



US00D569353S

(12) **United States Design Patent** (10) **Patent No.:** **US D569,353 S**
Tokuda et al. (45) **Date of Patent:** **** May 20, 2008**

(54) **LIGHT EMITTING DIODE**

(75) Inventors: **Keisuke Tokuda**, Tokushima (JP);
Daisuke Kishikawa, Anan (JP); **Naoki Nishiuchi**, Tokushima (JP)

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

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

(21) Appl. No.: **29/273,595**

(22) Filed: **Mar. 9, 2007**

(30) **Foreign Application Priority Data**

Sep. 11, 2006	(JP)	2006-024150
Sep. 11, 2006	(JP)	2006-024184
Sep. 11, 2006	(JP)	2006-024198
Sep. 11, 2006	(JP)	2006-024199
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Sep. 11, 2006	(JP)	2006-024203
Sep. 11, 2006	(JP)	2006-024204
Sep. 11, 2006	(JP)	2006-024205
Sep. 11, 2006	(JP)	2006-024206
Sep. 11, 2006	(JP)	2006-024207

(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.

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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 our new design;

FIG. 2 is a top plan view of the light emitting diode in accordance with the first embodiment of our new design;

FIG. 3 is a bottom plan view of the light emitting diode in accordance with the first embodiment of our new design;

FIG. 4 is a front elevational view of the light emitting diode in accordance with the first embodiment of our new design;

FIG. 5 is a rear elevational view of the light emitting diode in accordance with the first embodiment of our new design;

FIG. 6 is a right side end elevational view of the light emitting diode in accordance with the first embodiment of our new design;

FIG. 7 is a left side end elevational view of the light emitting diode in accordance with the first embodiment of our new design;

FIG. 8 is a vertical cross sectional view of the light emitting diode in accordance with the first embodiment of our new design as seen along section line 8—8 of FIG. 2;

FIG. 9 is a vertical cross sectional view of the light emitting diode in accordance with the first embodiment of our new design as seen along section line 9—9 of FIG. 2;

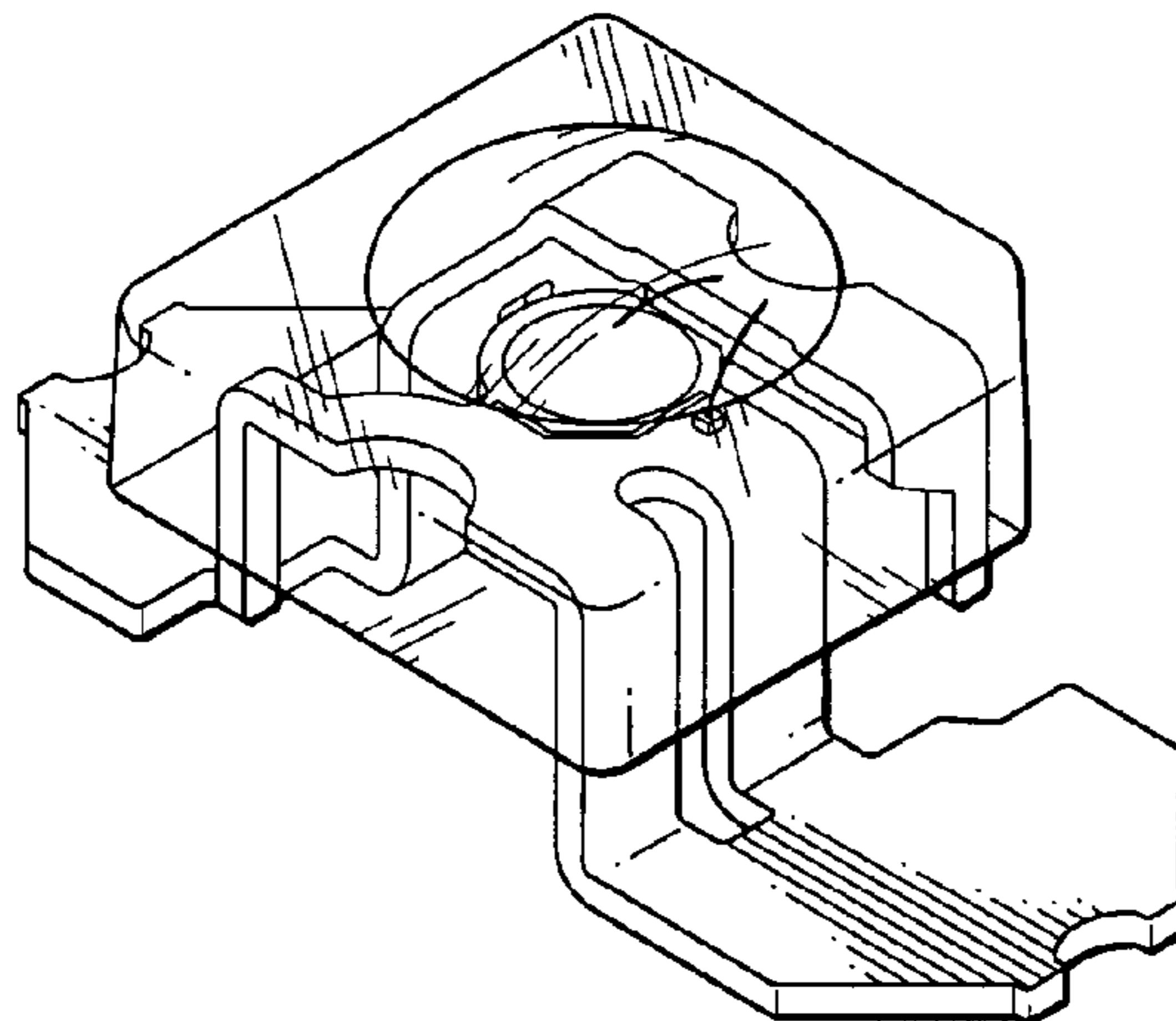


FIG. 10 is a top plan view of the light emitting diode in accordance with the first embodiment of our new design with environment shown in broken lines being seen through a translucent portion;

FIG. 11 is an enlarged view of an encircled portion 11 of FIG. 8 of the light emitting diode in accordance with the first embodiment of our new design;

FIG. 12 is a front top side perspective view of a light emitting diode in accordance with a second embodiment of our new design;

FIG. 13 is a top plan view of the light emitting diode in accordance with the second embodiment of our new design;

FIG. 14 is a bottom plan view of the light emitting diode in accordance with the second embodiment of our new design;

FIG. 15 is a front elevational view of the light emitting diode in accordance with the second embodiment of our new design;

FIG. 16 is a rear elevational view of the light emitting diode in accordance with the second embodiment of our new design;

FIG. 17 is a right side end elevational view of the light emitting diode in accordance with the second embodiment of our new design;

FIG. 18 is a left side end elevational view of the light emitting diode in accordance with the second embodiment of our new design;

FIG. 19 is a vertical cross sectional view of the light emitting diode in accordance with the second embodiment of our new design as seen along section line 19—19 of FIG. 13;

FIG. 20 is a vertical cross sectional view of the light emitting diode in accordance with the second embodiment of our new design as seen along section line 20—20 of FIG. 13;

FIG. 21 is a top plan view of the light emitting diode in accordance with the second embodiment of our new design with environment shown in broken lines being seen through a translucent portion;

FIG. 22 is an enlarged view of an encircled portion 22 of FIG. 19 of the light emitting diode in accordance with the second embodiment of our new design;

FIG. 23 is a front top side perspective view of a light emitting diode in accordance with a third embodiment of our new design;

FIG. 24 is a top plan view of the light emitting diode in accordance with the third embodiment of our new design;

FIG. 25 is a bottom plan view of the light emitting diode in accordance with the third embodiment of our new design;

FIG. 26 is a front elevational view of the light emitting diode in accordance with the third embodiment of our new design;

FIG. 27 is a rear elevational view of the light emitting diode in accordance with the third embodiment of our new design;

FIG. 28 is a right side end elevational view of the light emitting diode in accordance with the third embodiment of our new design;

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

FIG. 30 is a vertical cross sectional view of the light emitting diode in accordance with the third embodiment of our new design as seen along section line 30—30 of FIG. 24;

FIG. 31 is a vertical cross sectional view of the light emitting diode in accordance with the third embodiment of our new design as seen along section line 31—31 of FIG. 24;

FIG. 32 is a top plan view of the light emitting diode in accordance with the third embodiment of our new design with environment shown in broken lines being seen through a translucent portion;

FIG. 33 is an enlarged view of an encircled portion 33 of FIG. 30 of the light emitting diode in accordance with the third embodiment of our new design;

FIG. 34 is a front top side perspective view of a light emitting diode in accordance with a fourth embodiment of our new design;

FIG. 35 is a top plan view of the light emitting diode in accordance with the fourth embodiment of our new design;

FIG. 36 is a bottom plan view of the light emitting diode in accordance with the fourth embodiment of our new design;

FIG. 37 is a front elevational view of the light emitting diode in accordance with the fourth embodiment of our new design;

FIG. 38 is a rear elevational view of the light emitting diode in accordance with the fourth embodiment of our new design;

FIG. 39 is a right side end elevational view of the light emitting diode in accordance with the fourth embodiment of our new design;

FIG. 40 is a left side end elevational view of the light emitting diode in accordance with the fourth embodiment of our new design;

FIG. 41 is a vertical cross sectional view of the light emitting diode in accordance with the fourth embodiment of our new design as seen along section line 41—41 of FIG. 35;

FIG. 42 is a vertical cross sectional view of the light emitting diode in accordance with the fourth embodiment of our new design as seen along section line 42—42 of FIG. 35;

FIG. 43 is a top plan view of the light emitting diode in accordance with the fourth embodiment of our new design with environment shown in broken lines being seen through a translucent portion;

FIG. 44 is an enlarged view of an encircled portion 44 of FIG. 41 of the light emitting diode in accordance with the fourth embodiment of our new design;

FIG. 45 is a front top side perspective view of a light emitting diode in accordance with a fifth embodiment of our new design;

FIG. 46 is a top plan view of the light emitting diode in accordance with the fifth embodiment of our new design;

FIG. 47 is a bottom plan view of the light emitting diode in accordance with the fifth embodiment of our new design;

FIG. 48 is a front elevational view of the light emitting diode in accordance with the fifth embodiment of our new design;

FIG. 49 is a rear elevational view of the light emitting diode in accordance with the fifth embodiment of our new design;

FIG. 50 is a right side end elevational view of the light emitting diode in accordance with the fifth embodiment of our new design;

FIG. 51 is a left side end elevational view of the light emitting diode in accordance with the fifth embodiment of our new design;

FIG. 52 is a vertical cross sectional view of the light emitting diode in accordance with the fifth embodiment of our new design as seen along section line 52—52 of FIG. 46;

FIG. 53 is a vertical cross sectional view of the light emitting diode in accordance with the fifth embodiment of our new design as seen along section line 53—53 of FIG. 46;

FIG. 54 is a top plan view of the light emitting diode in accordance with the fifth embodiment of our new design with environment shown in broken lines being seen through a translucent portion;

FIG. 55 is an enlarged view of an encircled portion 55 of FIG. 52 of the light emitting diode in accordance with the fifth embodiment of our new design;

FIG. 56 is a front top side perspective view of a light emitting diode in accordance with a sixth embodiment of our new design;

FIG. 57 is a top plan view of the light emitting diode in accordance with the sixth embodiment of our new design;

FIG. 58 is a bottom plan view of the light emitting diode in accordance with the sixth embodiment of our new design;

FIG. 59 is a front elevational view of the light emitting diode in accordance with the sixth embodiment of our new design;

FIG. 60 is a rear elevational view of the light emitting diode in accordance with the sixth embodiment of our new design;

FIG. 61 is a right side end elevational view of the light emitting diode in accordance with the sixth embodiment of our new design;

FIG. 62 is a left side end elevational view of the light emitting diode in accordance with the sixth embodiment of our new design;

FIG. 63 is a vertical cross sectional view of the light emitting diode in accordance with the sixth embodiment of our new design as seen along section line 63—63 of FIG. 57;

FIG. 64 is a vertical cross sectional view of the light emitting diode in accordance with the sixth embodiment of our new design as seen along section line 64—64 of FIG. 57;

FIG. 65 is a top plan view of the light emitting diode in accordance with the sixth embodiment of our new design with environment shown in broken lines being seen through a translucent portion; and,

FIG. 66 is an enlarged view of an encircled portion 66 of FIG. 63 of the light emitting diode in accordance with the sixth embodiment of our new design.

The broken line showing of environment (the remaining structure of the light emitting diode) in the FIGS. 10, 21, 32, 43, 54, and 65 is for illustrative purposes only and forms no part of the claimed design.

1 Claim, 18 Drawing Sheets

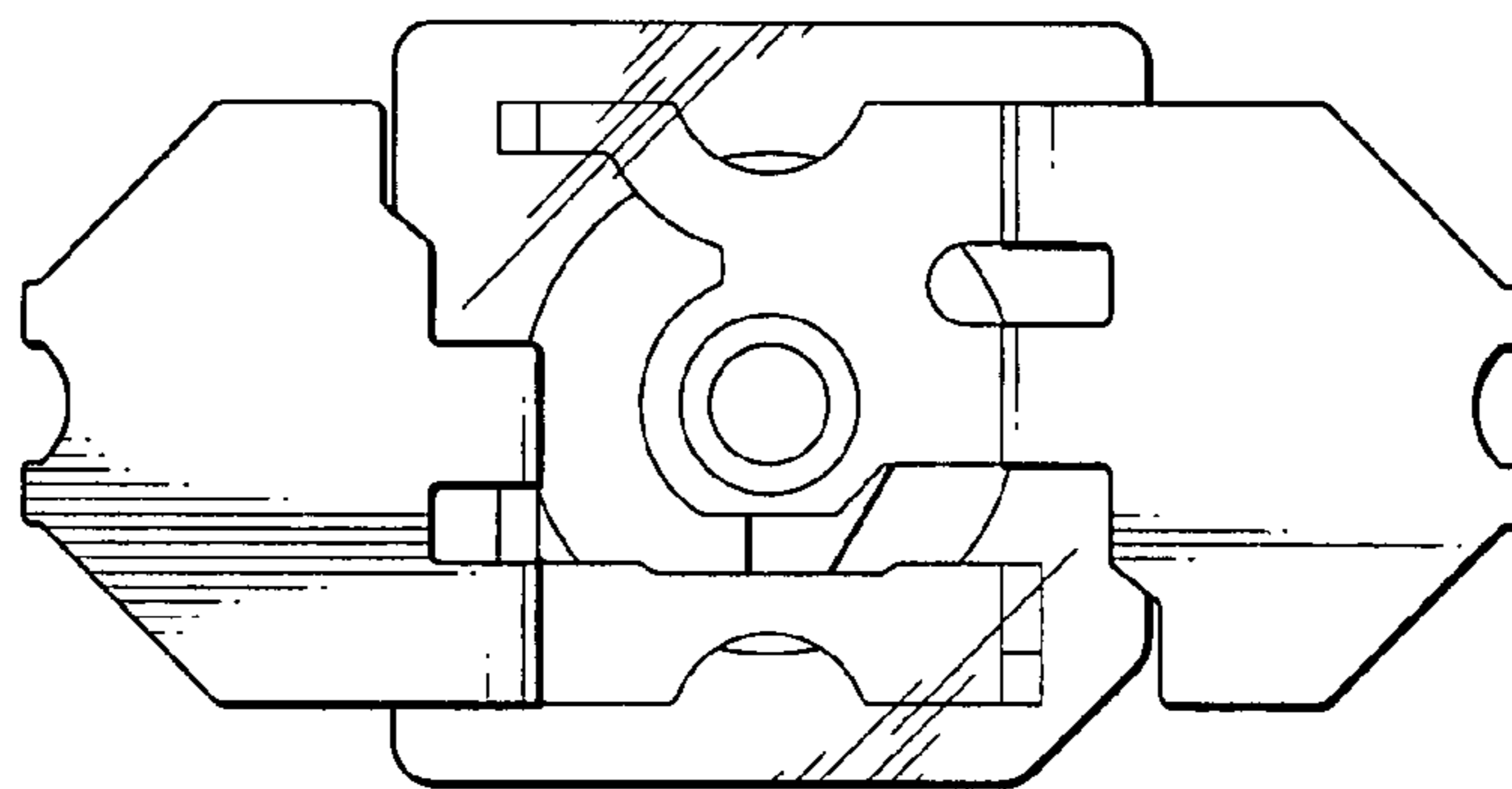
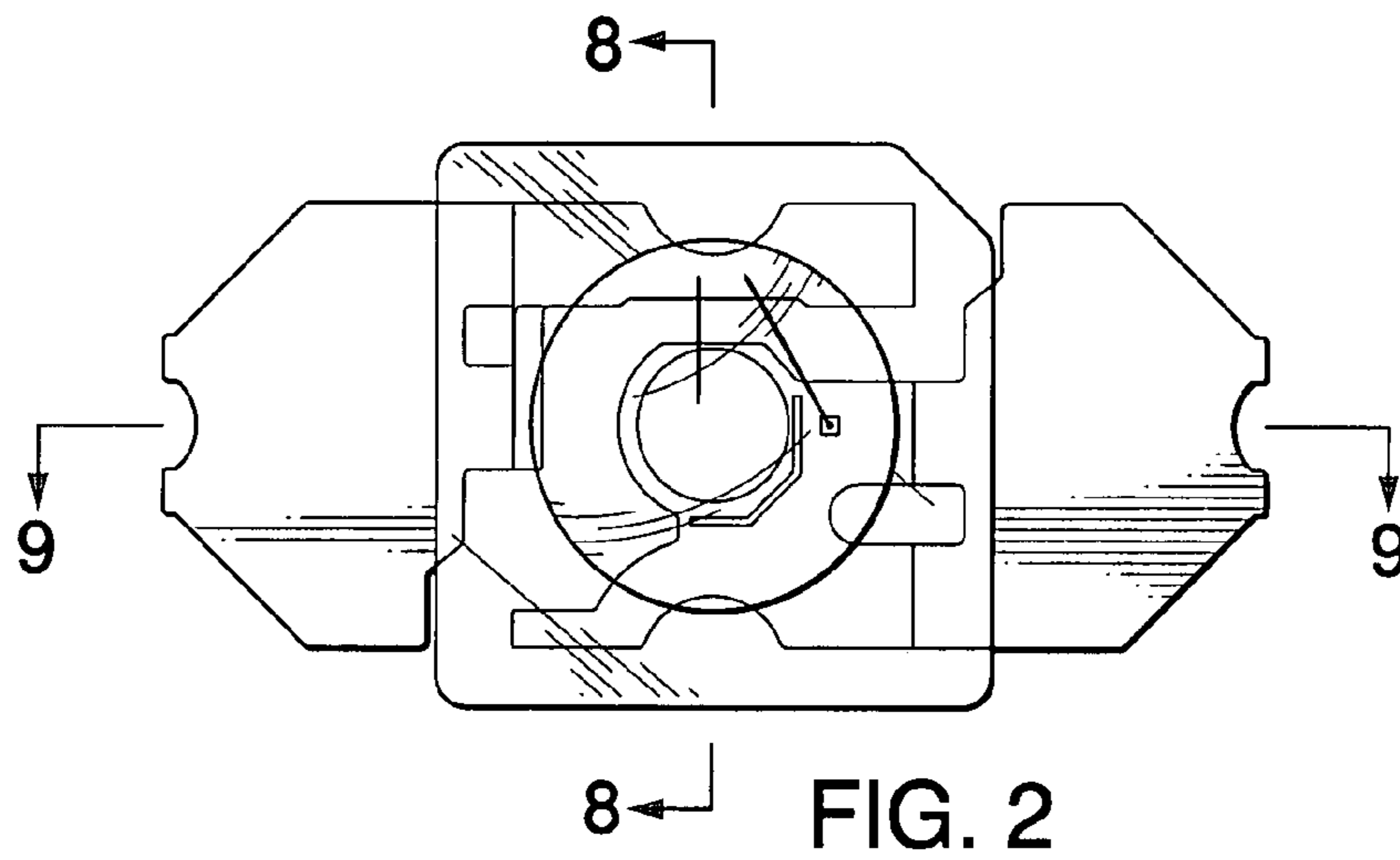
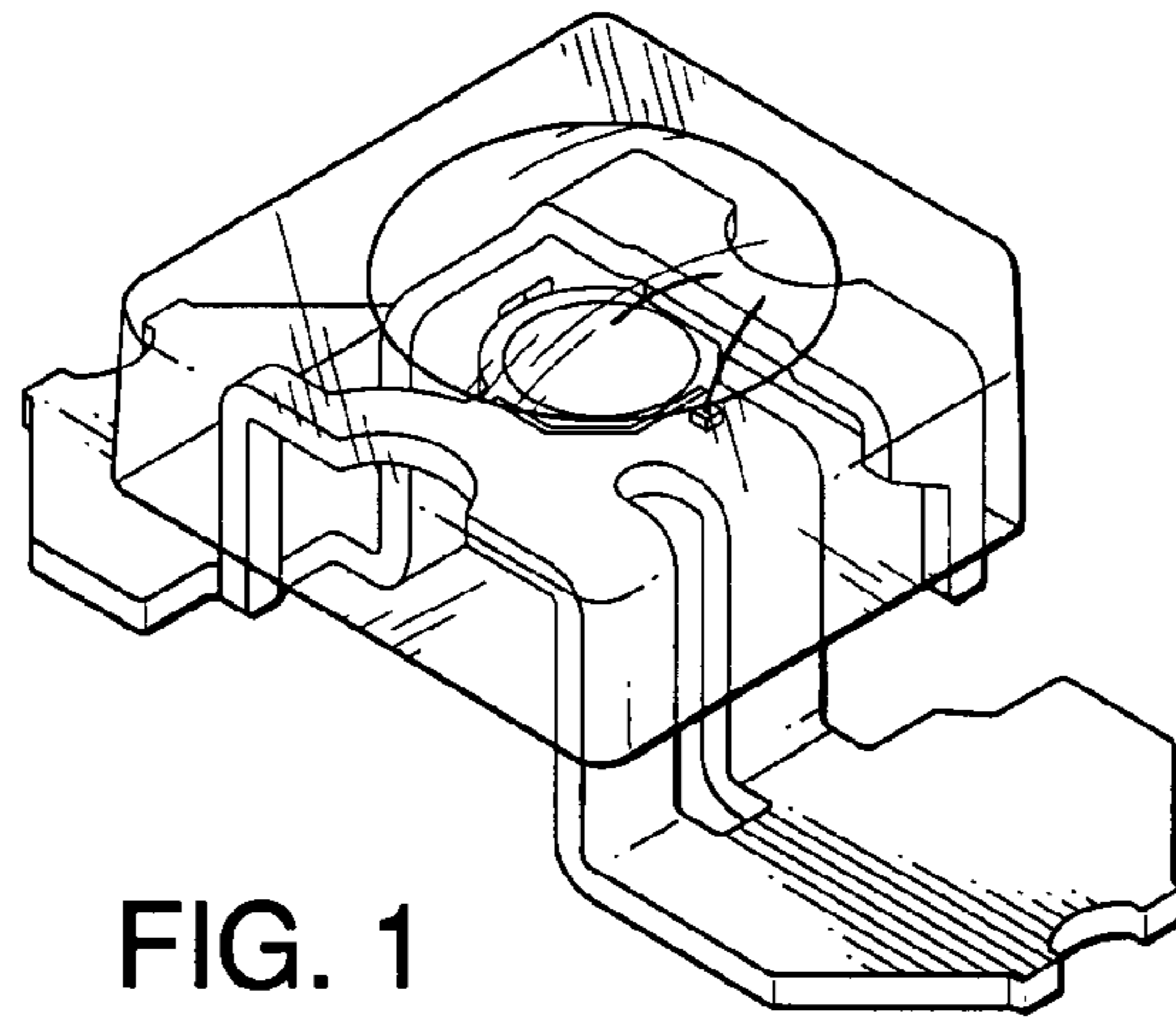


