



US00D932006S

(12) **United States Design Patent** (10) **Patent No.:** **US D932,006 S**
Nicholas et al. (45) **Date of Patent:** **** Sep. 28, 2021**

(54) **AUTO-INJECTOR CAP**
(71) Applicant: **Regeneron Pharmaceuticals, Inc.**,
Tarrytown, NY (US)
(72) Inventors: **Courtney Nicholas**, East Greenbush,
NY (US); **Scott Barton**, Clifton Park,
NY (US); **Bart E. Burgess**, Glenmont,
NY (US); **Alexei Goraltchouk**,
Cambridge, MA (US); **Paige Waechter**,
East Greenbush, NY (US); **Alex Zuyev**,
Frankfurt am Main (DE)

5,336,197 A 8/1994 Kuracina et al.
5,509,903 A 4/1996 Grendahl et al.
5,519,931 A 5/1996 Reich
5,554,127 A 9/1996 Crouther et al.
5,554,133 A 9/1996 Haffner et al.
5,716,346 A 2/1998 Farris
5,843,036 A 12/1998 Olive et al.

(Continued)

FOREIGN PATENT DOCUMENTS

EP 2716318 4/2014
EP 2716318 A1 4/2014

(Continued)

(73) Assignee: **Regeneron Pharmaceuticals, Inc.**,
Tarrytown, NY (US)

OTHER PUBLICATIONS

International Search Report and Written Opinion issued in PCT/
US2018/040282 dated Nov. 13, 2018 (13 pages).

(Continued)

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

Primary Examiner — David G Muller

(21) Appl. No.: **29/671,022**

(22) Filed: **Nov. 21, 2018**

(74) *Attorney, Agent, or Firm* — Bookoff McAndrews,
PLLC

(51) **LOC (13) Cl.** **24-02**

(52) **U.S. Cl.**
USPC **D24/113**

(58) **Field of Classification Search**
USPC D24/112–114, 108, 133, 130, 127, 186;
606/181, 185; 604/264, 272, 187, 181,
604/184, 227

CPC A61M 5/178; A61M 3/00; A61M 5/20;
A61M 5/31; A61M 5/3146; A61M
5/3129; A61M 5/3148; A61M 5/315

See application file for complete search history.

(57) **CLAIM**

The ornamental design for an auto-injector cap, as shown
and described.

DESCRIPTION

FIG. 1 is a front right perspective view of an auto-injector
cap showing our new design;
FIG. 2 is a front elevation view thereof;
FIG. 3 is a rear elevation view thereof;
FIG. 4 is a left side view thereof;
FIG. 5 is a right side view thereof;
FIG. 6 is a top plan view thereof; and,
FIG. 7 is a bottom view thereof.

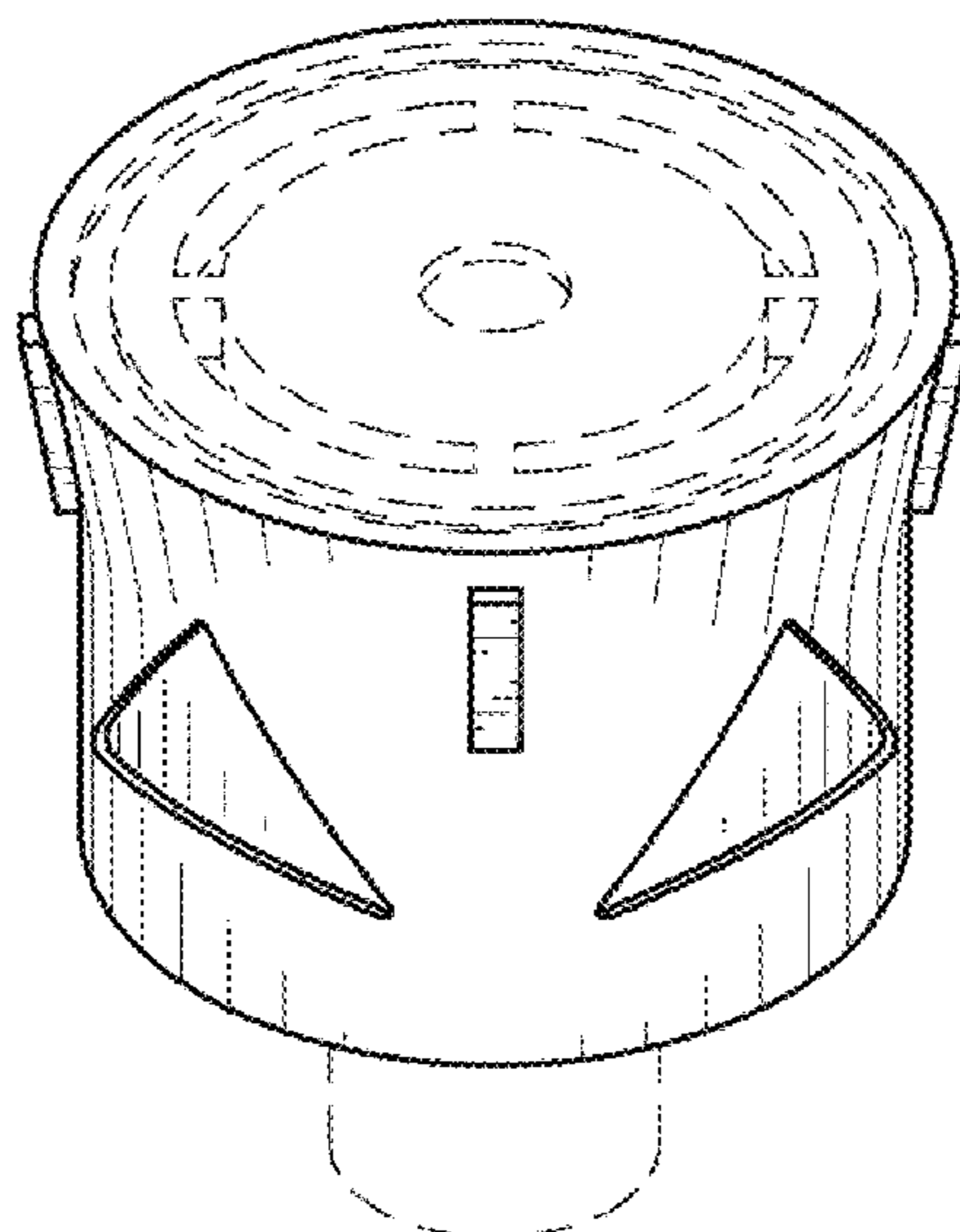
The broken lines shown in the drawings illustrate portions of
the auto-injector cap that form no part of the claimed design.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,046,145 A 9/1977 Choksi et al.
4,840,185 A 6/1989 Hernandez
4,900,309 A 2/1990 Netherton et al.
4,986,817 A 1/1991 Code
5,000,603 A 3/1991 Isoda
5,147,328 A 9/1992 Dragosits et al.

