

#### US00D572209S

# (12) United States Design Patent

### Tokuda

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# (45) **Date of Patent:**

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#### (54) LIGHT EMITTING DIODE

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(73) Assignee: Nichia Corporation, Anan-shi (JP)

(\*\*) Term: 14 Years

(21) Appl. No.: 29/271,695

(22) Filed: Jan. 25, 2007

# Primary Examiner—Selina Sikder

(74) Attorney, Agent, or Firm—Global IP Counselors, LLP

## (57) CLAIM

The ornamental design for a light emitting diode, as shown and described.

#### **DESCRIPTION**

# FIG. 1 is a front top side perspective view of a light emitting diode in accordance with a first embodiment of my new design;

- FIG. 2 is a front elevational view of the light emitting diode in accordance with the first embodiment of my new design;
- FIG. 3 is a rear elevational view of the light emitting diode in accordance with the first embodiment of my new design;
- FIG. 4 is a right side end elevational view of the light emitting diode in accordance with the first embodiment of my new design;
- FIG. 5 is a left side end elevational view of the light emitting diode in accordance with the first embodiment of my new design;
- FIG. 6 is a top plan view of the light emitting diode in accordance with the first embodiment of my new design;
- FIG. 7 is a bottom plan view of the light emitting diode in accordance with the first embodiment of my new design;
- FIG. 8 is a vertical cross sectional view of the light emitting diode in accordance with the first embodiment of my new design taken along line 8—8 in FIG. 6;
- FIG. 9 is a front top side perspective view of a light emitting diode in accordance with a second embodiment of my new design;
- FIG. 10 is a front elevational view of the light emitting diode in accordance with the second embodiment of my new design;
- FIG. 11 is a rear elevational view of the light emitting diode in accordance with the second embodiment of my new design;

# (30) Foreign Application Priority Data

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Aug	g. 4, 2006	(JP)	2006-020777
Aug	g. 4, 2006	(JP)	
(51)	LOC (8) C	ʻl <b>.</b>	
(52)	<b>U.S.</b> Cl		D13/180
(58)			tion Search

D26/2; 257/79, 80, 81, 88, 89, 95, 98, 99, 257/100; 313/483, 498, 500; 362/555, 800 See application file for complete search history.

# (56) References Cited

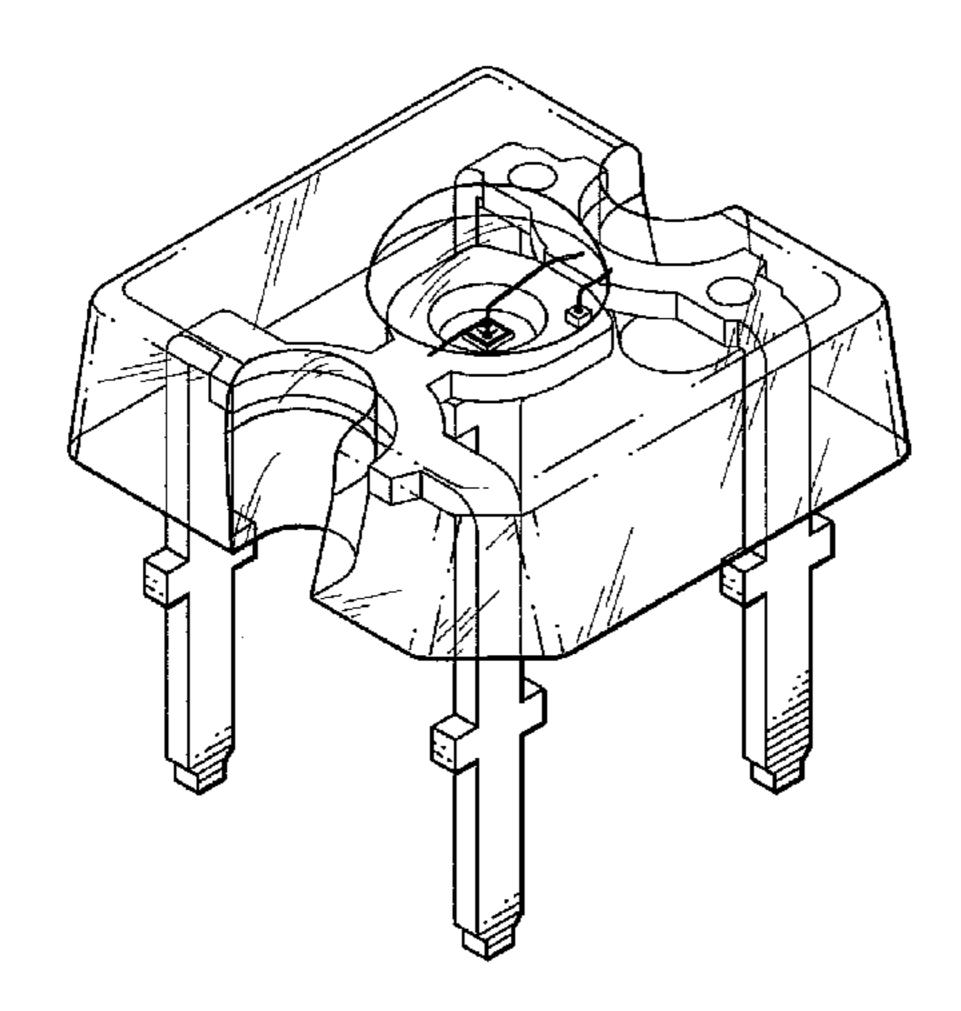
#### U.S. PATENT DOCUMENTS

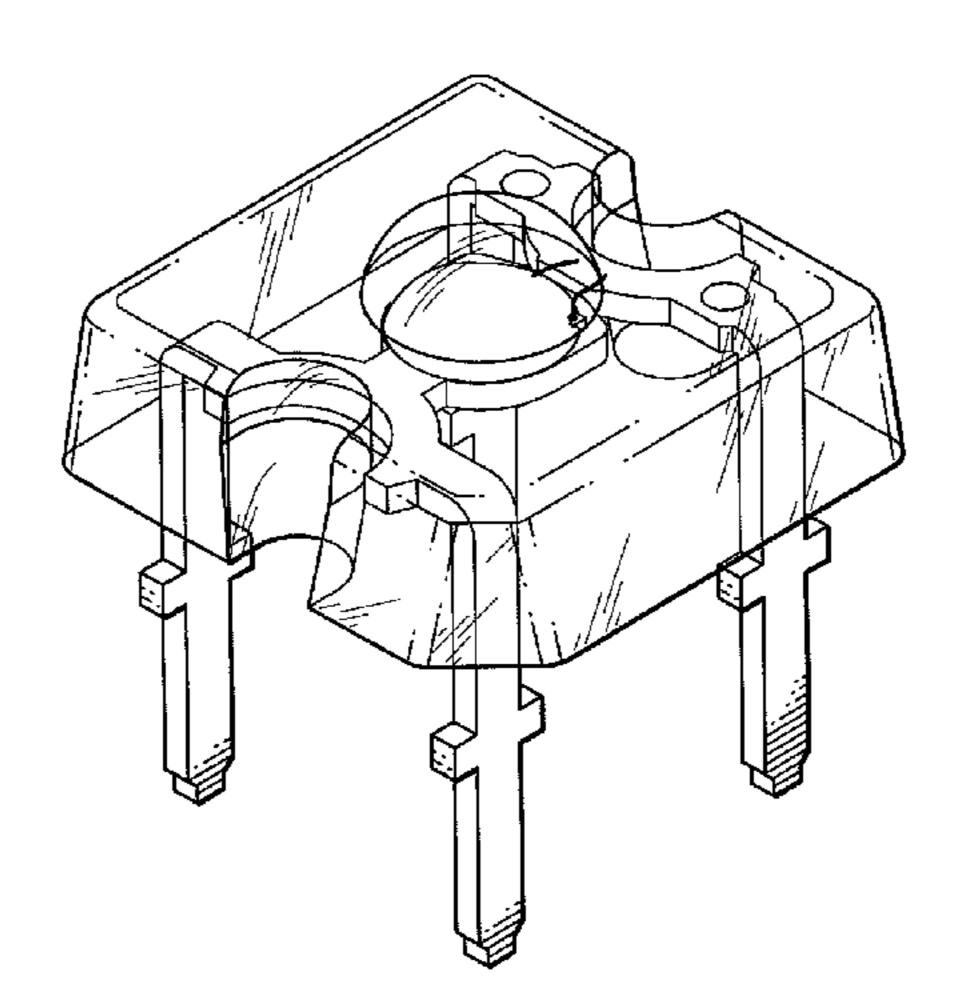
D432,095	S	10/2000	Seeger et al.
6,386,733	B1 *	5/2002	Ohkohdo et al 362/249
6,495,860	B1 *	12/2002	Yu 257/99
6,501,103	B1 *	12/2002	Jory et al
D477,580	S *	7/2003	Kamada D13/182
D488,137	S *	4/2004	Kamada D13/182
2005/0067624	A1*	3/2005	Steigerwald et al 257/79
2005/0173723	A1*	8/2005	Weng et al 257/100
2005/0269589	A1*	12/2005	Wu

#### OTHER PUBLICATIONS

High Luminous Flux LED, Product Guide (NSPBR70AS / NSPGR70AS); Sep. 2005; p. 1 (total 3 pages); Catalog No. 050907; Nichia Corporation; Japan.

