

US00D967650S

(12) **United States Design Patent** (10) **Patent No.:** **US D967,650 S**
Yang et al. (45) **Date of Patent:** **** Oct. 25, 2022**

(54) **LIQUID DISPENSER**
(71) Applicant: **simplehuman, LLC**, Torrance, CA (US)

3,023,922 A 3/1962 Arrington et al.
3,149,754 A 9/1964 Kogan et al.
3,220,954 A 11/1965 Malbe
(Continued)

(72) Inventors: **Frank Yang**, Rancho Palos Verdes, CA (US); **Tzu-Hao Wei**, Hacienda Heights, CA (US); **Myk Lum**, Irvine, CA (US); **Adam Wade**, Rancho Santa Margarita, CA (US)

FOREIGN PATENT DOCUMENTS

CA 141847 4/2012
CA 144016 4/2012
(Continued)

(73) Assignee: **simplehuman, LLC**, Torrance, CA (US)

OTHER PUBLICATIONS

Sensor Pump Max Liquid Soap Or Sanitizer Dispenser. simplehuman (online) 2 pgs. Available Aug. 2021. [Retrieved Mar. 29, 2022] <https://www.officedepot.com/a/products/8839133/simplehuman-Sensor-Pump-Max-Liquid-Soap/#Reviews> (Year: 2021).*

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

(21) Appl. No.: **29/756,158**

(Continued)

(22) Filed: **Oct. 26, 2020**

Primary Examiner — Marie D. Fast Horse

(51) **LOC (13) Cl.** **23-08**

Assistant Examiner — Jennifer Sierra Yosinski

(52) **U.S. Cl.**

(74) *Attorney, Agent, or Firm* — Knobbe, Martens, Olson & Bear LLP

USPC **D6/542**

(58) **Field of Classification Search**

(57) **CLAIM**

USPC D6/524, 542–545, 540, 515, 527, 530;
D9/448, 504, 454, 688, 69, 3, 500,
D9/691–693; D23/238, 225, 247,
D23/270–275, 355, 356, 360, 362, 364,
D23/365, 366; D32/29.1; D7/598;
239/343; 222/105, 173, 180, 181.1,
222/181.2, 181.3, 82; 241/602
CPC A47K 5/1217; A47K 5/12; A47K 5/1207;
A47K 2005/1218

The ornamental design for a liquid dispenser, as shown and described.

See application file for complete search history.

DESCRIPTION

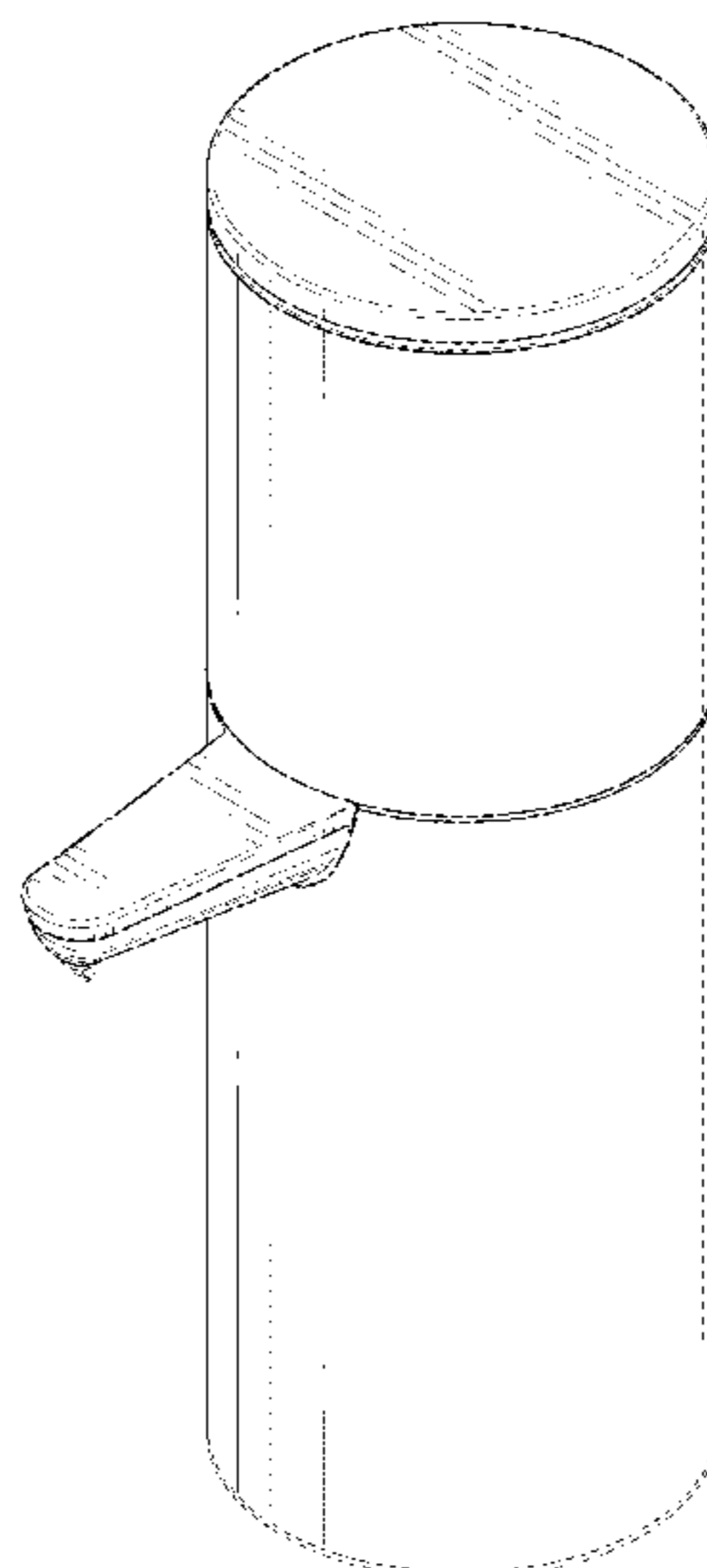
FIG. 1 is a top, front, right-side perspective view of an embodiment of a liquid dispenser embodying our design; FIG. 2 is a rear elevation view thereof; FIG. 3 is a front elevation view thereof; FIG. 4 is a top plan view thereof; FIG. 5 is a bottom plan view thereof; FIG. 6 is a left-side elevation view thereof; FIG. 7 is a right-side elevation view thereof; and, FIG. 8 is a bottom, front, left-side perspective view thereof. The broken lines depict unclaimed portions of the liquid dispenser and form no part of the claimed design.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,017,867 A 10/1935 Nantz
2,106,043 A 1/1938 Urquhart et al.
2,651,545 A 9/1953 Shotton
2,697,446 A 12/1954 Harrington
2,772,817 A 12/1956 Jauch

