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(12) **United States Design Patent**
Kamada

(10) **Patent No.:** **US D488,137 S**

(45) **Date of Patent:** **** Apr. 6, 2004**

(54) **LIGHT EMITTING DIODE**

6,608,334 B1 * 8/2003 Ishinaga 257/100

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(JP)

(73) Assignee: **Nichia Corporation**, Anan (JP)

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

(21) Appl. No.: **29/181,411**

(22) Filed: **May 12, 2003**

Related U.S. Application Data

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(30) **Foreign Application Priority Data**

Jan. 30, 2002	(JP)	2002-001974
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Jan. 30, 2002	(JP)	2002-001973

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

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

(58) **Field of Search** D13/182; D10/104,
D10/106; D26/37; 257/88, 89, 93-96, 98,
99; 313/161, 499, 500; 345/39, 46, 82,
84; 361/800, 820; 362/183, 249, 800; 372/45

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,127,792	A	11/1978	Nakata	
5,226,053	A	7/1993	Cho et al.	
RE36,614	E	3/2000	Lumbard et al.	
D432,095	S	10/2000	Seeger et al.	
6,174,070	B1	1/2001	Takamura et al.	
D437,798	S	2/2001	Kiba et al.	
D439,351	S	3/2001	Kiba et al.	
6,376,902	B1 *	4/2002	Arndt 257/678
6,386,733	B1	5/2002	Ohkohdo et al.	
6,450,663	B1	9/2002	Reinbach	
6,582,100	B1 *	6/2003	Hochstein et al. 362/294
D477,580	S *	7/2003	Kamada D13/182
6,593,598	B2 *	7/2003	Ishinaga 257/98

FOREIGN PATENT DOCUMENTS

JP	D1046442	S	8/1999
JP	D1046564	S	8/1999
JP	D1046565	S	8/1999
JP	D1095961	S	1/2001

* cited by examiner

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(57) **CLAIM**

I claim the ornamental design for the light emitting diode, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a light emitting diode having a light emitting diode chip according to the first embodiment of my new design;

FIG. 2 is a plan view of the light emitting diode having a light emitting diode chip according to the embodiment of FIG. 1;

FIG. 3 is a left view of the light emitting diode according to the embodiment of FIG. 1;

FIG. 4 is a front elevational view of the light emitting diode according to the embodiment of FIG. 1;

FIG. 5 is a right view of the light emitting diode according to the embodiment of FIG. 1;

FIG. 6 is a bottom plan view of the light emitting diode according to the embodiment of FIG. 1;

FIG. 7 is a rear view of the light emitting diode according to the embodiment of FIG. 1;

FIG. 8 is a perspective view of a light emitting diode according to the second embodiment of my new design;

FIG. 9 is a plan view of the light emitting diode according to the embodiment of FIG. 8; and

FIG. 10 is a left view of the light emitting diode according to the embodiment of FIG. 8;

FIG. 11 is a front elevational view of the light emitting diode according to the embodiment of FIG. 8;

FIG. 12 is a right view of the light emitting diode according to the embodiment of FIG. 8;

