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

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(45) **Date of Patent:** **\*\* Jul. 1, 2008**

(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**

(30) **Foreign Application Priority Data**

Aug. 4, 2006	(JP)	.....	2006-020773
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Aug. 4, 2006	(JP)	.....	2006-020775
Aug. 4, 2006	(JP)	.....	2006-020776
Aug. 4, 2006	(JP)	.....	2006-020777
Aug. 4, 2006	(JP)	.....	2006-020778

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

(52) **U.S. Cl.** ..... **D13/180**

(58) **Field of Classification Search** ..... D13/180;  
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.	257/100
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	257/99

**OTHER PUBLICATIONS**

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

\* cited by examiner

*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;

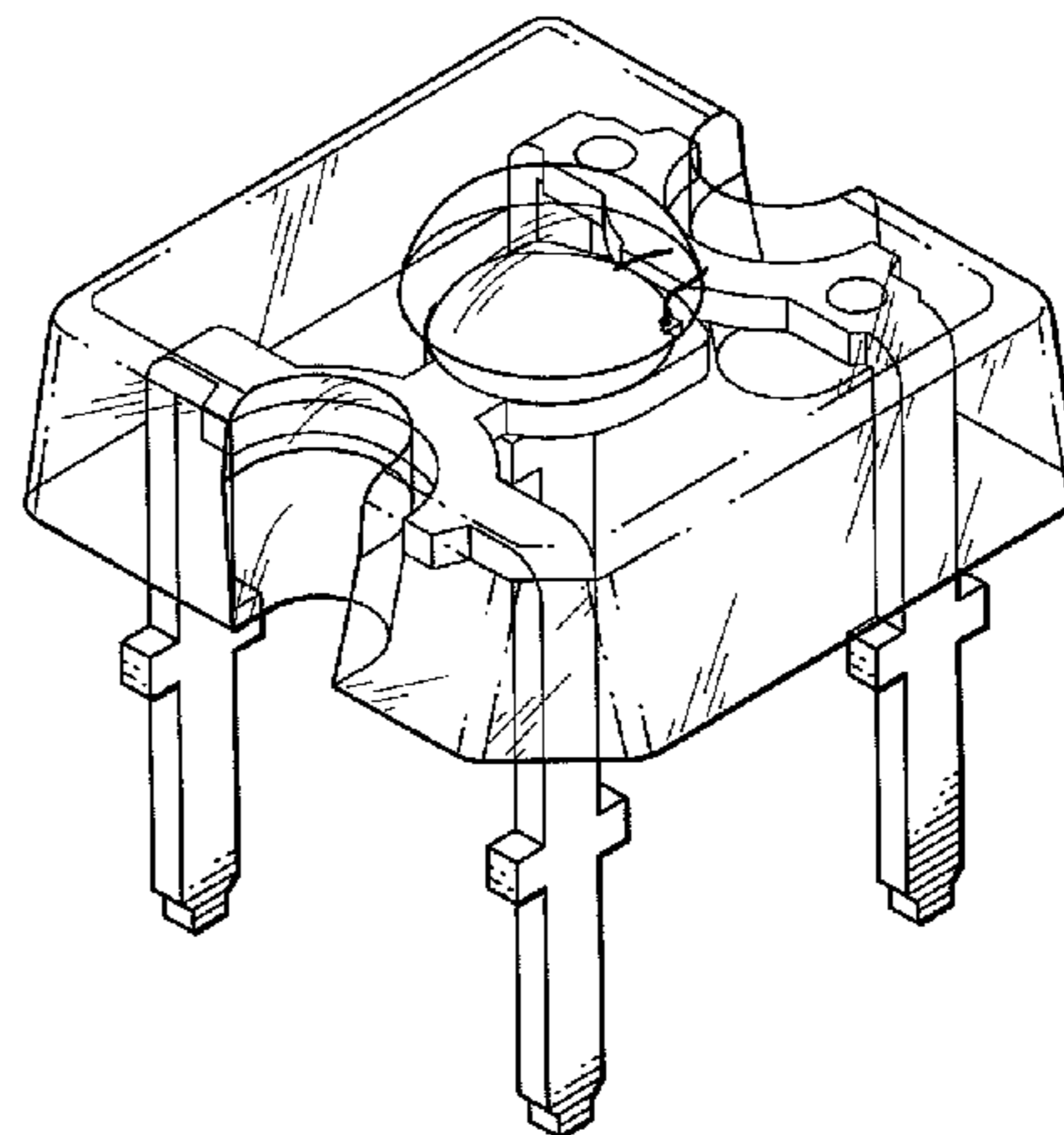
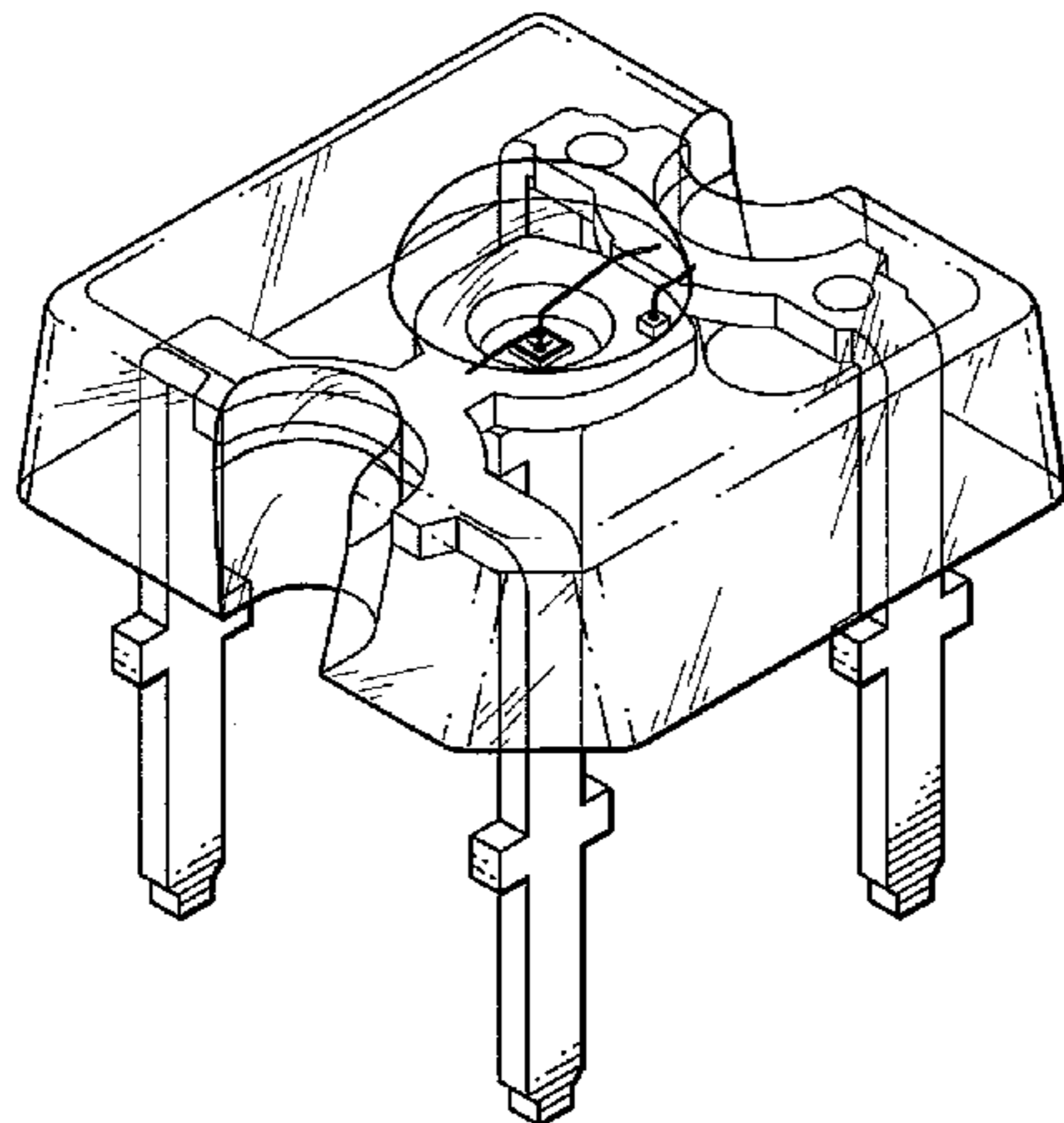


FIG. 12 is a right side end elevational view of the light emitting diode in accordance with the second embodiment of my new design;

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;

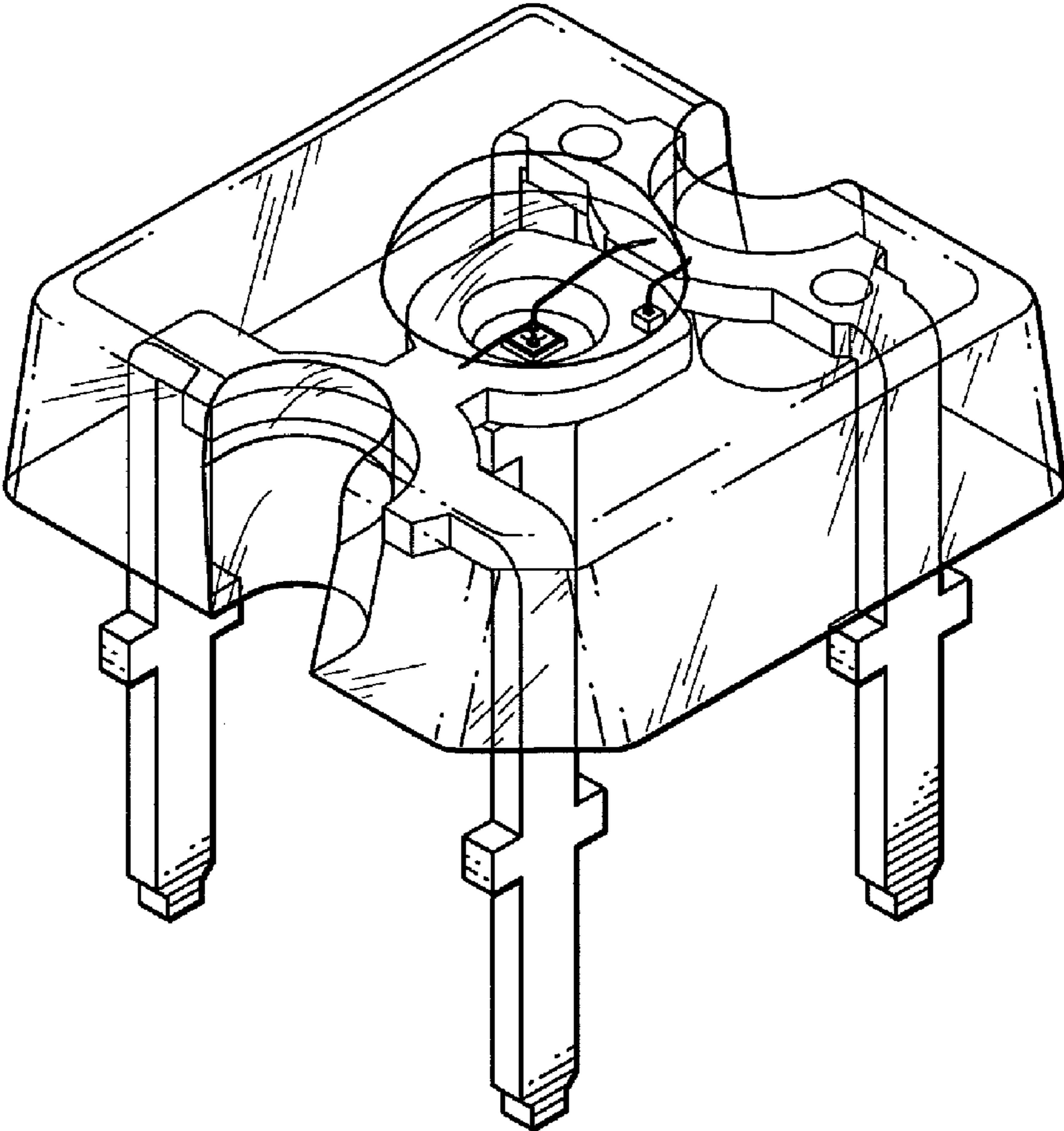
FIG. 29 is a left side end elevational view of the light emitting diode in accordance with the fourth embodiment of my new design;

FIG. 30 is a top plan view of the light emitting diode in accordance with the fourth embodiment of my new design;

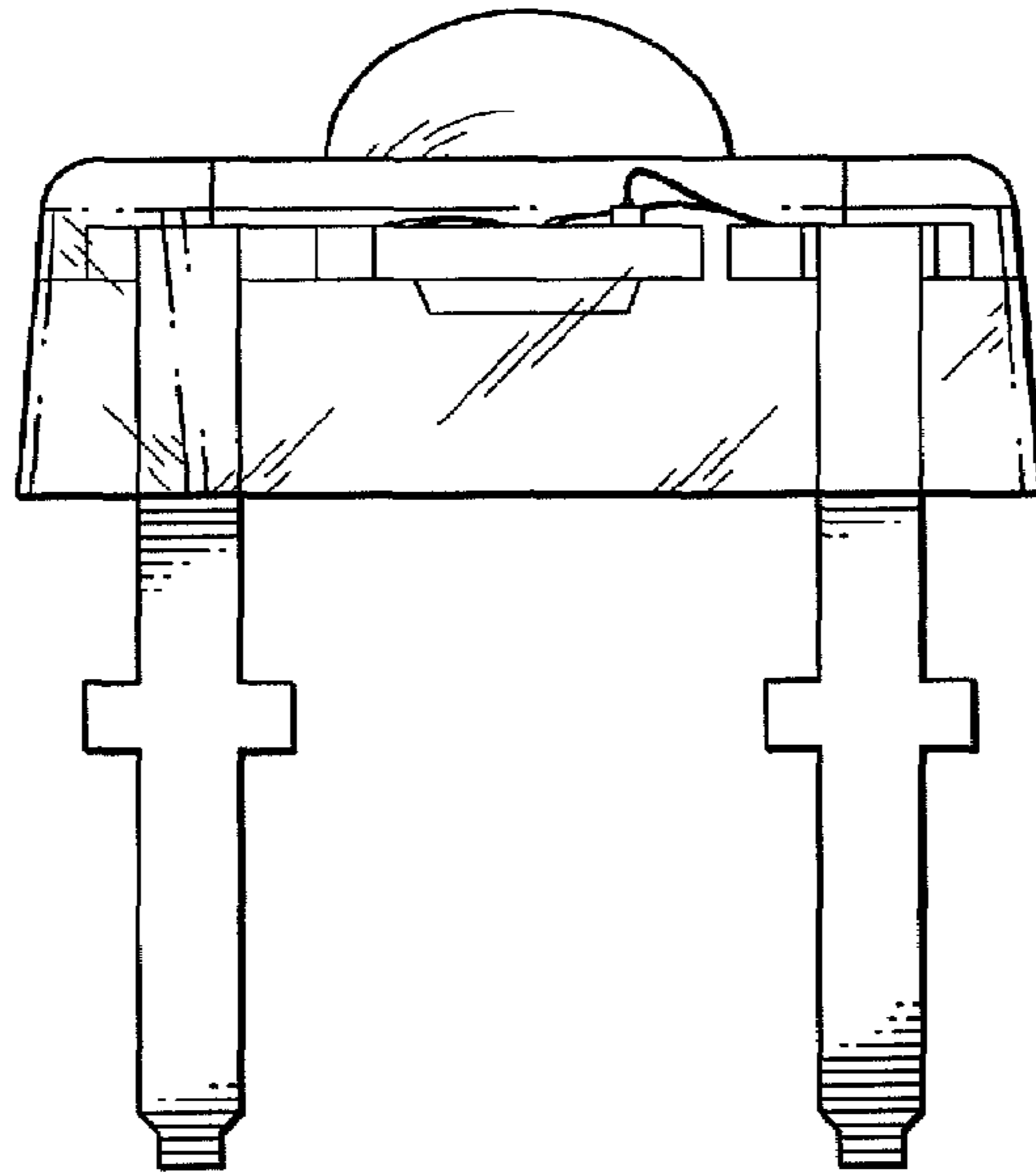
FIG. 31 is a bottom plan view of the light emitting diode in accordance with the fourth embodiment of my new design; and,

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.

