US00D505924S

(12) United States Design Patent

Okuyama et al.

(10) Patent No.: US D505,924 S
(45) Date of Patent: ** Jun. 7, 2005

(54) **SEMICONDUCTOR ELEMENT**

(75) Inventors: **Hiroyuki Okuyama**, Tokyo (JP); **Masato Doi**, Tokyo (JP); **Goshi Biwa**, Tokyo (JP); **Toyoharu Oohata**, Tokyo (JP)

(73) Assignee: **Sony Corporation**, Tokyo (JP)

(**) Term: **14 Years**

(21) Appl. No.: **29/193,675**

(22) Filed: **Nov. 13, 2003**

(51) **LOC (8) Cl.** **13-03**

(52) **U.S. Cl.** **D13/182**

(58) **Field of Search** D13/182; D3/5; D21/834; 216/2, 11; 257/77, 94, 95, 190; 313/309, 311; 369/126; 438/20, 116; 455/50

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,685,996 A * 8/1987 Busta et al. 438/20

(Continued)

FOREIGN PATENT DOCUMENTS

JP 2002-100805 A1 4/2002

Primary Examiner—Stella Reid
Assistant Examiner—Selina Sikder
(74) *Attorney, Agent, or Firm*—Rader, Fishman & Grauer PLLC

(57) **CLAIM**

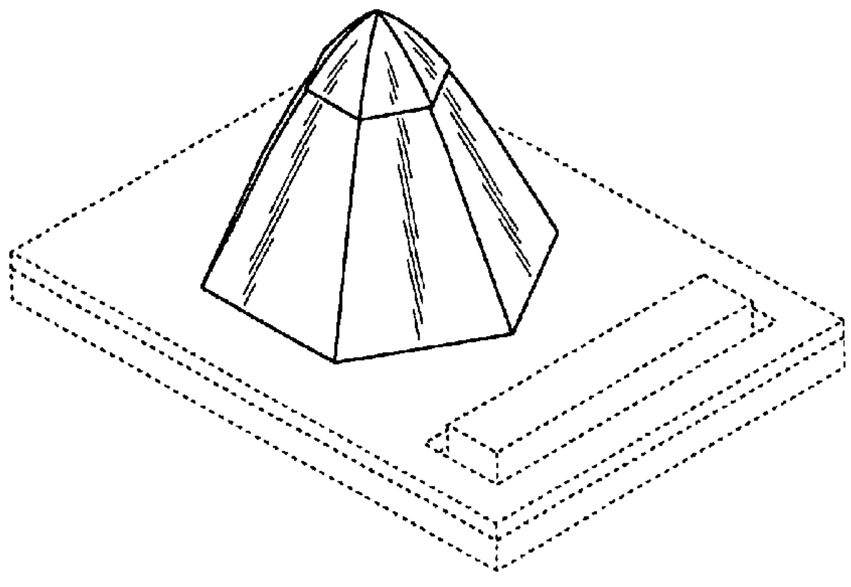
The ornamental design for a semiconductor element, as shown and described.

DESCRIPTION

FIG. **1** is a perspective view of a first embodiment of a semiconductor element showing our new design;
FIG. **2** is a front elevational view thereof;
FIG. **3** is a rear elevational view thereof;
FIG. **4** is a left side elevational view thereof;
FIG. **5** is a right side elevational view thereof; and
FIG. **6** is a top plan view thereof.

FIG. **7** is a perspective view of a second embodiment of a semiconductor element showing our new design;
FIG. **8** is a front elevational view thereof;
FIG. **9** is a rear elevational view thereof;
FIG. **10** is a left side elevational view thereof;
FIG. **11** is a right side elevational view thereof; and
FIG. **12** is a top plan view thereof.
FIG. **13** is a perspective view of a third embodiment of a semiconductor element showing our new design;
FIG. **14** is a front elevational view thereof;
FIG. **15** is a rear elevational view thereof;
FIG. **16** is a left side elevational view thereof;
FIG. **17** is a right side elevational view thereof; and
FIG. **18** is a top plan view thereof.
FIG. **19** is a perspective view of a fourth embodiment of a semiconductor element showing our new design;
FIG. **20** is a front elevational view thereof;
FIG. **21** is a rear elevational view thereof;
FIG. **22** is a left side elevational view thereof;
FIG. **23** is a right side elevational view thereof; and
FIG. **24** is a top plan view thereof.
Lower part of the semiconductor element is opaque or transparent.
FIG. **25** is a perspective view of a fifth embodiment of a semiconductor element showing our new design;
FIG. **26** is a front elevational view thereof;
FIG. **27** is a rear elevational view thereof;
FIG. **28** is a left side elevational view thereof;
FIG. **29** is a right side elevational view thereof; and
FIG. **30** is a top plan view thereof.
Lower part of the semiconductor element is opaque or transparent.
FIG. **31** is a perspective view of a sixth embodiment of a semiconductor element showing our new design;
FIG. **32** is a front elevational view thereof;
FIG. **33** is a rear elevational view thereof;
FIG. **34** is a left side elevational view thereof;
FIG. **35** is a right side elevational view thereof; and,
FIG. **36** is a top plan view thereof.
Lower part of the semiconductor element is opaque or transparent.
The broken lines shown in the Figures are for illustrative purposes only and form no part of the claimed design. A bottom plan view in the first, second, third, fourth, fifth, and sixth embodiments is not part of the claimed design.

1 Claim, 24 Drawing Sheets



U.S. PATENT DOCUMENTS

5,536,193	A	*	7/1996	Kumar	445/50
5,580,827	A	*	12/1996	Akamine	216/2
5,923,637	A	*	7/1999	Shimada et al.	369/126
5,962,958	A	*	10/1999	Nakamoto	313/309
6,156,215	A	*	12/2000	Shimada et al.	216/11
6,229,160	B1		5/2001	Krames et al.	
6,323,063	B2		11/2001	Krames et al.	
6,337,477	B1	*	1/2002	Shimada et al.	250/216
D472,529	S		4/2003	Okuyama et al.	
D472,531	S		4/2003	Okuyama et al.	
D485,242	S	*	1/2004	Iwafuchi et al.	D13/182
6,762,543	B1	*	7/2004	Kang et al.	313/311

