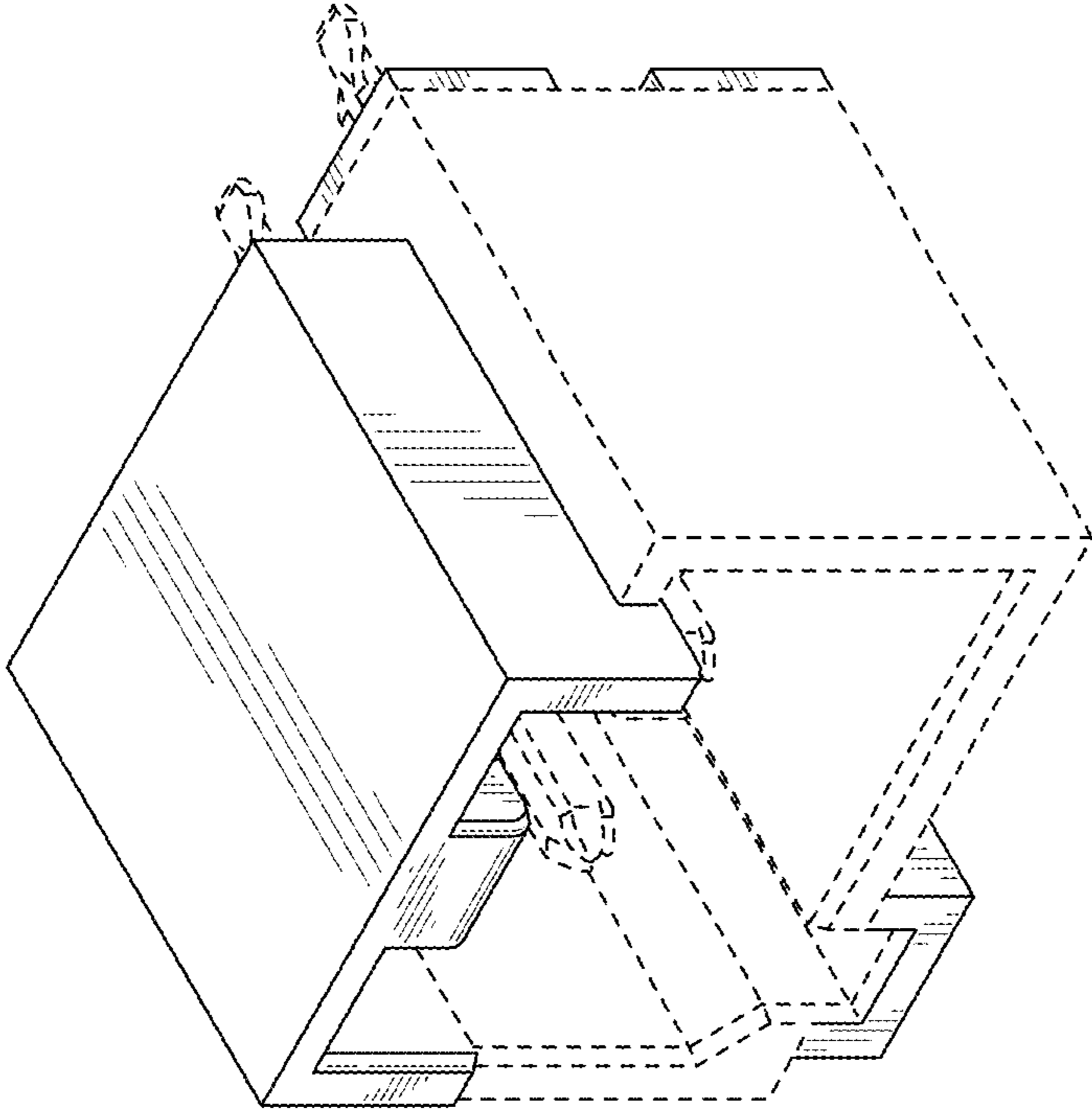


FIG. 9

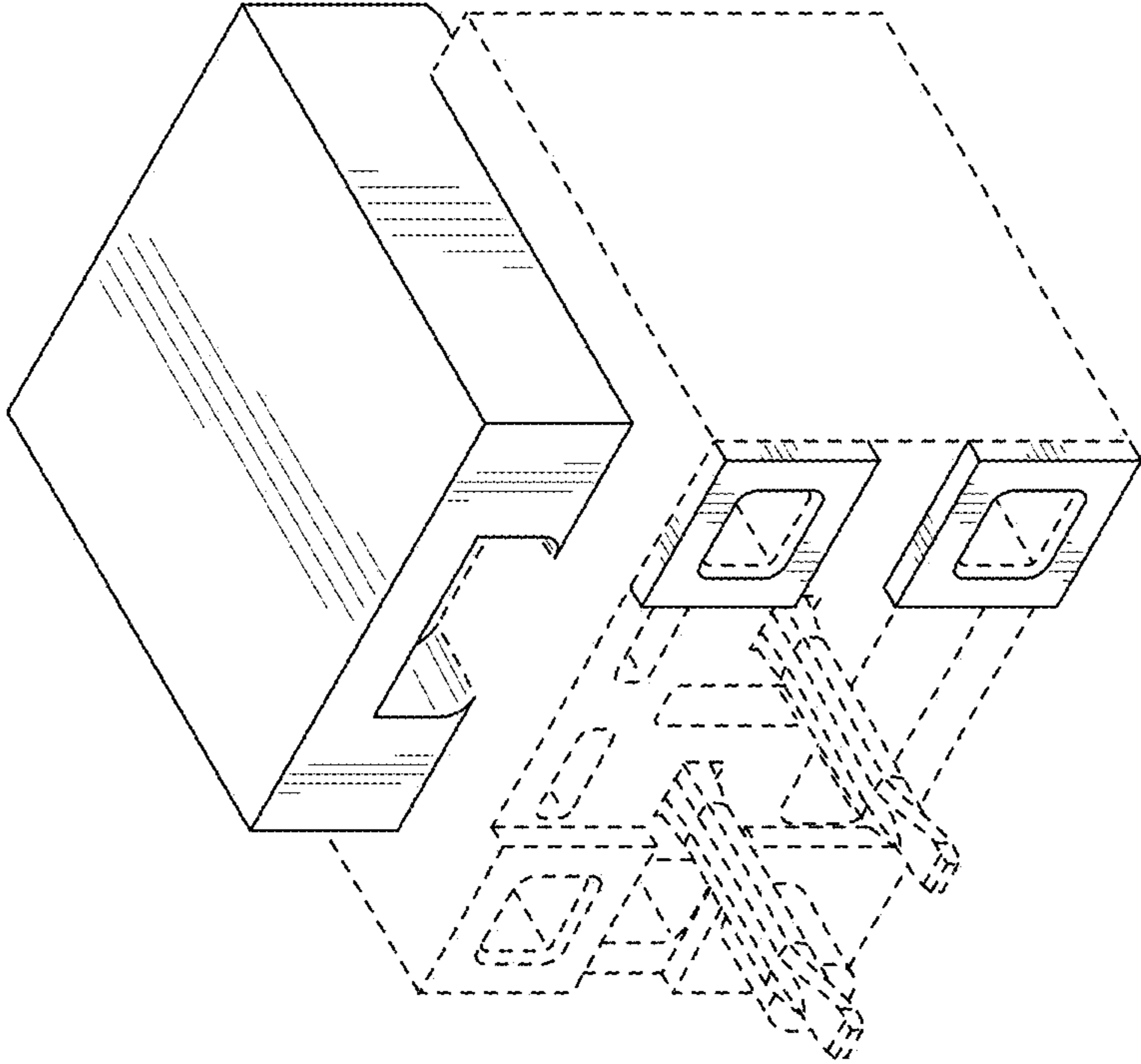


FIG. 11

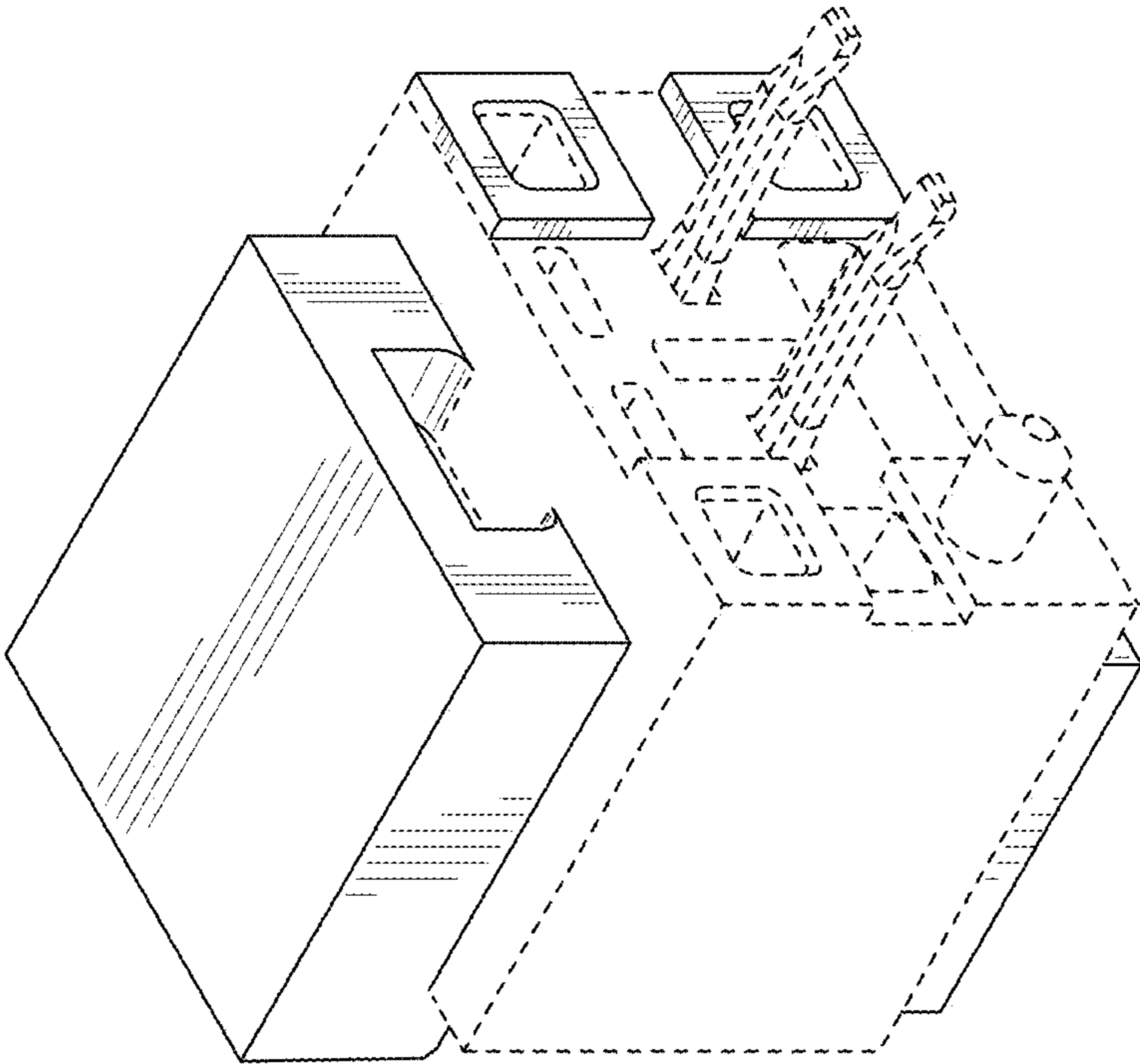


FIG. 10

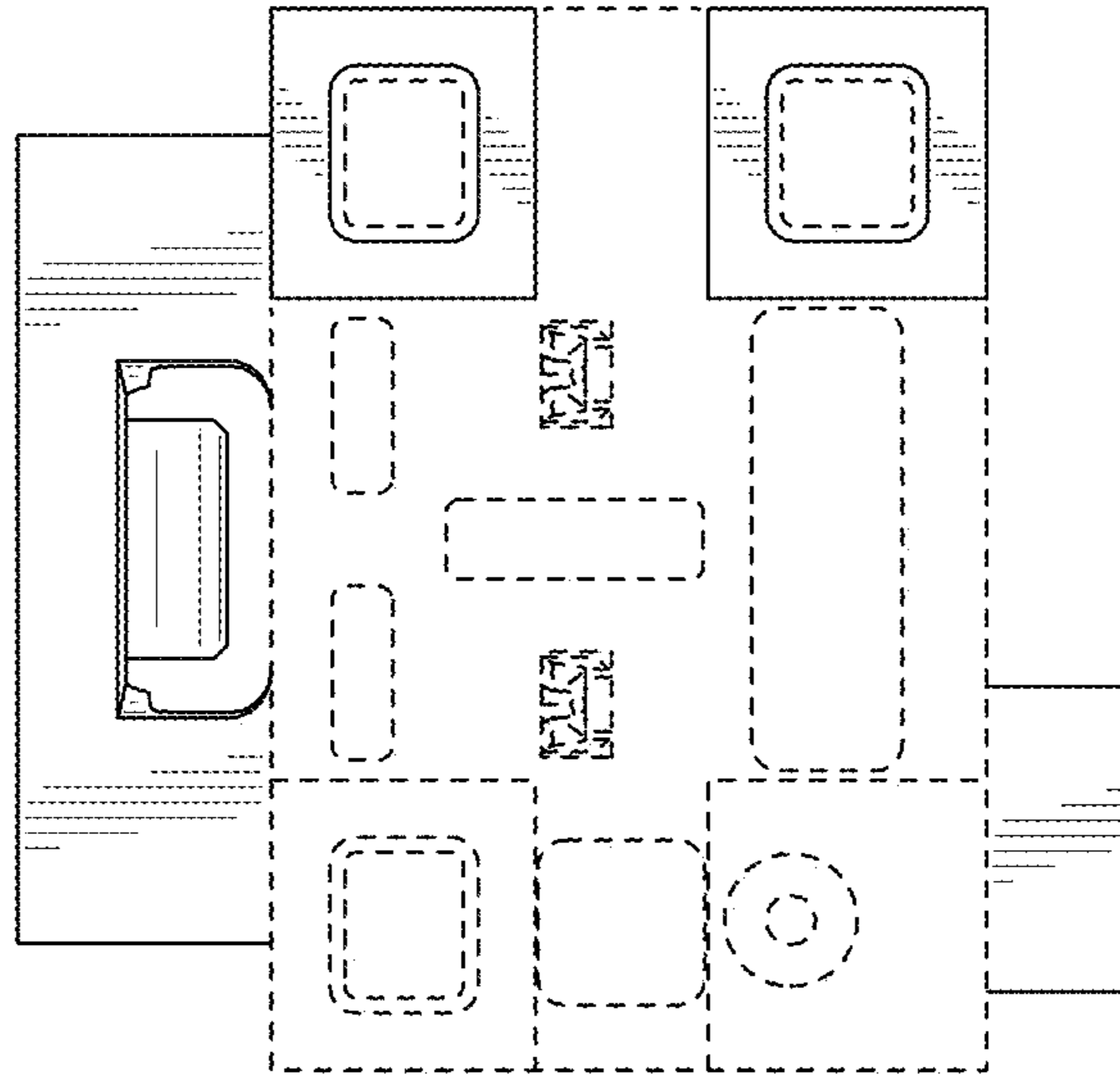


FIG. 12

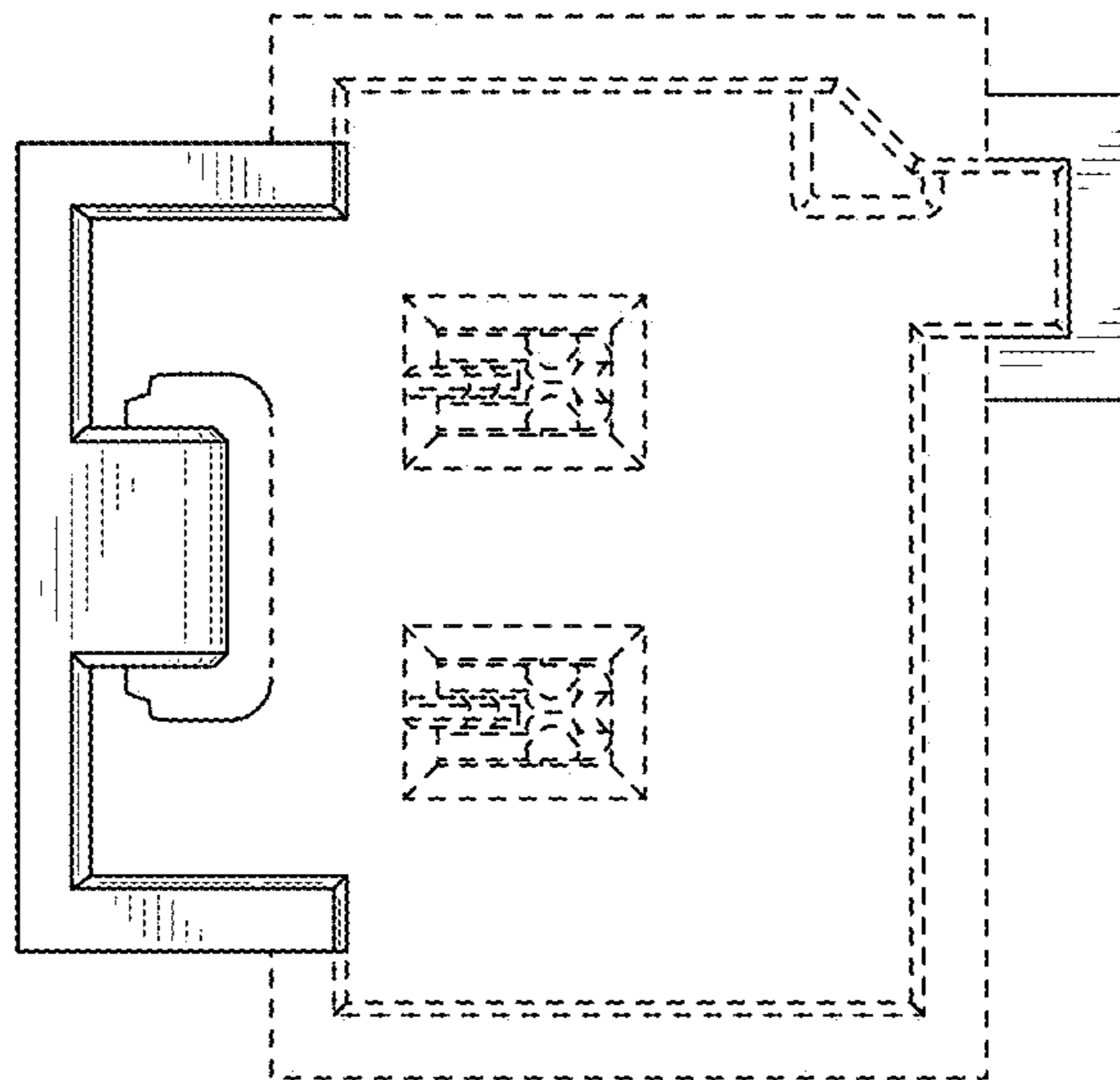


FIG. 13

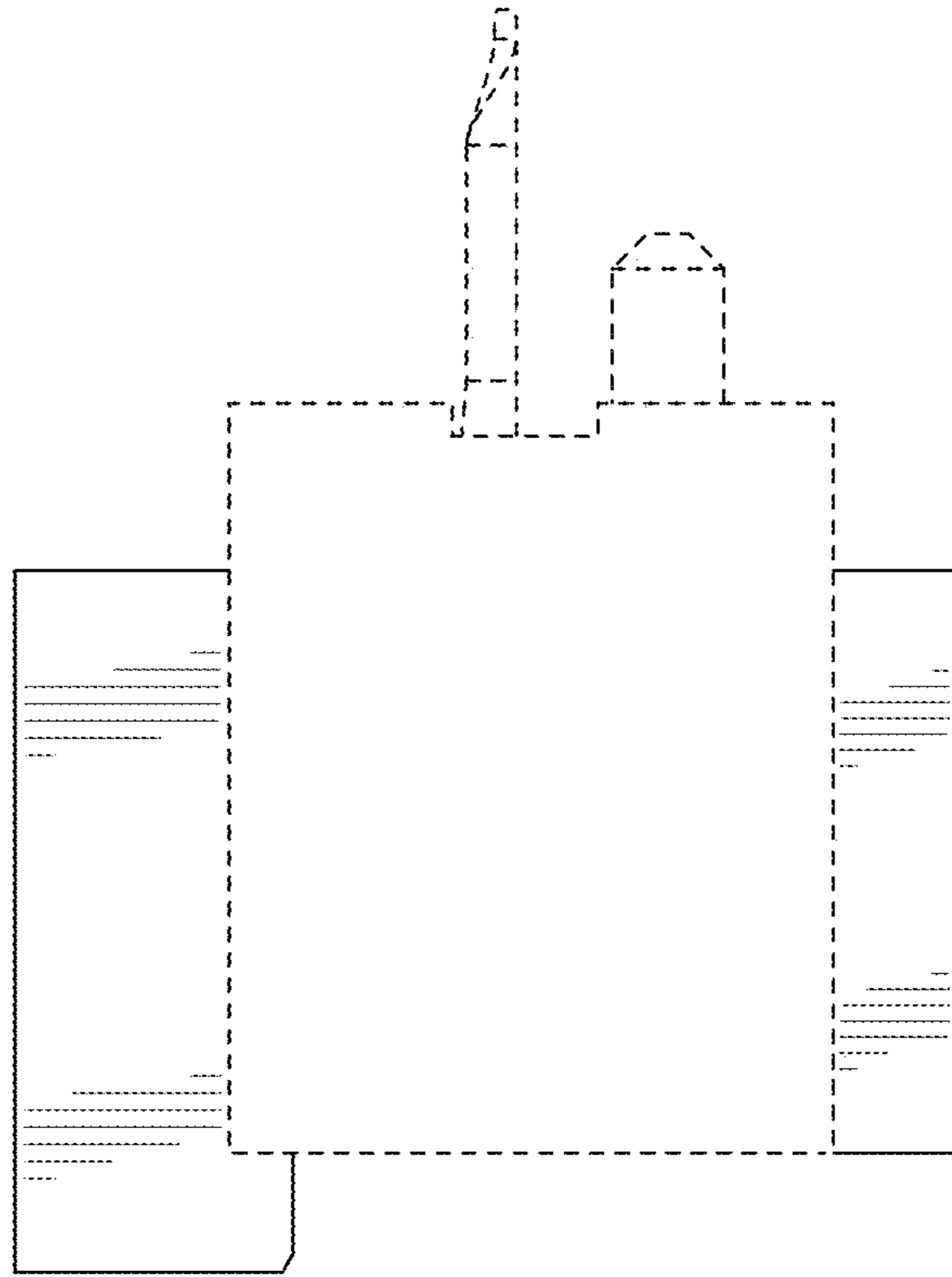


FIG. 15

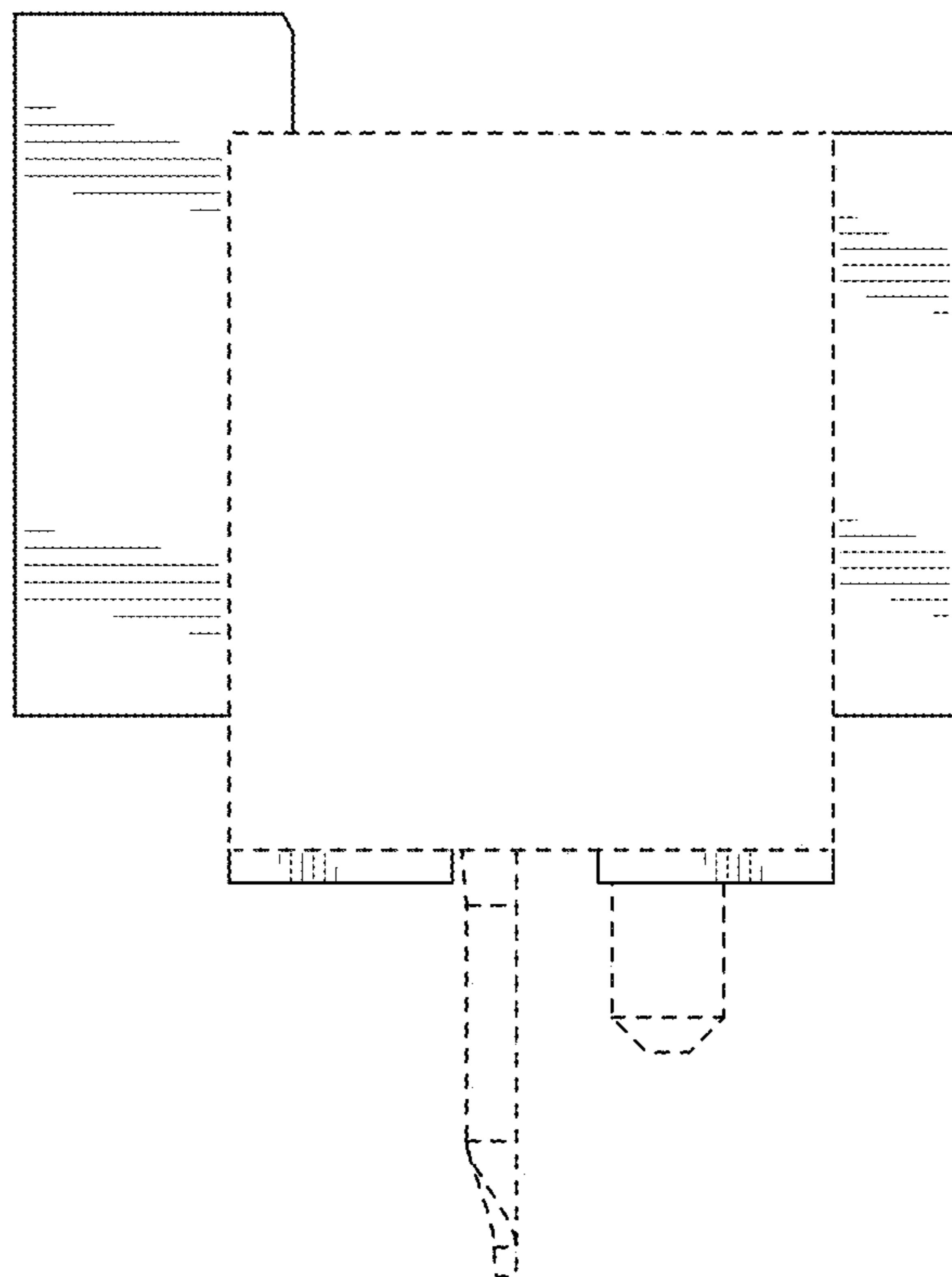


FIG. 14

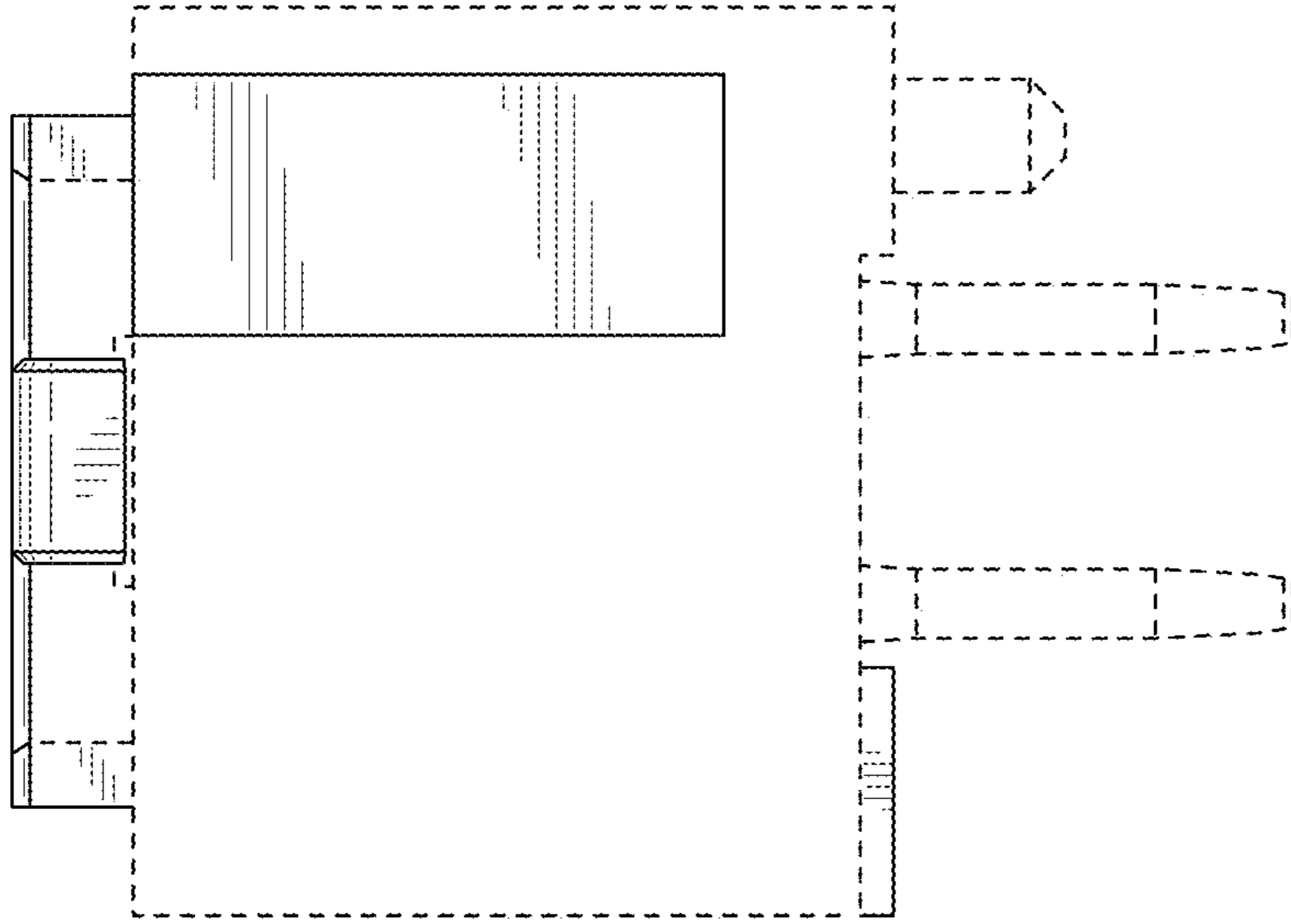


FIG. 16

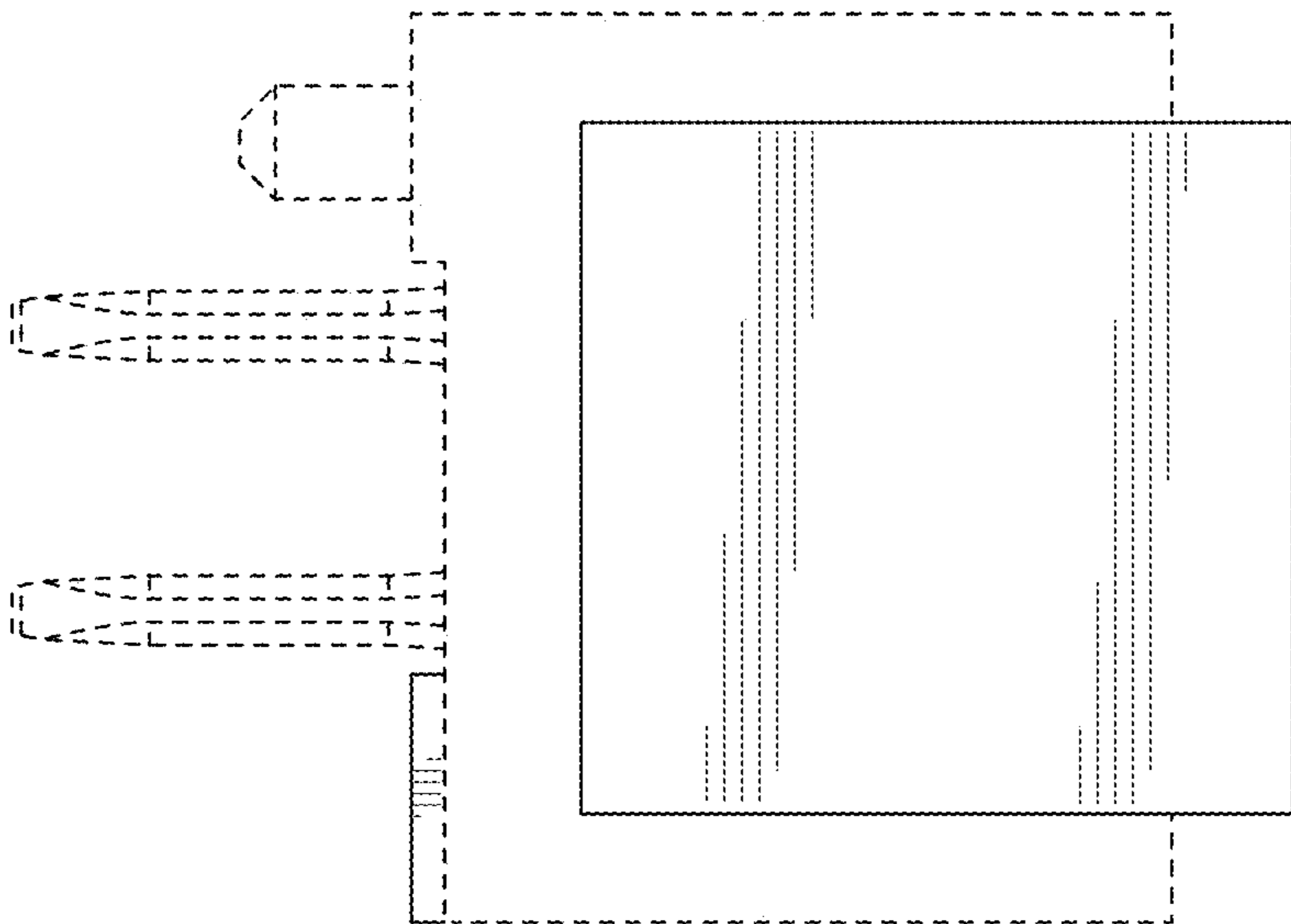


FIG. 17

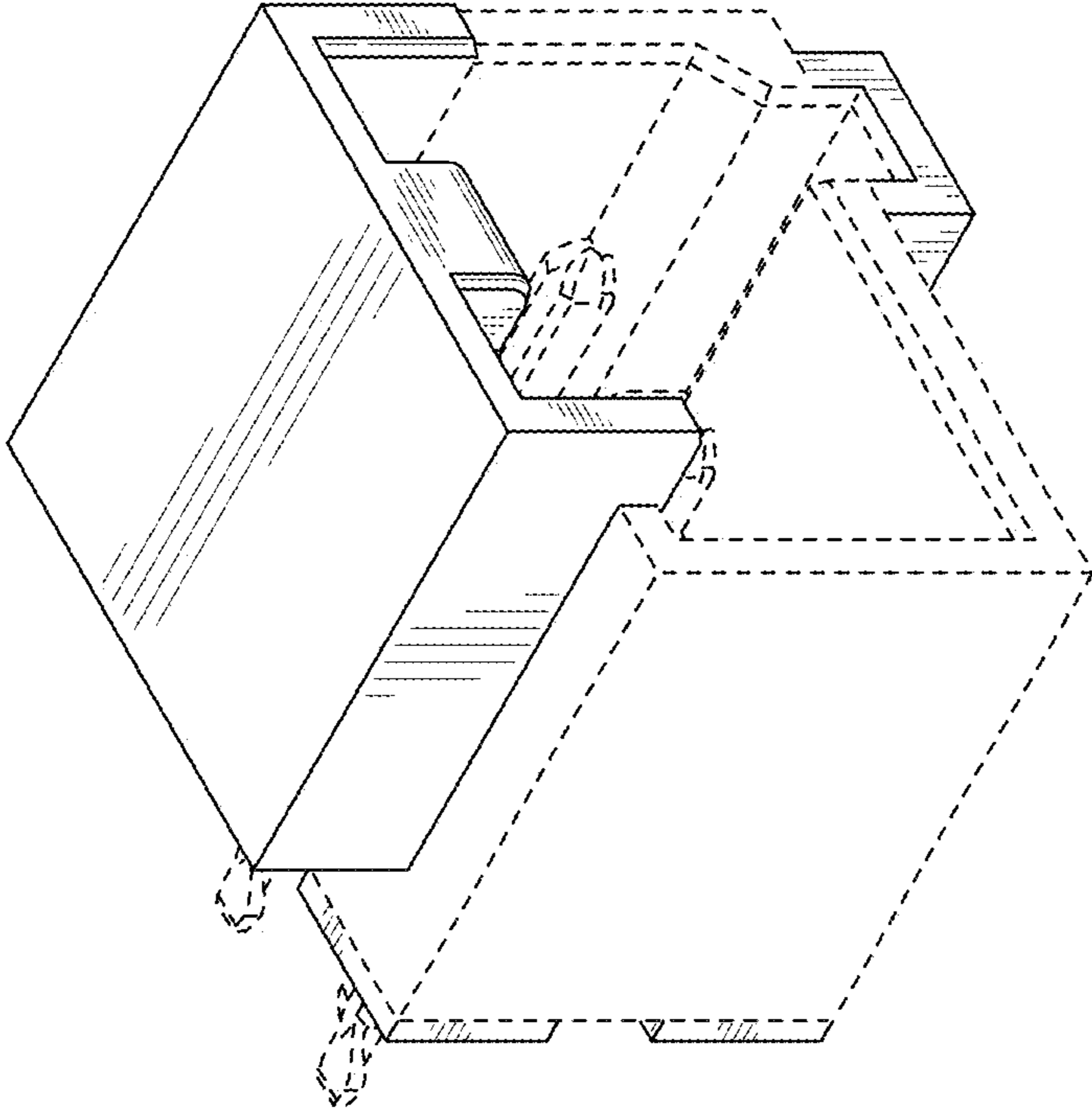


FIG. 18

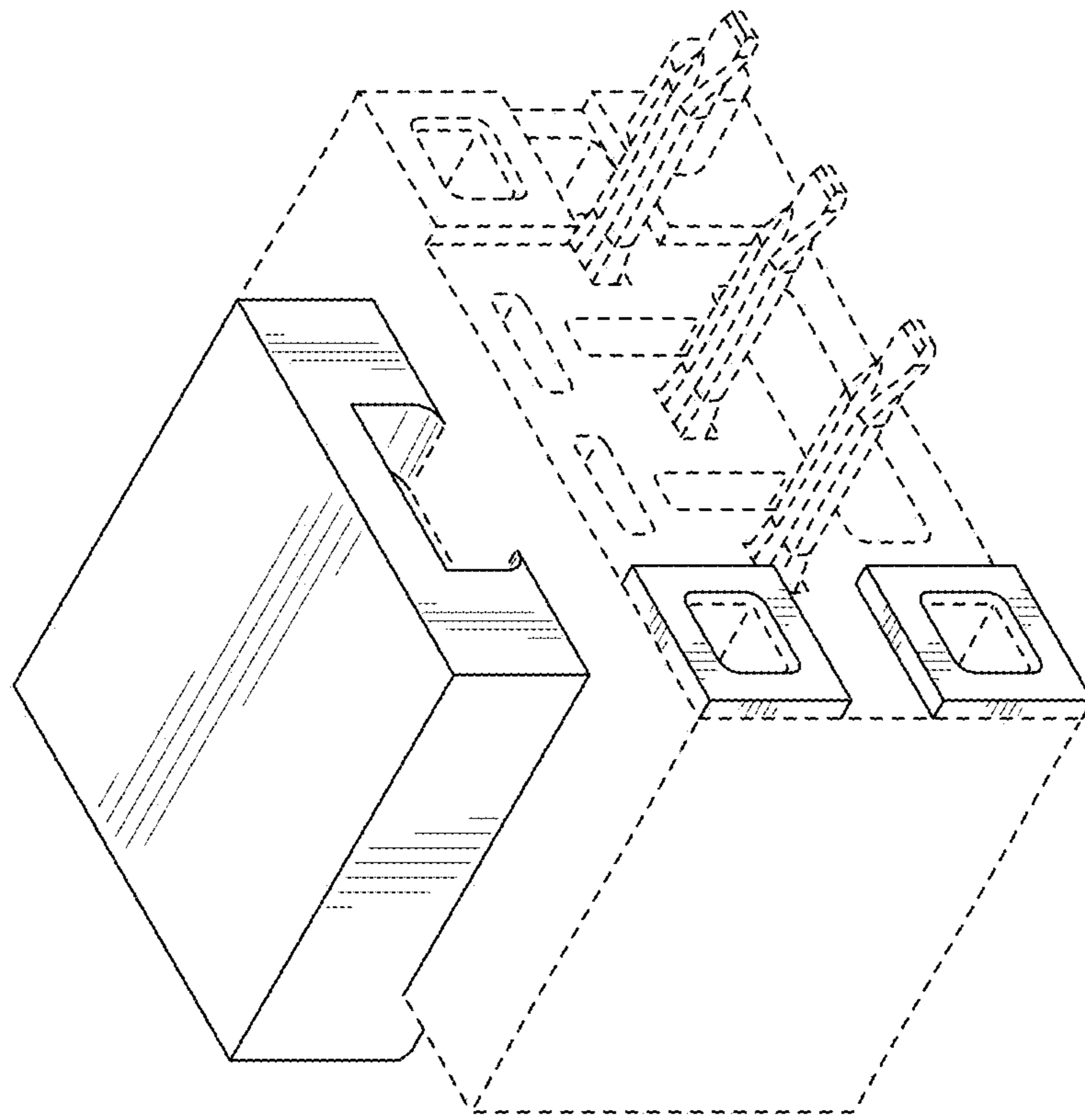


FIG. 20

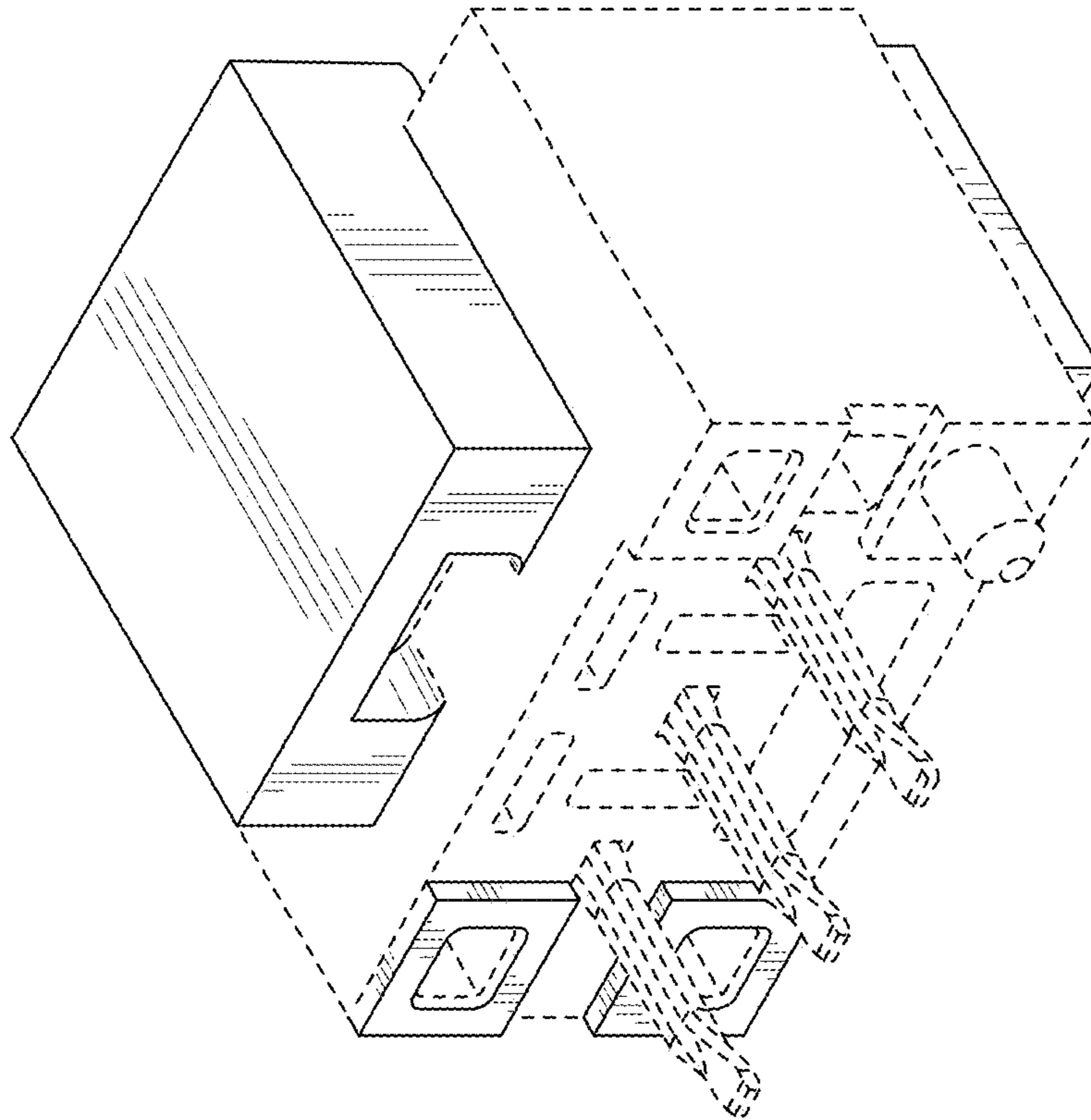


FIG. 19

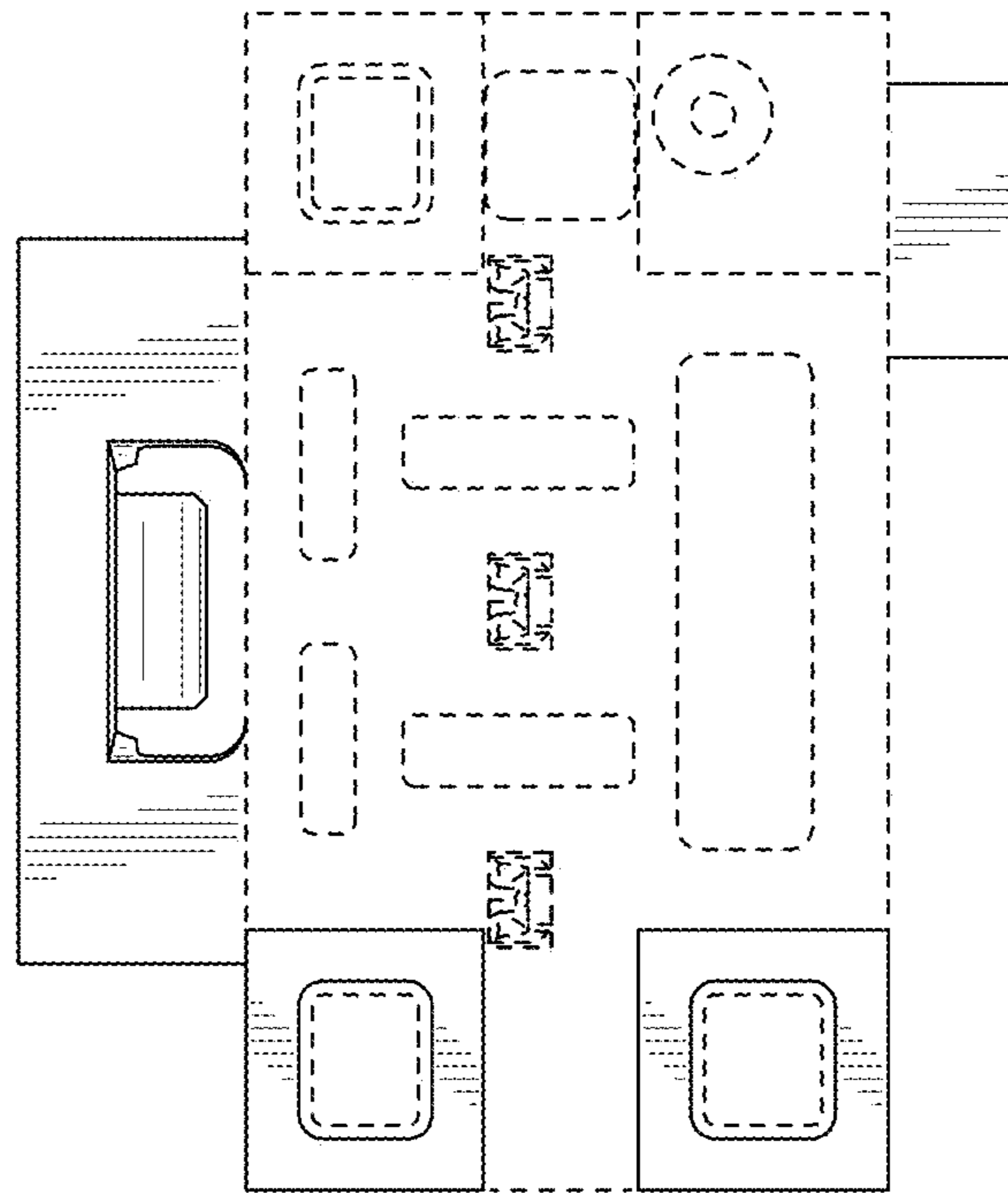


FIG. 22

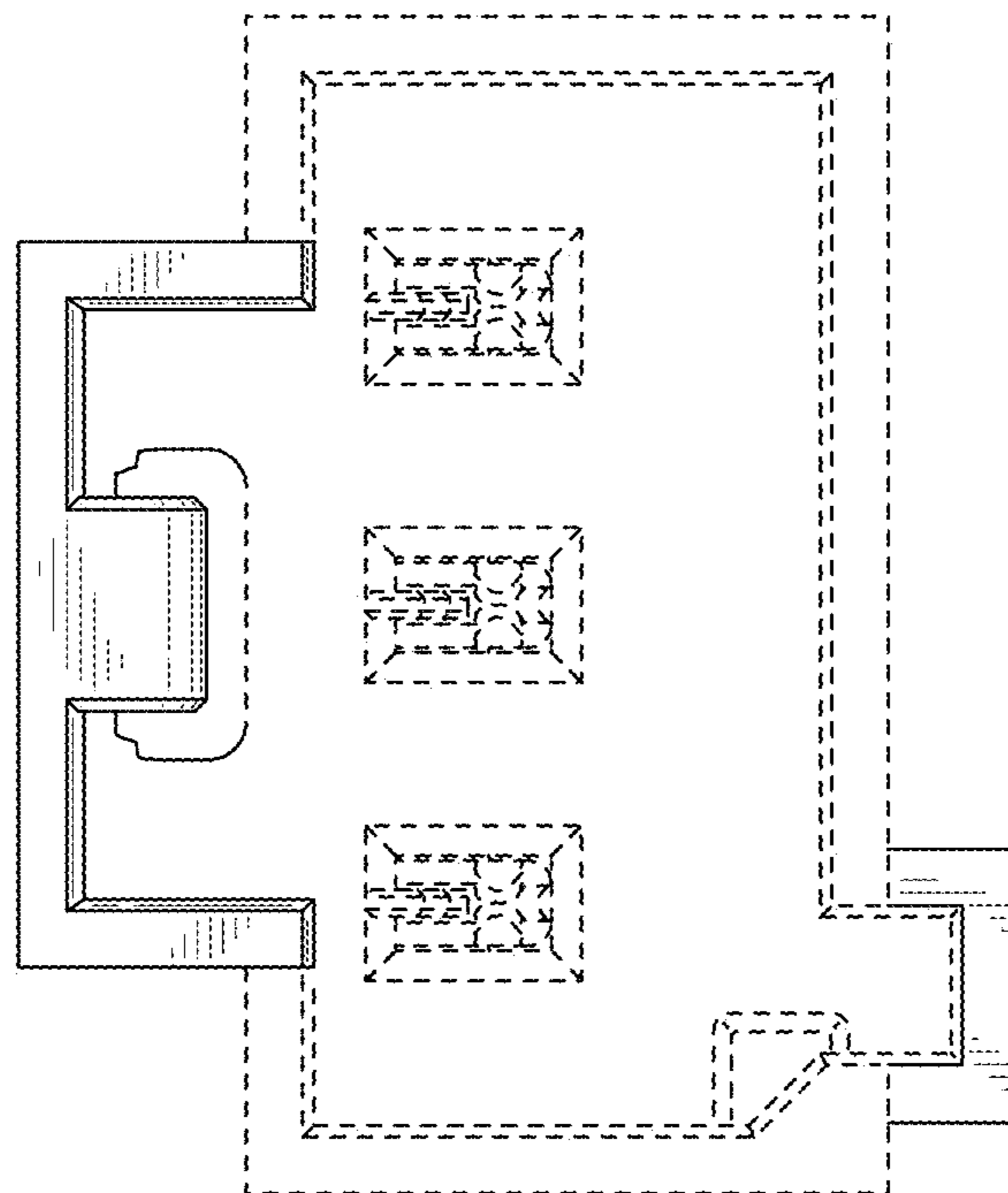


FIG. 21

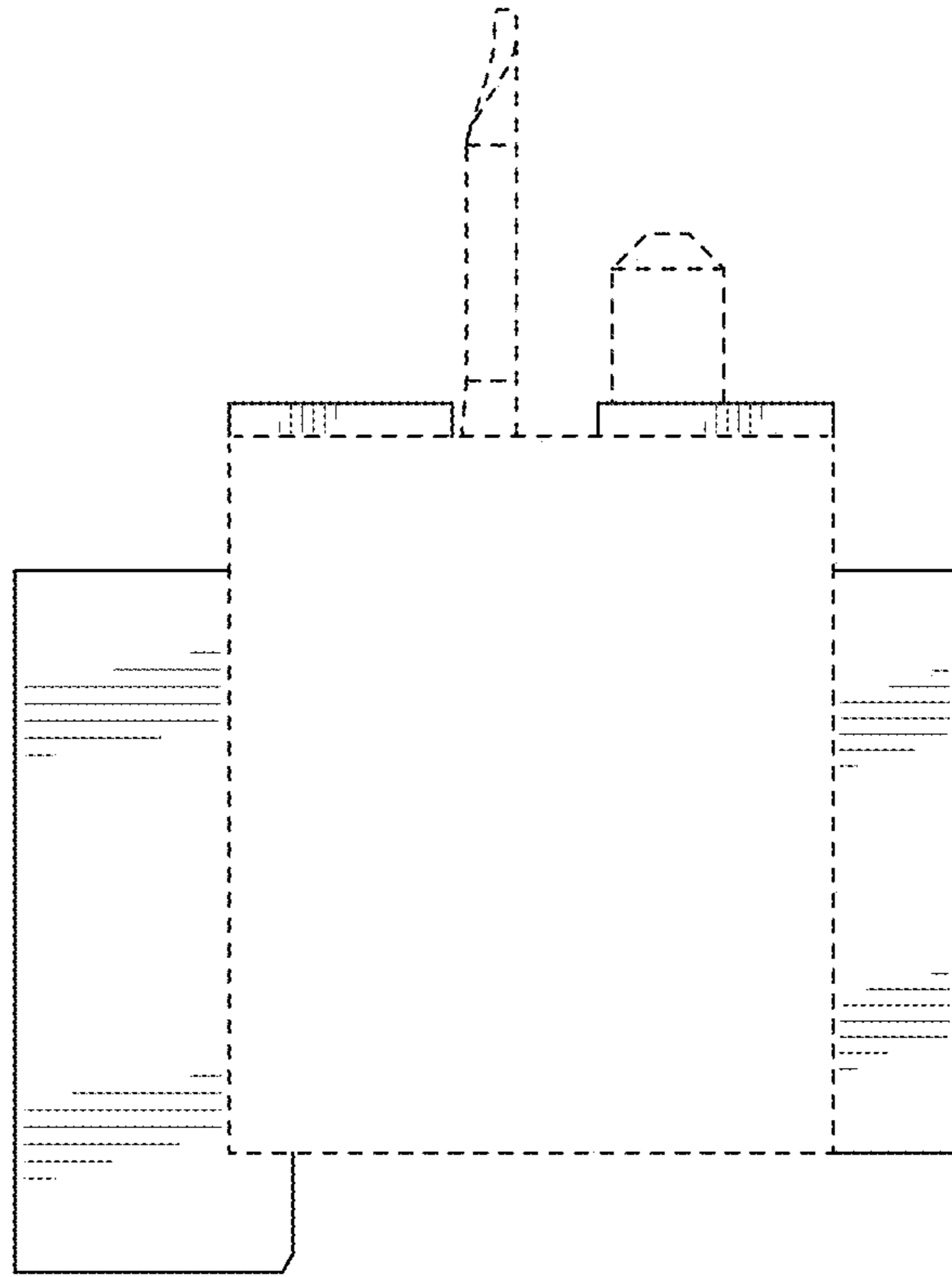


FIG. 24

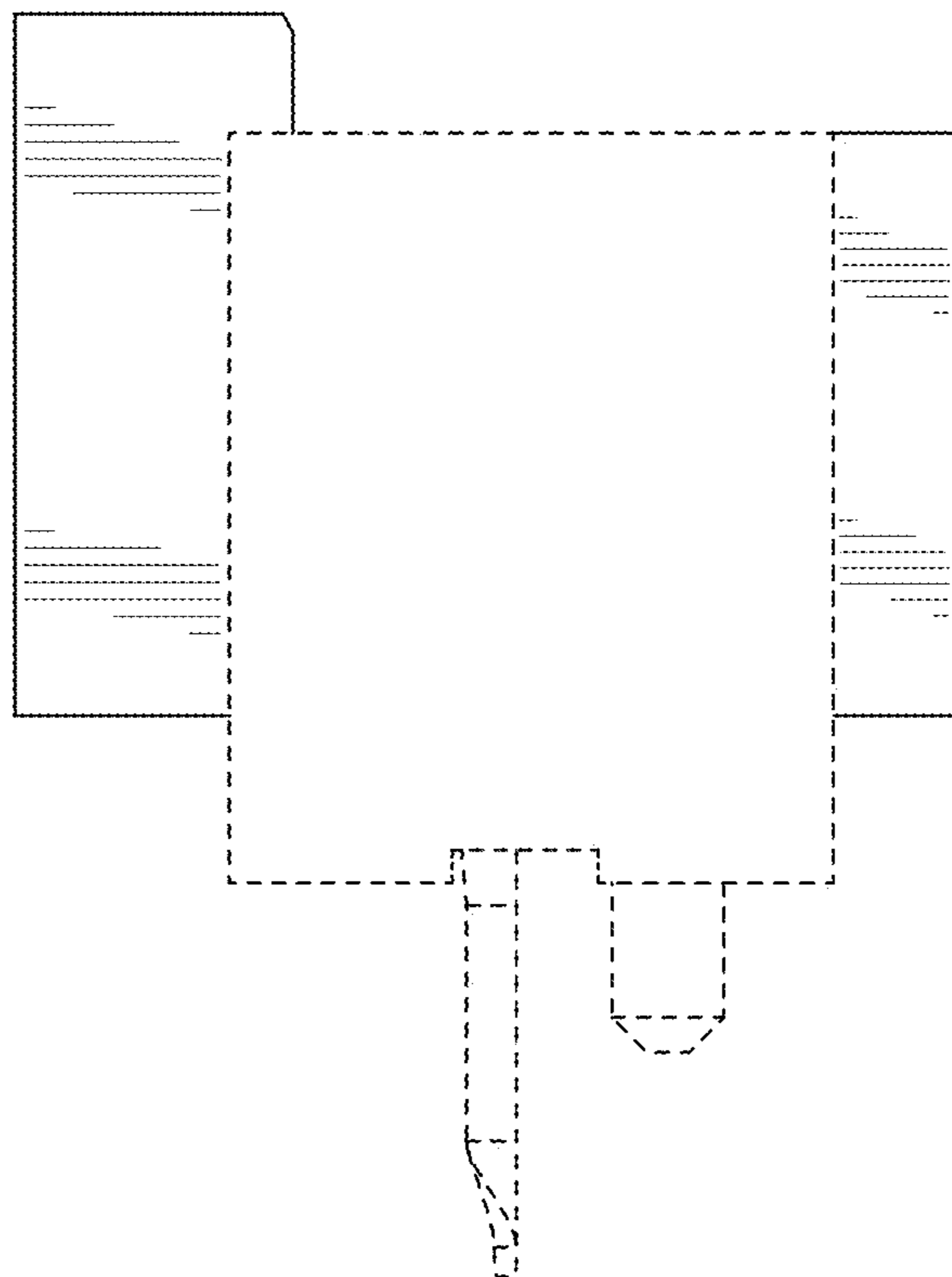


FIG. 23

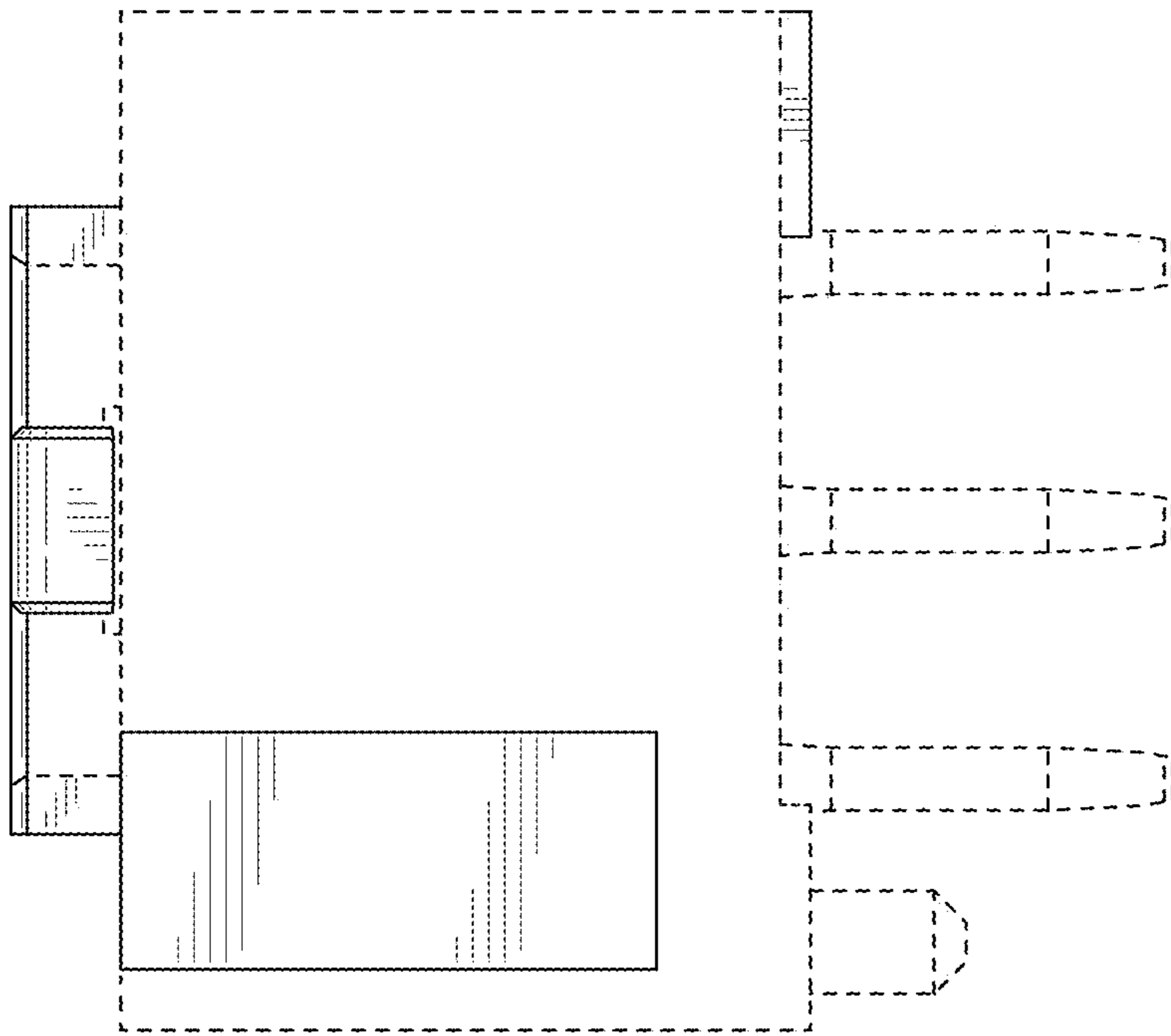


FIG. 25

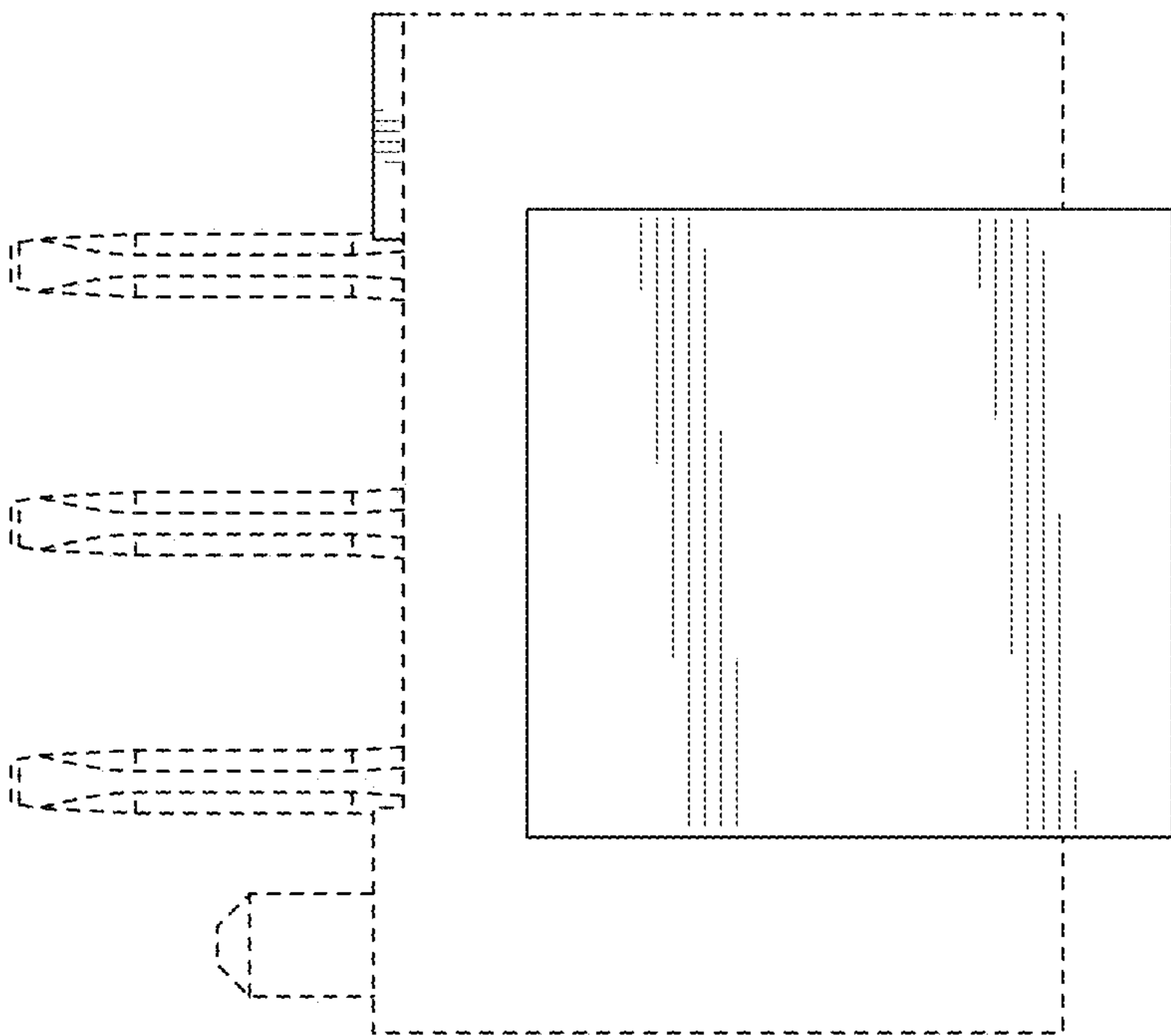


FIG. 26

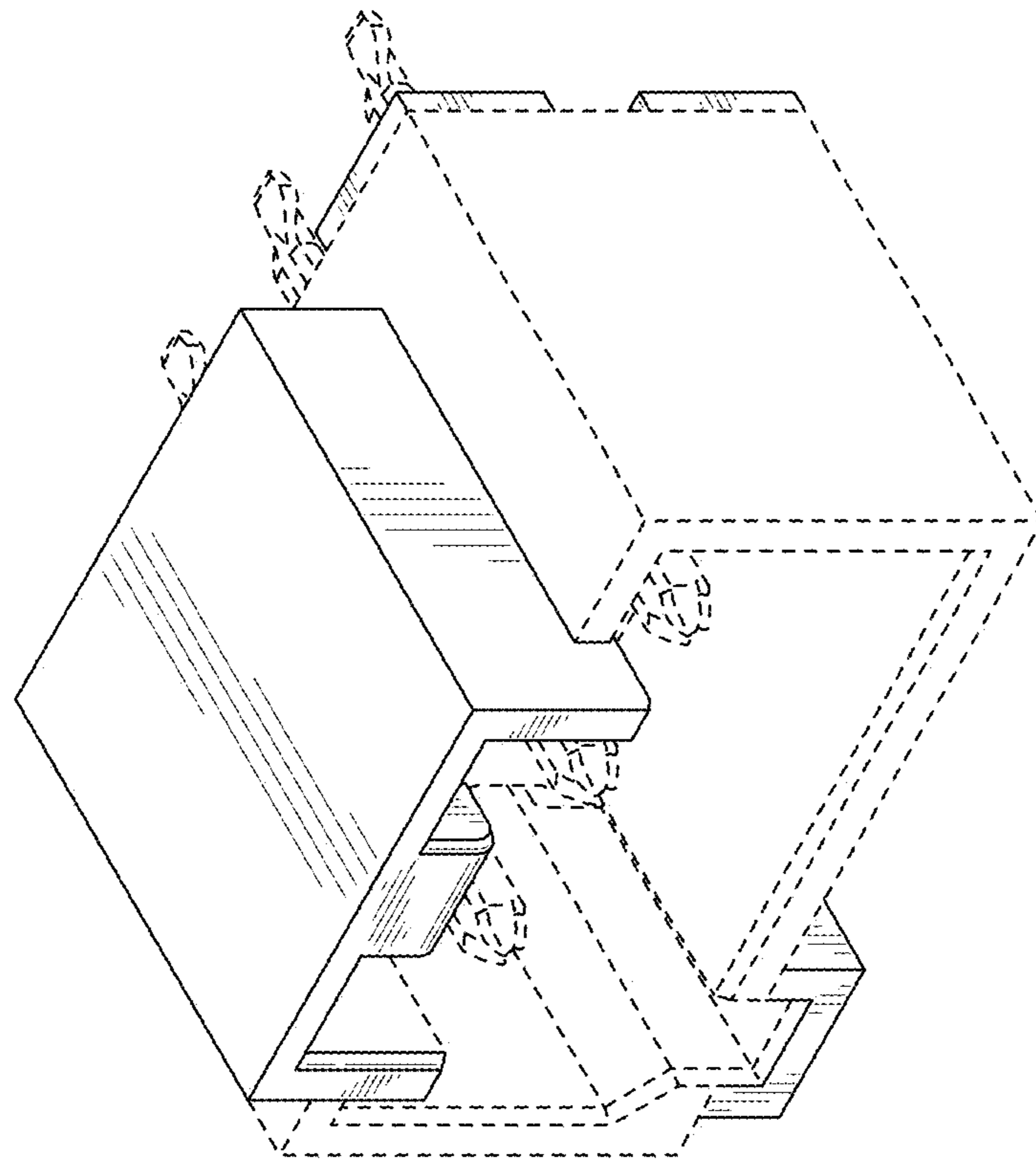


FIG. 27