1 Claim, 2 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

5,897,266 A	4/1999	Robert	
5,997,513 A	12/1999	Smith et al.	
D426,299 S	6/2000	Bydlon et al.	
D428,651 S	7/2000	Andersson et al.	
6,206,855 B1	3/2001	Kunkel et al.	
D447,799 S *	9/2001	Jun	D24/130
D460,552 S *	7/2002	Niermann	D24/130
D462,760 S	9/2002	Ahlgrim et al.	
D479,599 S	9/2003	Bainton	
D479,601 S	9/2003	Tyce	
D479,602 S	9/2003	Bainton	
D479,603 S	9/2003	Tyce	
D479,747 S	9/2003	Bainton	
D479,748 S	9/2003	Tyce	
D481,120 S	10/2003	Hawley et al.	
D488,864 S	4/2004	Fago et al.	
D490,149 S	5/2004	Hawley et al.	
D490,150 S	5/2004	Hawley et al.	
D490,151 S	5/2004	Hawley et al.	
D492,027 S	6/2004	Tyce et al.	
D492,405 S	6/2004	Bainton	
D493,526 S	7/2004	Hwang	
7,189,217 B2	3/2007	Chang et al.	
7,307,265 B2	12/2007	Polsinelli et al.	
D561,894 S	2/2008	Hudson	
7,338,474 B2	3/2008	Kirk	
7,414,254 B2	8/2008	Polsinelli et al.	
D581,047 S	11/2008	Koshidaka	
7,449,012 B2	11/2008	Young et al.	
D596,289 S *	7/2009	Kawamura	D24/130
D598,539 S	8/2009	Tyce	
D599,008 S	8/2009	Tyce	
D599,009 S	8/2009	Tyce	
D599,010 S	8/2009	Tyce	
D599,011 S	8/2009	Tyce	
D600,794 S	9/2009	Tyce	
D600,795 S	9/2009	Tyce	
D606,649 S	12/2009	Tyce	
D606,650 S	12/2009	Tyce	
7,635,348 B2	12/2009	Raven et al.	
D608,442 S	1/2010	Tyce	
D610,251 S	2/2010	Tyce	
D610,252 S	2/2010	Tyce	
D610,676 S	2/2010	Tyce	
D612,486 S	3/2010	Van der Stappen	
7,682,155 B2	3/2010	Raven et al.	
D616,089 S *	5/2010	Van der Stappen	D24/113
D619,247 S	7/2010	Loe, Jr.	
D621,929 S *	8/2010	Van der Stappen	D24/130
D623,738 S *	9/2010	Van der Stappen	D24/130
7,794,432 B2	9/2010	Young et al.	
7,846,136 B2	12/2010	Witowski	
7,905,352 B2	3/2011	Wyrick	
D641,077 S	7/2011	Sanders et al.	
D651,305 S	12/2011	Hawley et al.	
8,269,201 B2	9/2012	Fago et al.	
D671,638 S	11/2012	Young et al.	
D676,957 S	2/2013	Schneider et al.	
8,376,998 B2	2/2013	Daily et al.	
D677,380 S	3/2013	Julian et al.	
D687,543 S	8/2013	Pala et al.	
D688,790 S	8/2013	Guarraia et al.	
D688,791 S	8/2013	Guarraia et al.	
D688,793 S	8/2013	Guarraia et al.	
D690,416 S	9/2013	Cappello et al.	
8,529,510 B2	9/2013	Giambattista et al.	
D692,129 S	10/2013	Dubuc et al.	
D694,879 S	12/2013	Julian et al.	
D695,892 S	12/2013	Cappello et al.	
D696,397 S	12/2013	Guarraia et al.	
D696,771 S	12/2013	Schneider et al.	
D696,773 S	12/2013	Schneider et al.	
D696,774 S	12/2013	Guarraia et al.	
D696,775 S	12/2013	Guarraia et al.	
D697,205 S	1/2014	Schneider et al.	
D703,314 S	4/2014	Schneider et al.	
D707,351 S	6/2014	Kunze	
D707,352 S	6/2014	Liu et al.	
D708,317 S	7/2014	Schneider et al.	
