



US00D884532S

(12) **United States Design Patent** (10) **Patent No.:** **US D884,532 S**  
**Yokino et al.** (45) **Date of Patent:** **\*\* May 19, 2020**

(54) **SPECTROMETER HAVING A FLEXIBLE PRINTED CIRCUIT**

FOREIGN PATENT DOCUMENTS

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(57) **CLAIM**

The ornamental design for a spectrometer having a flexible printed circuit, as shown and described.

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

**DESCRIPTION**

(21) Appl. No.: **29/675,088**

FIG. 1 is a top perspective view of a first embodiment of a spectrometer having a flexible printed circuit showing our new design;

(22) Filed: **Dec. 28, 2018**

FIG. 2 is a bottom perspective view thereof;

(30) **Foreign Application Priority Data**

Jun. 29, 2018 (JP) ..... 2018-014476

FIG. 3 is a front view thereof;

(51) **LOC (12) Cl.** ..... **10-04**

FIG. 4 is a rear view thereof;

(52) **U.S. Cl.**  
USPC ..... **D10/103**

FIG. 5 is a top plan view thereof;

(58) **Field of Classification Search**

USPC ..... D10/81, 103; D14/437, 438

FIG. 6 is a bottom view thereof;

CPC ..... G01J 3/00; G01J 3/0202; G01J 3/0205;

FIG. 7 is a right side view thereof;

G01J 3/0208; G01J 3/021; G01J 3/0213;

FIG. 8 is a left side view thereof;

G01J 3/0216; G01J 3/0218; G01J 3/0221;

FIG. 9 is a top perspective view of a second embodiment of a spectrometer having a flexible printed circuit showing our new design;

(Continued)

FIG. 10 is a bottom perspective view thereof;

(56) **References Cited**

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FIG. 11 is a front view thereof;

D603,280 S \* 11/2009 Shibayama ..... G02B 6/266  
D10/81

FIG. 12 is a rear view thereof;

FIG. 13 is a top plan view thereof;

FIG. 14 is a bottom view thereof;

FIG. 15 is a right side view thereof; and,

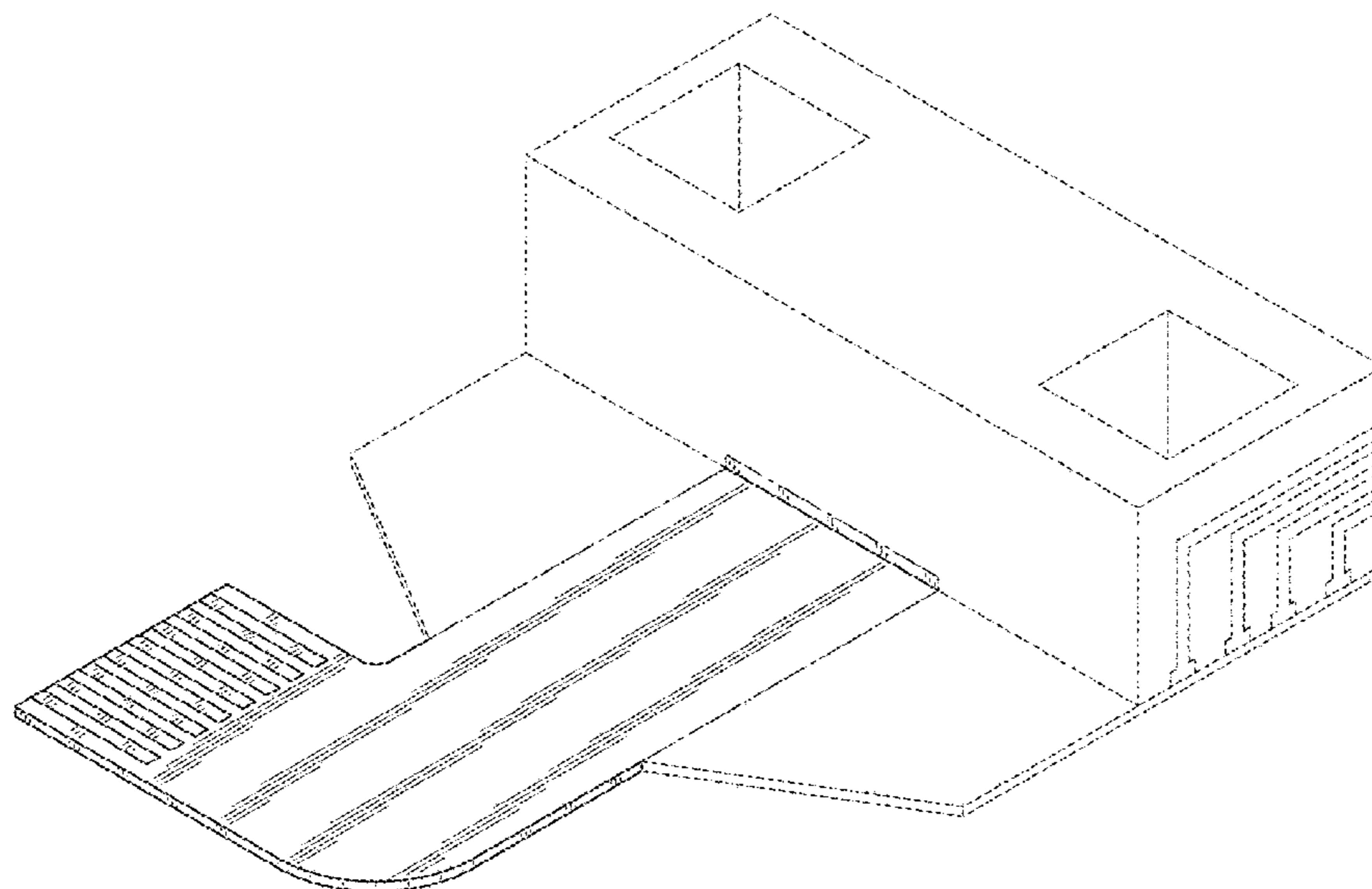
FIG. 16 is a left side view thereof.

The features shown in broken lines depict environmental subject matter only and form no part of the claimed design.

The alternate long and short dash lines are merely the boundary lines between the claimed parts and the non-claimed parts.