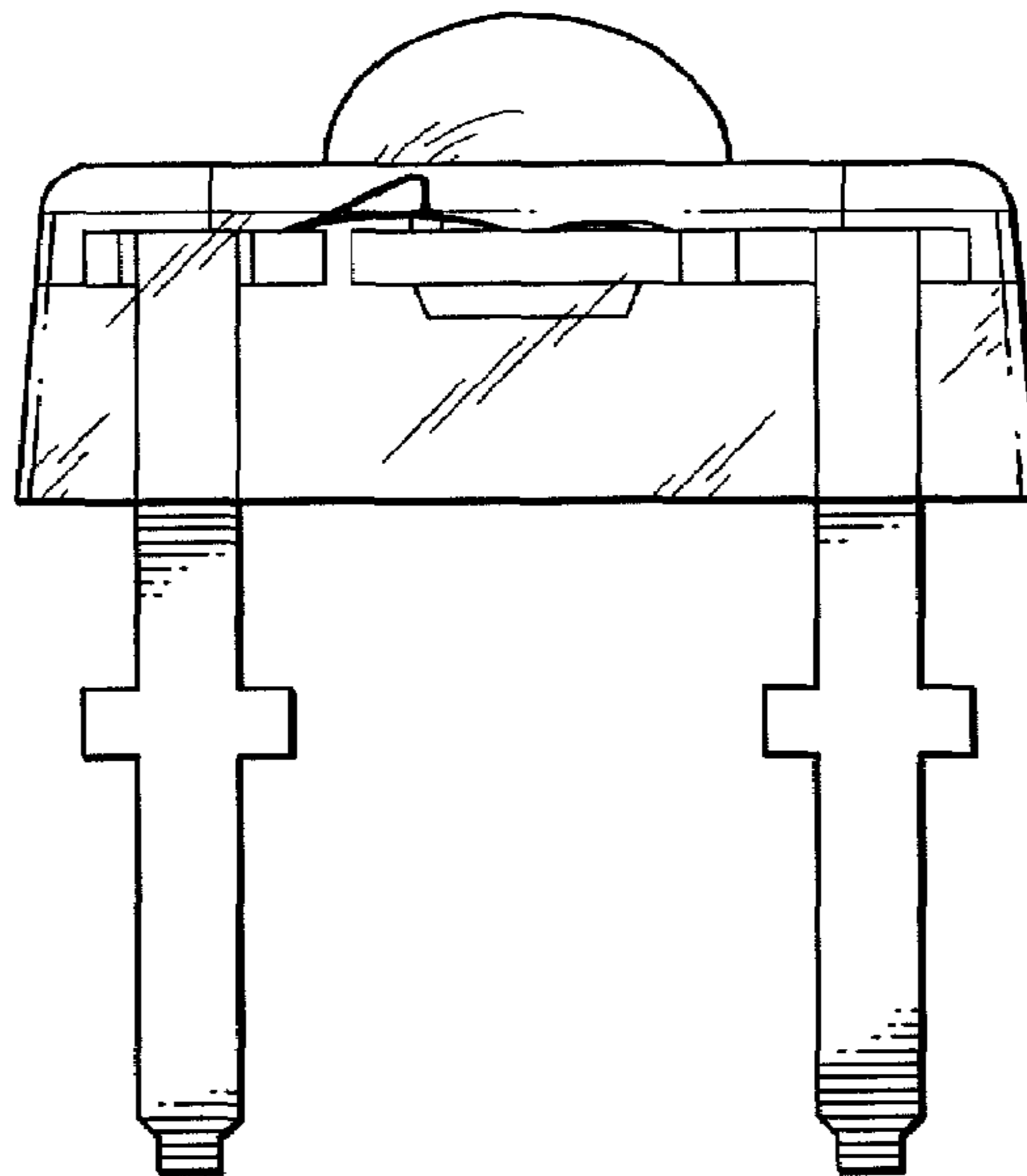
**1 Claim, 20 Drawing Sheets**



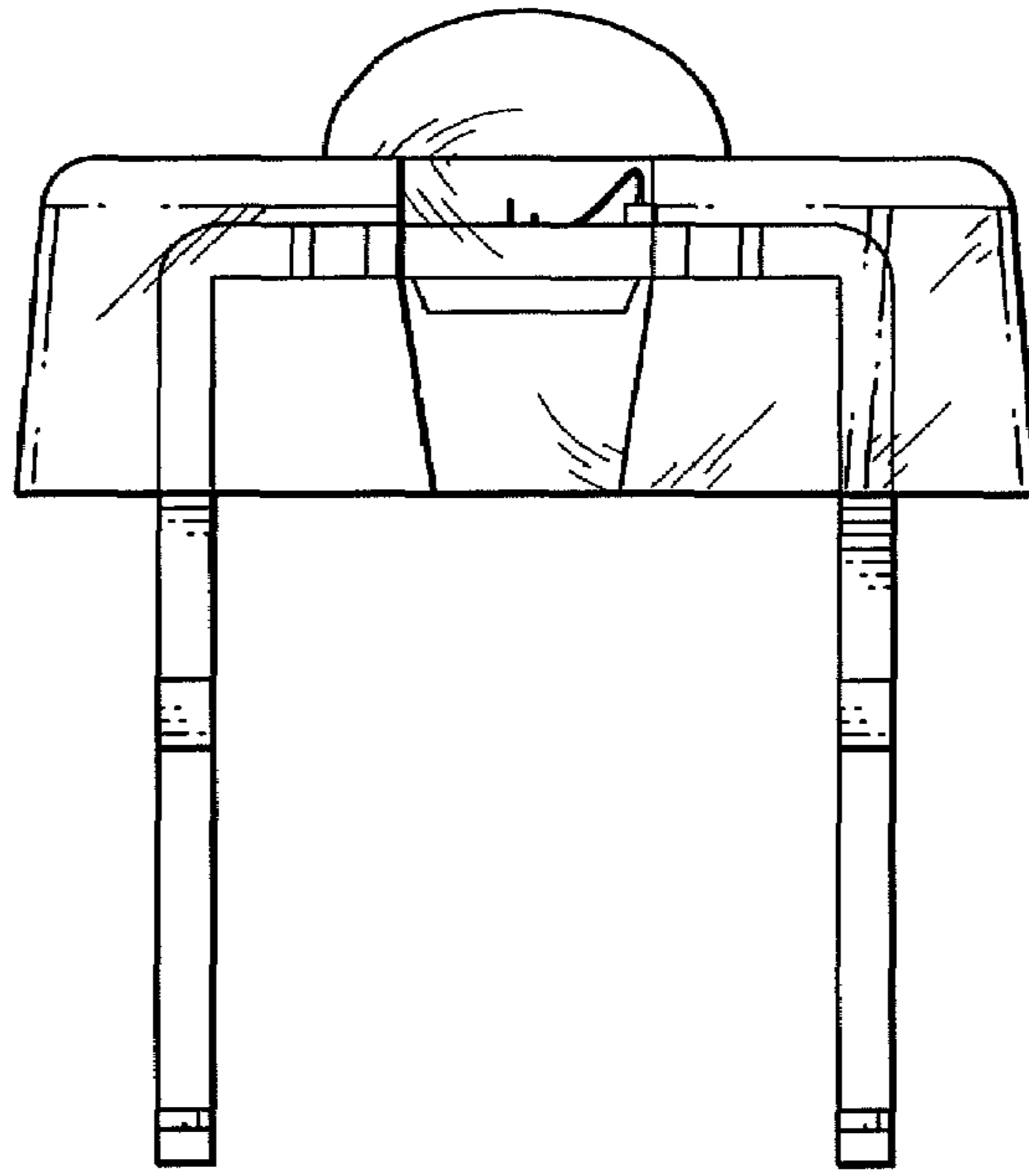
**FIG. 1**



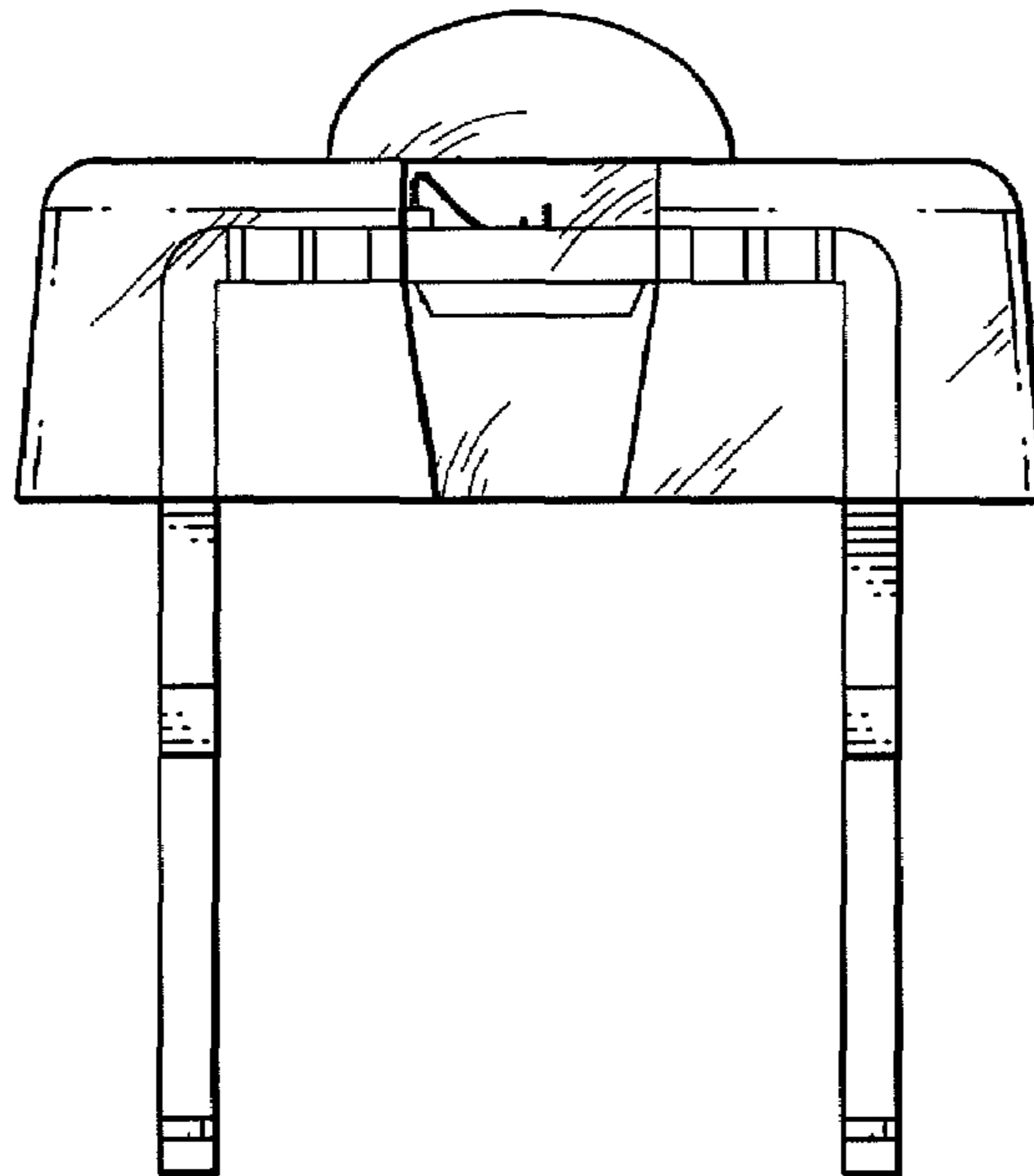
**FIG. 2**



**FIG. 3**



**FIG. 4**



**FIG. 5**

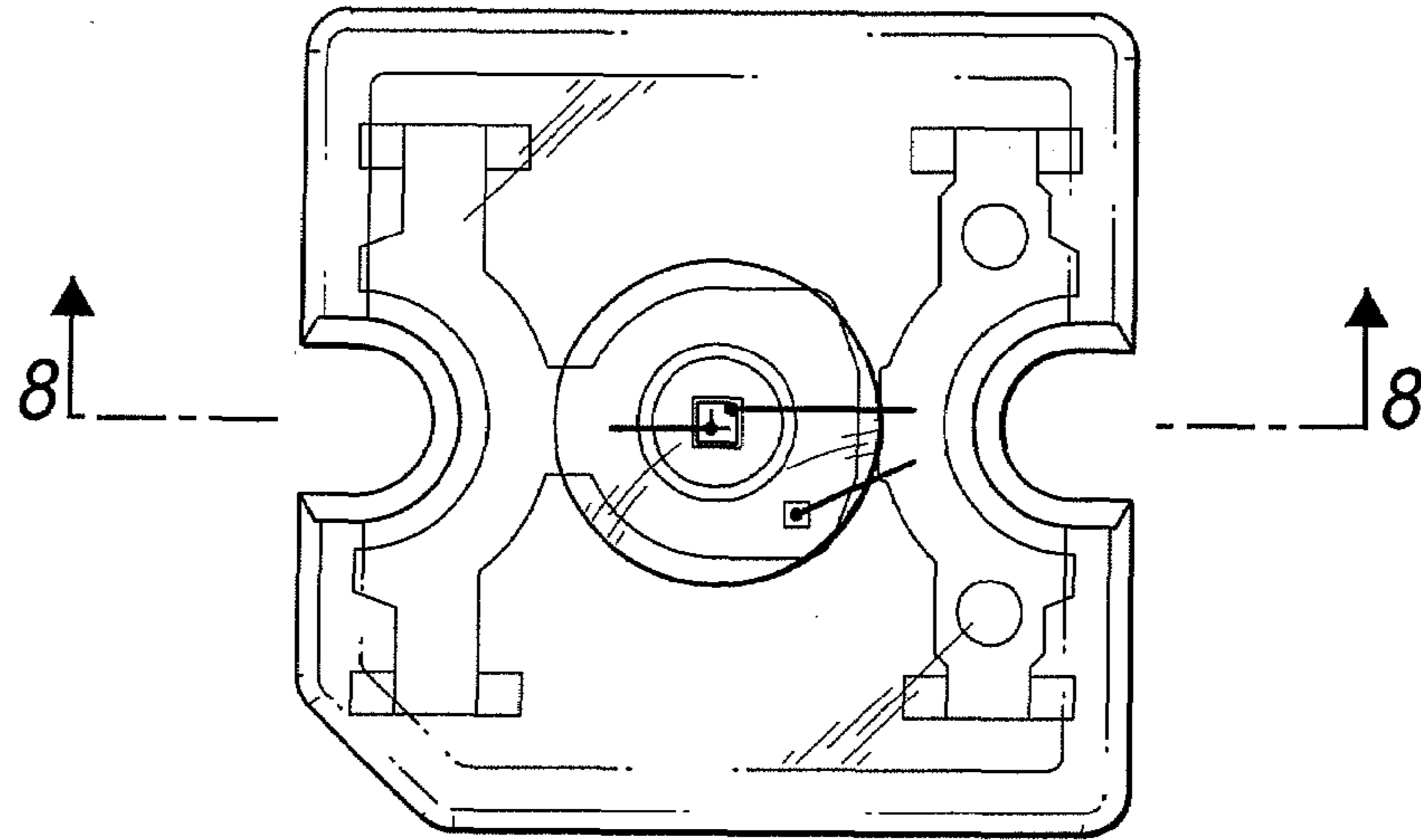


FIG. 6

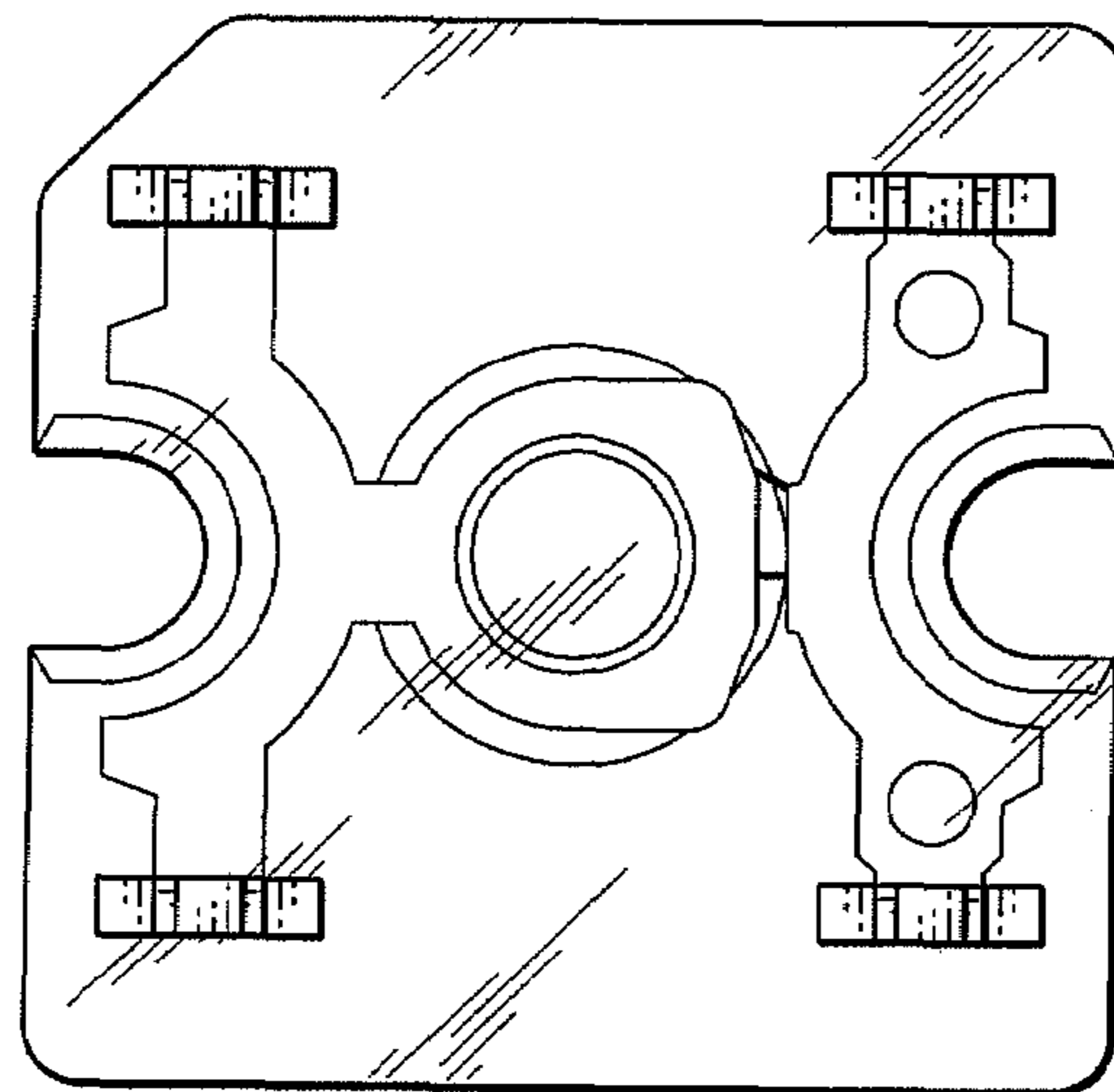
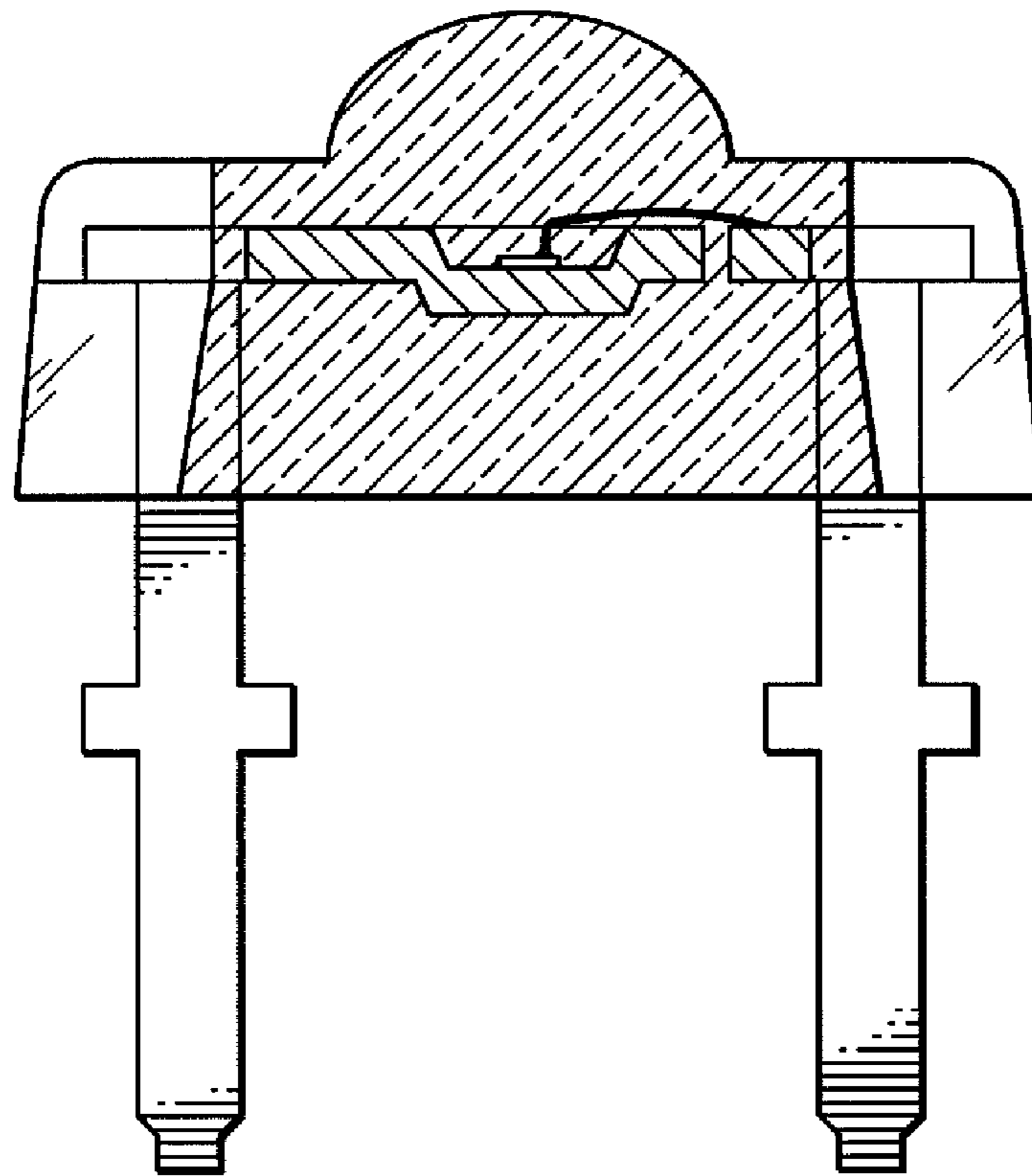
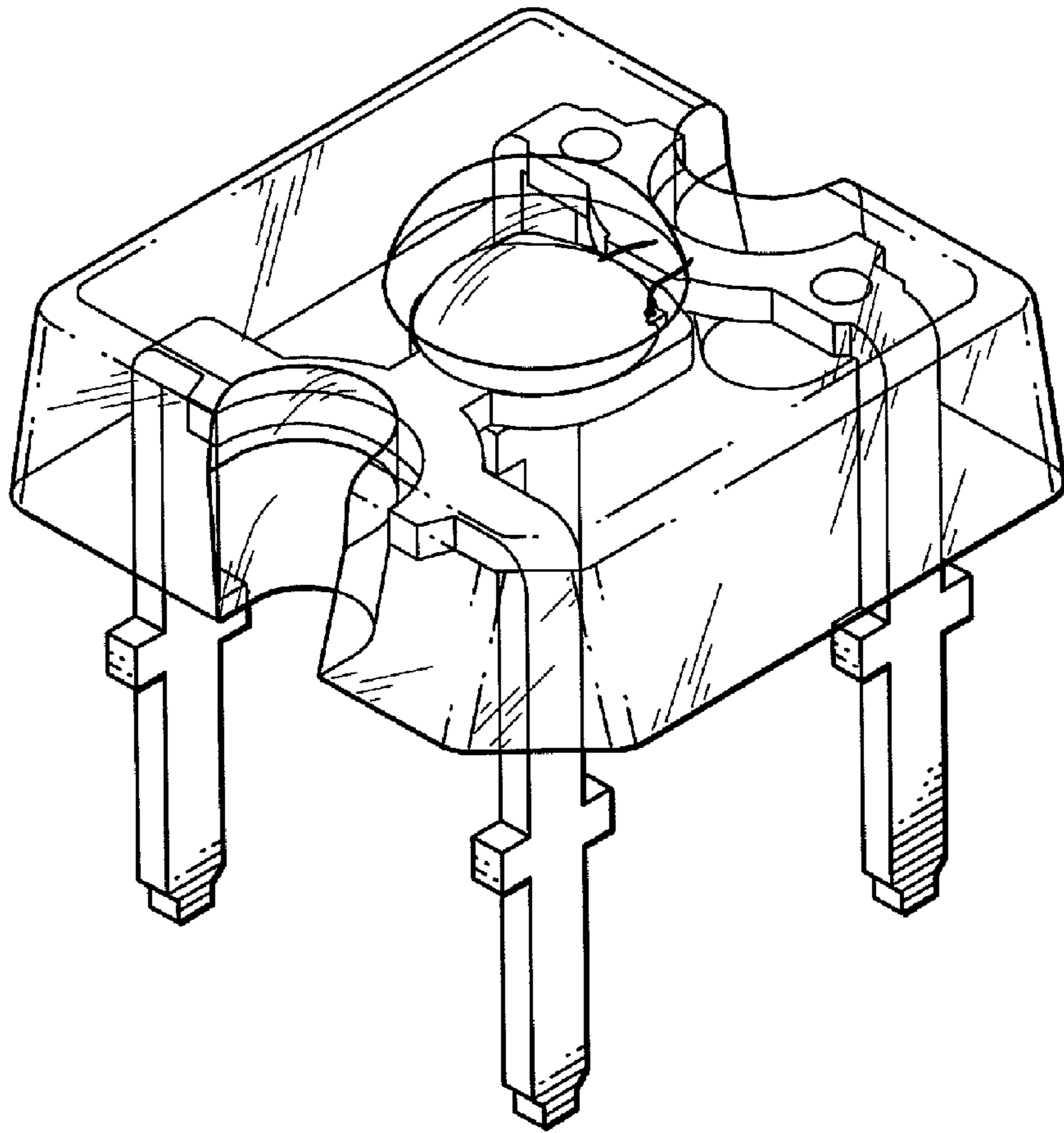