FIG. 3

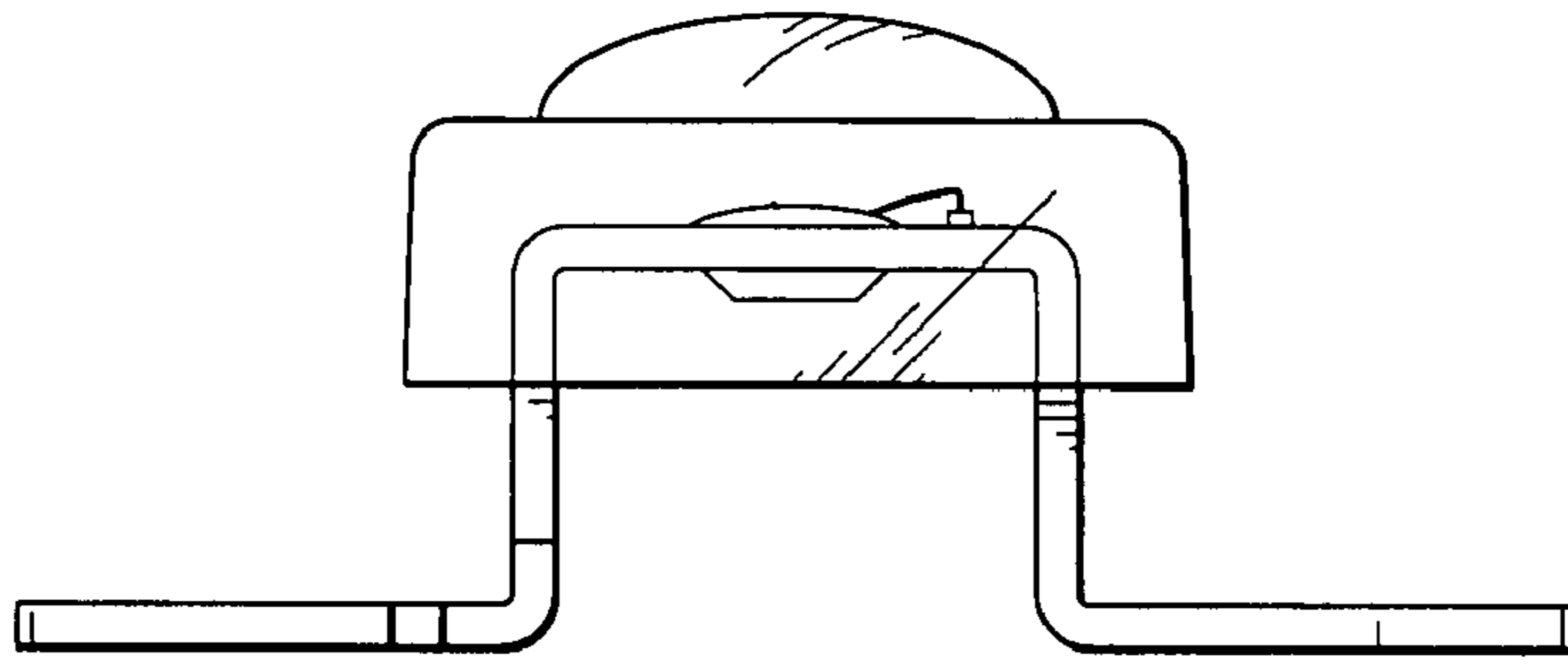


FIG. 4

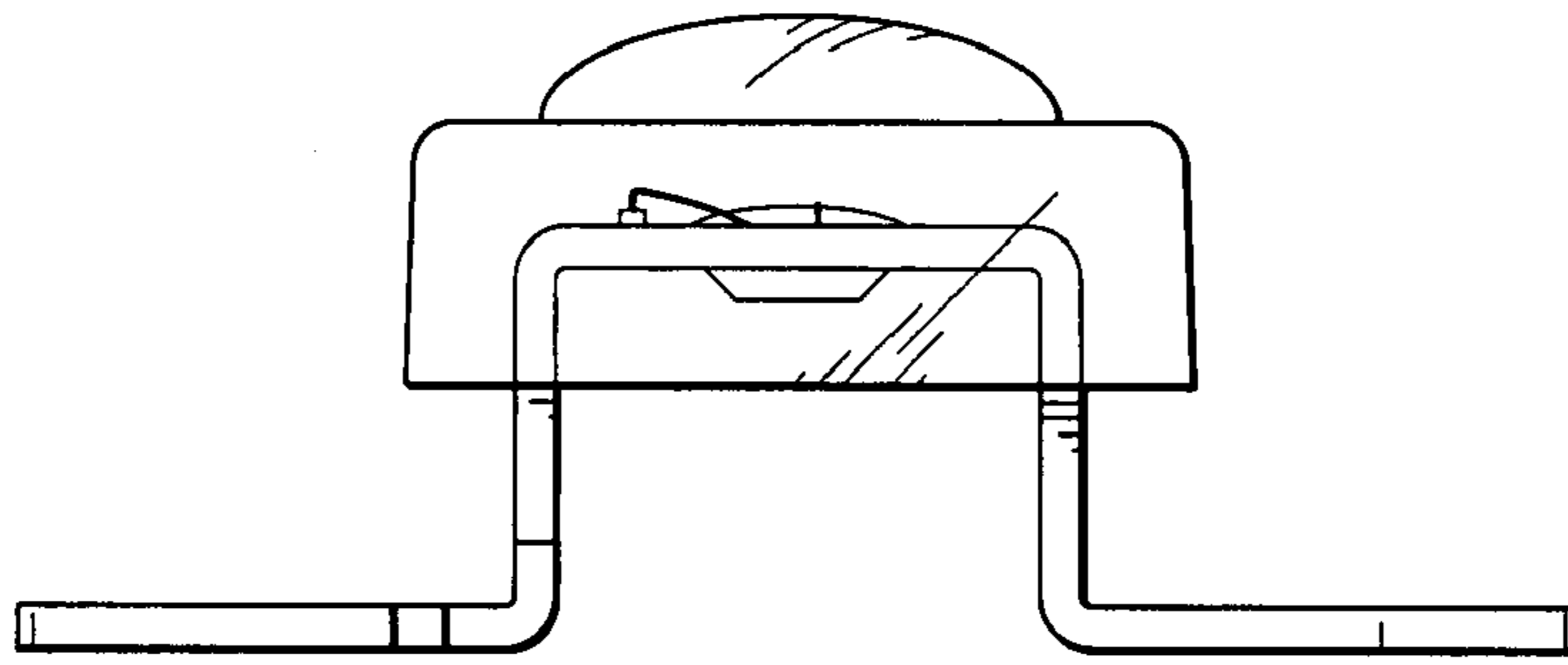


FIG. 5

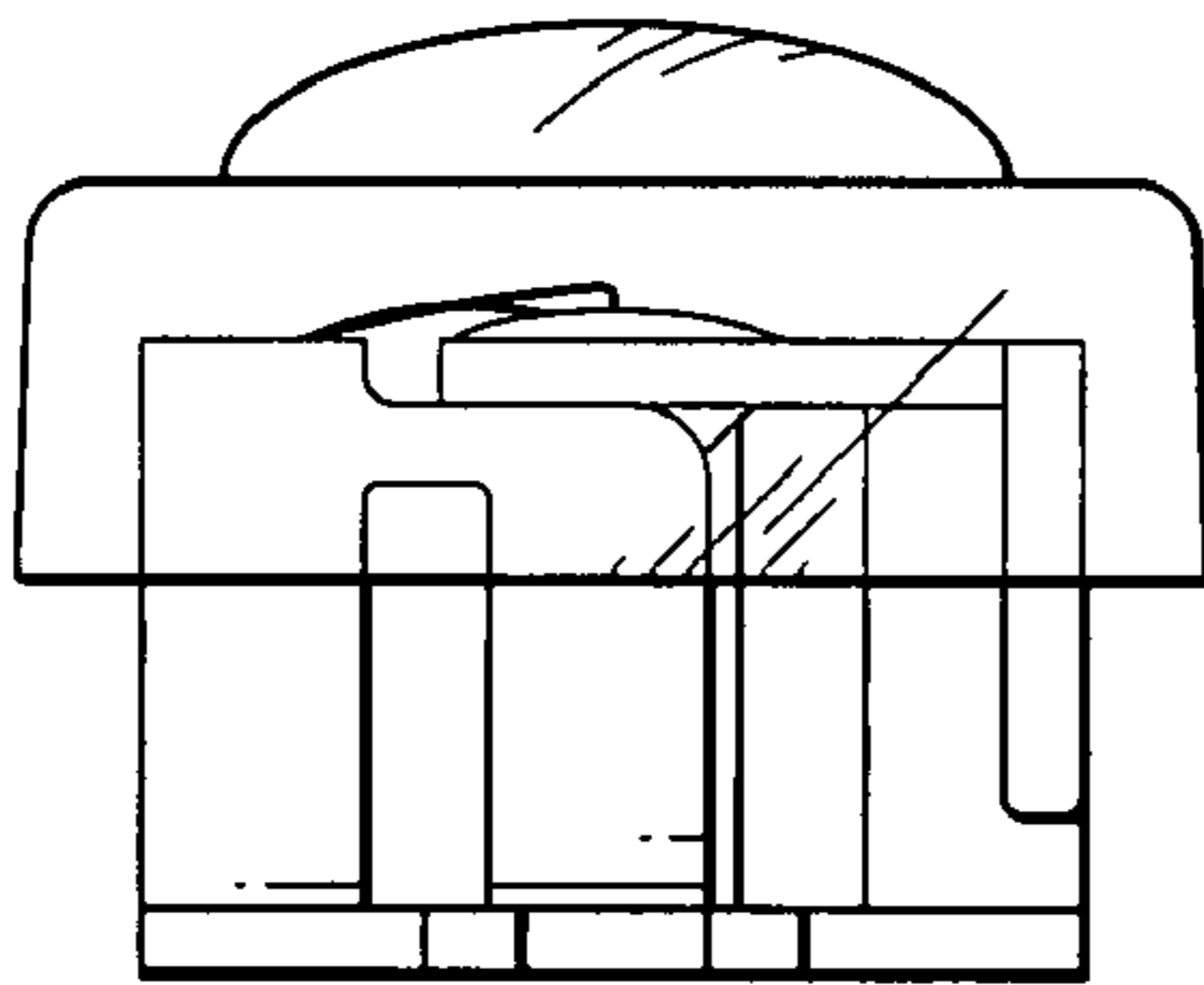


FIG. 6

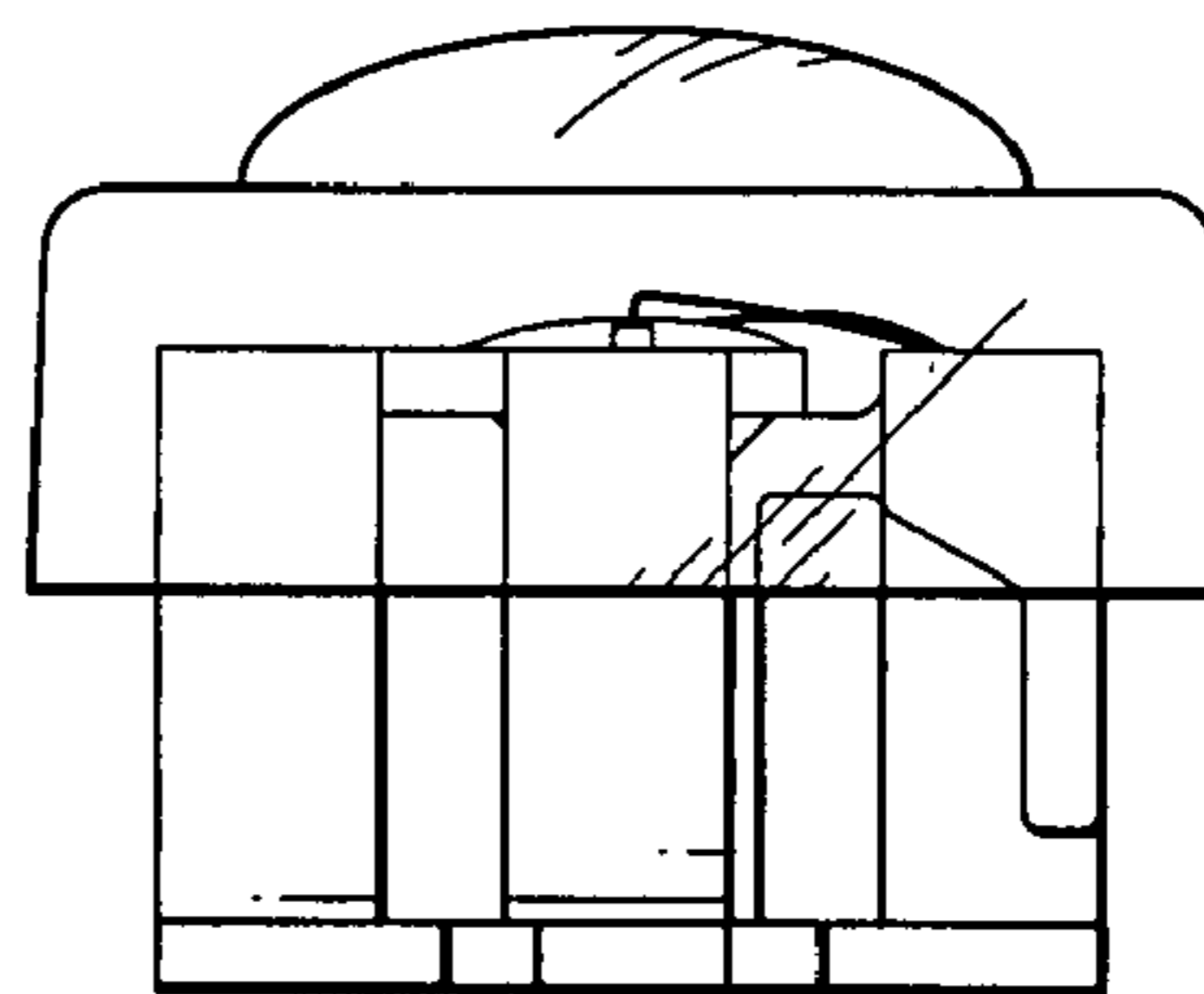


FIG. 7

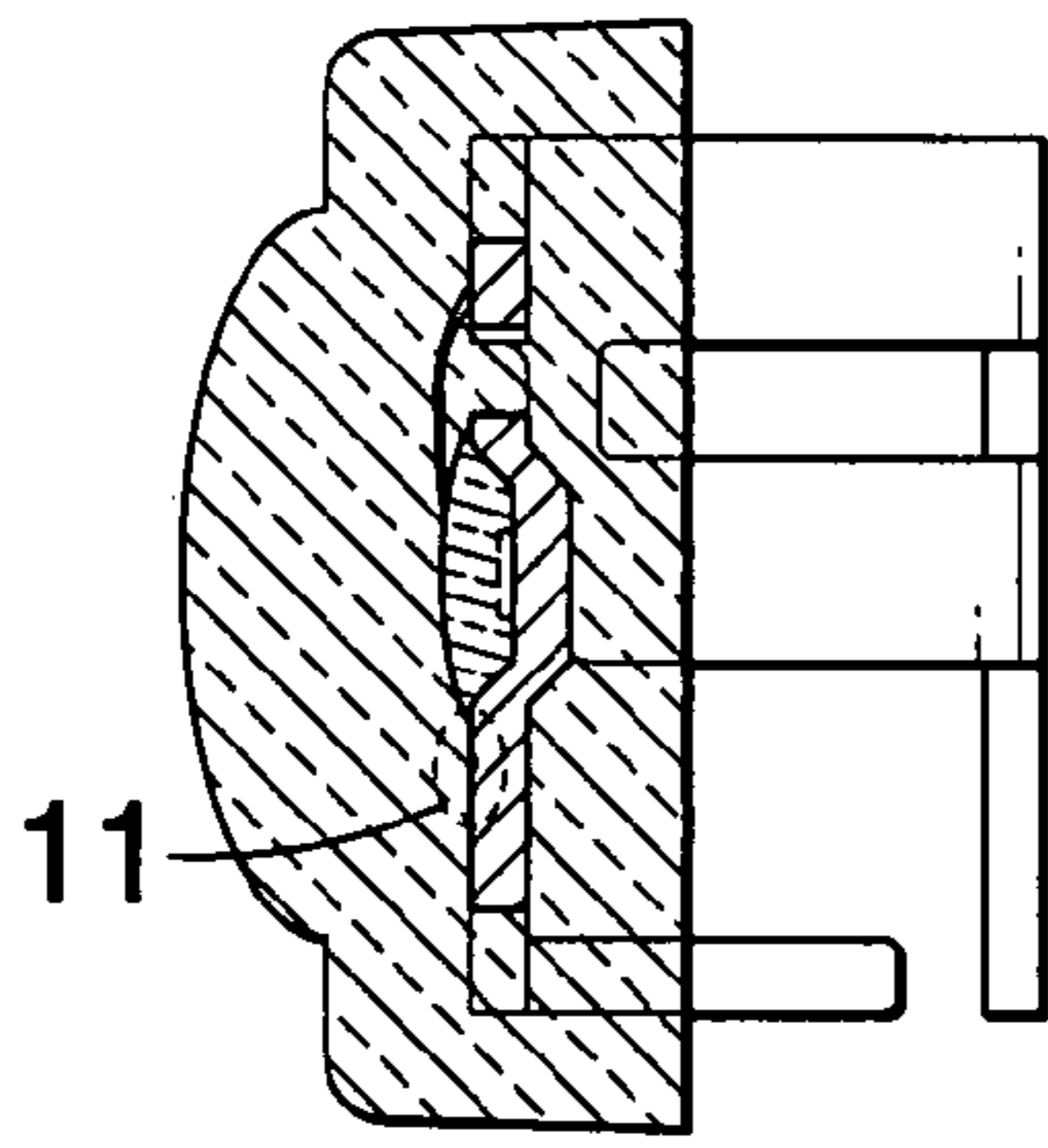


FIG. 8

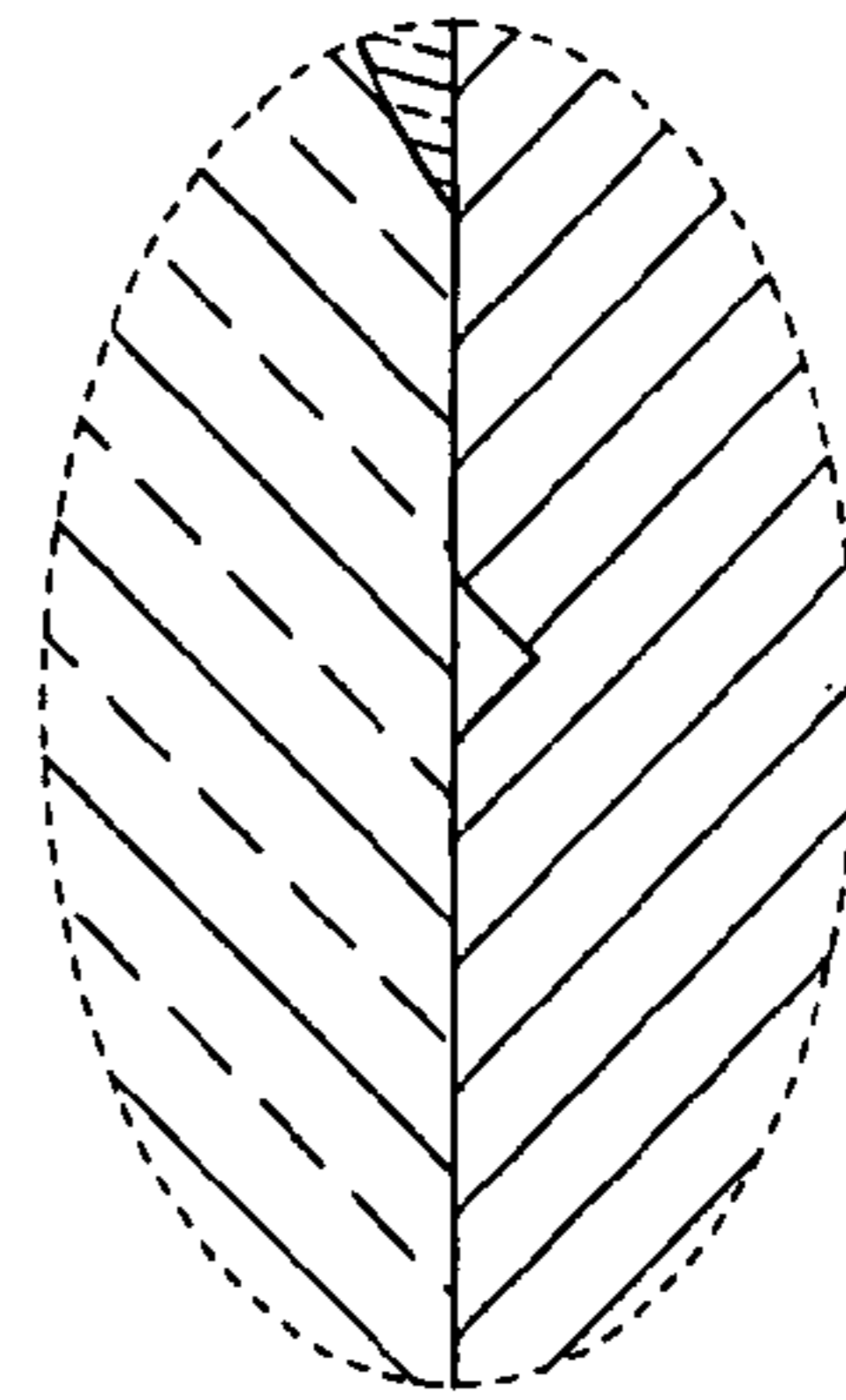


FIG. 11

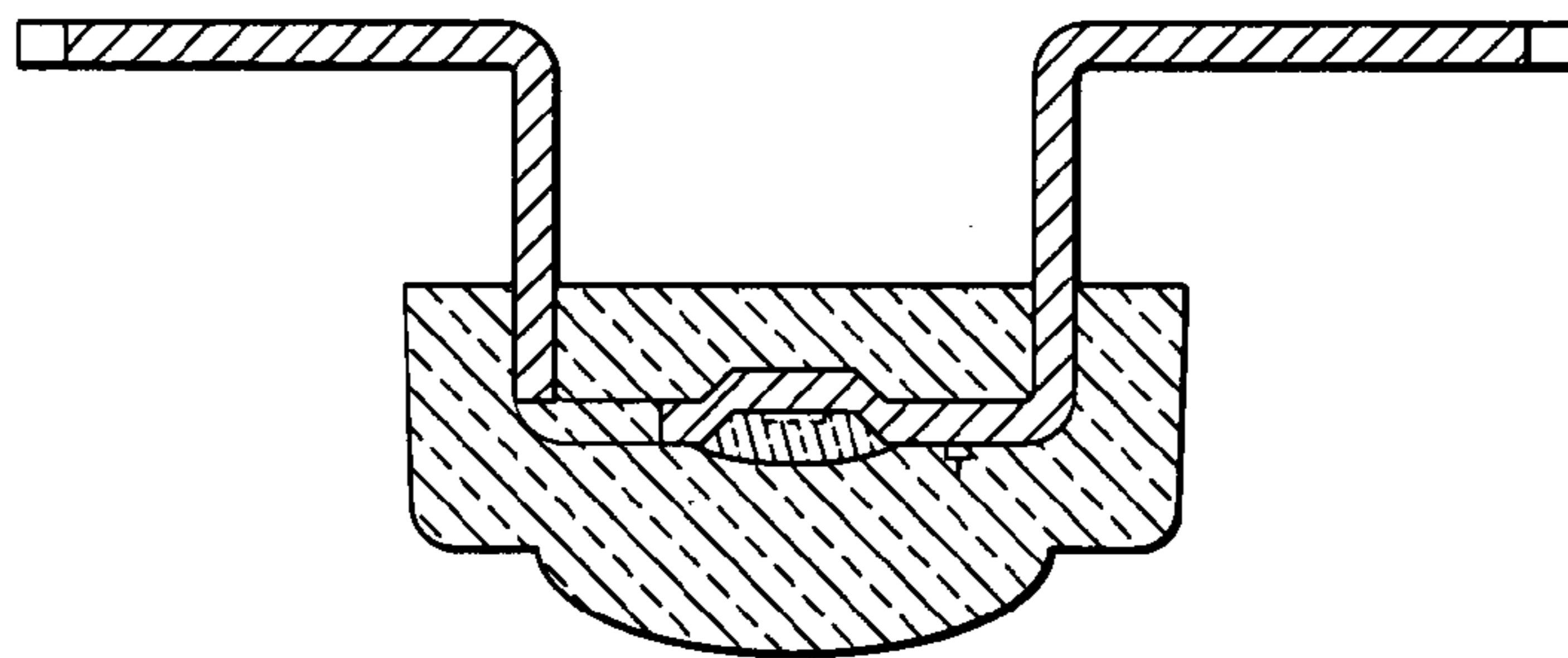


FIG. 9

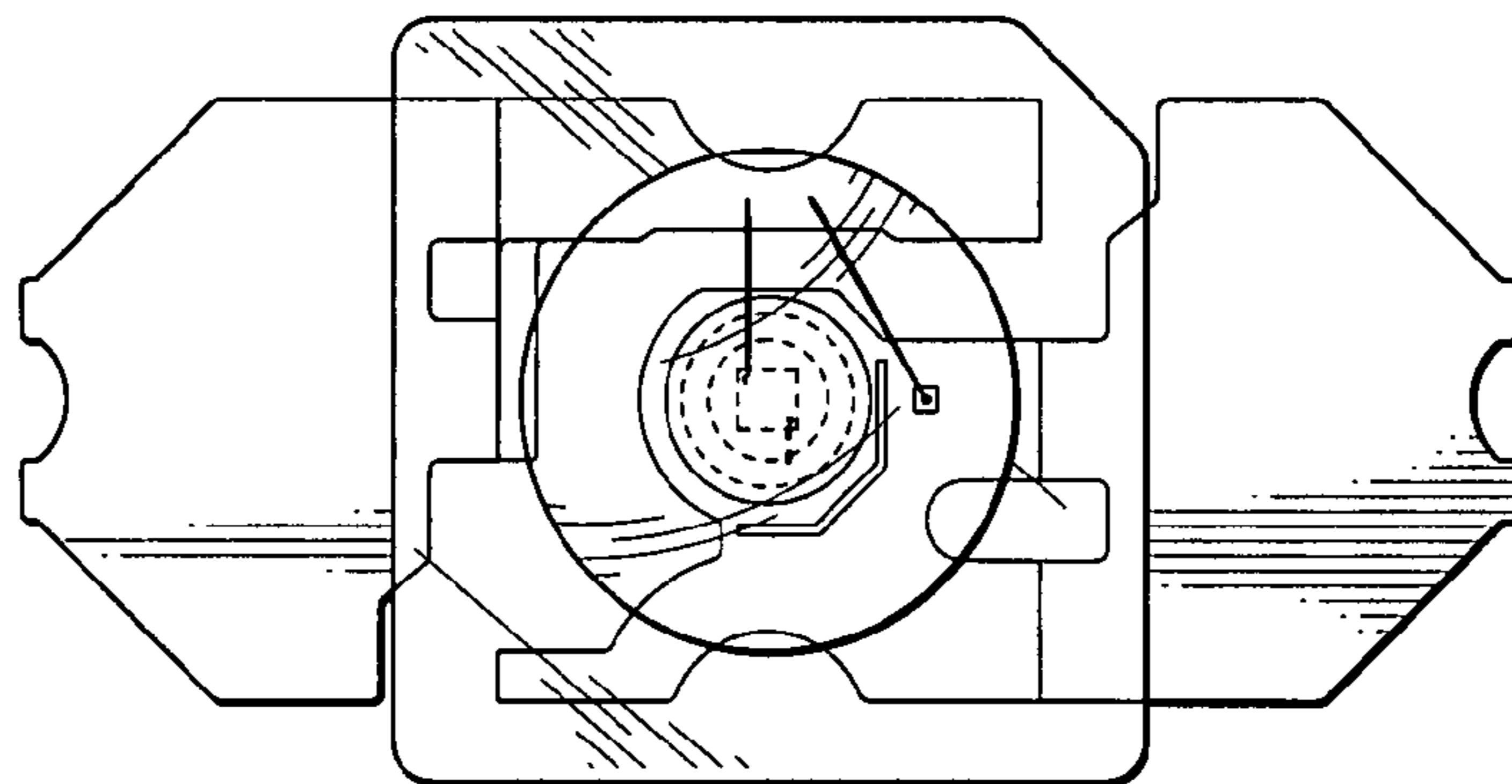
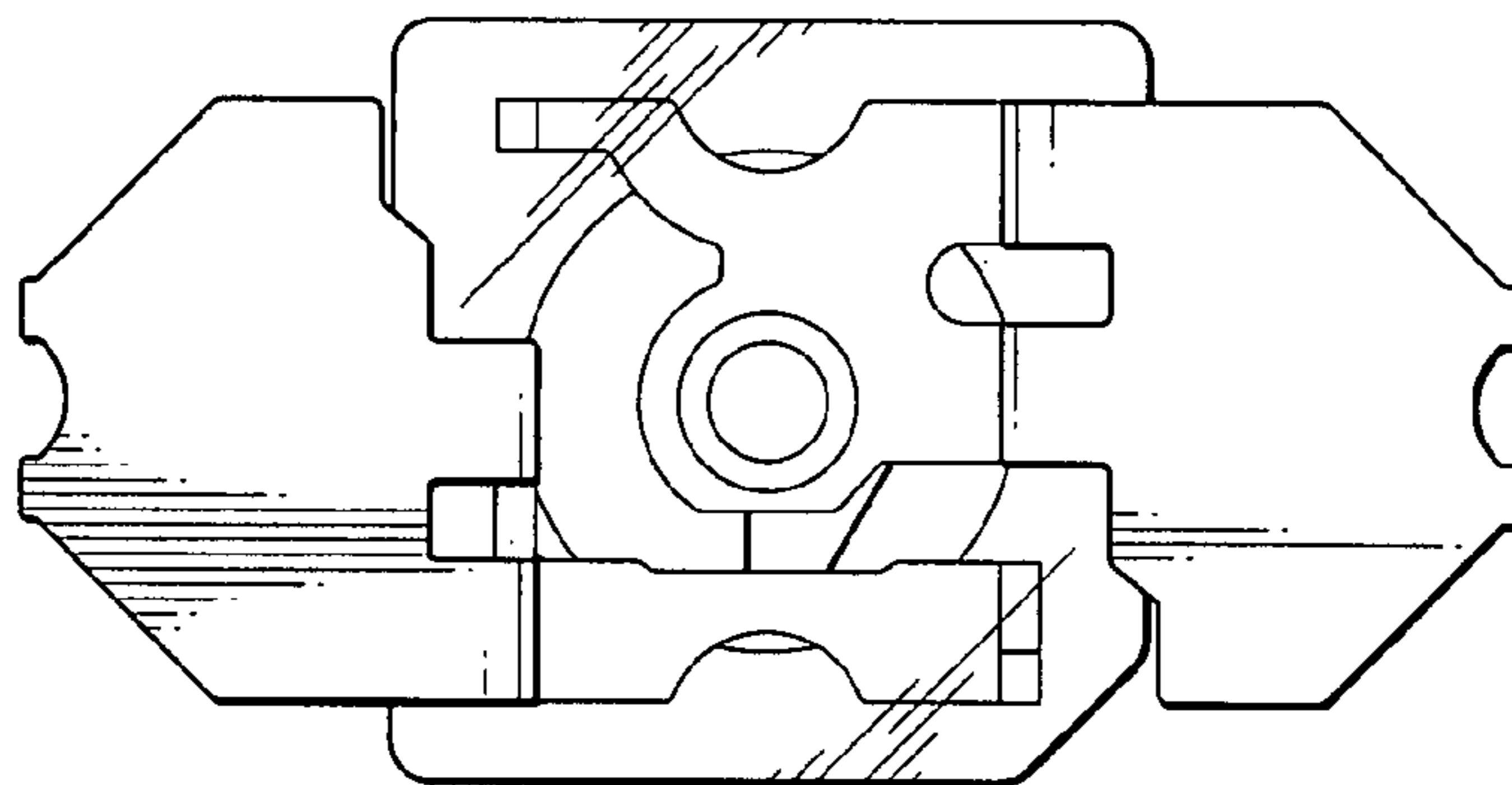
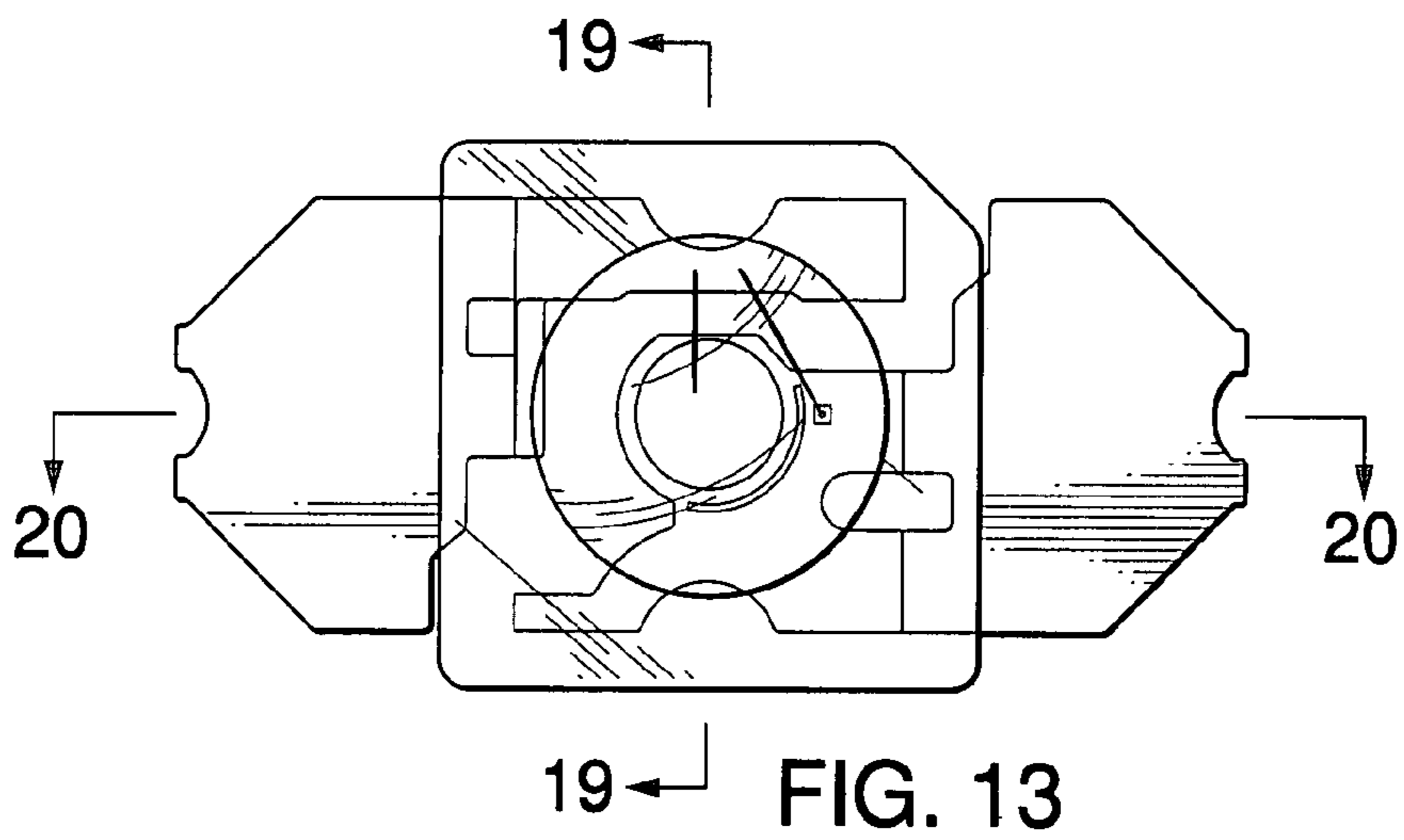
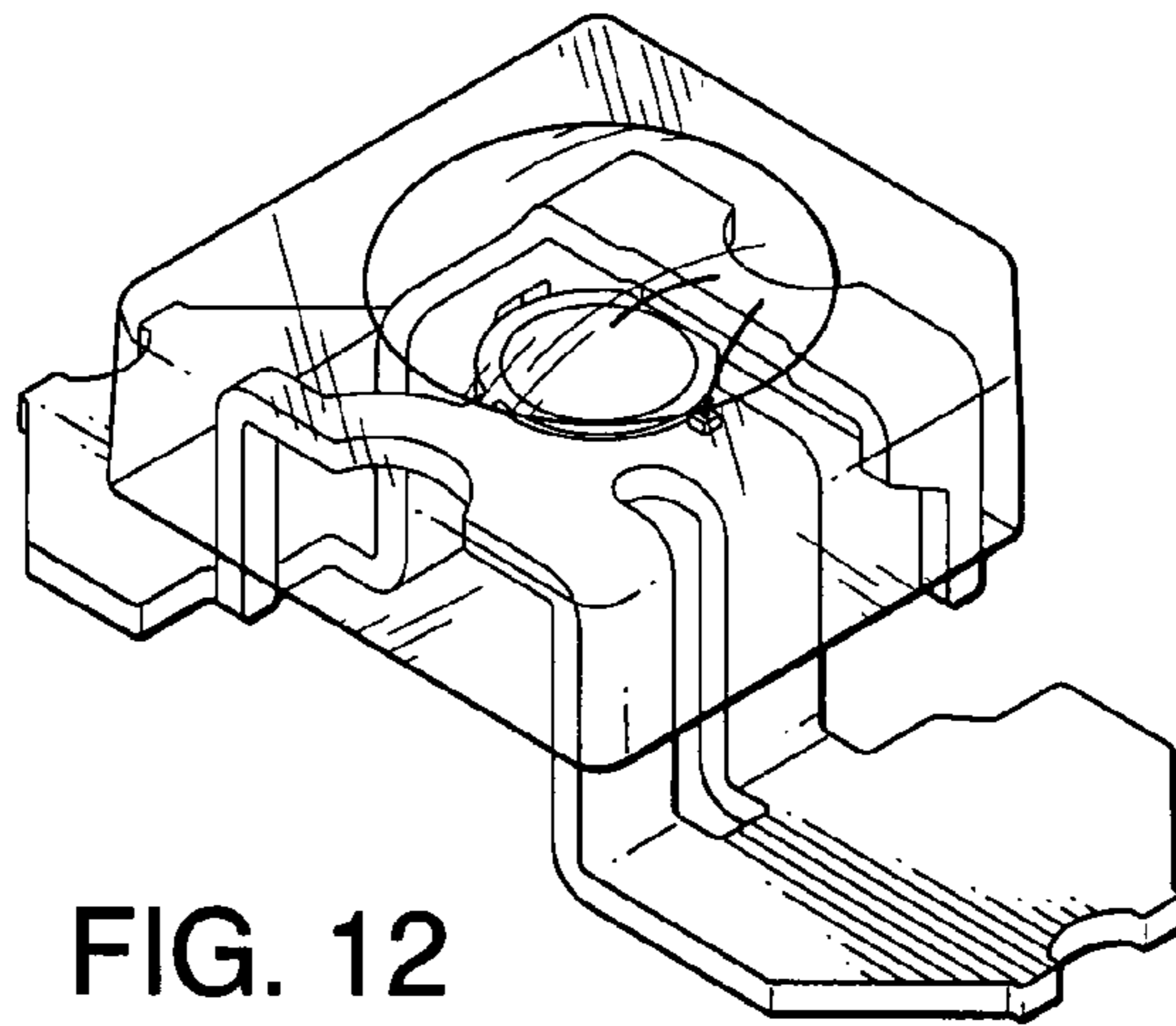