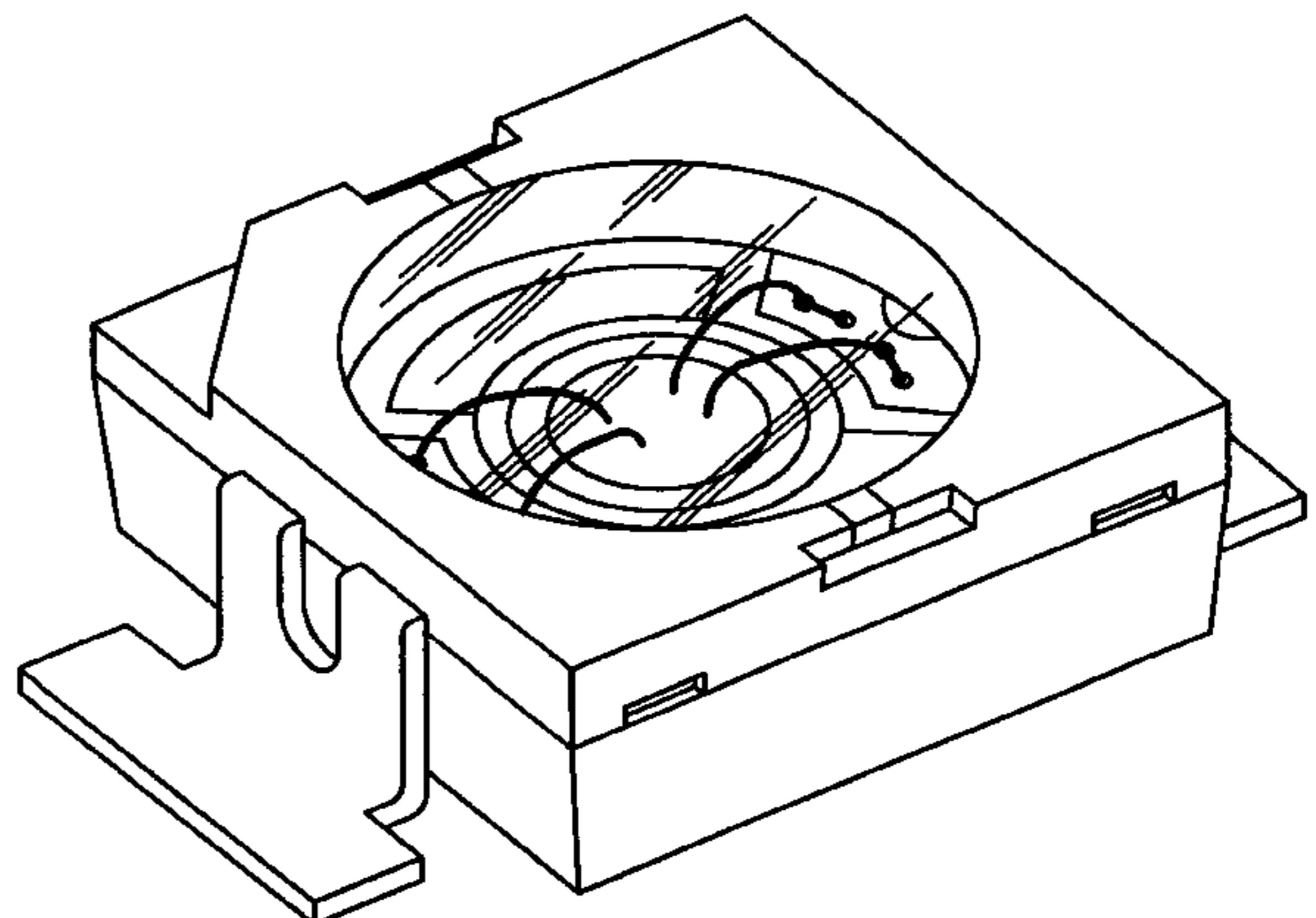
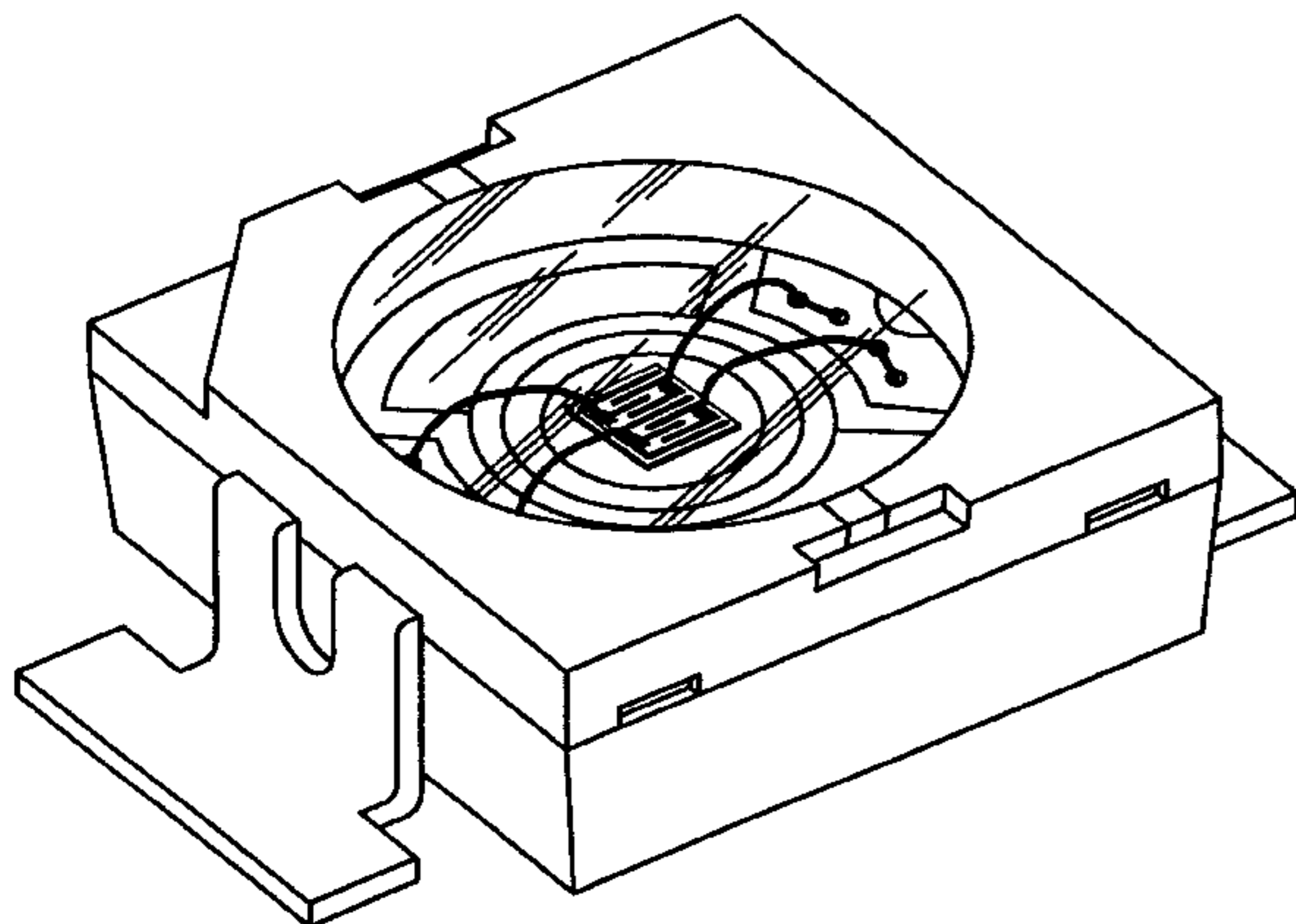


FIG. **13** is a bottom plan view of the light emitting diode according to the embodiment of FIG. **8**; and, FIG. **14** is a rear view of the light emitting diode according to the embodiment of FIG. **8**.