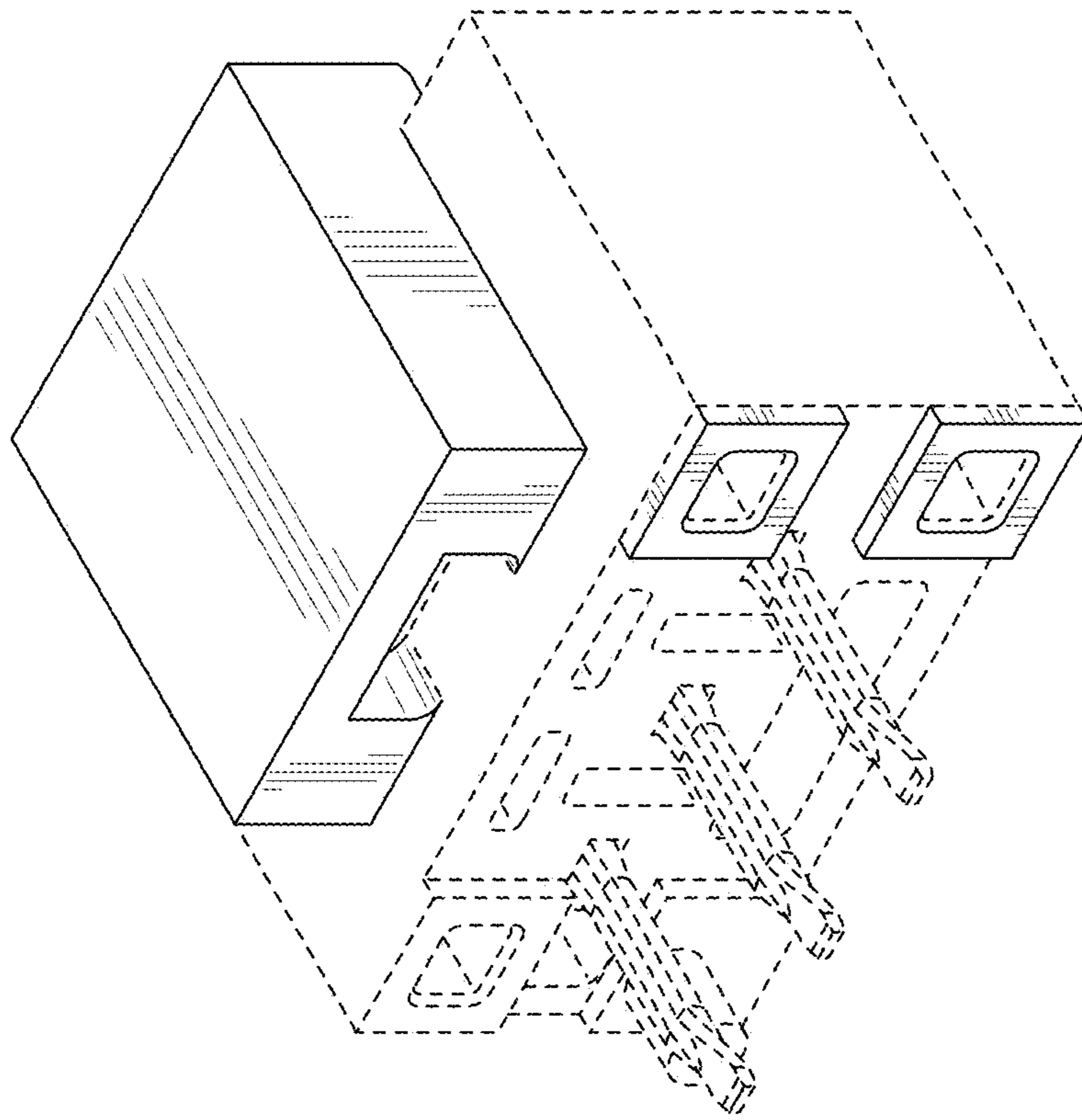


FIG. 29

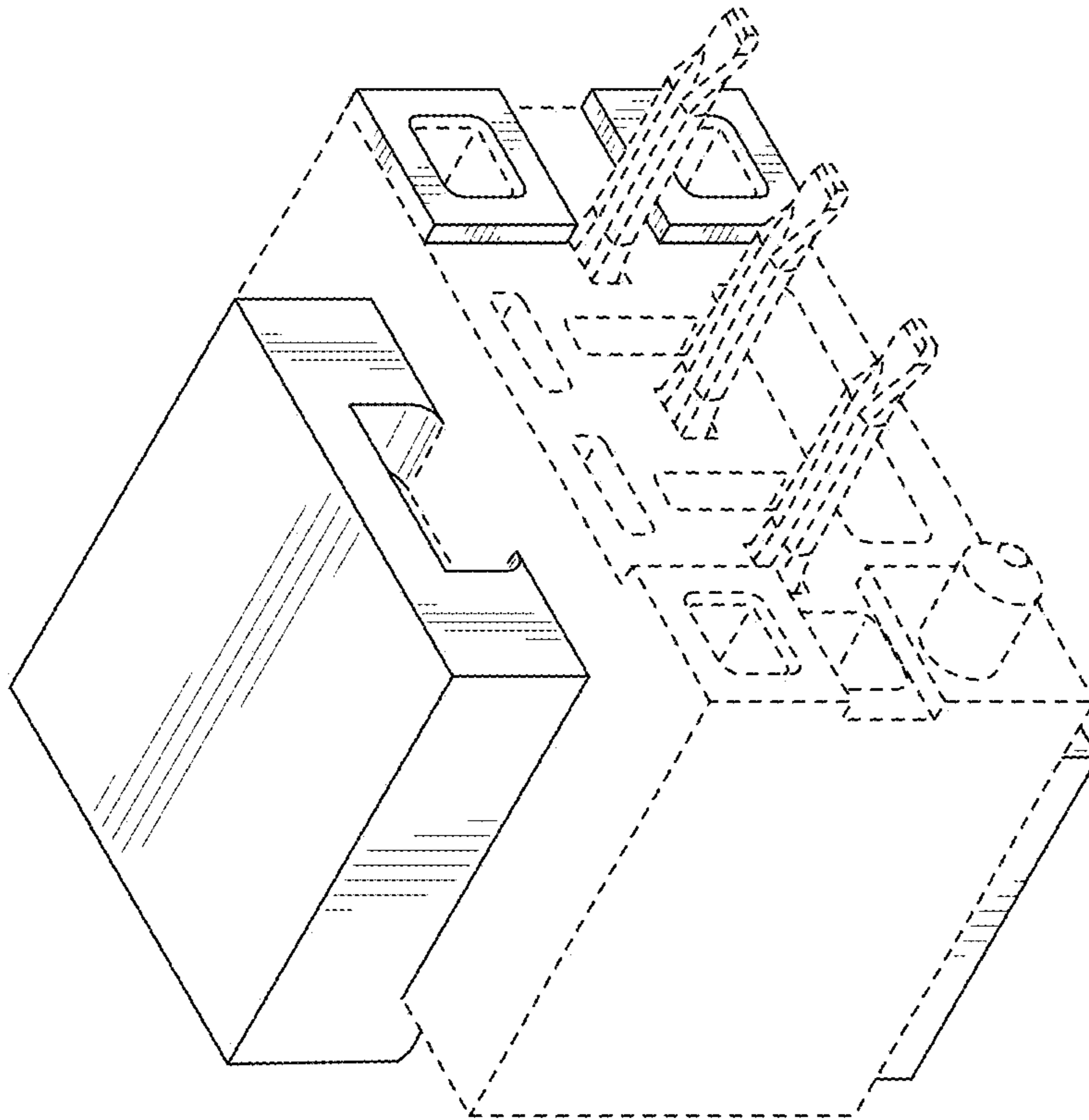


FIG. 28

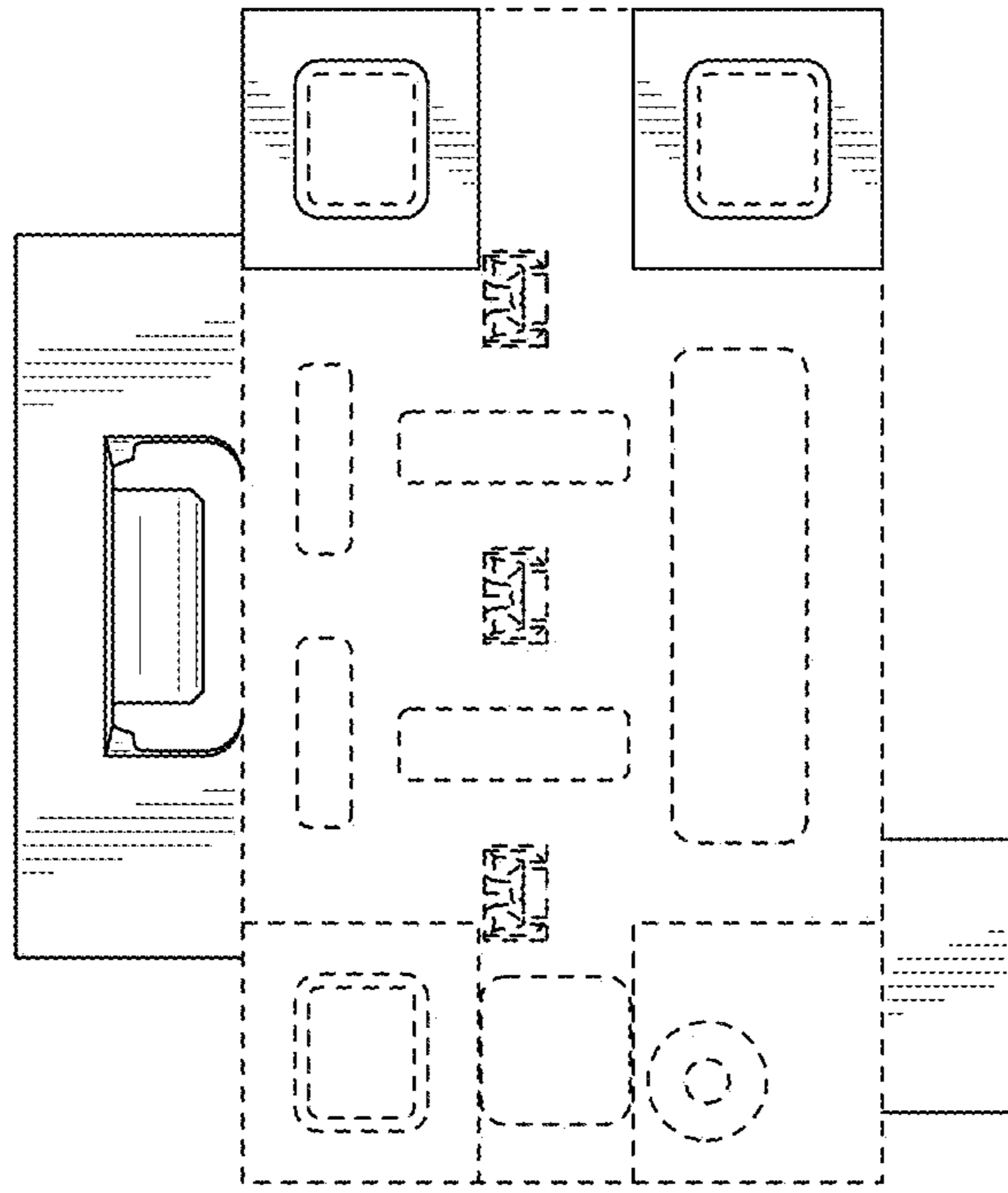


FIG. 31

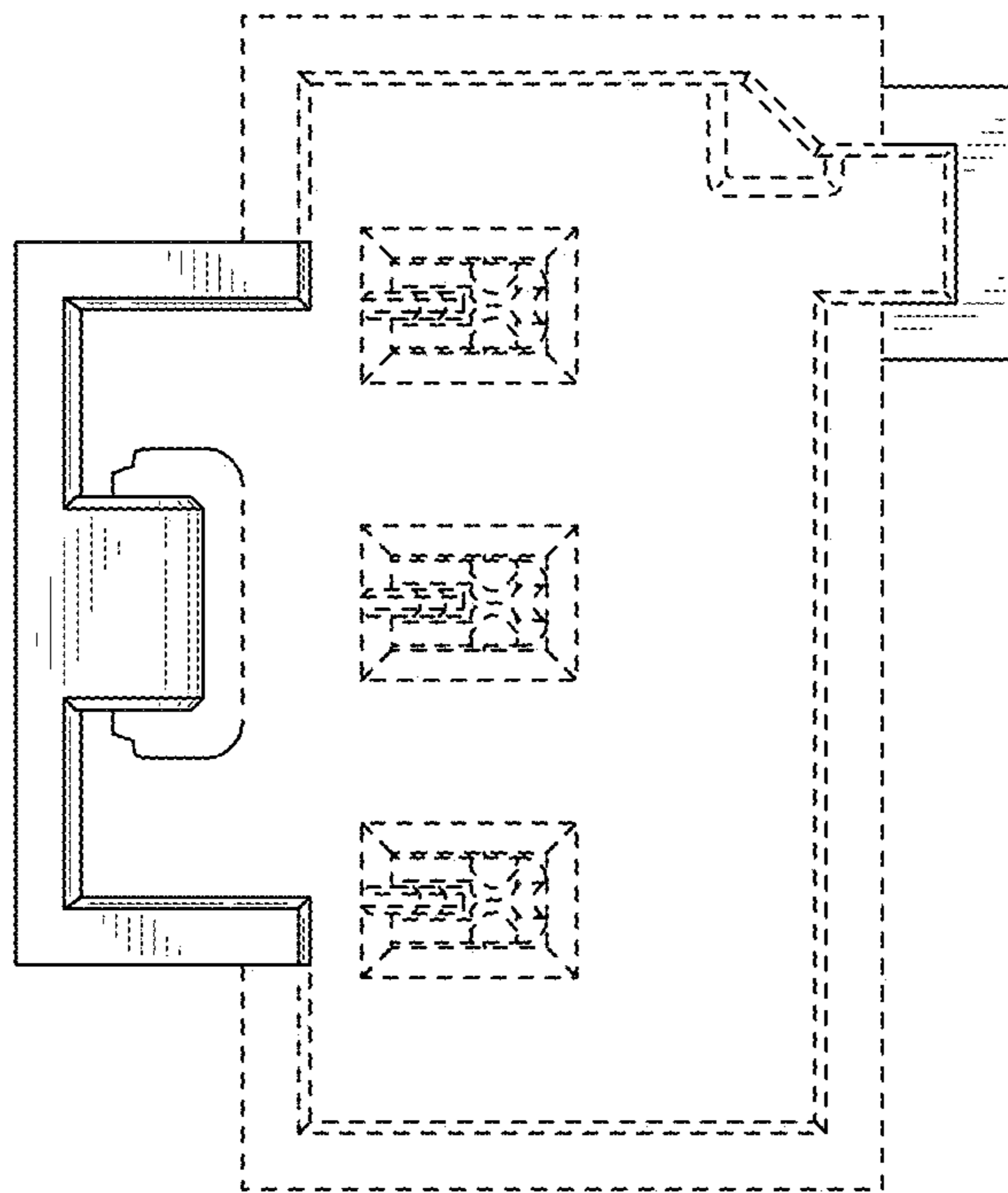


FIG. 30

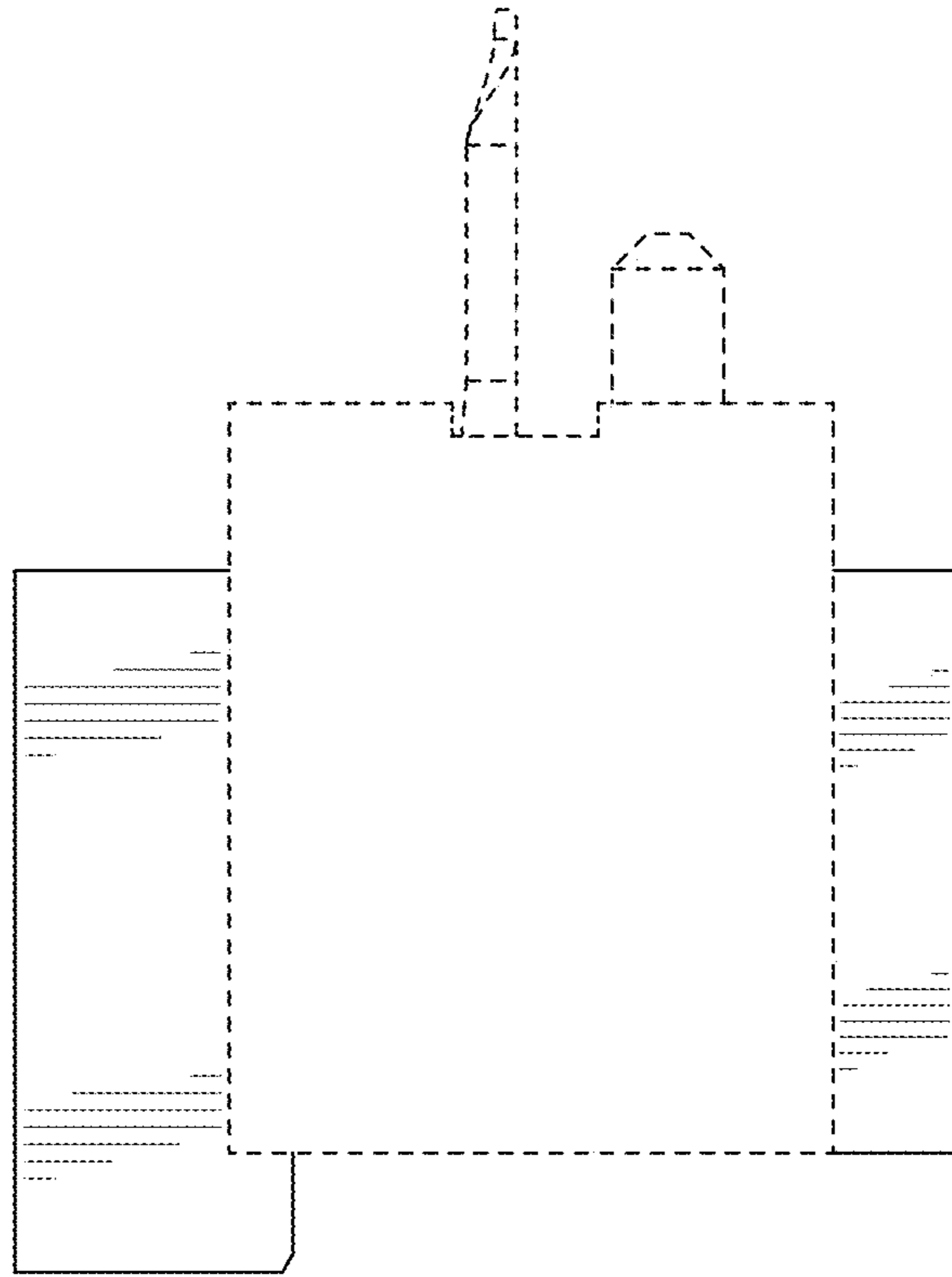


FIG. 32

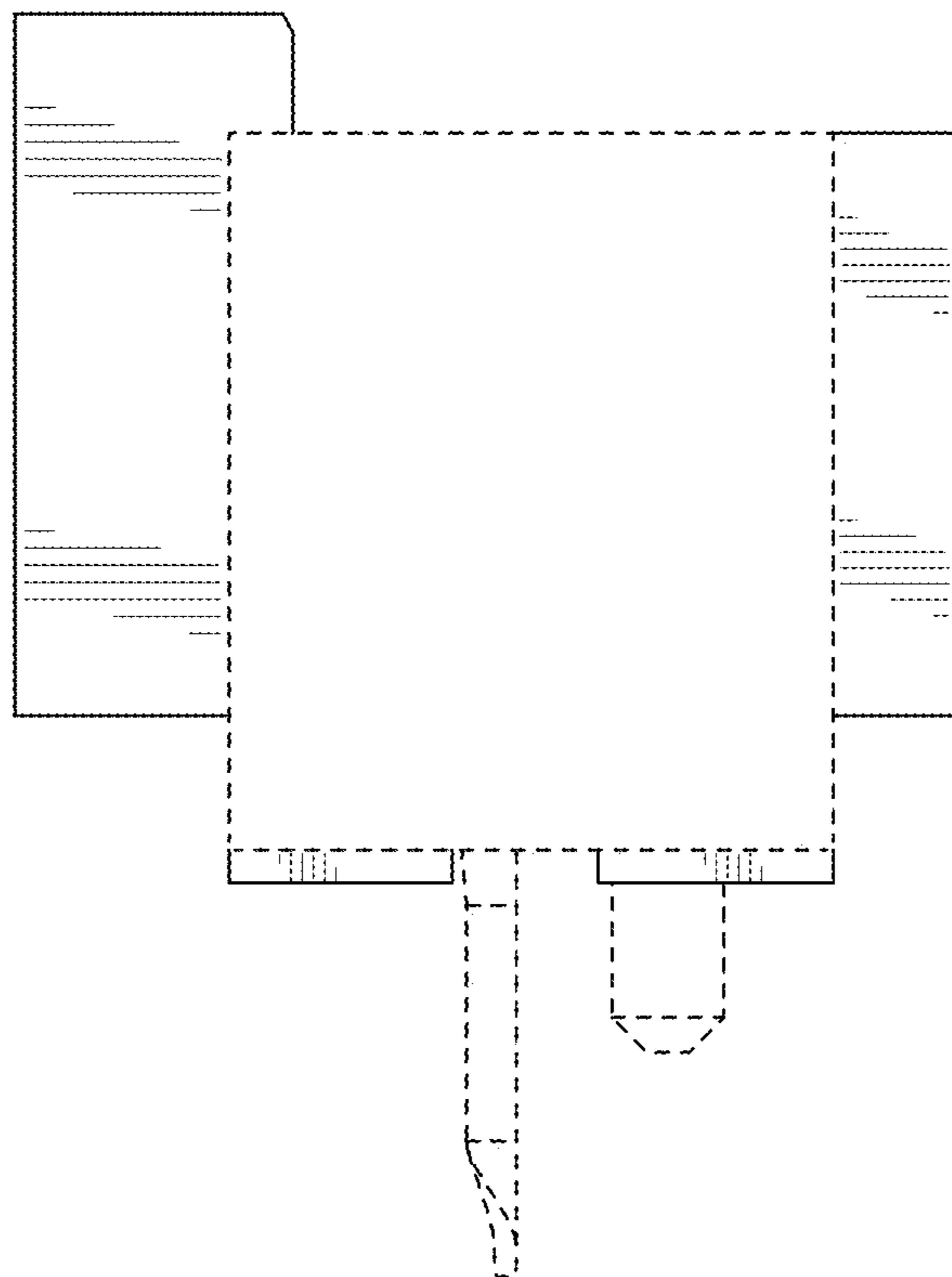


FIG. 33

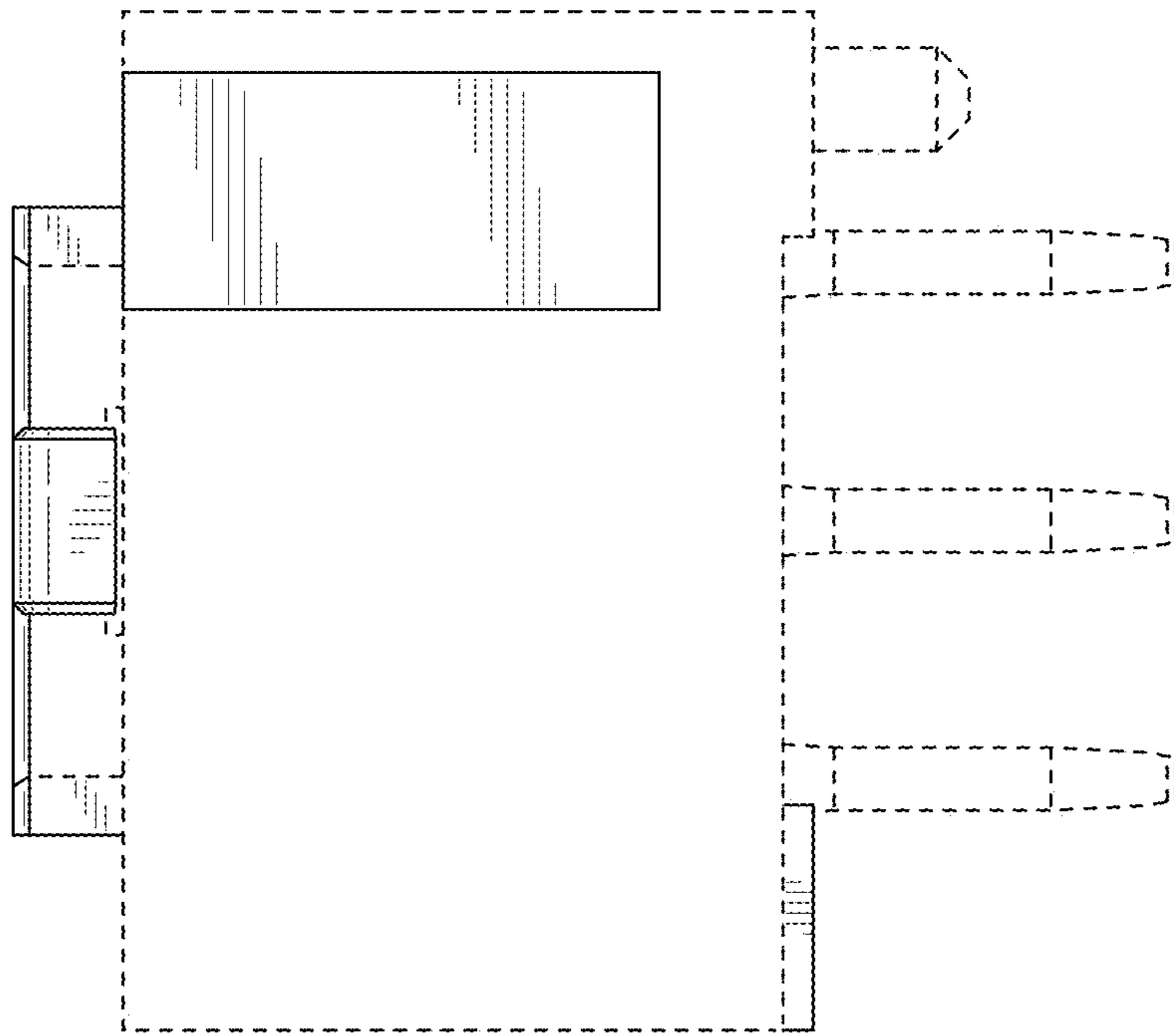


FIG. 35

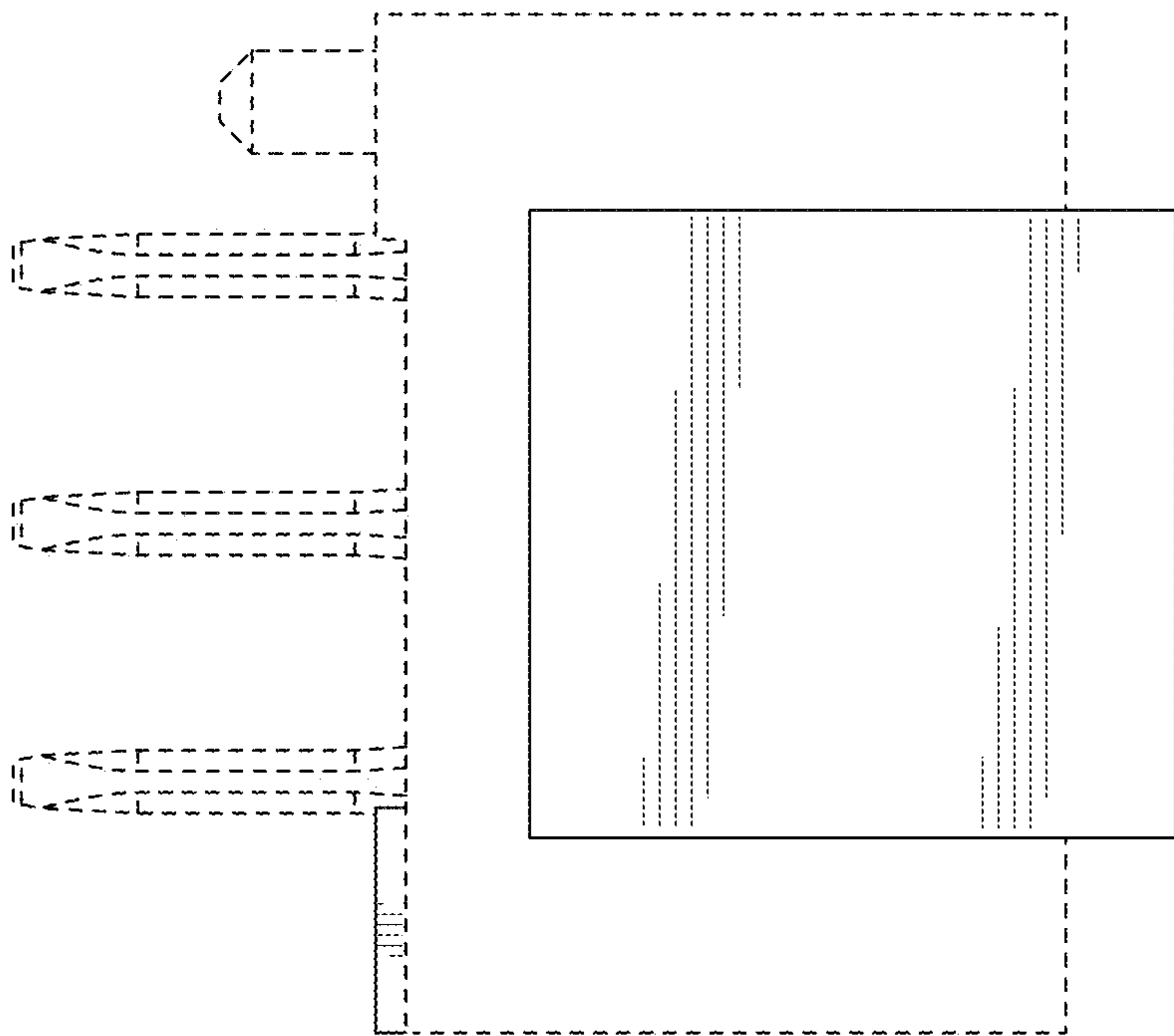


FIG. 34

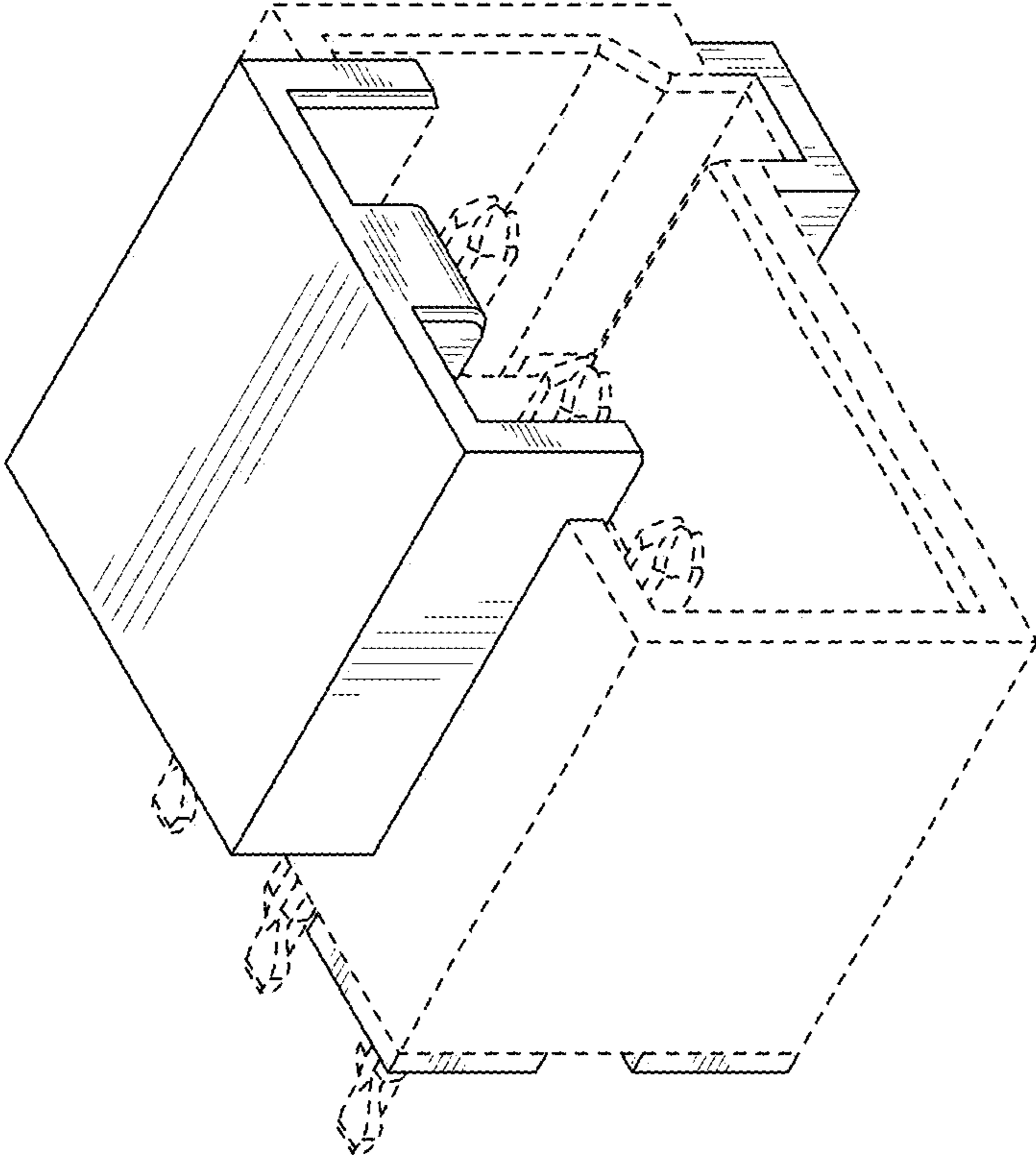


FIG. 36

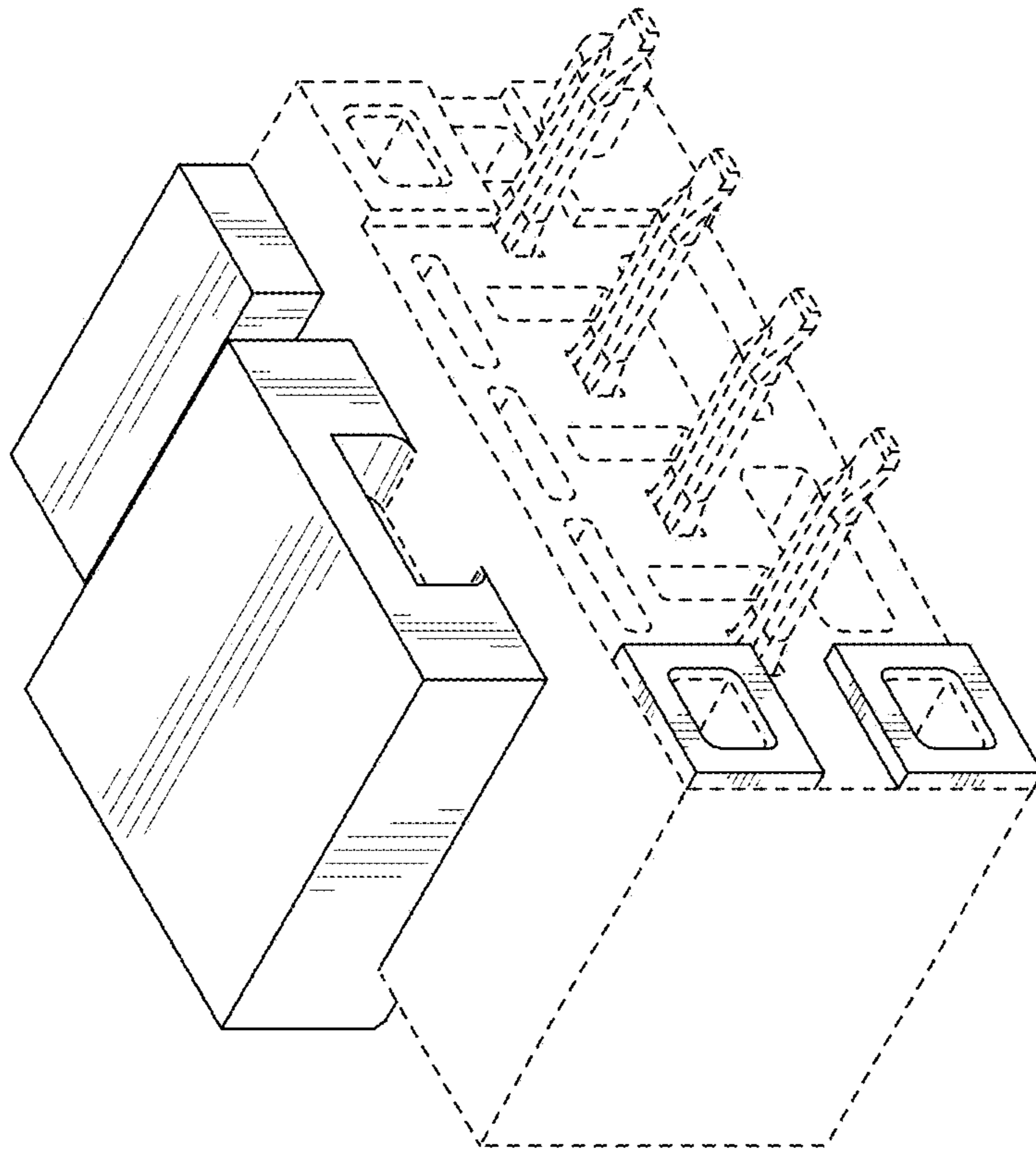


FIG. 38

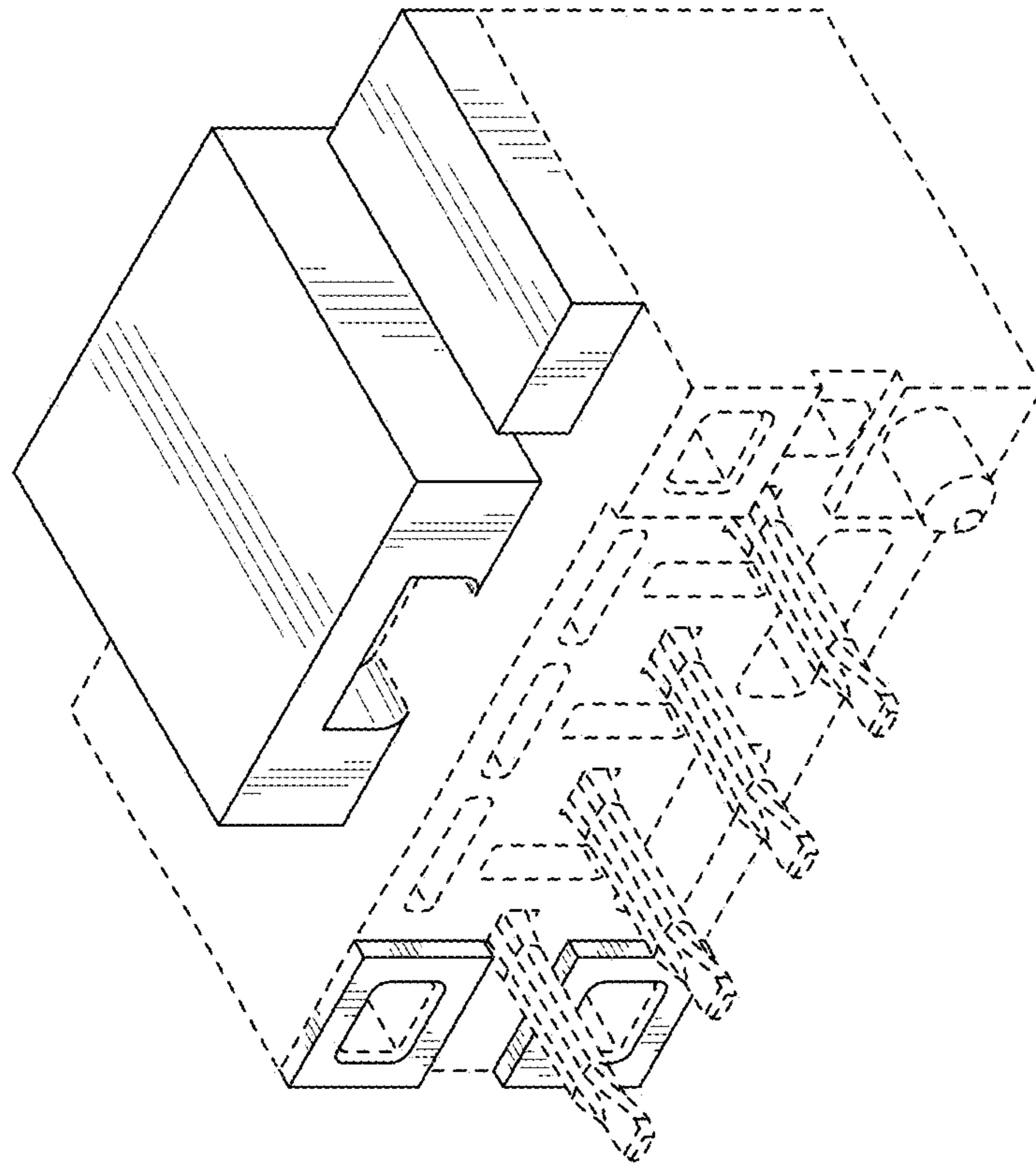


FIG. 37

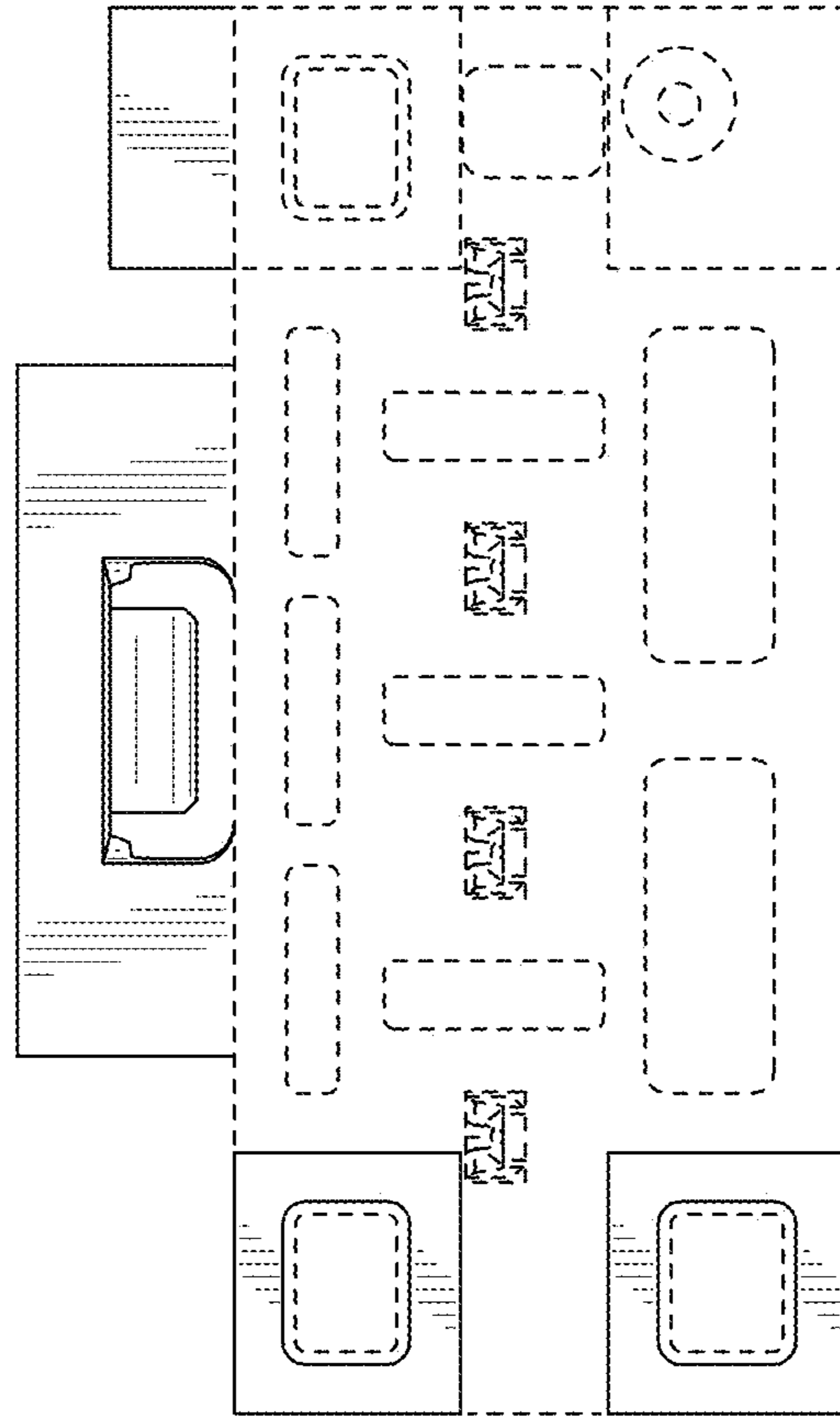


FIG. 39

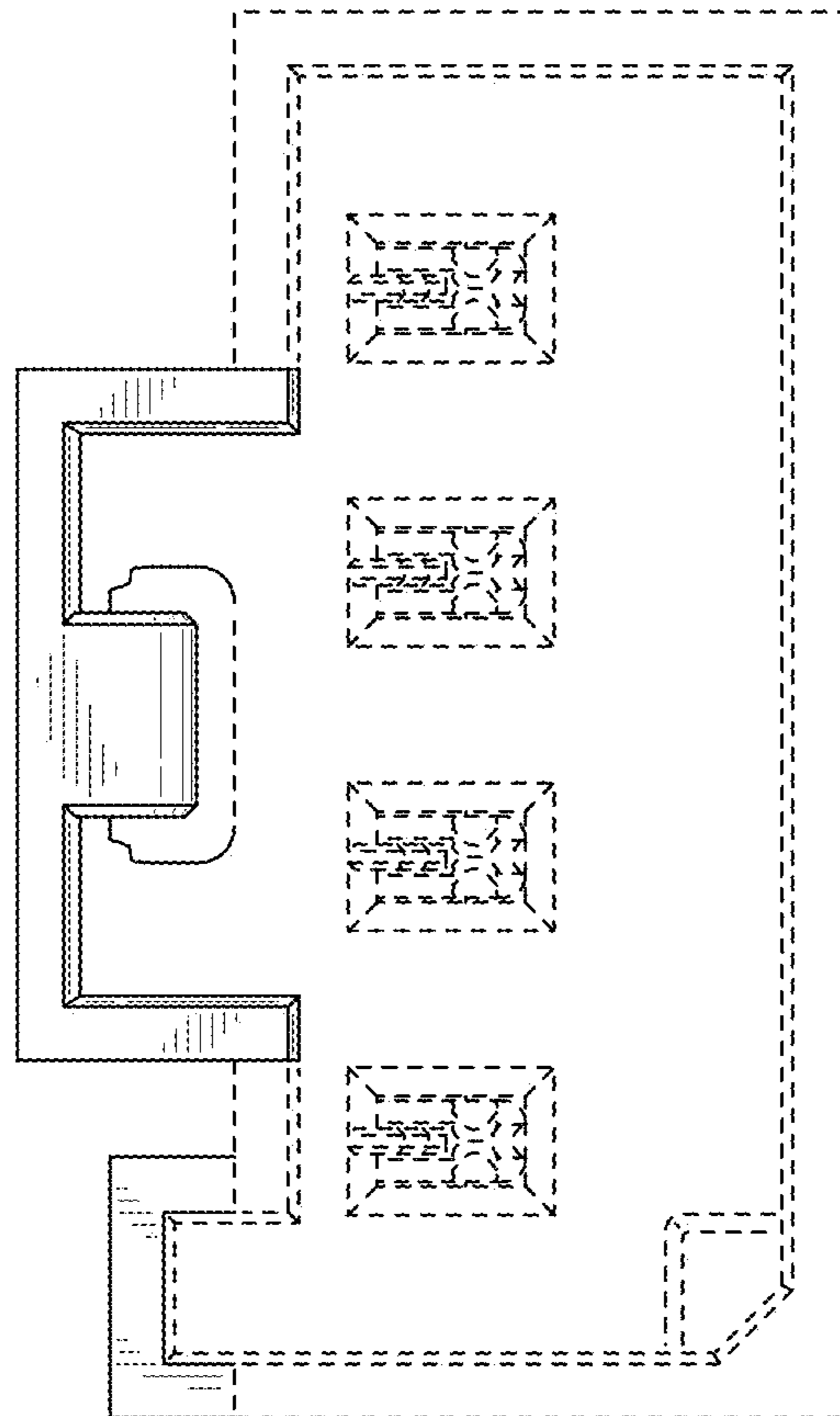


FIG. 40

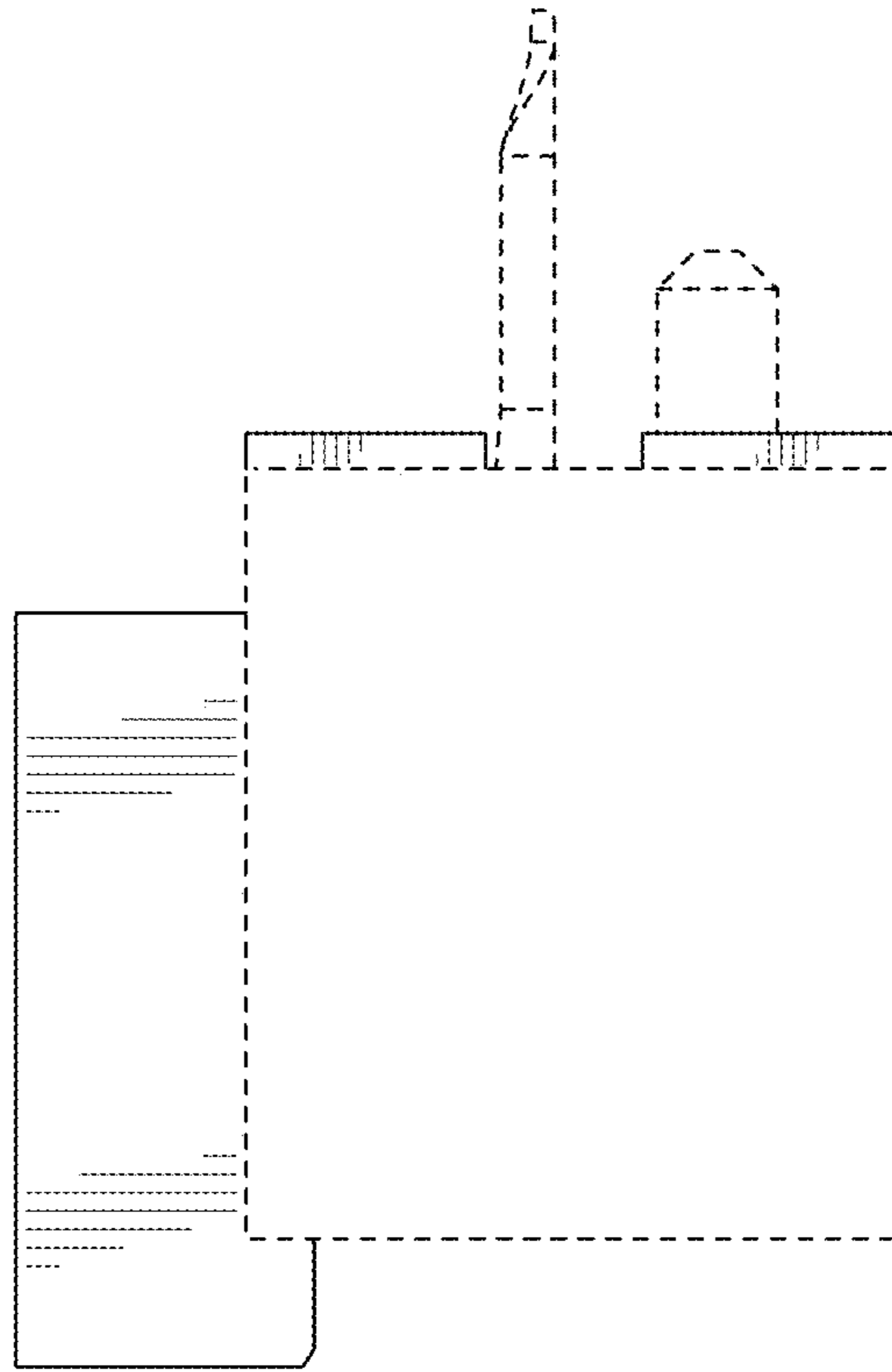


FIG. 42

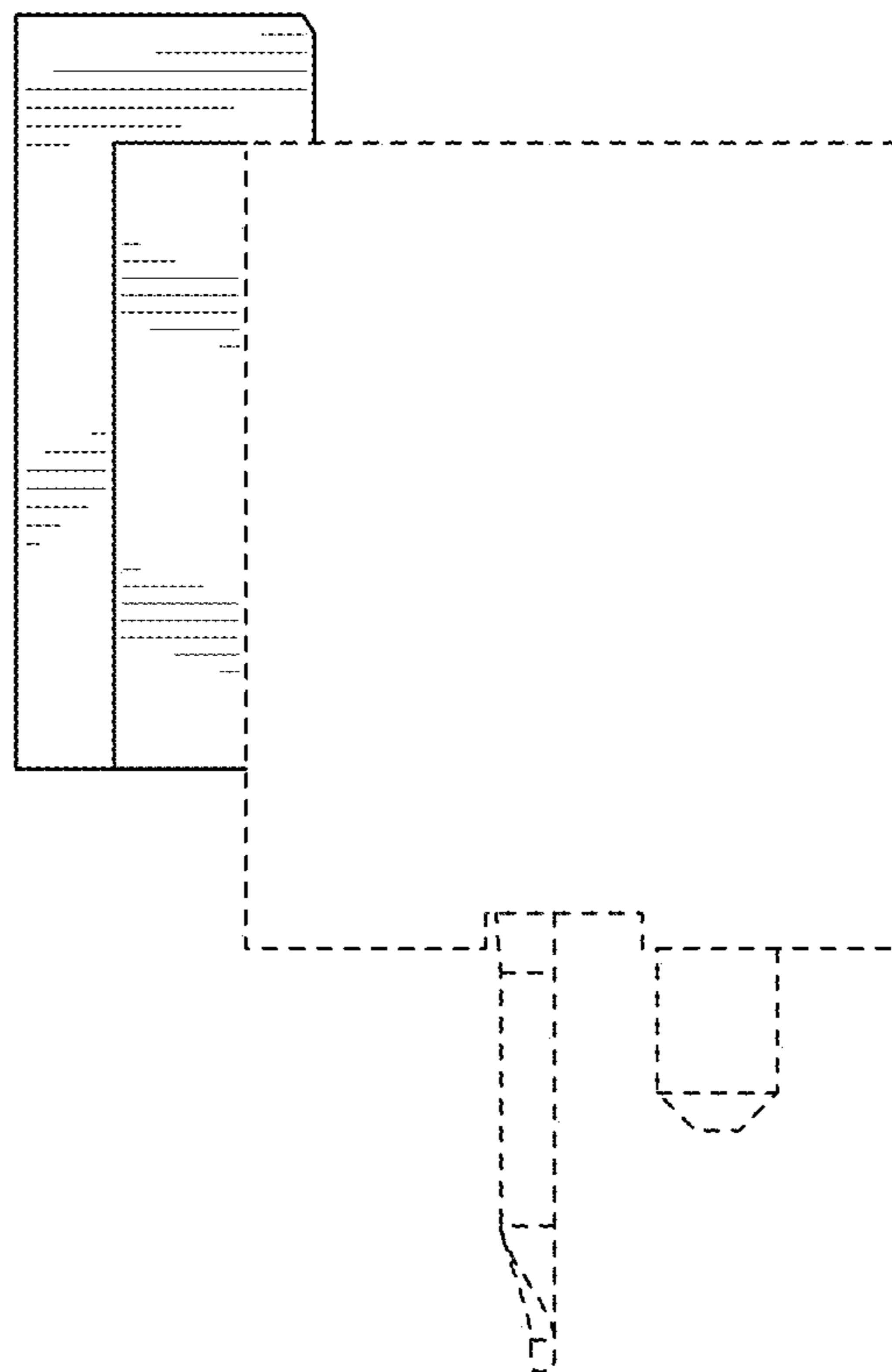


FIG. 41

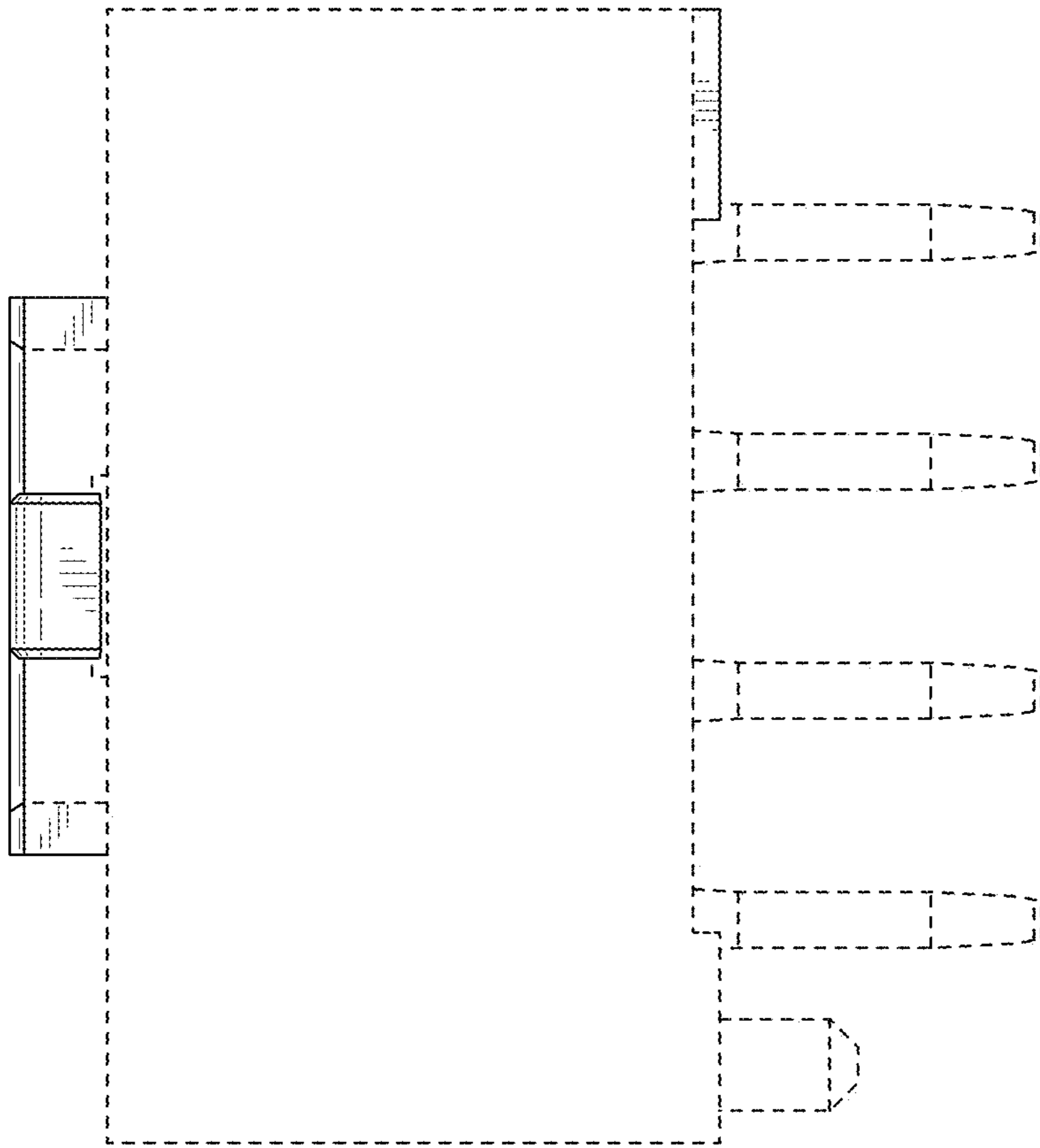


FIG. 44

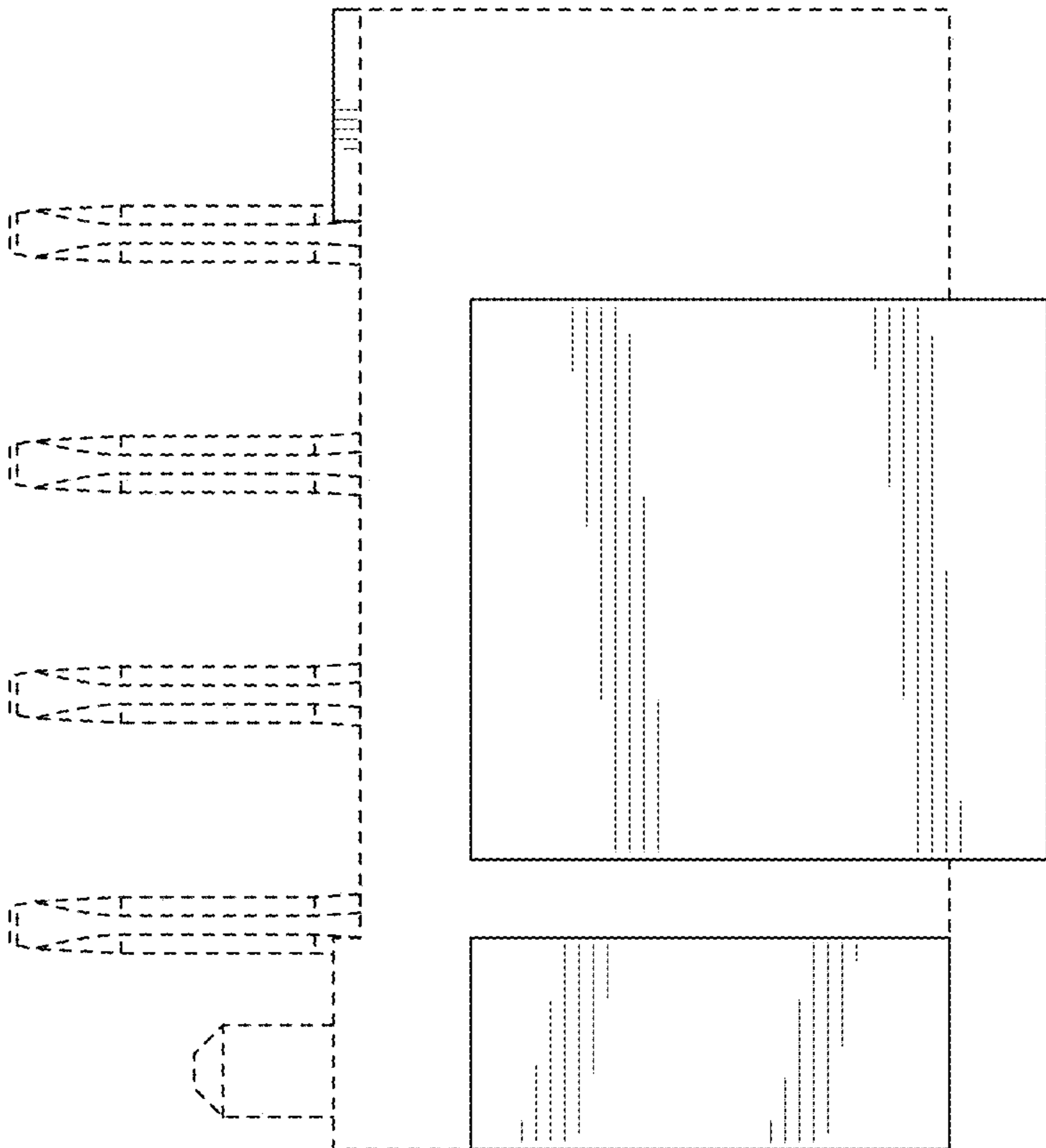


FIG. 43

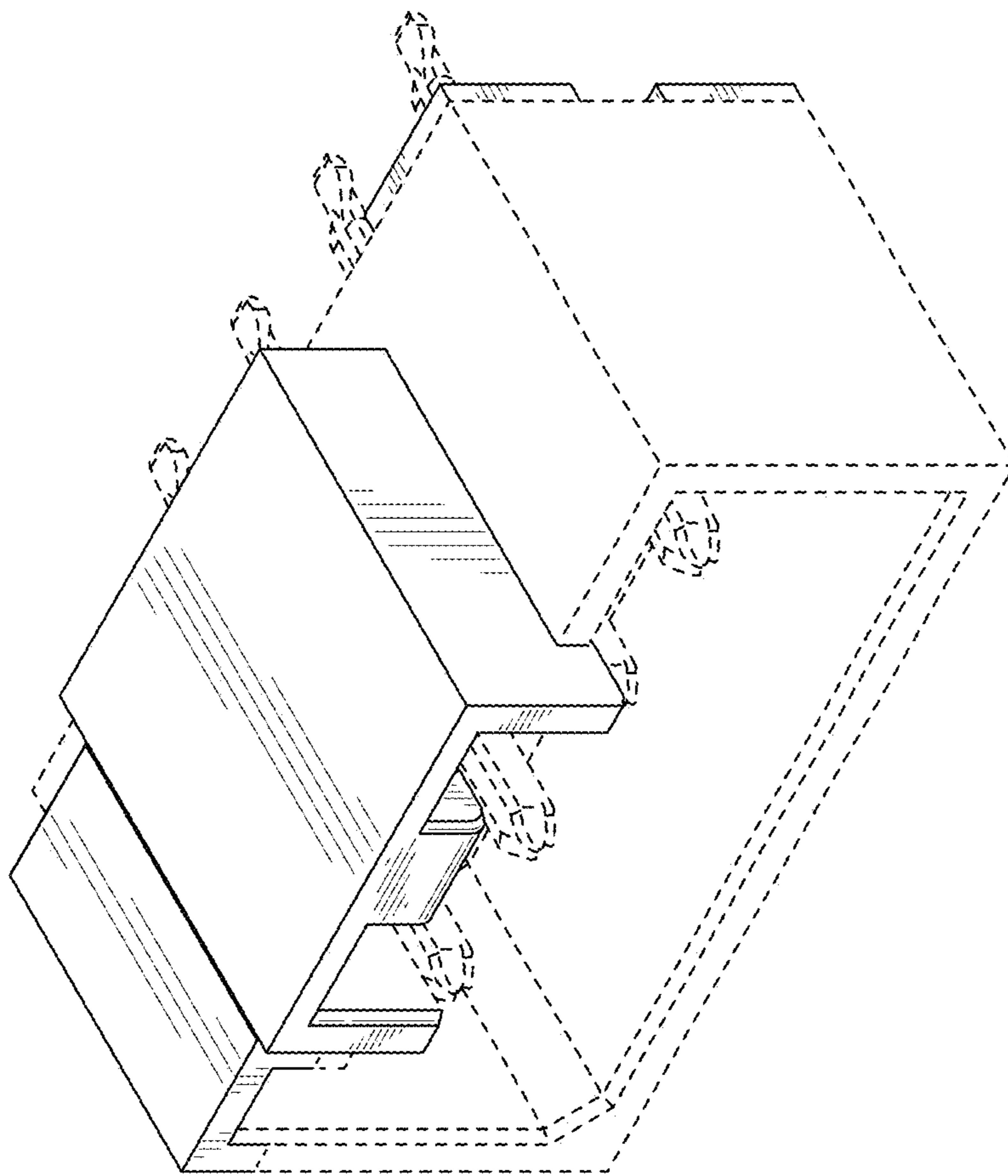


FIG. 45

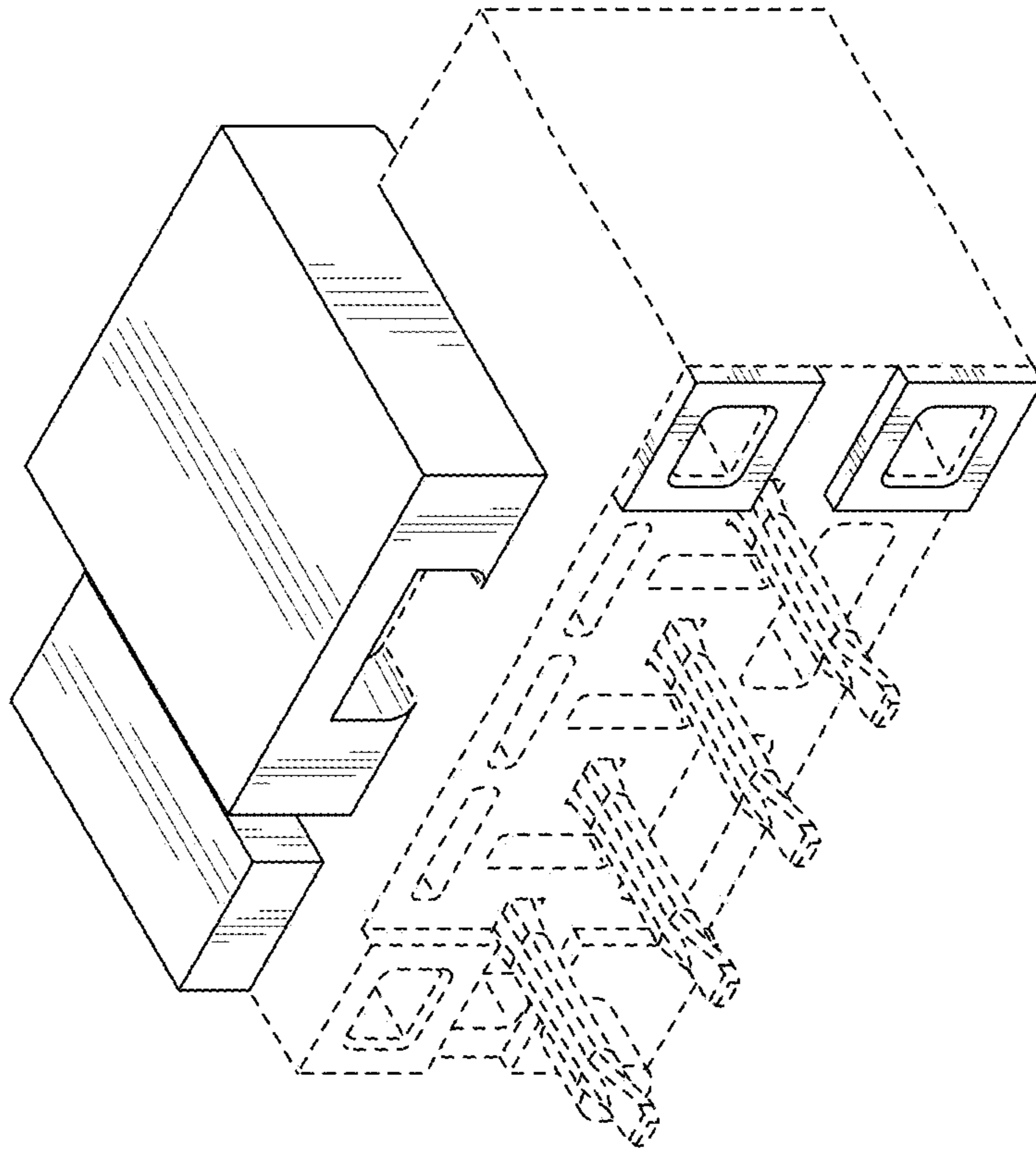


FIG. 47

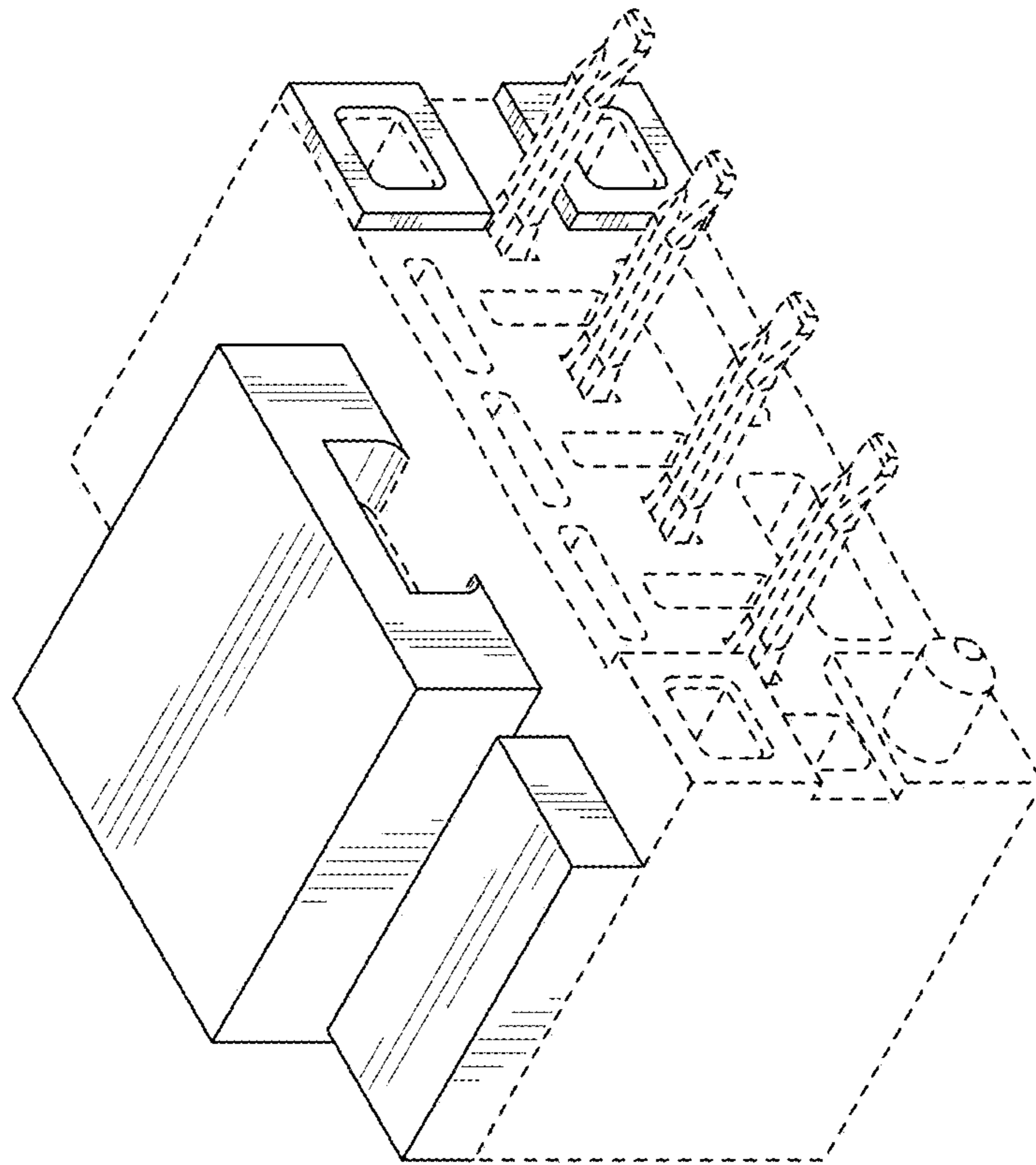


