



US00D847231S

(12) **United States Design Patent**  
**Abe et al.**

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(45) **Date of Patent:** **\*\* Apr. 30, 2019**

(54) **DRILLING TOOL**

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(73) Assignee: **SUMITOMO ELECTRIC  
HARDMETAL CORP.**, Itami-shi (JP)

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

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(30) **Foreign Application Priority Data**

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Jul. 6, 2015 (JP) ..... 2015-015007

(Continued)

(51) **LOC (11) Cl.** ..... **15-09**

(52) **U.S. Cl.**  
USPC ..... **D15/139**

(58) **Field of Classification Search**  
USPC ..... D8/86; D15/131, 132, 138, 139, 140  
(Continued)

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(57) **CLAIM**

The ornamental design for a drilling tool, as shown and described.

**DESCRIPTION**

FIG. 1 is a front view of a drilling tool of a first embodiment showing our new design,  
FIG. 2 is a rear view thereof;  
FIG. 3 is a top view thereof;  
FIG. 4 is a bottom view thereof;  
FIG. 5 is a right side view thereof;  
FIG. 6 is a left side view thereof;  
FIG. 7 is a perspective view thereof;  
FIG. 8 is an enlarged front view of VIII-VIII portion of FIG. 1,  
FIG. 9 is an enlarged top view of VIII-VIII portion of FIG. 1,  
FIG. 10 is an enlarged right side view of VIII-VIII portion of FIG. 1,  
FIG. 11 is an enlarged first perspective view of VIII-VIII portion of FIG. 1,  
FIG. 12 is an enlarged second perspective view of VIII-VIII portion of FIG. 1,  
FIG. 13 is a front view of a drilling tool of a second embodiment showing our new design,  
FIG. 14 is a rear view thereof;  
FIG. 15 is a top view thereof;  
FIG. 16 is a bottom view thereof;  
FIG. 17 is a right side view thereof;  
FIG. 18 is a left side view thereof;  
FIG. 19 is a perspective view thereof;  
FIG. 20 is an enlarged front view of XX-XX portion of FIG. 13,

(Continued)

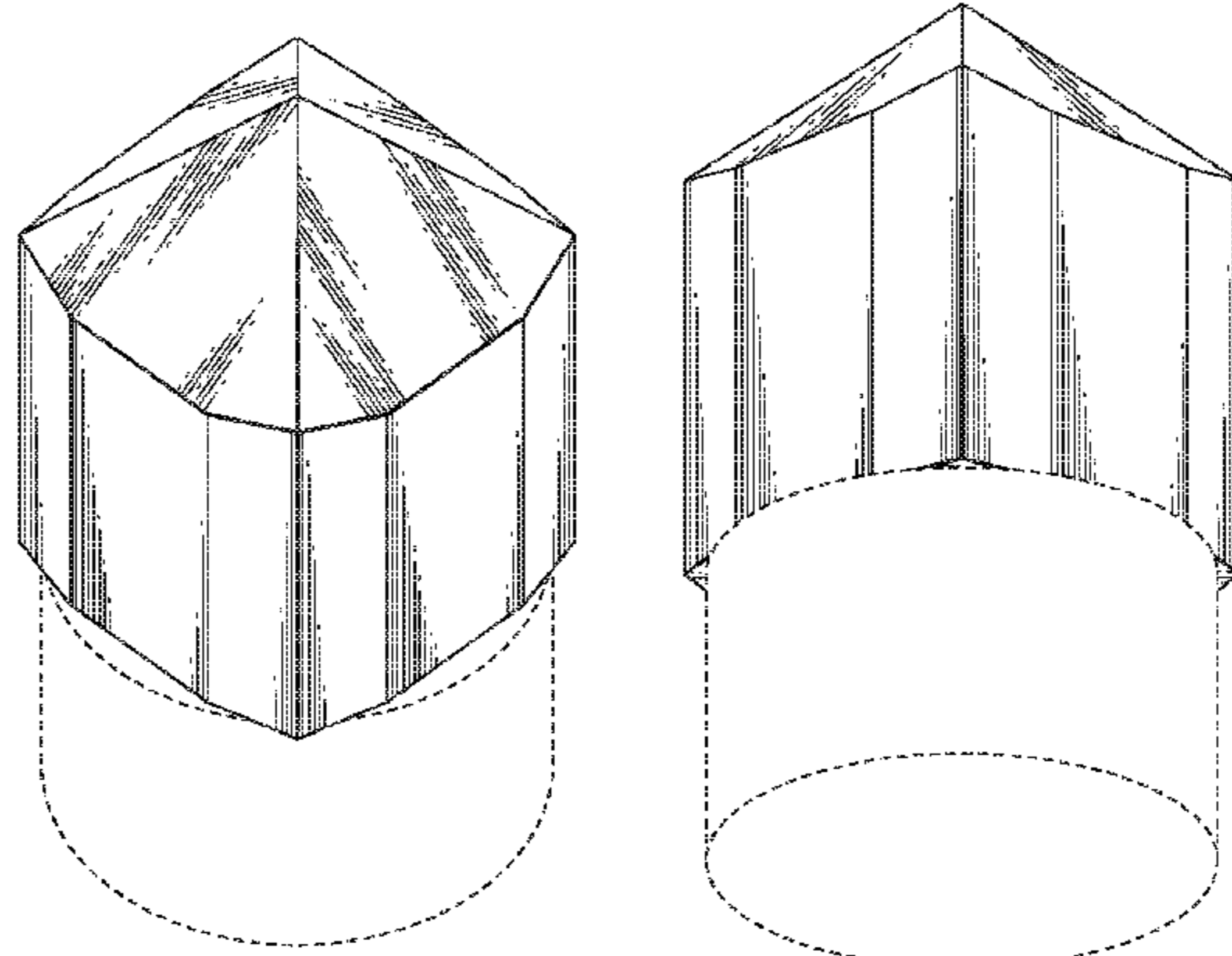


FIG. 21 is an enlarged top view of XX-XX portion of FIG. 13,  
 FIG. 22 is an enlarged right side view of XX-XX portion of FIG. 13,  
 FIG. 23 is an enlarged first perspective view of XX-XX portion of FIG. 13,  
 FIG. 24 is an enlarged second perspective view of XX-XX portion of FIG. 13,  
 FIG. 25 is an enlarged front view of XXV-XXV portion of FIG. 20; and,  
 FIG. 26 is an enlarged right side view of XXV-XXV portion of FIG. 20.  
 The broken lines shown in the drawings represent portions of the drilling tool that form no part of the claimed design.

**1 Claim, 18 Drawing Sheets**

(30) **Foreign Application Priority Data**

Jul. 6, 2015 (JP) ..... 2015-015008  
 Jul. 6, 2015 (JP) ..... 2015-015009

(58) **Field of Classification Search**

CPC ... B23K 31/025; B23K 35/0222; E21B 10/56;  
 E21C 35/183; E21C 2035/1806  
 See application file for complete search history.

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 Notice of Allowance in Taiwanese Design Application No. 105300043D01, dated May 30, 2016.  
 Notice of Allowance in Taiwanese Design Application No. 105300043D02, dated May 30, 2016.