1 Claim, 4 Drawing Sheets

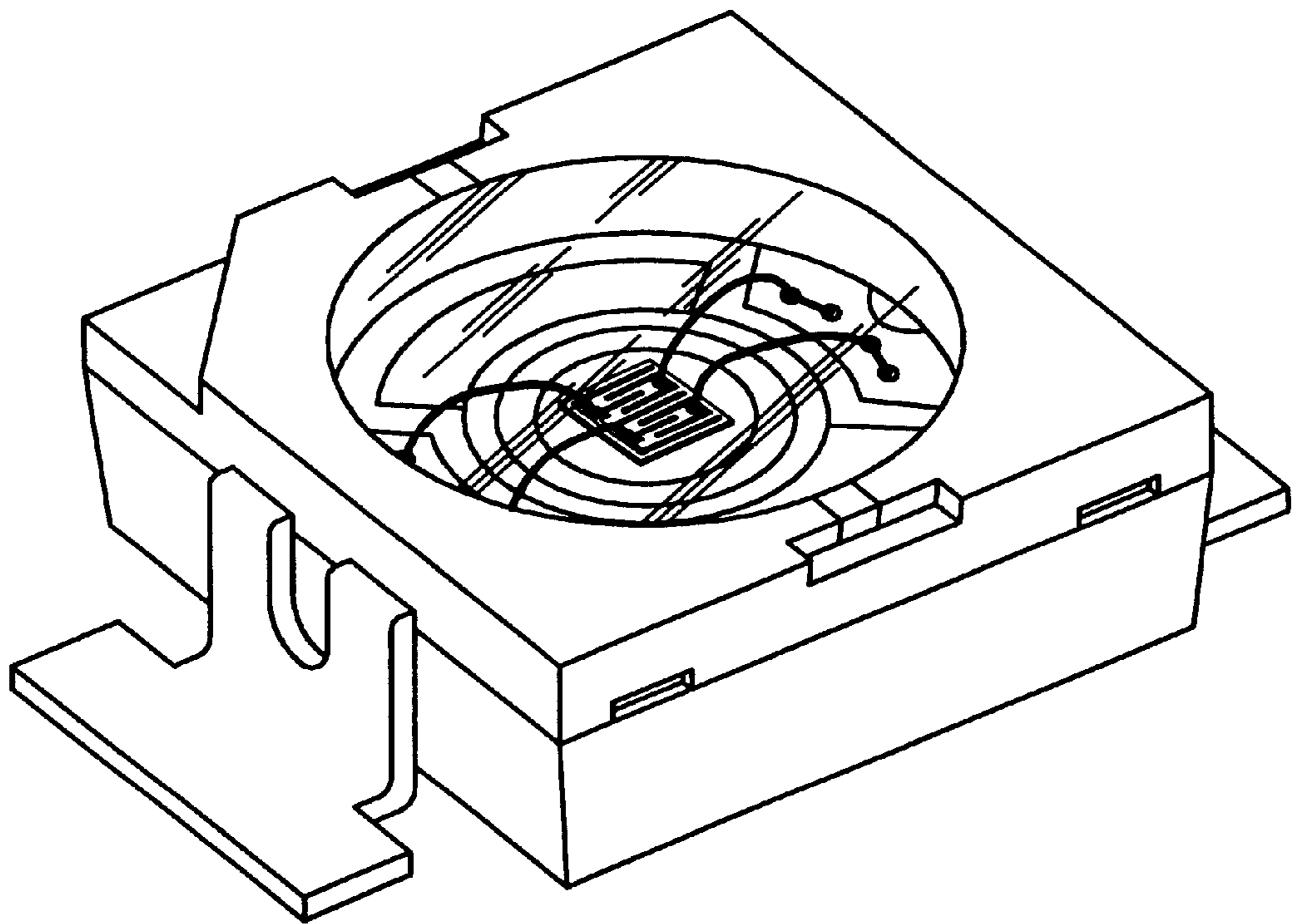


FIG. 1

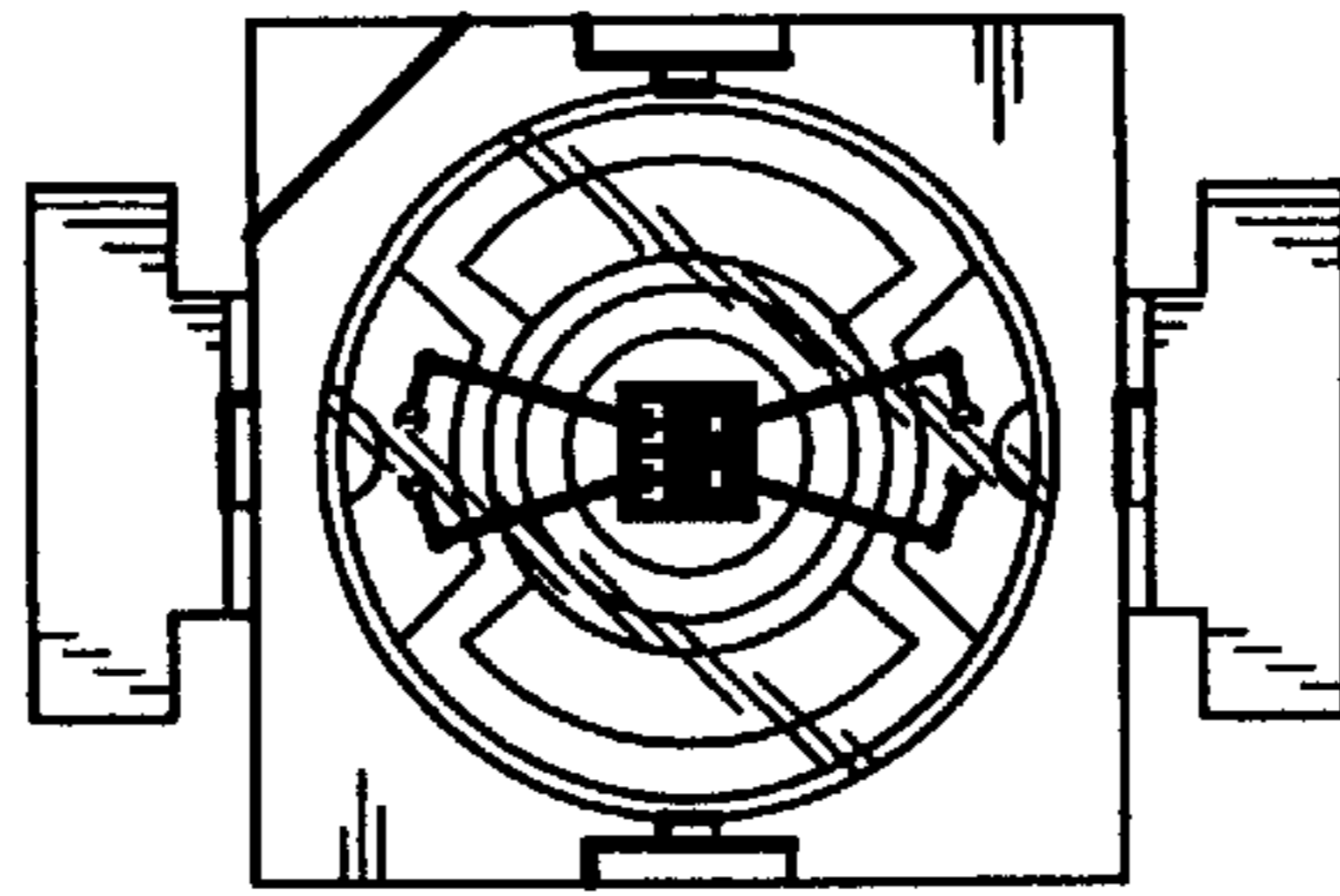