FIG. 46

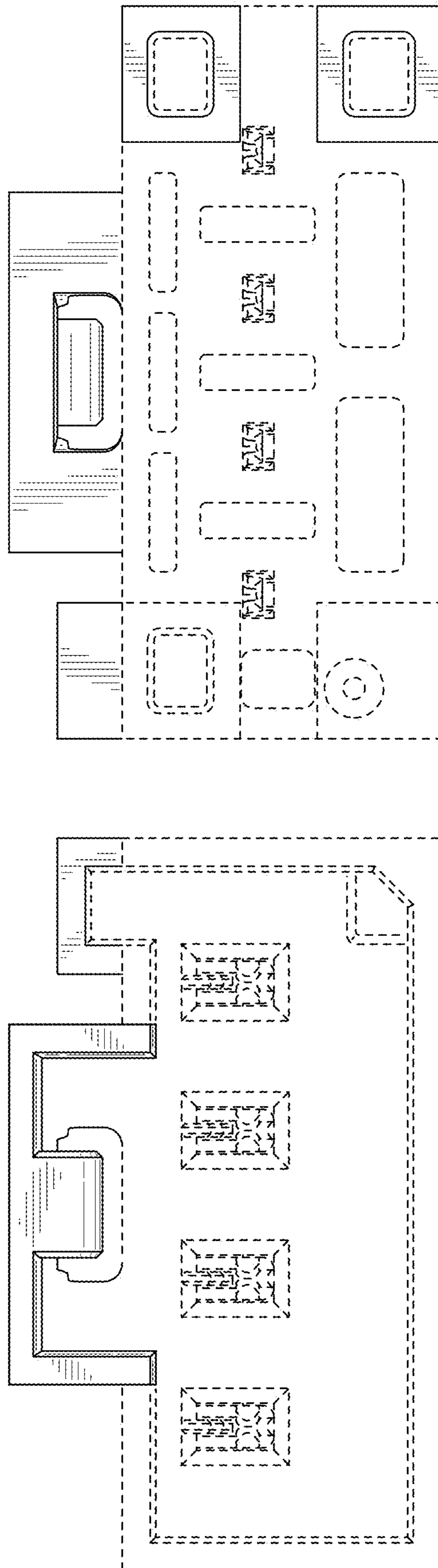


FIG. 49

FIG. 48

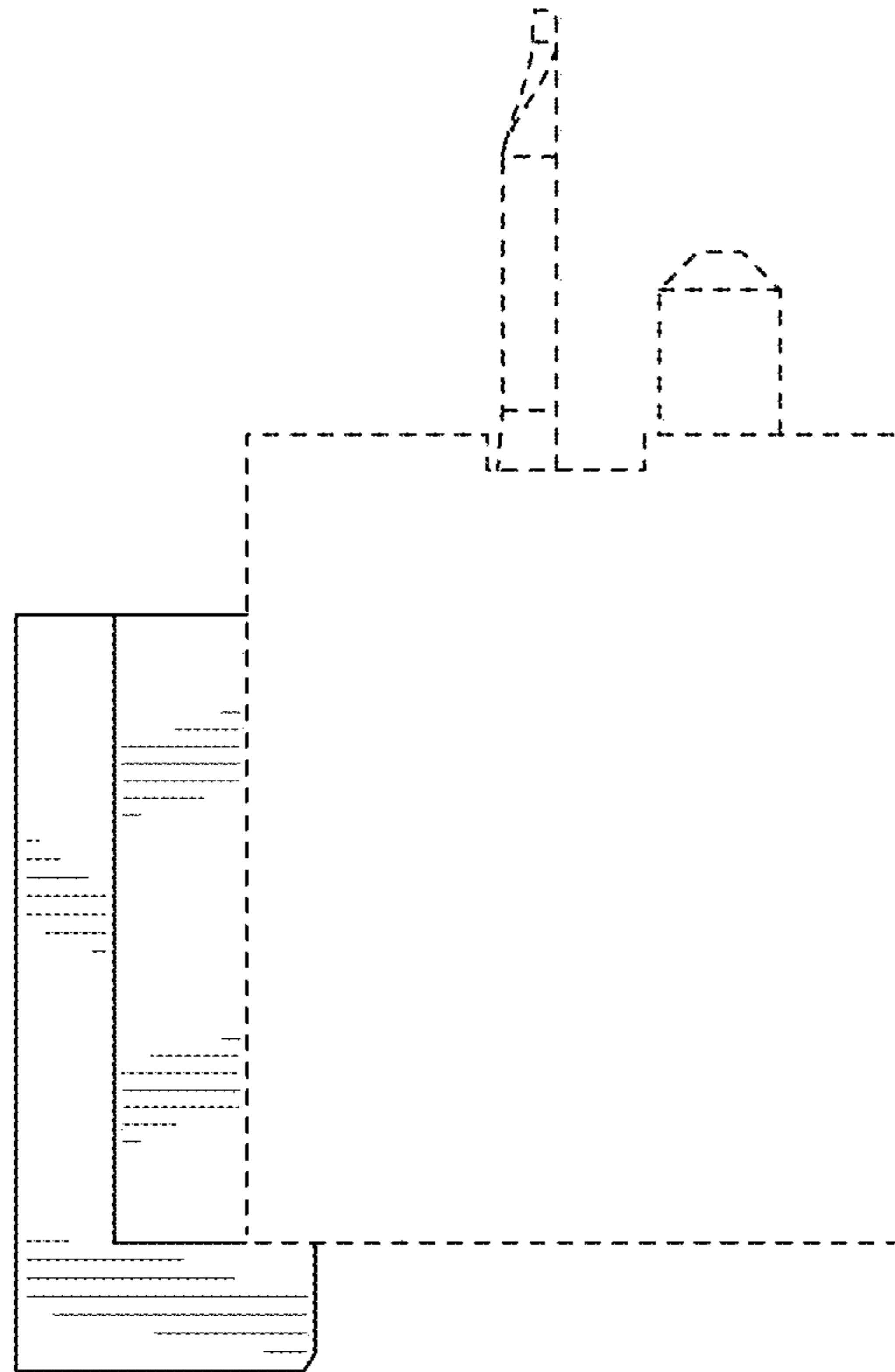


FIG. 51

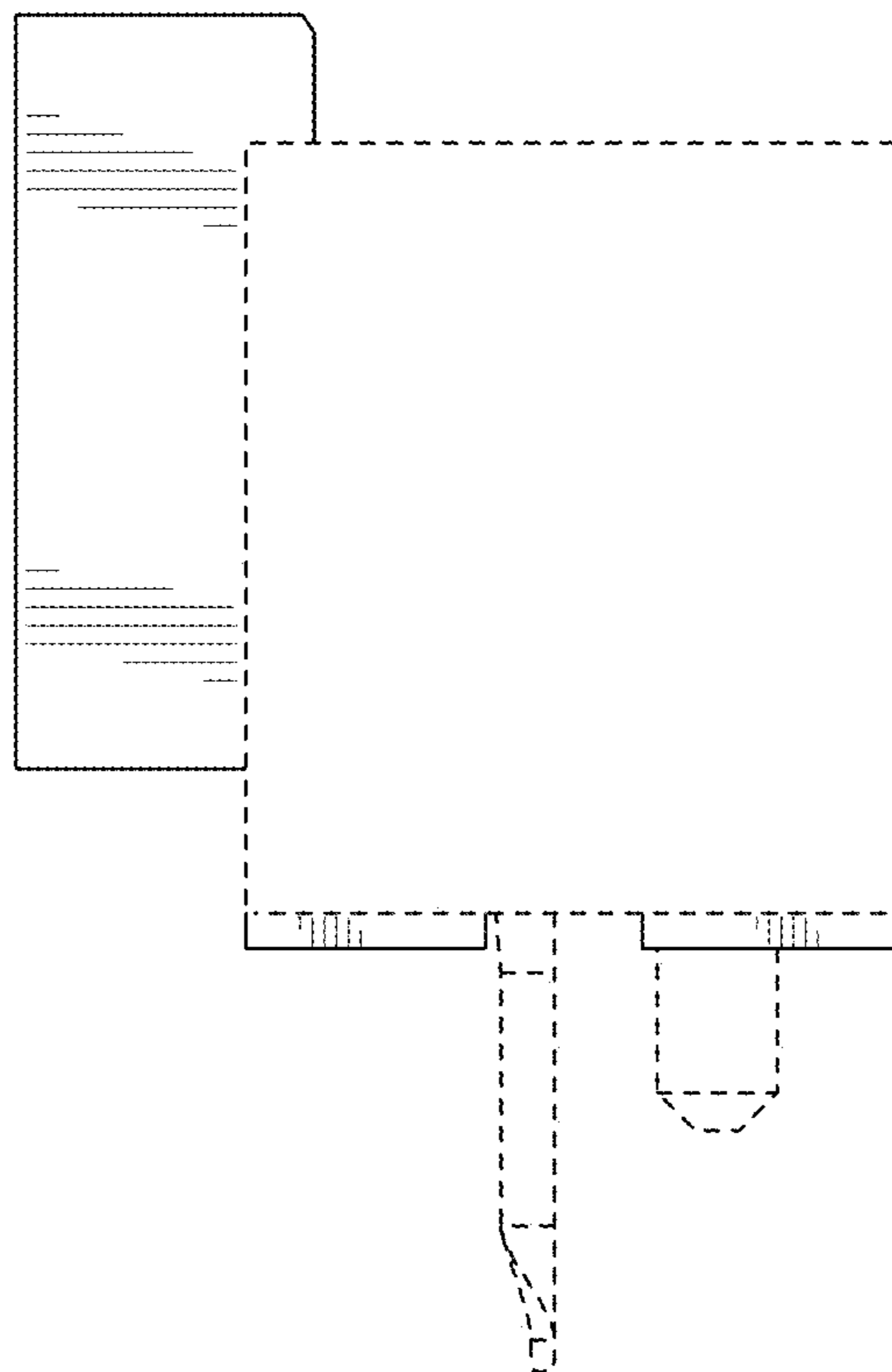


FIG. 50

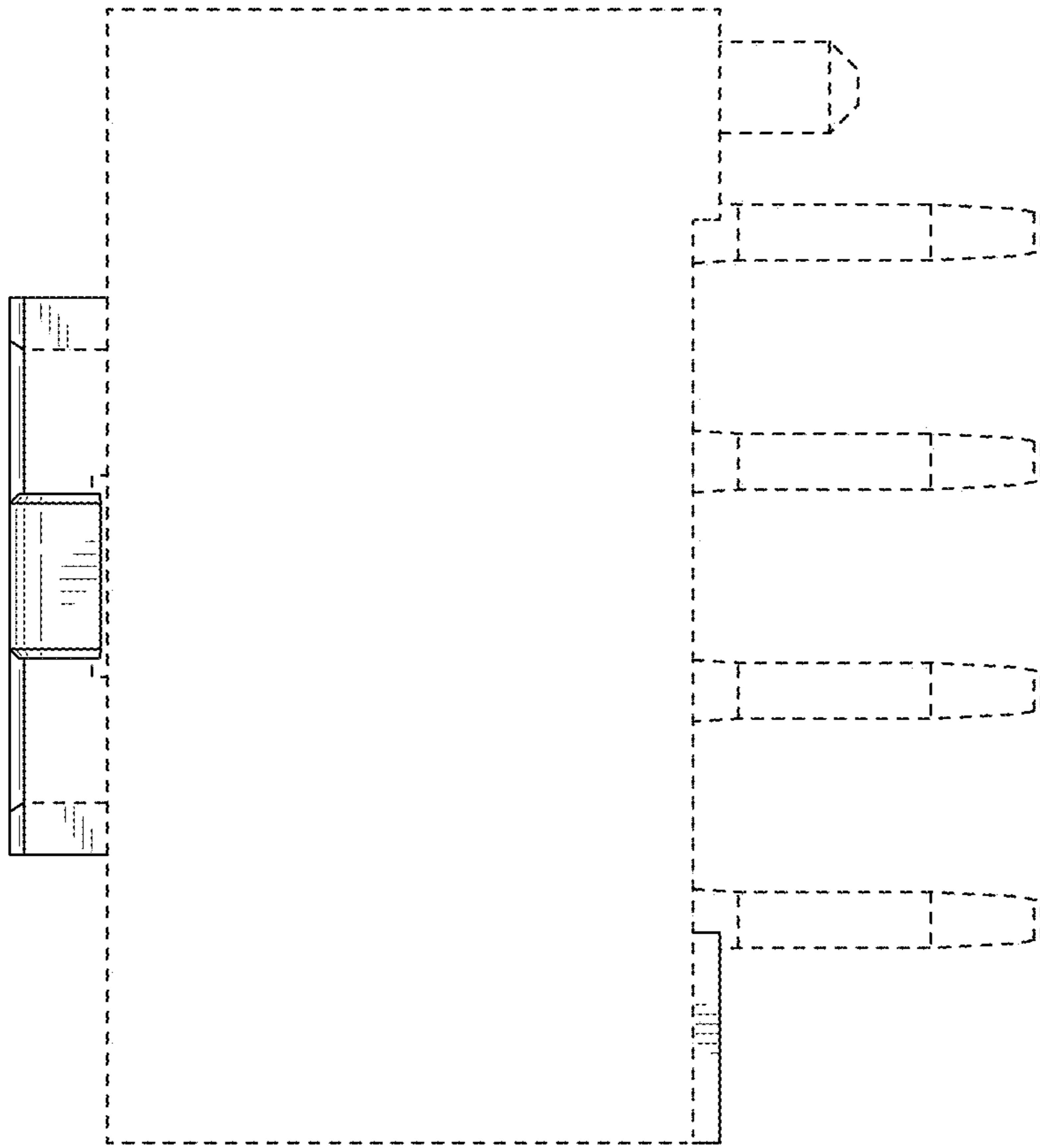


FIG. 52

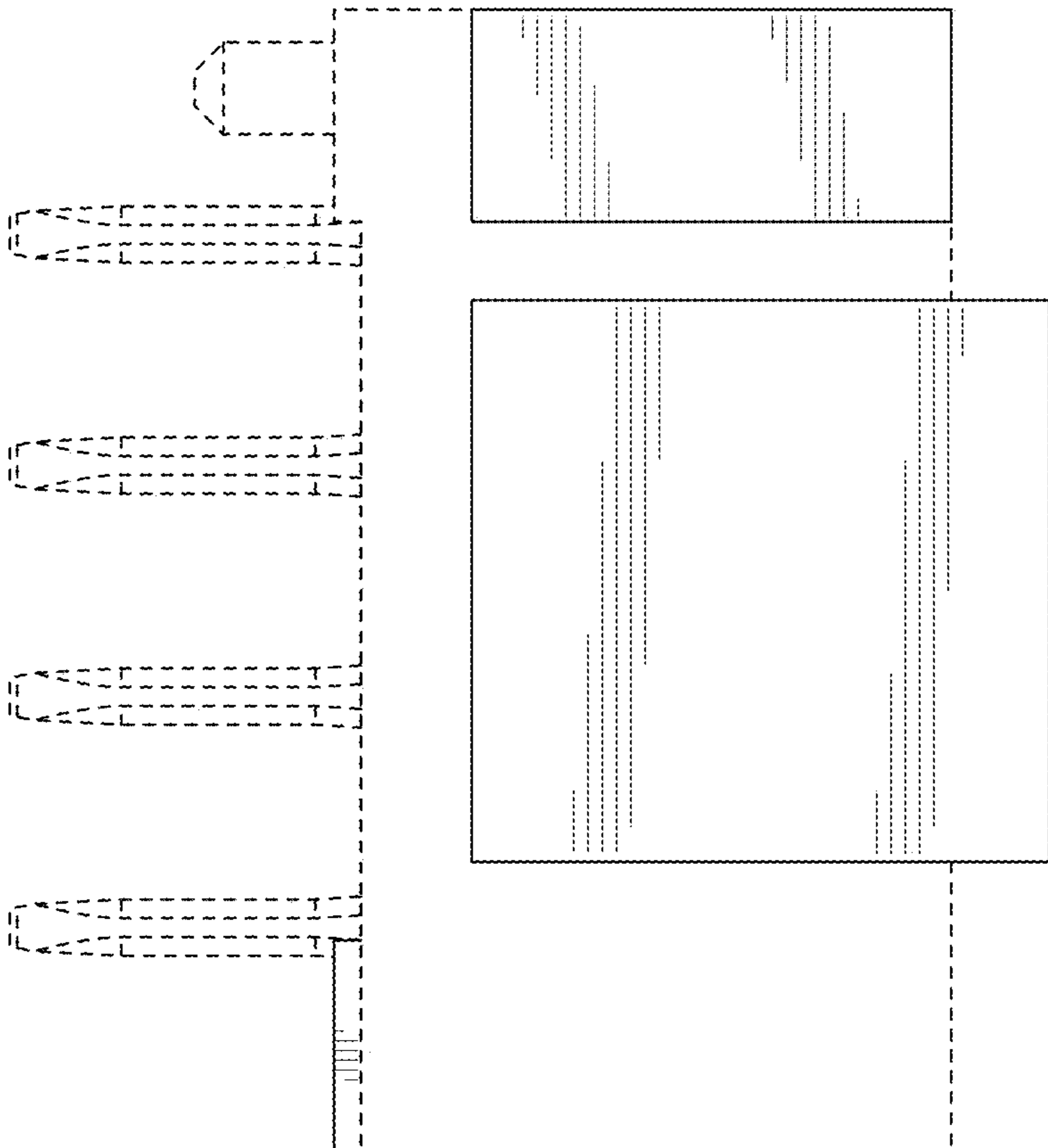


FIG. 53

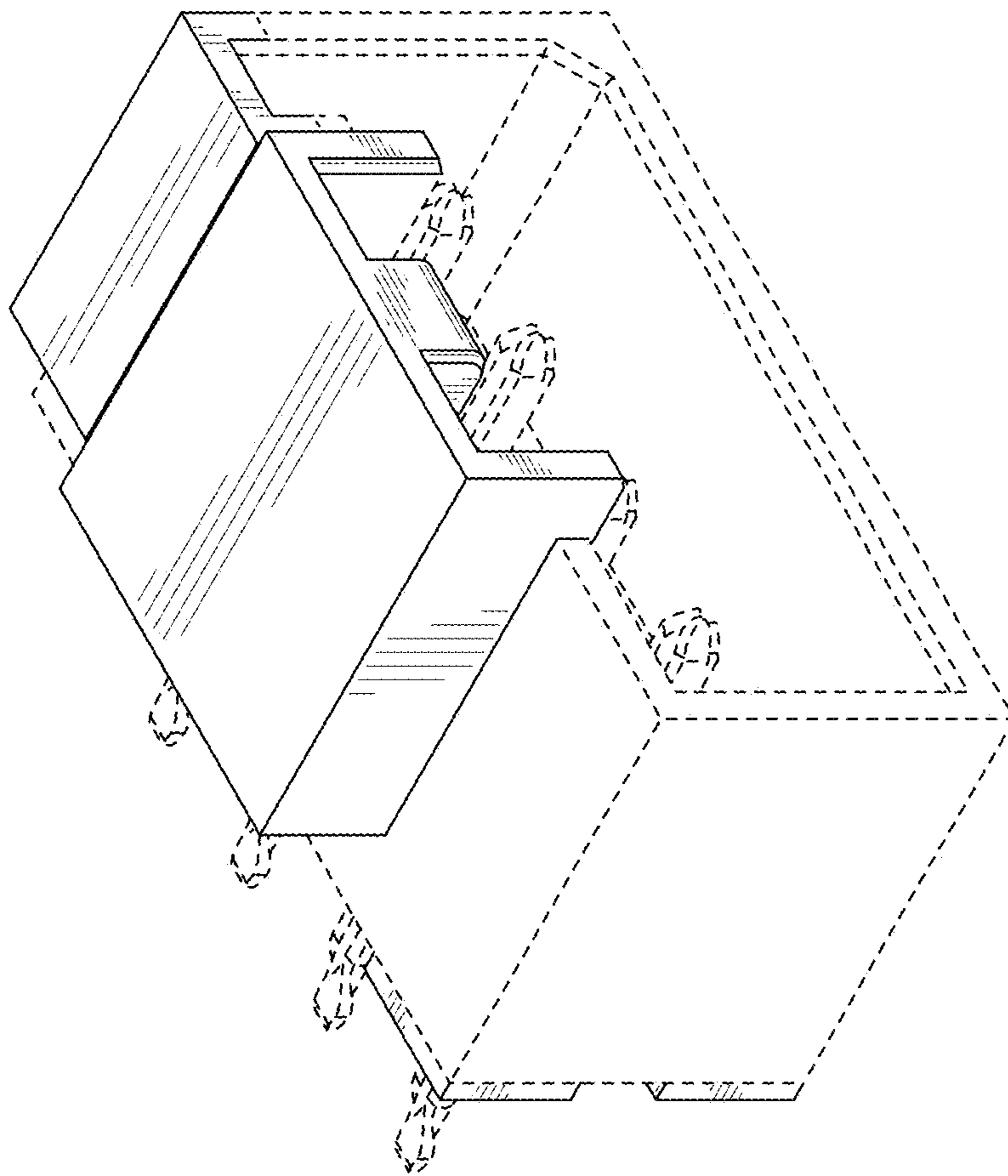


FIG. 54

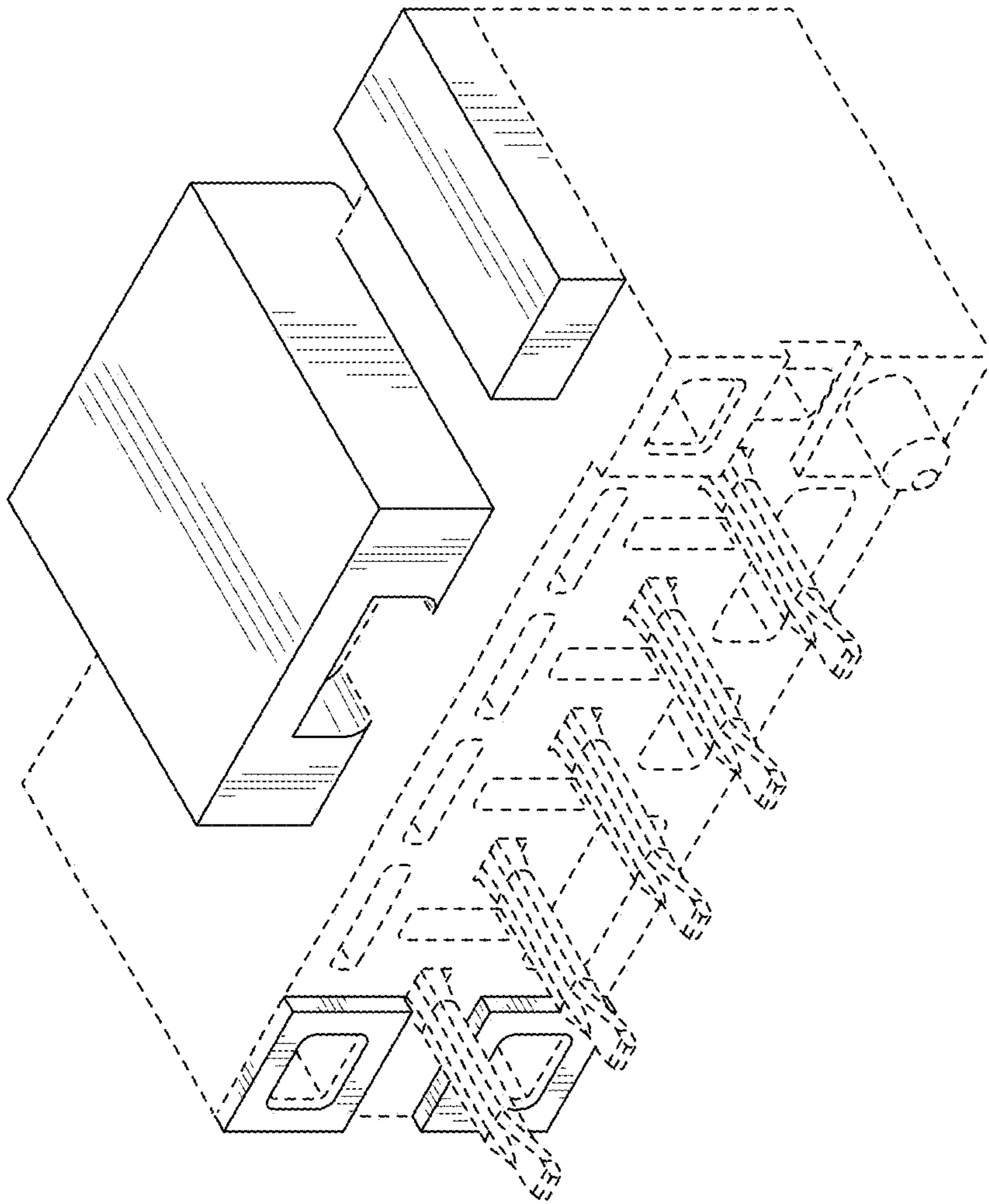


FIG. 55

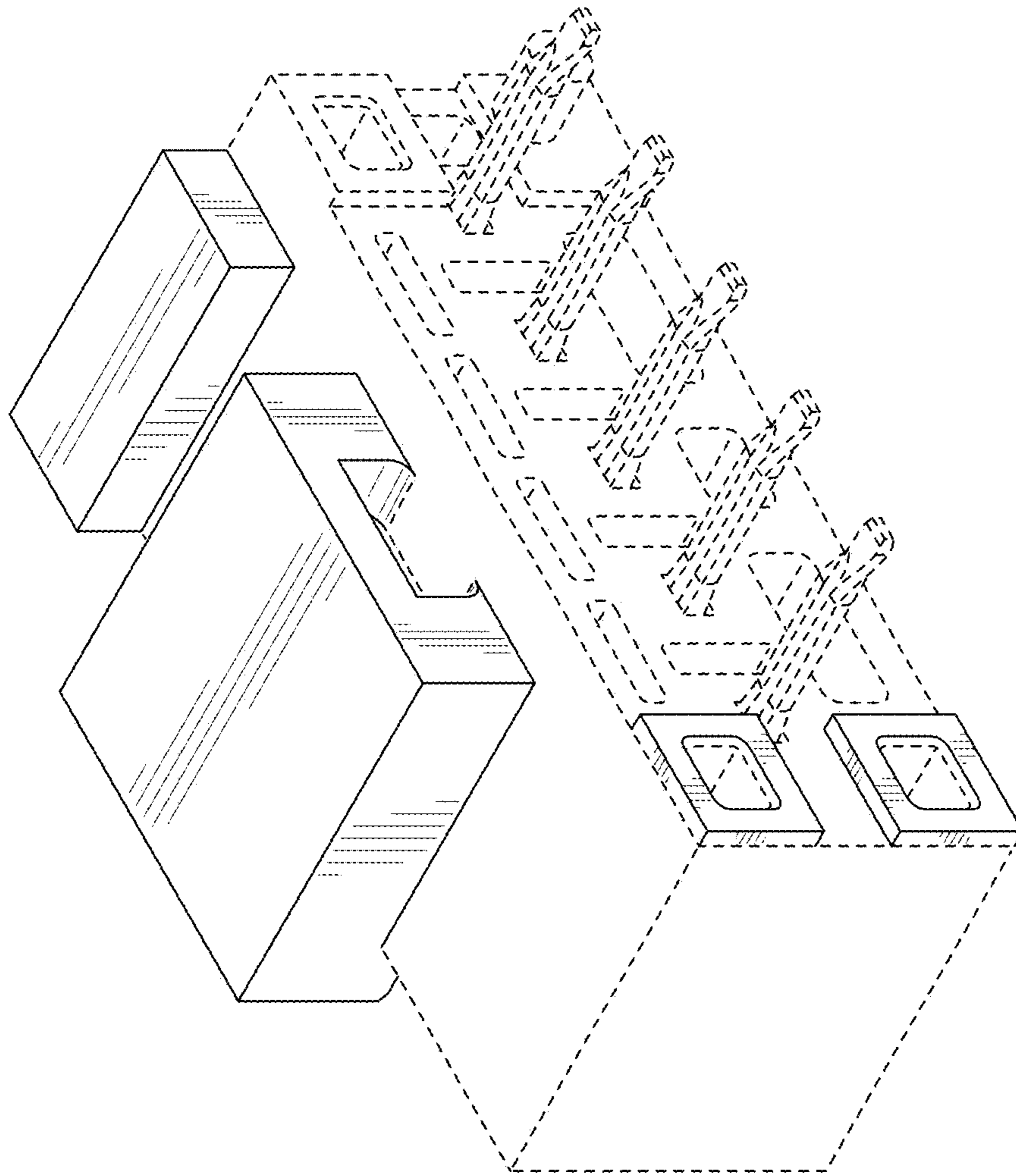


FIG. 56

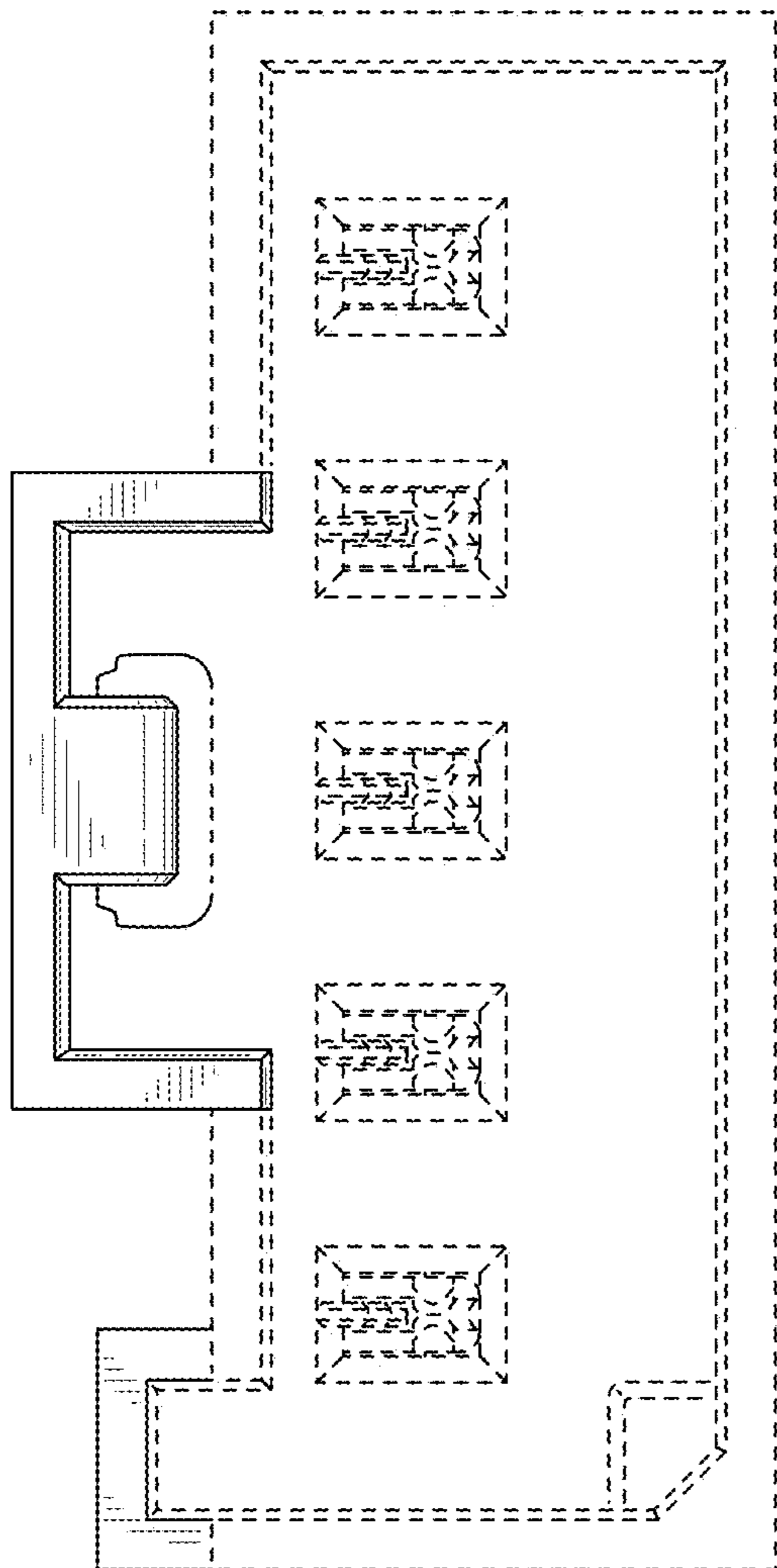


FIG. 57

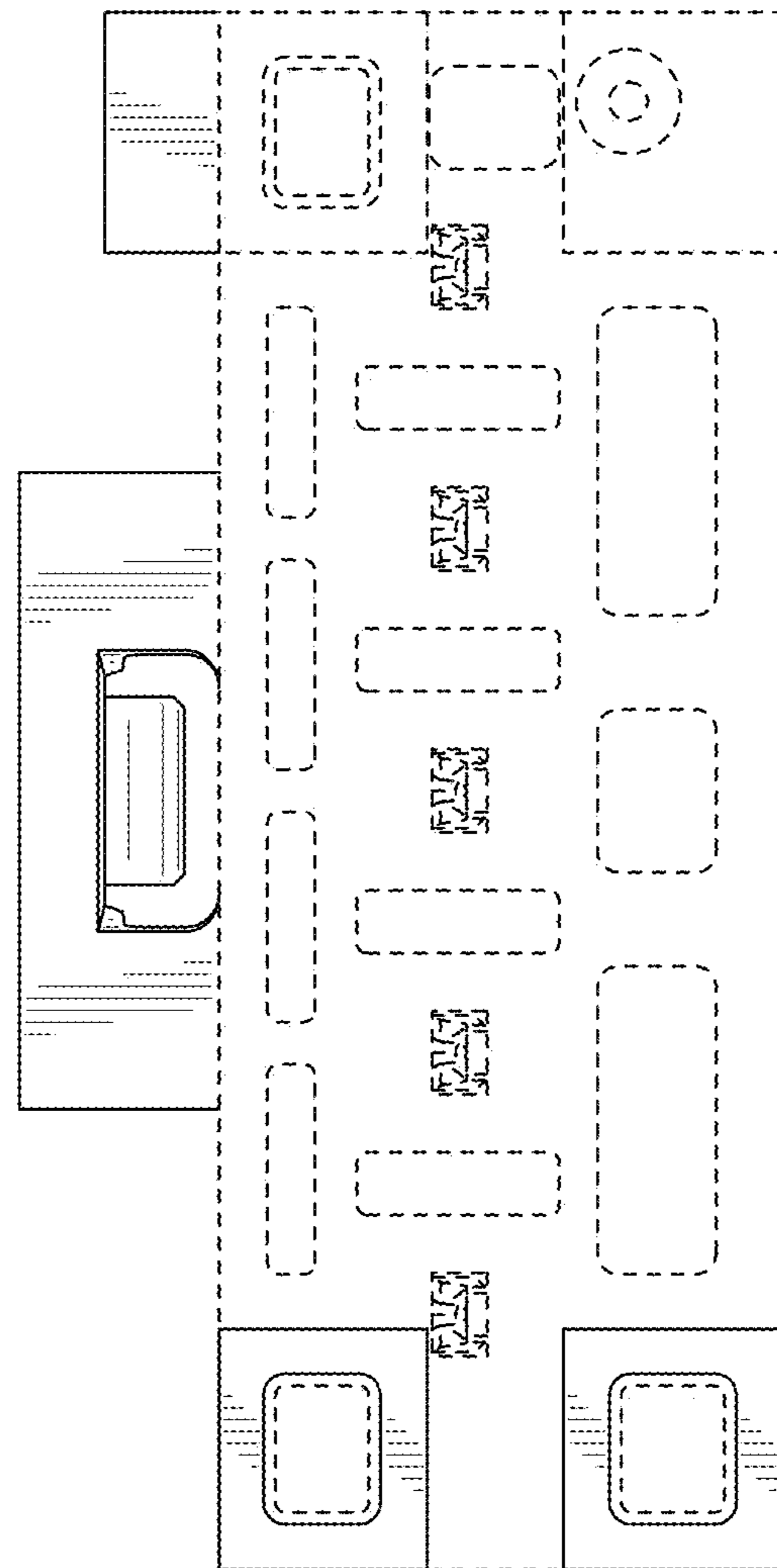


FIG. 58

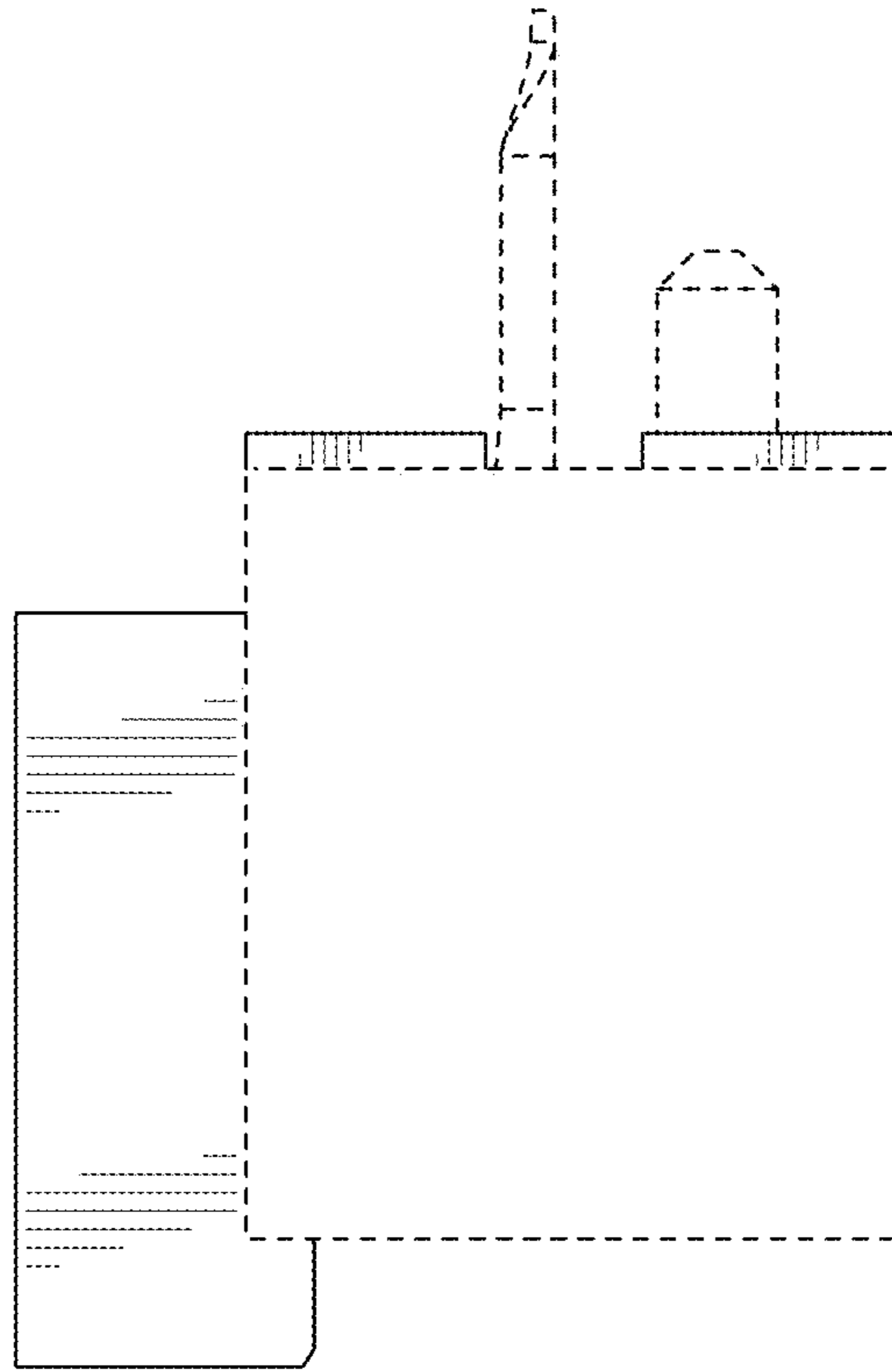


FIG. 60

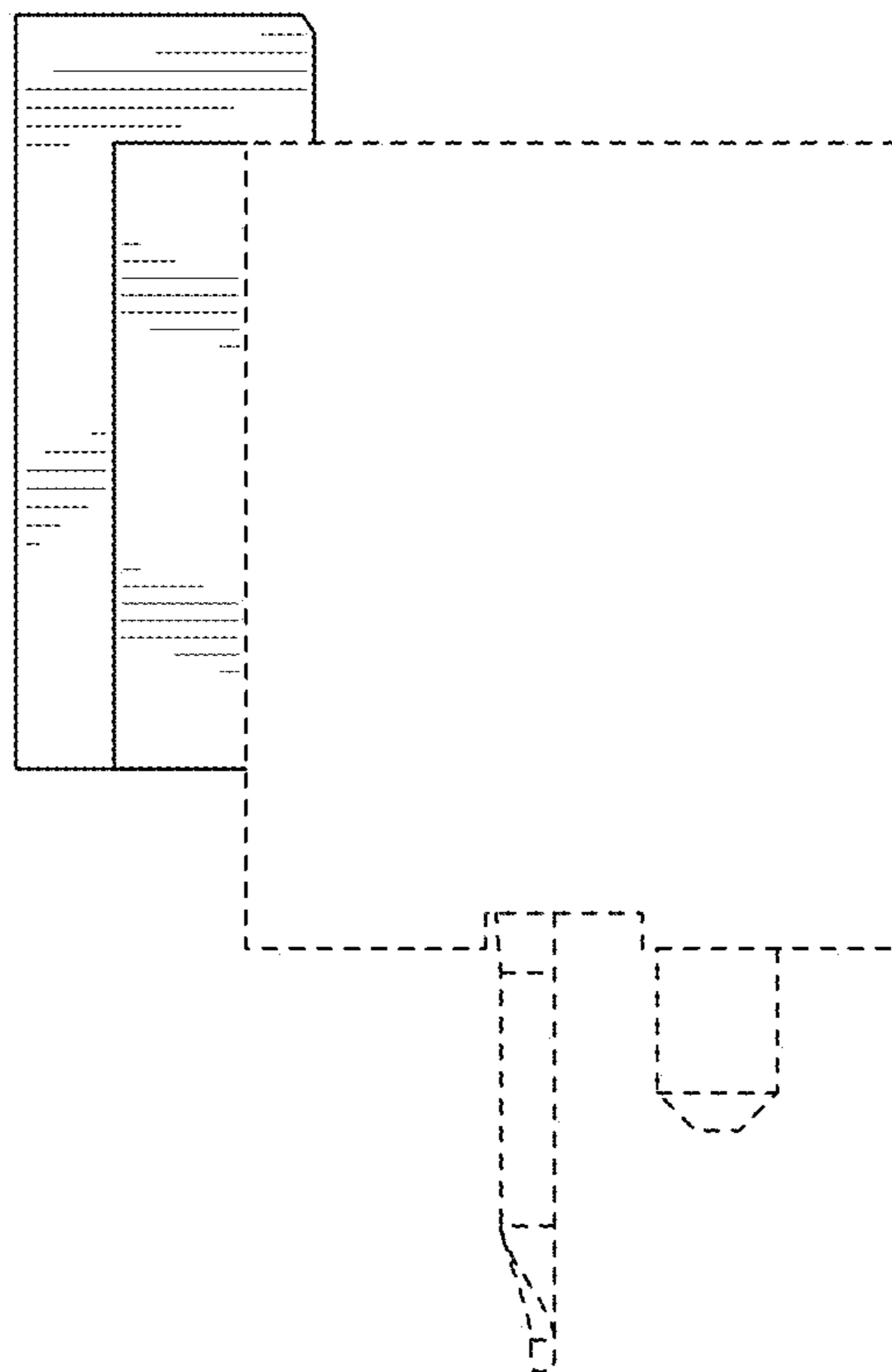


FIG. 59

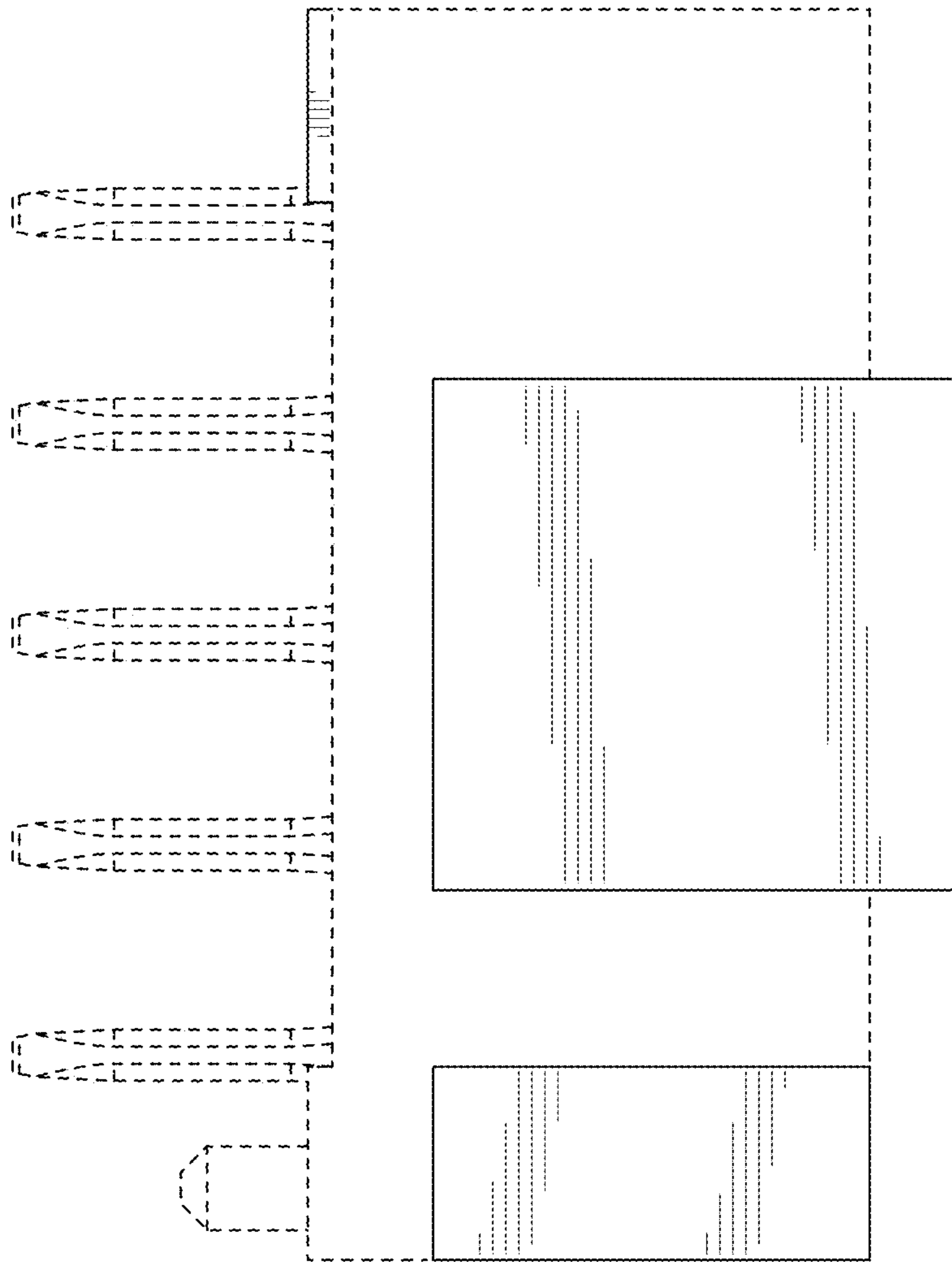


FIG. 61

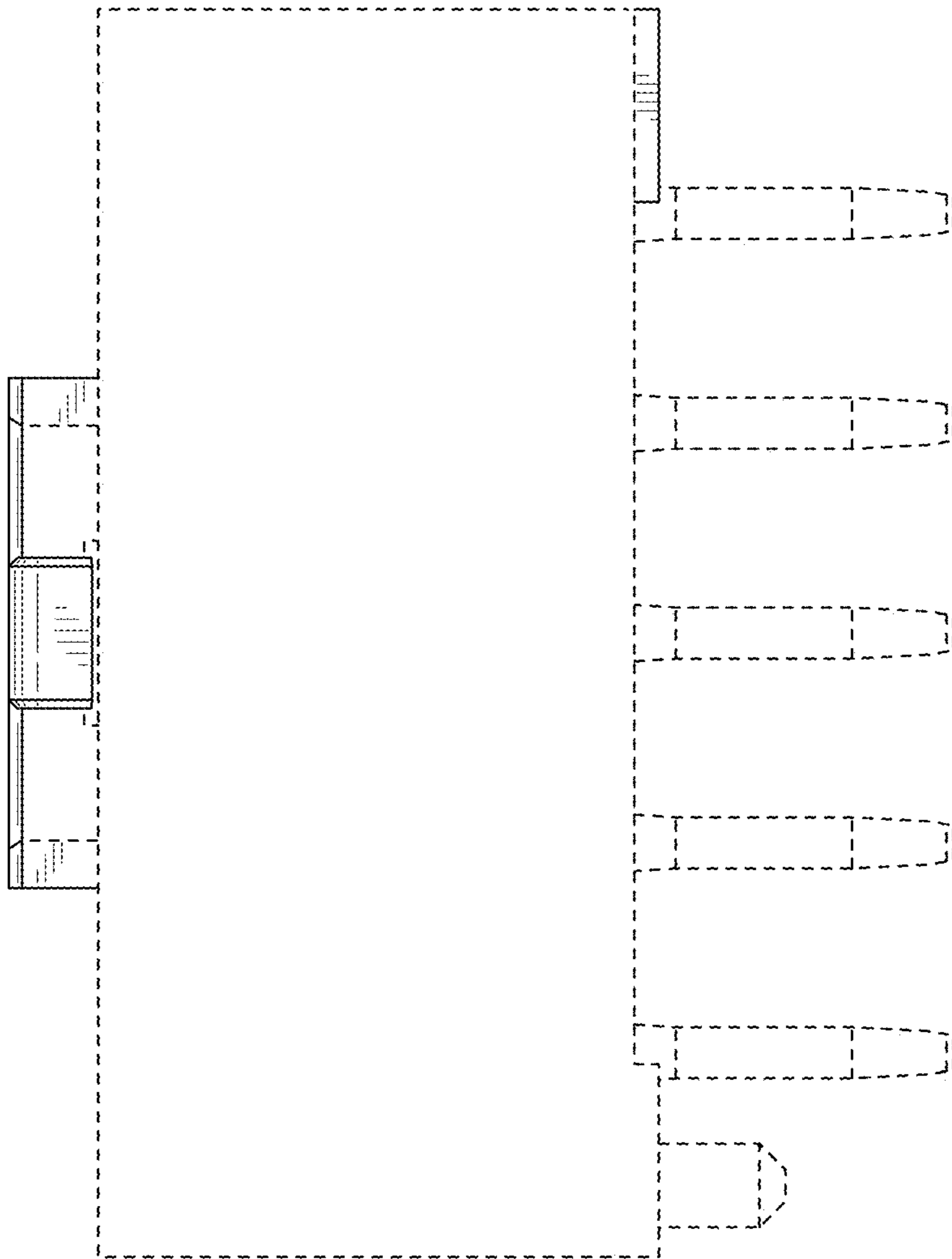


FIG. 62

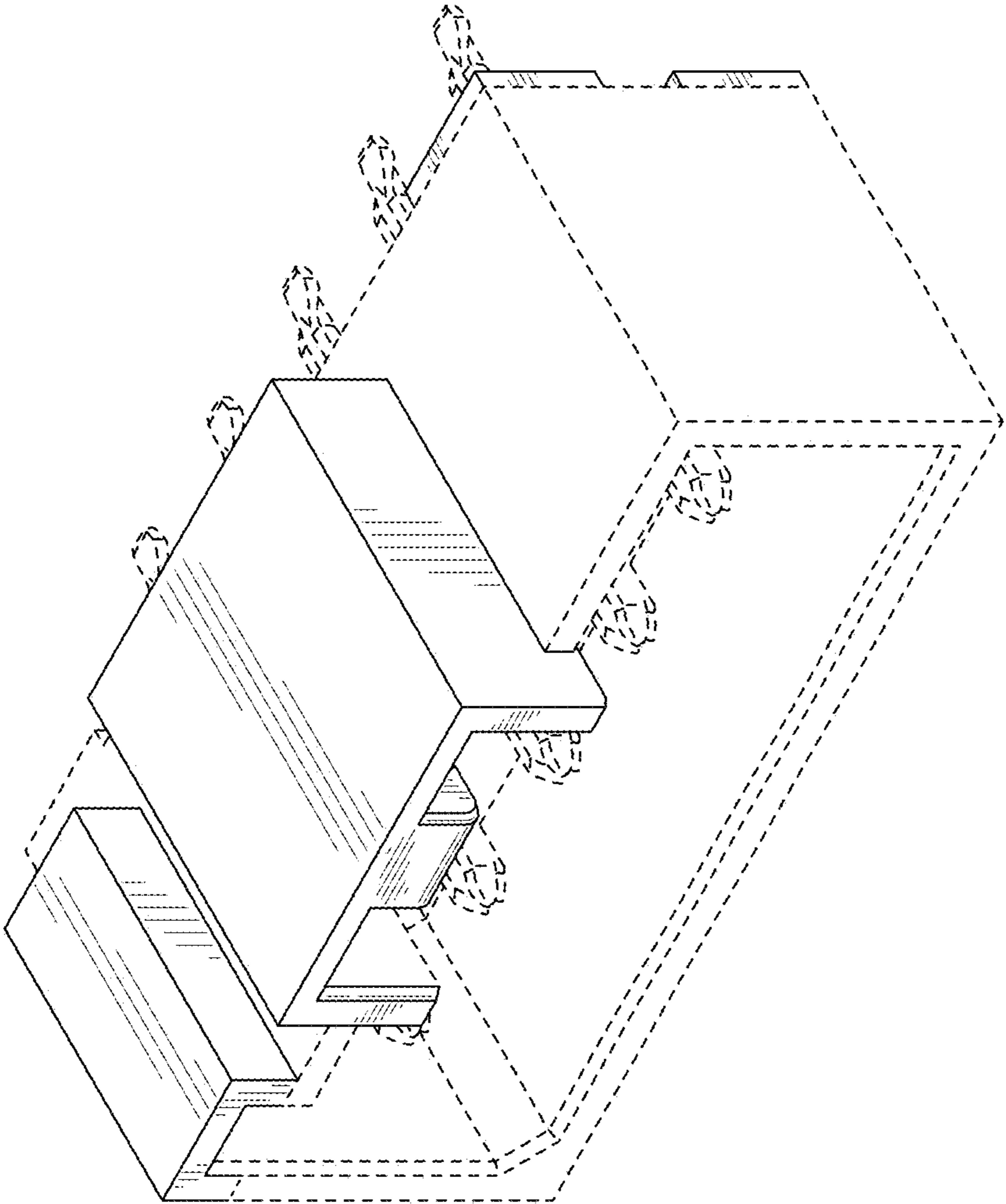


FIG. 63

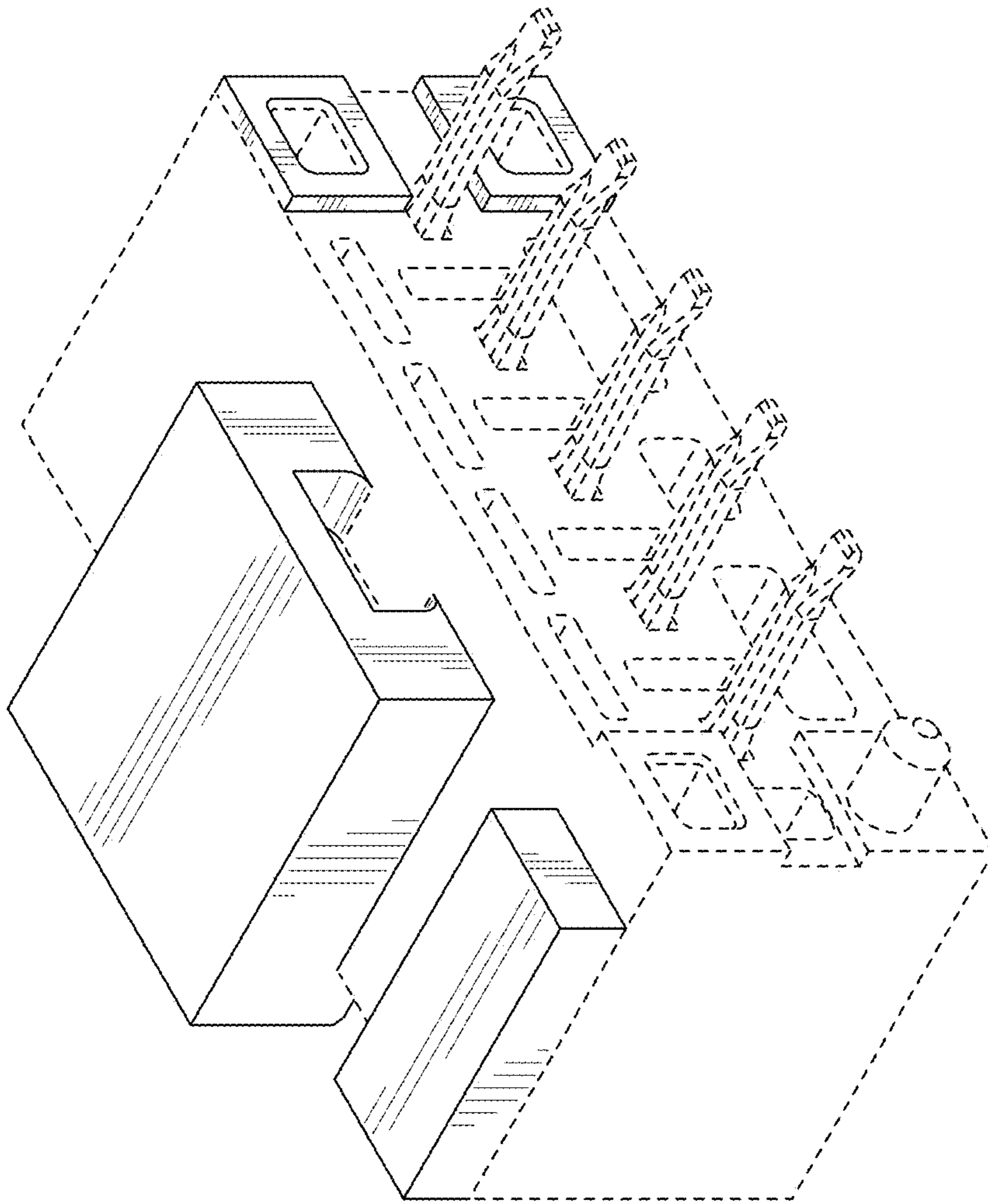


FIG. 64

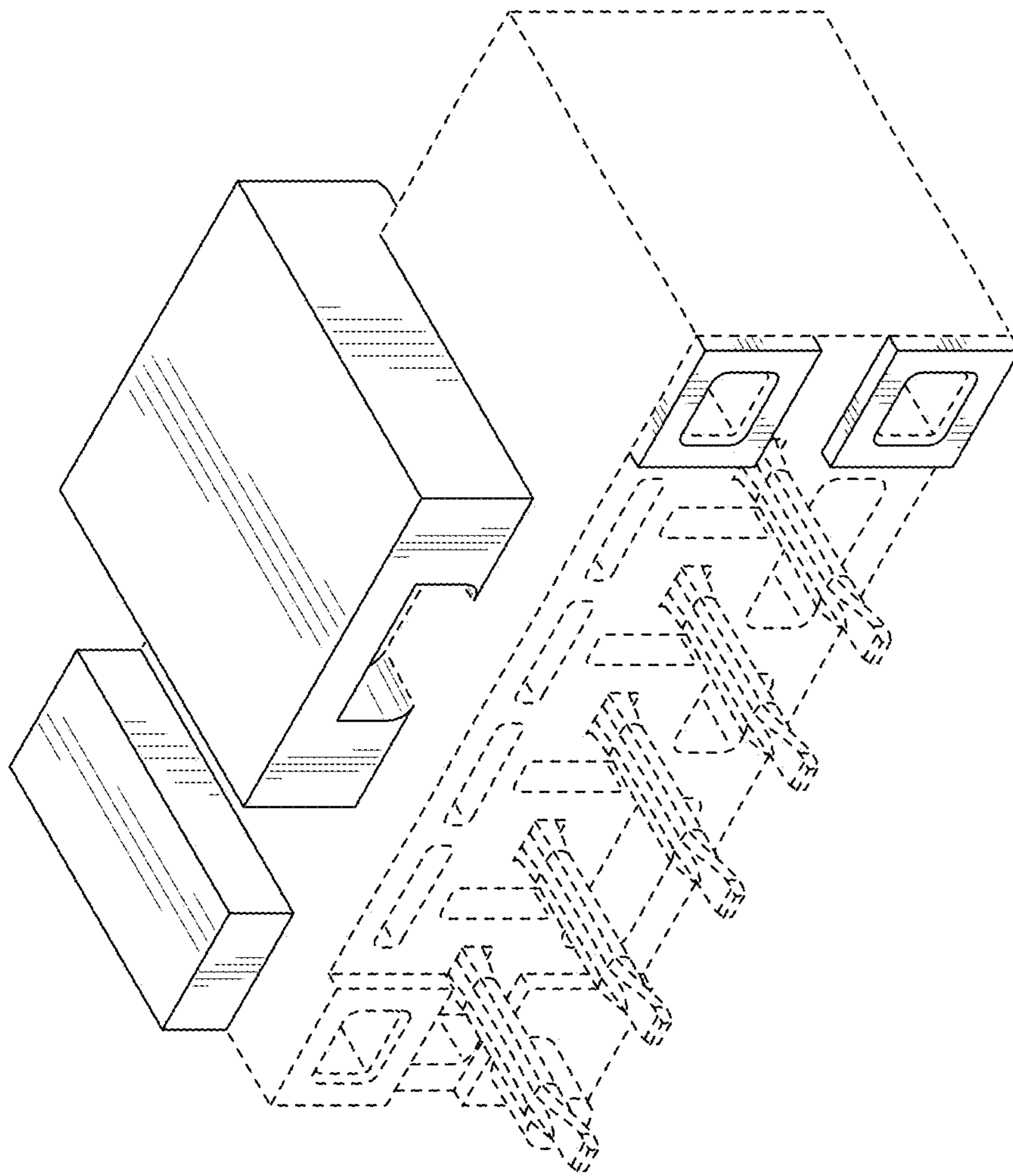


FIG. 65

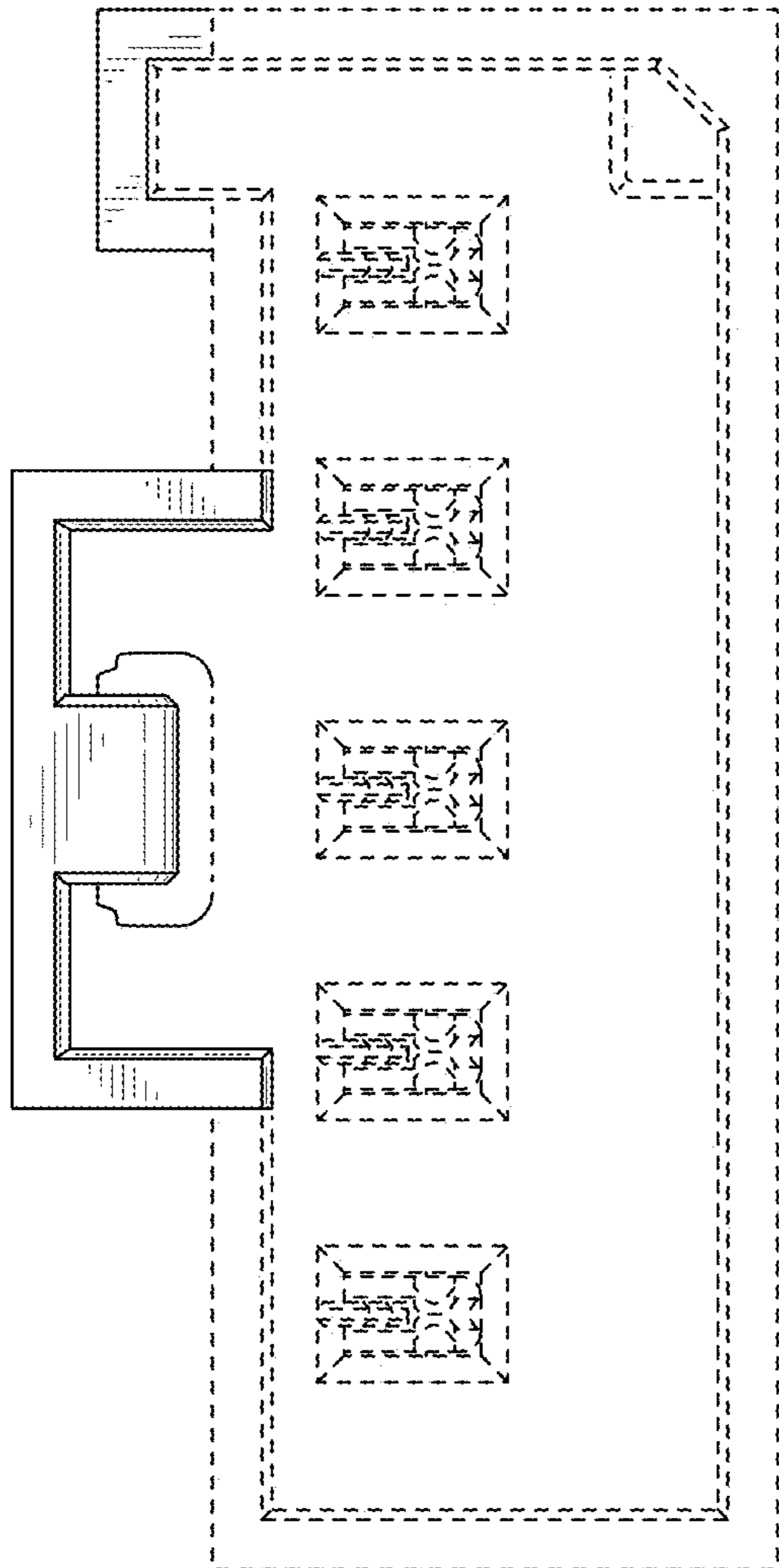


FIG. 66

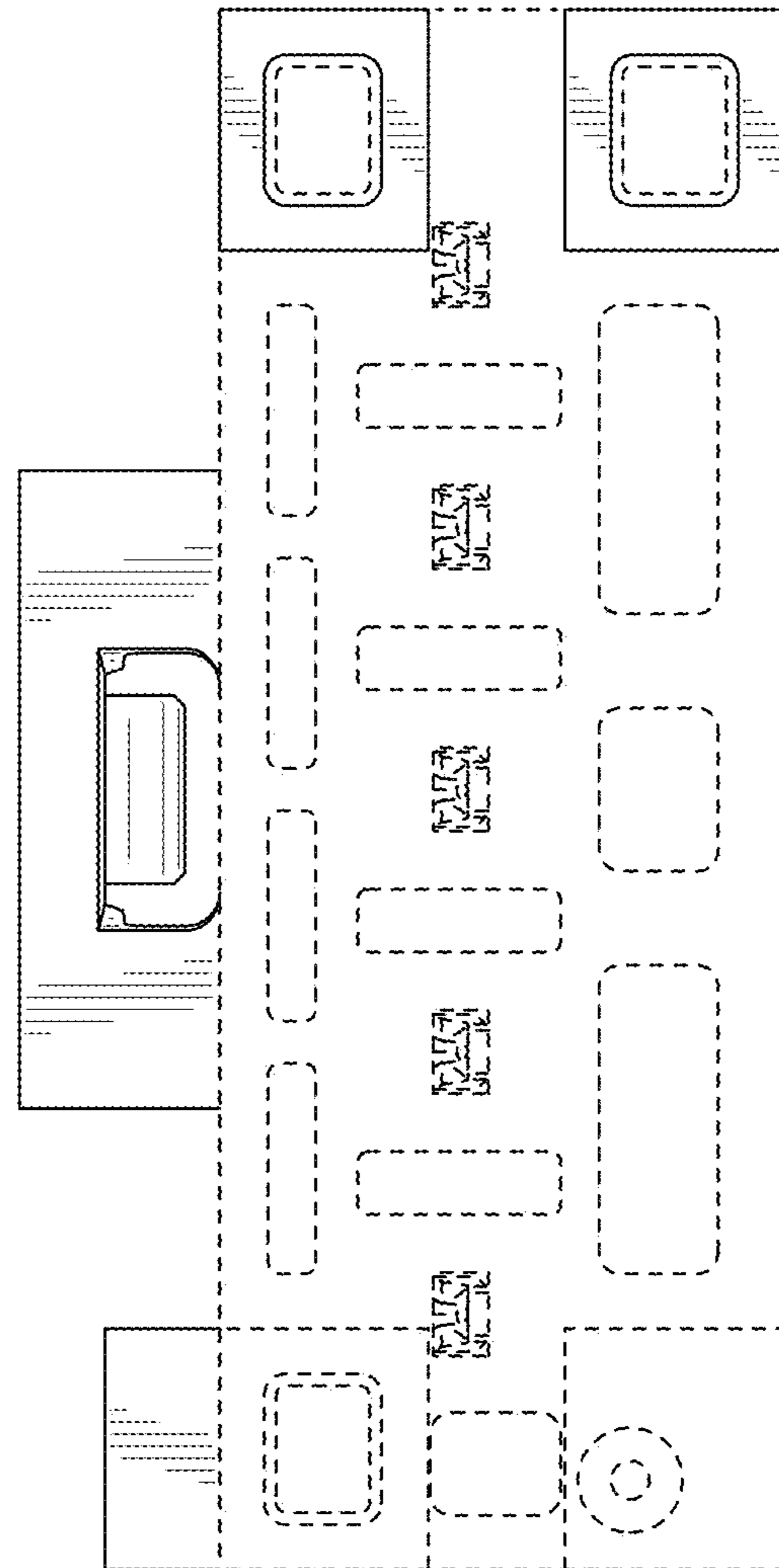


