



US00D626233S

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

(10) **Patent No.:** **US D626,233 S**

(45) **Date of Patent:** **\*\* \*Oct. 26, 2010**

(54) **EXPANDABLE INTERVERTEBRAL IMPLANT**

(75) Inventors: **Robert Cipoletti**, Pompton Plains, NJ (US); **Thomas Alheidt**, Sussex, NJ (US); **Steven Willis**, Montclair, NJ (US)

(73) Assignee: **Stryker Spine** (FR)

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

(21) Appl. No.: **29/314,842**

(22) Filed: **May 4, 2009**

**Related U.S. Application Data**

(63) Continuation of application No. 12/072,912, filed on Feb. 28, 2008.

(51) **LOC (9) Cl.** ..... **24-03**

(52) **U.S. Cl.** ..... **D24/155**

(58) **Field of Classification Search** ..... D24/155-157; 606/60, 61, 73, 95, 213, 246, 248, 249; 623/17.11-17.16, 623/23.61, 23.56, 247, 213, 11.11, 16.14, 623/20.23, 20.33, 33, 41

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

3,426,364 A 2/1969 Lumb  
3,486,505 A 12/1969 Morrison  
4,309,777 A 1/1982 Patil

(Continued)

**FOREIGN PATENT DOCUMENTS**

CA 1333209 C 11/1994

(Continued)

**OTHER PUBLICATIONS**

Milton, AIPLA quarterly Journal, vol. 34, No. 3, p. 333-358, Summer 2006.

*Primary Examiner*—Charles A Rademaker

(74) *Attorney, Agent, or Firm*—Lerner, David, Littenberg, Krumholz & Mentlik, LLP

(57) **CLAIM**

The ornamental design for an expandable intervertebral implant, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of an expandable intervertebral implant, in accordance with one embodiment of the present invention shown in an unexpanded state.

FIG. 2 is a perspective view of the expandable intervertebral implant shown in FIG. 1, shown in an expanded state.

FIG. 3 is a top view of the expandable intervertebral implant shown in FIG. 1, the bottom view being a mirror image thereof.

FIG. 4 a top view of the expandable intervertebral implant shown in FIG. 2, the bottom view being a mirror image thereof.

FIG. 5 is a left-side view of the expandable intervertebral implant shown in FIG. 1, the right-side view being a mirror image thereof.

FIG. 6 is a left-side view of the expandable intervertebral implant shown in FIG. 2, the right-side view being a mirror image thereof.

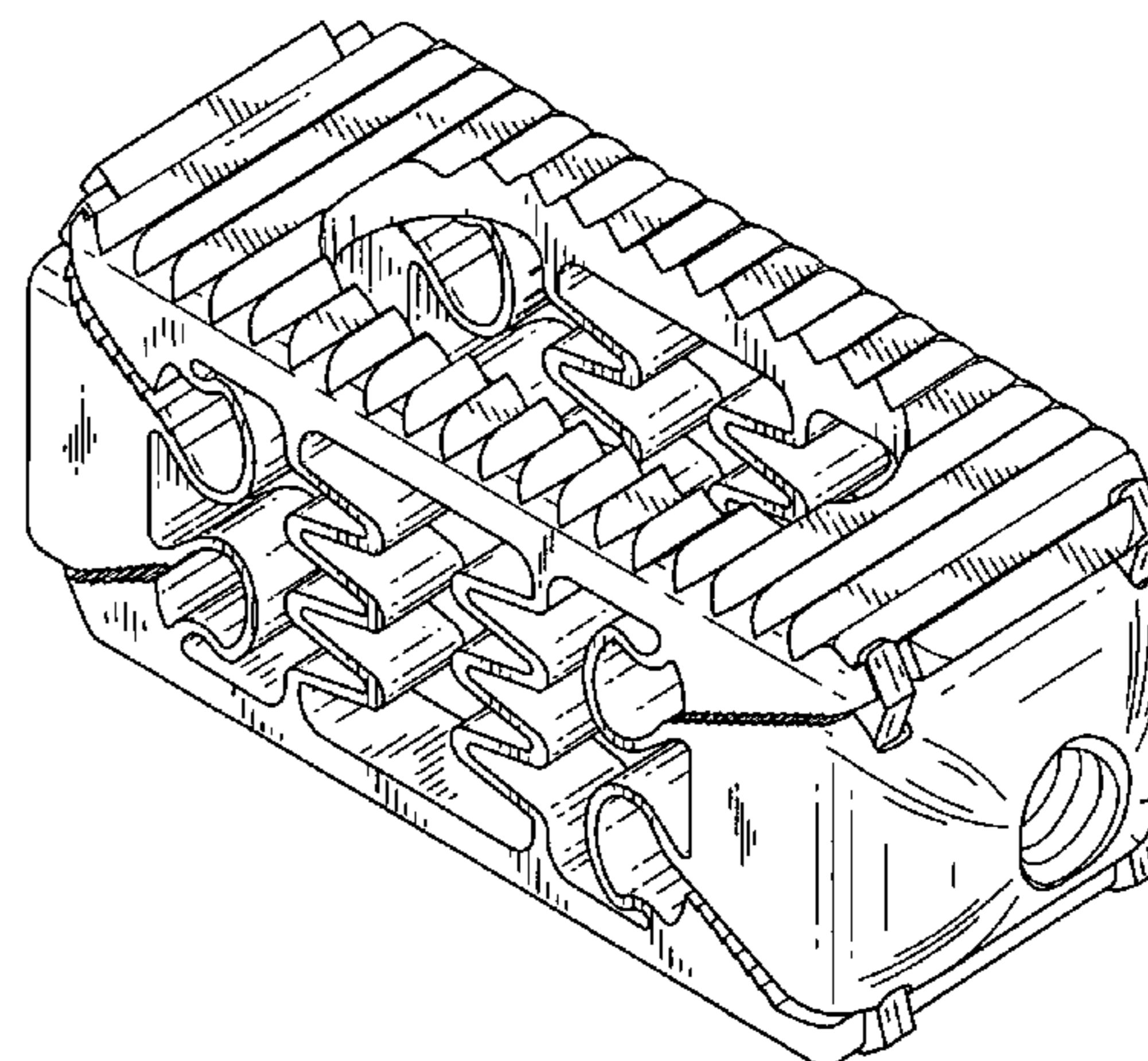
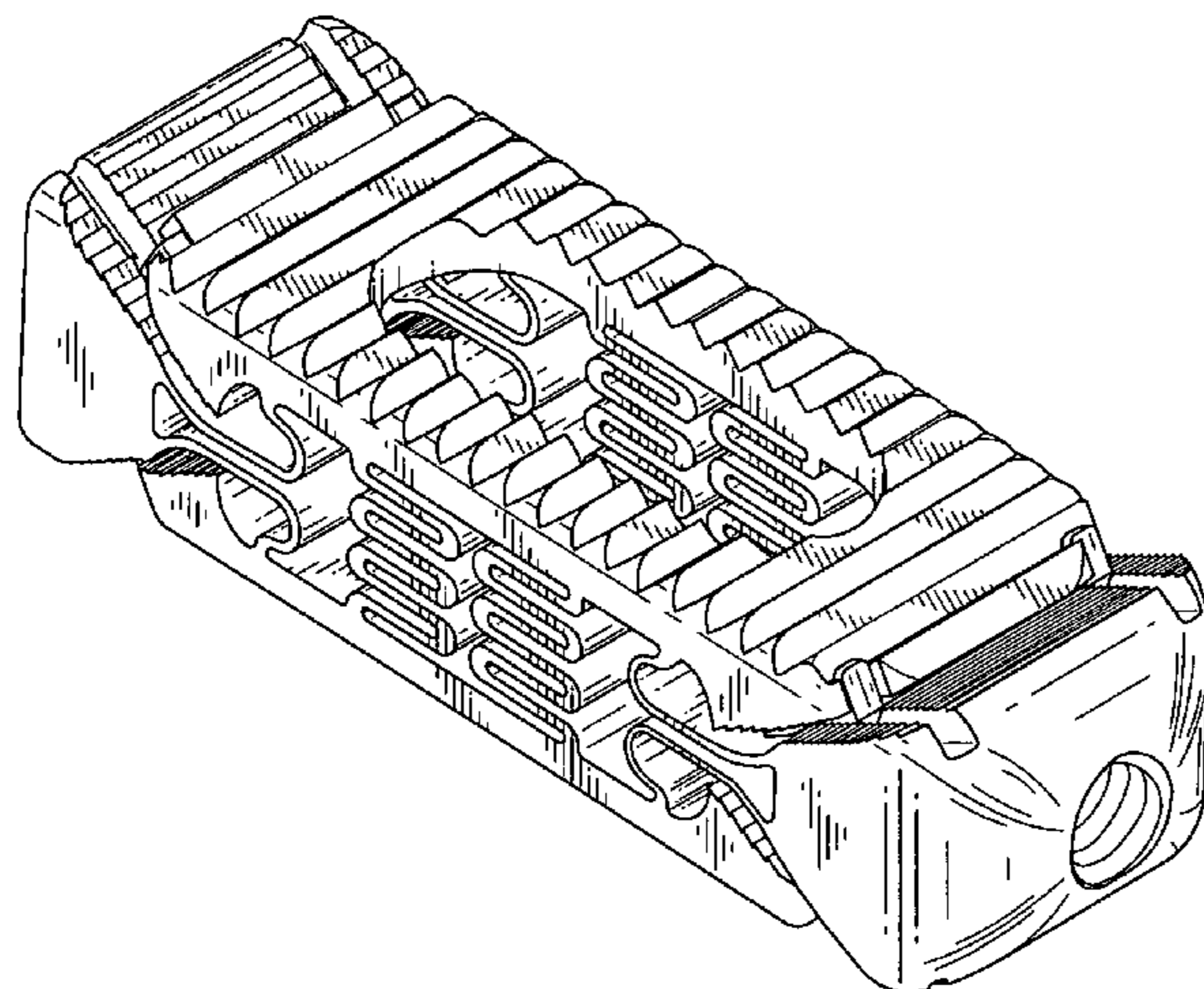
FIG. 7 is a rear view of the expandable intervertebral implant shown in FIG. 1.

