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(12) **United States Design Patent** (10) **Patent No.:** **US D785,970 S**  
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(54) **SOAP PUMP HEAD**  
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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  
3,631,736 A 1/1972 Saari  
3,701,482 A 10/1972 Sachnik  
4,046,289 A 9/1977 Teranishi

(Continued)

FOREIGN PATENT DOCUMENTS

EP 455431 11/1991  
EP 2135538 A1 12/2009

(Continued)

OTHER PUBLICATIONS

U.S. Appl. No. 29/447,095, filed Feb. 28, 2013, Yang et al.

(Continued)

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(52) **U.S. Cl.**  
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(58) **Field of Classification Search**  
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CPC ..... A47G 19/24; A47G 21/12; B65D 83/267;  
B65D 23/003; B67D 3/0029; A47F 1/085;  
A47K 5/02; A47K 5/1202; A47K 5/14;  
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See application file for complete search history.

(57) **CLAIM**

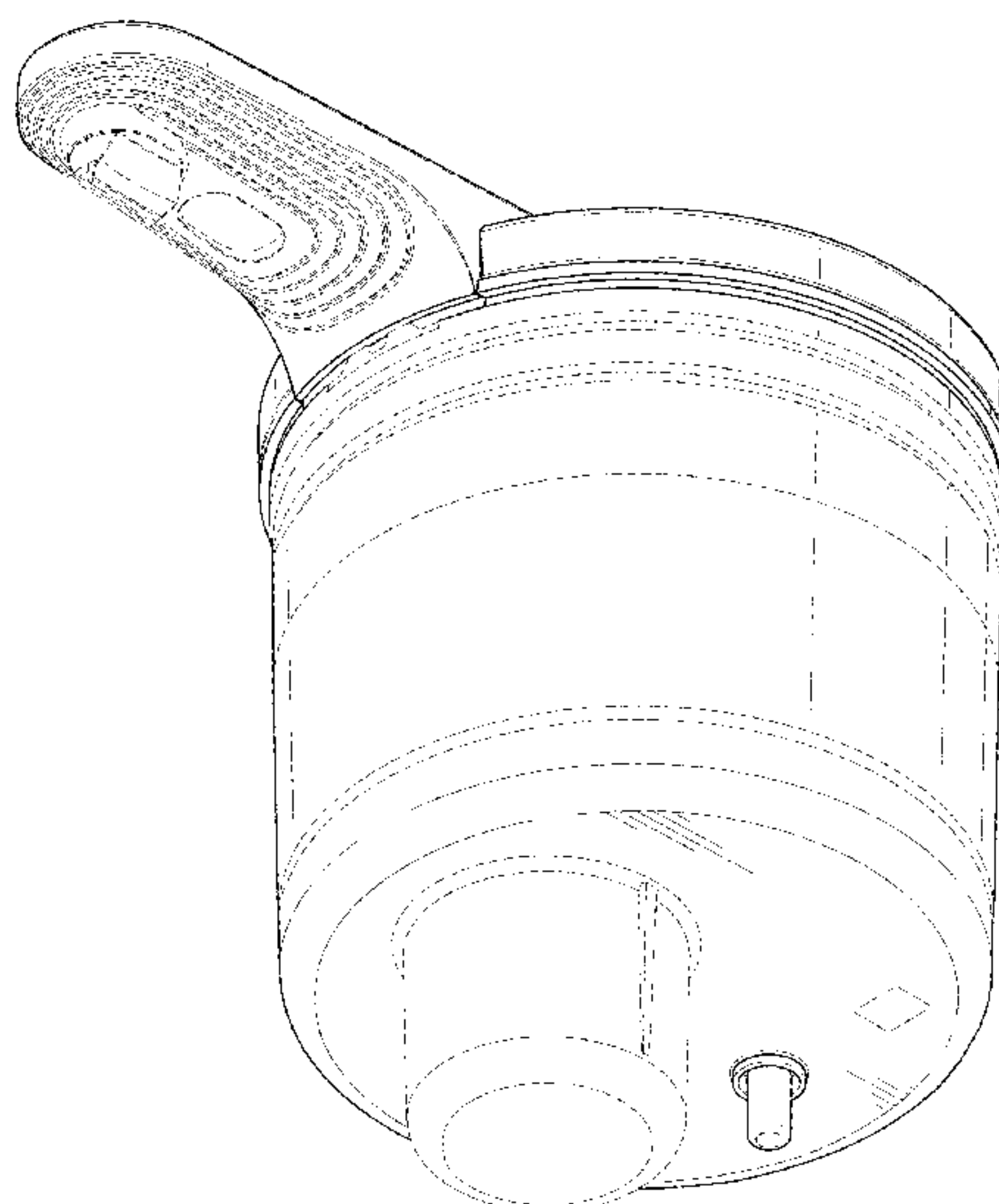
The ornamental design for a soap pump head, as shown and described.

**DESCRIPTION**

FIG. 1 is a bottom, front, left-side perspective view of a soap pump head of our design;  
FIG. 2 is a top, front, left-side perspective view thereof;  
FIG. 3 is a front elevation view thereof;  
FIG. 4 is a rear elevation view thereof;  
FIG. 5 is a left-side elevation view thereof, the right-side being a mirror image;  
FIG. 6 is a top plan view thereof; and,  
FIG. 7 is a bottom plan view thereof.  
The broken lines shown in the figures represent portions of the soap pump head that form no part of the claimed design.