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FIG.1

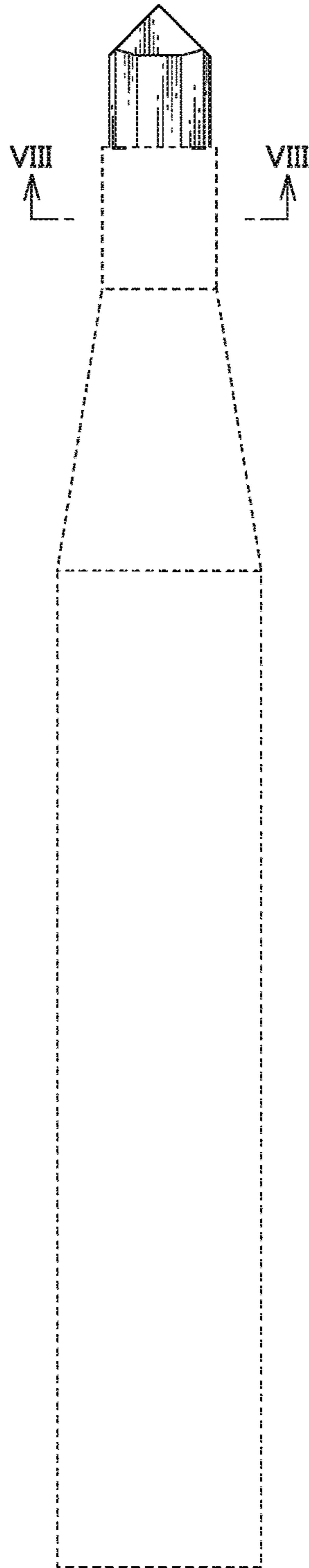


FIG.2

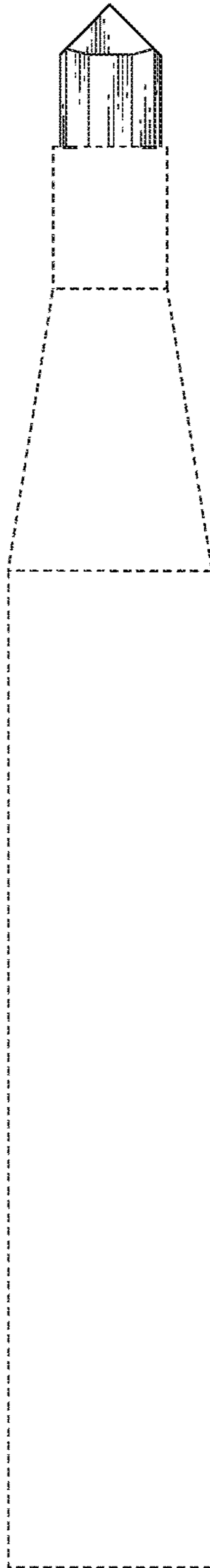


FIG.3

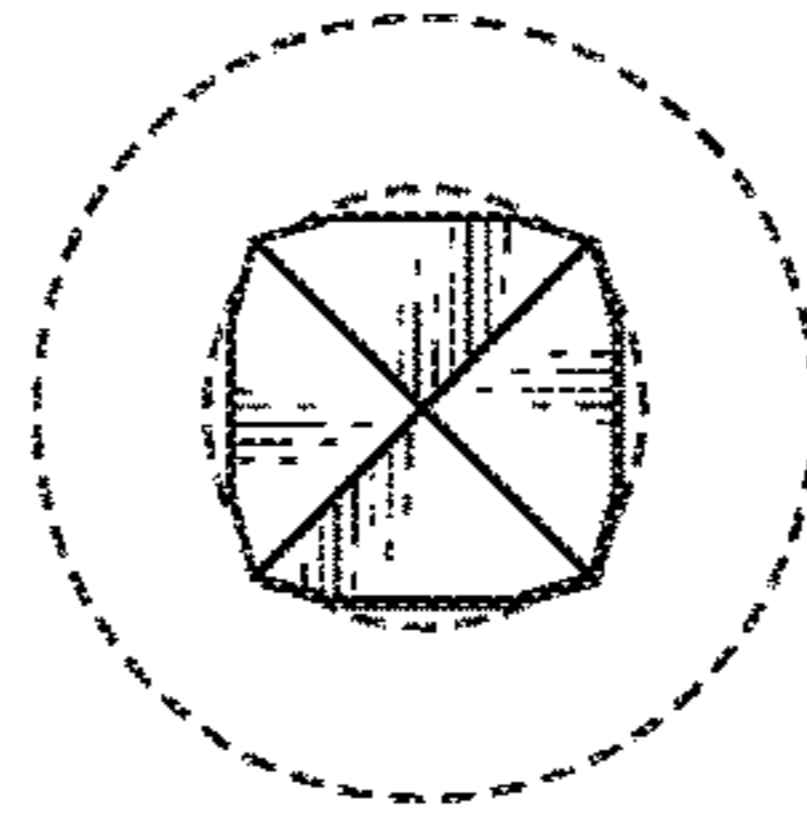