FIG. 7

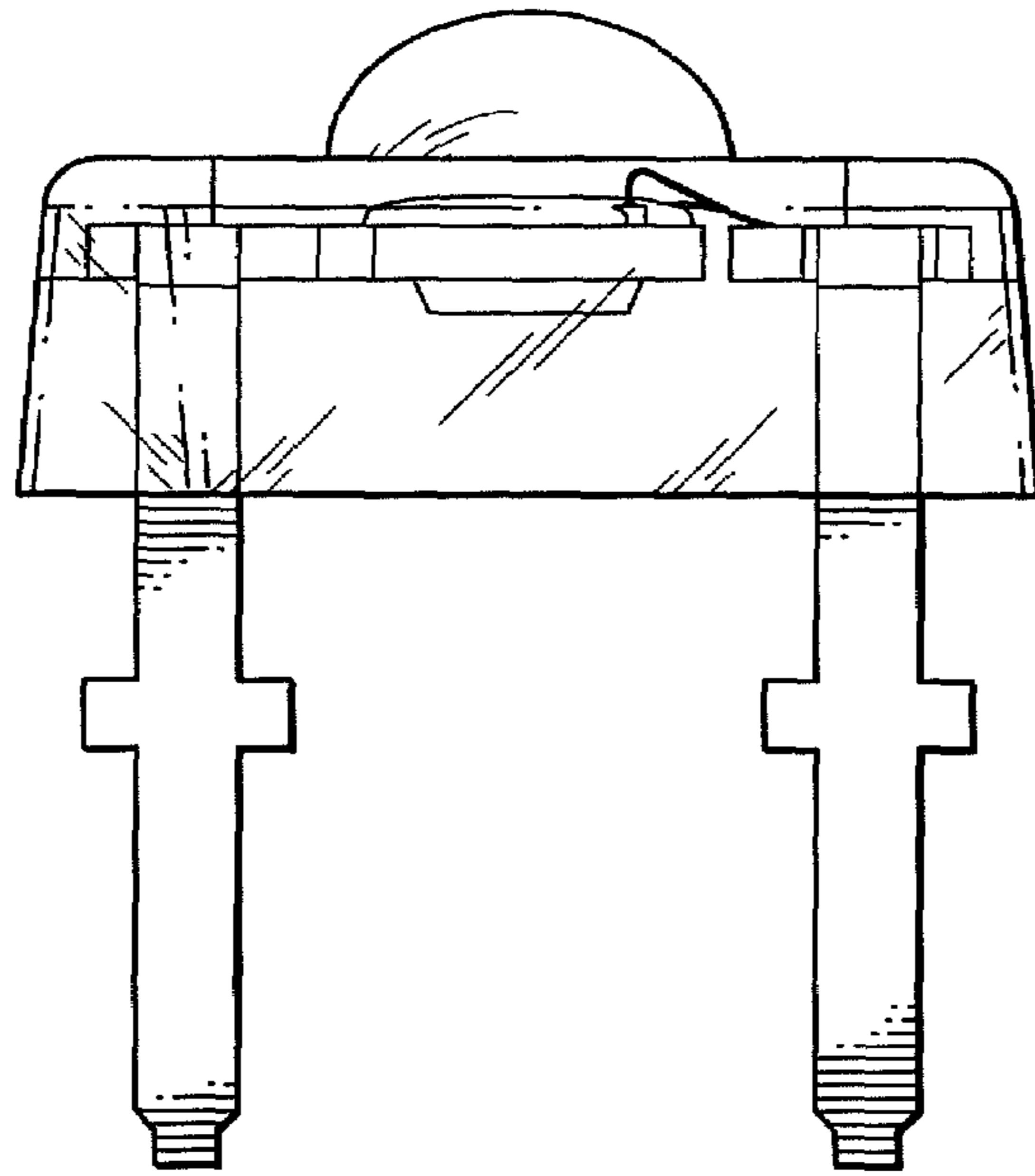


**FIG. 8**

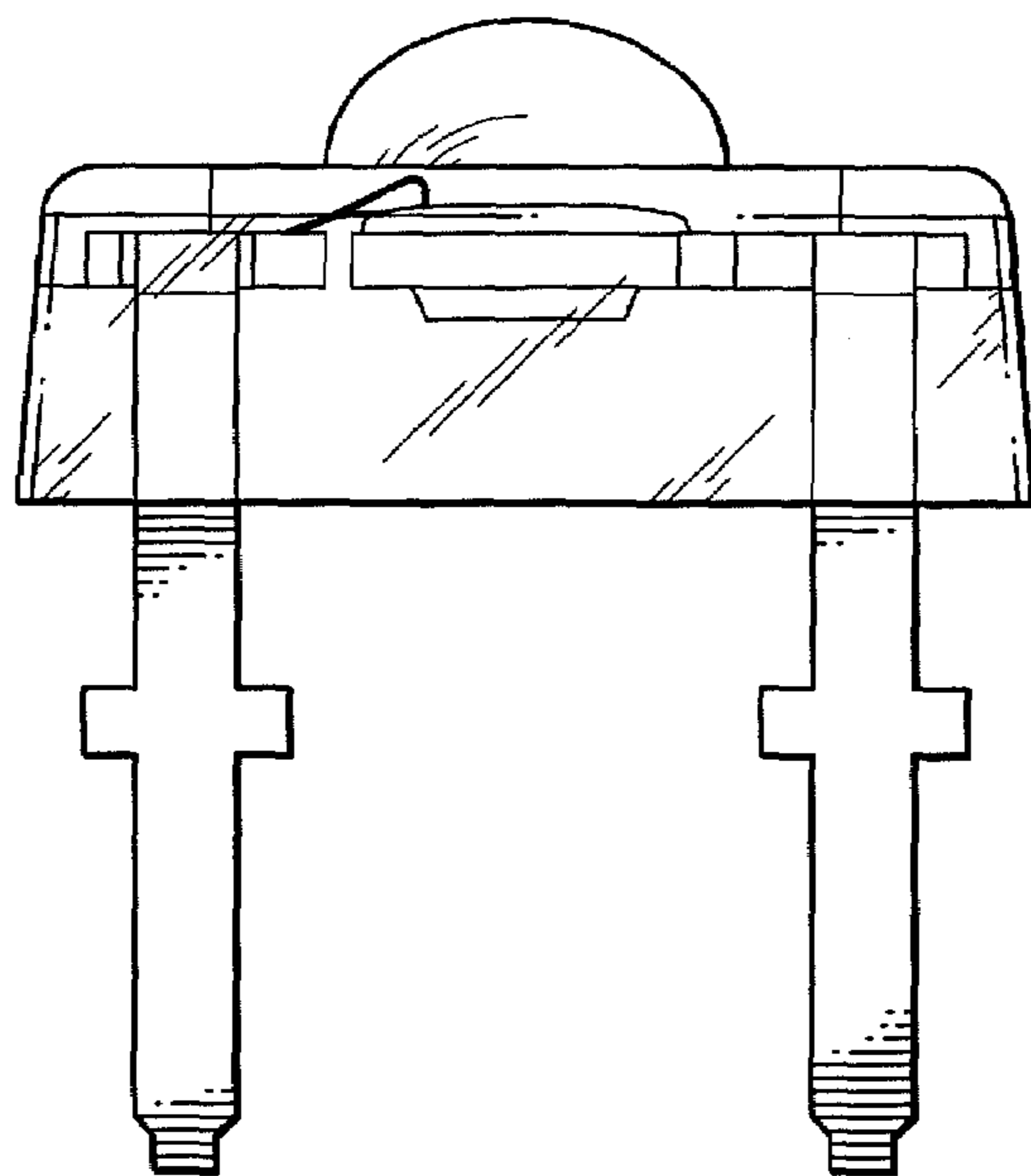


**FIG. 9**

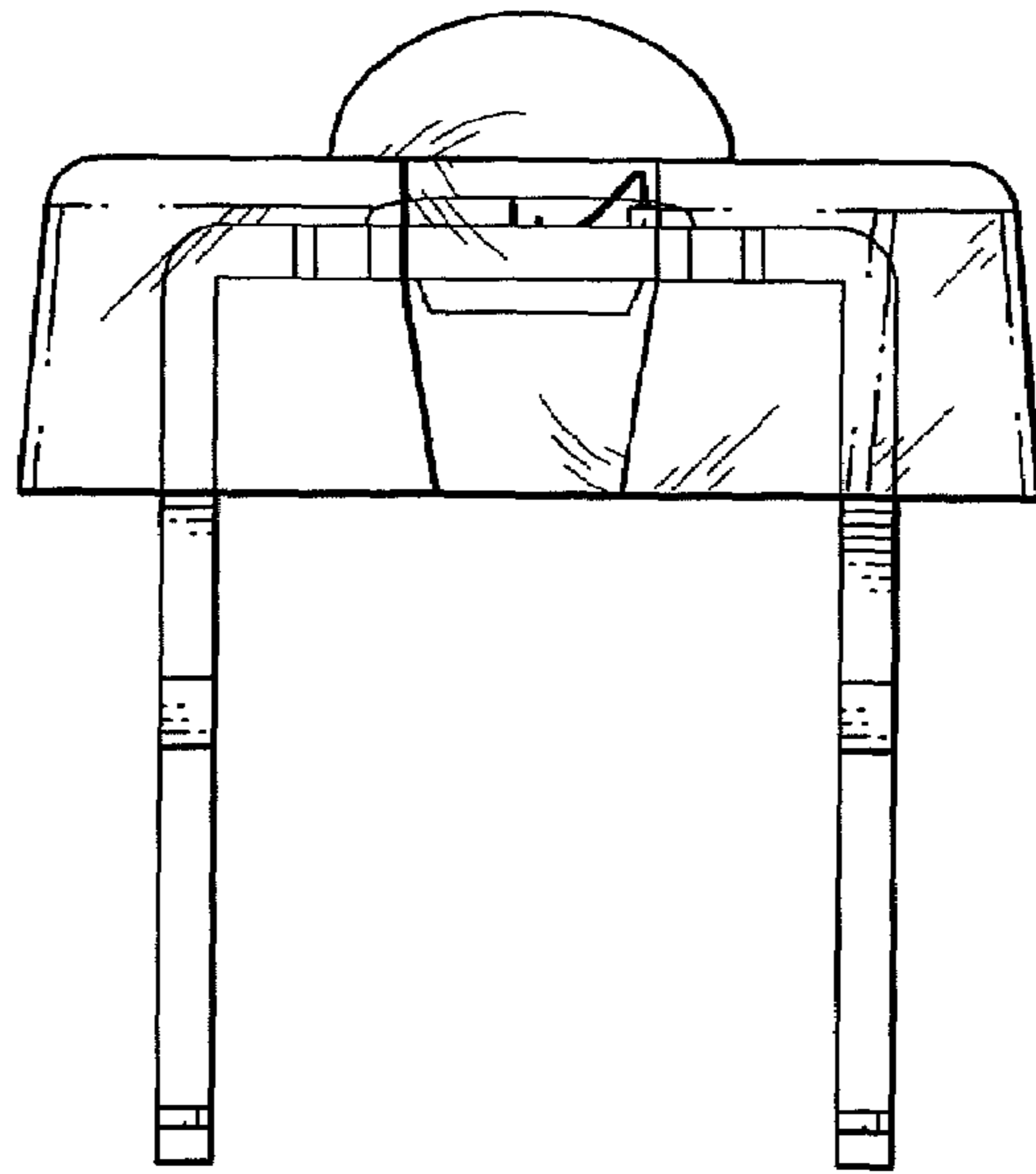




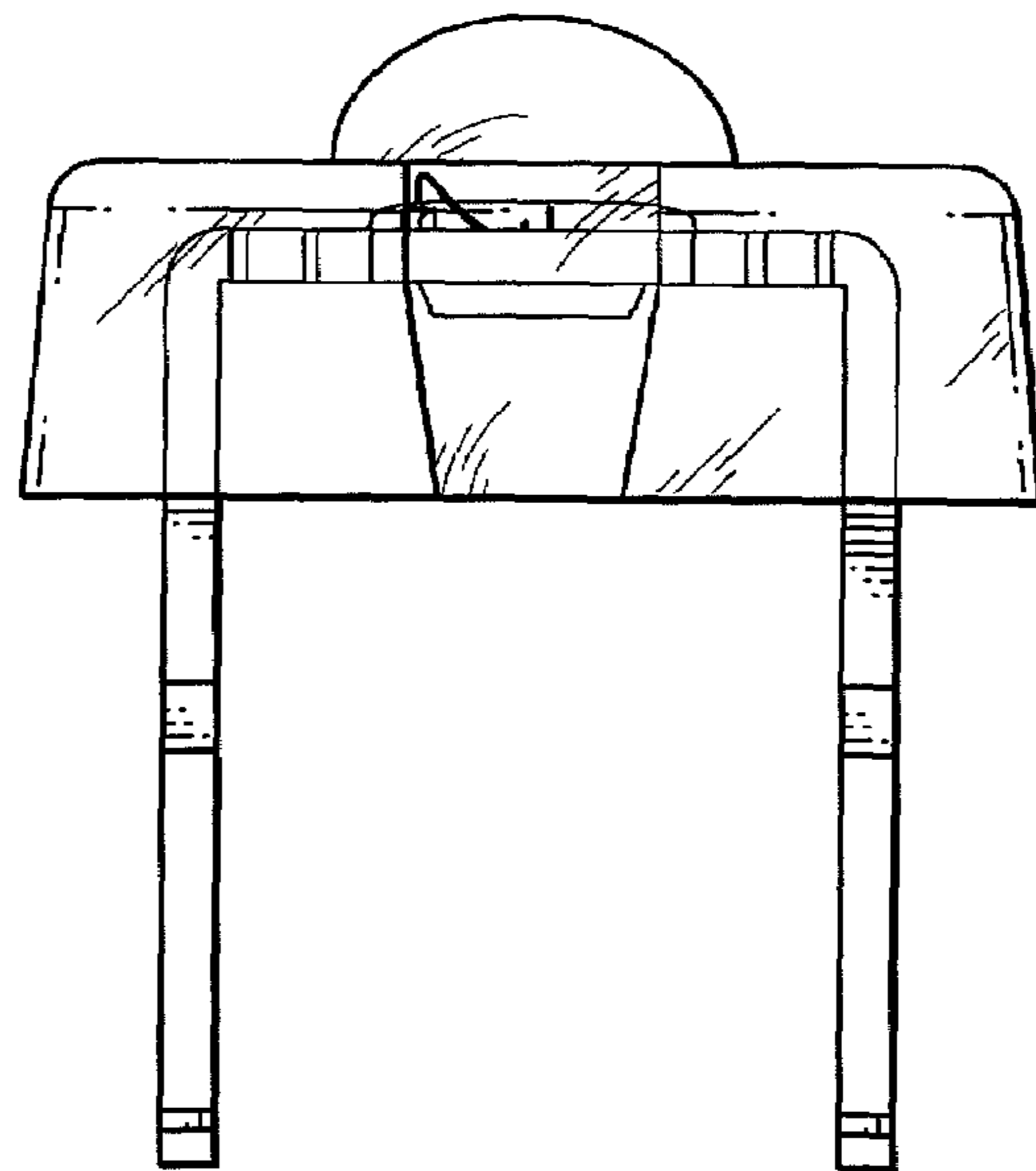
