



US00D900996S

(12) **United States Design Patent** (10) **Patent No.:** **US D900,996 S**
Kristjansson et al. (45) **Date of Patent:** **** Nov. 3, 2020**

(54) **PRESSURE CHAMBER**

(71) Applicant: **Otivio AS**, Oslo (NO)

(72) Inventors: **Arnar Kristjansson**, Oslo (NO); **Juho Laasanen**, Oslo (NO); **Sanna Tuononen**, Oslo (NO)

(73) Assignee: **OTIVIO AS**, Oslo (NO)

(**) Term: **15 Years**

(21) Appl. No.: **29/644,183**

(22) Filed: **Apr. 16, 2018**

(30) **Foreign Application Priority Data**

Oct. 16, 2017 (CN) 2017 3 0491499

(51) **LOC (12) Cl.** **24-01**

(52) **U.S. Cl.**
USPC **D24/107; D24/188**

(58) **Field of Classification Search**
USPC D24/107, 108, 111, 169, 185, 186, 188,
D24/200, 213, 192

CPC A61M 2205/3344; A61H 2209/00; A61H
1/00; A61H 9/00

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

- 1,110,494 A 9/1914 Kellogg
- 1,399,095 A 12/1921 Webb
- 2,113,253 A 4/1938 Gray
- 2,168,611 A 8/1939 Thompson
- 2,272,481 A 2/1942 Rinkes et al.
- 2,626,601 A 1/1953 Riley
- 2,702,552 A 2/1955 Moodie
- 2,832,336 A * 4/1958 Davis A61F 7/02
601/151
- 3,094,983 A 6/1963 MacLeod

- 3,217,707 A 11/1965 Werding
- 3,286,711 A 11/1966 MacLeod
- 3,292,613 A 12/1966 MacLeod
- 3,403,673 A 10/1968 MacLeod
- 3,465,748 A 9/1969 Kravchenko
- 3,478,738 A * 11/1969 Cox A61H 35/006
601/166

(Continued)

FOREIGN PATENT DOCUMENTS

- CN 301338691 S 9/2010
- CN 205903203 U 1/2017

(Continued)

OTHER PUBLICATIONS

FlowOx First Time Assembly Instructional Video. Posted by Otivio AS on YouTube.com. Date published: Apr. 3, 2019. Retrieved from Internet: https://www.youtube.com/watch?v=2VVStprMr28&feature=emb_logo (Year: 2019).*

(Continued)