FIG. 10



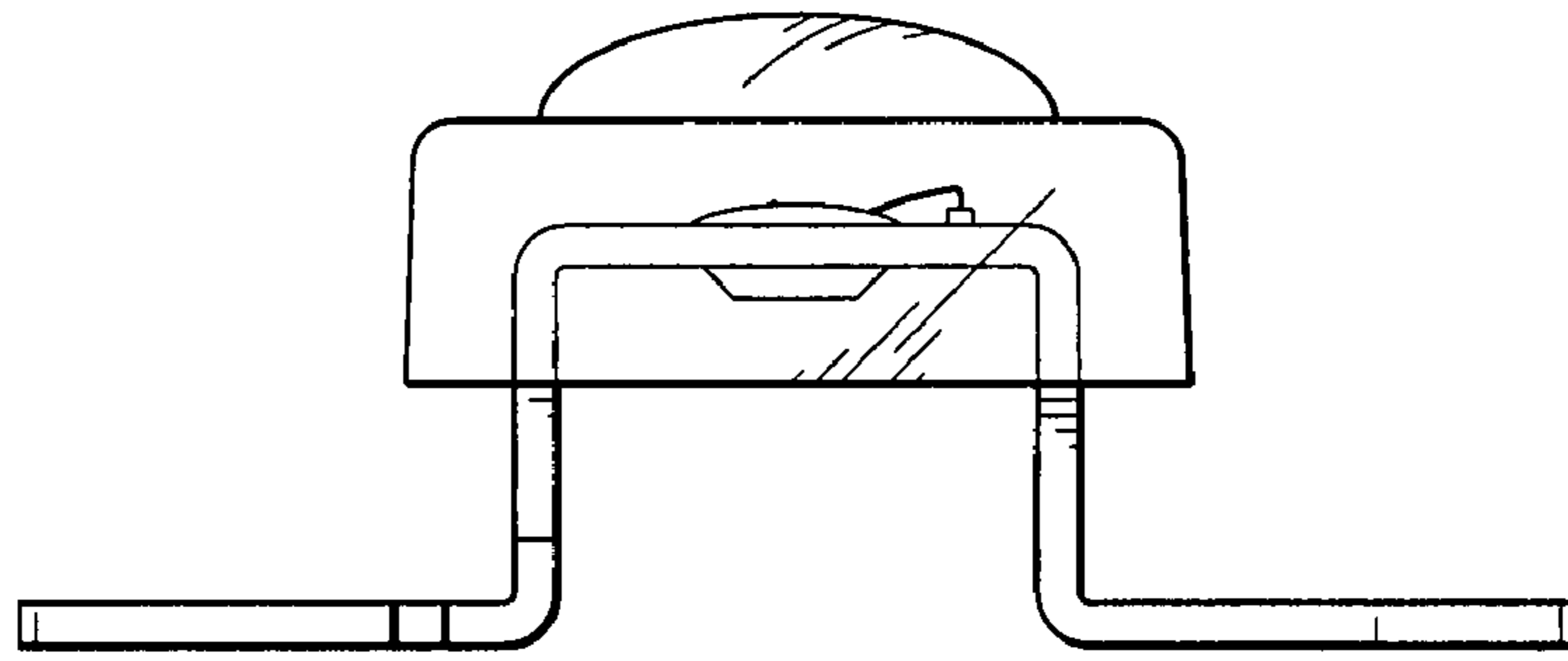


FIG. 15

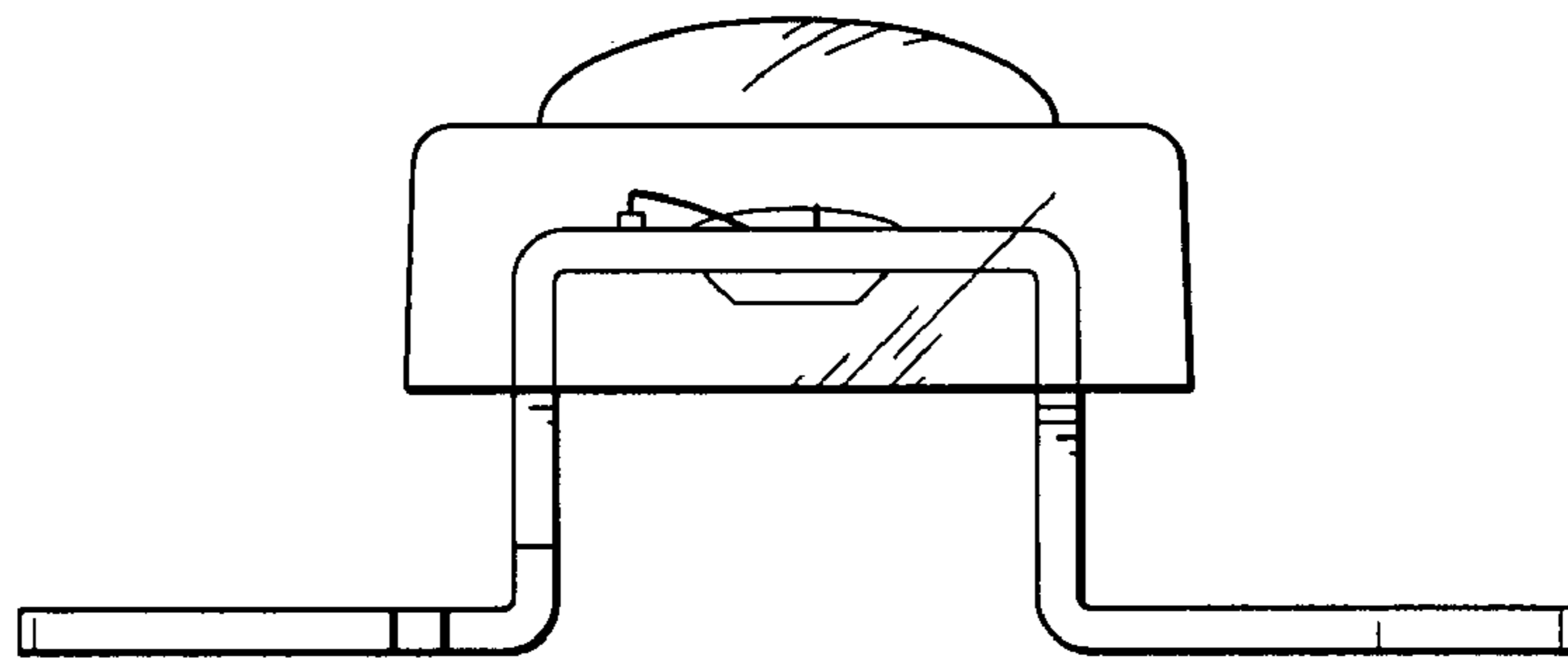


FIG. 16

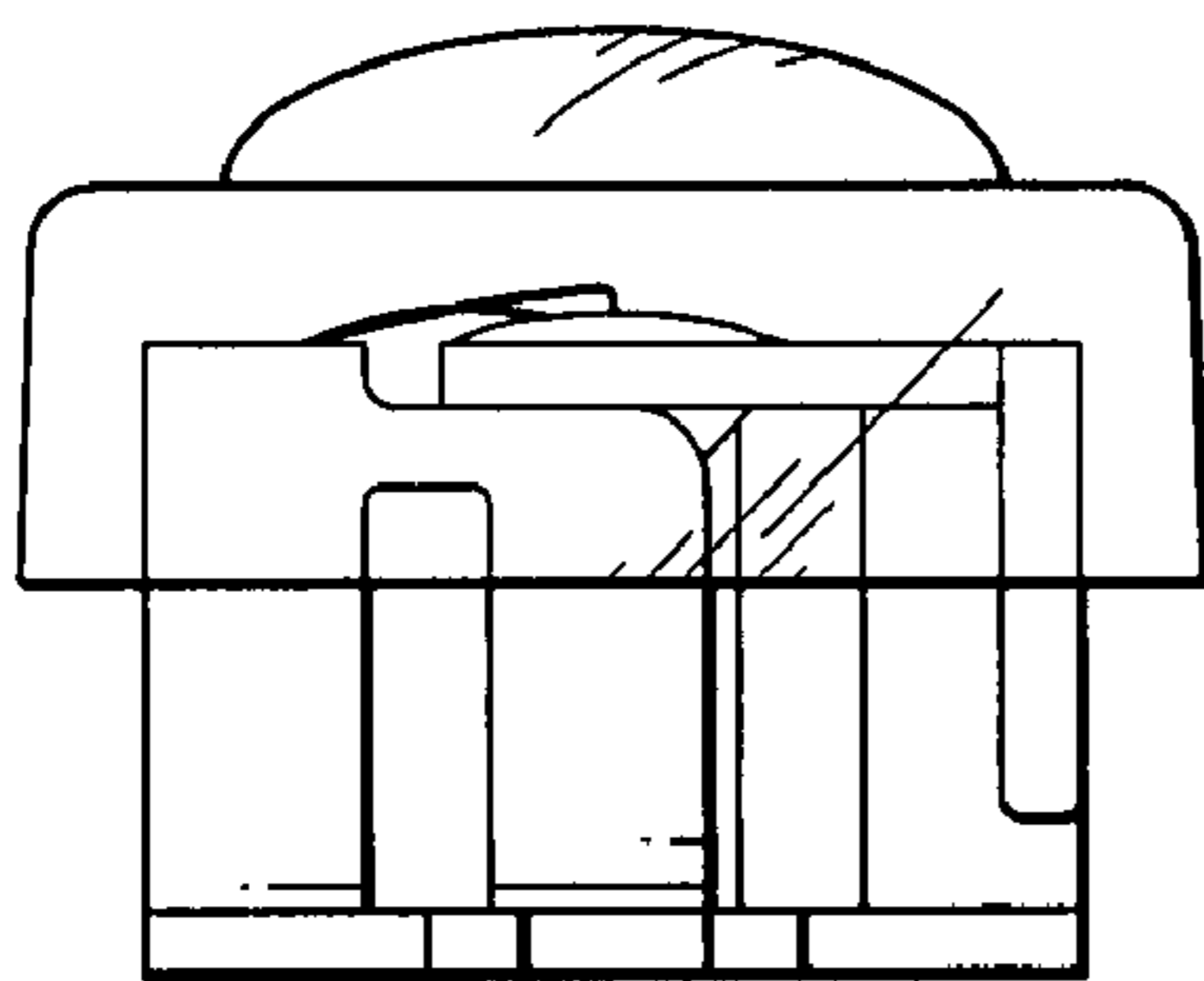


FIG. 17

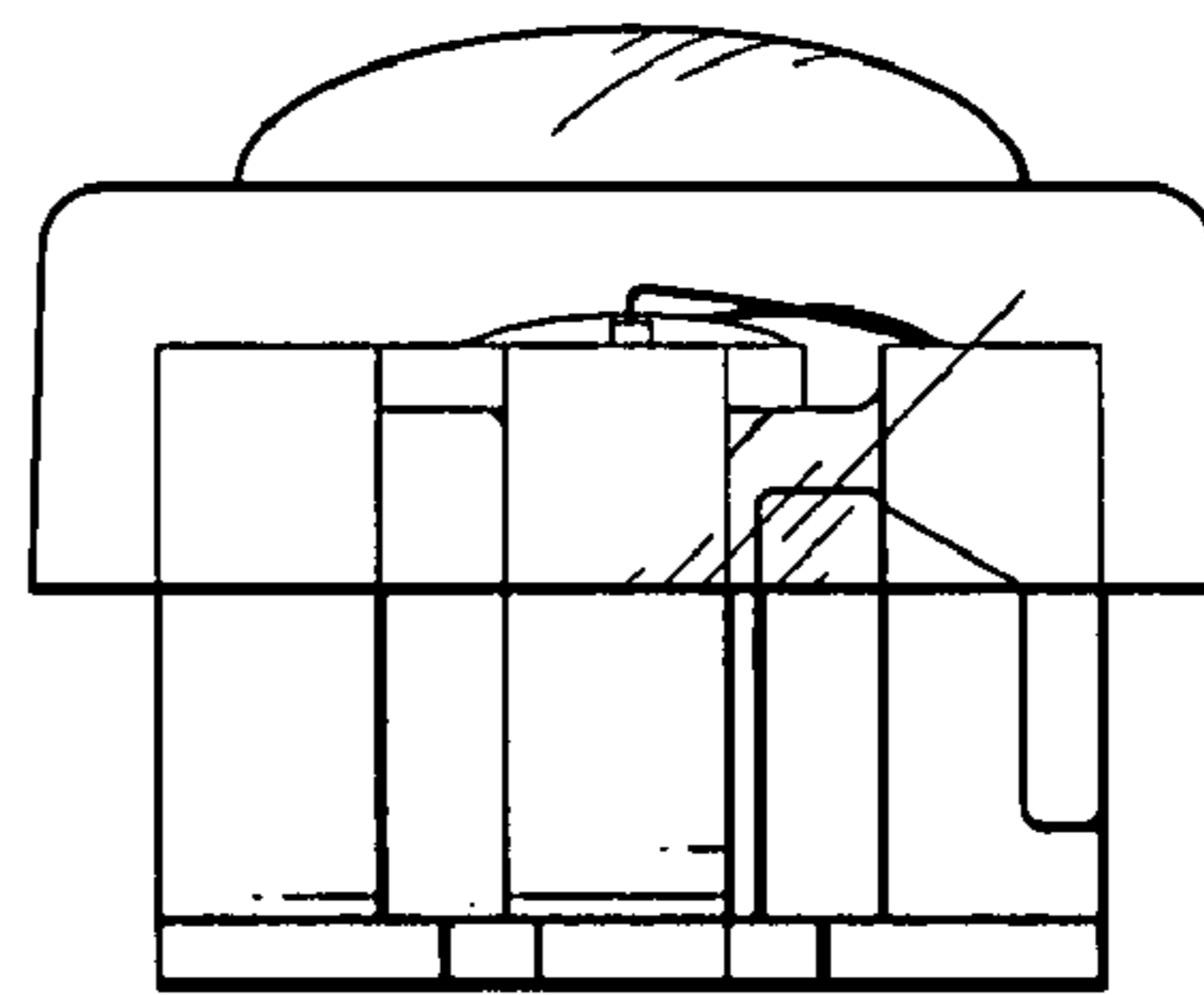


FIG. 18

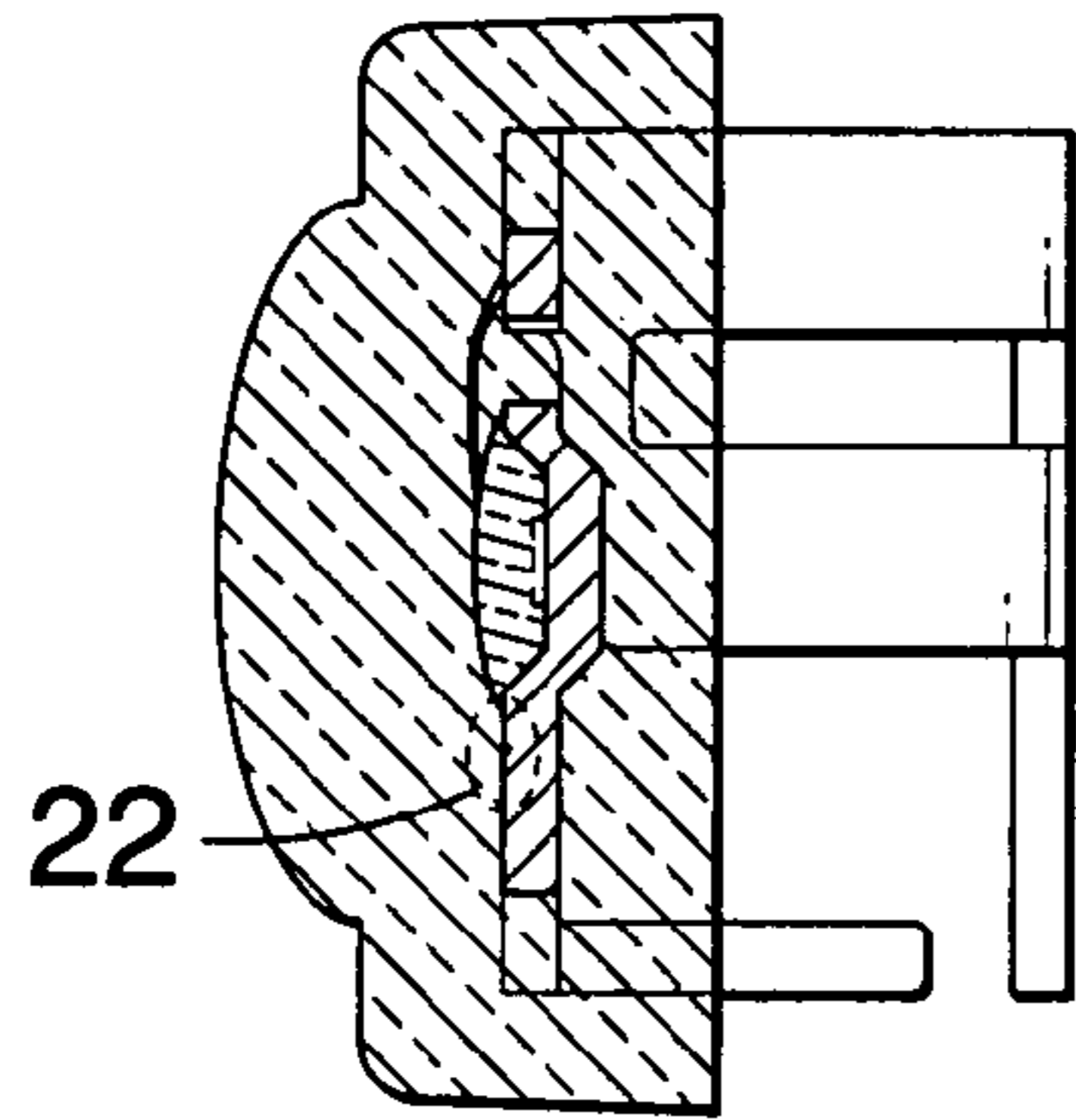


FIG. 19

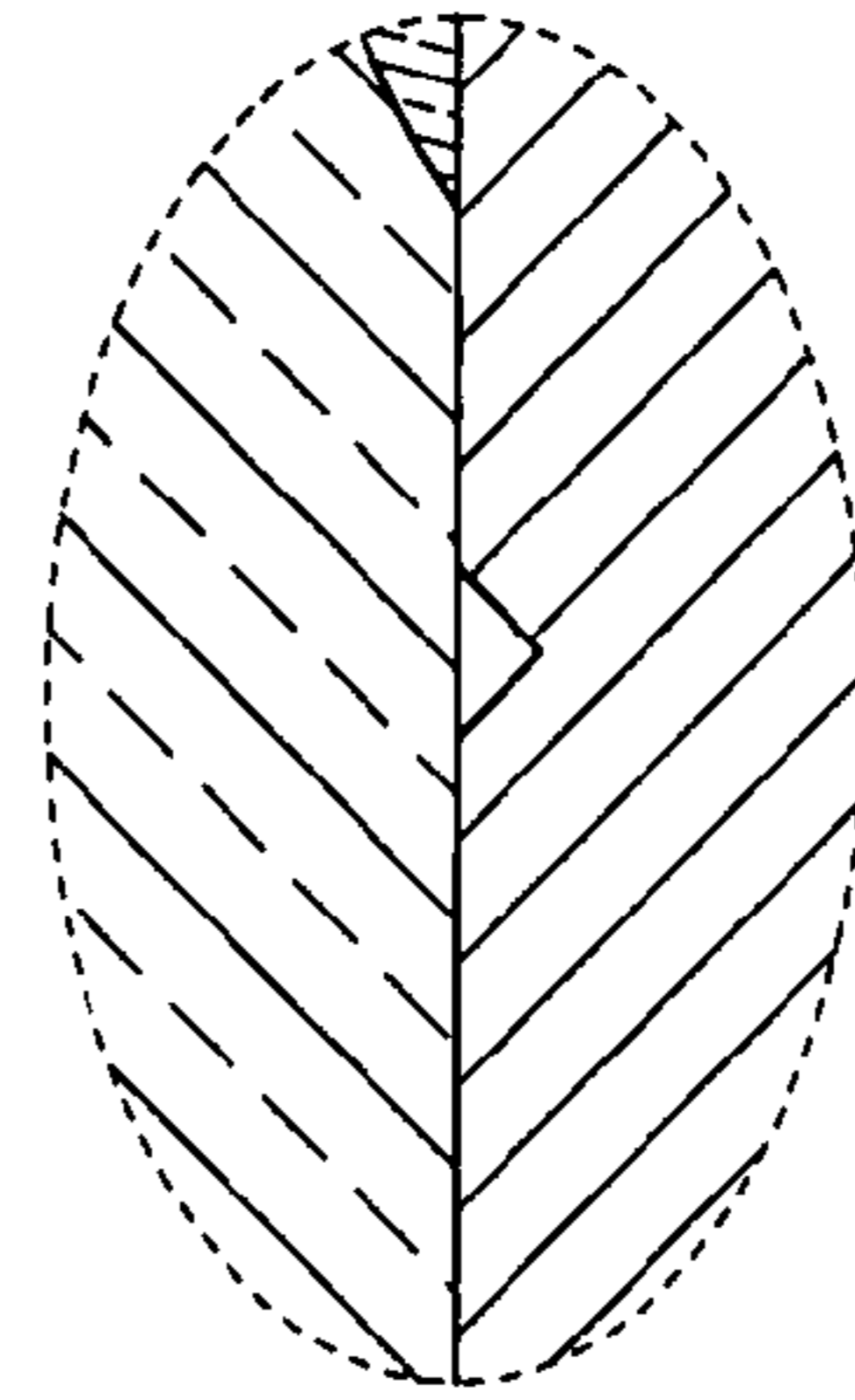


FIG. 22

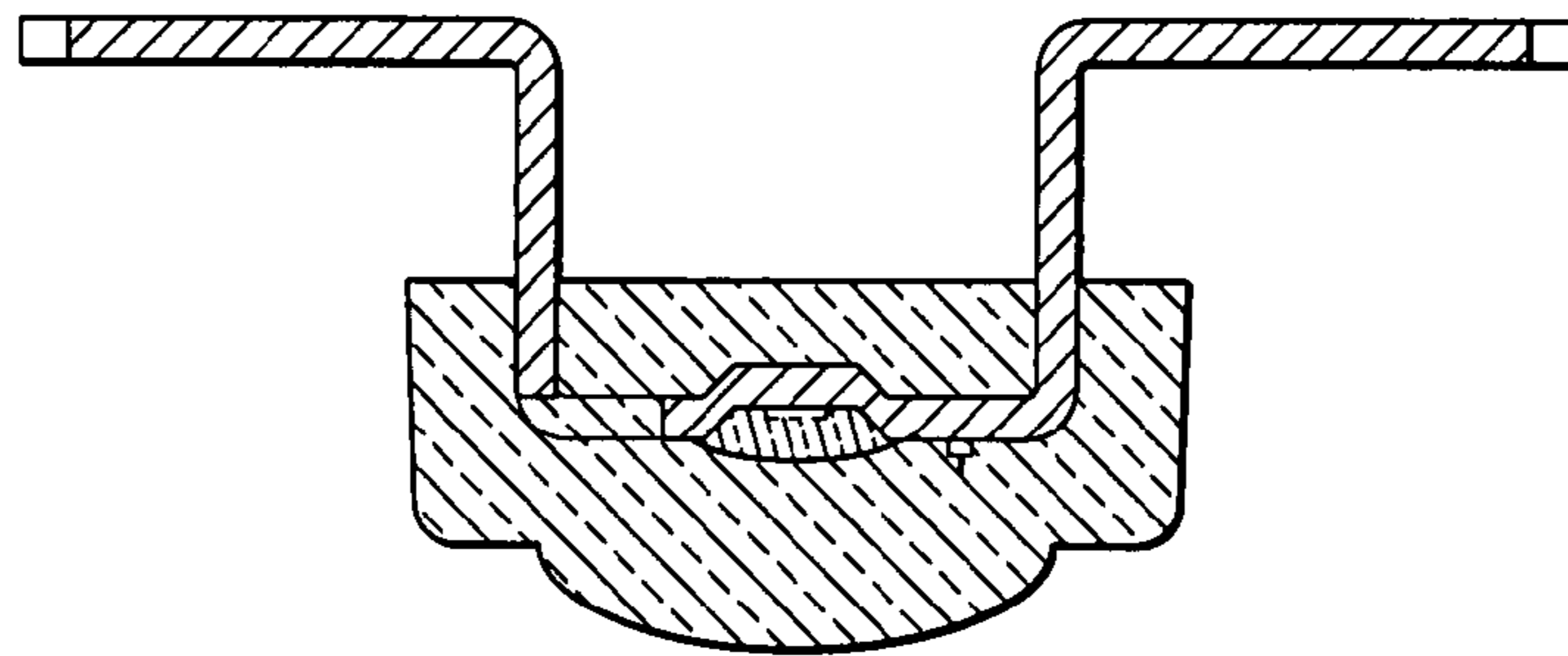


FIG. 20

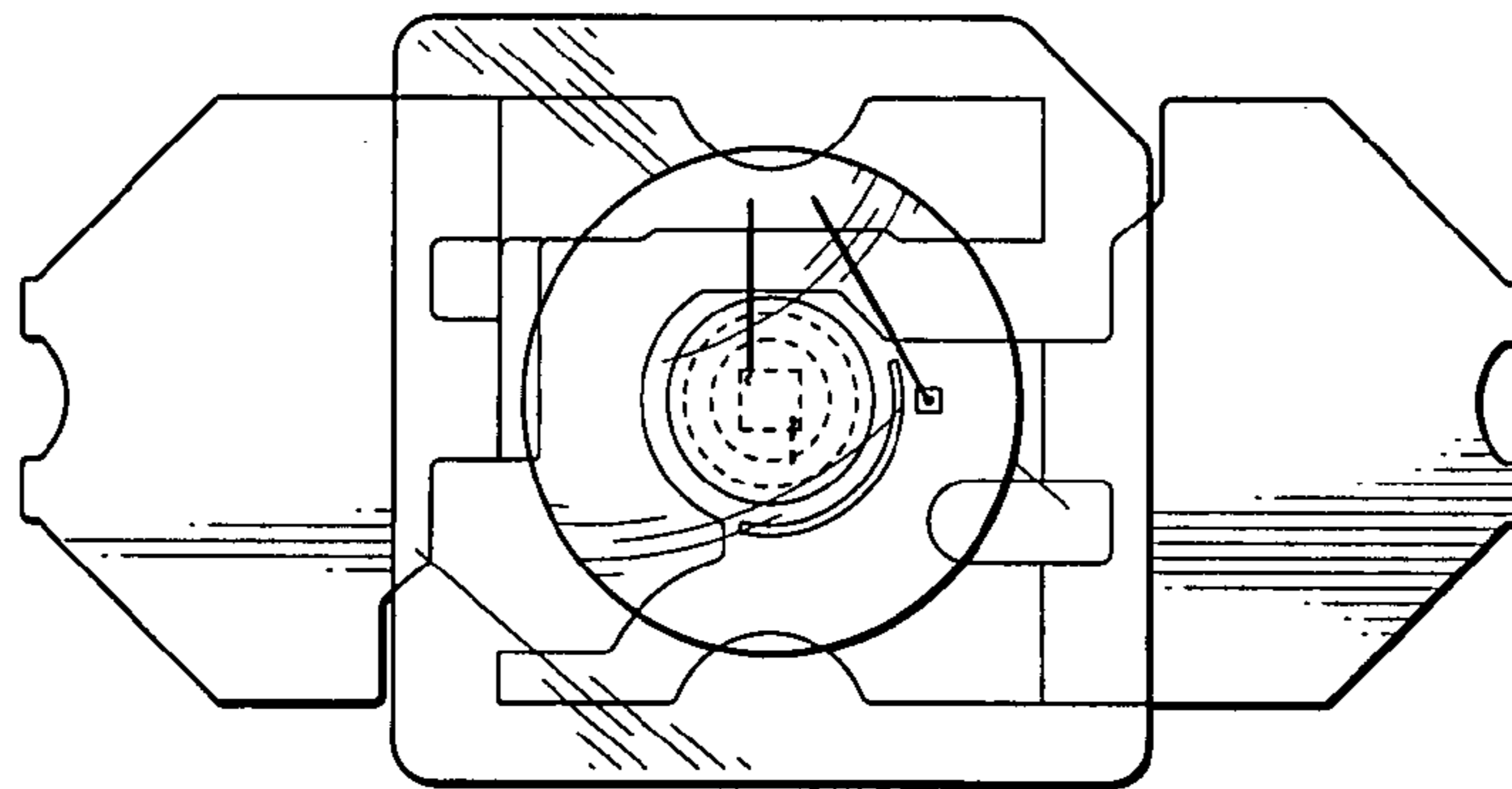


FIG. 21

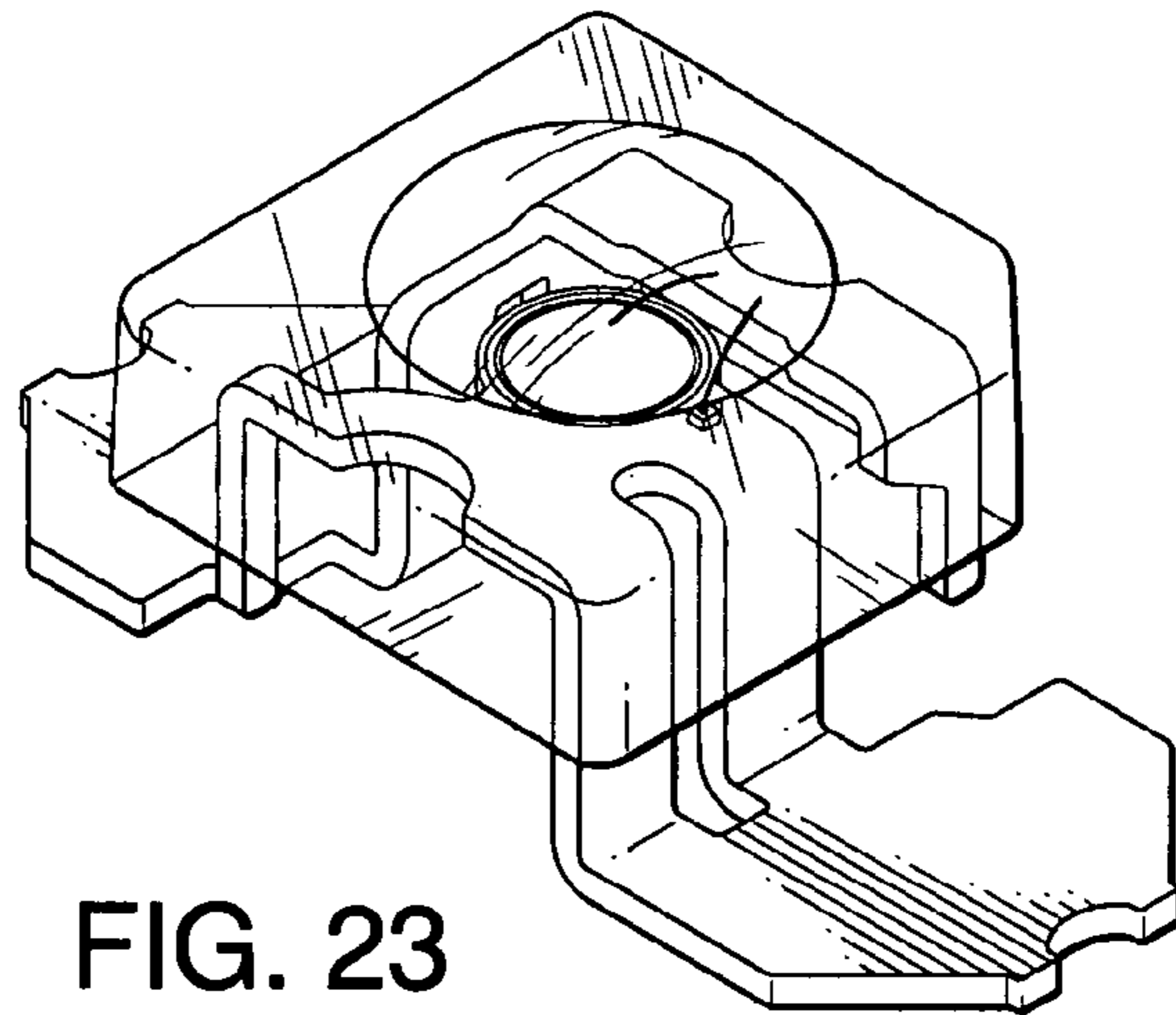
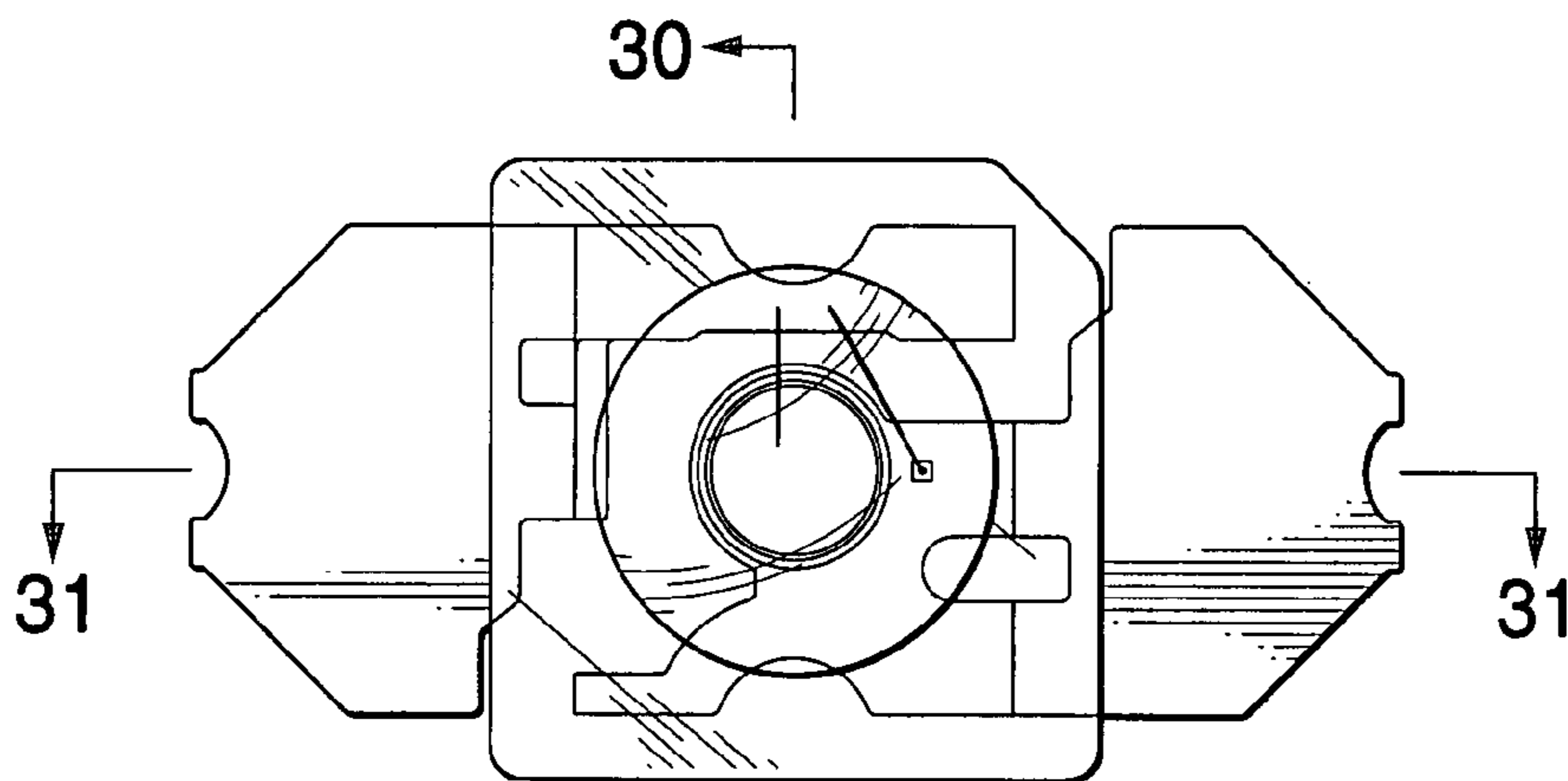