FIG. 8 is a rear view of the expandable intervertebral implant shown in FIG. 2.

FIG. 9 is a front view of the expandable intervertebral implant shown in FIG. 1; and,

FIG. 10 is a front view of the expandable intervertebral implant shown in FIG. 2.

**1 Claim, 6 Drawing Sheets**



# US D626,233 S

U.S. PATENT DOCUMENTS						
			6,436,103	B1	8/2002	Suddaby
			6,436,140	B1	8/2002	Liu et al.
			6,443,989	B1	9/2002	Jackson
			6,447,544	B1	9/2002	Michelson
			6,447,547	B1	9/2002	Michelson
			6,451,052	B1	9/2002	Burmeister et al.
			6,454,806	B1	9/2002	Cohen et al.
			6,454,807	B1	9/2002	Jackson
			6,478,823	B1	11/2002	Michelson
			6,491,724	B1	12/2002	Ferree
			6,527,803	B1	3/2003	Crozet et al.
			D472,632	S *	4/2003	Anderson ..... D24/155
			D472,633	S *	4/2003	Anderson ..... D24/155
			6,562,074	B2	5/2003	Gerbec et al.
			6,576,016	B1	6/2003	Hochshuler et al.
			6,582,431	B1	6/2003	Ray
			6,582,451	B1	6/2003	Marucci et al.
			6,582,461	B1	6/2003	Burmeister et al.
			6,582,467	B1	6/2003	Teitelbaum et al.
			6,592,625	B2	7/2003	Cauthen
			6,595,998	B2	7/2003	Johnson et al.
			6,610,089	B1	8/2003	Liu et al.
			6,626,905	B1	9/2003	Schmiel et al.
			6,641,614	B1	11/2003	Wagner et al.
			6,648,917	B2	11/2003	Gerbec et al.
			6,685,742	B1	2/2004	Jackson
			6,706,070	B1	3/2004	Wagner et al.
			6,719,796	B2	4/2004	Cohen et al.
			6,723,126	B1	4/2004	Berry
			6,733,535	B2	5/2004	Michelson
			6,743,255	B2 *	6/2004	Ferree ..... 623/17.11
			6,773,460	B2 *	8/2004	Jackson ..... 623/17.11
			6,814,754	B2	11/2004	Greenhalgh
			6,821,298	B1	11/2004	Jackson
			6,833,006	B2	12/2004	Foley et al.
			6,835,206	B2	12/2004	Jackson
			6,837,850	B2	1/2005	Suddaby
			6,840,944	B2	1/2005	Suddaby
			6,843,804	B2	1/2005	Bryan
			6,852,129	B2	2/2005	Gerbec et al.
			6,863,673	B2	3/2005	Gerbec et al.
			6,875,173	B2	4/2005	Suddaby
			6,893,464	B2	5/2005	Kiester
			6,902,568	B2	6/2005	Serhan
			6,953,477	B2	10/2005	Berry
			6,955,691	B2 *	10/2005	Chae et al. .... 623/17.16
			7,018,415	B1	3/2006	McKay
			7,066,961	B2	6/2006	Michelson
			7,070,598	B2 *	7/2006	Lim et al. .... 623/17.16
			7,087,055	B2	8/2006	Lim et al.
			7,097,648	B1	8/2006	Globerman et al.
			7,128,760	B2	10/2006	Michelson
			D553,742	S *	10/2007	Park ..... D24/155
			7,306,626	B2 *	12/2007	Whelan ..... 623/13.14
			7,326,251	B2 *	2/2008	McCombe et al. .... 623/17.16
			7,331,996	B2 *	2/2008	Sato et al. .... 623/17.16
			7,569,074	B2 *	8/2009	Eisermann et al. .... 623/17.11
			7,621,951	B2 *	11/2009	Glenn et al. .... 623/17.16
			2001/0032020	A1	10/2001	Besselink
			2002/0052656	A1	5/2002	Michelson
			2002/0068974	A1	6/2002	Kuslich et al.
			2002/0068977	A1	6/2002	Jackson
			2002/0082696	A1	6/2002	Harms et al.
			2002/0128716	A1	9/2002	Cohen et al.
			2002/0138146	A1	9/2002	Jackson
			2003/0040798	A1	2/2003	Michelson
			2003/0065396	A1	4/2003	Michelson
			2003/0135279	A1	7/2003	Michelson
			2003/0149482	A1	8/2003	Michelson
			2003/0195630	A1	10/2003	Ferree
			2003/0208263	A1	11/2003	Burmeister et al.
			2003/0208270	A9	11/2003	Michelson
			2003/0208275	A1	11/2003	Michelson
4,401,112	A	8/1983	Rezaian			
4,522,200	A	6/1985	Stednitz			
4,545,374	A	10/1985	Jacobson			
4,553,273	A	11/1985	Wu			
4,599,086	A	7/1986	Doty			
4,636,217	A	1/1987	Ogilvie et al.			
4,657,550	A	4/1987	Daher			
4,733,665	A	3/1988	Palmaz			
4,863,476	A	9/1989	Shepperd			
4,936,851	A	6/1990	Fox et al.			
5,059,193	A	10/1991	Kuslich			
5,171,278	A	12/1992	Pisharodi			
5,192,327	A	3/1993	Brantigan			
5,390,683	A	2/1995	Pisharodi			
5,425,772	A	6/1995	Brantigan			
5,484,437	A	1/1996	Michelson			
5,522,899	A	6/1996	Michelson			
5,554,191	A	9/1996	Lahille et al.			
5,562,736	A	10/1996	Ray et al.			
5,571,190	A	11/1996	Ulrich et al.			
5,571,192	A	11/1996	Schonhoffer			
5,593,409	A	1/1997	Michelson			
5,609,635	A	3/1997	Michelson			
5,653,762	A	8/1997	Pisharodi			
5,653,763	A	8/1997	Errico et al.			
5,658,335	A	8/1997	Allen			
5,665,122	A	9/1997	Kambin			
5,693,100	A	12/1997	Pisharodi			
5,702,453	A	12/1997	Rabbe et al.			
5,776,197	A	7/1998	Rabbe et al.			
5,776,199	A	7/1998	Michelson			
5,782,832	A	7/1998	Larsen et al.			
5,865,848	A	2/1999	Baker			
5,888,228	A *	3/1999	Knothe et al. .... 623/17.16			
5,972,015	A	10/1999	Scribner et al.			
5,980,522	A	11/1999	Koros et al.			
6,015,436	A	1/2000	Schonhoffer			
6,039,761	A	3/2000	Li et al.			
6,080,155	A	6/2000	Michelson			
6,080,193	A	6/2000	Hochshuler et al.			
6,083,225	A	7/2000	Winslow et al.			
6,083,228	A	7/2000	Michelson			
6,090,143	A	7/2000	Meriwether et al.			
6,102,950	A	8/2000	Vaccaro			
6,113,638	A	9/2000	Williams et al.			
6,117,174	A	9/2000	Nolan			
6,127,597	A	10/2000	Beyar et al.			
6,159,244	A	12/2000	Suddaby			
6,159,245	A	12/2000	Meriwether et al.			
6,174,334	B1	1/2001	Suddaby			
6,176,882	B1	1/2001	Biedermann et al.			
6,183,517	B1	2/2001	Suddaby			
6,190,414	B1	2/2001	Young et al.			
6,193,756	B1	2/2001	Studer et al.			
6,193,757	B1	2/2001	Foley et al.			
6,206,923	B1	3/2001	Boyd et al.			
6,217,579	B1	4/2001	Koros			
6,224,604	B1	5/2001	Suddaby			
6,245,107	B1	6/2001	Ferree			
6,280,456	B1	8/2001	Scribner et al.			
6,287,308	B1	9/2001	Betz et al.			
6,302,914	B1	10/2001	Michelson			
6,328,738	B1	12/2001	Suddaby			
6,332,895	B1	12/2001	Suddaby			
6,344,057	B1	2/2002	Rabbe et al.			
6,368,351	B1	4/2002	Glenn et al.			
6,395,031	B1	5/2002	Foley et al.			
6,395,034	B1	5/2002	Suddaby			
6,402,750	B1	6/2002	Atkinson et al.			
6,409,766	B1	6/2002	Brett			
6,432,140	B1 *	8/2002	Lin ..... 623/17.16			