FIG. 2

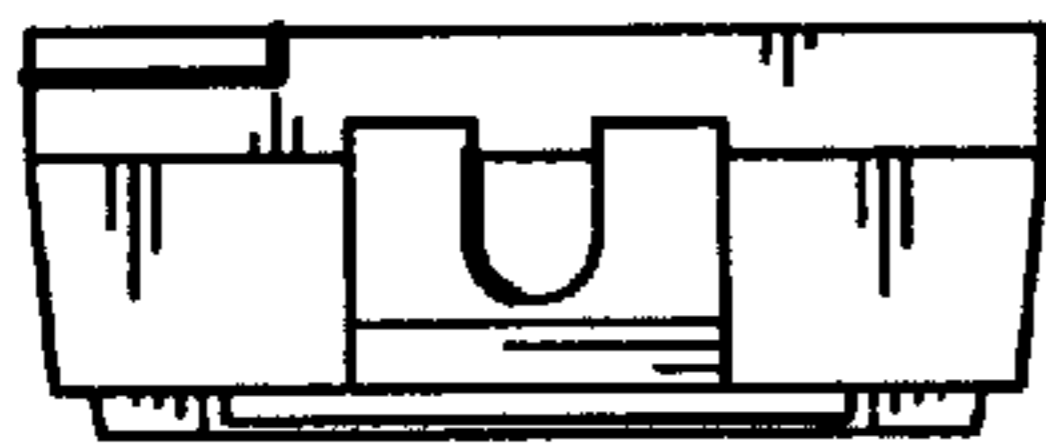


FIG. 3

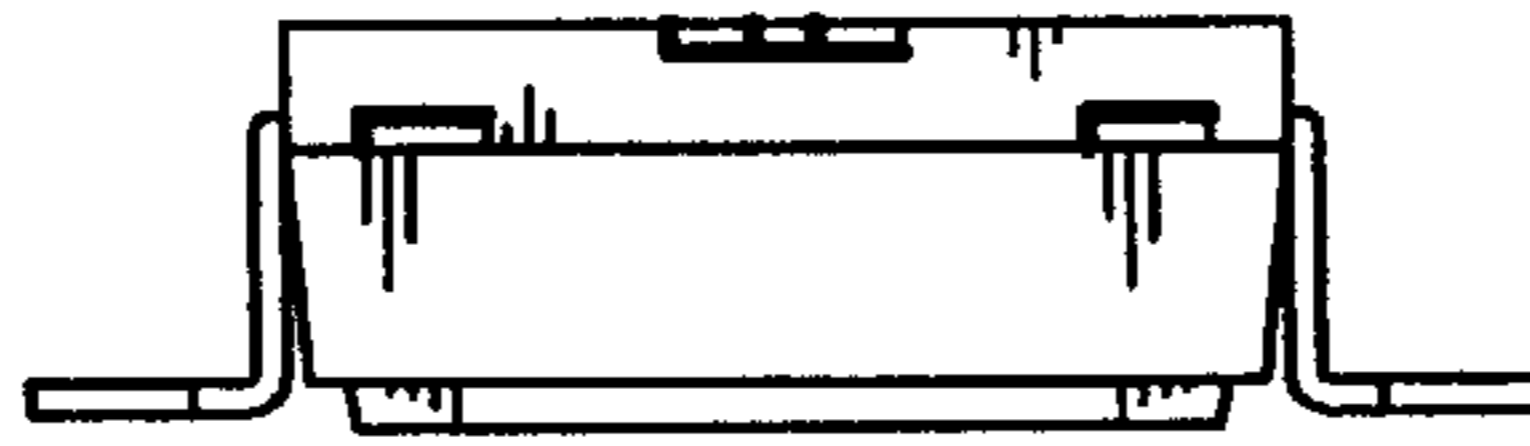


FIG. 4

