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

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(54) **LIGHT EMITTING DIODE**

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

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Mar. 30, 2006	(JP)	.....	2006-008061
Mar. 30, 2006	(JP)	.....	2006-008067
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Mar. 30, 2006	(JP)	.....	2006-008069
Mar. 30, 2006	(JP)	.....	2006-008070
Mar. 30, 2006	(JP)	.....	2006-008071
Mar. 30, 2006	(JP)	.....	2006-008072
Mar. 30, 2006	(JP)	.....	2006-008073
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(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**

6,429,464	B1 *	8/2002	Lin	.....	257/99
6,720,581	B2 *	4/2004	Ozawa	.....	257/81
D491,898	S *	6/2004	Kamada	.....	D13/180
D524,260	S *	7/2006	Ishizaka et al.	.....	D13/180
7,224,000	B2 *	5/2007	Aanegola et al.	.....	257/98
7,262,438	B2 *	8/2007	Mok et al.	.....	257/98
2004/0126913	A1 *	7/2004	Loh	.....	438/26

2004/0257817	A1 *	12/2004	Philipp	.....	362/363
2005/0242708	A1 *	11/2005	Keong et al.	.....	313/498
2006/0001361	A1 *	1/2006	Imai et al.	.....	313/498
2006/0220049	A1 *	10/2006	Flaherty et al.	.....	257/98
2006/0273338	A1 *	12/2006	Lee et al.	.....	257/99
2006/0284209	A1 *	12/2006	Kim et al.	.....	257/100
2006/0284305	A1 *	12/2006	Yen et al.	.....	257/708
2006/0291203	A1 *	12/2006	Anandan	.....	362/231

\* 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 top plan view of the light emitting diode in accordance with the first embodiment of my new design;

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

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

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

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

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

FIG. 8 is a front top side perspective view of a light emitting diode in accordance with a second embodiment of my new design;

FIG. 9 is a top plan view of the light emitting diode in accordance with the second embodiment of my new design;

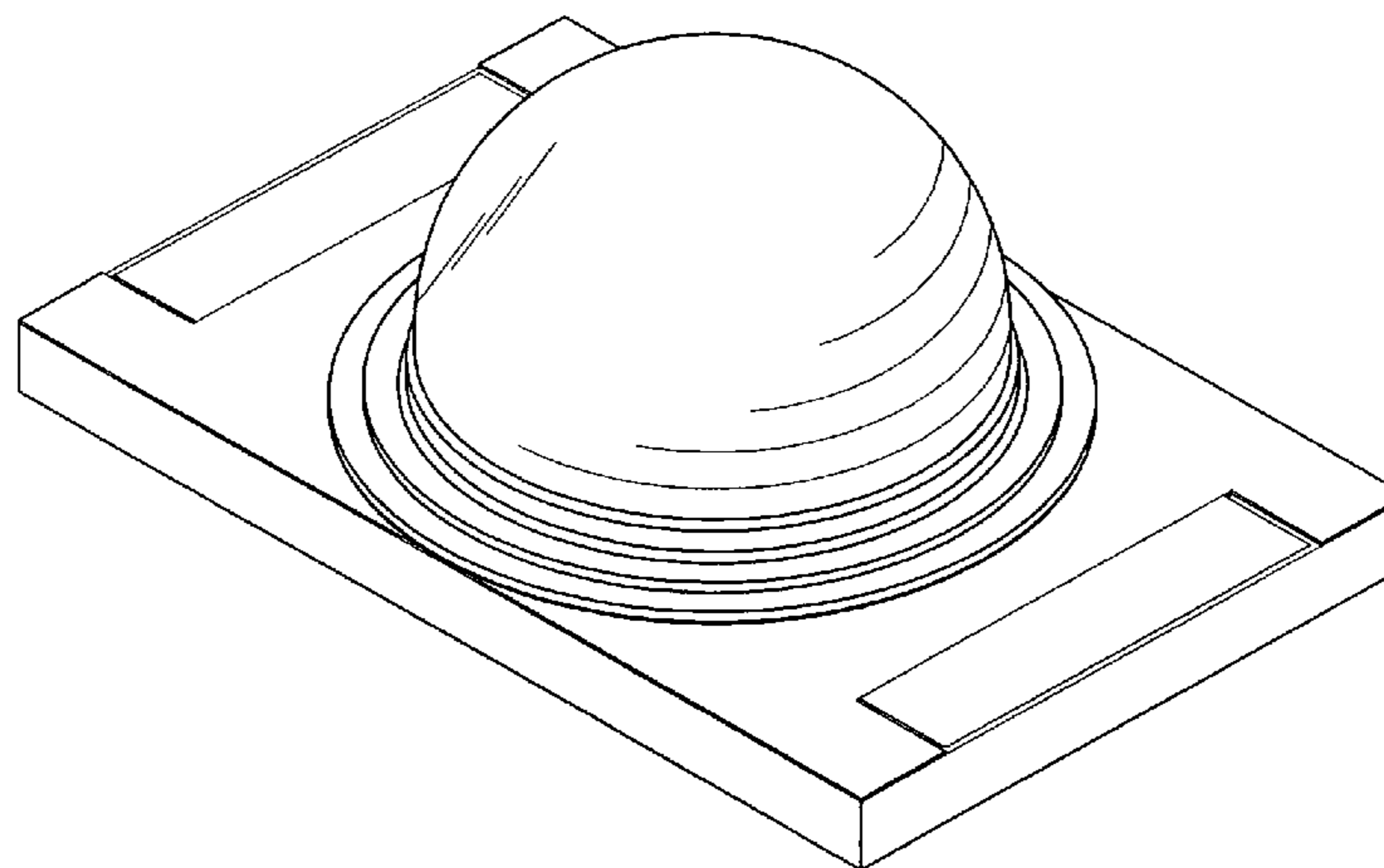


FIG. 10 is a bottom plan view of the light emitting diode in accordance with the second embodiment of my new design;

FIG. 11 is a front elevational view of the light emitting diode in accordance with the second embodiment of my new design;

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

FIG. 15 is a front top side perspective view of a light emitting diode in accordance with a third embodiment of my new design;

FIG. 16 is a top plan view of the light emitting diode in accordance with the third embodiment of my new design;

FIG. 17 is a bottom plan view of the light emitting diode in accordance with the 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 left side end elevational view of the light emitting diode in accordance with the third embodiment of my new design;

FIG. 21 is a right side end elevational view of the light emitting diode in accordance with the third embodiment of my new design;

FIG. 22 is a front top side perspective view of a light emitting diode in accordance with a fourth embodiment of my new design;

FIG. 23 is a top plan view of the light emitting diode in accordance with the fourth embodiment of my new design;

FIG. 24 is a bottom plan view of the light emitting diode in accordance with the fourth embodiment of my new design;

FIG. 25 is a front elevational view of the light emitting diode in accordance with the fourth embodiment of my new design;

FIG. 26 is a rear elevational view of the light emitting diode in accordance with the fourth embodiment of my new design;

FIG. 27 is a left side end 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 front top side perspective view of a light emitting diode in accordance with a fifth embodiment of my new design;

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

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

FIG. 32 is a front elevational view of the light emitting diode in accordance with the fifth embodiment of my new design;

FIG. 33 is a rear elevational view of the light emitting diode in accordance with the fifth embodiment of my new design;

FIG. 34 is a left side end elevational view of the light emitting diode in accordance with the fifth embodiment of my new design; and,

FIG. 35 is a right side end elevational view of the light emitting diode in accordance with the fifth embodiment of my new design.

The broken line showing of environment (the remaining structure of the light emitting diode) in the Figures is for illustrative purposes only and forms no part of the claimed design.

The opaque line shading illustrates a translucent portion of the light emitting diode.