1 Claim, 7 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

3,531,021 A	9/1970	Bassett	6,748,850 B1	6/2004	Kraan	
3,631,736 A	1/1972	Saari	6,777,007 B2	8/2004	Cai	
3,701,482 A	10/1972	Sachnik	6,805,042 B2	10/2004	Mordini et al.	
4,046,289 A	9/1977	Teranishi	6,824,369 B2	11/2004	Raymond	
4,056,050 A	11/1977	Brown	D499,295 S	12/2004	Grisdale et al.	
4,113,147 A	9/1978	Frazier et al.	6,832,542 B2	12/2004	Hu et al.	
4,202,387 A	5/1980	Upton	6,892,899 B2	5/2005	Minard et al.	
4,217,993 A	8/1980	Jess et al.	6,929,150 B2	8/2005	Muderlak et al.	
4,457,455 A	7/1984	Meshberg	6,971,549 B2	12/2005	Leifheit et al.	
4,498,843 A	2/1985	Schneider et al.	6,988,897 B2	1/2006	Belongia et al.	
4,524,805 A	6/1985	Hoffman	7,008,073 B2	3/2006	Stuhlmacher	
4,693,854 A	9/1987	Yau	D530,954 S	10/2006	Snell	
4,722,372 A	2/1988	Hoffman et al.	D531,440 S *	11/2006	Lo	D6/542
4,801,249 A	1/1989	Kakizawa	D531,441 S	11/2006	Soriano	
4,915,347 A	4/1990	Iqbal et al.	D531,845 S	11/2006	Christianson	
4,921,131 A	5/1990	Binderbauer et al.	D534,753 S	1/2007	Christianson	
4,938,384 A	7/1990	Pilolla	7,178,746 B2	2/2007	Gross	
4,946,070 A	8/1990	Albert et al.	7,213,593 B2	5/2007	Hochrainer	
4,967,935 A	11/1990	Celest	D554,412 S	11/2007	Yang et al.	
5,028,328 A	7/1991	Long	7,296,765 B2	11/2007	Rodrian	
5,082,150 A	1/1992	Steiner et al.	D560,942 S	2/2008	Hanna	
5,105,992 A	4/1992	Fender et al.	D564,273 S	3/2008	Yang et al.	
5,169,040 A	12/1992	Wiley	7,337,635 B2	3/2008	Cerruti et al.	
5,186,360 A	2/1993	Mease et al.	D565,878 S	4/2008	Krus	
5,199,118 A	4/1993	Cole et al.	7,354,015 B2	4/2008	Byrd et al.	
5,255,822 A	10/1993	Mease et al.	D581,193 S	11/2008	Ghiorghie	
5,271,528 A	12/1993	Chien	D582,187 S *	12/2008	Yang	D6/542
5,305,916 A	4/1994	Suzuki et al.	7,479,000 B2	1/2009	Klassen	
5,449,280 A	9/1995	Maki et al.	D593,784 S	6/2009	Chan	
5,466,131 A	11/1995	Altham et al.	7,540,397 B2	6/2009	Muderlak et al.	
5,472,719 A	12/1995	Favre	D604,544 S	11/2009	Daams	
5,477,984 A	12/1995	Sayama et al.	7,637,893 B2	12/2009	Christensen et al.	
5,509,578 A	4/1996	Livingstone	D608,578 S	1/2010	Yang et al.	
5,632,414 A	5/1997	Merriweather, Jr.	D622,991 S	9/2010	MacDonald et al.	
5,771,925 A	6/1998	Lewandowski	D626,365 S	11/2010	Yang et al.	
5,823,390 A	10/1998	Muderlak et al.	D644,523 S	9/2011	Howell et al.	
5,829,636 A	11/1998	Vuong et al.	D644,529 S	9/2011	Padain et al.	
5,836,482 A	11/1998	Ophardt et al.	D644,530 S	9/2011	Padain et al.	
5,855,356 A	1/1999	Fait	D644,531 S	9/2011	Padain et al.	
5,868,311 A	2/1999	Cretu-petra	8,087,543 B2	1/2012	Yang et al.	
5,960,991 A	10/1999	Ophardt	8,096,445 B2	1/2012	Yang et al.	
D416,154 S	11/1999	Diehl	8,109,301 B1	2/2012	Denise	
5,988,451 A	11/1999	Hanna	8,109,411 B2	2/2012	Yang et al.	
6,021,705 A	2/2000	Dijs	8,152,027 B1	4/2012	Baker	
6,021,960 A	2/2000	Kehat	D658,915 S	5/2012	Fernandes et al.	
6,036,056 A	3/2000	Lee et al.	D659,452 S	5/2012	Yang et al.	
6,048,183 A	4/2000	Meza	D659,454 S	5/2012	Fritz et al.	
D426,093 S	6/2000	Cayouette	D660,061 S	5/2012	Fernandes et al.	
D426,413 S	6/2000	Kreitemier et al.	D661,531 S	6/2012	Tompkin	
6,126,290 A	10/2000	Veigel	D661,933 S	6/2012	Delgigante et al.	
D433,944 S	11/2000	Bernard	D663,143 S *	7/2012	DelGigante	D6/542
6,142,340 A	11/2000	Watanabe et al.	D663,983 S	7/2012	Yang et al.	
D438,041 S	2/2001	Huang	D664,387 S	7/2012	Kennedy	
6,209,752 B1	4/2001	Mitchell et al.	D672,177 S	12/2012	Zeng	
RE37,173 E	5/2001	Jefferson, Jr. et al.	D674,636 S *	1/2013	Yang	D6/542
6,269,735 B1	8/2001	Rolfes	8,360,285 B2	1/2013	Grbesic	
6,279,460 B1	8/2001	Pope	D676,116 S	2/2013	Judd	
6,279,777 B1	8/2001	Goodin et al.	D682,589 S	5/2013	Cheng	
6,311,868 B1	11/2001	Krietemeier et al.	D688,488 S	8/2013	Wang	
6,325,604 B1	12/2001	Du	D689,299 S	9/2013	Kassem Llano et al.	
6,375,038 B1	4/2002	Daansen et al.	D690,129 S	9/2013	Clough et al.	
6,390,329 B1	5/2002	Maddox	D690,130 S	9/2013	Clough et al.	
6,443,328 B1	9/2002	Fehl et al.	D690,131 S	9/2013	Clough et al.	
6,444,956 B1	9/2002	Witcher et al.	D690,530 S	10/2013	Clough et al.	
D471,047 S	3/2003	Gordon et al.	8,550,378 B2	10/2013	Mazooji et al.	
6,557,584 B1	5/2003	Lucas et al.	D693,597 S	11/2013	Yang et al.	
6,594,105 B1	7/2003	Brittner	D699,047 S	2/2014	Lissoni	
D477,956 S	8/2003	Grisdale et al.	D699,475 S	2/2014	Yang et al.	
6,619,938 B2	9/2003	Woodruff	D699,574 S	2/2014	Cox et al.	
D483,974 S	12/2003	Reed	8,662,356 B2	3/2014	Padain et al.	
D484,573 S	12/2003	Haug et al.	8,678,244 B2	3/2014	Yang et al.	
D486,335 S	2/2004	Sonneman	D706,549 S	6/2014	Cho	
6,698,616 B2	3/2004	Hidle et al.	D717,066 S	11/2014	Deacon	
6,722,265 B2	4/2004	Priley	8,893,928 B2	11/2014	Proper	
D490,262 S	5/2004	Graves et al.	D721,279 S	1/2015	Van Handel et al.	
			D727,653 S	4/2015	Bjerre-poulsen et al.	
			D731,203 S	6/2015	Watson et al.	
			D731,204 S	6/2015	Watson et al.	
			D732,308 S	6/2015	Enga et al.	

