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Hussell et al.

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(54) **LIGHT EMITTING DIODE**
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D500,293 S * 12/2004 Ishida D13/180
D500,294 S 12/2004 Ishida
6,841,931 B2 1/2005 Takahashi et al.
D501,831 S 2/2005 Ishida

(Continued)

(73) Assignee: **Cree, Inc.**, Durham, NC (US)

FOREIGN PATENT DOCUMENTS

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

JP 1066644 1/2000

(Continued)

(21) Appl. No.: **29/276,271**

OTHER PUBLICATIONS

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Digital Images of Packages, e.g. SMD335K and Nichia and Stanley Packaged (believed to be commercially available prior to Sep. 28, 2006) (1 sheet).

(Continued)

(51) **LOC (9) 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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(56) **References Cited**

(57) **CLAIM**

U.S. PATENT DOCUMENTS

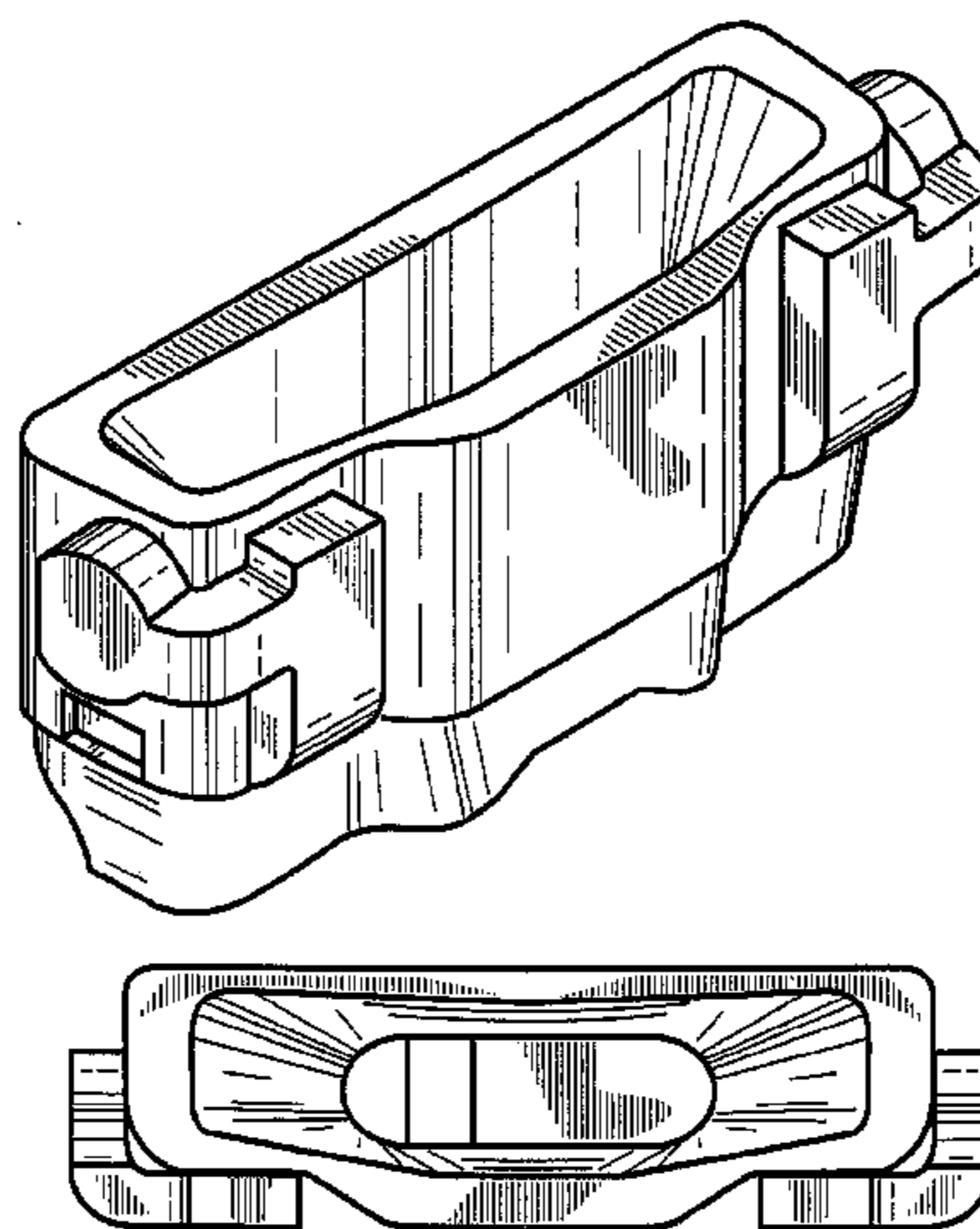
The ornamental design for an light emitting diode, as shown and described.

- D478,877 S * 8/2003 Hoshiba D13/182
- D482,337 S 11/2003 Kamada
- D489,677 S 5/2004 Ishida
- D489,690 S 5/2004 Ishida
- D489,691 S 5/2004 Ishida
- D489,692 S 5/2004 Ishida
- D489,693 S 5/2004 Ishida
- D490,062 S * 5/2004 Ishida D13/180
- D490,384 S * 5/2004 Ishida D13/180
- D490,385 S * 5/2004 Ishida D13/180
- D490,386 S 5/2004 Ishida
- D490,783 S * 6/2004 Ishida D13/180
- D490,784 S 6/2004 Ishida
- D491,538 S 6/2004 Ishida
- D493,429 S 7/2004 Ishida
- D495,667 S * 9/2004 Kim et al. D13/180
- D496,007 S 9/2004 Hoshiba
- D497,349 S 10/2004 Hoshiba
- 6,800,996 B2 10/2004 Nagai et al.
- D499,384 S 12/2004 Kamada
- D499,385 S 12/2004 Ishida
- D500,292 S 12/2004 Ishida

DESCRIPTION

FIG. 1 is a front bottom perspective view of an LED showing our design;
FIG. 2 is a bottom view thereof;
FIG. 3 is a back view thereof;
FIG. 4 is a top view thereof;
FIG. 5 is a front view thereof;
FIG. 6 is side view thereof;
FIG. 7 is an opposing side view thereof; and,
FIGS. 8–11 are alternate front views of our LED design, with the other views corresponding to FIGS. 1–4, 6 and 7.
The broken lines shown herein are for illustrative purposes only and form no part of the claimed design.