**1 Claim, 20 Drawing Sheets**

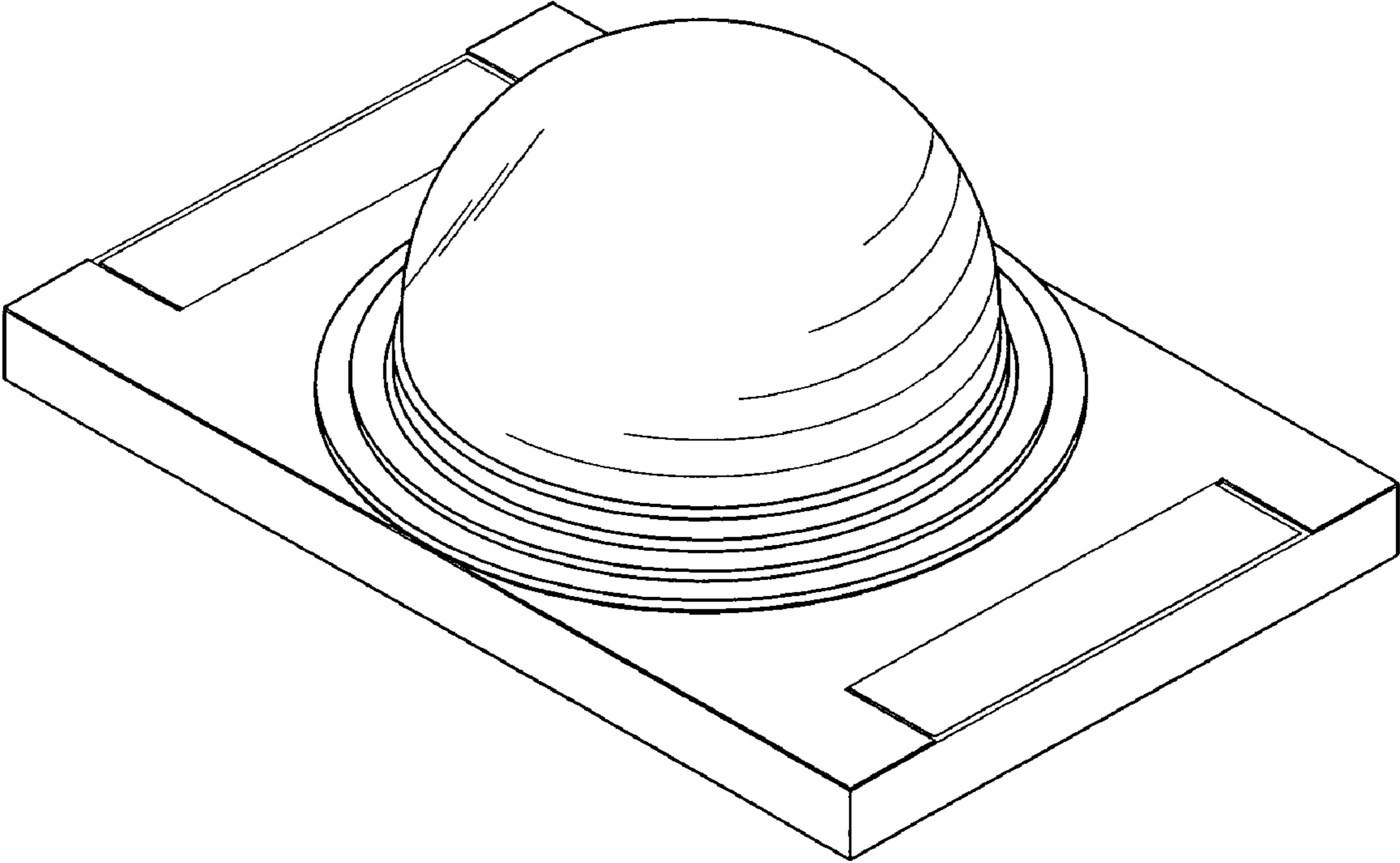


FIG. 1

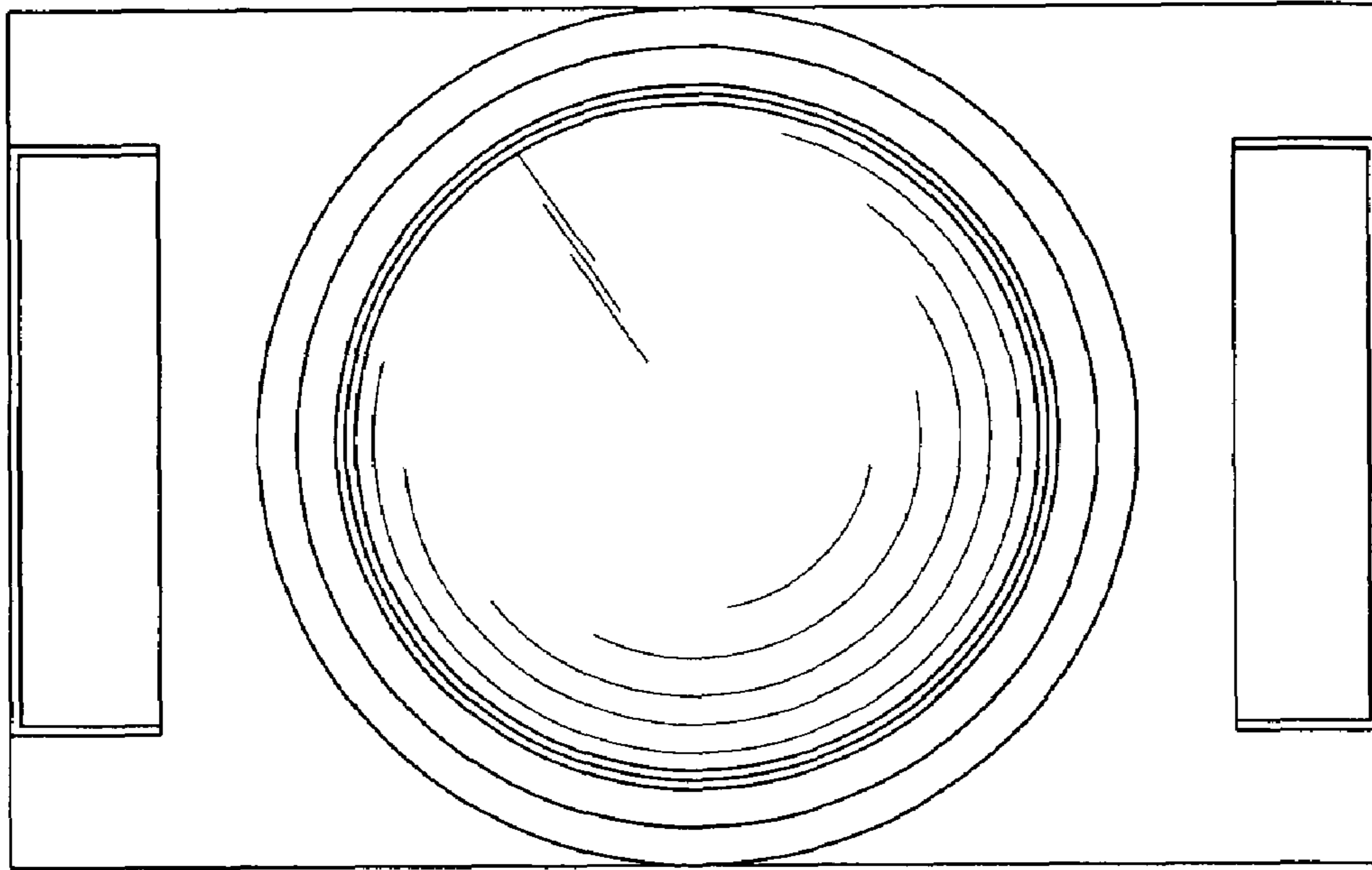


FIG. 2

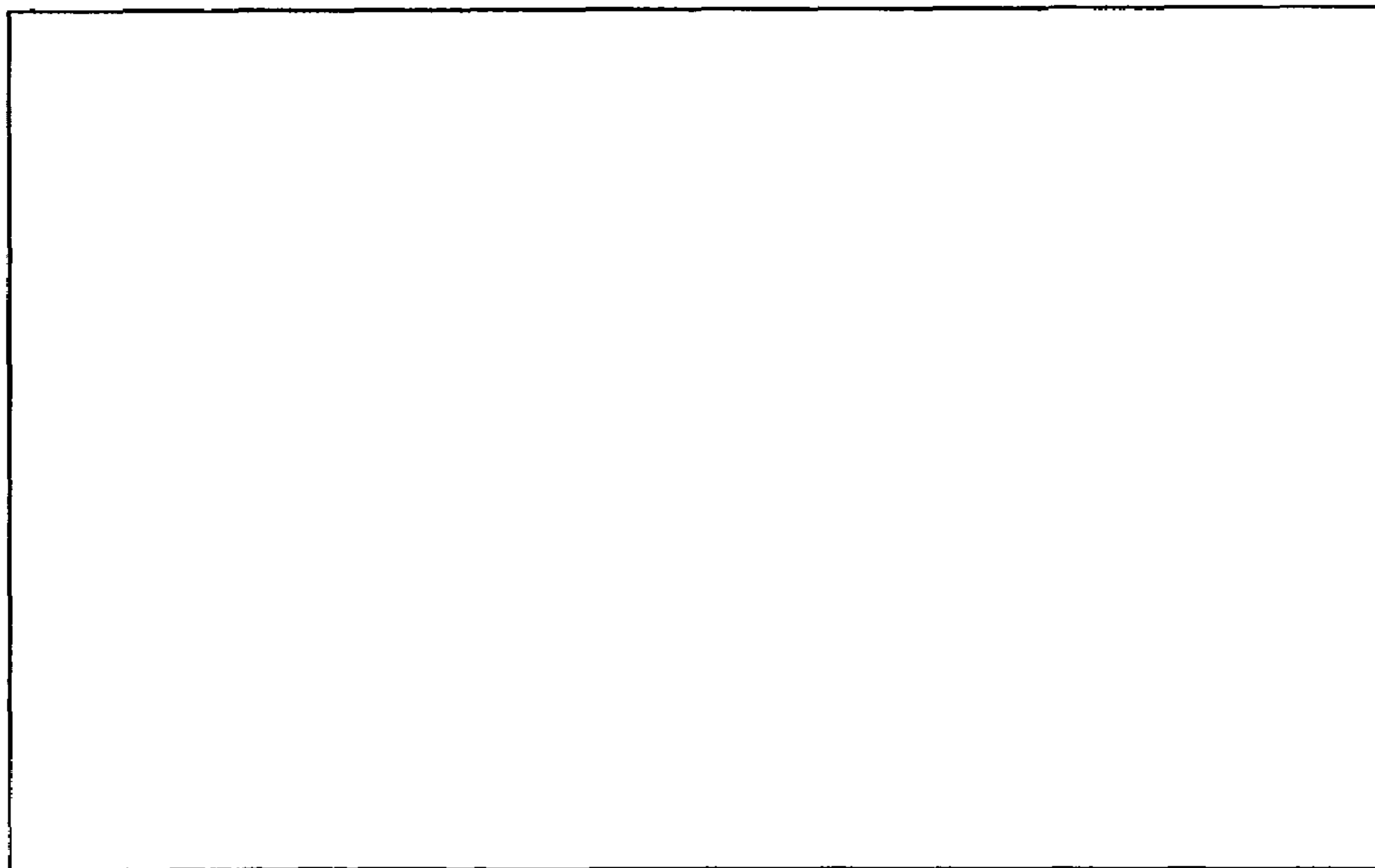


FIG. 3

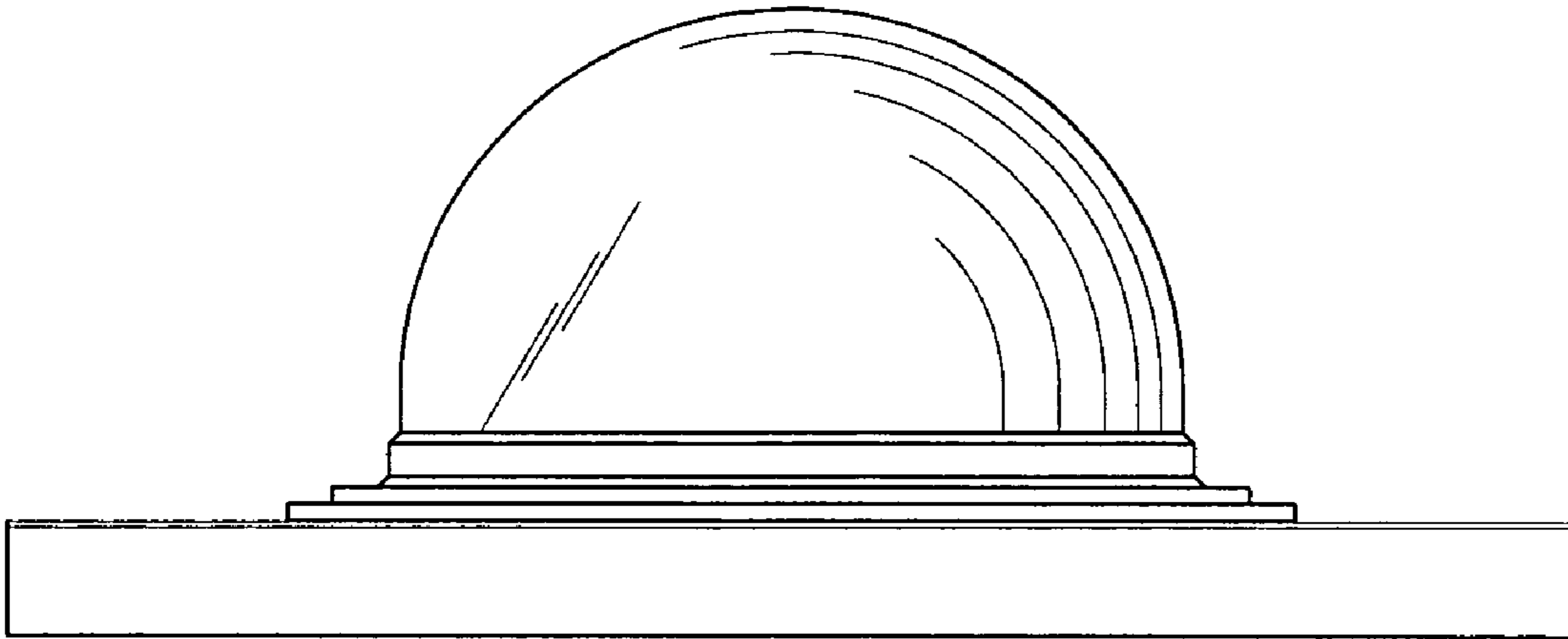


FIG. 4

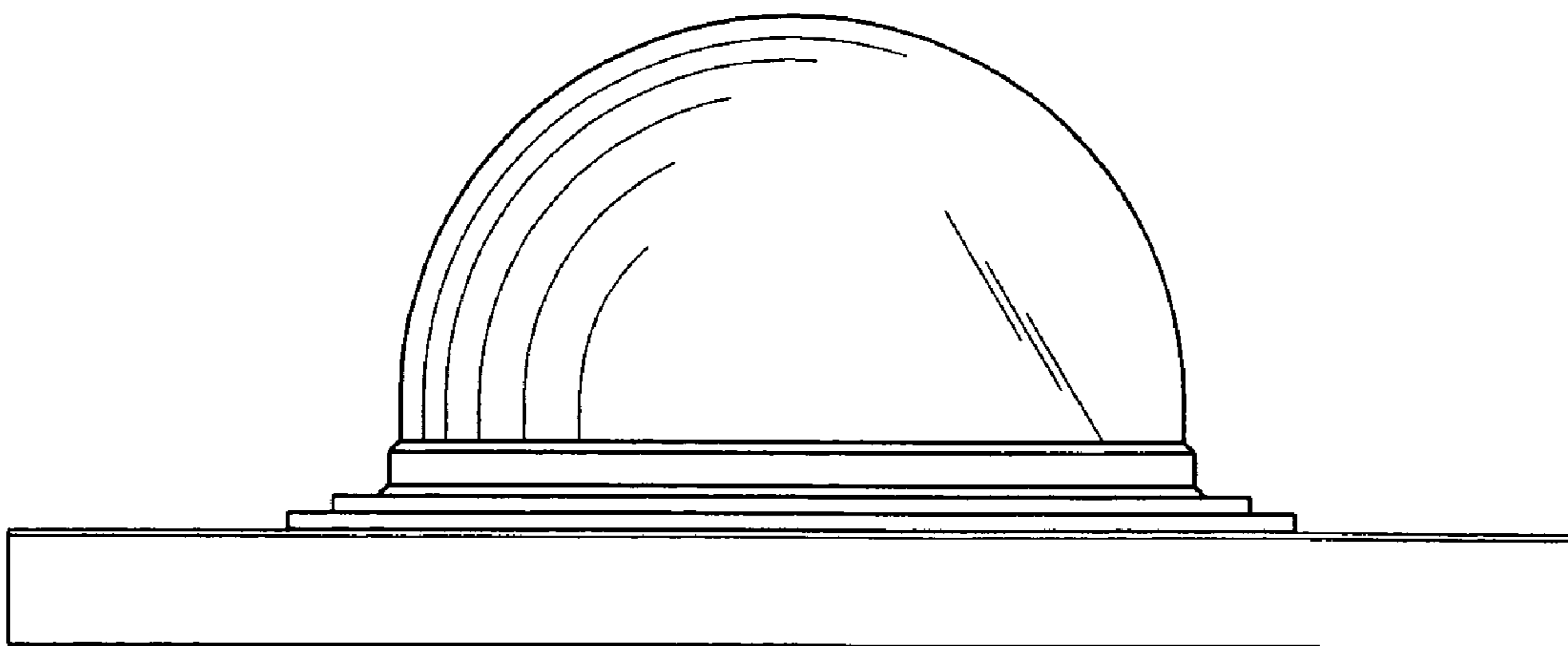