**1 Claim, 7 Drawing Sheets**

(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



(56)

References Cited

U.S. PATENT DOCUMENTS

4,056,050 A	11/1977	Brown	7,178,746 B2	2/2007	Gross
4,113,147 A	9/1978	Frazier et al.	D554,412 S	11/2007	Yang et al.
4,217,993 A	8/1980	Jess et al.	7,296,765 B2	11/2007	Rodrian
4,498,843 A	2/1985	Schneider et al.	D560,942 S *	2/2008	Hanna ..... D6/542
4,524,805 A	6/1985	Hoffman	D564,273 S	3/2008	Yang et al.
4,693,854 A	9/1987	Yau	7,337,635 B2	3/2008	Cerruti et al.
4,722,372 A	2/1988	Hoffman et al.	D565,878 S	4/2008	Krus
4,915,347 A	4/1990	Iqbal et al.	7,354,015 B2	4/2008	Byrd et al.
4,921,131 A	5/1990	Binderbauer et al.	D581,193 S	11/2008	Ghiorghie
4,938,384 A	7/1990	Pilolla	D582,187 S	12/2008	Yang et al.
4,967,935 A	11/1990	Celest	7,479,000 B2	1/2009	Klassen
5,028,328 A	7/1991	Long	D593,784 S	6/2009	Chan
5,082,150 A	1/1992	Steiner et al.	7,540,397 B2	6/2009	Muderlak et al.
5,169,040 A	12/1992	Wiley	D604,544 S	11/2009	Daams
5,186,360 A	2/1993	Mease et al.	7,637,893 B2	12/2009	Christensen et al.
5,199,118 A	4/1993	Cole et al.	D608,578 S	1/2010	Yang et al.
5,255,822 A	10/1993	Mease et al.	D626,365 S	11/2010	Yang et al.
5,271,528 A	12/1993	Chien	D644,523 S	9/2011	Howell et al.
5,305,916 A	4/1994	Suzuki et al.	D644,529 S	9/2011	Padain et al.
5,449,280 A	9/1995	Maki et al.	D644,530 S	9/2011	Padain et al.
5,466,131 A	11/1995	Altham et al.	D644,531 S	9/2011	Padain et al.
5,472,719 A	12/1995	Favre	8,087,543 B2	1/2012	Yang et al.
5,477,984 A	12/1995	Sayama et al.	8,096,445 B2	1/2012	Yang et al.
5,632,414 A	5/1997	Merriweather, Jr.	8,109,301 B1	2/2012	Denise
5,771,925 A	6/1998	Lewandowski	8,109,411 B2	2/2012	Yang et al.
5,823,390 A	10/1998	Muderlak et al.	D658,915 S	5/2012	Fernandes et al.
5,829,636 A	11/1998	Vuong et al.	D659,452 S	5/2012	Yang et al.
5,836,482 A	11/1998	Ophardt et al.	D659,454 S	5/2012	Fritz et al.
5,960,991 A	10/1999	Ophardt	D660,061 S	5/2012	Fernandes et al.
D416,154 S	11/1999	Diehl	D661,531 S	6/2012	Tompkin
5,988,451 A	11/1999	Hanna	D661,933 S	6/2012	Delgigante et al.
6,021,705 A	2/2000	Dijs	D663,983 S	7/2012	Yang et al.
6,021,960 A	2/2000	Kehat	D664,387 S	7/2012	Kennedy
6,036,056 A	3/2000	Lee et al.	D672,177 S *	12/2012	Zeng ..... D6/542
6,048,183 A	4/2000	Meza	D674,636 S	1/2013	Yang et al.
D426,093 S	6/2000	Cayouette	8,360,285 B2	1/2013	Grbesic
D426,413 S	6/2000	Kreitemier et al.	D676,116 S *	2/2013	Lord ..... D23/252
6,126,290 A	10/2000	Veigel	D682,589 S	5/2013	Cheng
D433,944 S	11/2000	Bernard	D688,488 S	8/2013	Wang
D438,041 S	2/2001	Huang	D689,299 S	9/2013	Kassem Llano et al.
6,209,752 B1	4/2001	Mitchell et al.	D690,129 S	9/2013	Clough et al.
RE37,173 E	5/2001	Jefferson, Jr. et al.	D690,130 S	9/2013	Clough et al.
6,269,735 B1	8/2001	Rolfes	D690,131 S	9/2013	Clough et al.
6,279,460 B1	8/2001	Pope	D690,530 S	10/2013	Clough et al.
6,279,777 B1	8/2001	Goodin et al.	8,550,378 B2	10/2013	Mazooji et al.
6,311,868 B1	11/2001	Krietemeier et al.	D693,597 S	11/2013	Yang et al.
6,325,604 B1	12/2001	Du	D699,047 S	2/2014	Lissoni
6,375,038 B1	4/2002	Daansen et al.	D699,475 S	2/2014	Yang et al.
6,390,329 B1	5/2002	Maddox	8,678,244 B2	3/2014	Yang et al.
6,443,328 B1	9/2002	Fehl et al.	D706,549 S	6/2014	Cho
6,444,956 B1	9/2002	Witcher et al.	D717,066 S	11/2014	Deacon
6,557,584 B1	5/2003	Lucas et al.	D721,279 S	1/2015	Van Handel et al.
6,594,105 B1	7/2003	Brittner	D727,653 S	4/2015	Bjerre-poulsen et al.
D477,956 S	8/2003	Grisdale et al.	D731,203 S	6/2015	Watson et al.
6,619,938 B2	9/2003	Woodruff	D731,204 S	6/2015	Watson et al.
D483,974 S	12/2003	Reed	D732,308 S	6/2015	Enga et al.
D484,573 S *	12/2003	Haug ..... D23/252	D746,136 S *	12/2015	Liu ..... D6/542
D486,335 S	2/2004	Sonneman	9,265,383 B2	2/2016	Yang et al.
6,698,616 B2	3/2004	Hidle et al.	D770,798 S	11/2016	Yang et al.
6,722,265 B2	4/2004	Priley	D773,847 S *	12/2016	Lord ..... D6/542
D490,262 S	5/2004	Graves et al.	2002/0179643 A1	12/2002	Knight et al.
6,748,850 B1	6/2004	Kraan	2002/0185002 A1	12/2002	Herrmann
6,777,007 B2	8/2004	Cai	2004/0032749 A1	2/2004	Schindler et al.
6,805,042 B2	10/2004	Mordini et al.	2004/0050875 A1	3/2004	Kobayashi
6,824,369 B2	11/2004	Raymond	2004/0103792 A1	6/2004	Cirigliano et al.
D499,295 S	12/2004	Grisdale et al.	2004/0134924 A1	7/2004	Hansen et al.
6,832,542 B2	12/2004	Hu et al.	2004/0226962 A1	11/2004	Mazursky et al.
6,892,899 B2	5/2005	Minard et al.	2005/0139612 A1	6/2005	Matthews et al.
6,929,150 B2	8/2005	Muderlak et al.	2006/0067546 A1	3/2006	Lewis et al.
7,008,073 B2	3/2006	Stuhlmacher	2006/0173576 A1	8/2006	Goerg et al.
D530,954 S	10/2006	Snell	2006/0243740 A1	11/2006	Reynolds et al.
D531,440 S	11/2006	Lo	2007/0000941 A1	1/2007	Hadden et al.
D531,441 S *	11/2006	Soriano ..... D6/542	2007/0138208 A1	6/2007	Scholz et al.
D531,845 S	11/2006	Christianson	2007/0158359 A1	7/2007	Rodrian
D534,753 S	1/2007	Christianson	2007/0274853 A1	11/2007	Merendeiro et al.
			2008/0277411 A1	11/2008	Beland et al.
			2008/0277421 A1	11/2008	Zlatic et al.
			2009/0026225 A1	1/2009	Lickstein
			2009/0088836 A1	4/2009	Bishop et al.



