



US00D483338S

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

(10) **Patent No.:** **US D483,338 S**

(45) **Date of Patent:** **\*\* Dec. 9, 2003**

(54) **OPTICAL MODULE**

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(73) Assignee: **Mitsubishi Denki Kabushiki Kaisha**, Tokyo (JP)

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

(21) Appl. No.: **29/173,481**

(22) Filed: **Dec. 31, 2002**

(30) **Foreign Application Priority Data**

Jul. 10, 2002	(JP)	.....	2002-018487
Jul. 10, 2002	(JP)	.....	2002-018488

(51) **LOC (7) Cl.** ..... **13-03**

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

(58) **Field of Search** ..... D13/182; 250/239;  
257/36, 82, 99, 678, 679, 432, 433, 773;  
372/31, 36, 43; 385/94; 438/411

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

4,768,070	A	*	8/1988	Takizawa et al.	.....	372/31
5,052,009	A	*	9/1991	Tsuboi et al.	.....	372/36
5,252,856	A	*	10/1993	Murai	.....	257/678
5,814,871	A	*	9/1998	Furukawa et al.	.....	257/433
6,181,720	B1	*	1/2001	Kanemoto et al.	.....	372/43
6,479,889	B1	*	11/2002	Yoshida et al.	.....	257/678
D476,296	S	*	6/2003	Koizumi	.....	D13/182
6,577,656	B2	*	6/2003	Chen et al.	.....	372/36
6,587,491	B1	*	7/2003	Yamamoto	.....	372/43

**OTHER PUBLICATIONS**

NEC Compound Semiconductor Devices, "Data Sheet, Laser Diode NX7313UA NEC", 10 pages, 2002.  
Product Overview, wysiwyg://mainframe.1101/http://www-shinko.co.jp/e\_product/e\_glass/e\_glass\_4.htm, "Glass-to-Metal Seals", 2 pages, 2001-2002.

Patent Abstracts of Japan, JP 10-284640, Oct. 23, 1998.  
Patent Abstracts of Japan, JP 08-031970, Feb. 2, 1996.  
Patent Abstracts of Japan, JP 11-087577, Mar. 30, 1999.  
Patent Abstracts of Japan, JP 05-129461, May 25, 1993.  
Patent Abstracts of Japan, JP 07-176649, Jul. 14, 1995.

\* cited by examiner

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(57) **CLAIM**

The ornamental design for a optical module, as shown and described.

**DESCRIPTION**

FIG. 1 is a front, top and right side perspective view of a optical module, showing our new design;  
FIG. 2 is a front elevational view thereof;  
FIG. 3 is a rear elevational view thereof;  
FIG. 4 is a top plan view thereof;  
FIG. 5 is a bottom plan view thereof;  
FIG. 6 is a right side elevational view thereof, the left side elevational view is omitted as that is symmetrical to the right side elevational view thereof;  
FIG. 7 is a front, top and right side perspective view of a second embodiment of the optical module, showing our new design;  
FIG. 8 is a front elevational view thereof;  
FIG. 9 is a rear elevational view thereof;  
FIG. 10 is a top plan view thereof;  
FIG. 11 is a bottom plan view thereof; and,  
FIG. 12 is a right side elevational view thereof, the left side elevational view is omitted as that is symmetrical to the right side elevational view thereof.  
The broken lines in all views are shown for illustrative purposes only and form no part of the claimed design.