FIG. 5

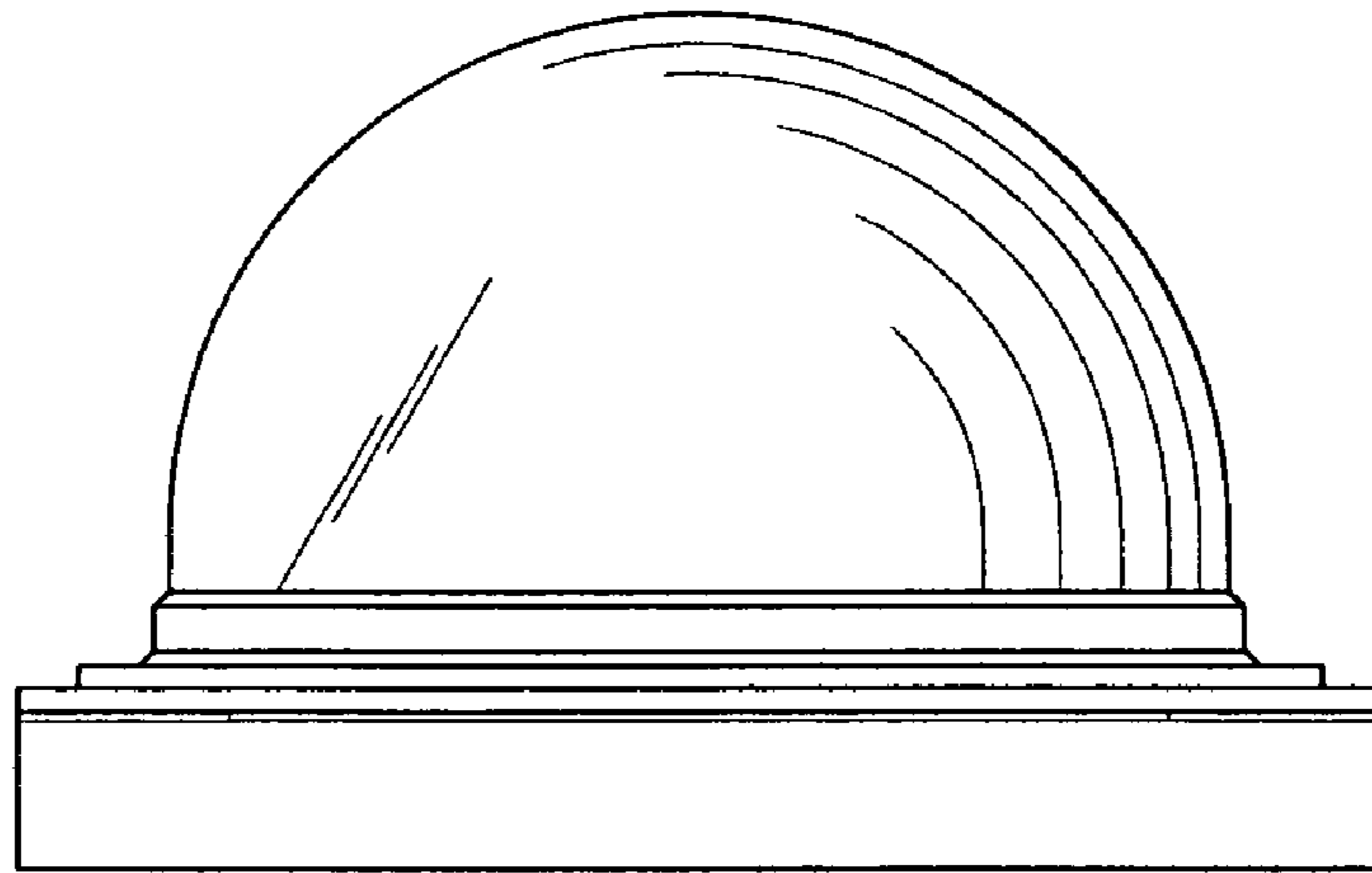


FIG. 6

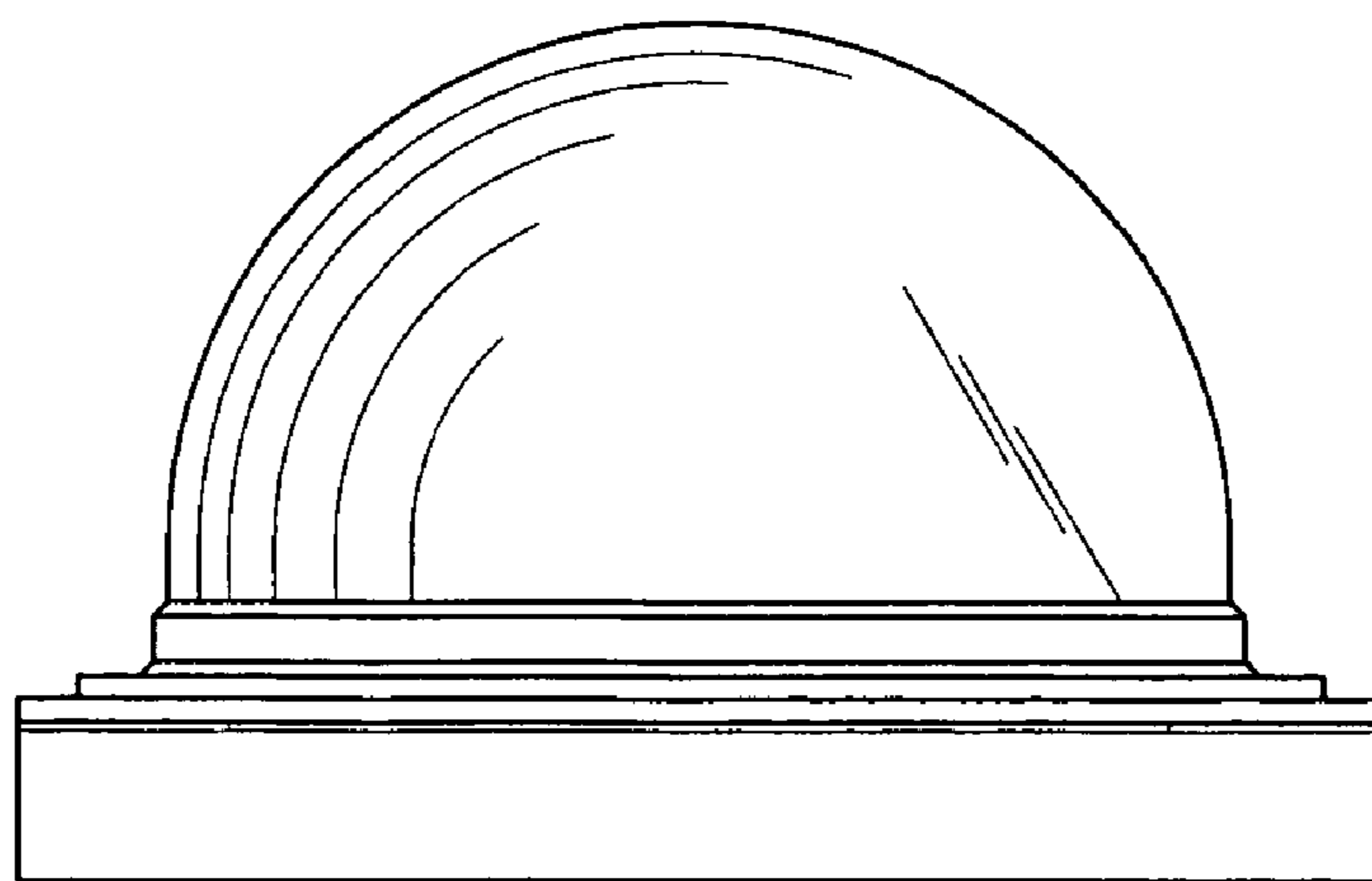


FIG. 7

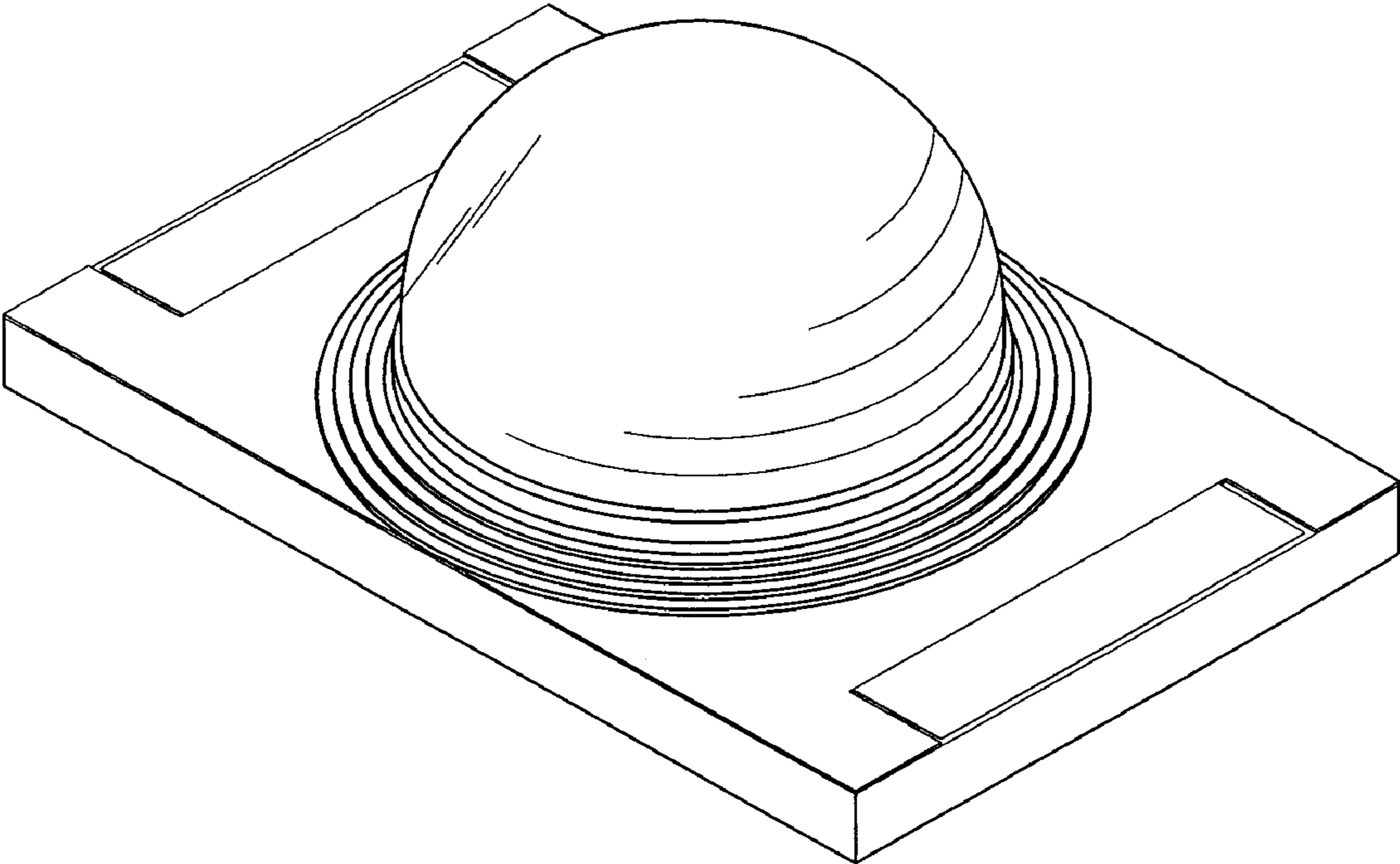


FIG. 8

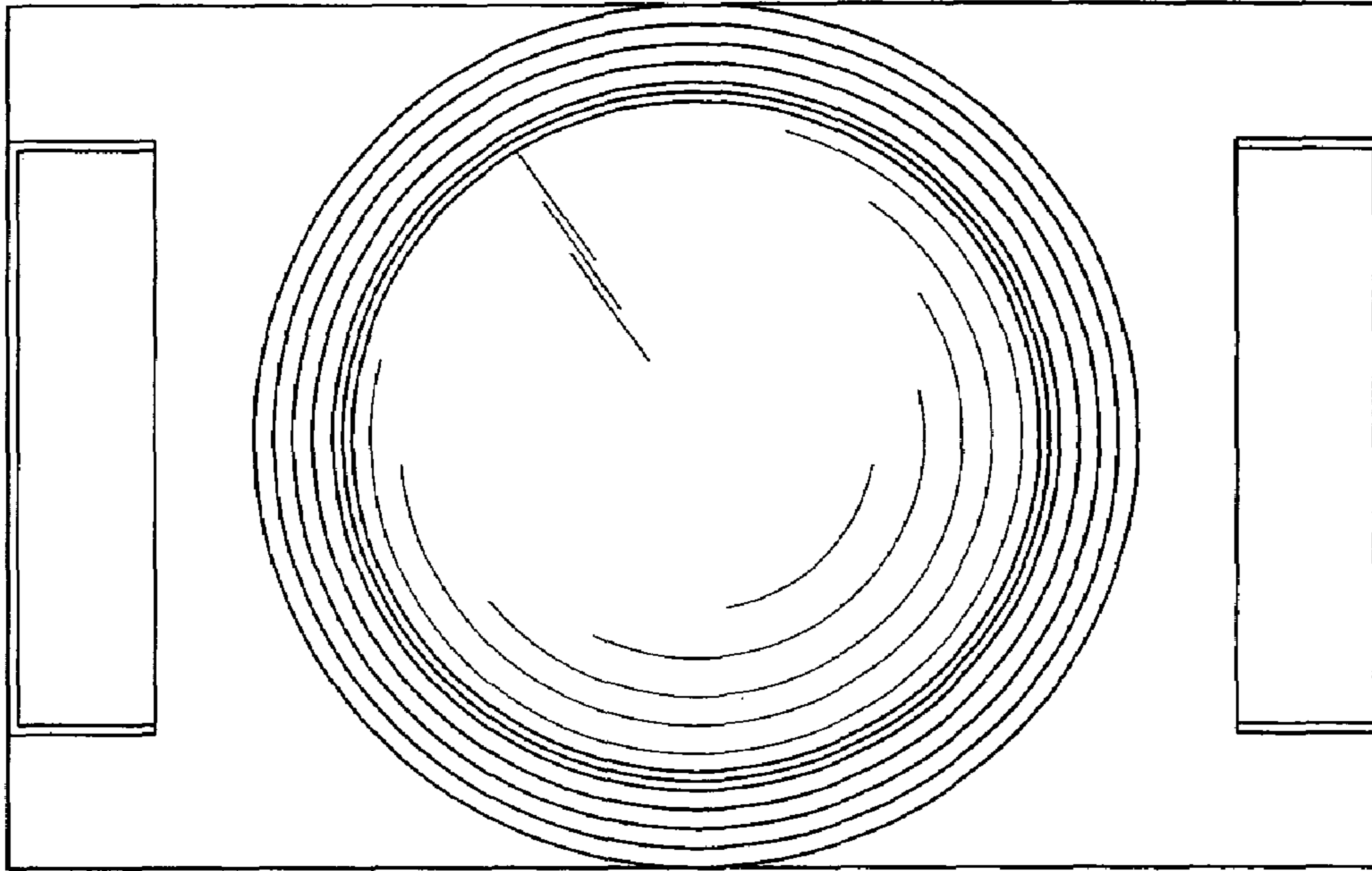


FIG. 9

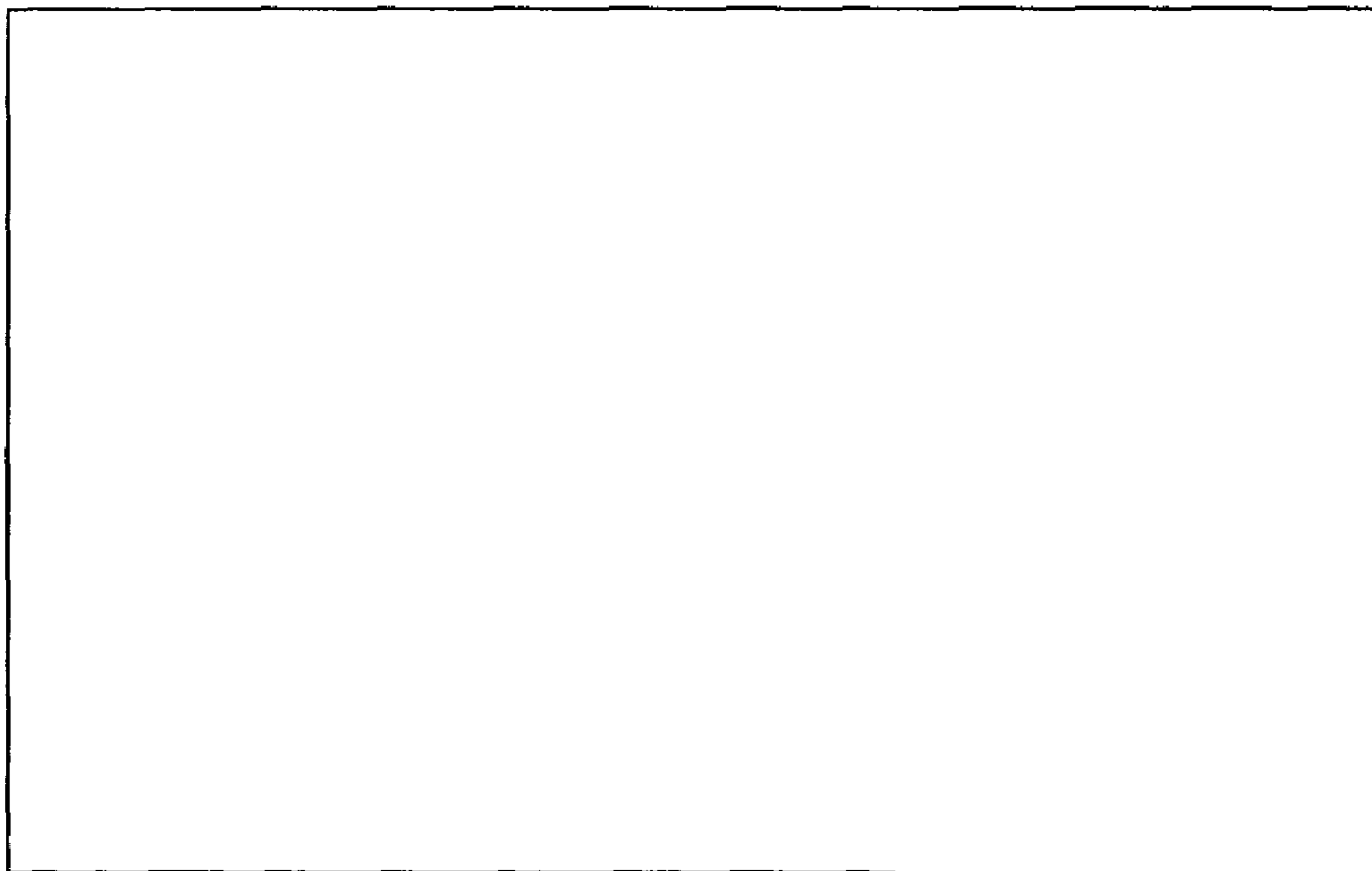