# US D626,233 S

Page 3

2003/0220650	A1	11/2003	Major et al.	EP	0269175	A2	6/1988
2003/0236520	A1	12/2003	Lim et al.	EP	0566807	A1	10/1993
2004/0010312	A1	1/2004	Enayati	EP	0637439	A1	2/1995
2004/0010315	A1	1/2004	Song	EP	0664994	A1	8/1995
2004/0024463	A1	2/2004	Thomas et al.	EP	0669114	A1	8/1995
2004/0030387	A1	2/2004	Landry et al.	EP	0734702	A1	10/1996
2004/0044411	A1	3/2004	Suddaby	GB	2083754	A	3/1982
2004/0078080	A1	4/2004	Thramann et al.	JP	62164458	A	7/1987
2004/0087947	A1	5/2004	Lim et al.	JP	63158045	A	7/1988
2004/0087948	A1	5/2004	Suddaby	JP	5208029	A	8/1993
2004/0102774	A1	5/2004	Trieu	WO	9000037	A1	1/1990
2004/0153156	A1	8/2004	Cohen et al.	WO	9428824	A2	12/1994
2004/0199252	A1	10/2004	Sears et al.	WO	9525485	A1	9/1995
2004/0215342	A1	10/2004	Suddaby	WO	9532673	A1	12/1995
2004/0254643	A1	12/2004	Jackson	WO	9614809	A1	5/1996
2004/0254644	A1	12/2004	Taylor	WO	9627321	A2	9/1996
2005/0004673	A1	1/2005	Kluger	WO	9627345	A2	9/1996
2005/0015149	A1	1/2005	Michelson	WO	9639988	A2	12/1996
2005/0015150	A1	1/2005	Lee	WO	9640015	A1	12/1996
2005/0027358	A1	2/2005	Suddaby	WO	9640016	A2	12/1996
2005/0038512	A1	2/2005	Michelson	WO	9640019	A1	12/1996
2005/0049590	A1	3/2005	Alleyne et al.	WO	9640020	A1	12/1996
2005/0060036	A1	3/2005	Schultz et al.	WO	03003951	A1	1/2003
2005/0070911	A1	3/2005	Carrison et al.	WO	2004047691	A1	6/2004
2005/0071007	A1	3/2005	Malek	WO	2004080356	A2	9/2004
2005/0113920	A1	5/2005	Foley et al.	WO	2006034436	A2	3/2006
2006/0022180	A1	2/2006	Selness	WO	2006037013	A1	4/2006
2006/0122701	A1	6/2006	Kiester	WO	2006042334	A2	4/2006
2006/0129244	A1	6/2006	Ensign	WO	2006068682	A1	6/2006
2006/0149385	A1	7/2006	McKay	WO	2006116760	A2	11/2006
2006/0224241	A1	10/2006	Butler et al.	WO	2006116761	A2	11/2006
2006/0241643	A1	10/2006	Lim et al.	WO	2007009107	A2	1/2007
2006/0241764	A1	10/2006	Michelson	WO	2007041665	A2	4/2007
2006/0247770	A1	11/2006	Peterman	WO			