**1 Claim, 4 Drawing Sheets**

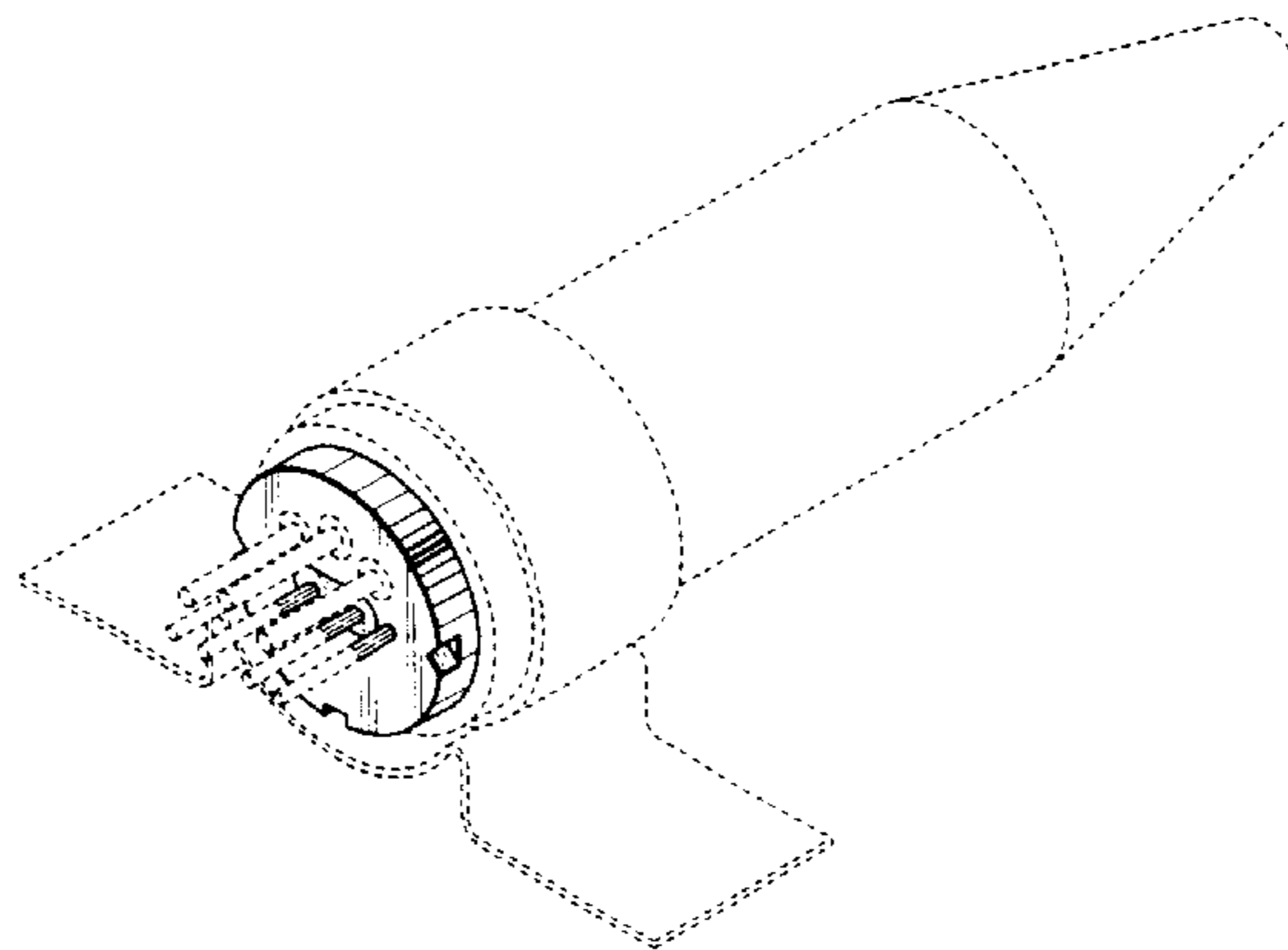


FIG. 1