1 Claim, 3 Drawing Sheets



U.S. PATENT DOCUMENTS

D502,449	S	3/2005	Ishida	
D502,689	S	3/2005	Ishida	
D503,388	S	3/2005	Ishida	
D504,116	S	4/2005	Ishida	
D504,404	S	4/2005	Ishida	
D504,873	S	5/2005	Ishida	
D506,449	S	6/2005	Hoshiba	
D507,782	S	7/2005	Ishida	
D508,233	S	8/2005	Kasae et al.	
D508,468	S	8/2005	Ishida	
D509,196	S	9/2005	Kamada	
D509,487	S	9/2005	Ishida	
D509,488	S	9/2005	Ishida	
D509,807	S	9/2005	Ishida	
D510,326	S	10/2005	Ishida	
6,953,952	B2 *	10/2005	Asakawa 257/103
D511,147	S	11/2005	Suenaga	
D511,148	S	11/2005	Ishida	
D512,031	S	11/2005	Ishida	
D515,044	S	2/2006	Ishida	
D516,527	S	3/2006	Kamada	
7,009,285	B2 *	3/2006	Su et al. 257/680
D518,449	S	4/2006	Ishida	
D519,943	S	5/2006	Kamada	
D527,352	S	8/2006	Wu et al.	
D529,451	S *	10/2006	Kim et al. D13/180
D533,146	S *	12/2006	Wu et al. D13/180
2005/0121688	A1 *	6/2005	Nagai et al. 257/99
2006/0023451	A1 *	2/2006	Han et al. 362/249
2007/0246729	A1 *	10/2007	Park 257/99

FOREIGN PATENT DOCUMENTS

JP	1066644-001	1/2000
JP	1066644-002	1/2000
JP	1046447-003	4/2000
JP	1077515	4/2000
JP	1095890	10/2000
JP	1095891	10/2000
JP	1106839	2/2001
JP	1106840	2/2001
JP	1106536	4/2001
JP	1111619	4/2001
JP	1111620	4/2001
JP	1111621	4/2001
JP	1111622	4/2001
JP	1112059	4/2001
JP	1112060	4/2001
JP	1112061	4/2001
JP	1112063	4/2001
JP	1112064	4/2001
JP	1112065	4/2001
JP	1113779	4/2001
JP	1112062	6/2001
JP	1130123	11/2001
JP	1144883	4/2002
JP	1145648	5/2002
JP	1146350	5/2002
JP	1149468	6/2002
JP	1149469	6/2002
JP	1150366	6/2002
JP	1150522	6/2002
JP	1150817	11/2002
JP	1163901	11/2002
JP	1164214	11/2002
JP	1164215	11/2002
JP	1164216	11/2002
JP	1164217	11/2002
JP	1164218	11/2002
JP	1164988	12/2002
JP	1164989	12/2002

JP	1167668	1/2003
JP	1168086	1/2003
JP	1168087	1/2003
JP	1170087	2/2003
JP	1170089	2/2003
JP	1170090	2/2003
JP	1170881	2/2003
JP	1170883	2/2003
JP	1170884	2/2003
JP	1170885	2/2003
JP	1170886	2/2003
JP	1171193	2/2003
JP	1171194	2/2003
JP	1171195	2/2003
JP	1171196	2/2003
JP	1171207	2/2003
JP	1171213	2/2003
JP	1171707	2/2003
JP	1171708	2/2003
JP	1171709	2/2003
JP	1171710	2/2003
JP	1171719	2/2003
JP	1171720	2/2003
JP	1171979	3/2003
JP	1171980	3/2003
JP	1172383	3/2003
JP	1172384	3/2003
JP	1172385	3/2003
JP	1172386	3/2003
JP	1172954	3/2003
JP	1175163	4/2003
JP	1175164	4/2003
JP	1175165	4/2003
JP	1175166	4/2003
JP	1176631	4/2003
JP	1177057	4/2003
JP	1177154	4/2003
JP	1177155	4/2003
JP	1177238	4/2003
JP	1177239	4/2003
JP	1181897	6/2003
JP	1181898	6/2003
JP	1181899	6/2003
JP	1183377	7/2003
JP	1197740	1/2004
JP	1197741	1/2004
JP	1197750	1/2004
JP	1197751	1/2004
JP	1197752	1/2004

OTHER PUBLICATIONS

Cree introduces its first packaged LED product, LEDs Magazine, Oct. 2004, pp. 1-2.

Color photos Lumileds LEDs, 1 page, (for exam purposes, date is assumed to be before Dec. 21, 2006).

Nichia Press Release, "Summary of Patent Infringement Assessment Report," http://www.nichia.co.jp/about_nichia/2006/2006_021702.html, May 27, 2008 (3 sheets).

Nichia Press Release, "Nichia Asserts Design Patents Against Seoul Semiconductor," http://www.nichia.co.jp/about_nichia/2006/2006_011601.html, May 27, 2008 (3 sheets).