**FIG. 10**



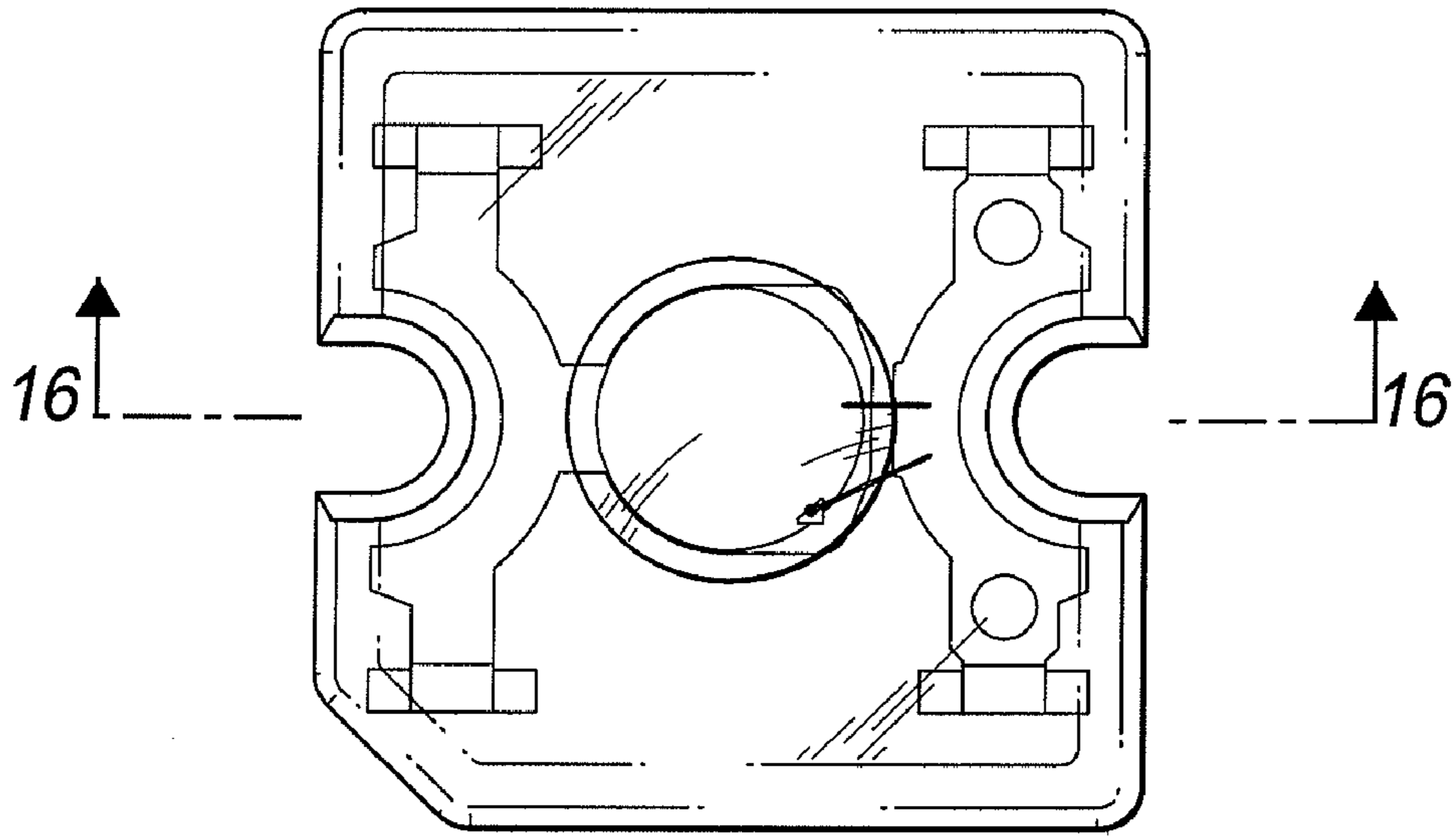
**FIG. 11**



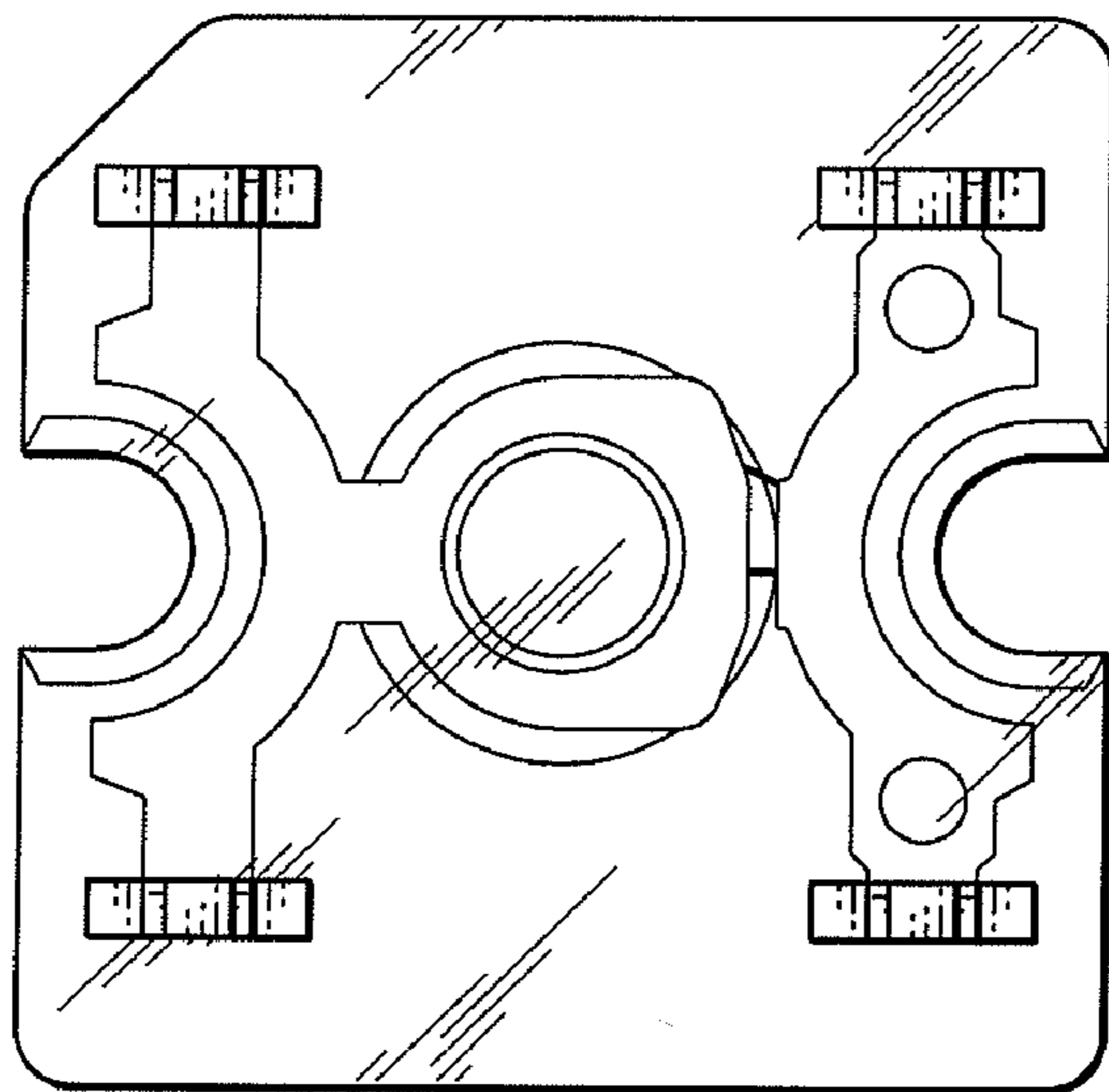
**FIG. 12**



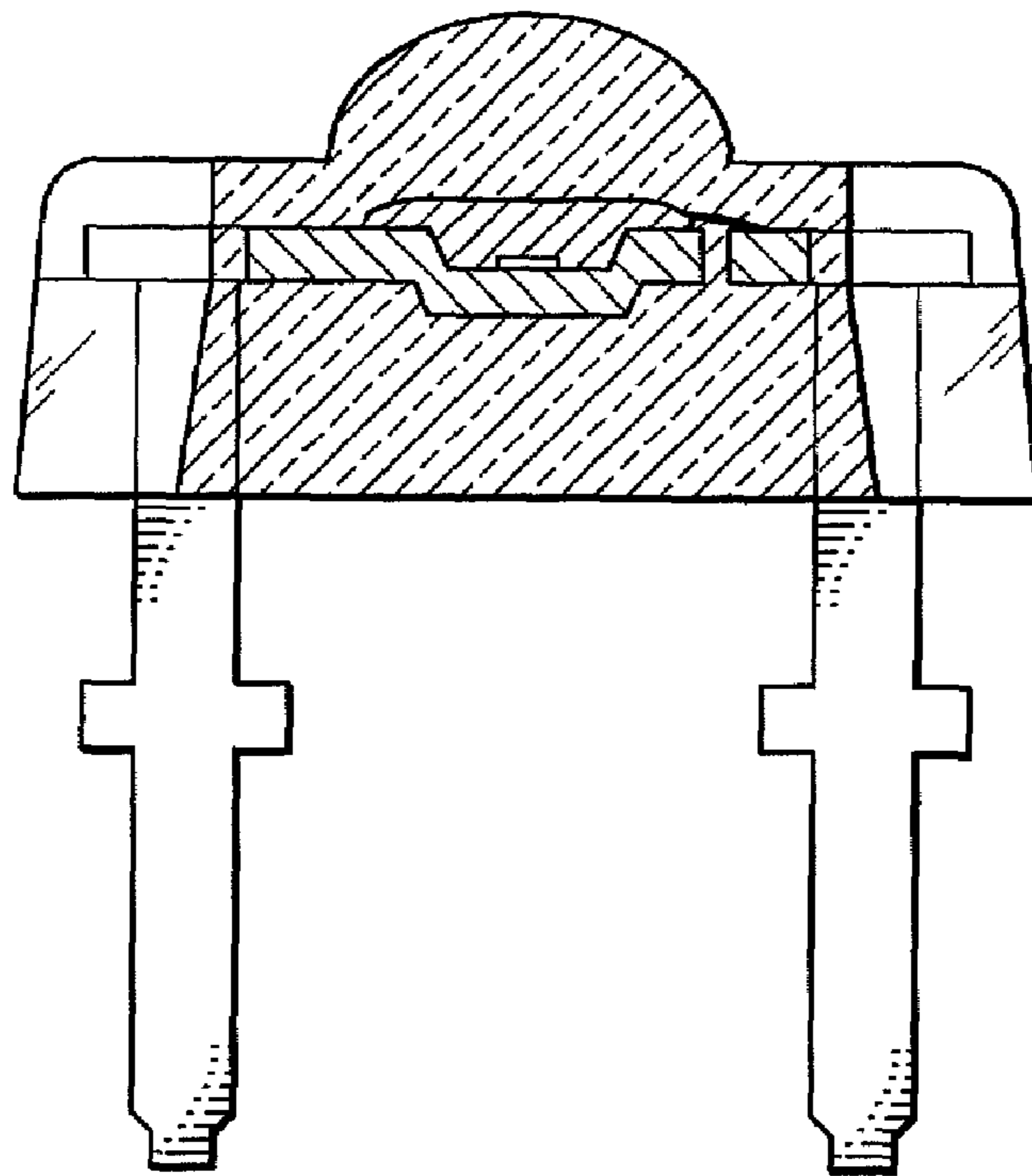
**FIG. 13**



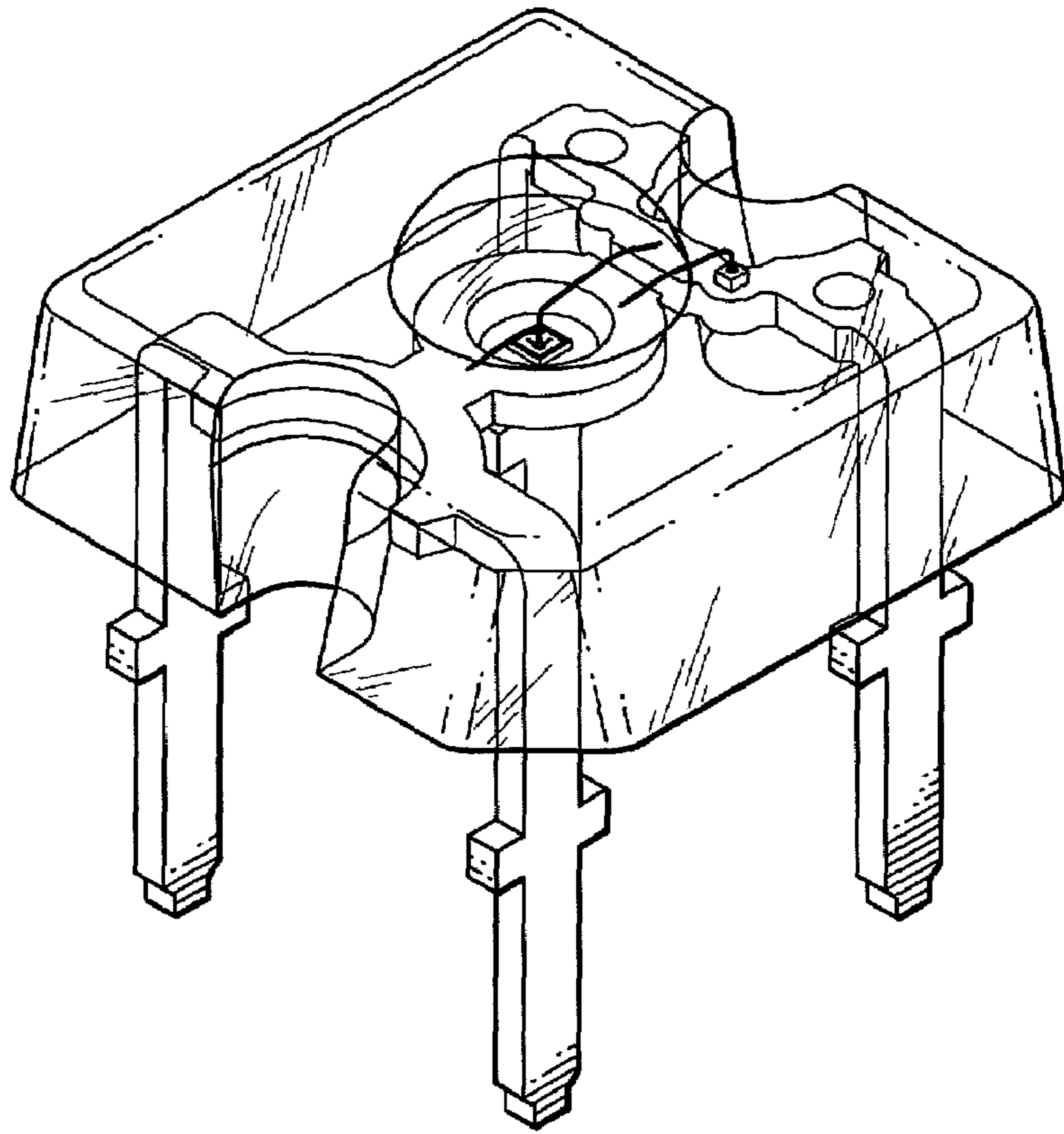