(Continued)

**1 Claim, 16 Drawing Sheets**



(58) **Field of Classification Search**

CPC ..... G01J 3/0224; G01J 3/0227; G01J 3/0229;  
 G01J 3/0232; G01J 3/0235; G01J 3/0237;  
 G01J 3/024; G01J 3/0243; G01J 3/0245;  
 G01J 3/0248; G01J 3/0251; G01J 3/0254;  
 G01J 3/0256; G01J 3/0259; G01J 3/0262;  
 G01J 3/0264; G01J 3/0267; G01J 3/027;  
 G01J 3/0272; G01J 3/0275; G01J 3/0278;  
 G01J 3/0283; G01J 3/0286; G01J 3/0289;  
 G01J 3/0291; G01J 3/0294; G01J 3/0297;  
 G01J 3/04; G01J 3/06; G01J 3/08; G01J  
 3/12; G01J 3/1256; G01J 3/14; G01J  
 3/16; G01J 3/18; G01J 3/1804; G01J  
 3/1809; G01J 3/1833; G01J 3/1838; G01J  
 3/189; G01J 3/1895; G01J 3/20; G01J  
 3/22; G01J 3/24; G01J 3/26; G01J 3/28;  
 G01J 3/2803; G01J 3/2823; G01J 3/2946;  
 G01J 3/2889; G01J 3/30; G01J 3/32;  
 G01J 3/36; G01J 3/40; G01J 3/42; G01J  
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 3/524; G01J 3/526; G01J 3/528; G01J  
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 2003/045; G01J 2003/047; G01J  
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 2003/1213; G01J 2003/1217; G01J  
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 2003/1269; G01J 2003/1273; G01J

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 2003/1295; G01J 2003/145; G01J  
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 2003/1823; G01J 2003/1828; G01J  
 2003/1842; G01J 2003/1847; G01J  
 2003/1852; G01J 2003/1857; G01J  
 2003/1861; G01J 2003/1866; G01J  
 2003/1871; G01J 2003/1876; G01J  
 2003/188; G01J 2003/1885; G01J  
 2003/262; G01J 2003/26; G01J 2003/267;  
 G01J 2003/2806; G01J 2003/2809; G01J  
 2003/2813; G01J 2003/2816; G01J  
 2003/282; G01J 2003/2826; G01J  
 2003/283; G01J 2003/2833; G01J  
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 2003/2843; G01J 2003/285; G01J  
 2003/2853; G01J 2003/2856; G01J  
 2003/2859; G01J 2003/2863; G01J  
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 2003/2879; G01J 2003/2883; G01J  
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 2003/2896; G01J 2003/323; G01J  
 2003/326; G01J 2003/421; G01J  
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 2003/4538; G01J 2003/466; G01J  
 2003/467; G01J 2003/468; G01J  
 2003/503; G01J 2003/507; G01J  
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See application file for complete search history.

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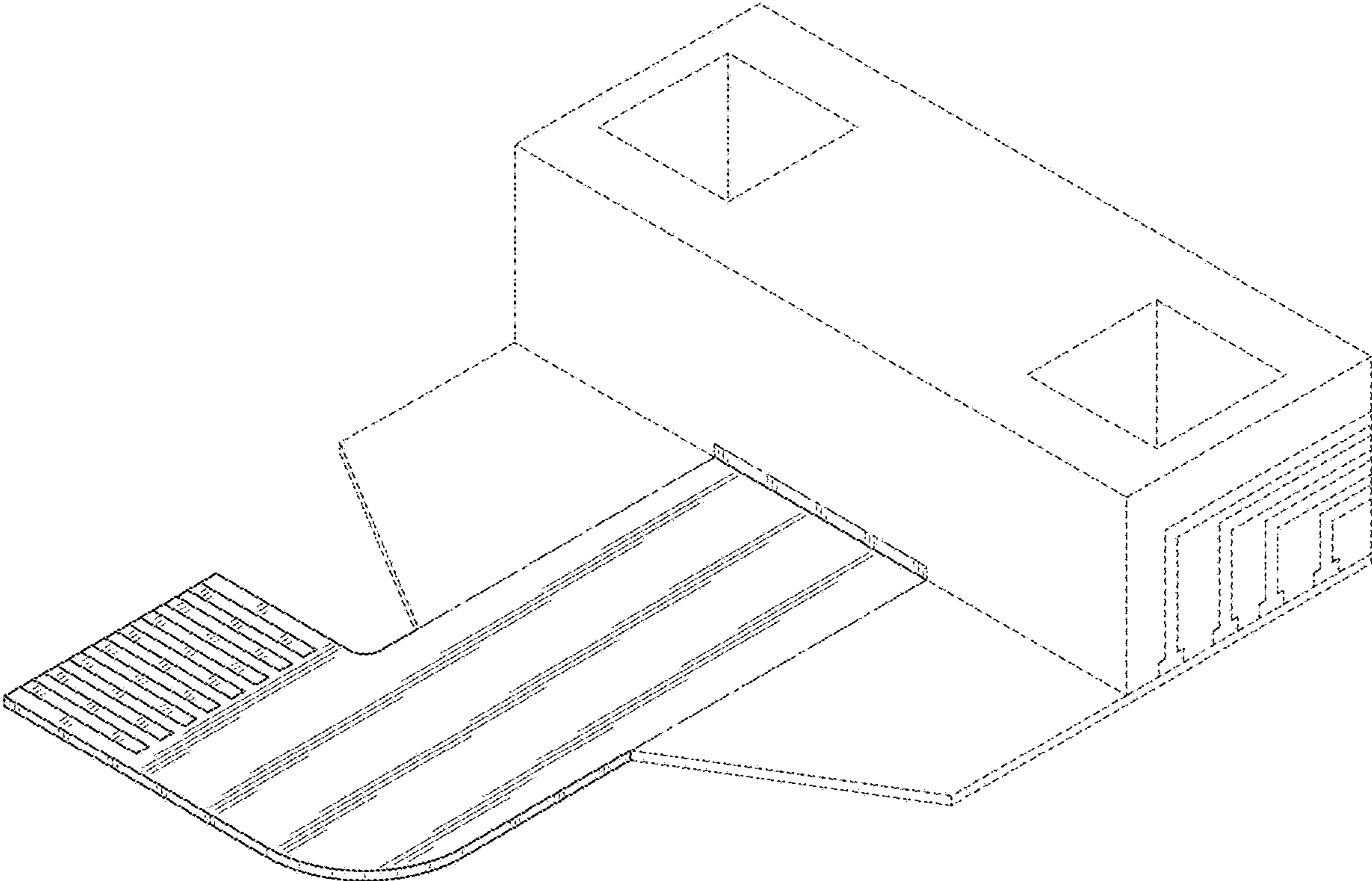