FIG. 67

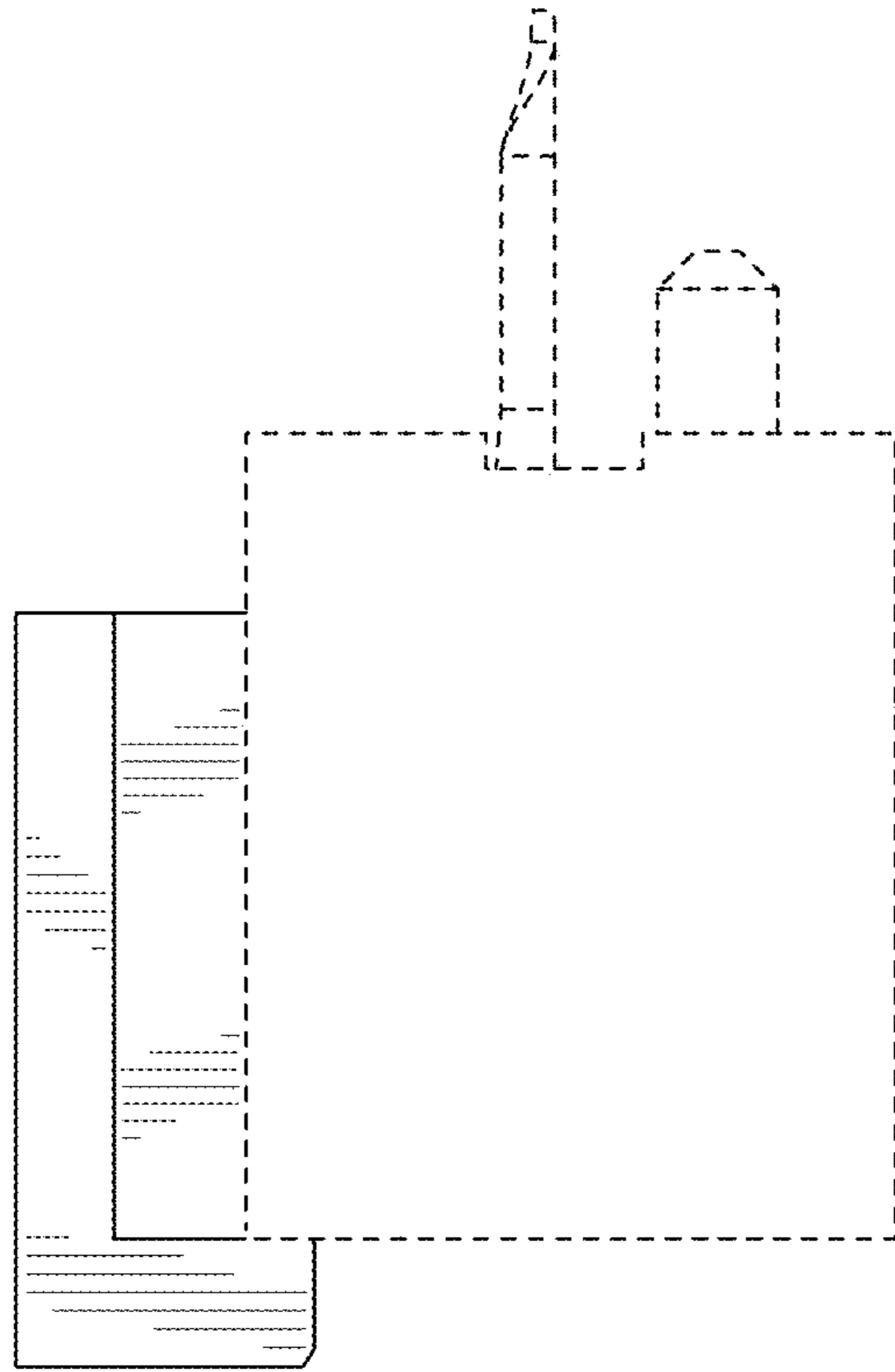


FIG. 69

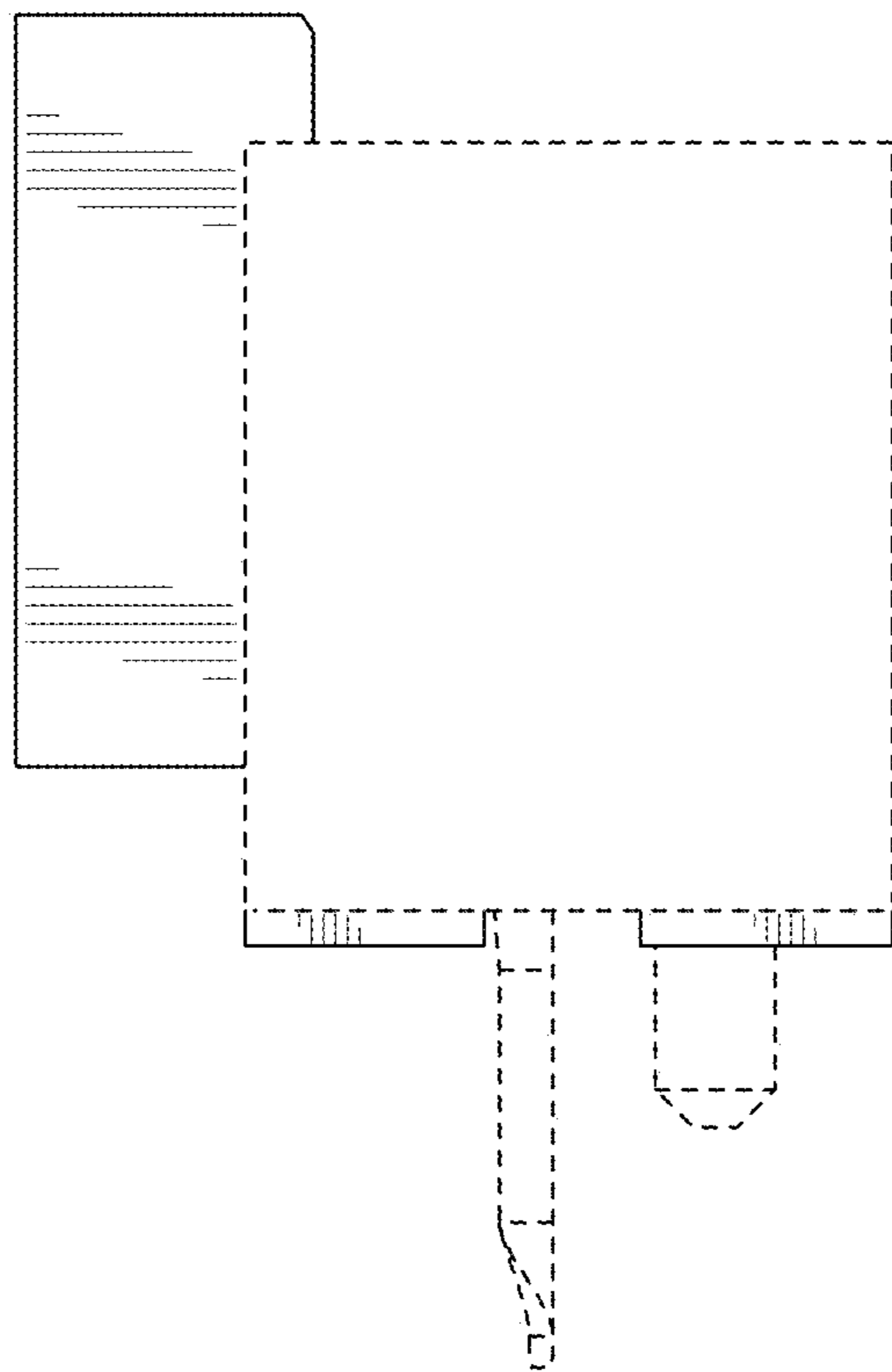


FIG. 68

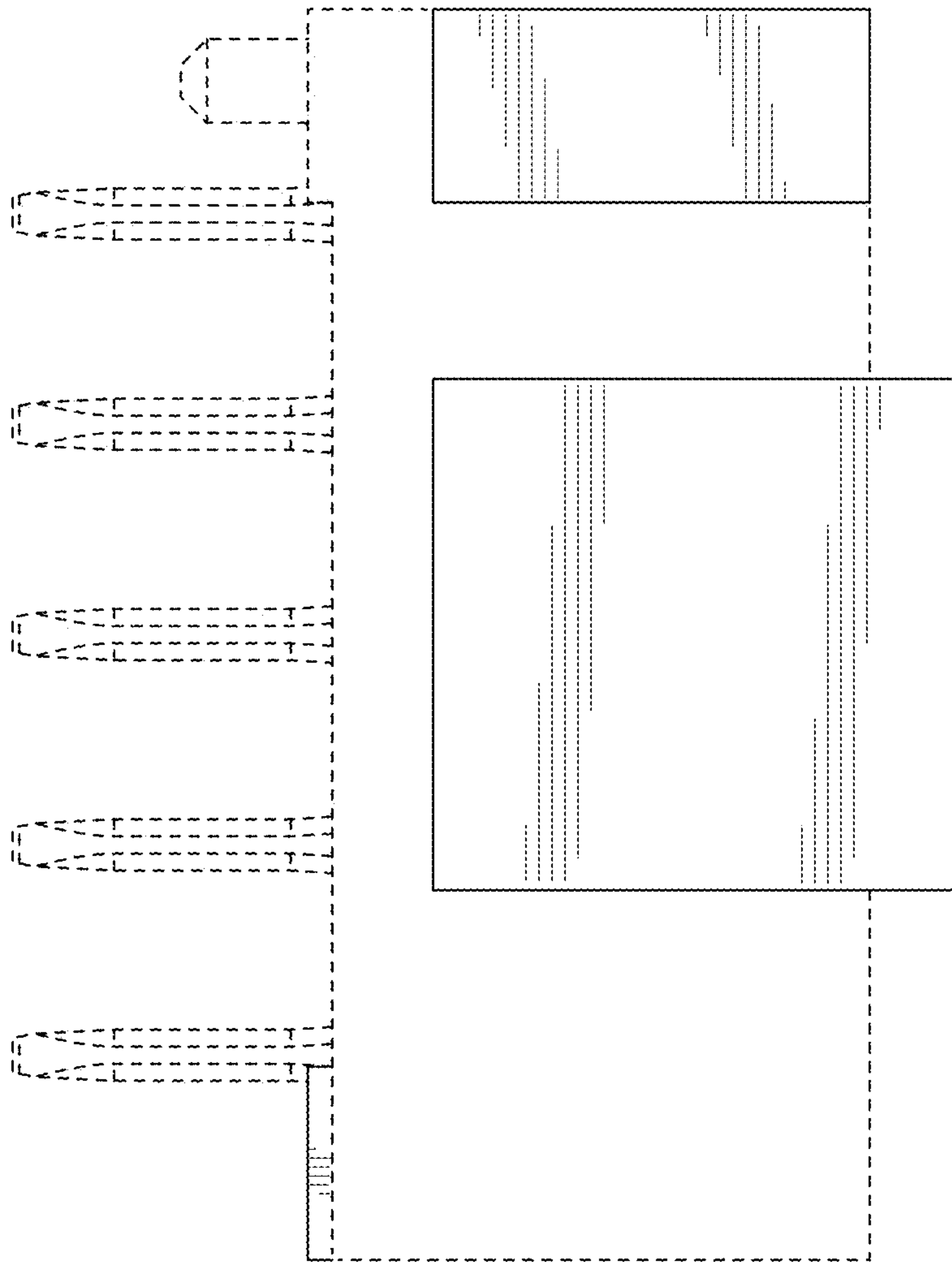


FIG. 70

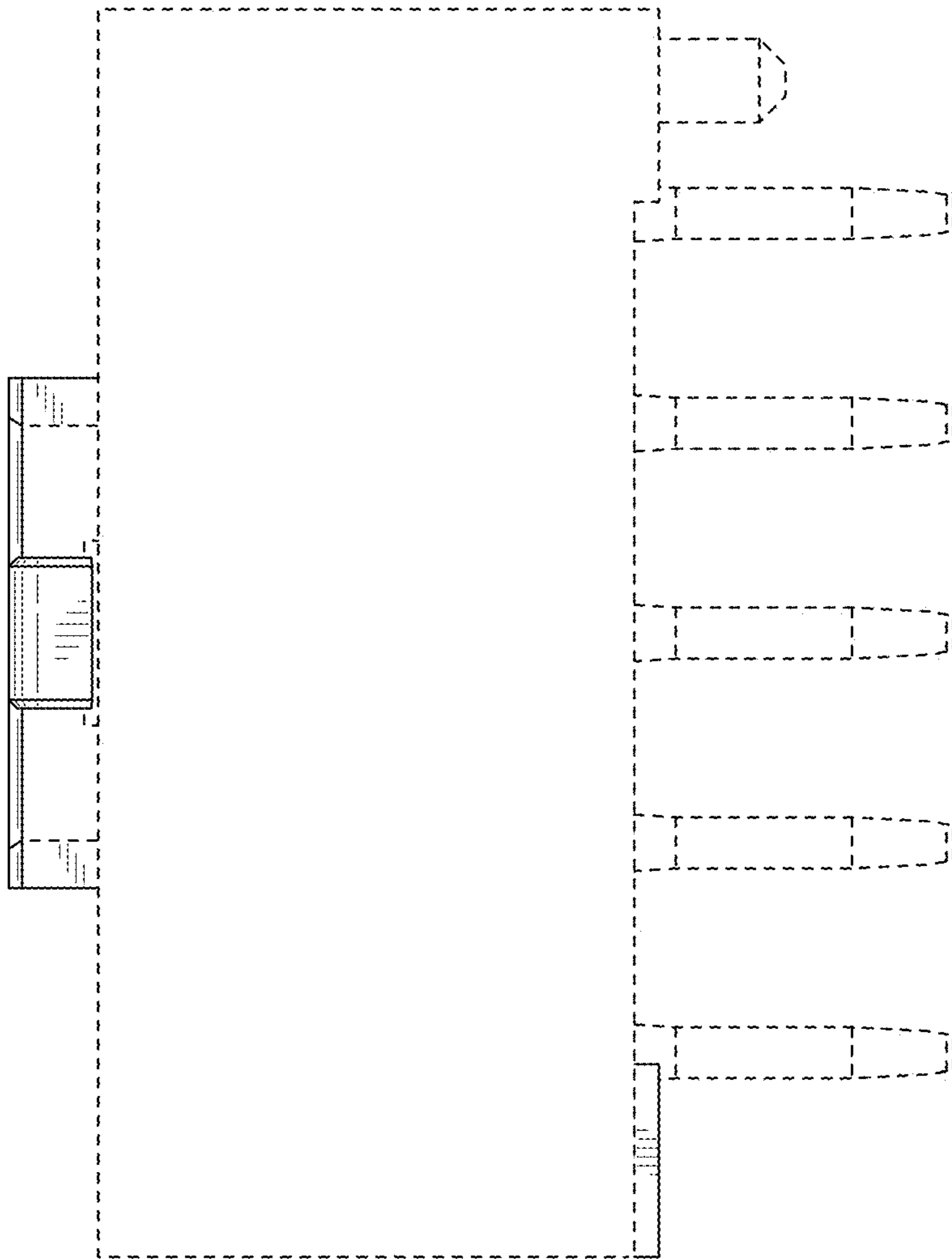


FIG. 71

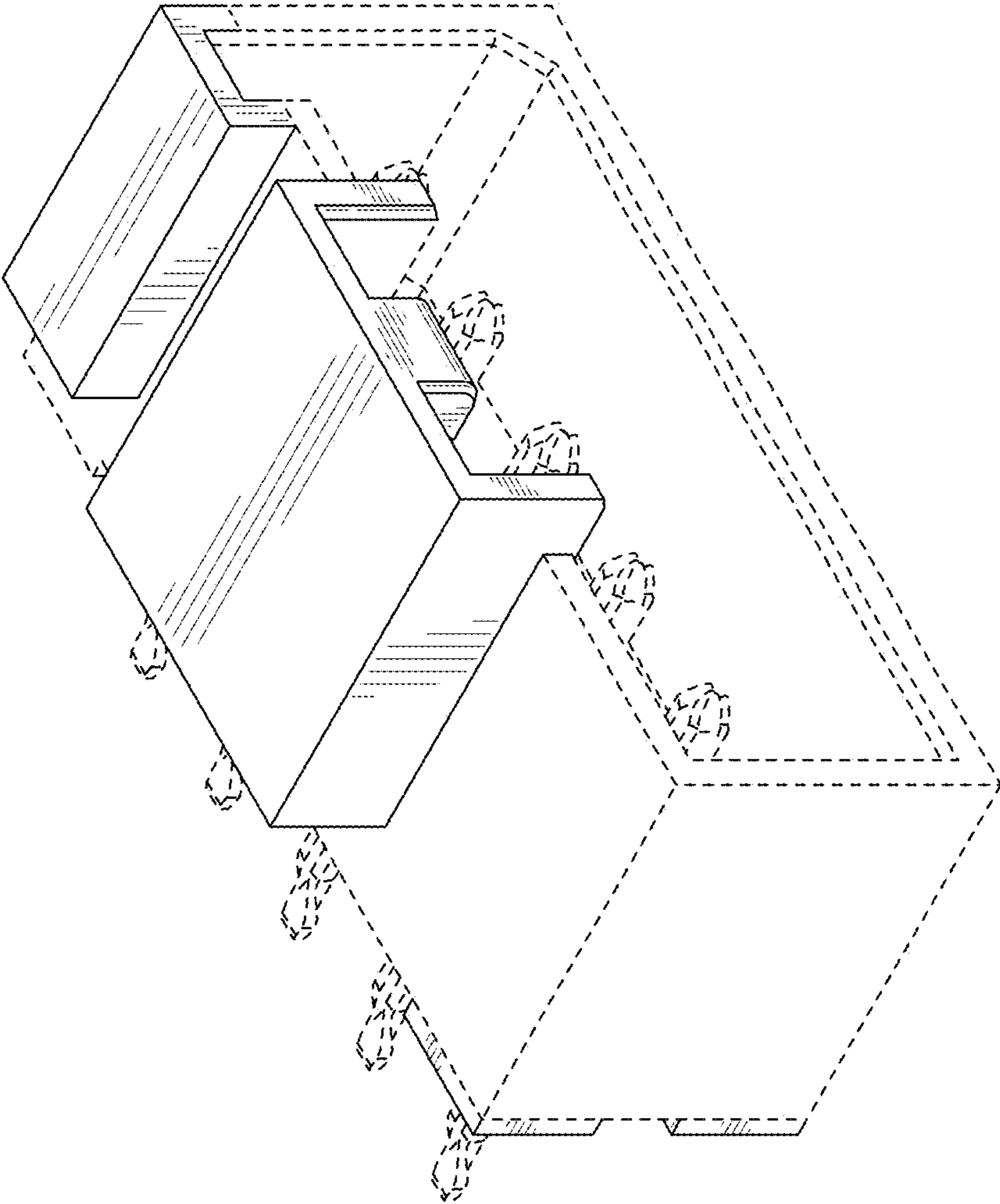


FIG. 72

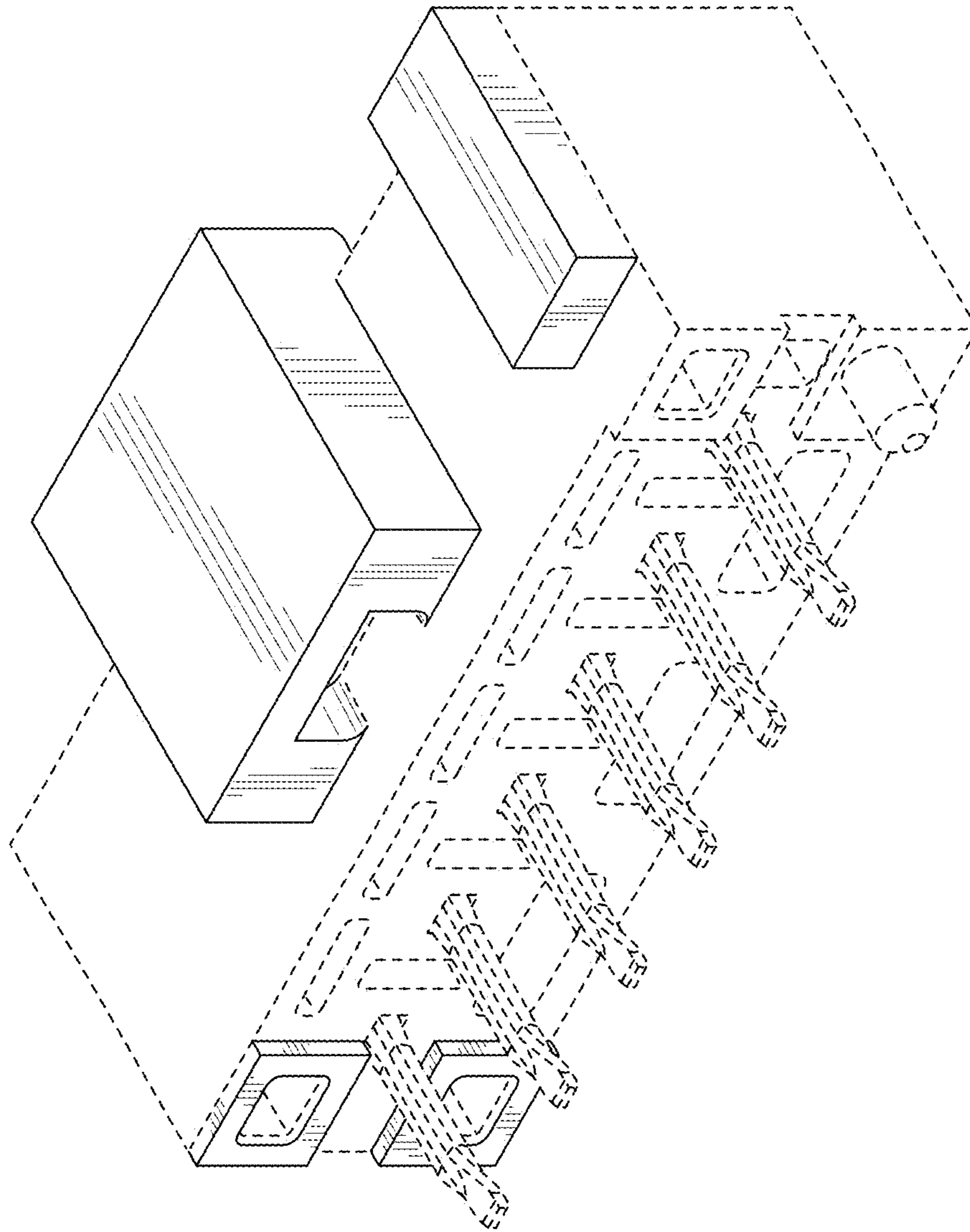


FIG. 73

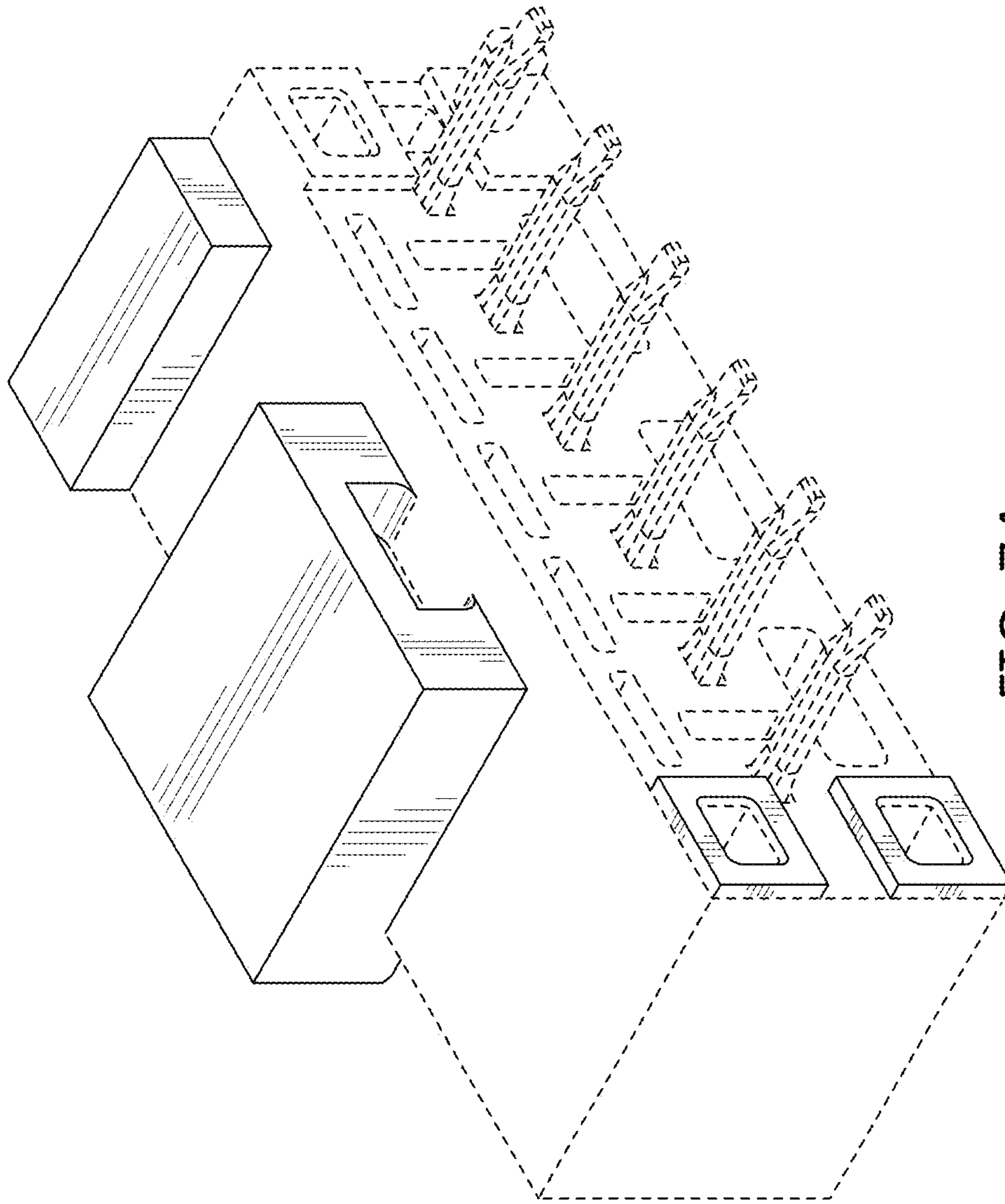


FIG. 74

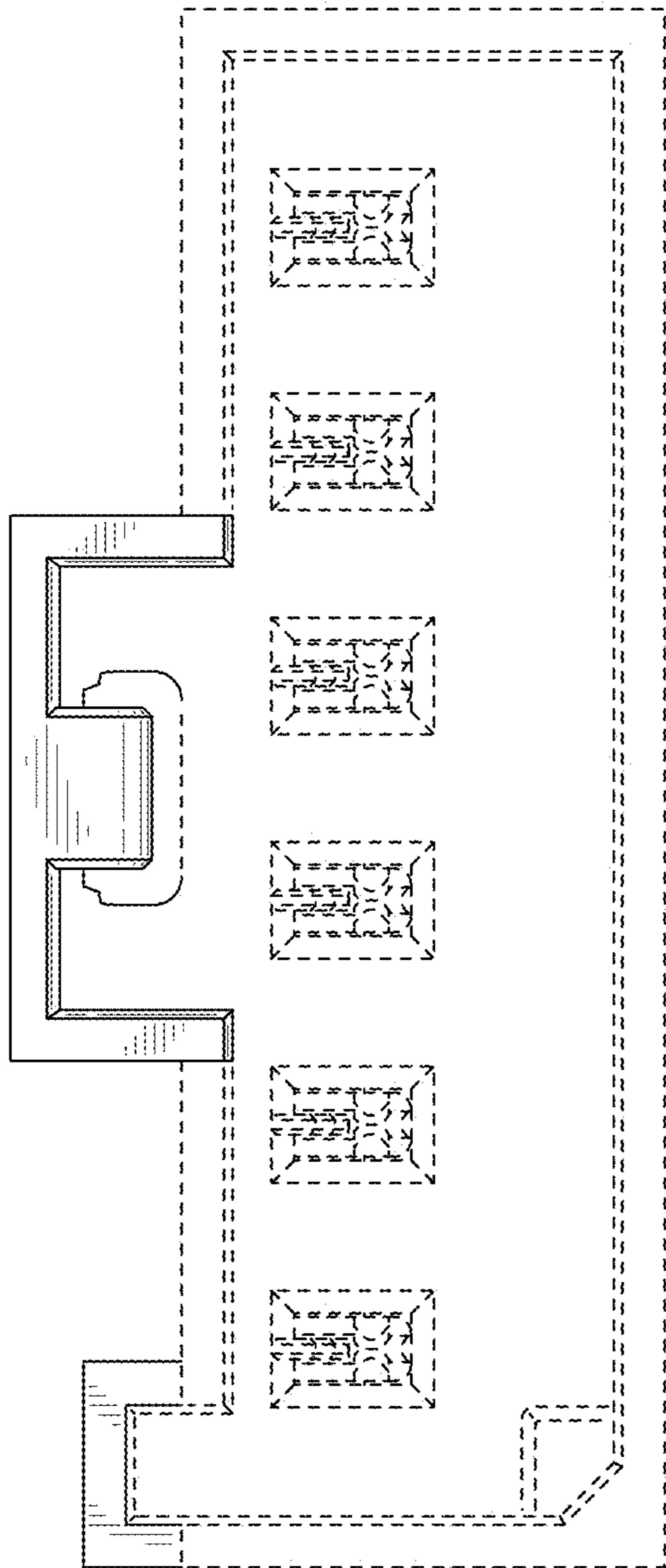


FIG. 75

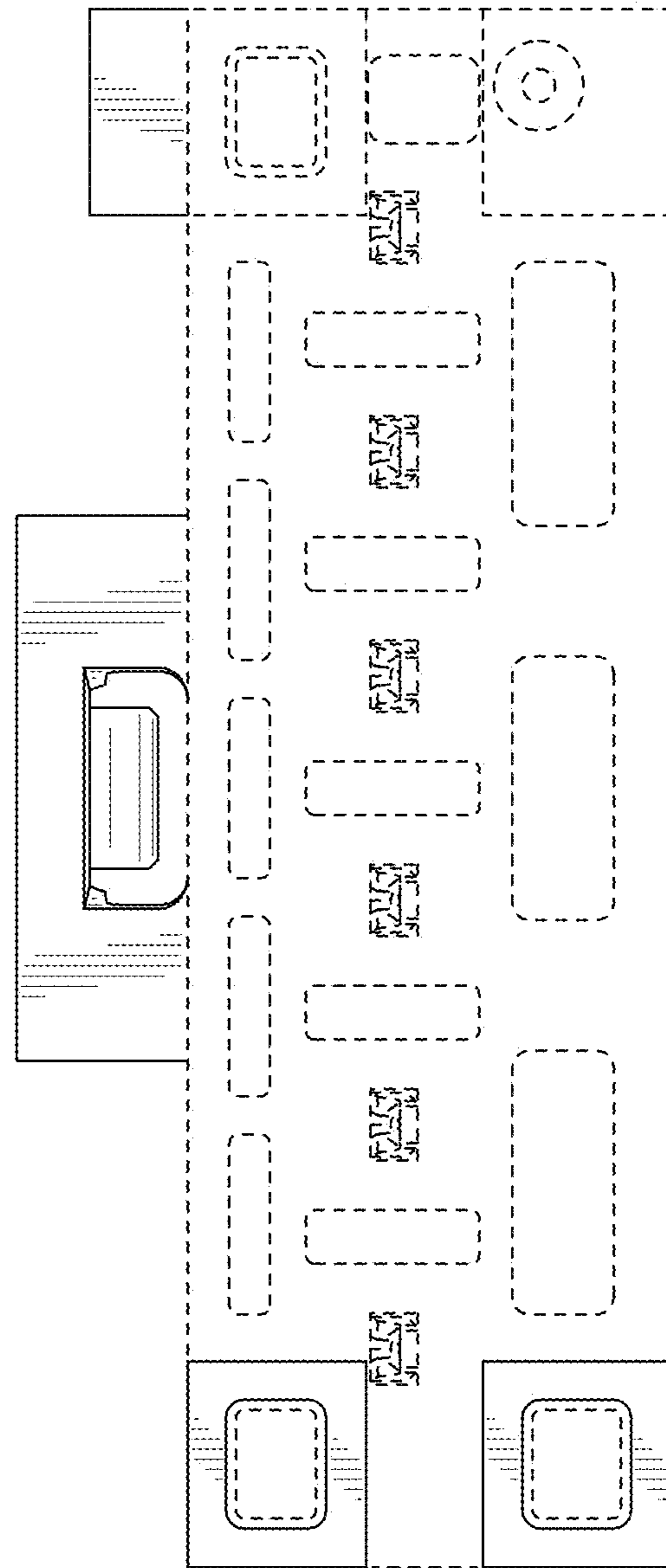


FIG. 76

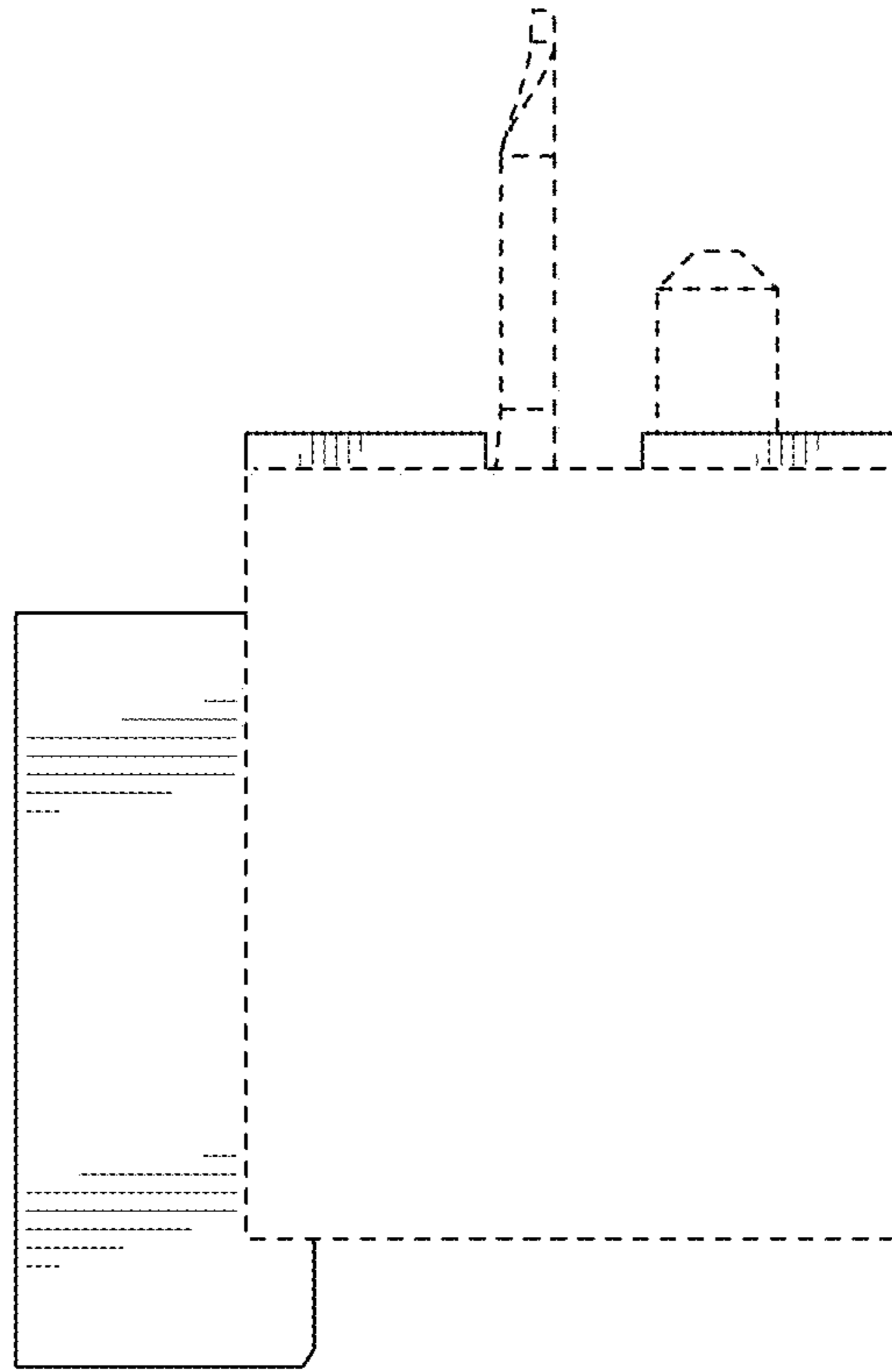


FIG. 78

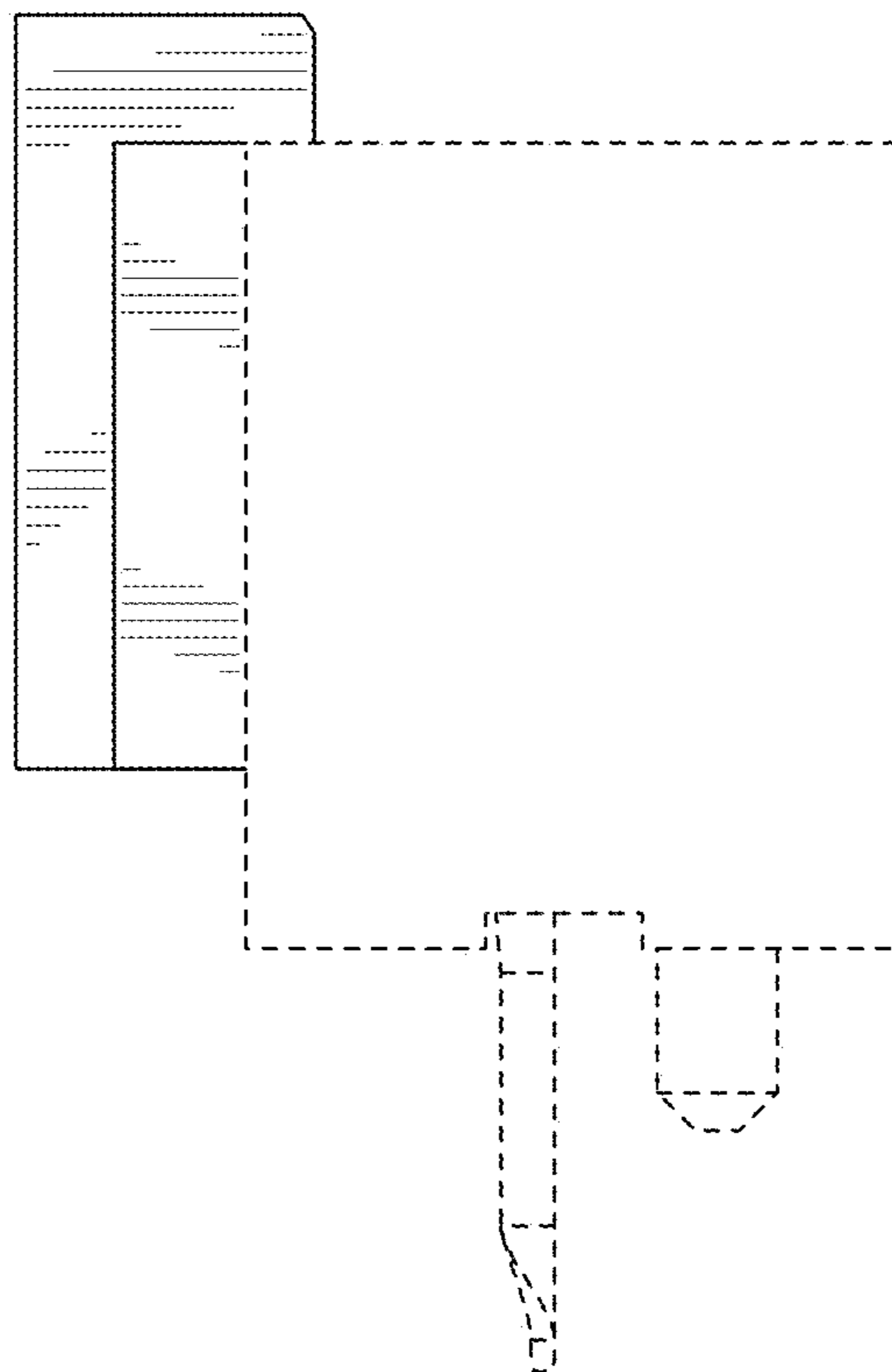


FIG. 77

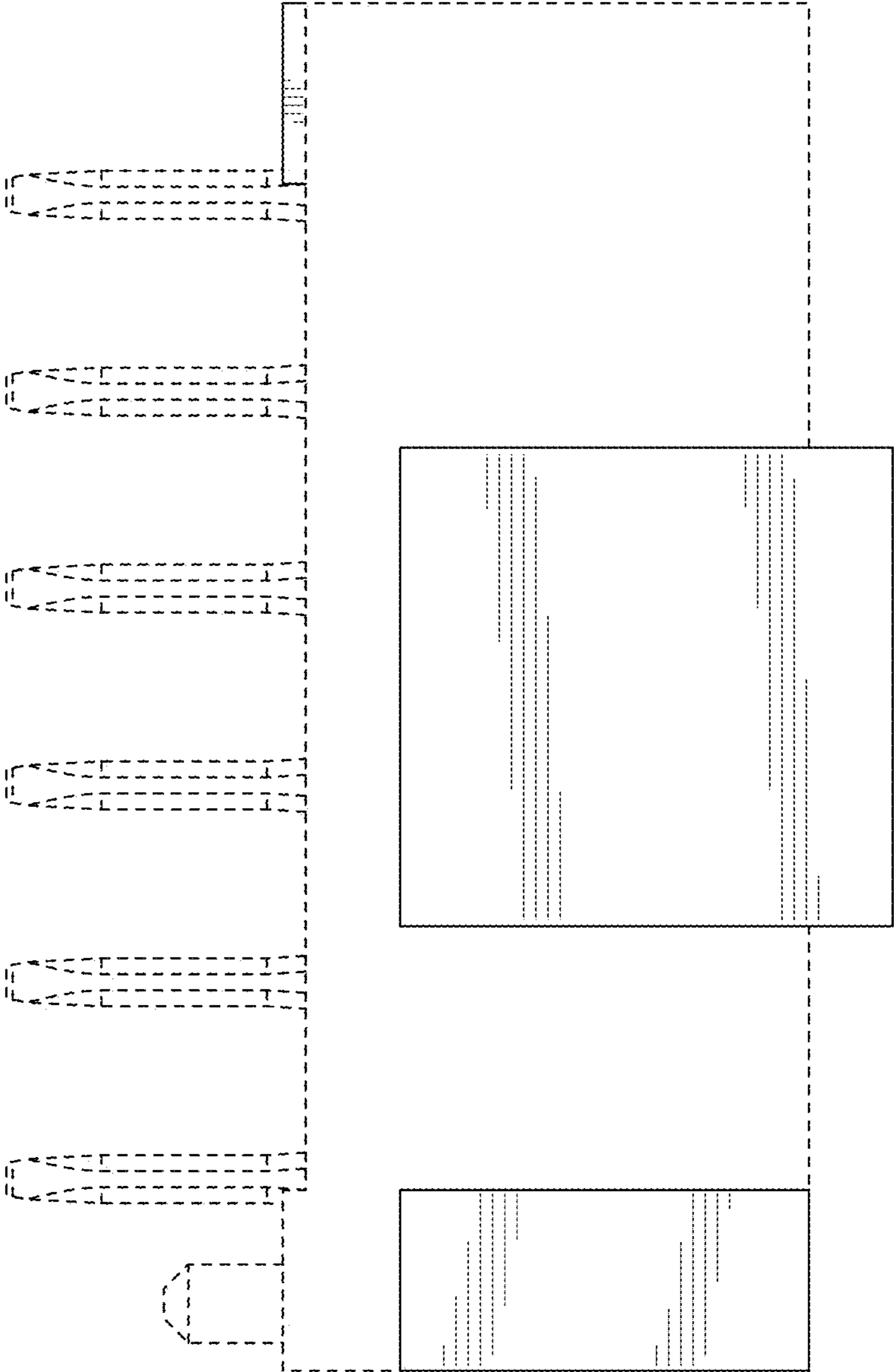


FIG. 79

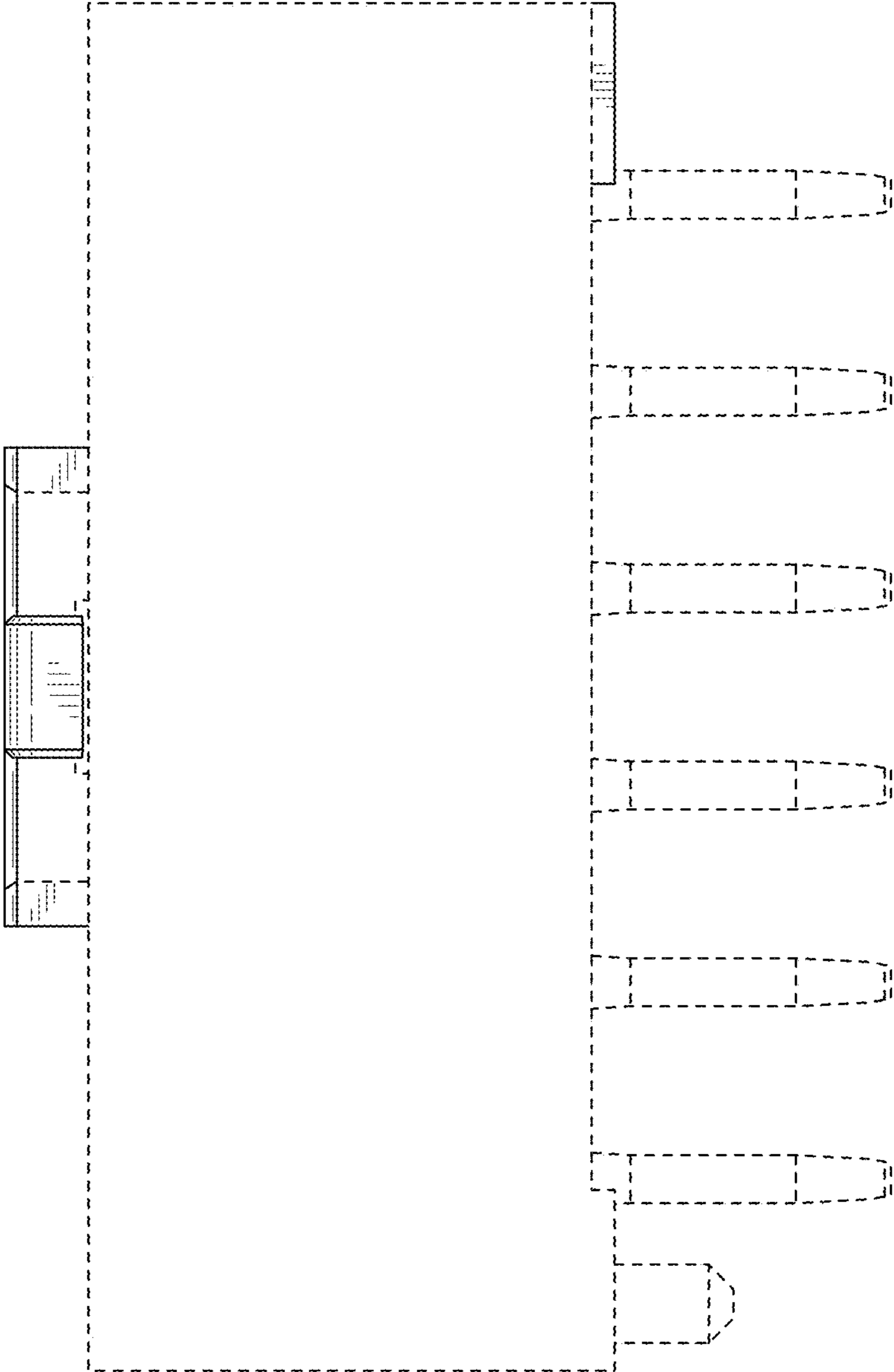


FIG. 80

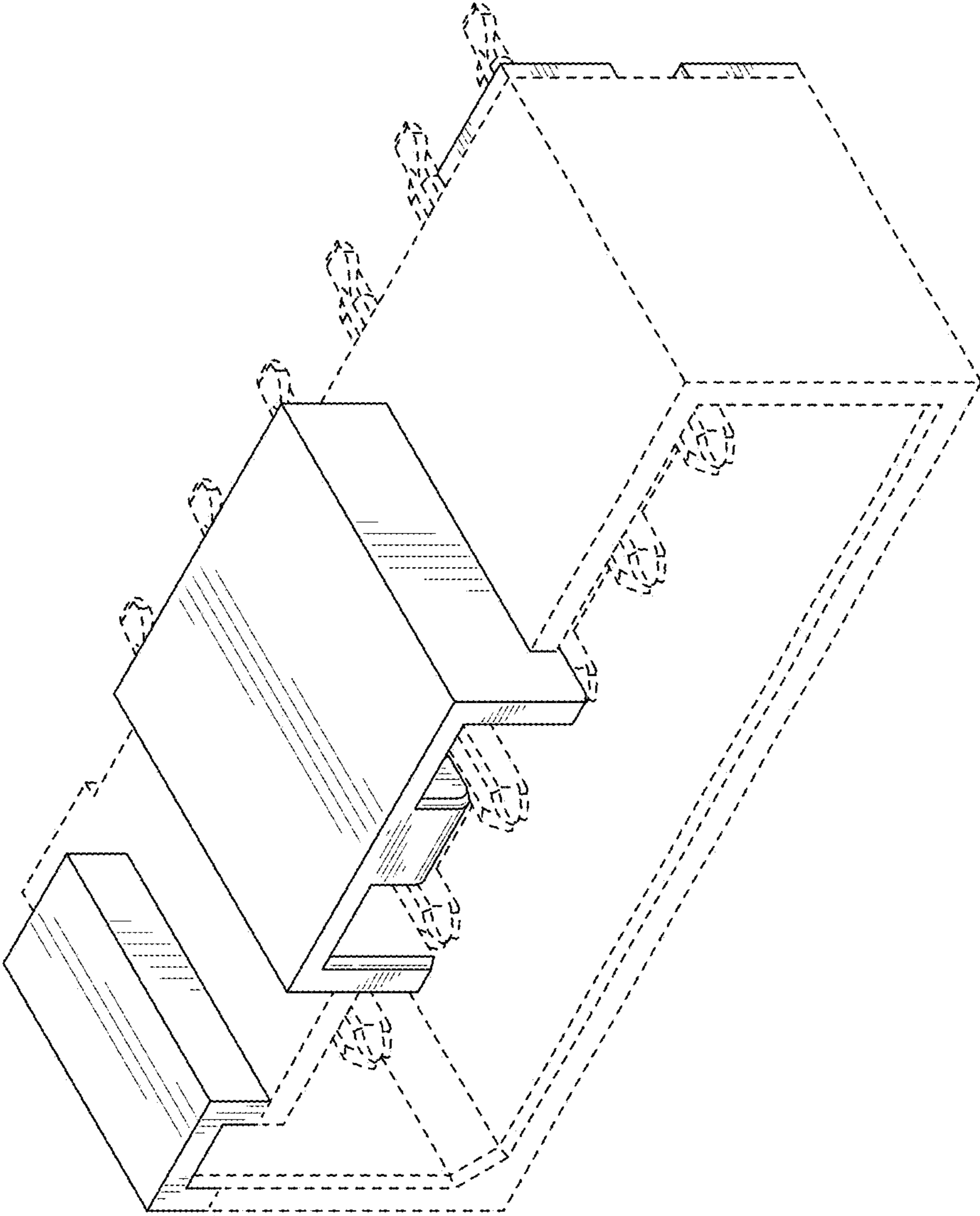


FIG. 81

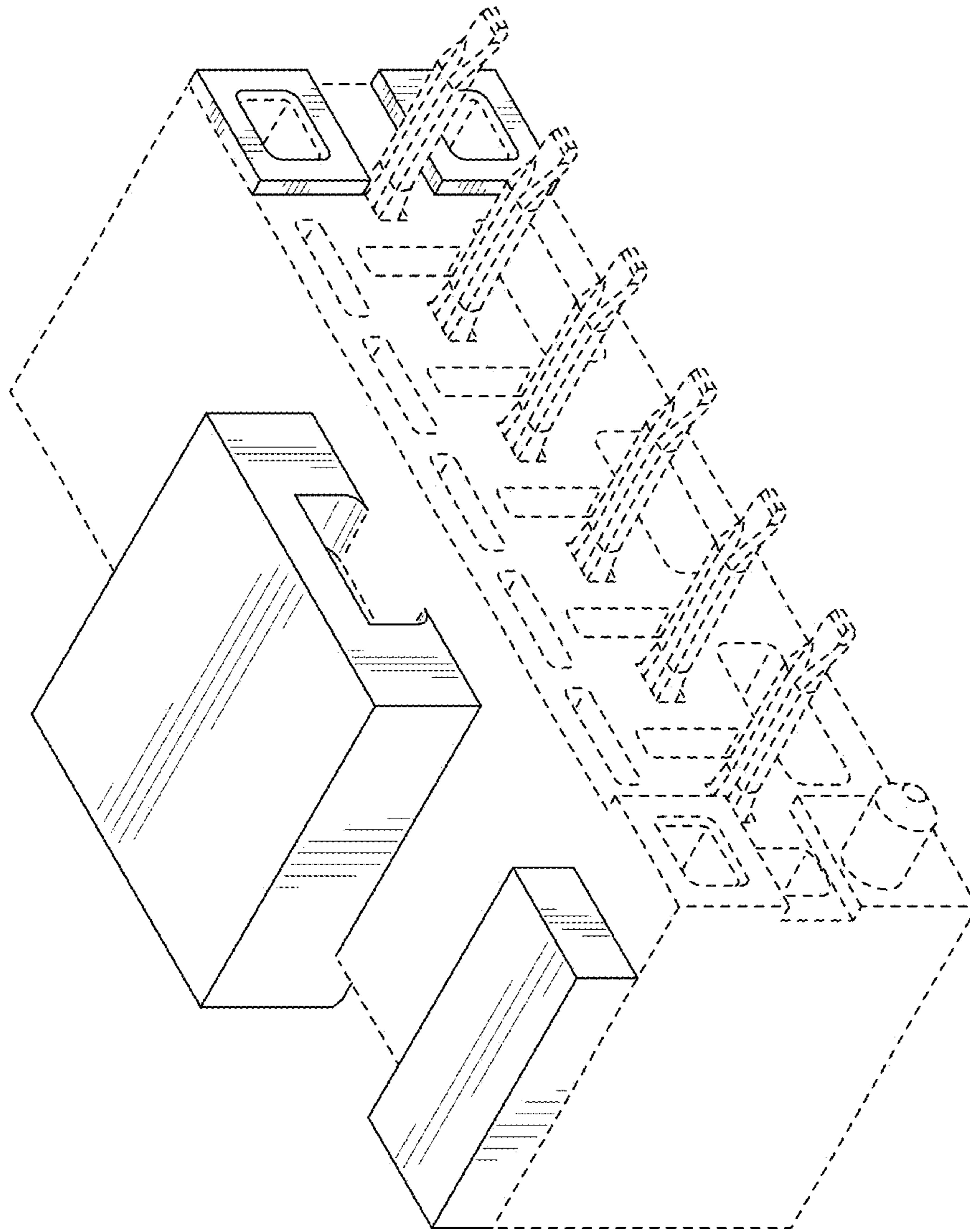


FIG. 82

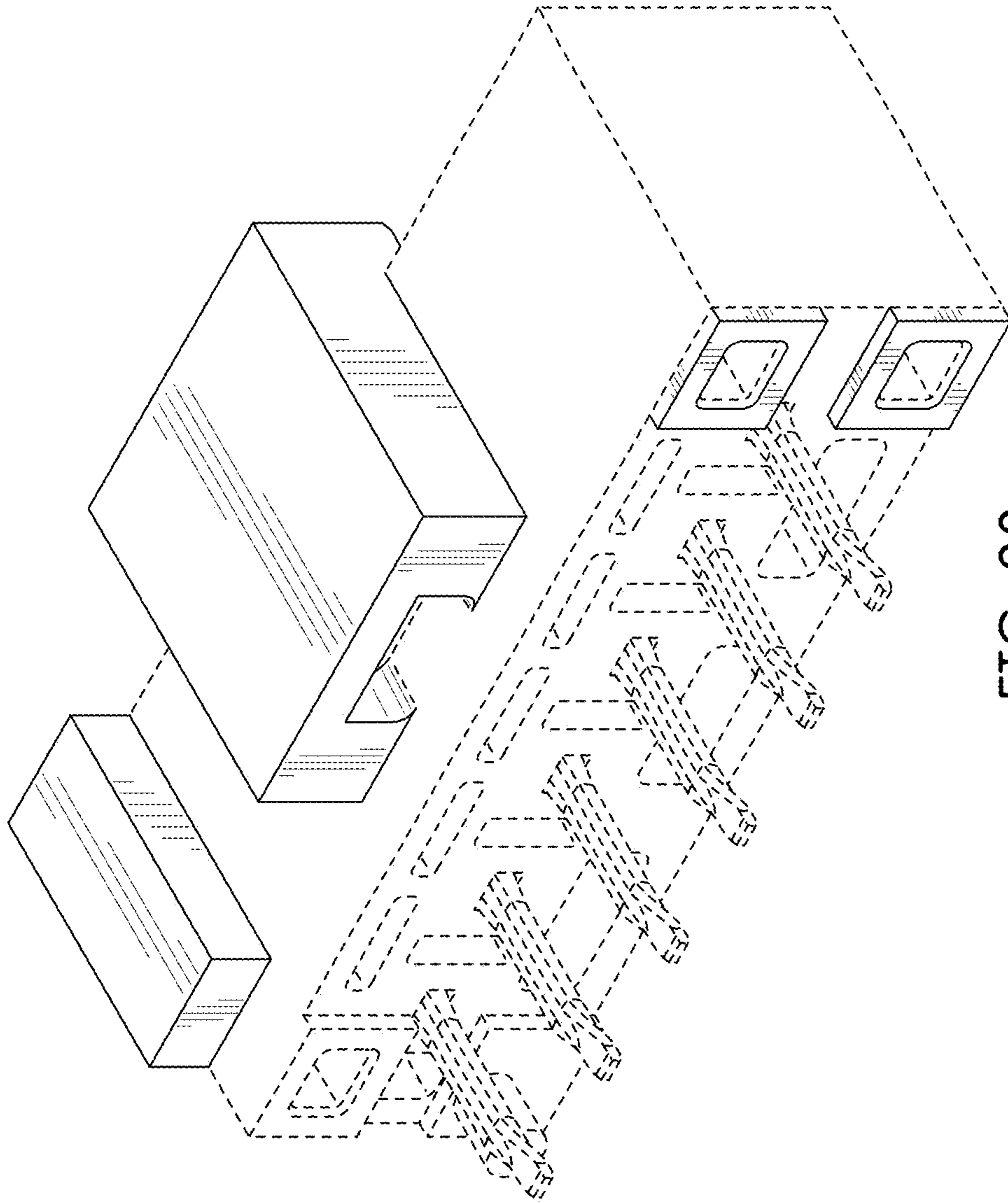


FIG. 83

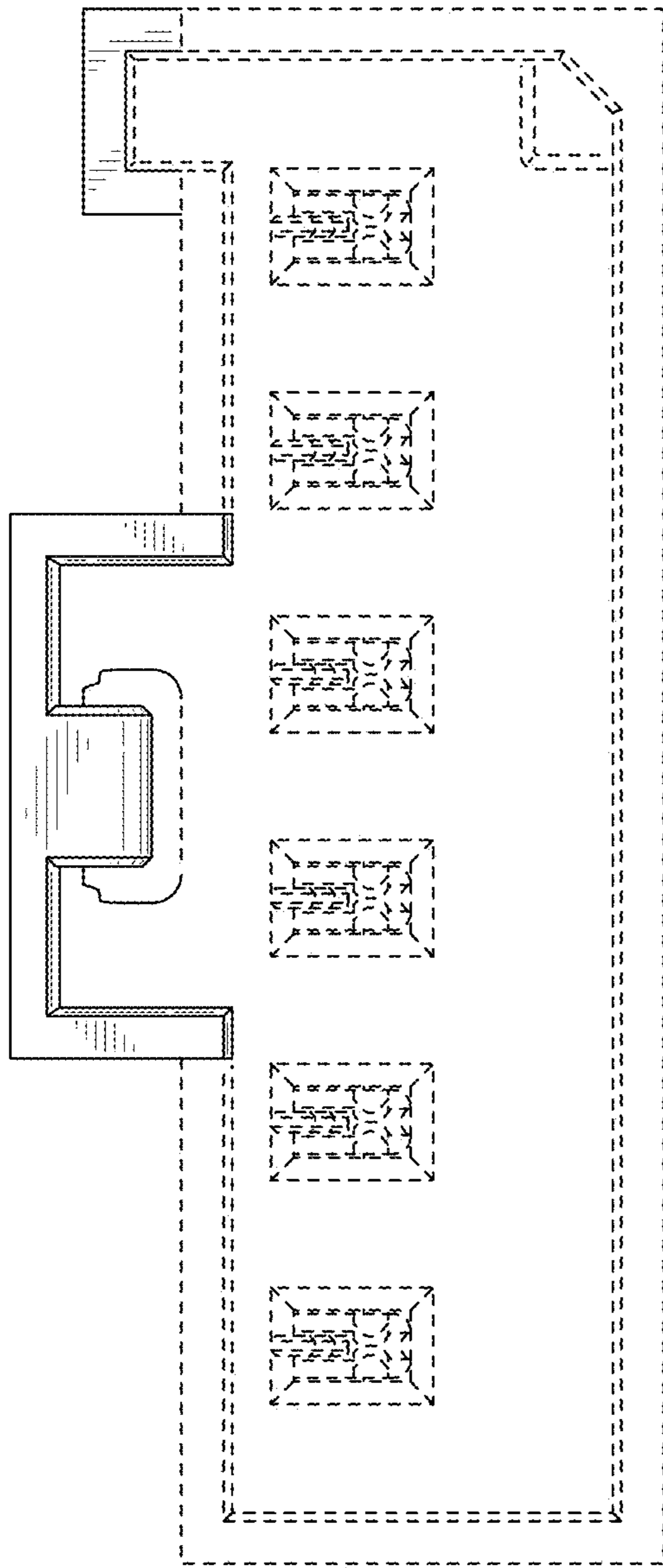


FIG. 84

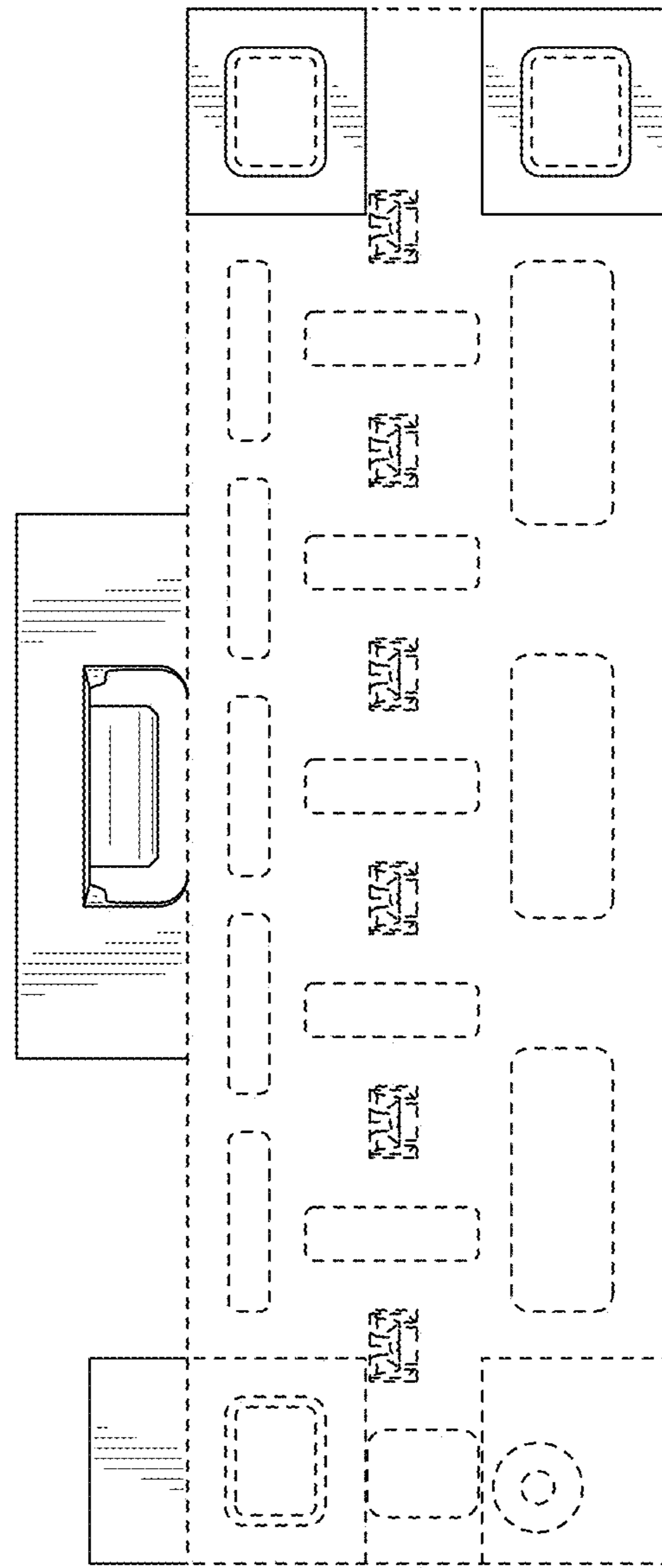


FIG. 85

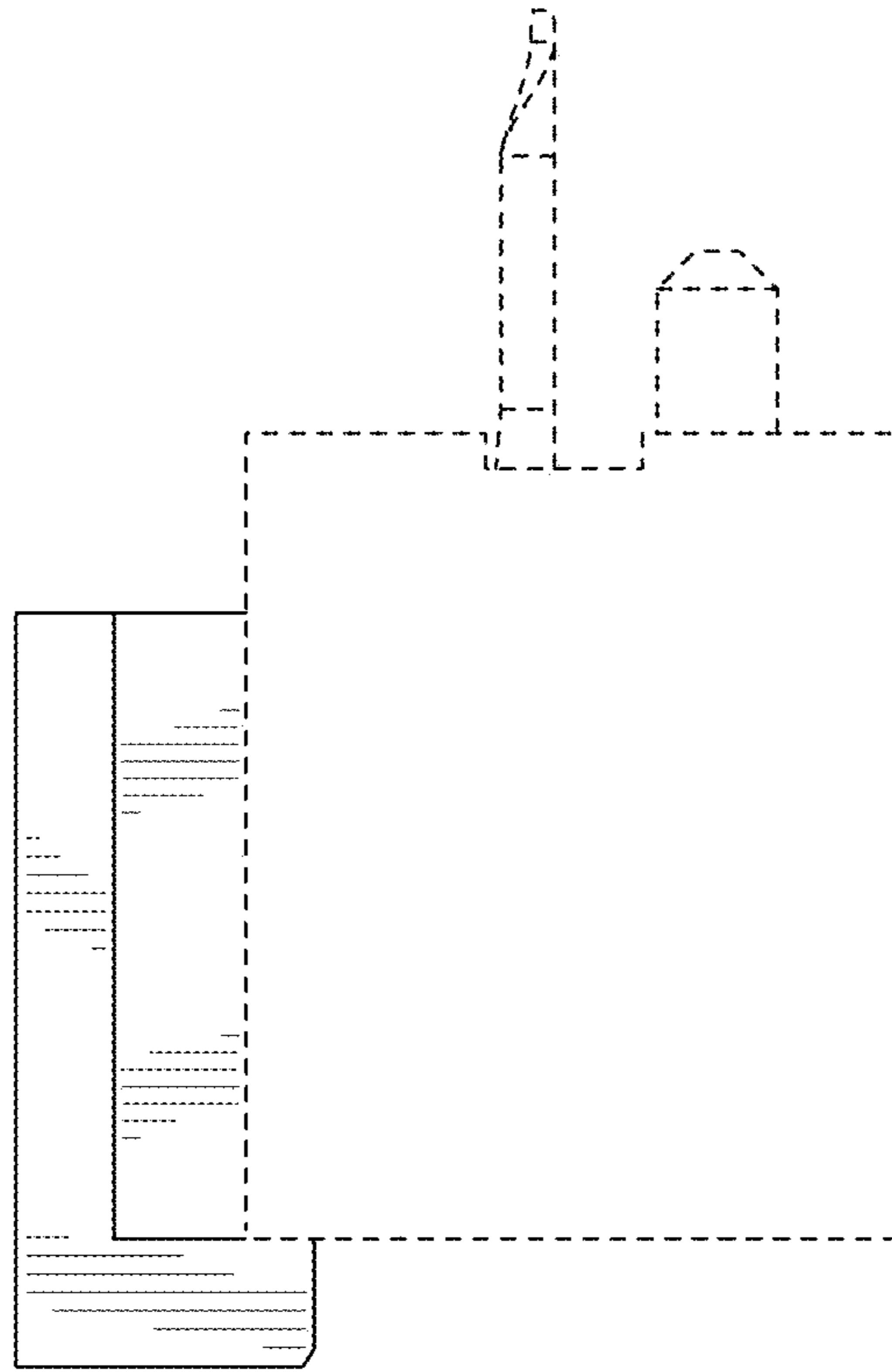


FIG. 87