## FOREIGN PATENT DOCUMENTS

EP                    0260044   A1     3/1988

\* cited by examiner

FIG. 1

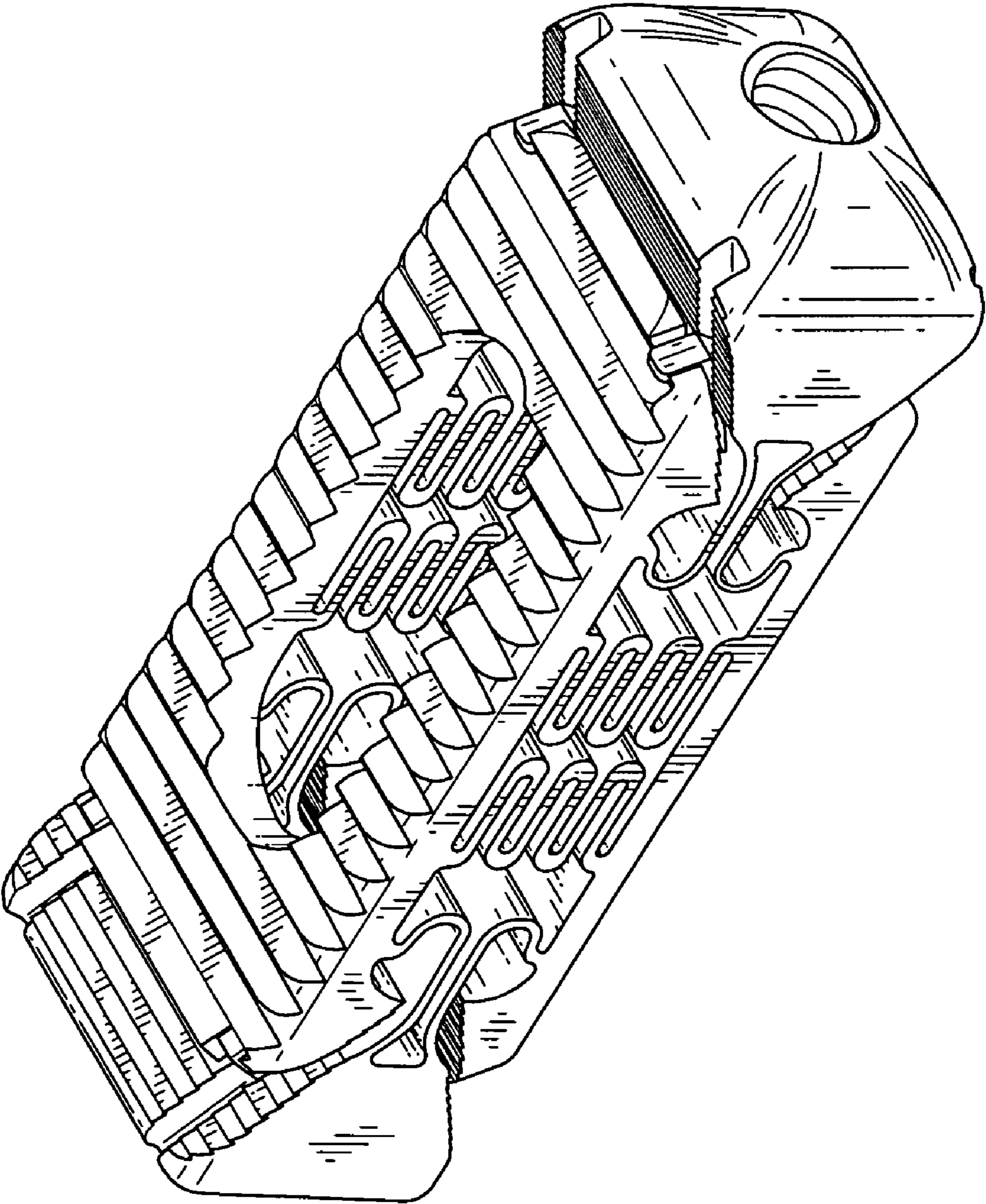


FIG. 2

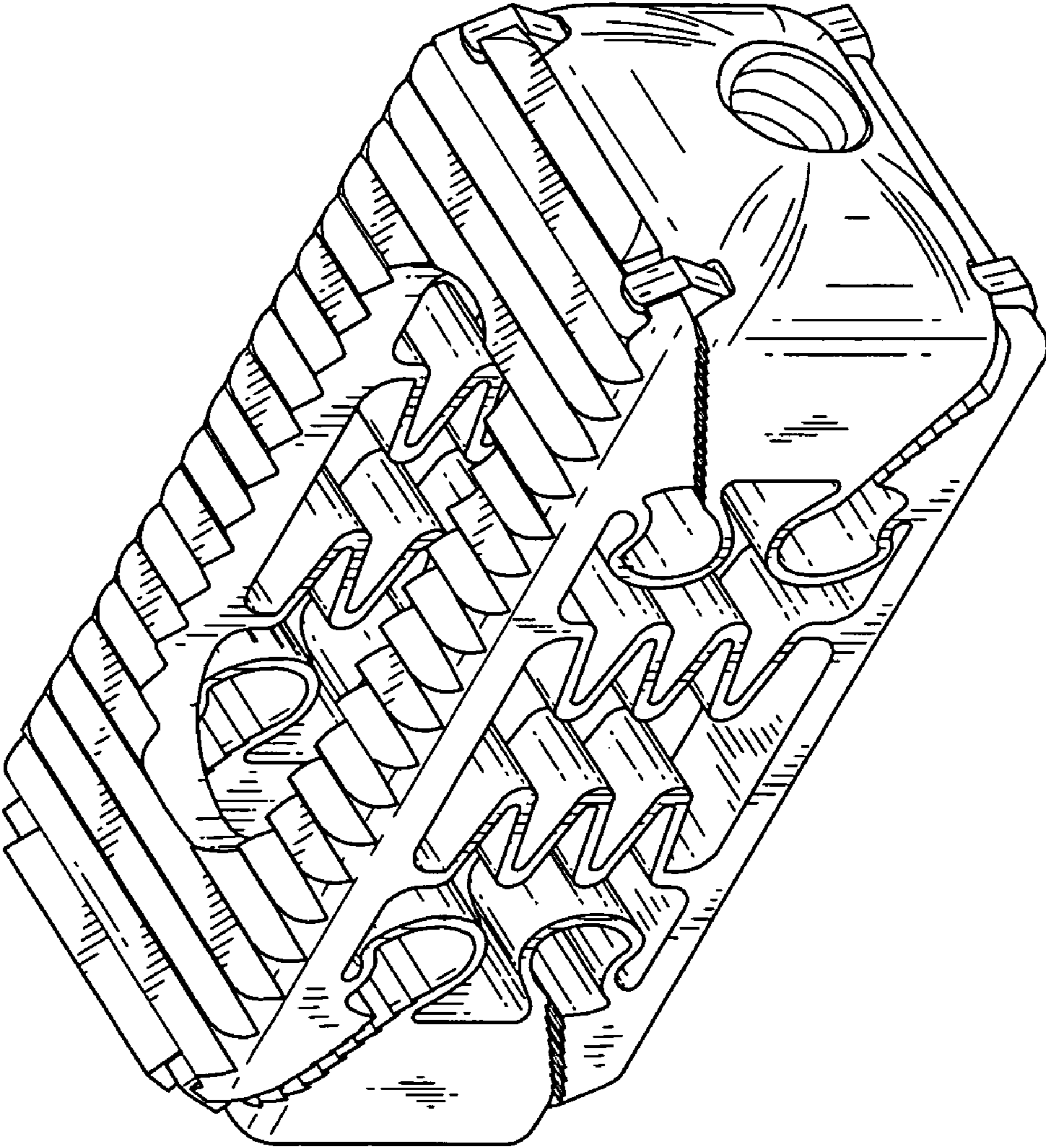


FIG. 3