FIG. 1



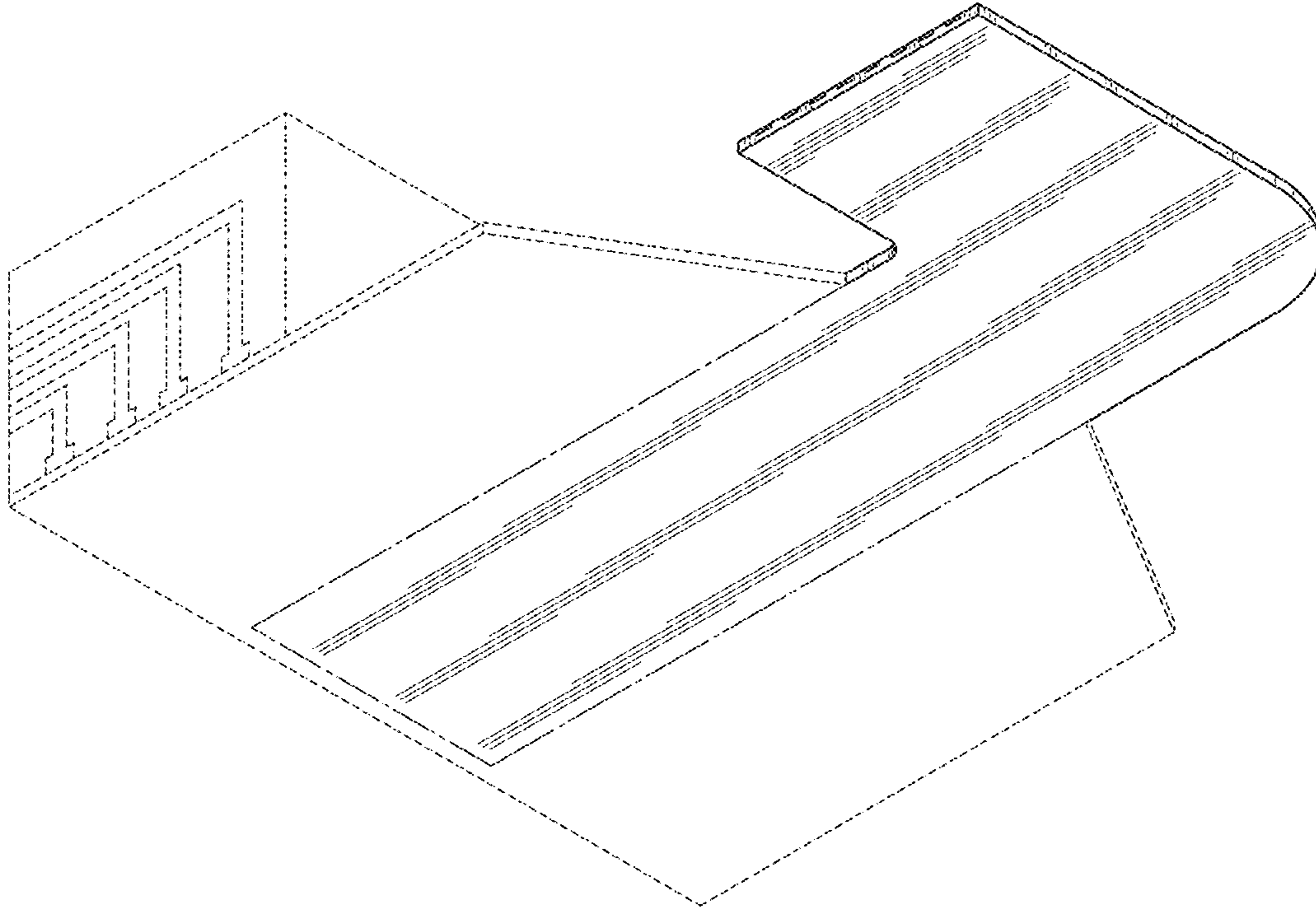


FIG. 2

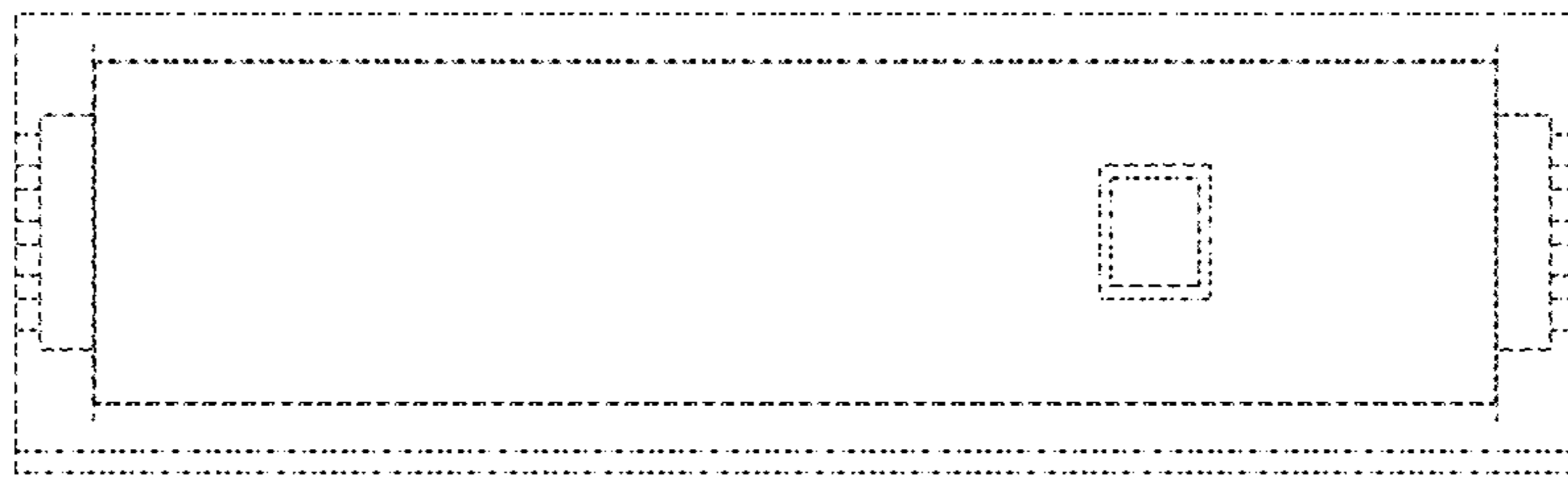


FIG. 3