D710,498 S *	8/2014	Koshidaka	D24/130
8,801,679 B2	8/2014	Iio et al.	
8,821,451 B2	9/2014	Daniel	
D714,932 S	10/2014	Hall et al.	
D715,422 S	10/2014	Hall et al.	
D716,442 S	10/2014	Magome et al.	
8,864,718 B2	10/2014	Karlsen et al.	
8,870,827 B2	10/2014	Young et al.	
D717,428 S	11/2014	Sendatzki et al.	
D717,940 S	11/2014	Magome et al.	
8,888,713 B2	11/2014	Crawford et al.	
9,022,982 B2	5/2015	Karlsson et al.	
D733,869 S *	7/2015	Ratjen	D24/113
9,078,973 B2	7/2015	Harms et al.	
9,132,236 B2	9/2015	Karlsson et al.	
D740,937 S	10/2015	Schneider et al.	
9,199,038 B2	12/2015	Daniel	
9,216,251 B2	12/2015	Daniel	
9,220,841 B2	12/2015	Daniel	
9,220,847 B2	12/2015	Holmqvist et al.	
D748,253 S *	1/2016	Ratjen	D24/130
9,247,899 B2	2/2016	Shaw et al.	
D752,211 S	3/2016	Sanders et al.	
D755,369 S	5/2016	Sanders et al.	
D755,370 S	5/2016	Riess et al.	
D757,254 S	5/2016	Wohlfahrt et al.	
D757,255 S	5/2016	Wohlfahrt et al.	
D758,567 S	6/2016	Wohlfahrt et al.	
D758,568 S	6/2016	Wohlfahrt et al.	
D758,569 S	6/2016	Wohlfahrt et al.	
D764,657 S	8/2016	Bokelman et al.	
9,468,722 B2	10/2016	Olson	
D773,039 S	11/2016	Sanders et al.	
D773,648 S	12/2016	Wohlfahrt et al.	
D774,641 S	12/2016	Miggels et al.	
D777,907 S	1/2017	Amend Kwasnik et al.	
D777,912 S *	1/2017	Wohlfahrt	D24/130
9,566,380 B1	2/2017	Tcholakian	
D780,909 S	3/2017	Burkett et al.	
9,586,010 B2	3/2017	Mesa et al.	
9,604,004 B2	3/2017	Jakobsen	
D783,816 S *	4/2017	Wohlfahrt	D24/130
D785,784 S	5/2017	Jones et al.	
D787,666 S	5/2017	Ohashi	
D794,178 S	8/2017	Daniel et al.	
D794,777 S	8/2017	Daniel et al.	
D800,897 S	10/2017	Aneas	
D810,282 S	2/2018	Ratjen	
D814,022 S	3/2018	Boyaval et al.	
D818,587 S	5/2018	Shang et al.	
D827,127 S	8/2018	Donnelly	
D830,539 S	10/2018	Boyaval et al.	
10,149,945 B2	12/2018	Moser et al.	
D892,311 S *	8/2020	Nicholas	D24/113
D898,191 S *	10/2020	Nicholas	D24/130
2003/0026642 A1	2/2003	Schwartzman	
2004/0116875 A1	6/2004	Fischer et al.	
2005/0011911 A1	1/2005	Vaughan	
2007/0039156 A1	2/2007	Reich	
2007/0113861 A1	5/2007	Knudsen et al.	
2008/0009808 A1	1/2008	Berler	
2008/0269692 A1	10/2008	James et al.	
2008/0289984 A1	11/2008	Raven et al.	
2010/0266326 A1	10/2010	Chuang	
2013/0030375 A1	1/2013	Daily et al.	
2013/0041328 A1	2/2013	Daniel	
2013/0041347 A1	2/2013	Daniel	
2013/0281934 A1	10/2013	Wilmot et al.	
2014/0358037 A1	12/2014	Crawford et al.	
2015/0011944 A1	1/2015	Young et al.	
2015/0045742 A1	2/2015	Cheung	
2015/0051580 A1	2/2015	Shain et al.	
2015/0065960 A1	3/2015	Osman	
2015/0073383 A1	3/2015	Wilmot et al.	
2015/0080807 A1	3/2015	Schneider et al.	