**FIG. 14**



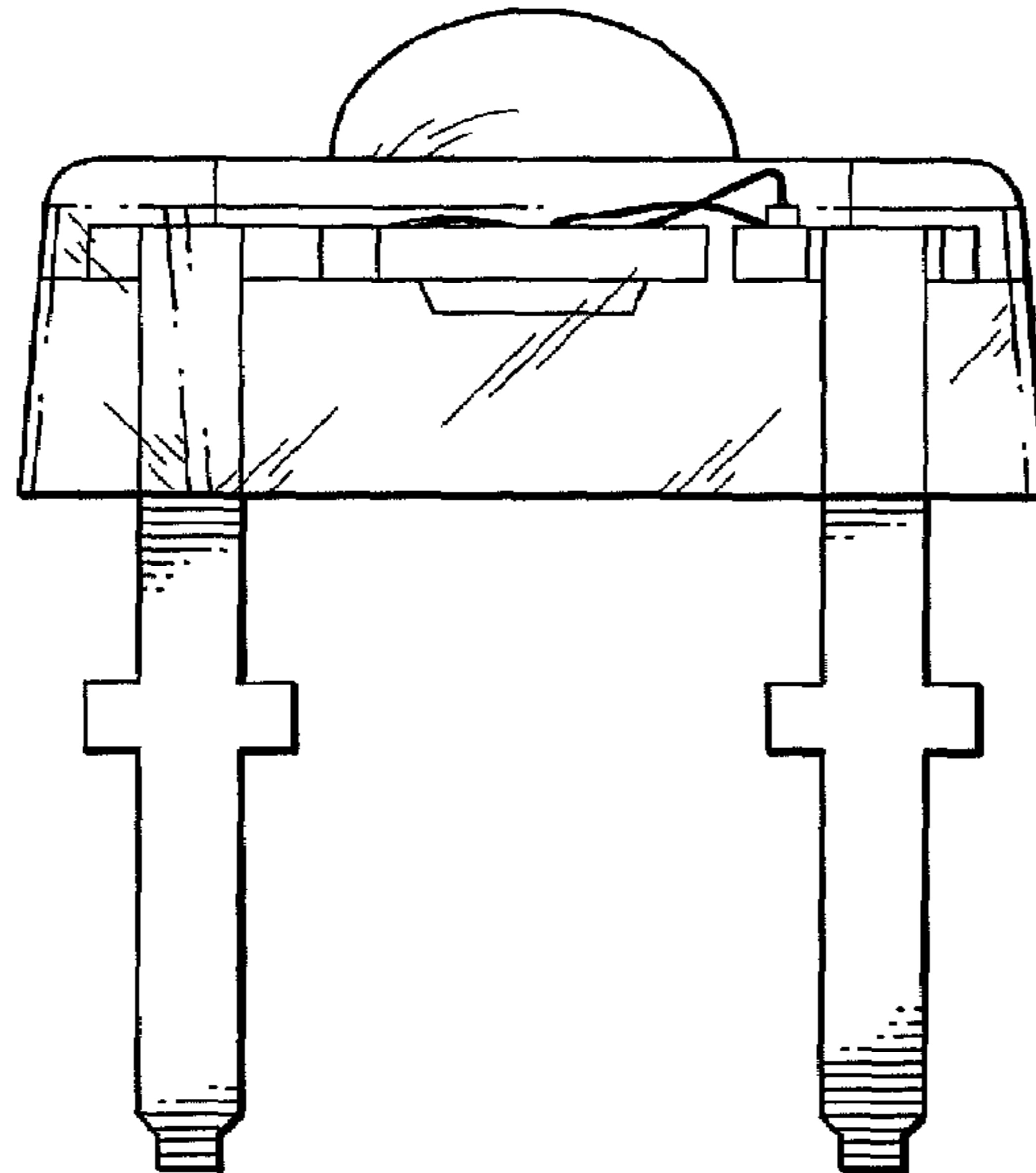
**FIG. 15**



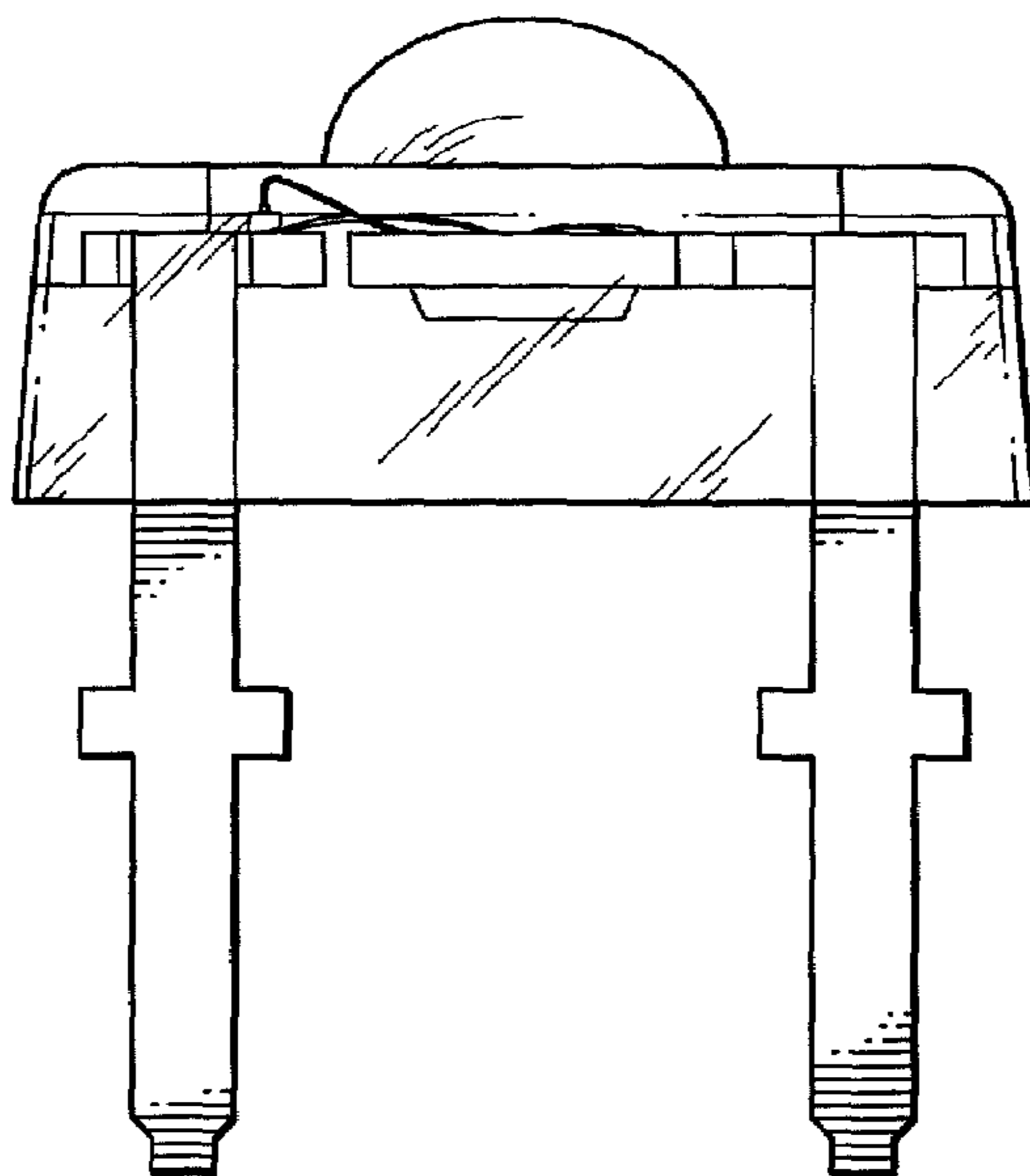
**FIG. 16**



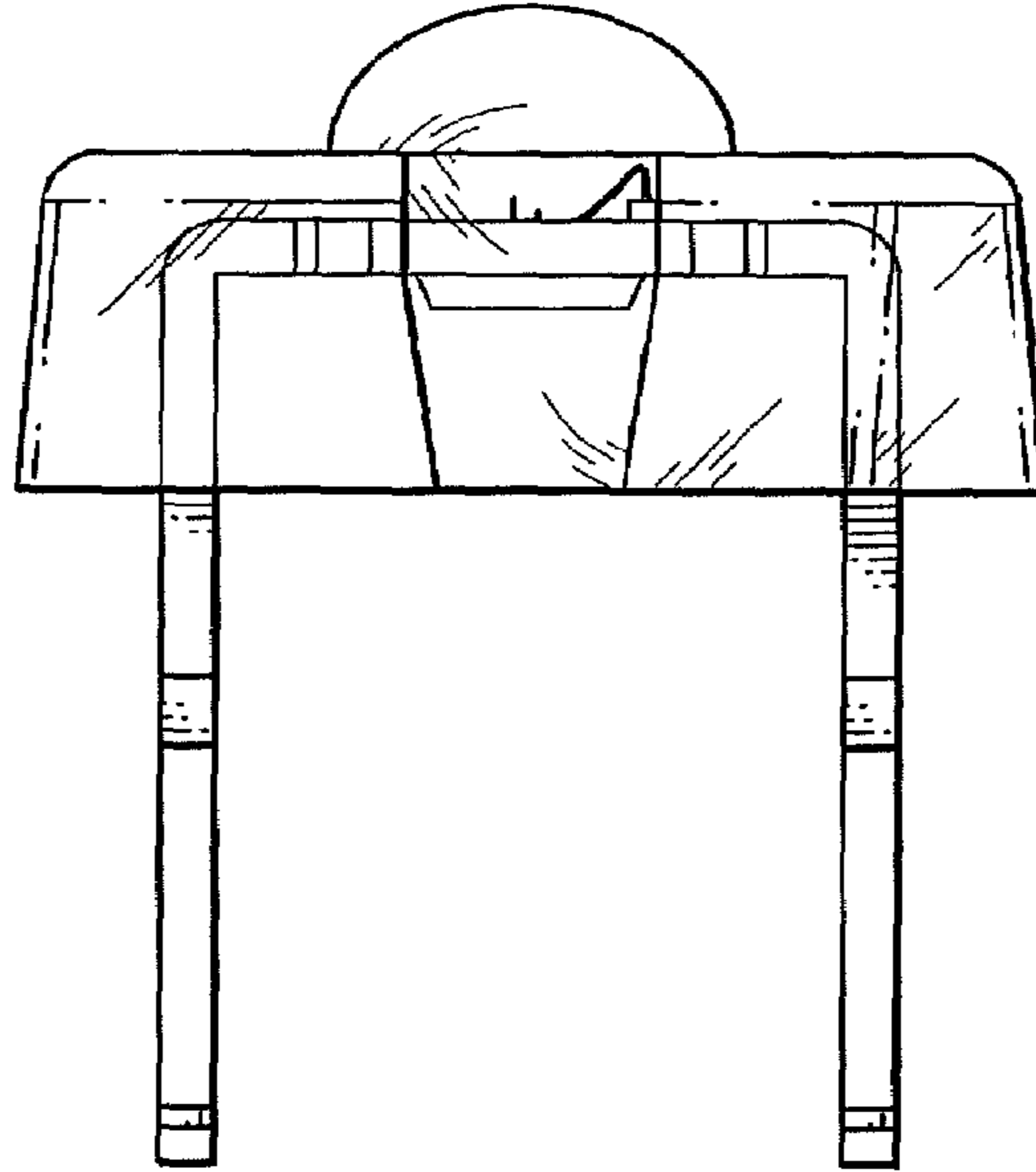
**FIG. 17**



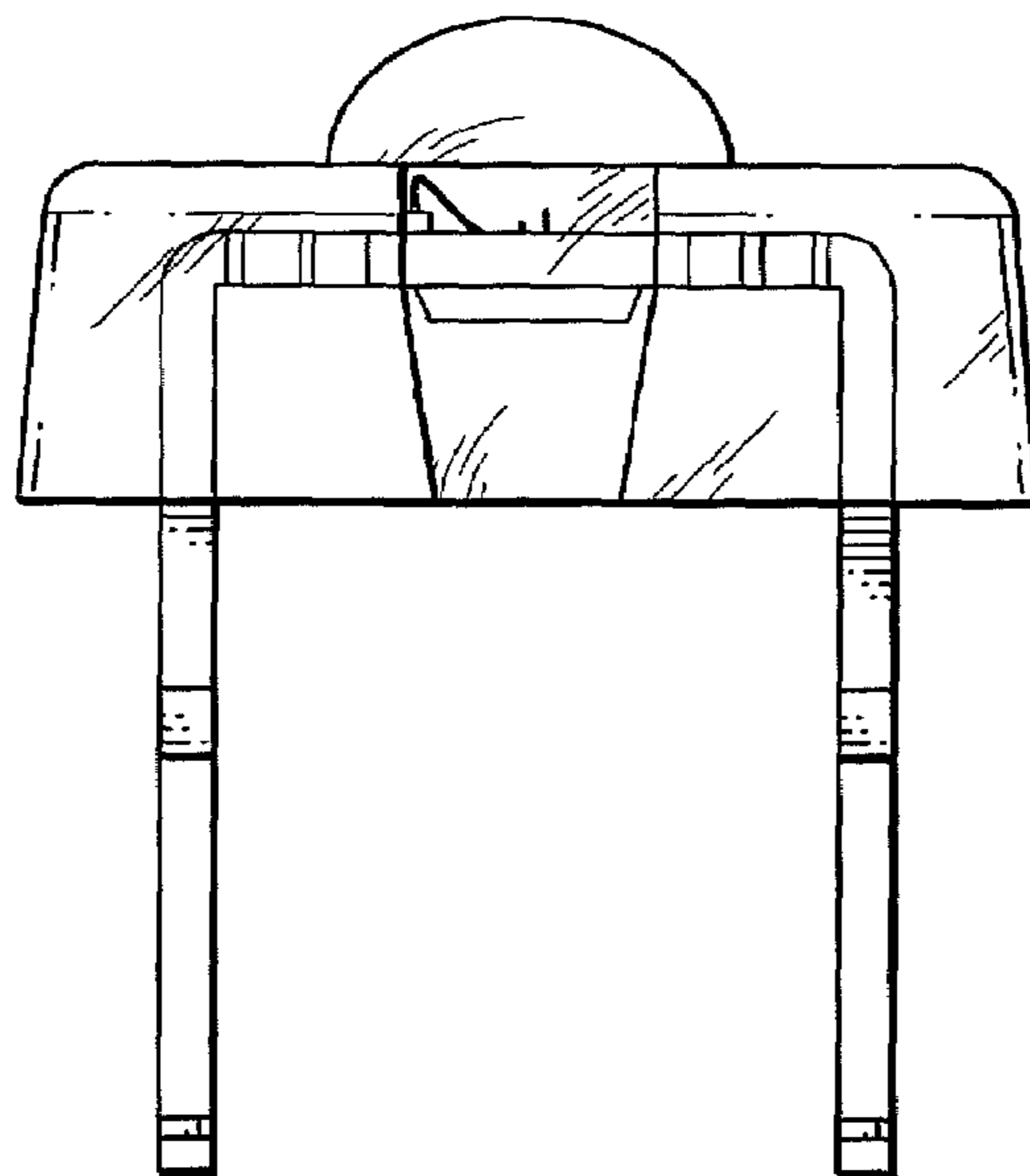