(56)

**References Cited**

U.S. PATENT DOCUMENTS

2009/0140004 A1 6/2009 Scorgie  
2009/0184134 A1 7/2009 Ciavarella et al.  
2010/0031982 A1 2/2010 Hornsby et al.  
2010/0282772 A1 11/2010 Ionidis  
2011/0017769 A1 1/2011 Ophardt  
2011/0114669 A1 5/2011 Yang et al.  
2013/0200109 A1 8/2013 Yang et al.  
2015/0238053 A1 8/2015 Yang et al.  
2016/0256016 A1 9/2016 Yang et al.

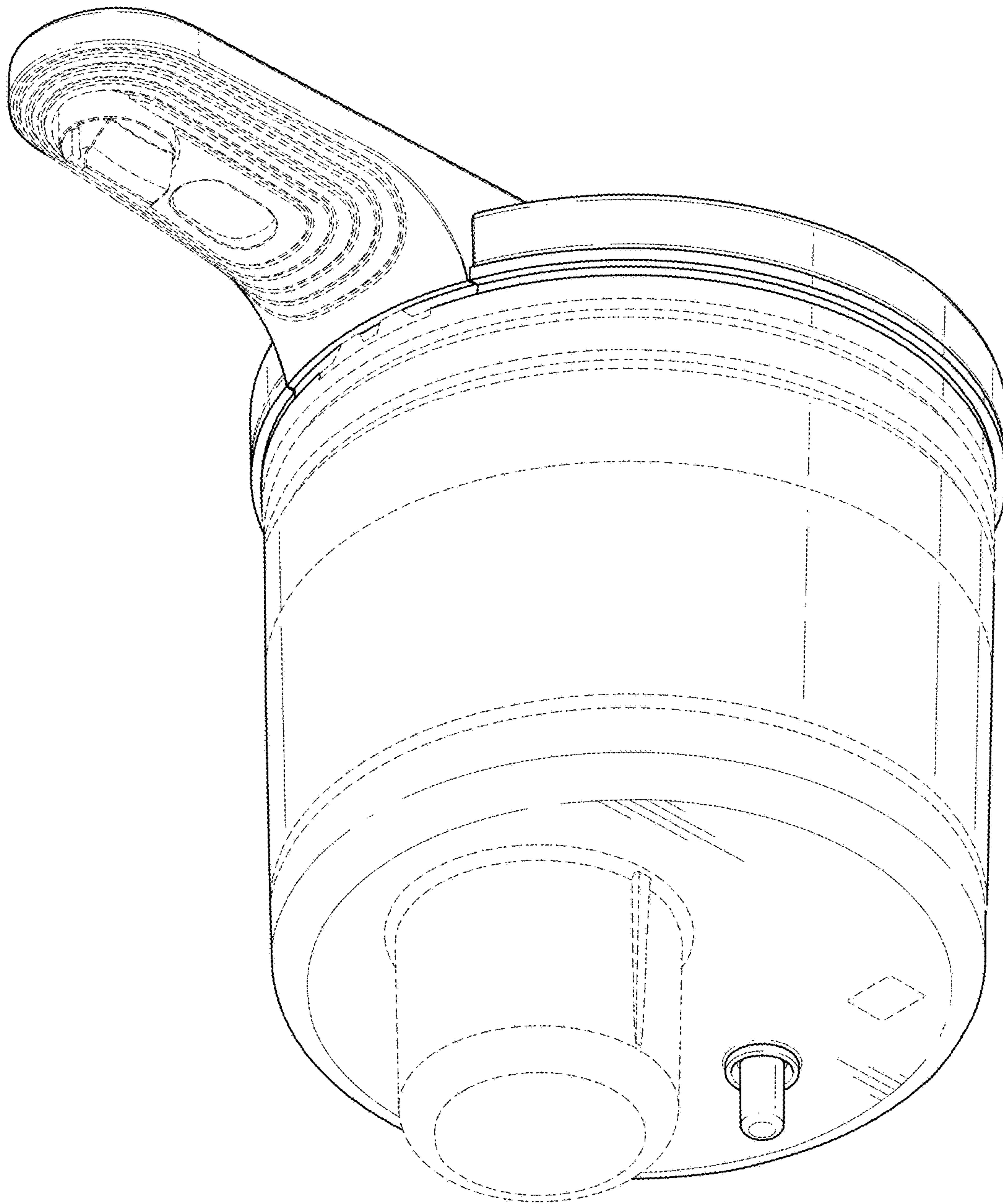
FOREIGN PATENT DOCUMENTS

EP 2322068 A2 5/2011  
EP 2546523 A2 1/2013  
JP H07-23876 1/1995  
JP D1117308 6/2001  
JP D1266683 2/2006  
KR 3002845520000 11/2001  
WO WO 2008/103300 A2 8/2008  
WO WO 2012/154642 A1 11/2012