FIG. 23



30 ← FIG. 24

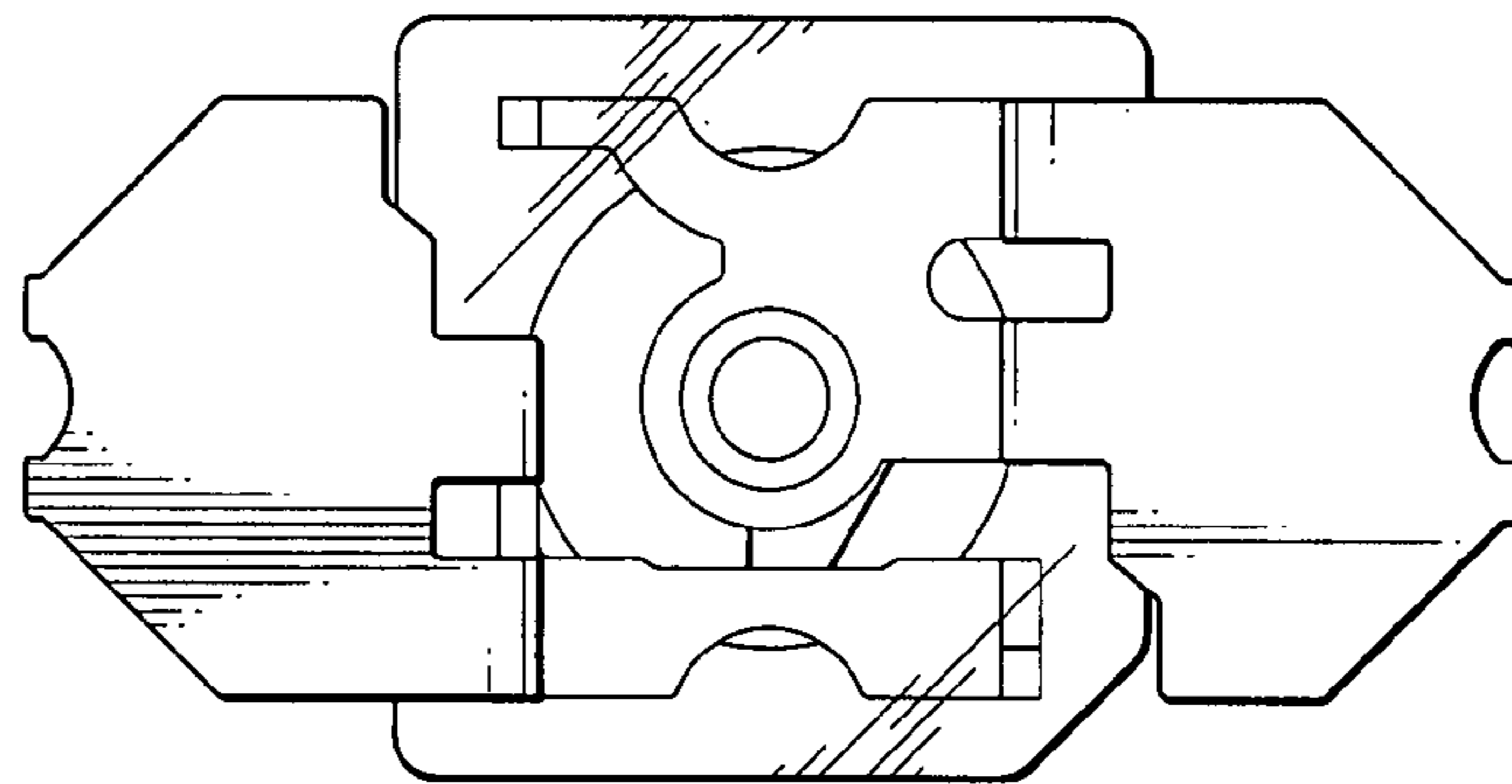


FIG. 25

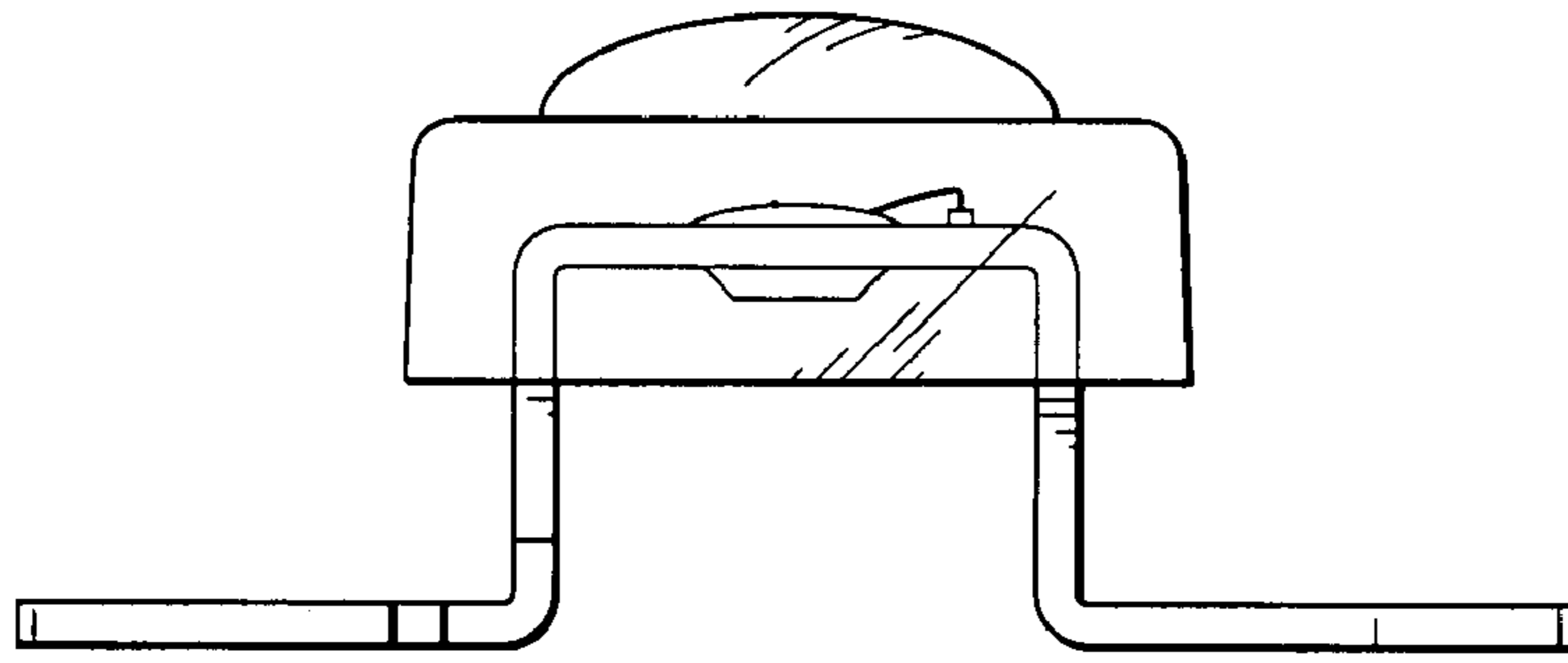


FIG. 26

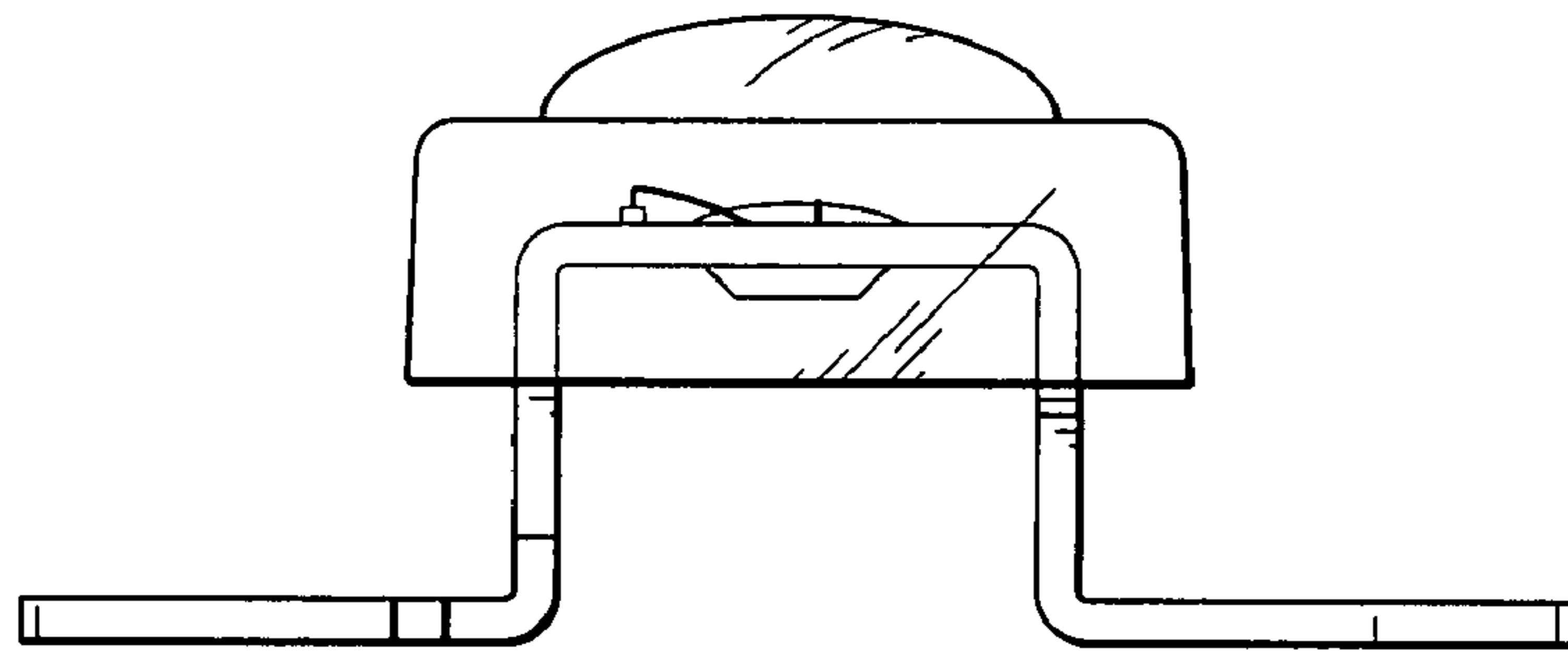


FIG. 27

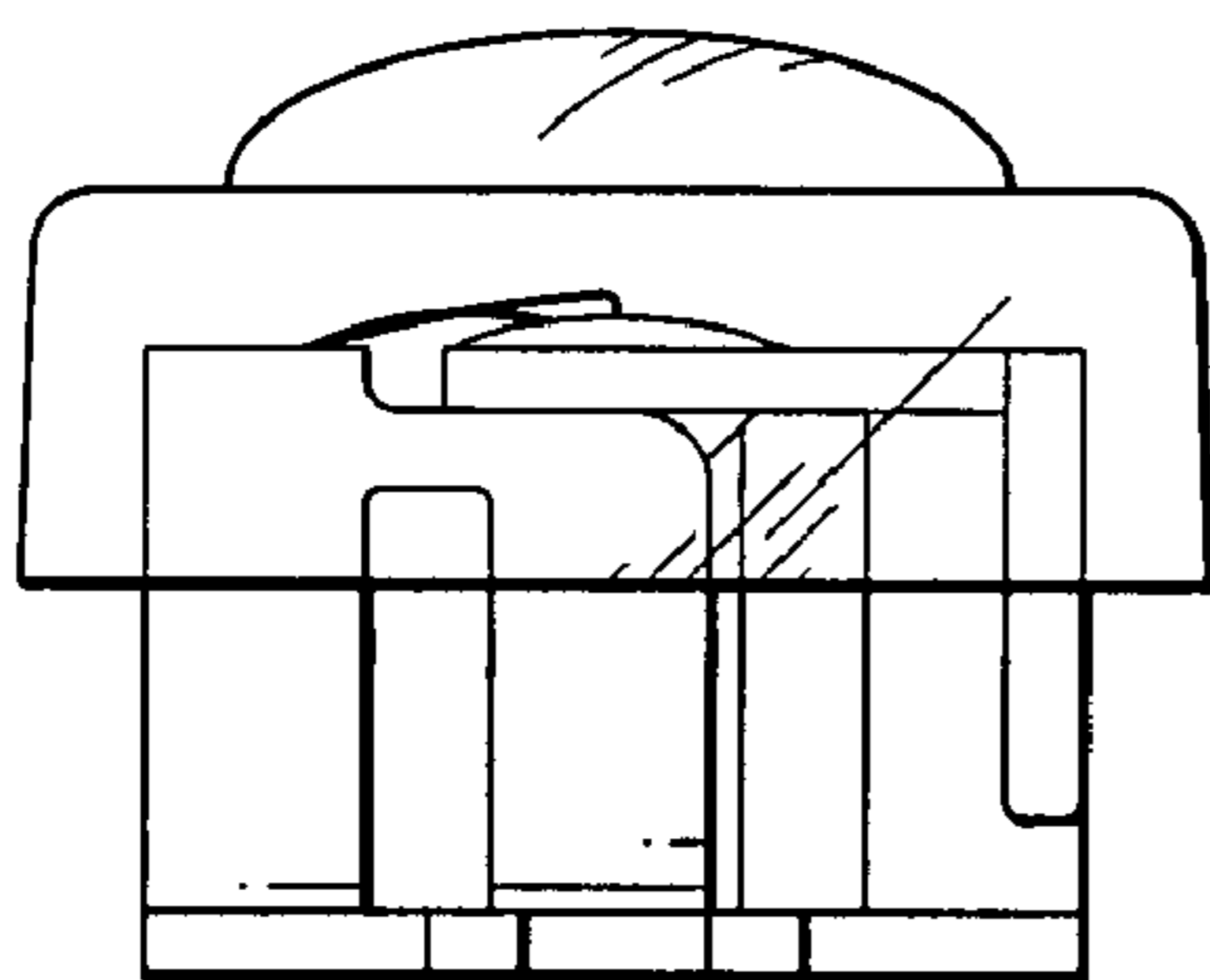


FIG. 28

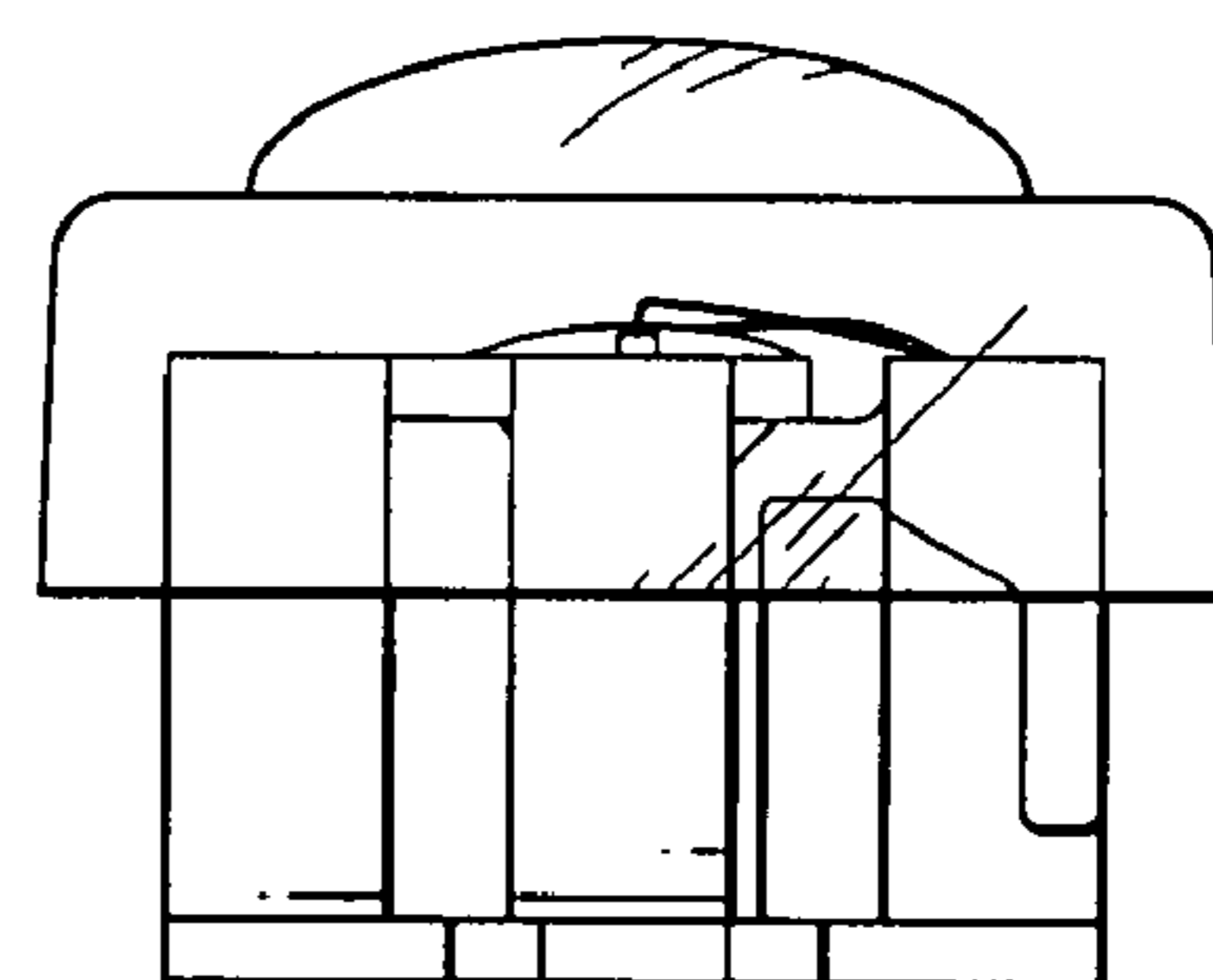


FIG. 29

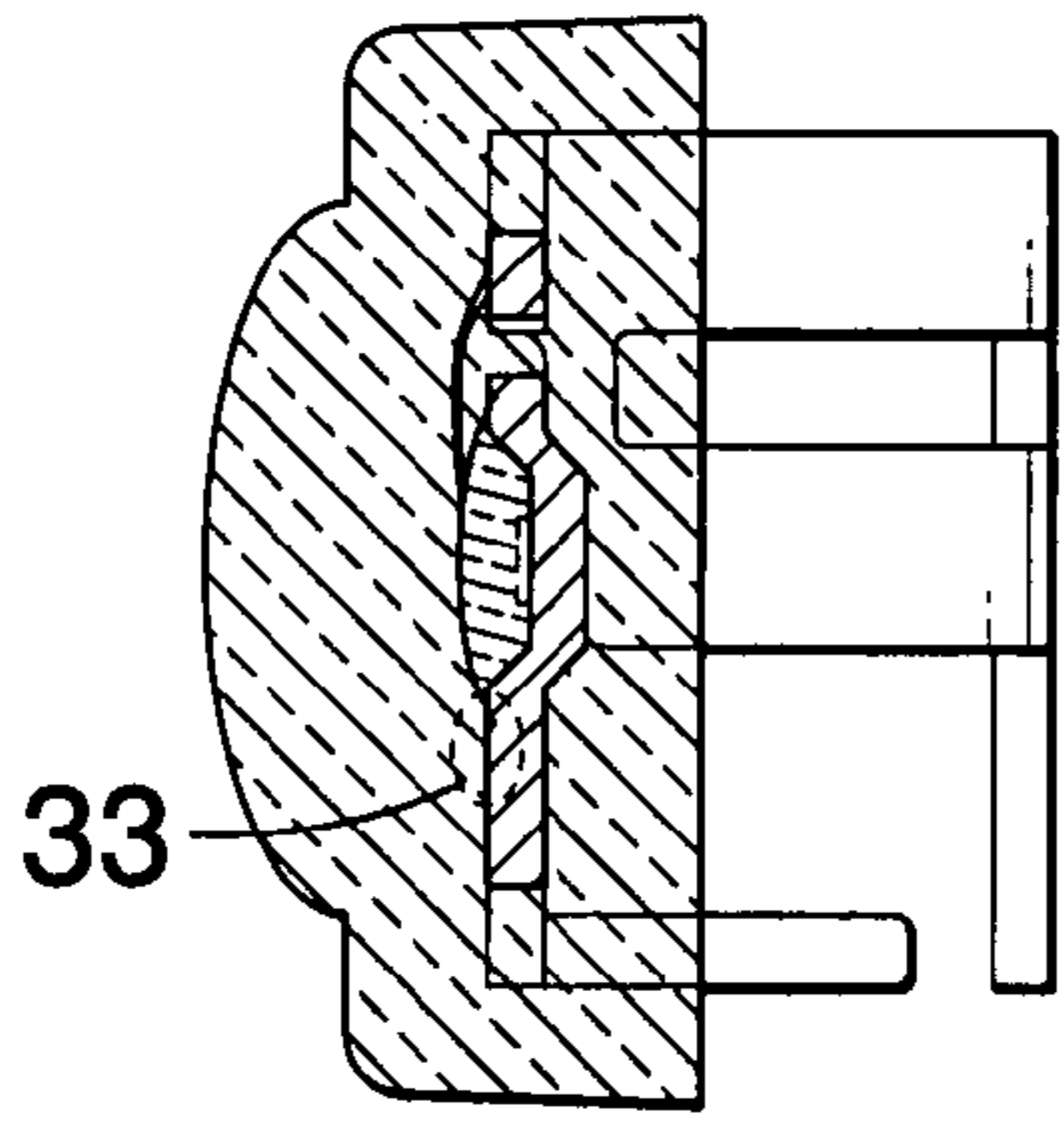


FIG. 30

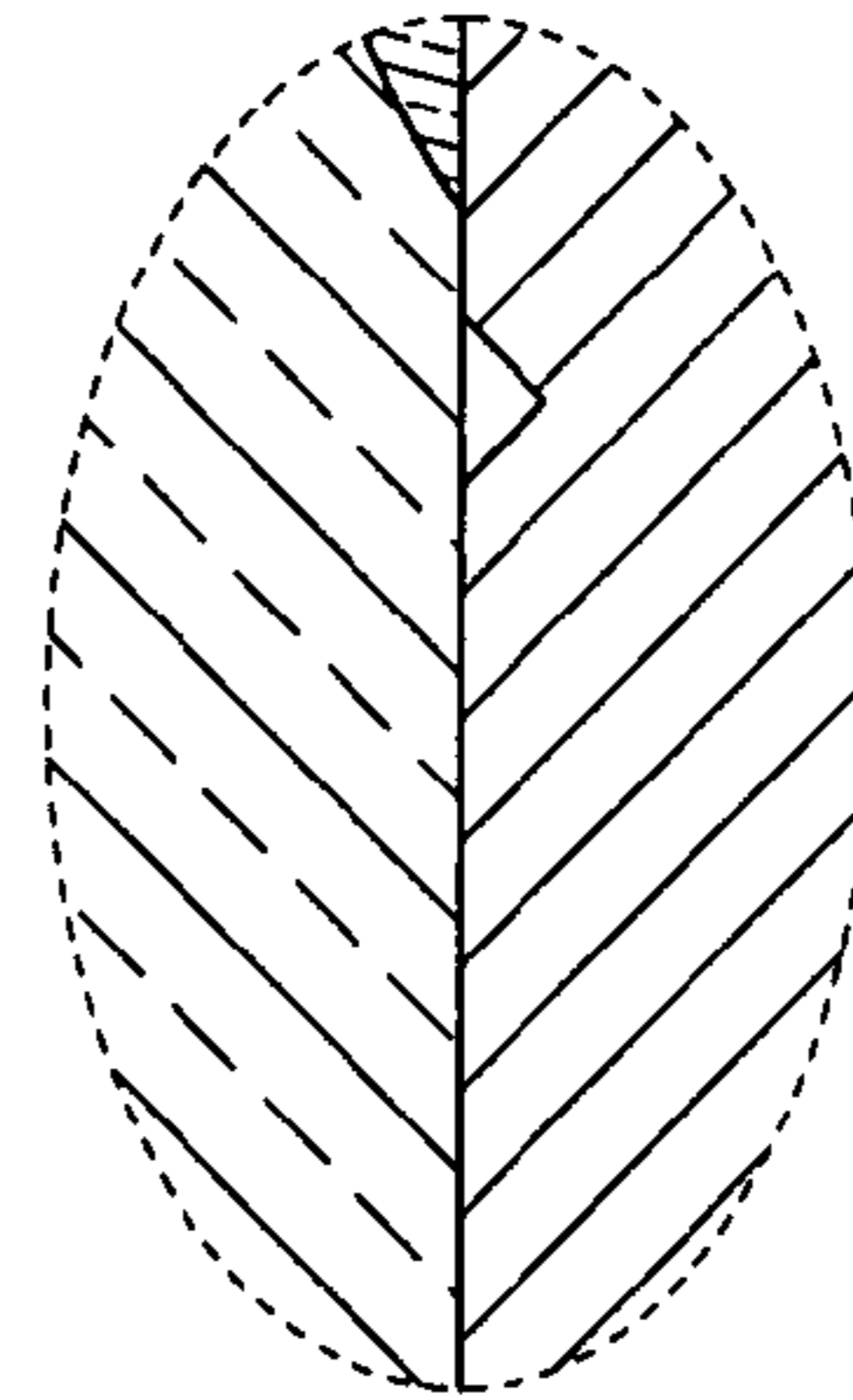


FIG. 33

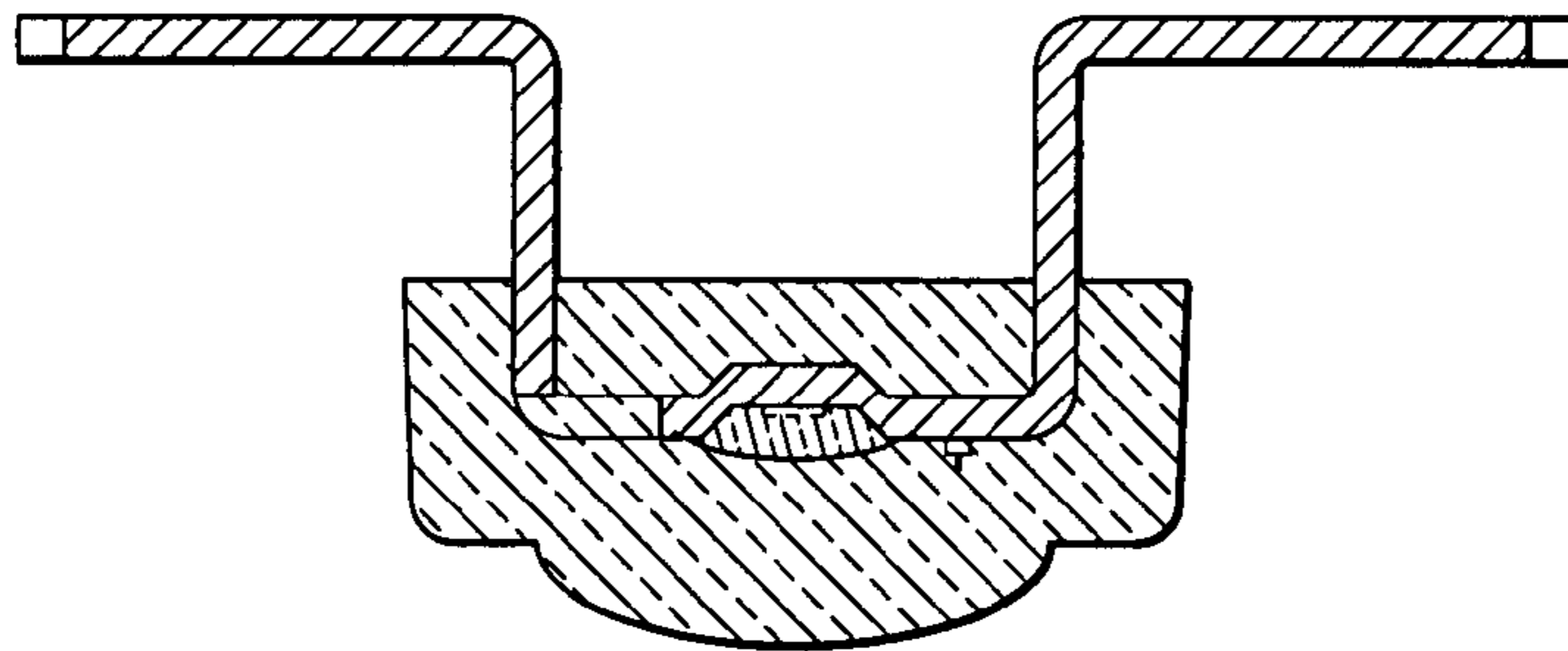


FIG. 31

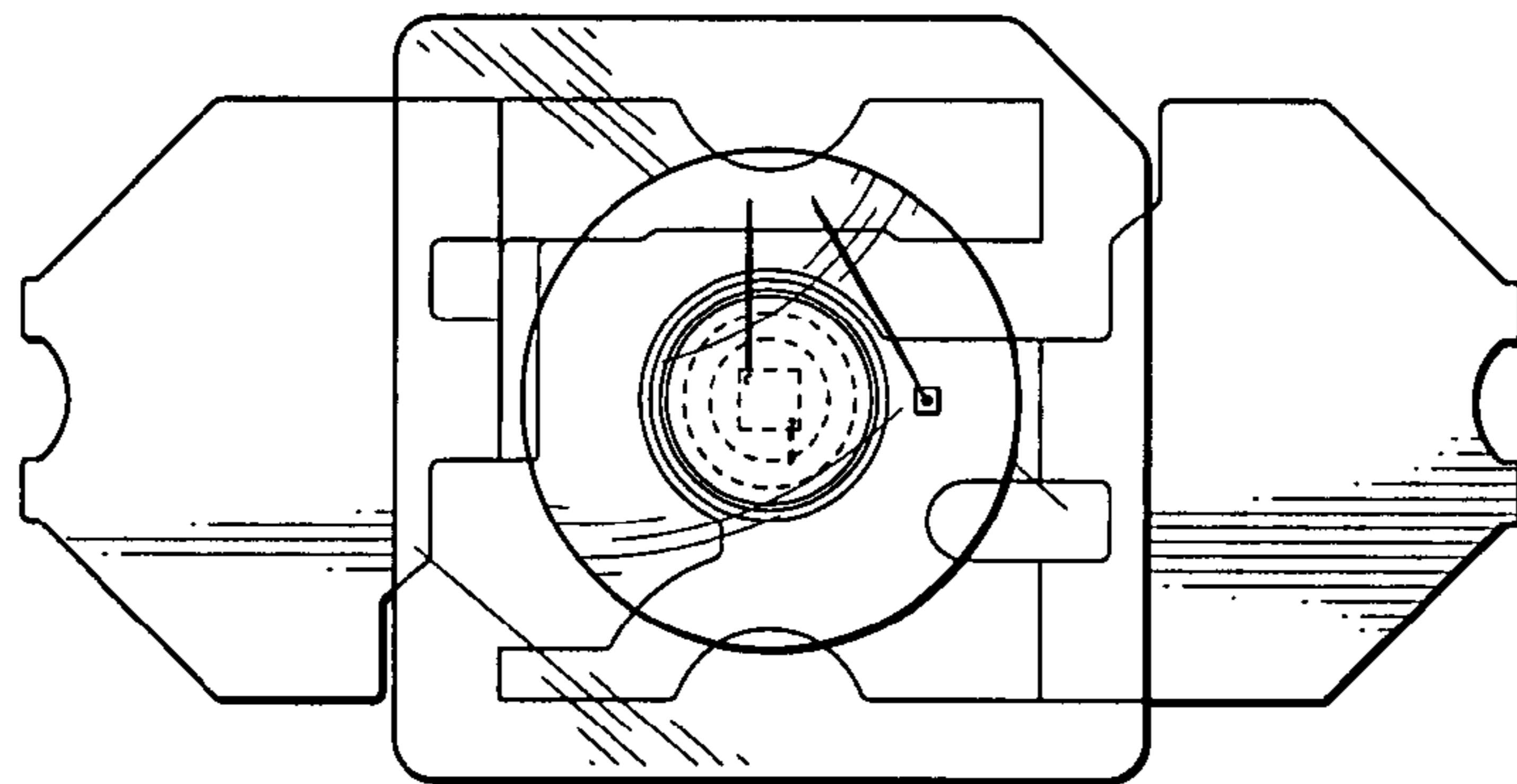


FIG. 32

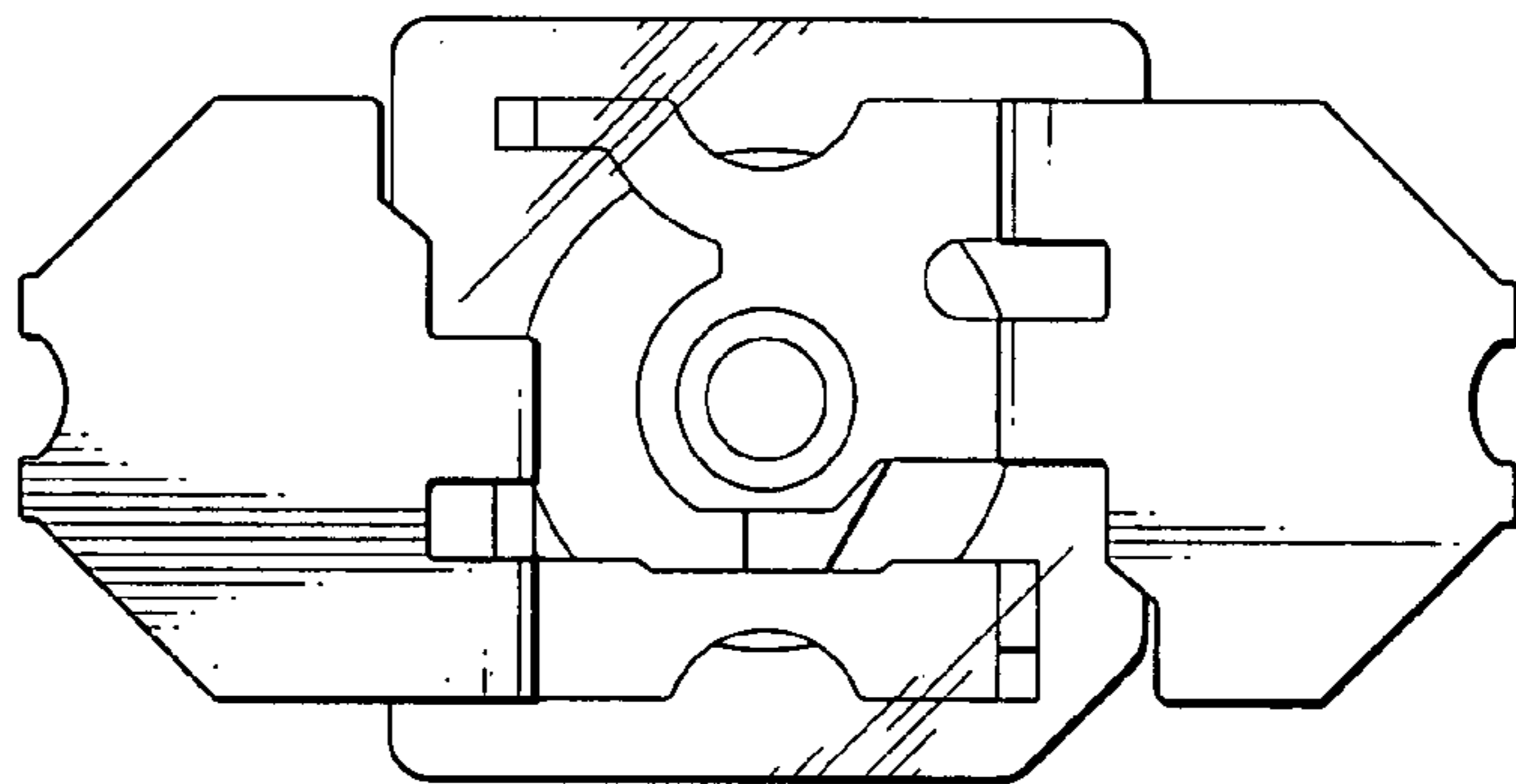
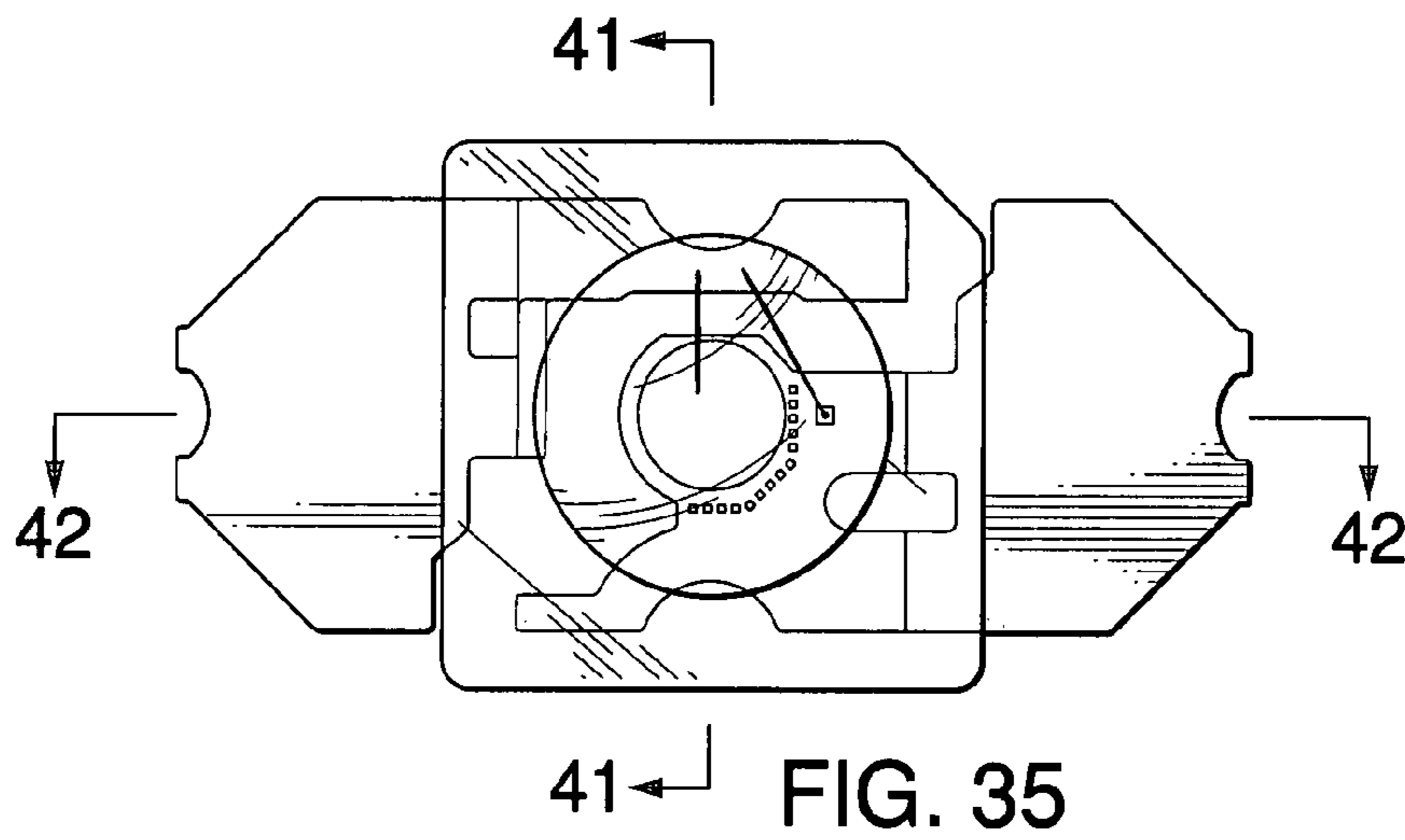
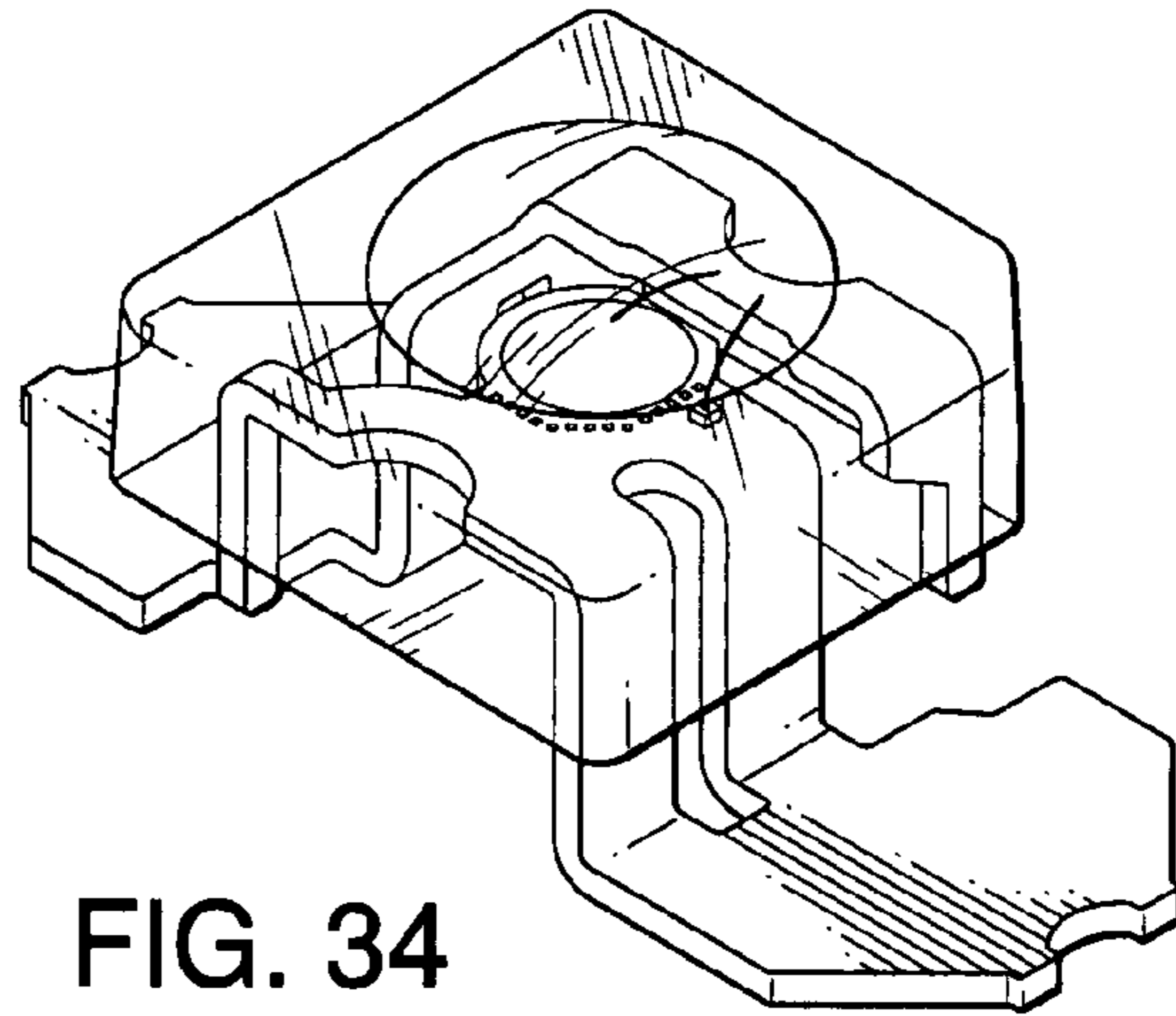