**FIG. 18**



**FIG. 19**



**FIG. 20**



**FIG. 21**

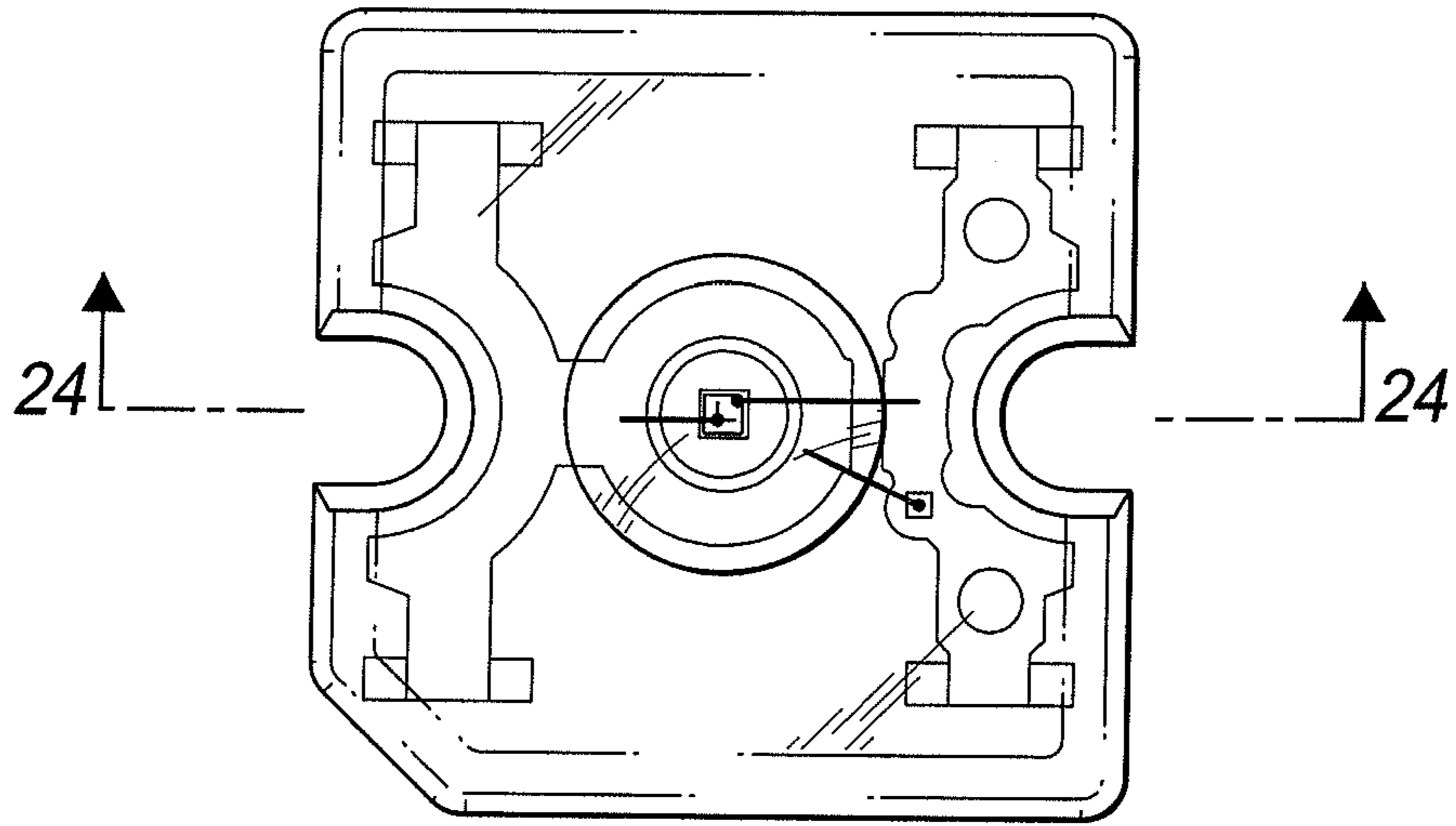


FIG. 22

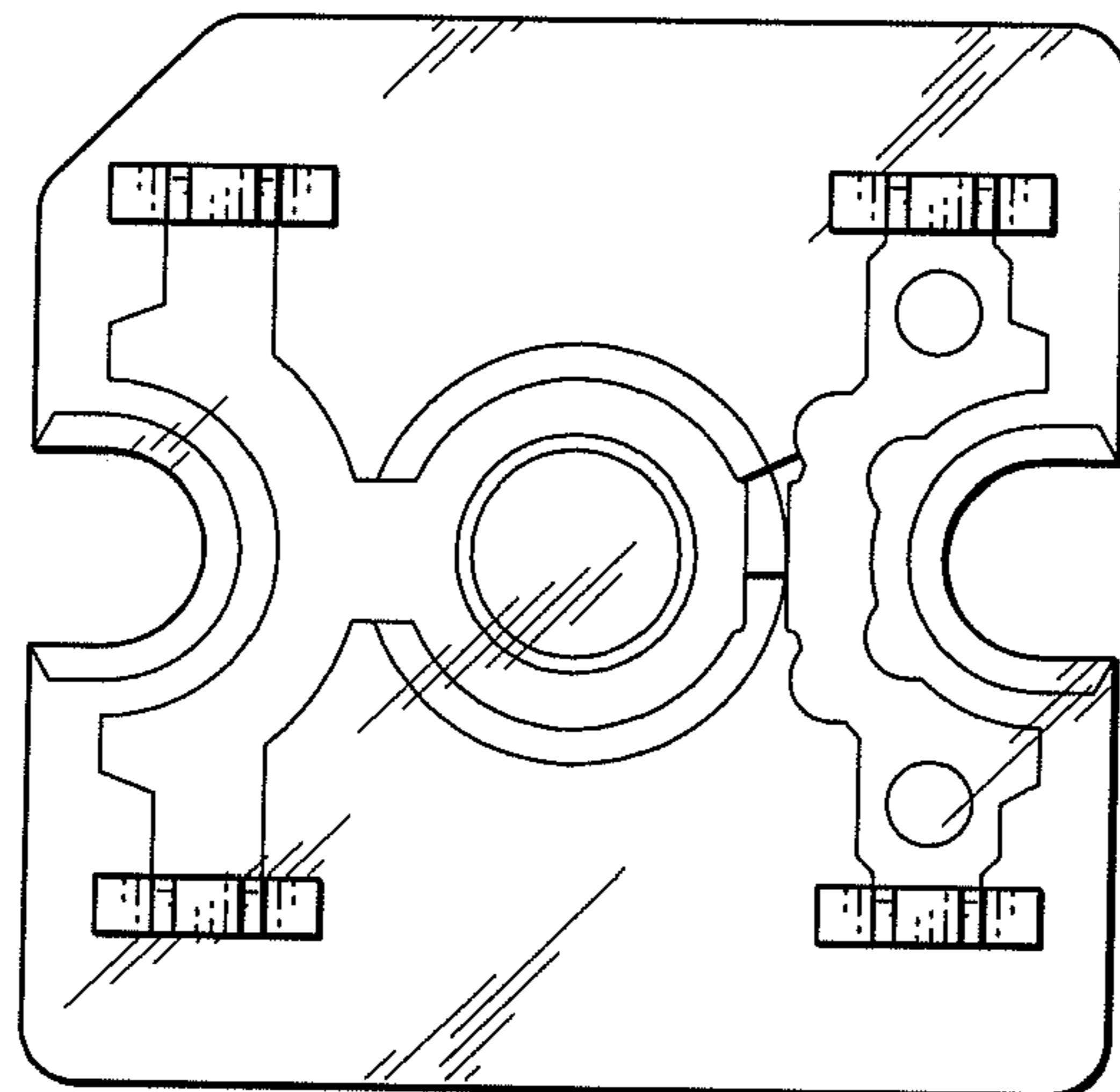
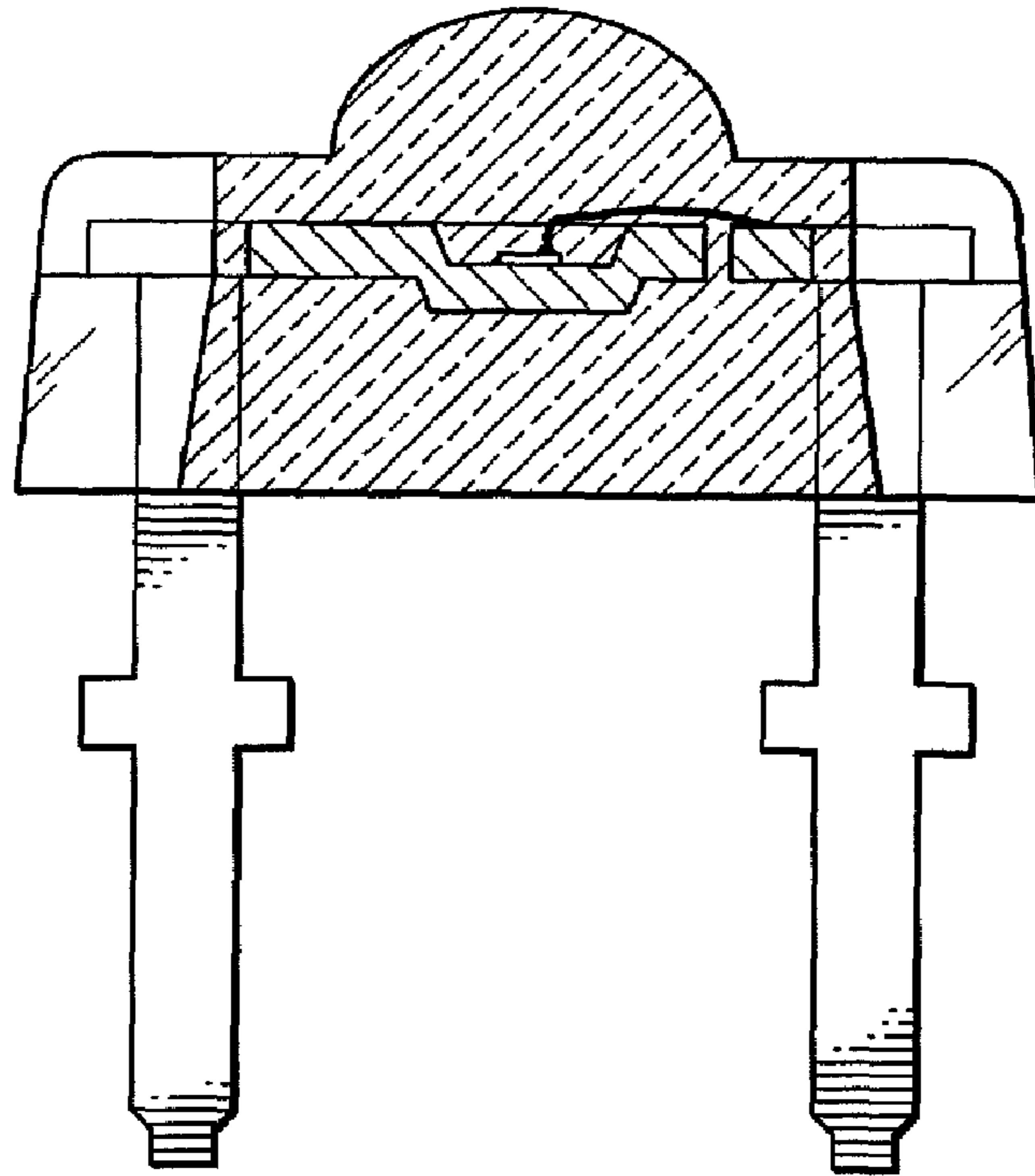
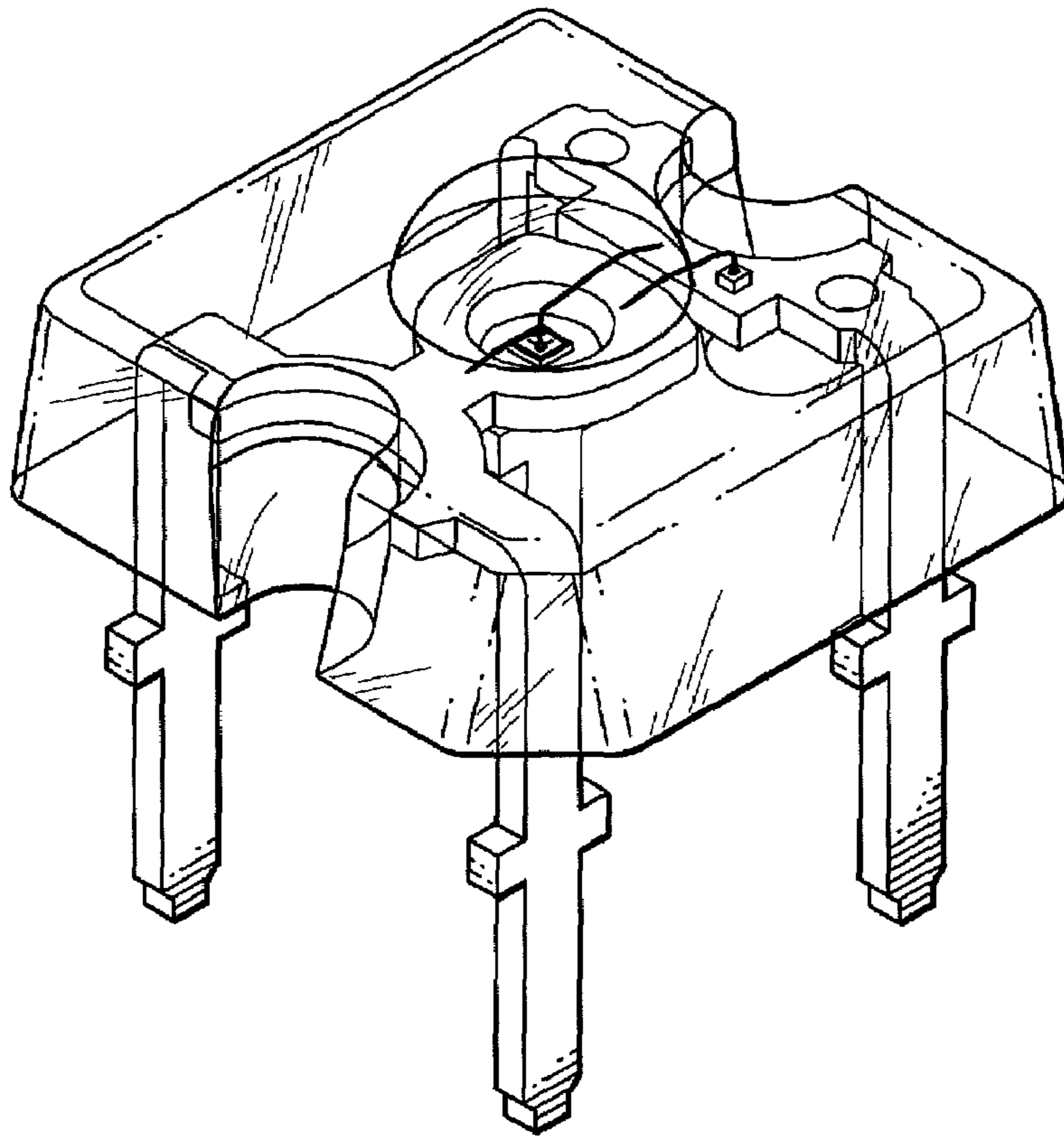