FIG. 10



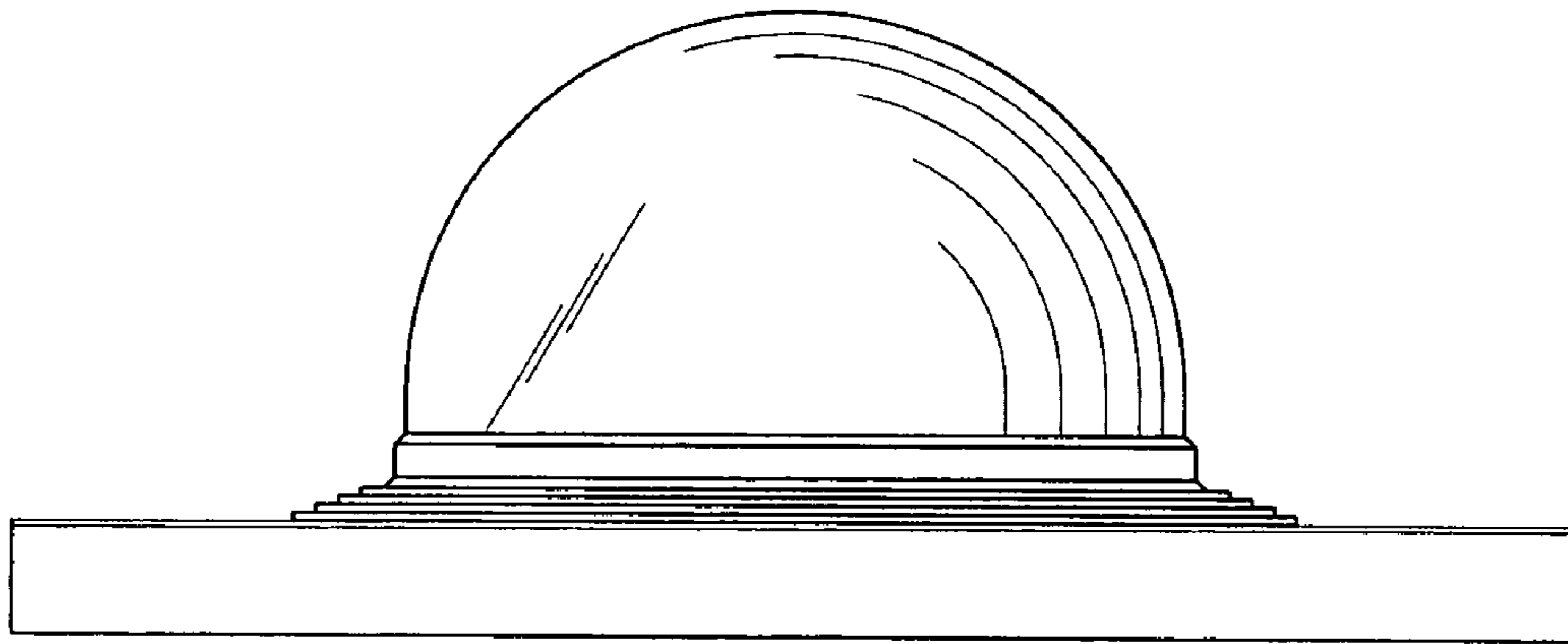


FIG. 11

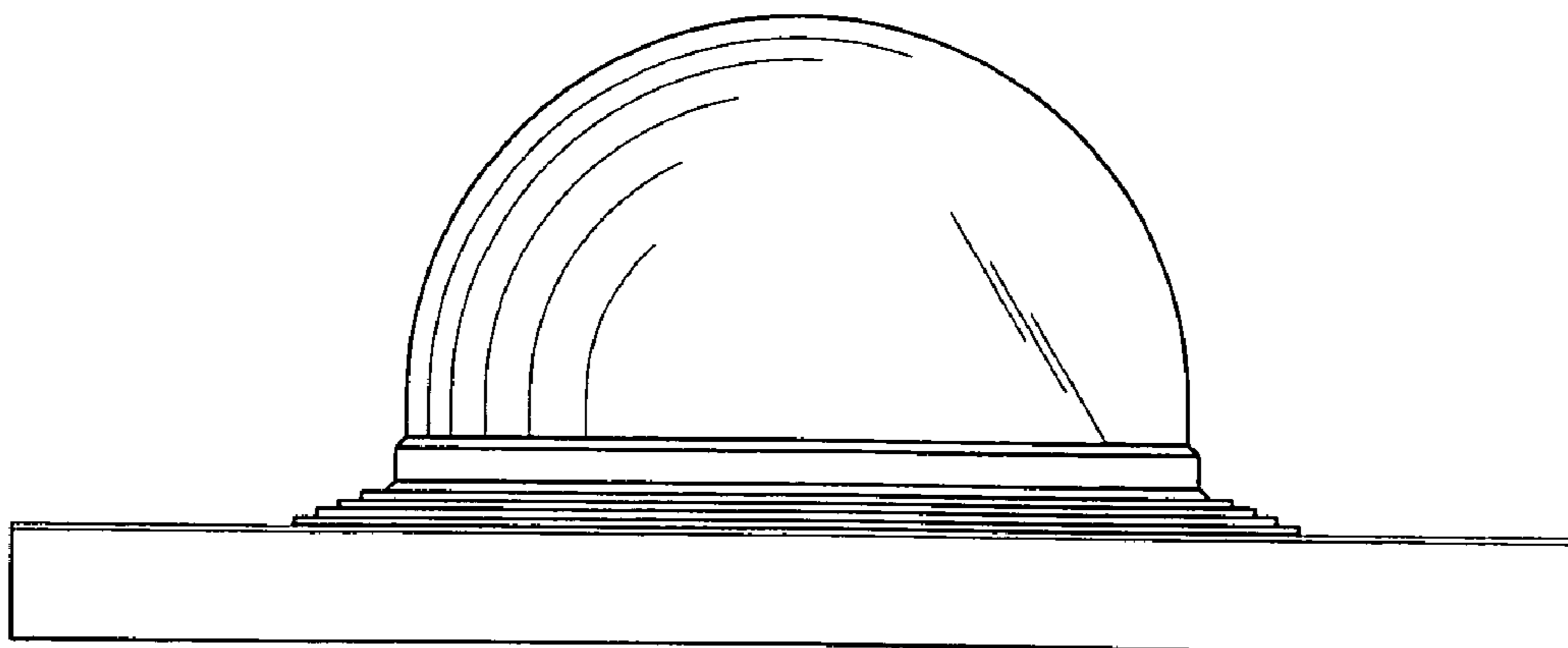


FIG. 12

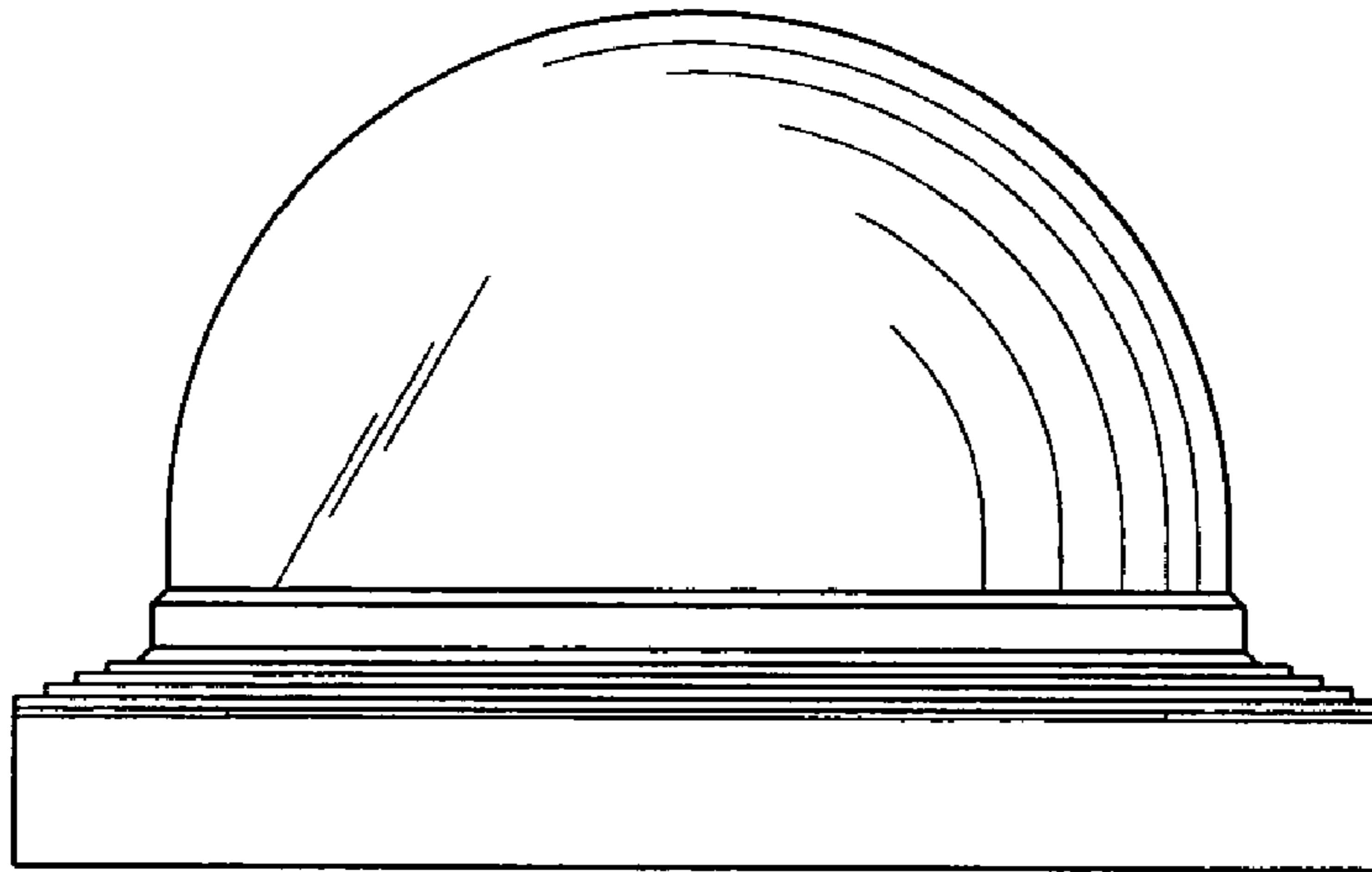


FIG. 13

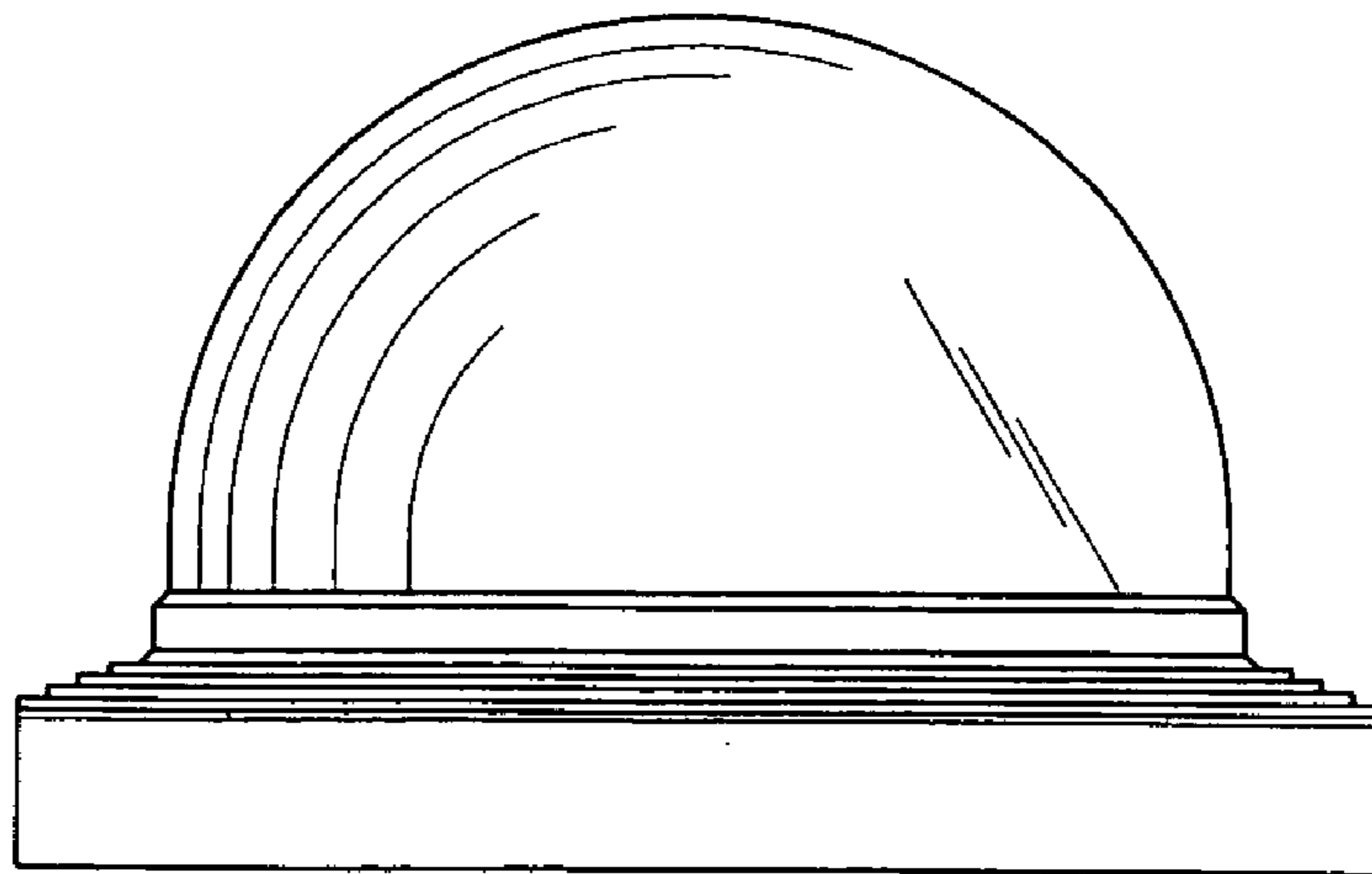


FIG. 14

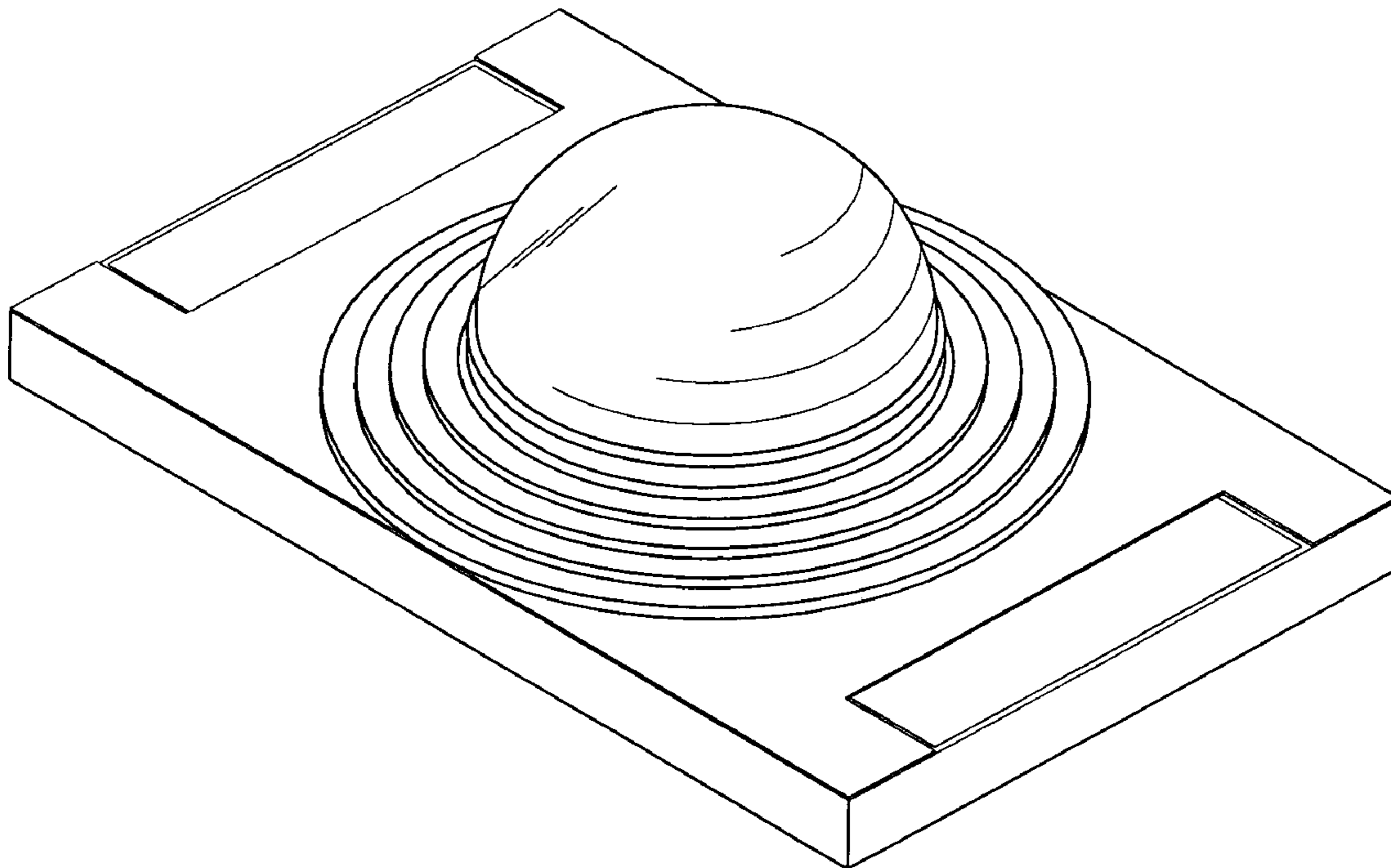


