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(12) **United States Design Patent** (10) **Patent No.:** **US D924,473 S**
Powell et al. (45) **Date of Patent:** **** *Jul. 6, 2021**

(54) **AEROSOL GENERATOR**

FOREIGN PATENT DOCUMENTS

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CN 1126425 A 7/1996
CN 1190335 A 8/1998

(Continued)

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OTHER PUBLICATIONS

Design U.S. Appl. No. 29/557,914, filed Mar. 14, 2016 inventors
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(Continued)

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(*) Notice: This patent is subject to a terminal disclaimer.

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

(57) **CLAIM**

(21) Appl. No.: **29/687,464**

We claim the ornamental design for an aerosol generator, as shown and described.

(22) Filed: **Apr. 12, 2019**

DESCRIPTION

(30) **Foreign Application Priority Data**

Oct. 15, 2018 (EM) 005799004

(51) **LOC (13) Cl.** **27-02**

(52) **U.S. Cl.**
USPC **D27/162**

(58) **Field of Classification Search**
USPC D27/162, 100, 101, 139, 141, 148,
D27/161-171, 183, 185-194; D24/110,
D24/110.5, 129, 113, 112; D13/108, 144,
D13/103, 119, 146, 168; D23/360,
D23/364-366, 202, 262, 209, 207;
(Continued)

FIG. 1 is a top front perspective view of an aerosol generator showing the new design.

FIG. 2 is a bottom rear perspective view of the aerosol generator depicted in FIG. 1.

FIG. 3 is a front elevational view of the aerosol generator depicted in FIG. 1.

FIG. 4 is a rear elevational view of the aerosol generator depicted in FIG. 1.

FIG. 5 is a left side elevational view of the aerosol generator depicted in FIG. 1.

FIG. 6 is a right side elevational view of the aerosol generator depicted in FIG. 1.

FIG. 7 is a top plan view of the aerosol generator depicted in FIG. 1; and,

FIG. 8 is a bottom plan view of the aerosol generator depicted in FIG. 1.

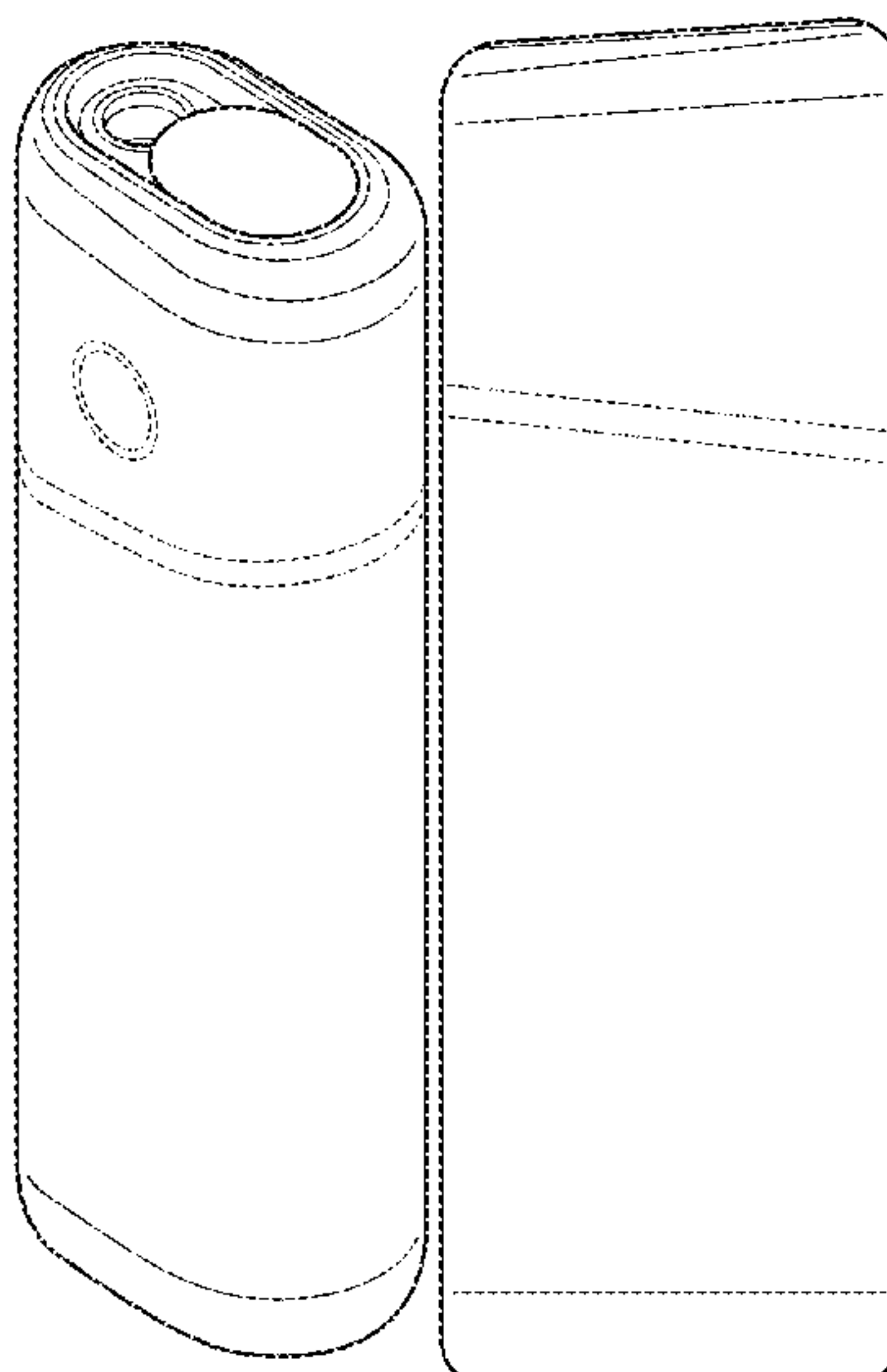
The broken lines in the drawings illustrate portions of the aerosol generator that form no part of the claimed design.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D22,270 S 3/1893 Kinney
D27,458 S 8/1897 Cameron
(Continued)