<sup>\*</sup> cited by examiner

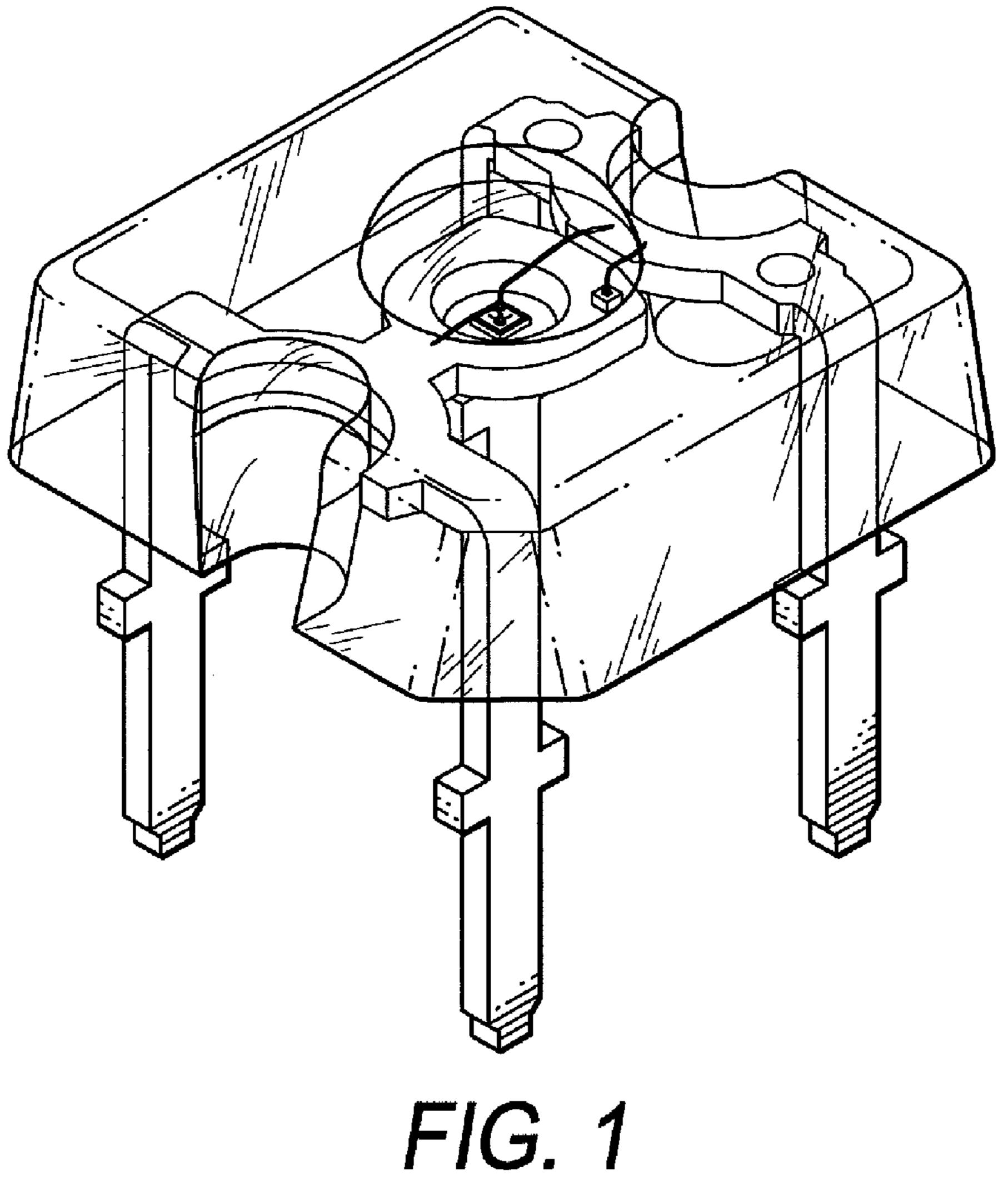


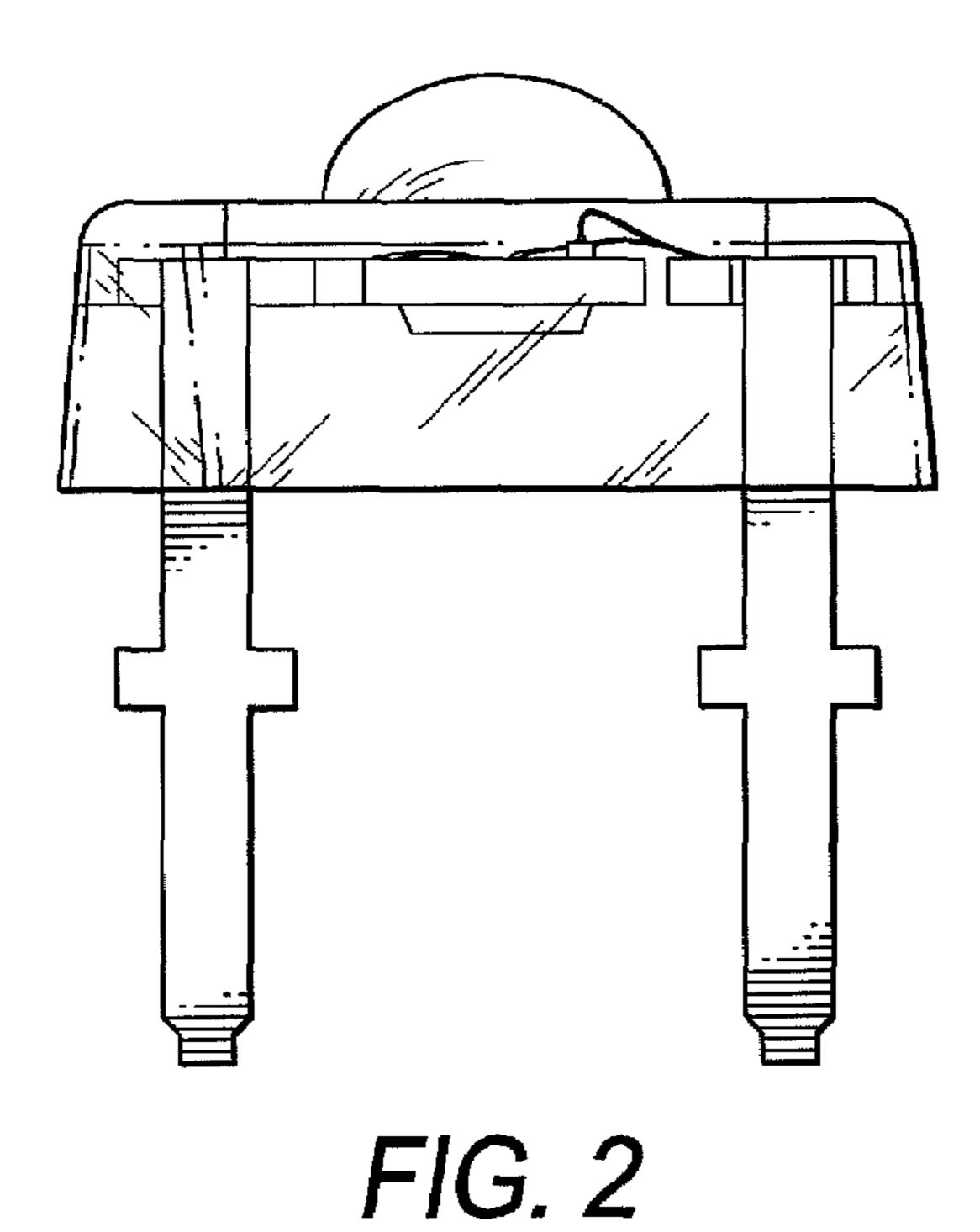


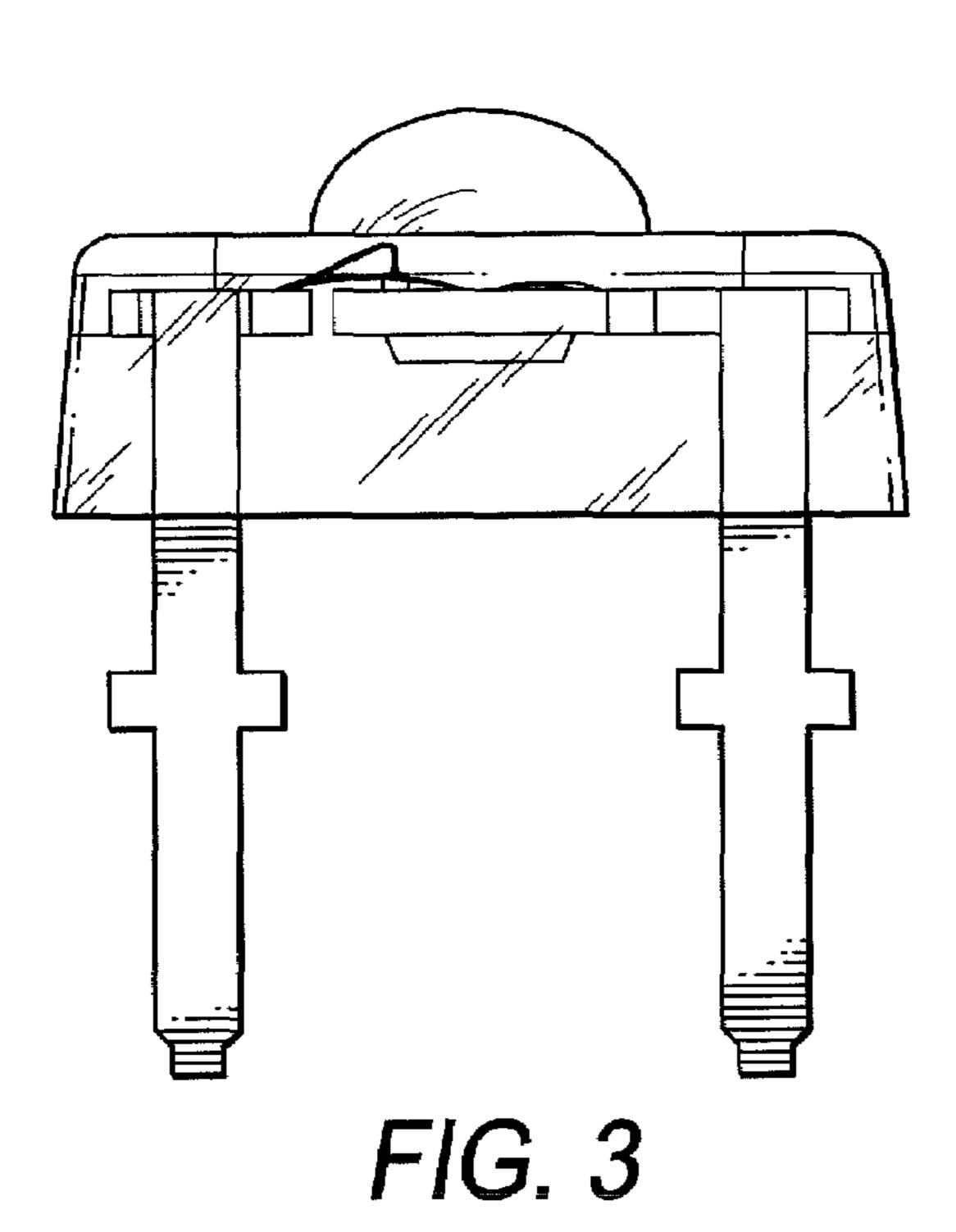
- FIG. 12 is a right side end elevational view of the light emitting diode in accordance with the second embodiment of my new design;
- FIG. 13 is a left side end elevational view of the light emitting diode in accordance with the second embodiment of my new design;
- FIG. 14 is a top plan view of the light emitting diode in accordance with the second embodiment of my new design;
- FIG. 15 is a bottom plan view of the light emitting diode in accordance with the second embodiment of my new design;
- FIG. 16 is a vertical cross sectional view of the light emitting diode in accordance with the second embodiment of my new design taken along line 16—16 in FIG. 14;
- FIG. 17 is a front top side perspective view of a light emitting diode in accordance with a third embodiment of my new design;
- FIG. 18 is a front elevational view of the light emitting diode in accordance with the third embodiment of my new design;
- FIG. 19 is a rear elevational view of the light emitting diode in accordance with the third embodiment of my new design;
- FIG. 20 is a right side end elevational view of the light emitting diode in accordance with the third embodiment of my new design;
- FIG. 21 is a left side end elevational view of the light emitting diode in accordance with the third embodiment of my new design;
- FIG. 22 is a top plan view of the light emitting diode in accordance with the third embodiment of my new design;

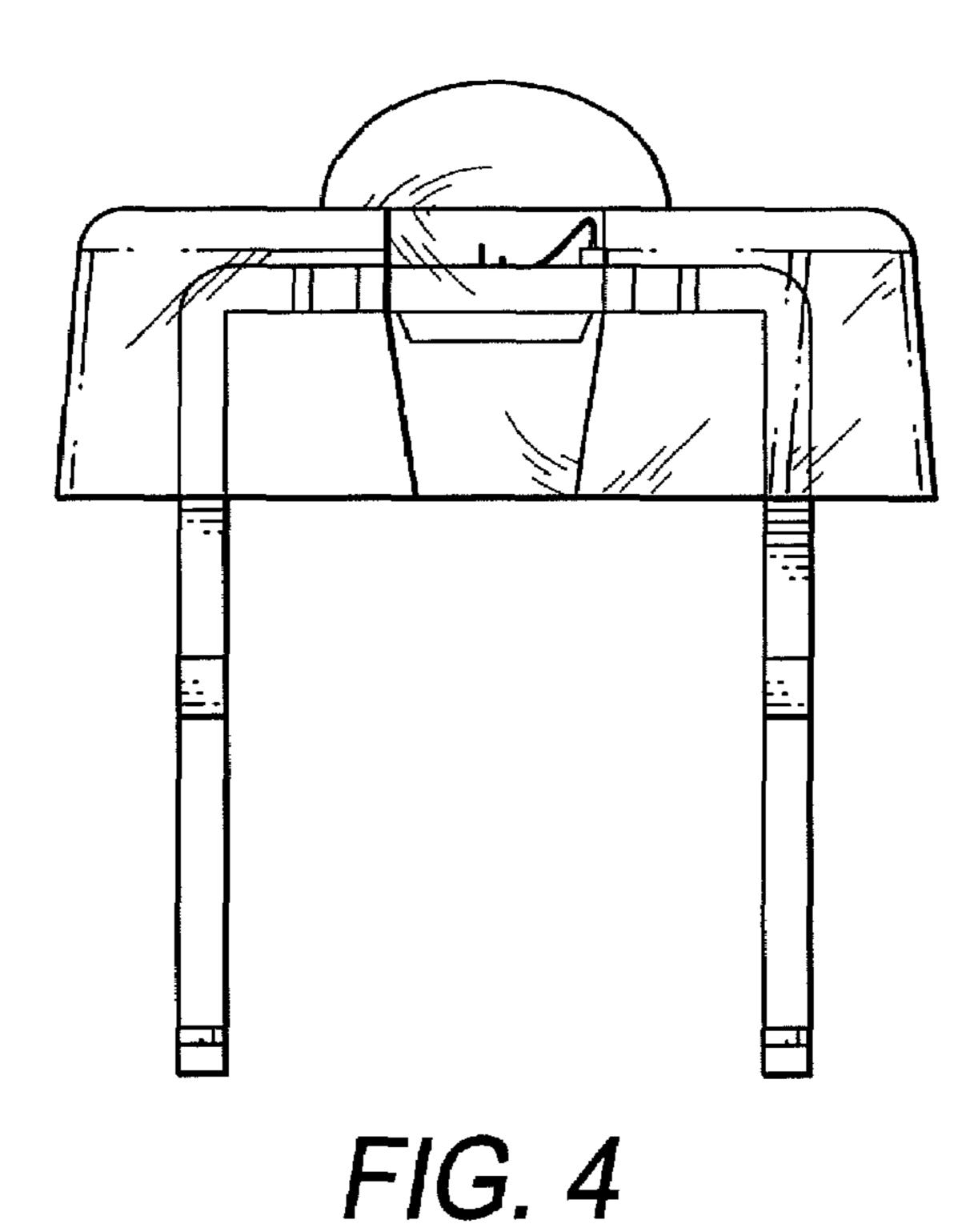
- FIG. 23 is a bottom plan view of the light emitting diode in accordance with the third embodiment of my new design;
- FIG. 24 is a vertical cross sectional view of the light emitting diode in accordance with the third embodiment of my new design taken along line 24—24 in FIG. 22;
- FIG. 25 is a front top side perspective view of a light emitting diode in accordance with a fourth embodiment of my new design;
- FIG. 26 is a front elevational view of the light emitting diode in accordance with the fourth embodiment of my new design;
- FIG. 27 is a rear elevational view of the light emitting diode in accordance with the fourth embodiment of my new design;
- FIG. 28 is a right side end elevational view of the light emitting diode in accordance with the fourth embodiment of my new design;
- FIG. 29 is a left side end elevational view of the light emitting diode in accordance with the fourth embodiment of my new design;
- FIG. 30 is a top plan view of the light emitting diode in accordance with the fourth embodiment of my new design;
- FIG. 31 is a bottom plan view of the light emitting diode in accordance with the fourth embodiment of my new design; and,
- FIG. 32 is a vertical cross sectional view of the light emitting diode in accordance with the fourth embodiment of my new design taken along line 32—32 in FIG. 30.