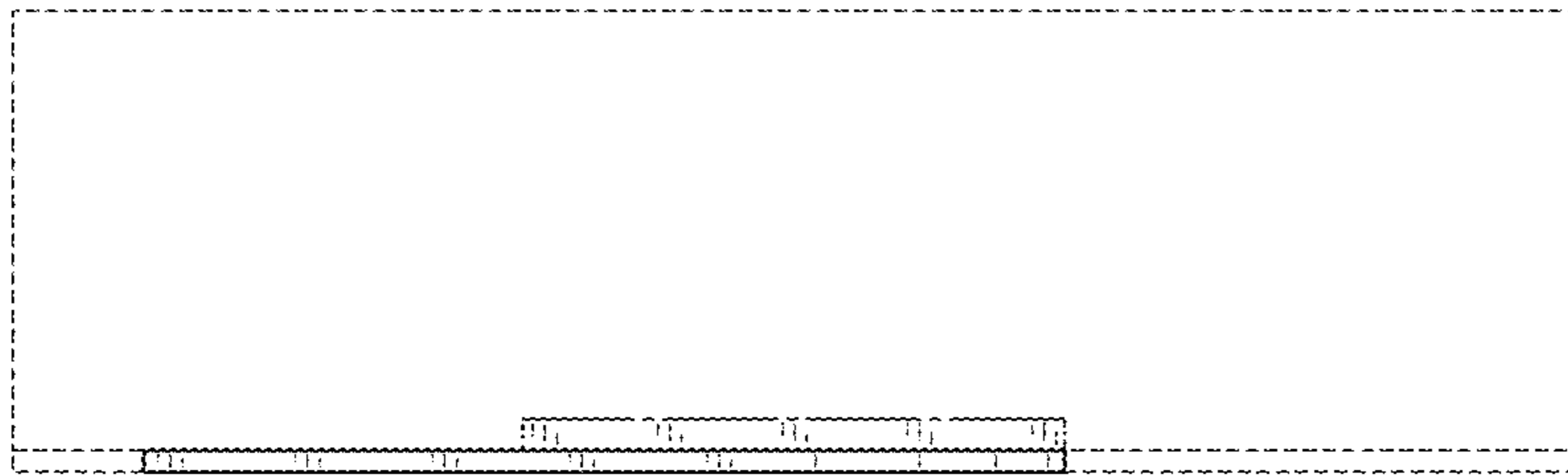


FIG. 4

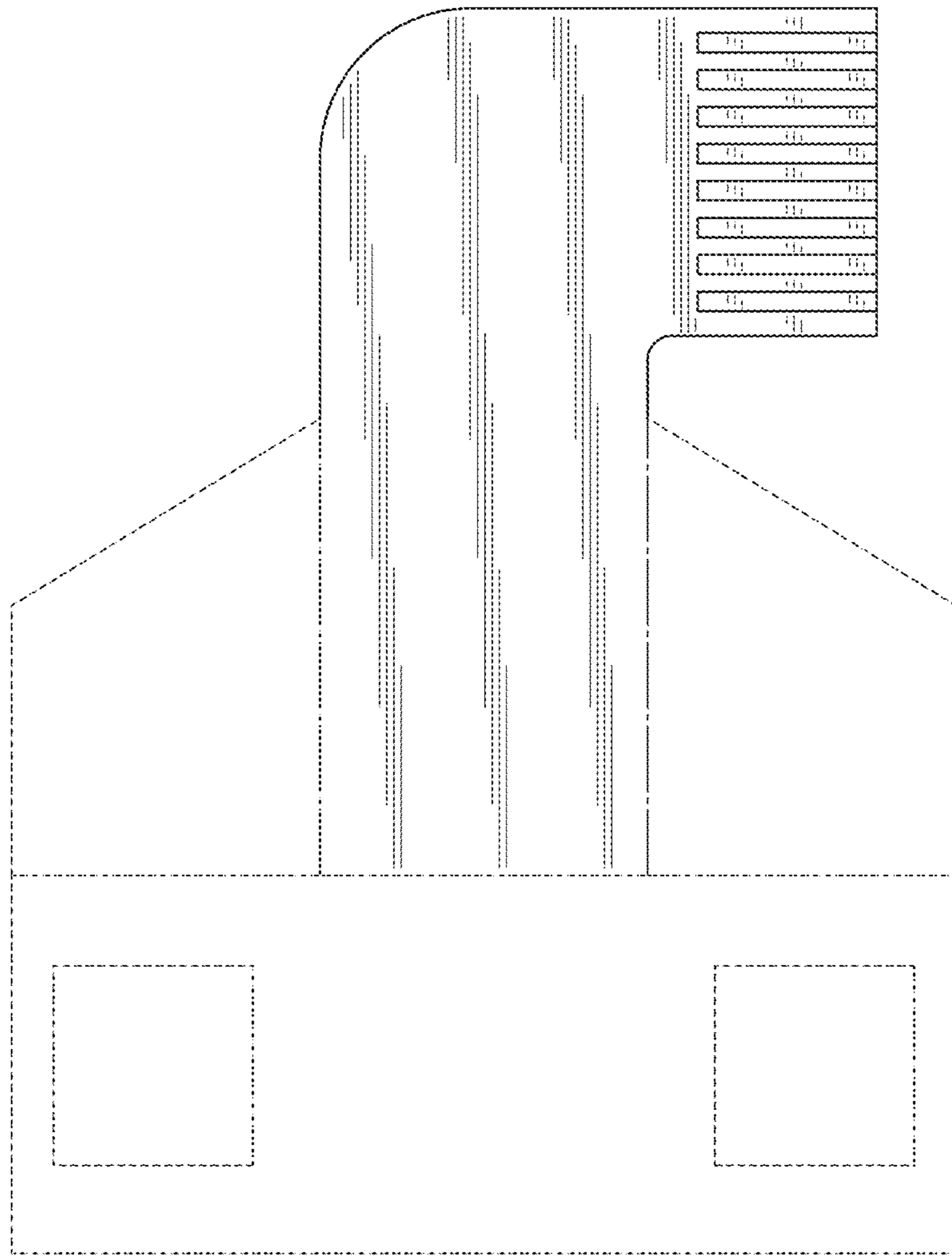


FIG. 5

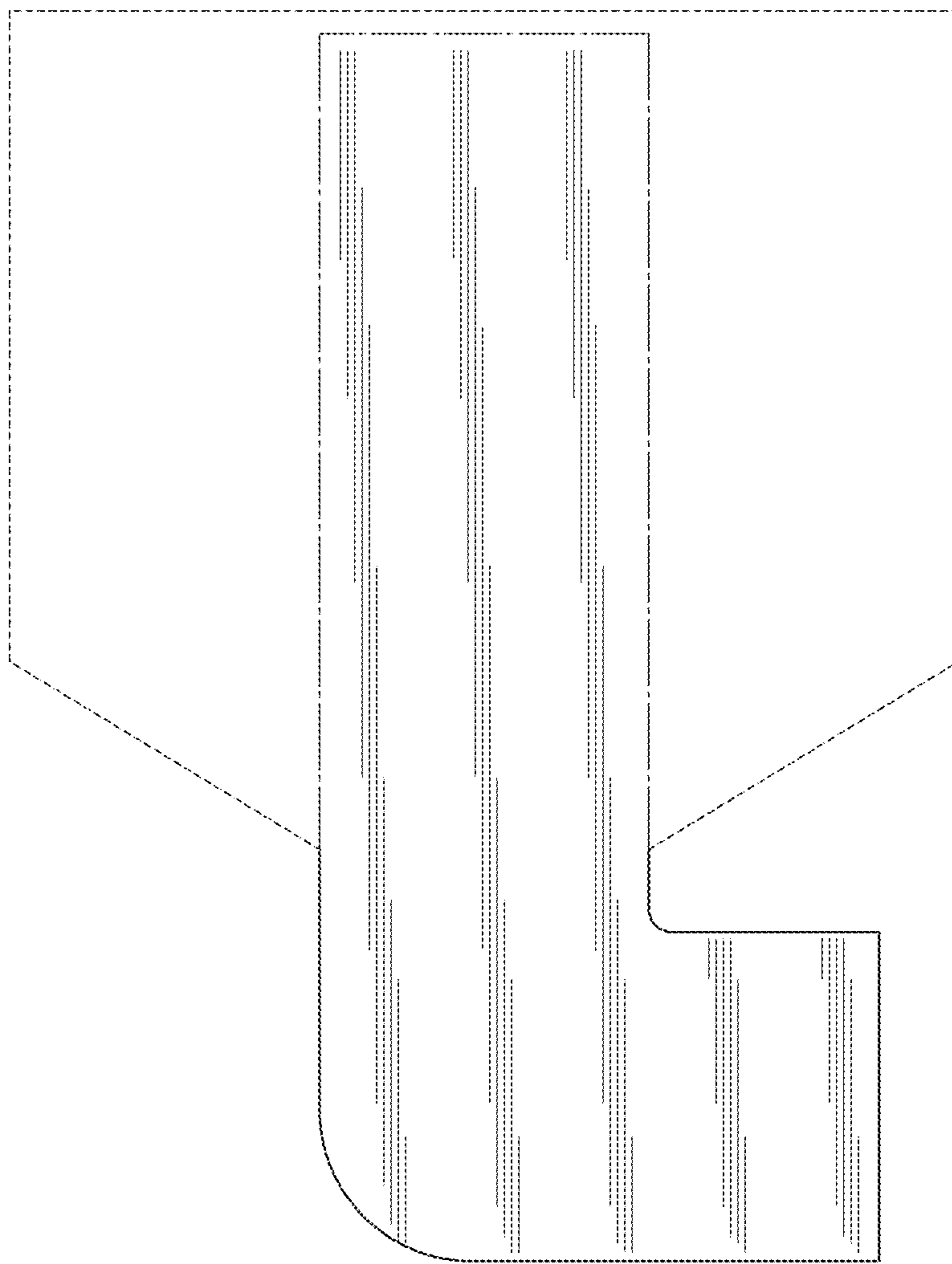