1 Claim, 8 Drawing Sheets



(58) **Field of Classification Search**

USPC D19/66, 73, 115, 123, 173, 177, 923,
 D19/925-929, 934, 161-166, 194-196;
 D14/434, 480.5, 480.1, 480.3, 483, 484.1,
 D14/420, 426, 250, 137, 203.1, 203.3,
 D14/203.7, 218, 254, 411, 433-435,
 D14/435.1; D4/121; D9/500, 503, 504,
 D9/516, 517, 522, 523, 530, 531, 560,
 D9/444; D11/143, 156, 146, 54, 152,
 D11/149, 144; D28/85, 4, 7, 88, 90,
 D28/73-76, 77; D3/201, 11, 13, 17, 273,
 D3/274, 300, 269; D21/333
 CPC A24F 40/00; A24F 40/40; A24F 40/42;
 A24F 40/05; A24F 40/46; A24F 47/002;
 A24F 47/008; A24D 1/14; A24D 1/042;
 A24D 1/02; G06F 3/03545
 See application file for complete search history.

D716,267 S 10/2014 Kim et al.
 D728,855 S 5/2015 Liu
 D729,440 S 5/2015 Liu
 D729,445 S * 5/2015 Leidel D27/186
 D732,023 S * 6/2015 Asao D14/358
 D736,455 S * 8/2015 Liu D27/189
 D740,673 S 10/2015 Corradini et al.
 D743,099 S 11/2015 Oglesby
 D743,889 S * 11/2015 Lyles D13/110
 D745,404 S 12/2015 Julier et al.
 D746,771 S 1/2016 Perez
 D758,656 S 6/2016 Freshwater et al.
 D759,296 S 6/2016 Abroff et al.
 D760,414 S * 6/2016 Brown D26/37
 D768,834 S 10/2016 Schuller et al.
 D771,867 S 11/2016 Leidel et al.
 D773,114 S 11/2016 Leidel et al.
 9,499,332 B2 * 11/2016 Fernando H02J 7/0044
 D775,762 S 1/2017 Chen
 D778,831 S * 2/2017 Chen D13/108
 D787,657 S 5/2017 Farone et al.
 D787,728 S * 5/2017 Wing D26/37
 D788,364 S 5/2017 Chen
 D807,575 S * 1/2018 Luo D27/141
 D818,637 S * 5/2018 Ringel D27/141
 D819,023 S * 5/2018 Shim D14/363
 D821,640 S * 6/2018 Qiu D27/162
 D828,295 S * 9/2018 Li D13/108
 D828,622 S 9/2018 Chen et al.
 D828,912 S 9/2018 Powell et al.
 D828,950 S * 9/2018 Gu D27/141
 D828,953 S 9/2018 Chen
 D833,384 S * 11/2018 Takayanagi D13/103
 10,136,679 B1 11/2018 Shotey et al.
 D835,857 S 12/2018 Benacquisto et al.
 D839,823 S 2/2019 Lemelson et al.
 10,194,697 B2 * 2/2019 Fernando A24F 40/95
 D842,237 S * 3/2019 Qiu D13/103
 D842,243 S 3/2019 Qiu
 D843,052 S 3/2019 Powell et al.
 D844,030 S * 3/2019 You D14/497
 D848,603 S * 5/2019 Fujino D24/110
 D853,022 S 7/2019 Srour
 D854,236 S 7/2019 Qiu
 D861,549 S 10/2019 Lai
 D869,086 S * 12/2019 Pan D27/162
 D870,367 S 12/2019 Chung et al.
 D872,355 S 1/2020 Powell et al.
 D876,214 S * 2/2020 Yu D9/414
 D881,458 S 4/2020 Ouyang
 D883,197 S * 5/2020 Doucet D13/107
 D883,563 S * 5/2020 Pan D27/139
 D884,266 S * 5/2020 Wang D27/162
 D884,961 S 5/2020 He
 D885,332 S 5/2020 Han
 D885,337 S 5/2020 Xu