#### 1 Claim, 20 Drawing Sheets









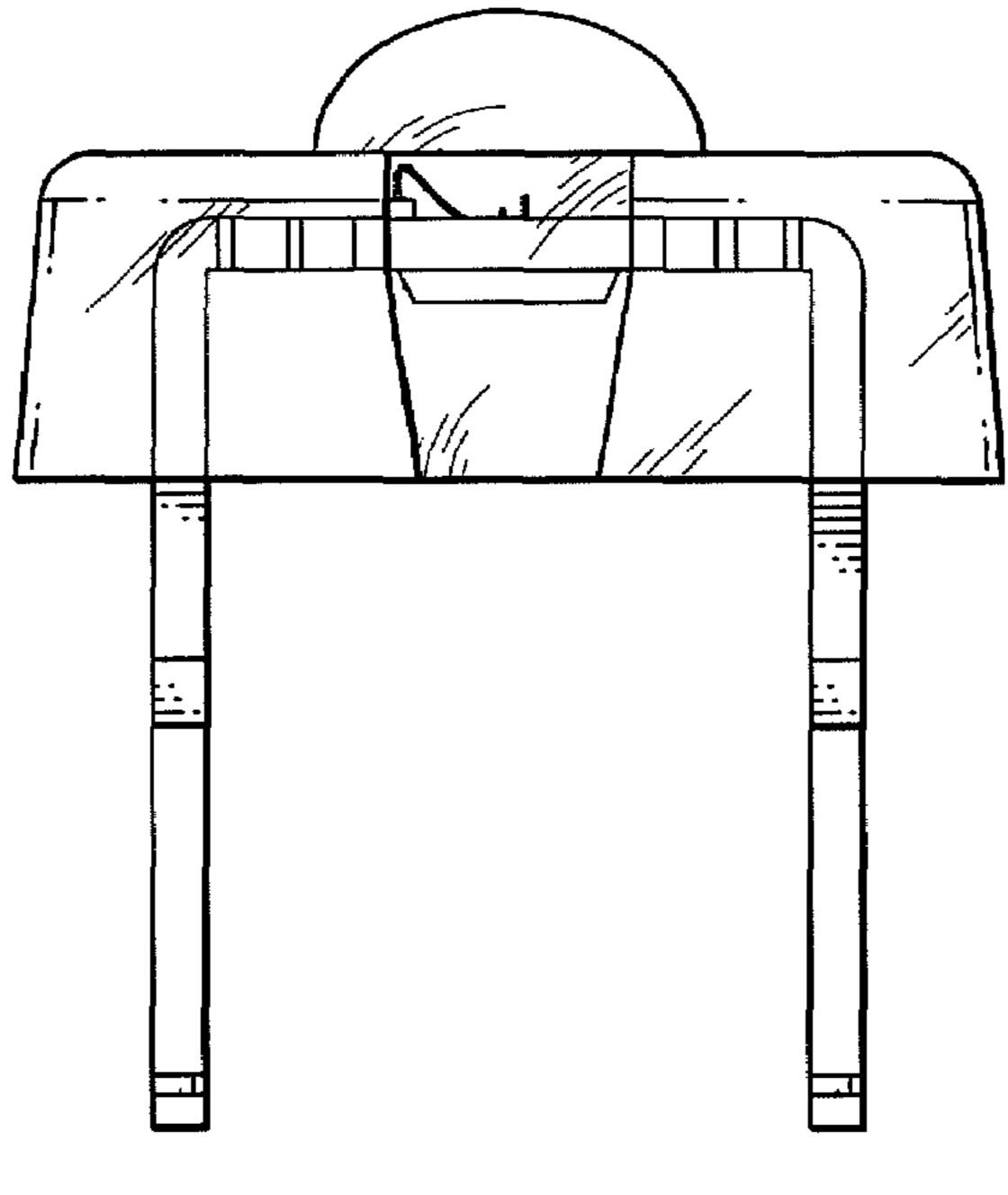
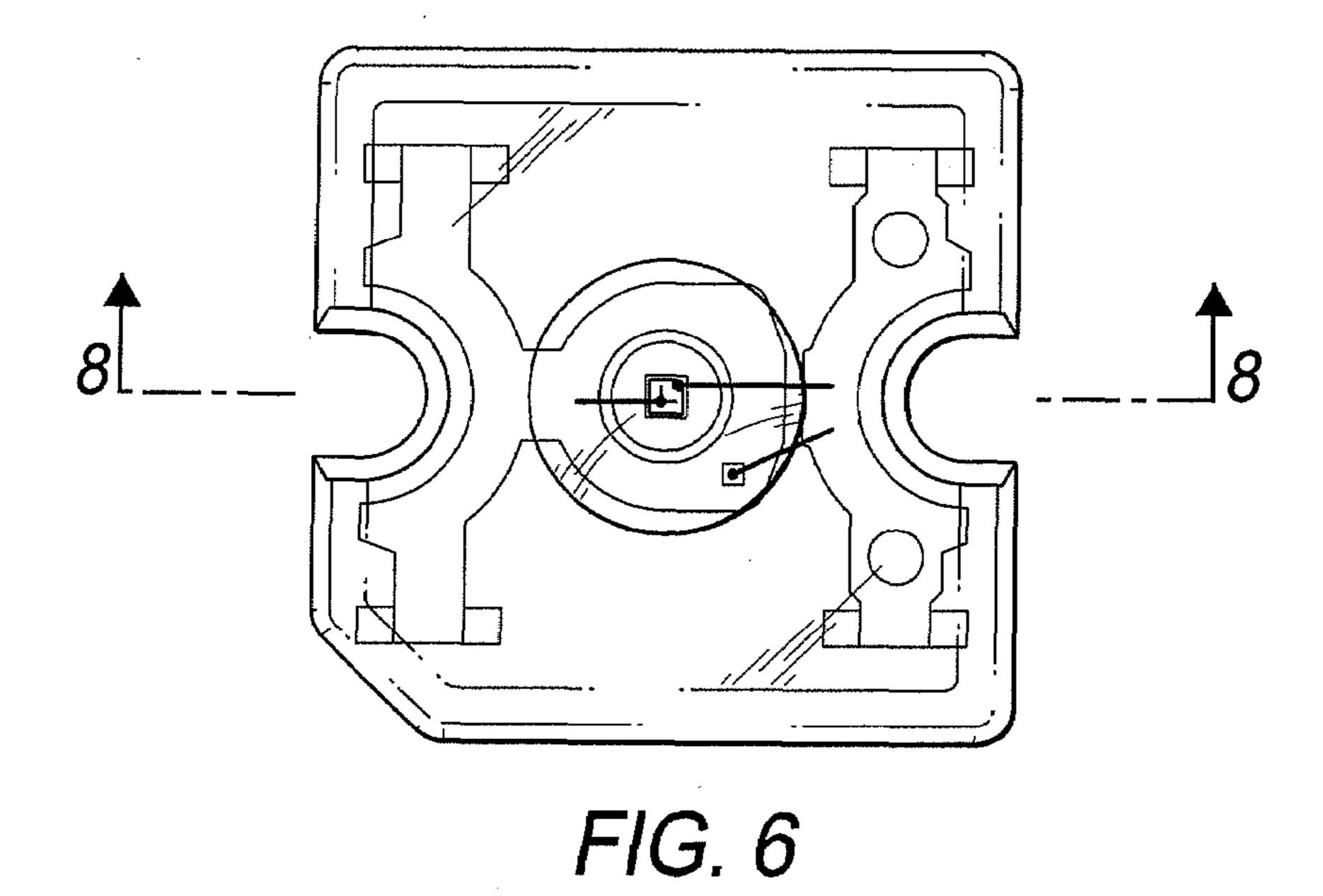
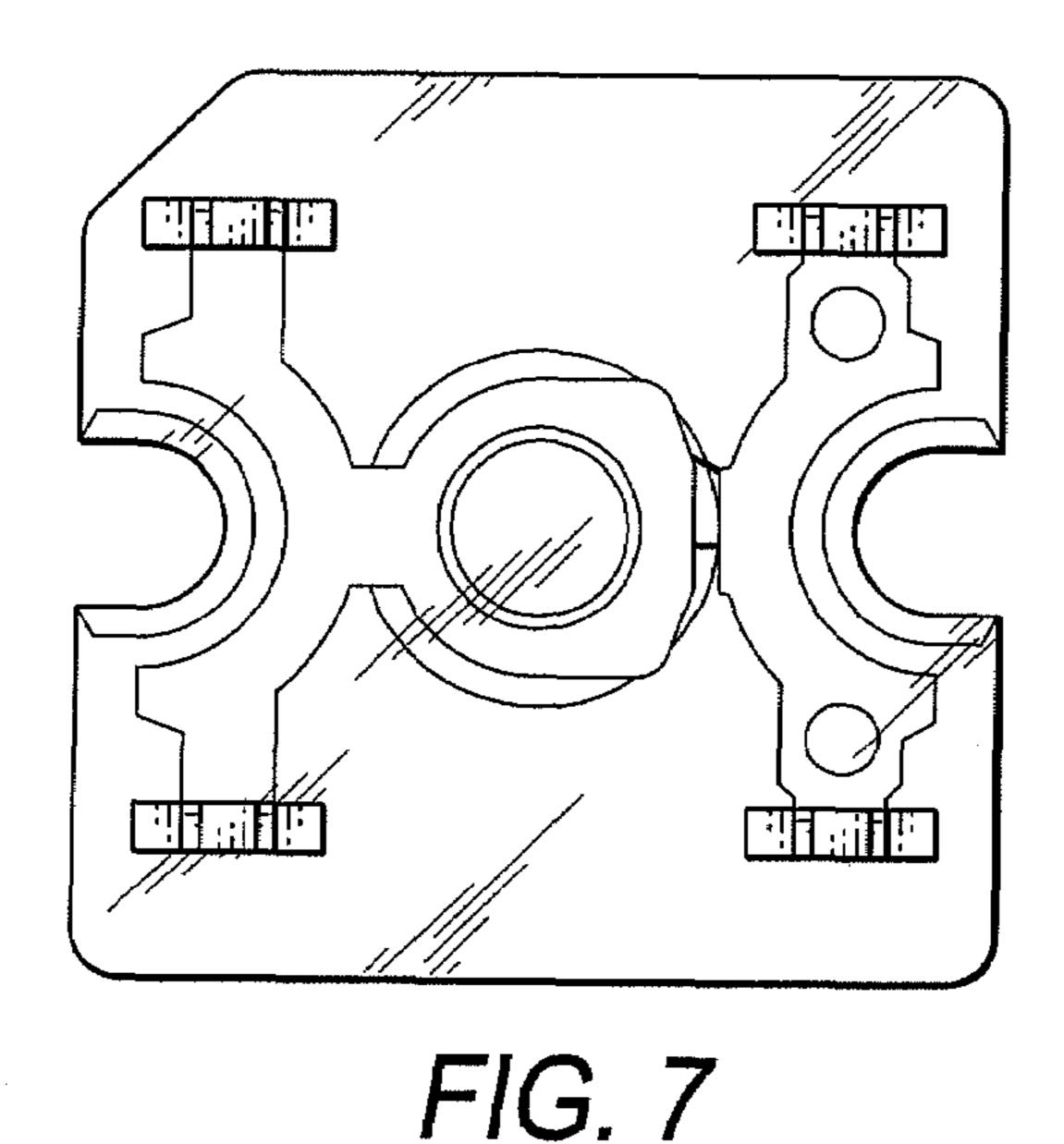
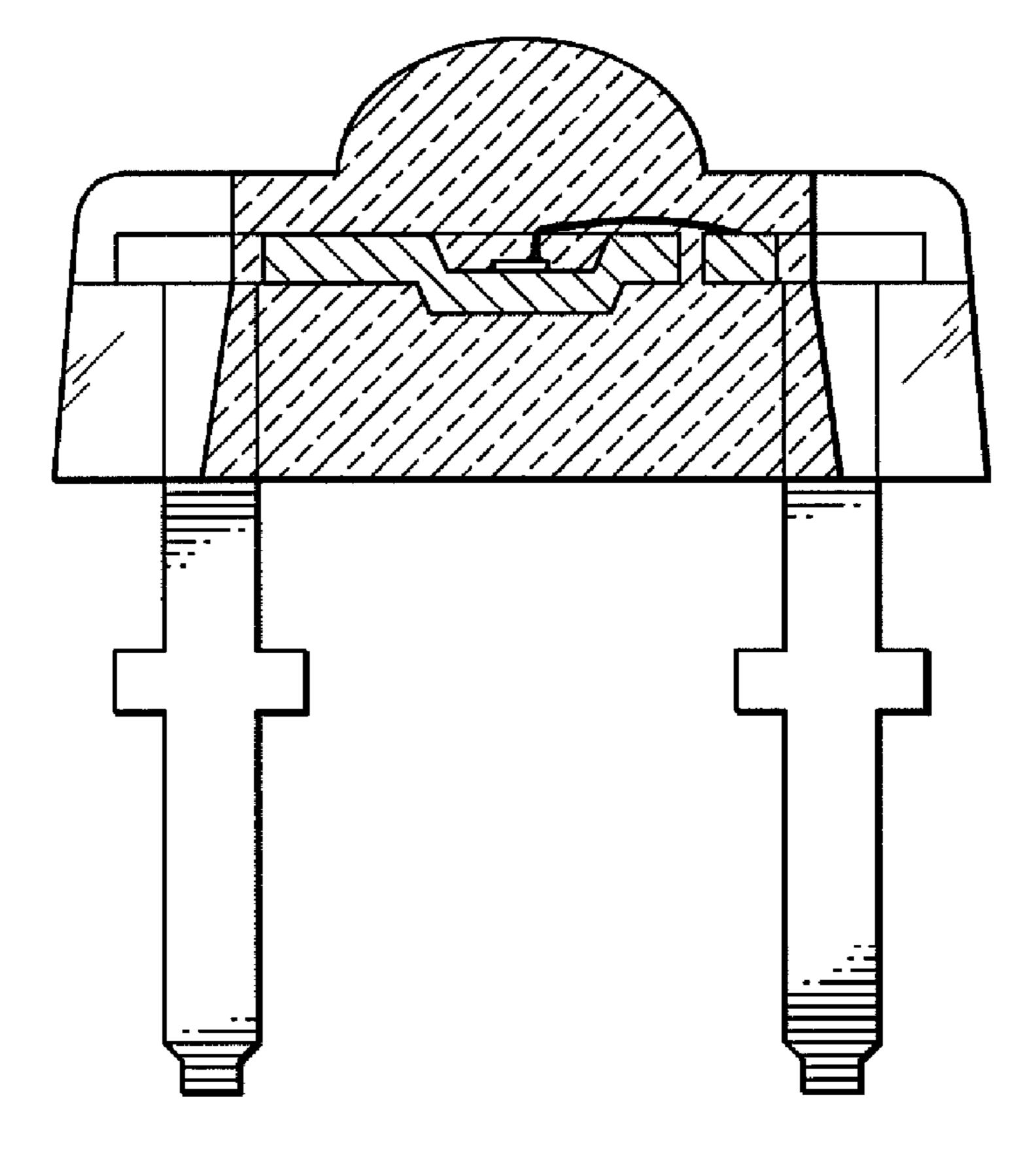