(56)

References Cited

U.S. PATENT DOCUMENTS

D733,454 S * 7/2015 Von Heifner D6/515
 D746,136 S 12/2015 Liu
 9,265,383 B2 2/2016 Yang et al.
 9,375,741 B2 6/2016 Turner
 D765,440 S * 9/2016 Clough D6/542
 D770,798 S * 11/2016 Yang D6/542
 D773,847 S 12/2016 Judd
 D773,848 S 12/2016 Yang et al.
 D785,970 S 5/2017 Yang et al.
 D786,579 S 5/2017 Beck et al.
 9,763,546 B2 9/2017 Yang et al.
 D815,855 S * 4/2018 Bos D6/542
 D818,741 S * 5/2018 Yang D6/542
 10,076,216 B2 9/2018 Yang et al.
 D829,465 S 10/2018 Yang et al.
 D832,414 S * 10/2018 Sharma D23/364
 D854,134 S * 7/2019 Jessup D23/364
 10,588,467 B2 3/2020 Yang et al.
 D881,367 S * 4/2020 Kihm D23/366
 D882,056 S * 4/2020 Baillie D23/364
 D897,721 S * 10/2020 Jia D6/542
 10,806,305 B2 10/2020 Yang et al.
 D906,723 S * 1/2021 Chen D6/542
 D916,262 S * 4/2021 Wang D23/356
 D916,499 S * 4/2021 Chen D6/542
 11,064,846 B2 7/2021 Yang et al.
 D936,196 S * 11/2021 Xu D23/356
 2002/0179643 A1 12/2002 Knight et al.
 2002/0185002 A1 12/2002 Herrmann
 2003/0068242 A1 4/2003 Yamakawa
 2004/0032749 A1 2/2004 Schindler et al.
 2004/0050875 A1 3/2004 Kobayashi
 2004/0077187 A1 4/2004 Belongia et al.
 2004/0103792 A1 6/2004 Cirigliano et al.
 2004/0134924 A1 7/2004 Hansen et al.
 2004/0226962 A1 11/2004 Mazursky et al.
 2005/0006407 A1 1/2005 Lawson et al.
 2005/0139612 A1 6/2005 Matthews et al.
 2005/0279783 A1 12/2005 Lo
 2006/0067546 A1 3/2006 Lewis et al.
 2006/0173576 A1 8/2006 Goerg et al.
 2006/0243740 A1 11/2006 Reynolds et al.
 2007/0000941 A1 1/2007 Hadden et al.
 2007/0138202 A1 6/2007 Evers
 2007/0138208 A1 6/2007 Scholz et al.
 2007/0158359 A1 7/2007 Rodrian
 2007/0274853 A1 11/2007 Merendeiro et al.
 2008/0149669 A1 6/2008 Nicholson et al.
 2008/0277411 A1 11/2008 Beland et al.
 2008/0277421 A1 11/2008 Zlatic et al.
 2008/0283556 A1 11/2008 Snodgrass
 2009/0026225 A1 1/2009 Lickstein
 2009/0088836 A1 4/2009 Bishop et al.
 2009/0140004 A1 6/2009 Scorgie
 2009/0184134 A1 7/2009 Ciavarella et al.
 2009/0200340 A1 8/2009 Ophardt et al.
 2010/0031982 A1 2/2010 Hornsby et al.
 2010/0051642 A1 3/2010 Wong et al.
 2010/0282772 A1 11/2010 Ionidis
 2010/0320227 A1 12/2010 Reynolds
 2011/0017769 A1 1/2011 Ophardt
 2011/0114669 A1 5/2011 Yang et al.