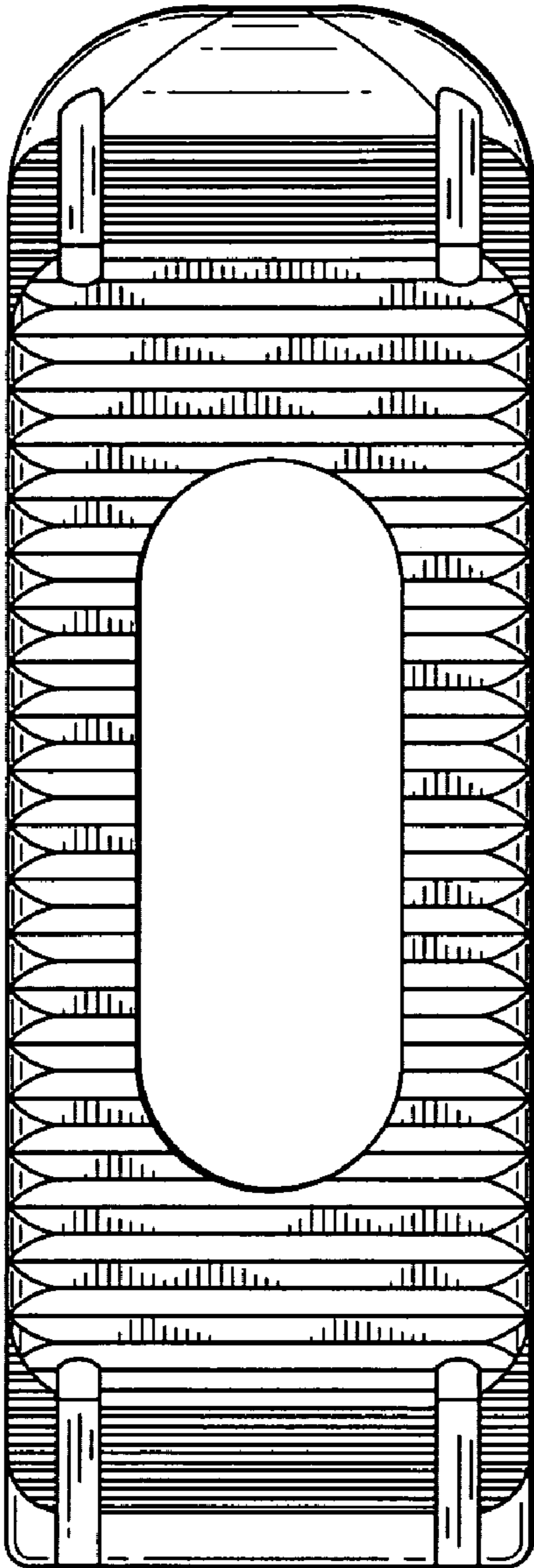


FIG. 4

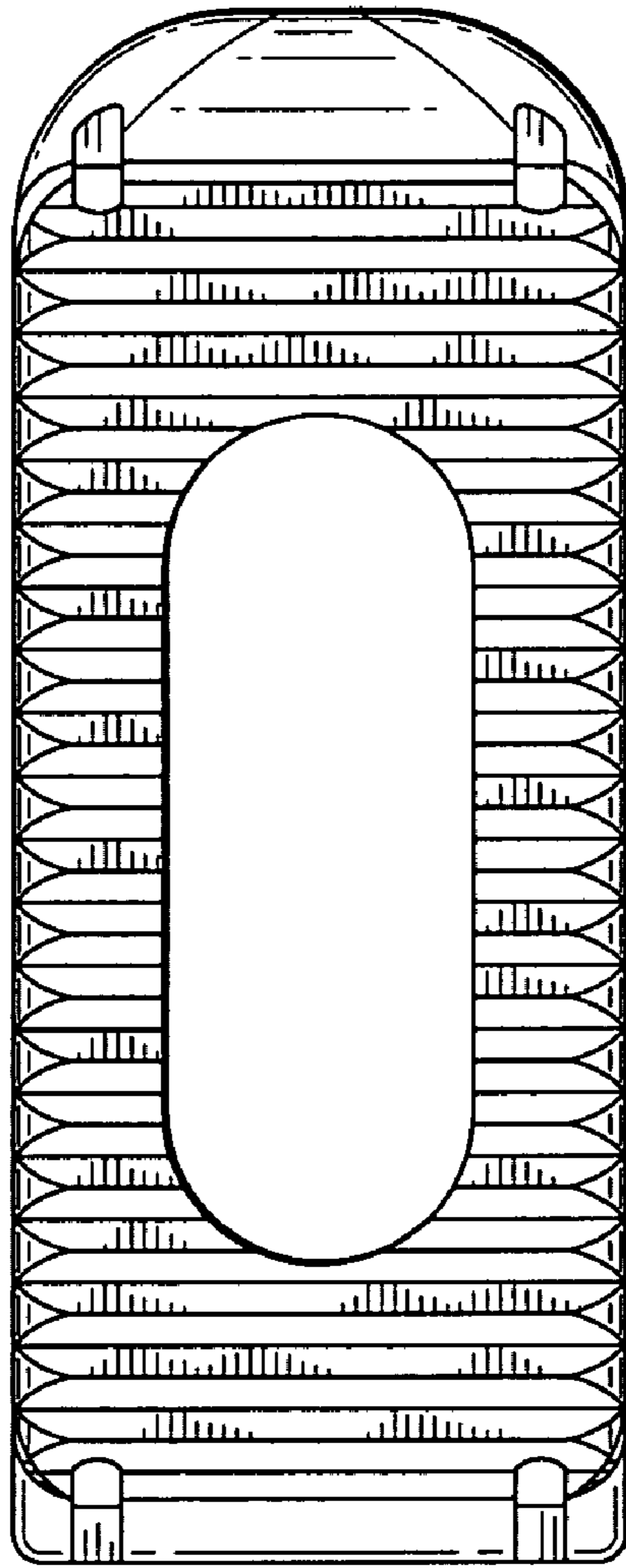


FIG. 5