(56)

References Cited

U.S. PATENT DOCUMENTS

2015/0352278 A1 12/2015 Morita et al.
 2015/0374918 A1 12/2015 Kumar et al.
 2016/0051760 A1 2/2016 Krusell et al.
 2016/0051764 A1 2/2016 Dreier et al.
 2016/0067407 A1 3/2016 Daniel
 2016/0089498 A1 3/2016 Daniel
 2016/0158460 A1 6/2016 Mesa et al.
 2016/0213845 A1 7/2016 Holmqvist
 2016/0263327 A1 9/2016 Radmer et al.
 2016/0279334 A1 9/2016 Daniel
 2016/0317745 A1 11/2016 Kjeldsen et al.
 2016/0375196 A1 12/2016 Wilmot et al.
 2018/0304067 A1 10/2018 Ryan
 2018/0311442 A1 11/2018 Saussaye et al.
 2018/0353692 A1 12/2018 Saussaye et al.

FOREIGN PATENT DOCUMENTS

EP 004420388-0001 10/2017
 EP 004420388-0002 10/2017
 EP 004420388-0003 10/2017
 EP 004420388-0004 10/2017
 EP 004420388-0005 10/2017
 EP 004420388-0006 10/2017
 EP 004420388-0007 10/2017
 EP 004420388-0008 10/2017
 EP 004420388-0009 10/2017
 EP 004420388-0010 10/2017
 EP 004420388-0011 10/2017
 FR 3043562 5/2017
 FR 3043562 A1 5/2017

GB 2233607 A 1/1991
 JP 10166785 A 6/1998
 JP 2000025385 A 1/2000
 JP 1401278 11/2010
 JP 1401279 11/2010
 JP 1401281 11/2010
 JP 1401282 11/2010
 JP 1401283 11/2010
 JP 1587411 10/2017
 WO WO 2012/073042 A1 6/2012
 WO WO 2015/026737 A1 2/2015
 WO WO-2015026737 A1 2/2015
 WO WO-2019006296 A1 1/2019

OTHER PUBLICATIONS

International Search Report and Written Opinion for PCT Application No. PCT/US2018/040282, dated Nov. 13, 2018, 13 pages.
 SHL Medical Products Molly Auto-Injectors, Retrieved from the internet [URL: http://www.shl-group.com/Products_SHLMedical_AutoInjectors_Molly.html] last accessed Jul. 26, 2018, 5 pages.
 EUIPO Design Gazette, 004420388-0001, HH29206315 (Oct. 25, 2017).
 EUIPO Design Gazette, 004420388-0011, HH29206317 (Oct. 25, 2017).
 International Bureau Design Gazette, DM/092744, HH29502547 (Sep. 6, 2016).
 International Bureau Design Gazette, DM/098096, HH29513908 (Sep. 11, 2017).
 SHL Medical Products Molly Auto Injectors (http://www.shl-group.com/Products_SHLMedical_AutoInjectors_Molly.html), last accessed Jul. 26, 2018.