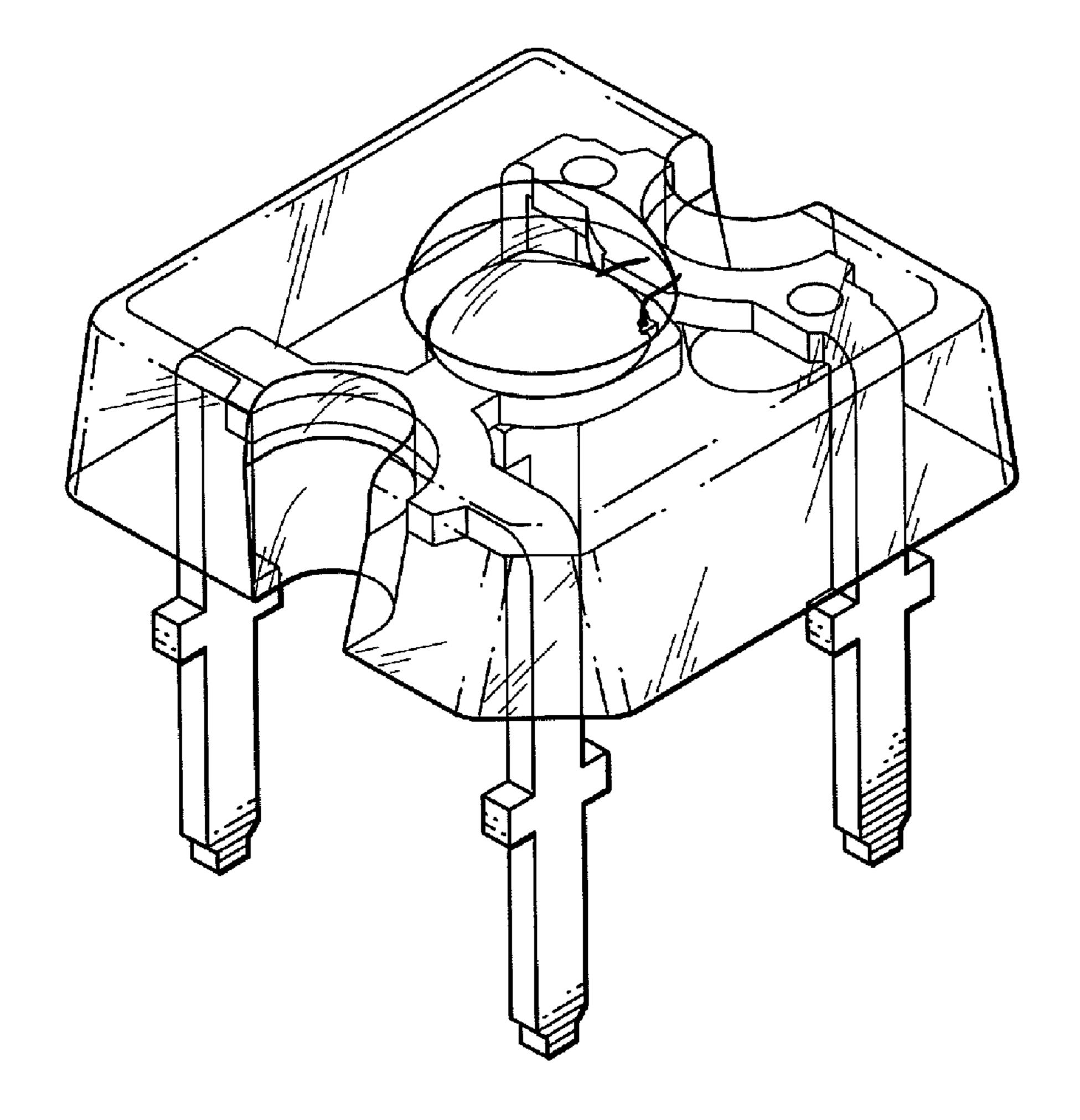
FIG. 5







F/G. 8



F/G. 9

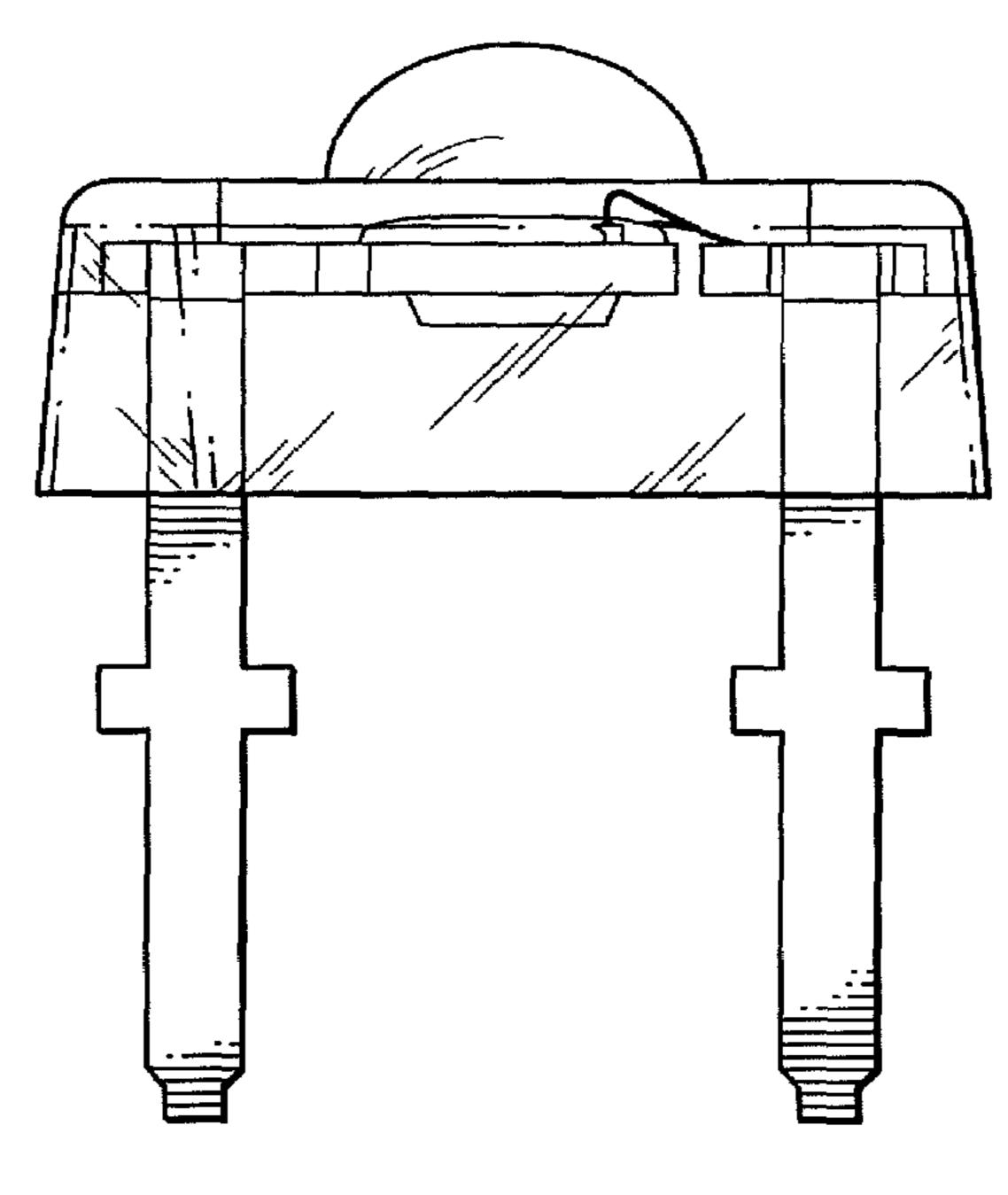
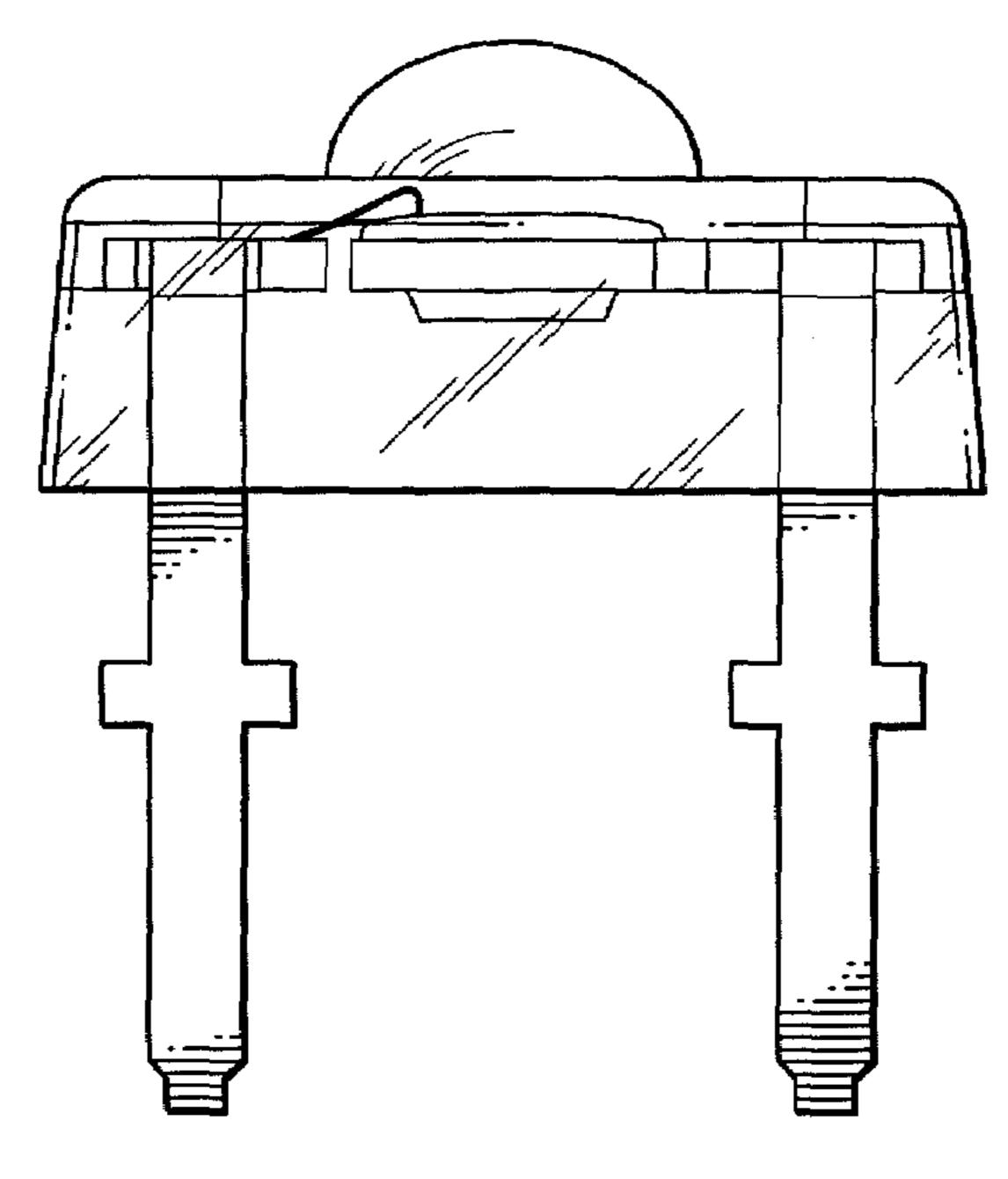


FIG. 10



F/G. 11

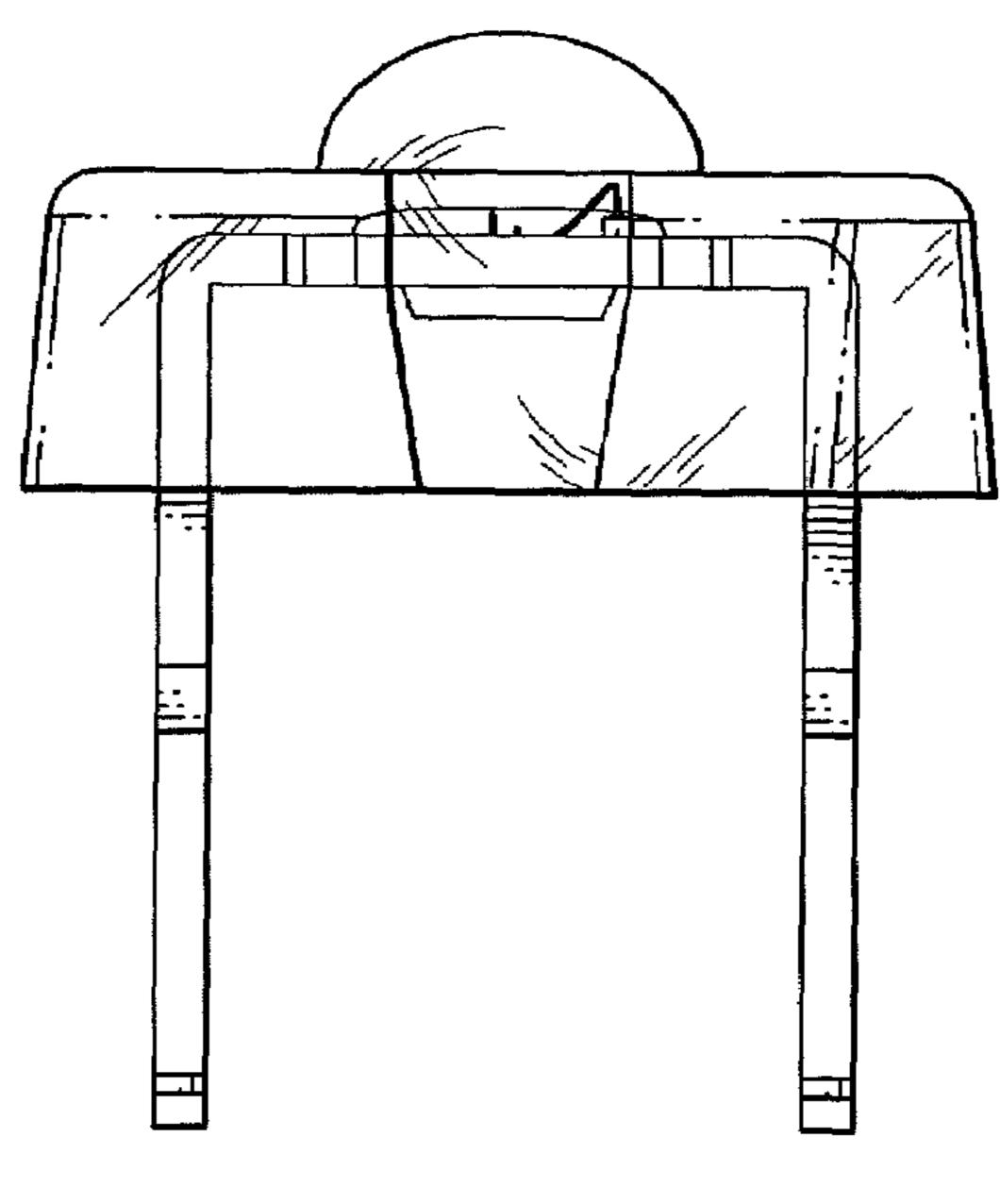


FIG. 12

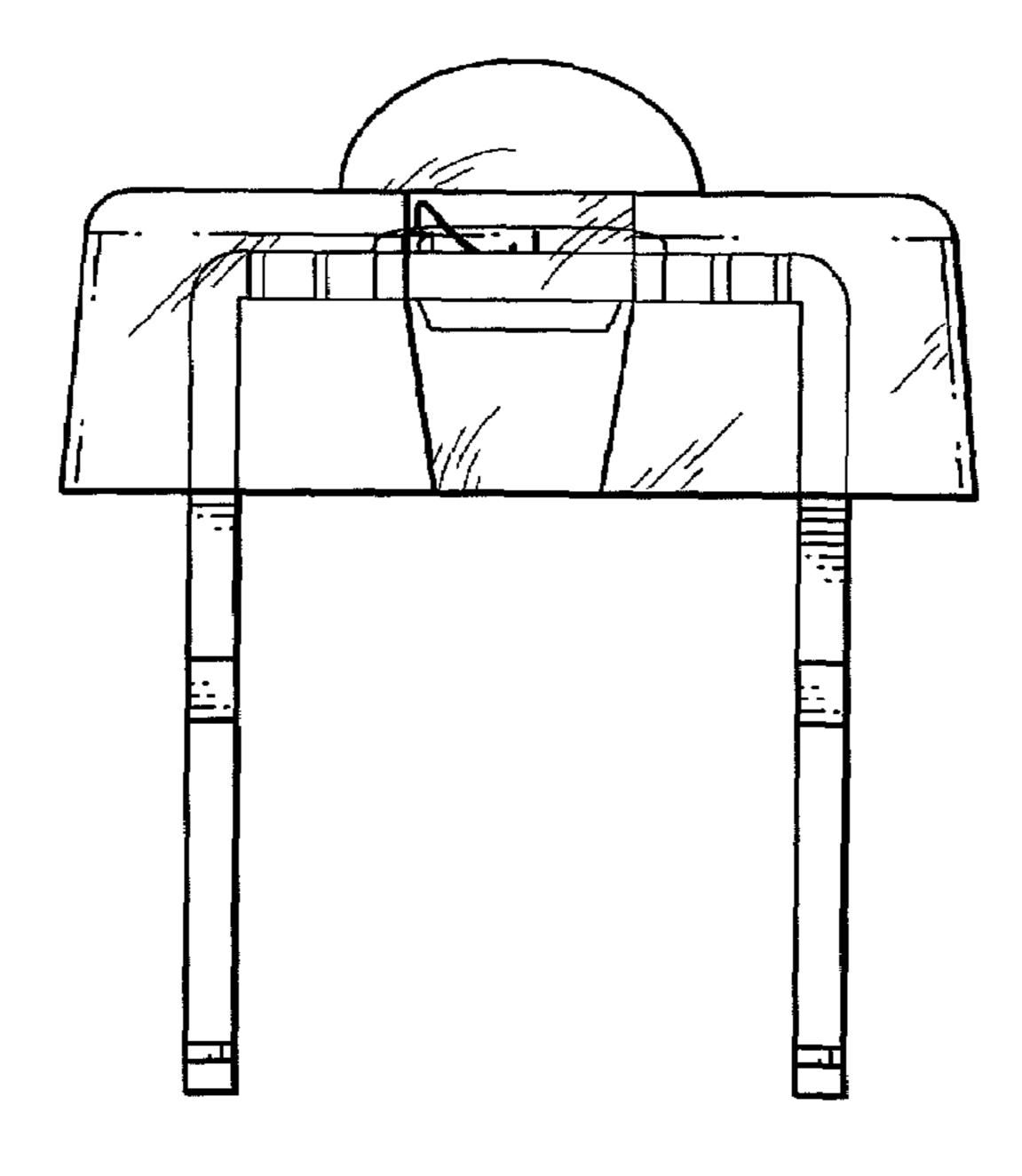
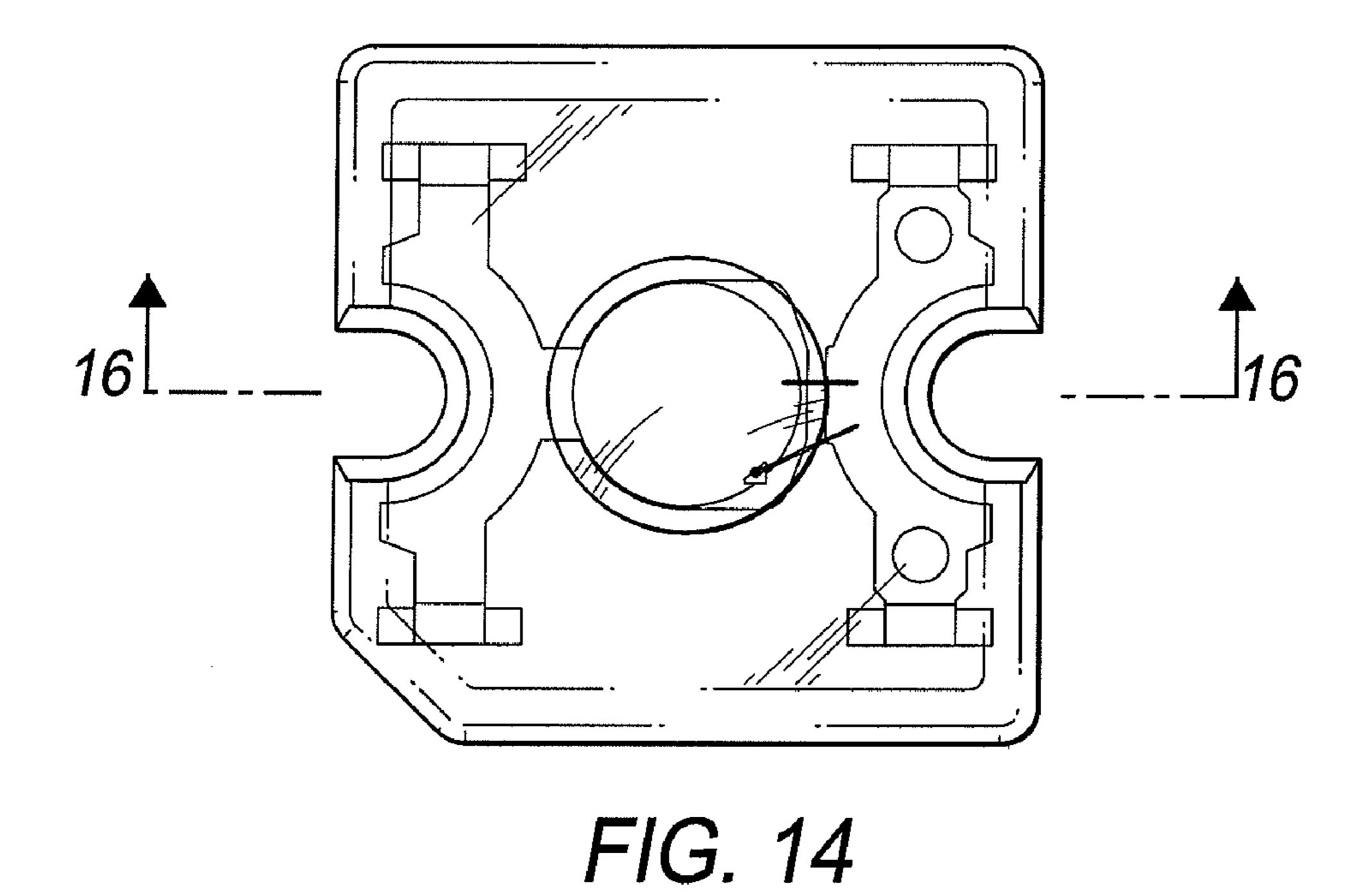
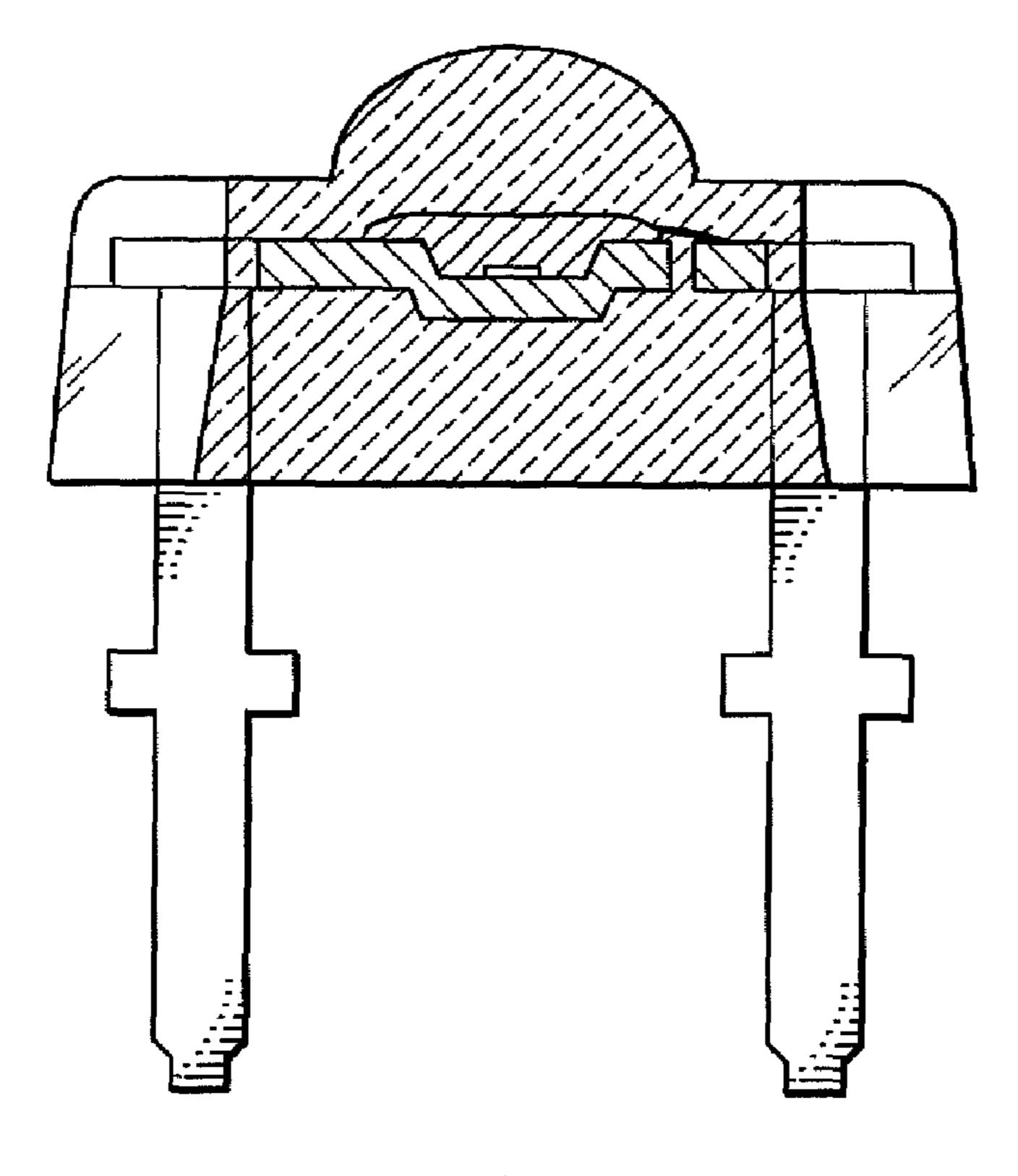