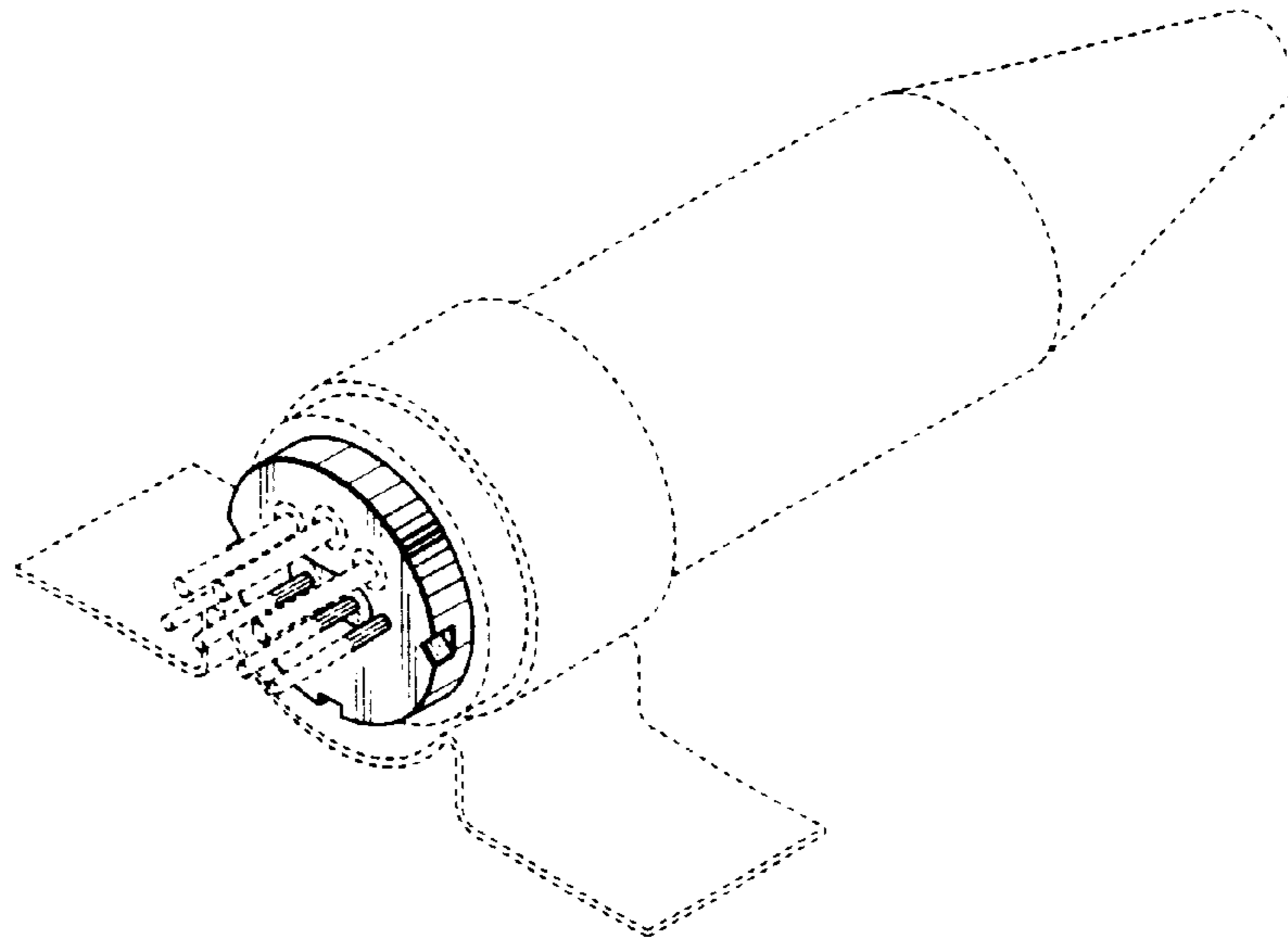


FIG. 2

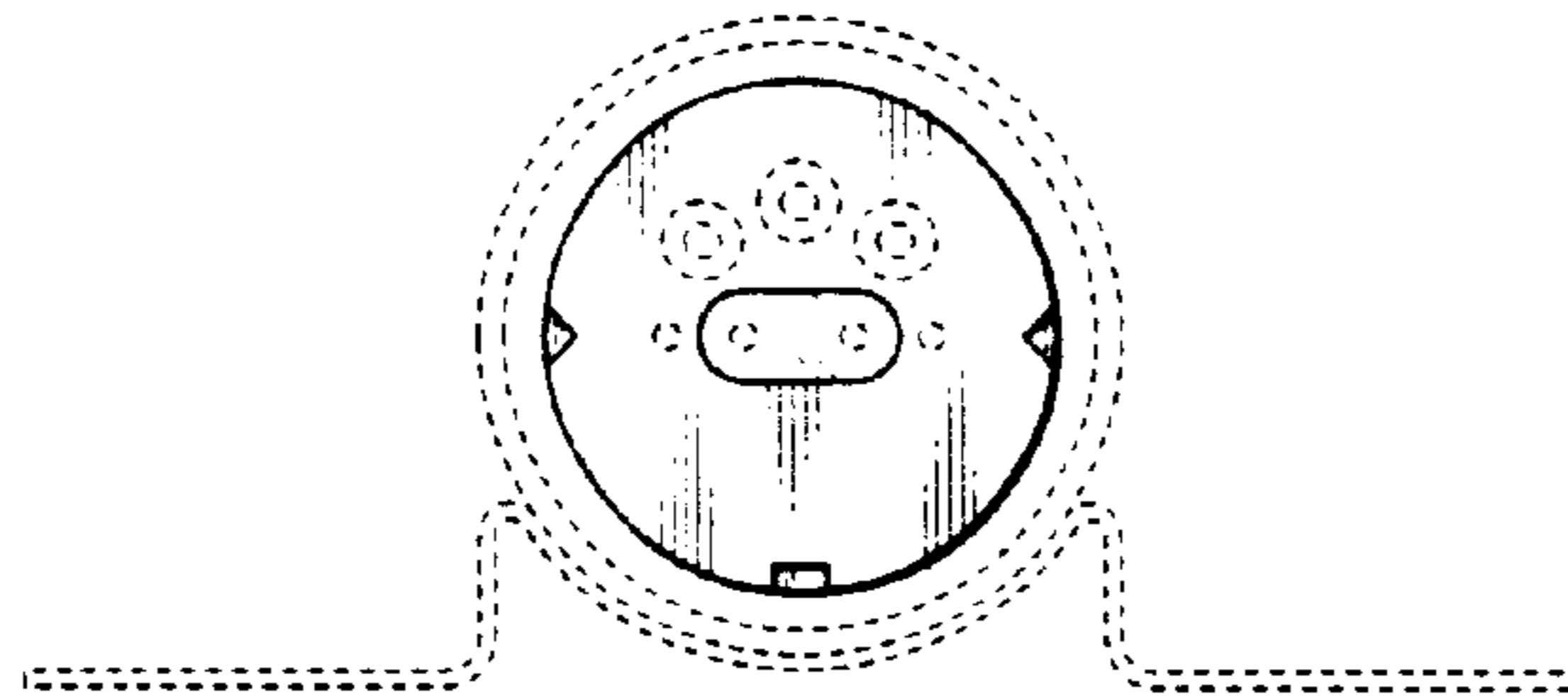