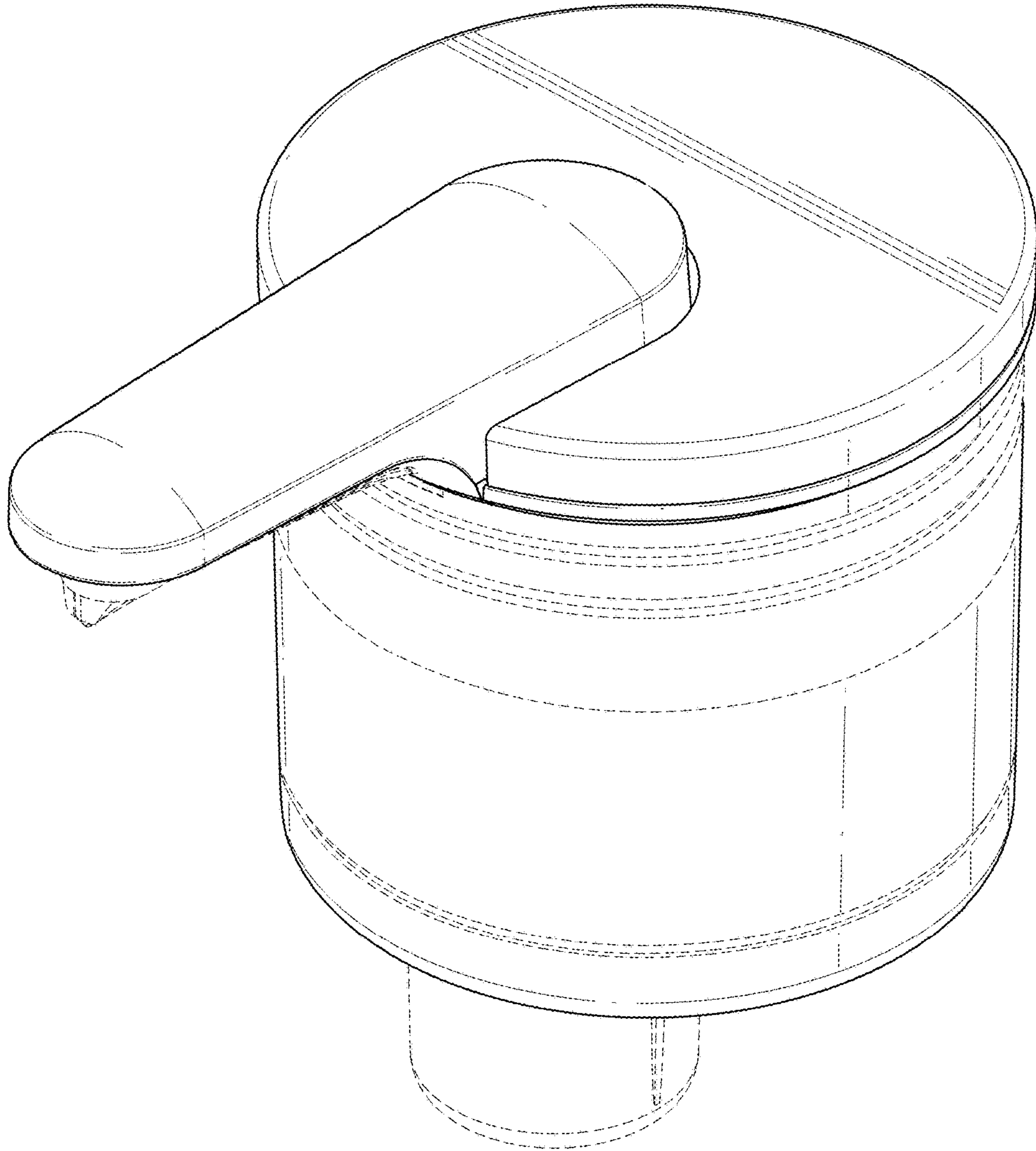
OTHER PUBLICATIONS

U.S. Appl. No. 29/518,584, filed Feb. 25, 2015, Yang et al.  
U.S. Appl. No. 29/519,741, filed Mar. 6, 2015, Yang et al.  
U.S. Appl. No. 15/060,241, filed Mar. 3, 2016, Yang et al.  
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.