 D885,651 S * 5/2020 Miyamoto D27/101
 D888,326 S * 6/2020 Qiu D27/101
 D888,329 S * 6/2020 Qiu D27/167
 D889,740 S * 7/2020 Beer D27/194
 D891,692 S * 7/2020 Barbaric D27/162
 D892,124 S * 8/2020 Shim D14/435
 D893,009 S 8/2020 Choi
 D894,476 S * 8/2020 Miyamoto D27/101
 D896,519 S 9/2020 Cooper et al.
 D897,596 S 9/2020 Huang et al.
 D898,280 S 10/2020 Li et al.
 D898,990 S 10/2020 Liu et al.
 D898,991 S 10/2020 Pan
 10,791,765 B2 * 10/2020 Li A24F 40/465
 D901,072 S * 11/2020 Goradesky A24F 13/22
 D904,401 S * 12/2020 Wu D27/189
 D904,678 S * 12/2020 Wang D14/363
 D905,901 S * 12/2020 Kim D27/162
 D908,344 S * 1/2021 Jones D3/201
 D908,834 S * 1/2021 Cho D23/207
 D908,952 S * 1/2021 Guo D27/101
 2004/0025865 A1 2/2004 Nichols et al.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,927,956 A 9/1933 Segal
 2,371,557 A * 3/1945 Sullivan A45C 13/005
 220/830
 D164,391 S * 8/1951 Wagner D27/155
 D174,884 S * 5/1955 Nelson D23/359
 D239,198 S * 3/1976 Nau D26/46
 D239,631 S * 4/1976 Lauri D27/155
 D239,776 S * 5/1976 Goto D27/160
 4,214,658 A * 7/1980 Crow A24F 23/04
 206/236
 D284,506 S * 7/1986 Gutknecht D23/368
 D301,837 S * 6/1989 Peterson D9/529
 D303,766 S 10/1989 Delbanco
 5,144,962 A 9/1992 Counts et al.
 D360,281 S 7/1995 Kim
 5,564,442 A 10/1996 MacDonald et al.
 5,665,262 A 9/1997 Hajaligol et al.
 5,878,752 A 3/1999 Adams et al.
 D422,113 S 3/2000 Higgins et al.
 D424,236 S 5/2000 Reed
 D437,112 S * 2/2001 Toffoli D3/219
 D446,849 S 8/2001 Weinburg
 D506,001 S 6/2005 Christianson
 D512,493 S 12/2005 Haranaka
 D538,222 S 3/2007 Curello et al.
 D558,060 S * 12/2007 Sir D9/687
 D558,330 S 12/2007 Chang
 D576,718 S 9/2008 Nomi et al.
 D634,417 S 3/2011 Abbondanzio et al.
 D634,832 S 3/2011 Abbondanzio et al.
 D643,732 S 8/2011 Cummings
 7,988,660 B2 * 8/2011 Byland A61M 5/30
 604/70
 D645,757 S 9/2011 Milhem et al.
 D648,340 S * 11/2011 Okura D14/480.7
 D650,472 S 12/2011 Petersen
 D654,160 S 2/2012 Yomtov
 D657,857 S * 4/2012 Choi D23/364
 D663,891 S 7/2012 Cohen Harel
 D664,709 S * 7/2012 Almsberger D27/157
 D665,734 S * 8/2012 Fitch D13/107
 D674,479 S 1/2013 Merchant et al.
 D677,623 S 3/2013 Fitch et al.
 D677,774 S 3/2013 Postma
 8,528,780 B2 9/2013 Houghton et al.
 D695,396 S * 12/2013 Tani D24/113
 D696,815 S 12/2013 Abroff
 D700,397 S * 2/2014 Manca D27/189
 D704,319 S 5/2014 Cai
 D708,129 S 7/2014 Houghton et al.
 D708,727 S 7/2014 Postma
 D714,647 S 10/2014 Kersten
 D715,760 S * 10/2014 Kim D14/193