FIG.4

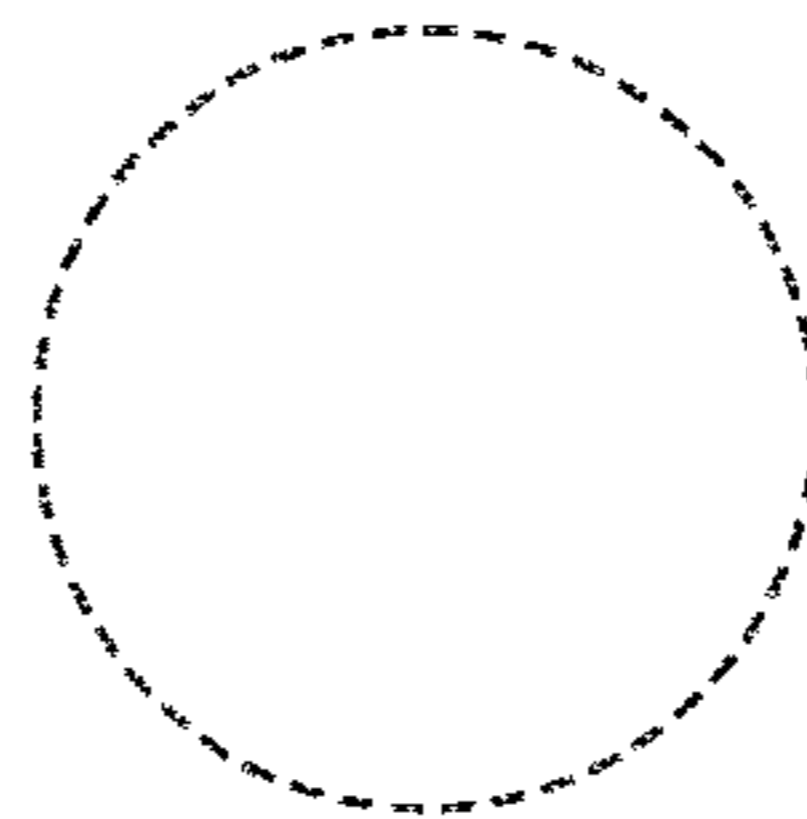


FIG.5

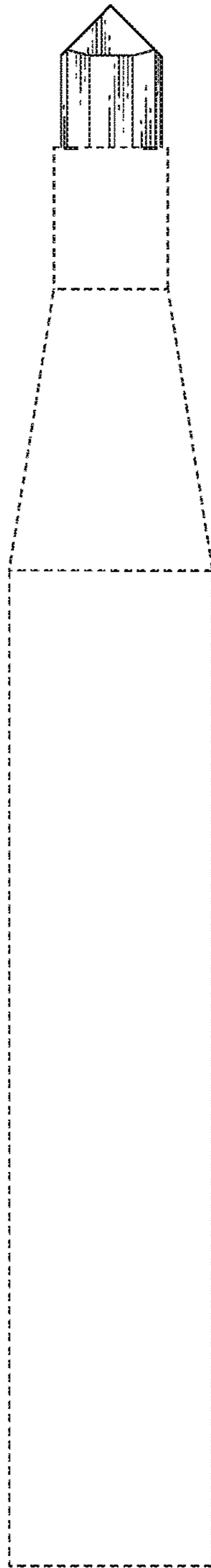


FIG.6

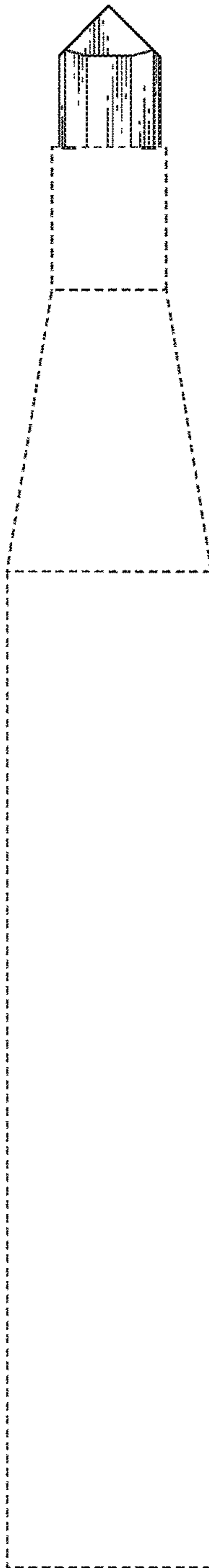


FIG.7