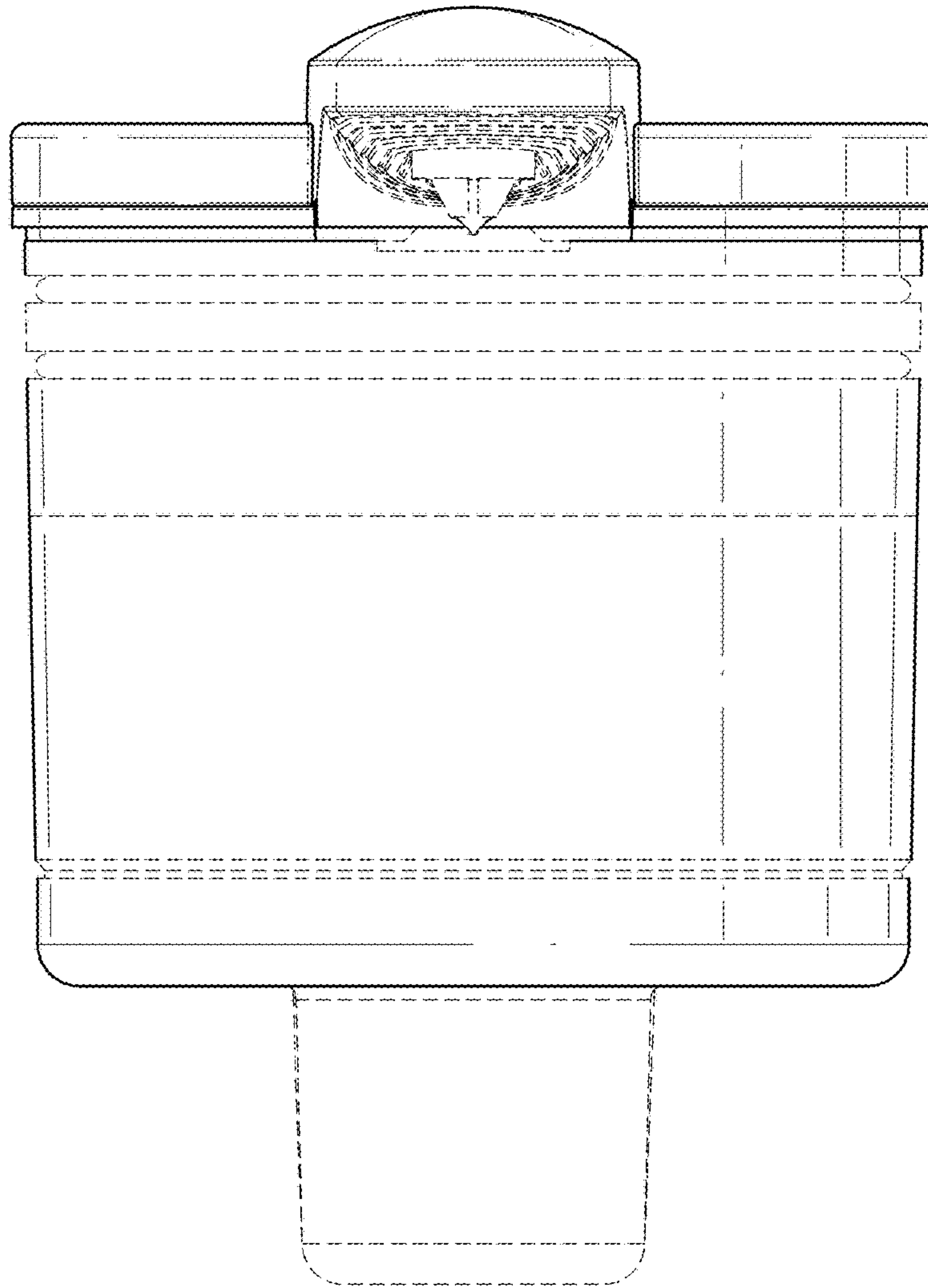
\* cited by examiner