(56)

References Cited

U.S. PATENT DOCUMENTS

2005/0199610 A1 9/2005 Ptasienski et al.
 2007/0074734 A1 4/2007 Braunshteyn et al.
 2007/0283972 A1 12/2007 Monsees et al.
 2009/0114737 A1 5/2009 Yu et al.
 2010/0236561 A1 9/2010 Barnes et al.
 2011/0108025 A1 5/2011 Fink et al.
 2011/0240047 A1 10/2011 Adamic
 2011/0290244 A1 12/2011 Schennum
 2013/0042865 A1 2/2013 Monsees et al.
 2014/0060554 A1 3/2014 Collett et al.
 2014/0069444 A1 3/2014 Cyphert et al.
 2014/0196718 A1 7/2014 Li et al.
 2014/0366898 A1 12/2014 Monsees et al.
 2015/0053217 A1 2/2015 Steingraber et al.
 2015/0059787 A1 3/2015 Qiu
 2015/0101606 A1 4/2015 White
 2015/0101944 A1 4/2015 Li et al.
 2015/0181937 A1 7/2015 Bubief et al.
 2015/0189919 A1 7/2015 Liu
 2015/0245658 A1 9/2015 Worm et al.
 2016/0007652 A1 1/2016 Taluskie et al.
 2016/0081395 A1 3/2016 Thorens et al.
 2017/0231276 A1 8/2017 Mironov et al.
 2017/0232211 A1 8/2017 Gallem et al.
 2018/0168224 A1 6/2018 Naughton et al.
 2018/0271151 A1 9/2018 Litten
 2019/0029326 A1* 1/2019 Qiu A24F 47/008
 2019/0046745 A1 2/2019 Nettenstrom
 2019/0150508 A1 5/2019 Thorsen et al.
 2019/0166918 A1 6/2019 Thorsen et al.
 2019/0200678 A1 7/2019 Thorson et al.
 2019/0208815 A1 7/2019 Thorsen
 2019/0208816 A1 7/2019 Thorsen
 2019/0208817 A1* 7/2019 Qiu A24F 47/008
 2019/0246693 A1 8/2019 Nettenstrom
 2019/0387799 A1 12/2019 Reeve
 2020/0187555 A1* 6/2020 Lee A24F 40/20
 2020/0245681 A1* 8/2020 An A24F 40/20
 2020/0253280 A1 8/2020 Thorsen
 2020/0345075 A1 11/2020 Hepworth
 2020/0345960 A1 11/2020 Begin et al.
 2020/0359706 A1 11/2020 Liu
 2021/0000169 A1 1/2021 Hepworth
 2021/0007401 A1 1/2021 Moloney et al.