FIG. 3

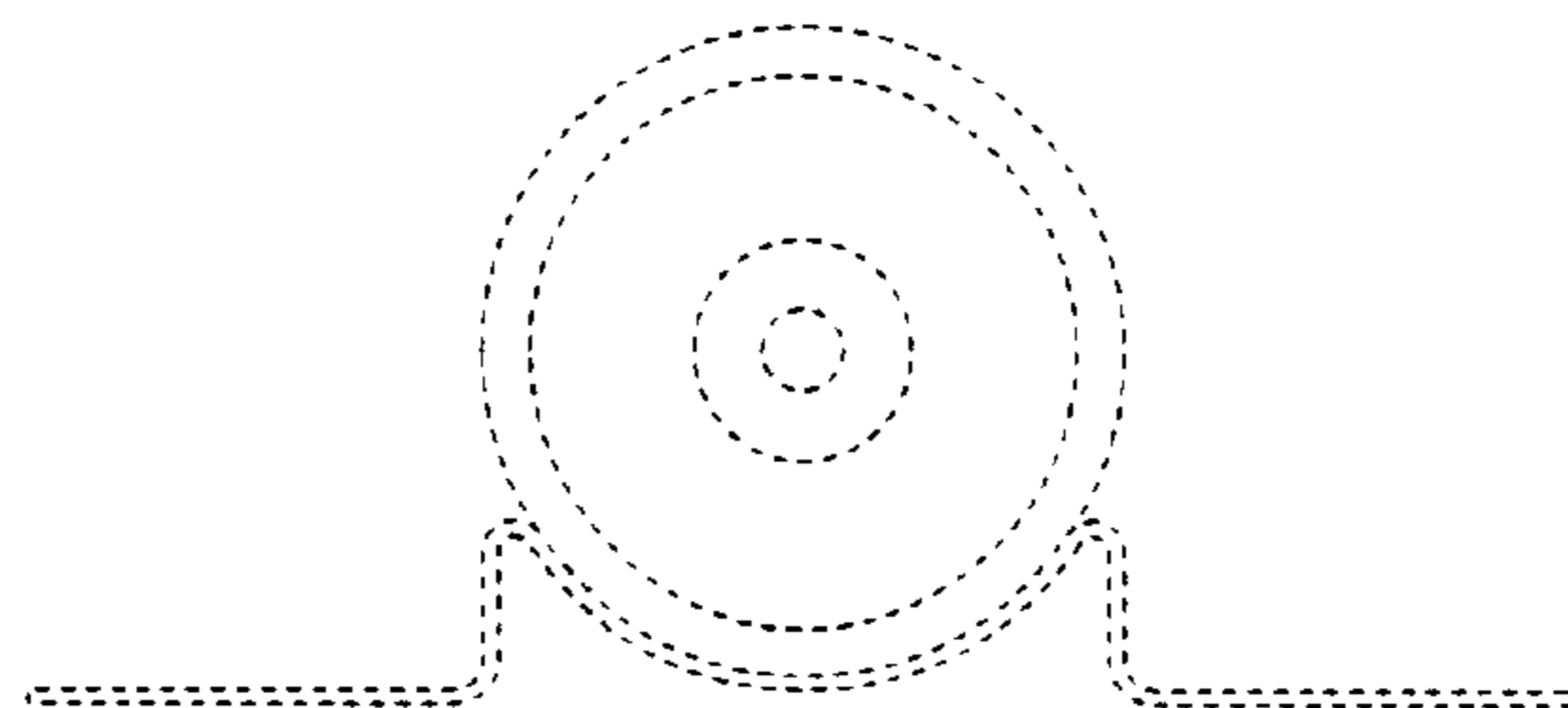


FIG.4

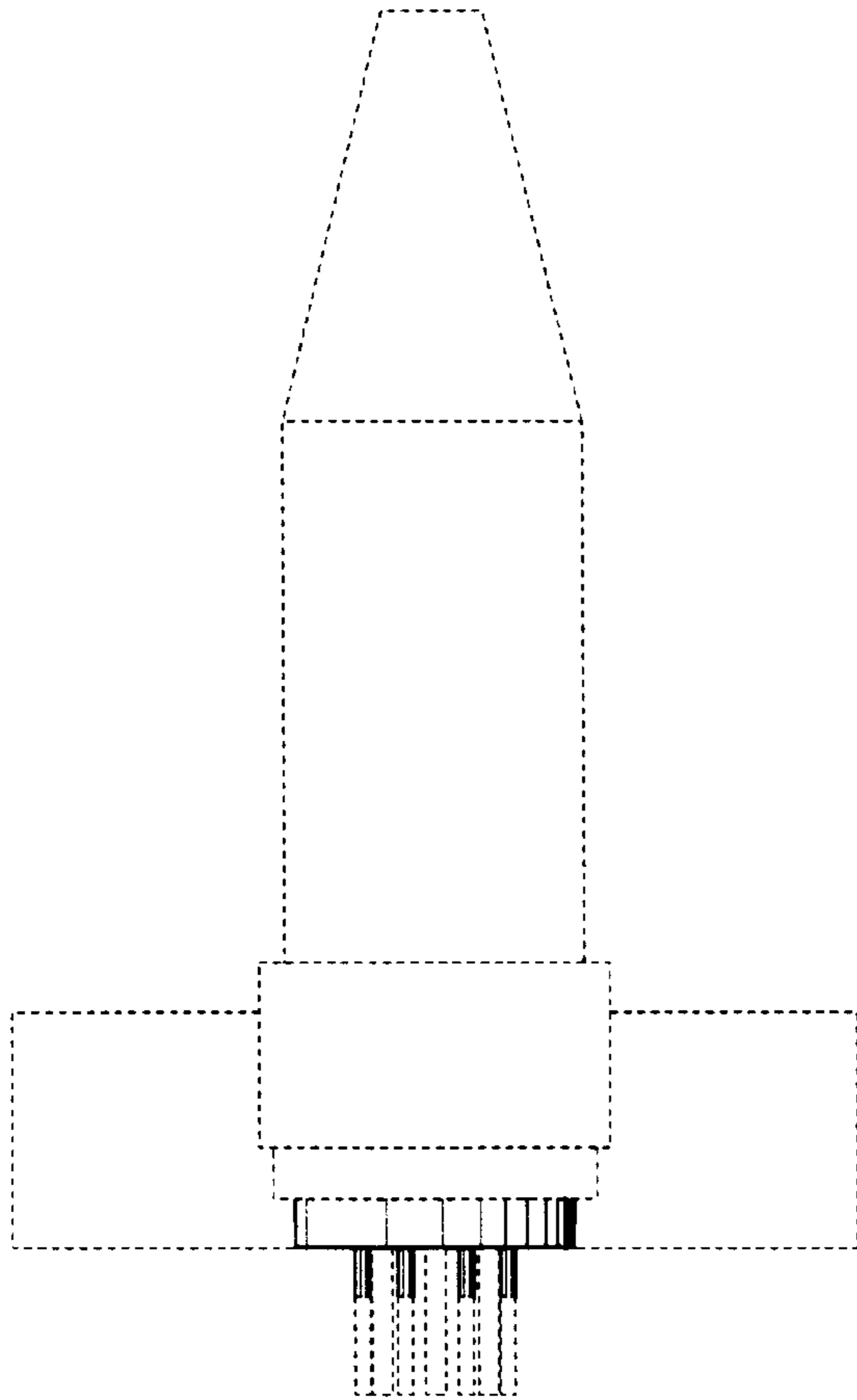