FIG. 23

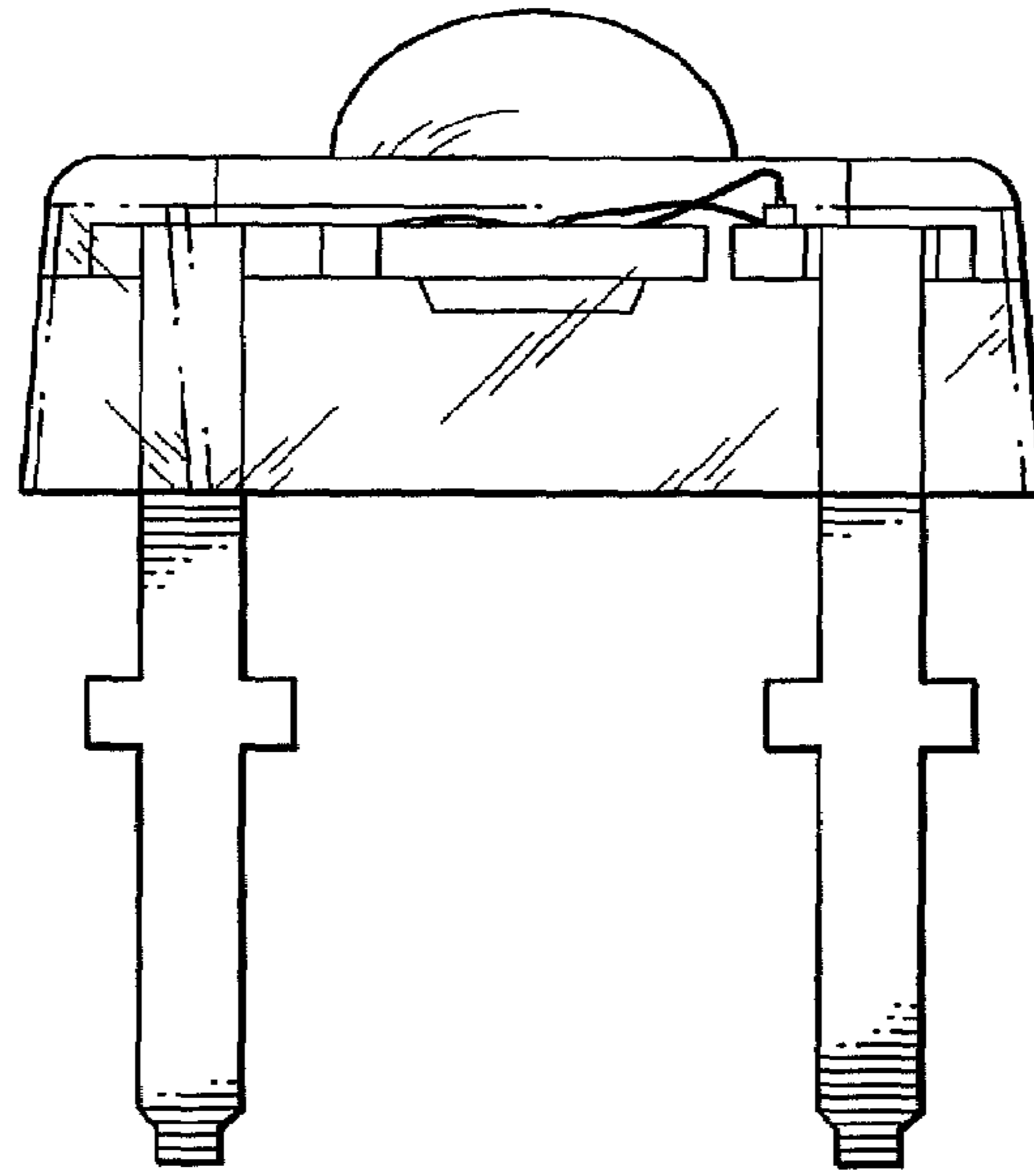




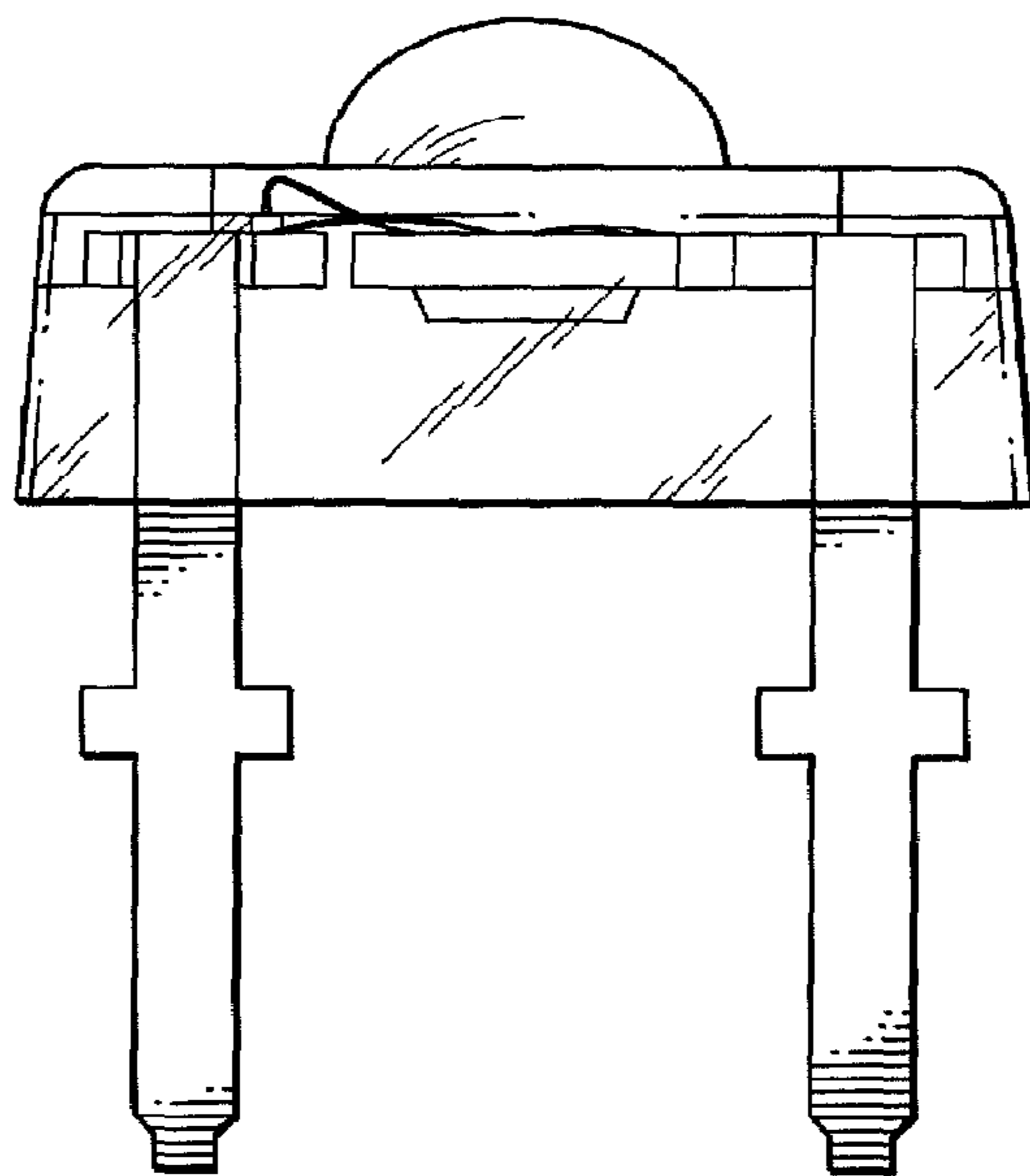
*FIG. 24*



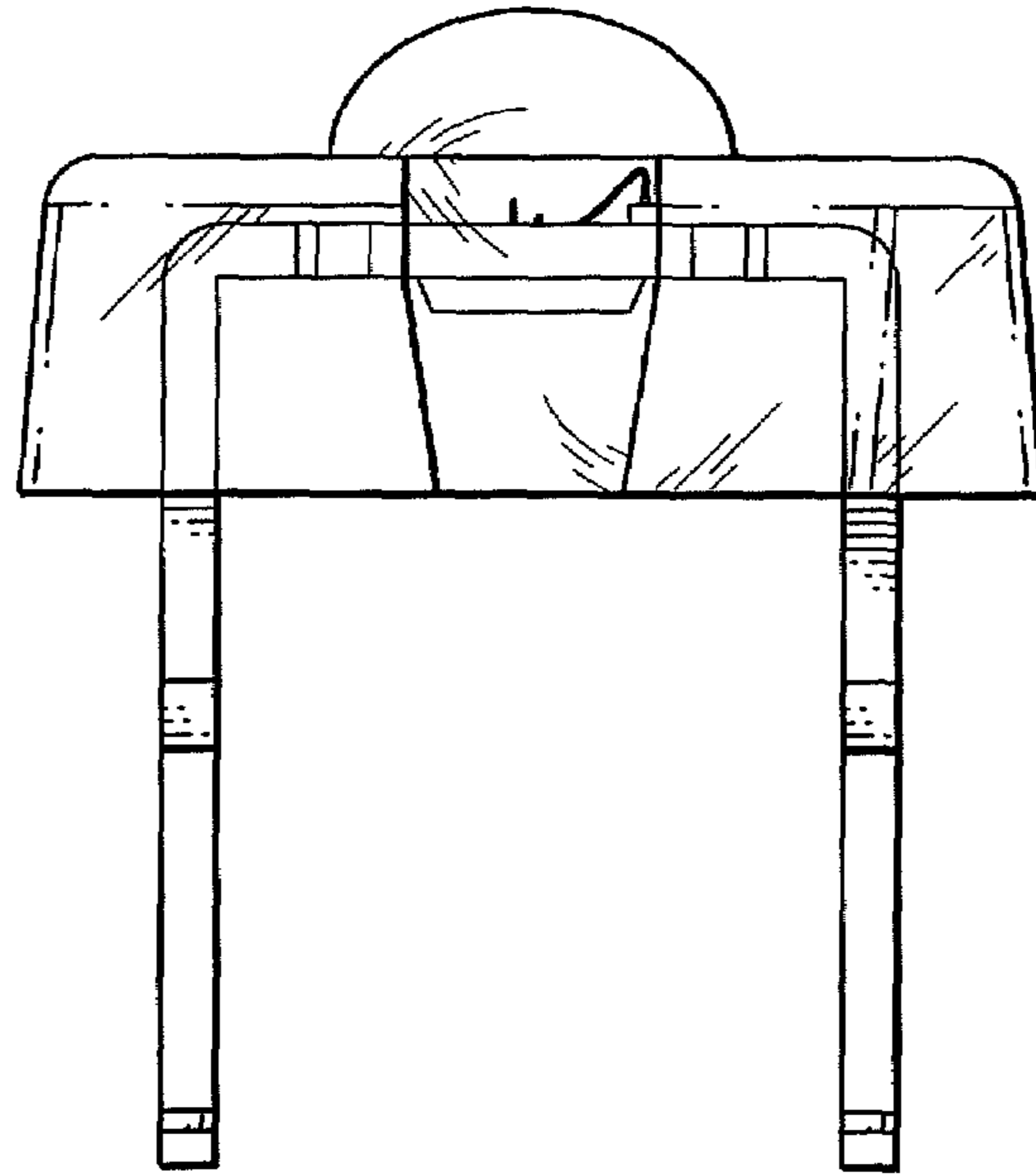
**FIG. 25**



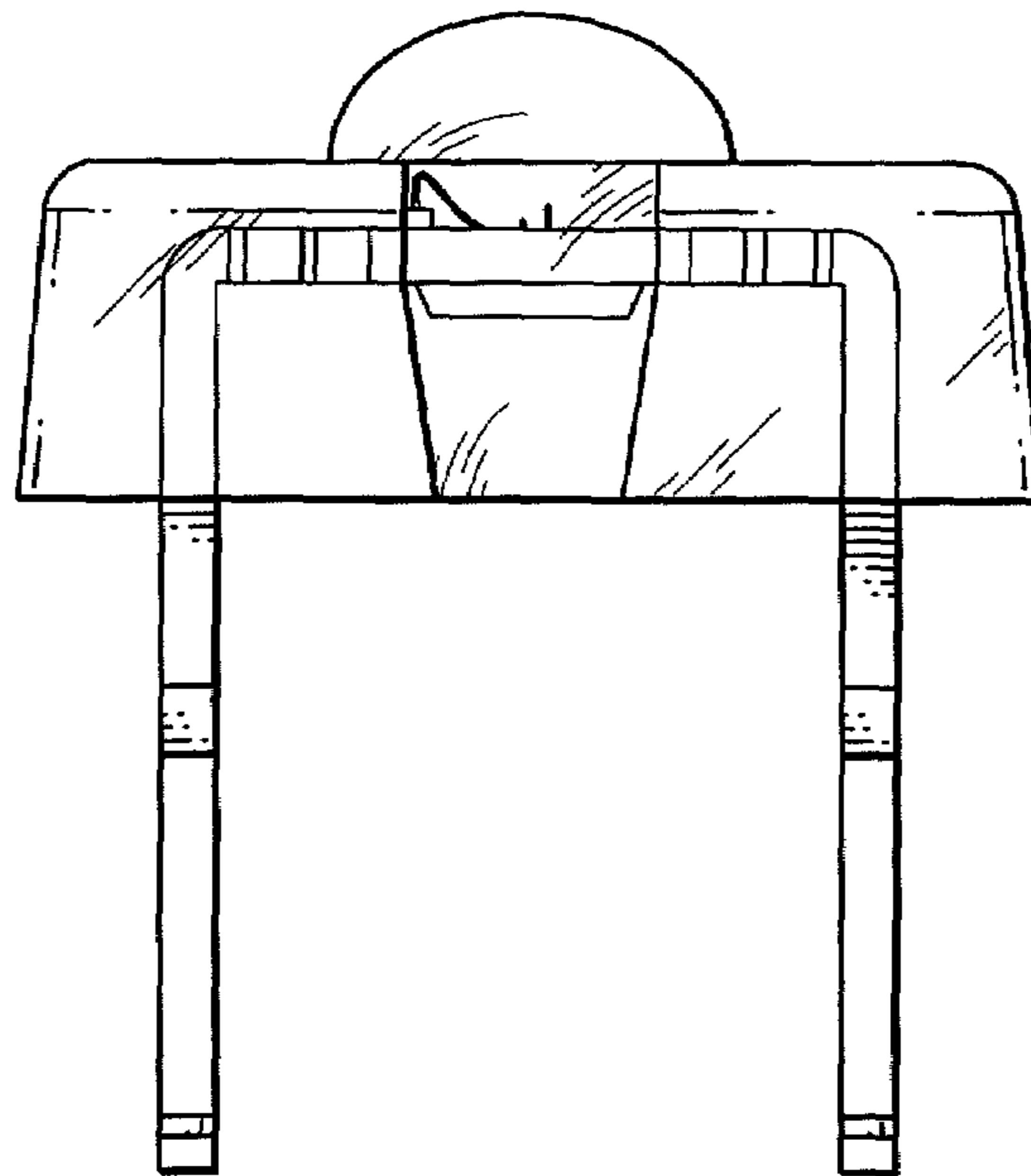