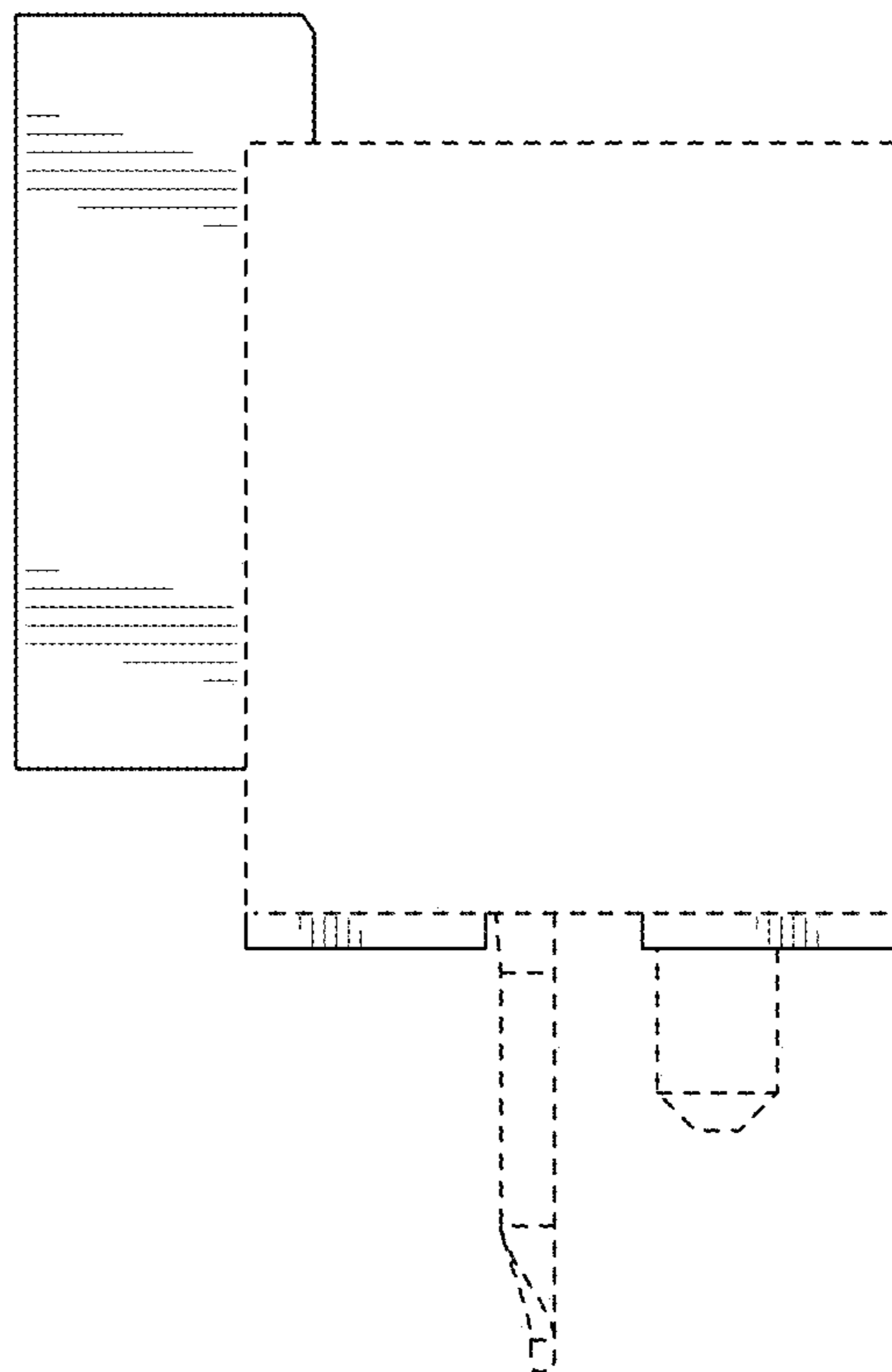


FIG. 86

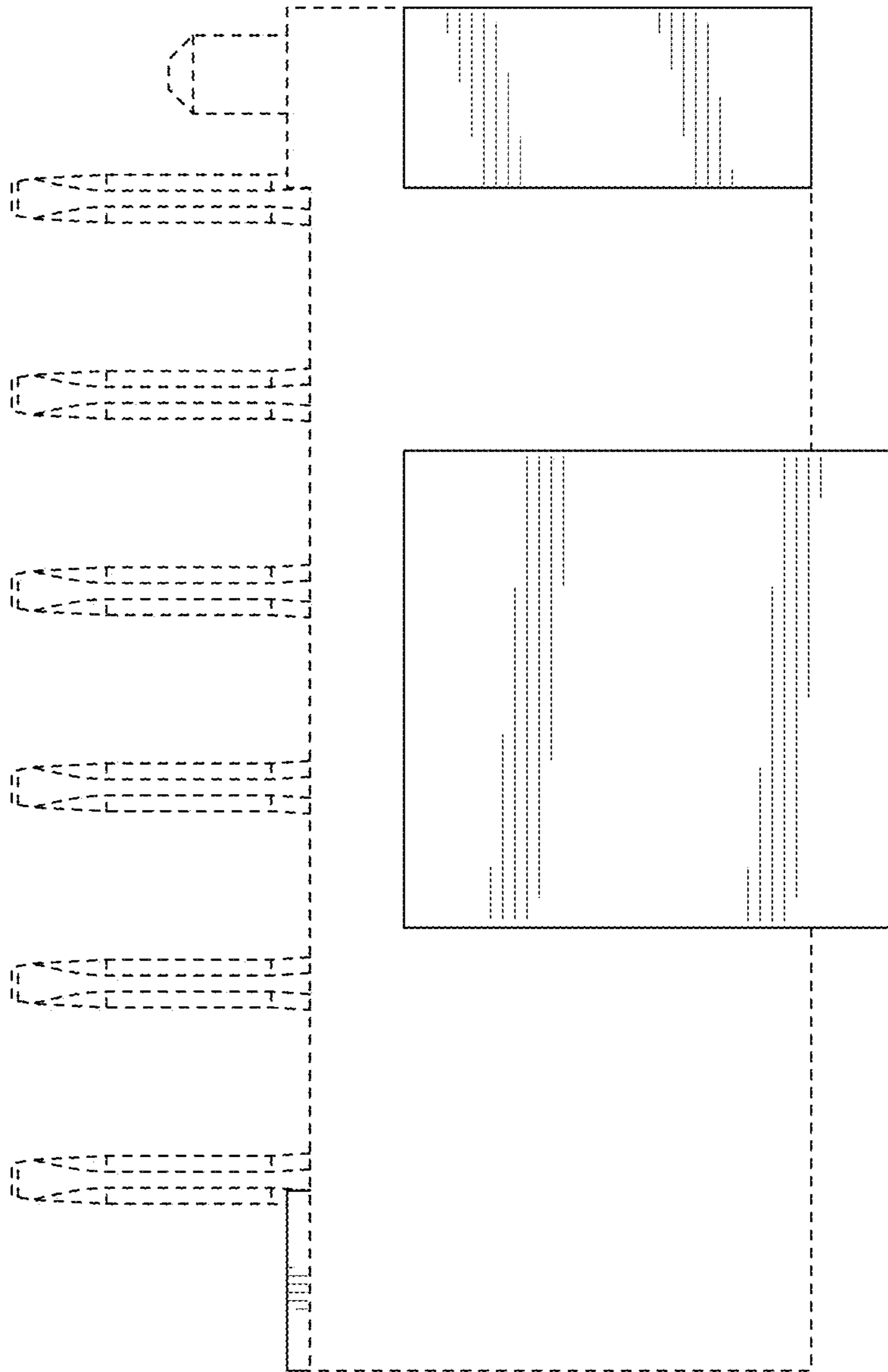


FIG. 88

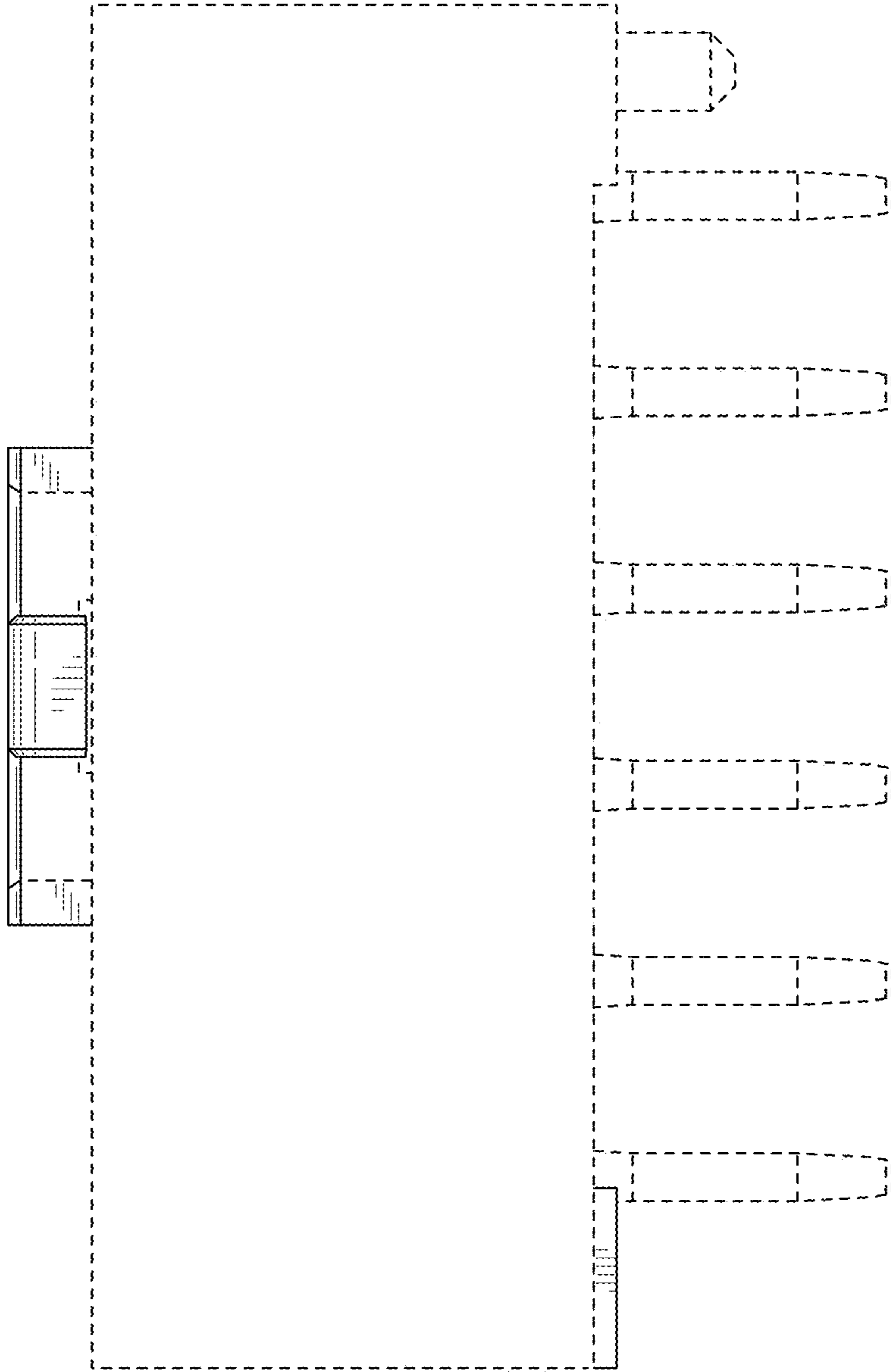


FIG. 89

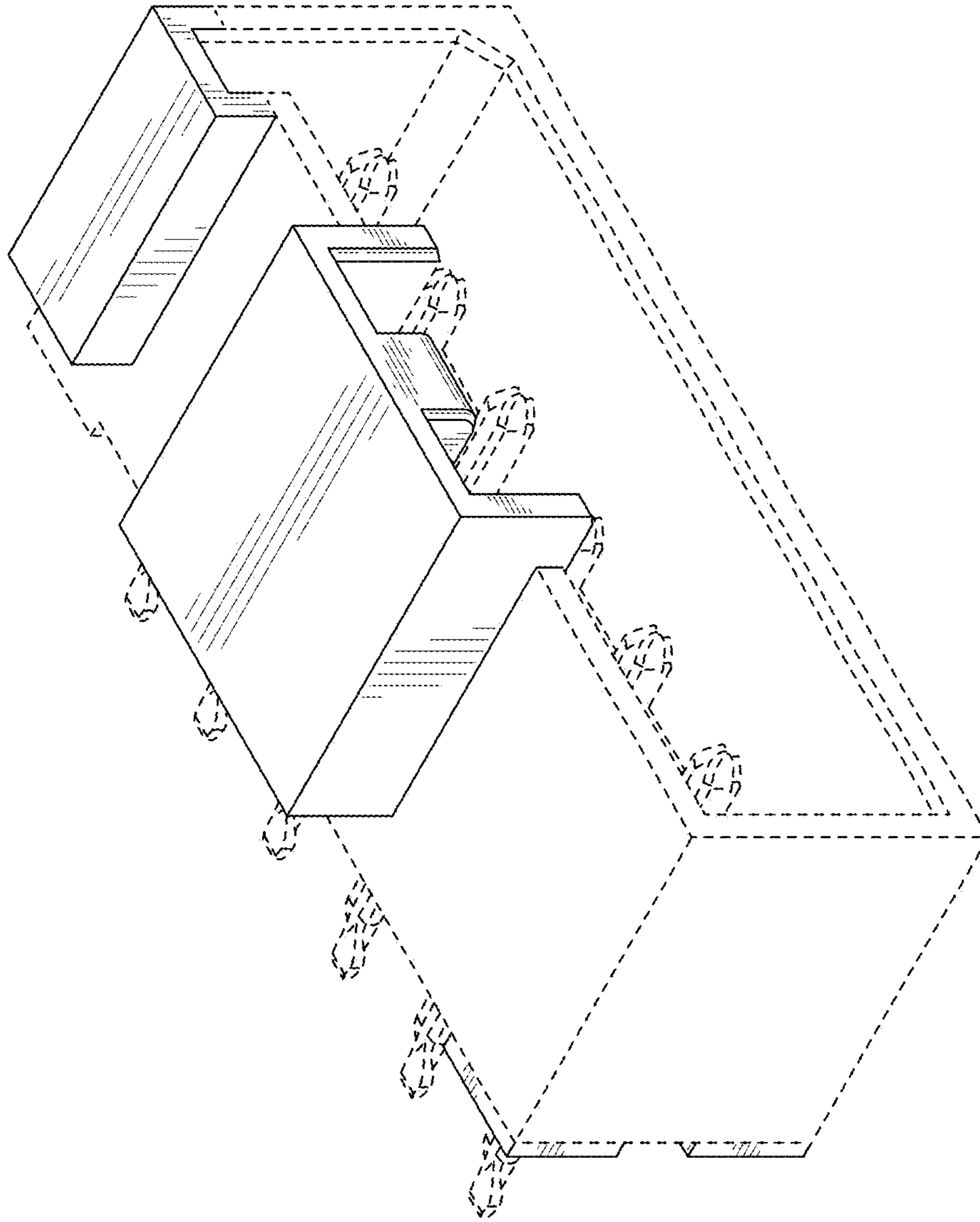


FIG. 90

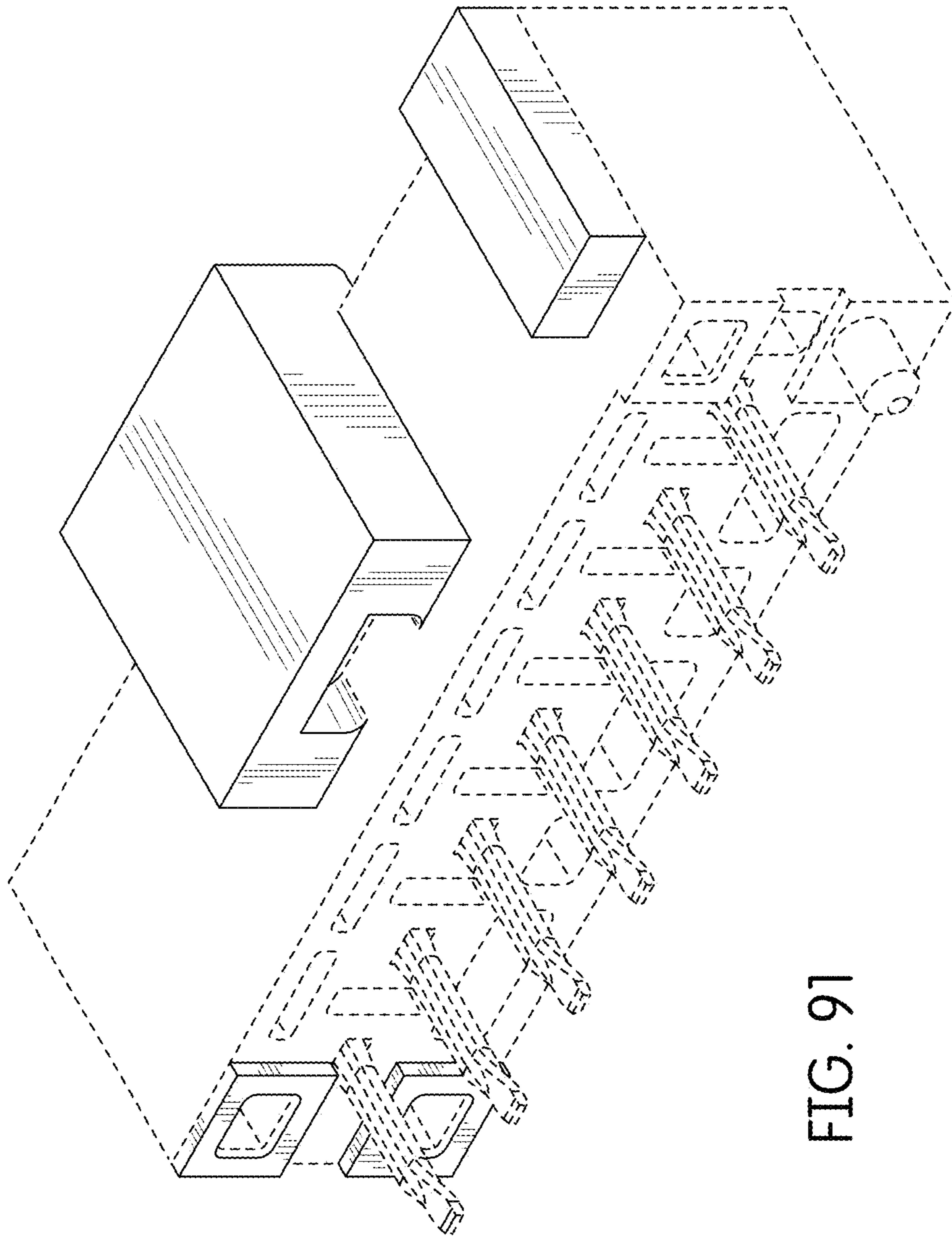


FIG. 91

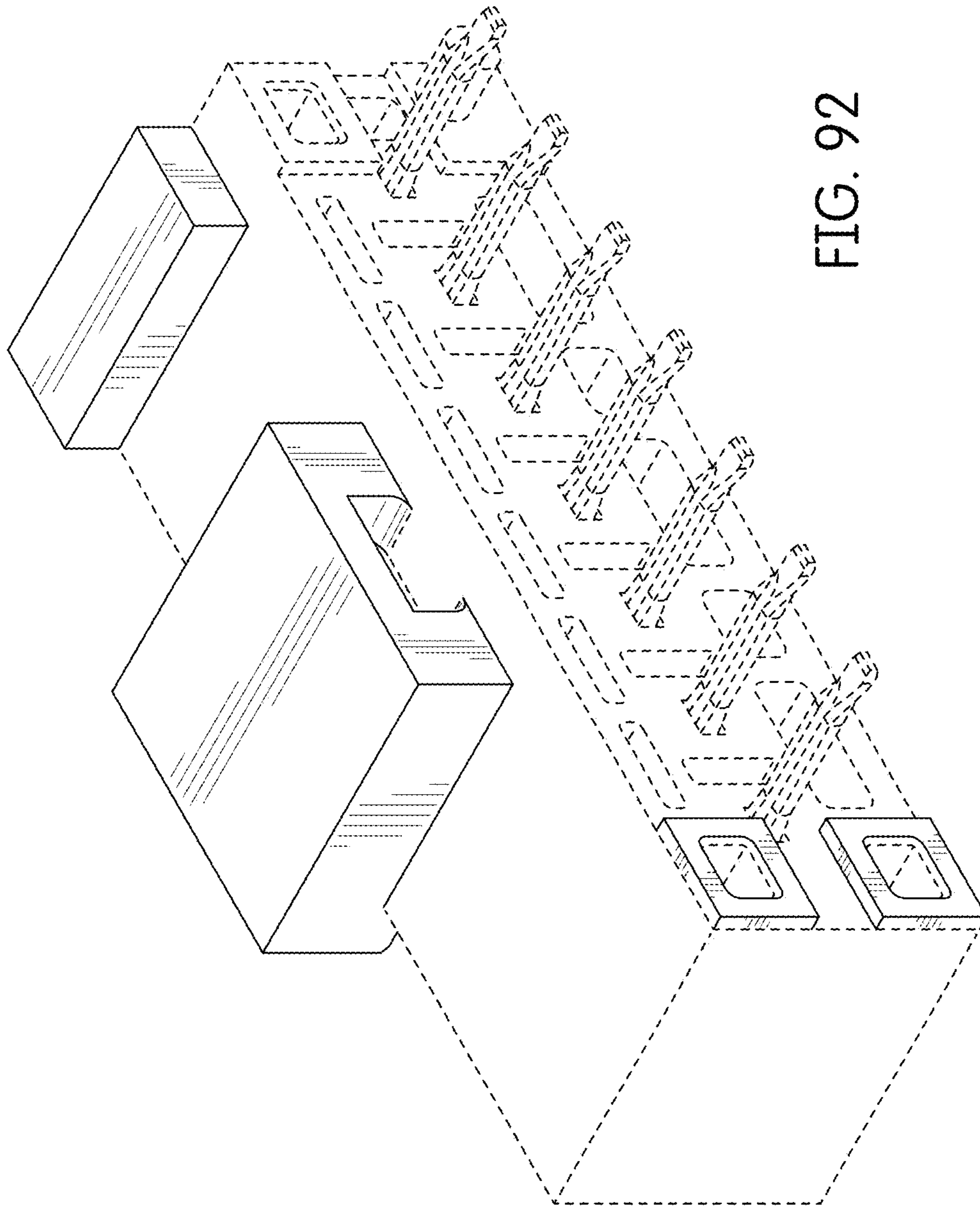


FIG. 92

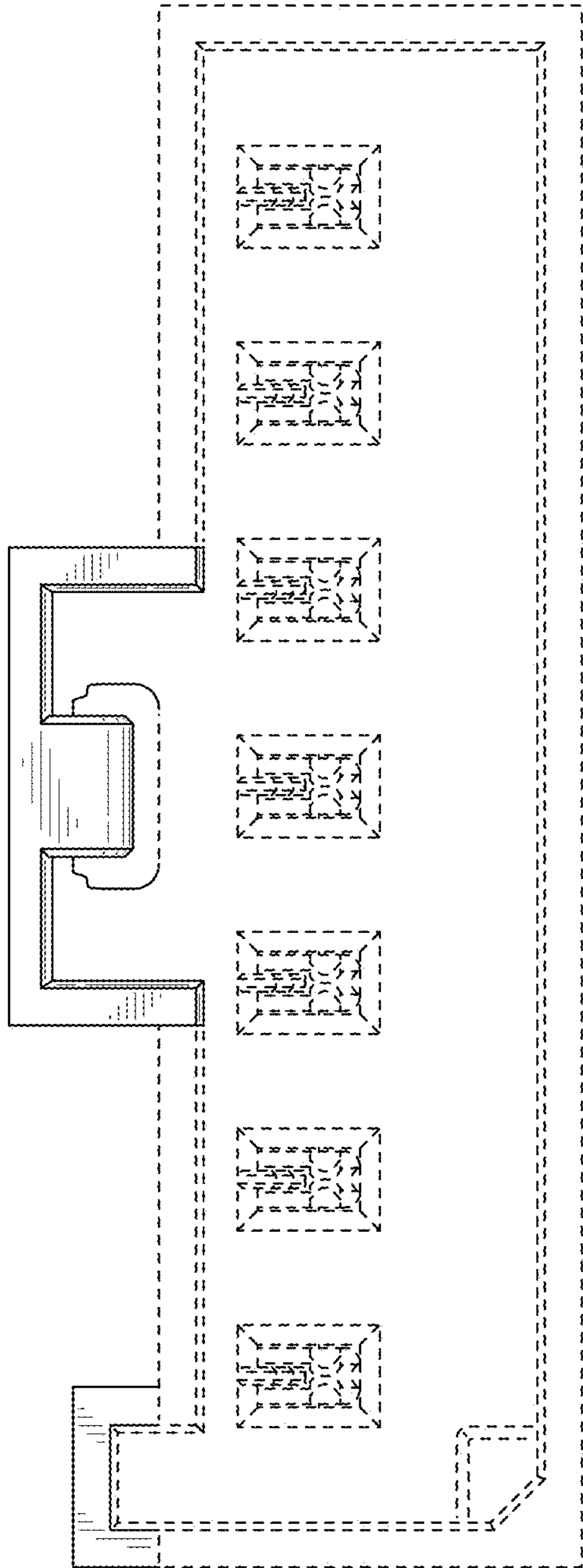


FIG. 93

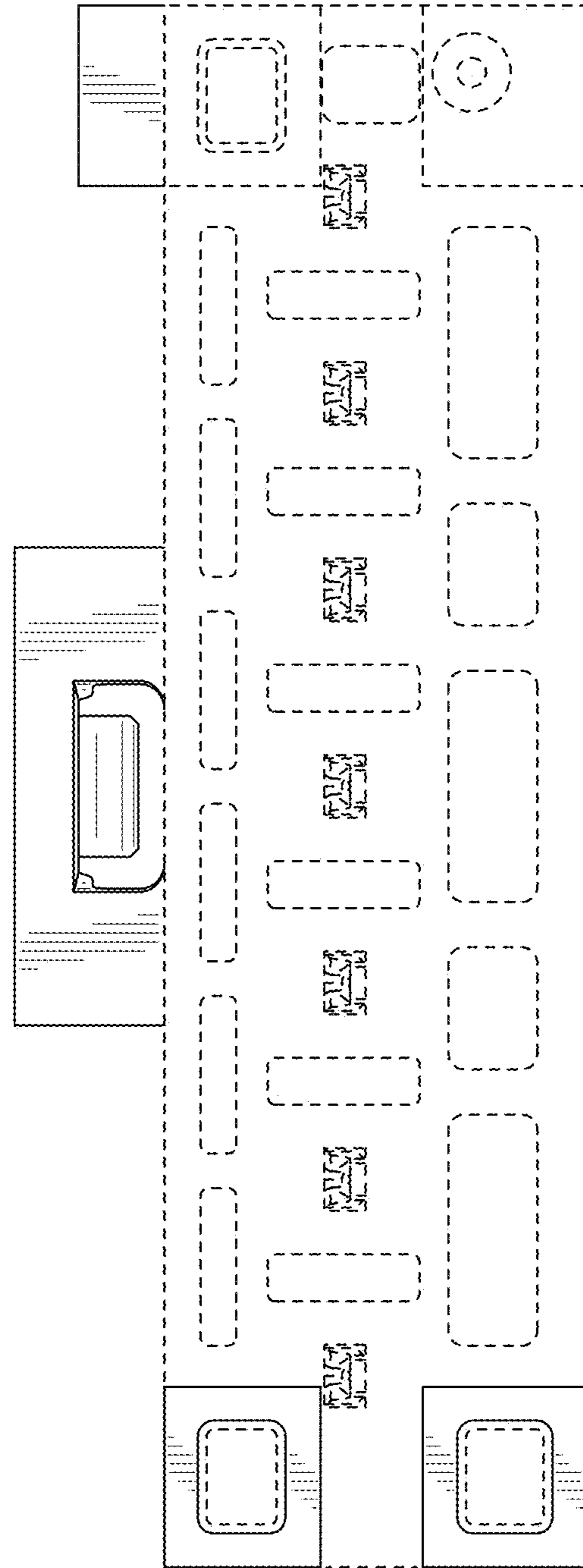


FIG. 94

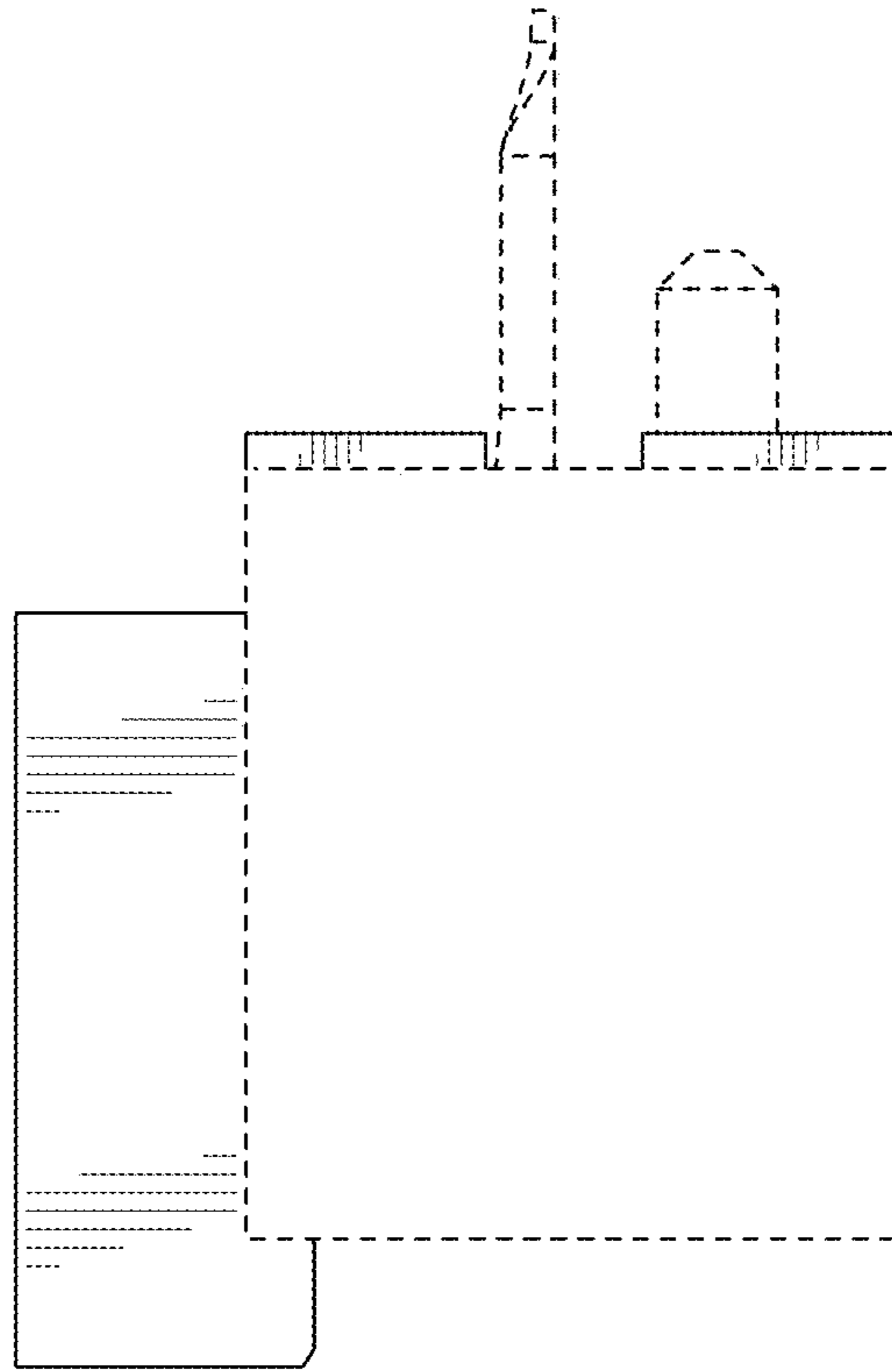


FIG. 96

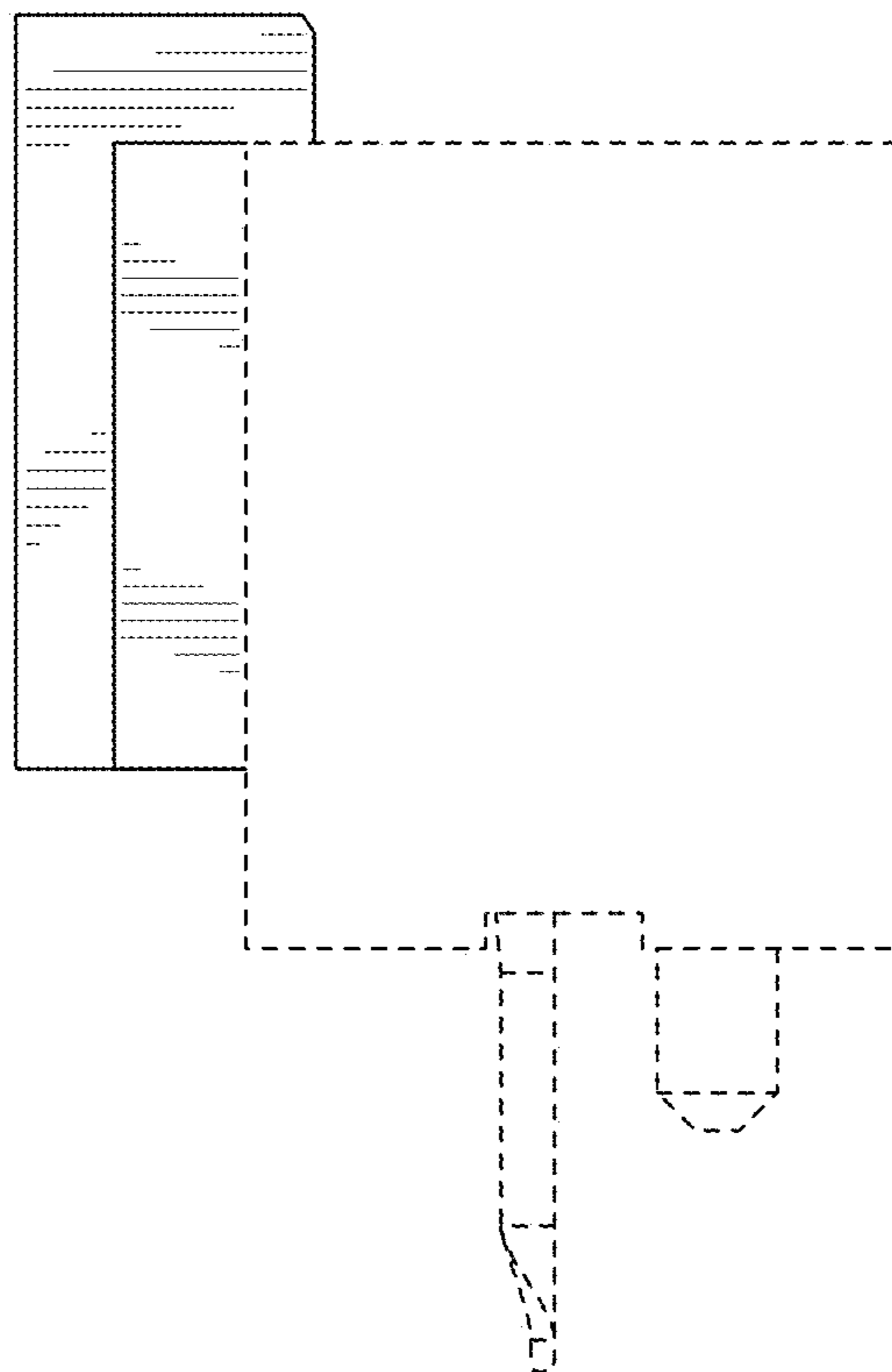


FIG. 95

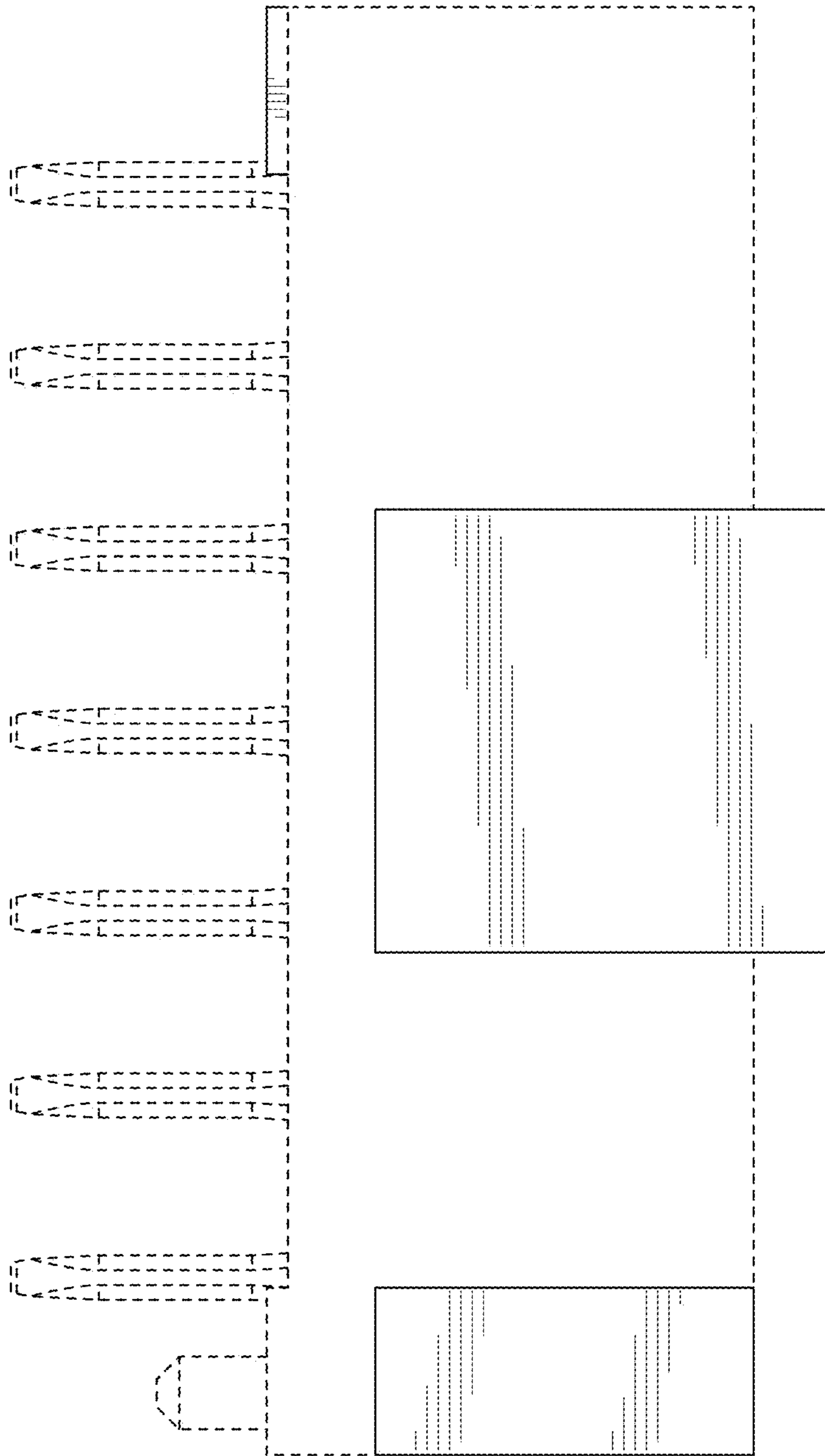


FIG. 97

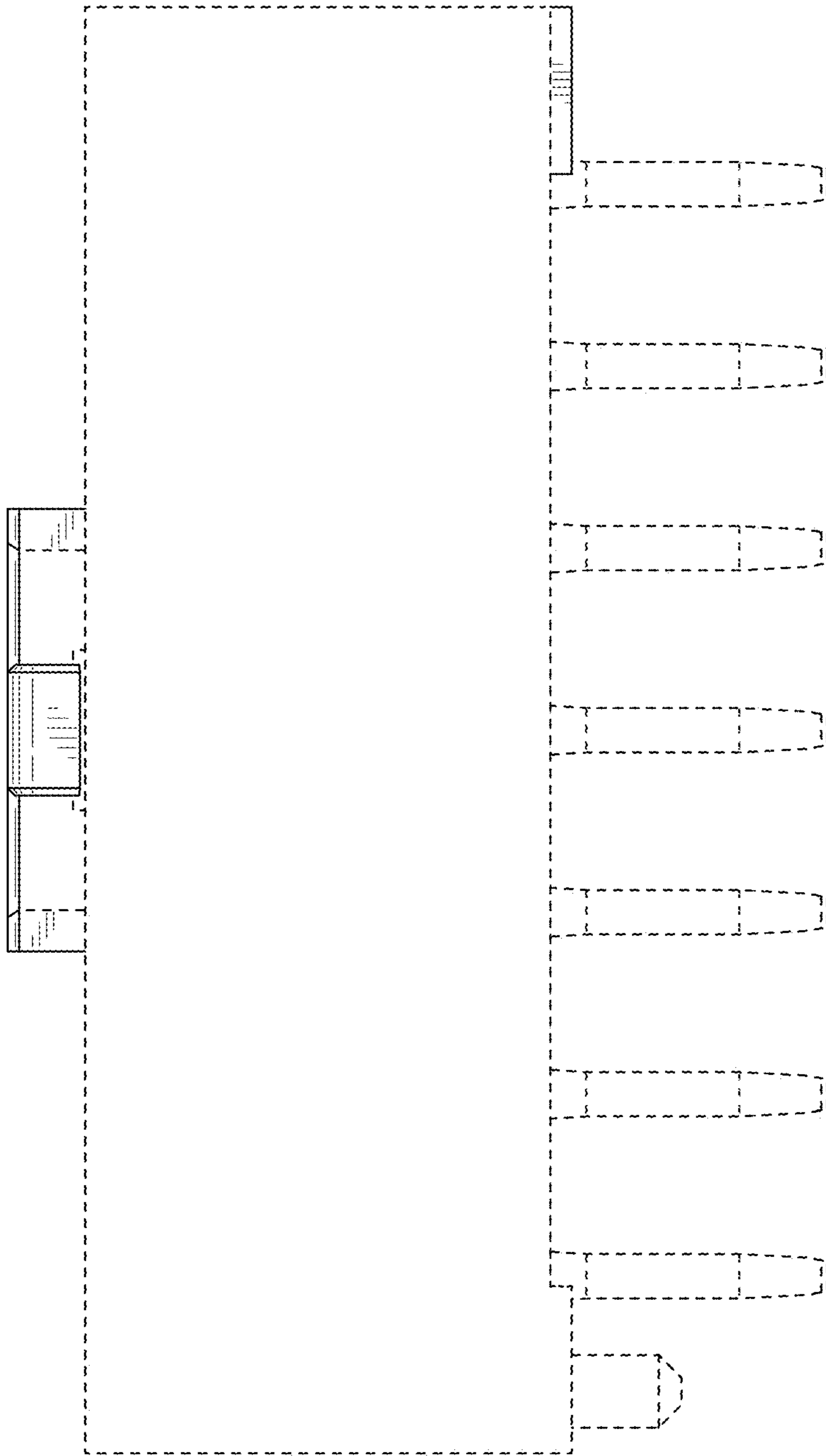


FIG. 98

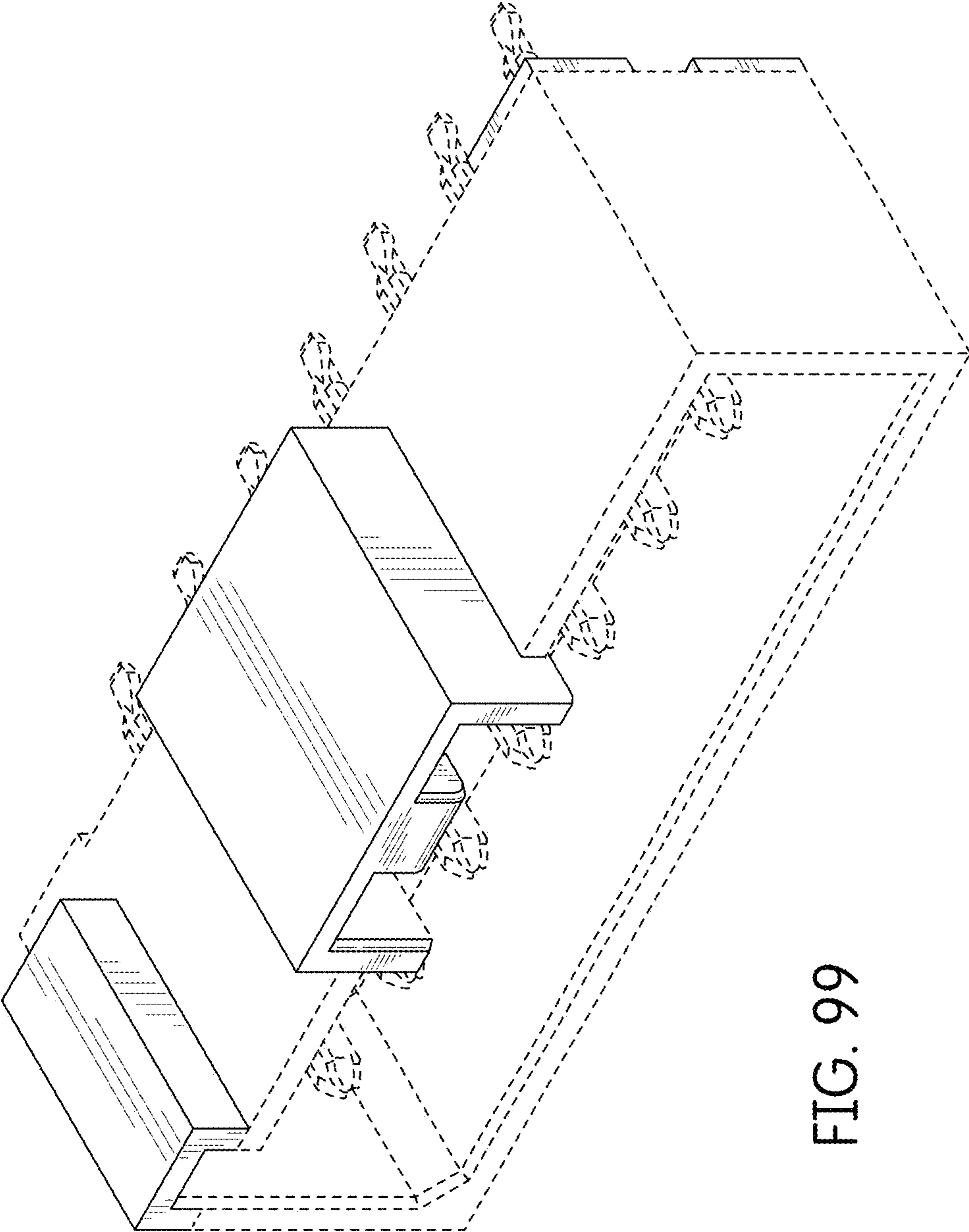


FIG. 99

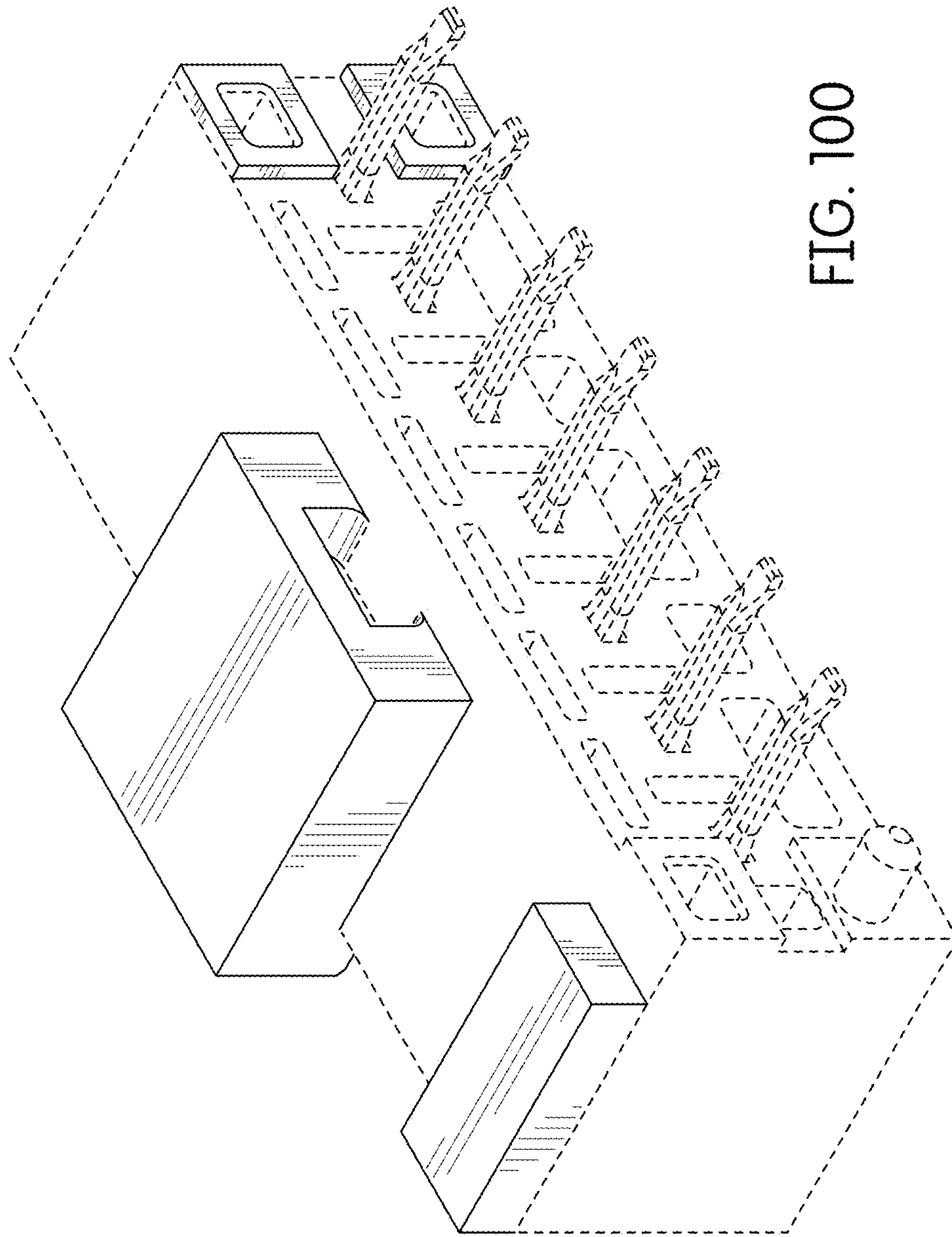


FIG. 100

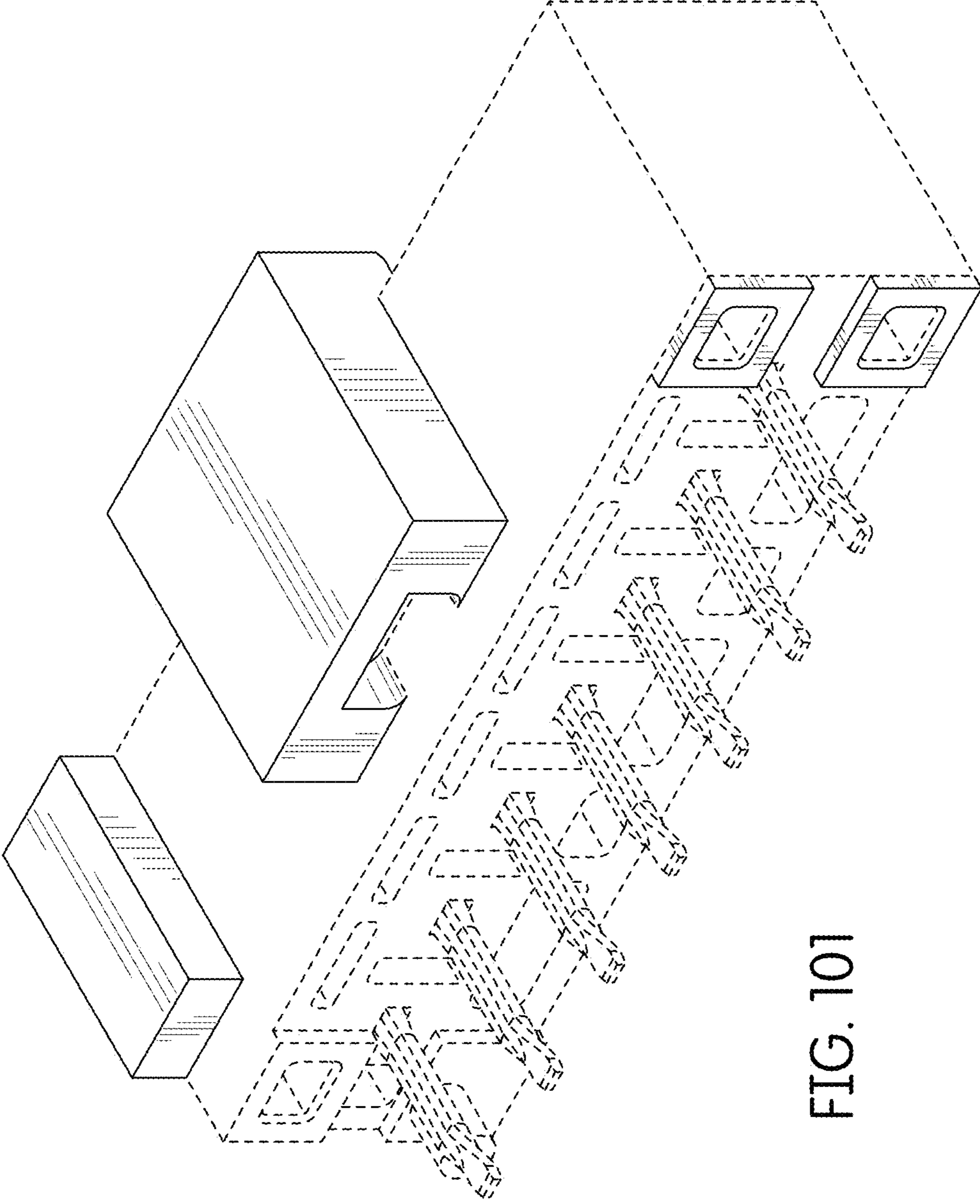


FIG. 101

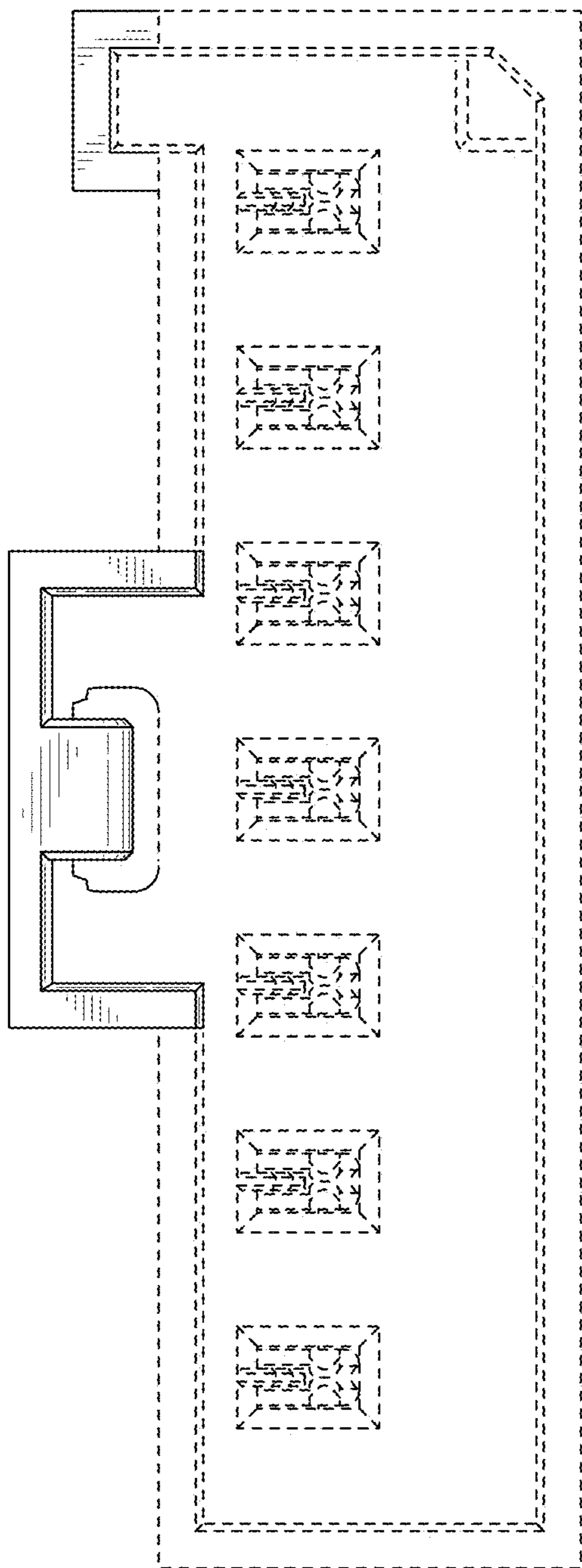


FIG. 102

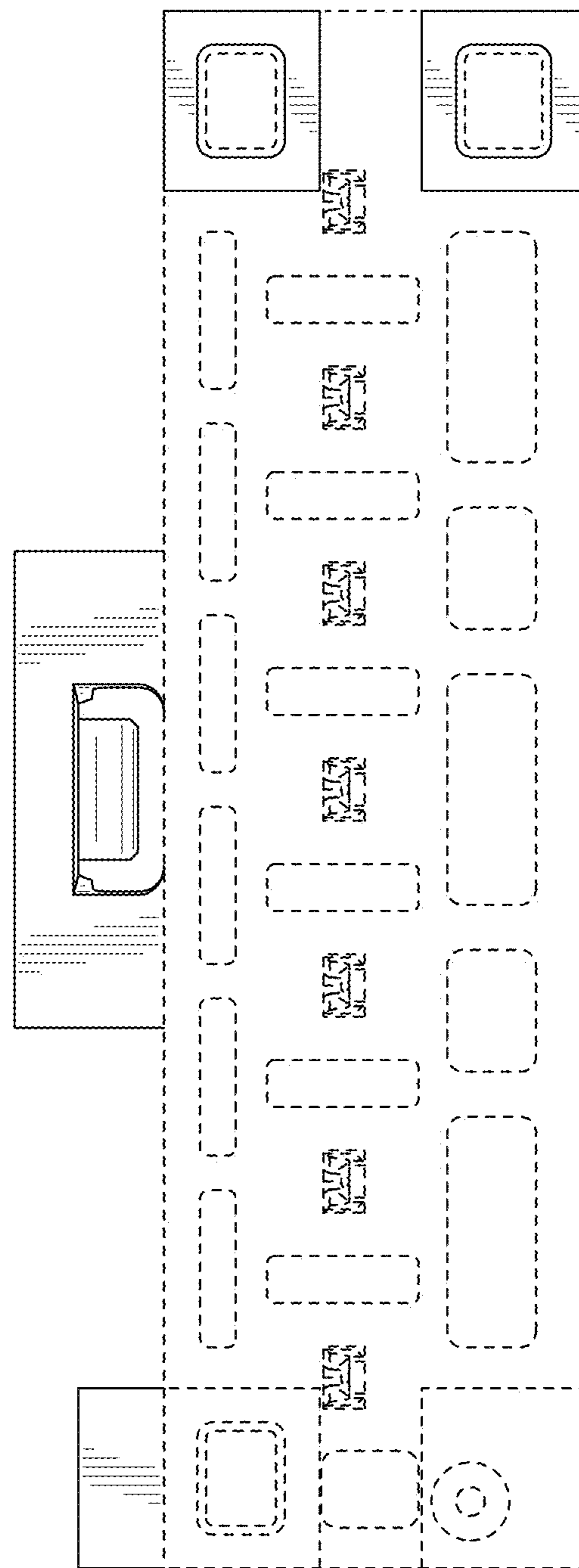


FIG. 103

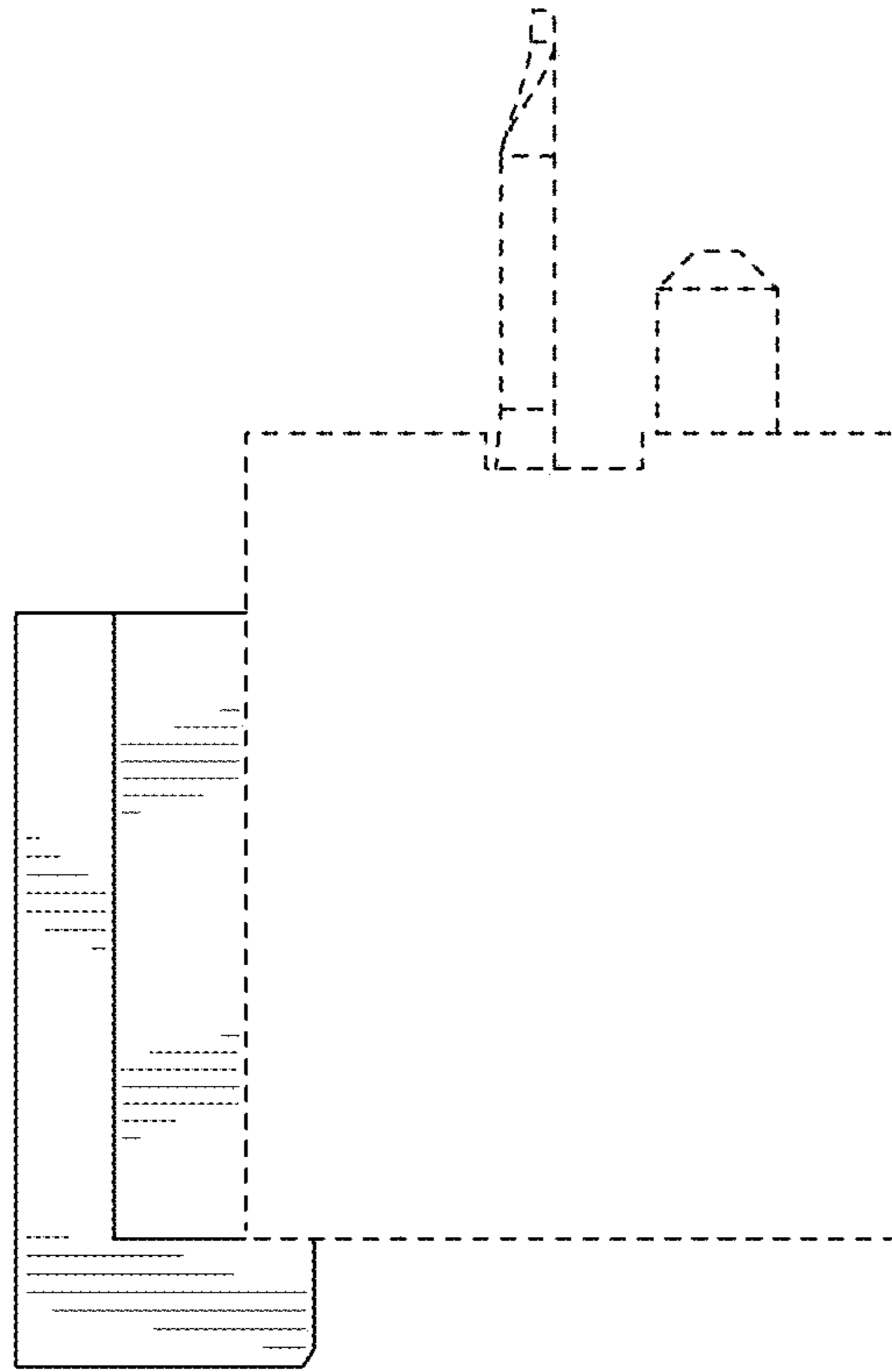


FIG. 105

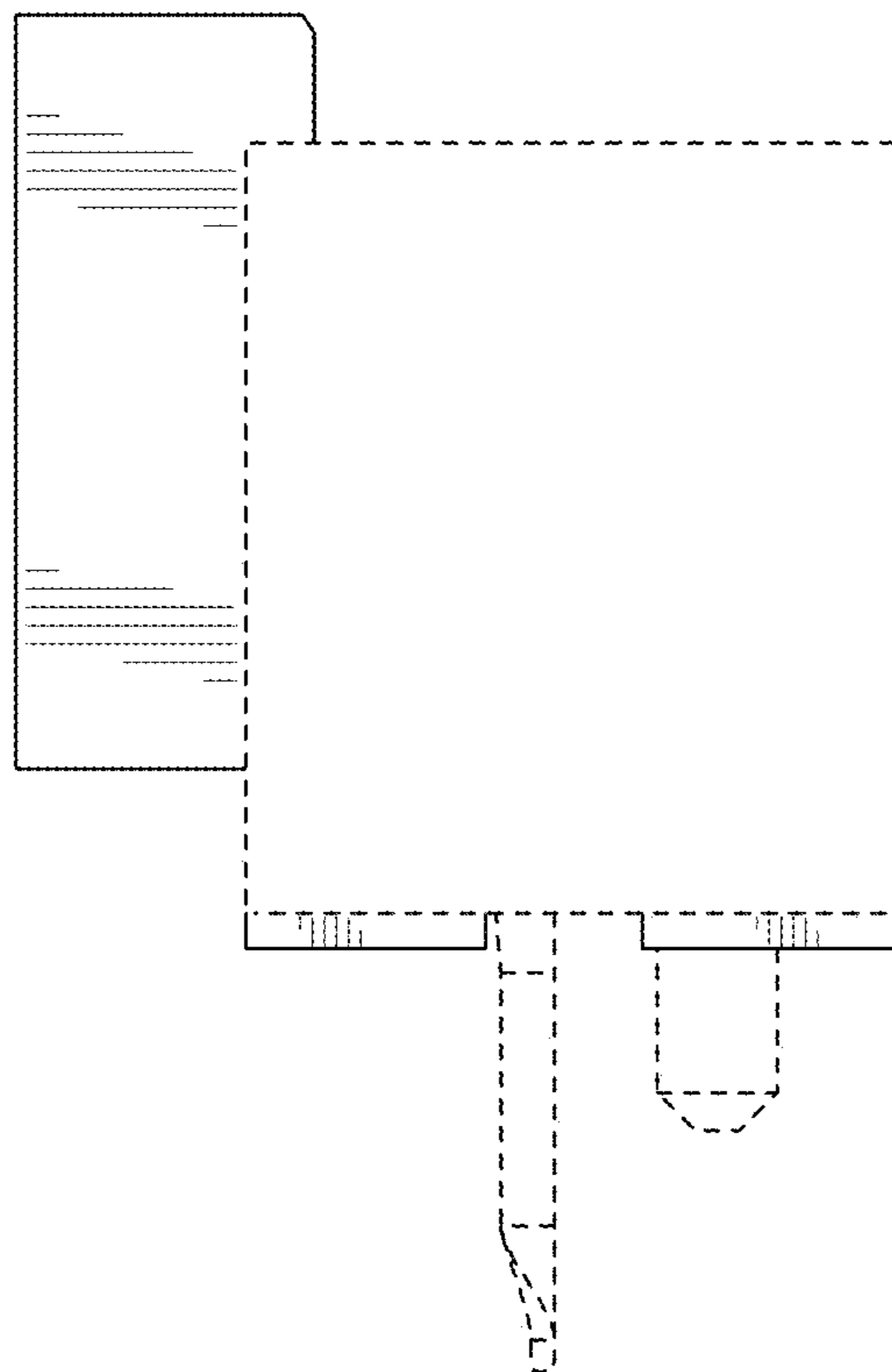


FIG. 104