* cited by examiner

FIG. 1

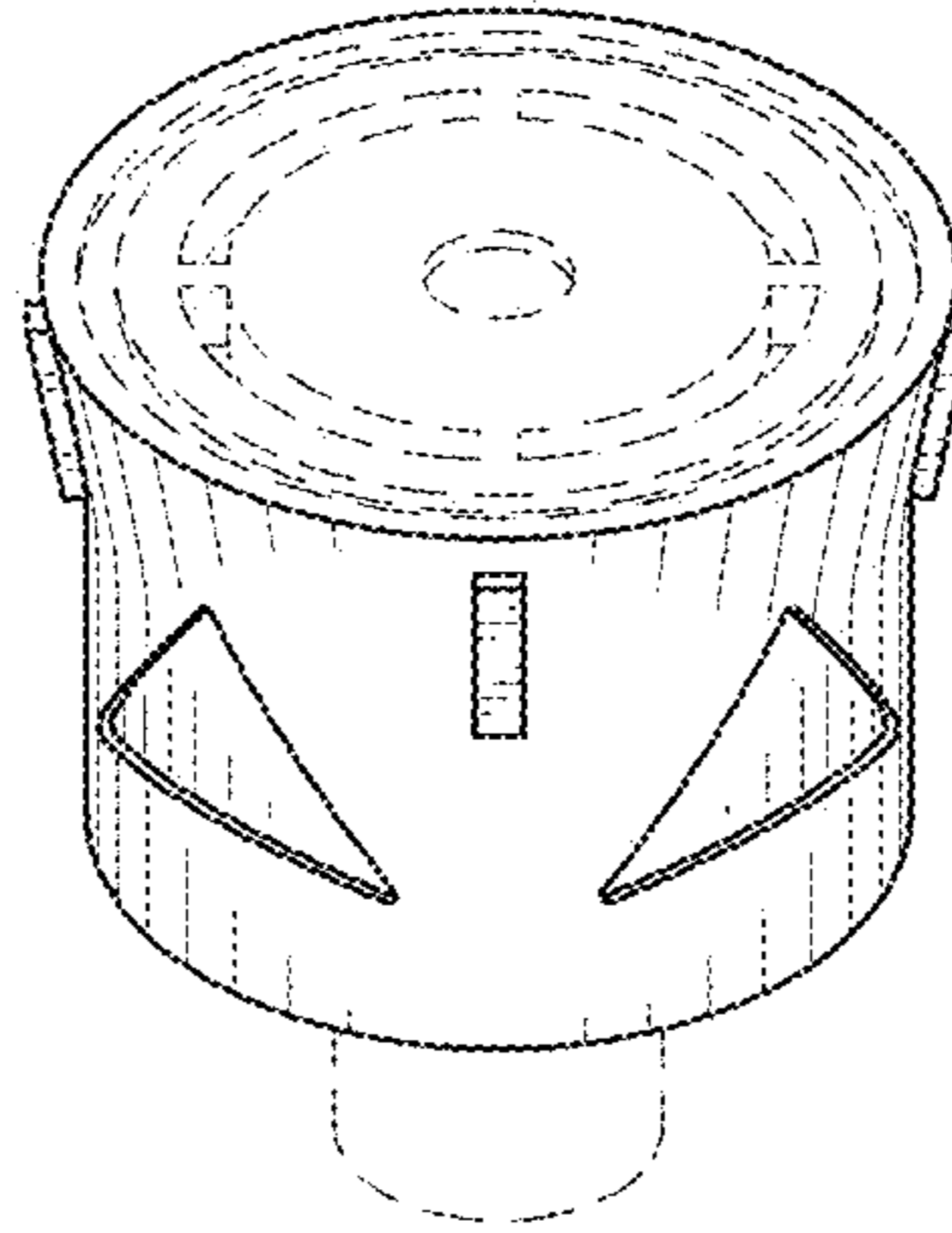


FIG. 2