*FIG. 26*



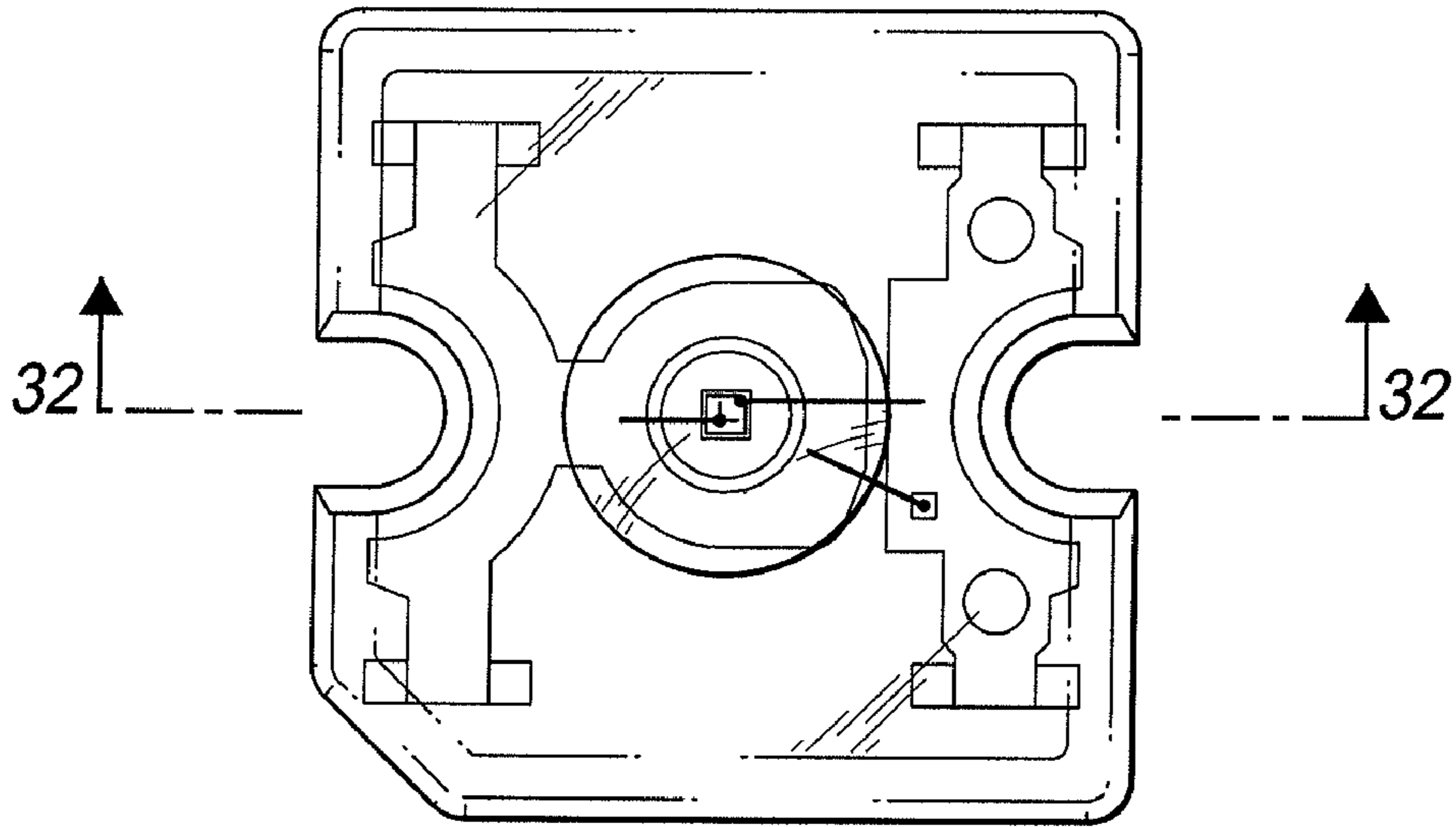
*FIG. 27*



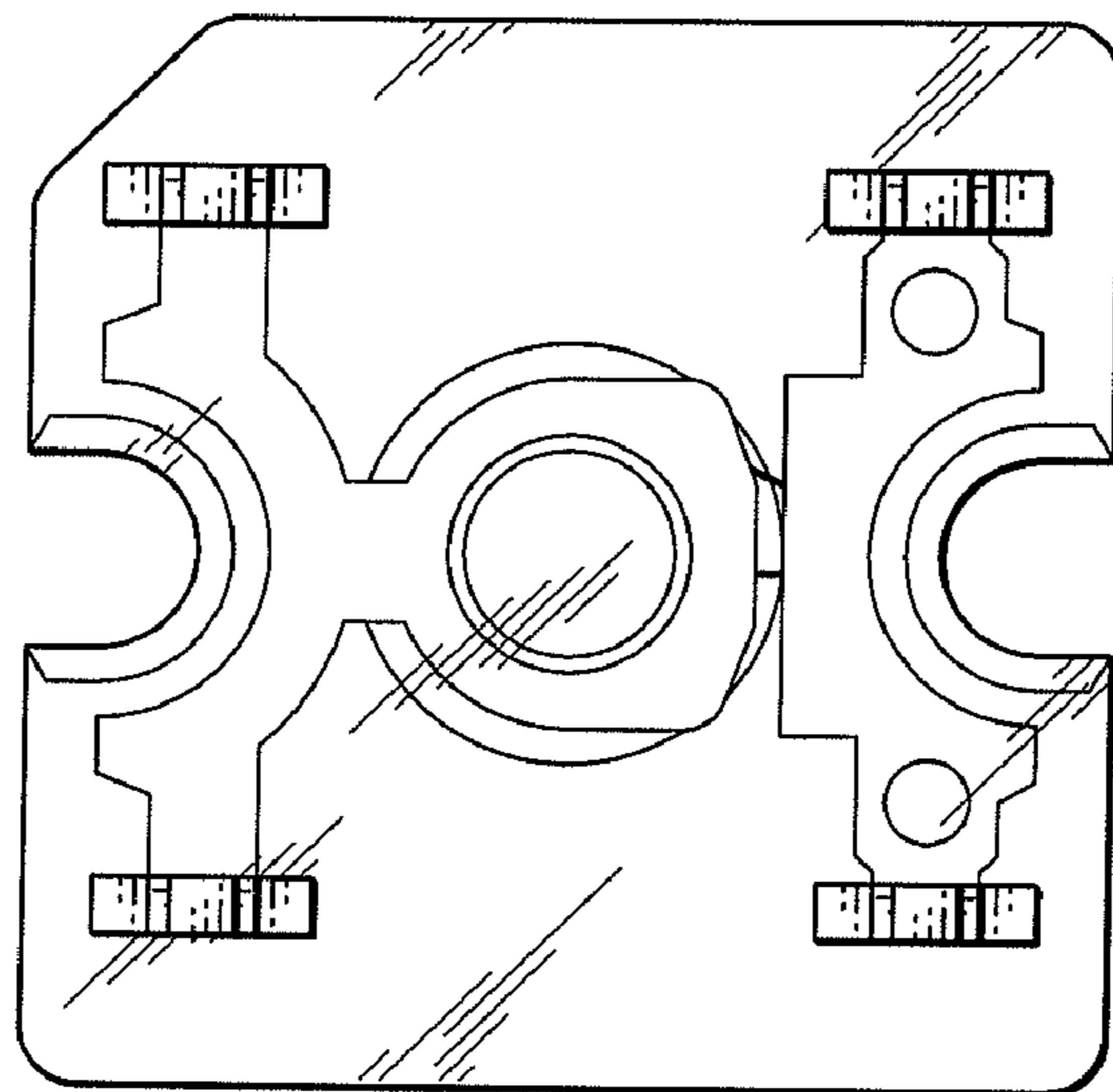
**FIG. 28**



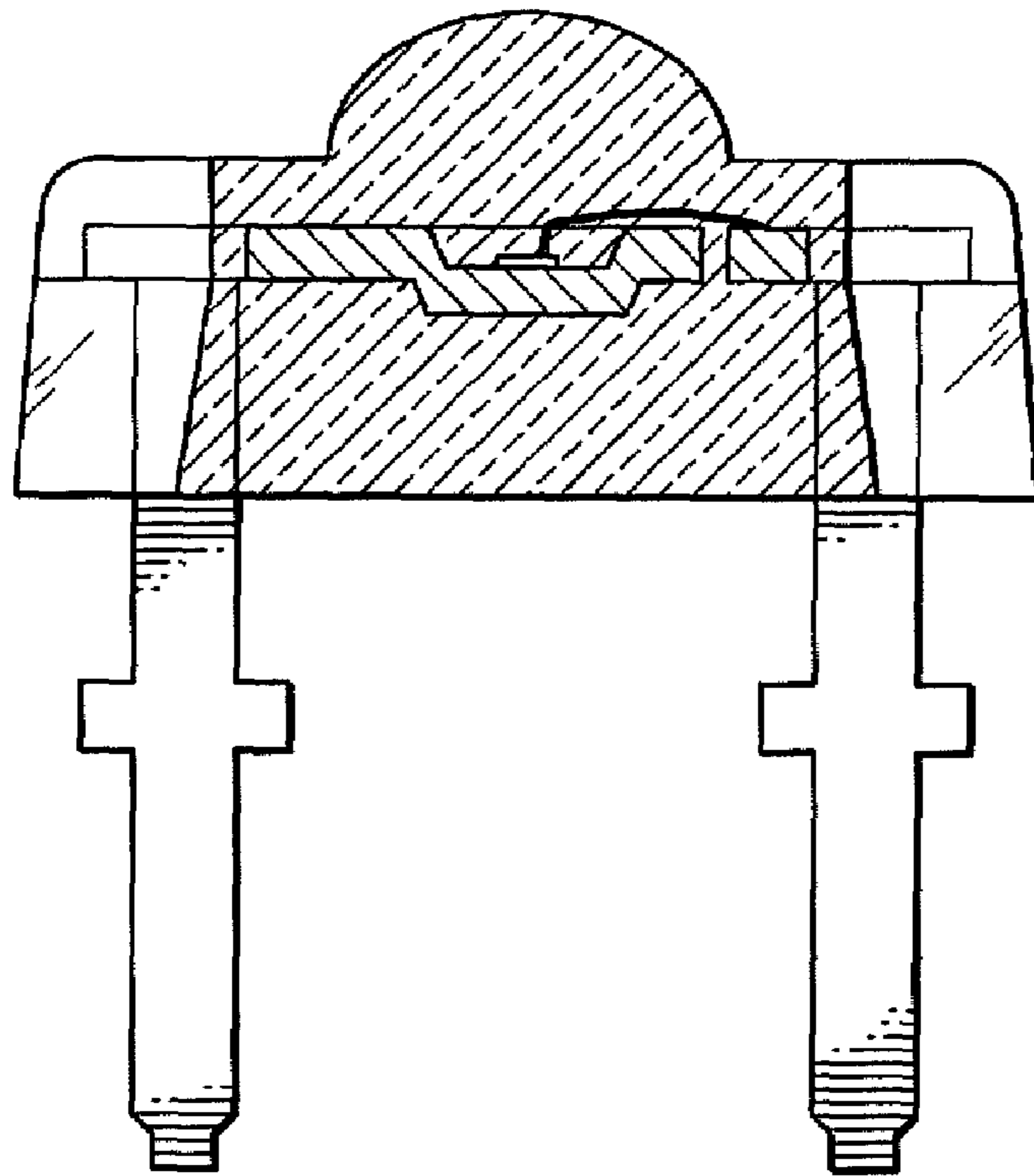
**FIG. 29**



*FIG. 30*



*FIG. 31*



**FIG. 32**