Product Specification for Nichia Chip Type White LED, Model NSCW335T; <http://www.nichia.com/product/led-smd-sideview.html>, Aug. 29, 2006 (15 sheets).

Product Specification for Nichia Chip Type White LED, Model NESW008BT; <http://www.nichia.com/product/led-smd-sideview.html>, Aug. 29, 2006 (15 sheets).

Product Specification for Nichia Chip Type White LED, Model NSSW020AT; <http://www.nichia.com/product/led-smd-sideview.html>, Aug. 29, 2006 (15 sheets).

* cited by examiner

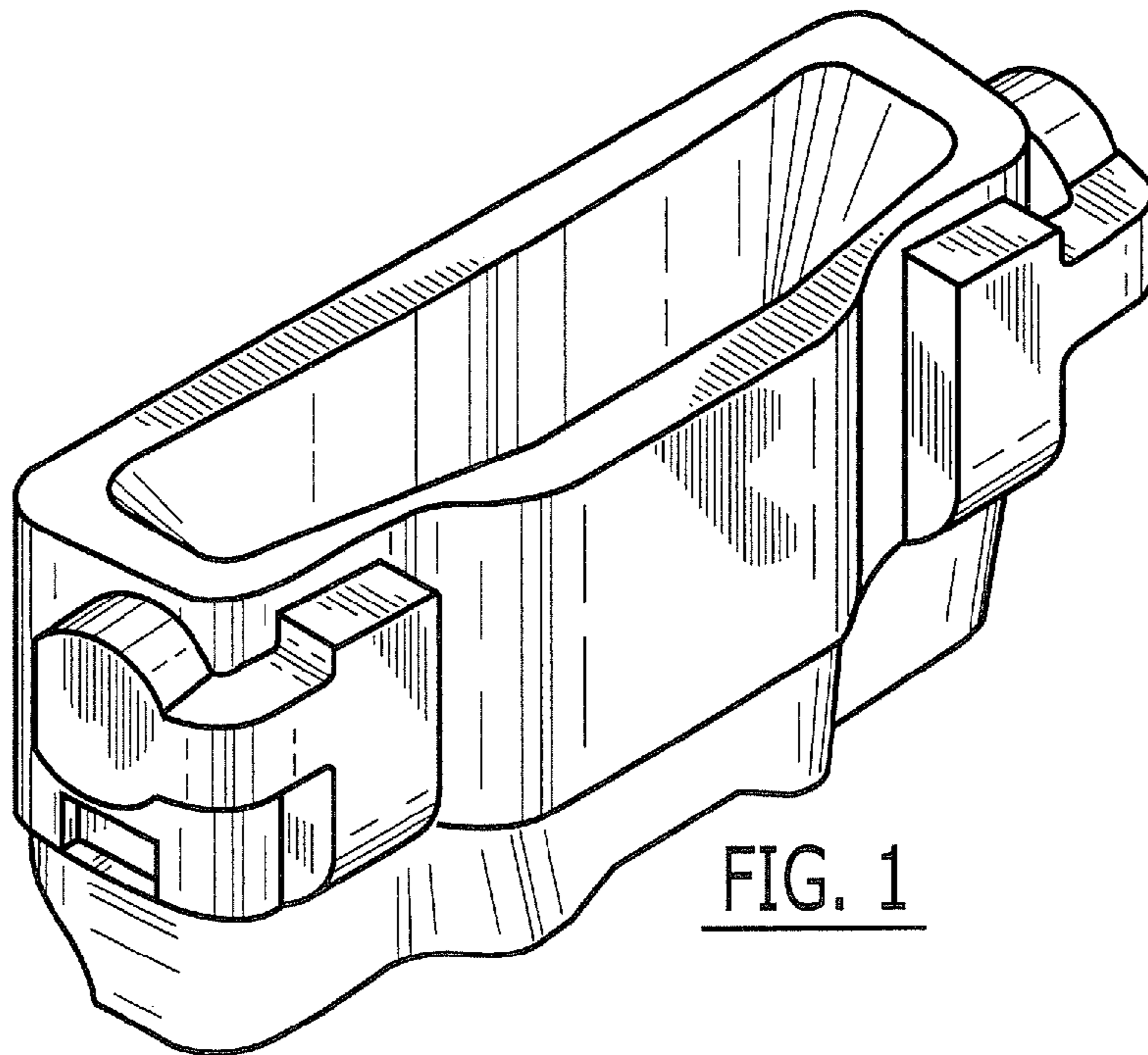