FIG.5

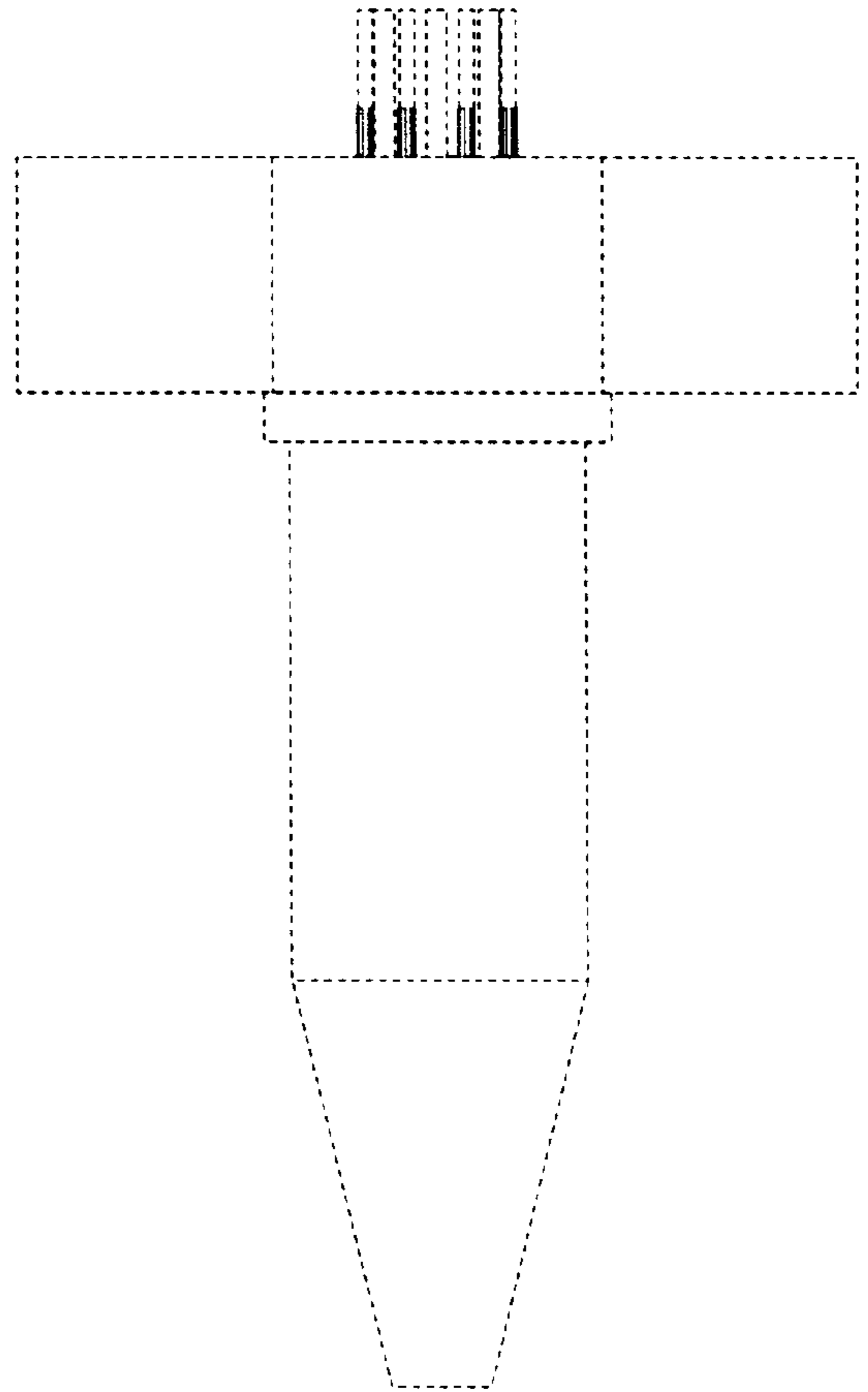


FIG.6



FIG. 7