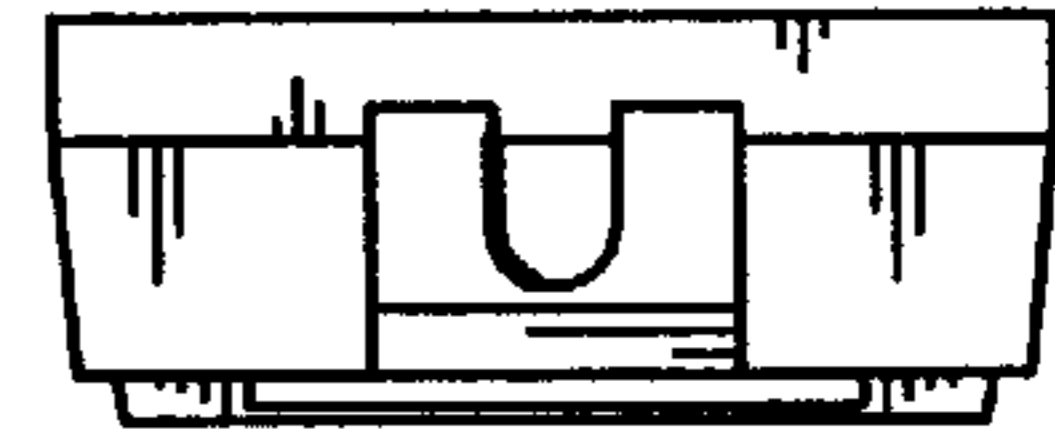


FIG. 5

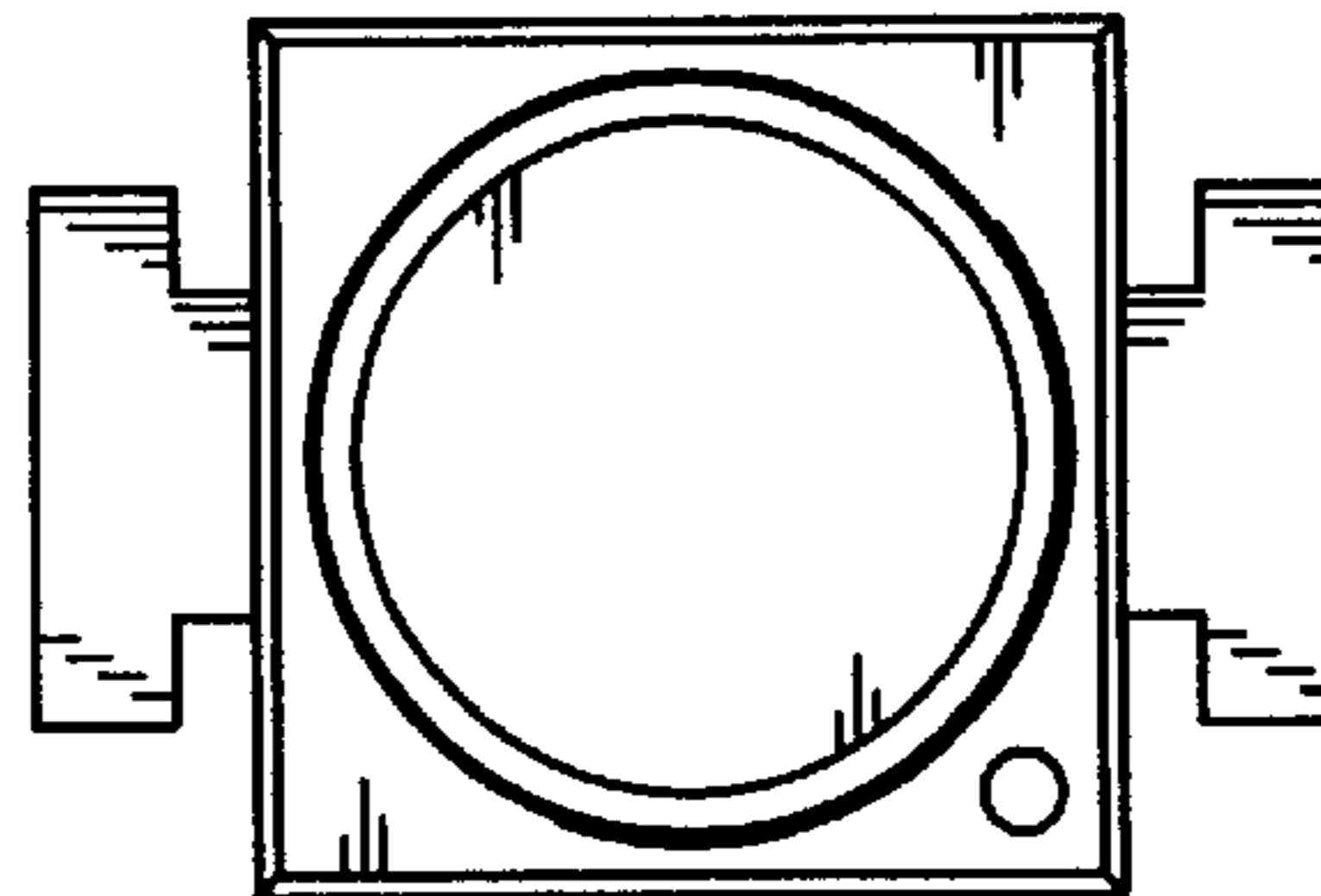


FIG. 6

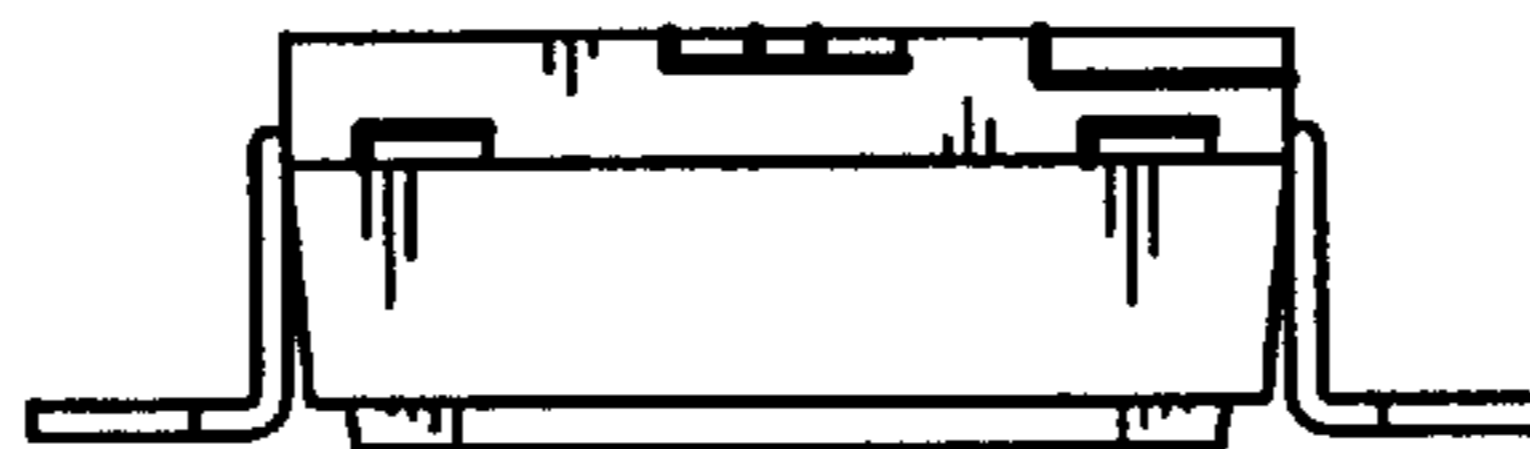