FIG. 15

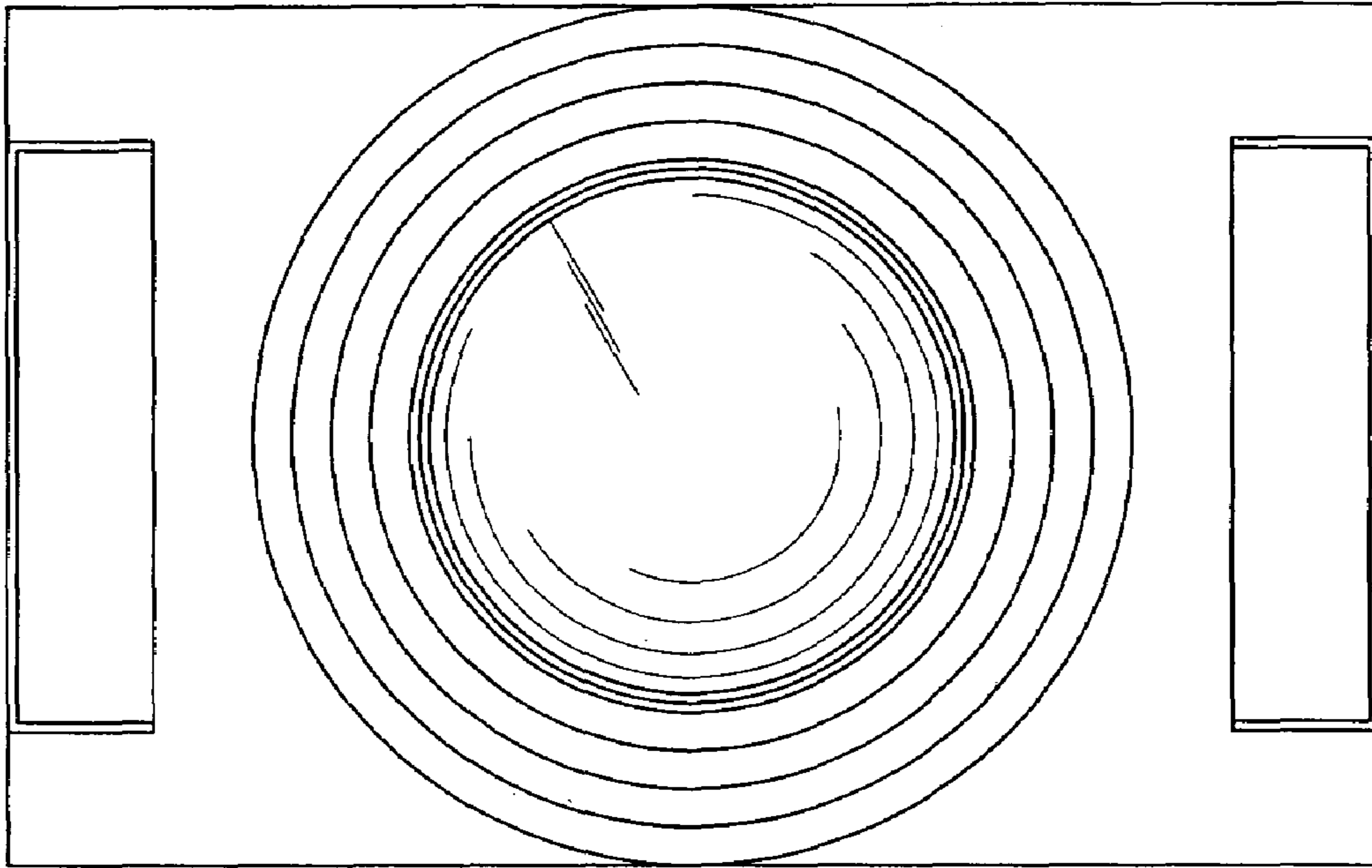


FIG. 16

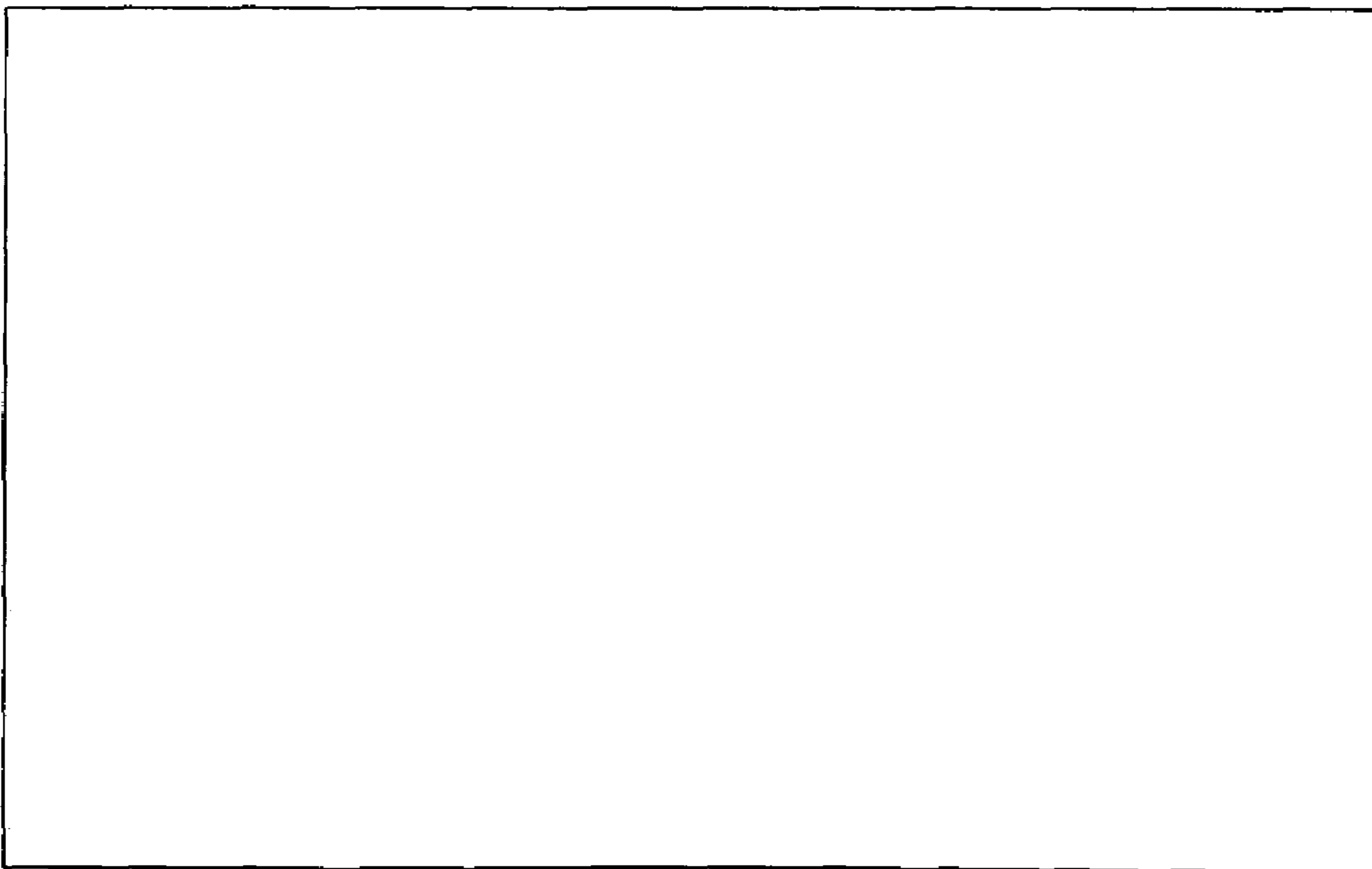


FIG. 17

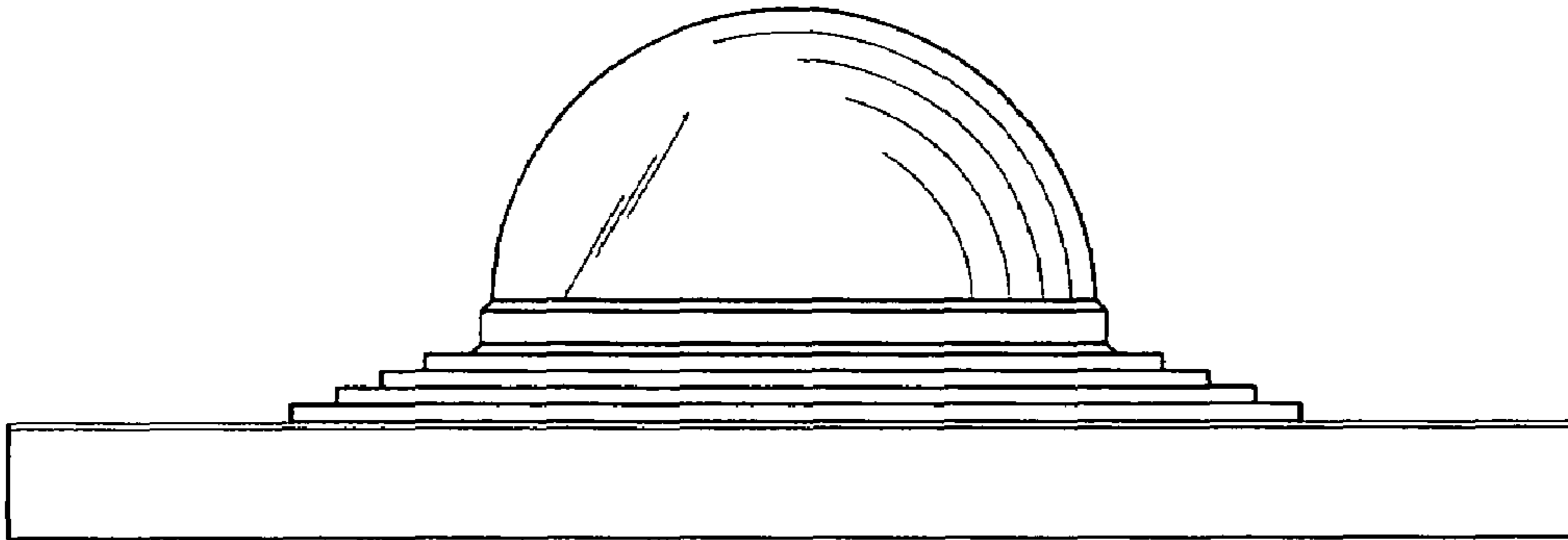


FIG. 18

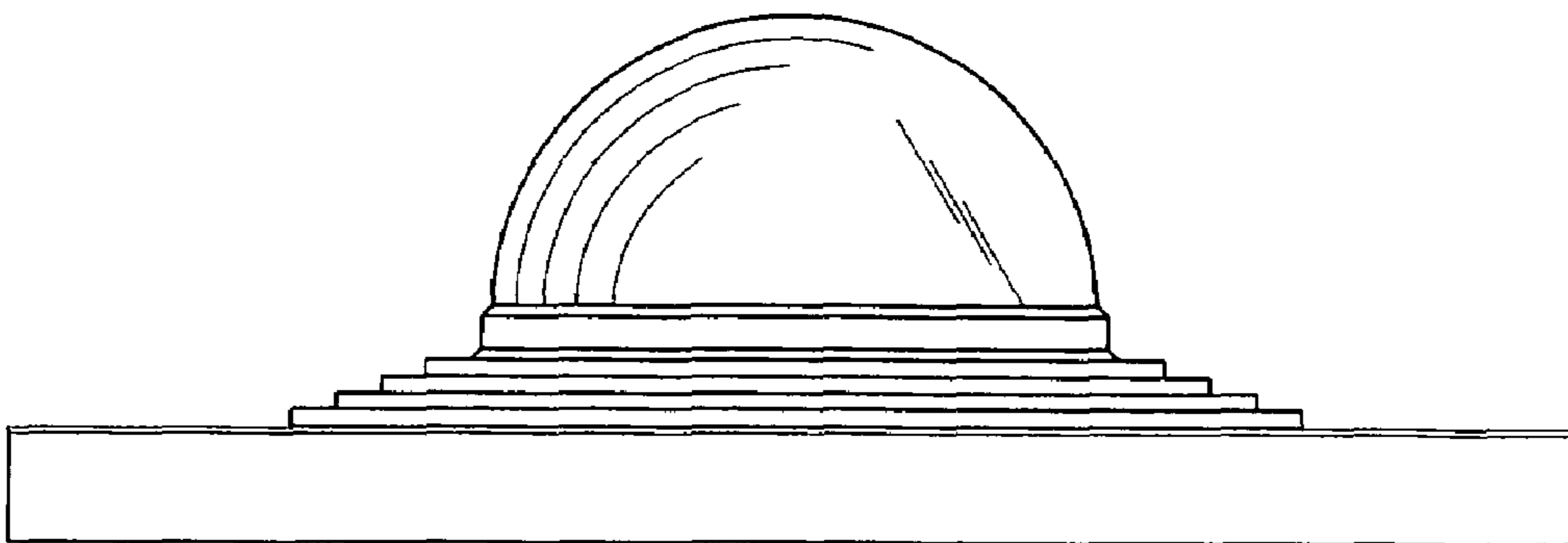


FIG. 19

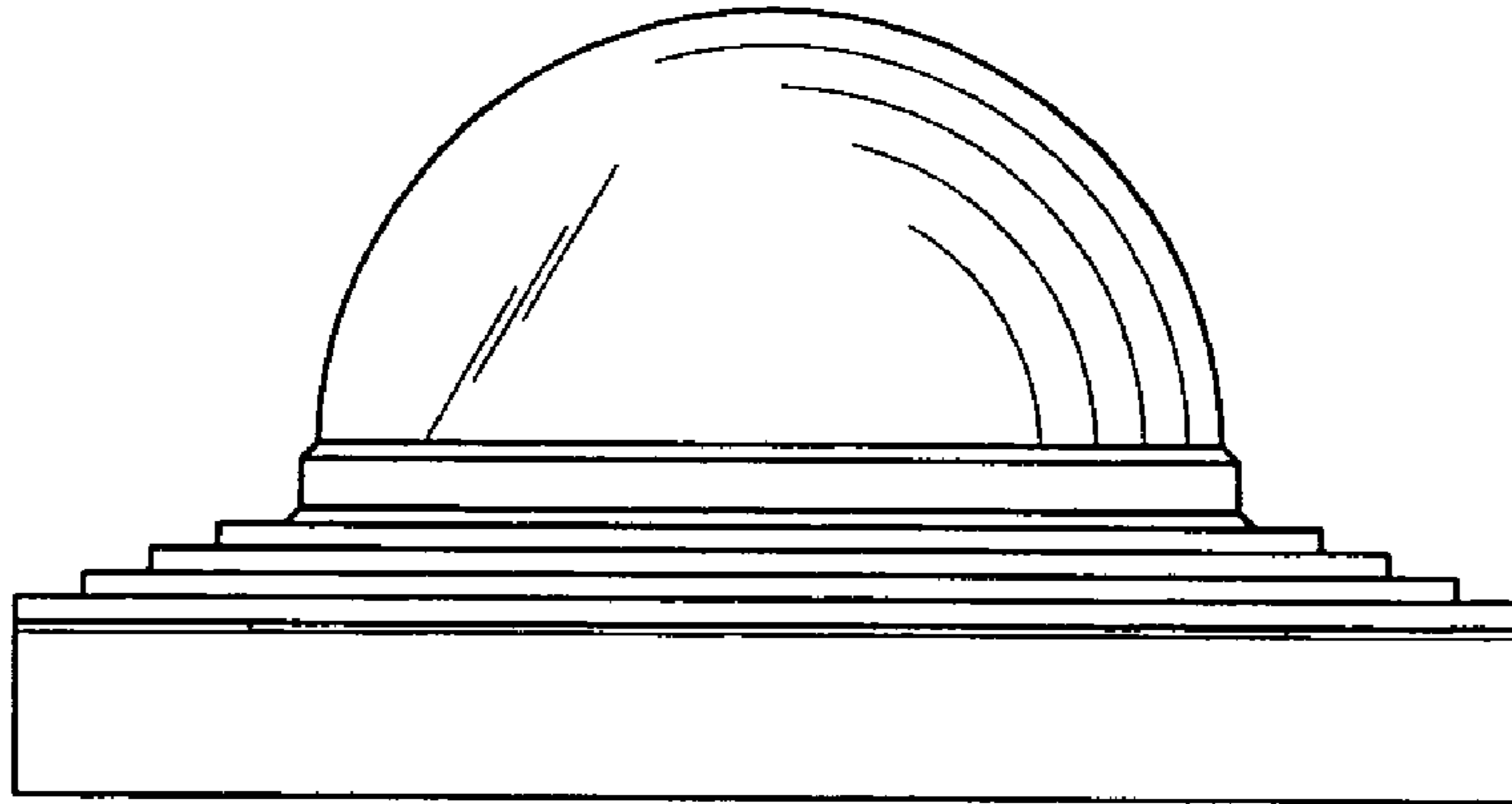