Primary Examiner — Lilyana Bekic

(74) *Attorney, Agent, or Firm* — Workman Nydegger

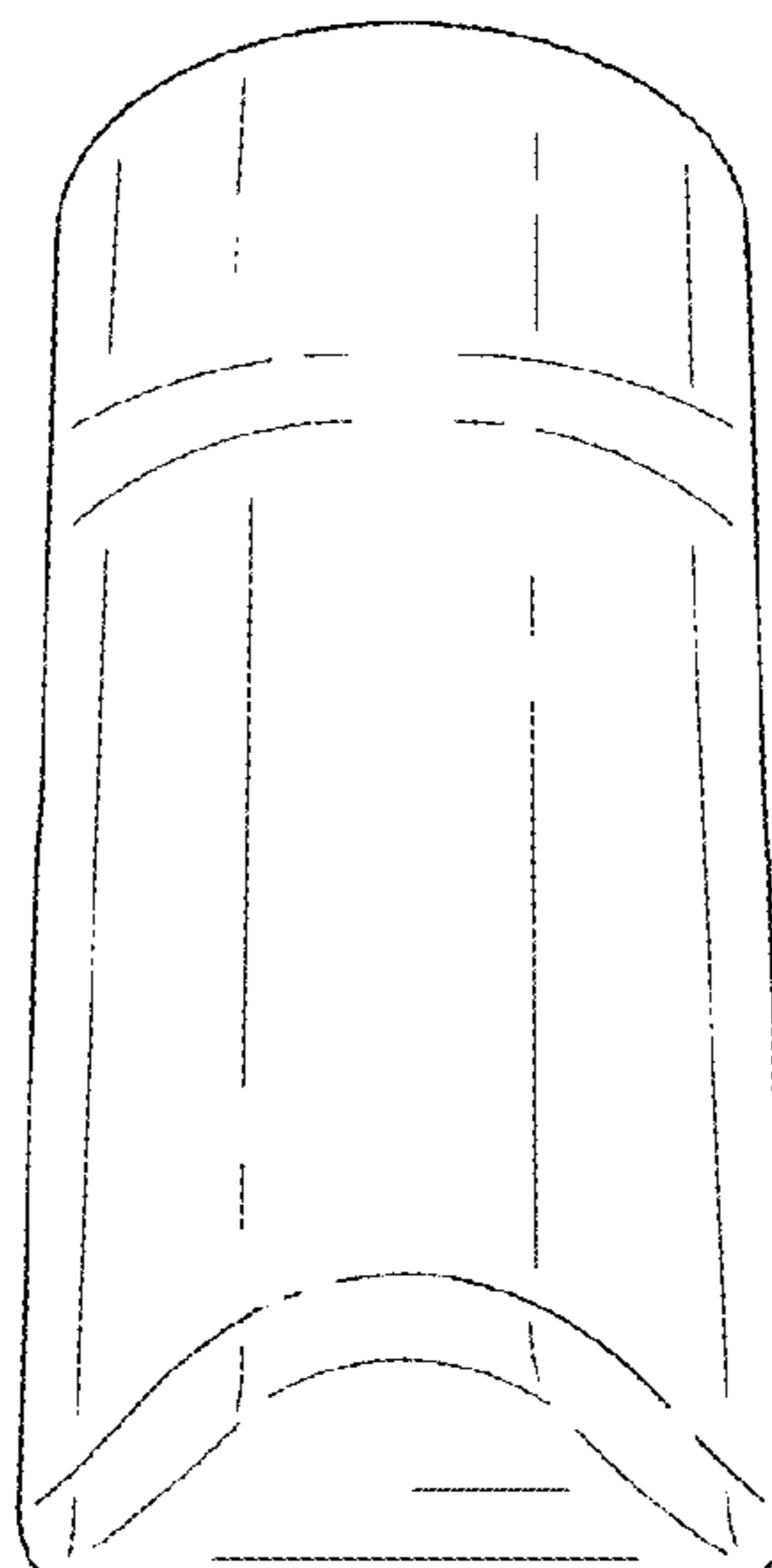
(57) **CLAIM**

The ornamental design for a pressure chamber, as shown and described.

DESCRIPTION

FIG. 1 is a front elevational view of a pressure chamber showing our new design;
FIG. 2 is a rear elevational view thereof;
FIG. 3 is a bottom plan view thereof;
FIG. 4 is a top plan view thereof;
FIG. 5 is a left side elevational view thereof;
FIG. 6 is a right side elevational view thereof; and,
FIG. 7 is a front perspective view thereof.

1 Claim, 3 Drawing Sheets



US D900,996 S

(56)

References Cited

U.S. PATENT DOCUMENTS

3,548,809	A *	12/1970	Conti	A61H 9/0078 601/152
3,565,065	A	2/1971	Biggs, Jr. et al.	
3,654,919	A	4/1972	Birtwell	
3,757,806	A	9/1973	Bhaskar et al.	
3,859,989	A	1/1975	Spielberg	
3,878,839	A	4/1975	Norton et al.	
3,896,794	A	7/1975	McGrath	
3,977,396	A	8/1976	Cartier	
4,054,129	A	10/1977	Byars et al.	
4,149,529	A	4/1979	Copeland et al.	
4,178,924	A *	12/1979	Baxter	A61F 15/004 602/3
4,186,732	A	2/1980	Christoffel	
4,269,175	A	5/1981	Dillion	
4,343,302	A	8/1982	Dillon	
4,376,437	A	3/1983	Sundheim et al.	
4,418,690	A	12/1983	Mummert	
4,421,109	A	12/1983	Thornton	
4,648,392	A	3/1987	Cartier et al.	
4,945,901	A	8/1990	Burcke, Jr.	
4,971,044	A *	11/1990	Dye	A61H 9/0078 601/34
5,000,164	A	3/1991	Cooper	
5,029,579	A	7/1991	Trammell	
5,063,910	A	11/1991	Cartier	
5,074,285	A	12/1991	Wright	
5,241,958	A	9/1993	Noeldner	
5,279,283	A	1/1994	Dillon	
5,300,103	A	4/1994	Stempel et al.	
5,358,467	A	10/1994	Milstein et al.	
5,425,742	A	6/1995	Joy	
5,458,562	A	10/1995	Cooper	
5,514,079	A	5/1996	Dillon	
5,683,438	A	11/1997	Grahn	
5,688,225	A	11/1997	Walker	
5,697,920	A	12/1997	Gibbons	
5,916,183	A	6/1999	Reid	
6,027,464	A	2/2000	Dahlquist	
6,149,674	A	11/2000	Borders	
6,277,052	B1	8/2001	Howard	
6,423,017	B2	7/2002	Brotz	
6,565,593	B2	5/2003	Diana	
6,589,194	B1 *	7/2003	Calderon	A43B 7/00 601/151
6,656,208	B2	12/2003	Grahn et al.	
6,974,442	B2	12/2005	Grahn et al.	
7,160,316	B2	1/2007	Hamilton et al.	
7,691,084	B2	4/2010	Knighton et al.	
7,717,869	B2	5/2010	Eischen, Sr.	
7,771,402	B2	8/2010	Marasco	
7,833,179	B2	11/2010	Filtvedt et al.	
7,833,180	B2	11/2010	Filtvedt et al.	
7,896,823	B2	3/2011	Mangrum et al.	
7,896,825	B2	3/2011	Atkinson et al.	
7,947,068	B2	5/2011	Grahn et al.	
8,021,314	B2	9/2011	Filtvedt et al.	
8,100,887	B2	1/2012	Weston et al.	
8,182,521	B2	5/2012	Kane et al.	
8,226,586	B2	7/2012	Cazzini et al.	
8,287,474	B1	10/2012	Koenig et al.	
8,361,001	B2	1/2013	Filtvedt et al.	
8,460,355	B2	6/2013	Cazzini et al.	
8,603,150	B2	12/2013	Kane et al.	
8,657,796	B2	2/2014	Marasco	
8,657,864	B2	2/2014	Rein et al.	
8,663,198	B2	3/2014	Buan et al.	
8,728,016	B2	5/2014	Reeves et al.	
8,784,346	B2	7/2014	Barak et al.	
8,821,422	B2	9/2014	Filtvedt et al.	
9,144,530	B2 *	9/2015	Davis	A61H 9/0085
10,477,921	B2 *	11/2019	Bode	A43C 11/00 D872,291 S *
2002/0007836	A1	1/2002	Ben-Noon	D24/200
2003/0097163	A1	5/2003	Weyergans	
			Kane et al.	