* cited by examiner

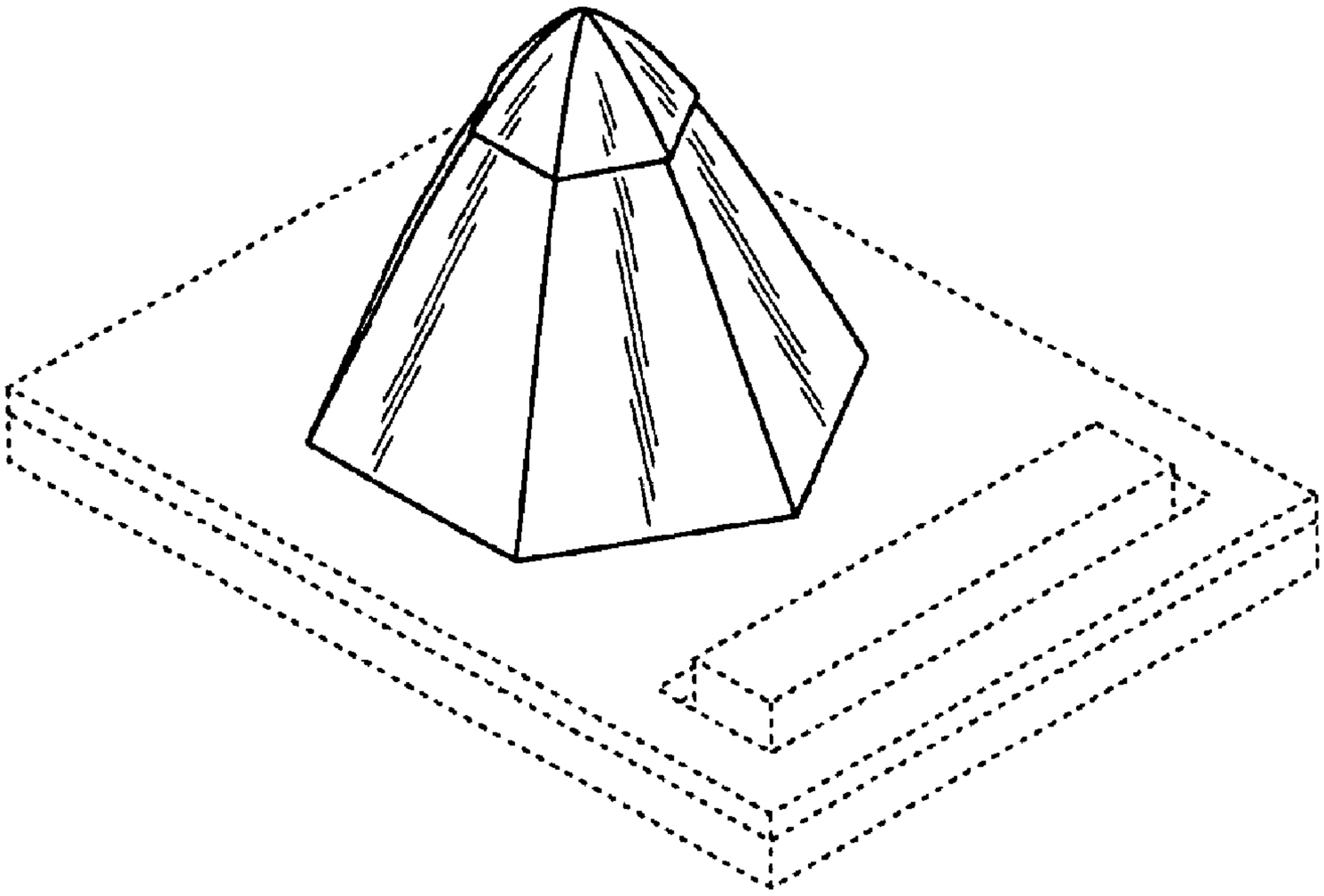


FIG. 1

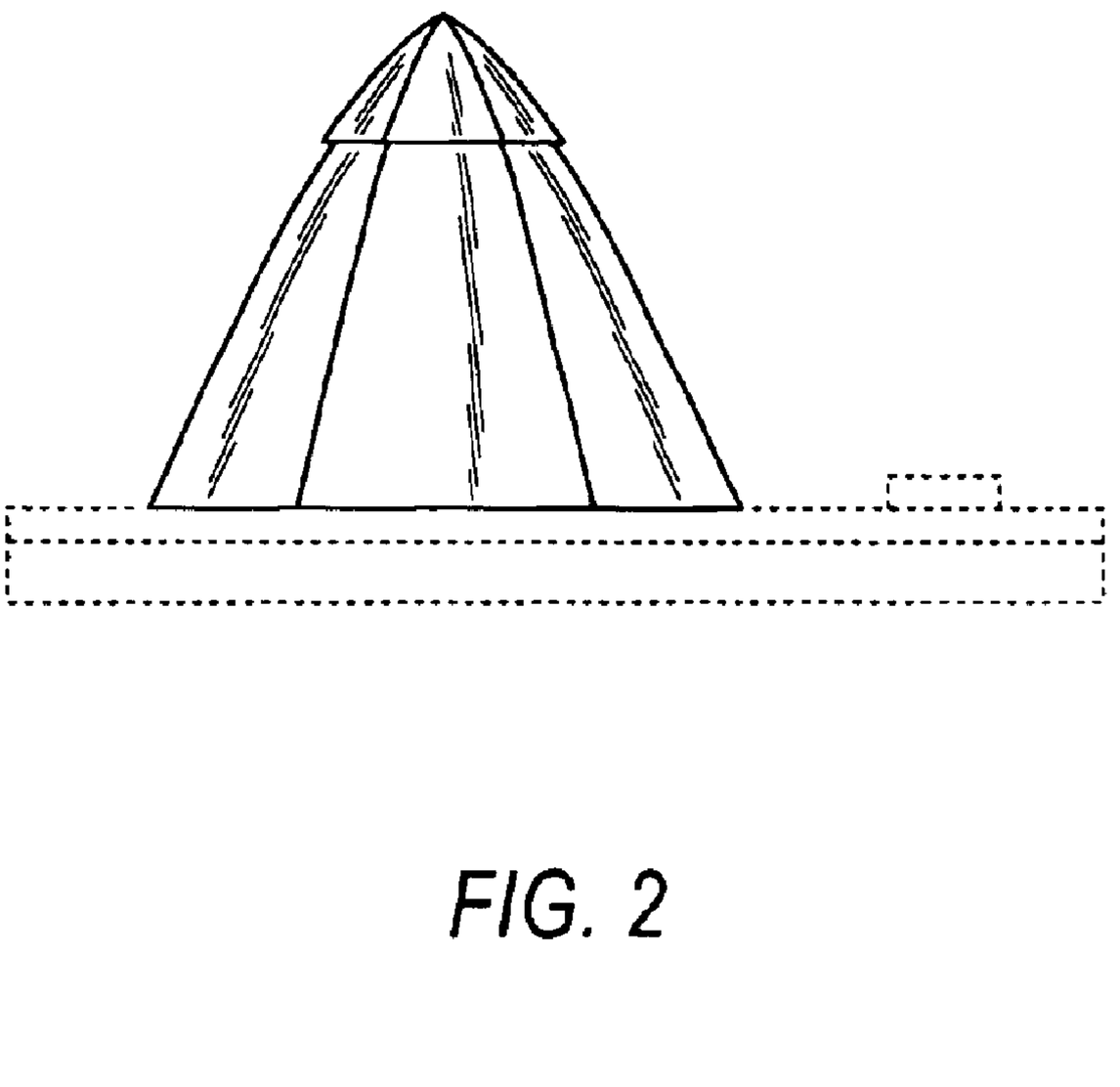


FIG. 2

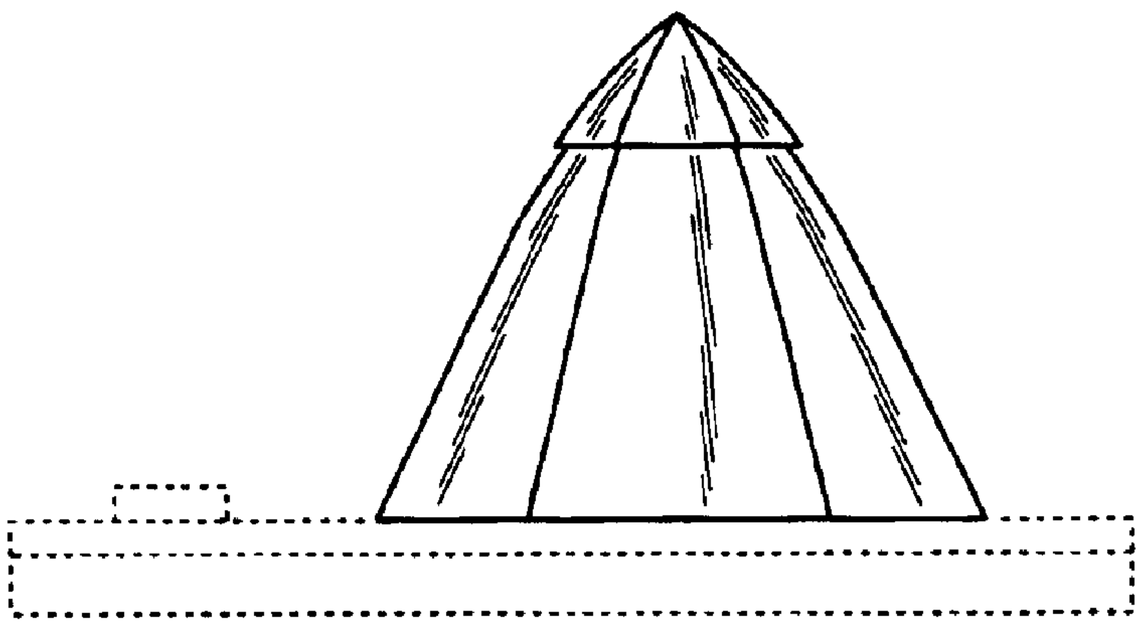


FIG. 3

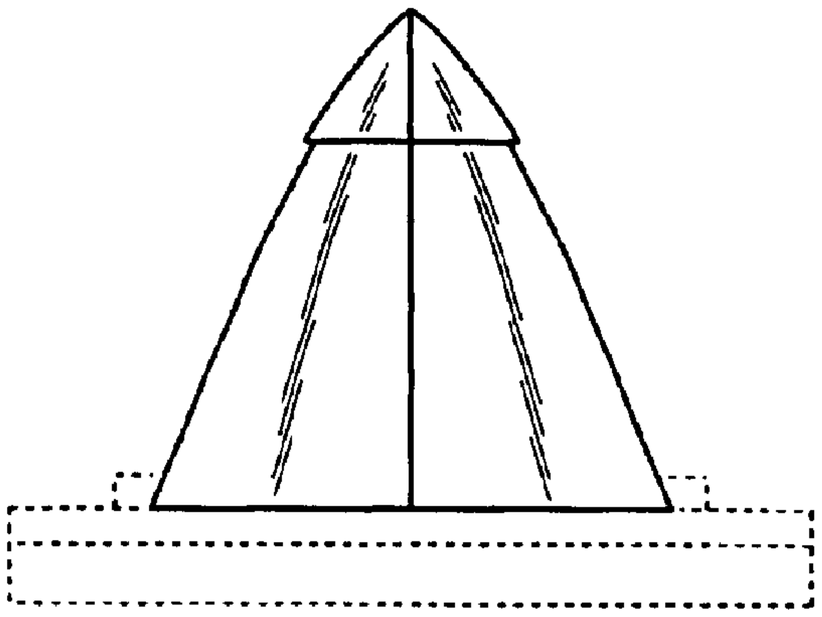


FIG. 4

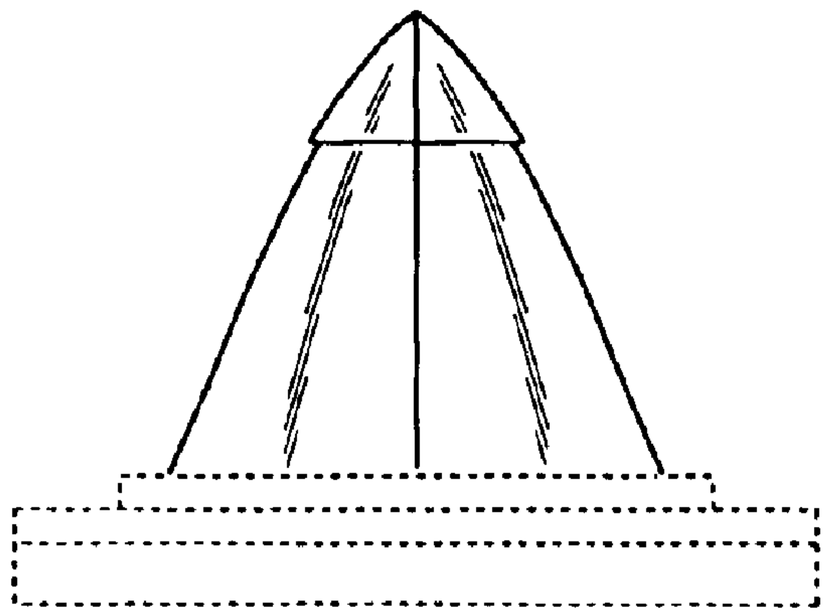