FIG. 1

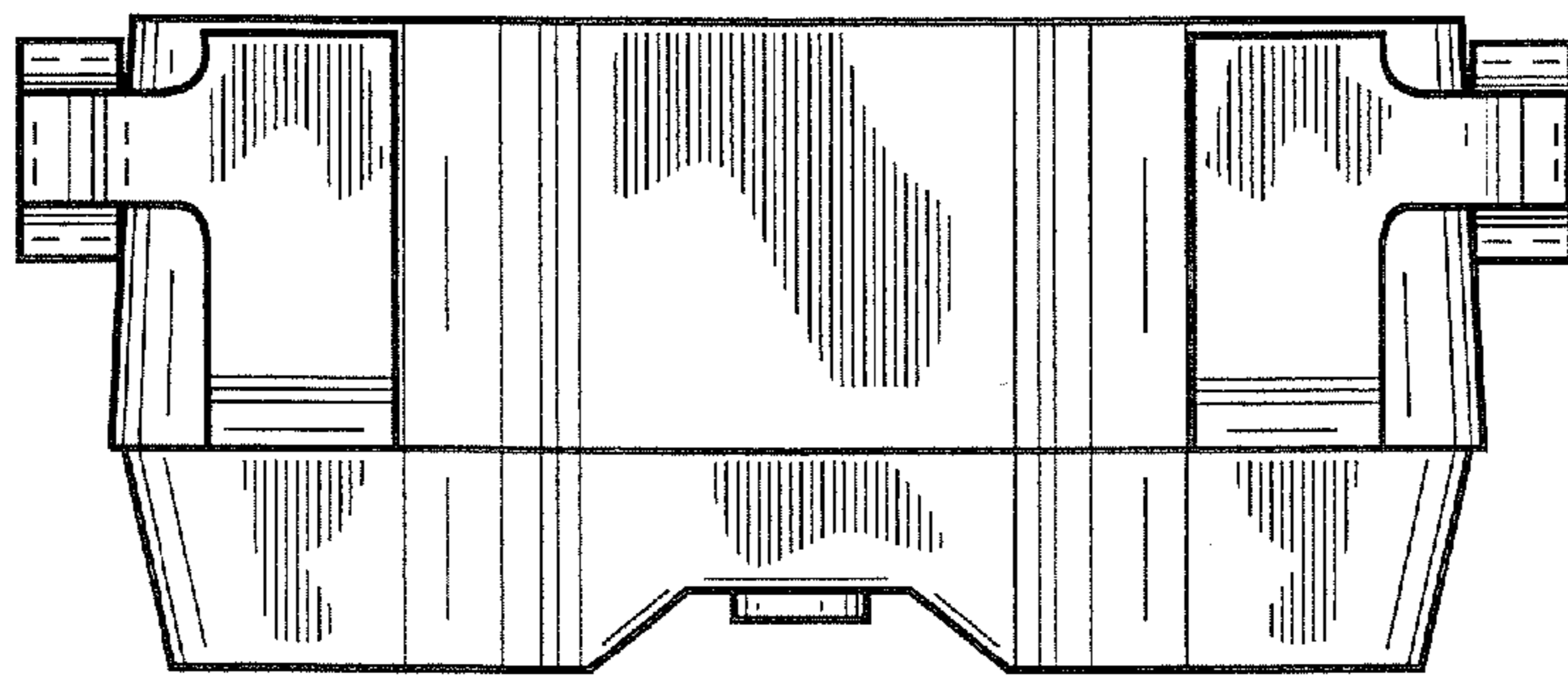


FIG. 2

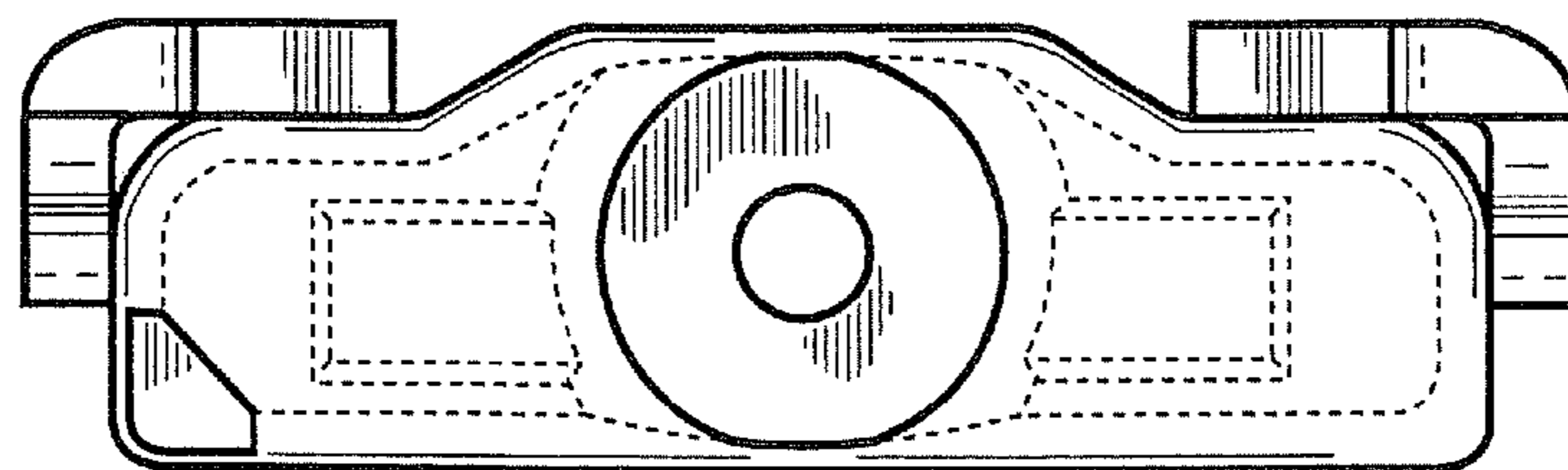


FIG. 3

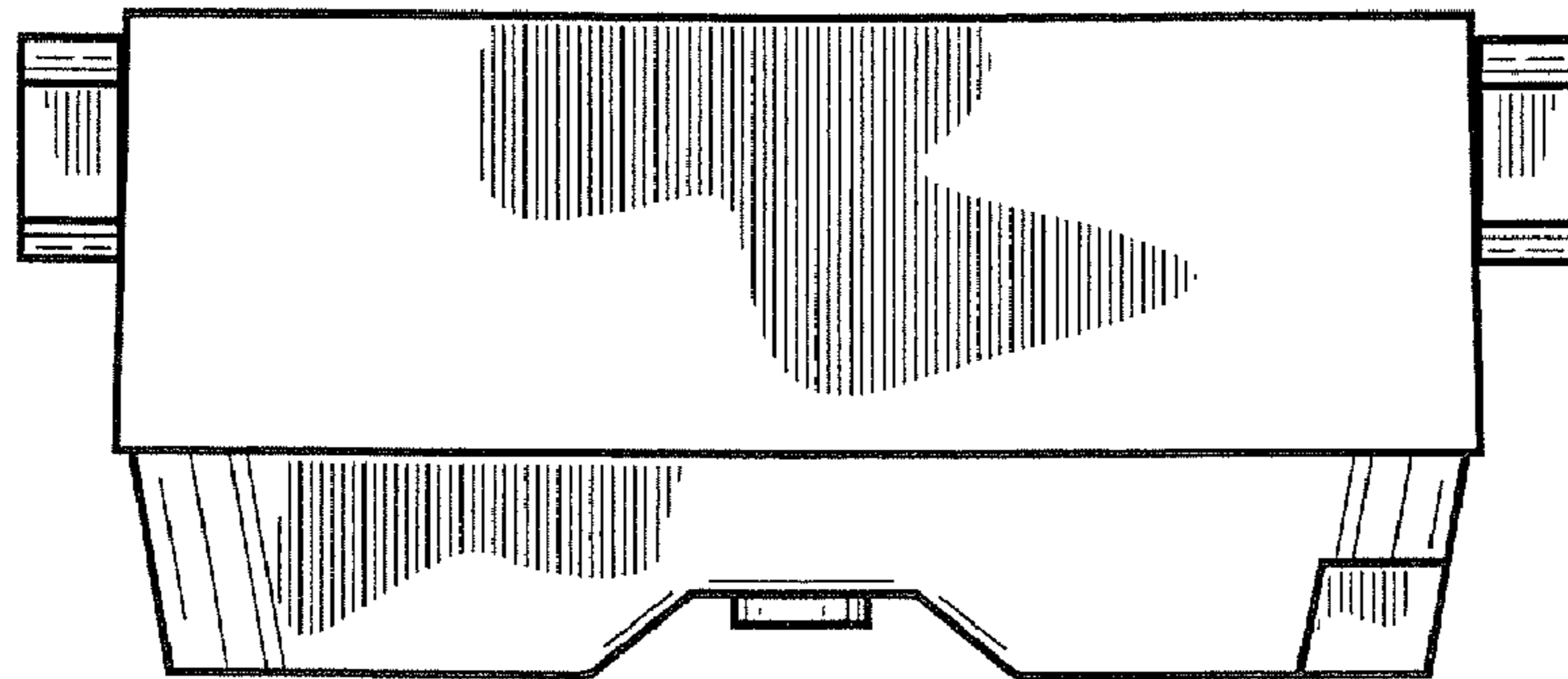


FIG. 4