2003/0125649	A1	7/2003	McIntosh et al.	
2003/0144690	A1	7/2003	Zheng et al.	
2004/0030411	A1	2/2004	Caspers	
2004/0210176	A1	10/2004	Diana	
2005/0027218	A1	2/2005	Filtvedt et al.	
2005/0137446	A1	6/2005	Rastegar et al.	
2006/0189905	A1 *	8/2006	Eischen, Sr.	A43B 23/029 601/152
2007/0249977	A1 *	10/2007	Bonnefin	A61H 9/0078 602/13
2008/0097252	A1	4/2008	Babaev	
2008/0208088	A1 *	8/2008	Cazzini	A61M 1/0088 602/13
2009/0048649	A1	2/2009	Peret et al.	
2009/0143719	A1	6/2009	Loori et al.	
2009/0177184	A1	7/2009	Christensen et al.	
2009/0270910	A1	10/2009	Hargens et al.	
2009/0312675	A1	12/2009	Sampson et al.	
2010/0152633	A1	6/2010	Rein et al.	
2011/0000484	A1	1/2011	Melsheimer	
2011/0130712	A1	6/2011	Topaz	
2011/0288458	A1	11/2011	Jones et al.	
2011/0295168	A1	12/2011	Mangrum et al.	
2012/0238924	A1	9/2012	Avni	
2014/0128781	A1	5/2014	Rein et al.	
2014/0276254	A1	9/2014	Varga et al.	
2014/0276288	A1	9/2014	Randolph et al.	
2015/0065931	A1	3/2015	Alnabulsi et al.	
2015/0297909	A1	10/2015	Peashock	
2016/0262971	A1	9/2016	Doron et al.	
2019/0099322	A1 *	4/2019	Elderstiern	A61H 9/0078

FOREIGN PATENT DOCUMENTS

EM	0026509370001	3/2015
EM	0026509370002	3/2015
EM	0026509370003	3/2015
EM	0026509370004	3/2015
EM	0026509370005	3/2015
EP	1884226 A1	2/2008
EP	1929980 A1	6/2008
FR	1562252 A	4/1969
JP	2005288068 A	10/2005
JP	1267330 S	4/2006
WO	9840039 A1	9/1998
WO	0180790 A1	11/2001
WO	03045289 A1	6/2003
WO	2004058131 A2	7/2004

OTHER PUBLICATIONS

International Search Report from PCT Application No. PCT/IB2018/057616, dated Jan. 16, 2019.

Japanese Office Action from JP Application No. 2018-008307, dated Jan. 8, 2019.

Online Mail Order Catalog, Felissimo, Jan. 3, 2016, 6 Pages, <https://www.felissimo.co.jp>.

Allen et al., "Intermittent Pressure and Suction in the Treatment of Chronic Occlusive Arterial Disease," The Journal of the American Medical Association, vol. 105, No. 25, Dec. 21, 1935, pp. 2029-2034.

de Takats, "Obliterative Vascular Disease: Preliminary Report on Treatment by Alternating Negative and Positive Pressure," Journal of the American Medical Association, vol. 103, No. 25, Dec. 22, 1934, pp. 1920-1924.

Herrmann et al., "The Conservative Treatment of Arteriosclerotic Peripheral Vascular Diseases: Passive Vascular Exercises (Pavaex Therapy)," Annals of Surgery, vol. 100, No. 4, Oct. 1934, pp. 750-760.

Herrmann et al., "Passive Vascular Exercises: Treatment of Peripheral Obliterative Arterial Diseases by Rhythmic Alternation of Environmental Pressure," Archives of Surgery, vol. 29, No. 5, Nov. 1934, pp. 697-704.

Landis et al., "The Effects of Alternate Suction and Pressure on Blood Flow to the Lower Extremities," The Journal of Clinical Investigation, vol. 12, No. 5, Sep. 1933, pp. 925-961.

(56)

References Cited

OTHER PUBLICATIONS

Landis et al., "Treatment of Peripheral Vascular Disease by Means of Suction and Pressure," *Annals of Internal Medicine*, vol. 9, No. 3, Sep. 1, 1935, pp. 264-273.

Meyer et al., "Bier's Hyperemic Treatment," *California State Journal of Medicine*, vol. 8, No. 4, Apr. 1910, pp. 142-143.

Reid, "Diagnosis and Treatment of Peripheral Vascular Diseases," *The American Journal of Surgery*, vol. 24, No. 1, Apr. 1934, pp. 11-35.

Theis et al., "Peripheral Circulatory Diseases Effect of Alternating Positive and Negative Pressure Treatments on Venous Blood and the Skin Temperatures: Preliminary Report," *The Journal of the American Medical Association*, vol. 107, No. 14, Oct. 3, 1936, pp. 1097-1104.

Goodney et al., "National Trends in Lower Extremity Bypass Surgery, Endovascular Interventions, and Major Amputations", *Journal of Vascular Surgery* vol. 50 No. 1, Jul. 2009, pp. 54-60.

Hiramori et al., "Impact of Runoff Grade After Endovascular Therapy for Femoropopliteal Lesions", *Journal of Vascular Surgery*, vol. 59, No. 3, Mar. 2014, pp. 720-727.