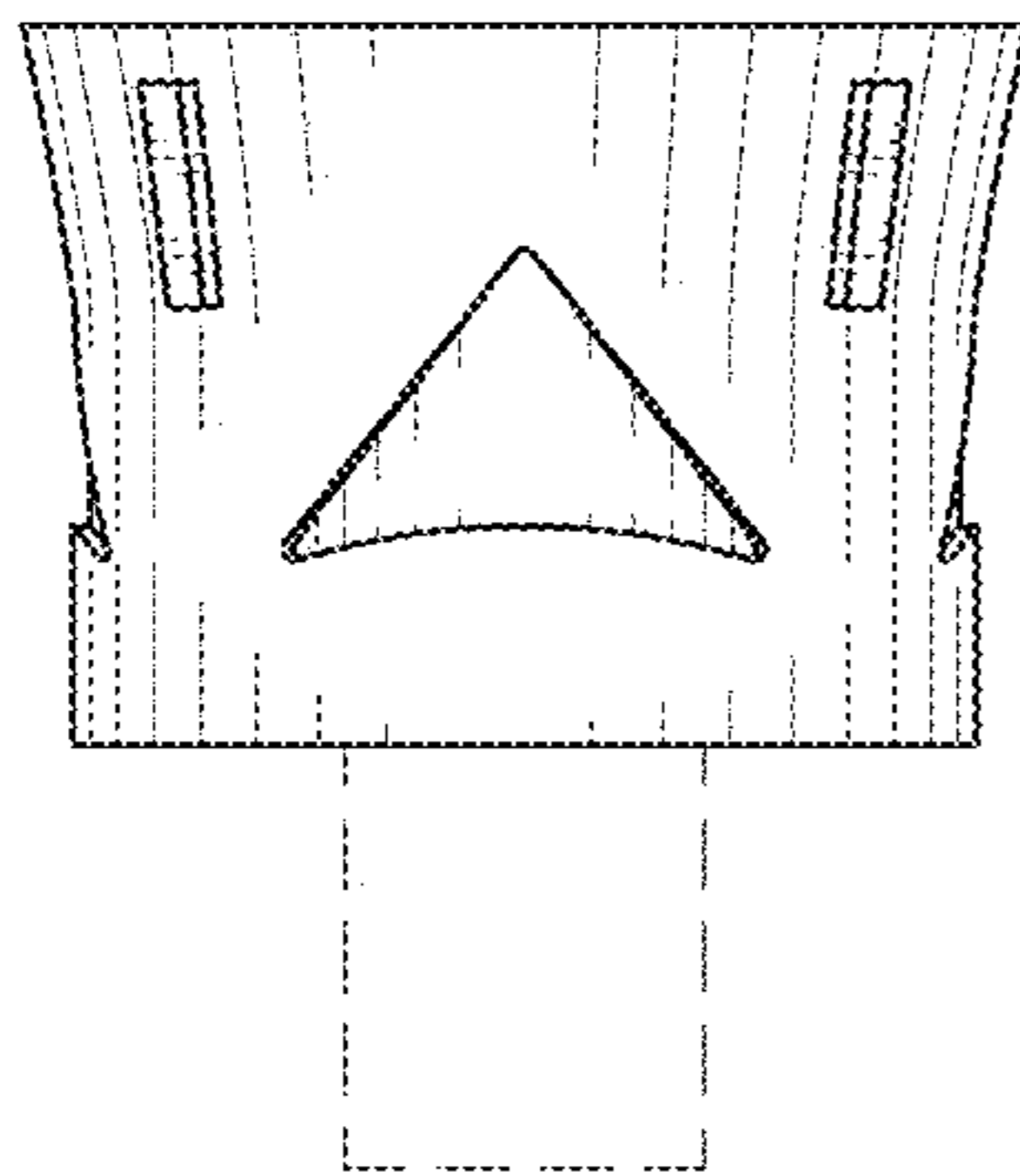


FIG. 3

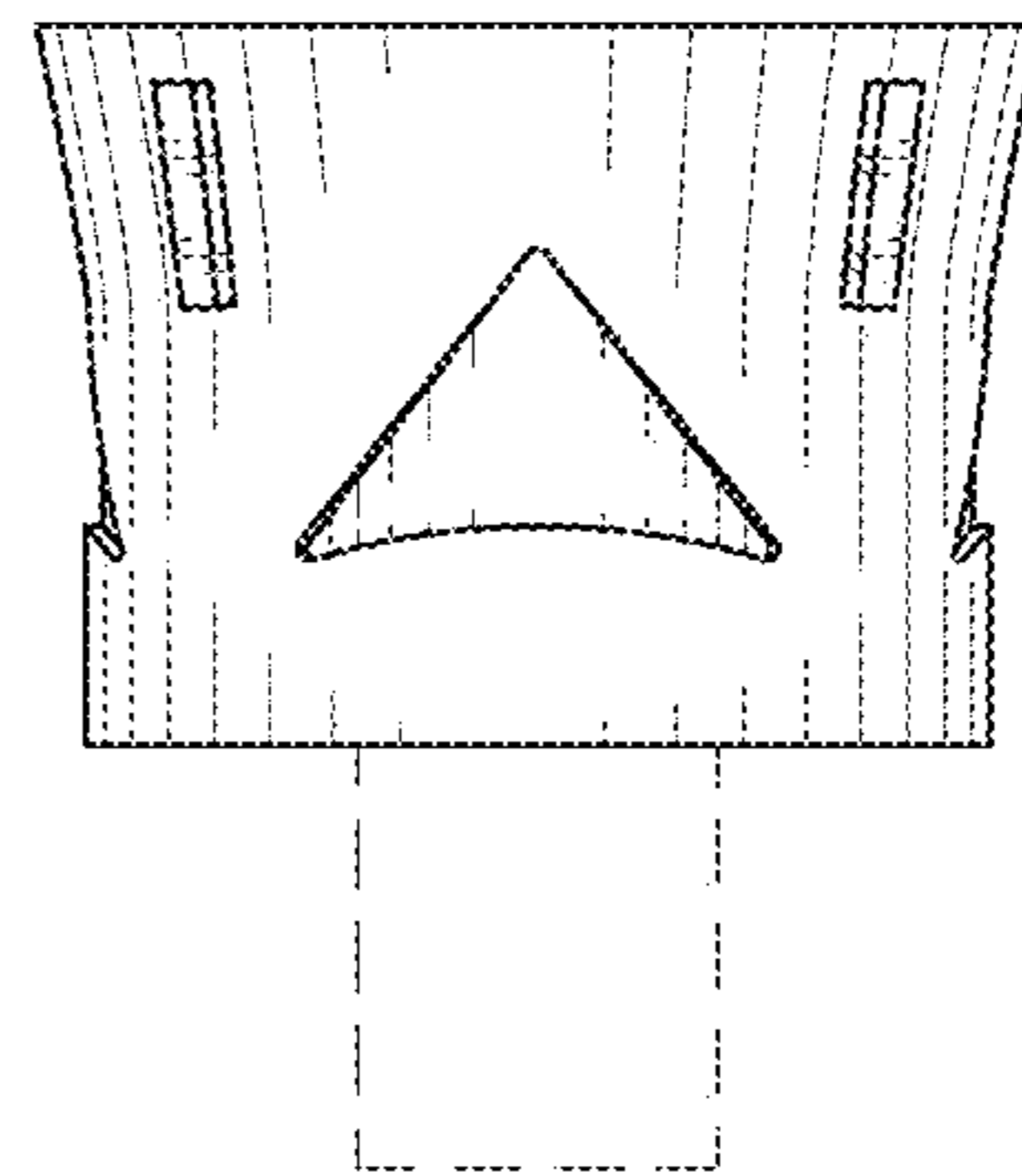