FIG. 7

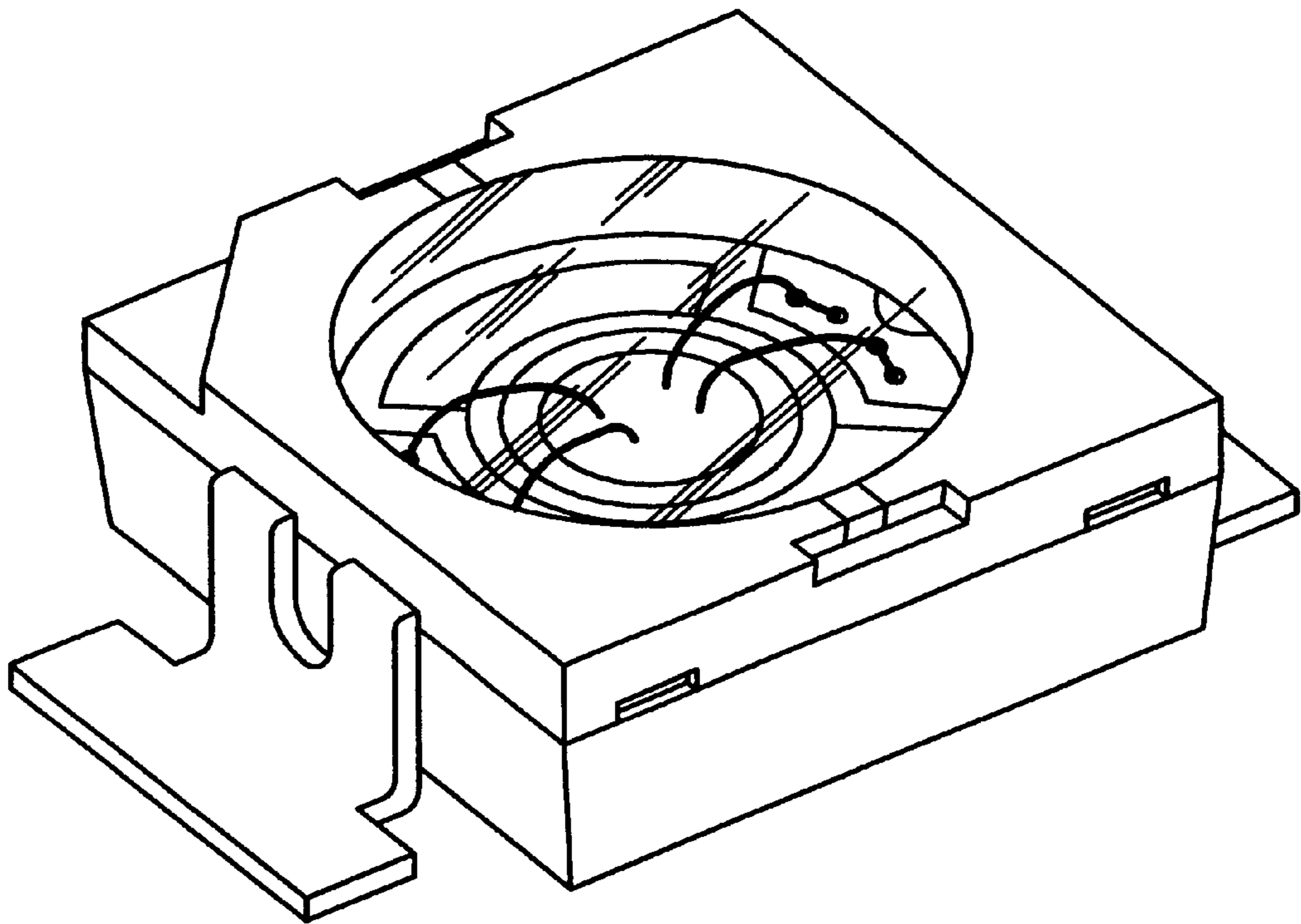


FIG. 8

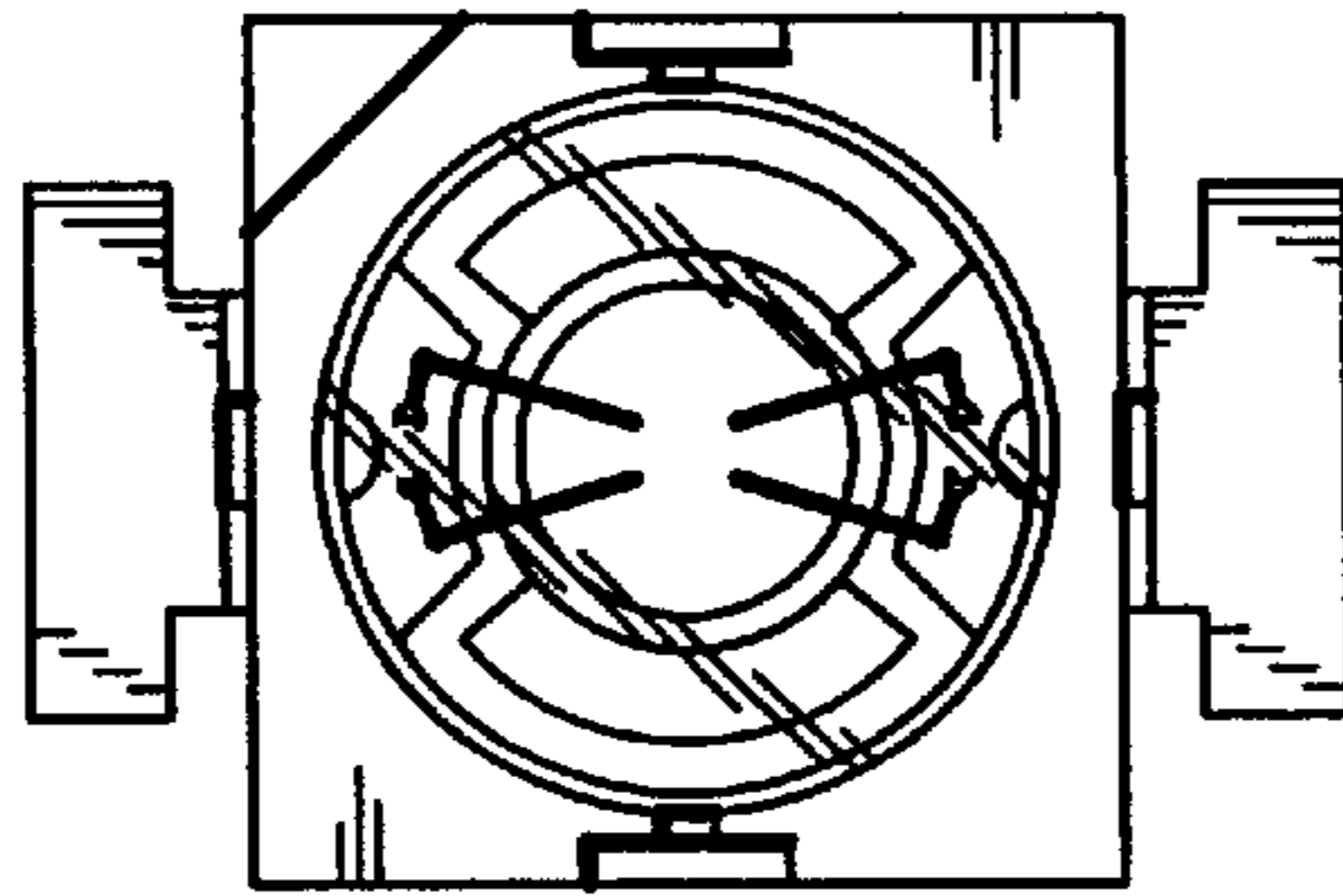


FIG. 9