FIG. 5

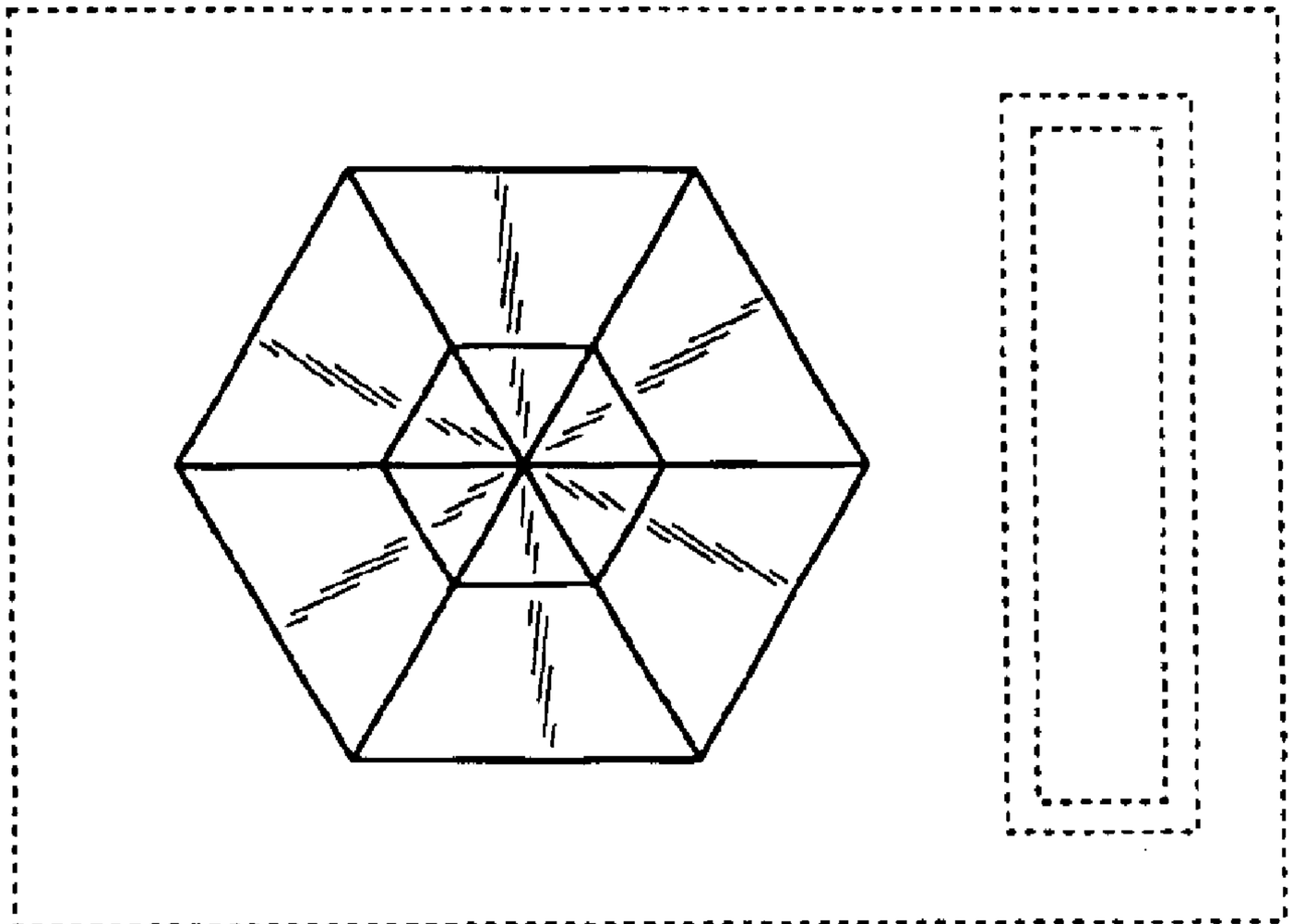


FIG. 6

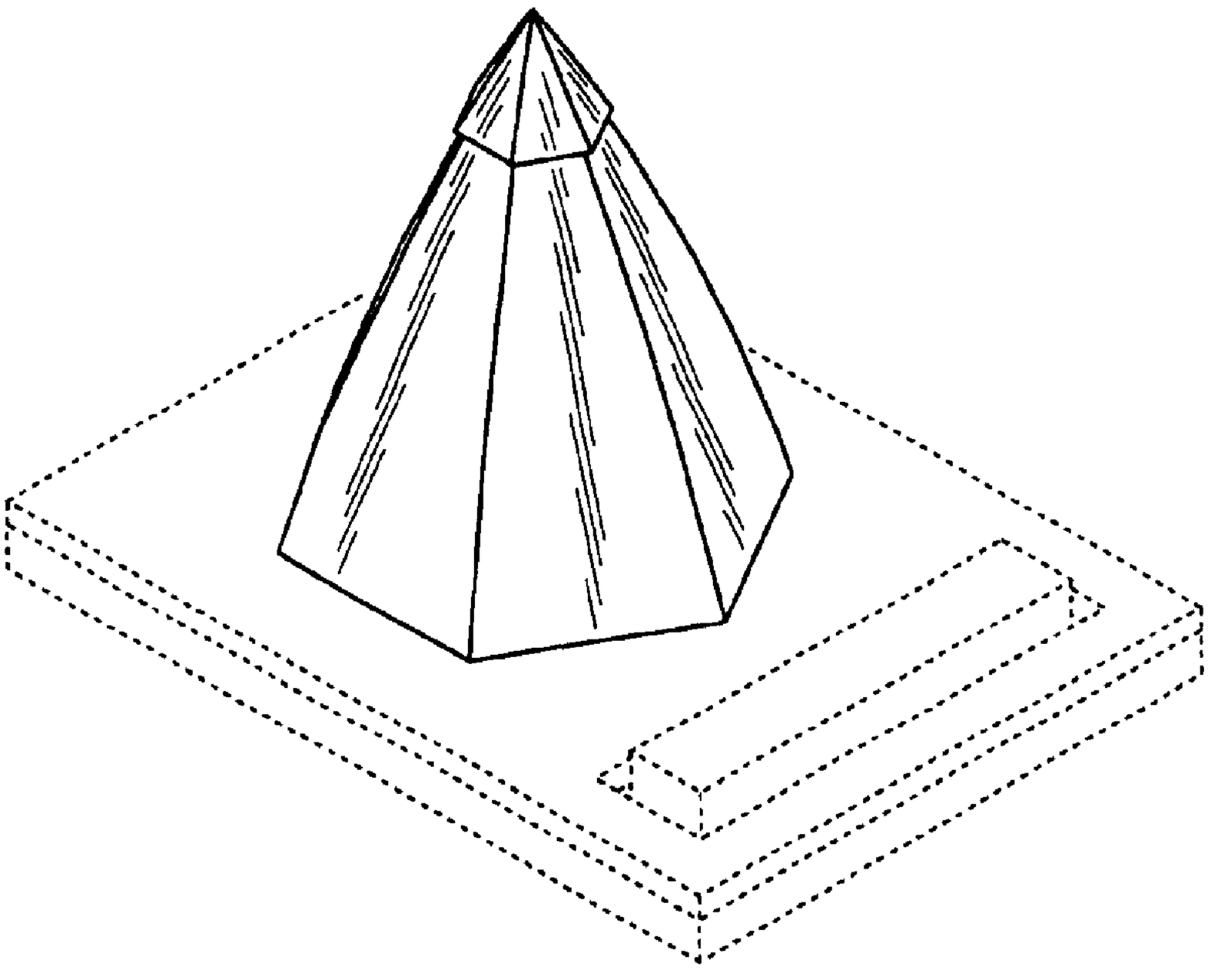


FIG. 7

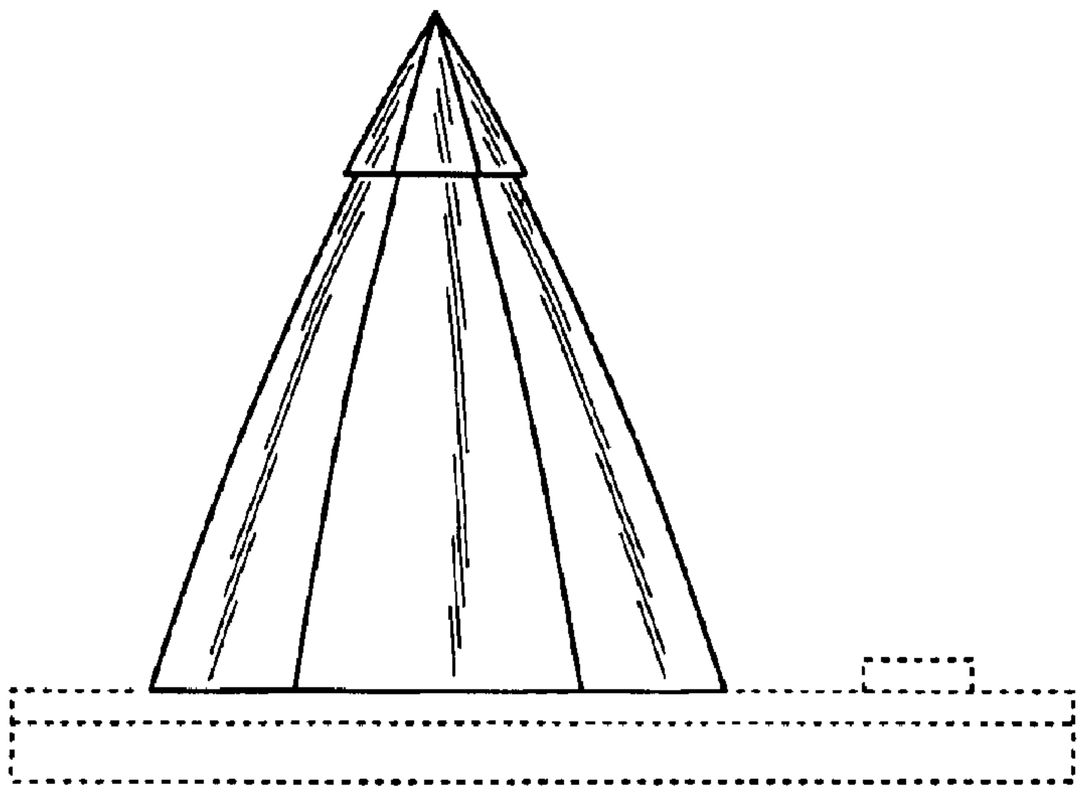


FIG. 8

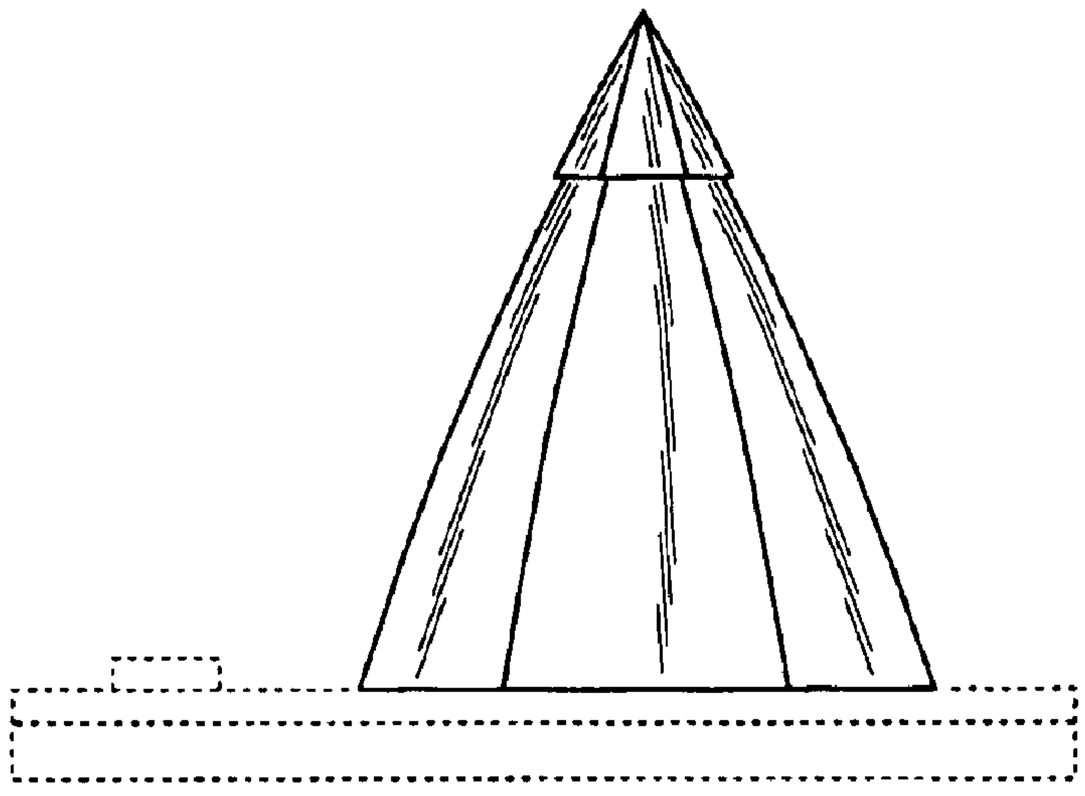


FIG. 9

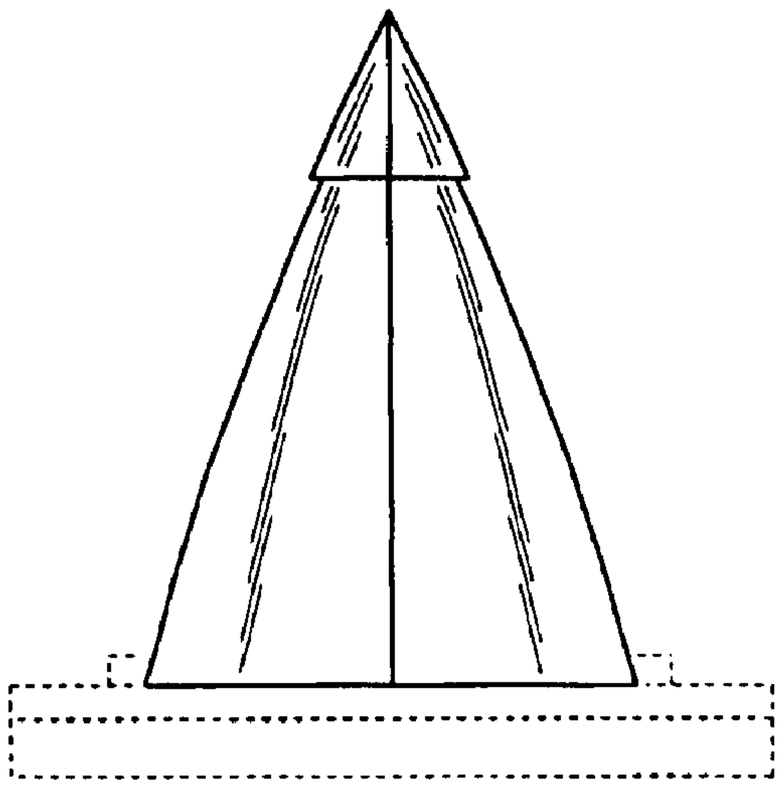


FIG. 10