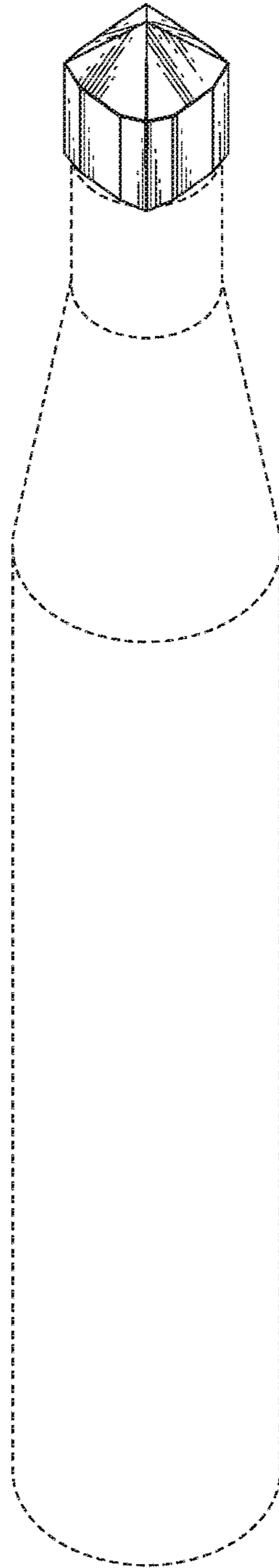




FIG.8

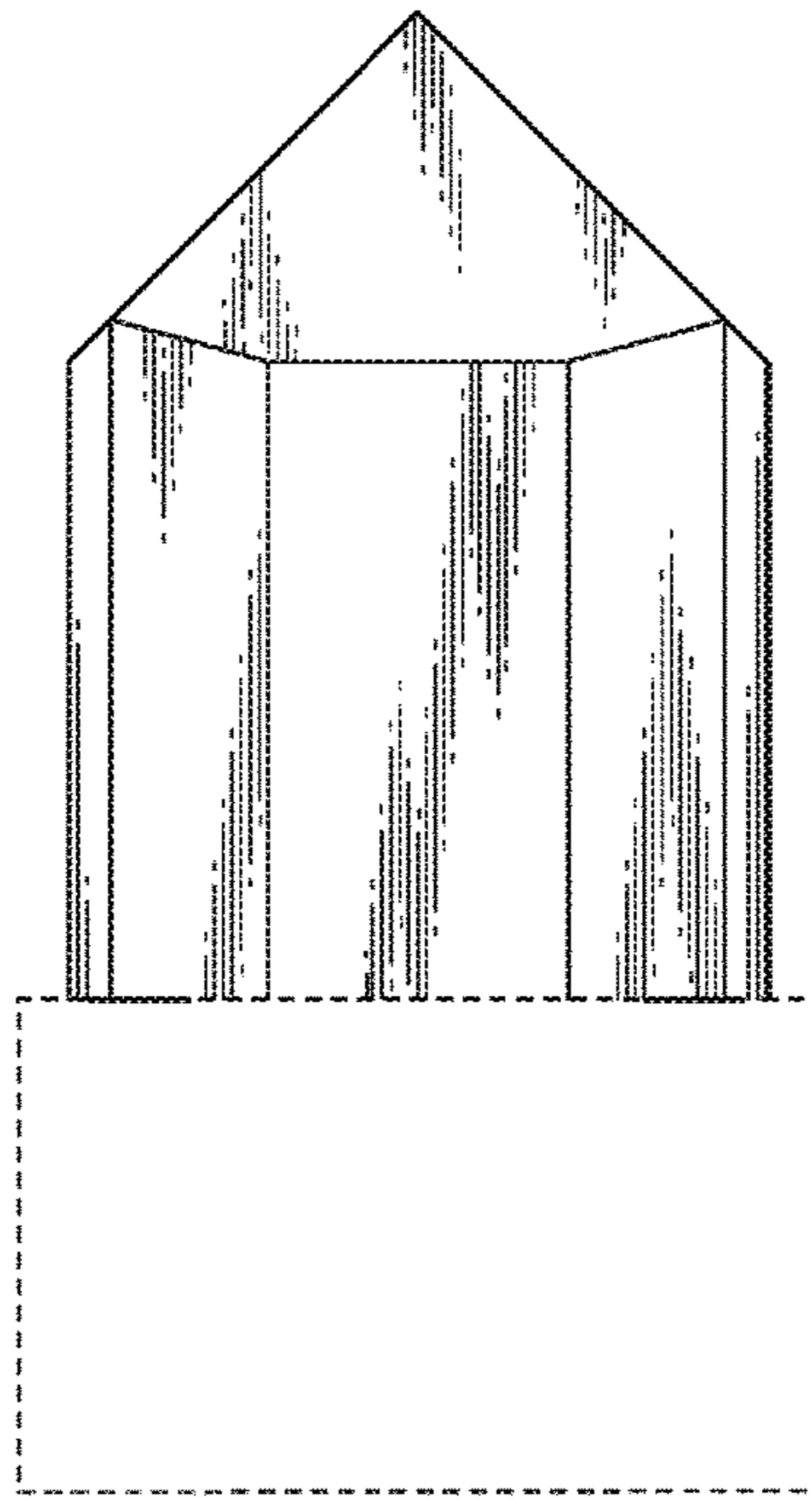


FIG.9

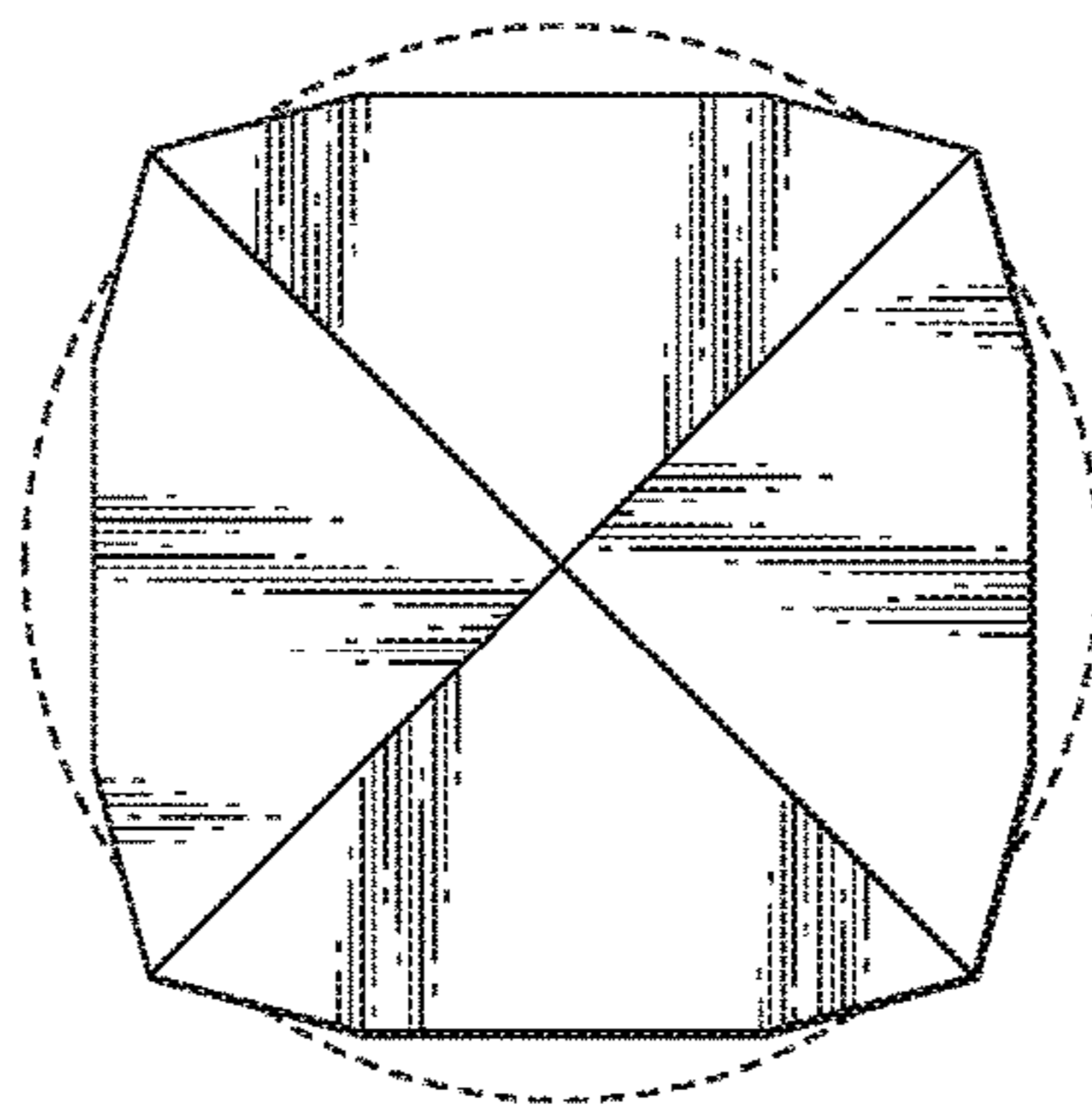


FIG.10

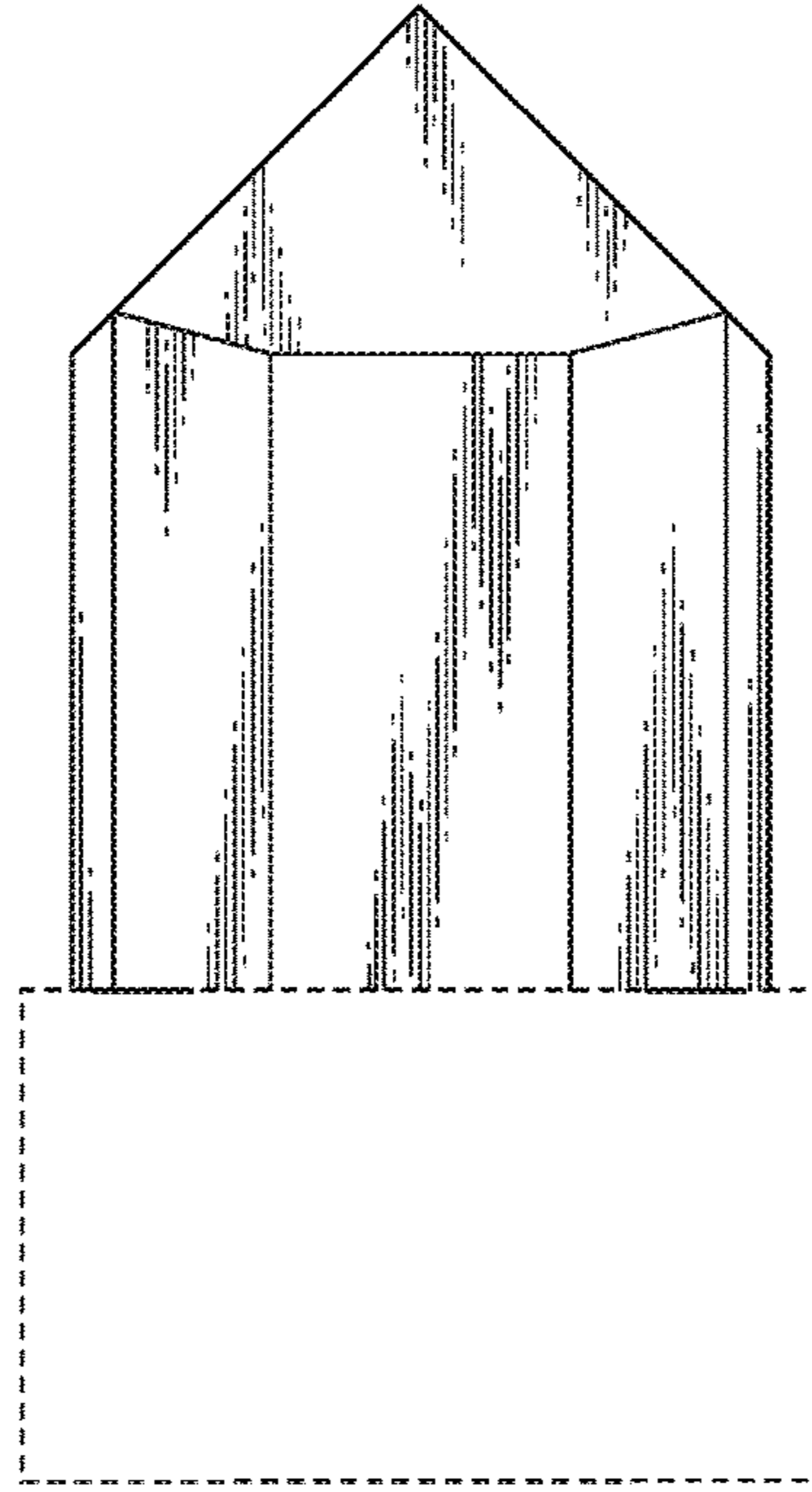


FIG.11