Norgren et al., "Inter-Society Consensus for the Management of Peripheral Arterial Disease (TASC II)", *Journal of Vascular Surgery*, vol. 45, No. 1, Supplement S, Jan. 2007, p. S5A-S67A.

Rowe et al., "Patterns of Treatment for Peripheral Arterial Disease in the United States: 1996-2005", *Journal of Vascular Surgery* vol. 49, No. 4, Apr. 2009, pp. 910-917.

Siracuse et al., "Results for Primary Bypass Versus Primary Angioplasty/Stent for Intermittent Claudication Due to Superficial Femoral Artery Occlusive Disease", *Journal of Vascular Surgery*, vol. 55, No. 4, Apr. 2012, pp. 1001-1007.

* cited by examiner

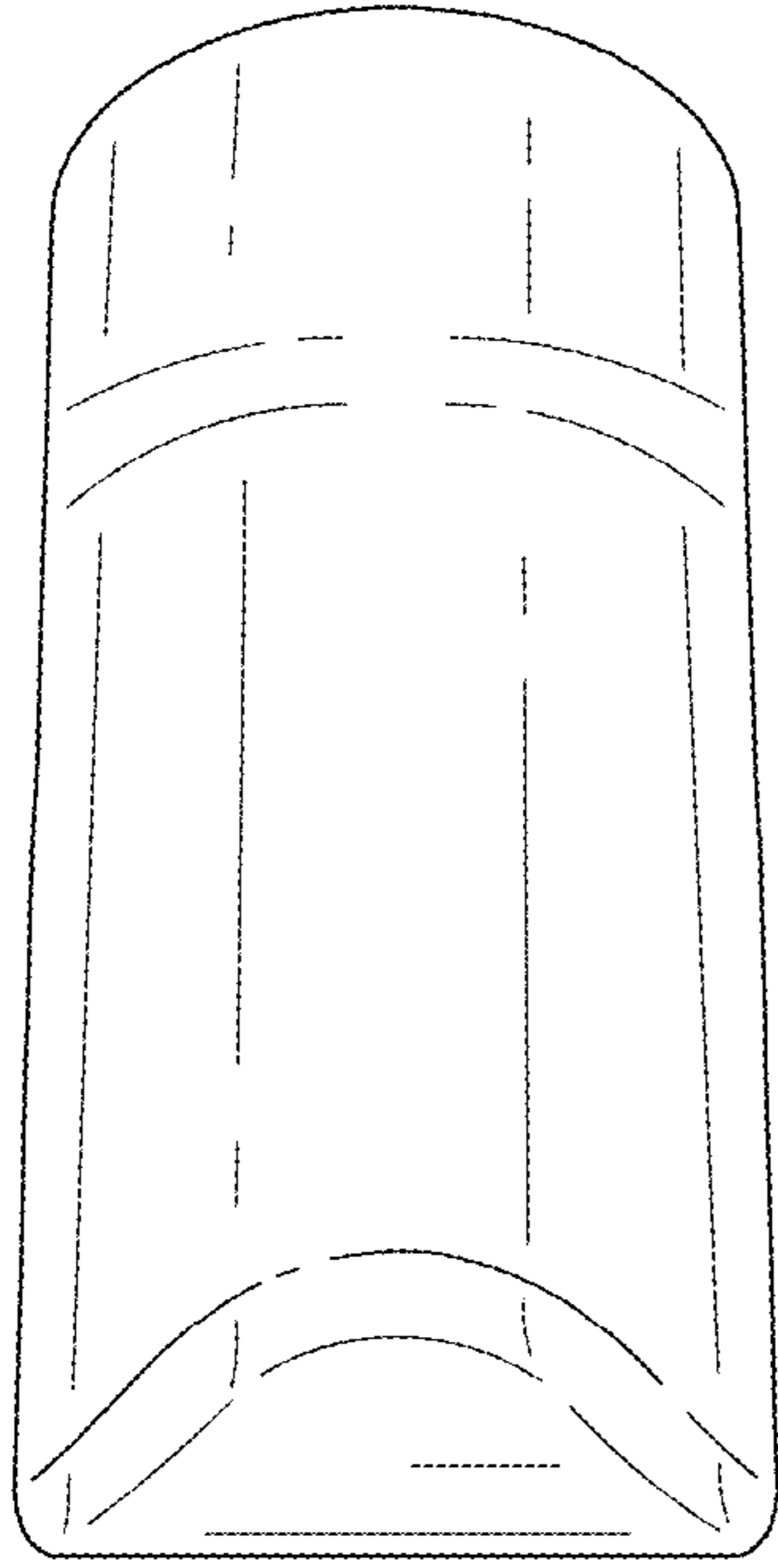


FIG. 1

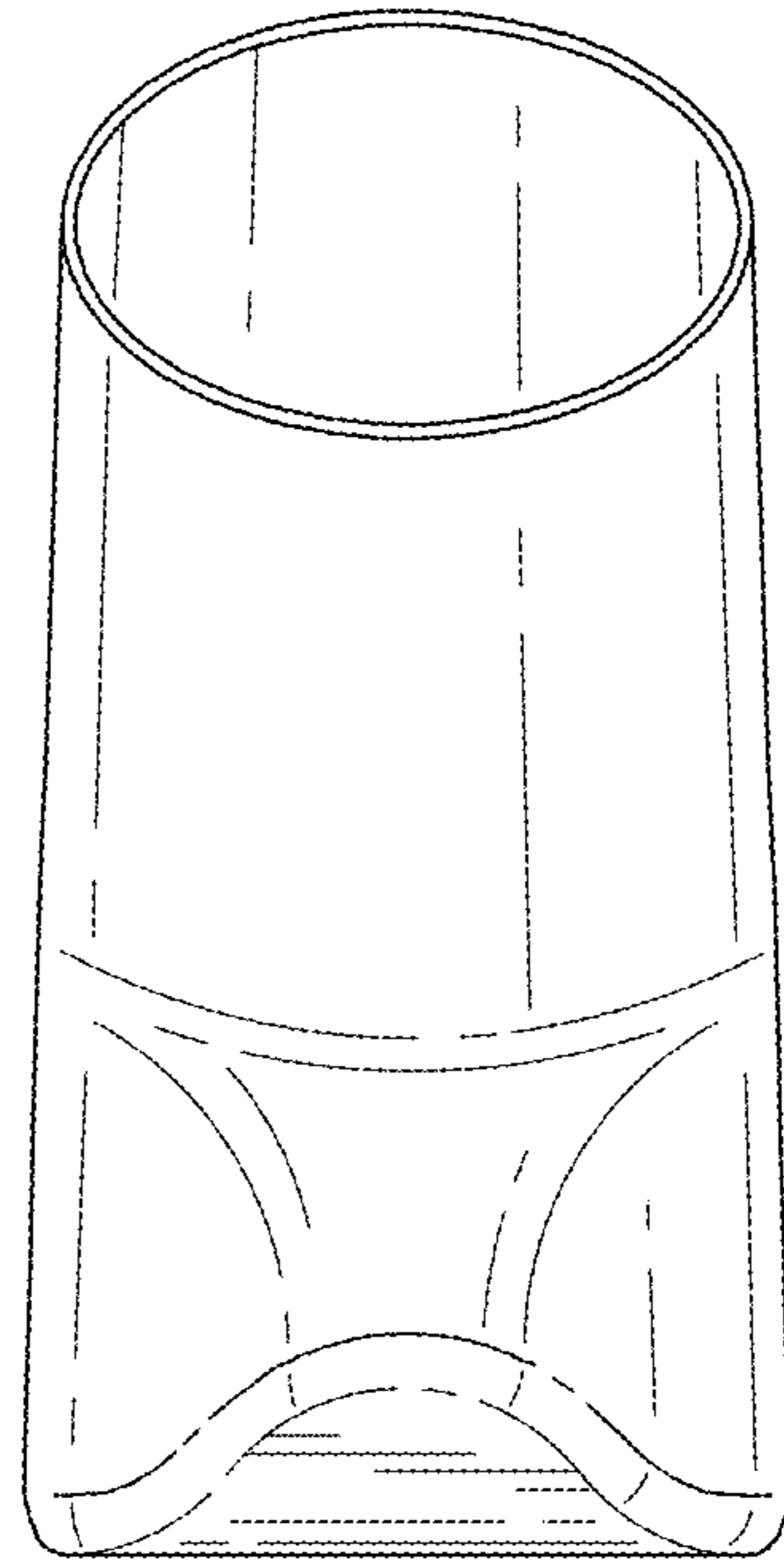


FIG. 2

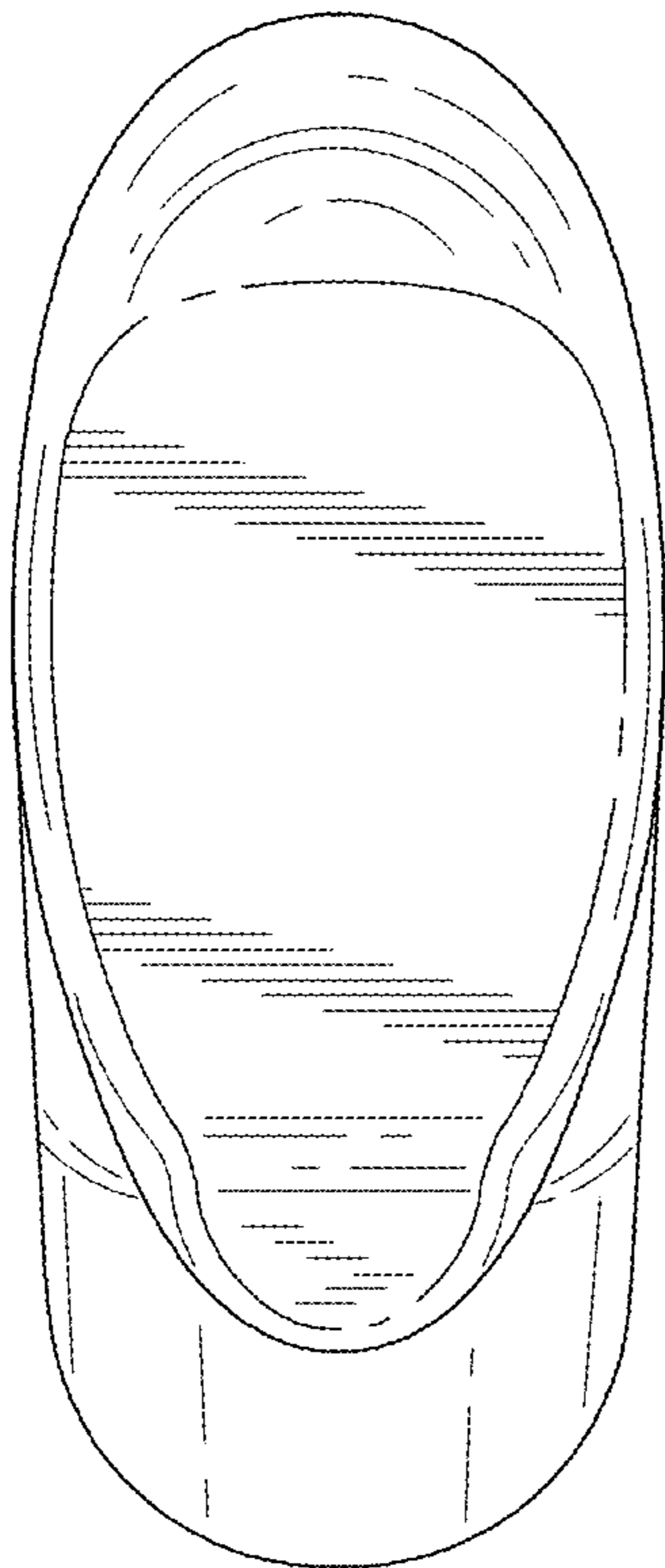


FIG. 3