FIG. 13



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F/G. 15



F/G. 16

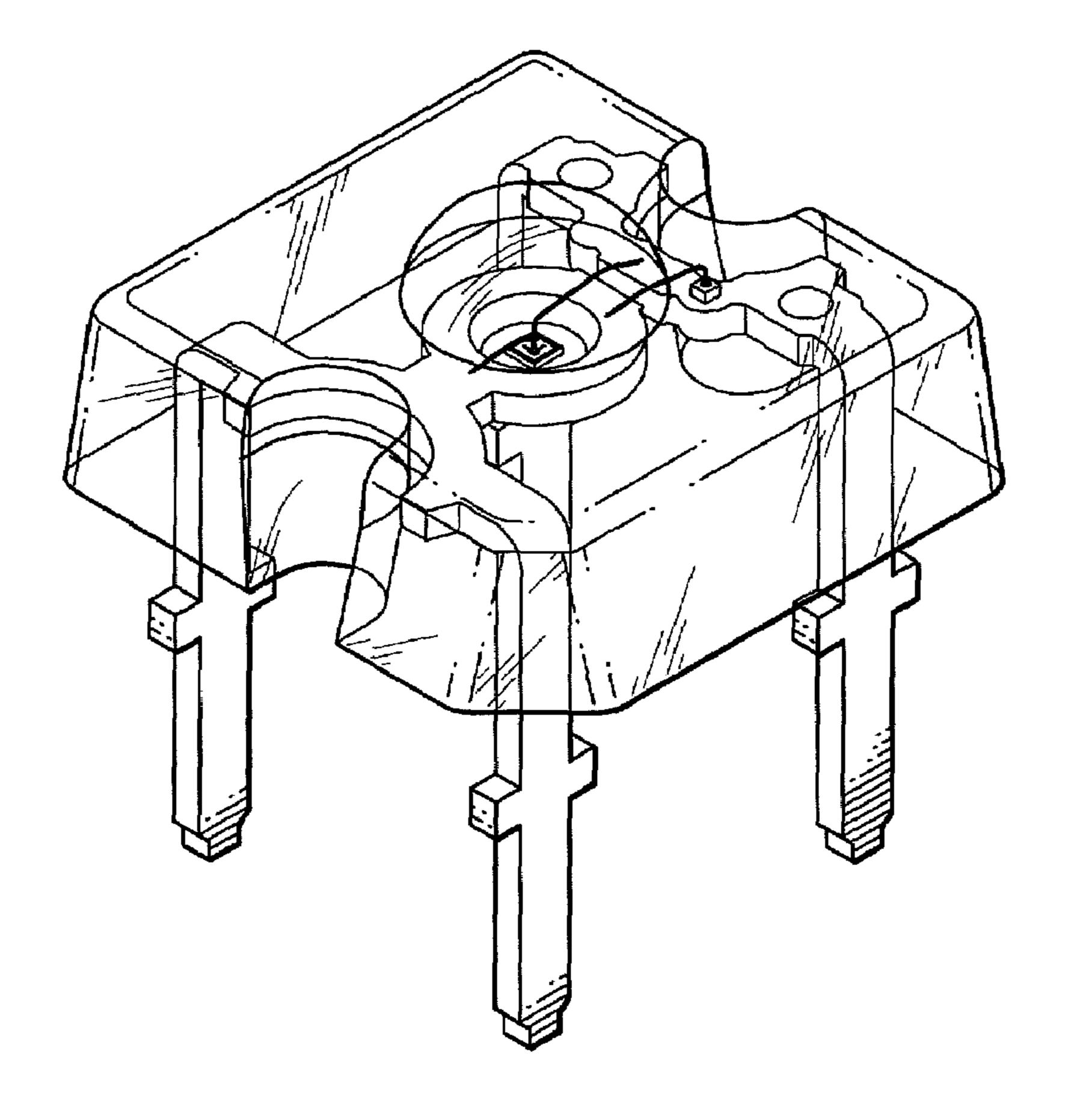
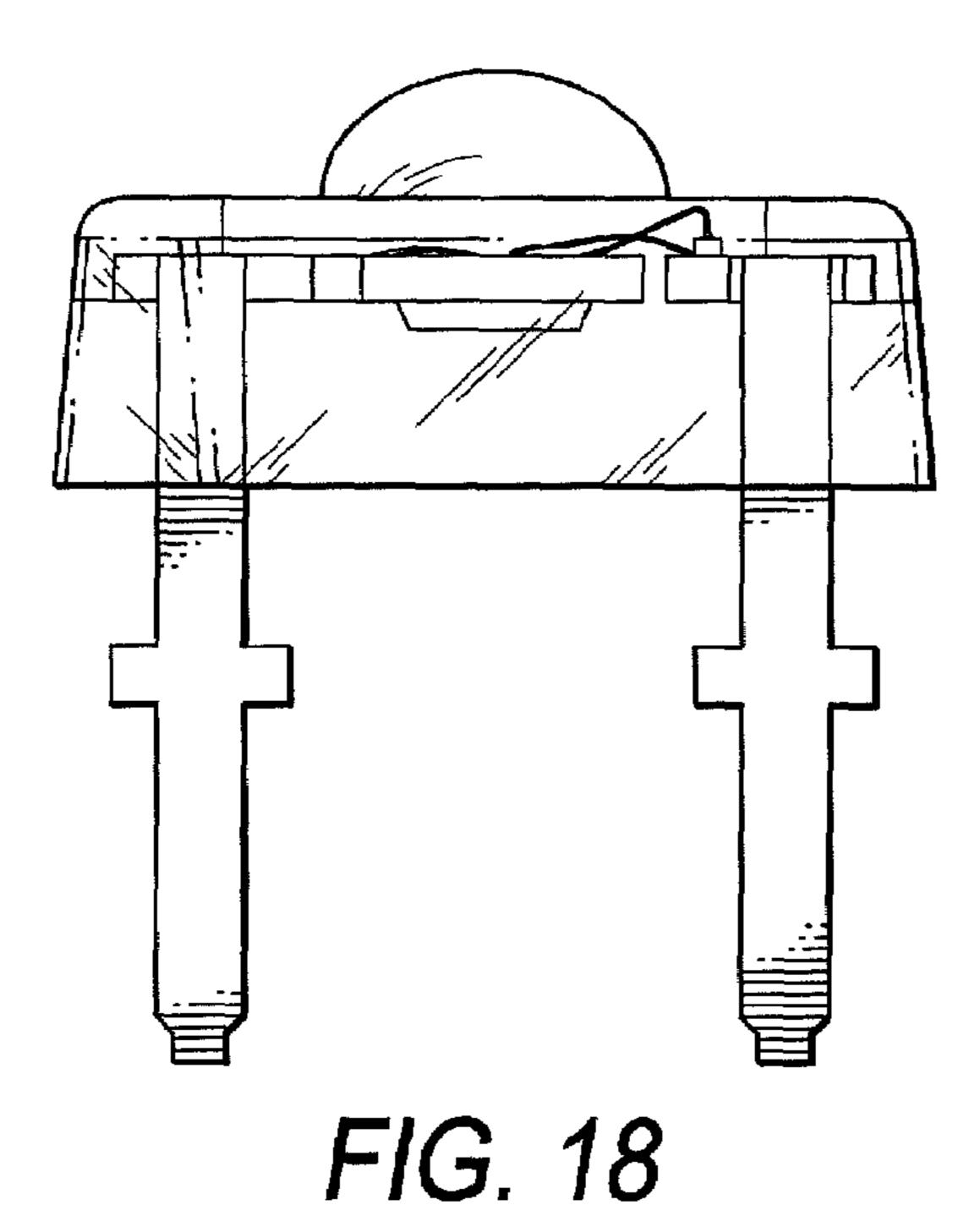