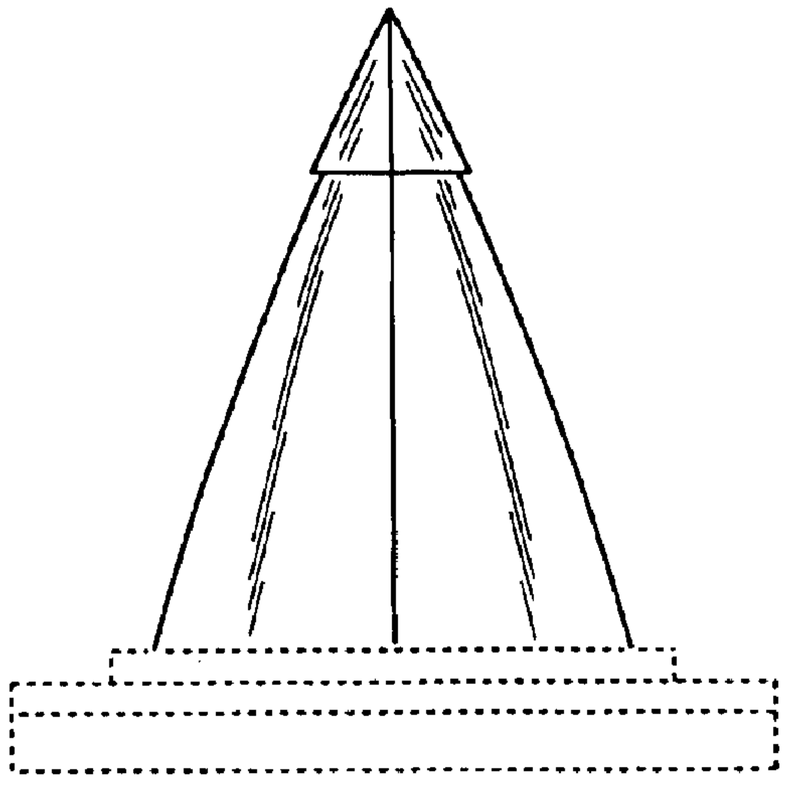


FIG. 11

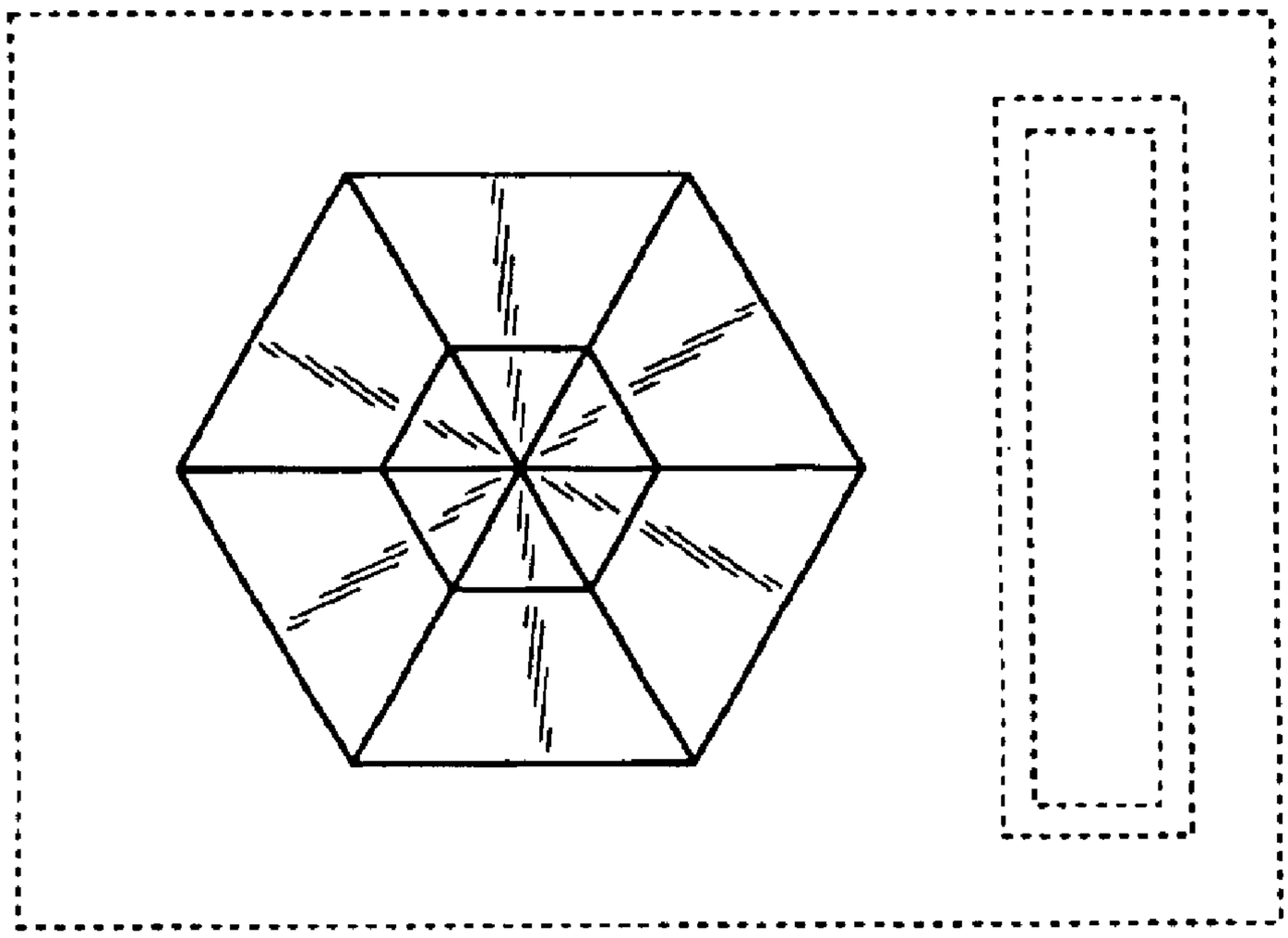


FIG. 12

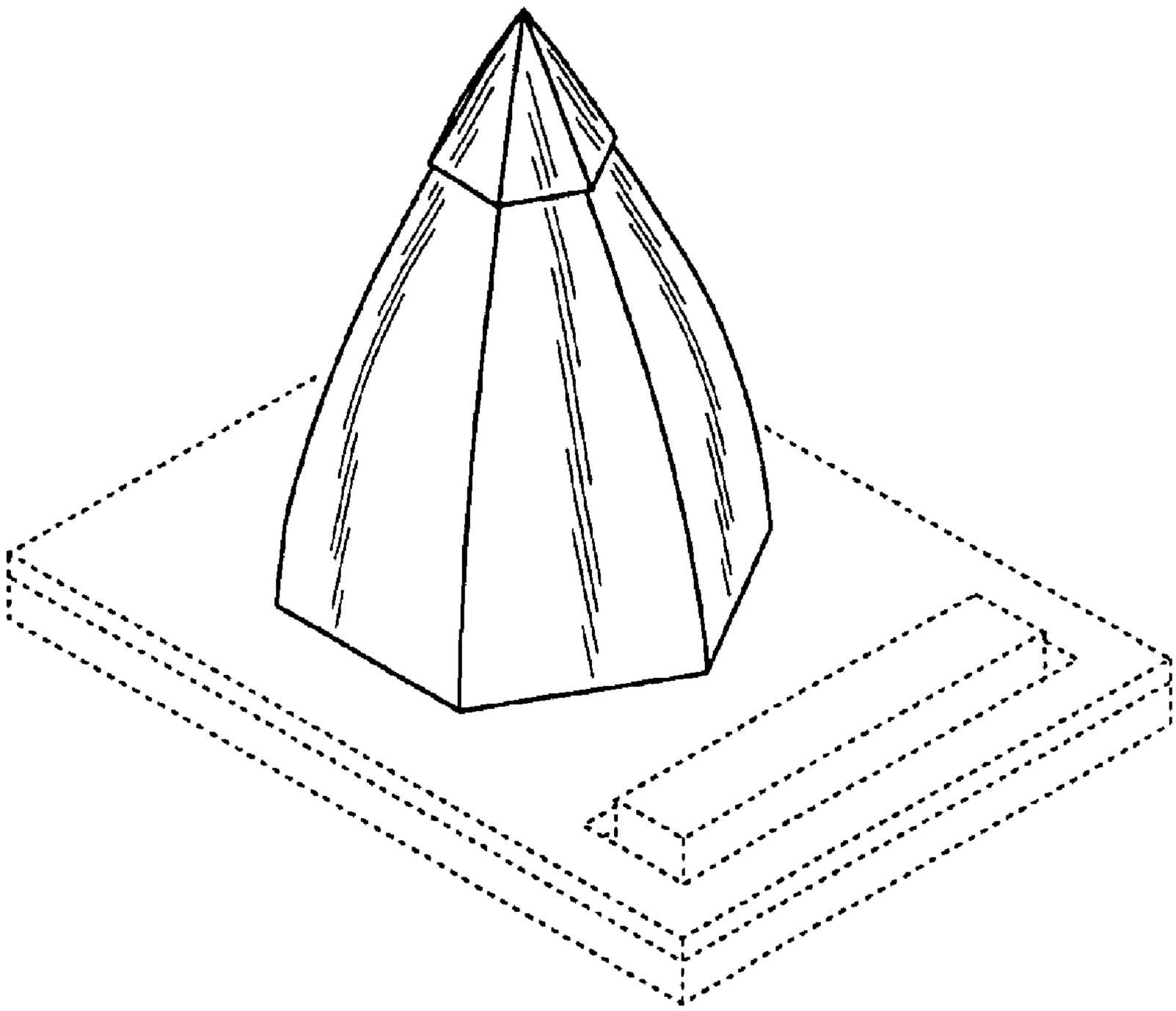


FIG. 13

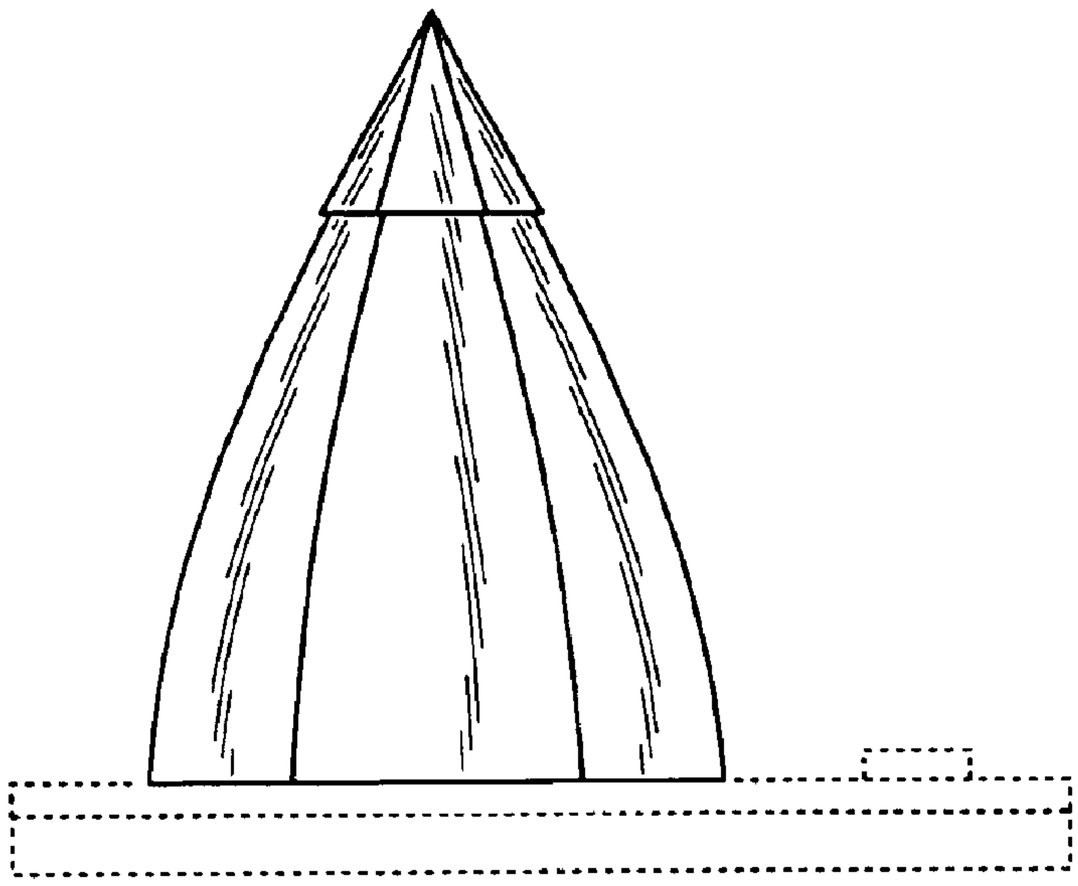


FIG. 14

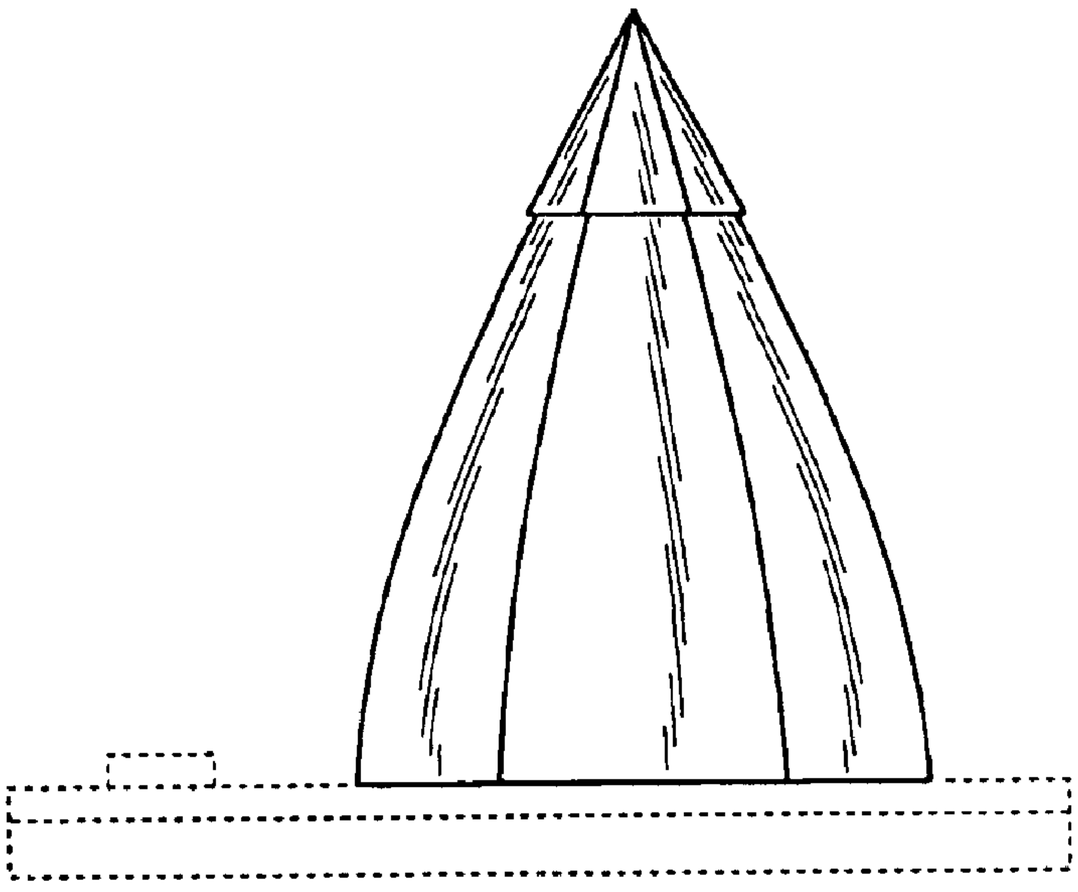


FIG. 15