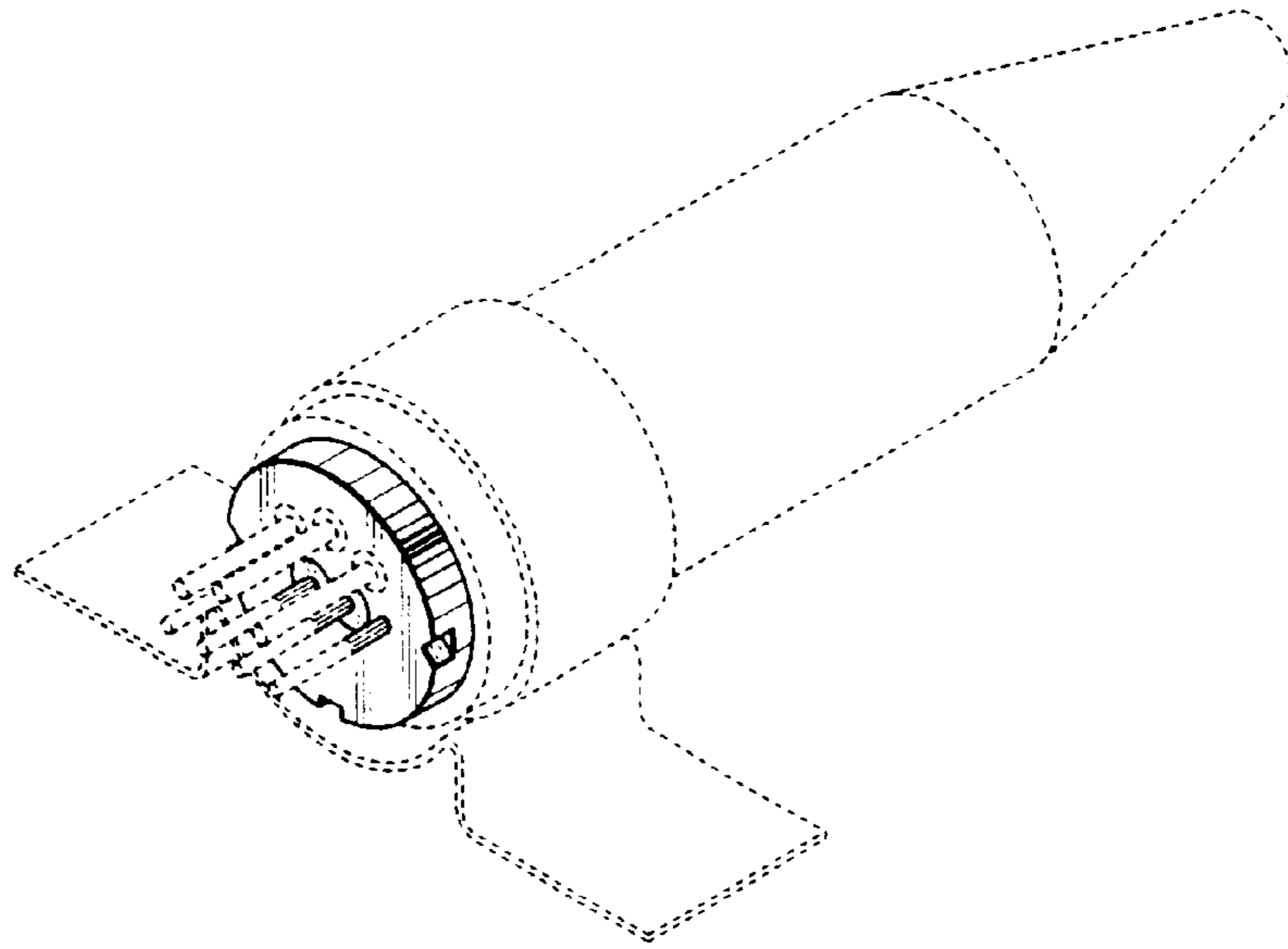


FIG. 8

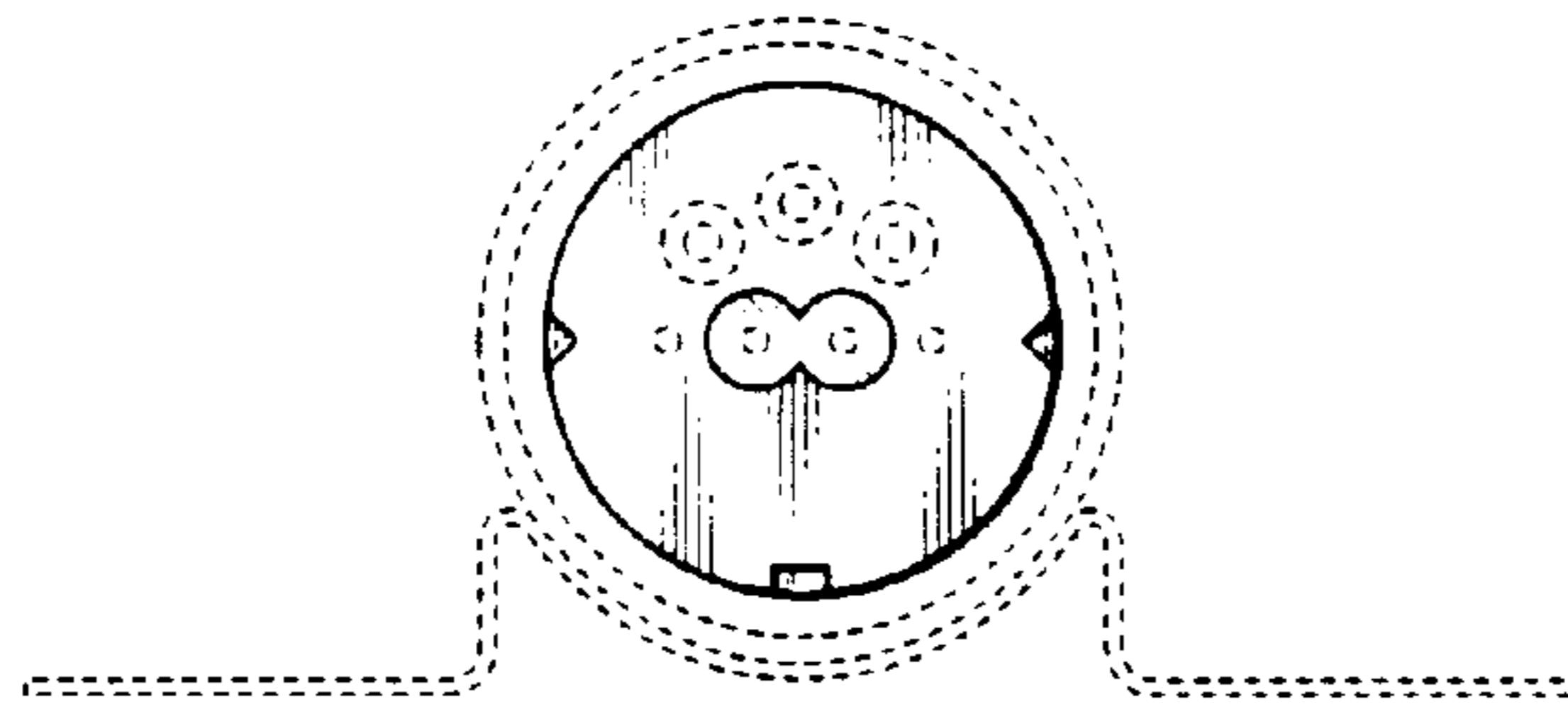