FIG. 17



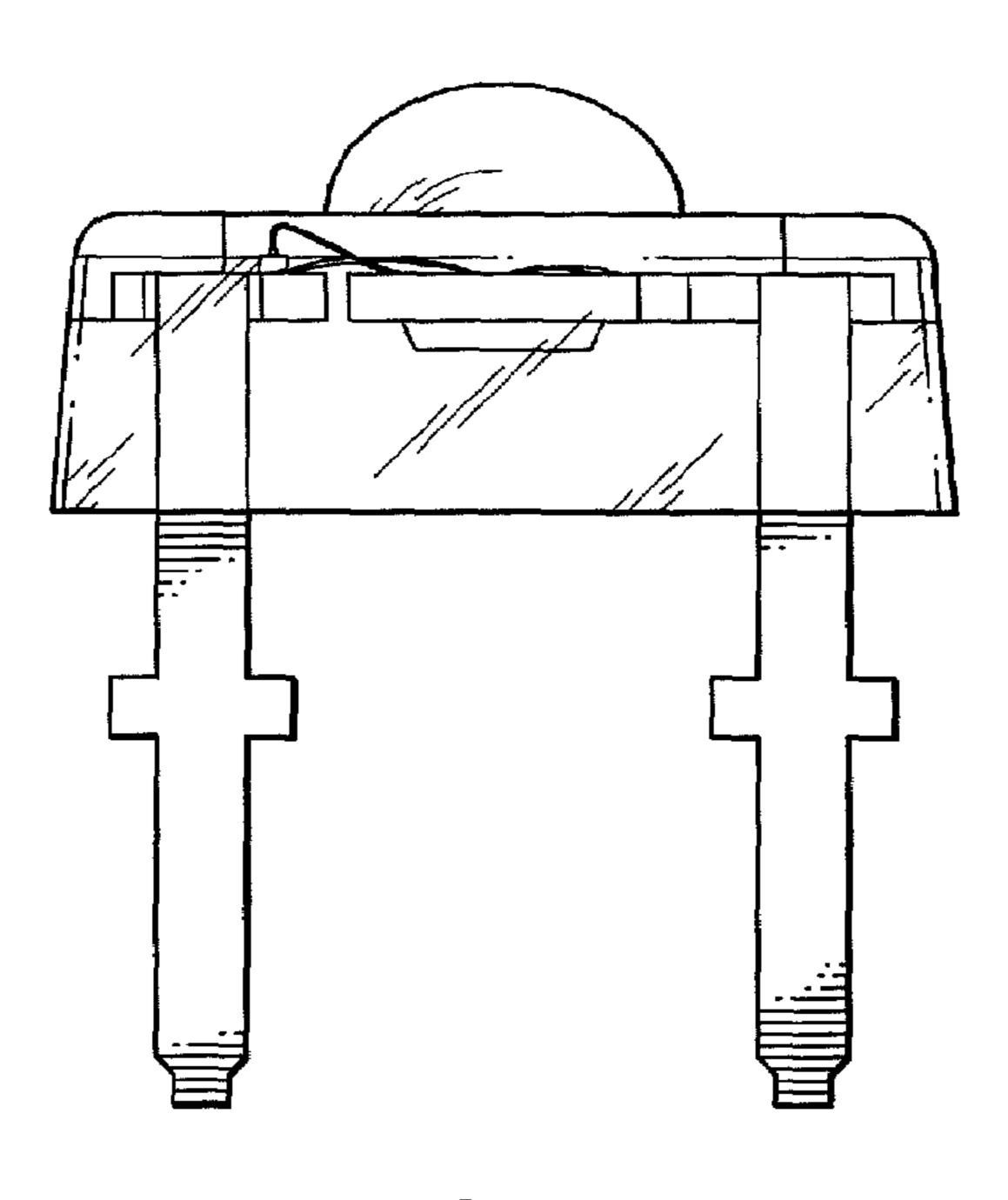
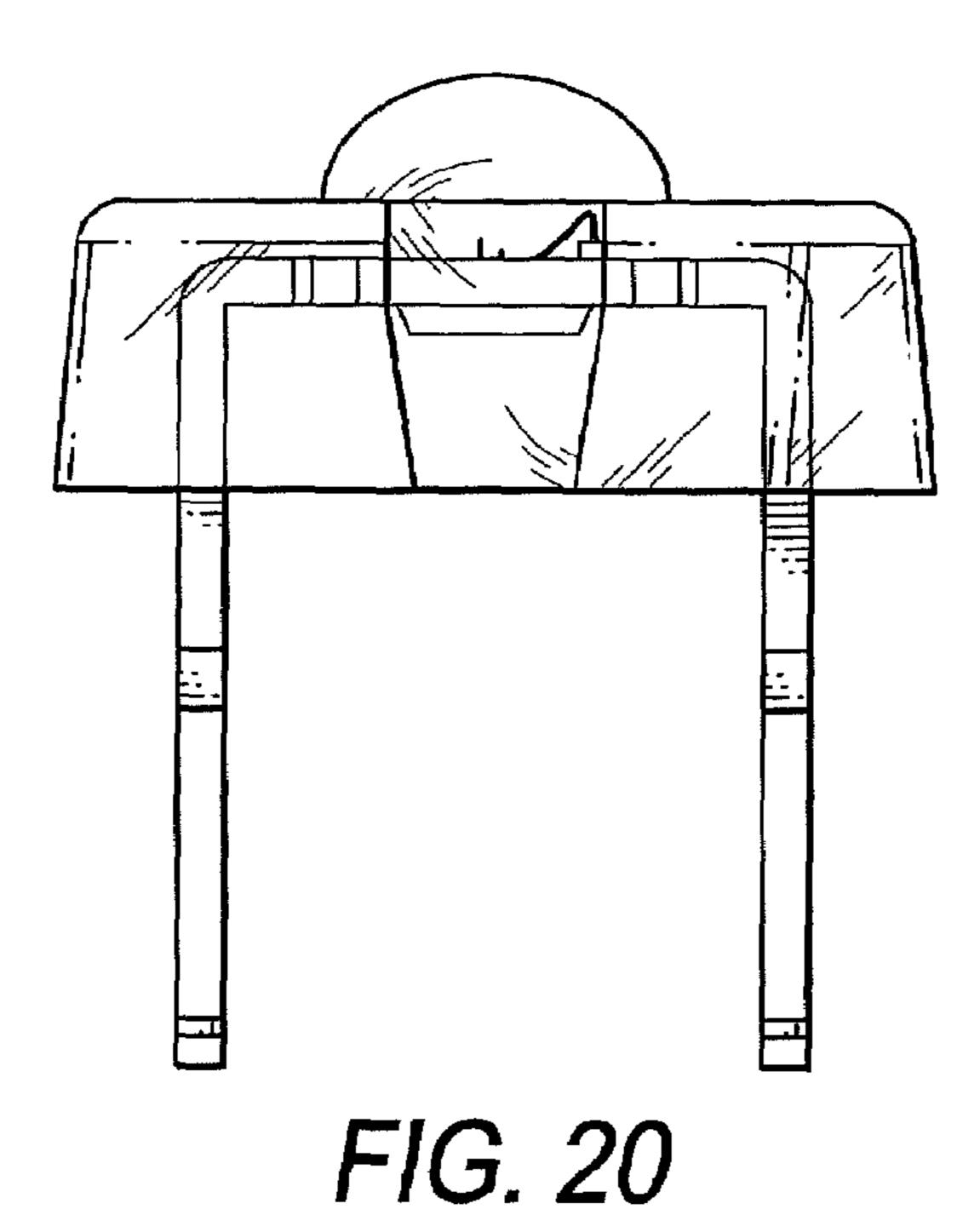
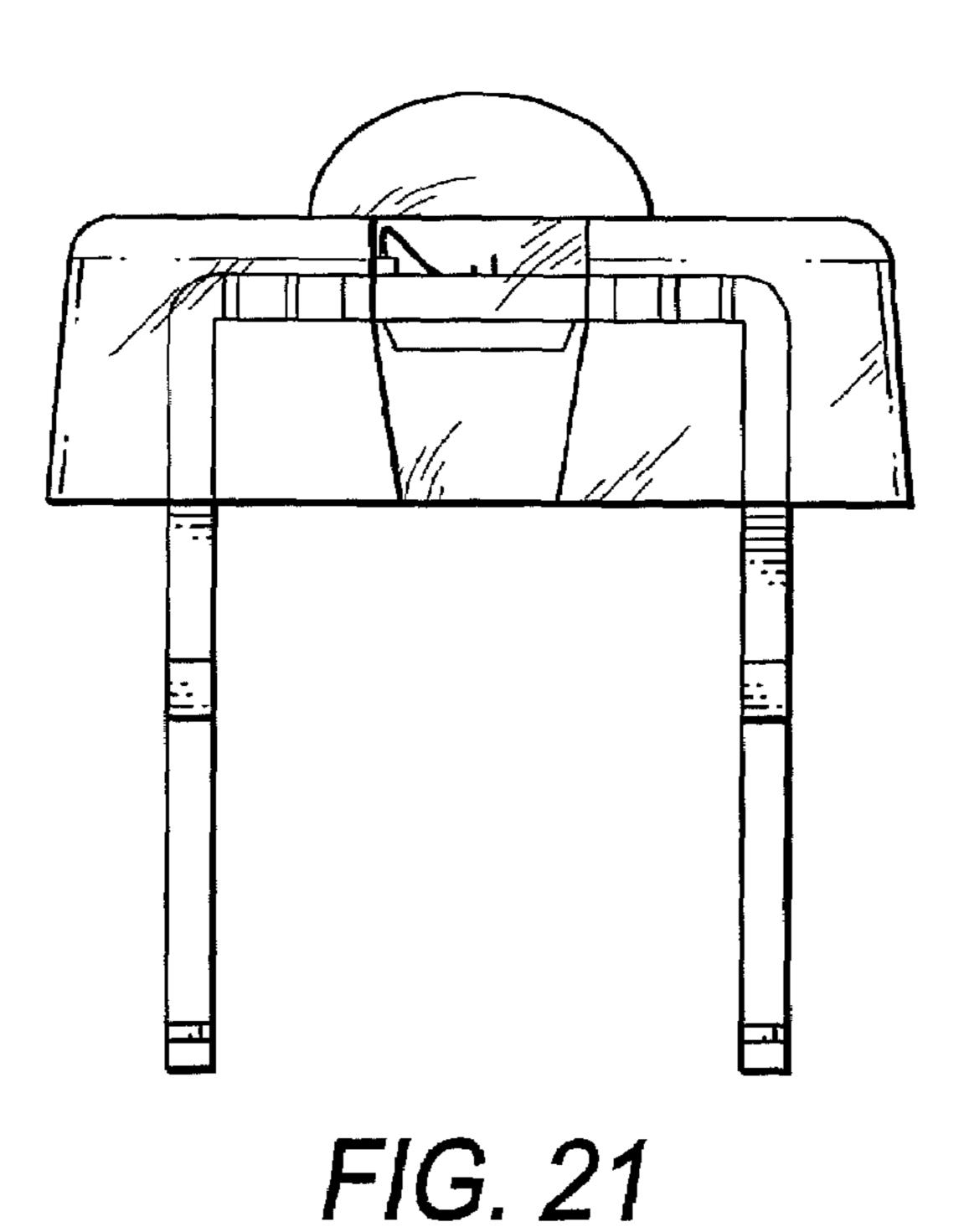
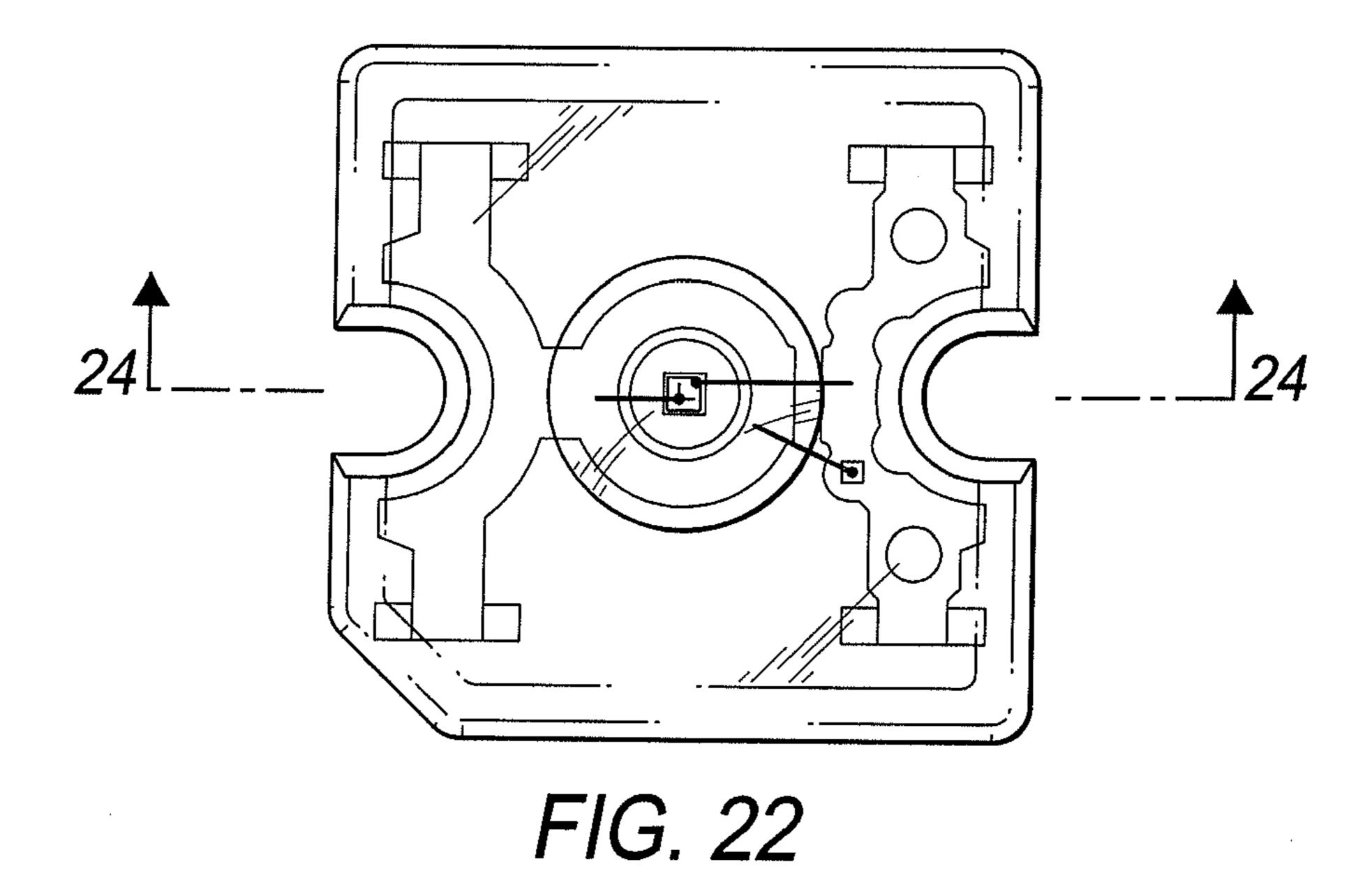
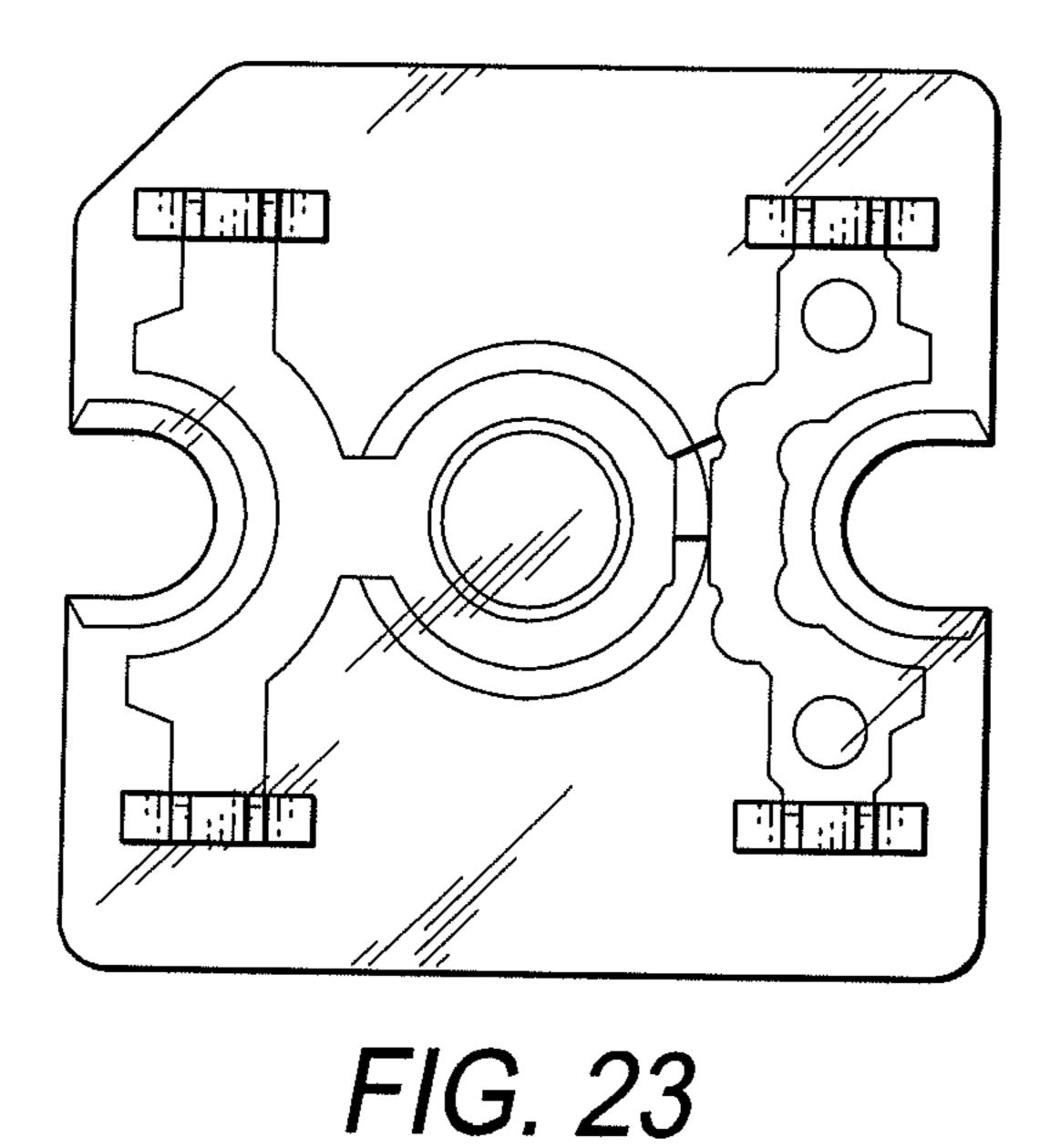