FIG. 20

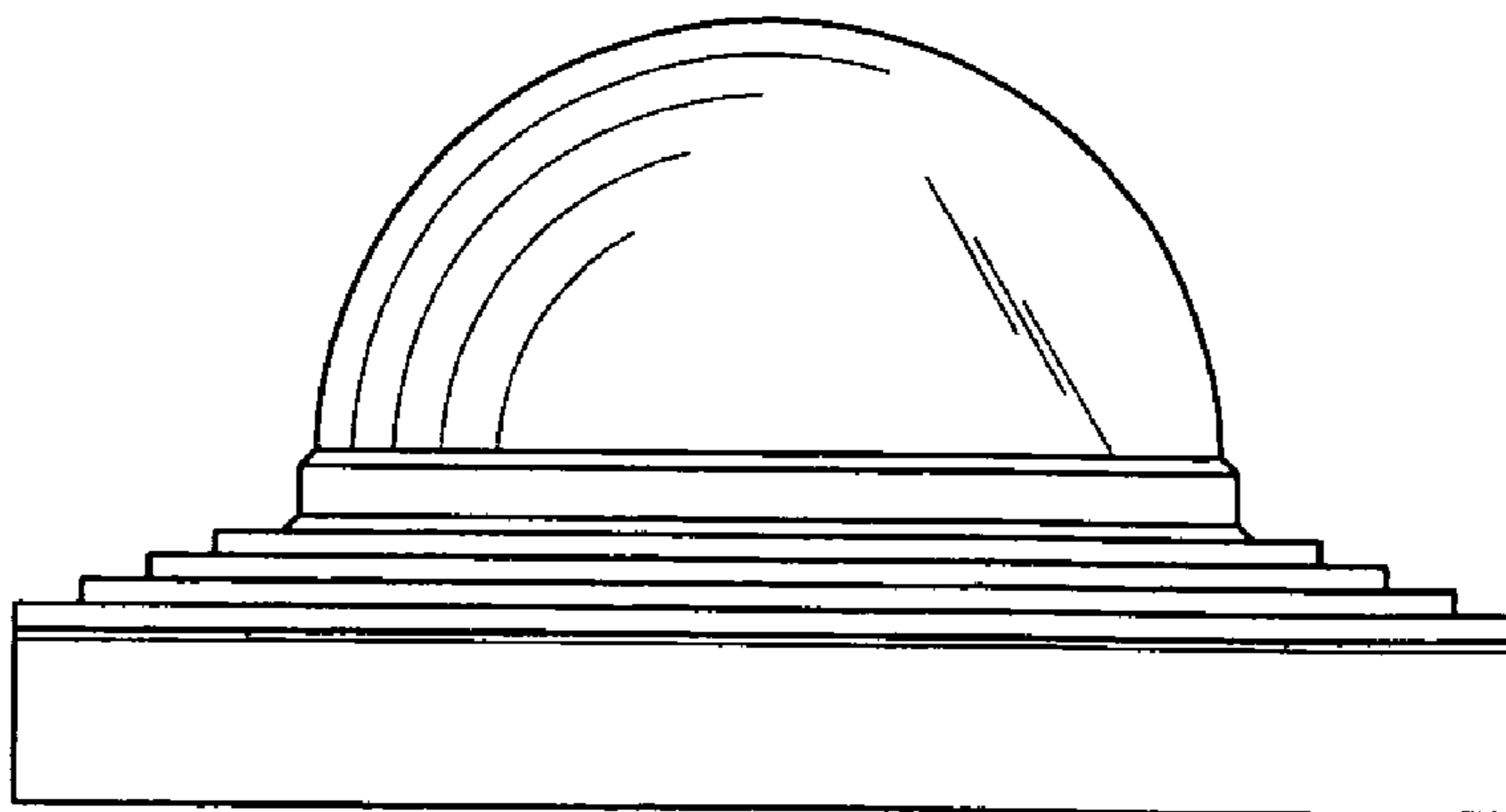


FIG. 21

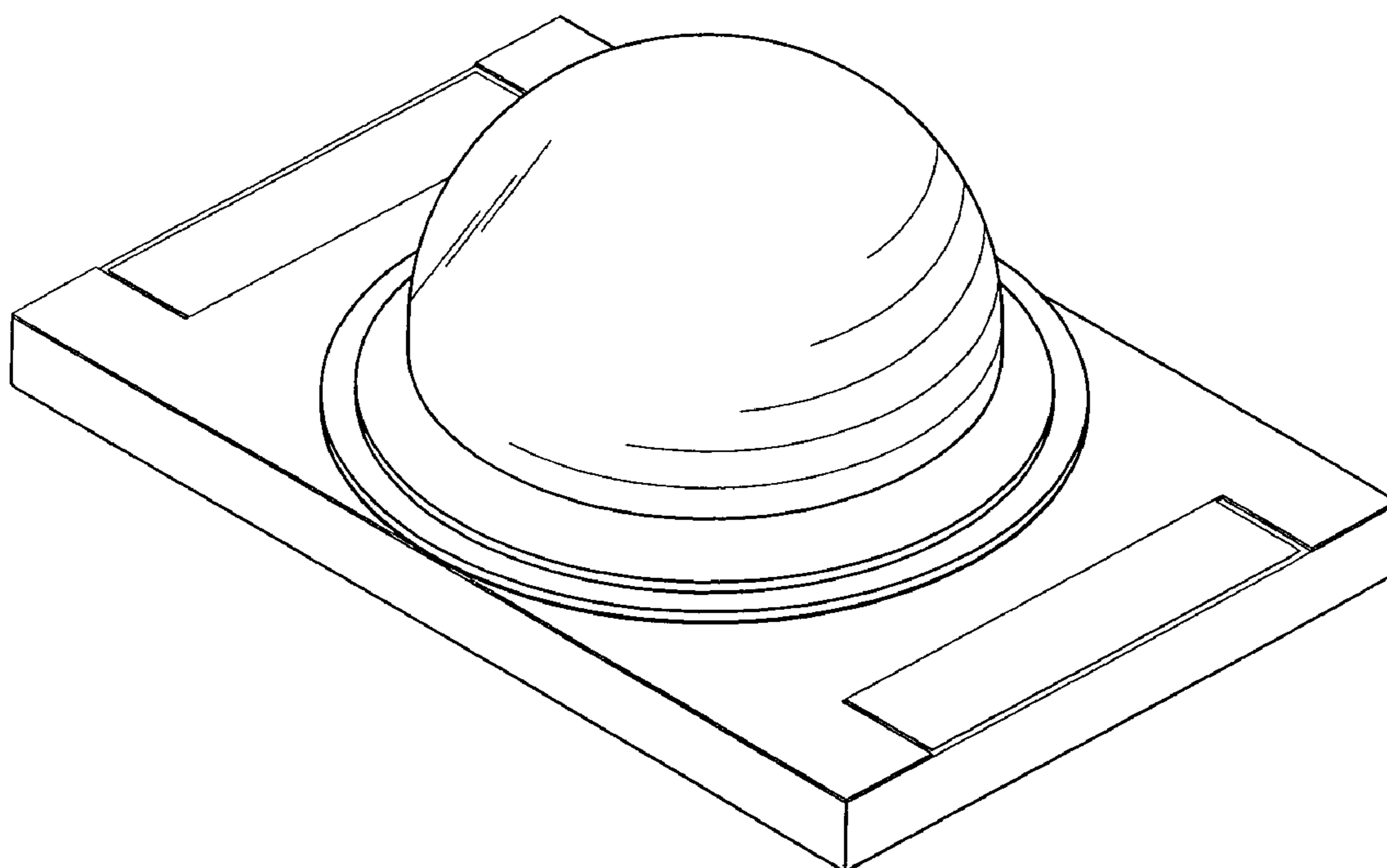


FIG. 22

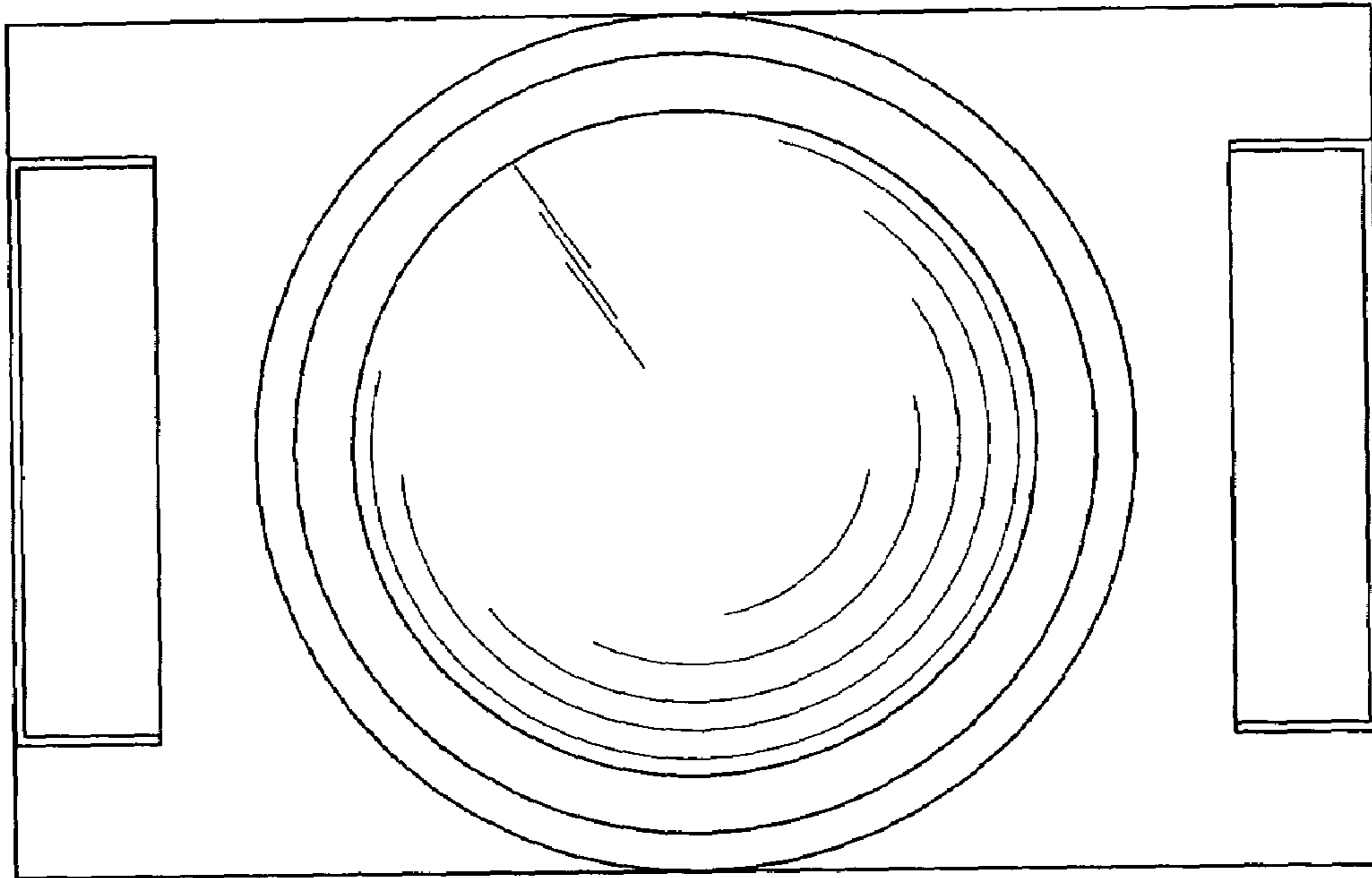


FIG. 23

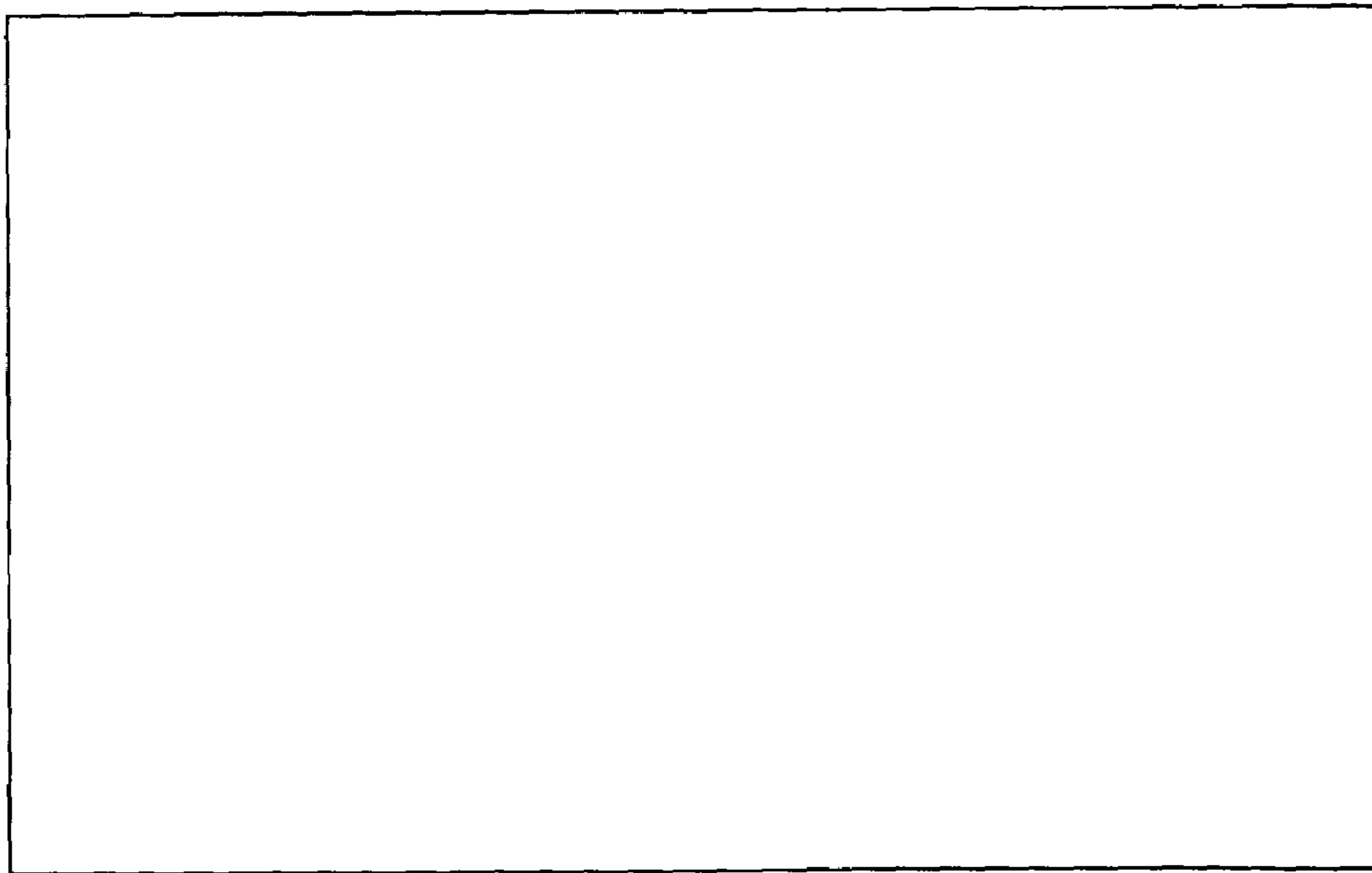


FIG. 24



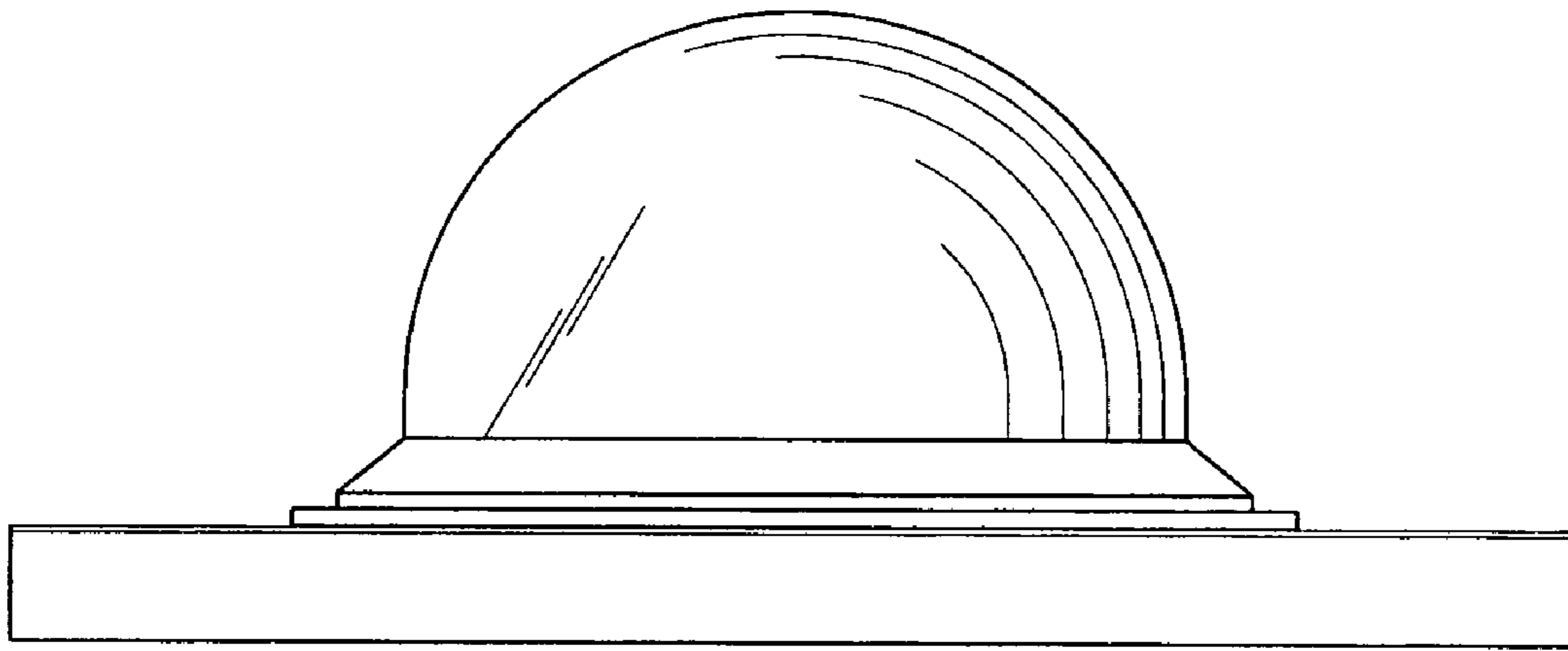