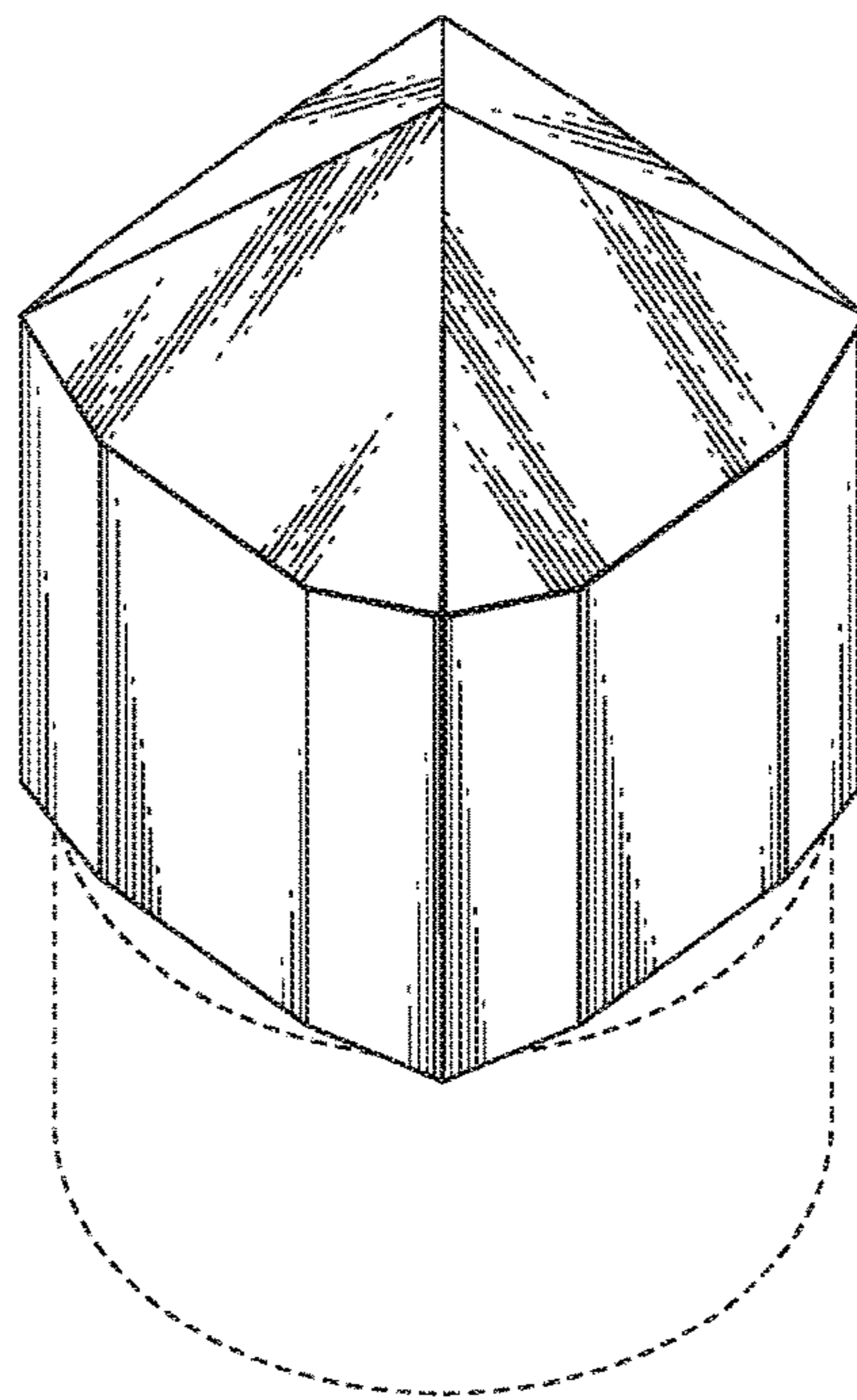


FIG.12

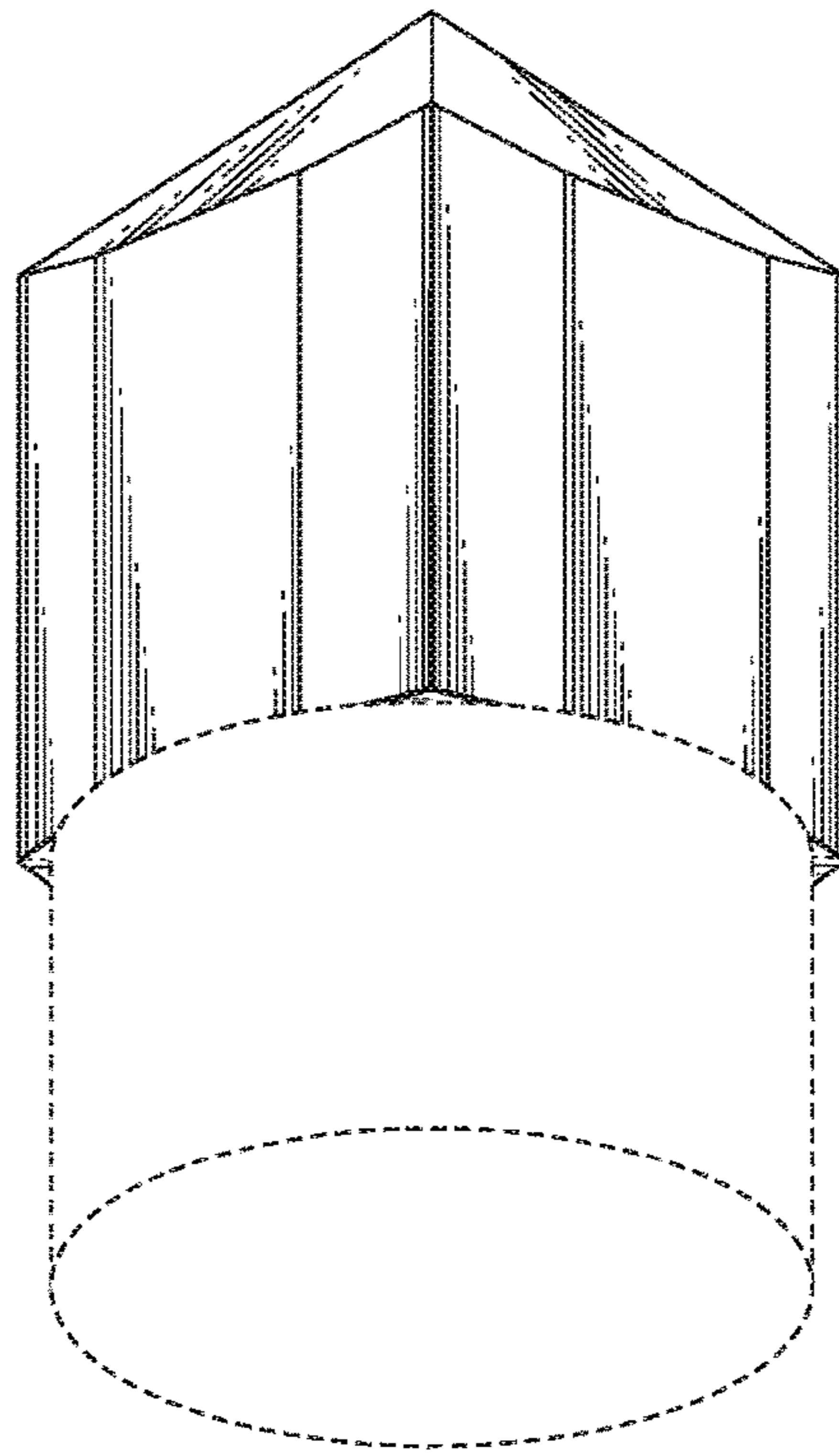


FIG.13

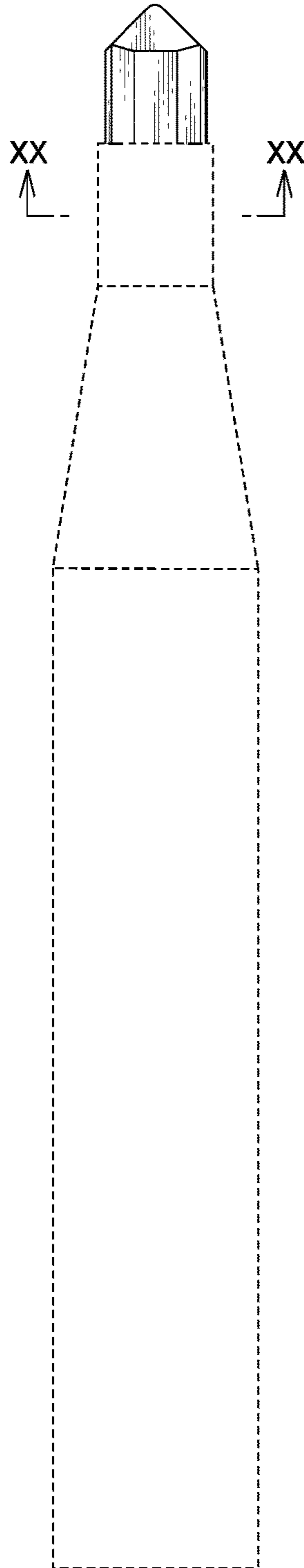


FIG.14

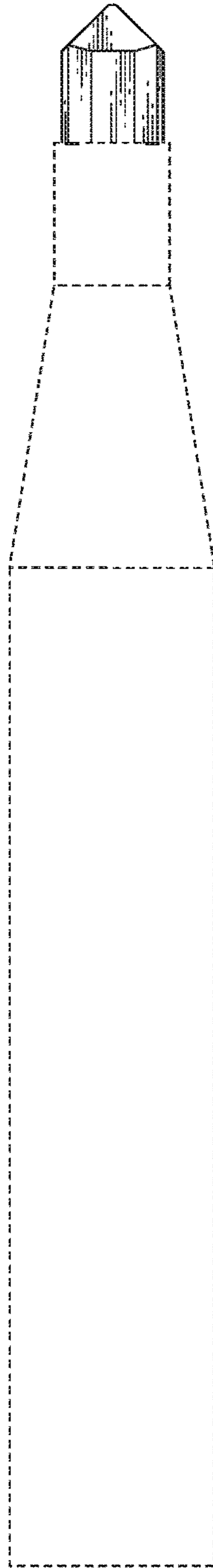