FIG. 19









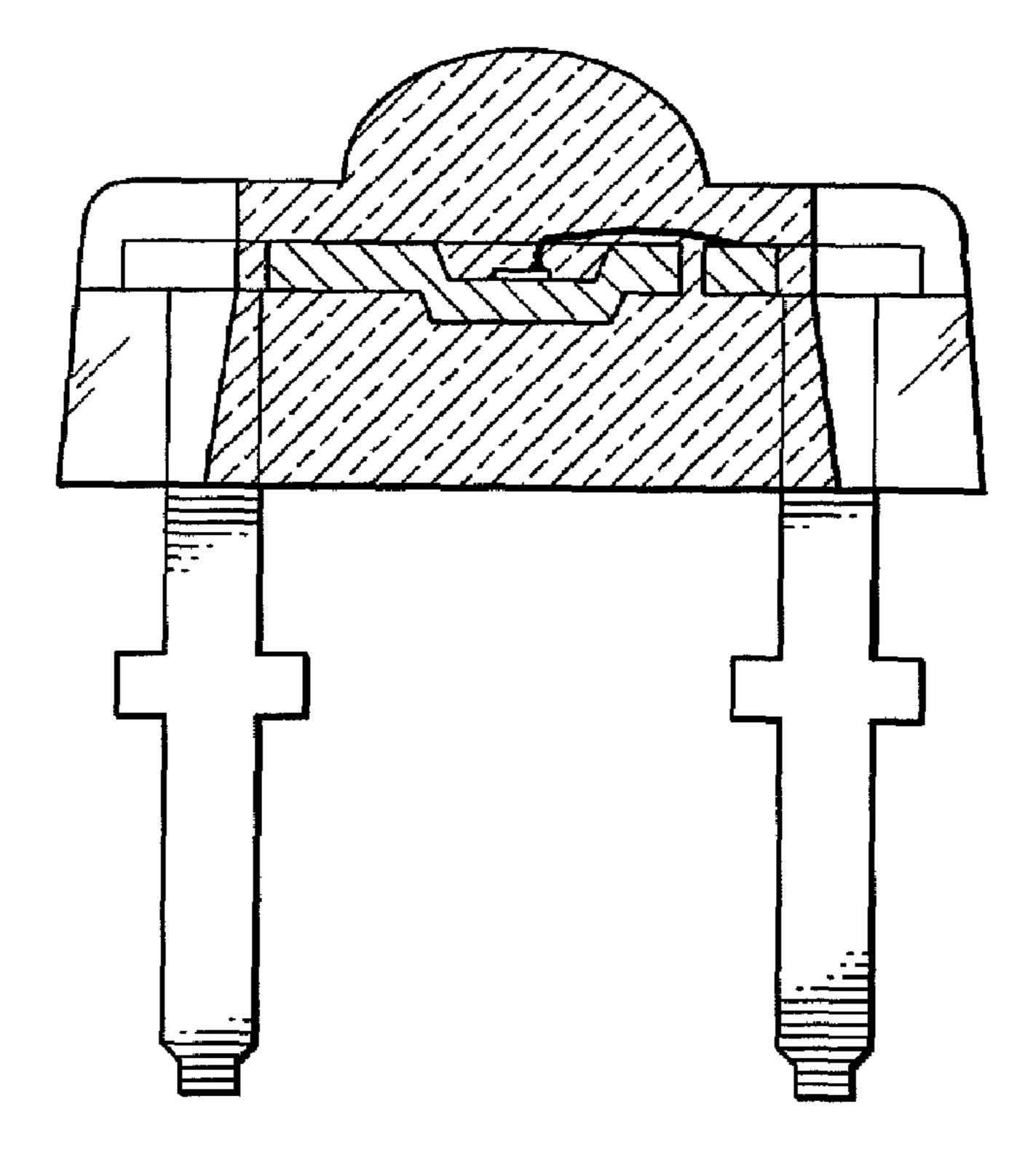


FIG. 24

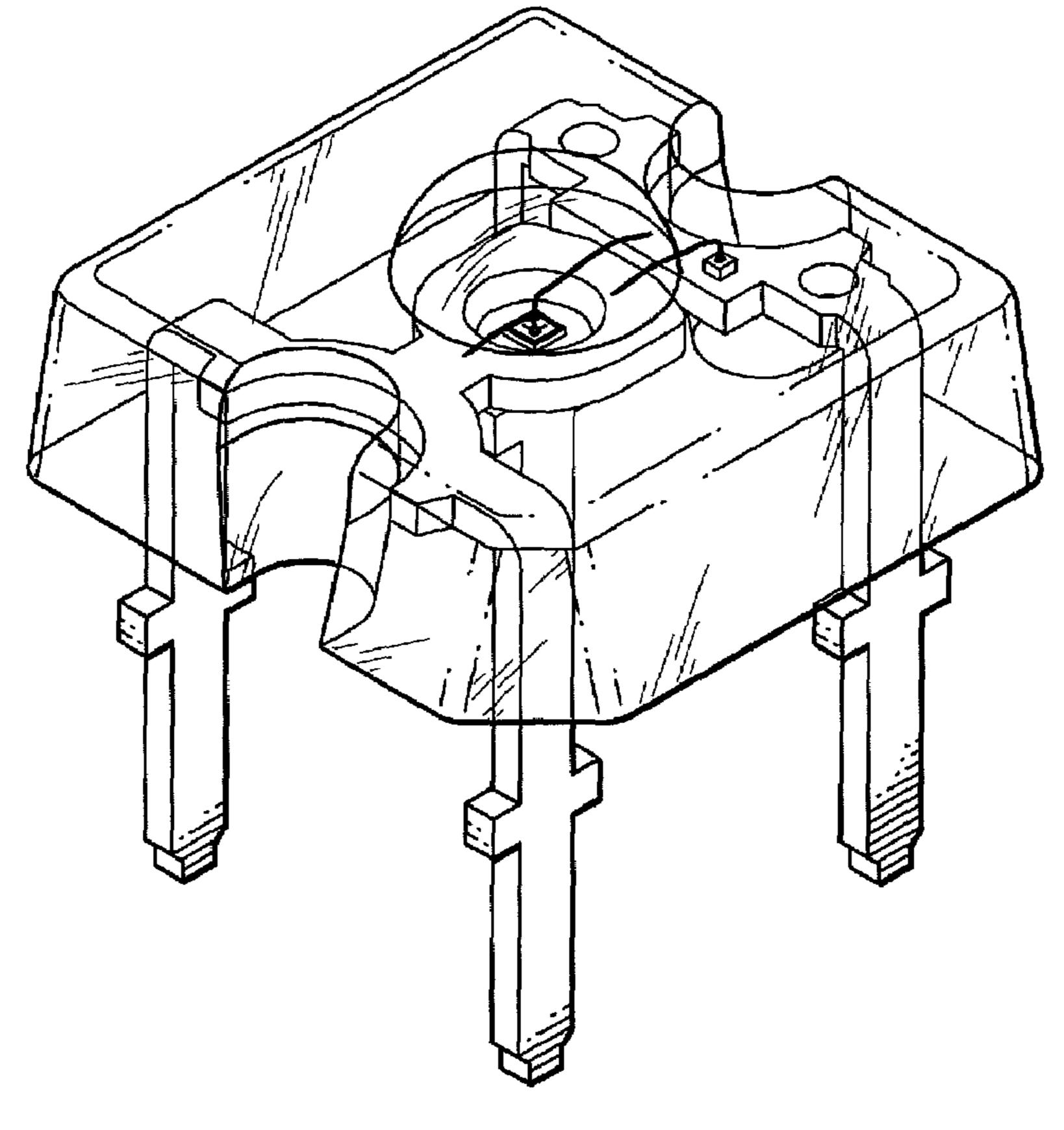
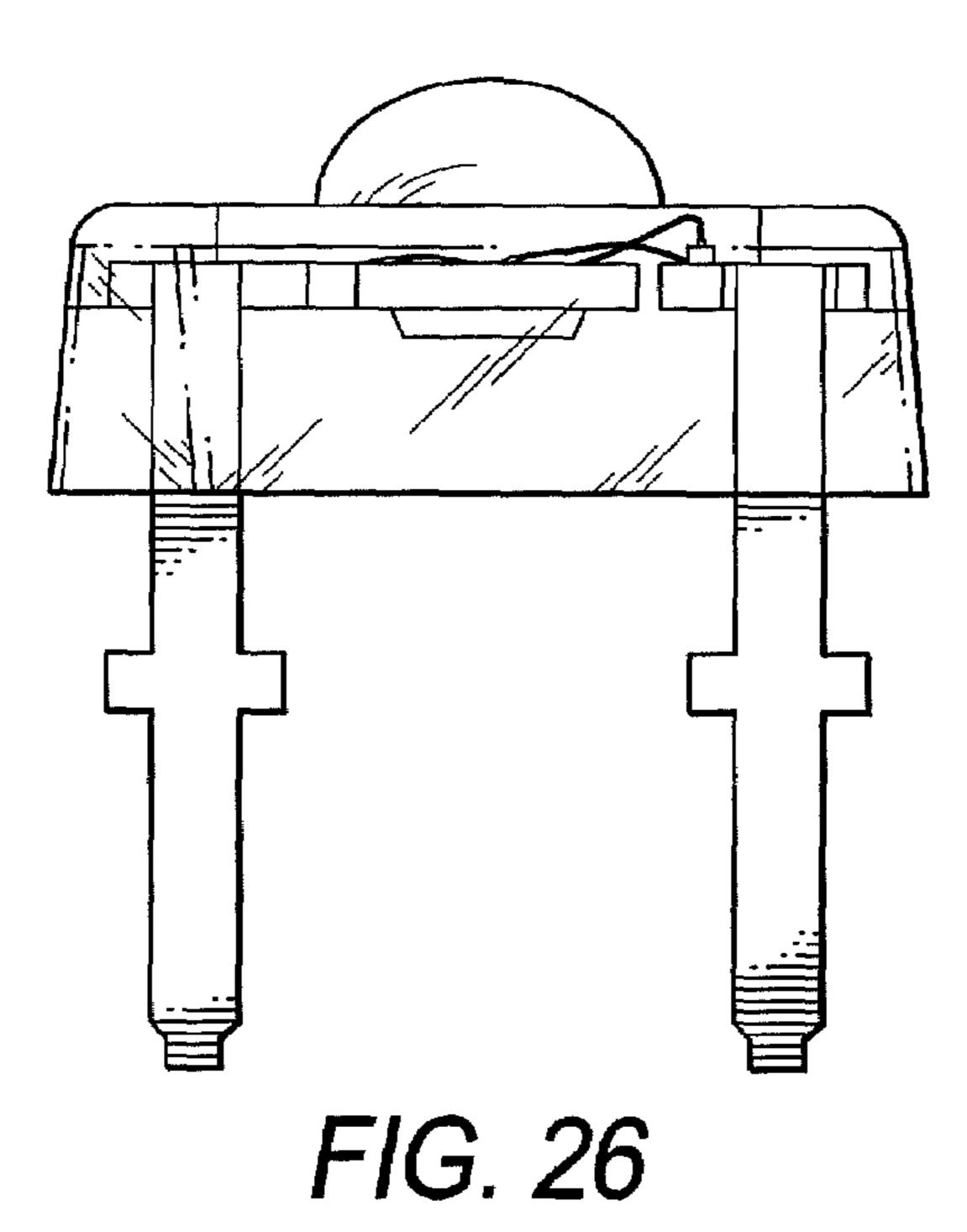
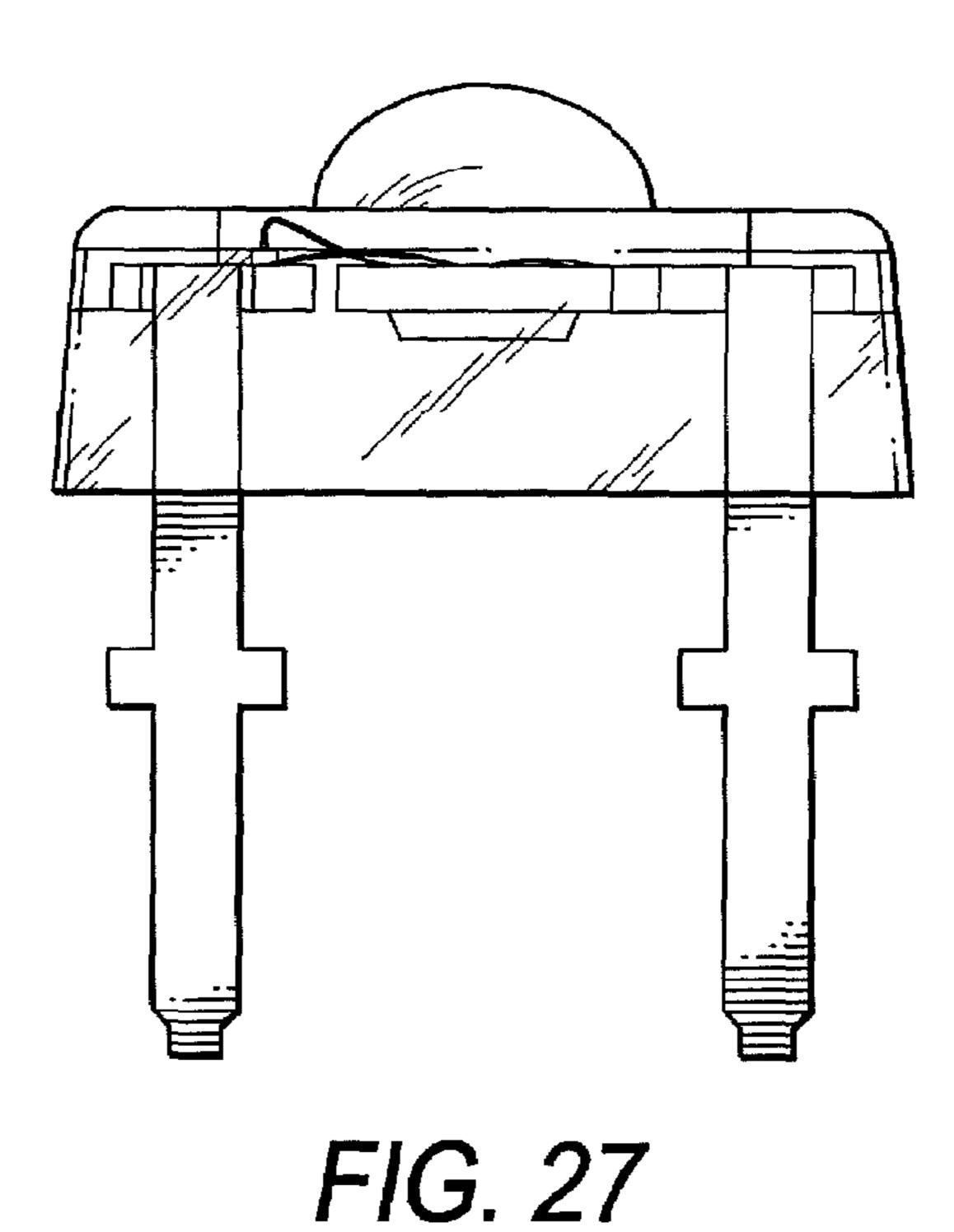
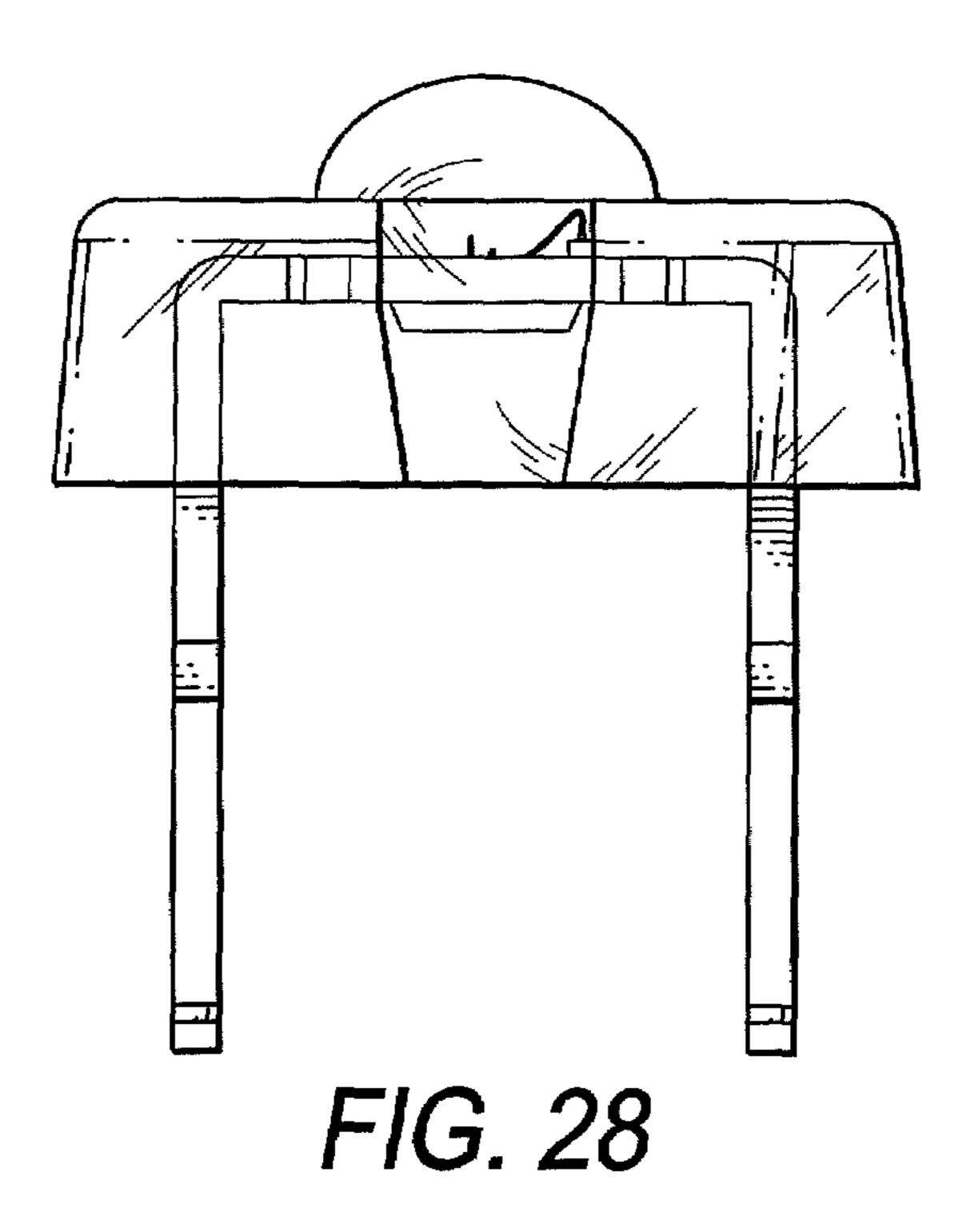