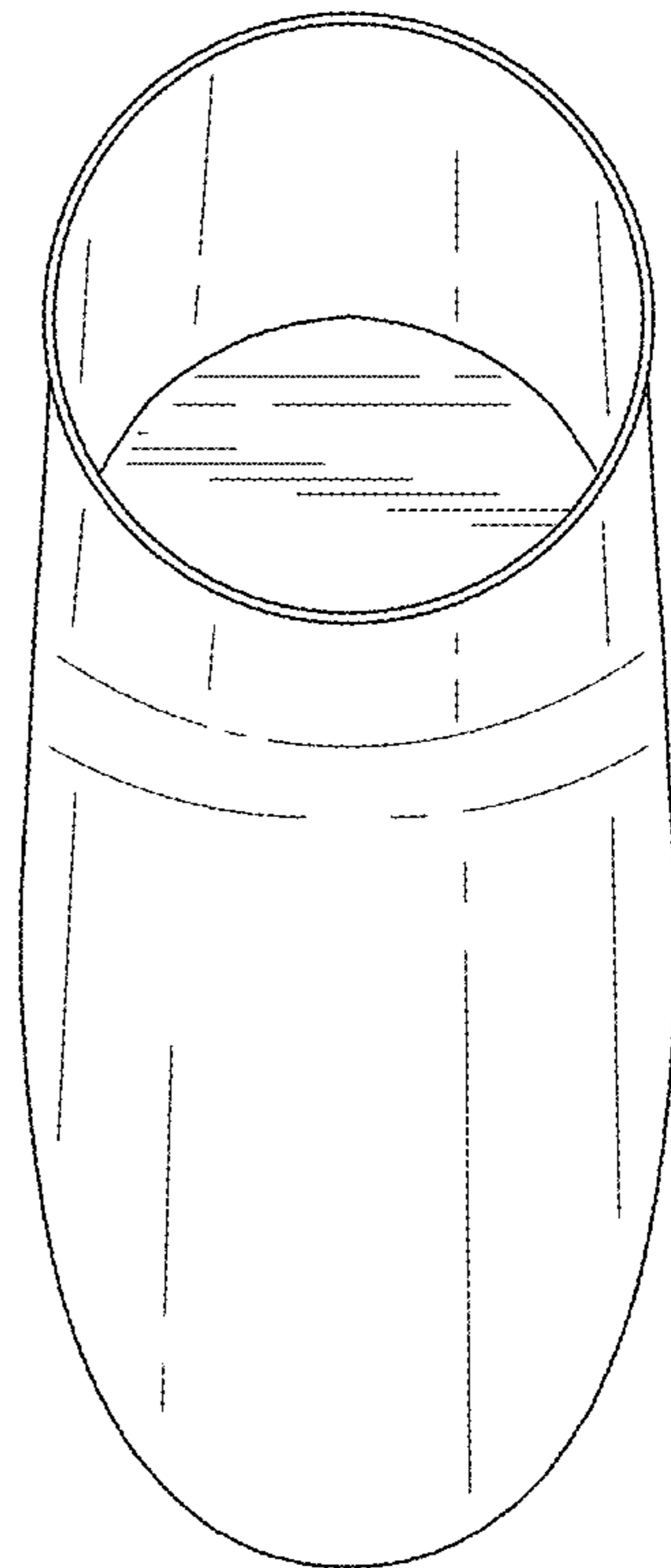


FIG. 4

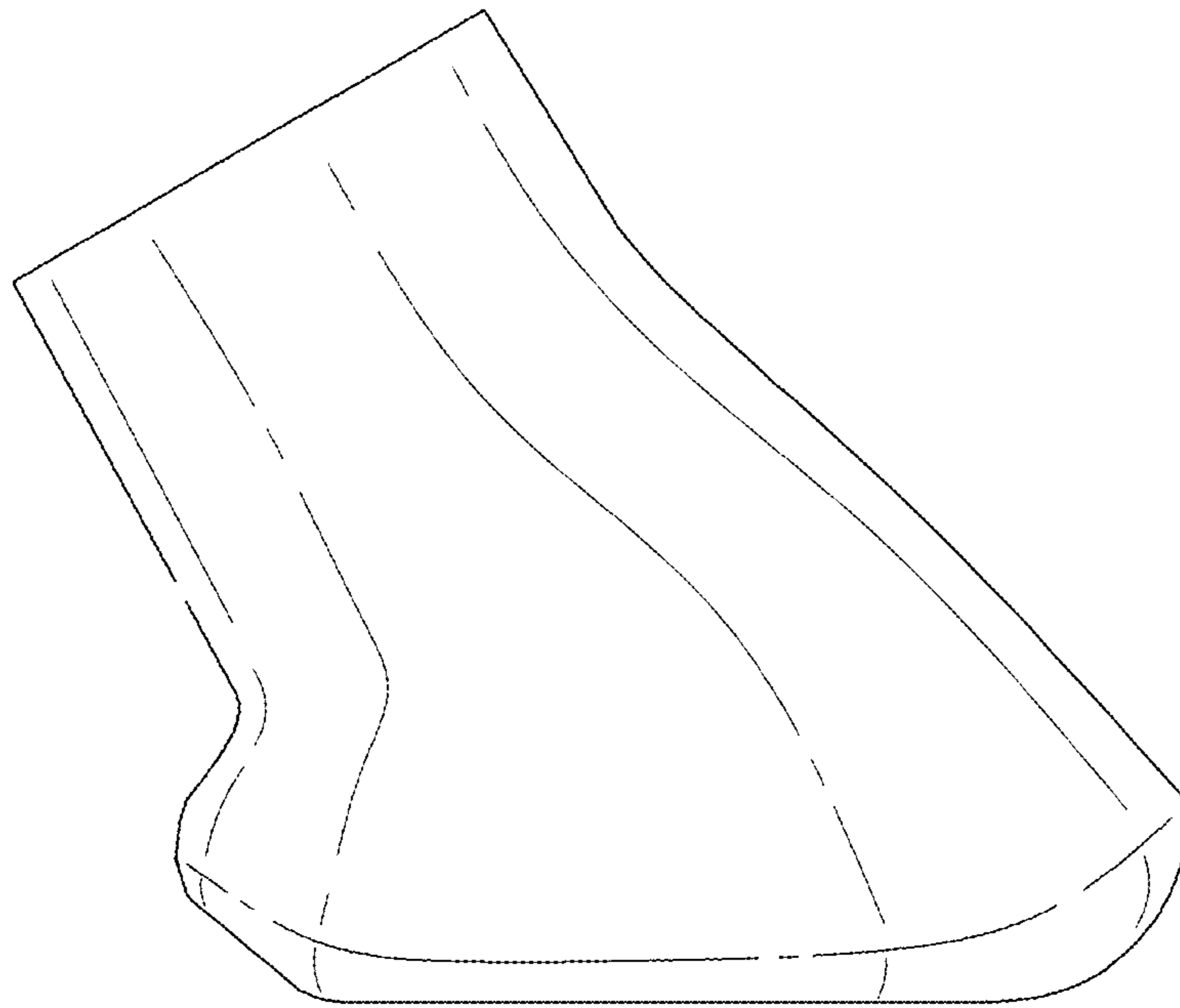


FIG. 5

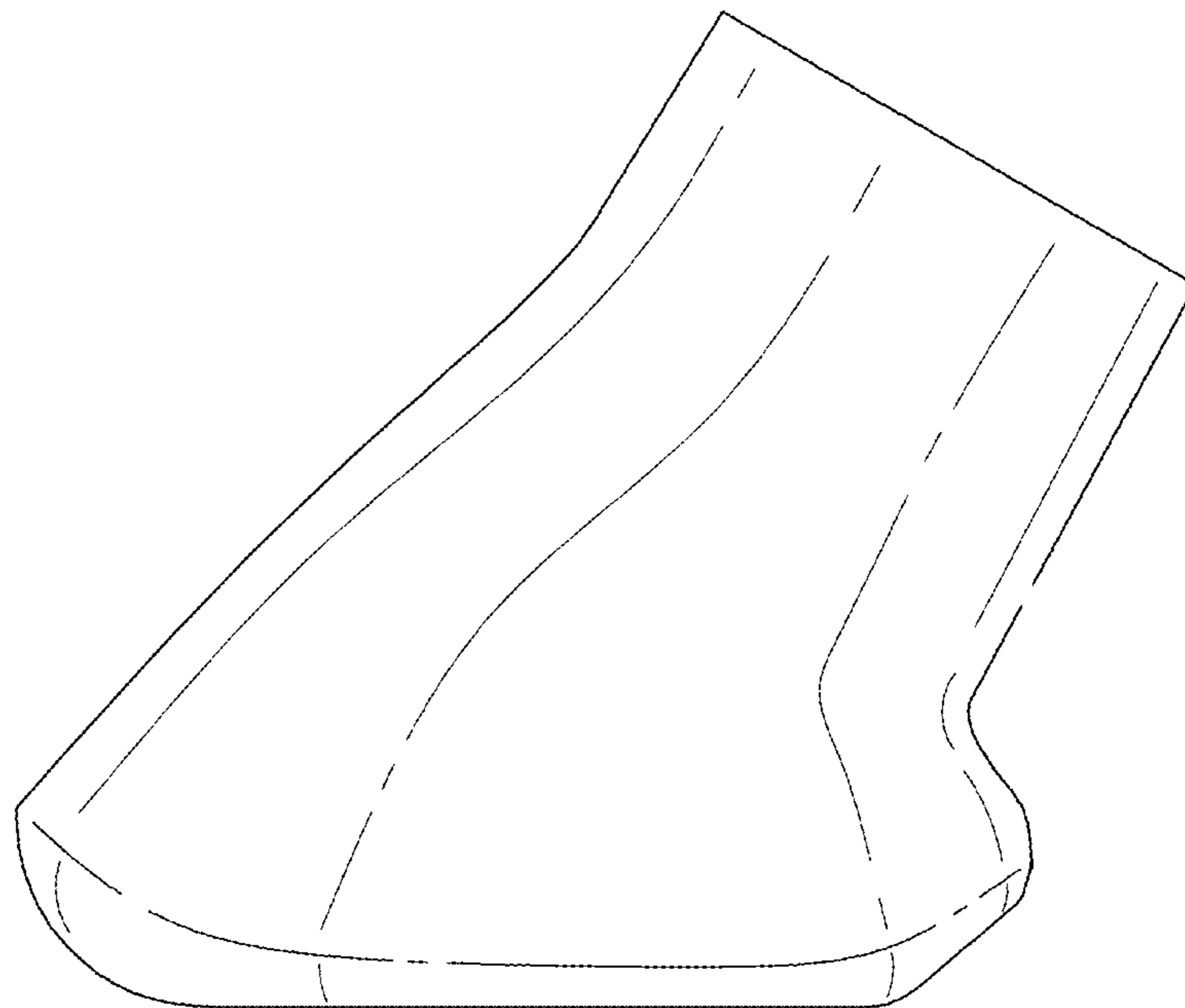


FIG. 6

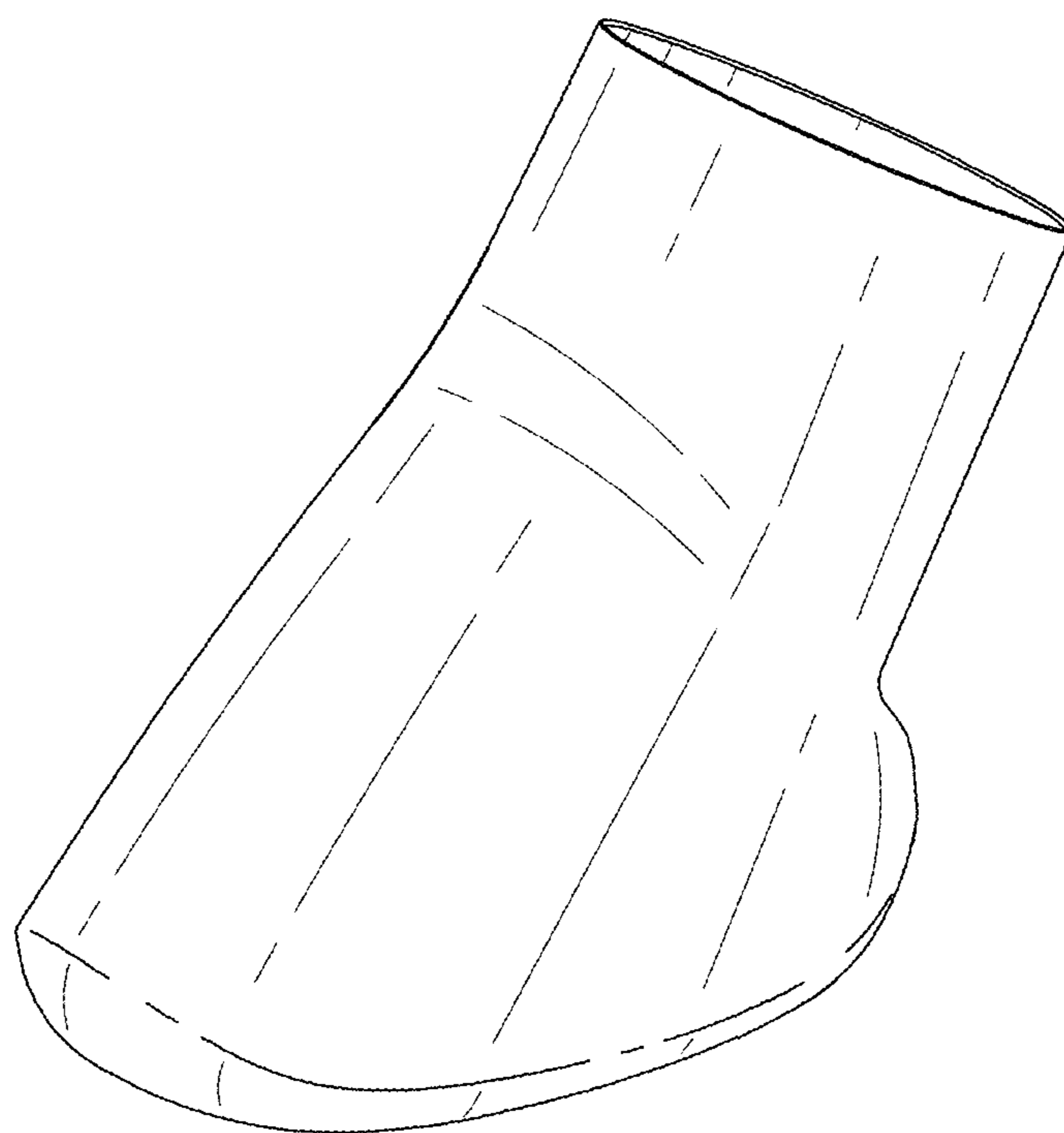


FIG. 7