FIG.15

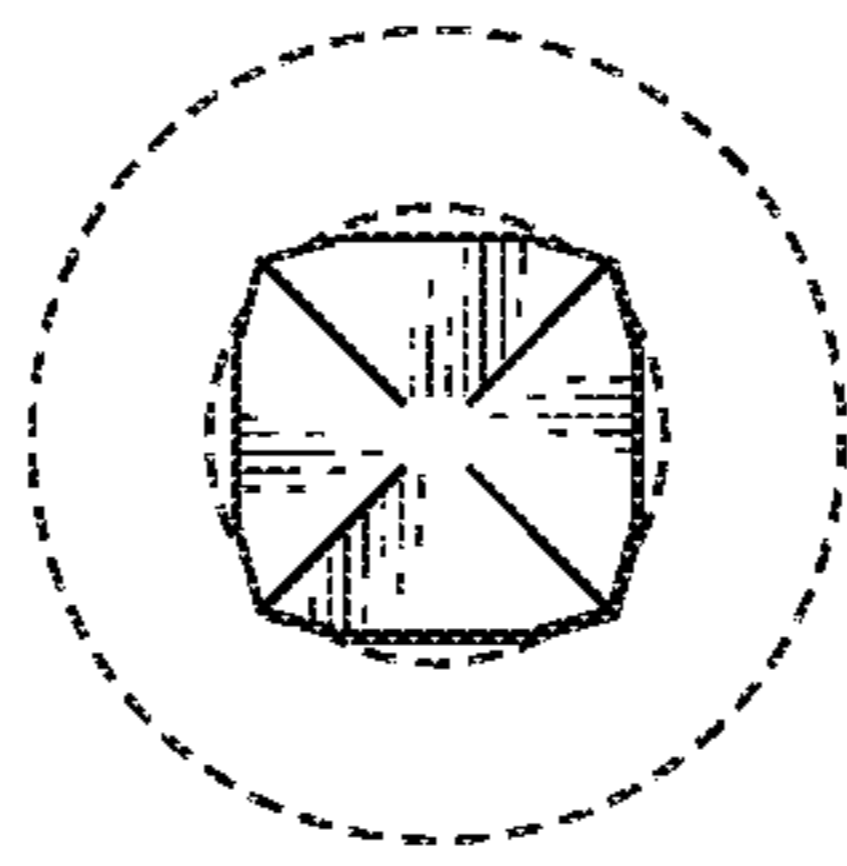


FIG.16

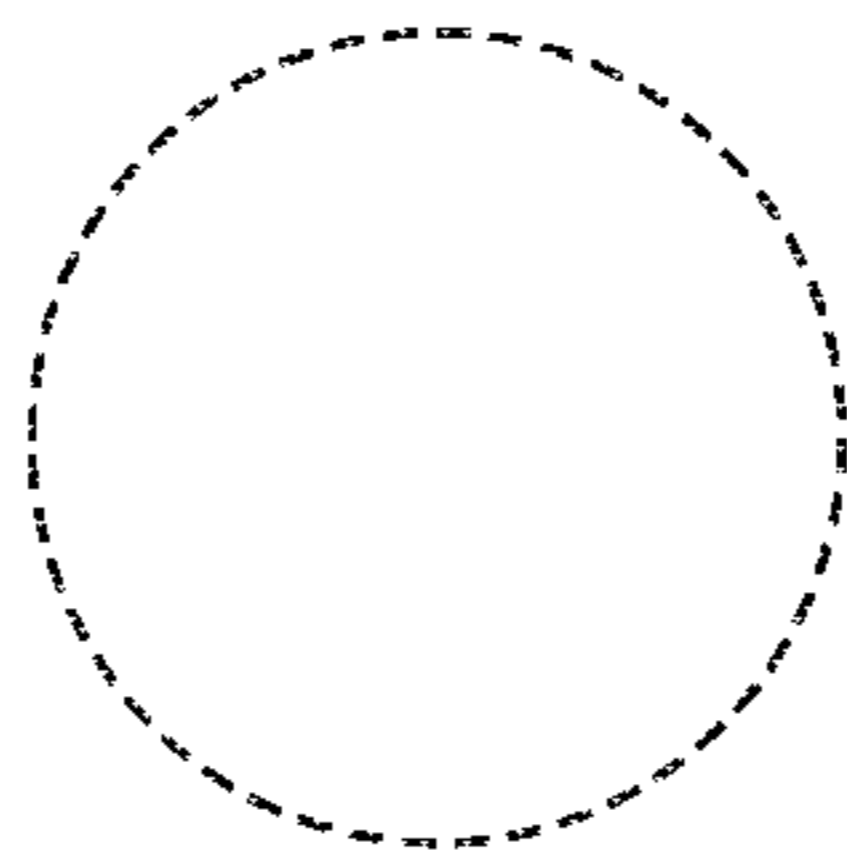


FIG.17

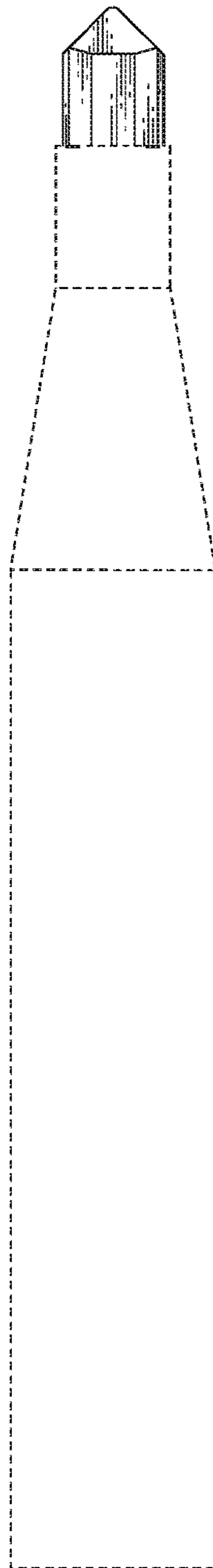


FIG.18

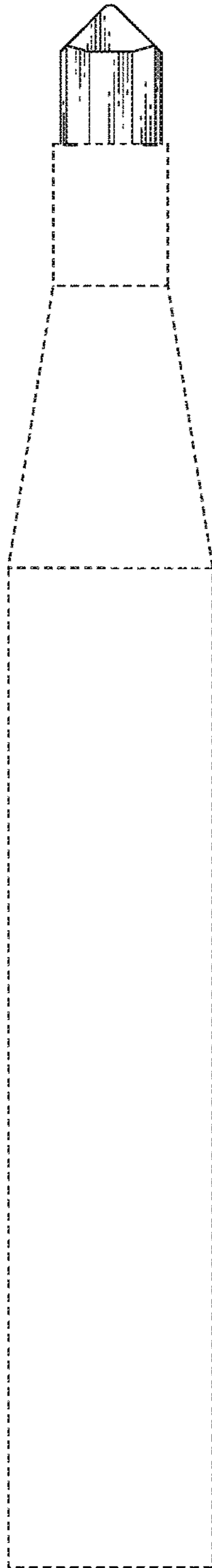