2011/0253744 A1 10/2011 Pelfrey
 2011/0272432 A1 11/2011 Baughman
 2012/0111895 A1 5/2012 Fitzpatrick et al.
 2012/0138632 A1 6/2012 Li et al.
 2012/0138637 A1 6/2012 Ciavarella et al.
 2012/0285992 A1 11/2012 Ciavarella et al.
 2012/0318820 A1 12/2012 Amsel et al.
 2013/0119083 A1 5/2013 Ophardt et al.
 2013/0140323 A1 6/2013 Yun et al.
 2013/0200109 A1 8/2013 Yang et al.
 2013/0214011 A1 8/2013 Vandekerckhove et al.
 2014/0103072 A1 4/2014 Pelfrey
 2014/0137982 A1 5/2014 Nicholls et al.
 2014/0231450 A1 8/2014 Rosko et al.
 2015/0265106 A1 9/2015 Rospierski
 2016/0256016 A1* 9/2016 Yang B05B 7/005
 2017/0015541 A1 1/2017 Vulpitta et al.
 2018/0263432 A1* 9/2018 Yang A47K 5/1217
 2020/0383528 A1 12/2020 Yang et al.

FOREIGN PATENT DOCUMENTS

CN 1285899 A 2/2001
 CN 101606828 A 12/2009
 CN 102058336 A 5/2011
 CN 302362836 * 3/2013
 CN 306917043 * 11/2021
 DE 3718967 A1 12/1987
 EM 001342687-0001 * 11/2012
 EM 004350817-0001 * 11/2017
 EM 008517734-0001 * 5/2021
 EP 0455431 A1 11/1991
 EP 0493865 A1 7/1992
 EP 2135538 A1 12/2009
 EP 2322068 A2 5/2011
 EP 2546523 A2 1/2013
 EP 2738387 A1 6/2014
 GB 6018576 * 9/2017
 GB 9004350817-0001 * 9/2017
 GB 6133090 * 4/2021
 JP H07-23876 1/1995
 JP D1117308 6/2001
 JP D1266683 2/2006
 JP 2013-133754 A 7/2013
 KR 3002845520000 11/2001
 WO WO 2008/095187 8/2008
 WO WO 2008/103300 A2 8/2008
 WO WO 2012/122056 9/2012
 WO WO 2012/154642 A1 11/2012
 WO WO 2013/119642 A1 8/2013
 WO WO 2013/119874 A1 8/2013

OTHER PUBLICATIONS

Manring et al., "The Theoretical Flow Ripple of an External Gear Pump," Transactions of the ASME, vol. 125, Sep. 2003, pp. 396-404.
 The Sharper Image Soap Genie SI335, Mar. 2006, in 8 pages.
 Simplehuman® Rechargeable Sensor Soap Dispenser, Item No. 201881, <https://www.sharperimage.com/si/view/product/Rechargeable-Sensor-Soap-Dispenser/201881?trail>, published on Sep. 3, 2013, in 3 pages.