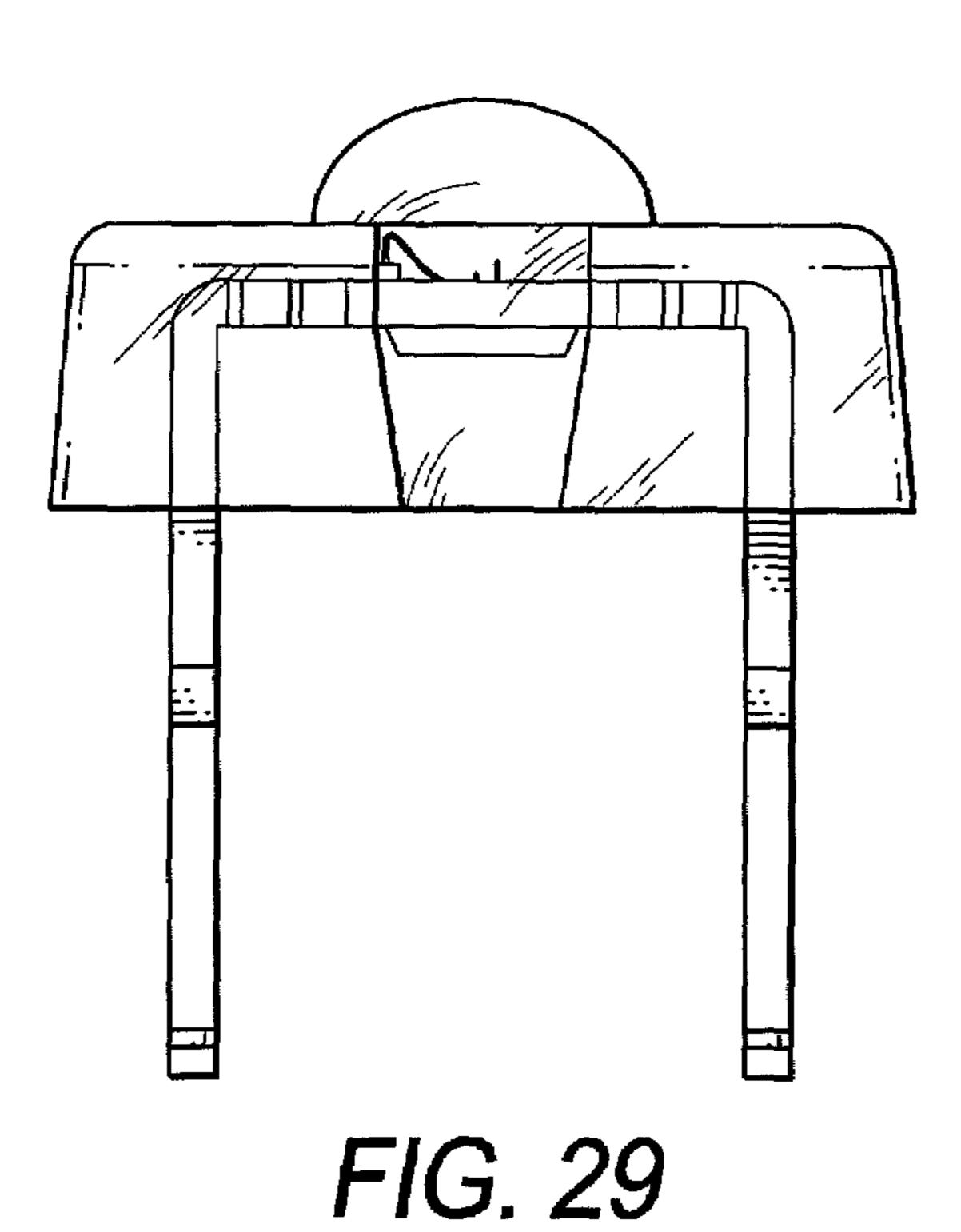
FIG. 25

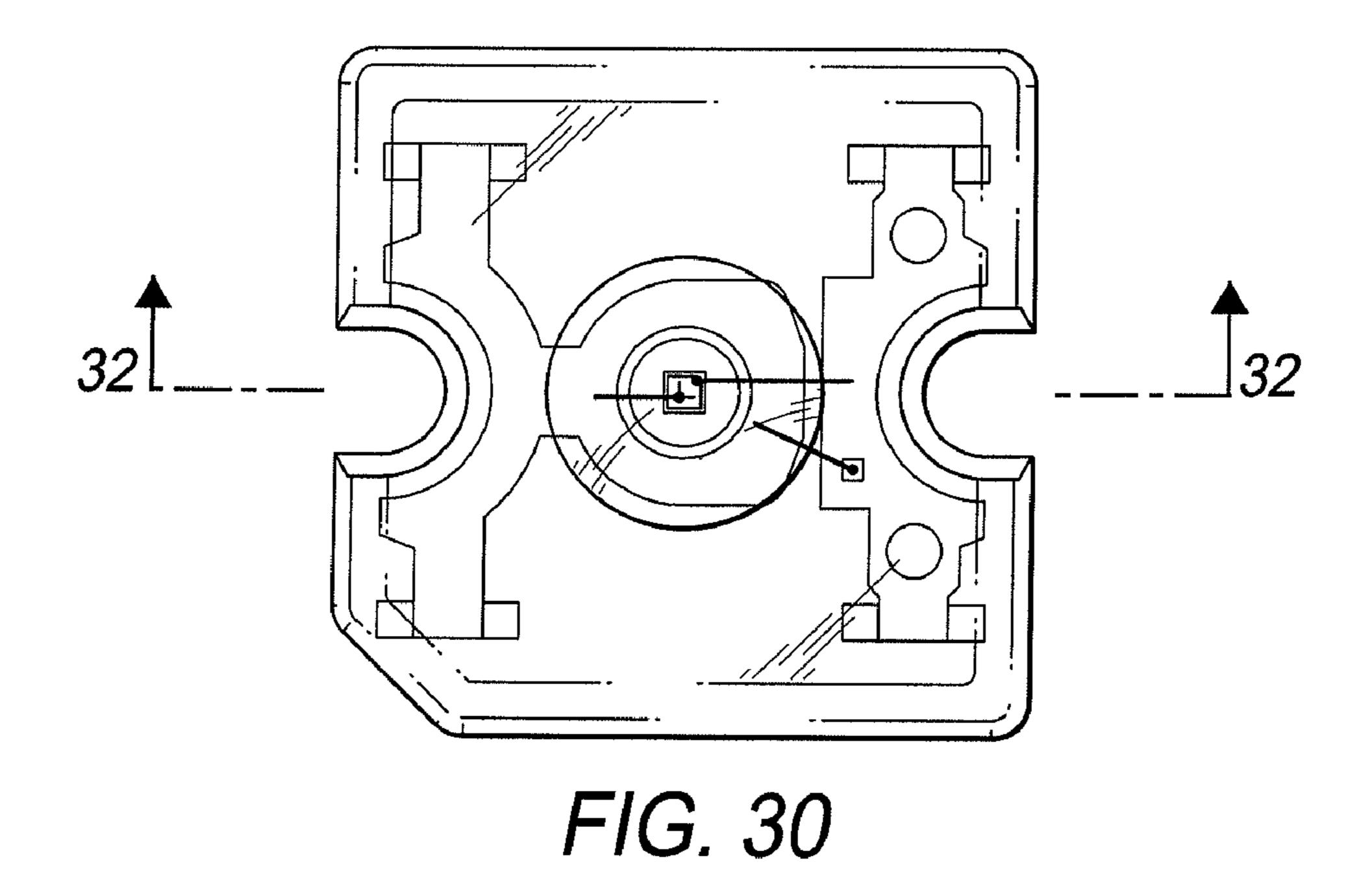
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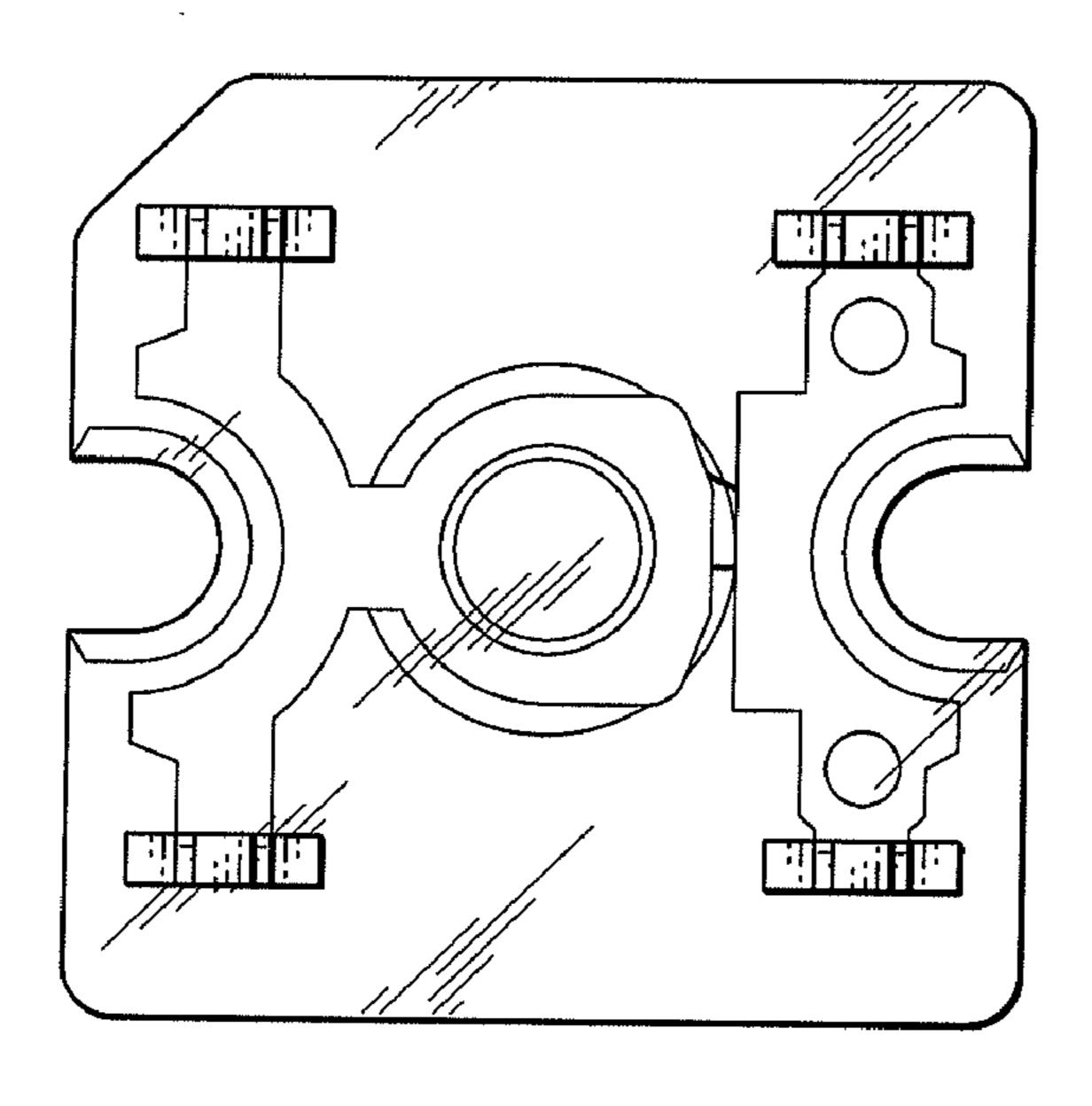




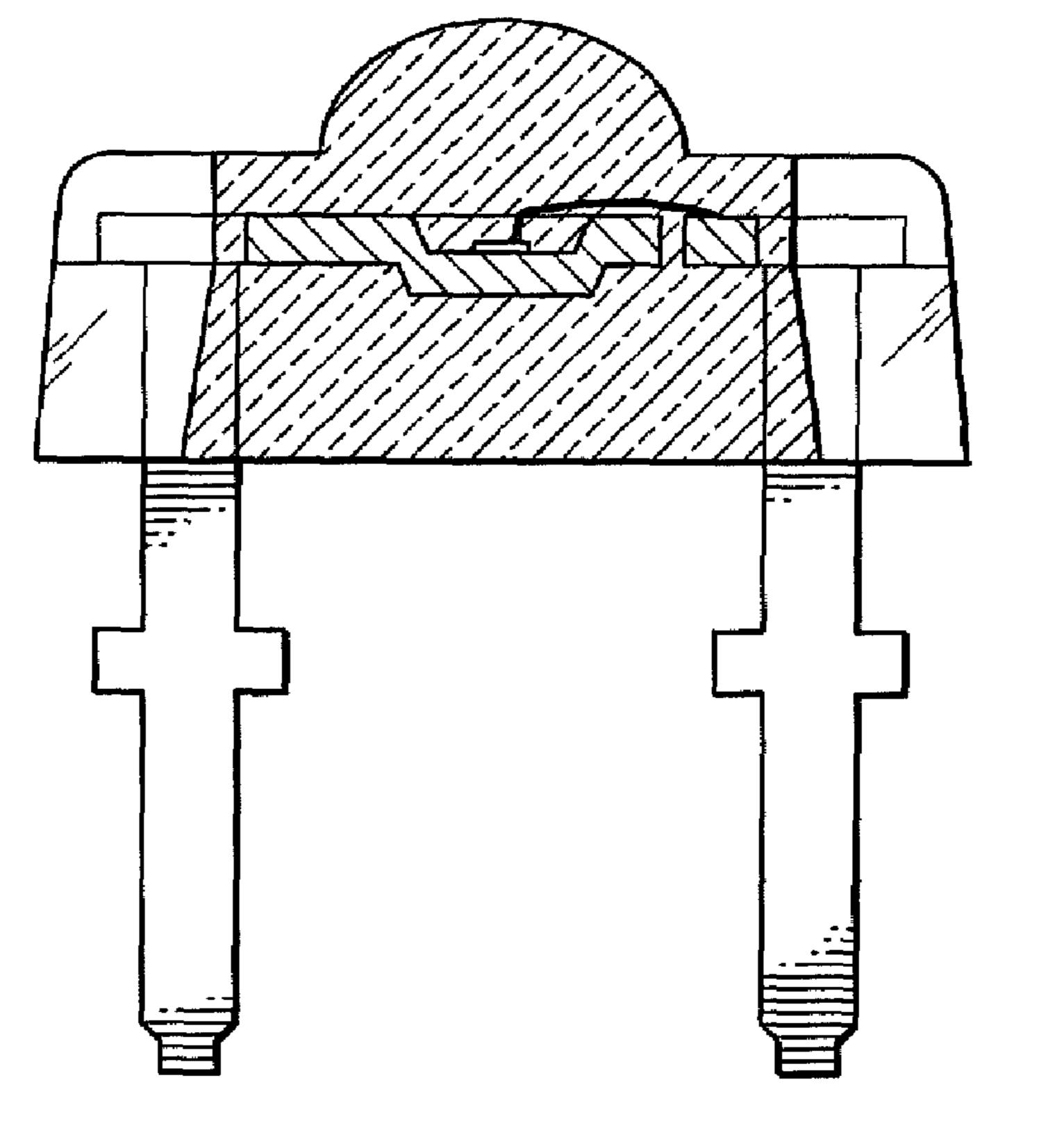








F/G. 31



F/G. 32