FIG.19

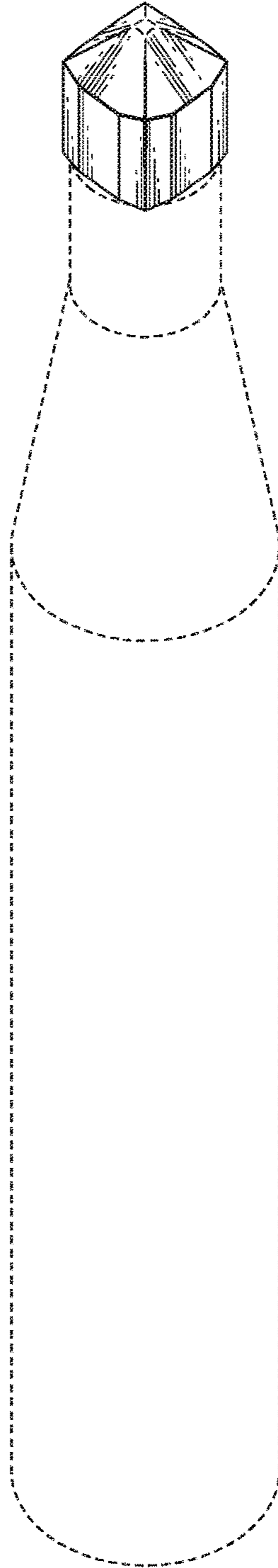


FIG. 20

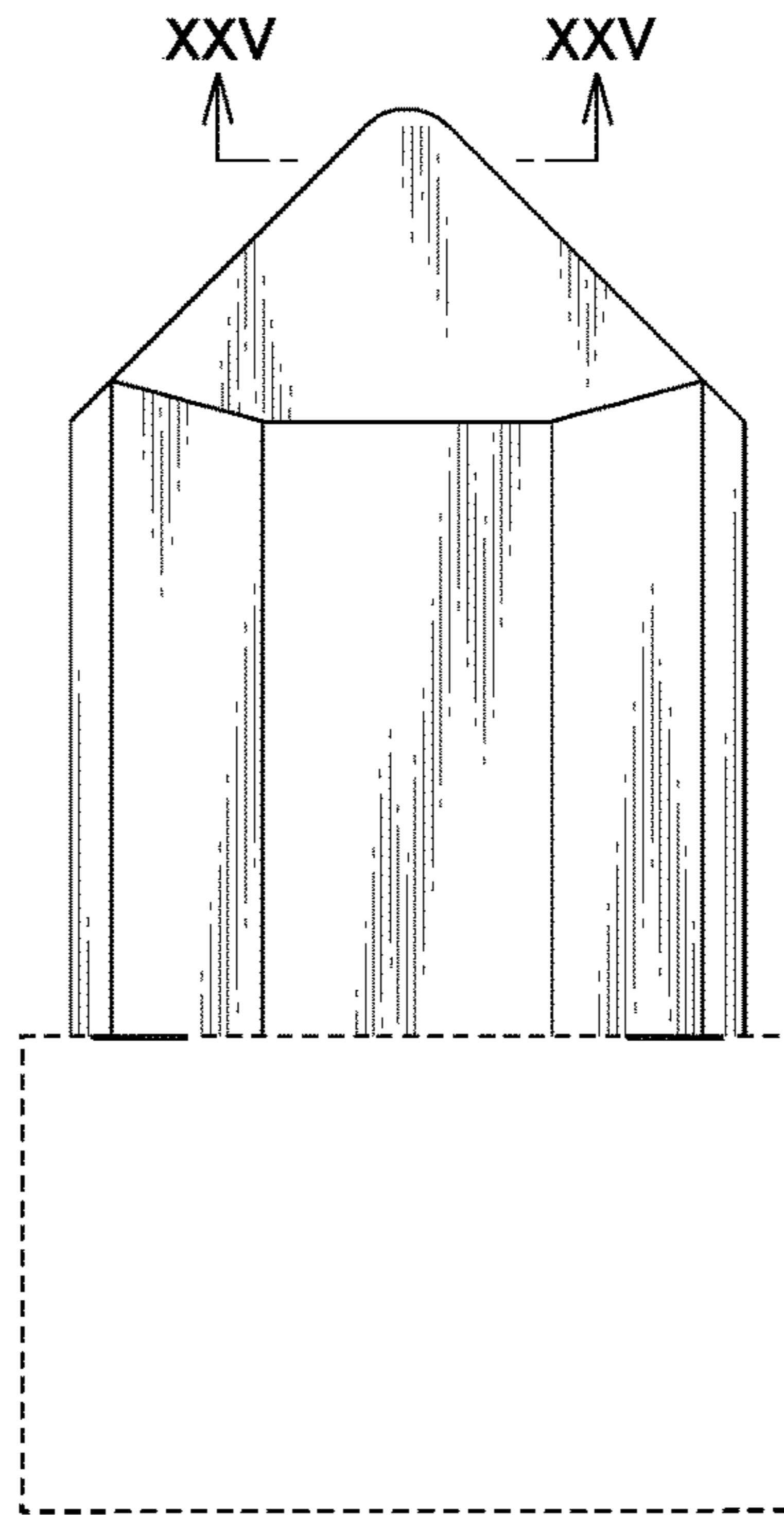


FIG. 21

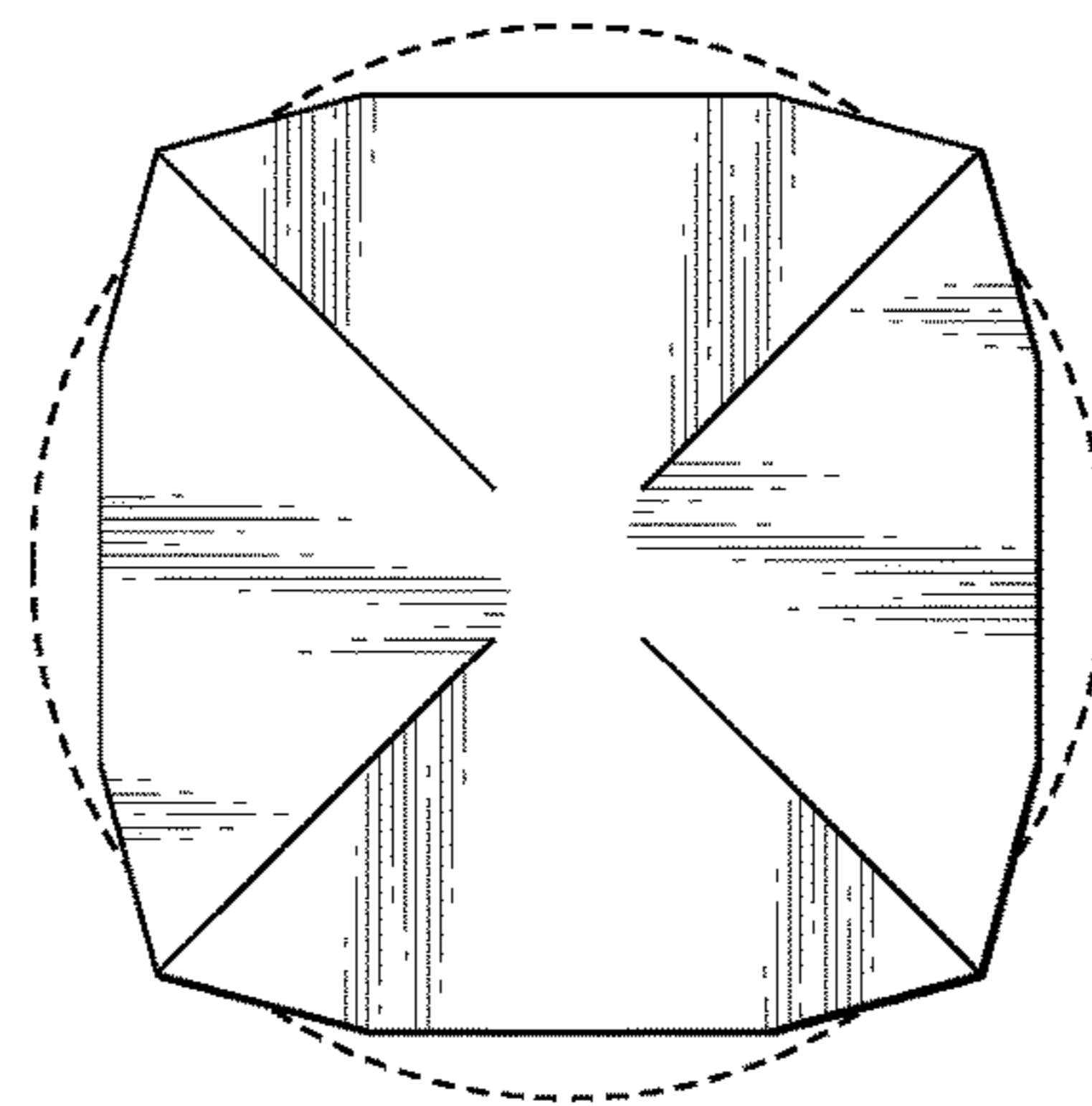


FIG.22