FIG. 4

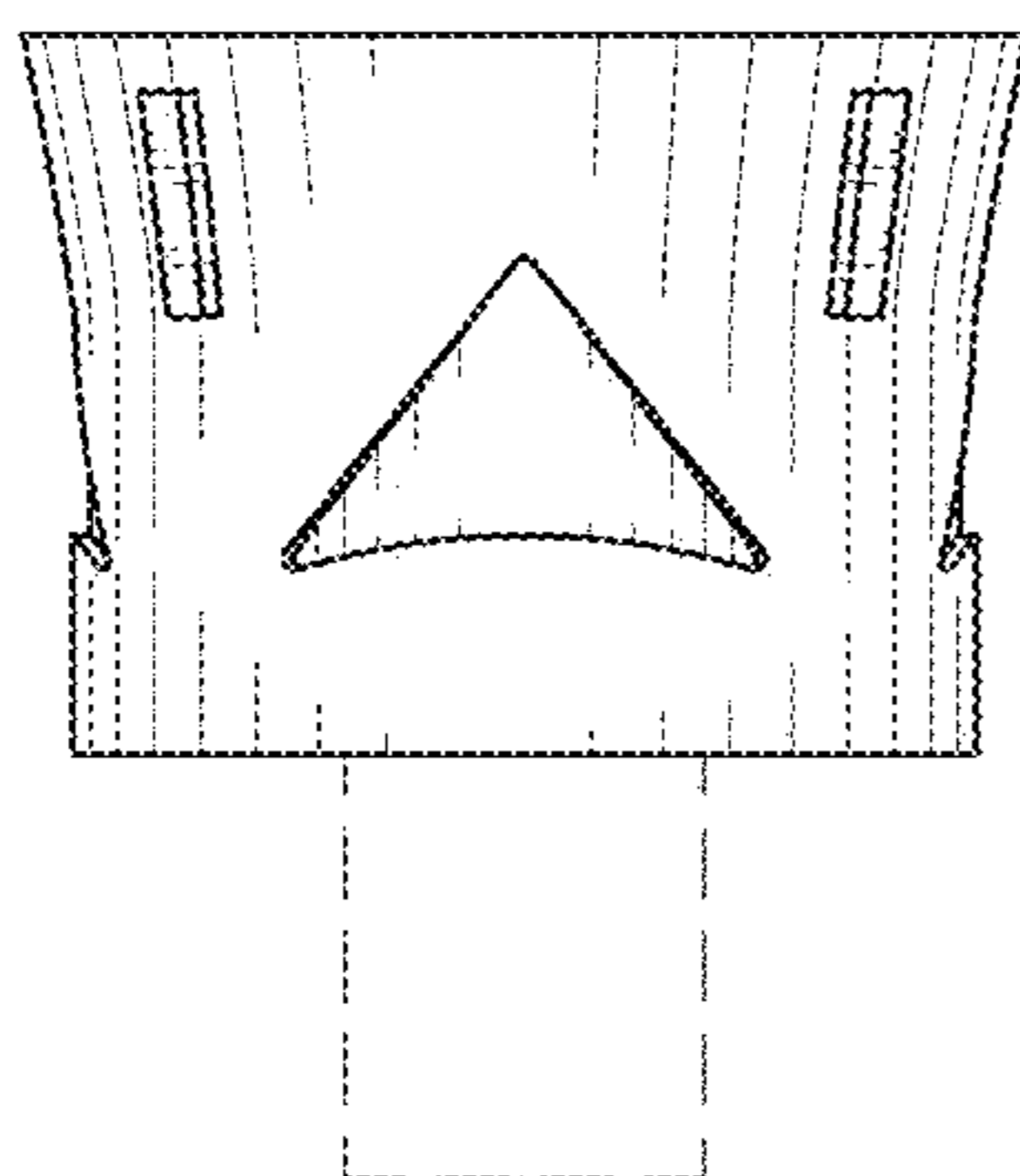


FIG. 5