* cited by examiner

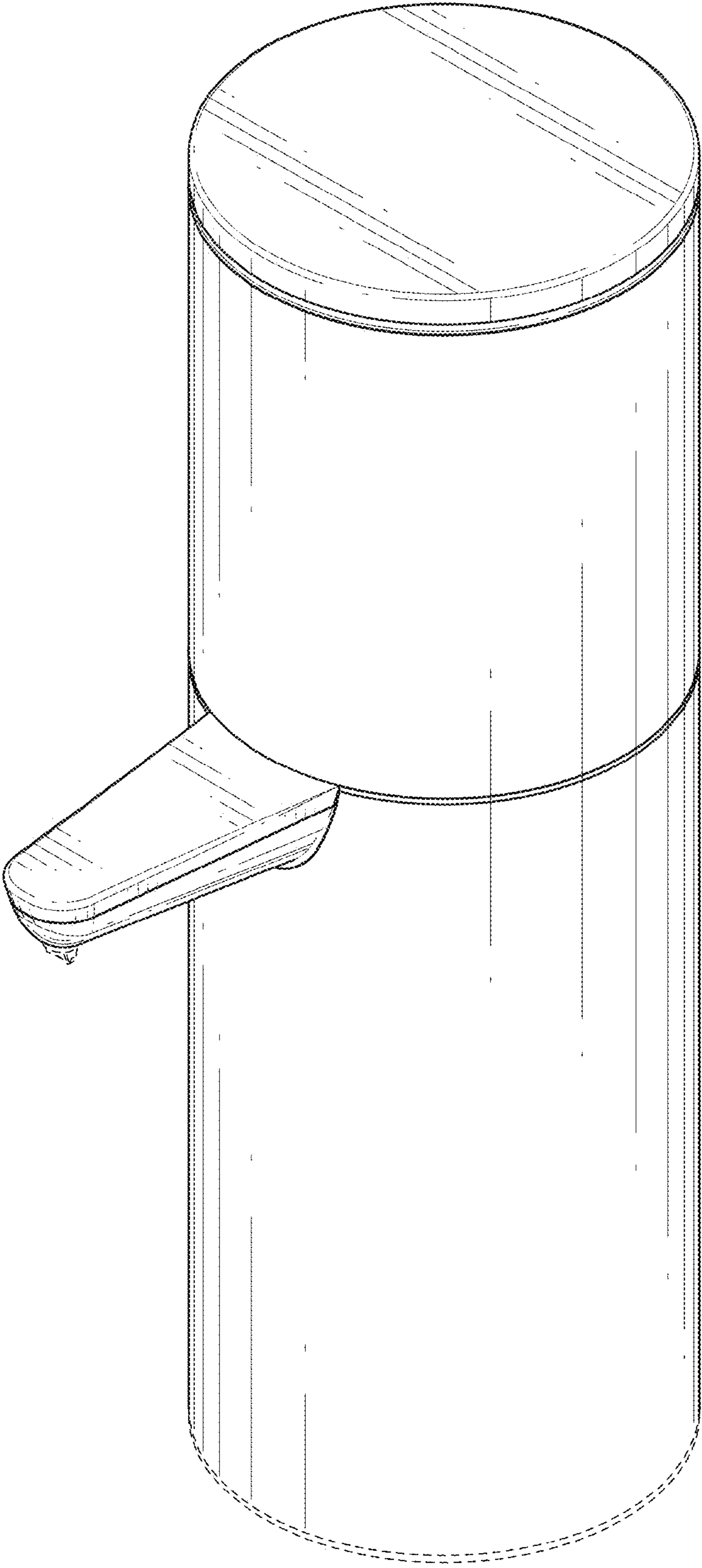


FIG. 1

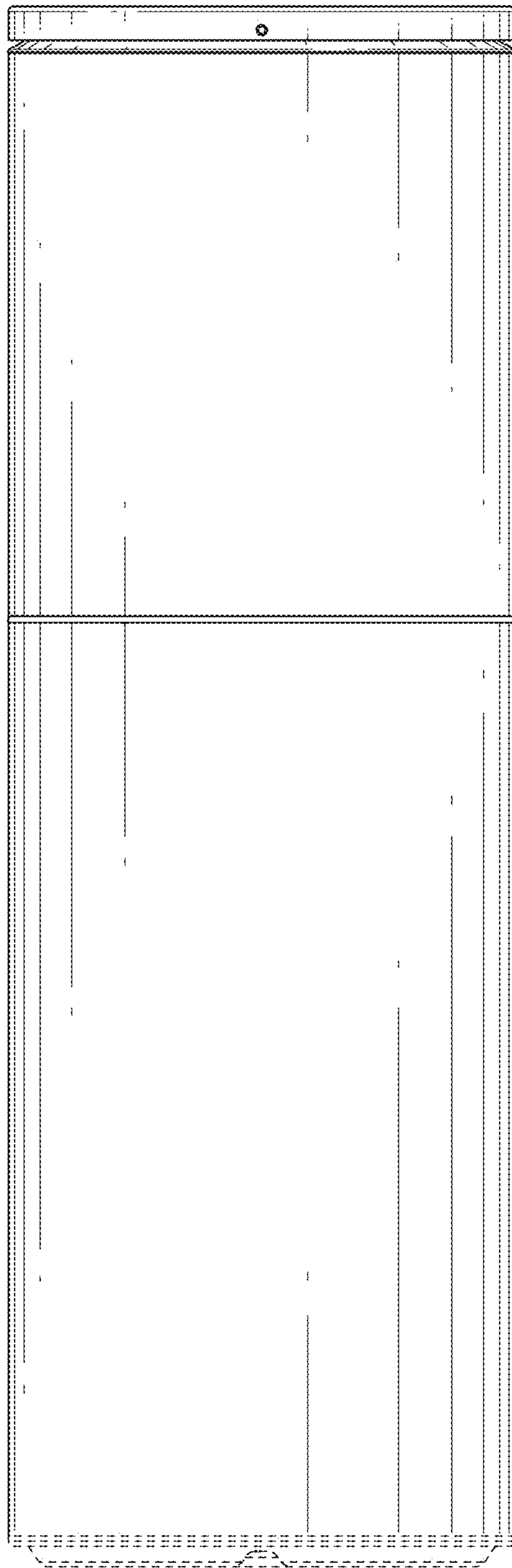