FIG. 36

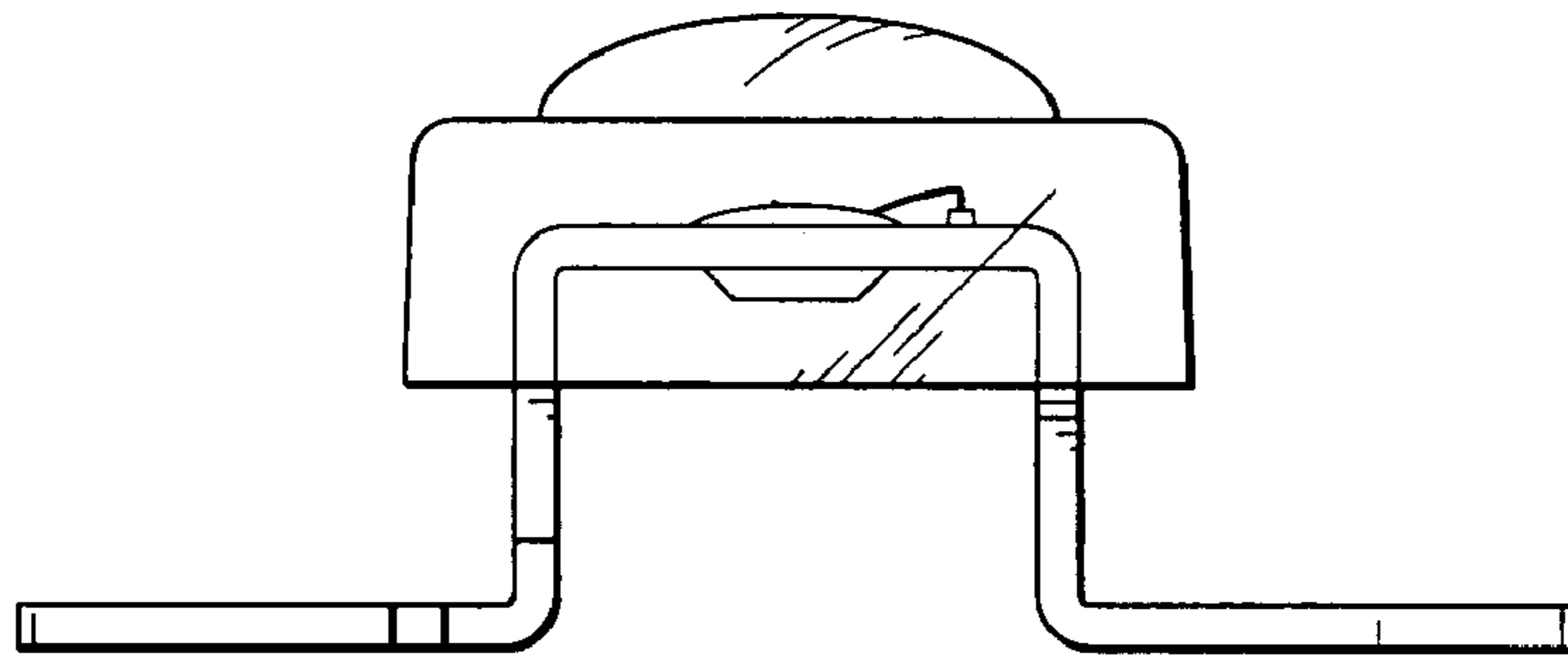


FIG. 37

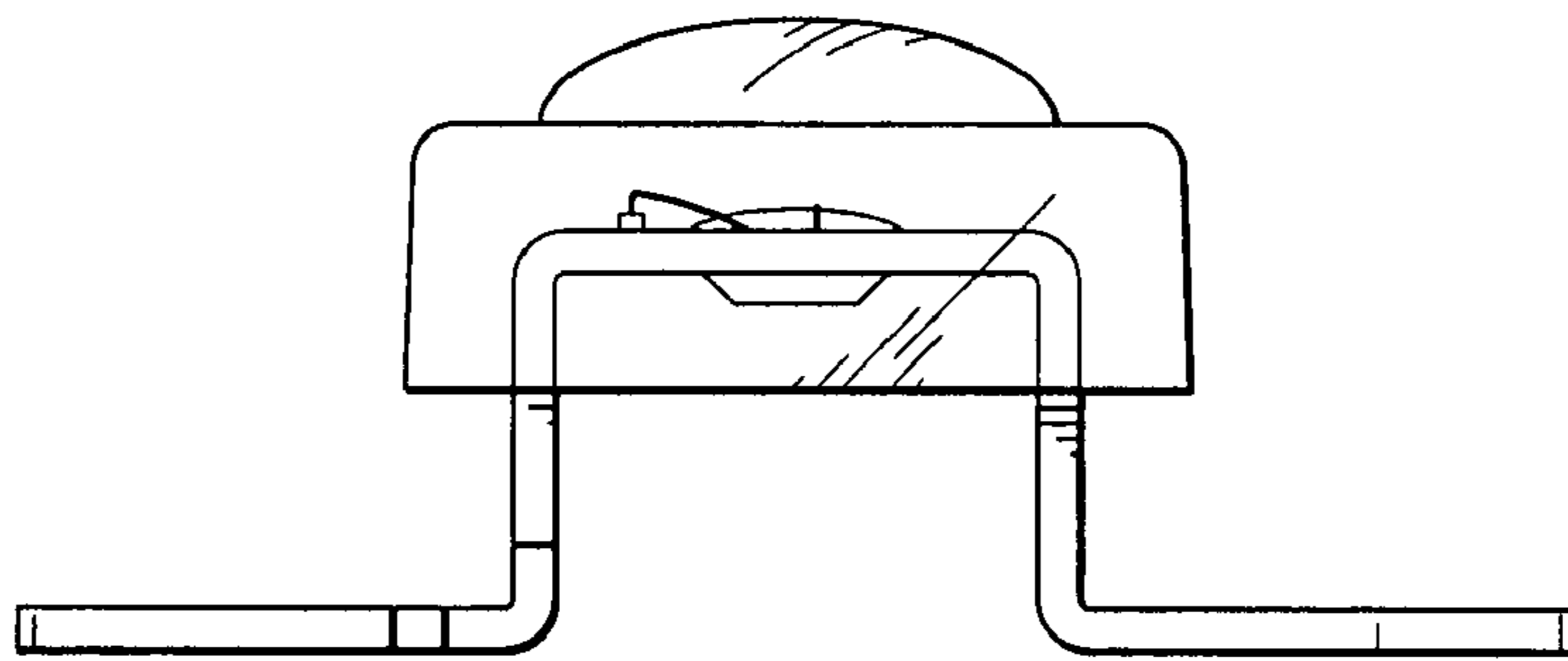


FIG. 38

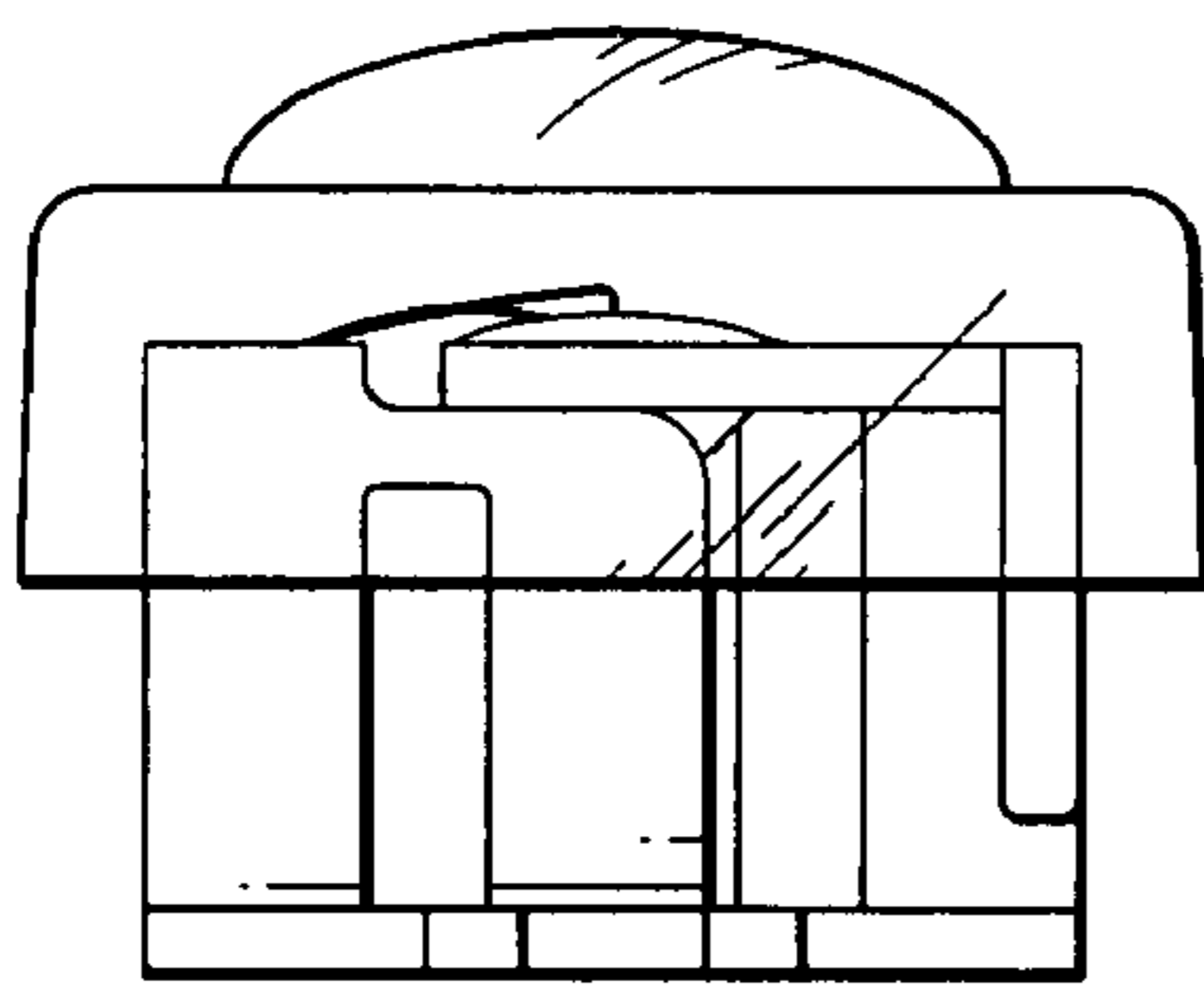


FIG. 39

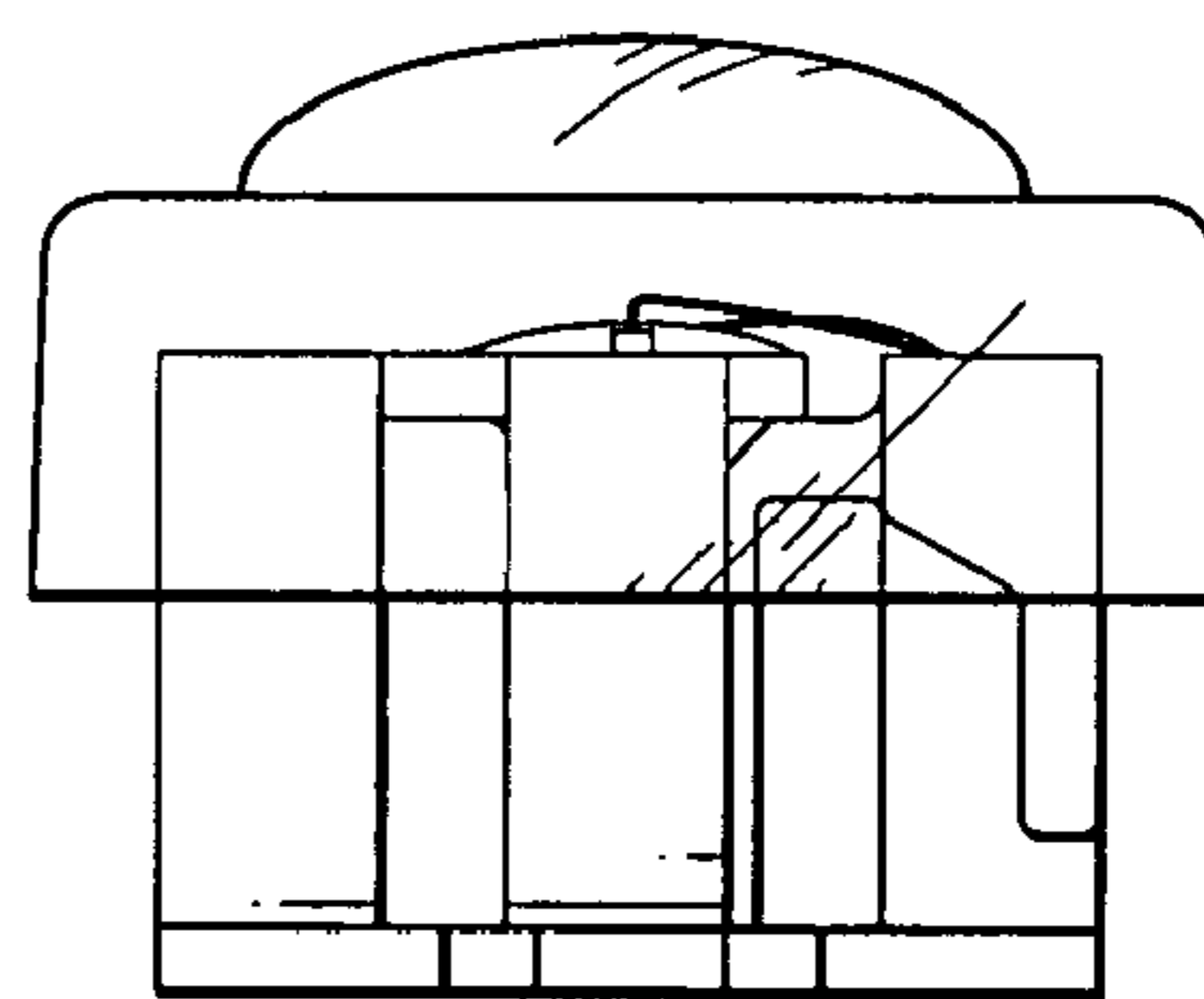


FIG. 40

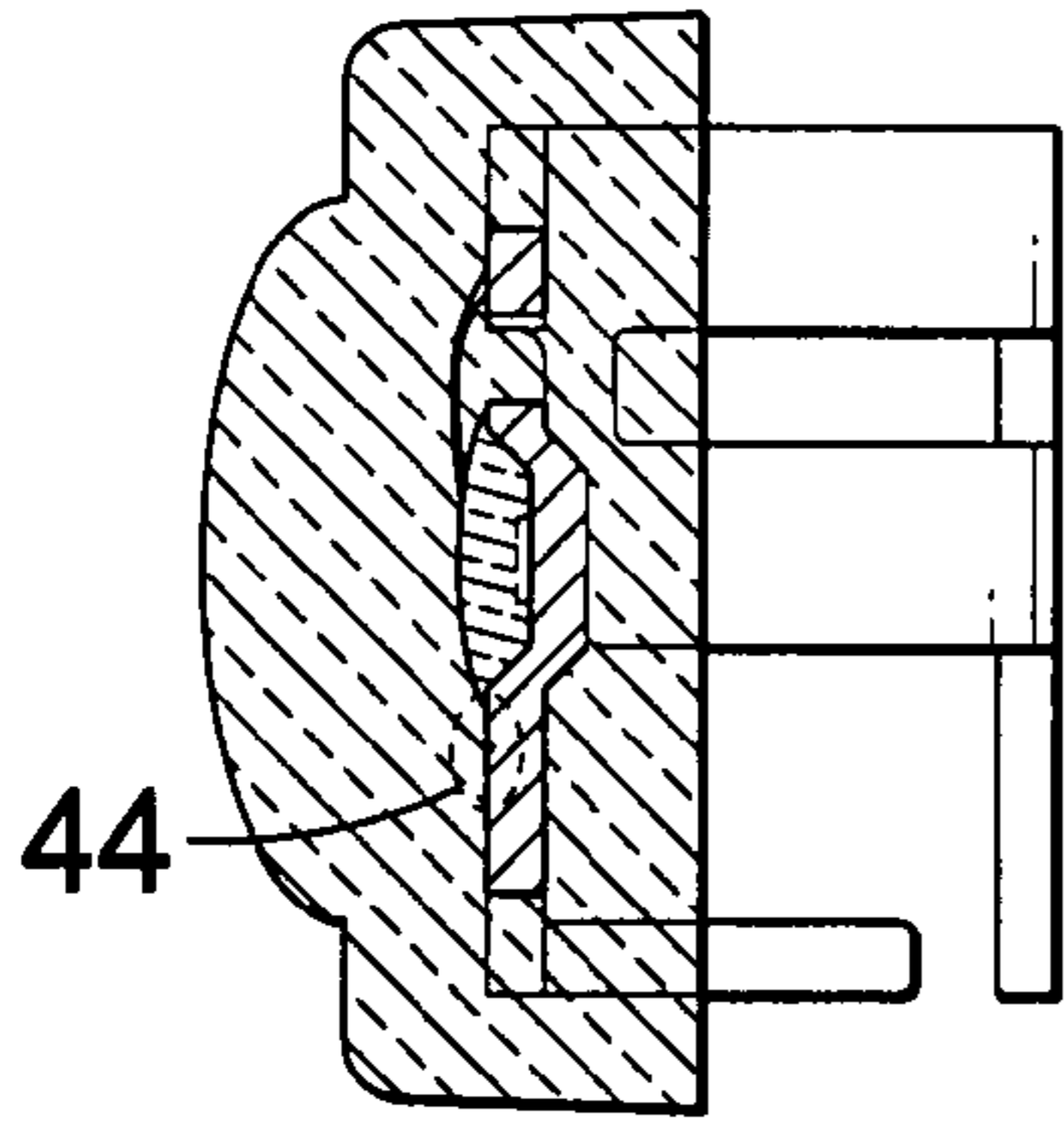


FIG. 41

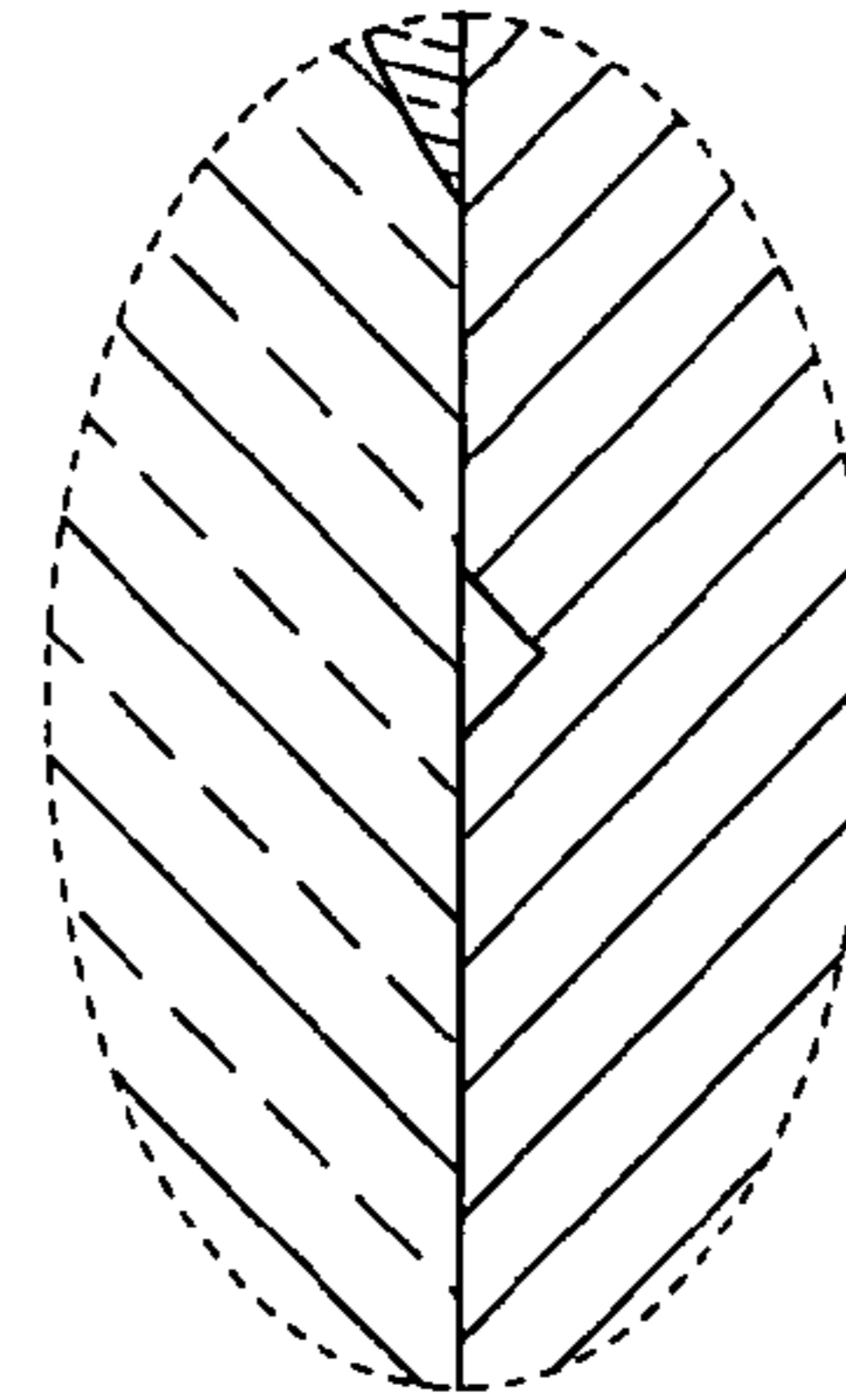


FIG. 44

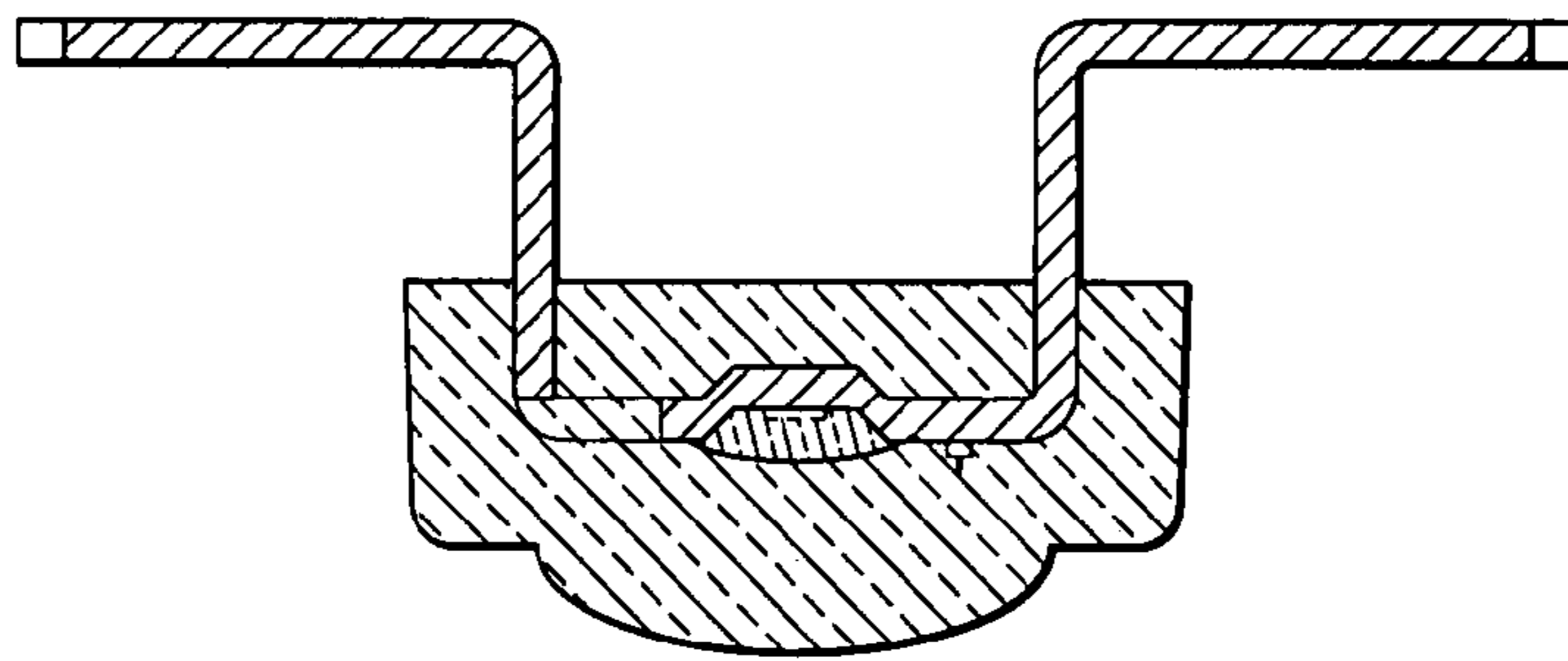


FIG. 42