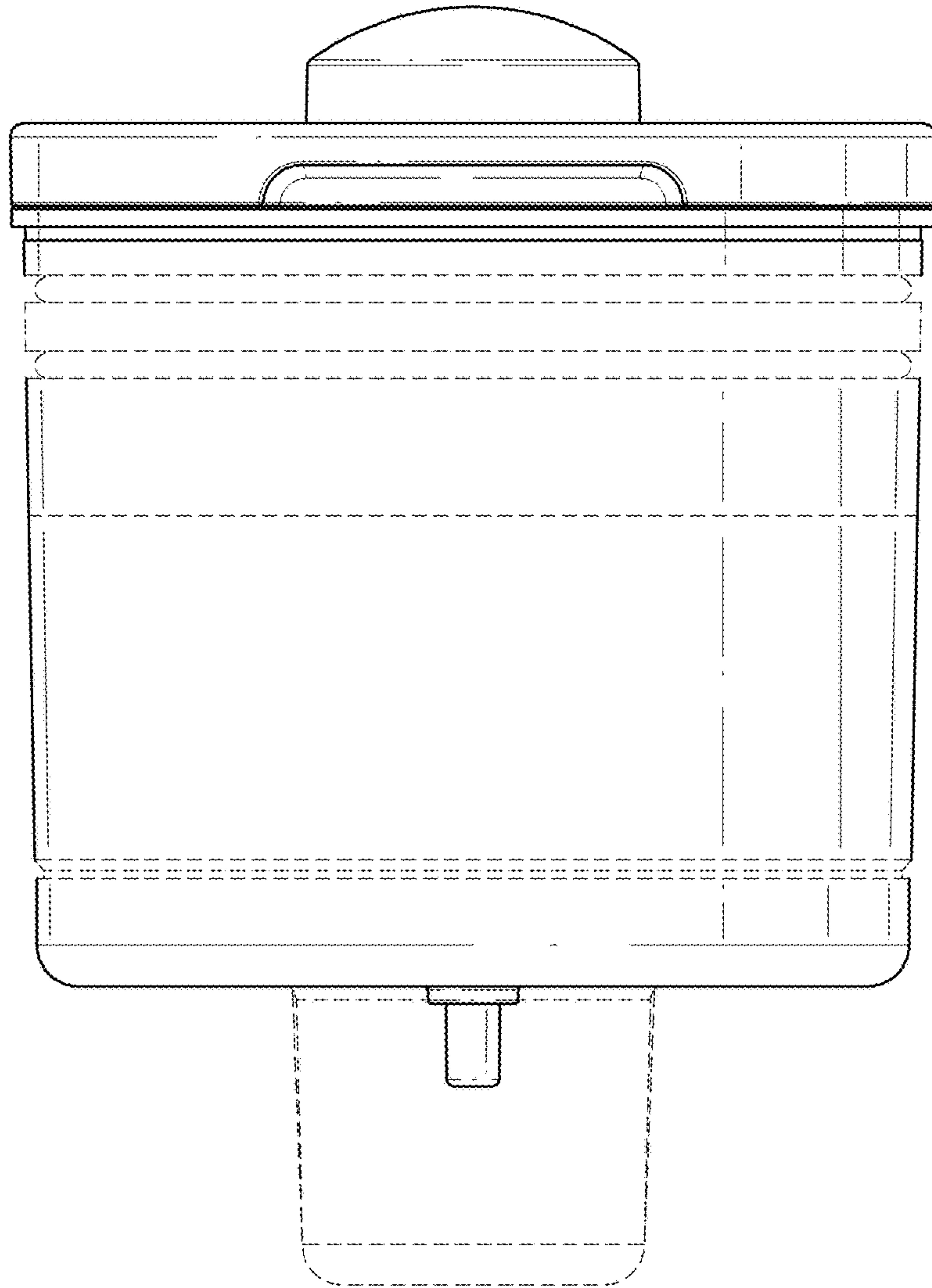
*FIG. 1*



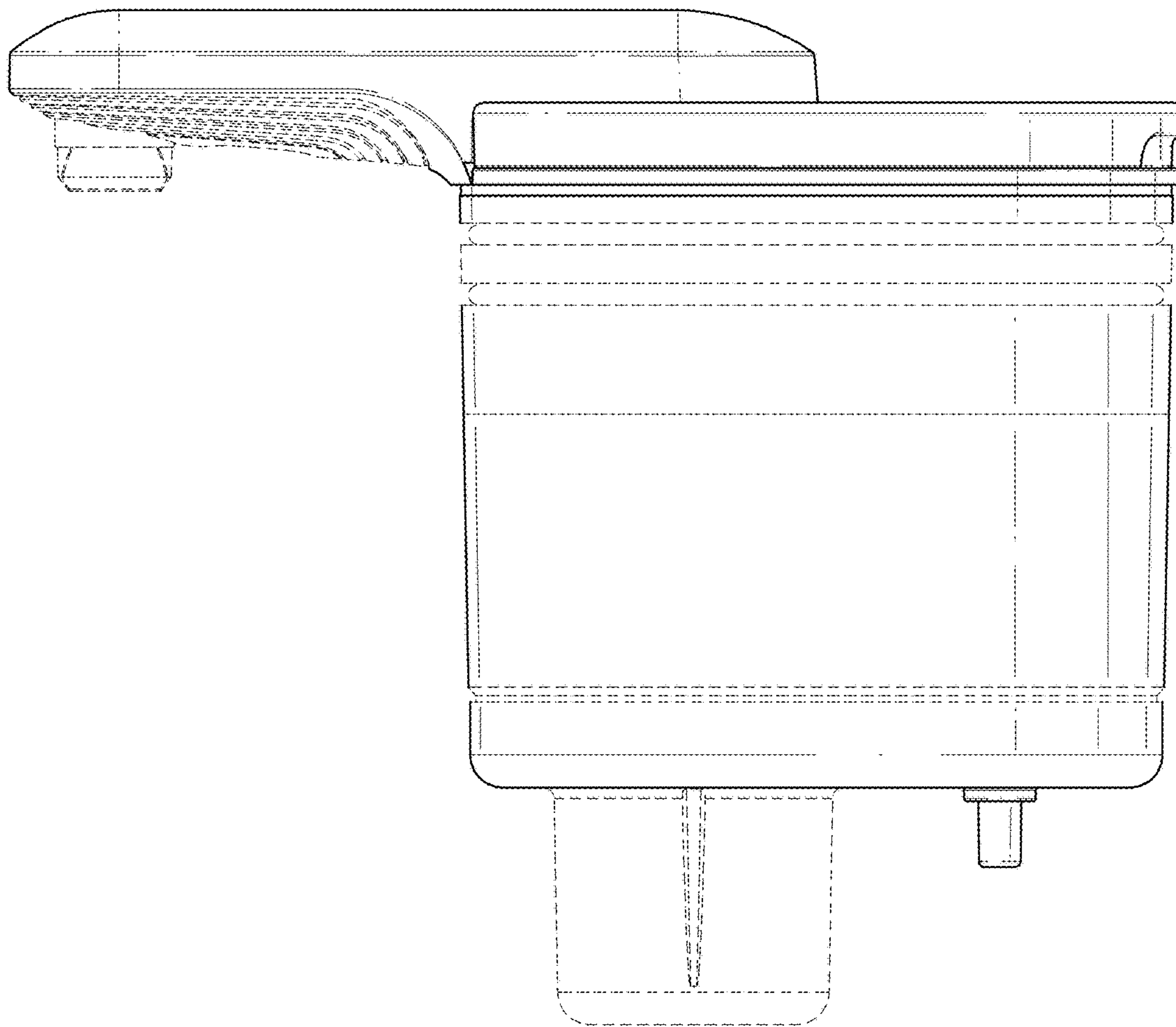