FIG. 2

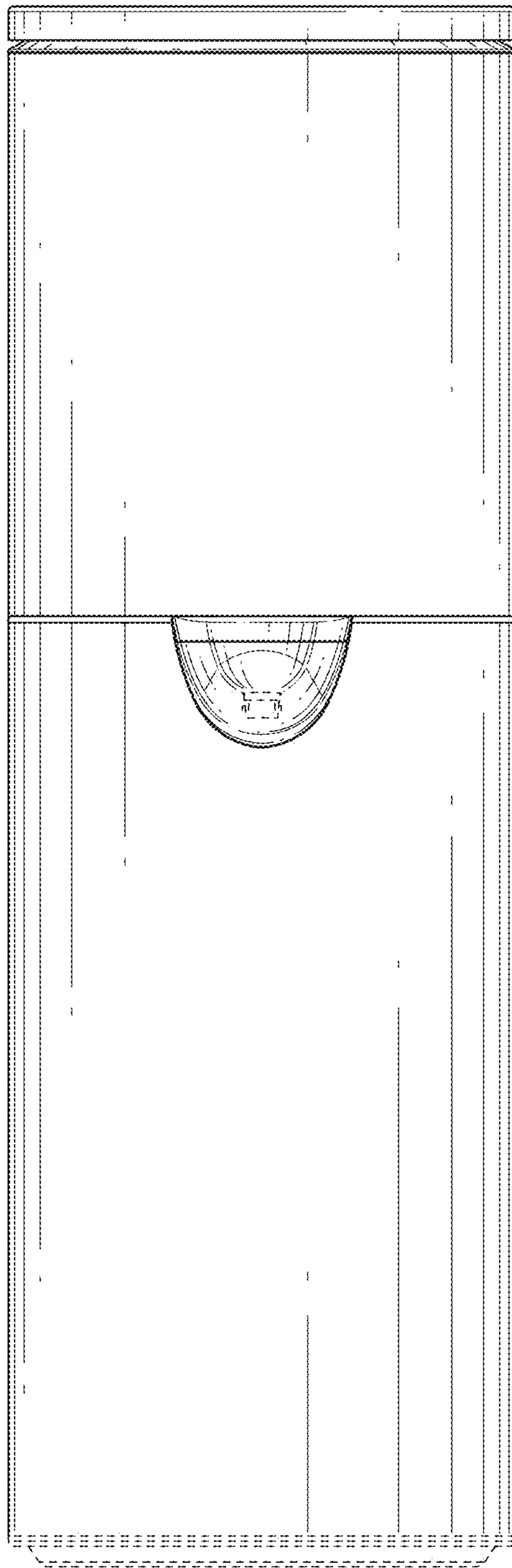


FIG. 3

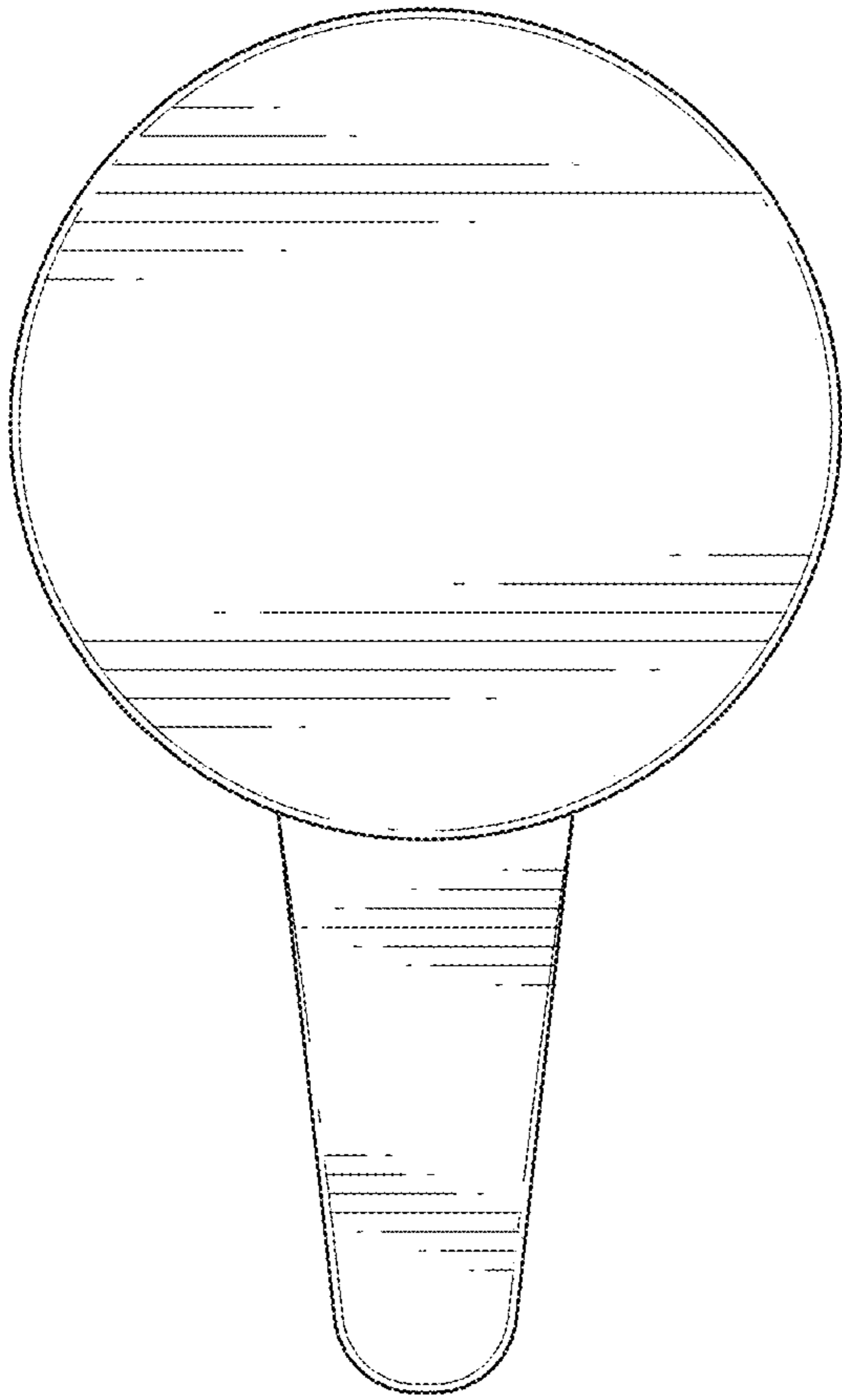