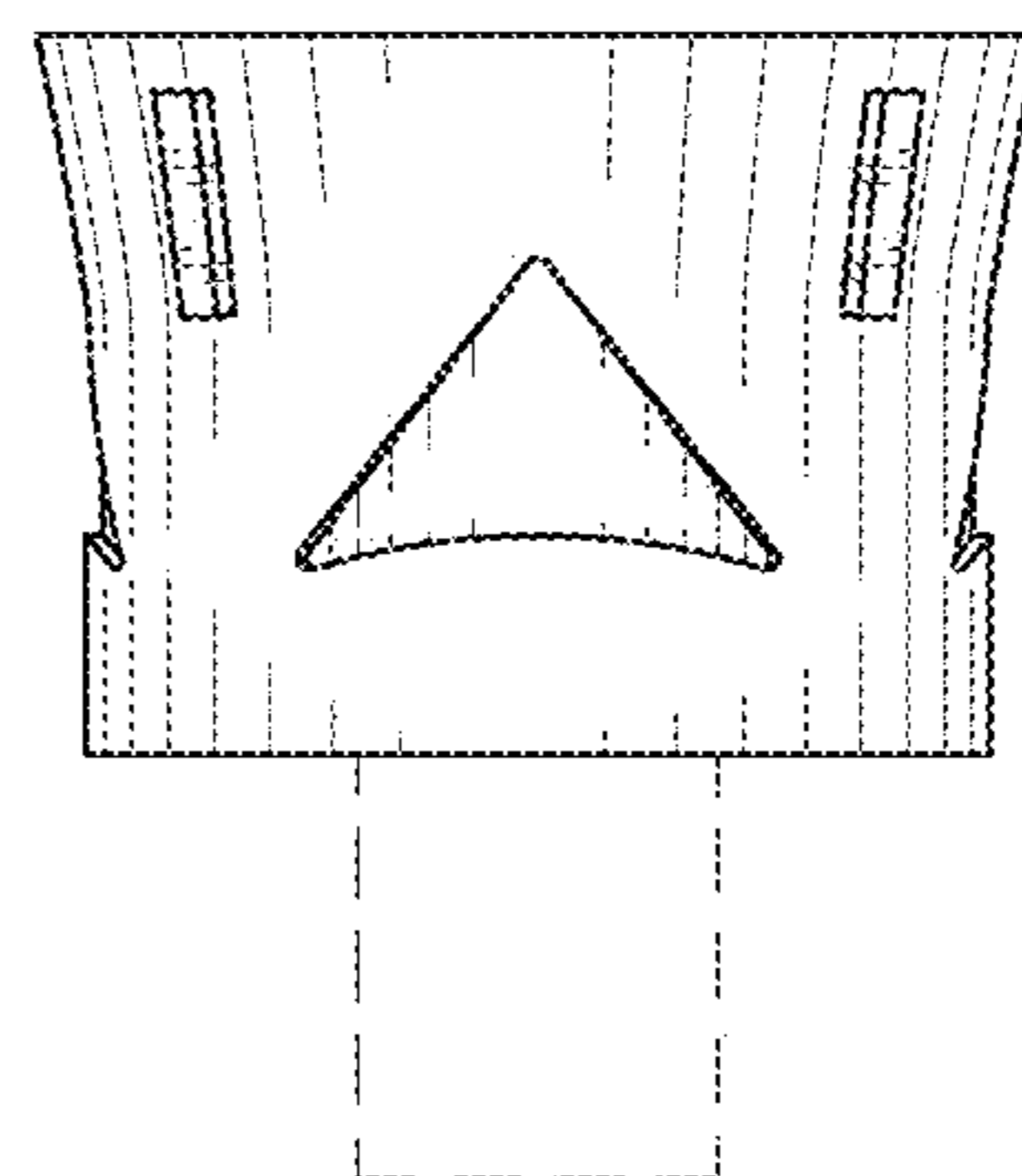


FIG. 6

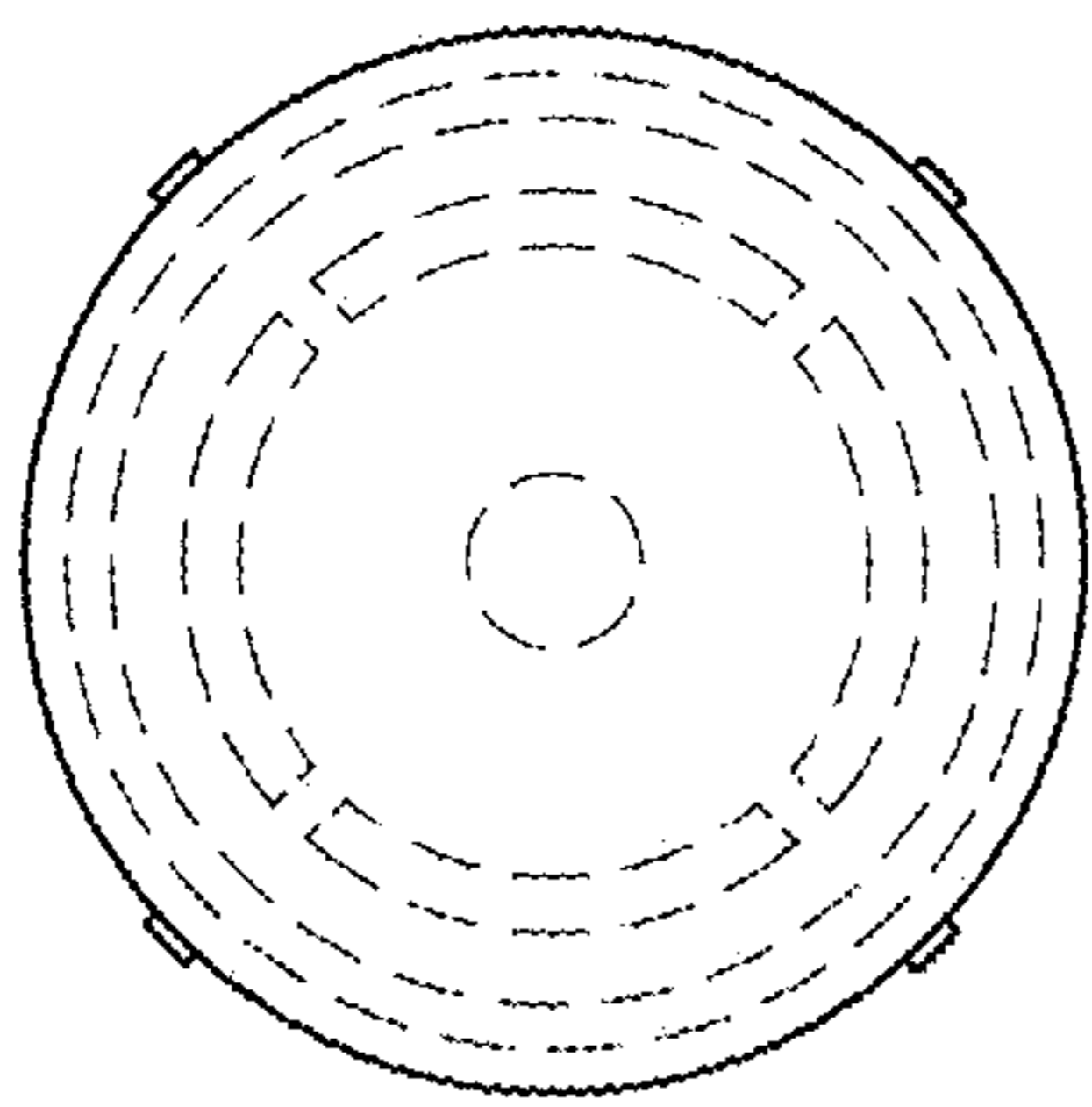


FIG. 7