FIG. 25

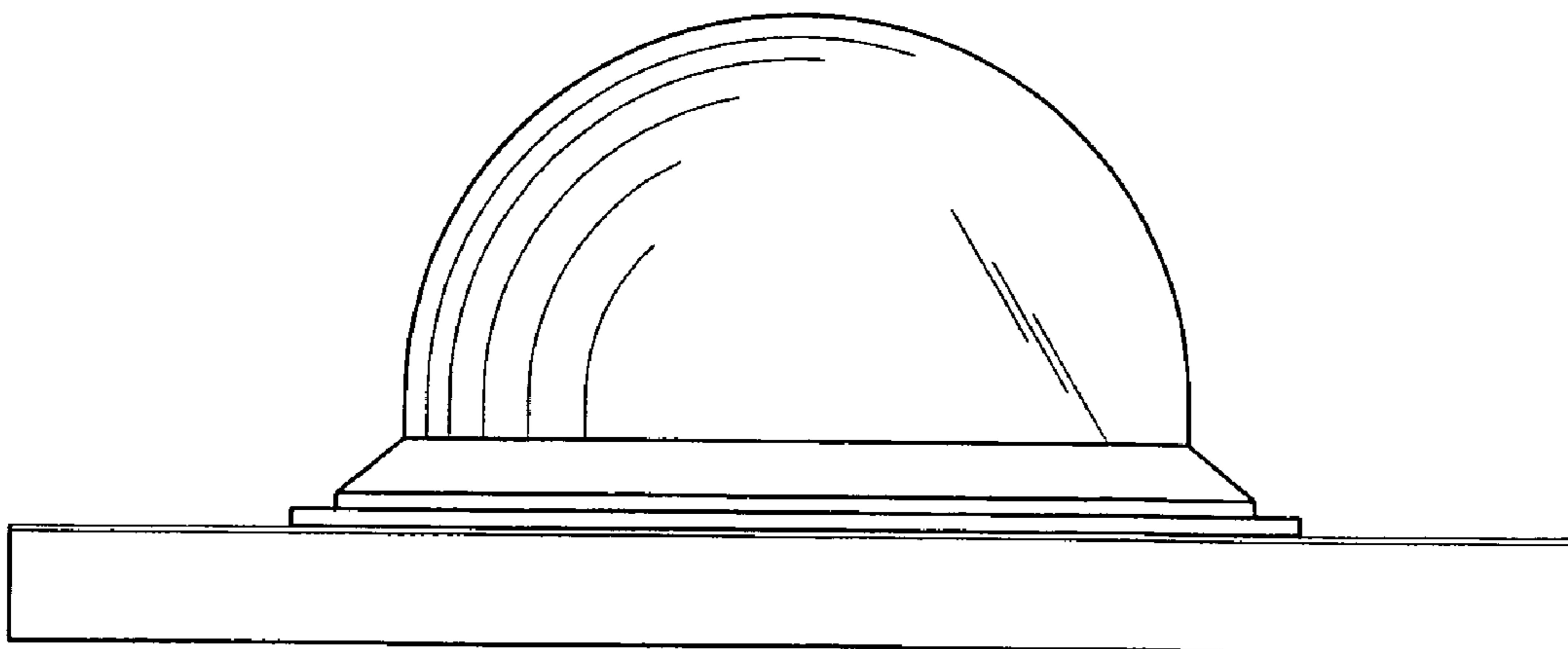


FIG. 26

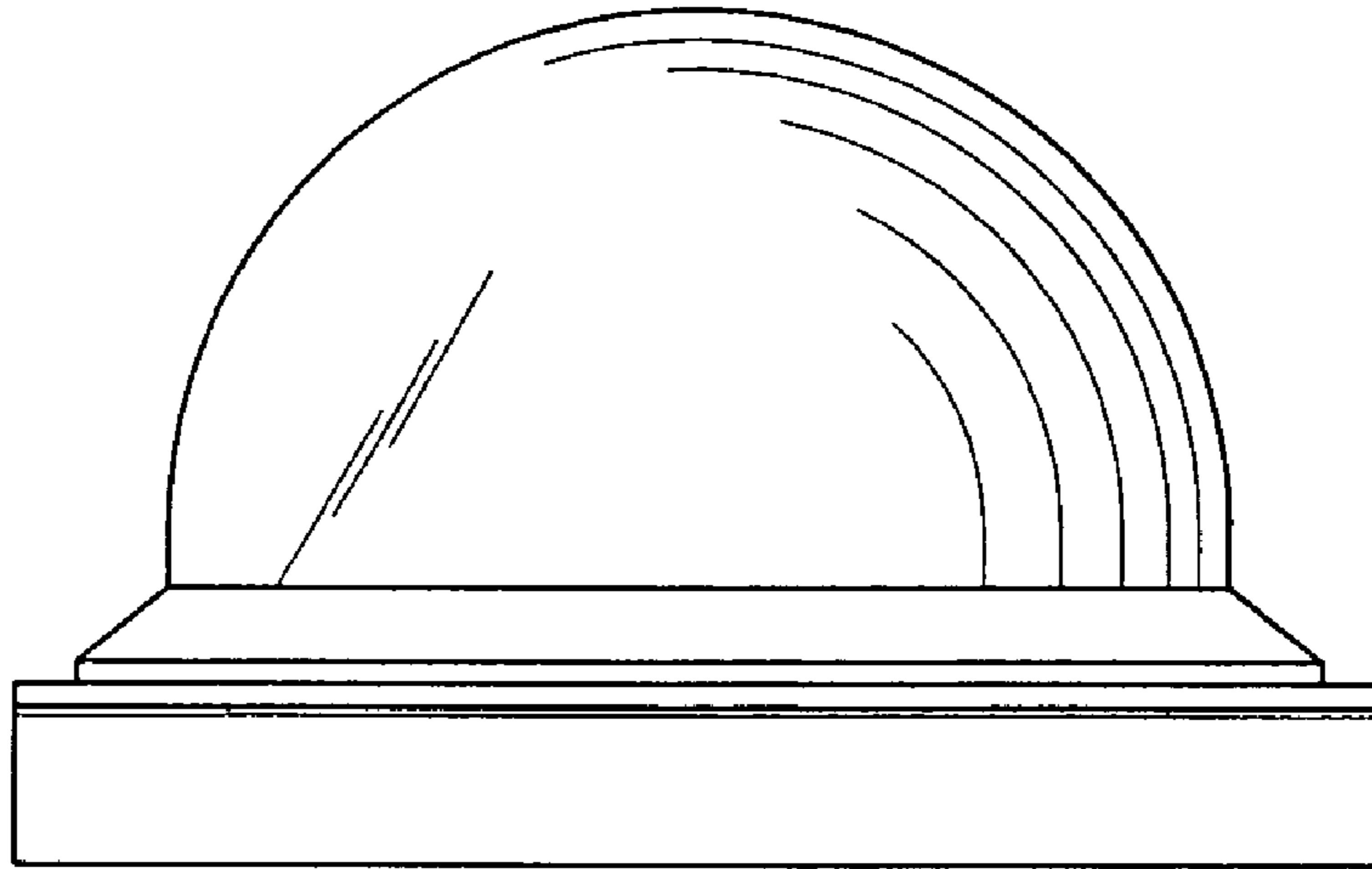


FIG. 27

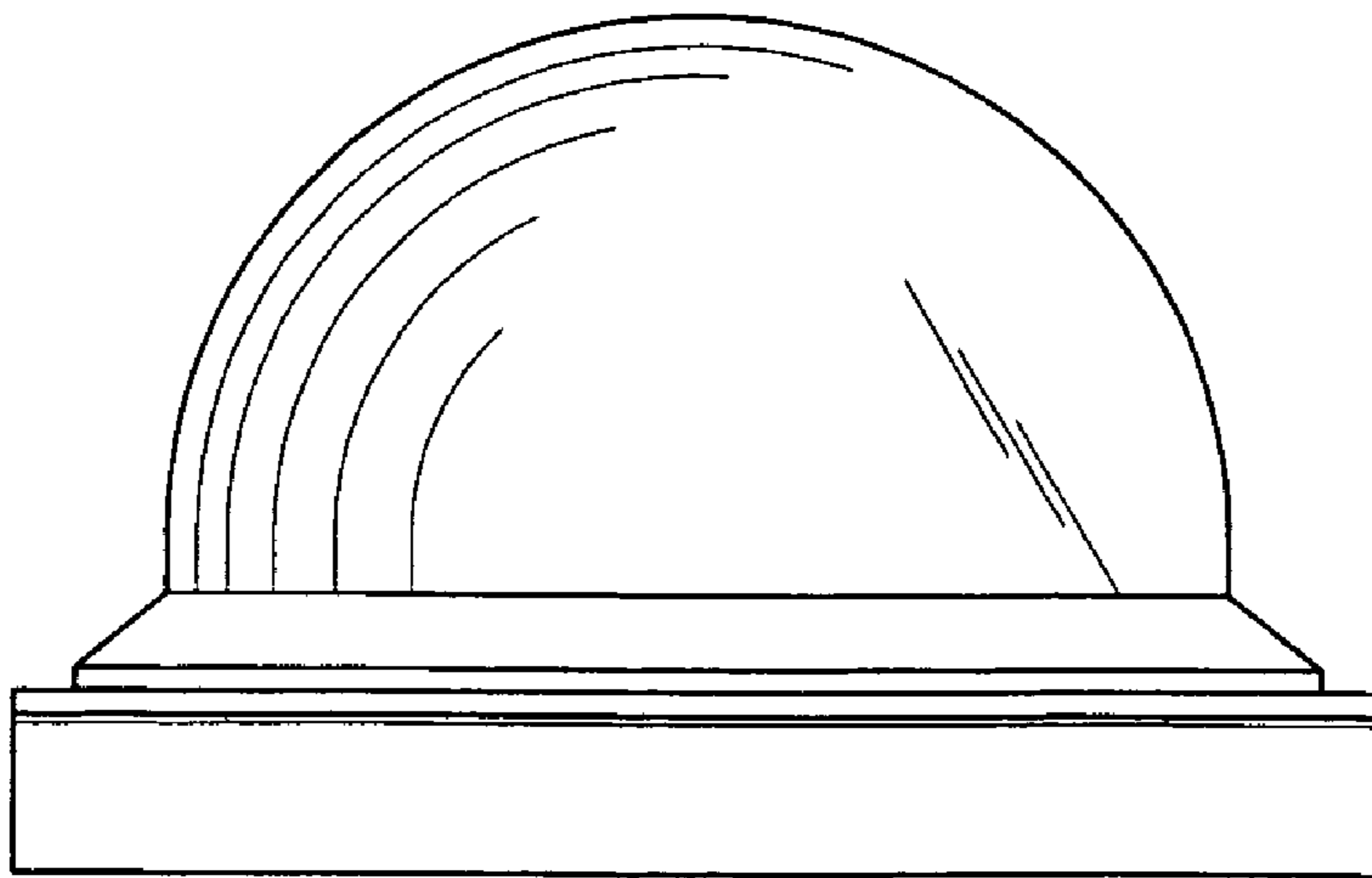


FIG. 28

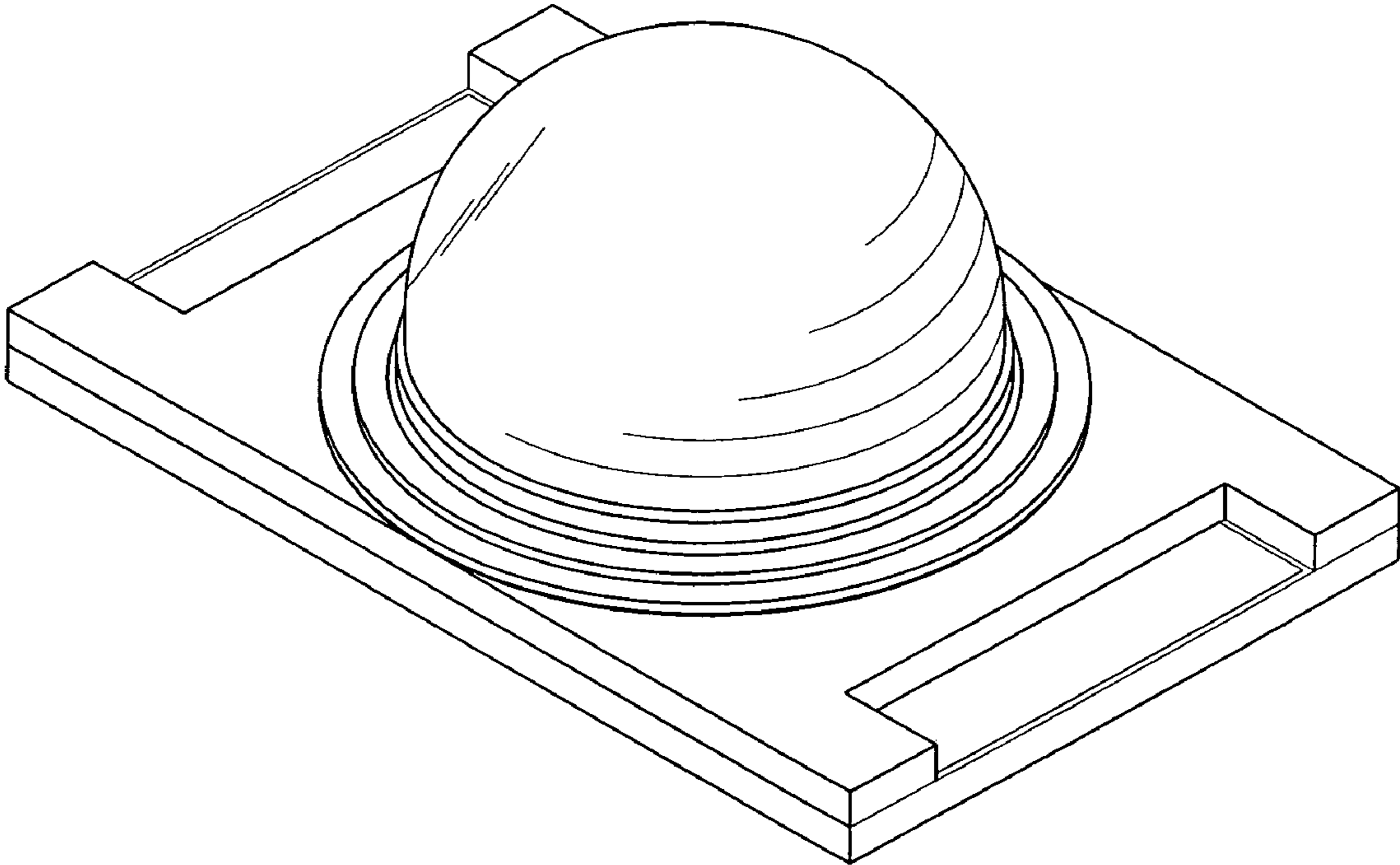


FIG. 29

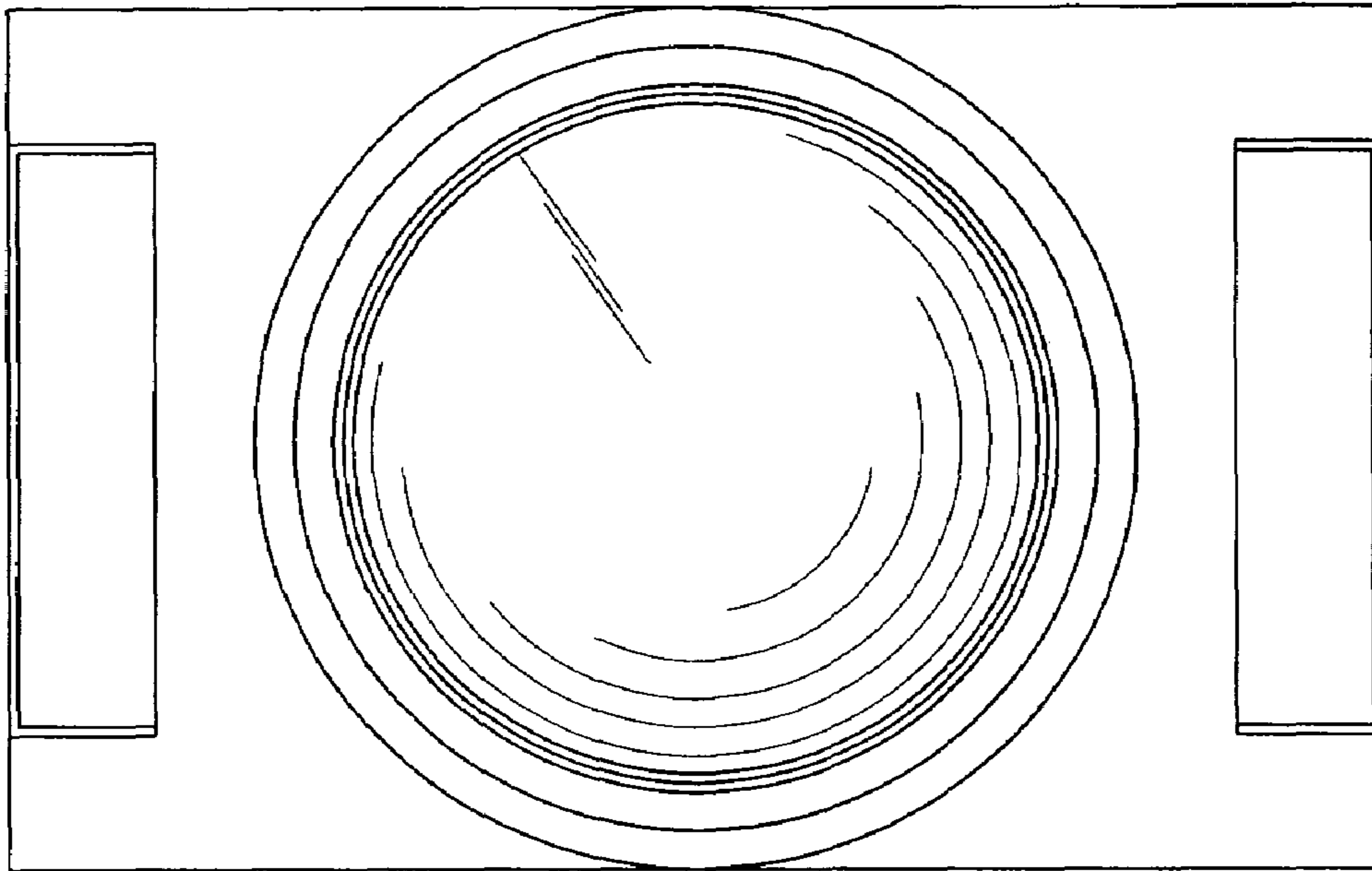