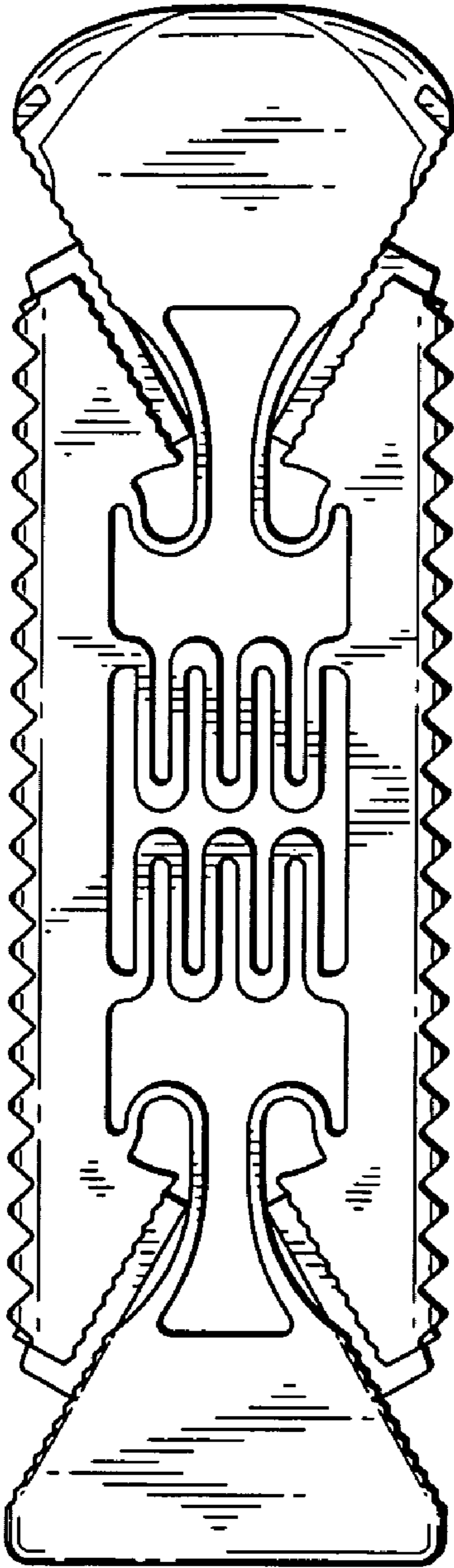
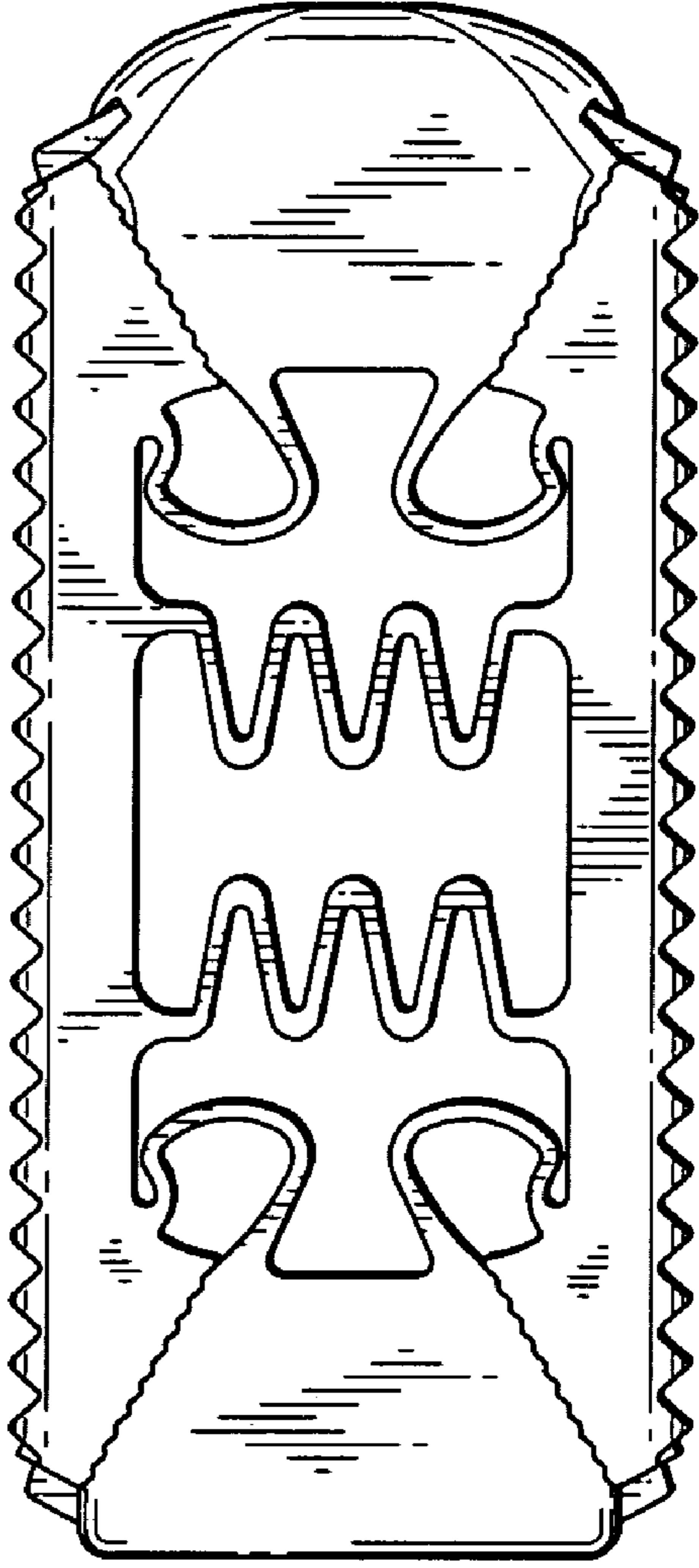
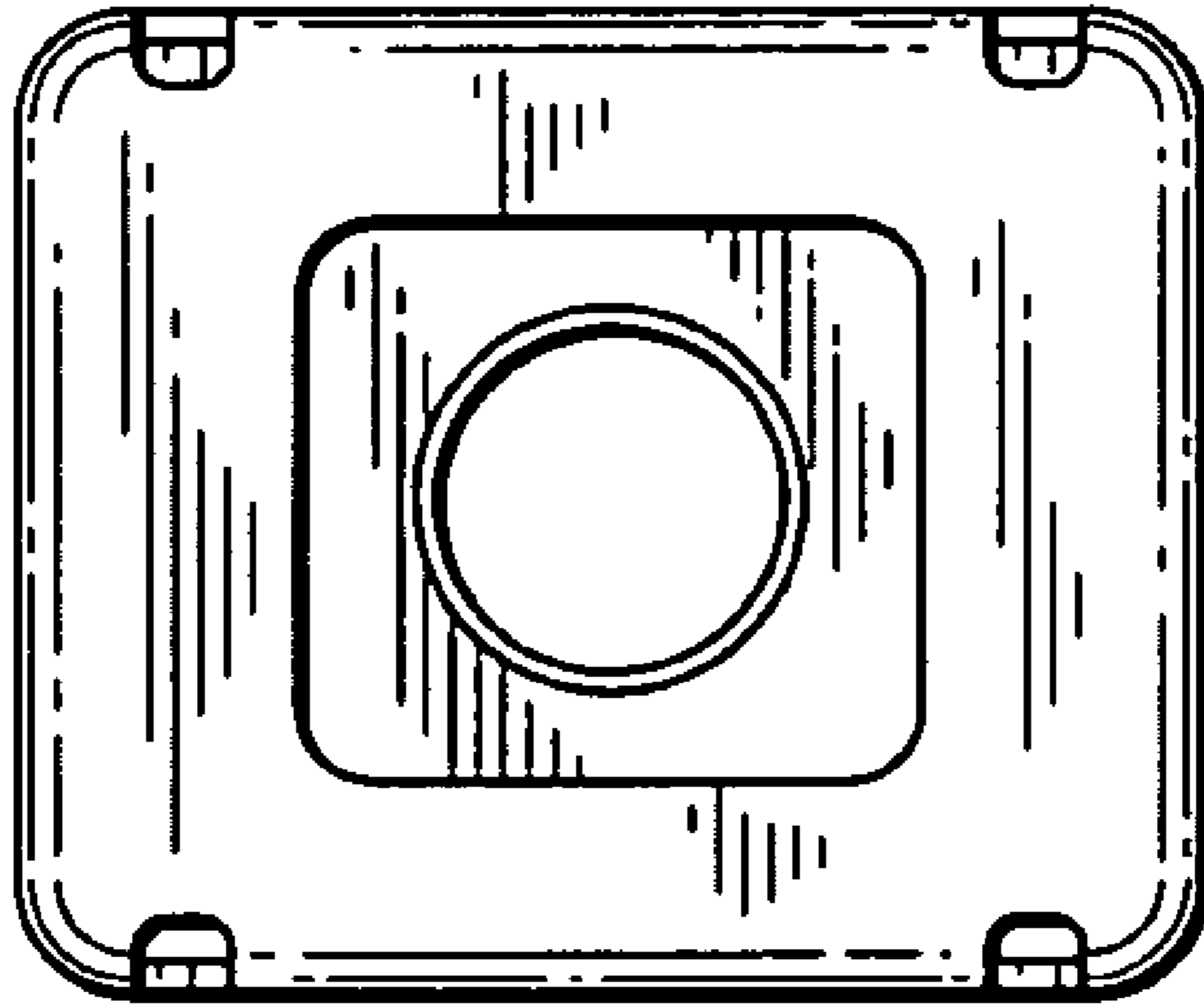