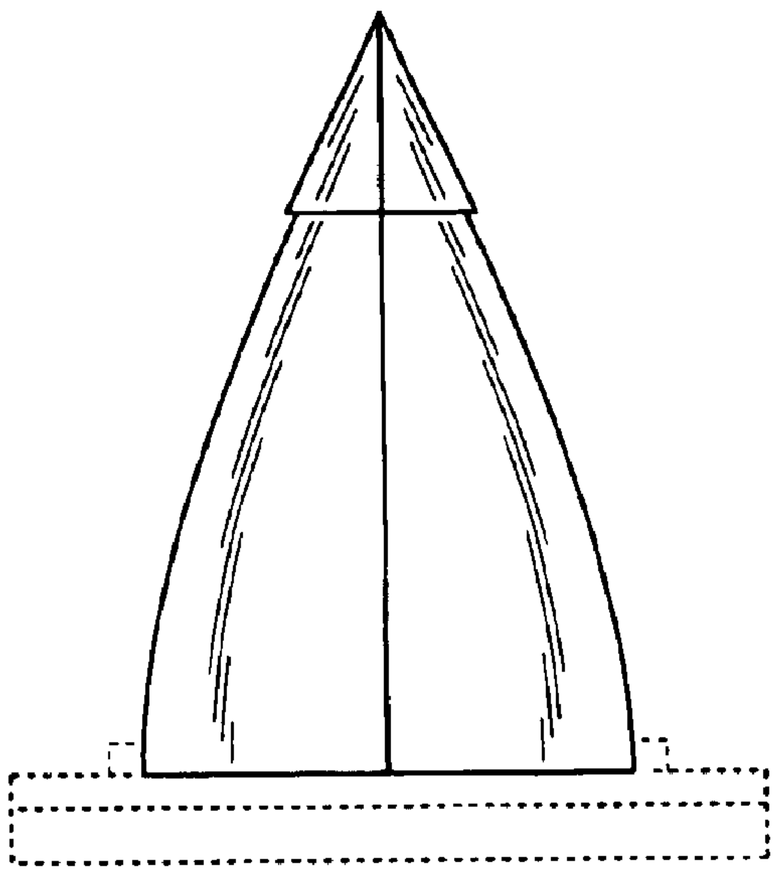


FIG. 16

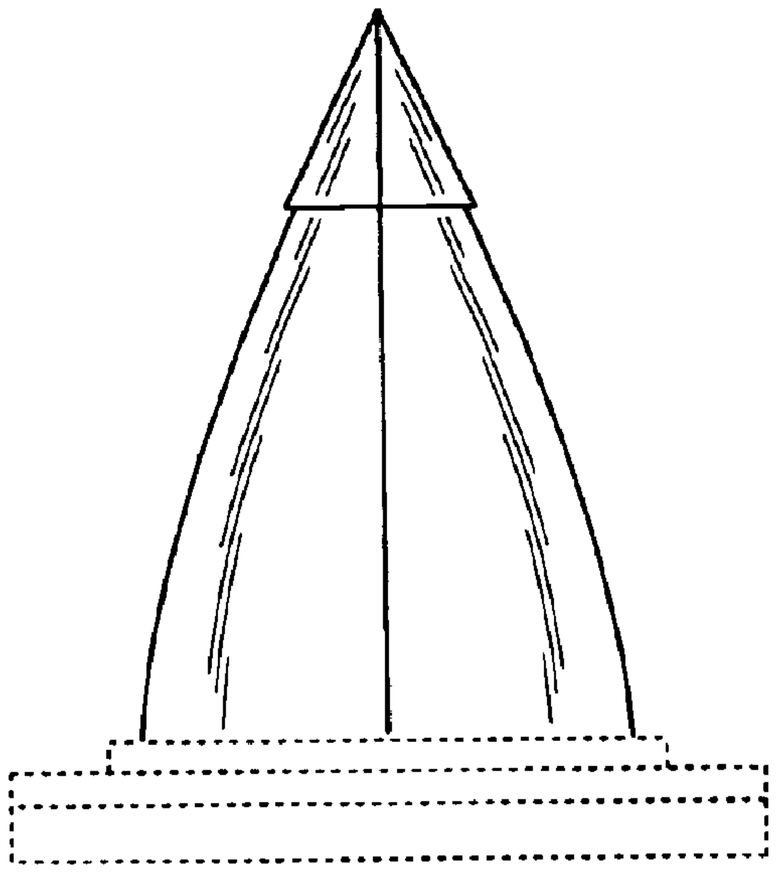


FIG. 17

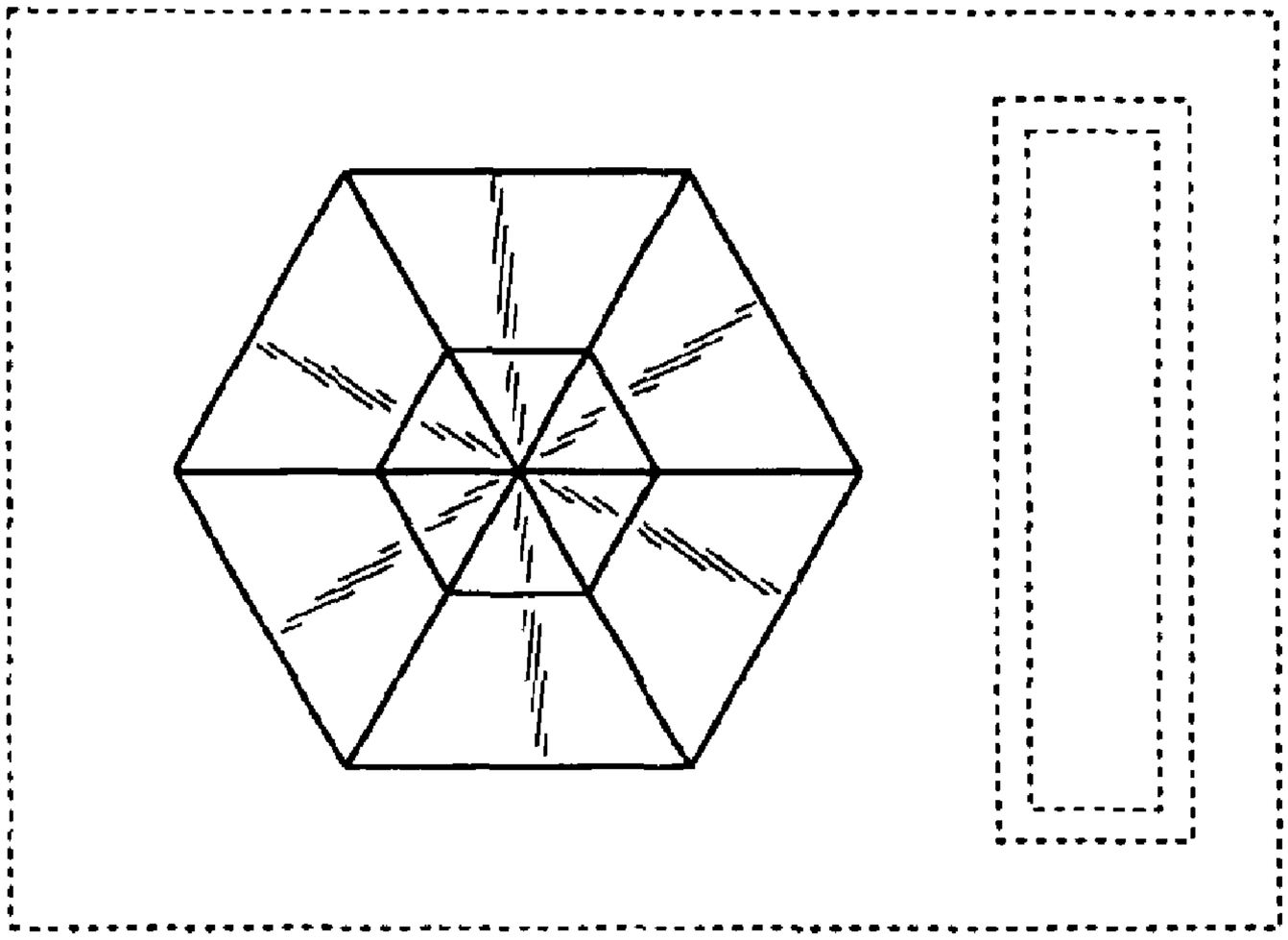


FIG. 18

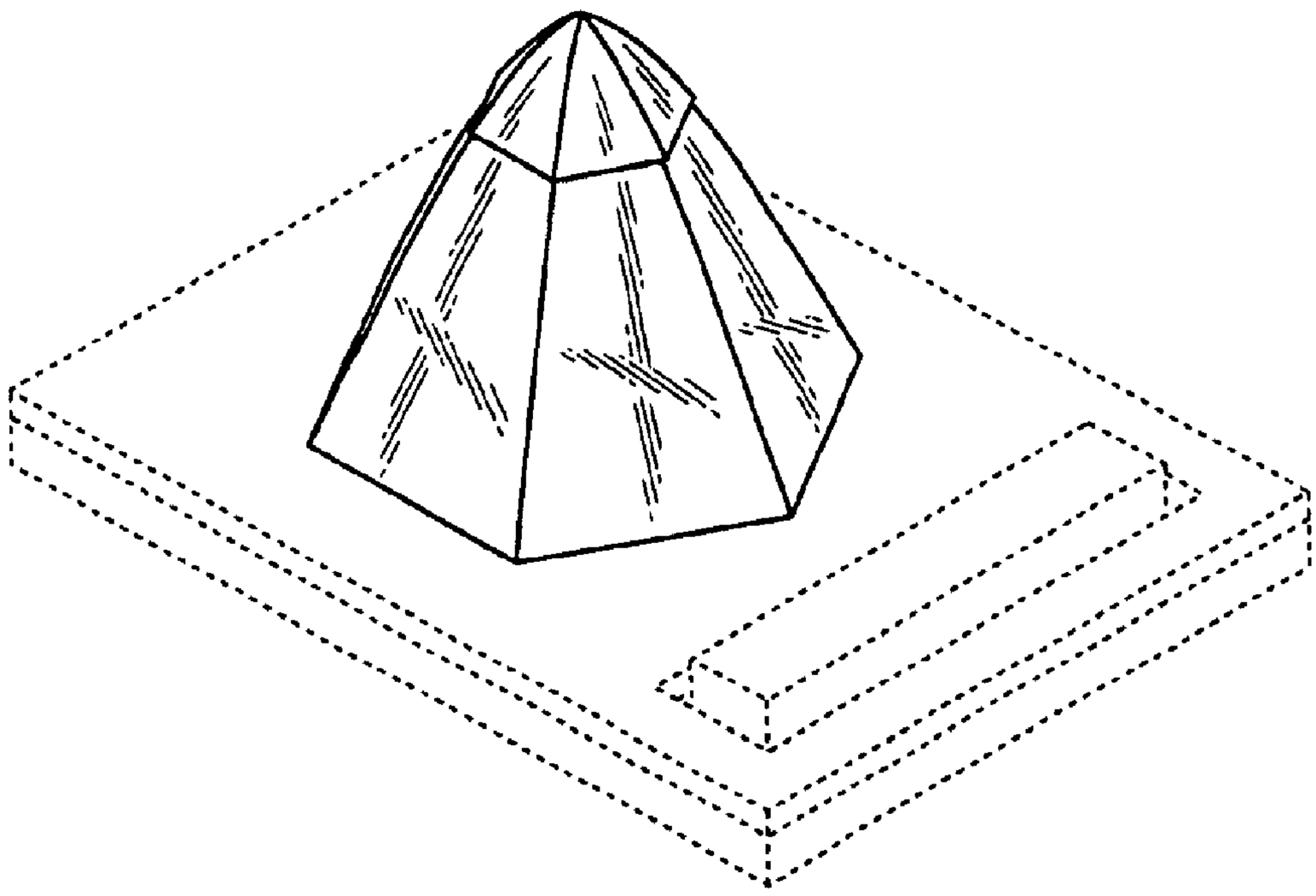


FIG. 19

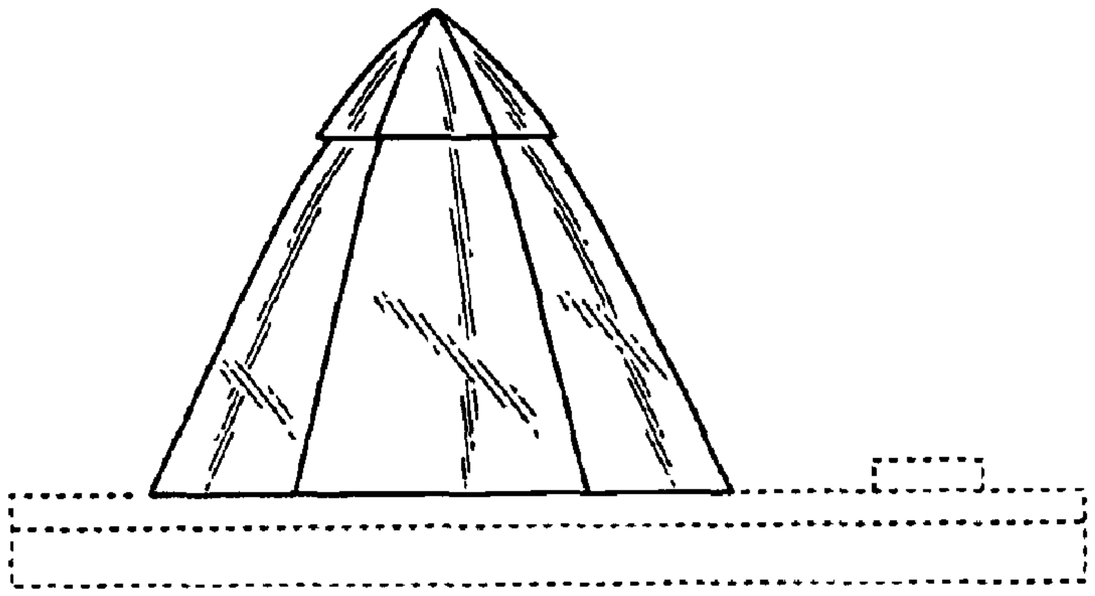


FIG. 20

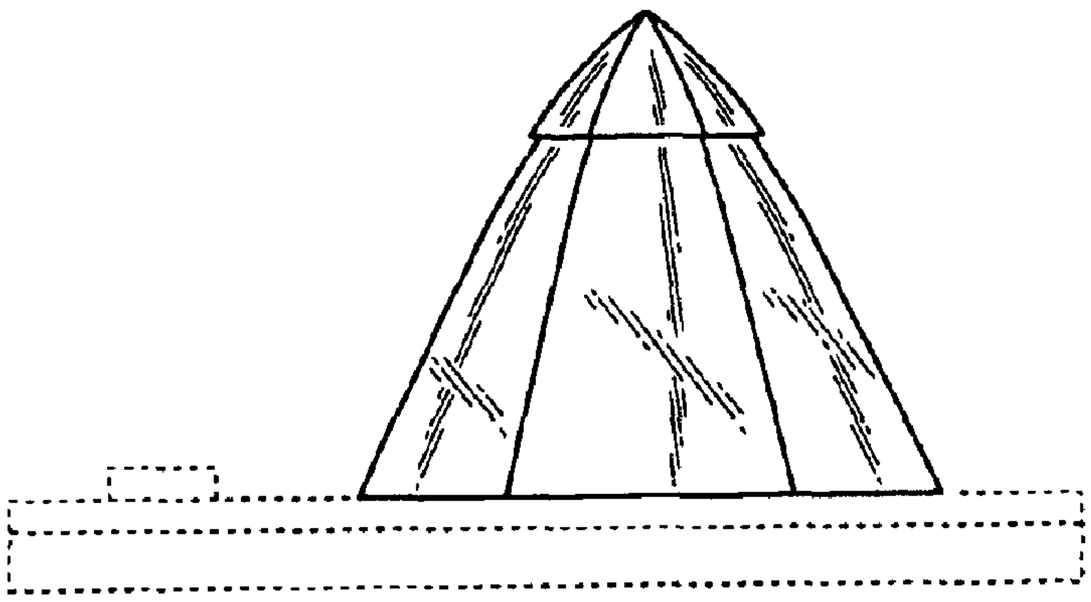