FIG. 30

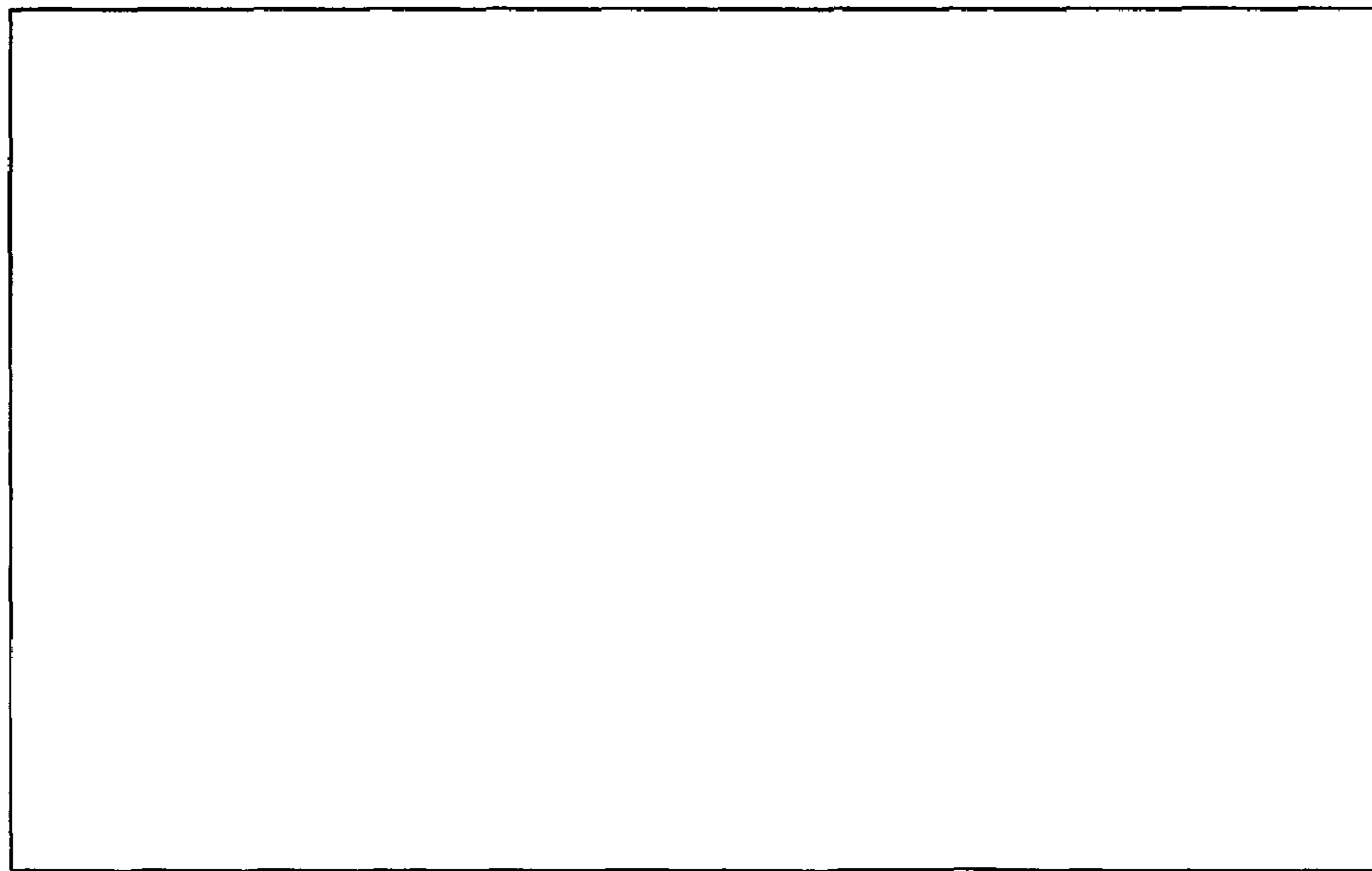


FIG. 31

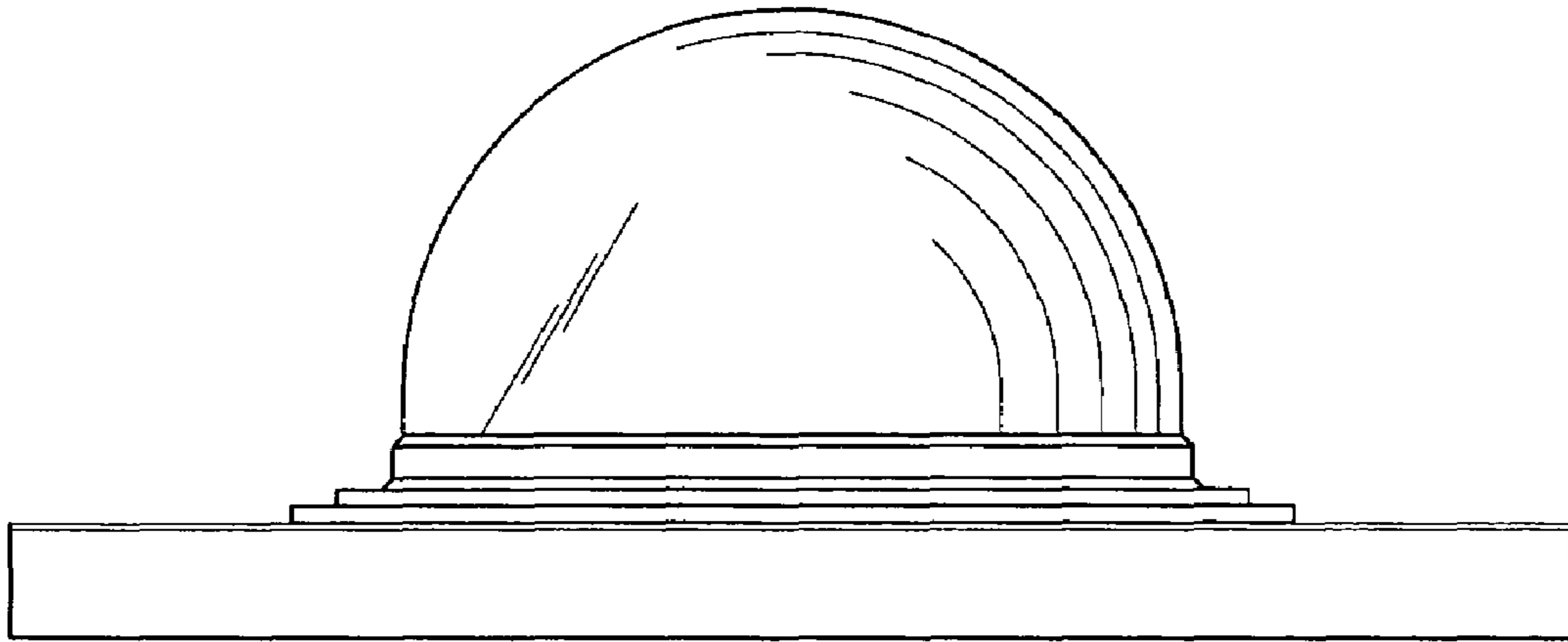


FIG. 32

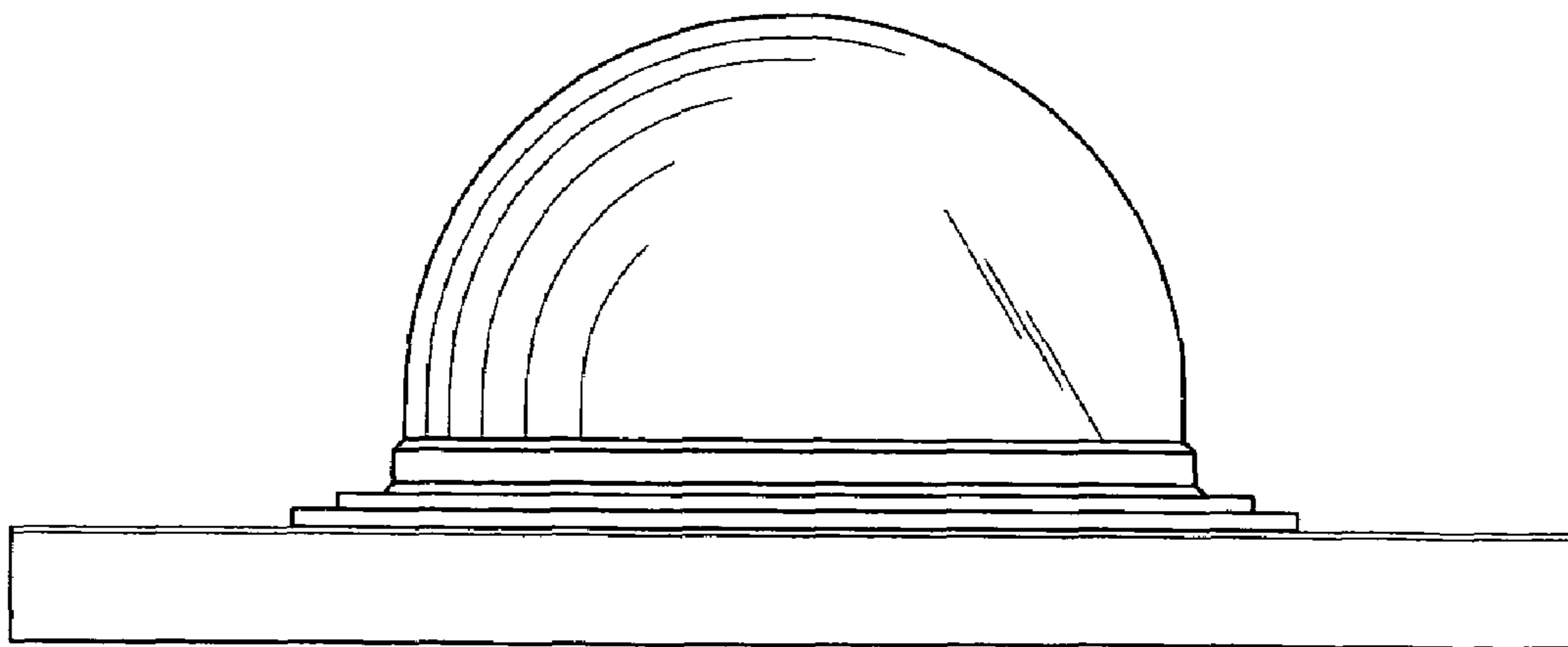


FIG. 33

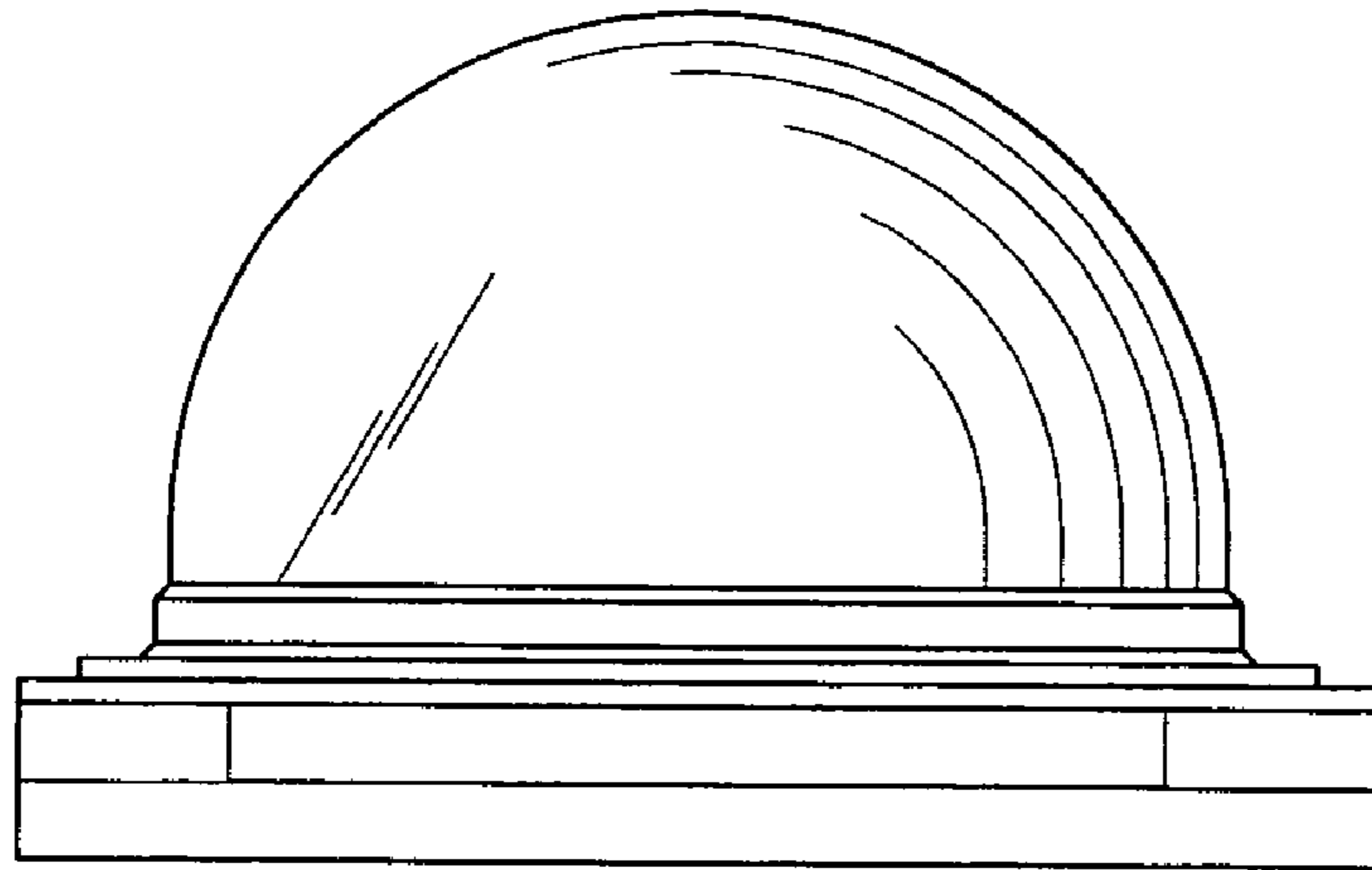


FIG. 34

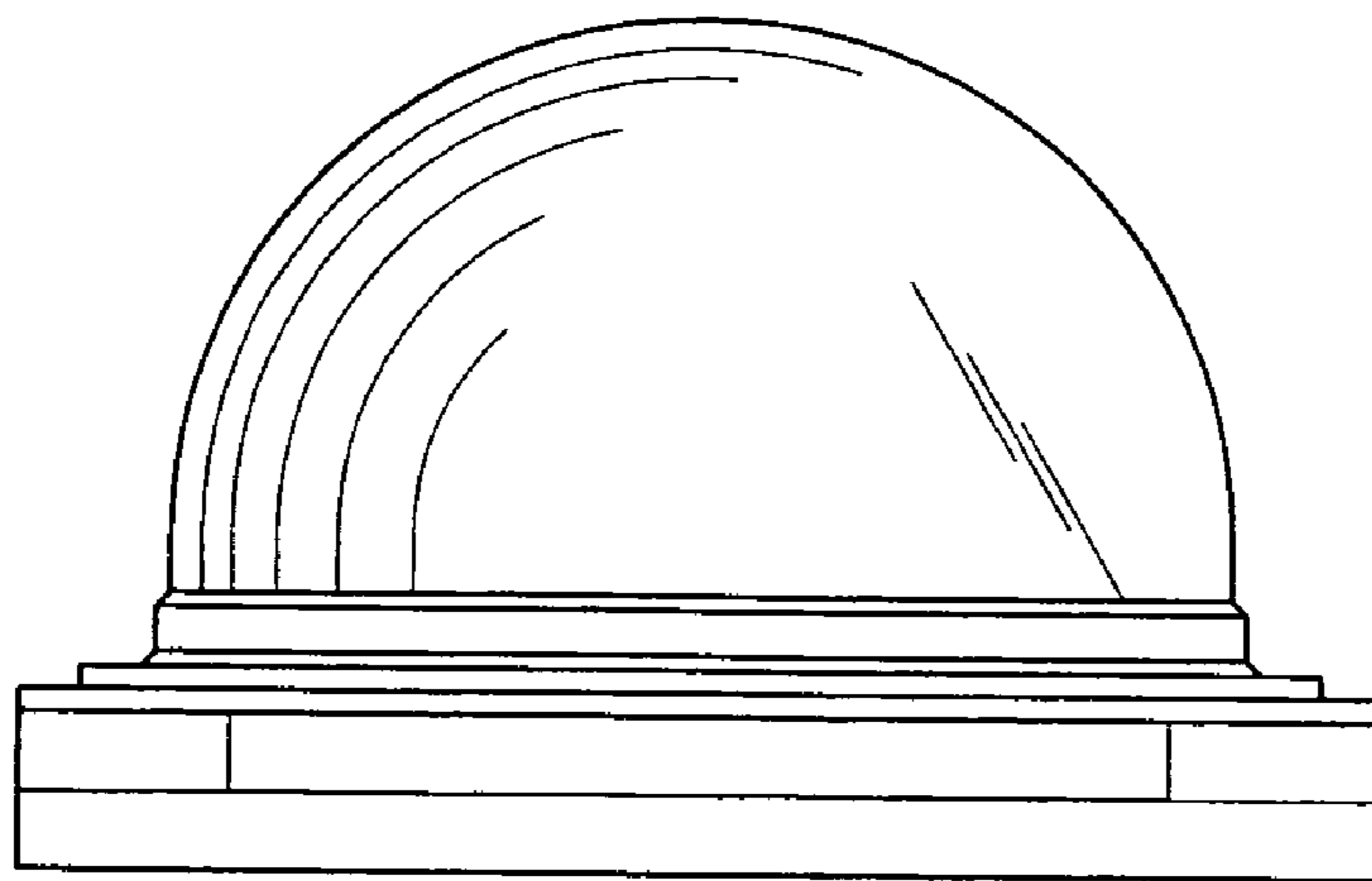


FIG. 35