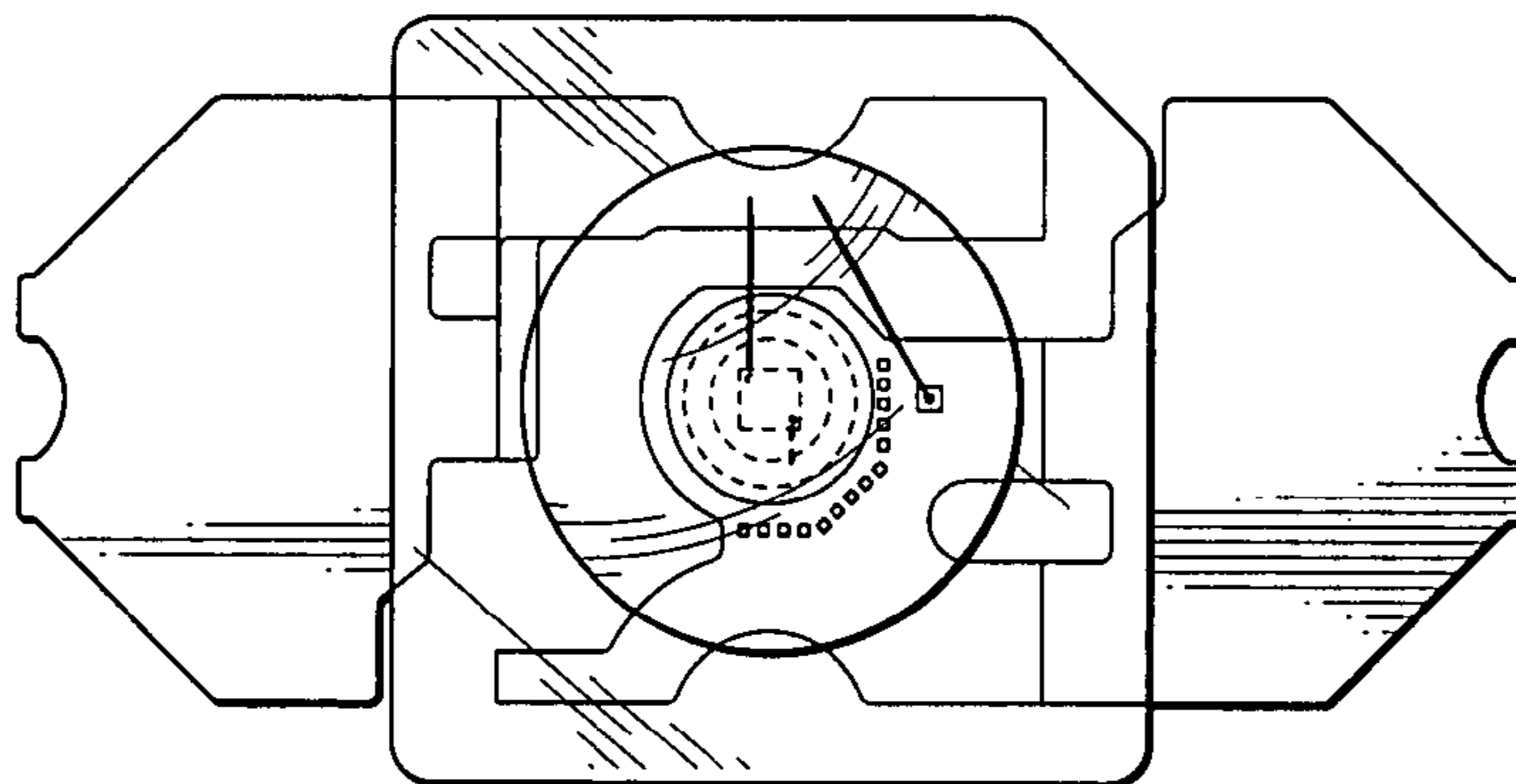


FIG. 43

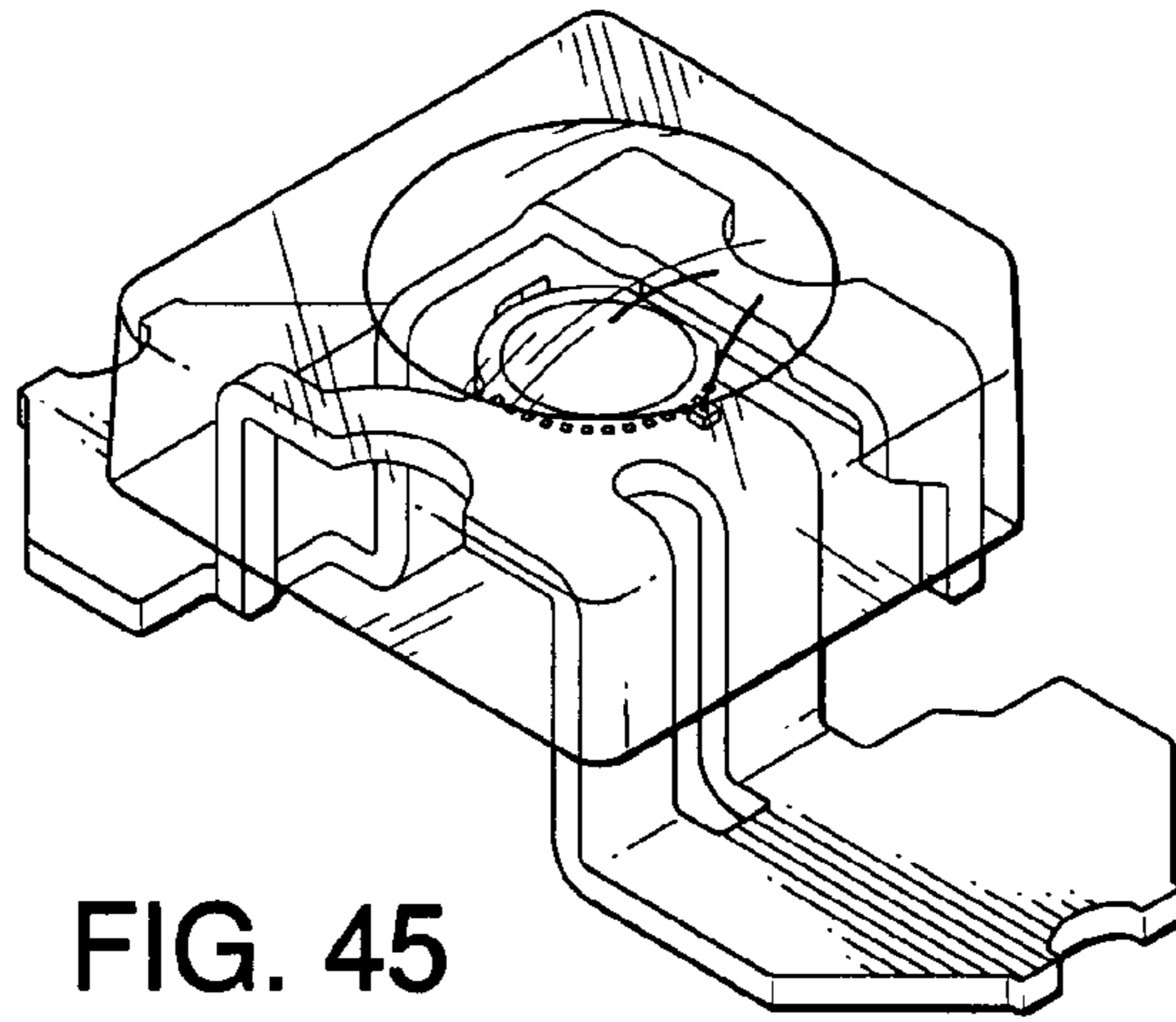


FIG. 45

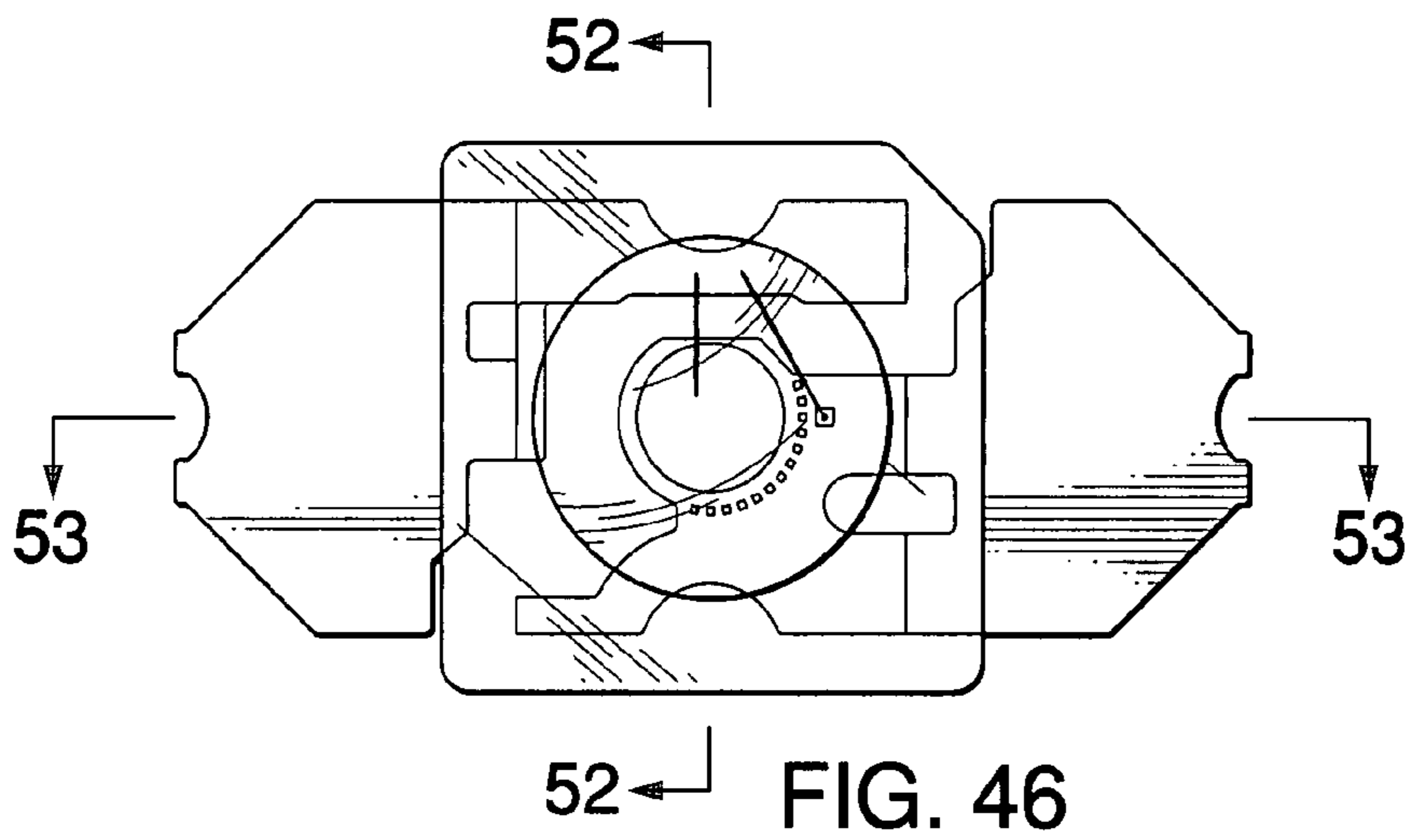


FIG. 46

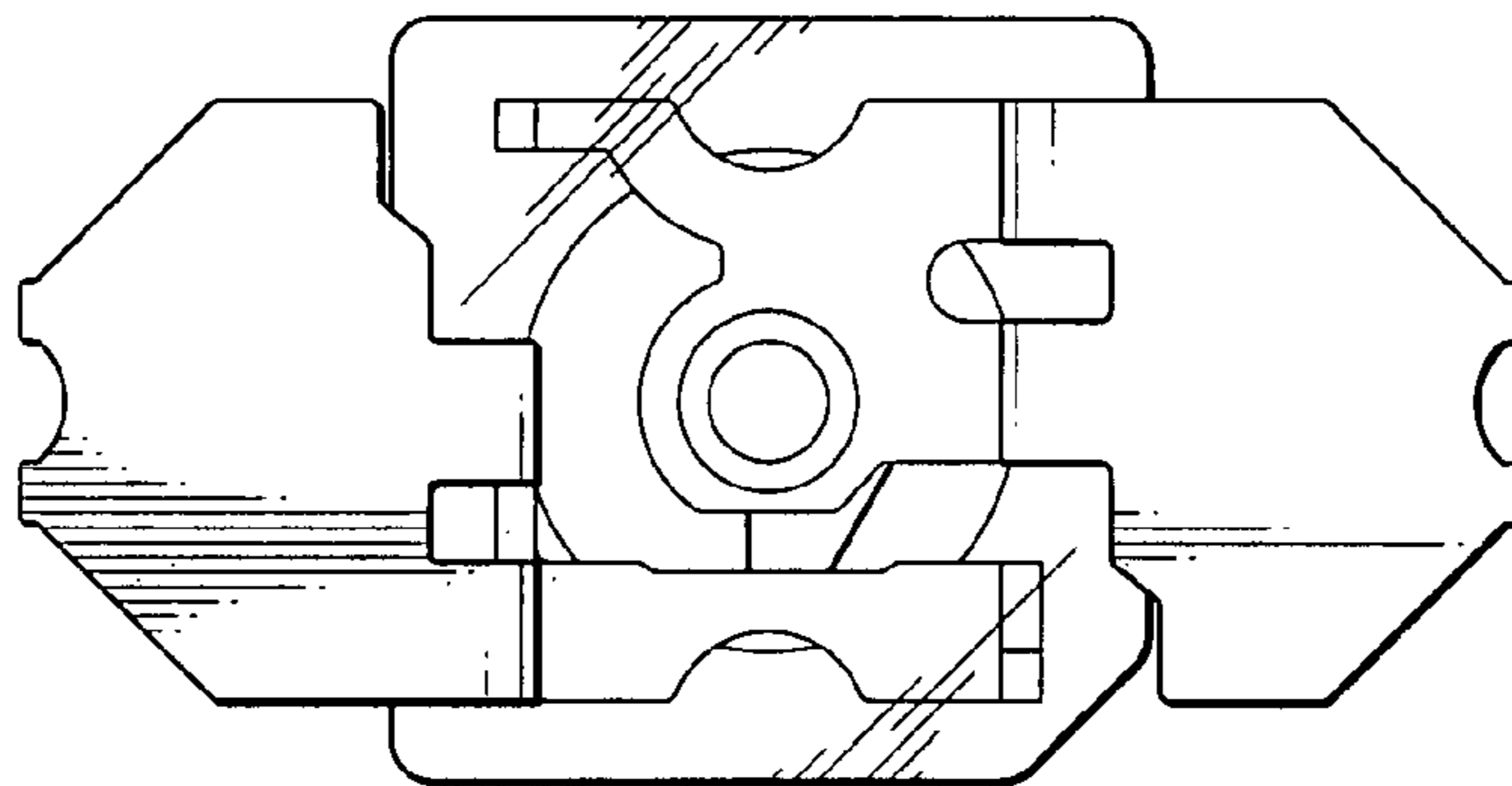


FIG. 47

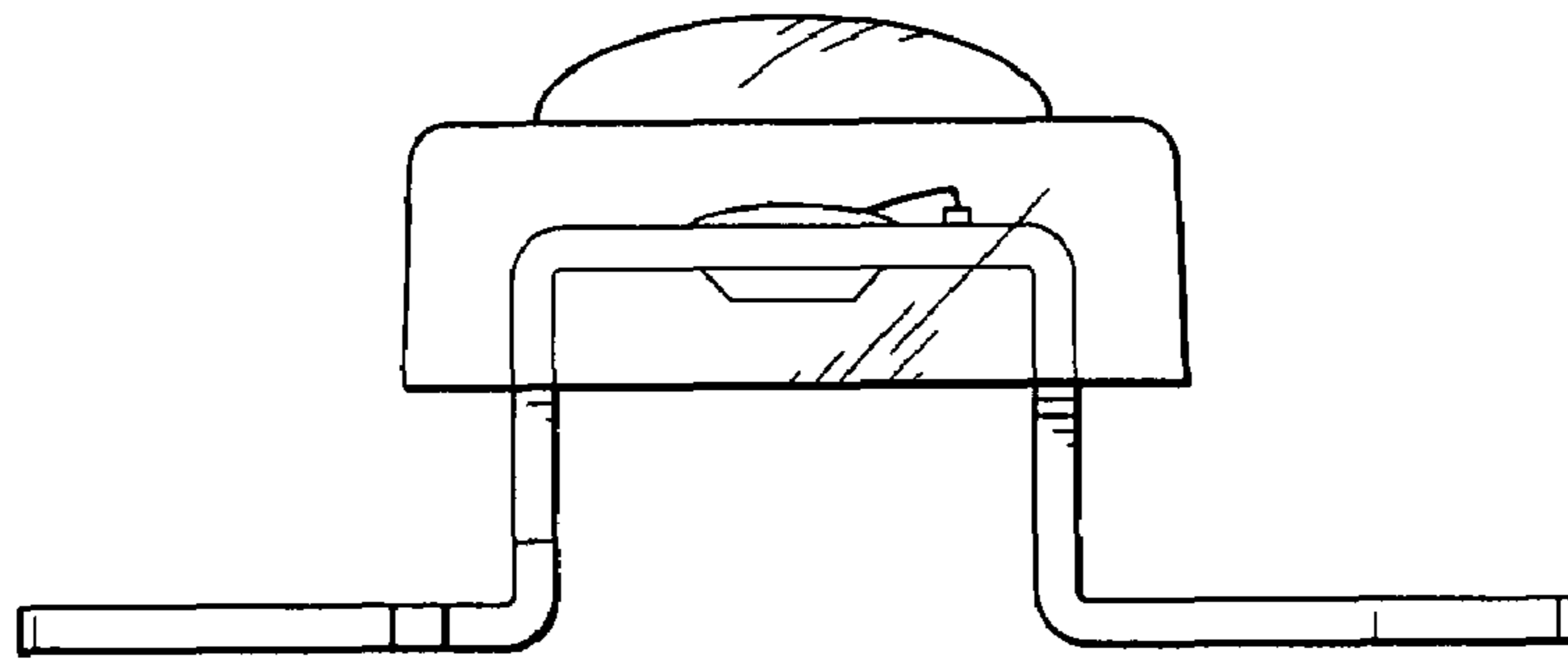


FIG. 48

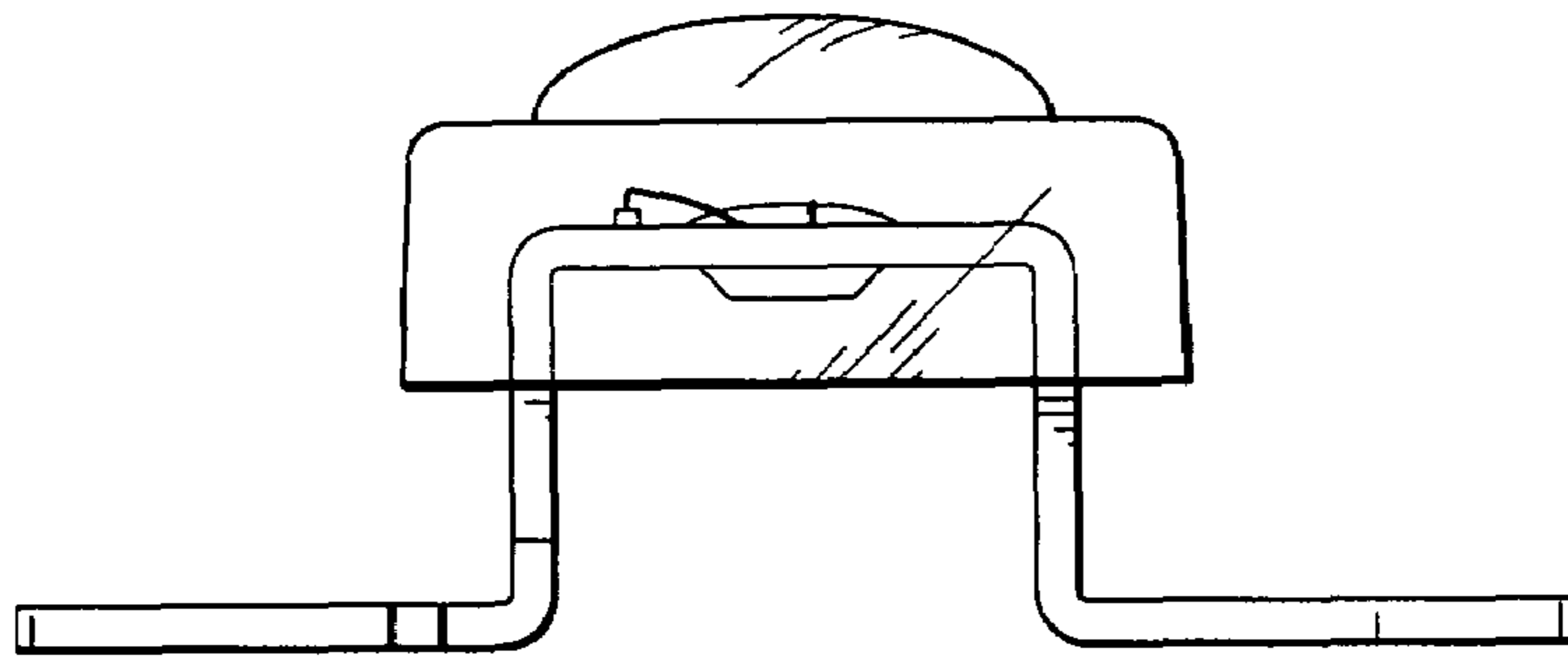


FIG. 49

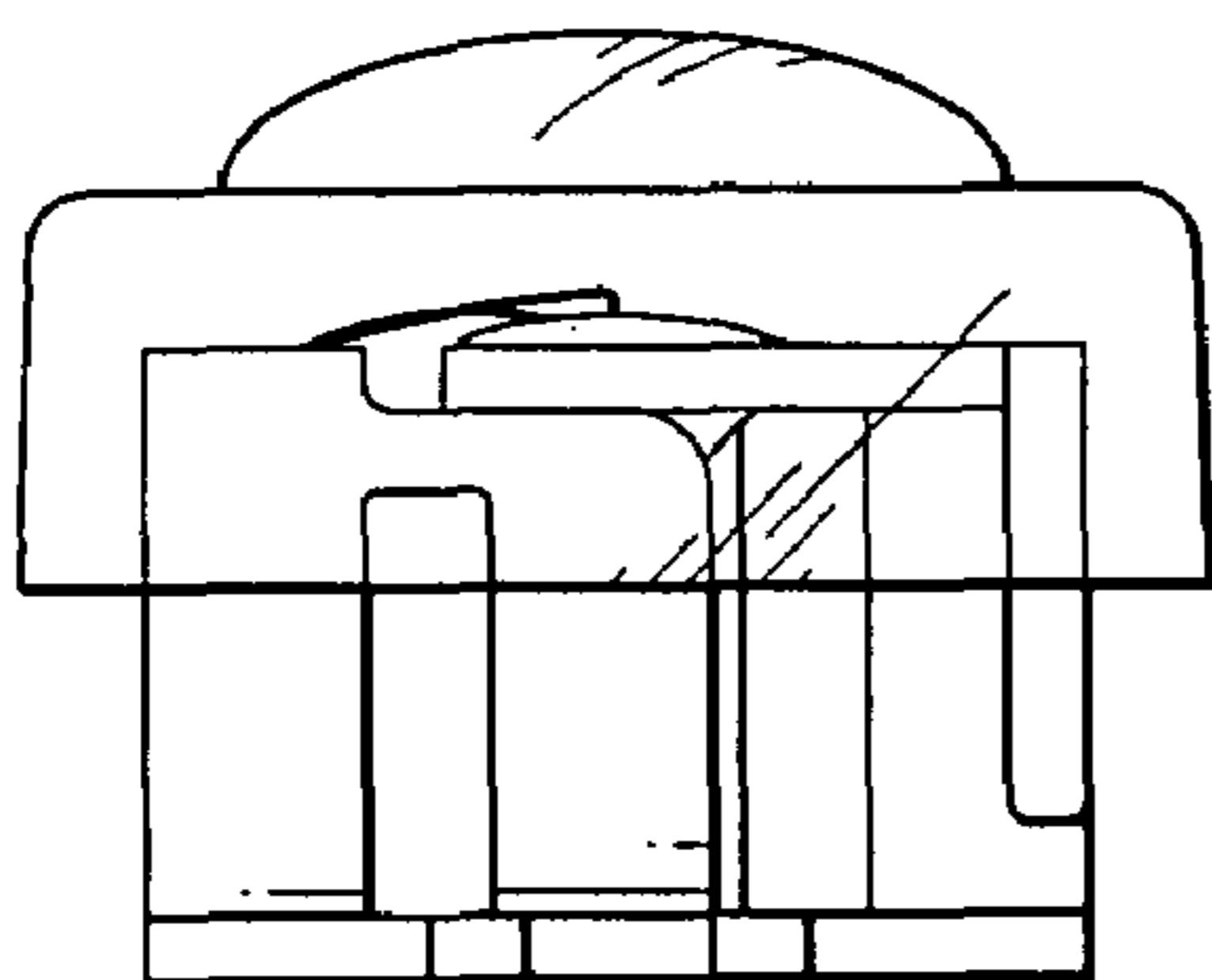


FIG. 50

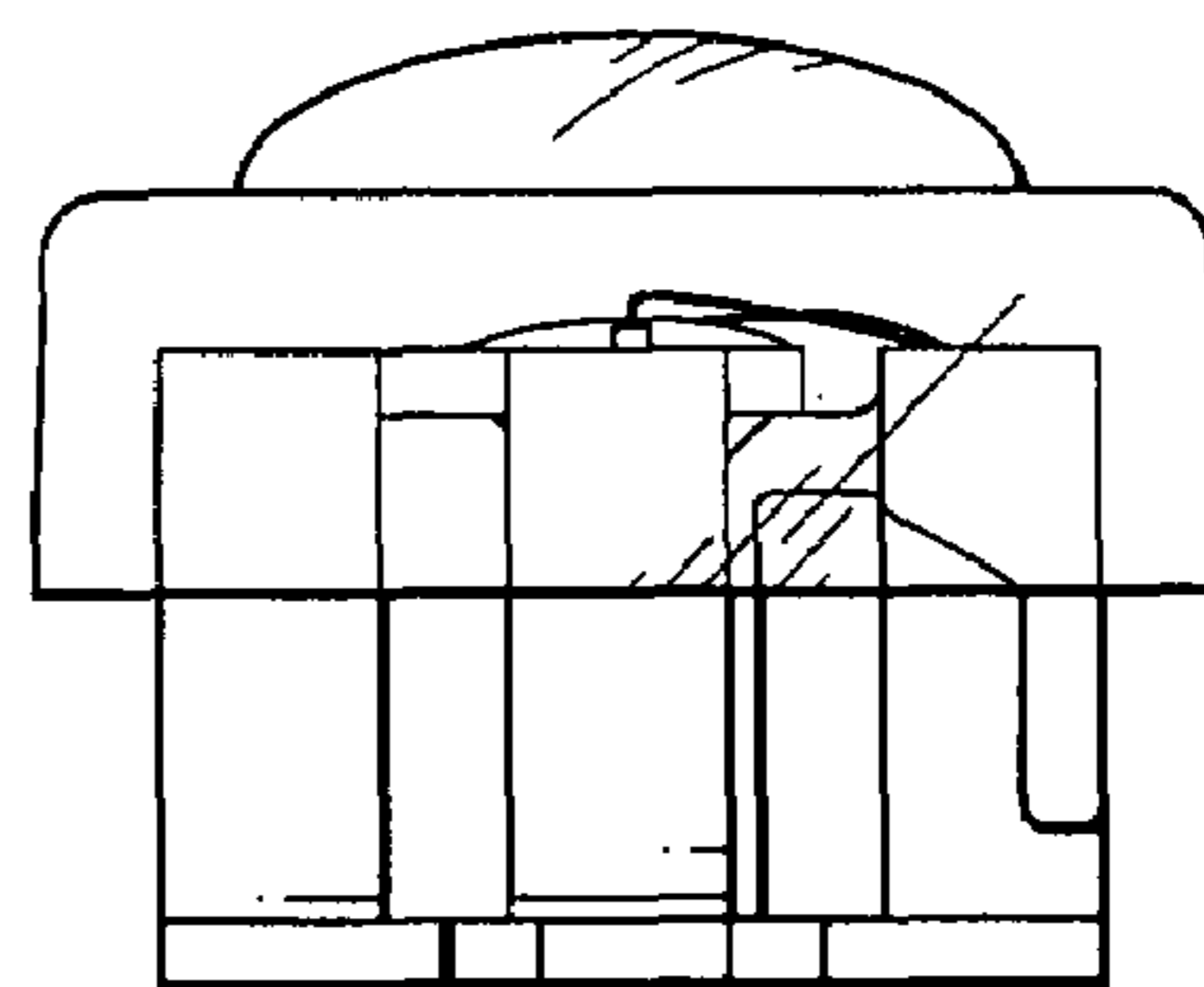