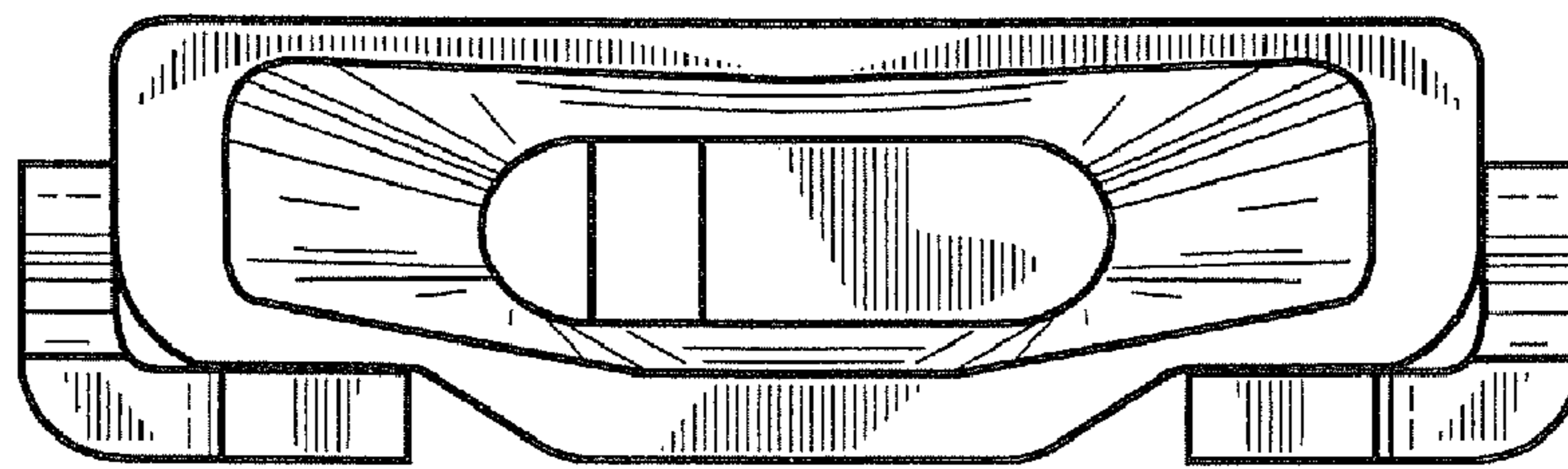


FIG. 5

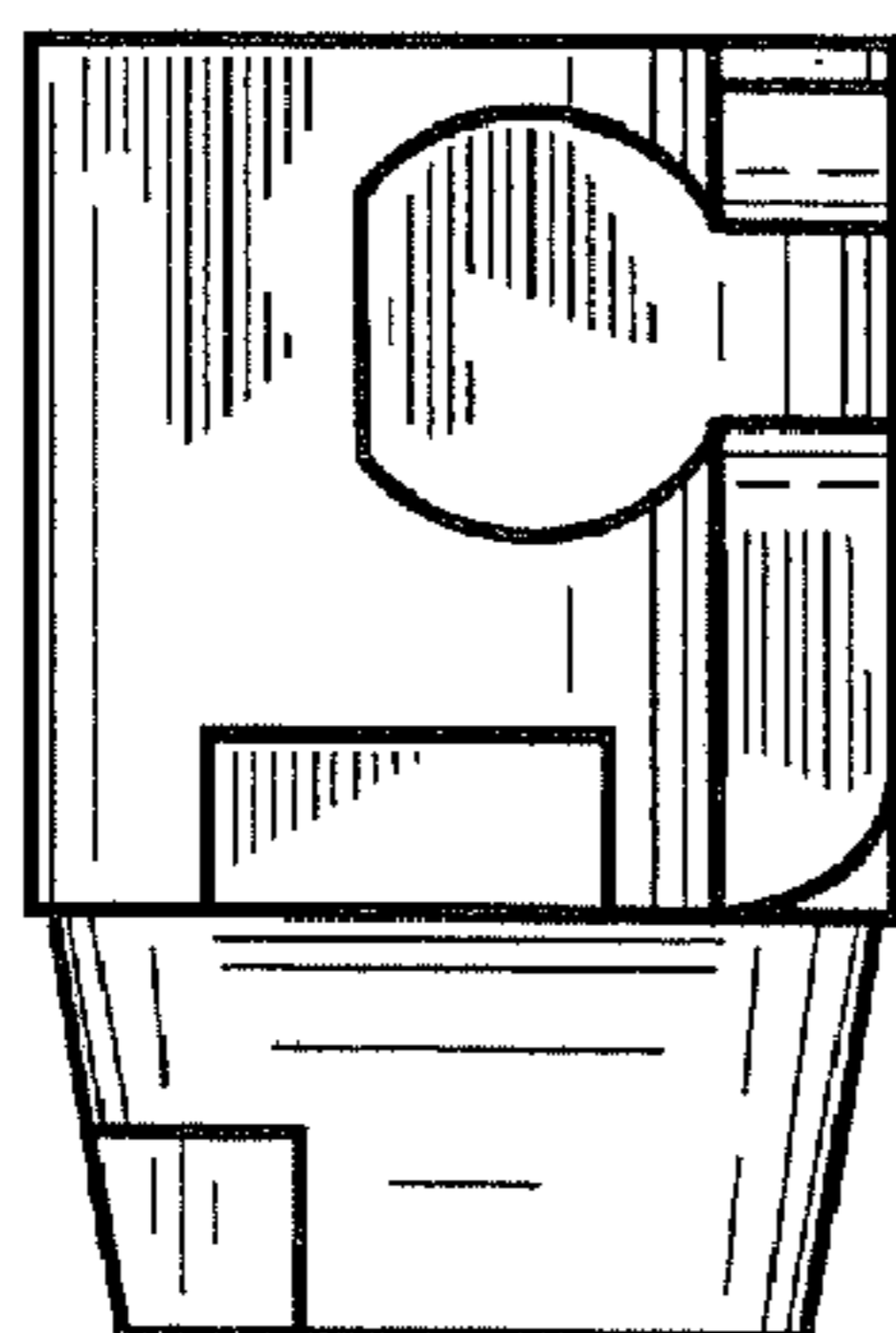


FIG. 6

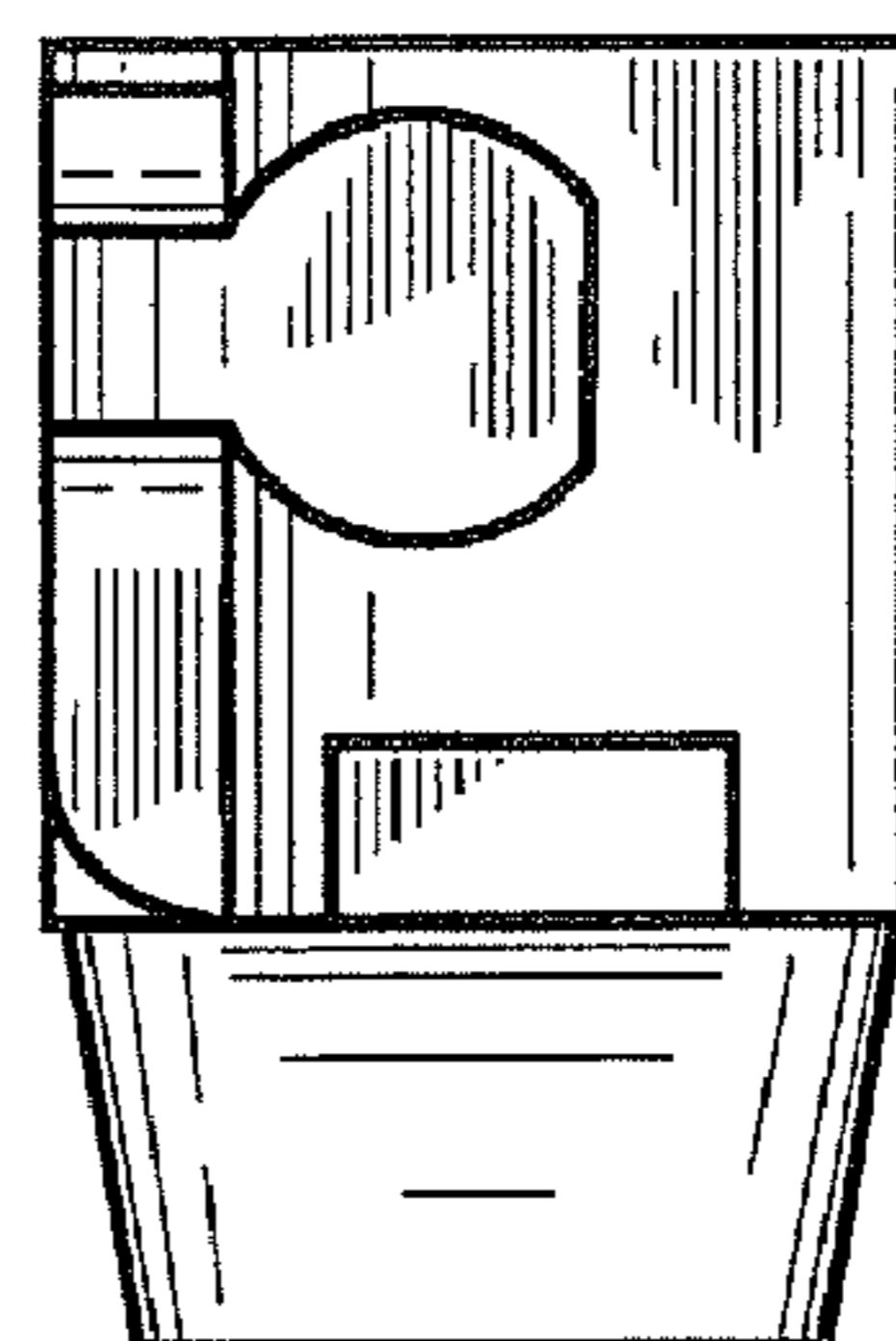


FIG. 7

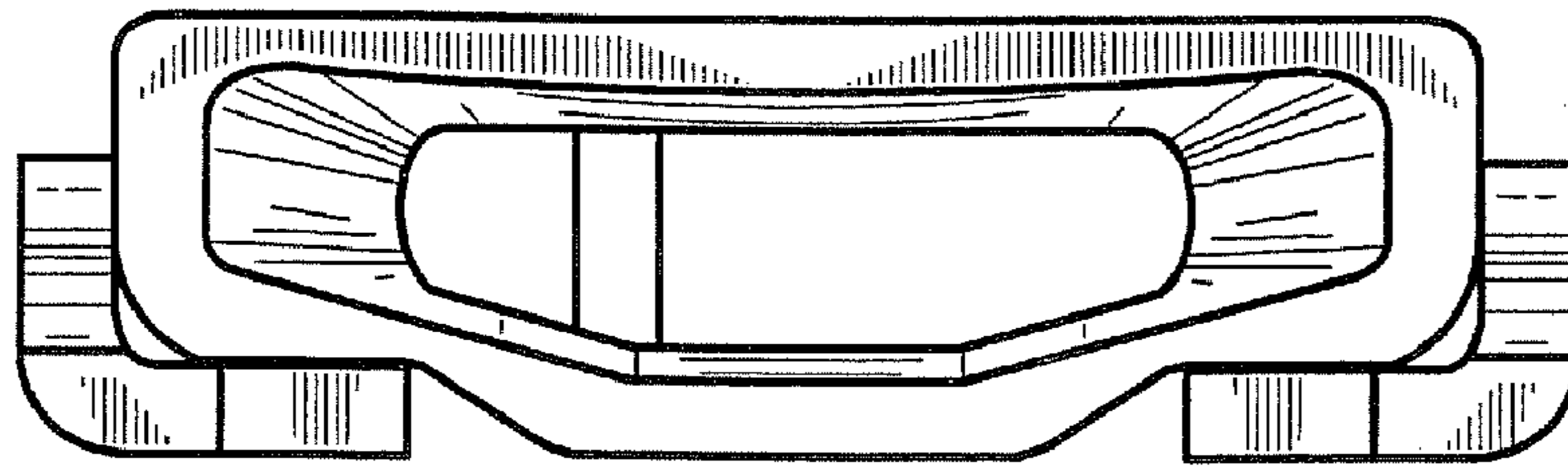