FOREIGN PATENT DOCUMENTS

CN 133657 A 1/2002
 CN 304840668 * 10/2010
 CN 304659654 * 6/2018
 CN 304691359 * 6/2018
 CN 304696494 * 6/2018
 CN 304724787 7/2018
 CN 304854337 10/2018
 CN 304935891 12/2018
 CN 305060127 3/2019
 CN 305162683 5/2019
 CN 304659647 * 6/2019
 CN 305475358 12/2019
 DE 19854005 A1 5/2000
 DE 19854009 A1 5/2000
 EM 002611426-0001 3/2015
 EM 002727099-0001 * 9/2017
 EM 002727099-0007 * 9/2017
 EP 2316286 5/2011
 EP 2340729 A1 7/2011
 EP 2797448 A2 11/2014
 GB 191000639 A 12/1910
 JP 590161 U 12/1993
 JP 2003527127 A 9/2001
 JP 2001521123 A 11/2001
 JP 2013509160 3/2013
 JP 2014524313 9/2014
 JP 2014525251 A 9/2014
 JP 2014524313 A 12/2014

JP 2015521847 8/2015
 KR 1020010089445 10/2001
 KR 100495099 B1 11/2005
 RU 2600092 C2 12/2012
 WO WO 92/19081 A1 10/1992
 WO WO 94/06314 A1 3/1994
 WO WO 97/41744 11/1997
 WO WO 97/48295 A 12/1997
 WO WO 99/20939 A1 4/1999
 WO WO 00/27232 A1 5/2000
 WO WO 01/70054 A1 9/2001
 WO WO 2007/039794 A2 4/2007
 WO WO 2010/047389 A 4/2010
 WO WO 2013/025921 A1 2/2013
 WO WO 2013/034460 A1 3/2013
 WO WO 2013/076098 A2 5/2013
 WO WO 2013/098396 A2 7/2013
 WO WO 2013/098397 7/2013
 WO WO 2013/160112 A2 10/2013
 WO WO 2015/062983 A2 5/2015
 WO WO 2015/091258 A1 6/2015
 WO WO 2015/166245 A2 11/2015
 WO WO 2016/012774 A1 1/2016
 WO WO 2016/207407 A1 12/2016
 WO WO 2017/194762 A1 11/2017
 WO WO 2017/194763 A2 11/2017
 WO WO 2017/194764 A1 11/2017
 WO WO 2017/194766 A1 11/2017
 WO WO 2017/194769 A1 11/2017
 WO WO 2018/019786 A1 2/2018
 WO WO-D200284-003 8/2020

OTHER PUBLICATIONS

Design U.S. Appl. No. 29/676,726, filed Jan. 14, 2019 inventors Powell et al.
 Design U.S. Appl. No. 29/687,461, filed Apr. 12, 2019 inventors Powell et al.
 Design U.S. Appl. No. 29/687,469, filed Apr. 12, 2019 inventors Powell et al.
 Design U.S. Appl. No. 29/687,471, filed Apr. 12, 2019 inventors Powell et al.
 Design U.S. Appl. No. 29/705,487, filed Sep. 12, 2019 inventors Powell et al.
 Uranaka et al., British American Tobacco to test tobacco e-cigarette in Japan, posted on Nov. 8, 2016, [online], [site visited on Apr. 7, 2017]. Available from Internet, <URL: <http://www.reuters.com/article/us-brit-am-tobacco-ecigarettes-idUSKBKN1330AG>>.
 International Search Report for International Application No. PCT/EP2016/064756, dated Oct. 5, 2016.
 International Search Report and Written Opinion for International Application No. PCT/EP2017/061520, dated Sep. 11, 2017.
 International Preliminary Report on Patentability for International Application No. PCT/EP2017/061520, dated Jul. 17, 2018.
 English Translation of Korean Office Action for Korean Application No. 10-2017-7037332 dated Dec. 25, 2018.
 Notice of Reasons for Refusal and English Translation thereof for Japanese Application No. 2017-567106 dated Nov. 7, 2020.
 English Translation of Japanese Office Action for Japanese Application No. 2018-555932 dated Mar. 10, 2020.
 English Translation of Chinese Office Action for Chinese Application No. 201680037678.4 dated Jan. 6, 2020.
 English Translation of Chinese Search Report for Chinese Application No. 201680037678.4 dated Dec. 25, 2019.
 International Search Report for International Application No. PCT/EP2017/061518, dated Aug. 1, 2017.
 International Preliminary Report on Patentability for International Application No. PCT/EP2017/061518, dated Aug. 17, 2018.
 Japanese Office Action for Japanese Application No. 2018-554501 dated Feb. 25, 2020.
 International Search Report for International Application No. PCT/EP2017/061526, dated Aug. 2, 2017.
 English Translation of Japanese Office Action for Japanese Application No. 2018-554526 dated Feb. 25, 2020.