FIG. 9

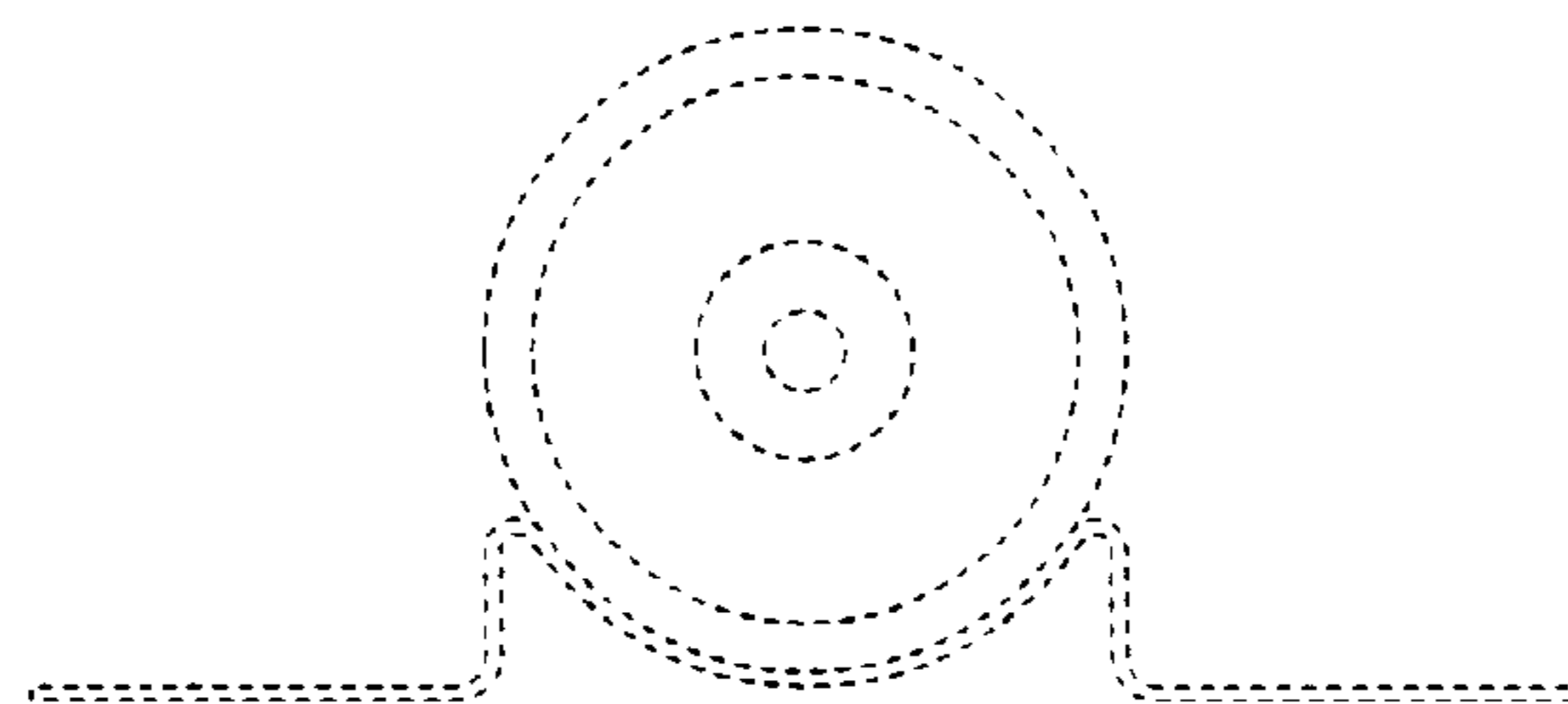


FIG. 10