FIG. 6



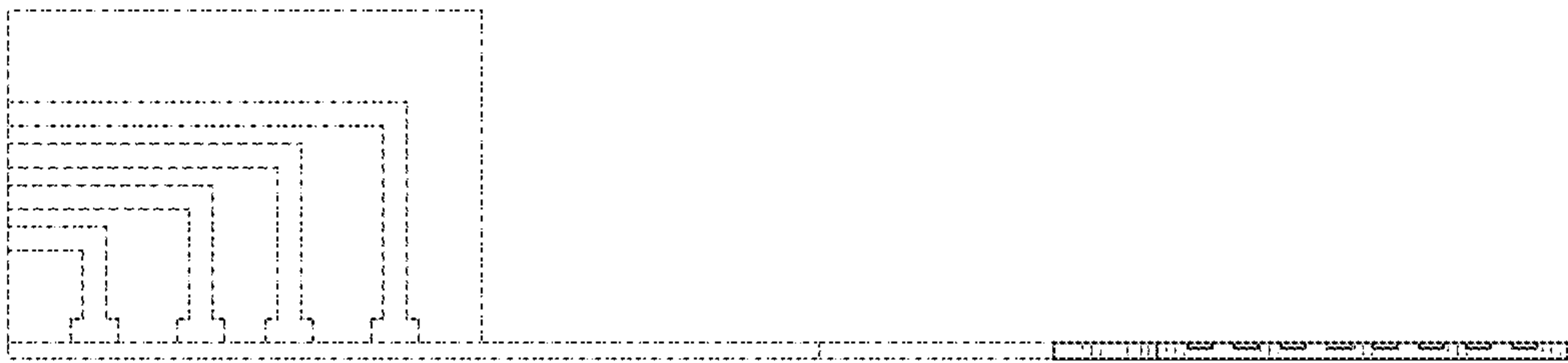


FIG. 7



FIG. 8

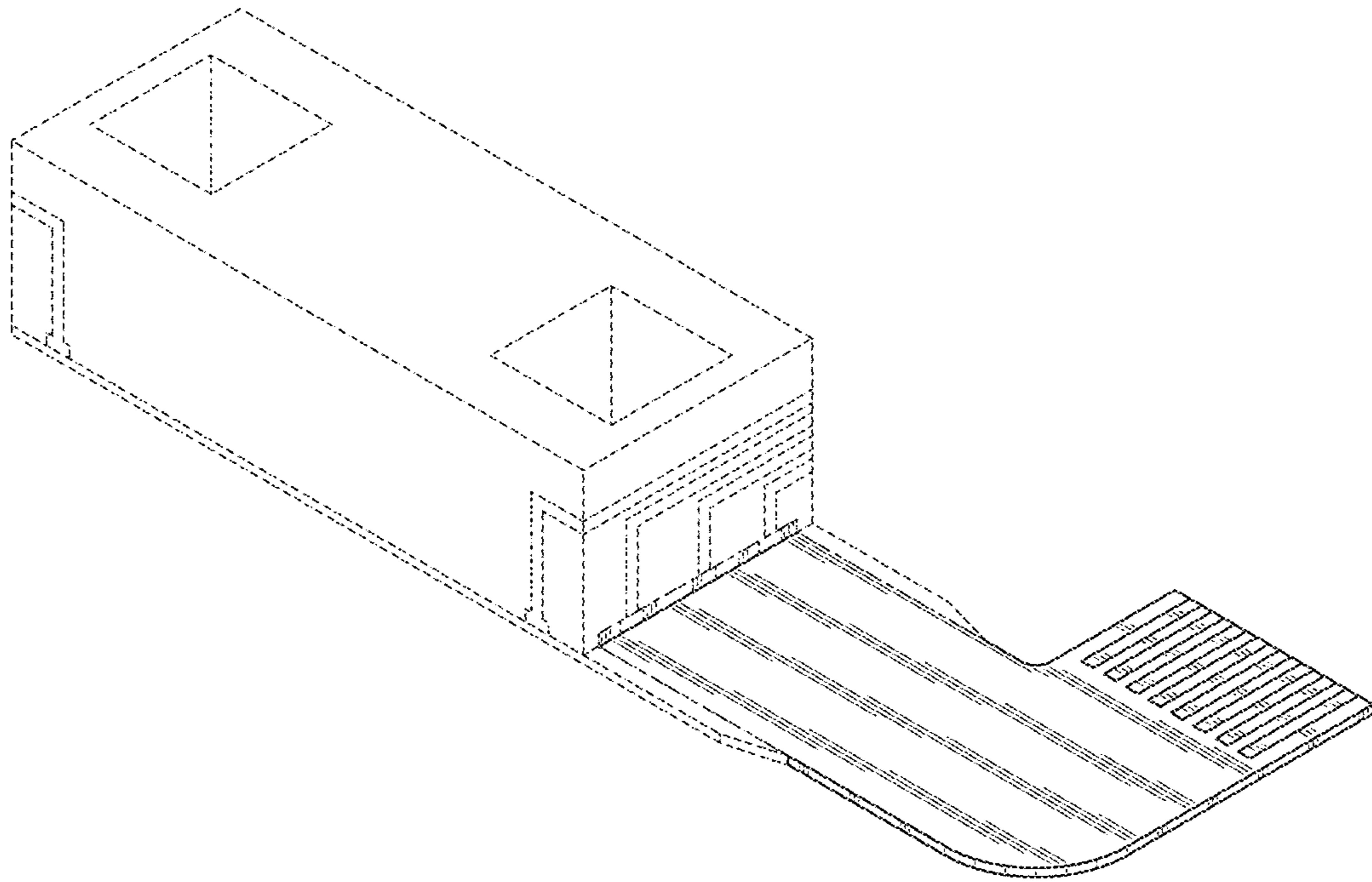