FIG. 4

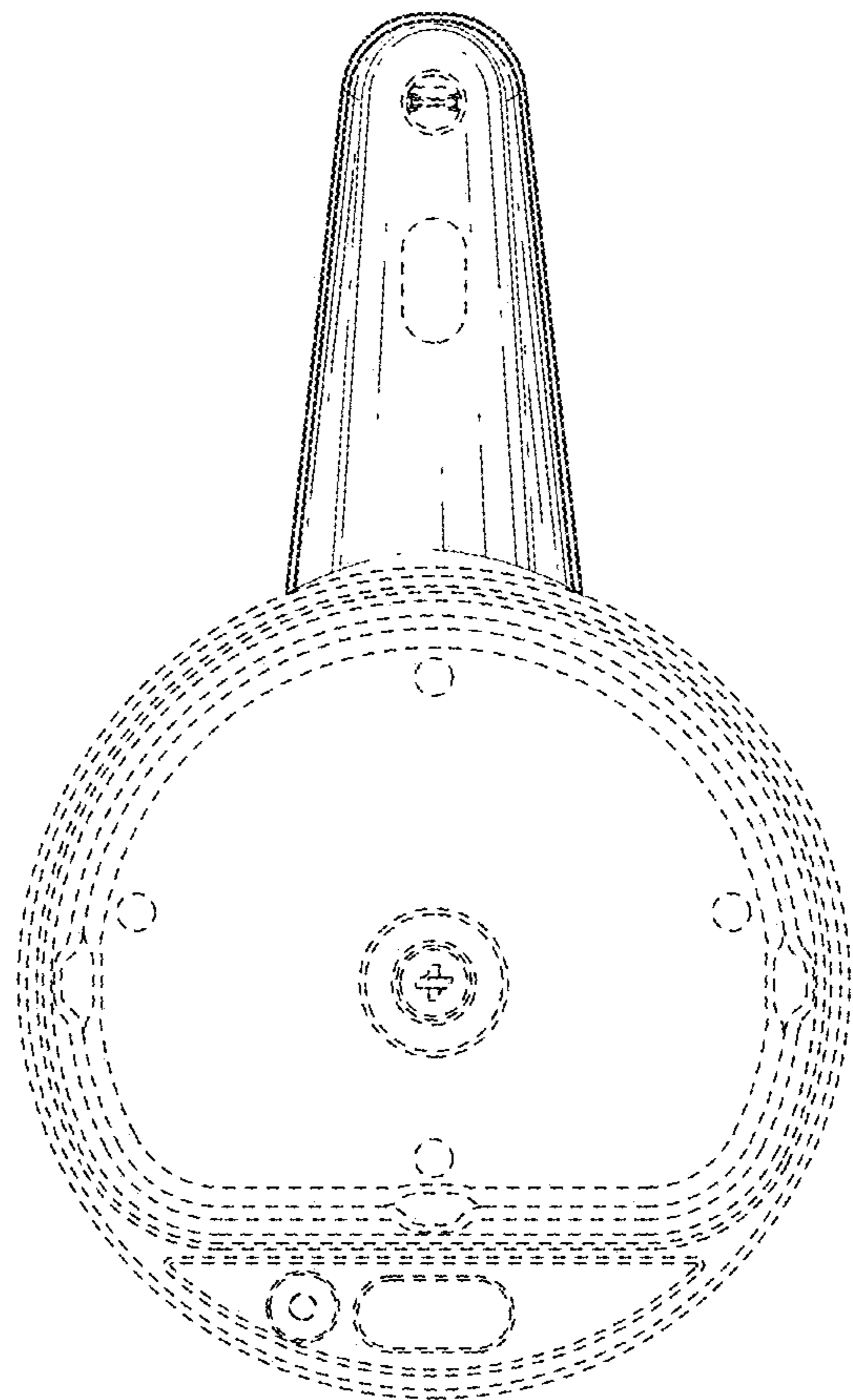


FIG. 5

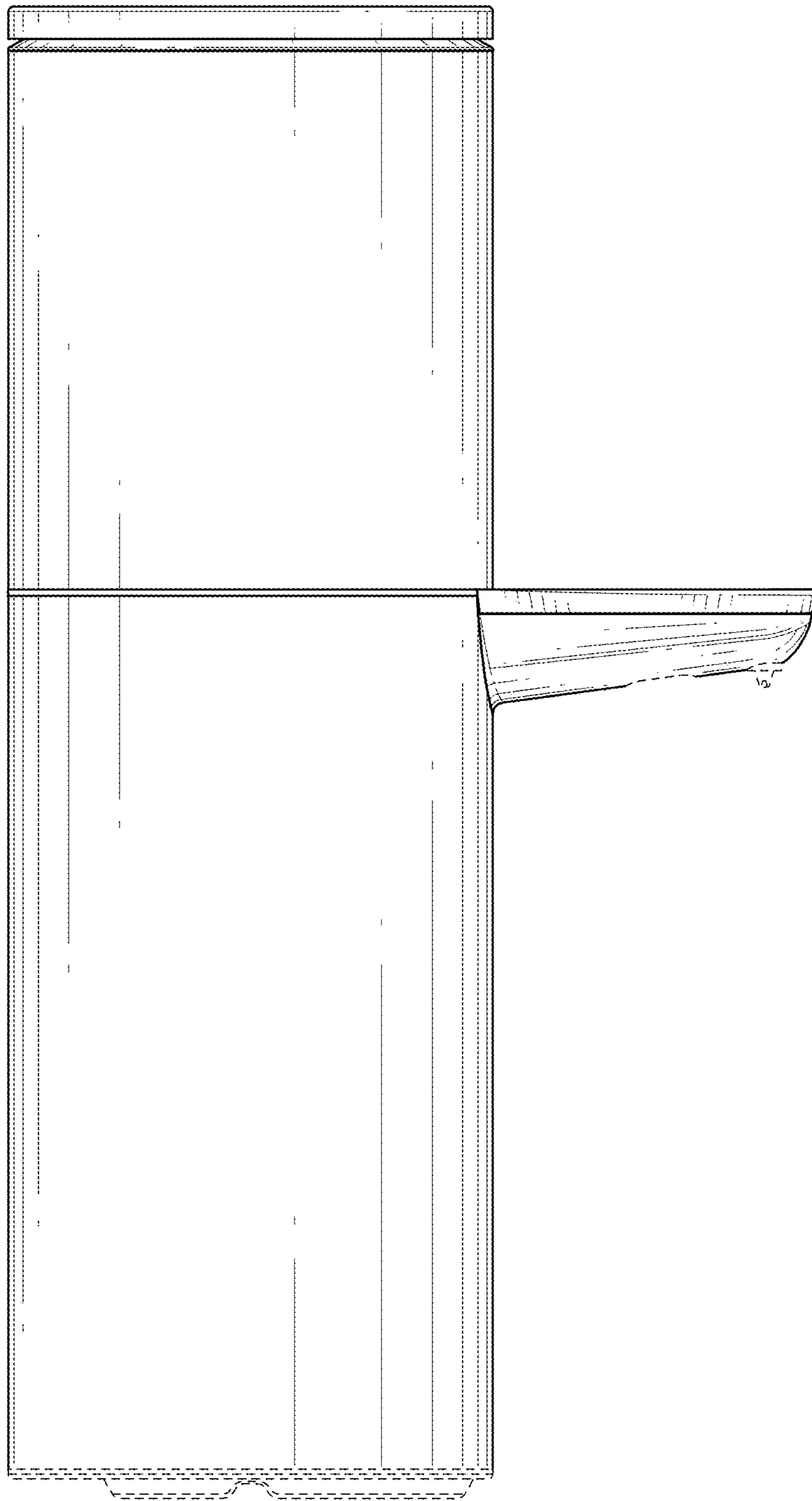