*FIG. 2*



*FIG. 3*

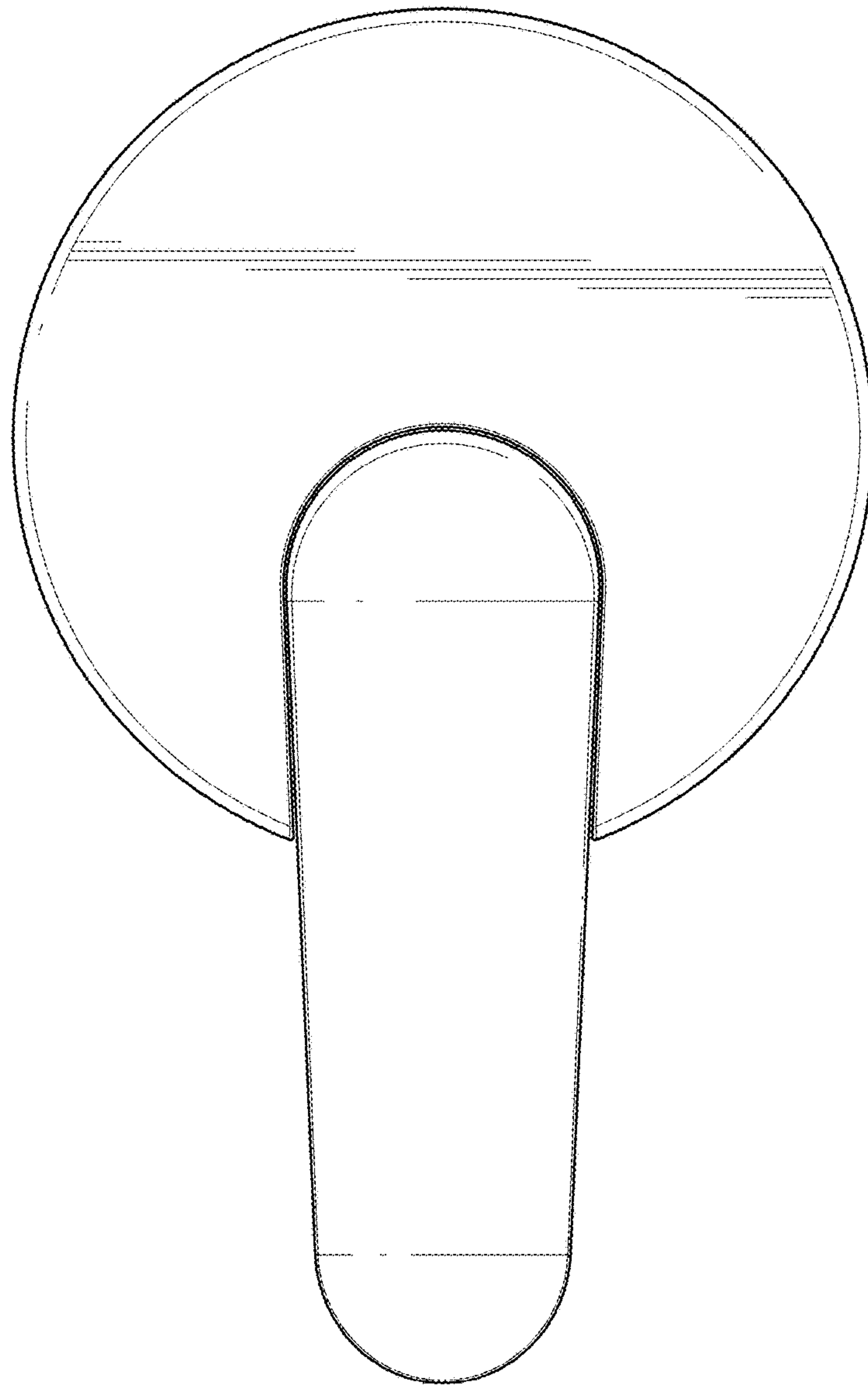


*FIG. 4*