FIG. 21

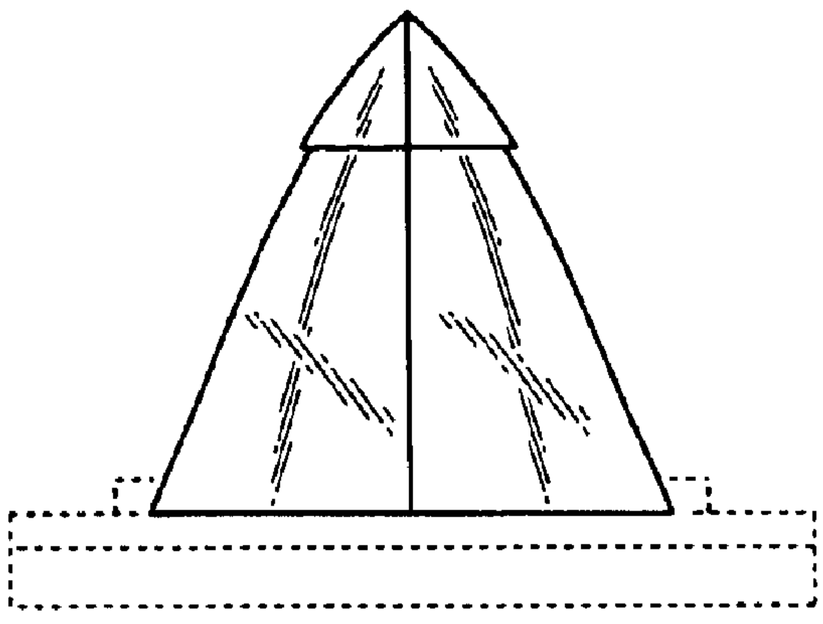


FIG. 22

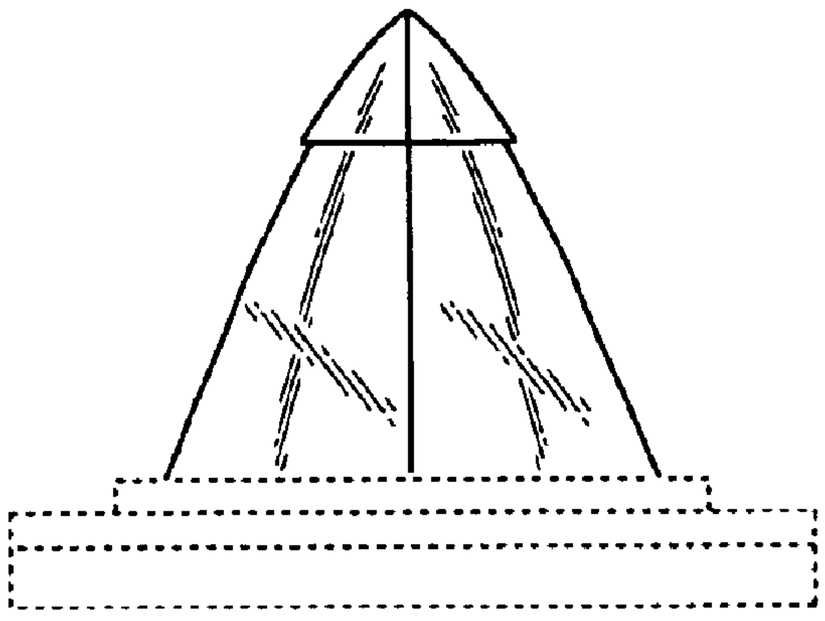


FIG. 23

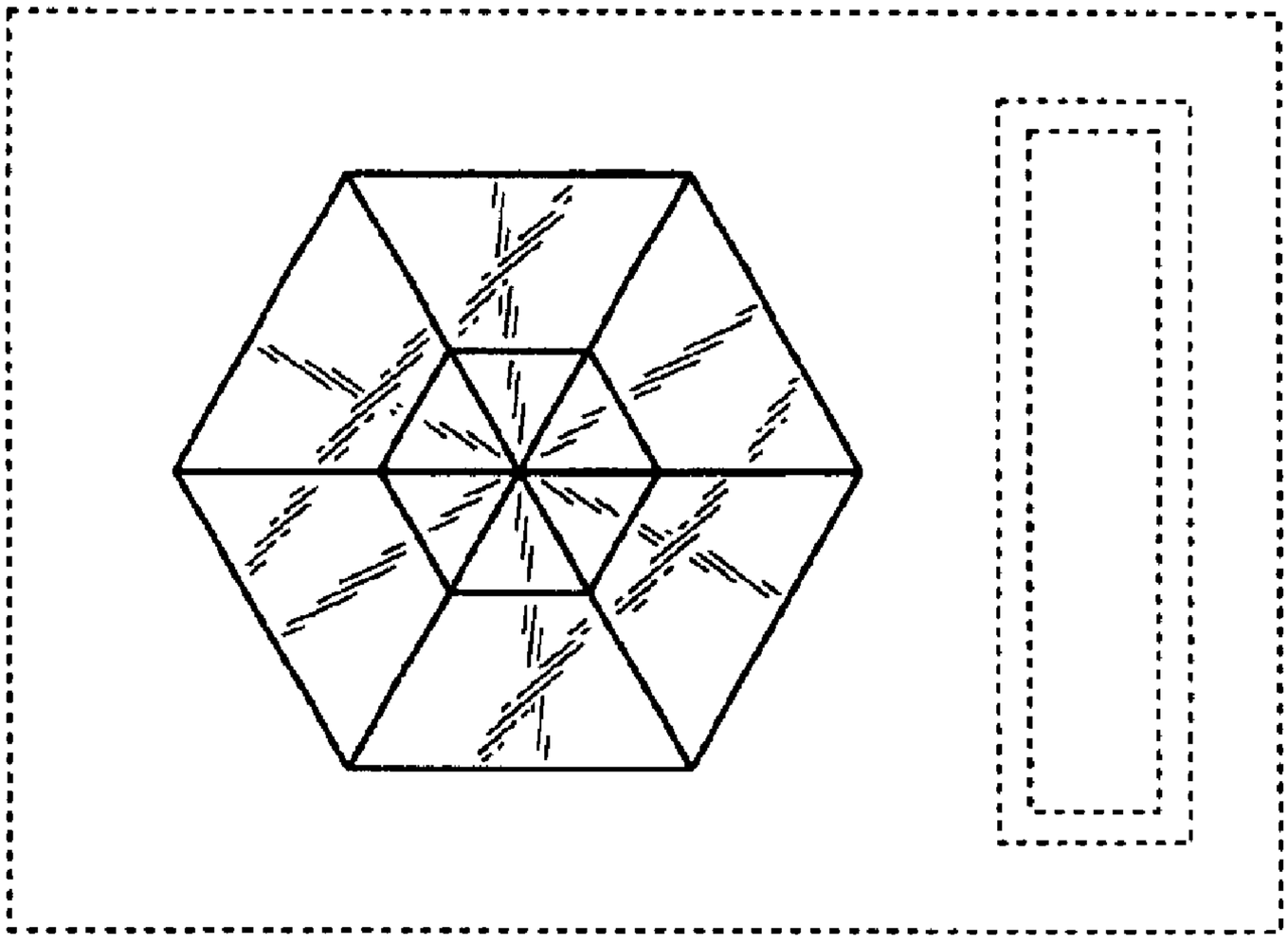


FIG. 24

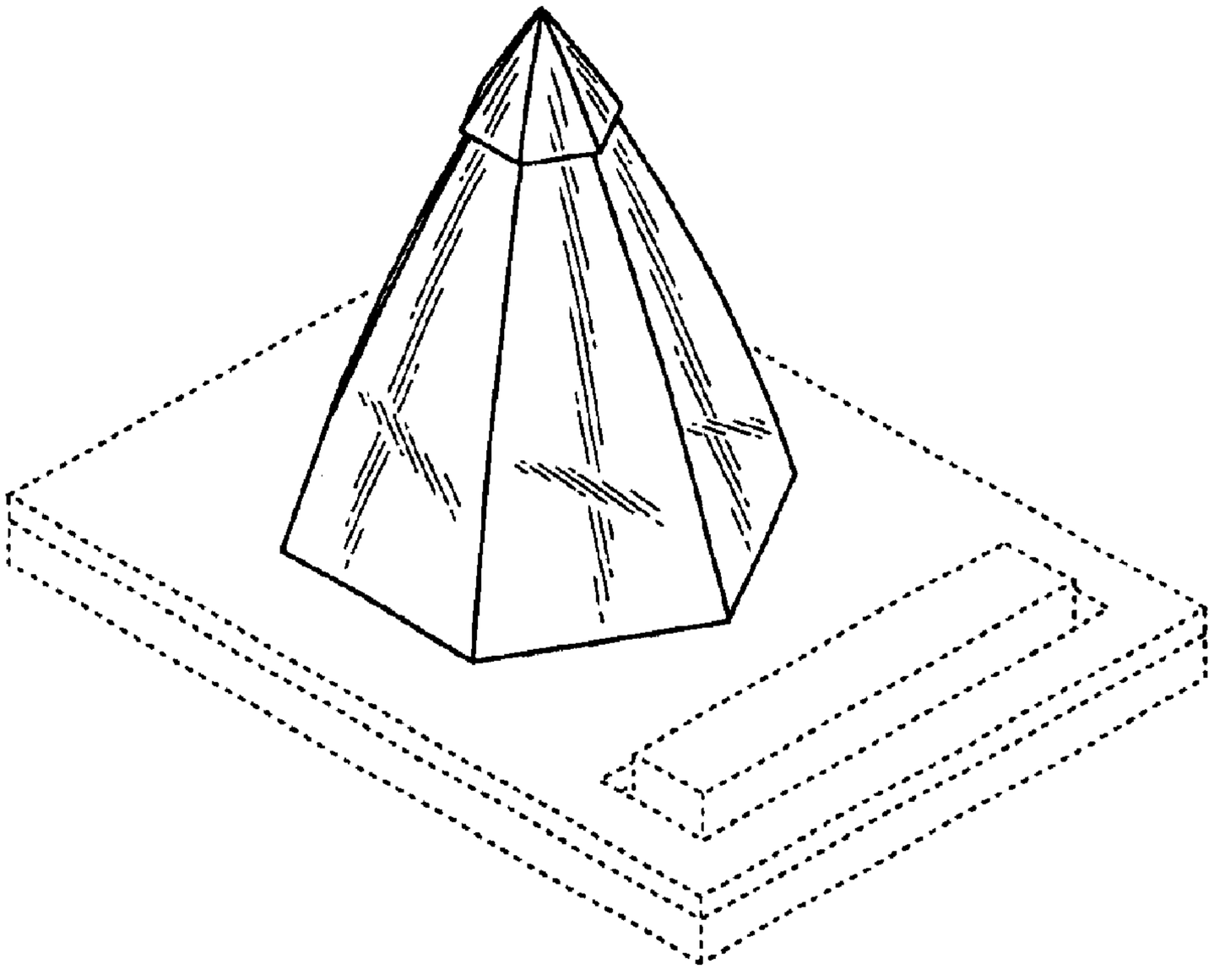


FIG. 25

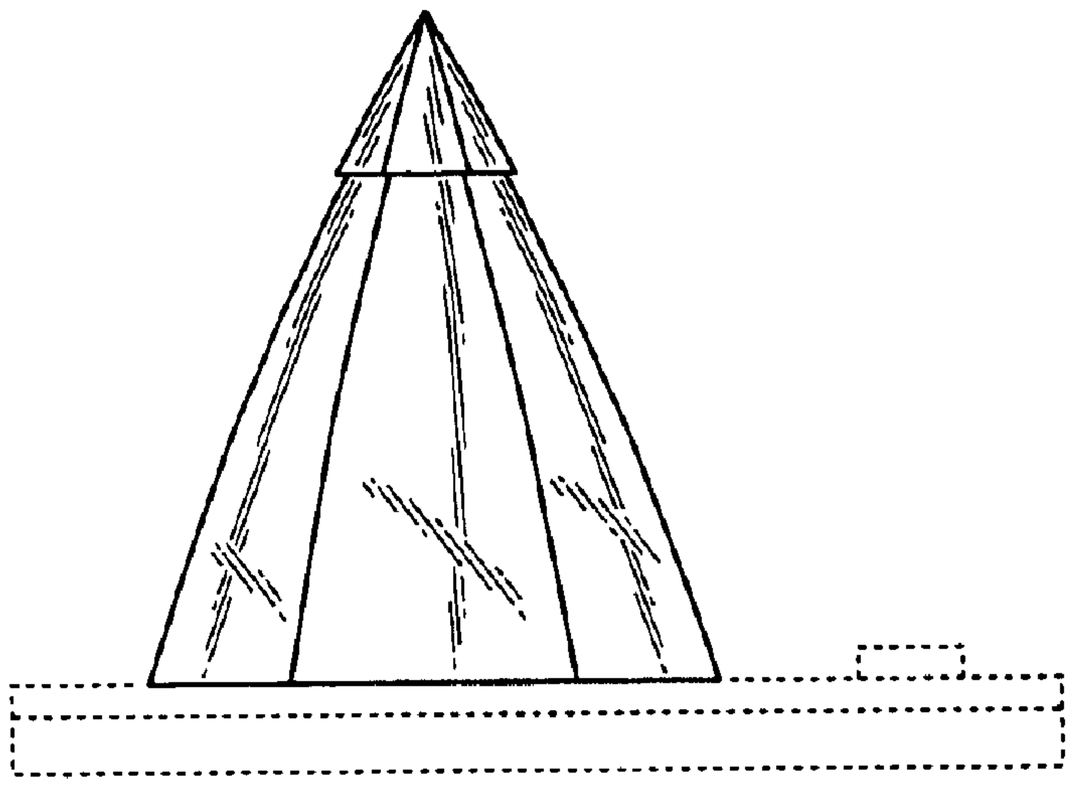