FIG. 8

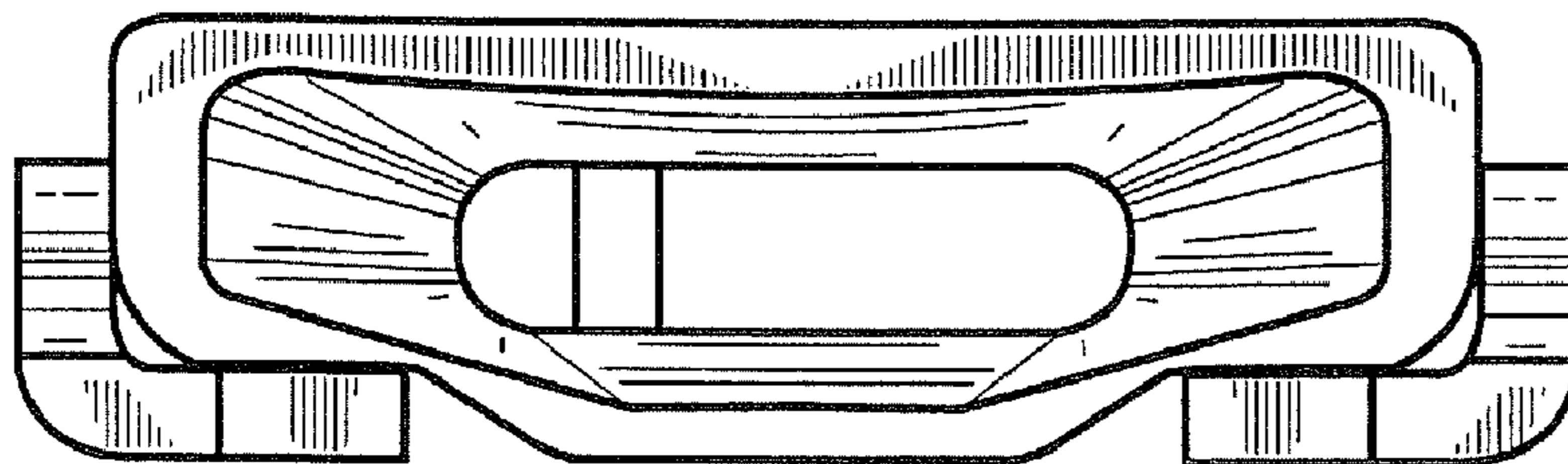


FIG. 9

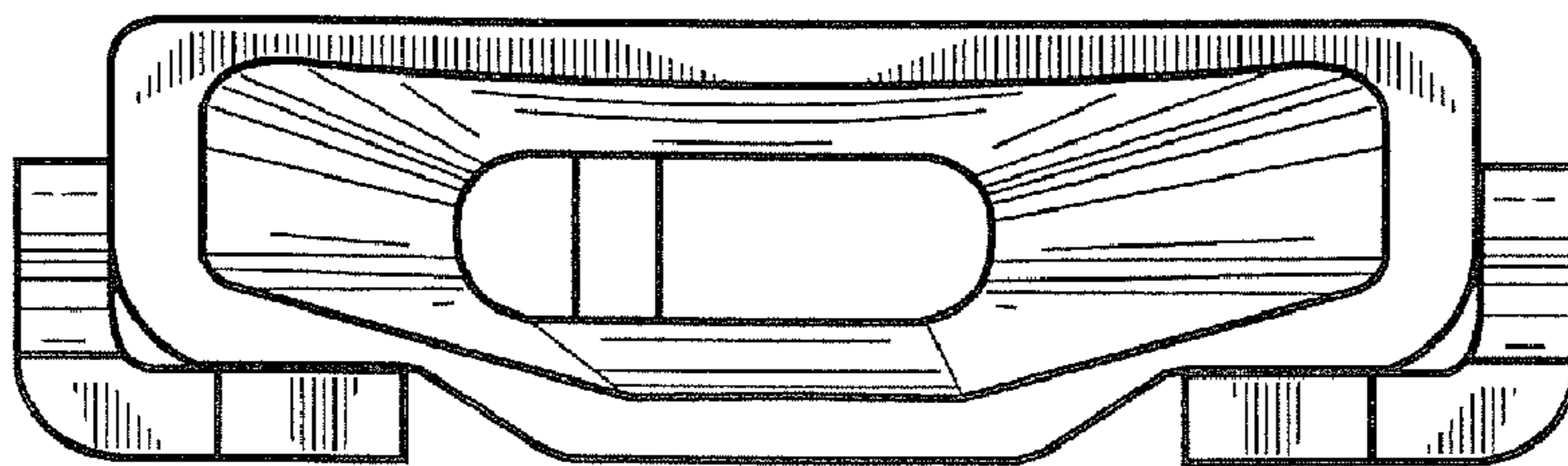


FIG. 10

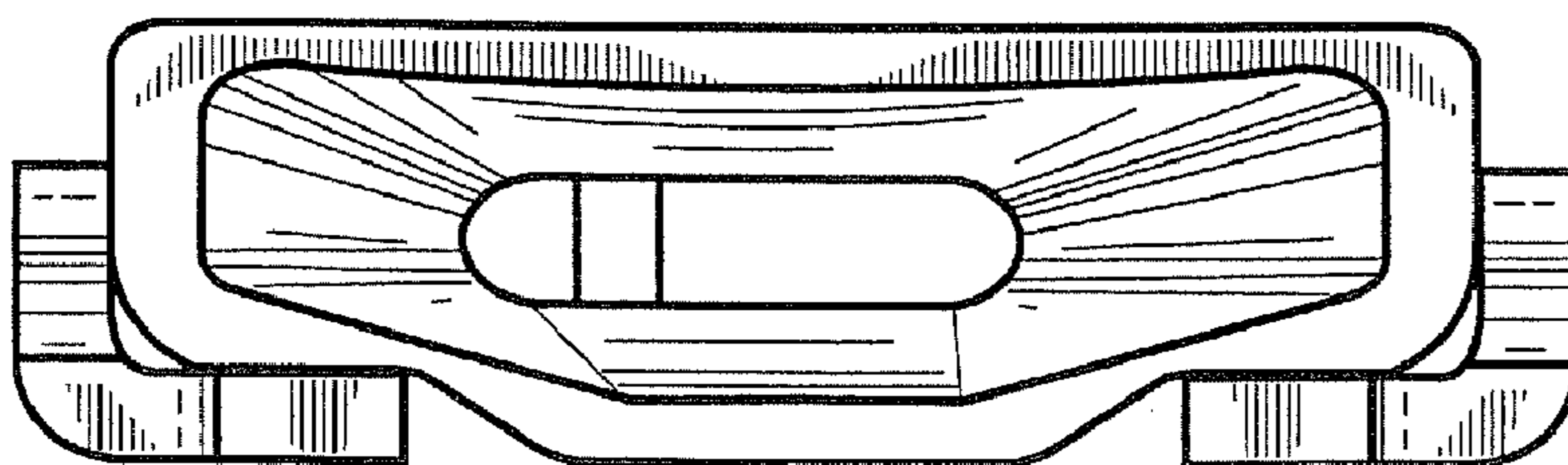


FIG. 11