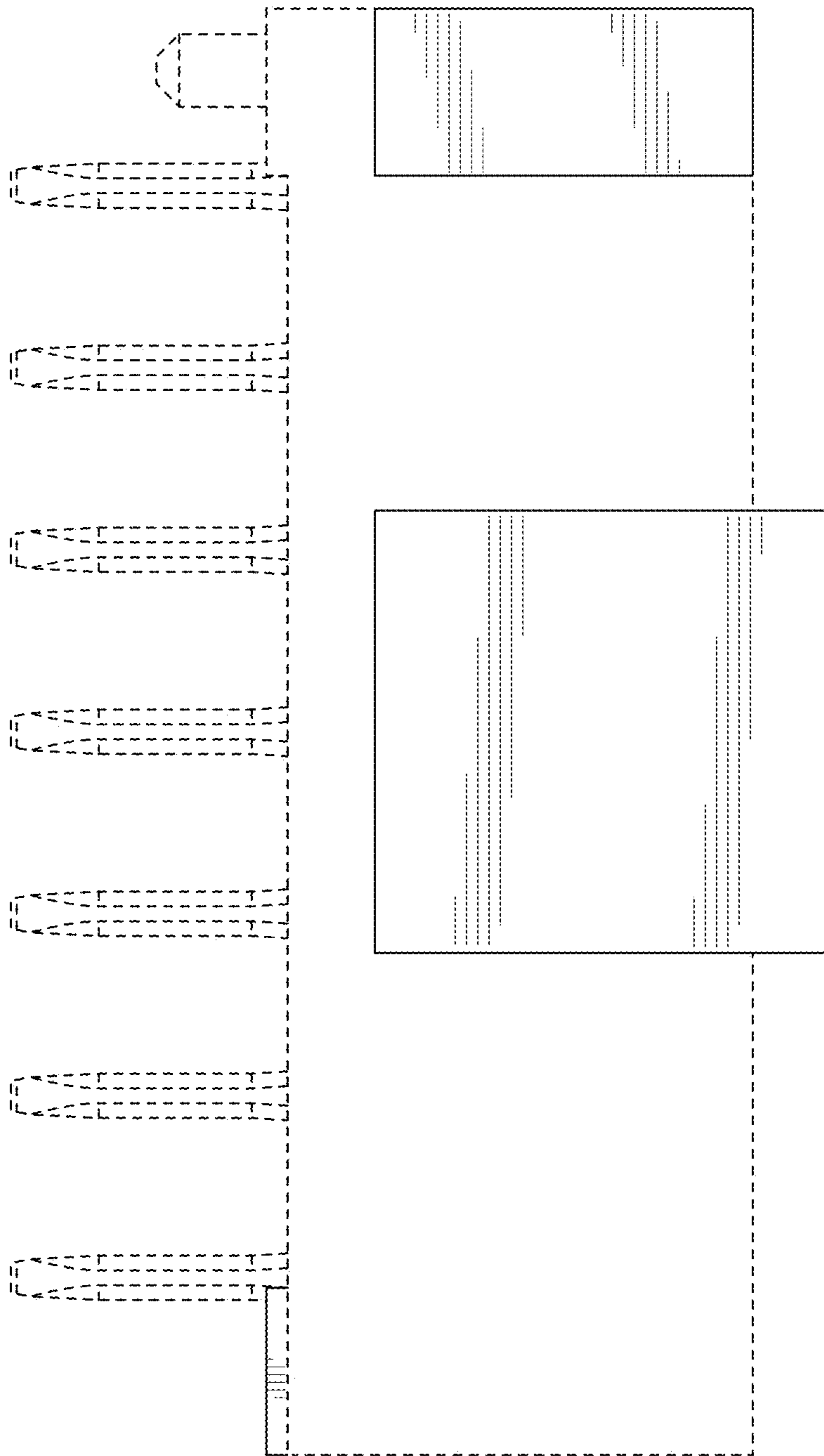


FIG. 106

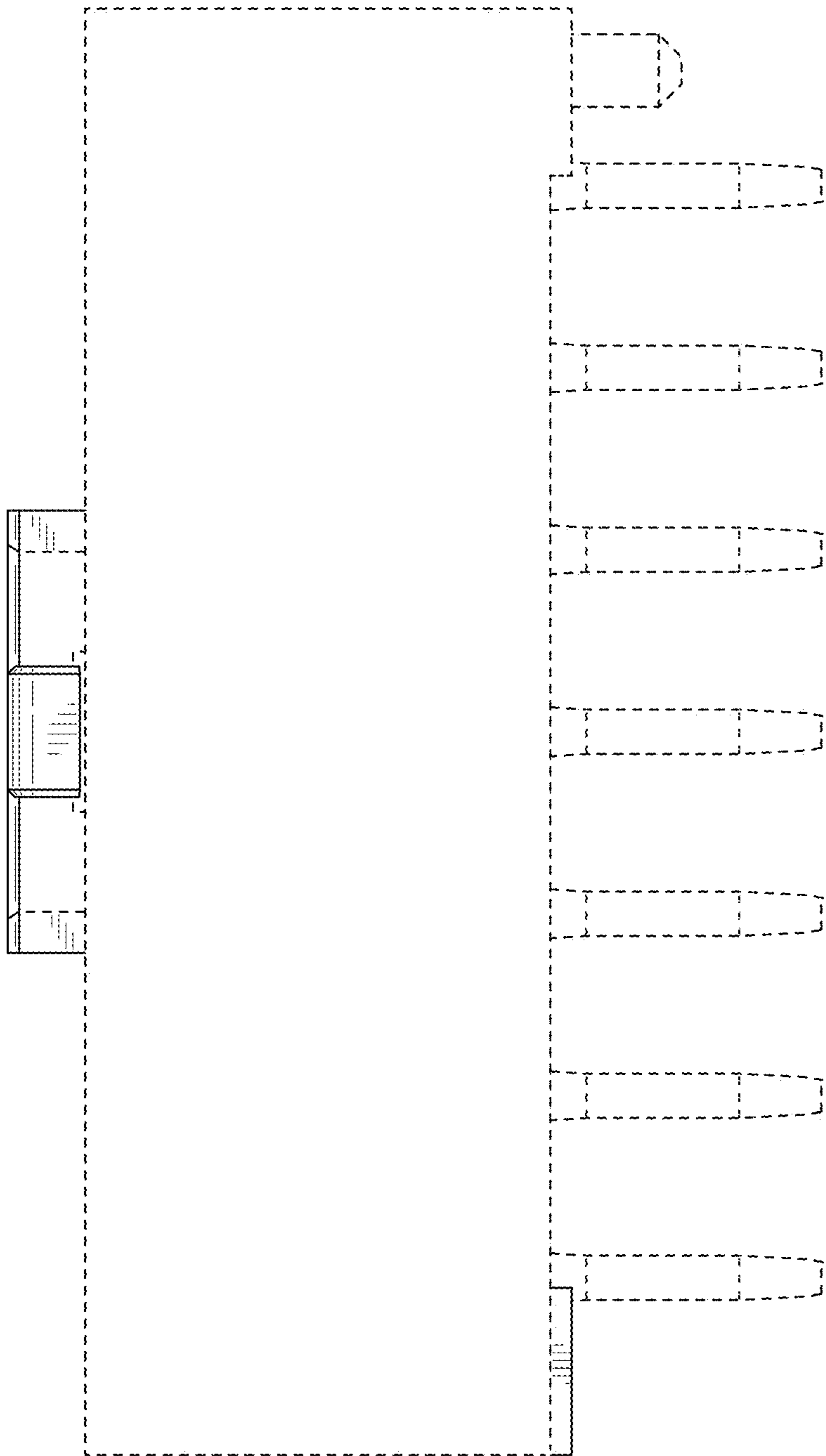


FIG. 107

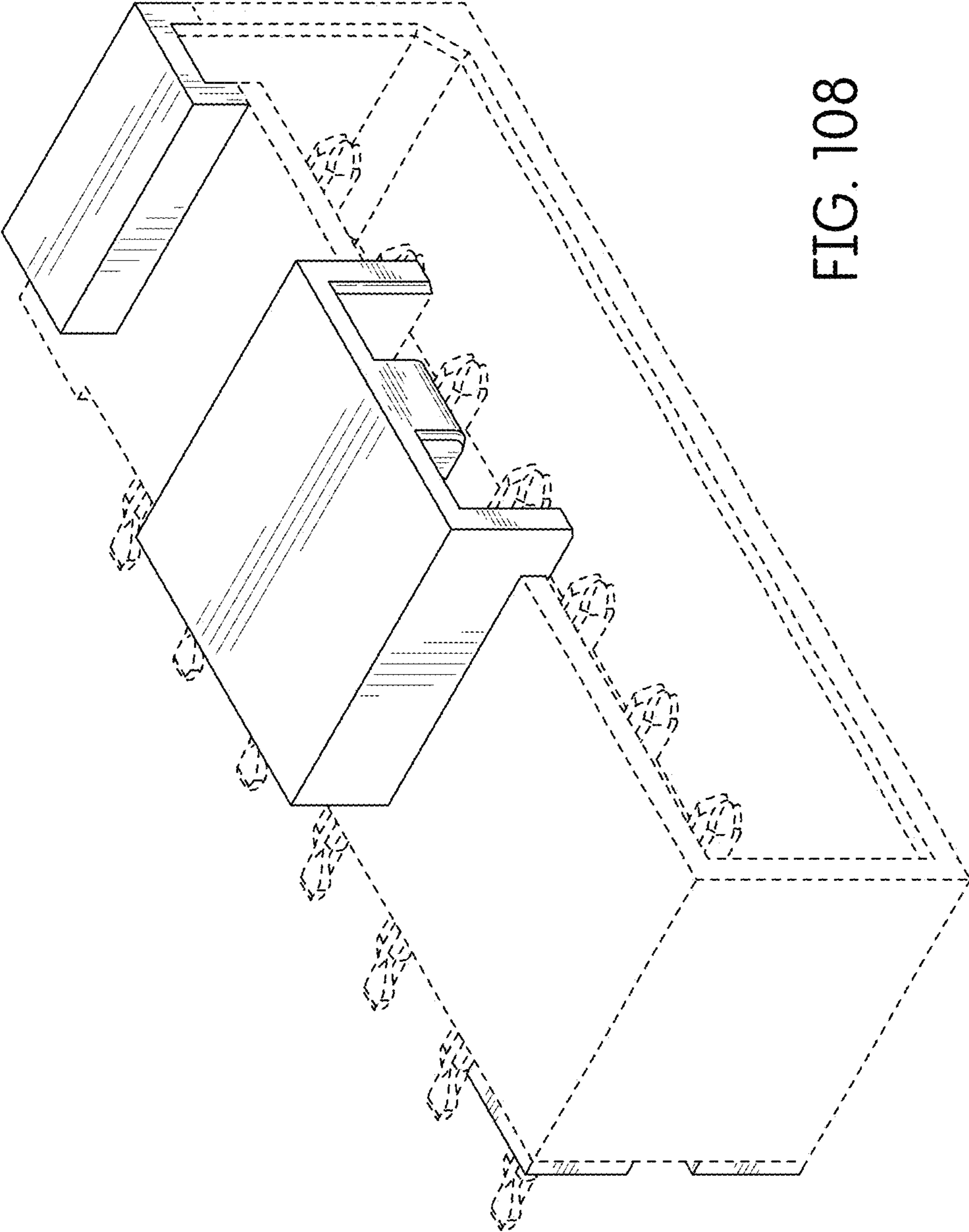


FIG. 108

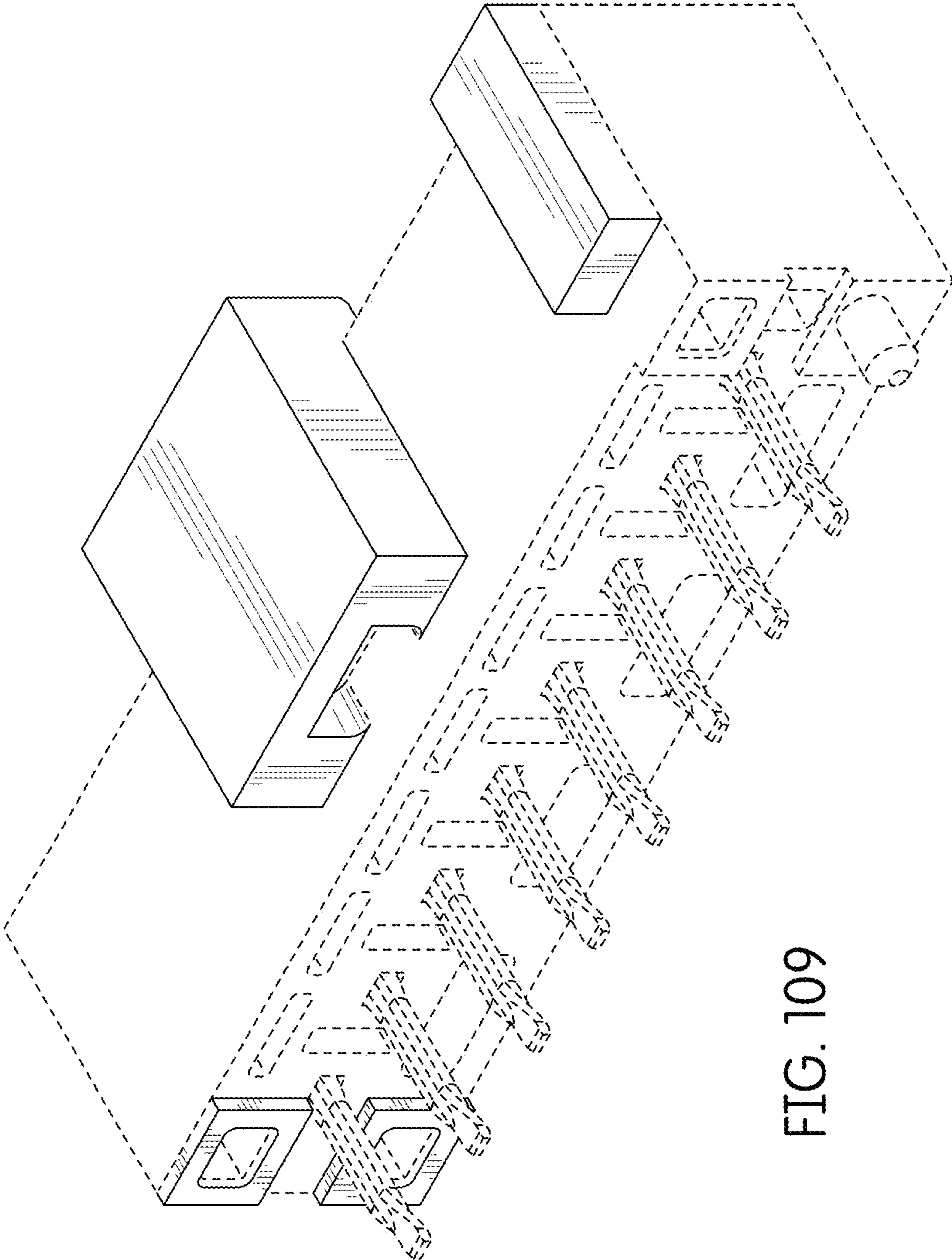


FIG. 109

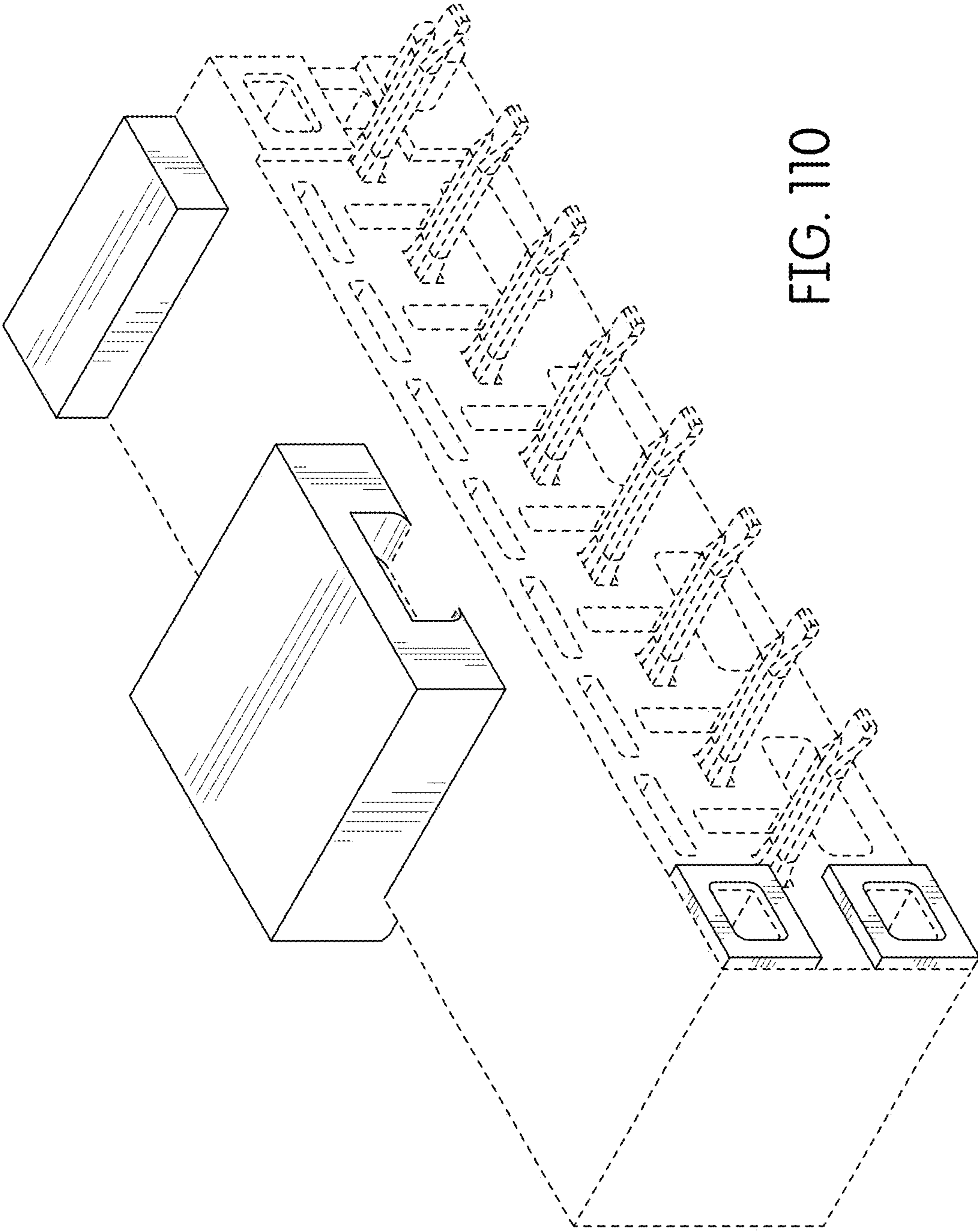


FIG. 110

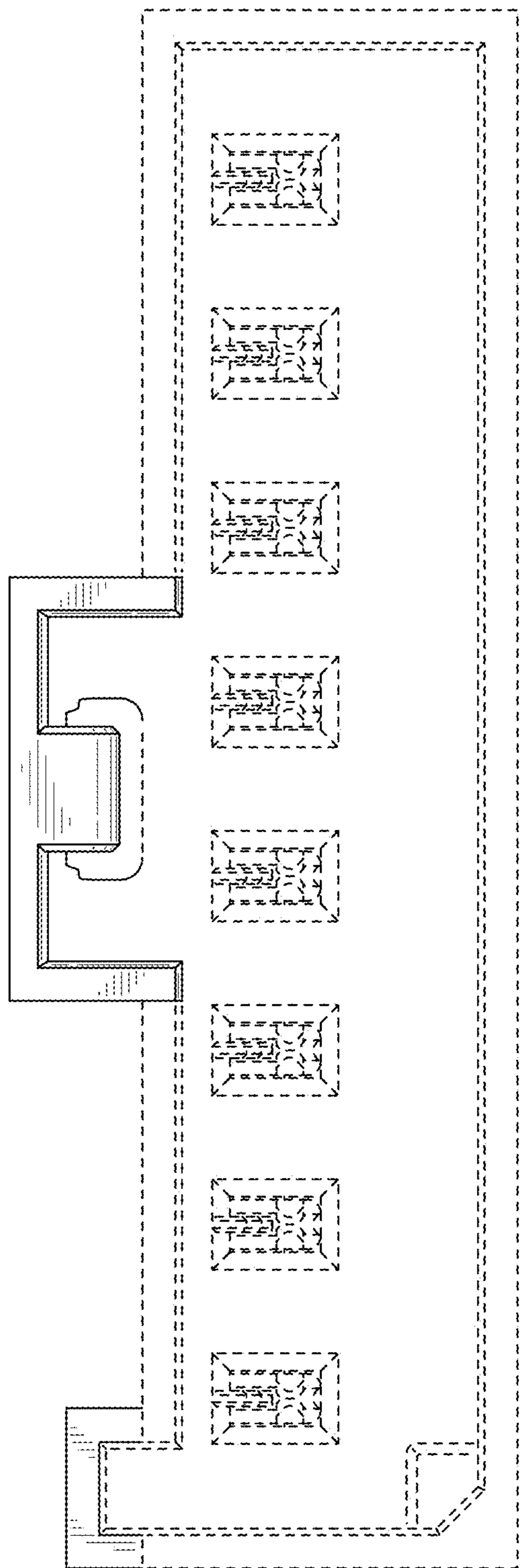


FIG. 111

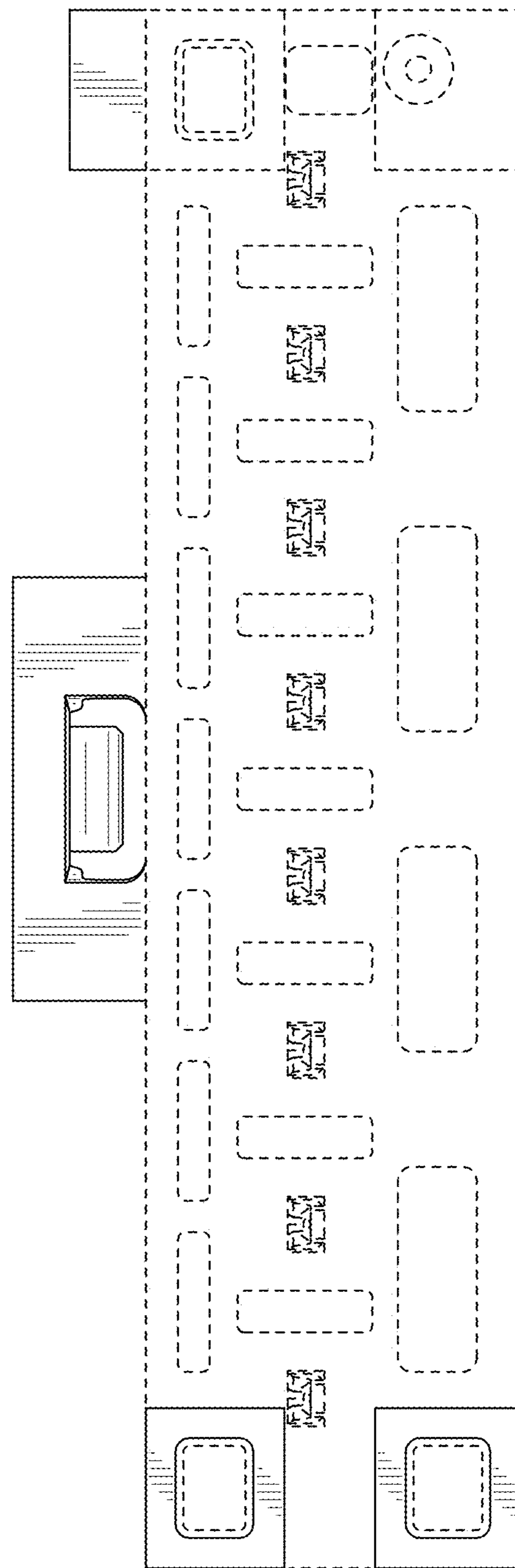


FIG. 112

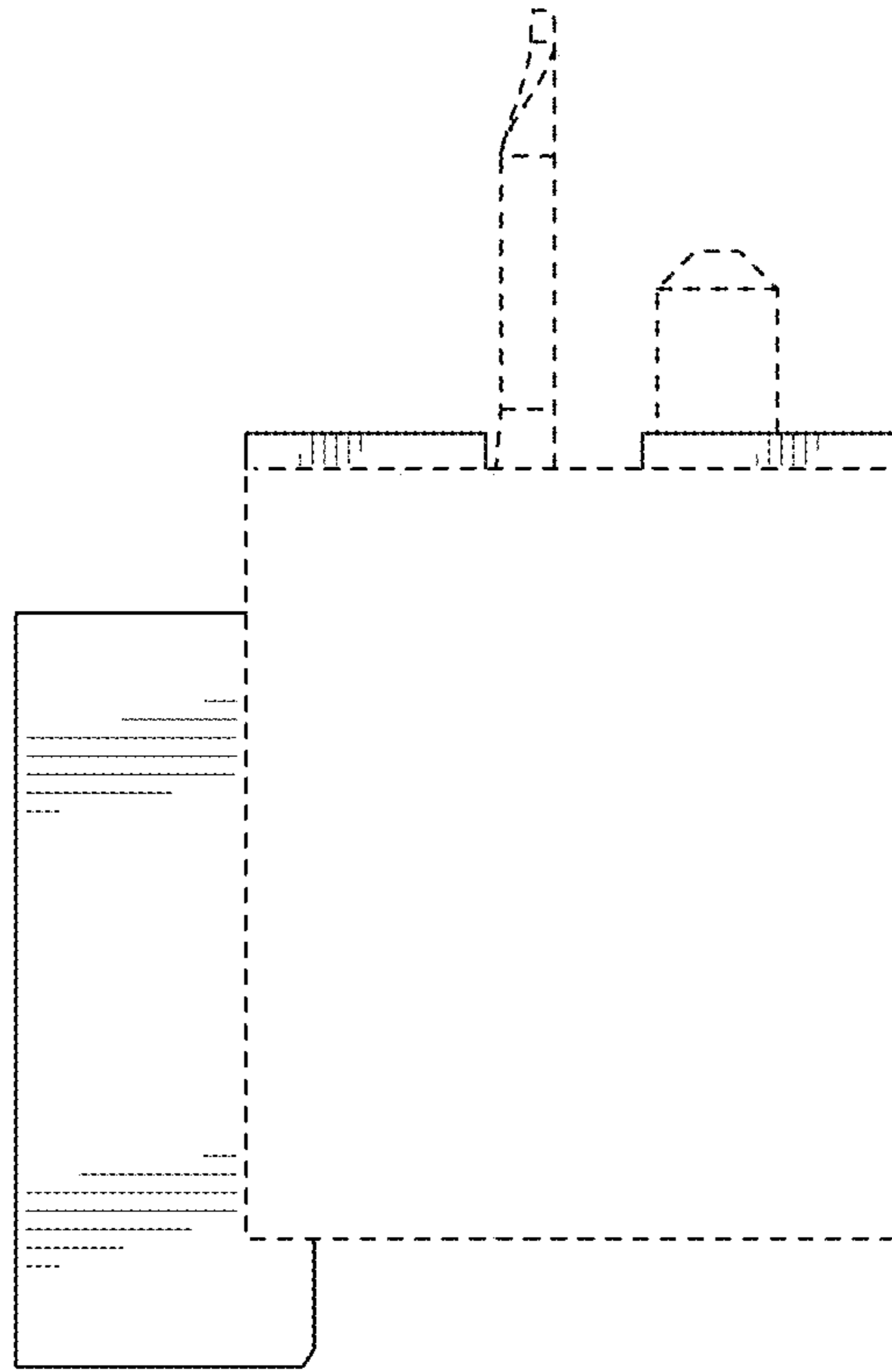


FIG. 114

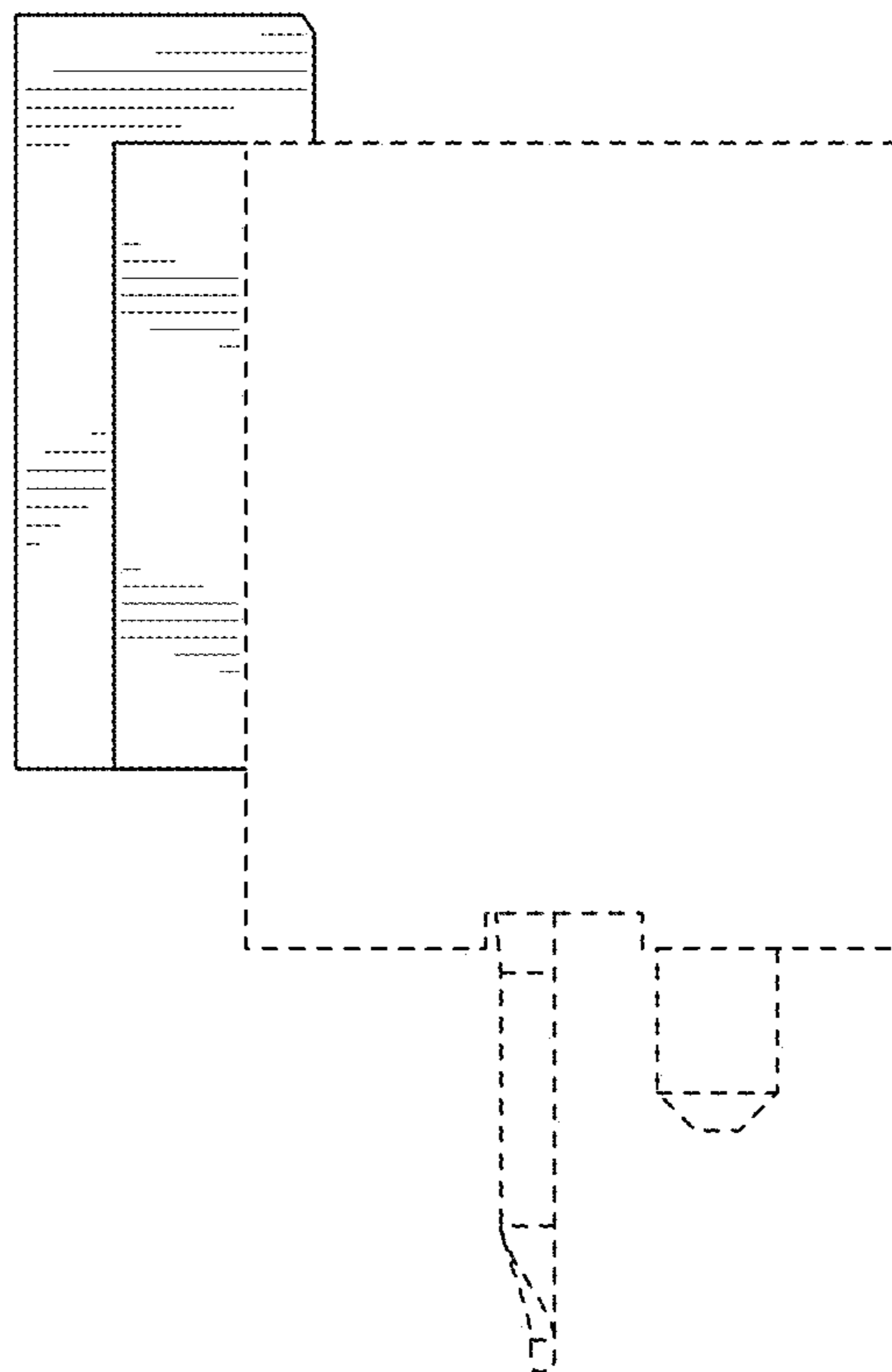


FIG. 113

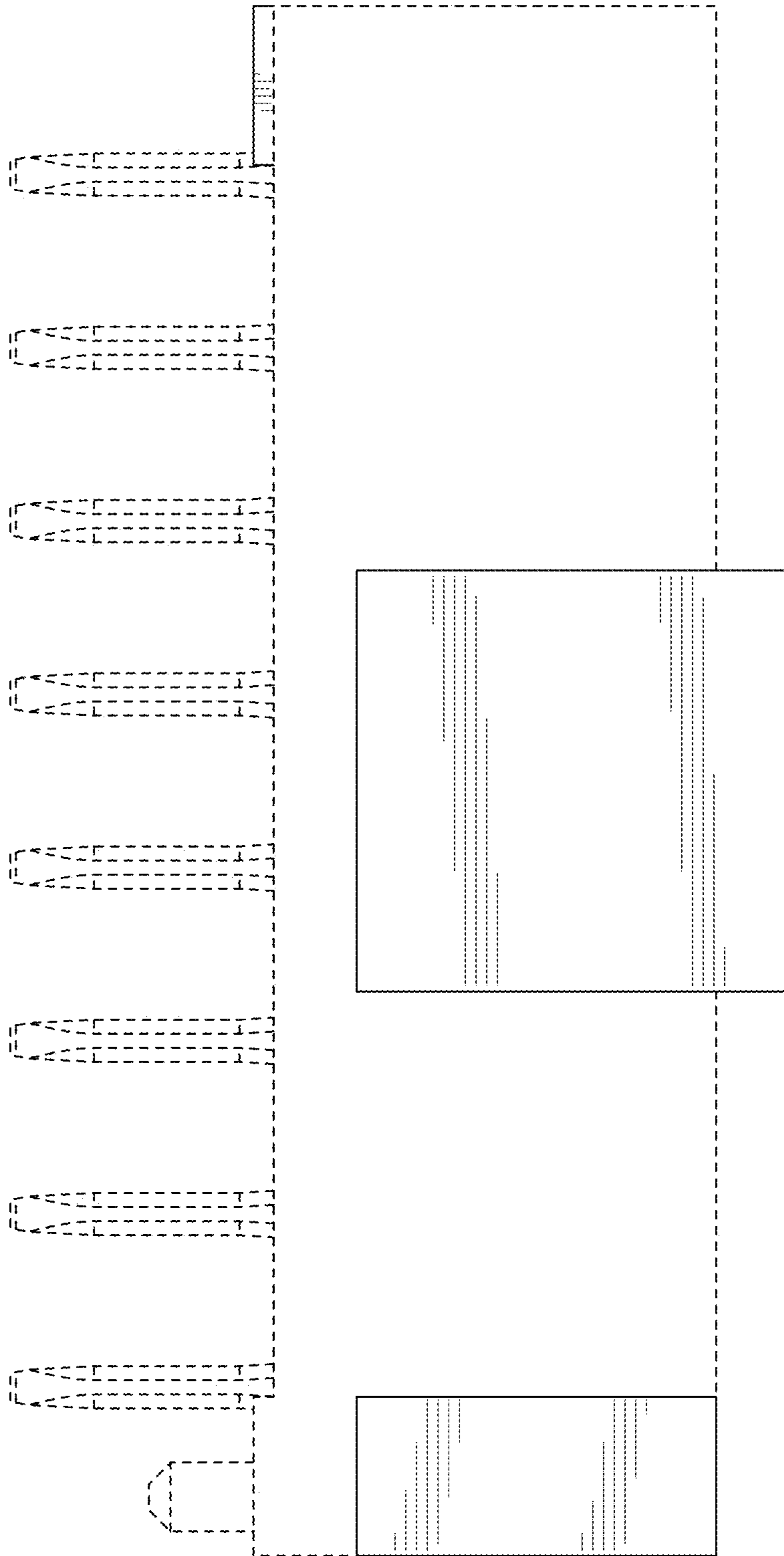


FIG. 115

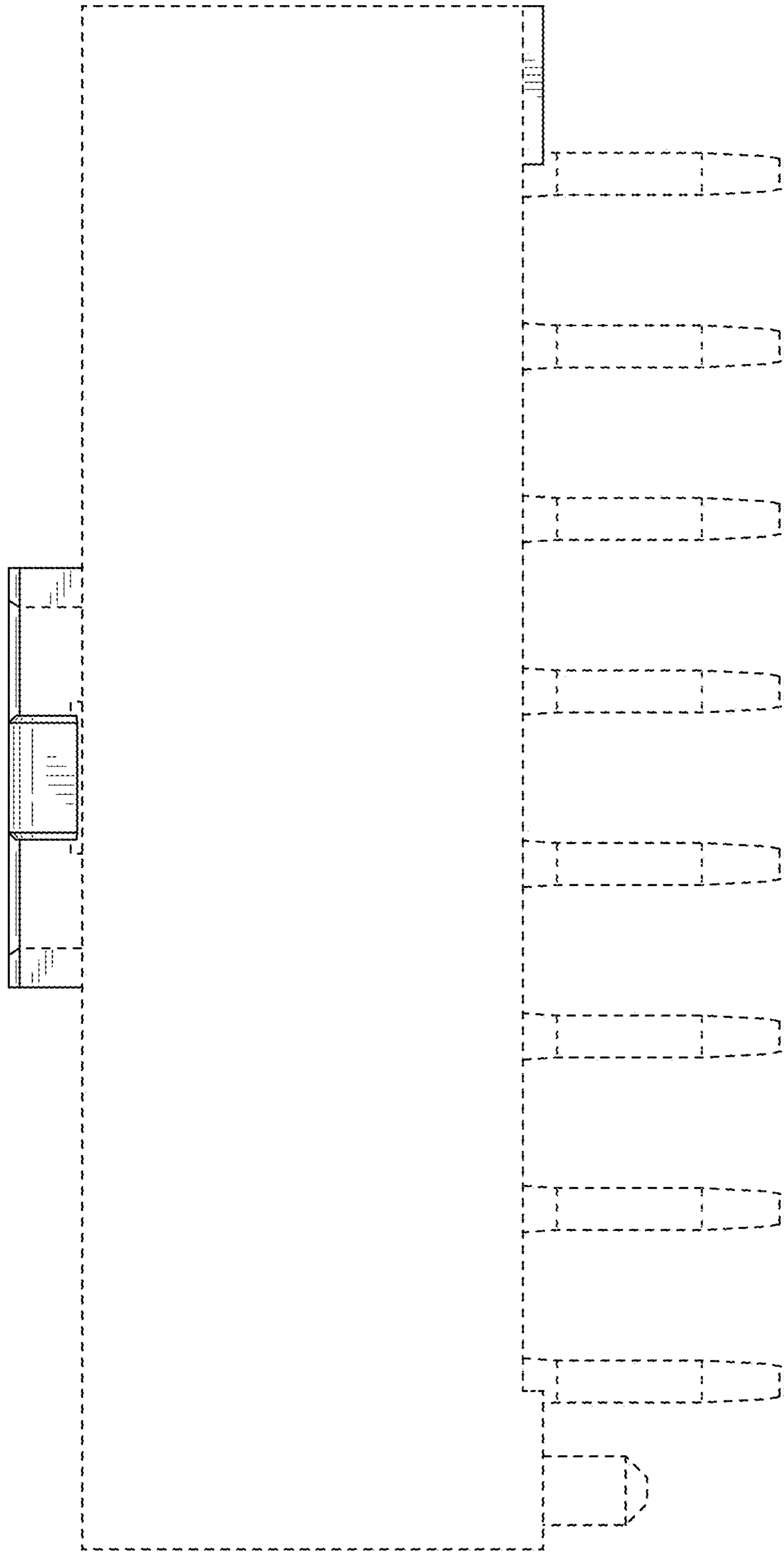


FIG. 116

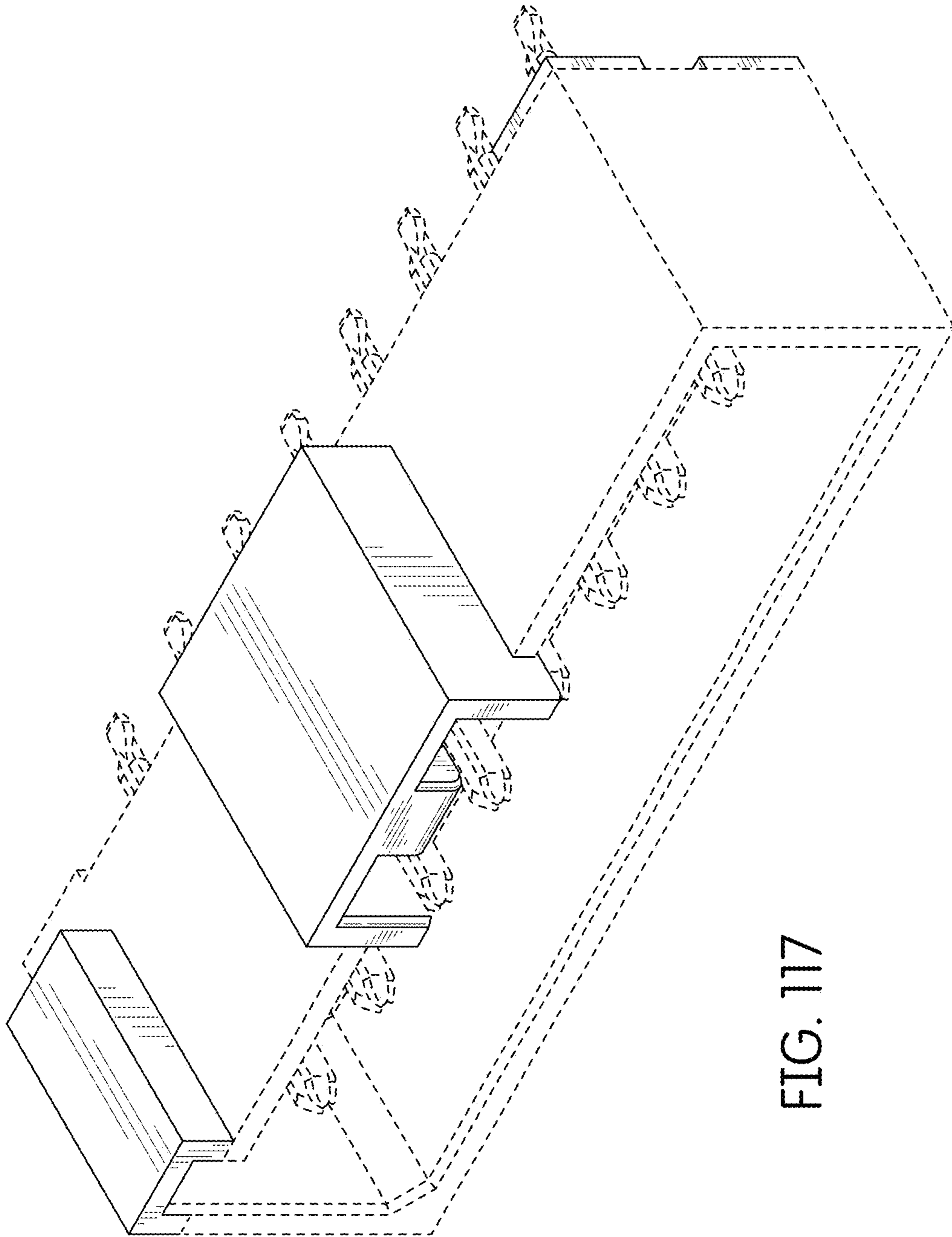


FIG. 117

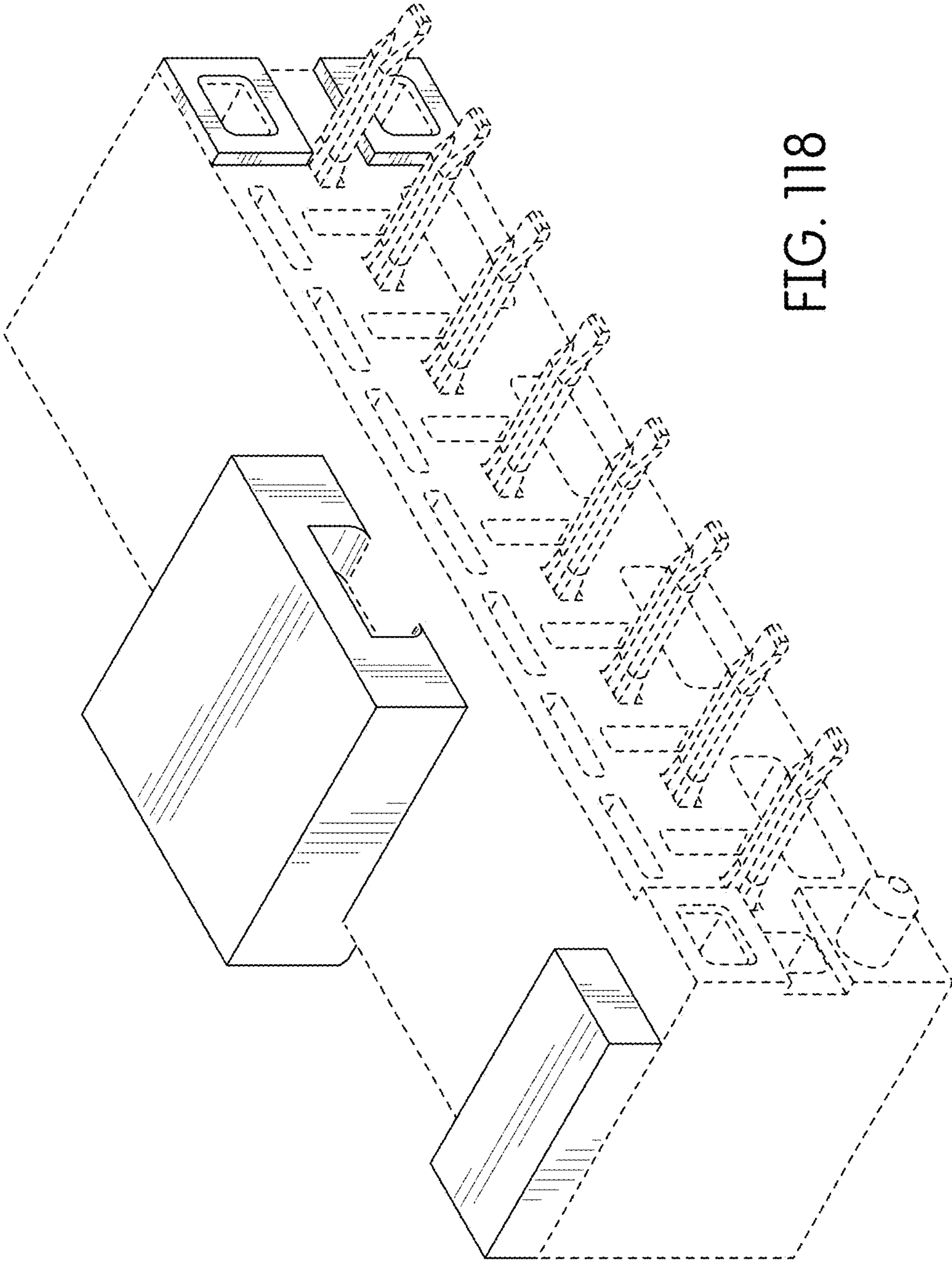


FIG. 118

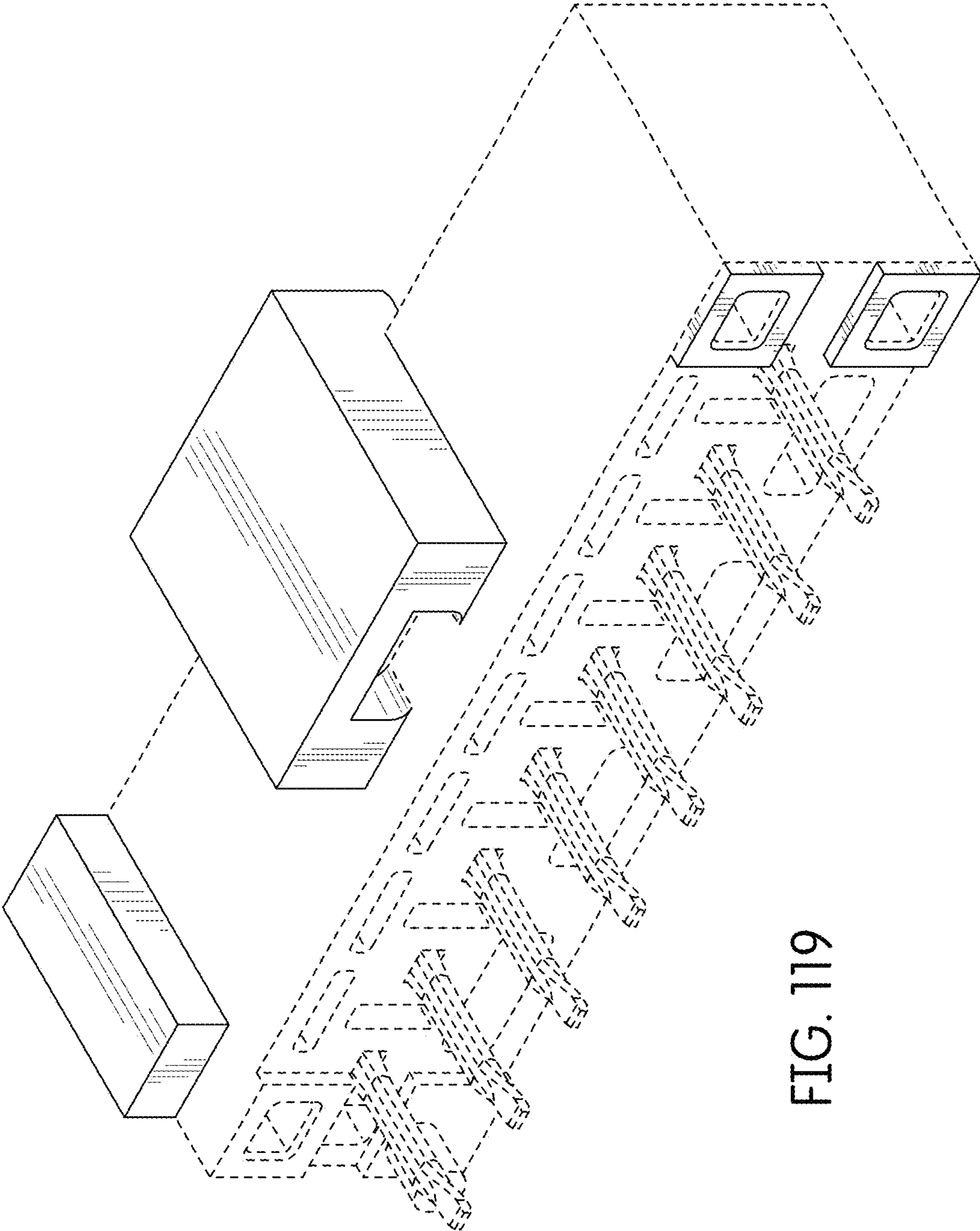


FIG. 119

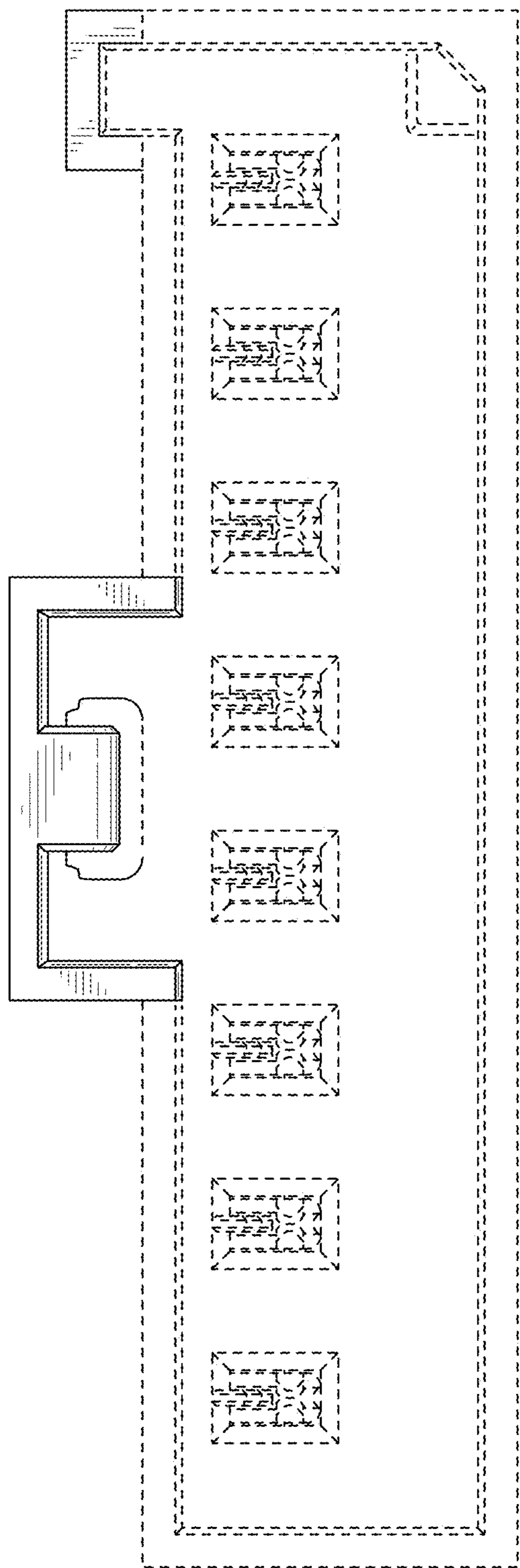


FIG. 120

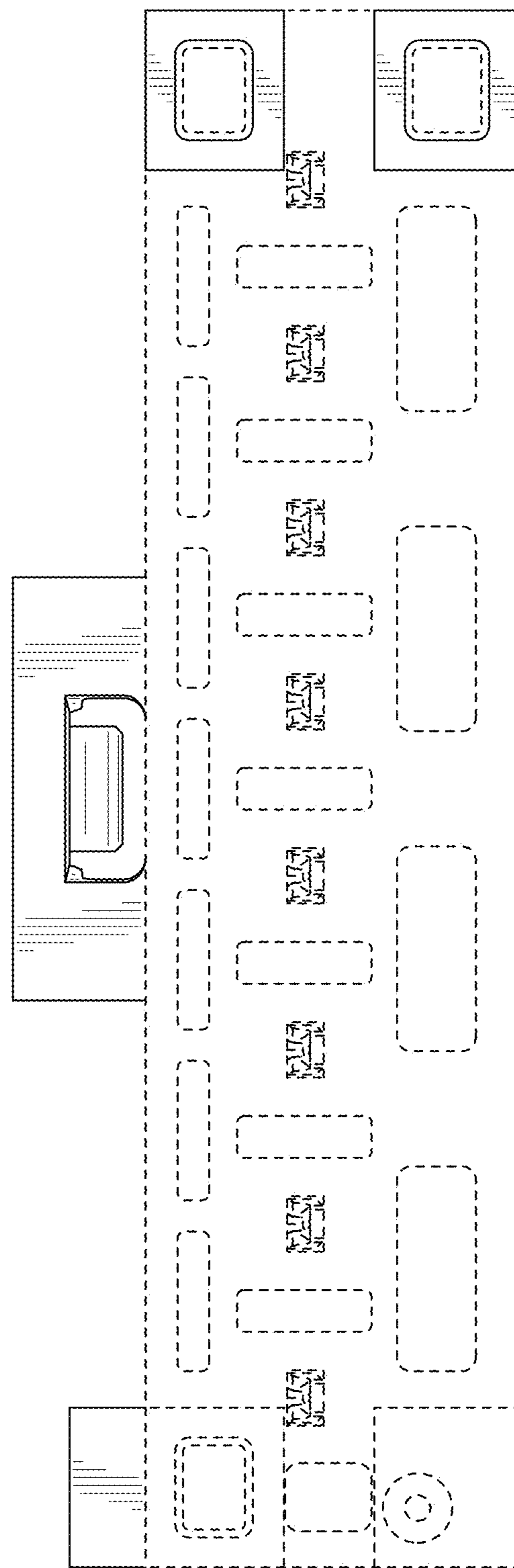


FIG. 121

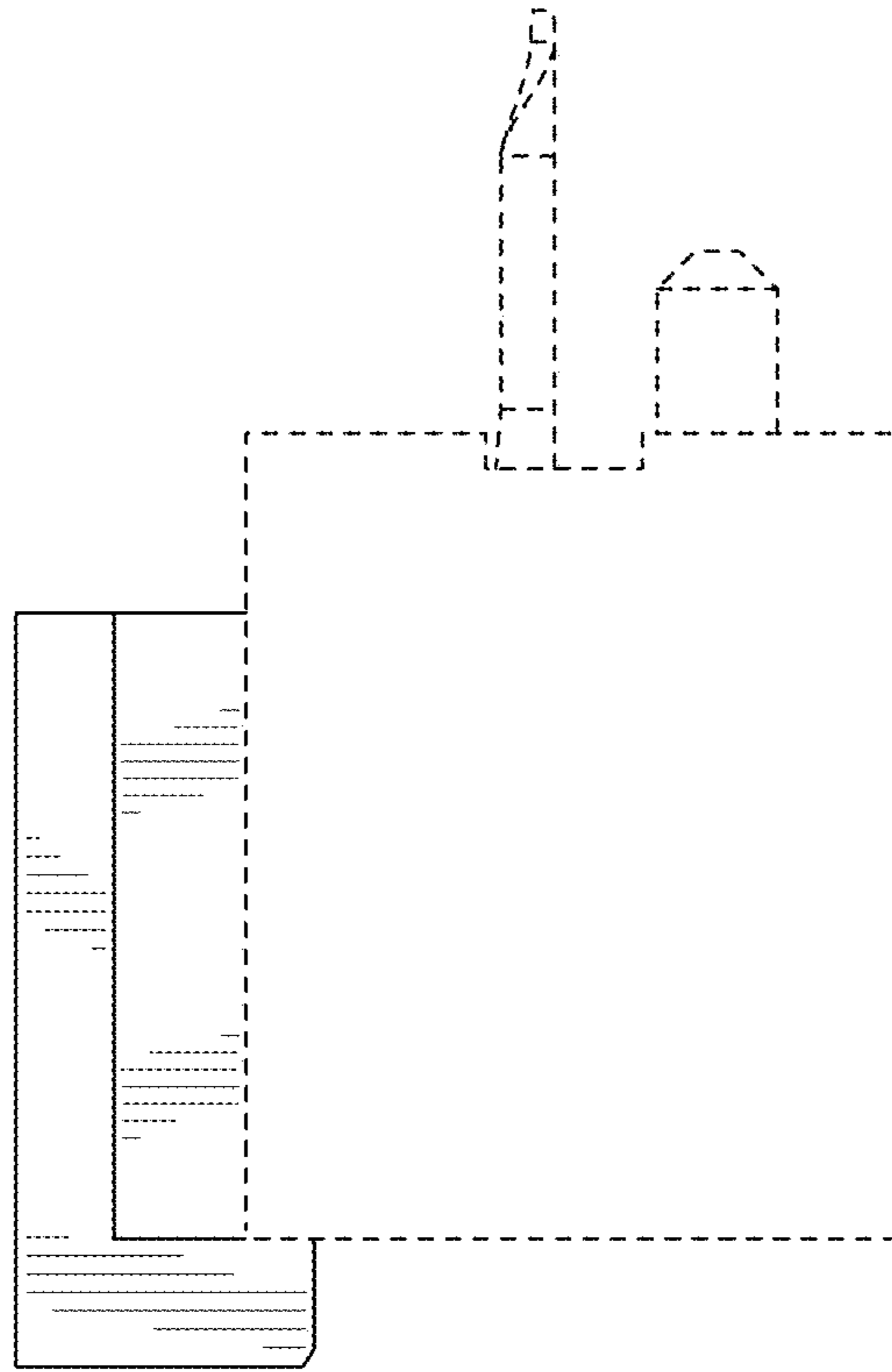


FIG. 122

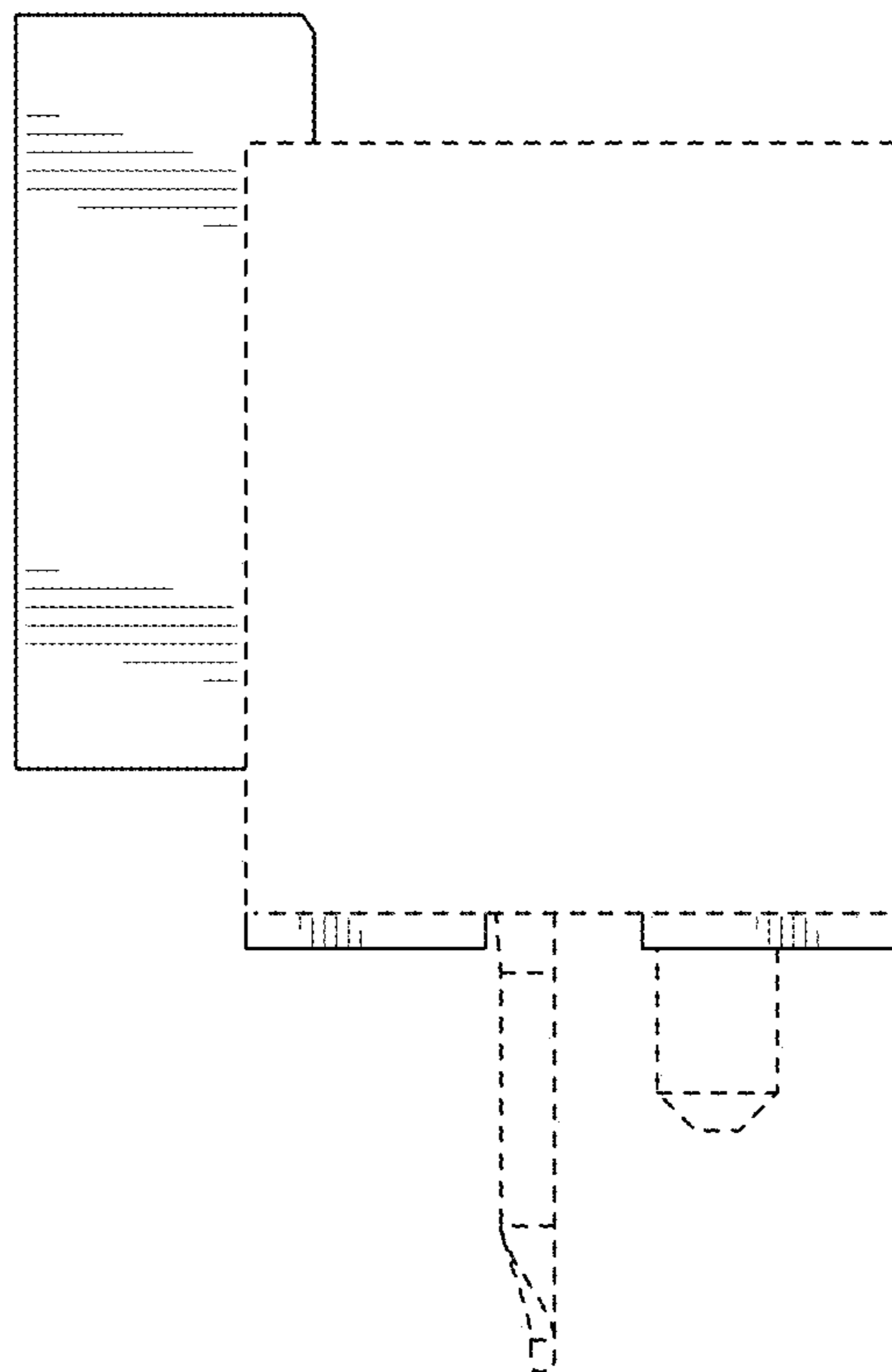


FIG. 123

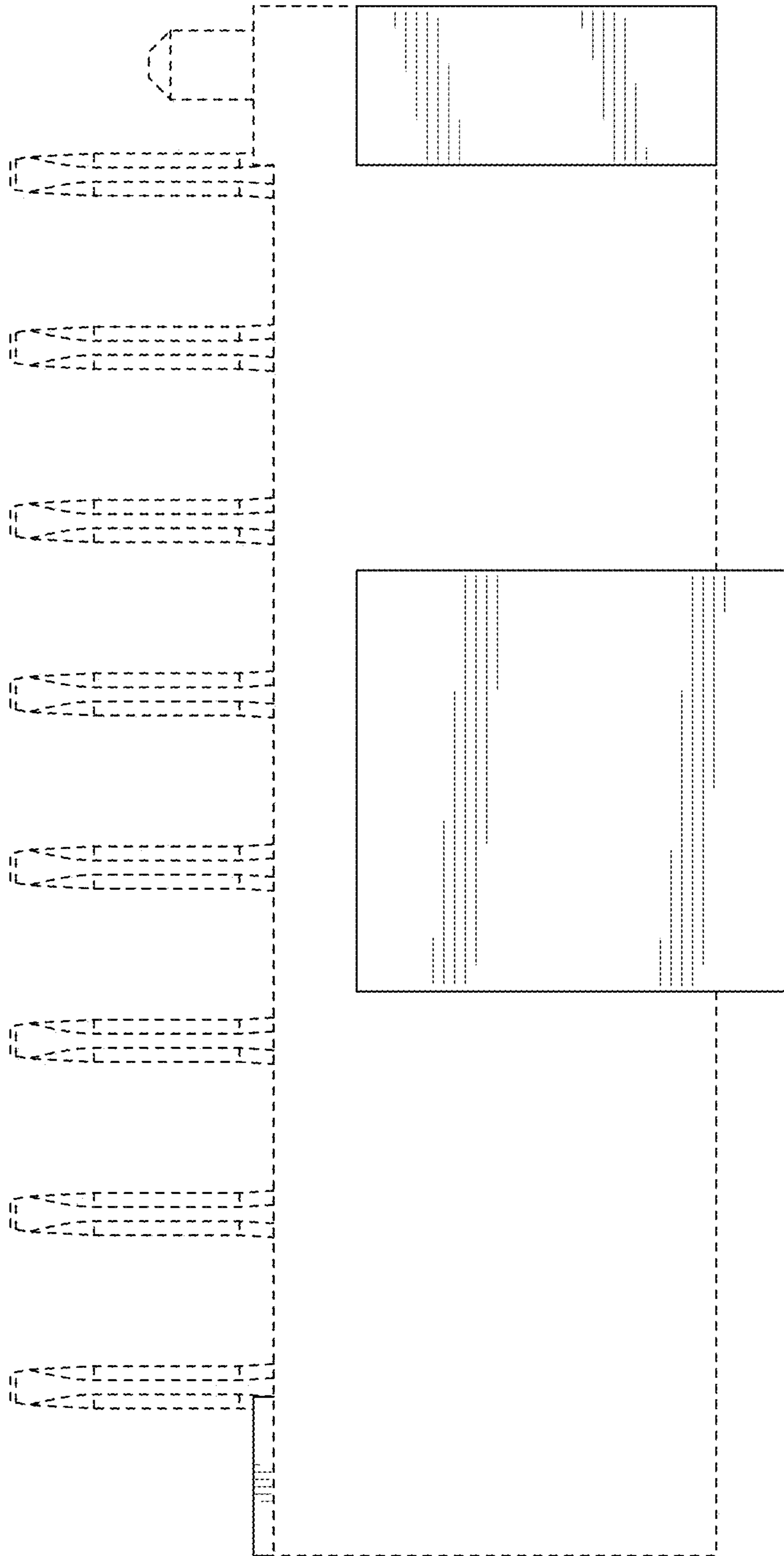


FIG. 124