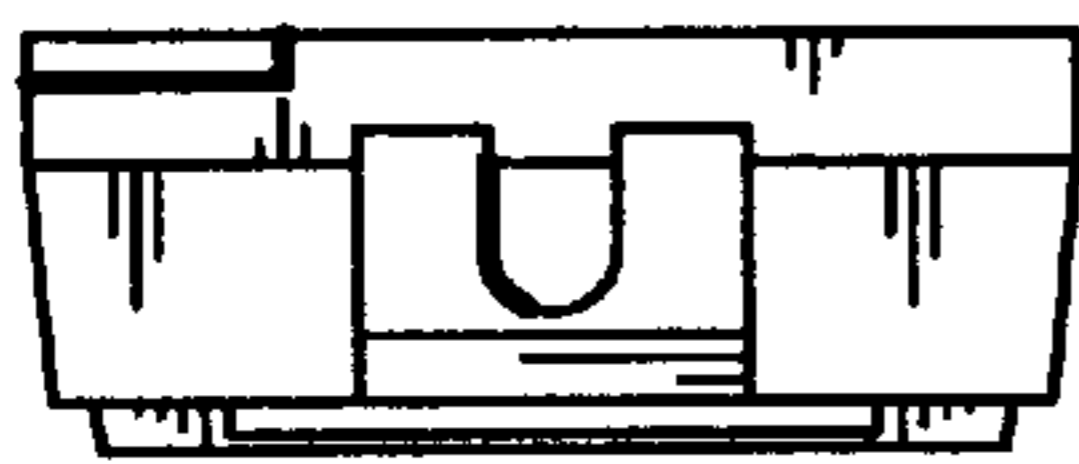


FIG. 10

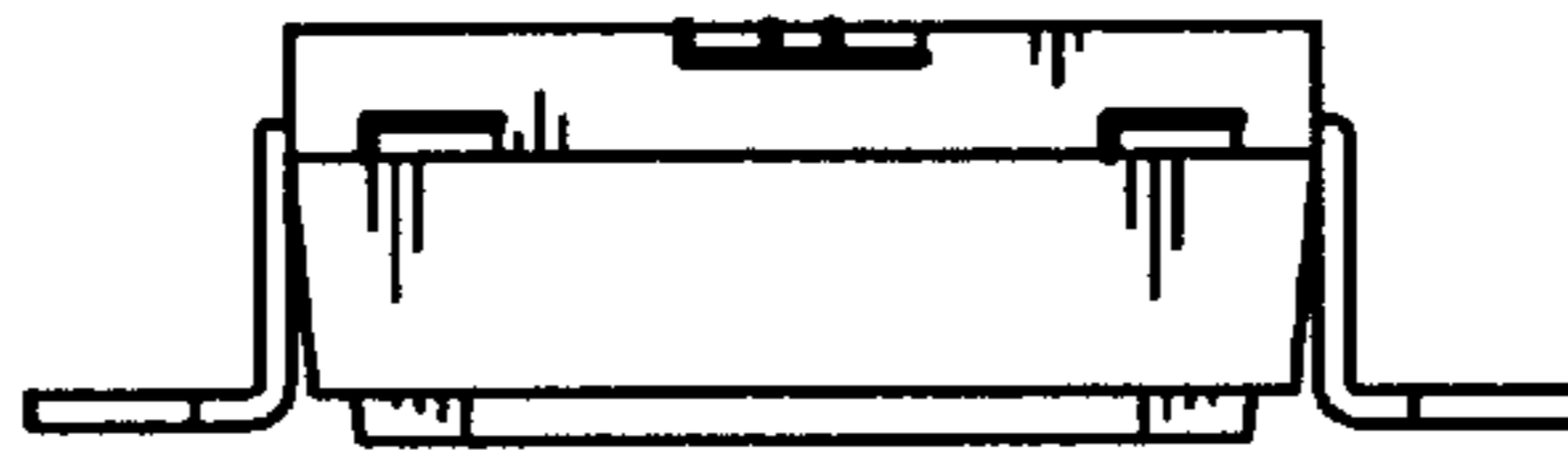


FIG. 11

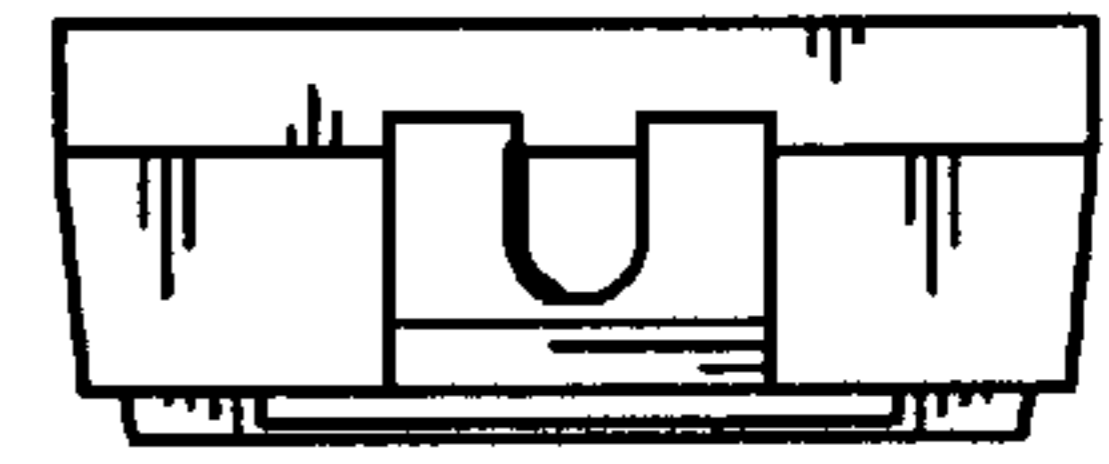