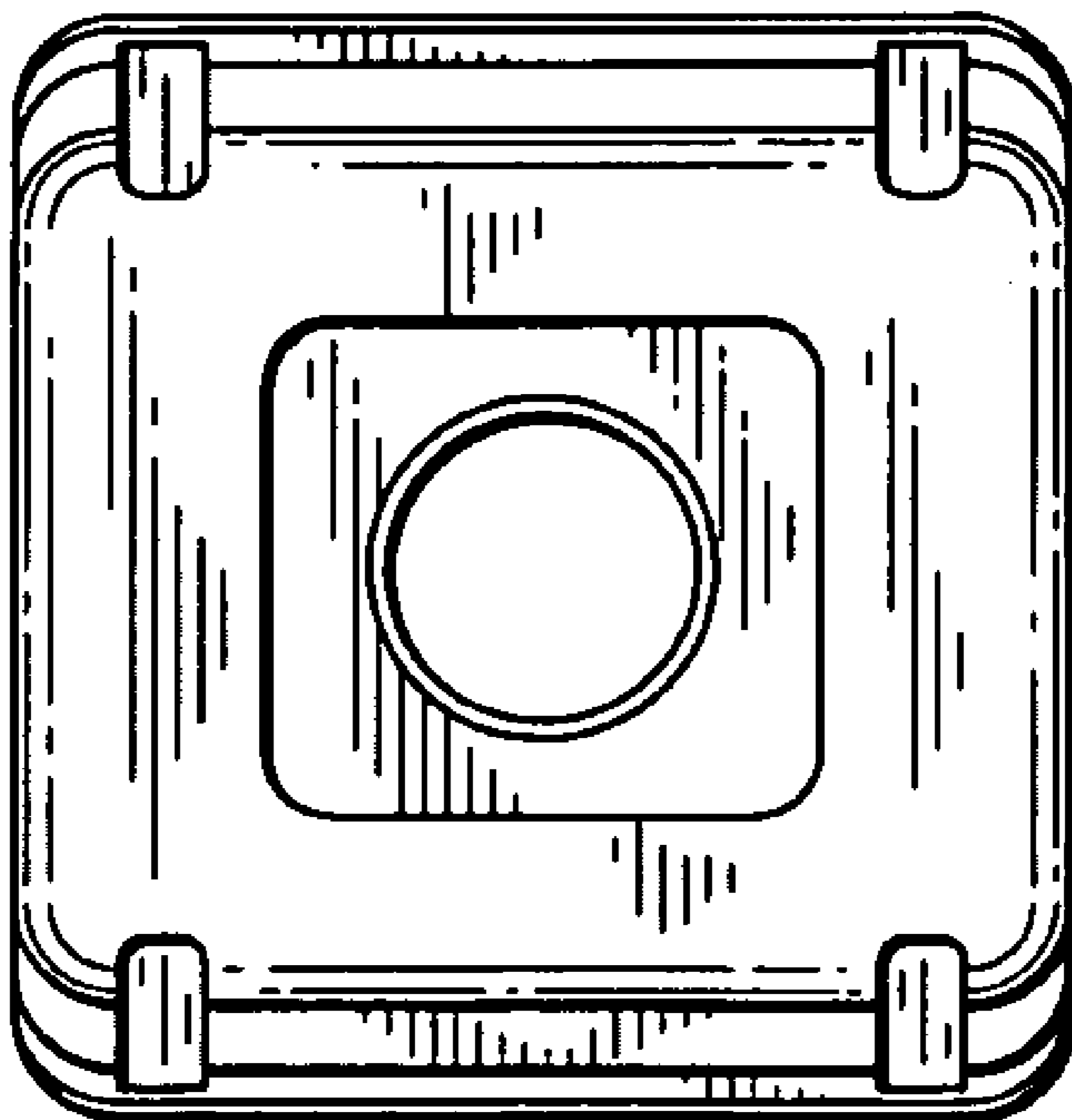
FIG. 6



**FIG. 7**

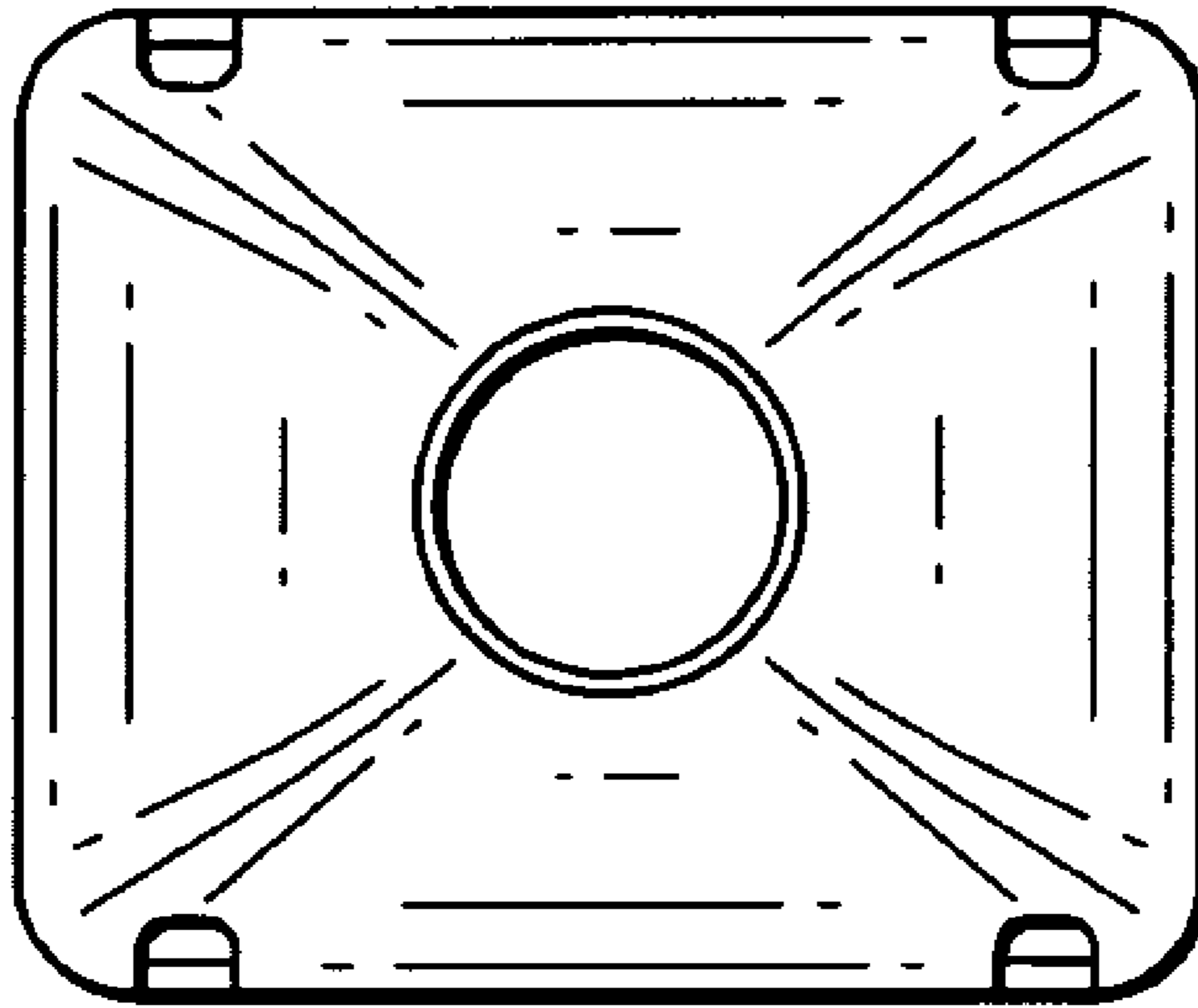


**FIG. 8**





**FIG. 9**



**FIG. 10**