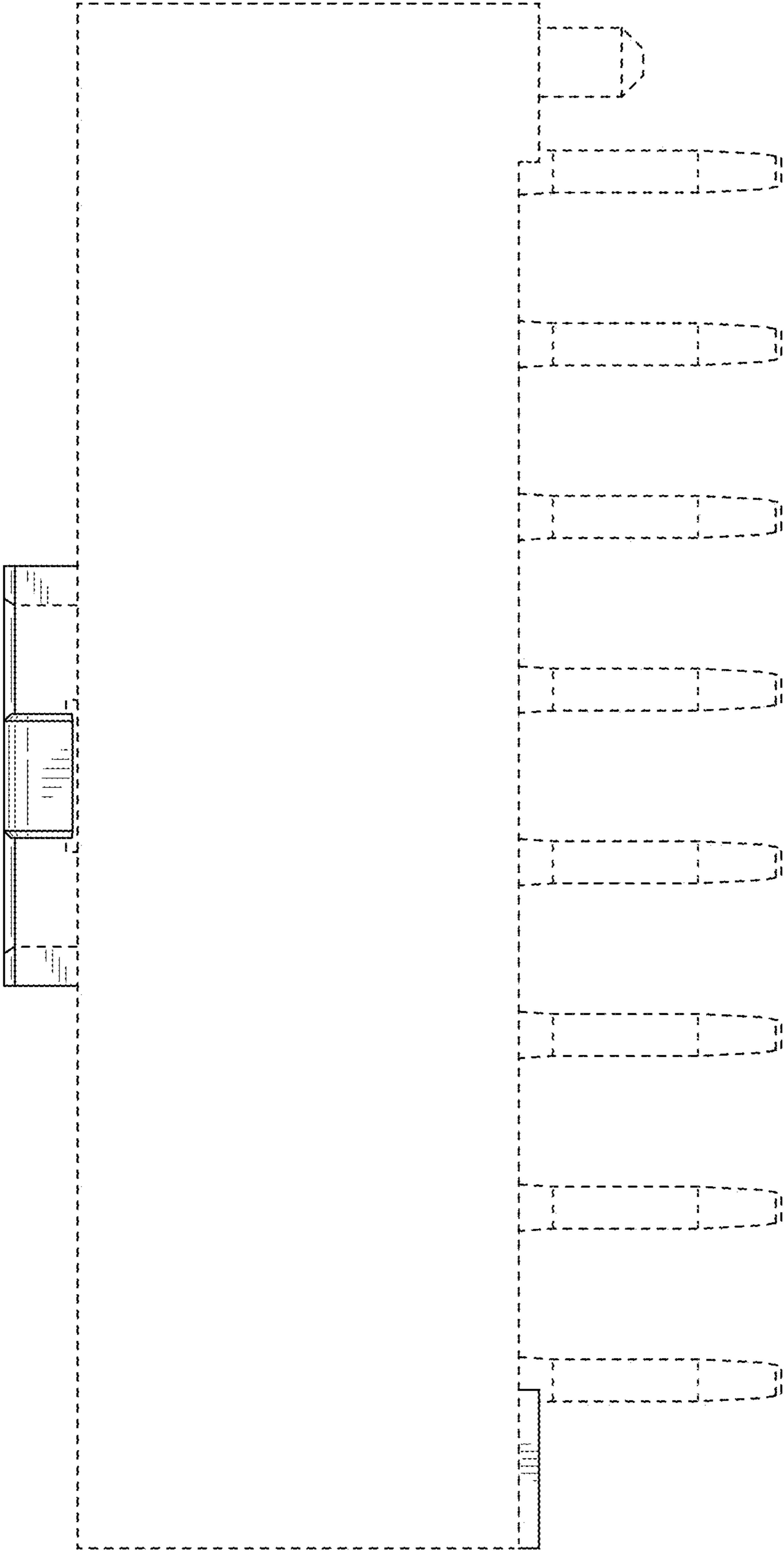


FIG. 125

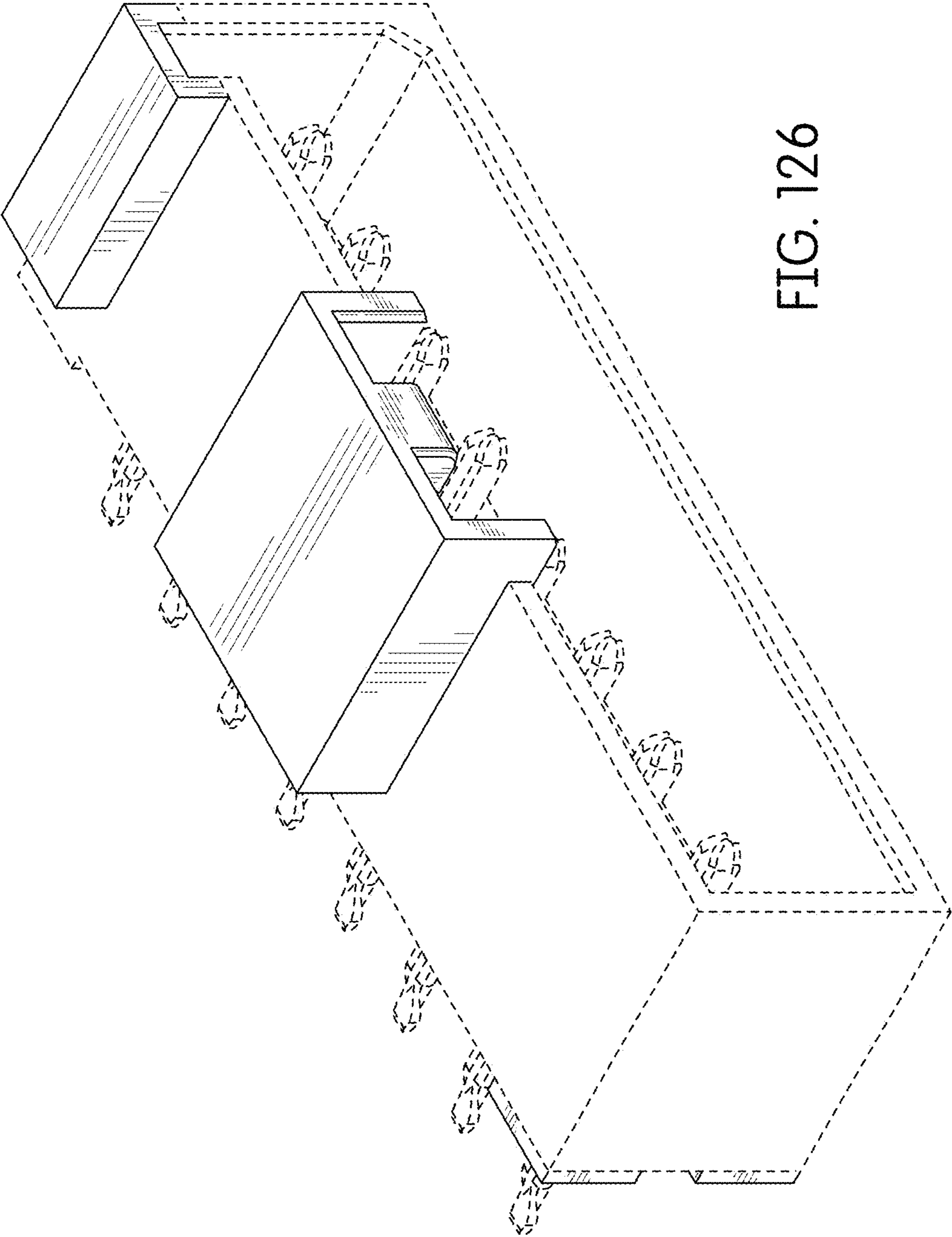


FIG. 126

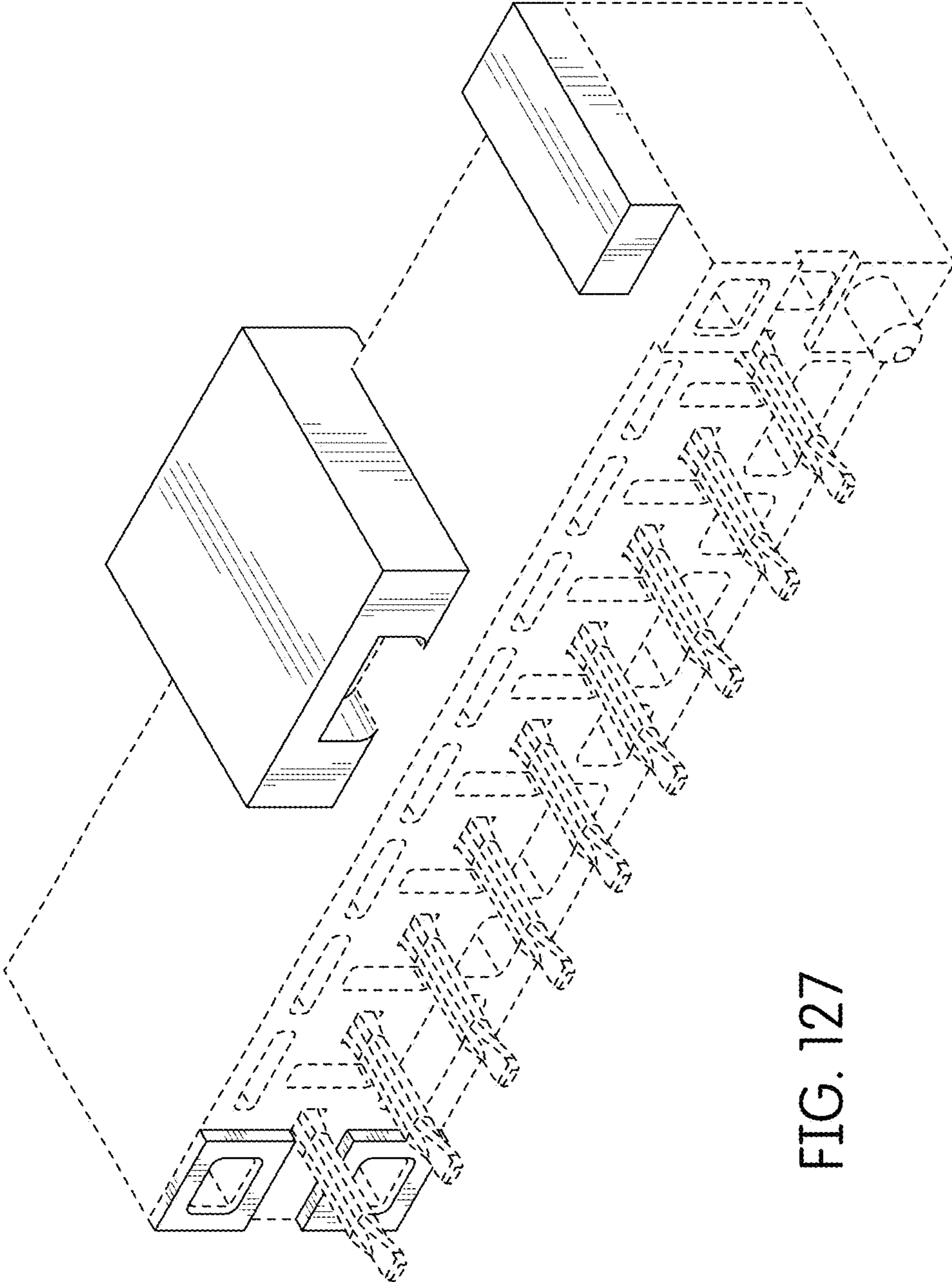


FIG. 127

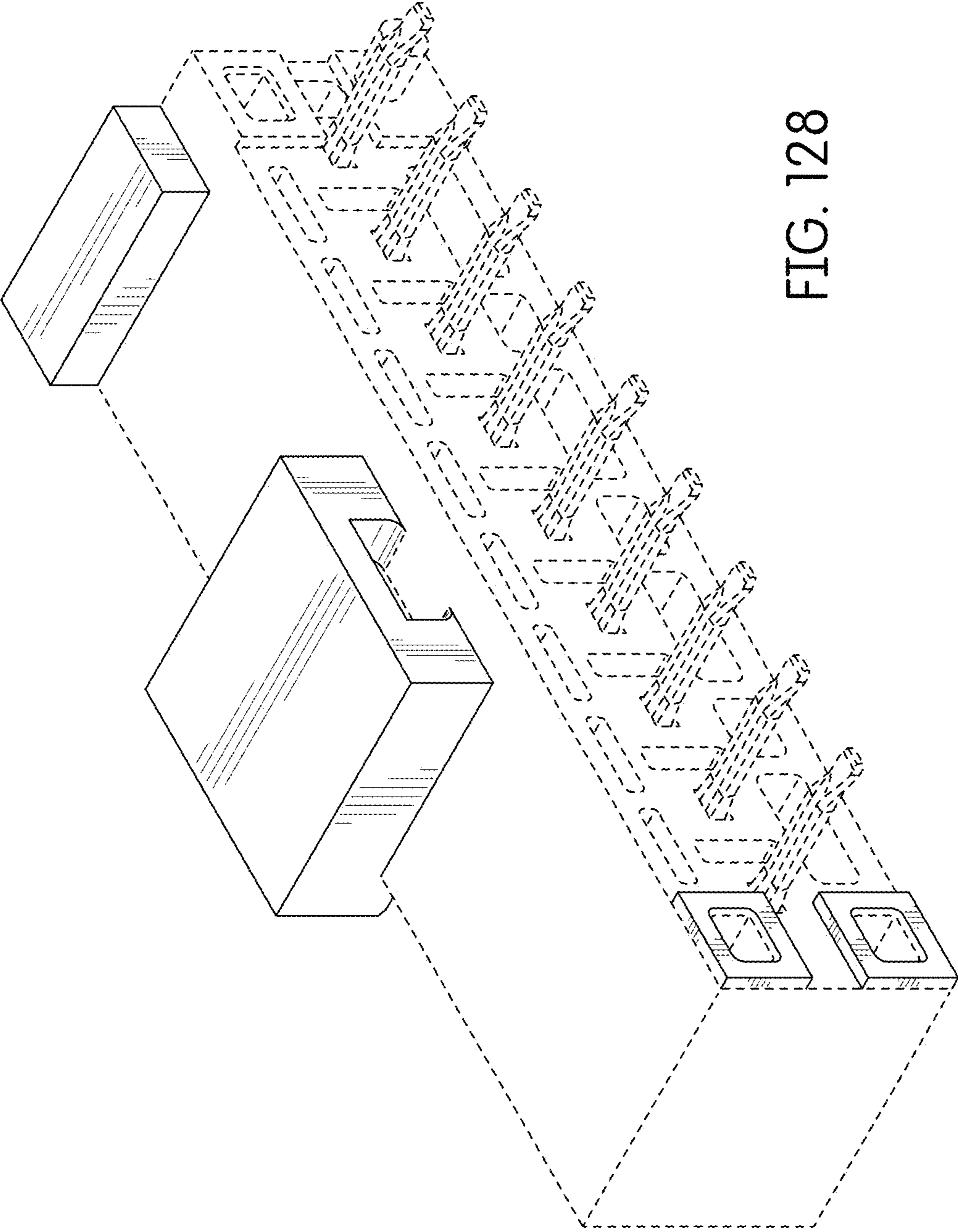


FIG. 128

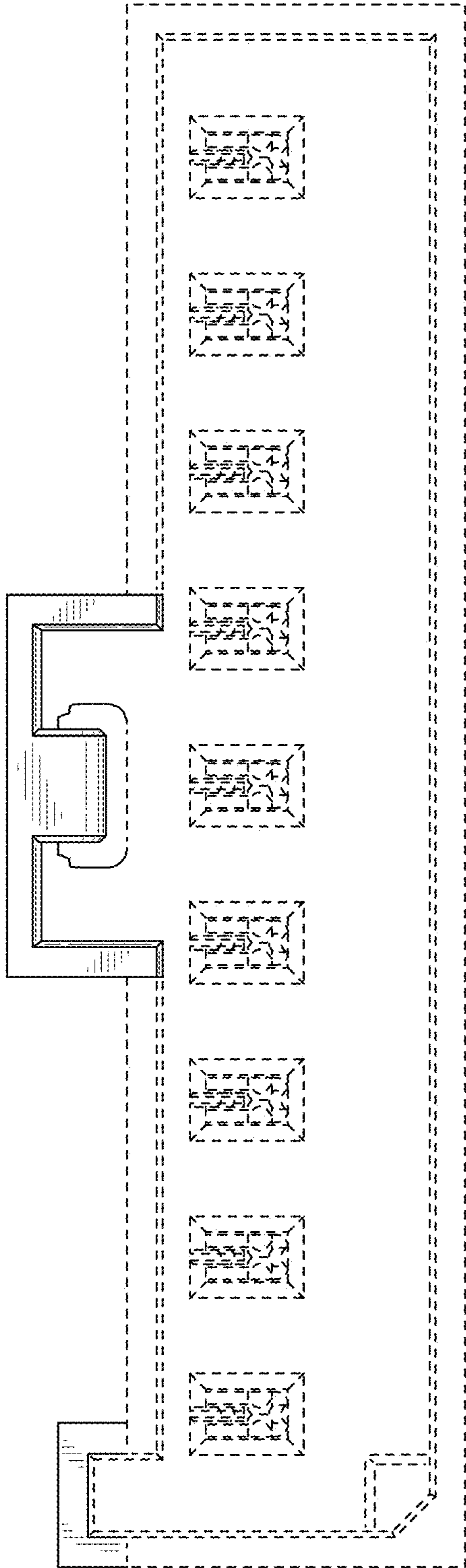


FIG. 129

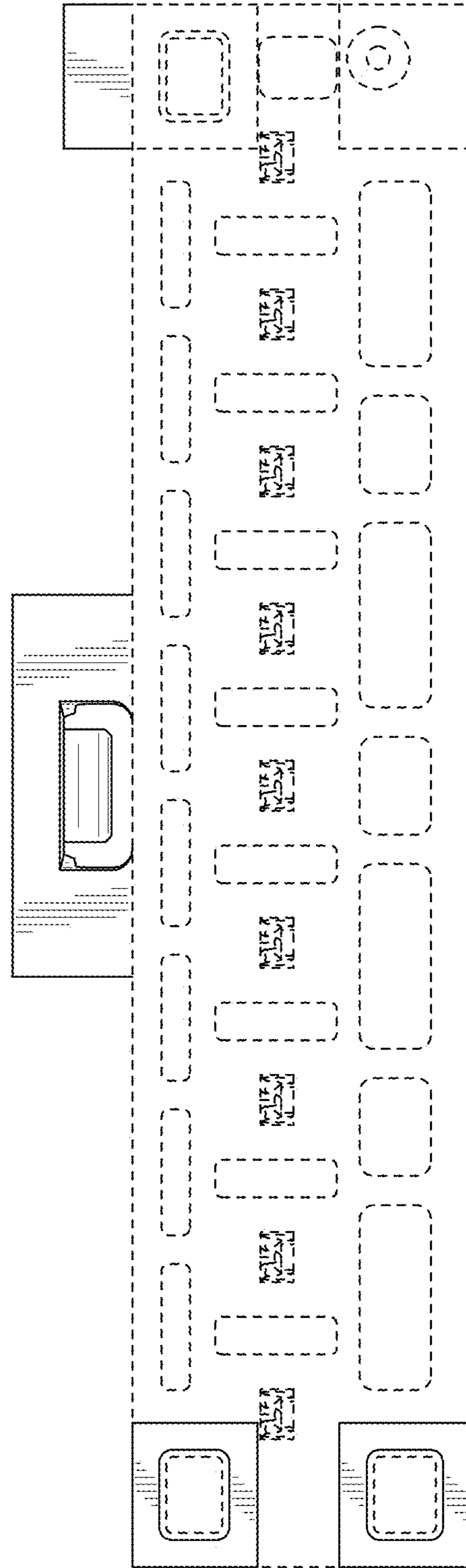


FIG. 130

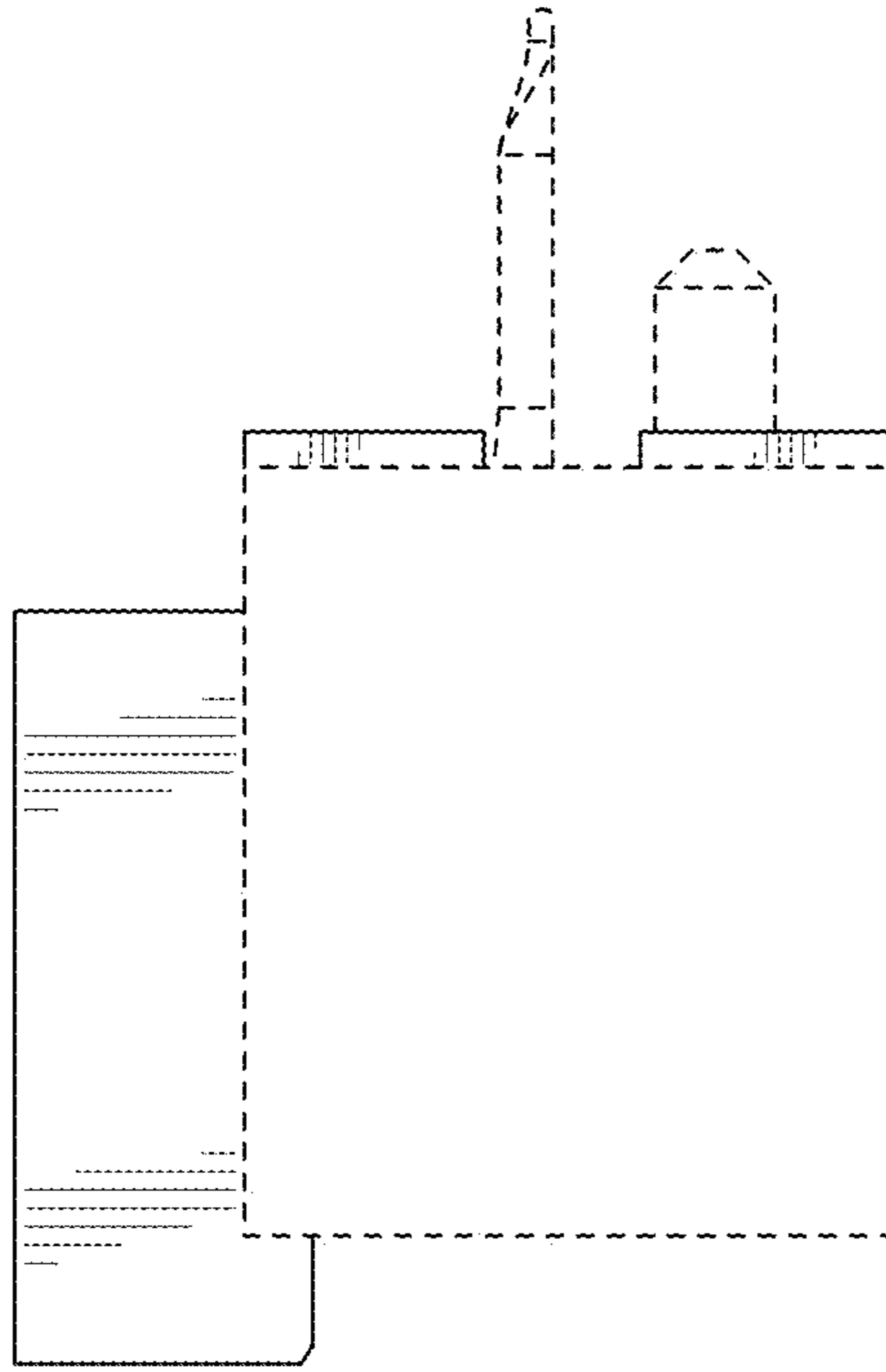


FIG. 132

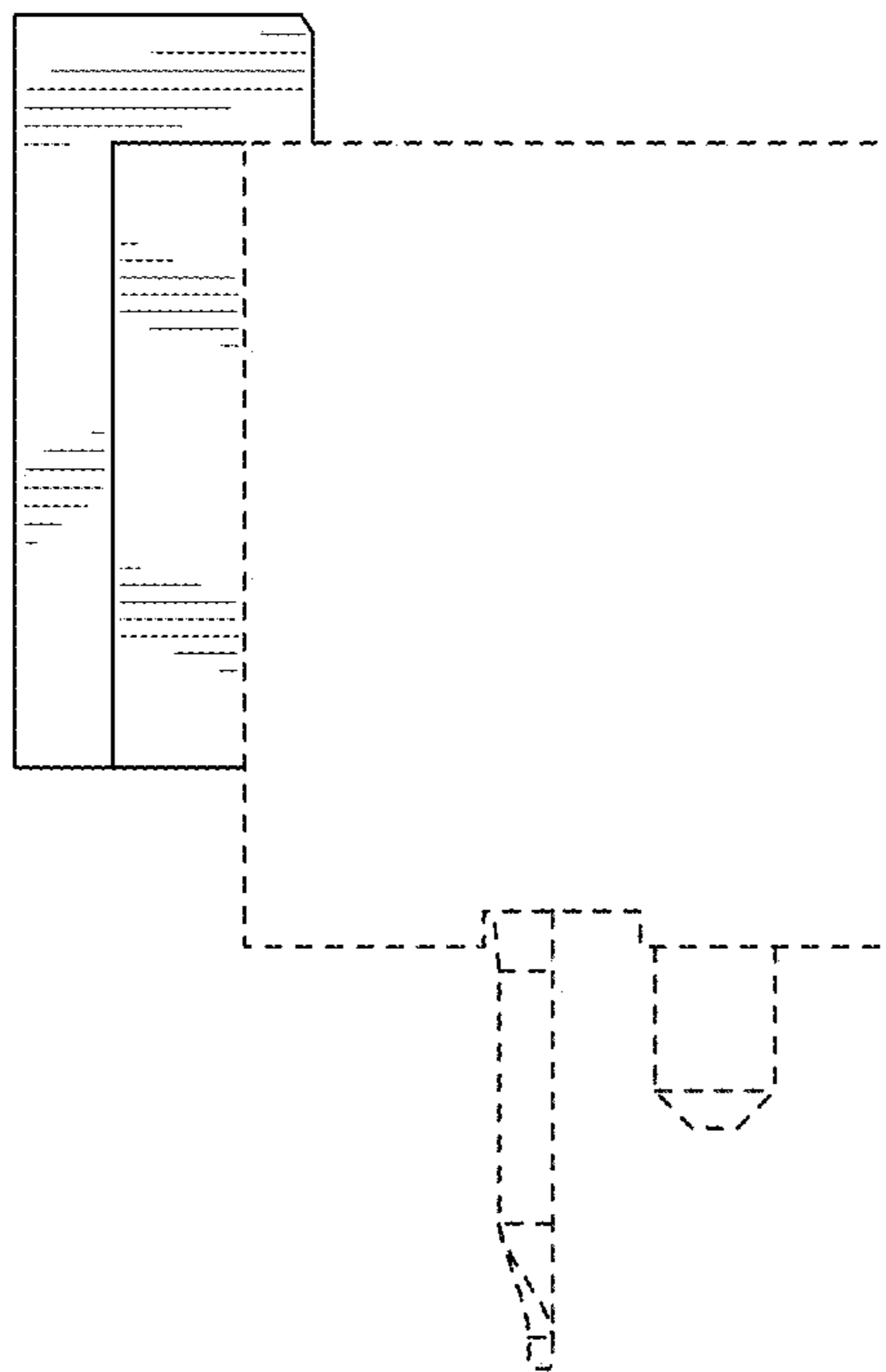


FIG. 131

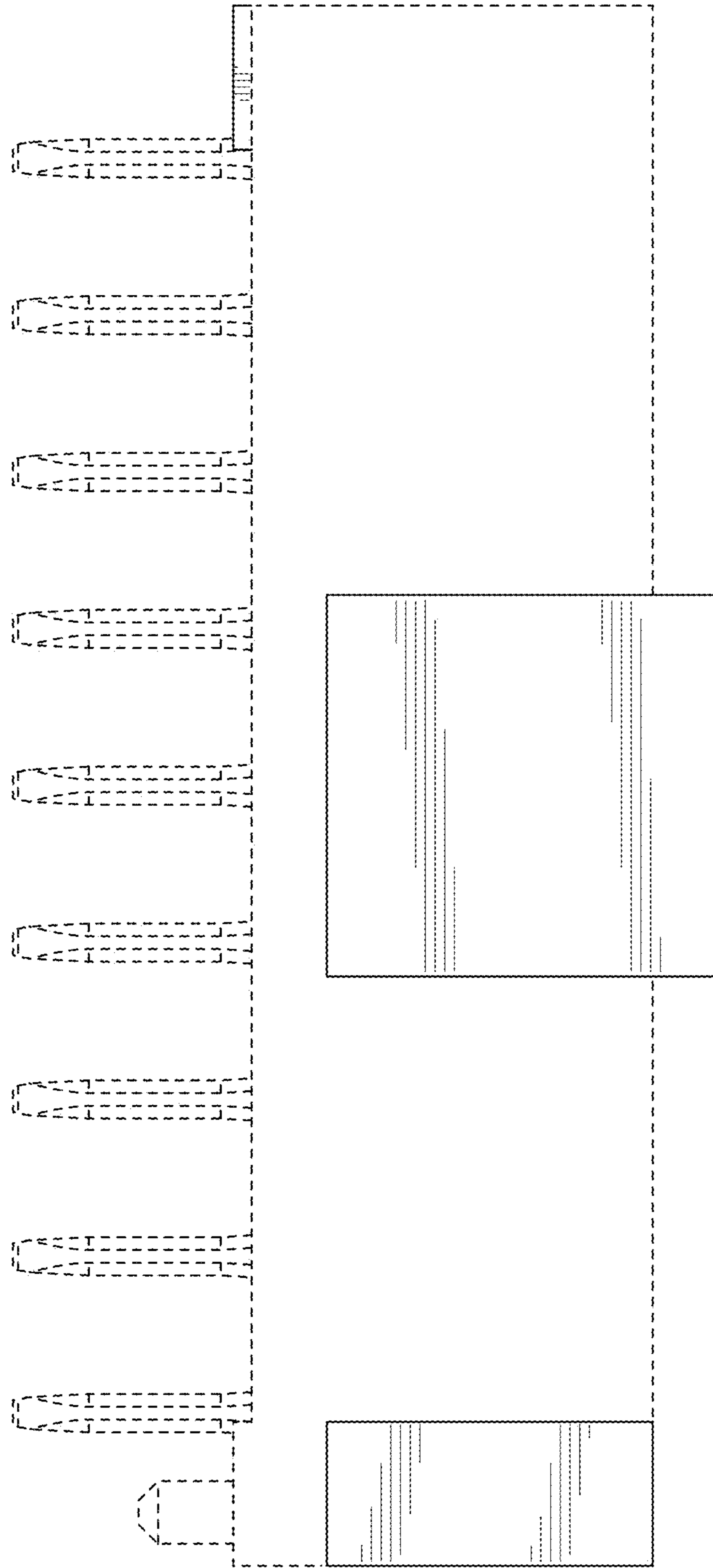


FIG. 133

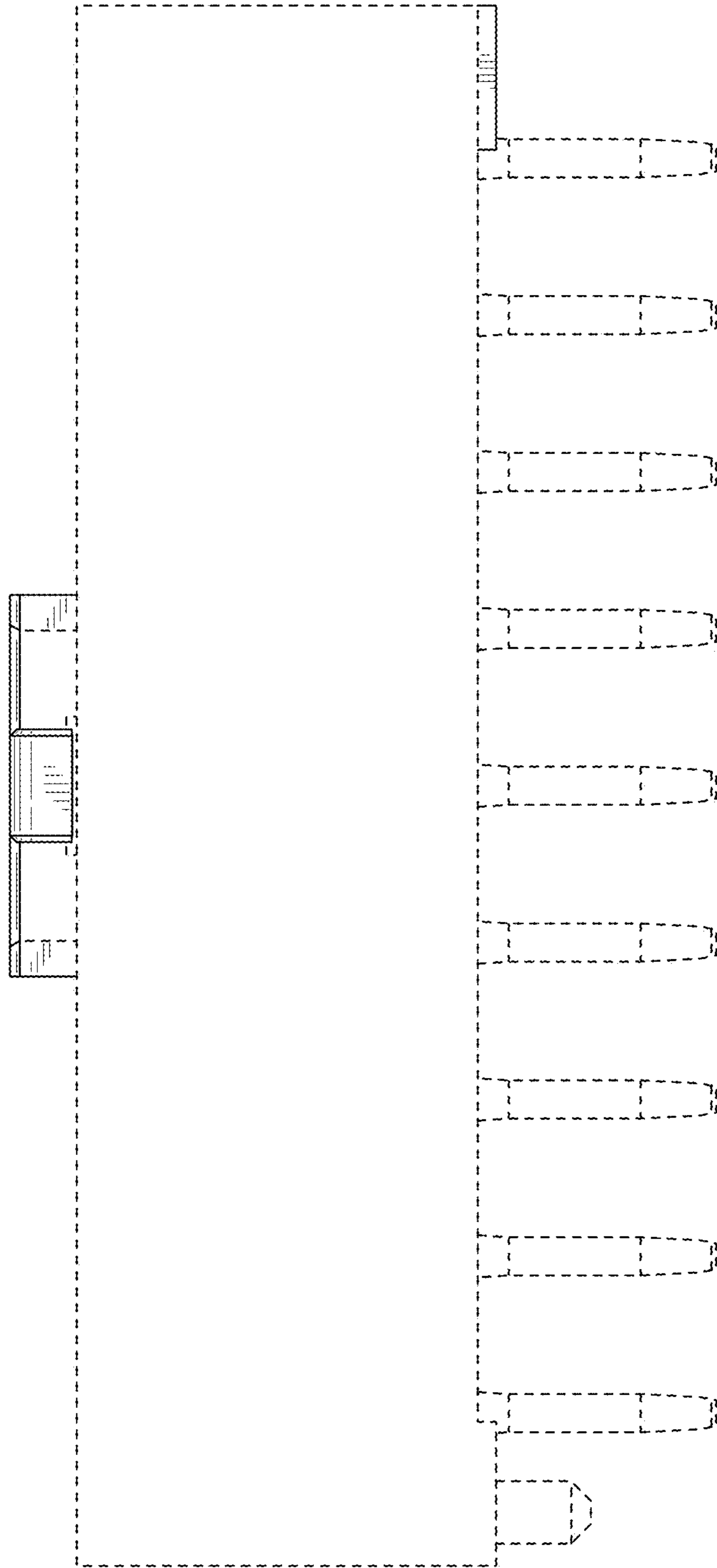


FIG. 134

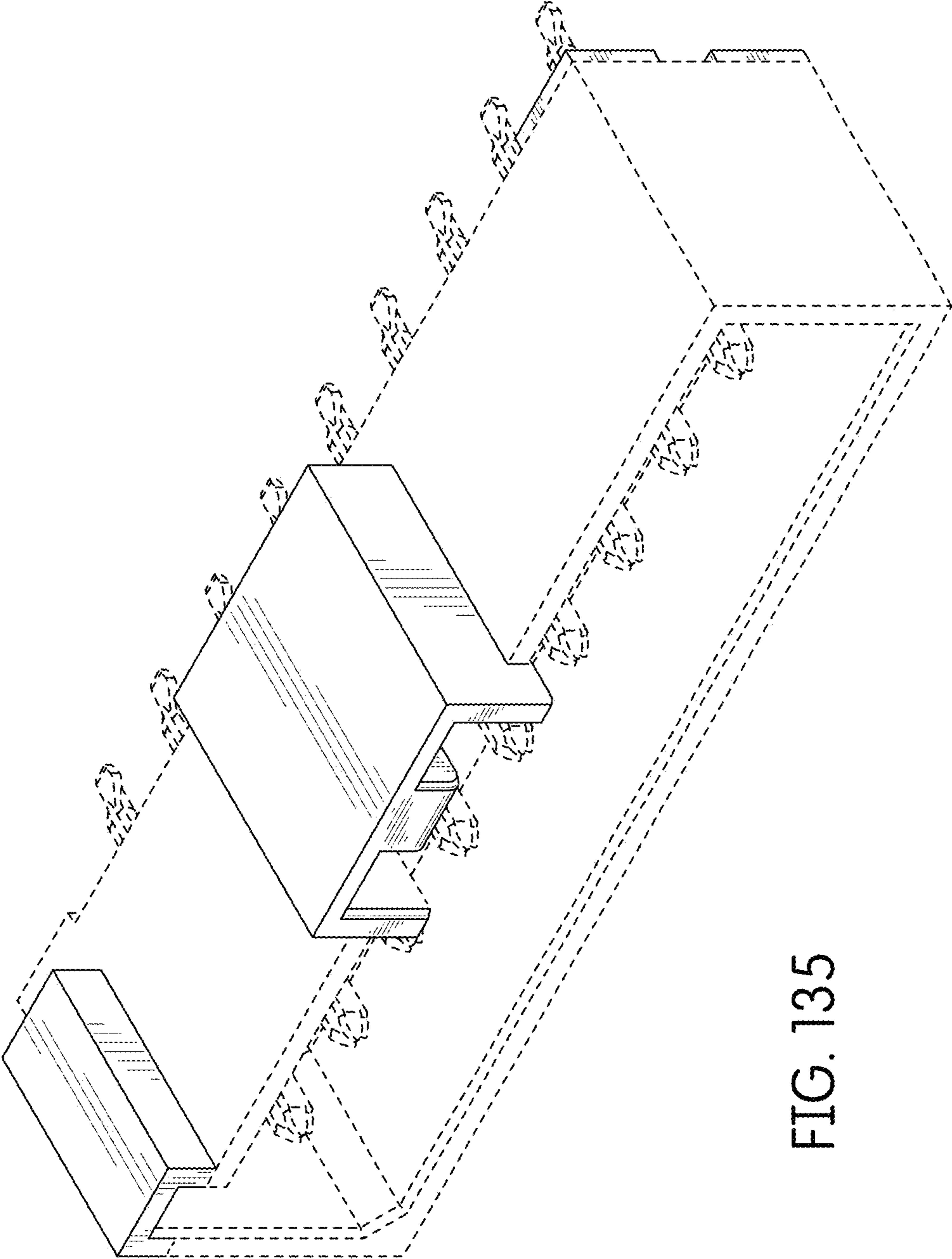


FIG. 135

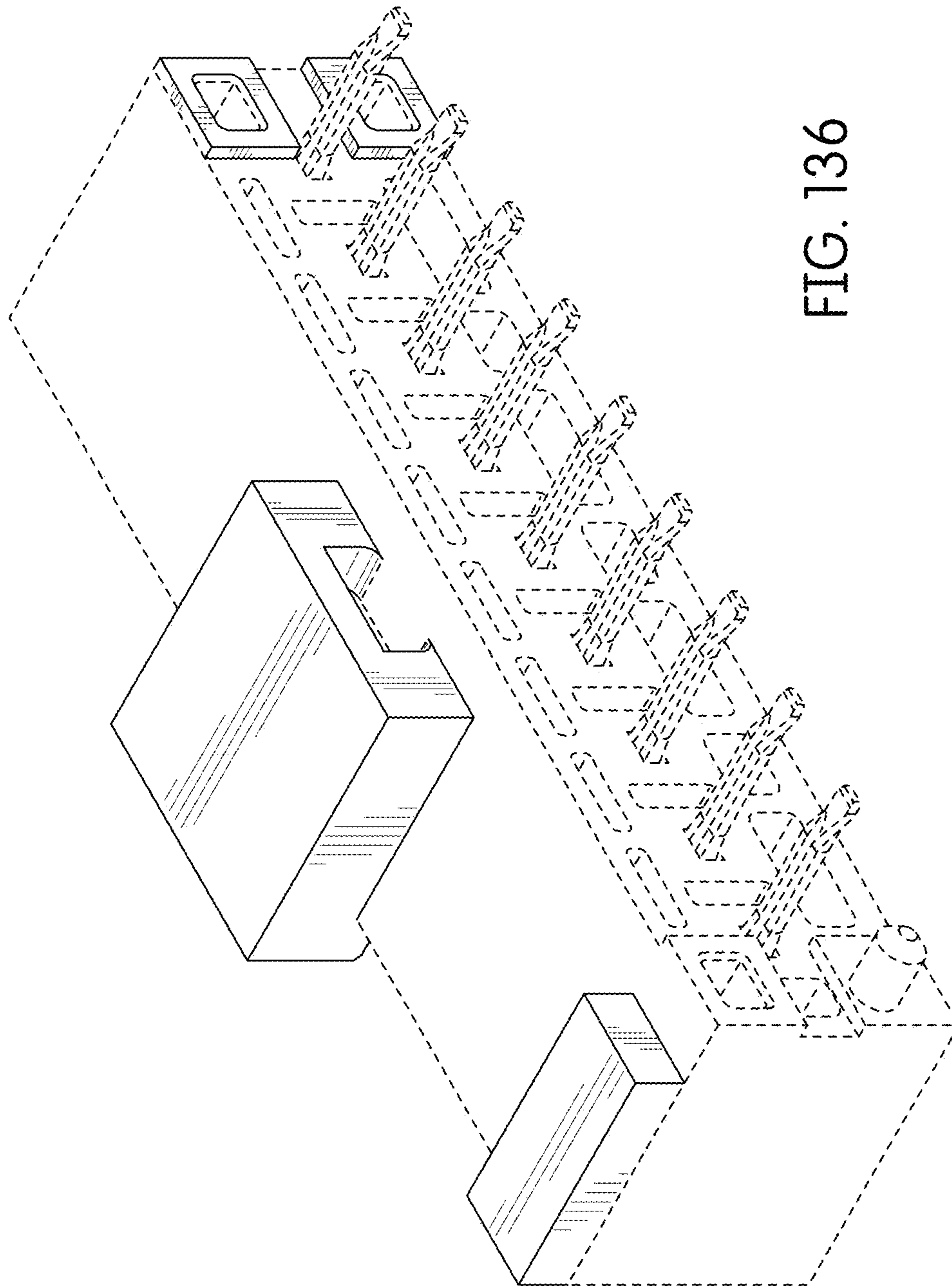


FIG. 136

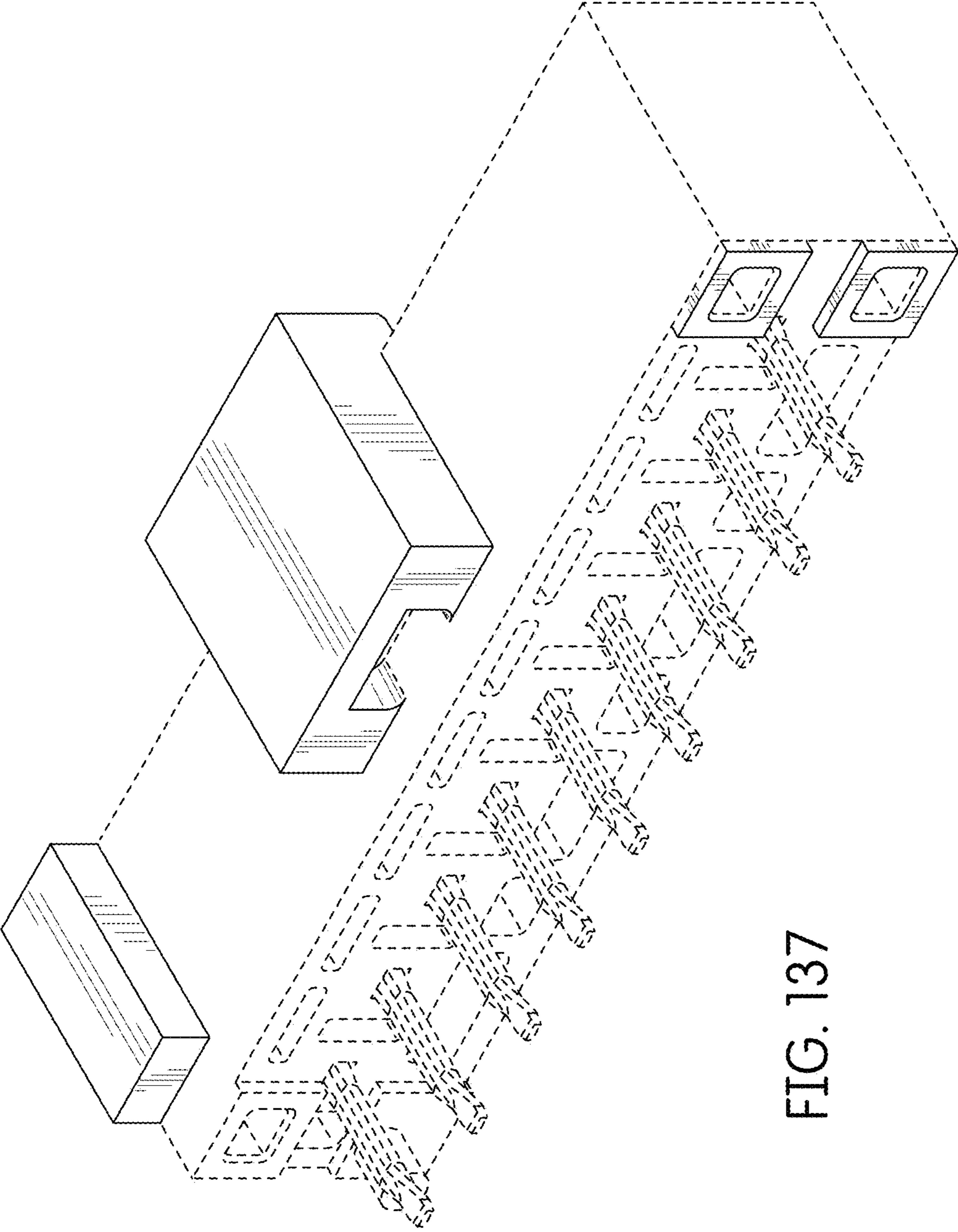


FIG. 137

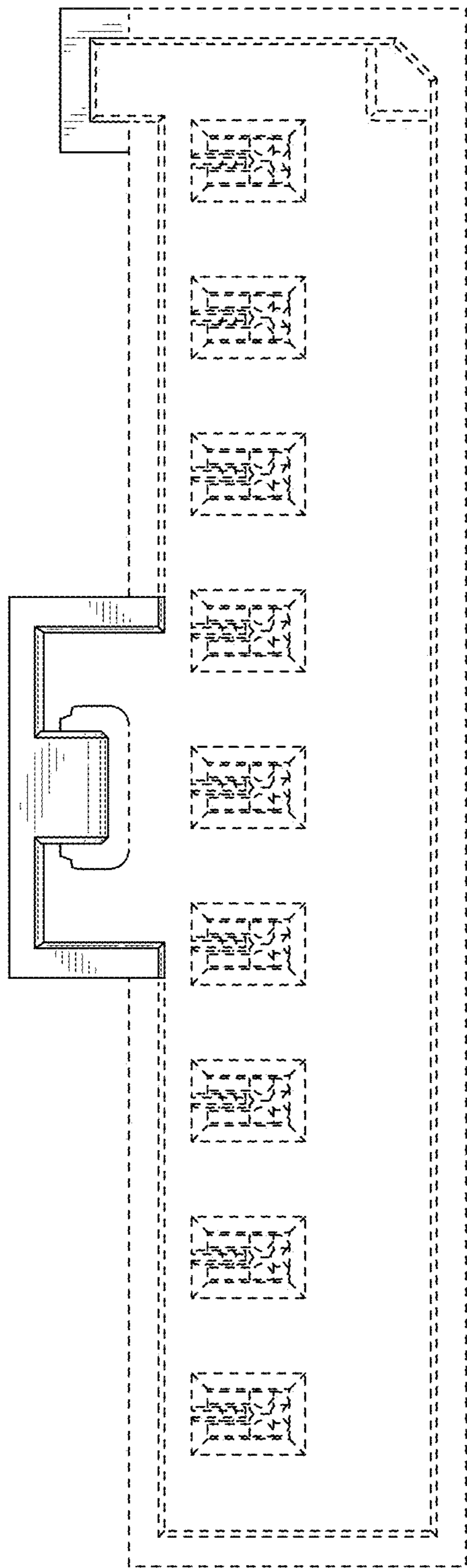


FIG. 138

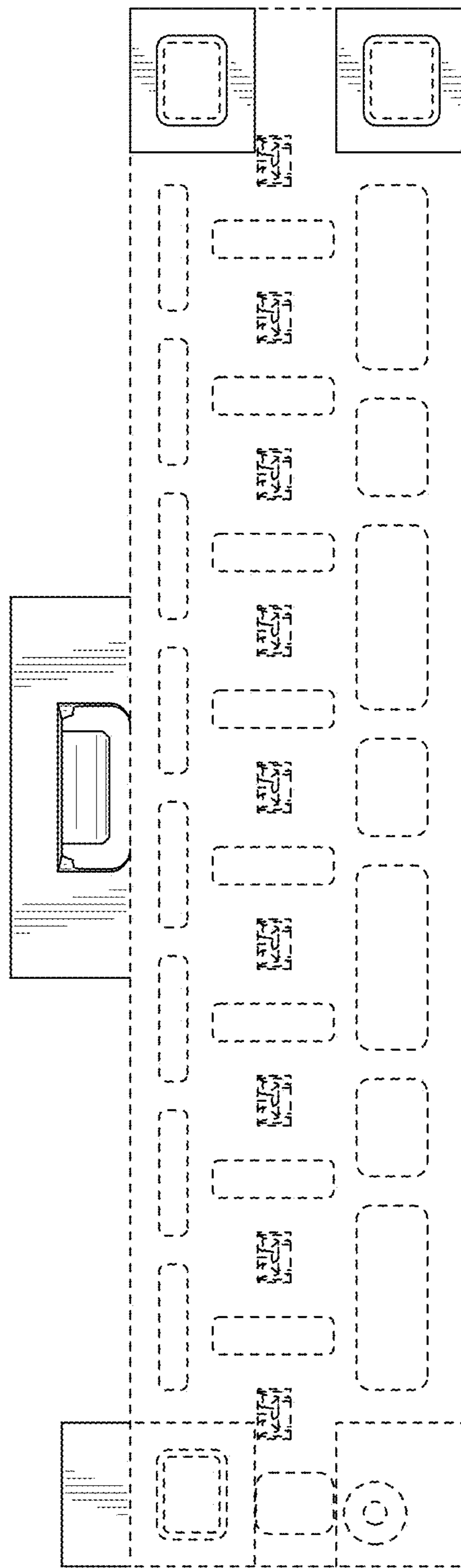


FIG. 139

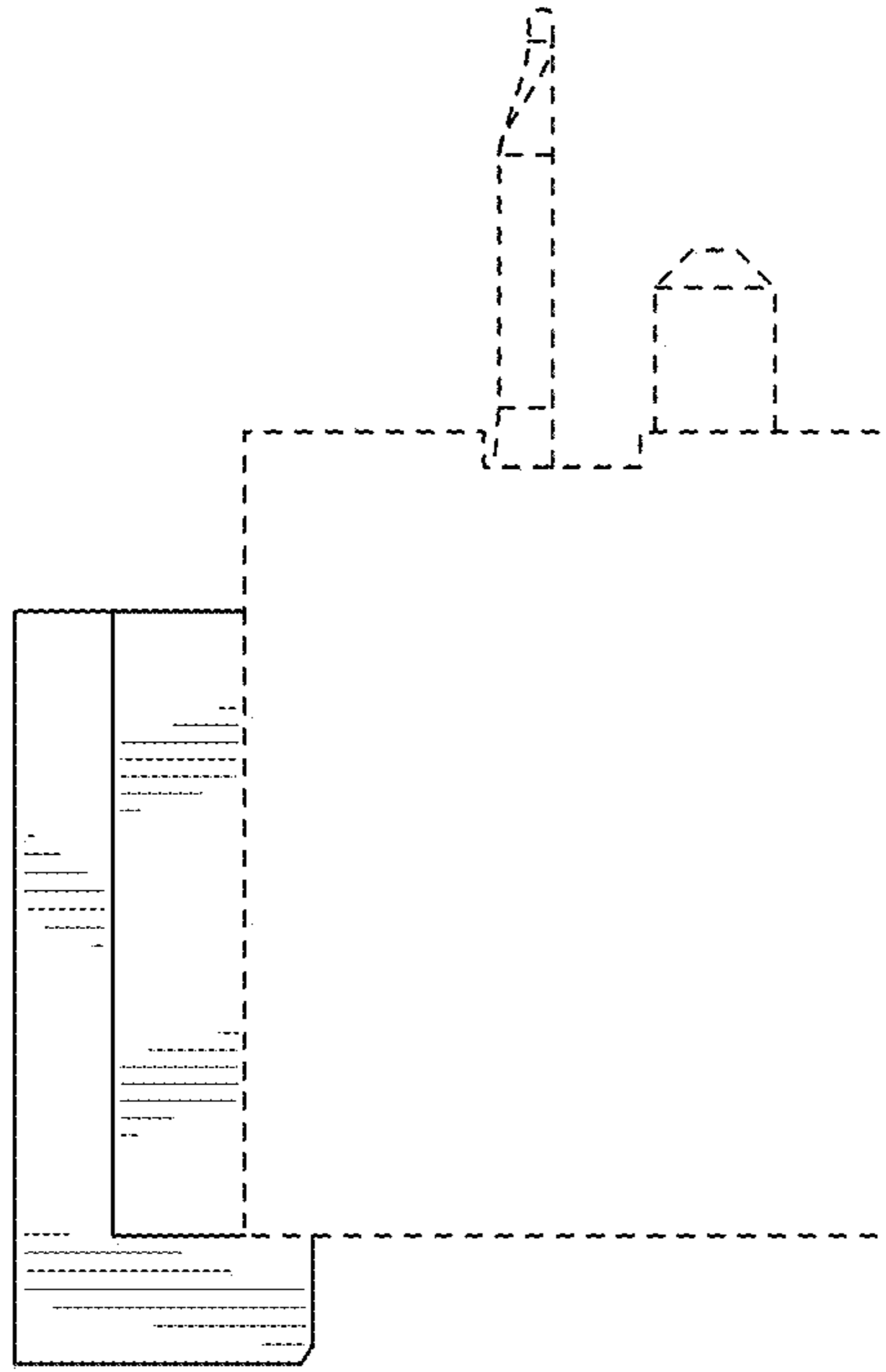


FIG. 141

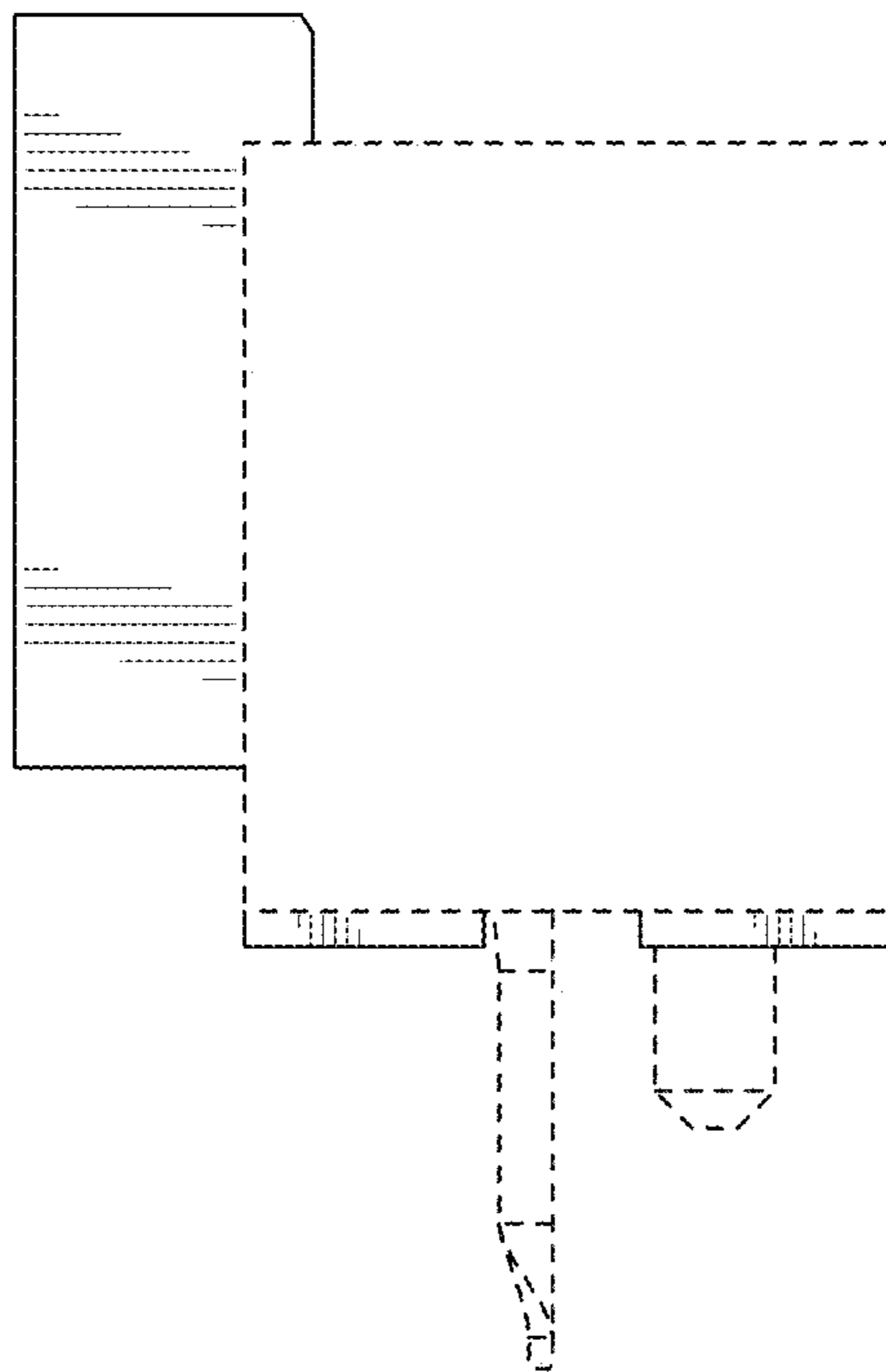


FIG. 140

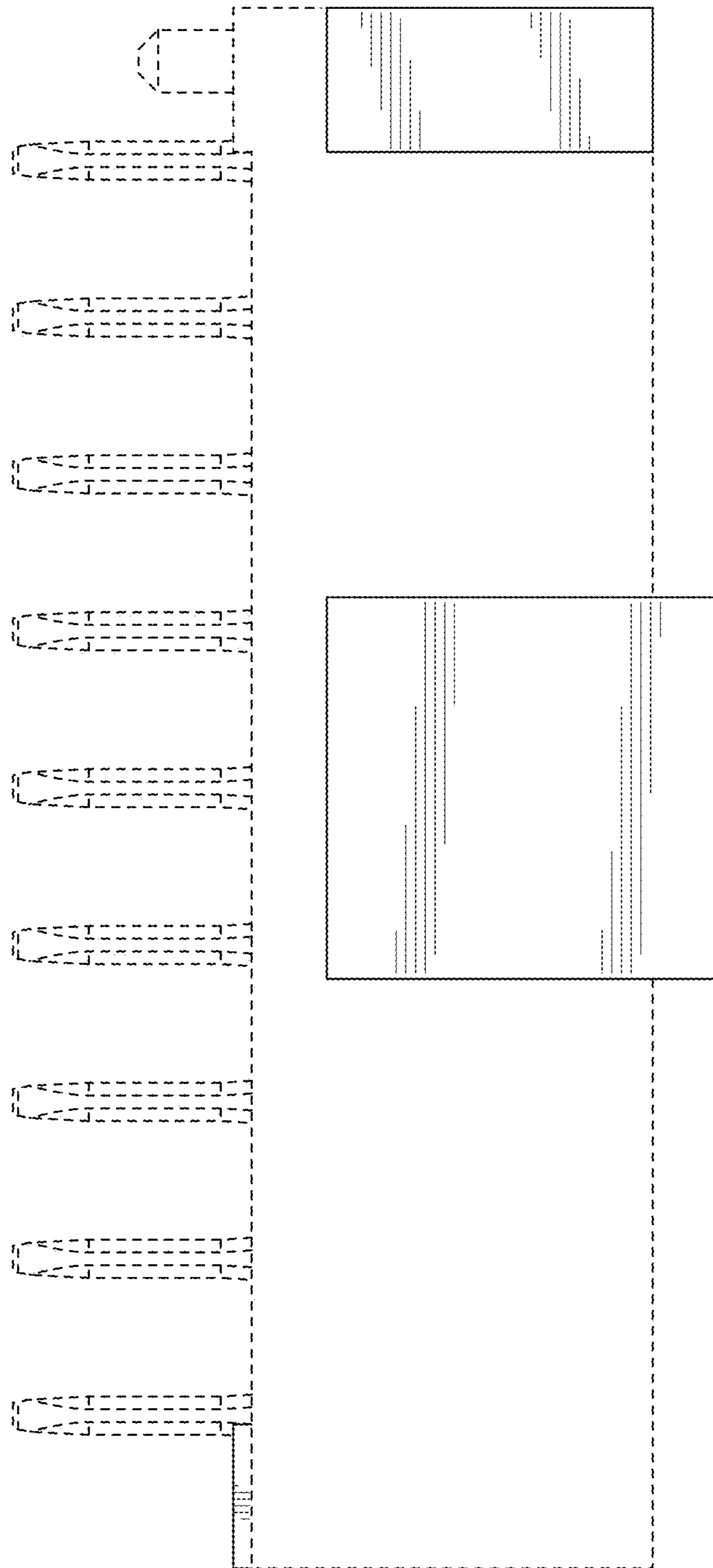


FIG. 142

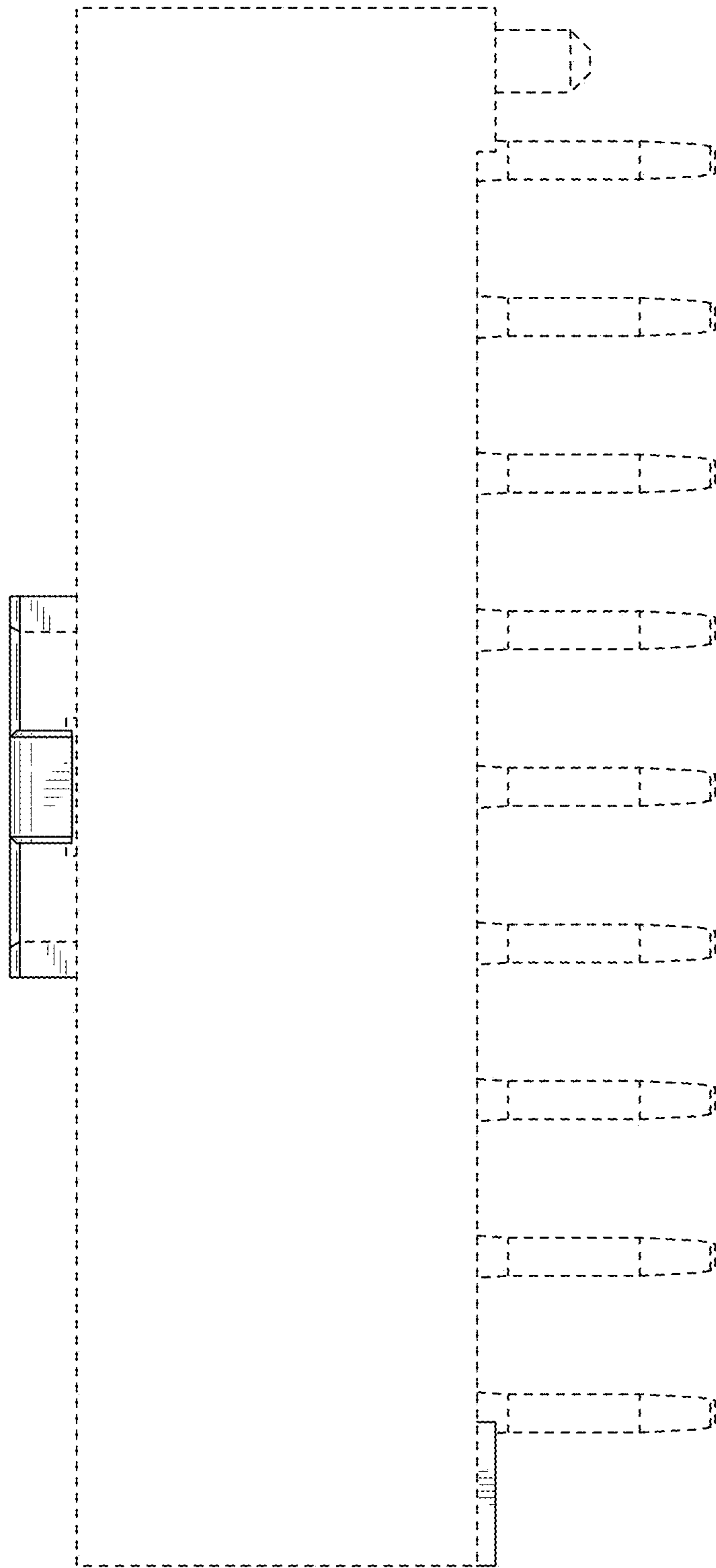


FIG. 143