FIG. 12

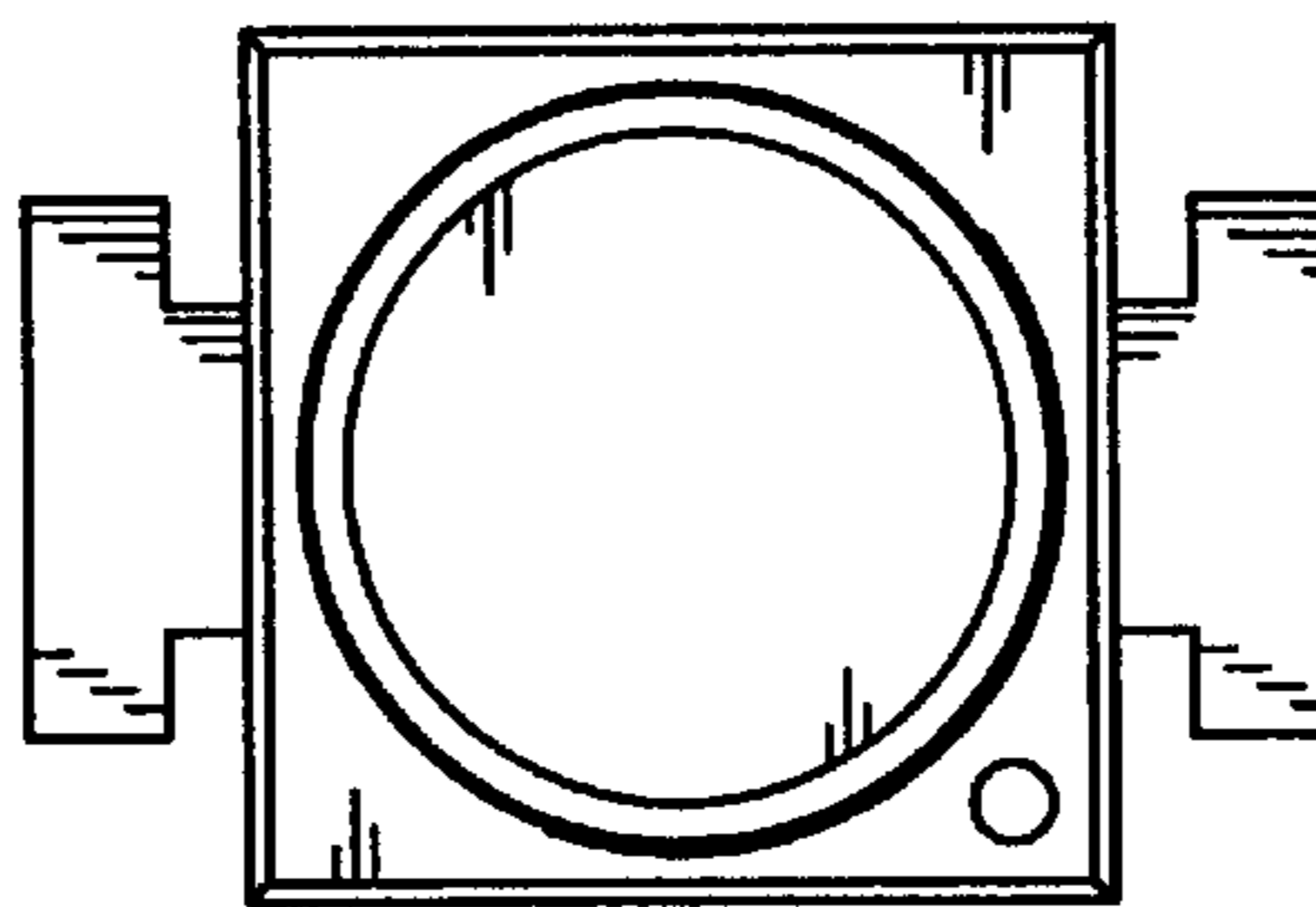


FIG. 13

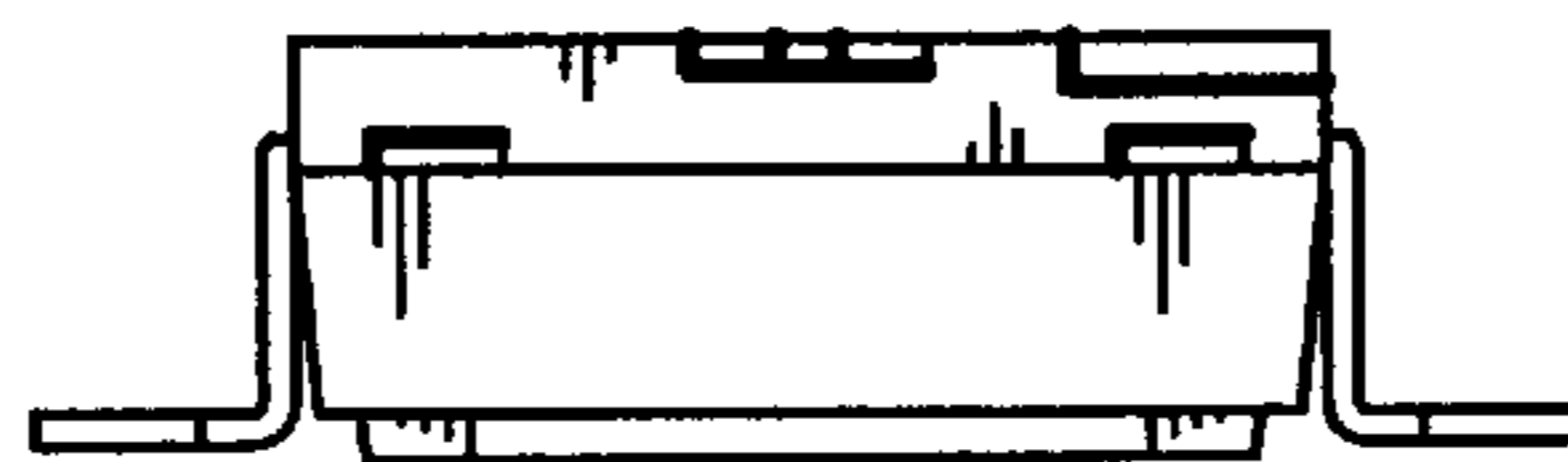


FIG. 14