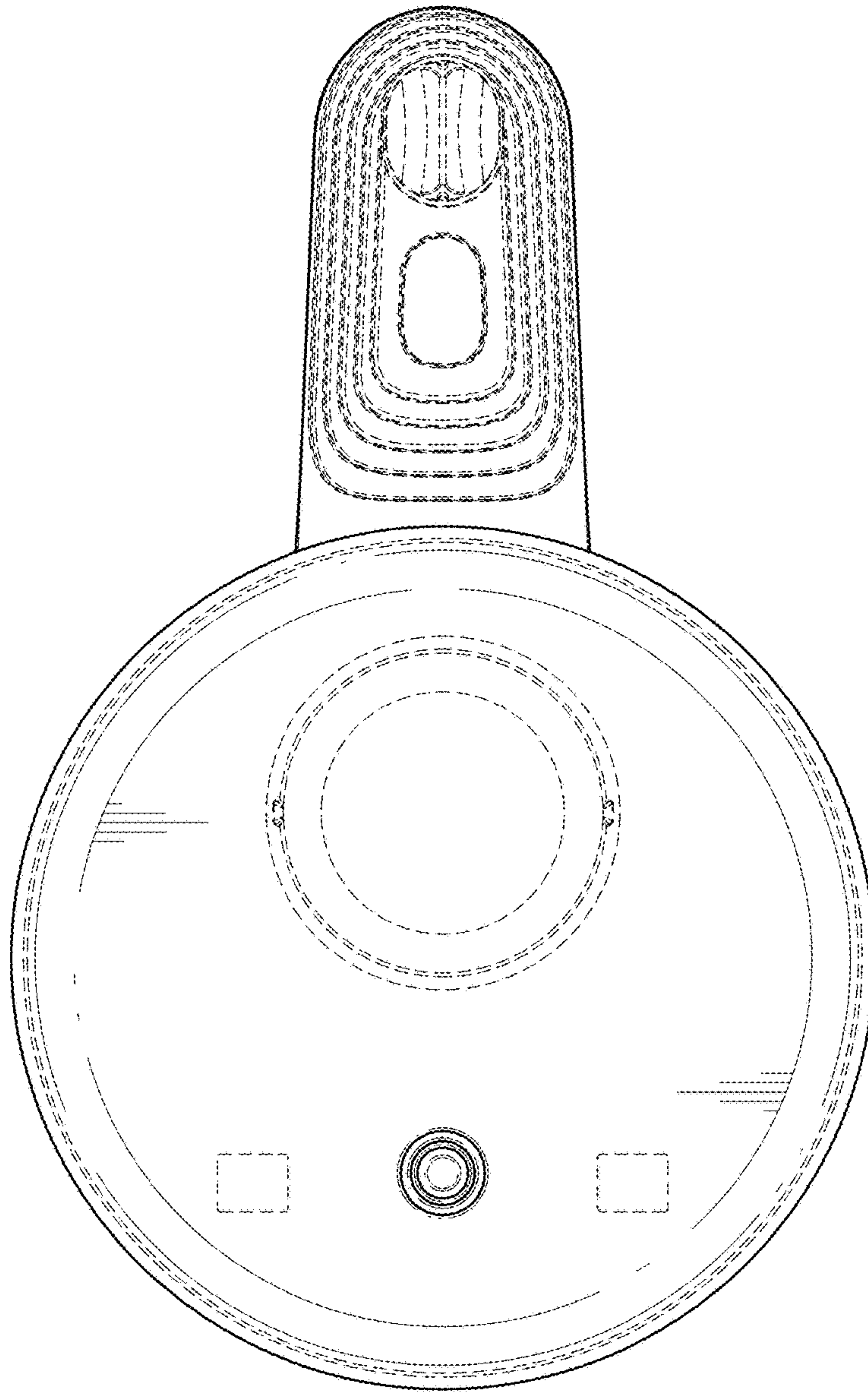


*FIG. 5*





*FIG. 6*



*FIG. 7*