FIG. 51

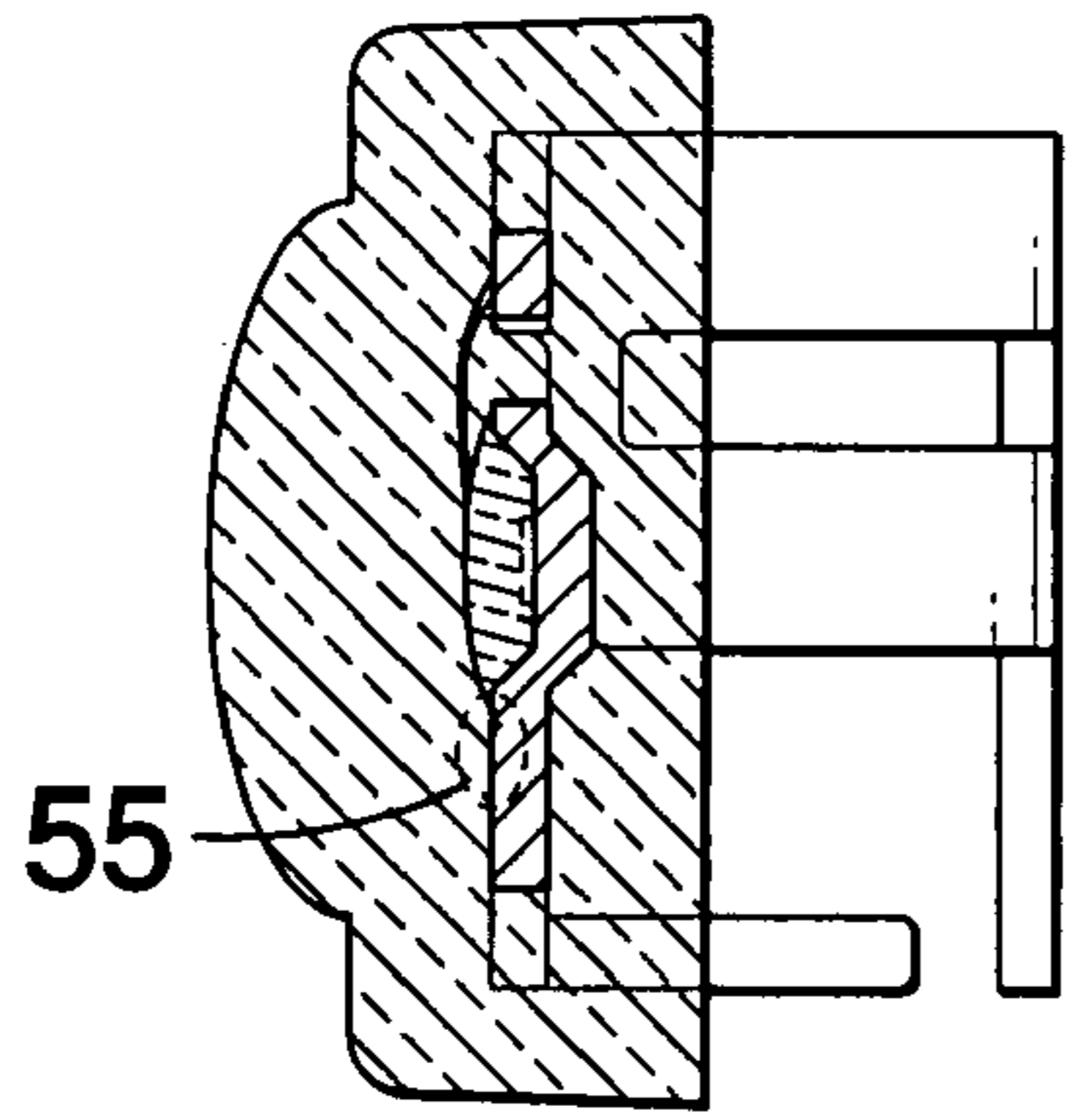


FIG. 52

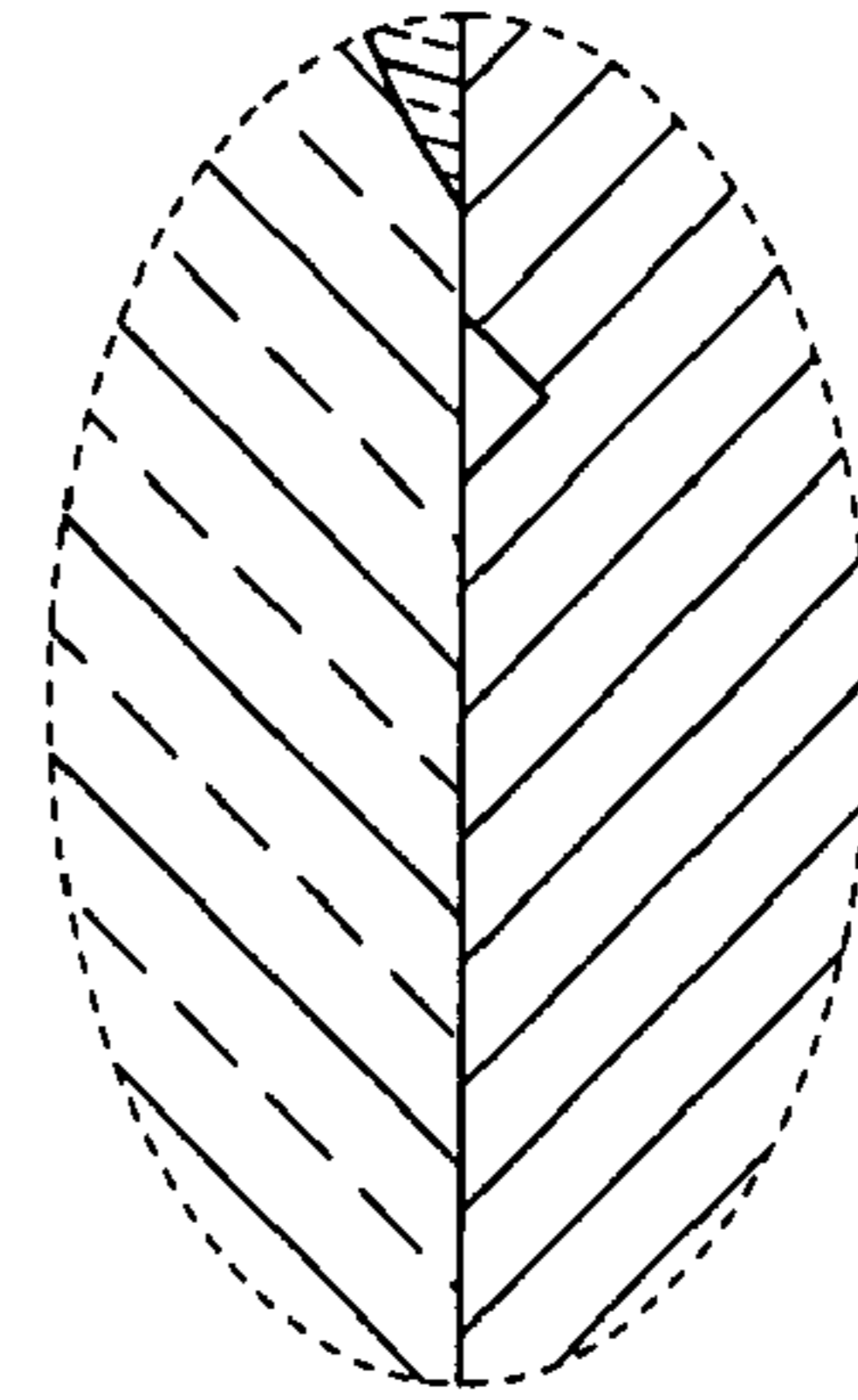


FIG. 55

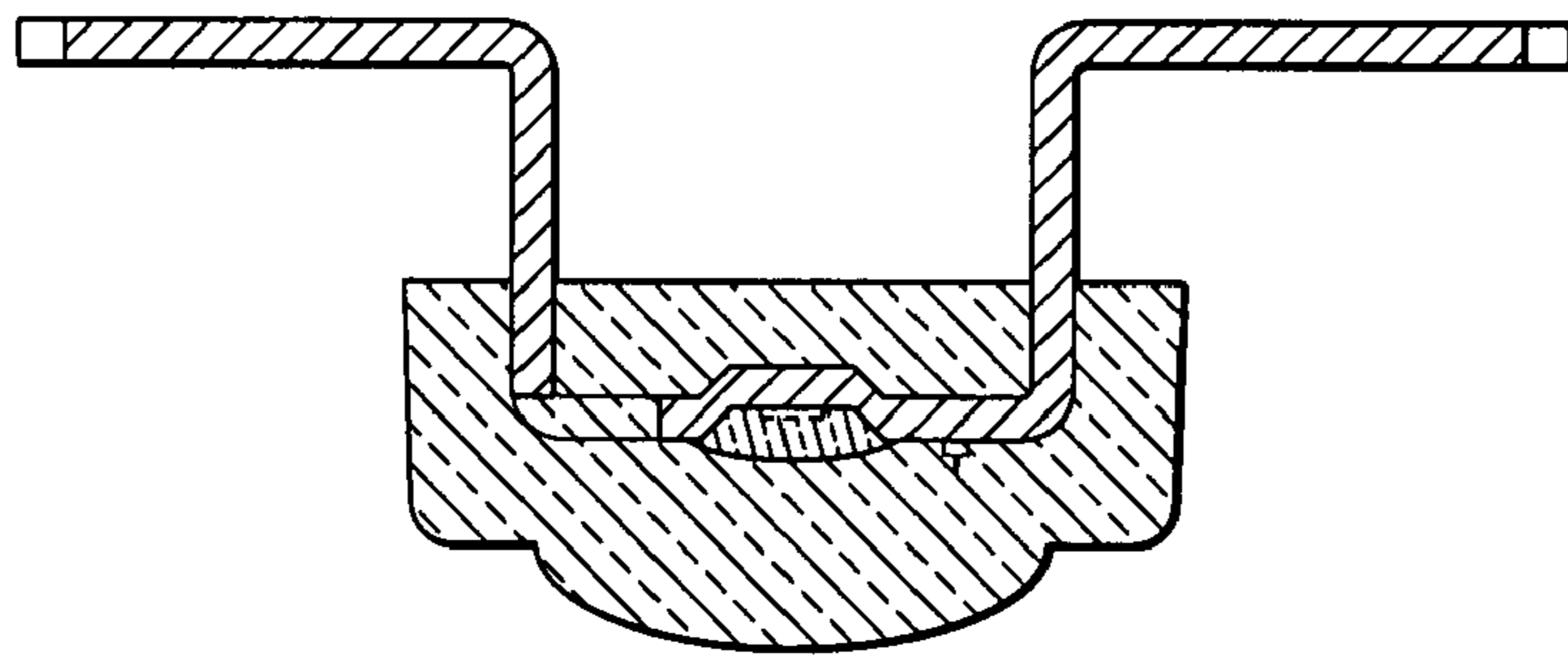


FIG. 53

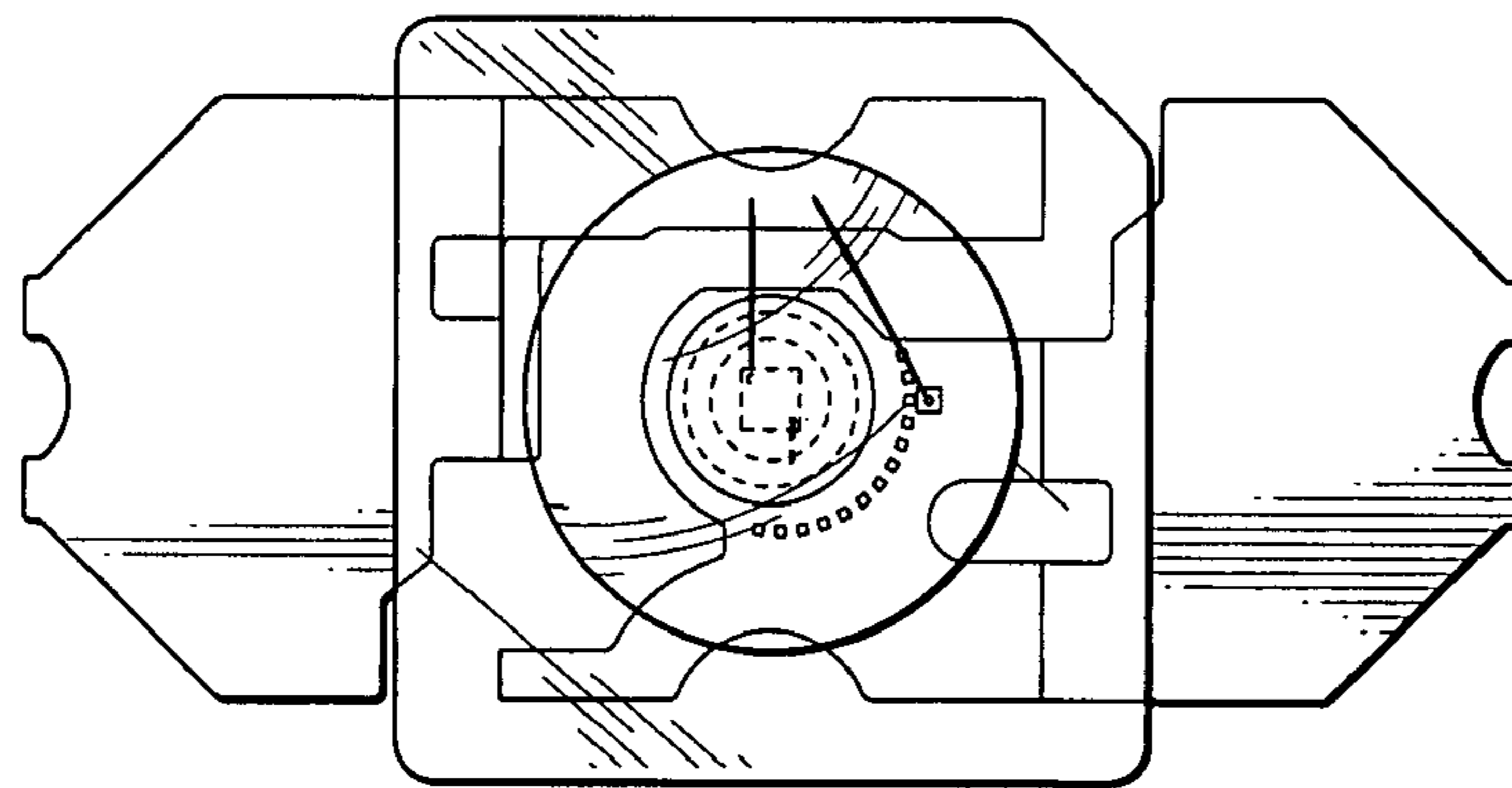


FIG. 54

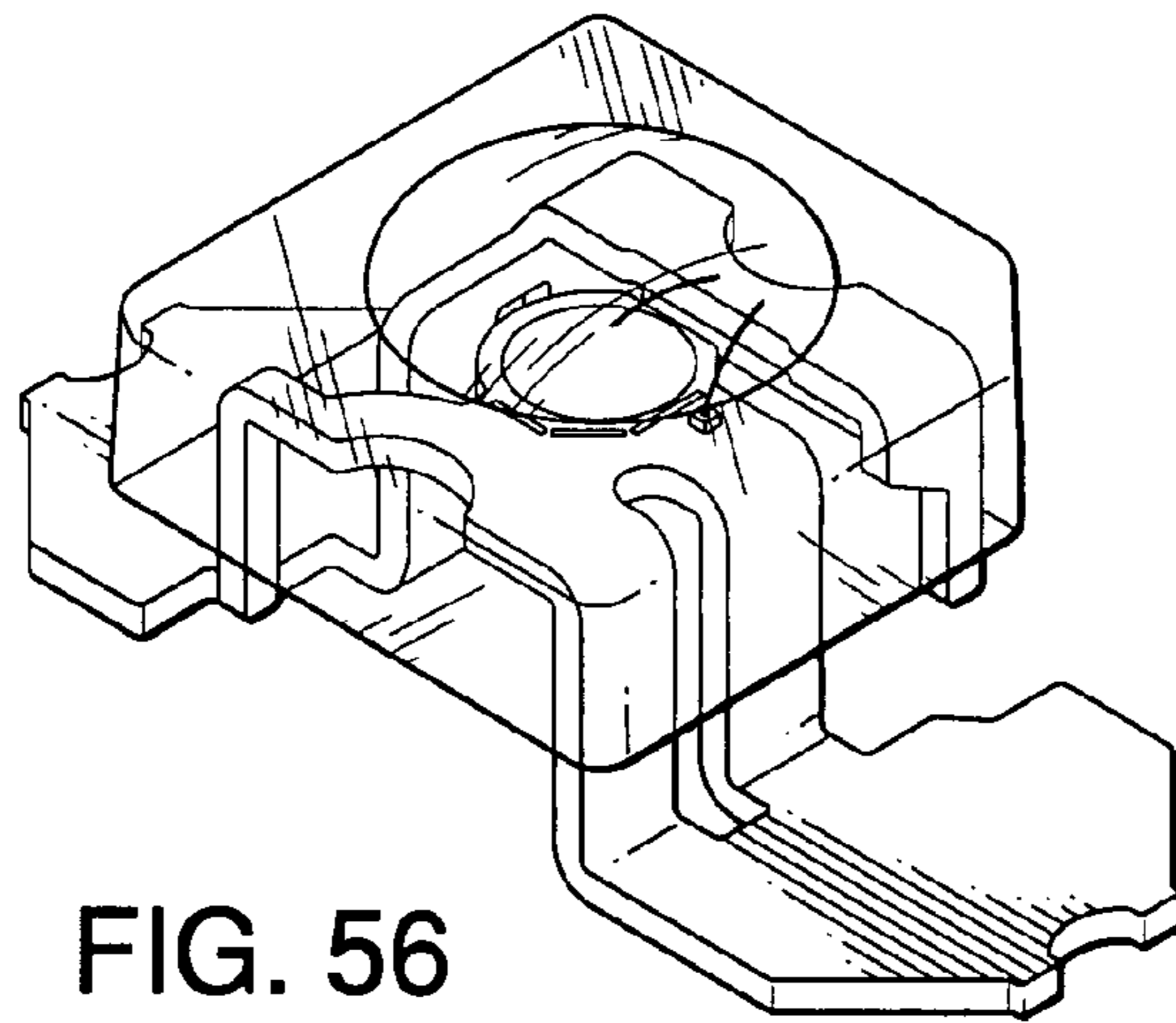


FIG. 56

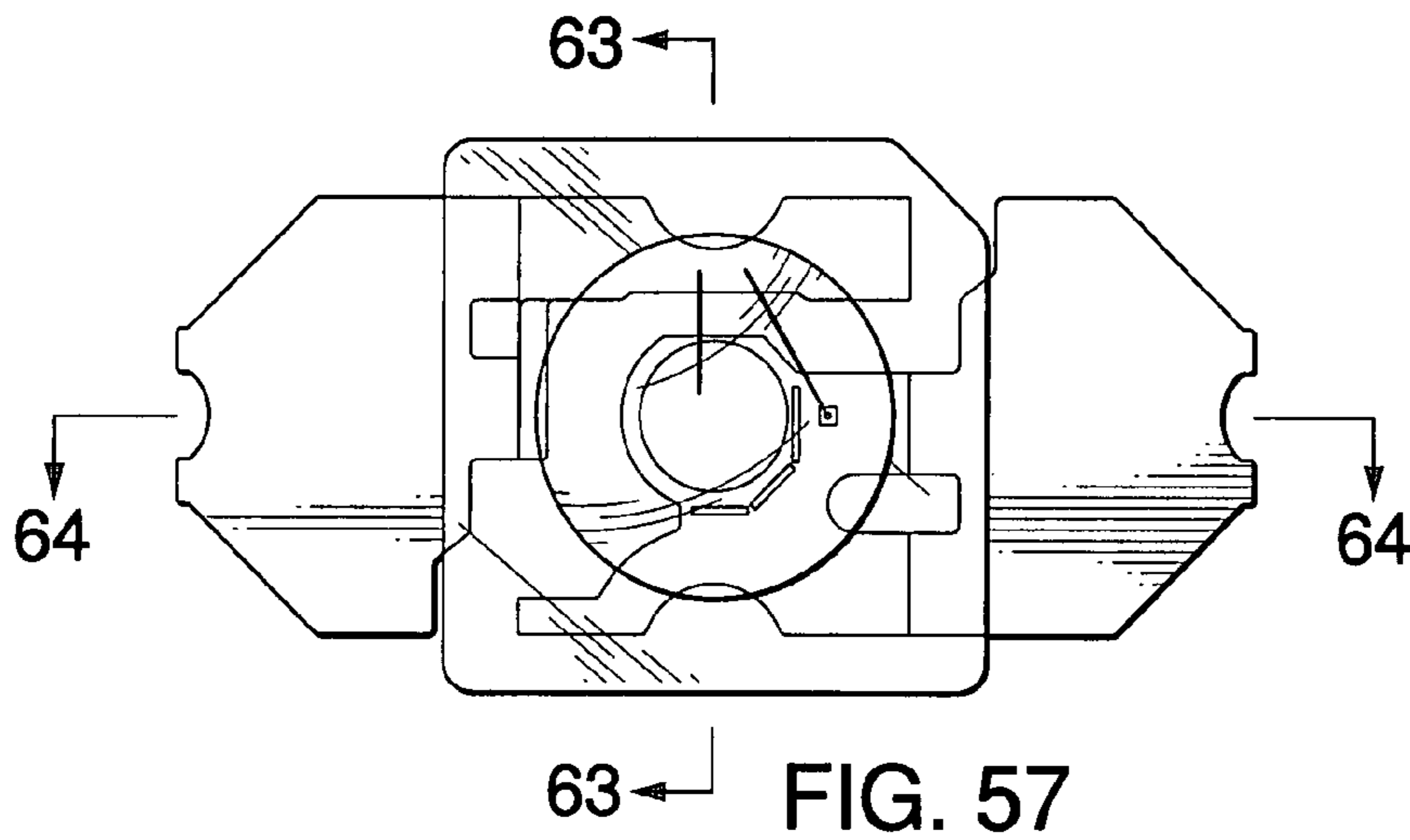


FIG. 57

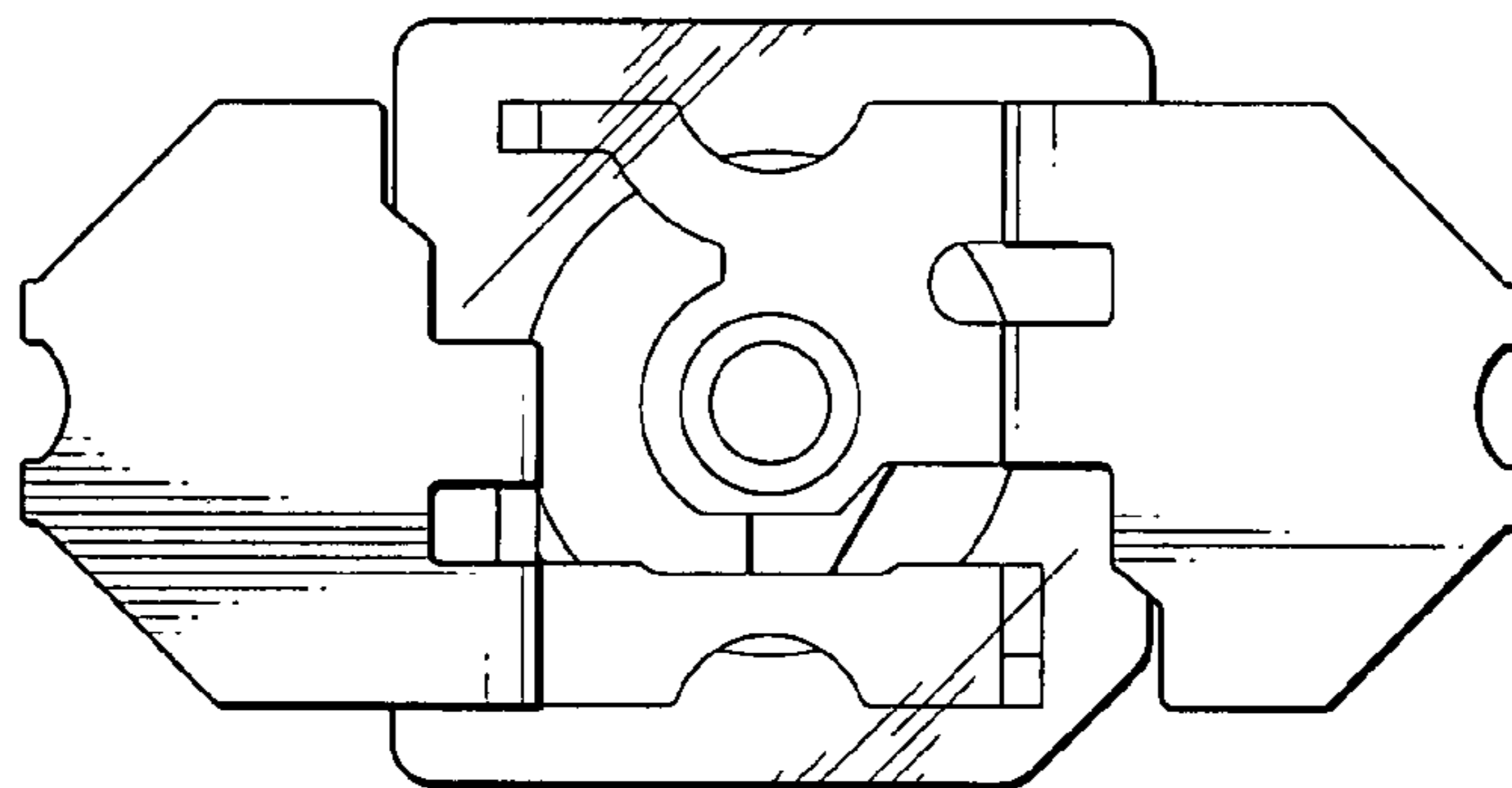


FIG. 58

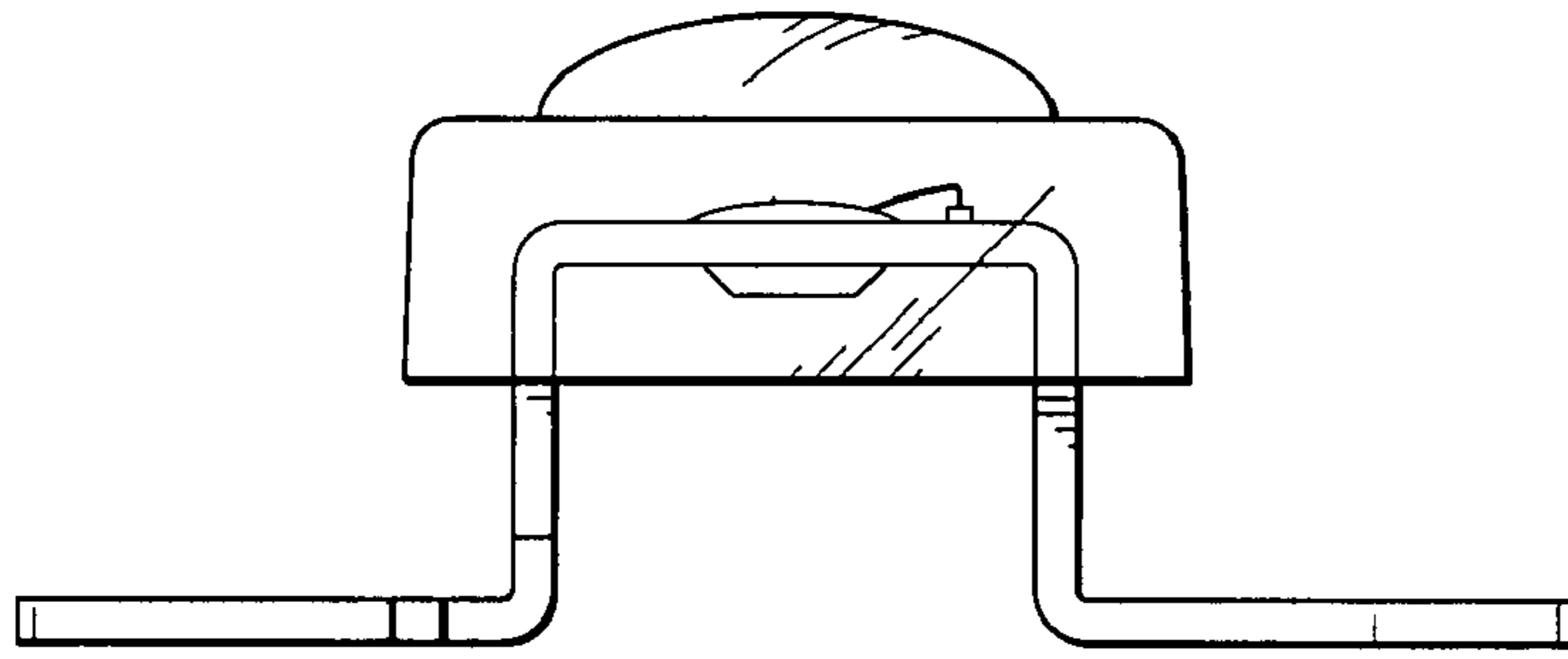