FIG. 9

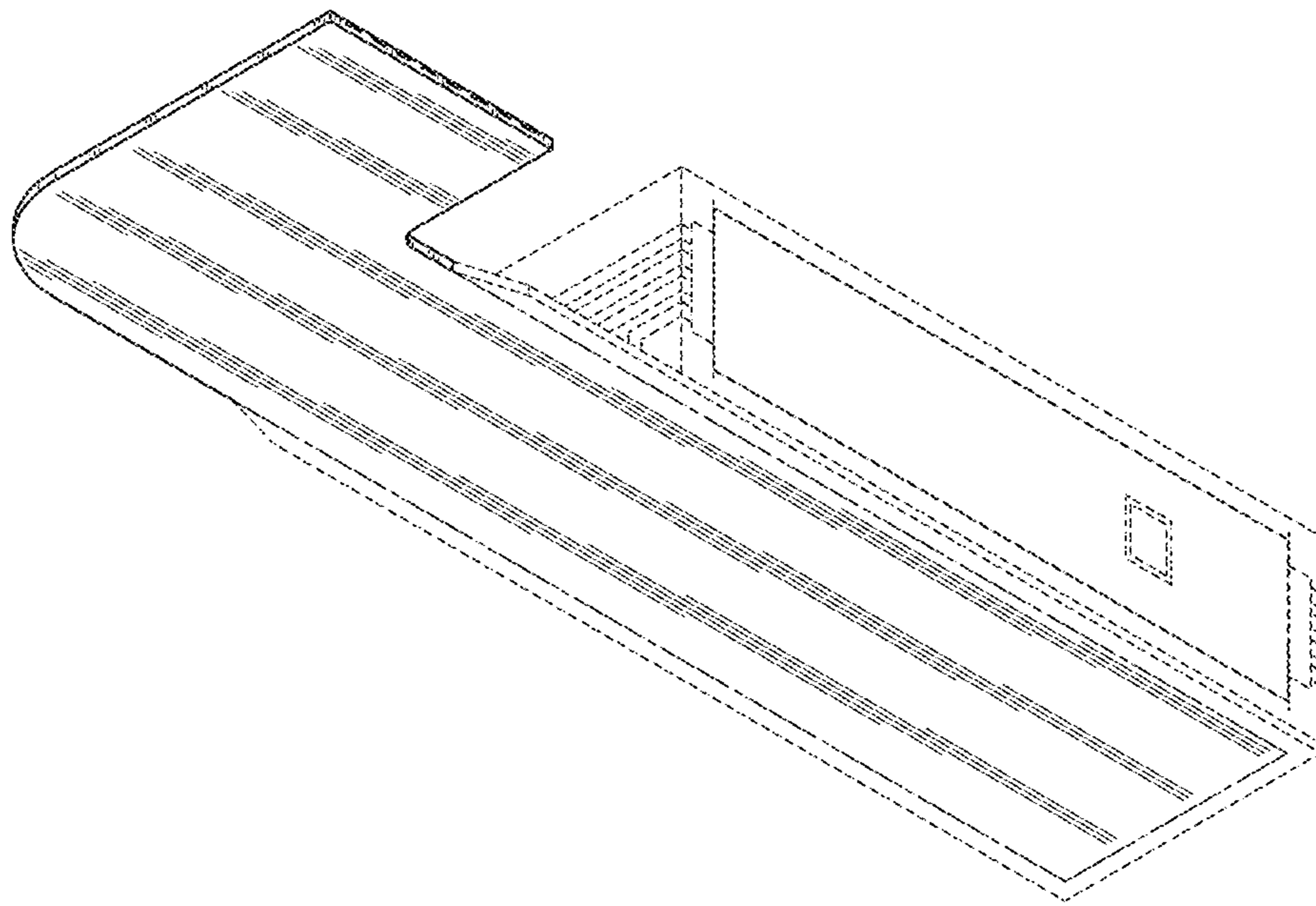


FIG. 10

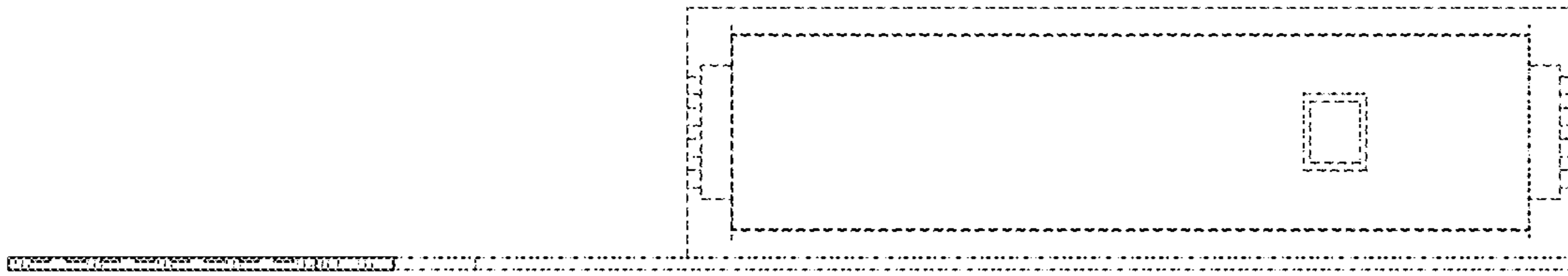


FIG. 11