FIG. 26

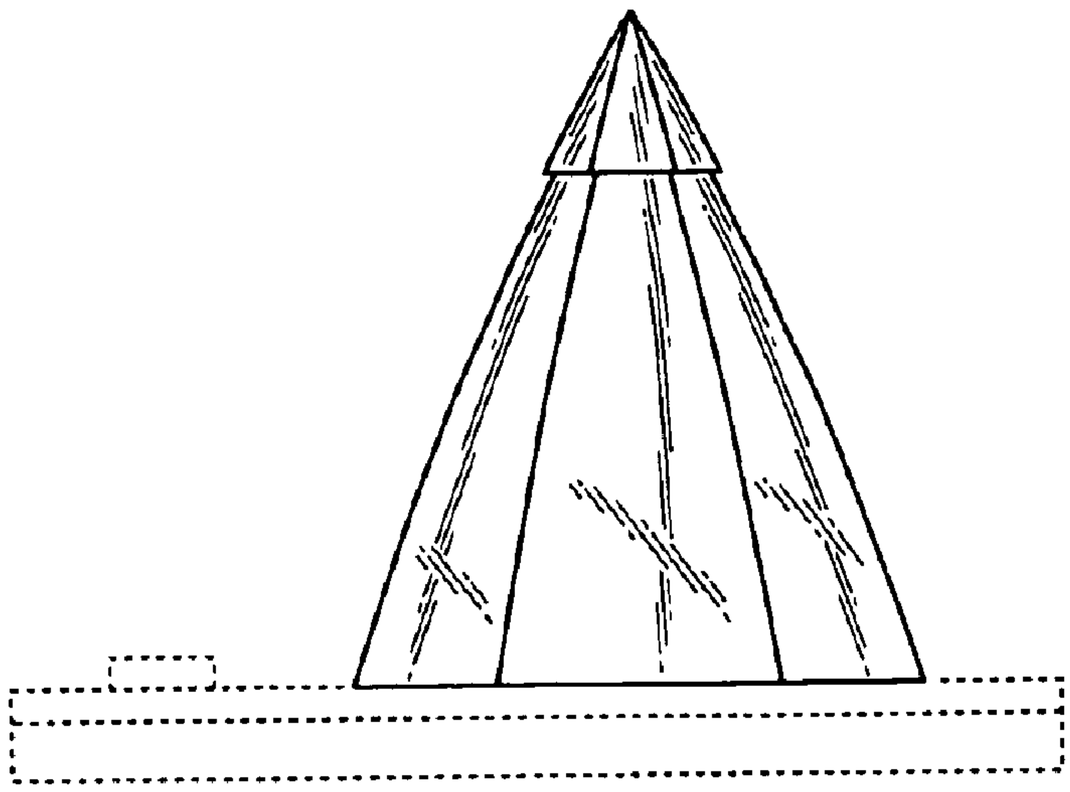


FIG. 27

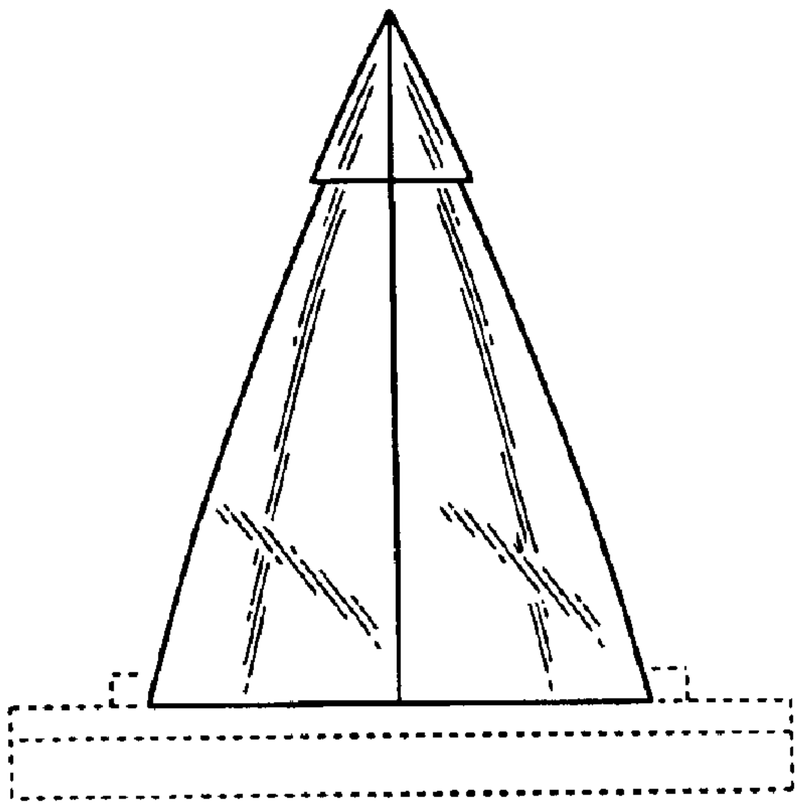


FIG. 28

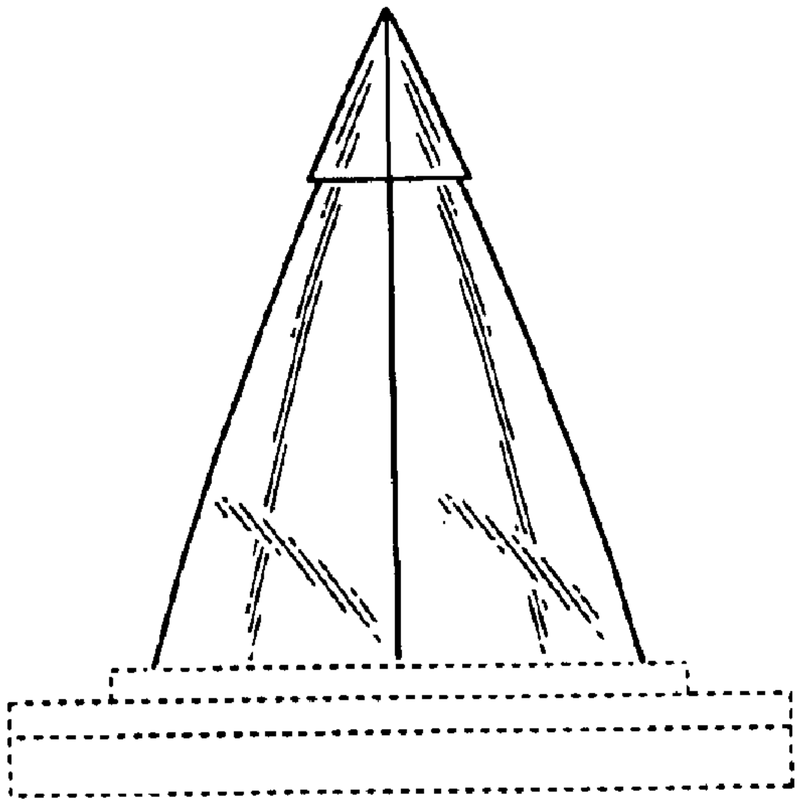


FIG. 29

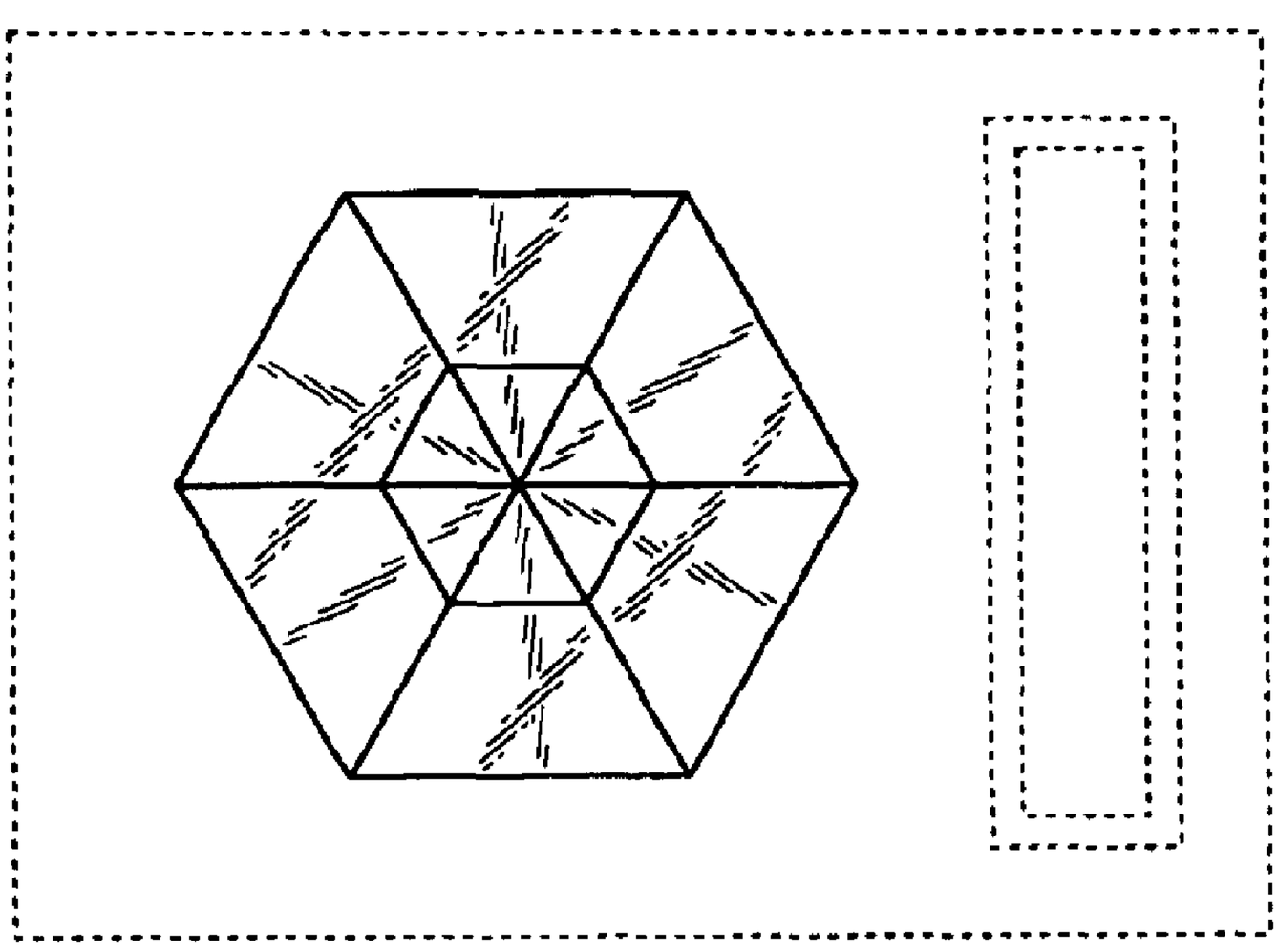


FIG. 30

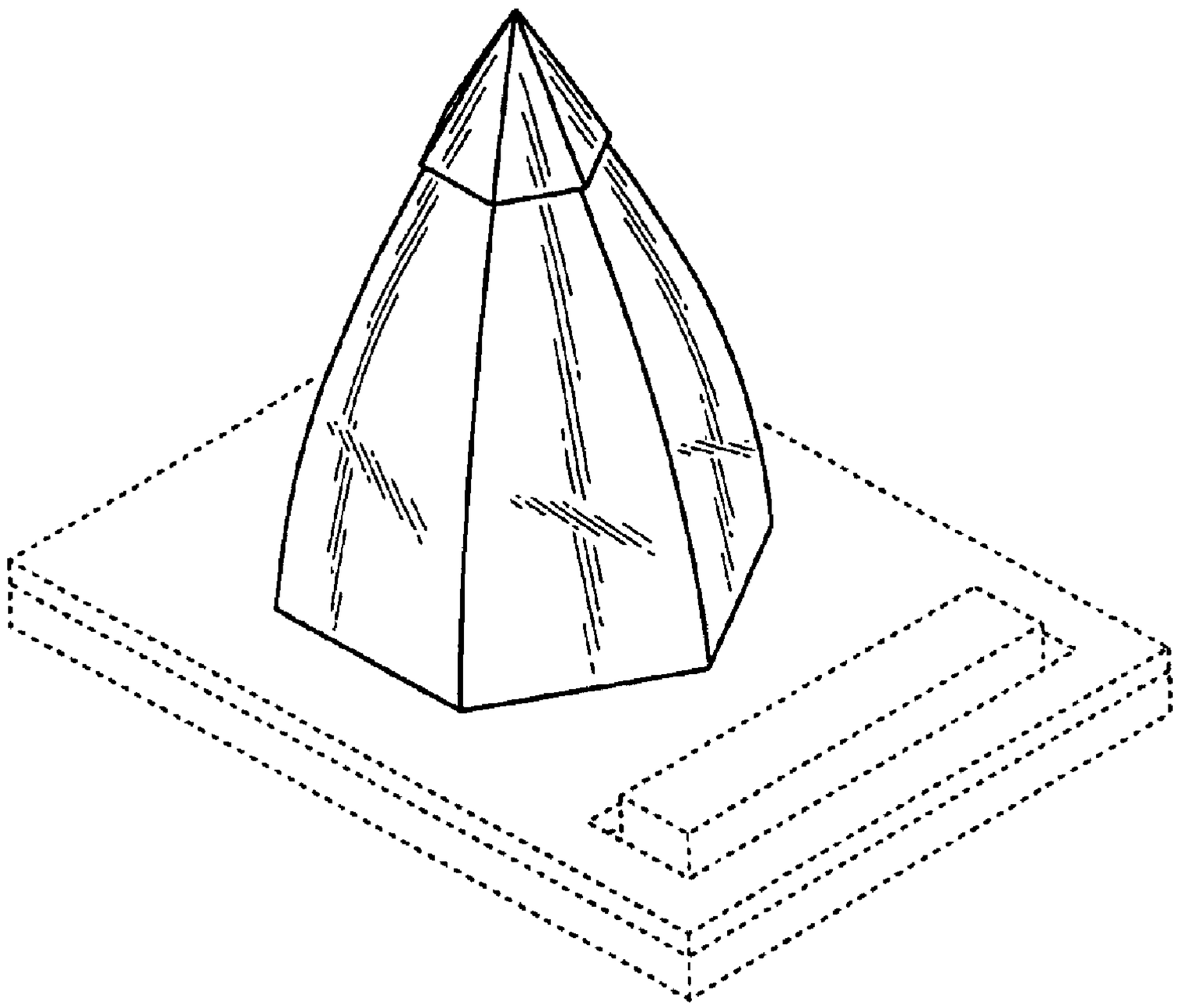