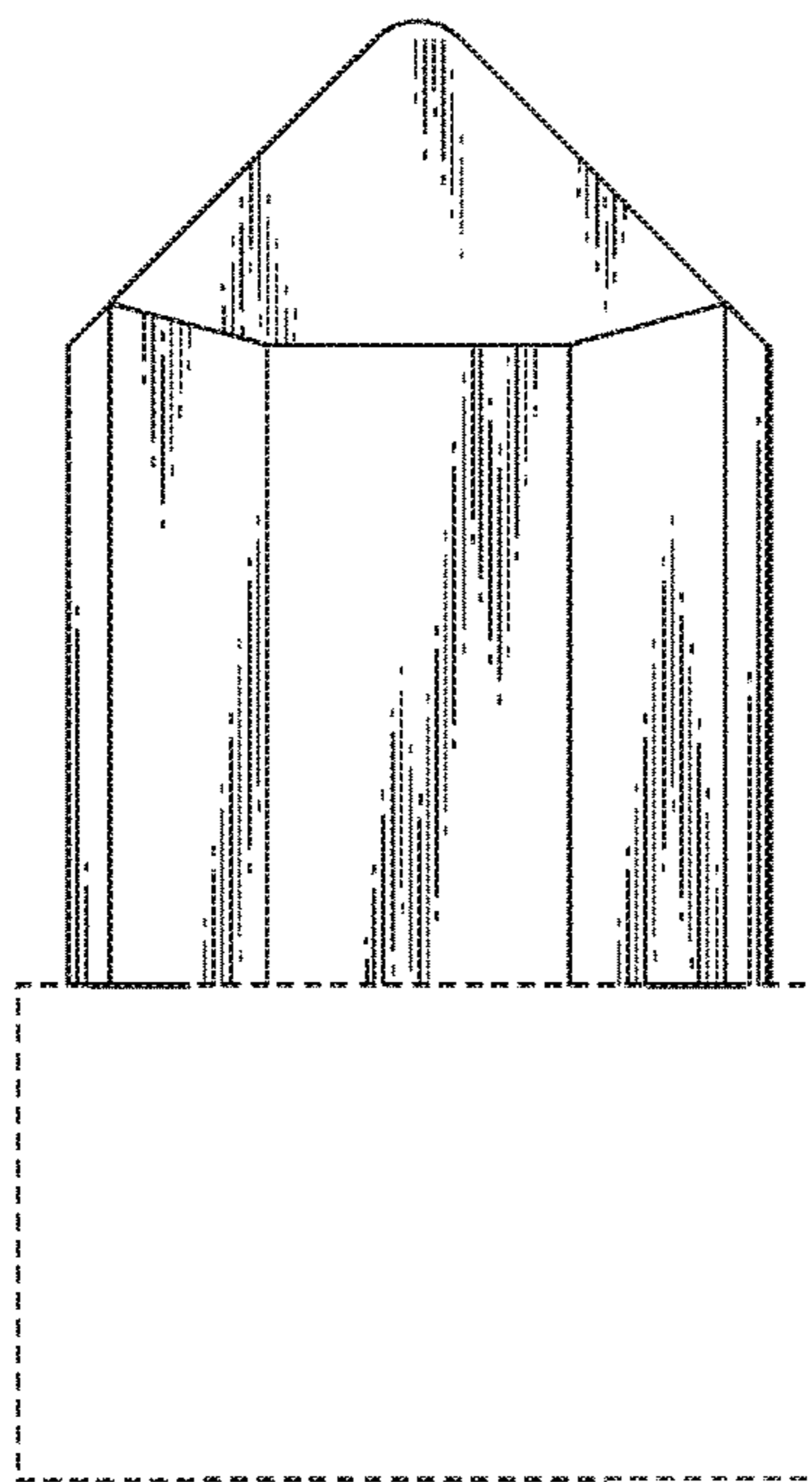


FIG.23

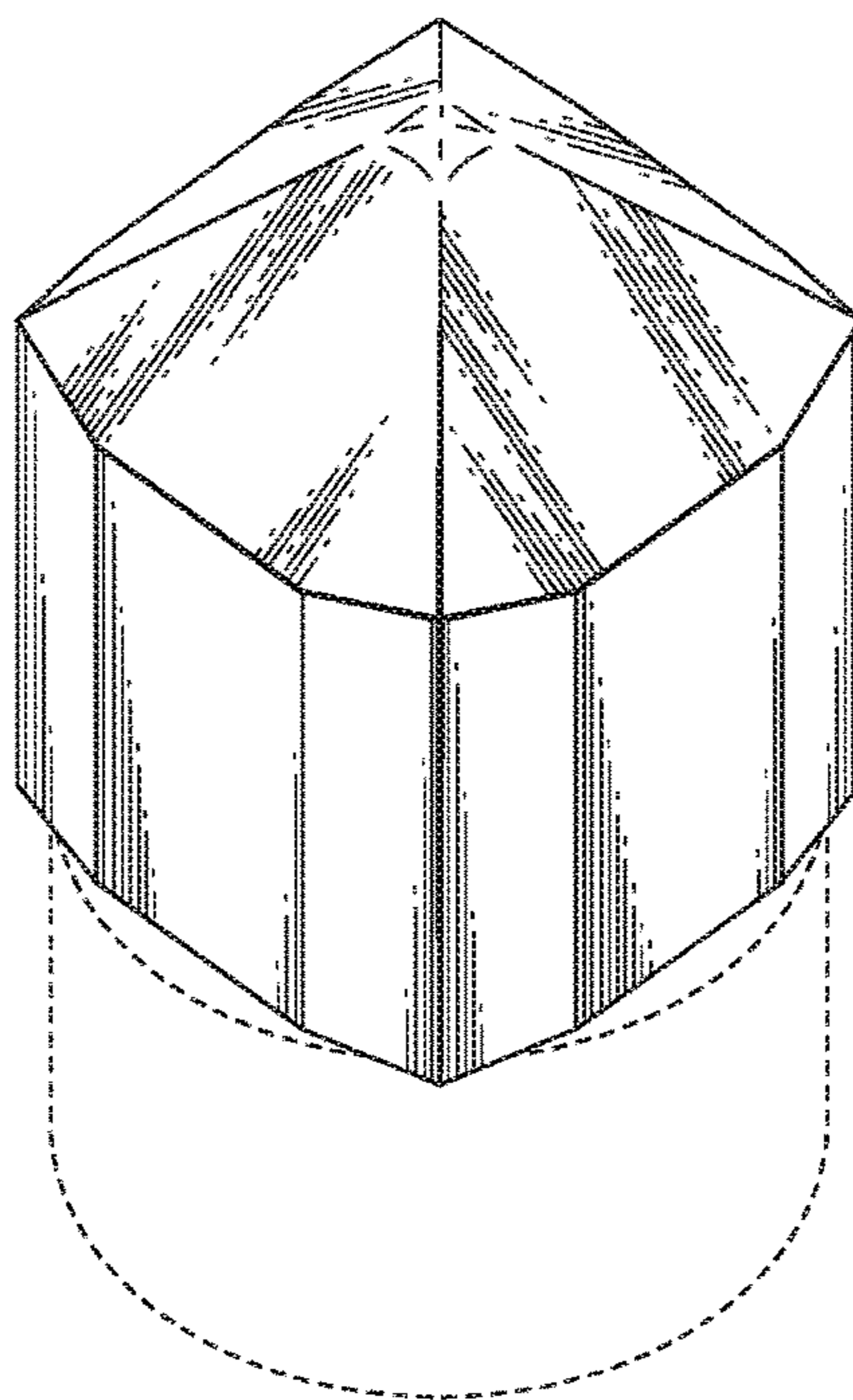


FIG.24

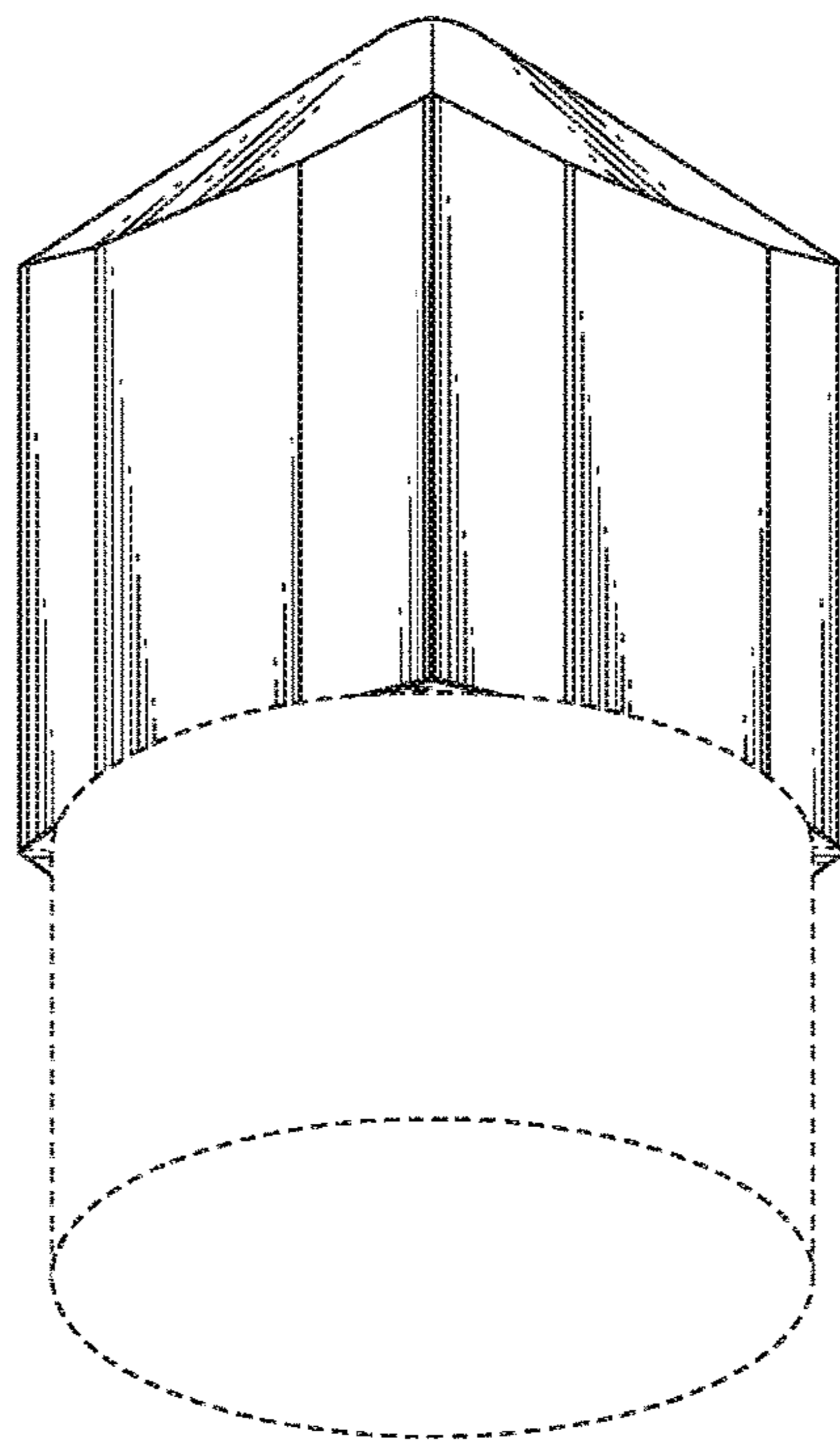


FIG.25

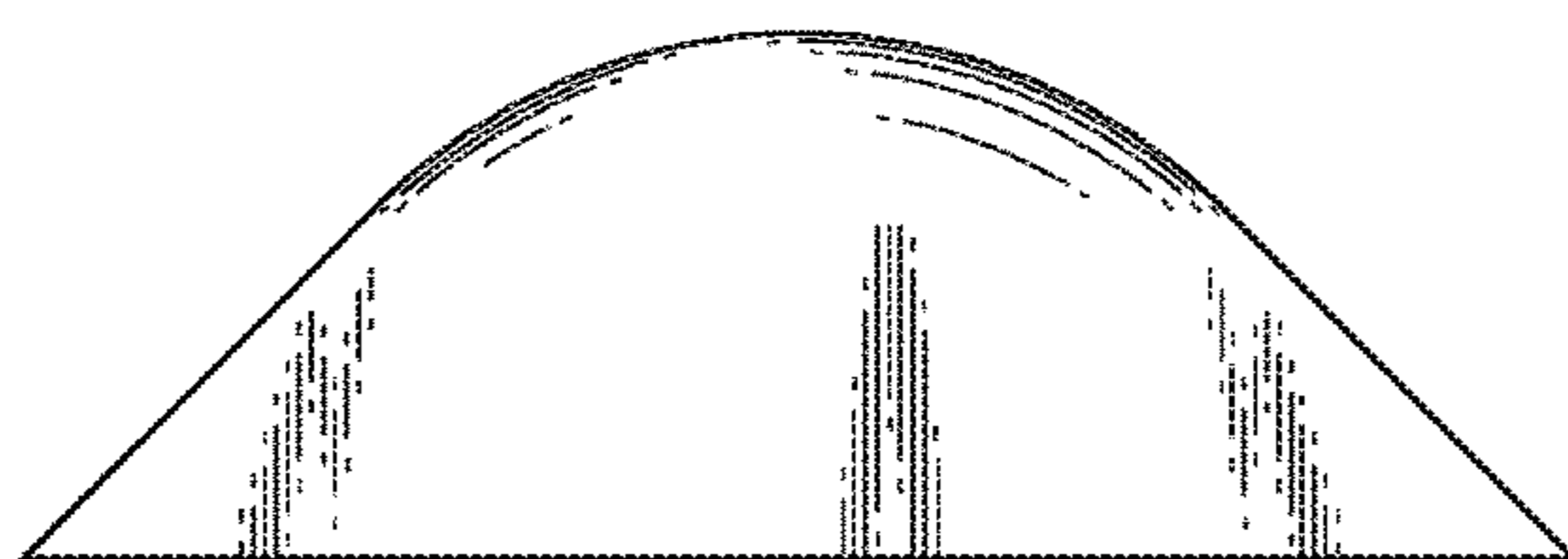


FIG.26