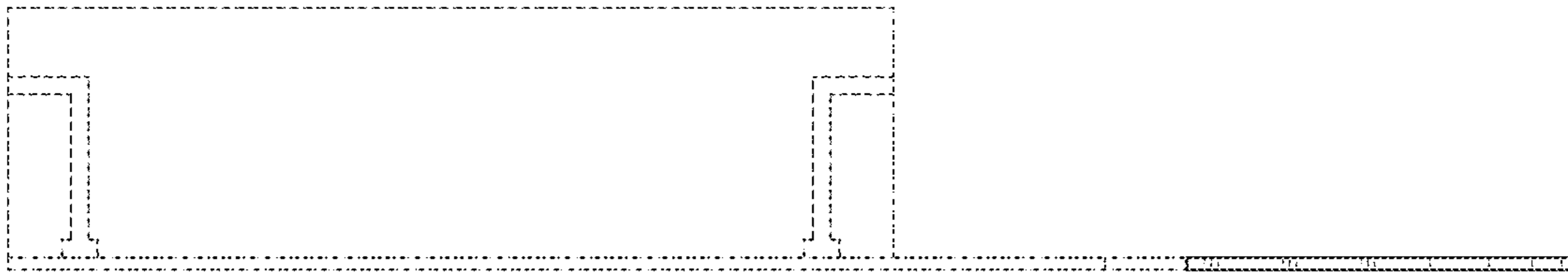


FIG. 12

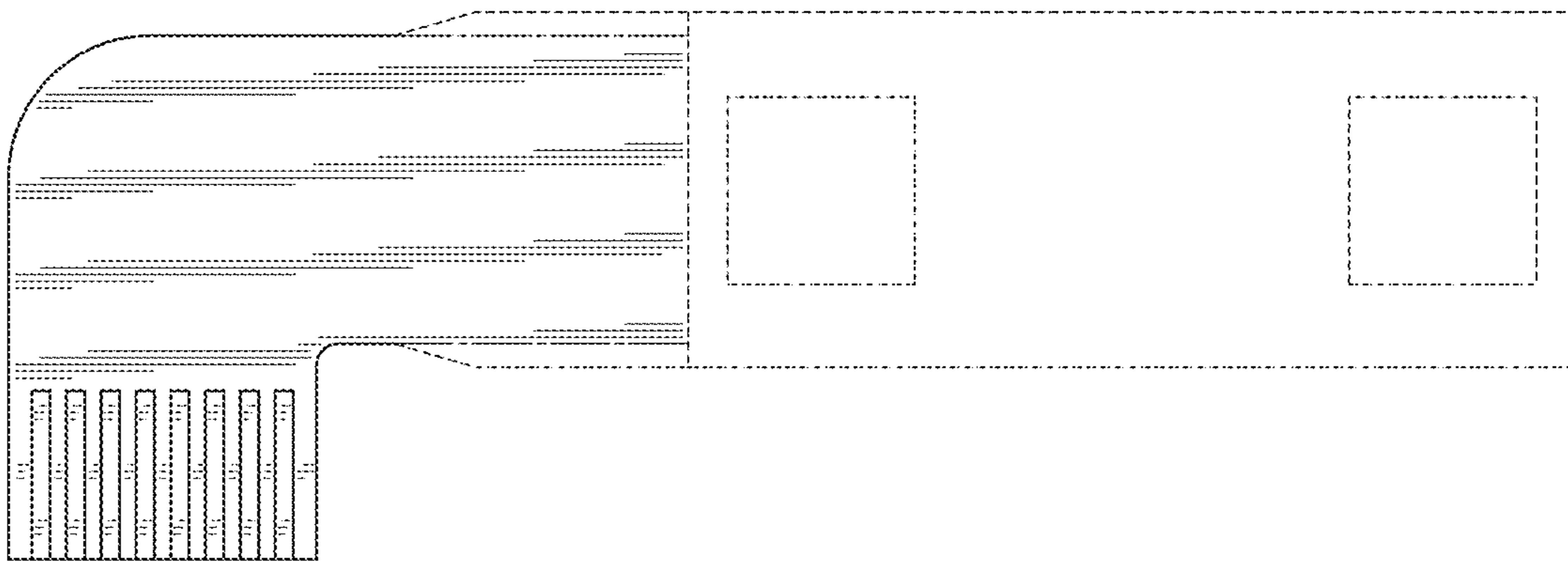


FIG. 13

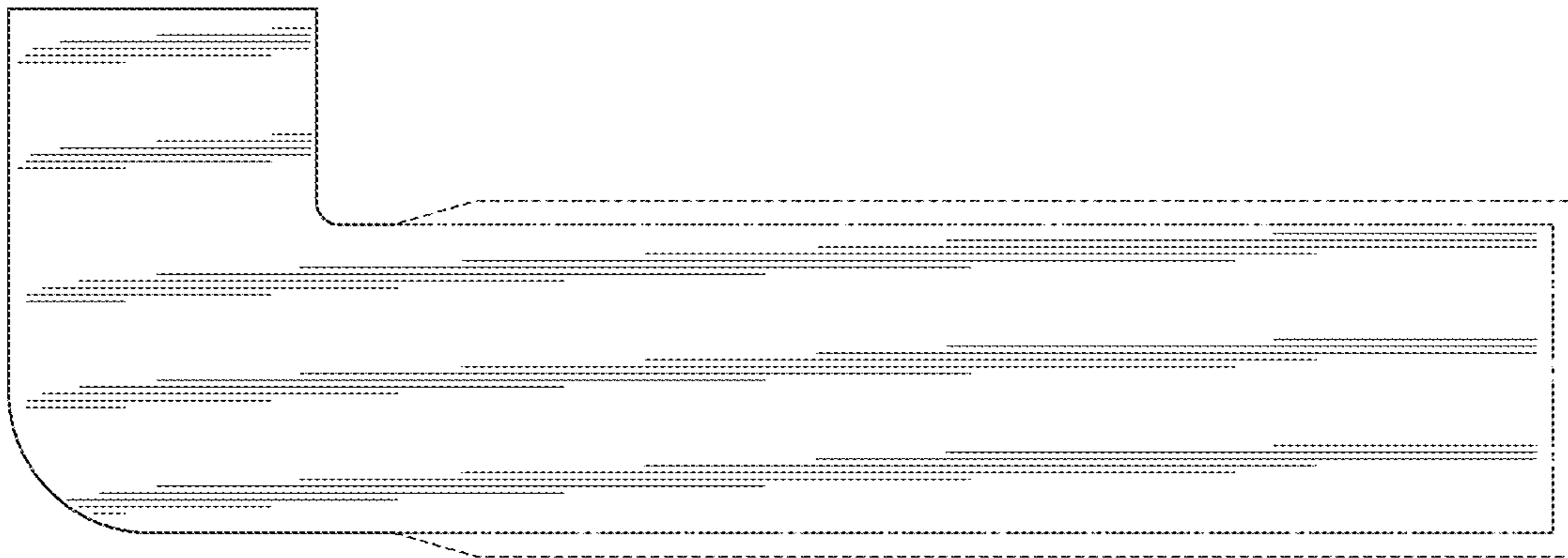