FIG. 31

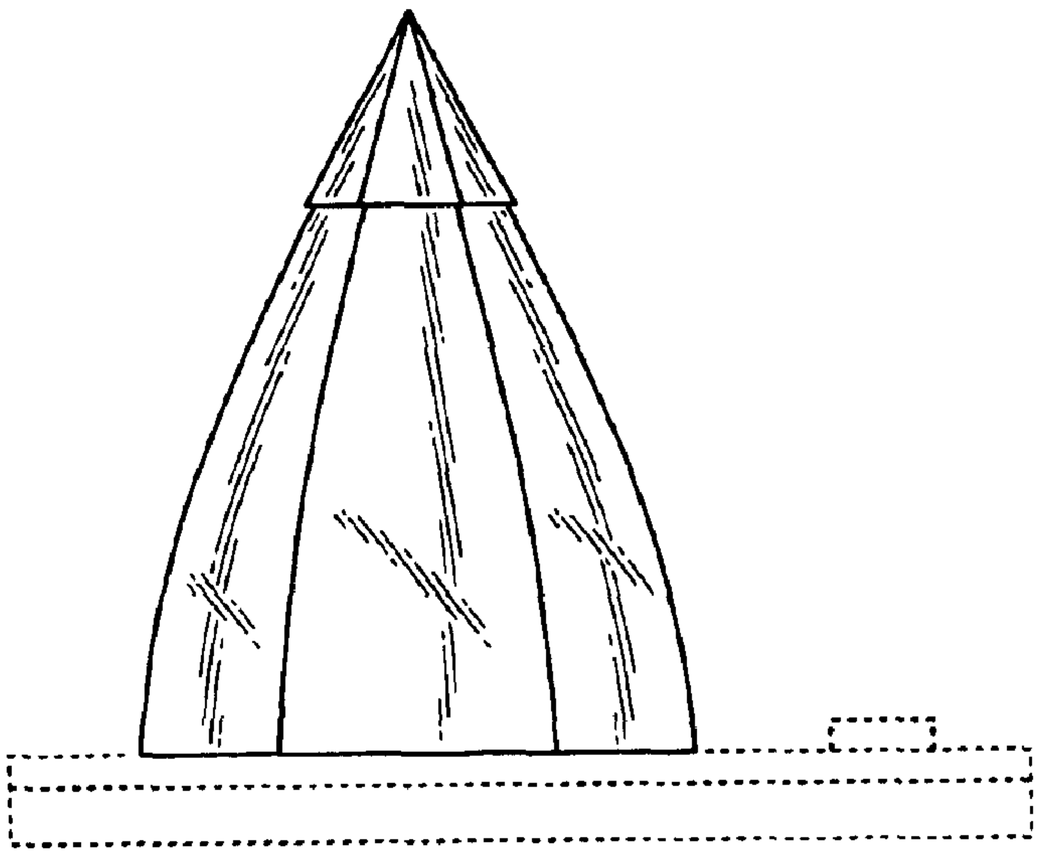


FIG. 32

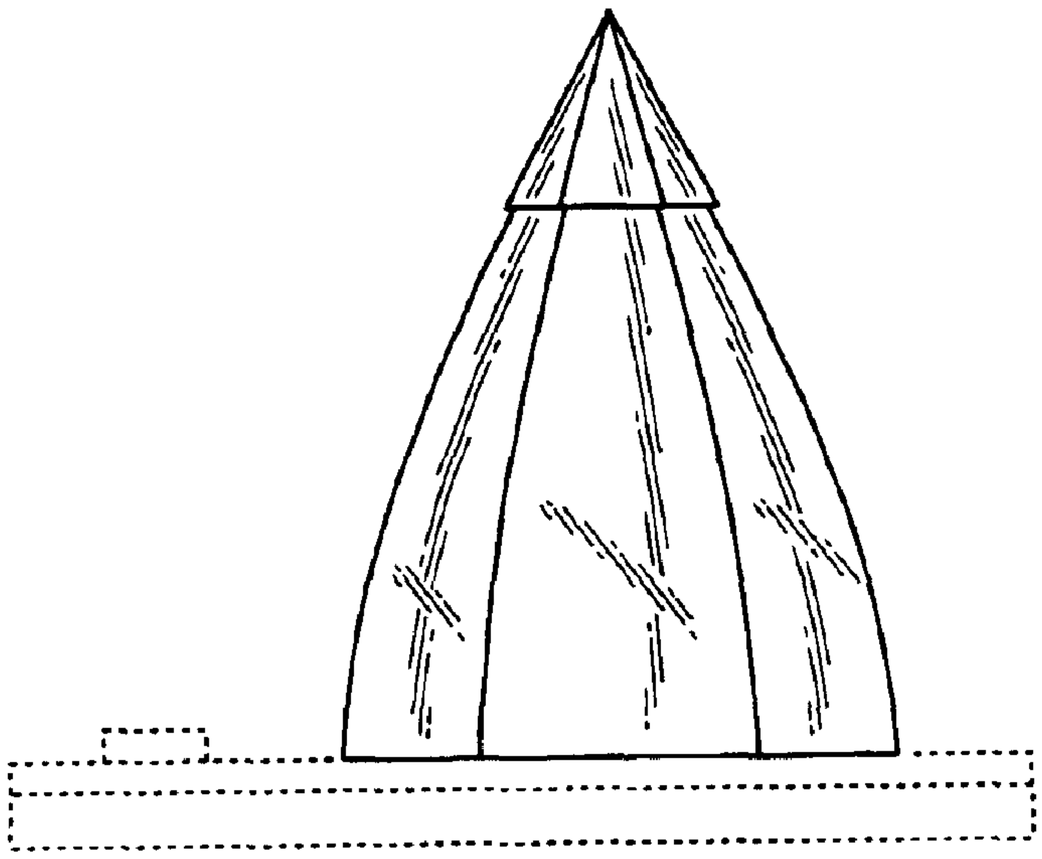


FIG. 33

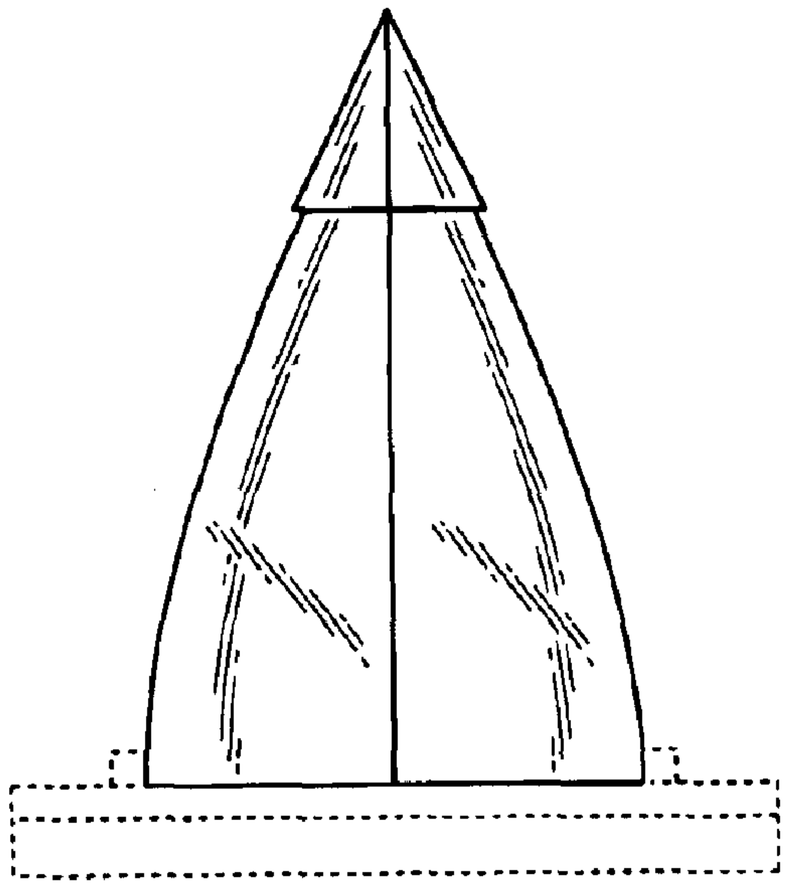


FIG. 34

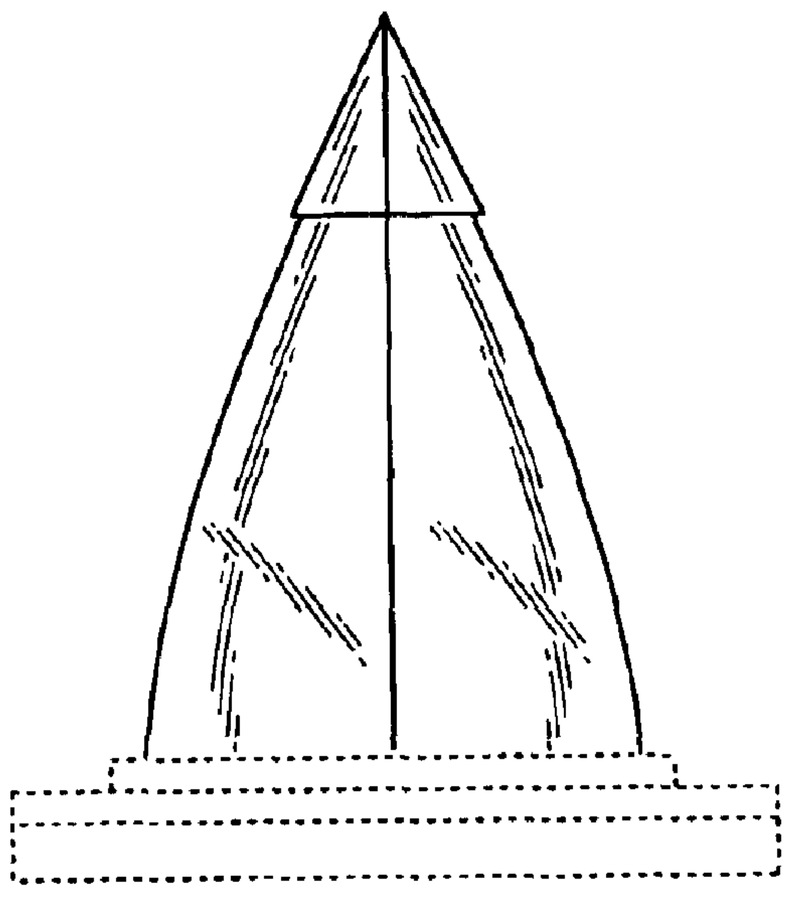


FIG. 35

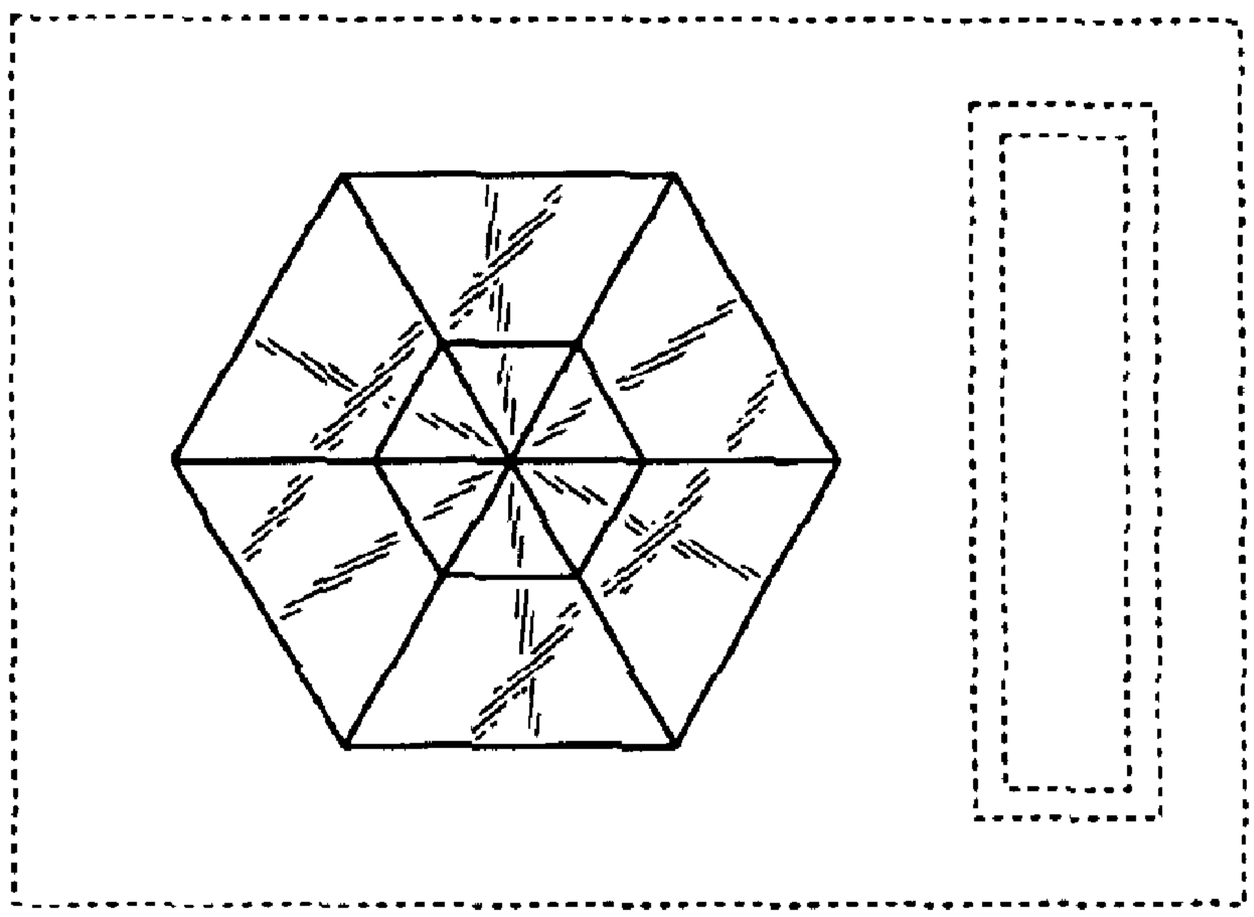


FIG. 36