FIG. 6

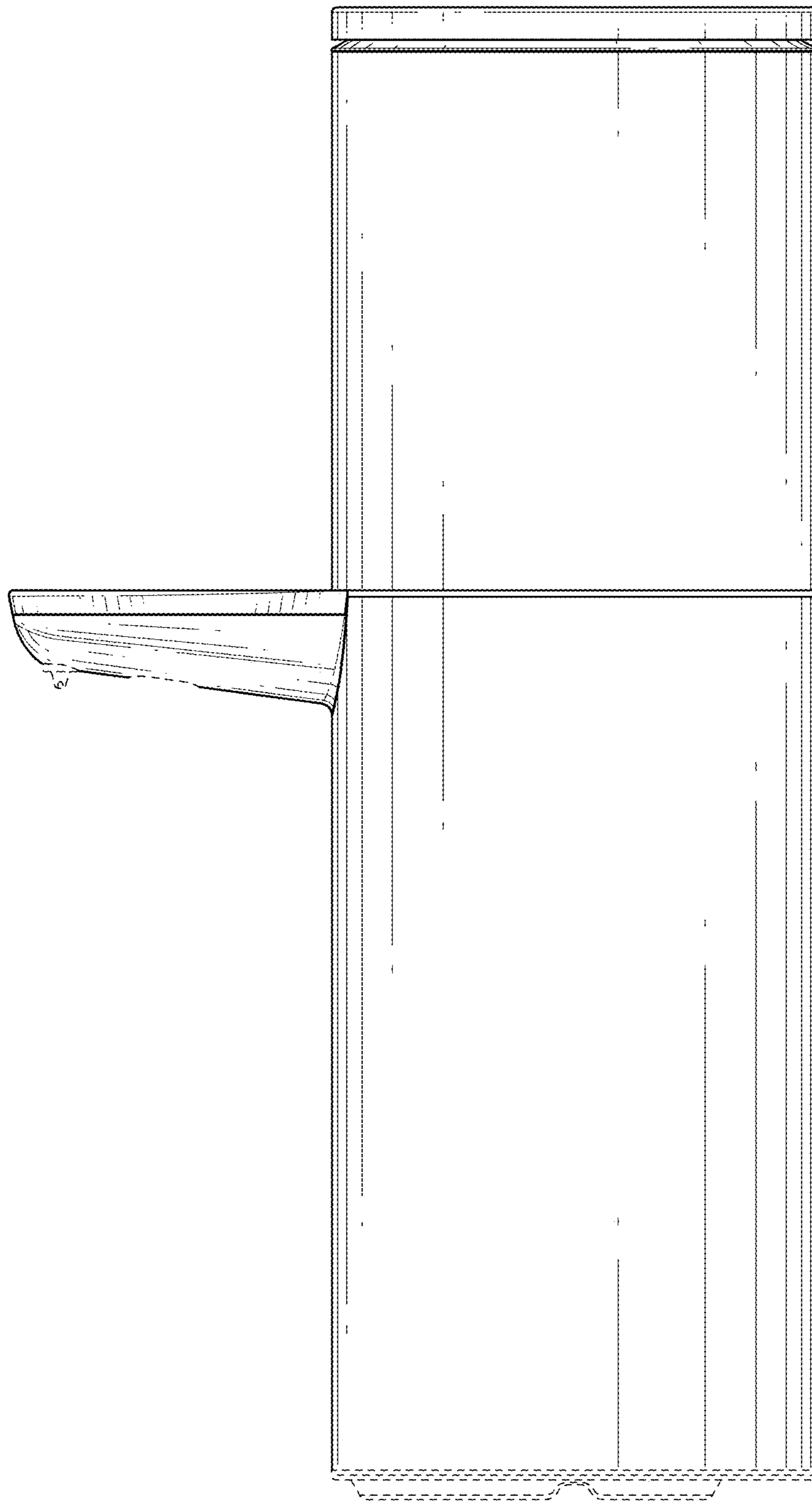


FIG. 7

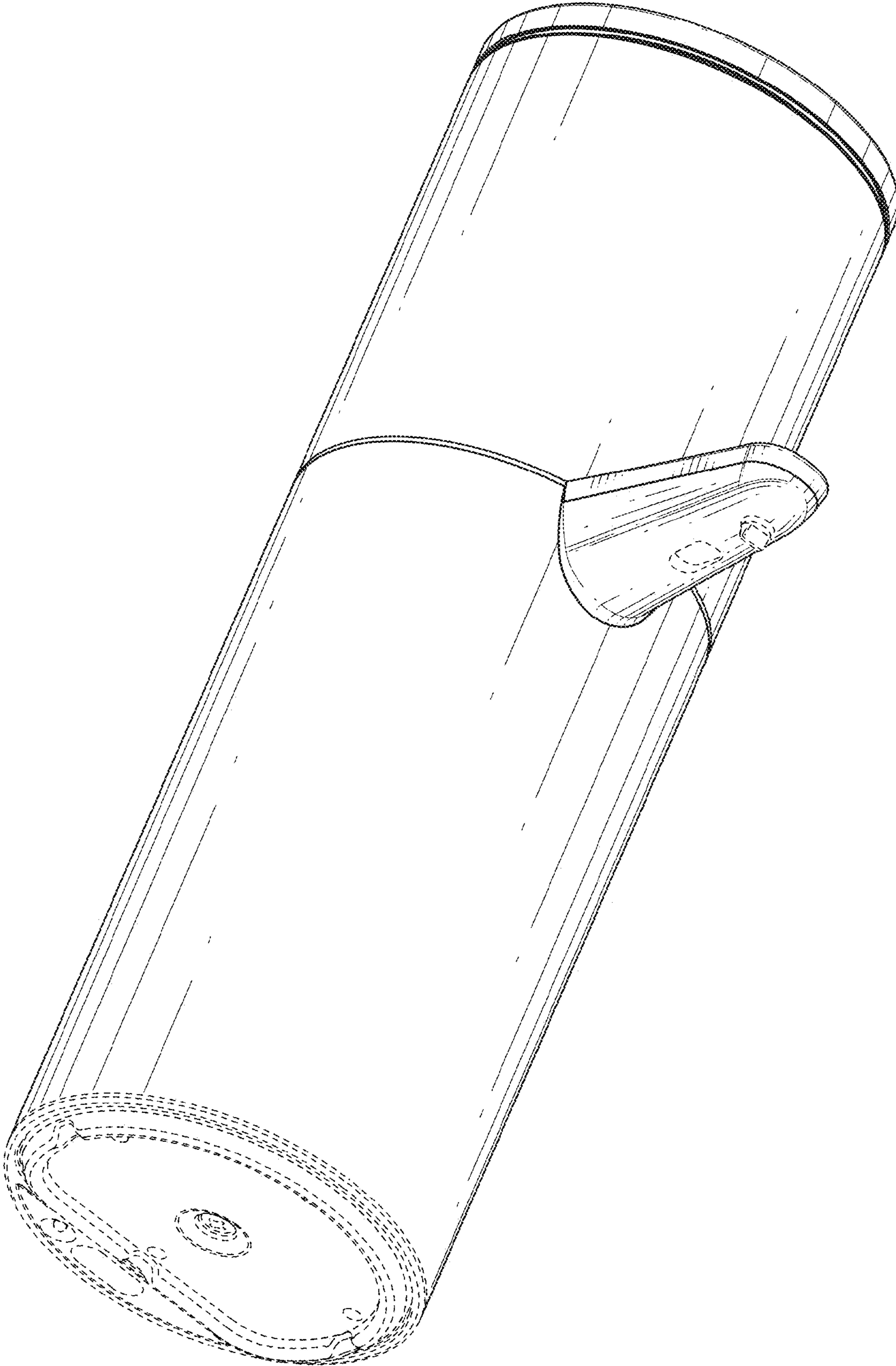


FIG. 8