FIG. 14

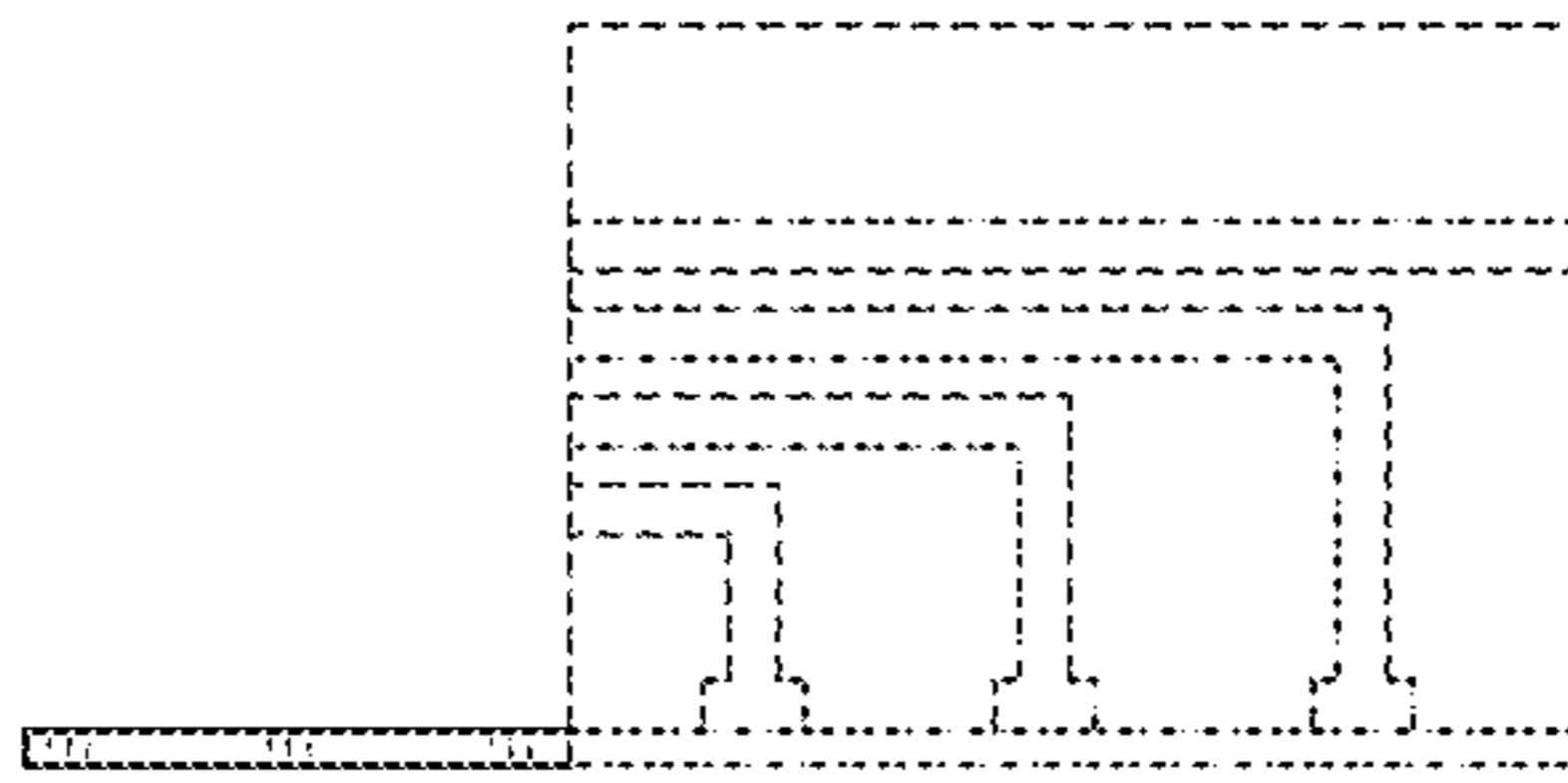


FIG. 15

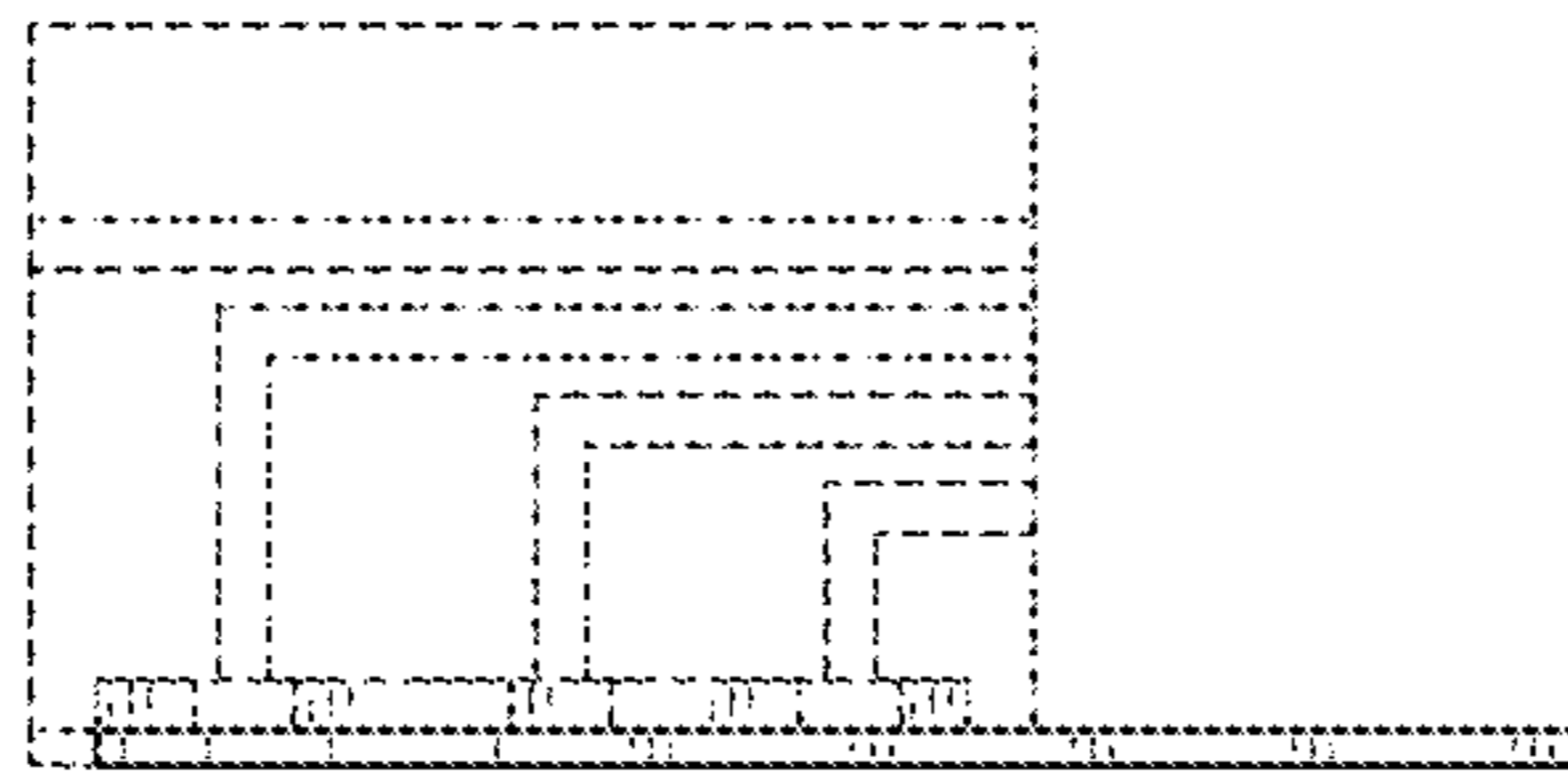


FIG. 16