FIG. 59

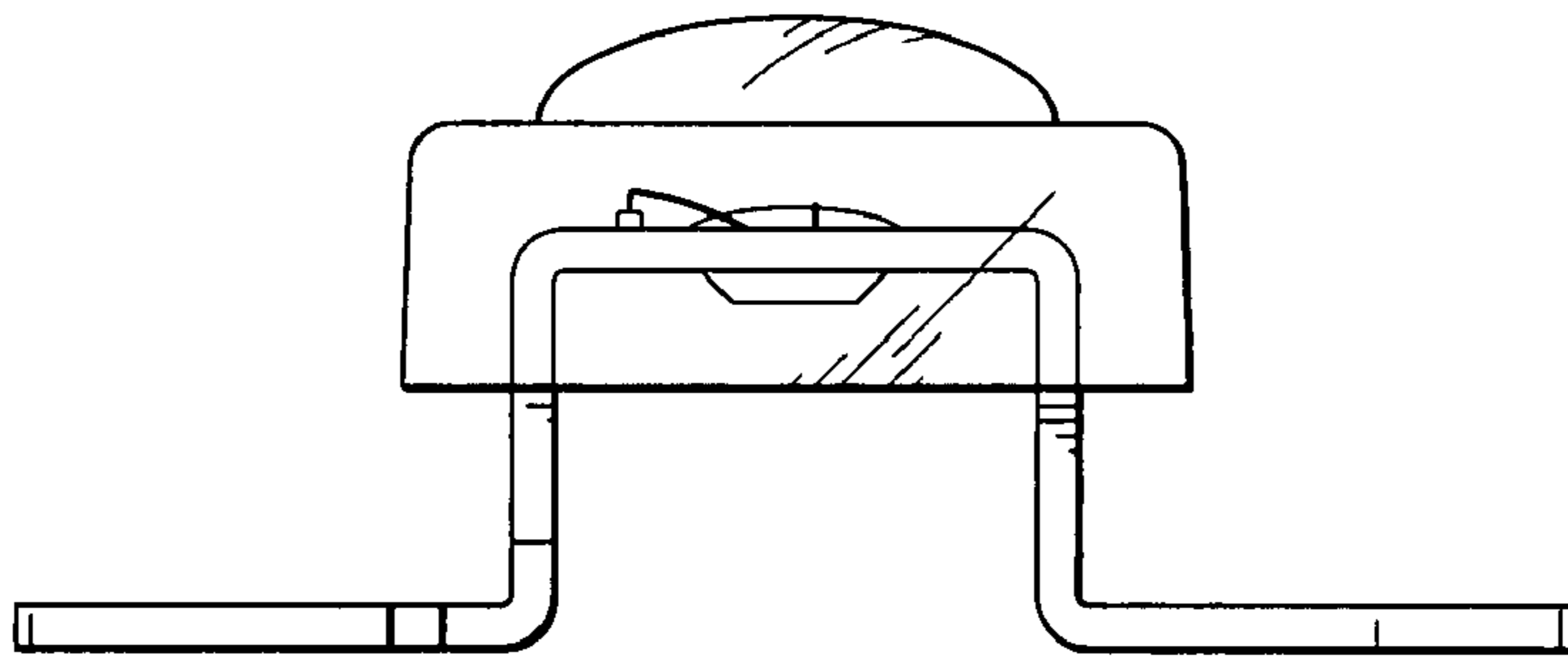


FIG. 60

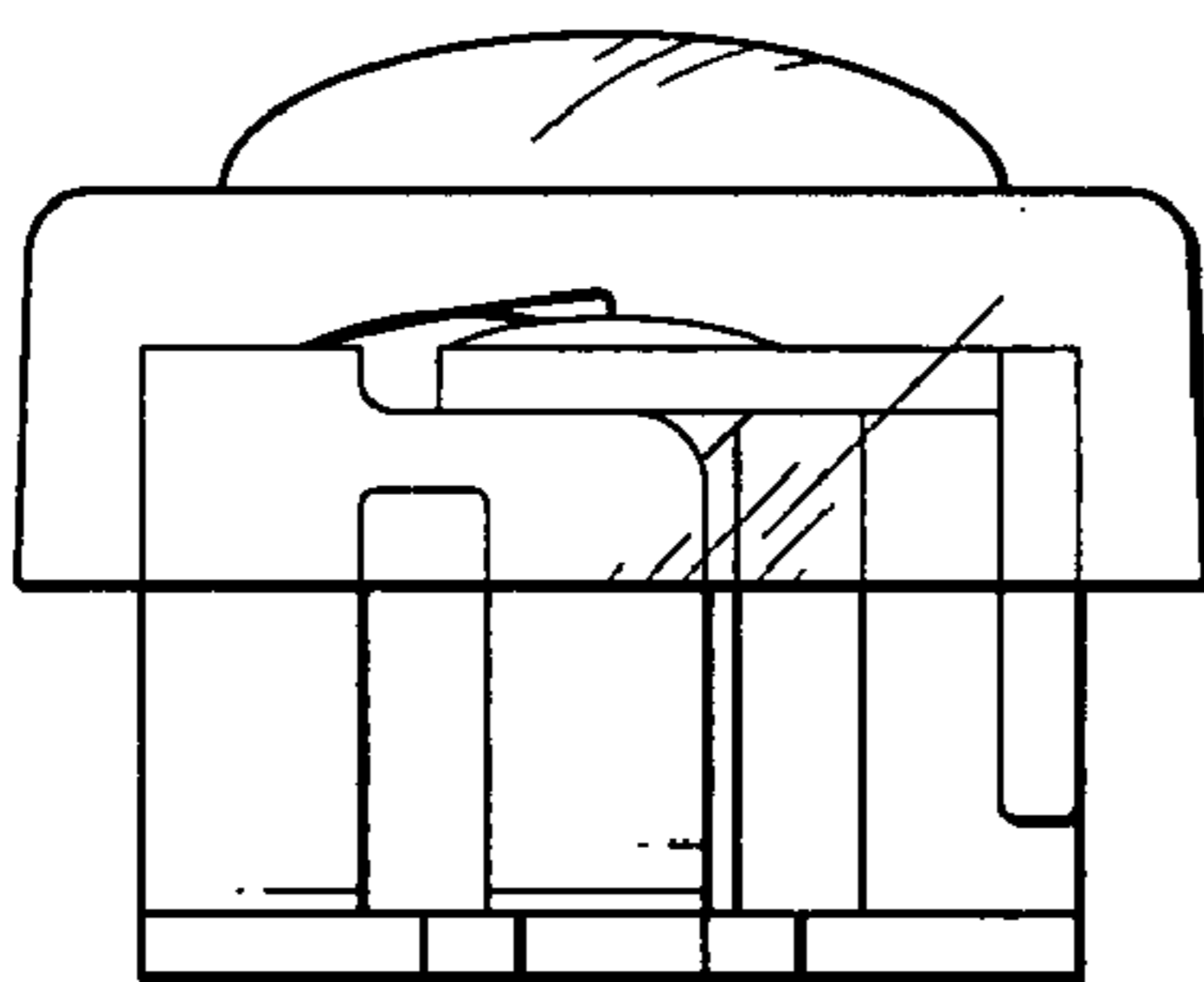


FIG. 61

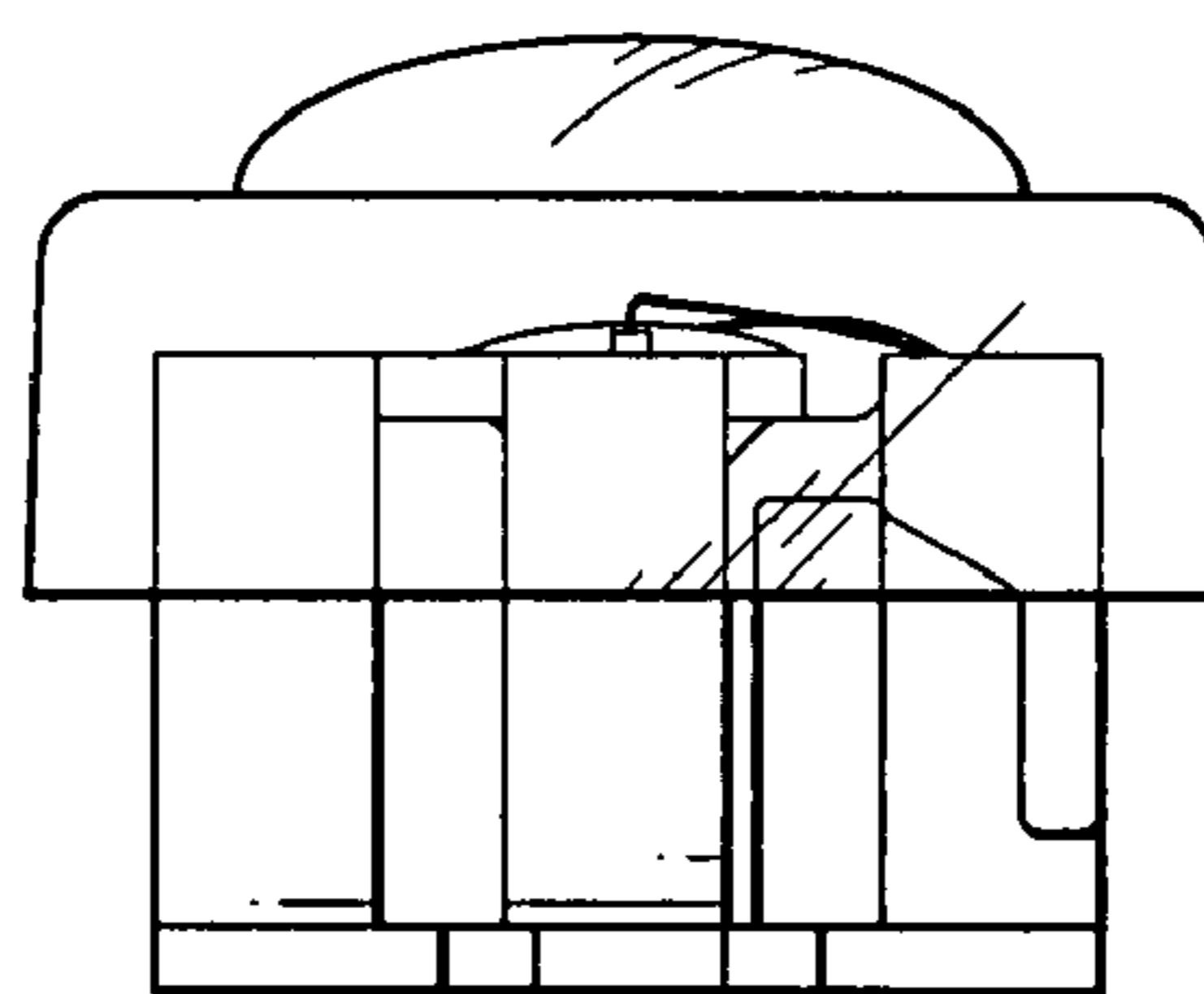


FIG. 62

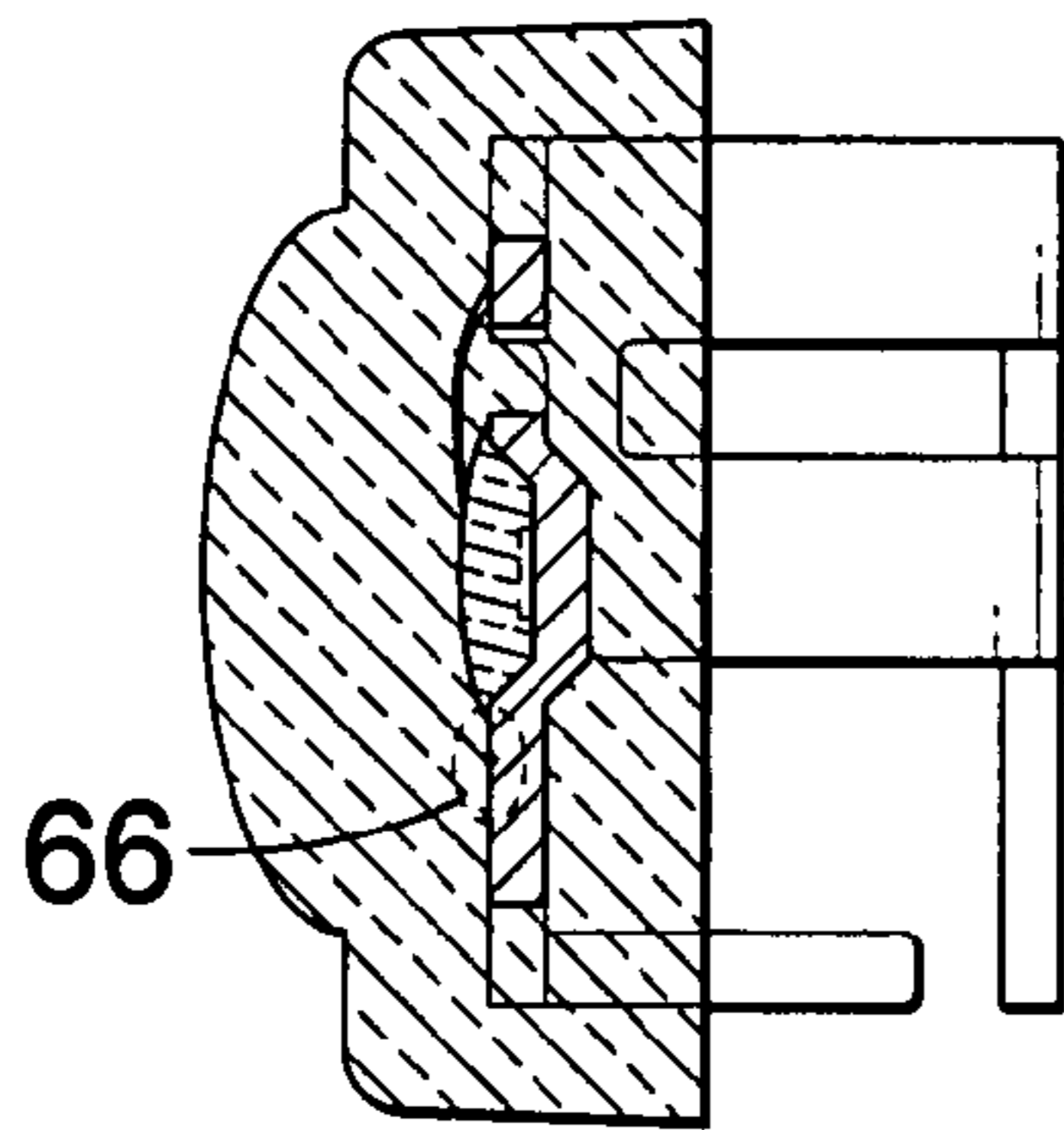


FIG. 63

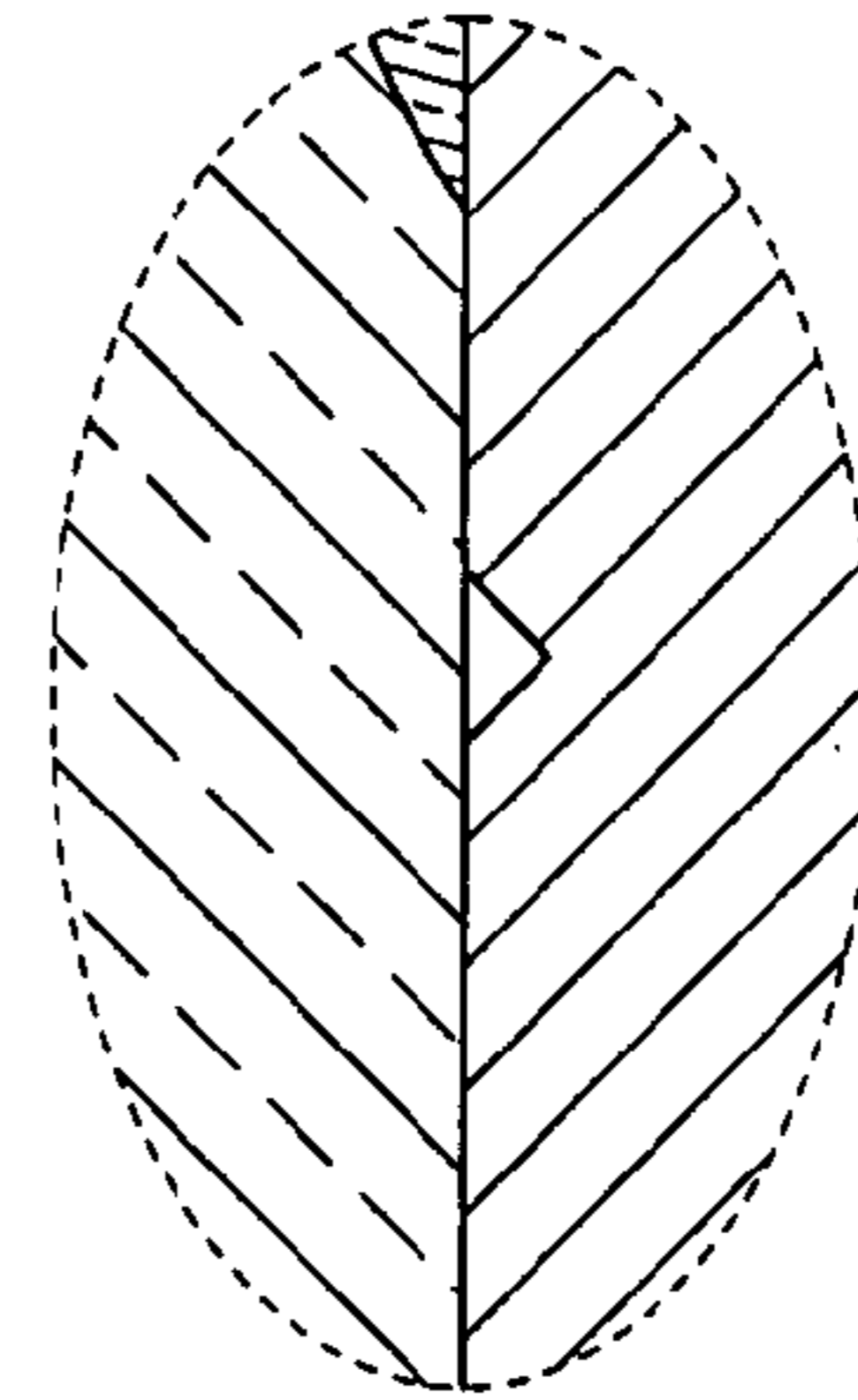


FIG. 66

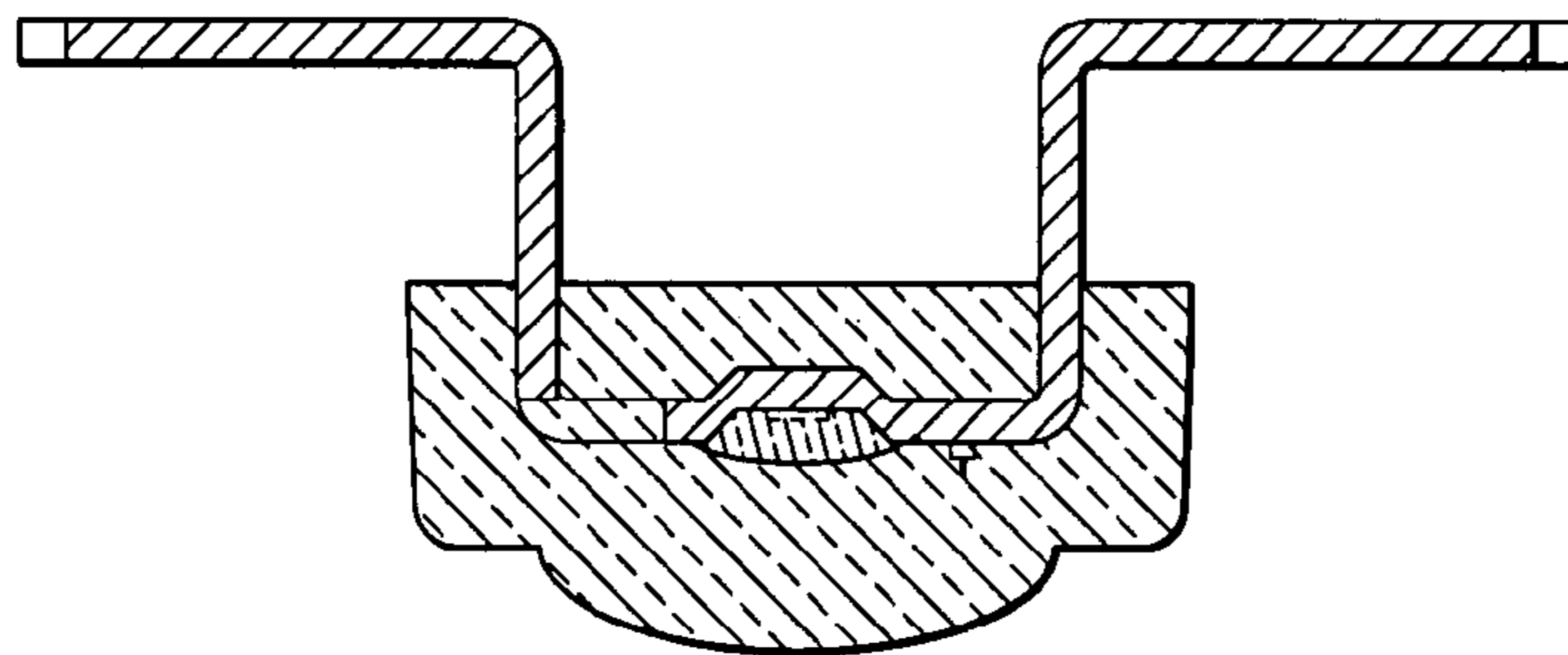


FIG. 64

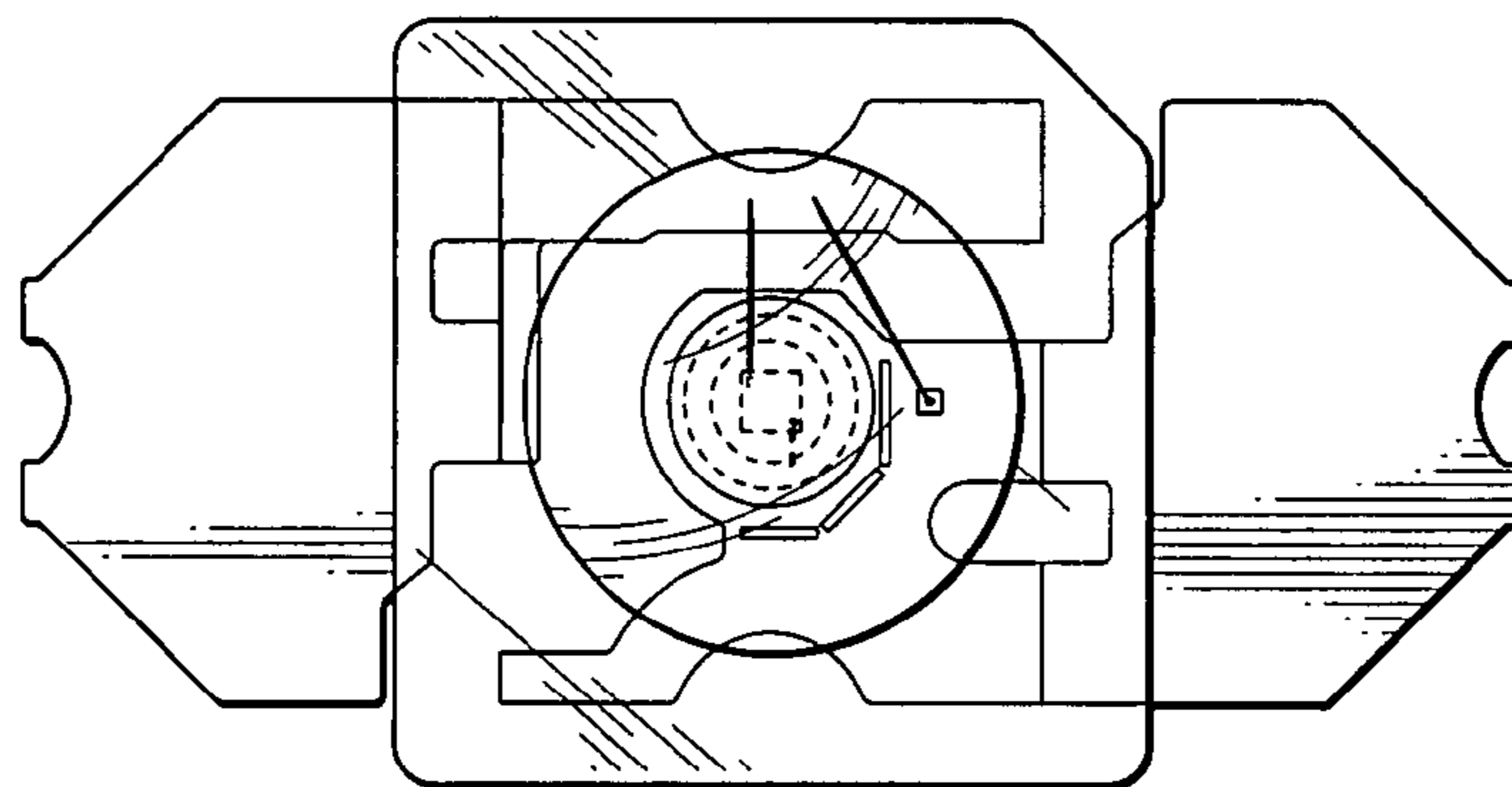


FIG. 65