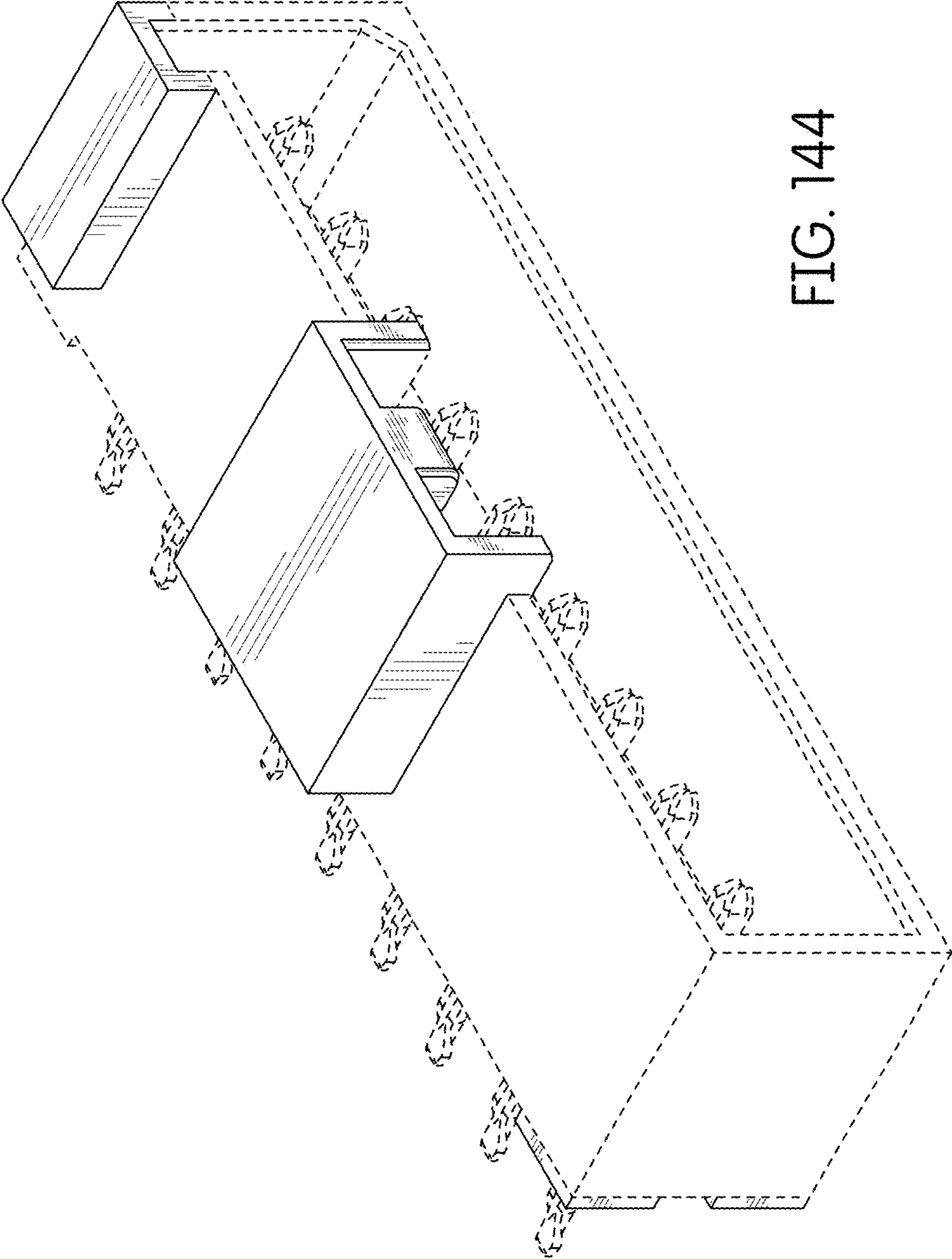


FIG. 144

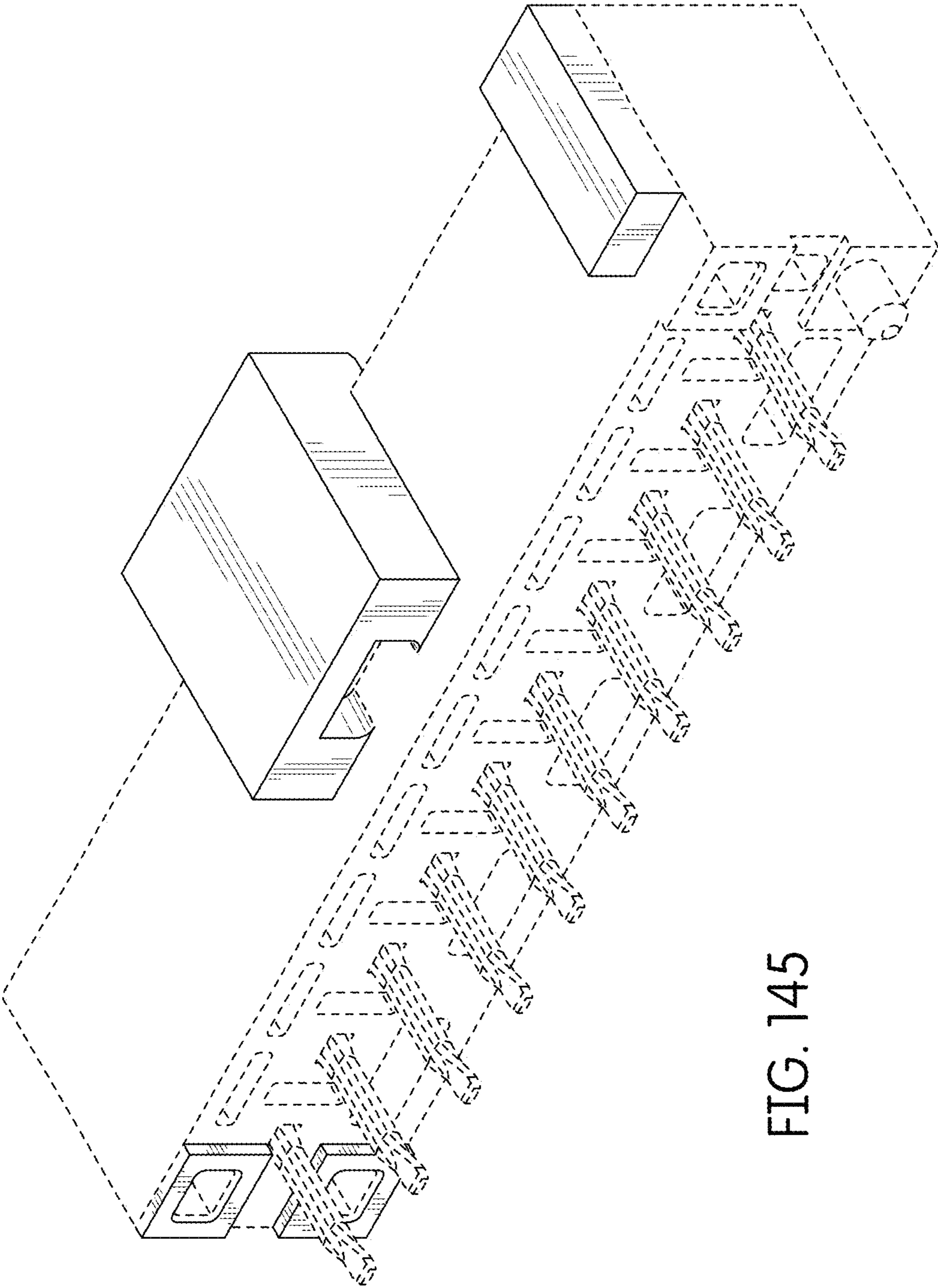


FIG. 145

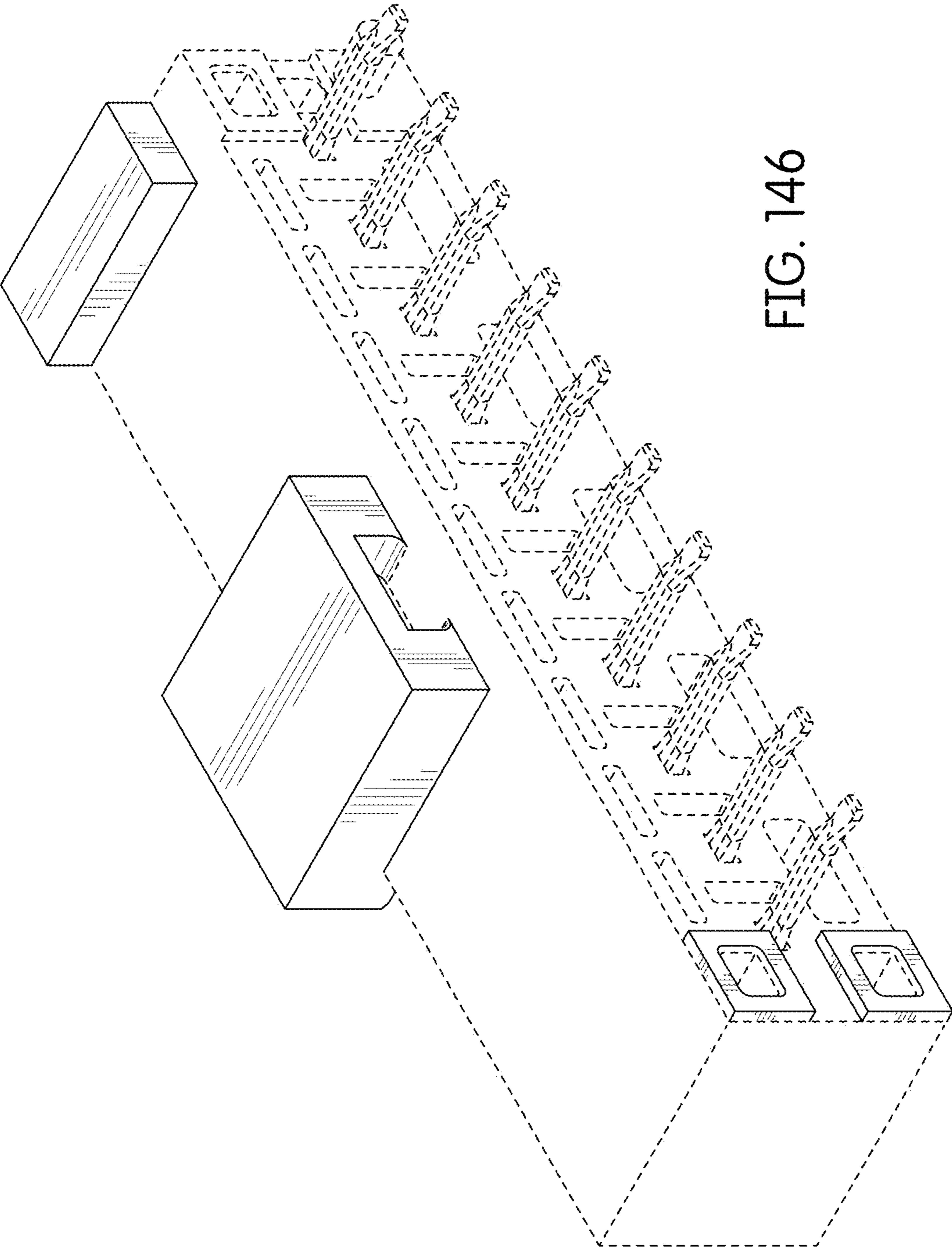


FIG. 146

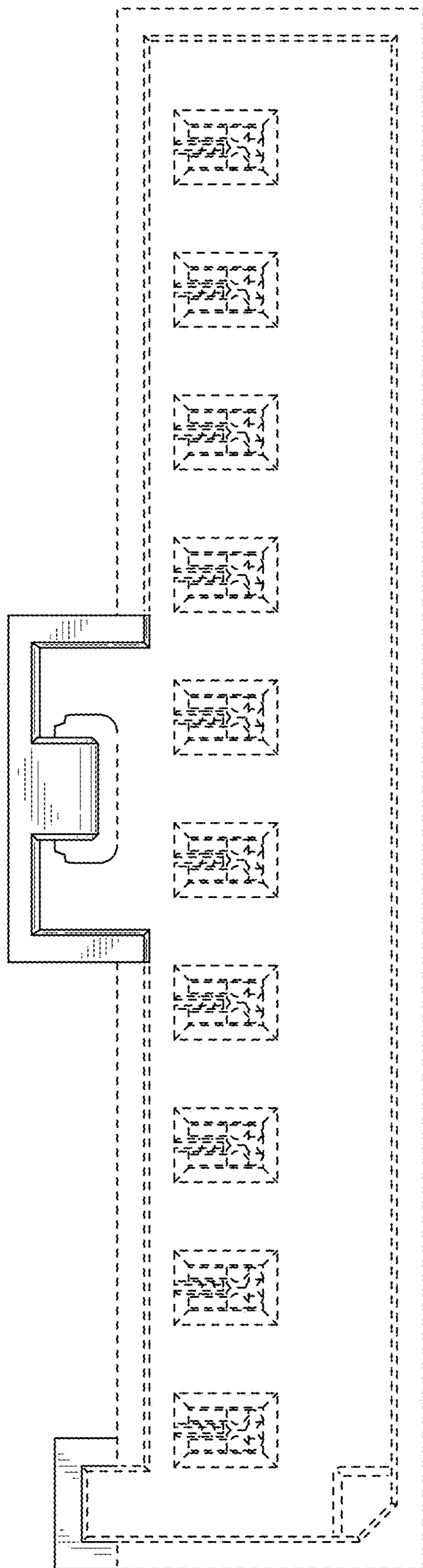


FIG. 147

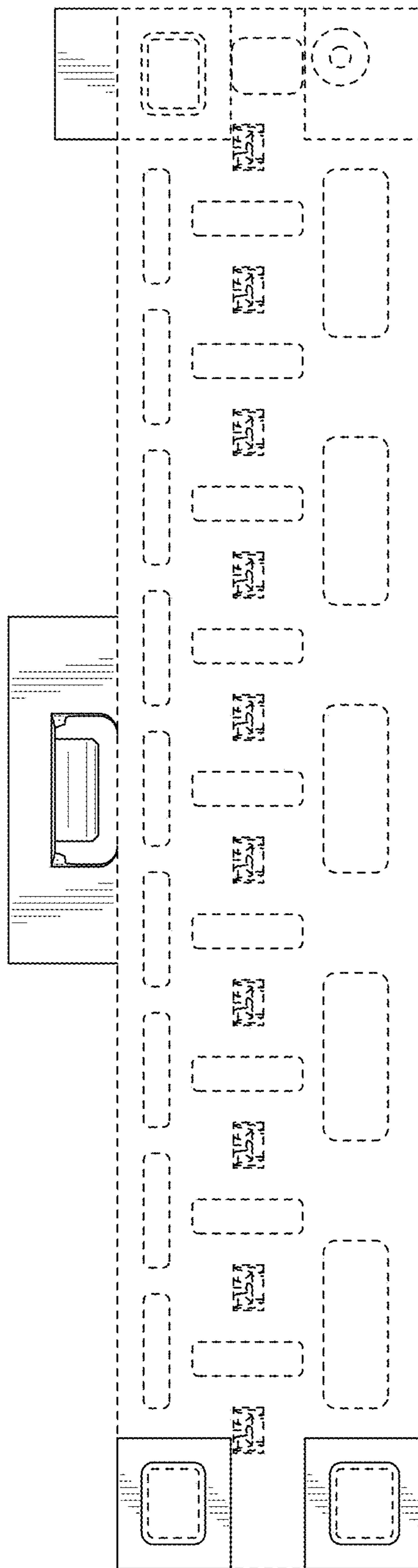


FIG. 148

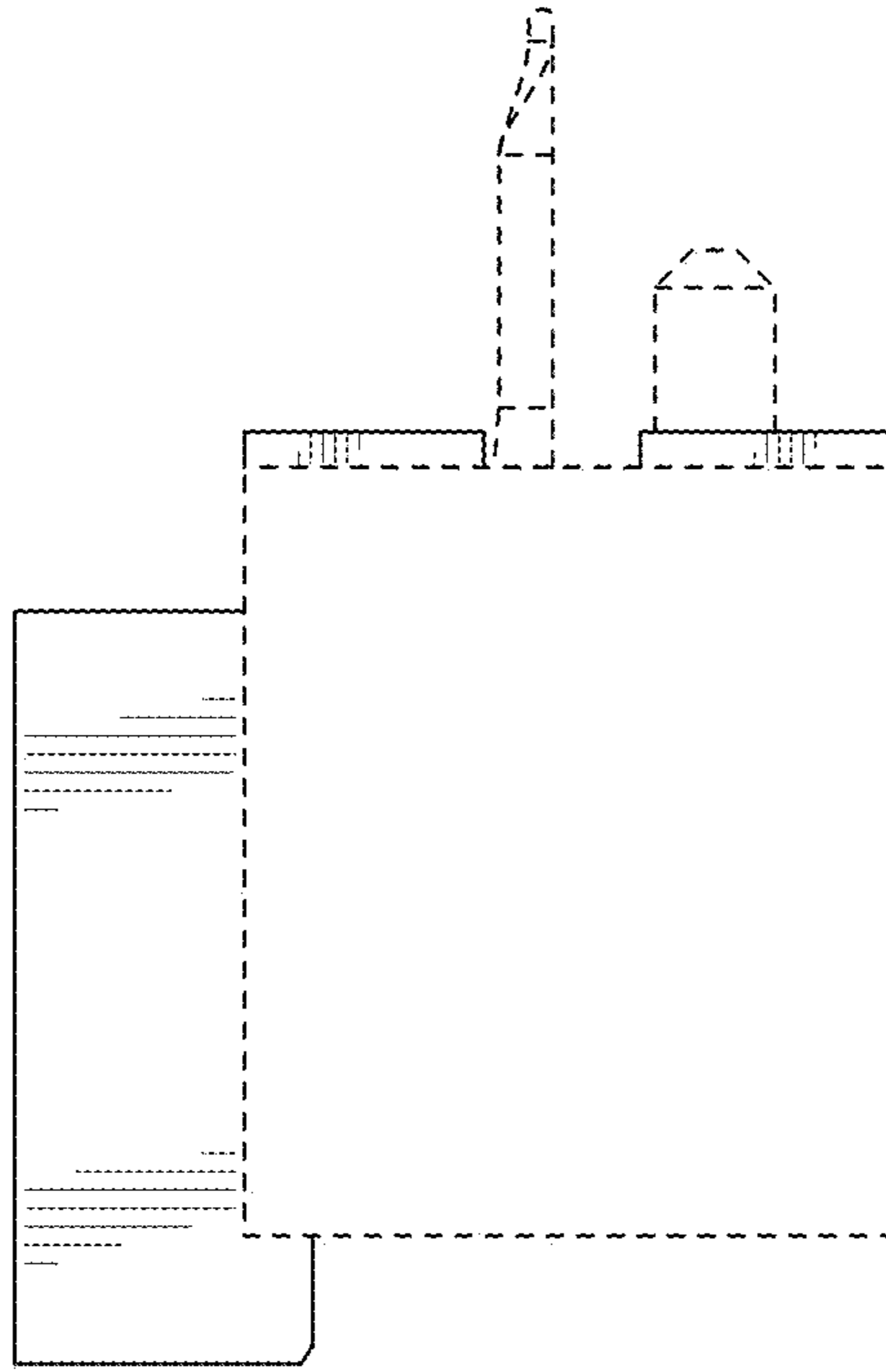


FIG. 150

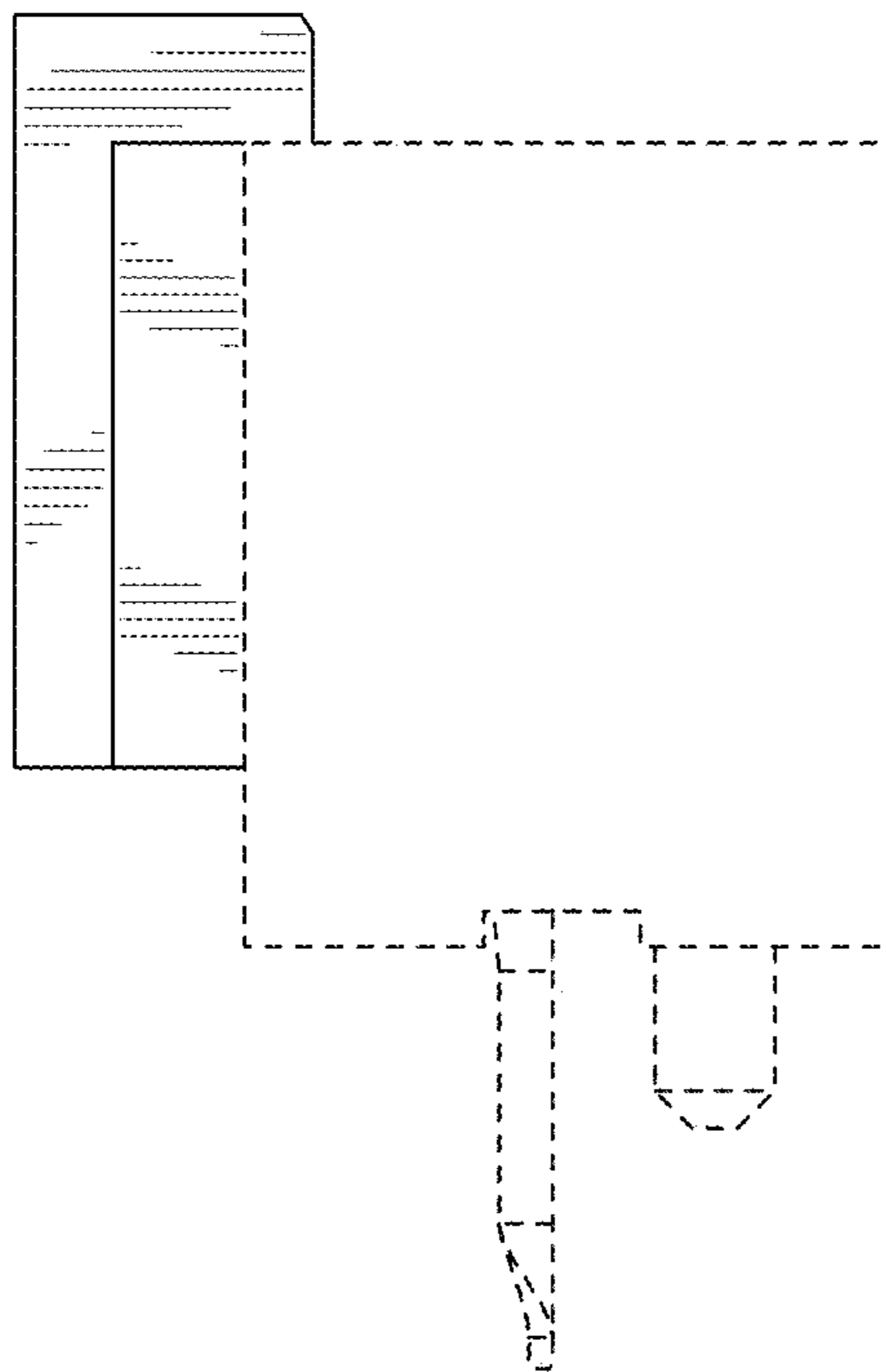


FIG. 149

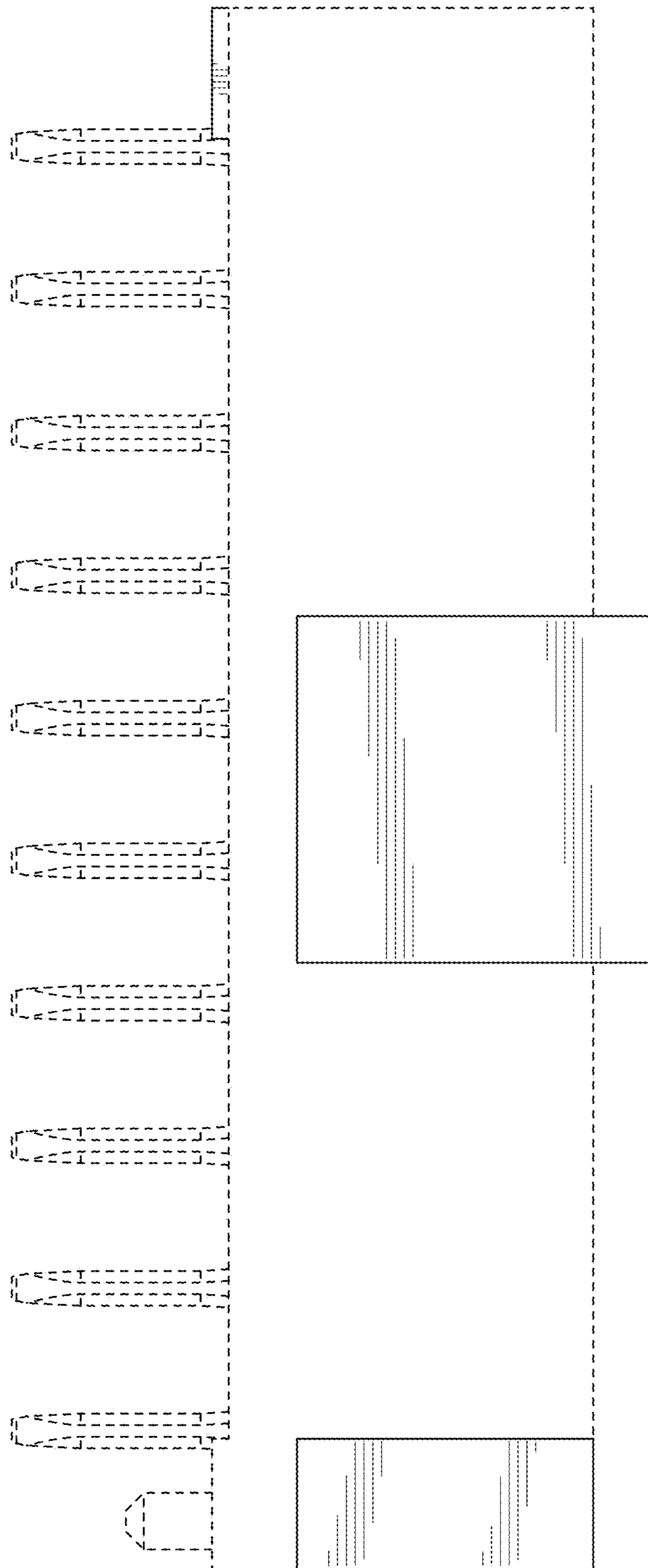


FIG. 151

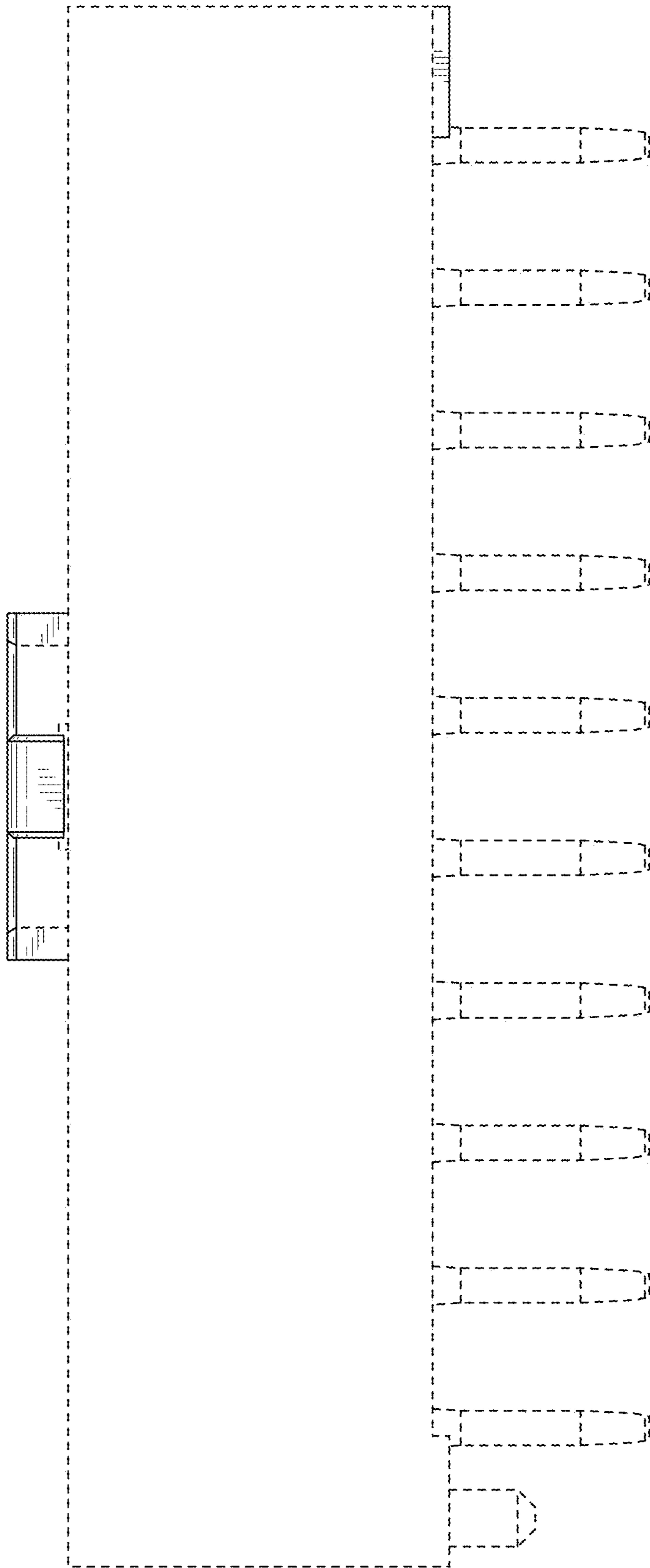


FIG. 152

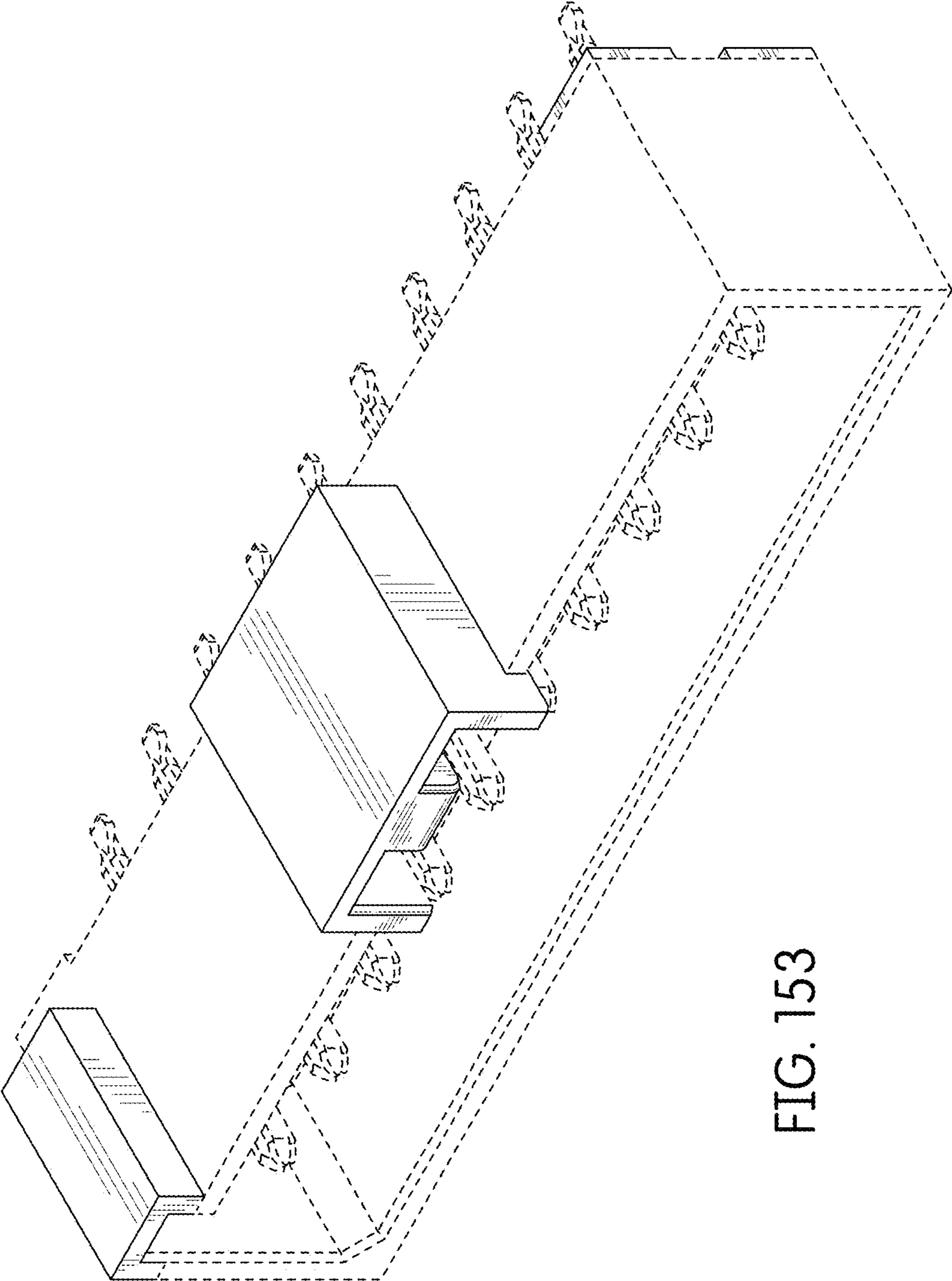


FIG. 153

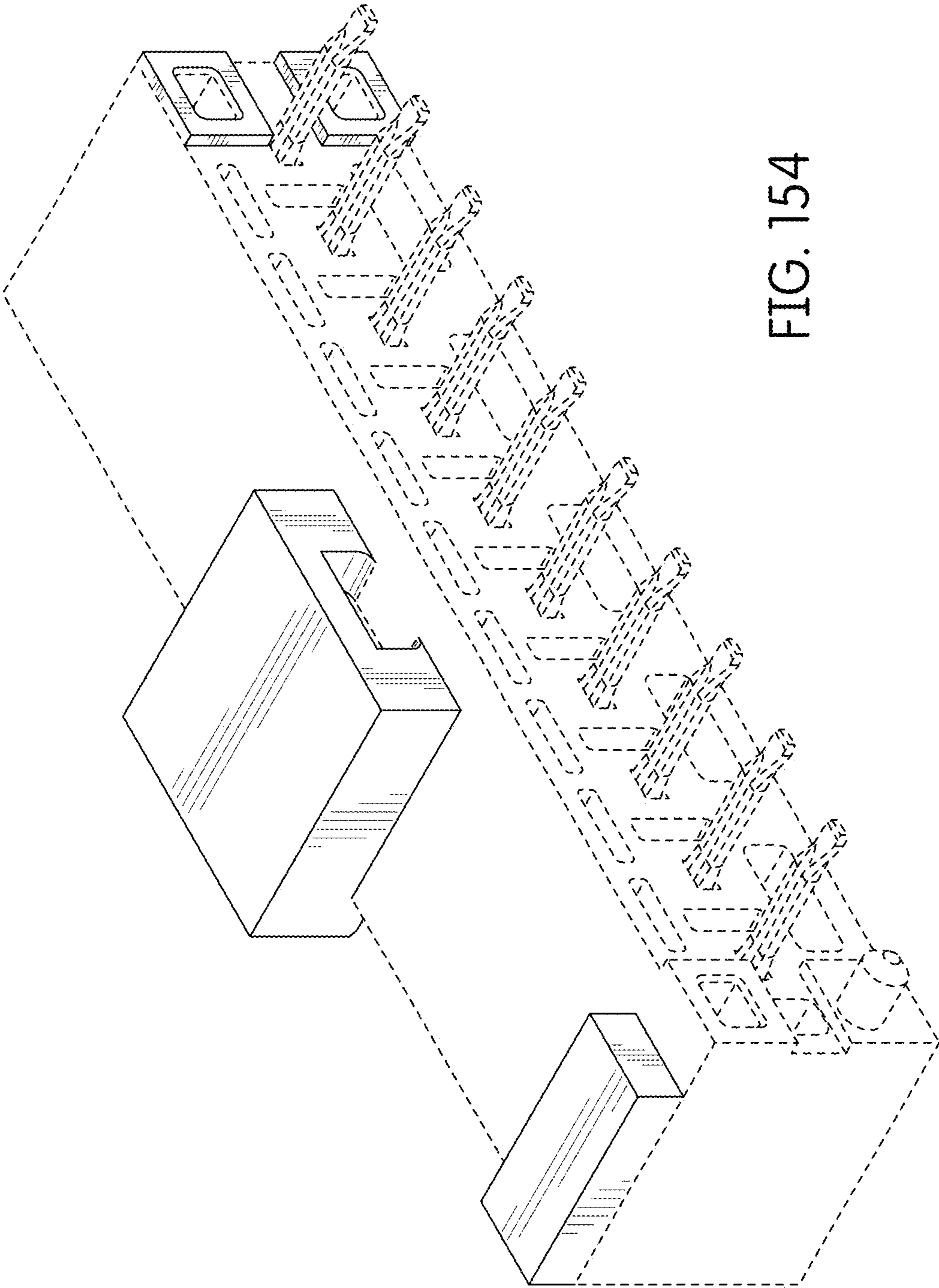


FIG. 154

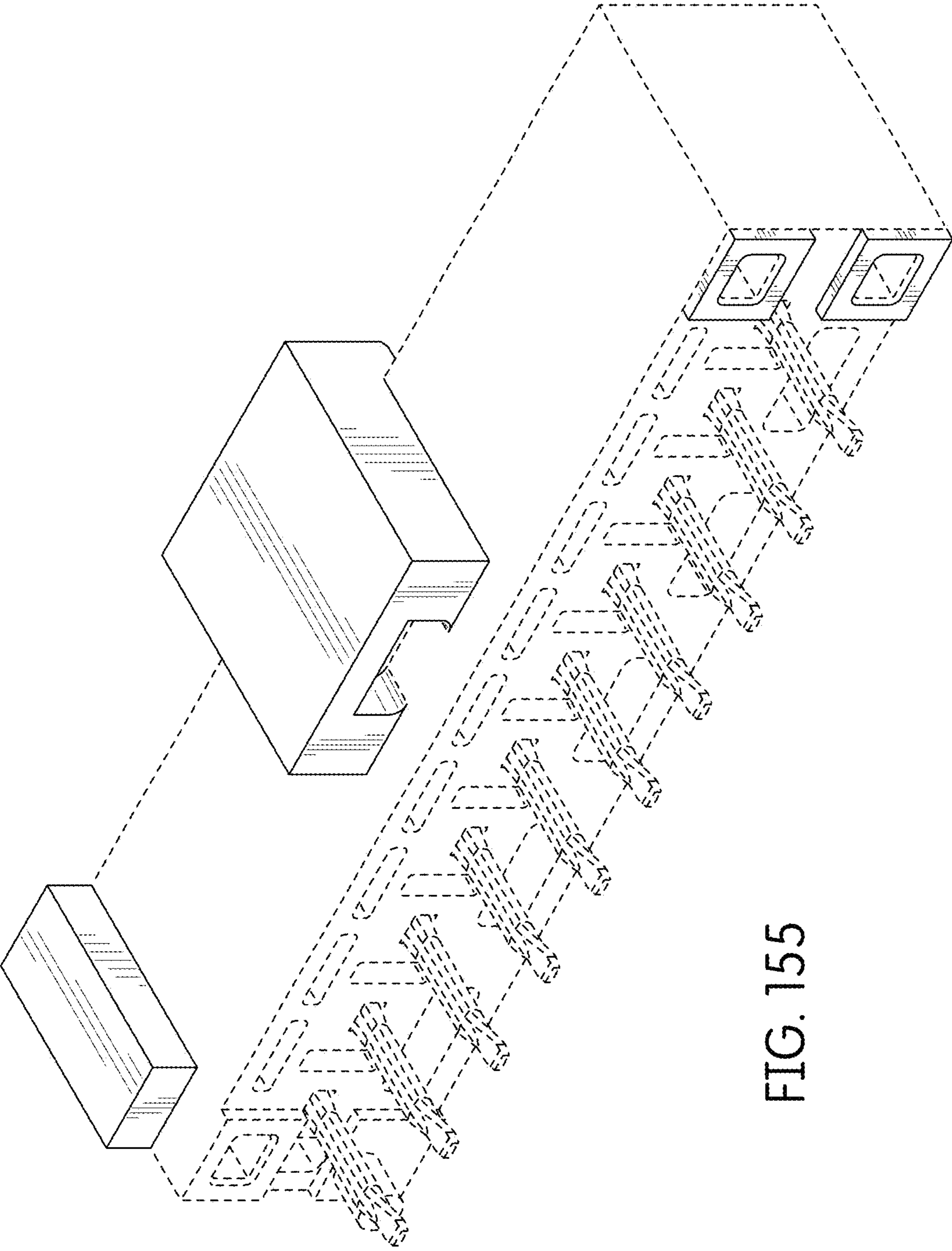


FIG. 155

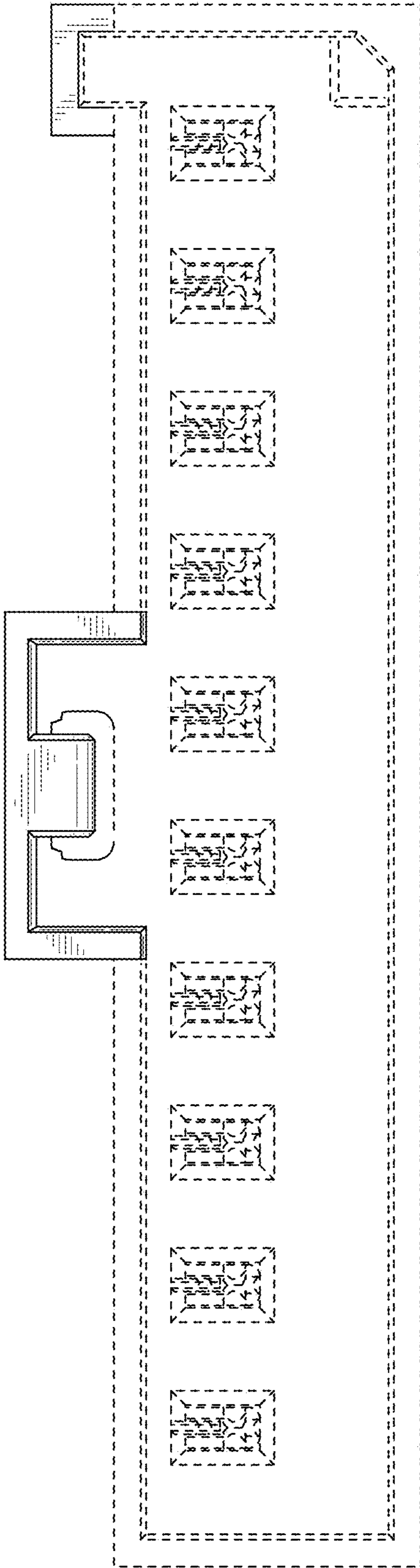


FIG. 156

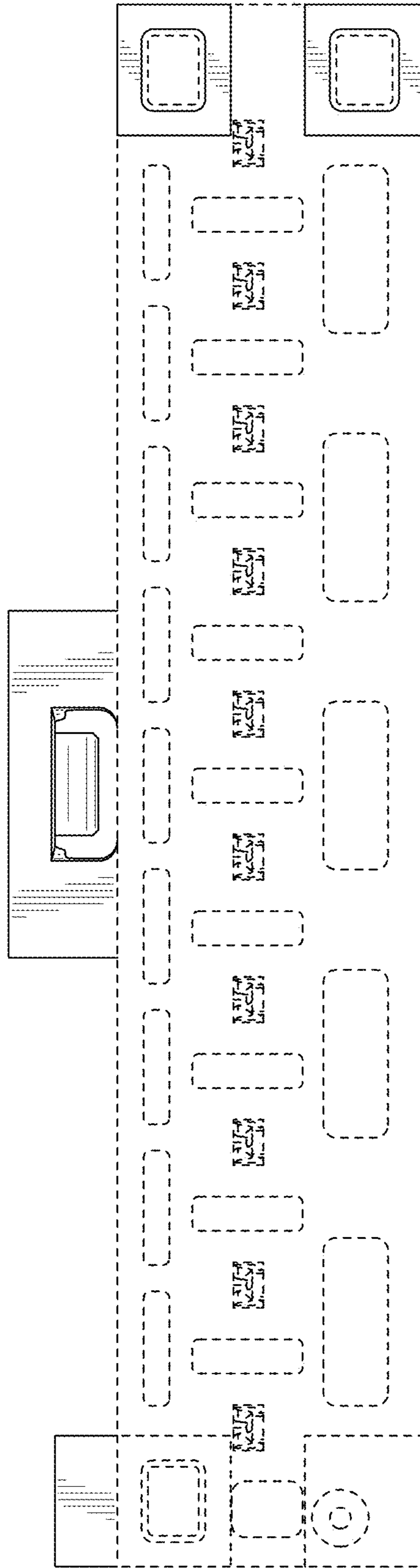


FIG. 157

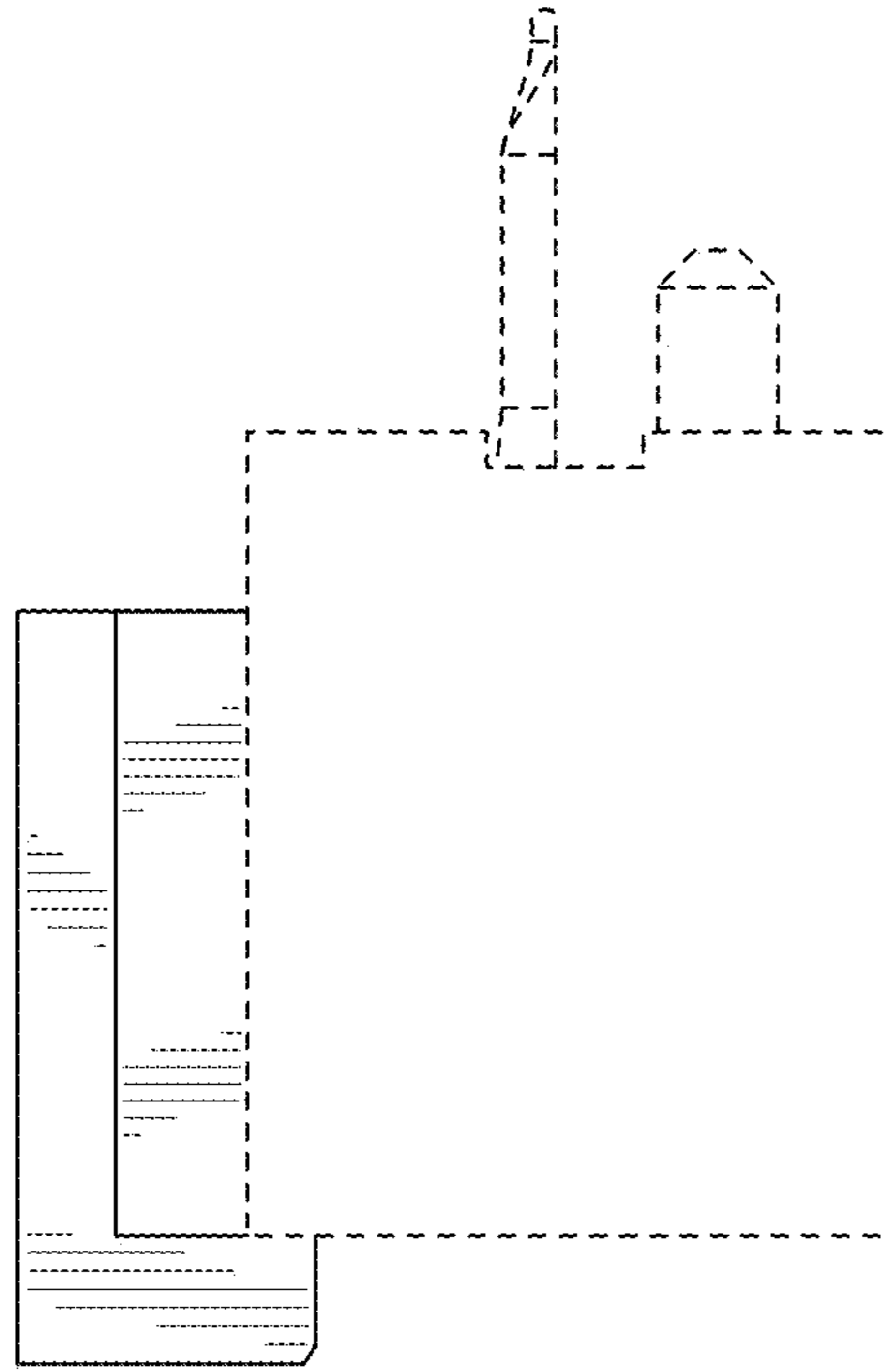


FIG. 159

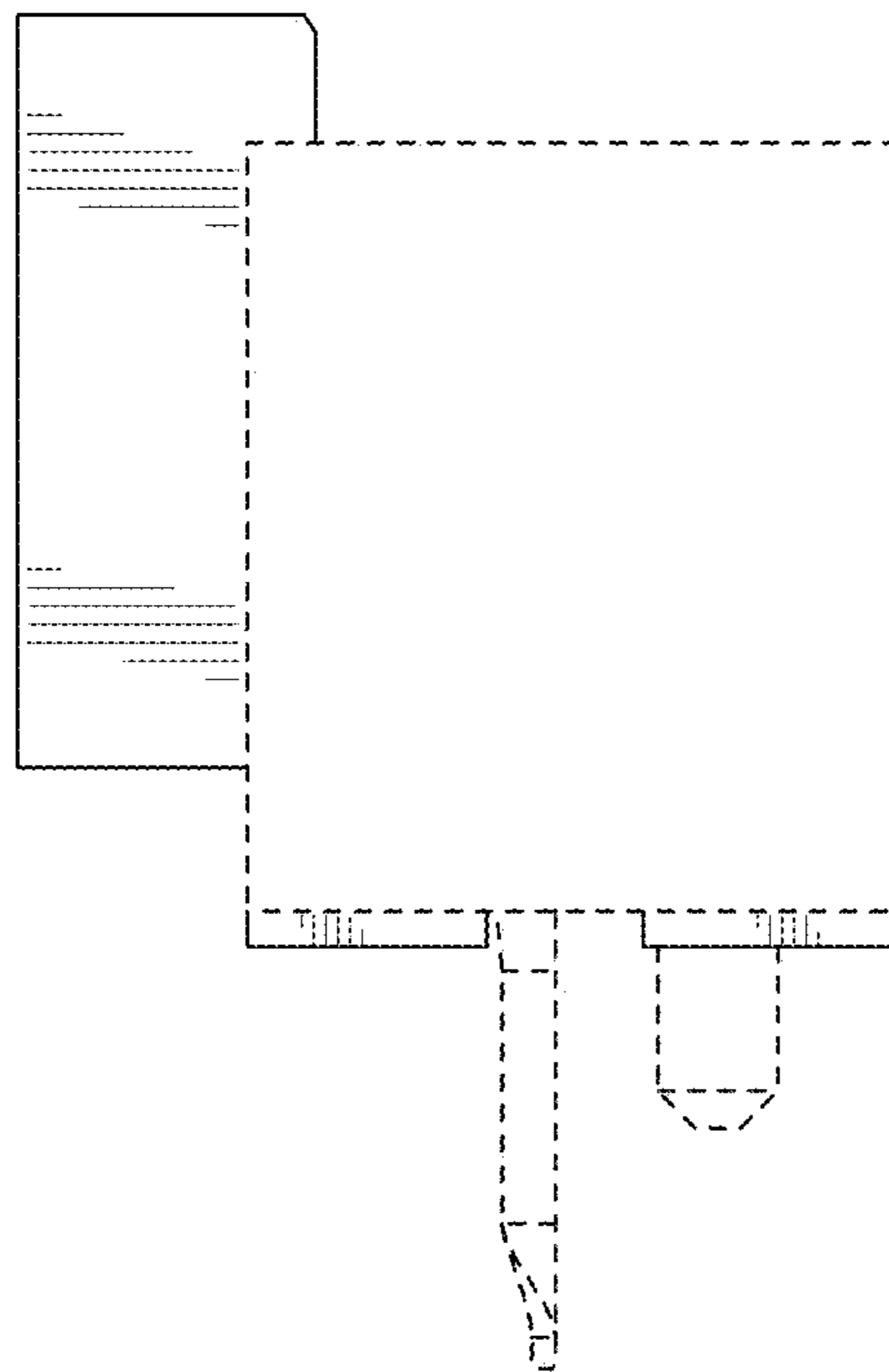


FIG. 158

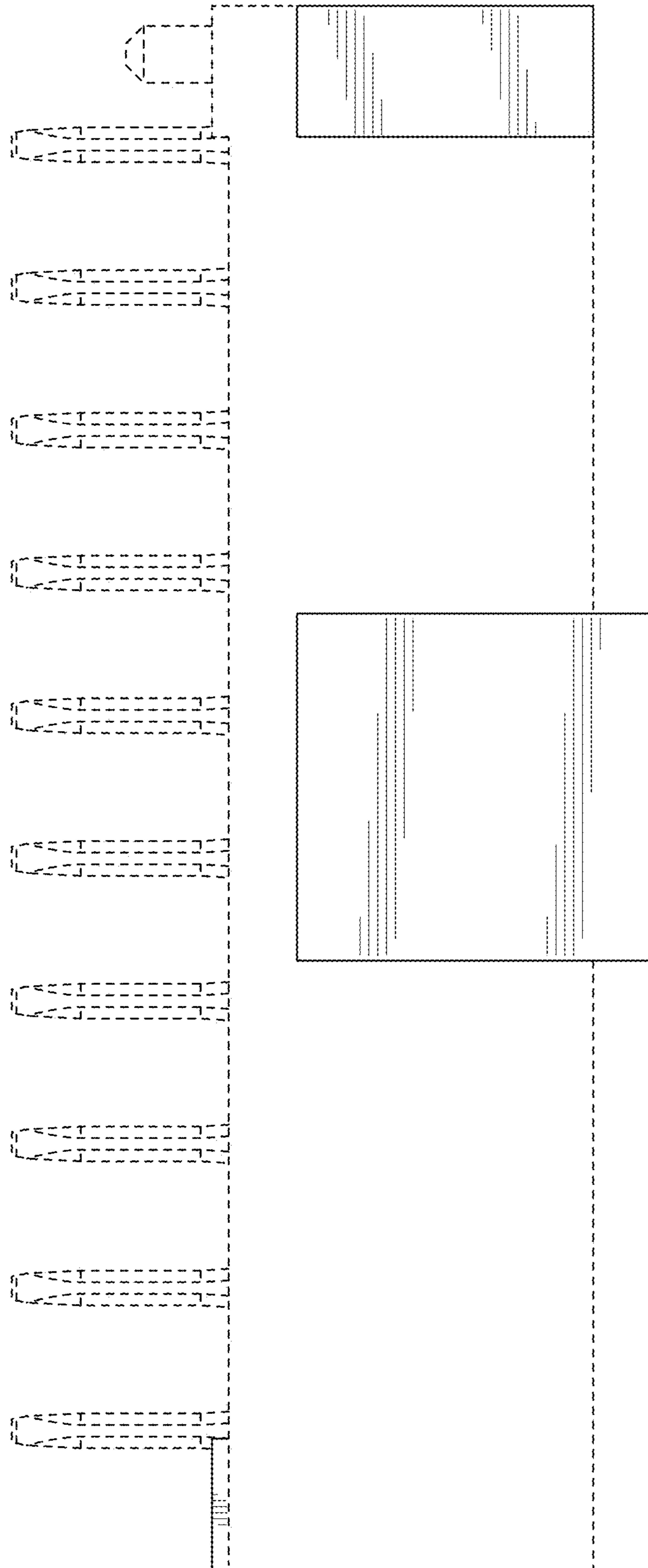


FIG. 160

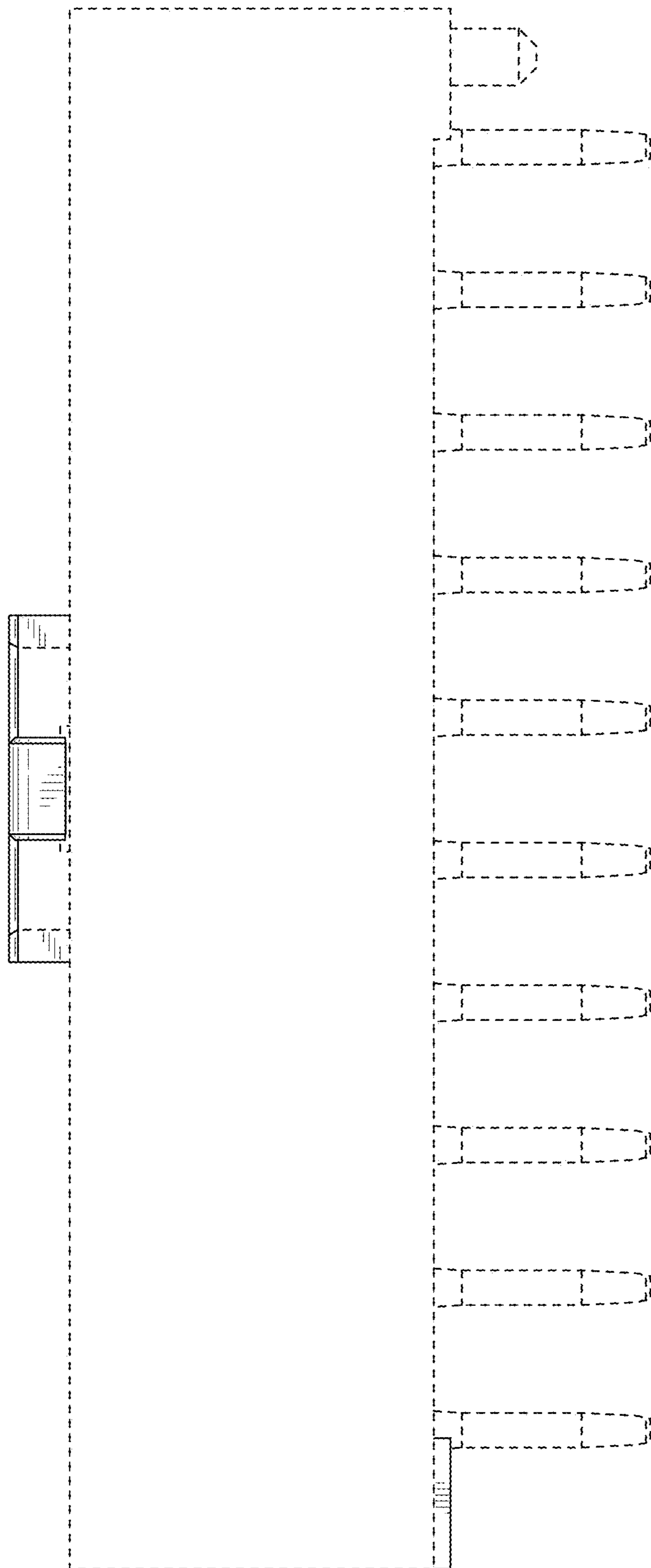


FIG. 161

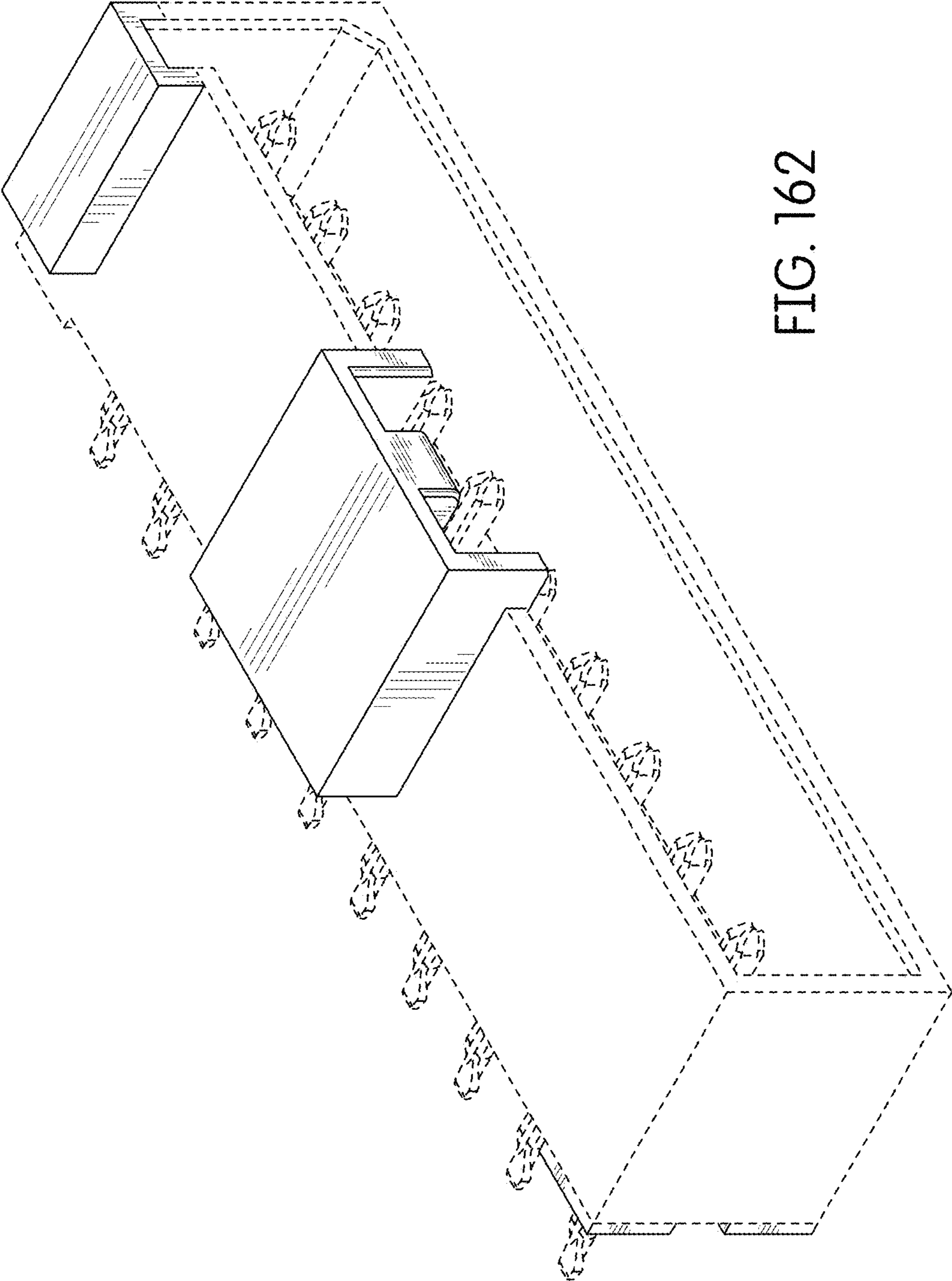


FIG. 162