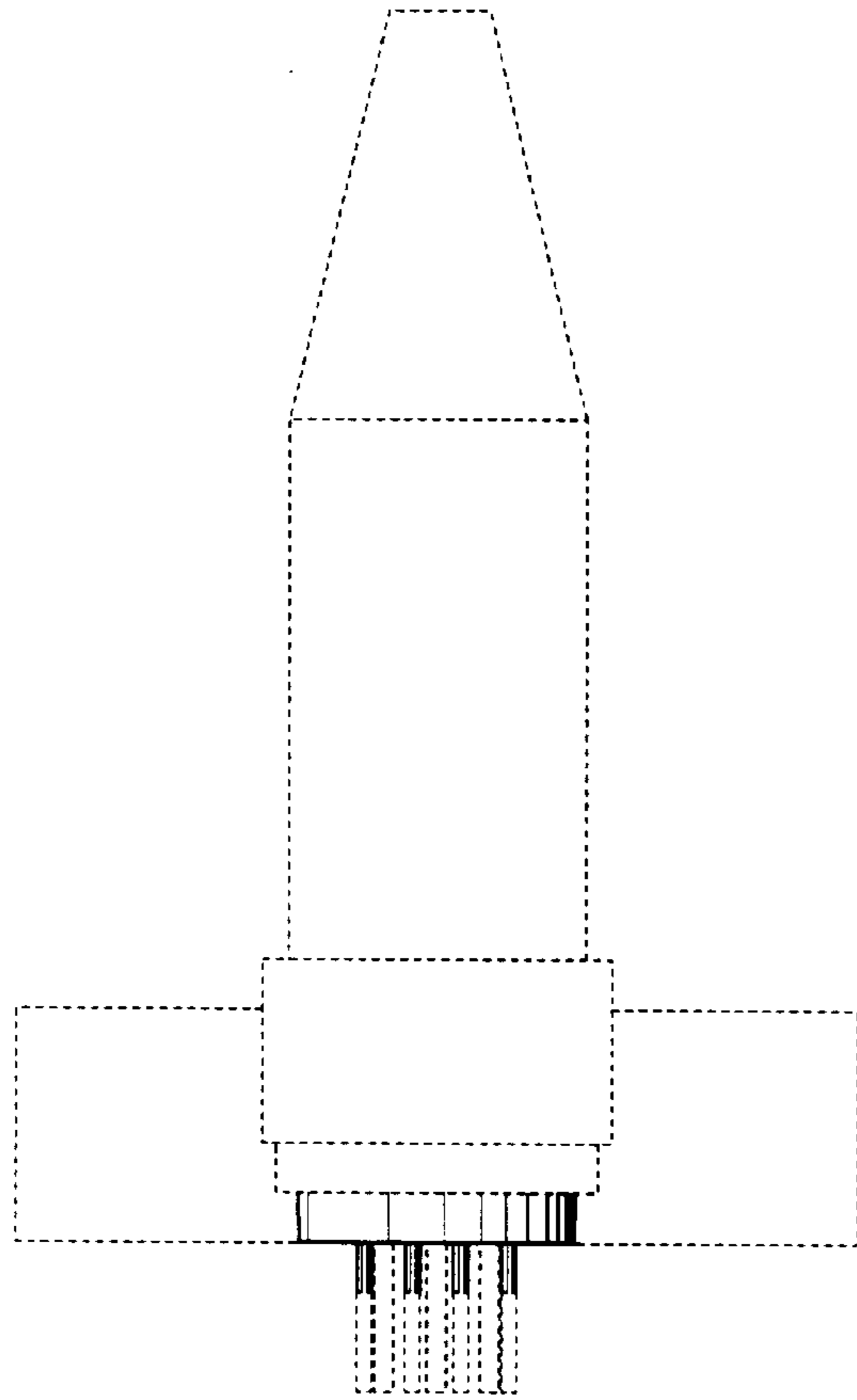


FIG. 11

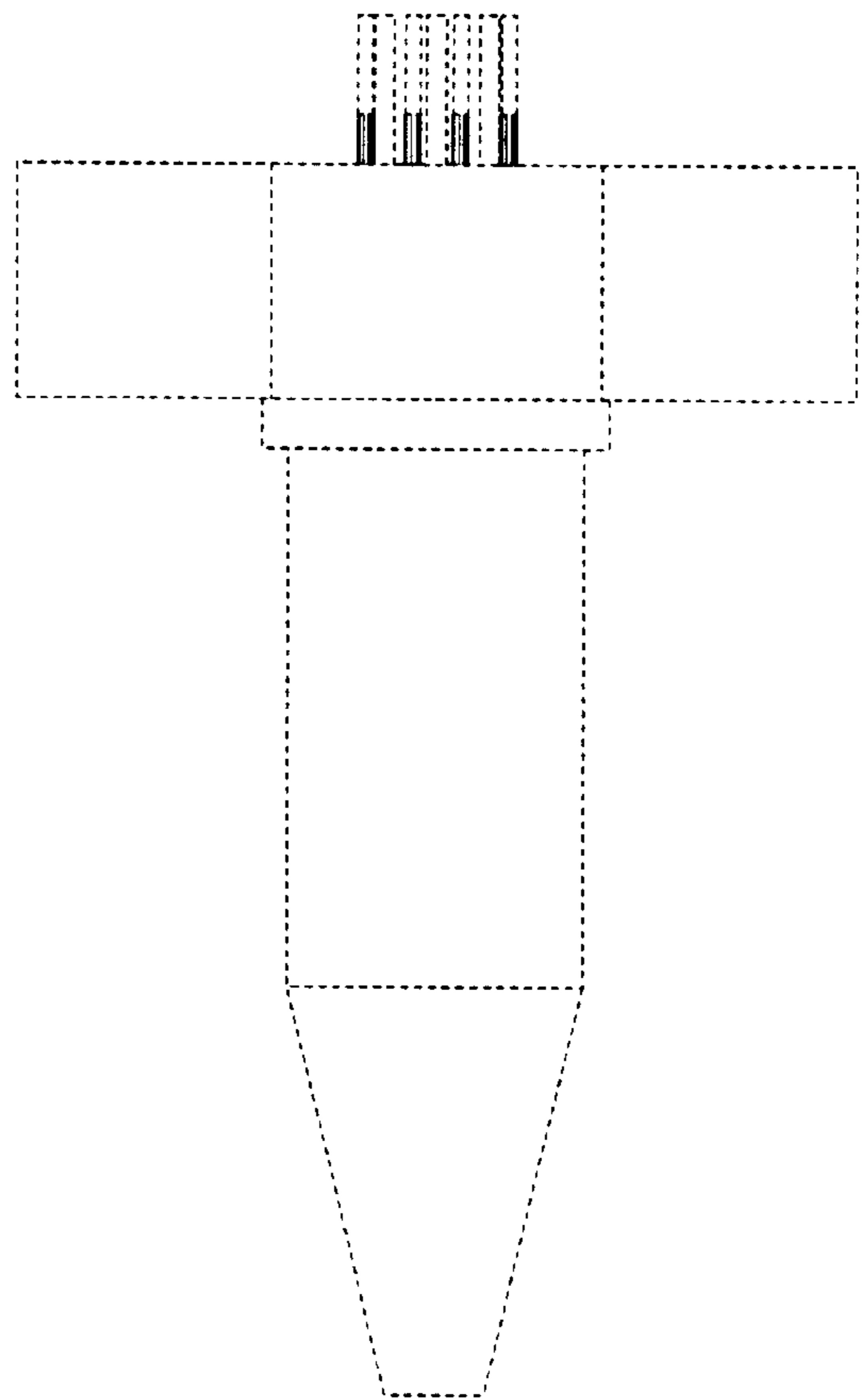


FIG. 12