(56)

References Cited

OTHER PUBLICATIONS

International Search Report and Written Opinion for International Application No. PCT/EP2017/061523, dated Sep. 11, 2017.

International Preliminary Report on Patentability for International Application No. PCT/EP2017/061523, dated Jul. 23, 2018.

Indian Office Action for Indian Application No. 201847042184 dated Jan. 10, 2020.

Japanese Office Action for Japanese Application No. 2018-551932 dated Jan. 28, 2020.

International Preliminary Report on Patentability for International Application No. PCT/EP2017/068675, dated Aug. 27, 2018.

International Search Report and Written Opinion for International Application No. PCT/EP2017/068675, dated Nov. 9, 2017.

International Preliminary Report on Patentability for International Application No. PCT/EP2017/061519, dated Jul. 25, 2018.

International Search Report and Written Opinion for International Application No. PCT/EP2017/061519, dated Dec. 15, 2017.

Japanese Office Action for Japanese Application No. 2018-559712 dated Feb. 14, 2020.

“QQQ Honor and Smart,” By H KL Reviews, dated Mar. 15, 2019. Found online [Feb. 3, 2021]. <https://www.youtube.com/watch?v=velv8NX6smE> (Year: 2019).

Glo E-cigarette, published 2016 [online], Available from Internet, URL: <https://ifworlddesignguide.com/entry/235574-glo> on retrieved Dec. 5, 2020, 4 pages.

* cited by examiner

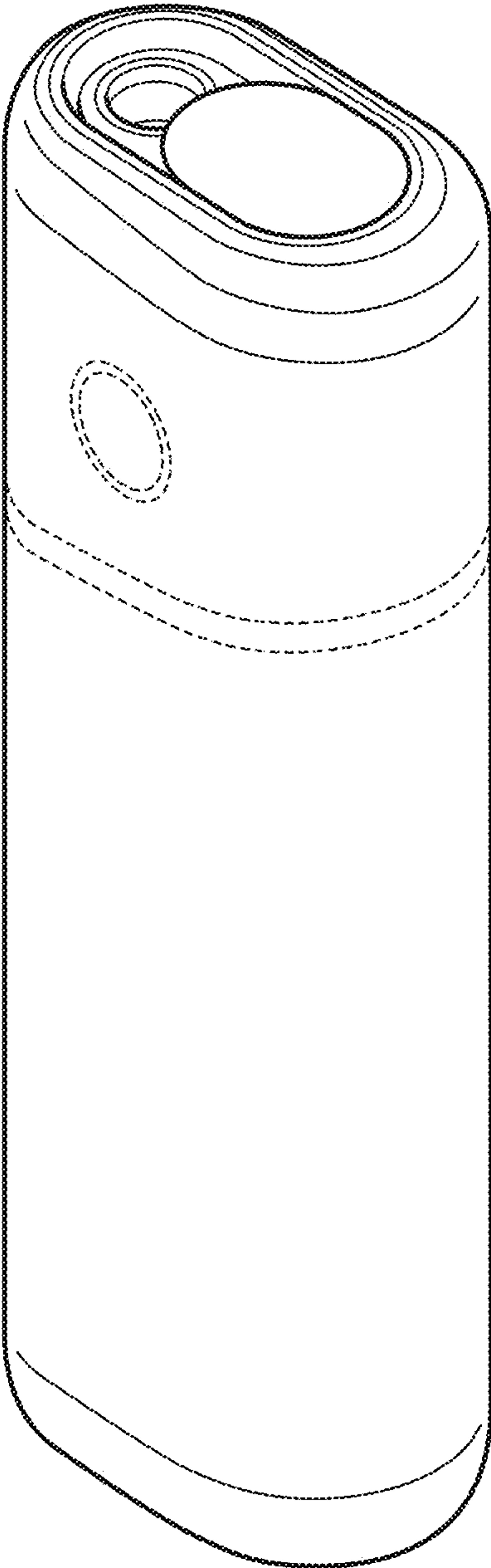


FIG. 1

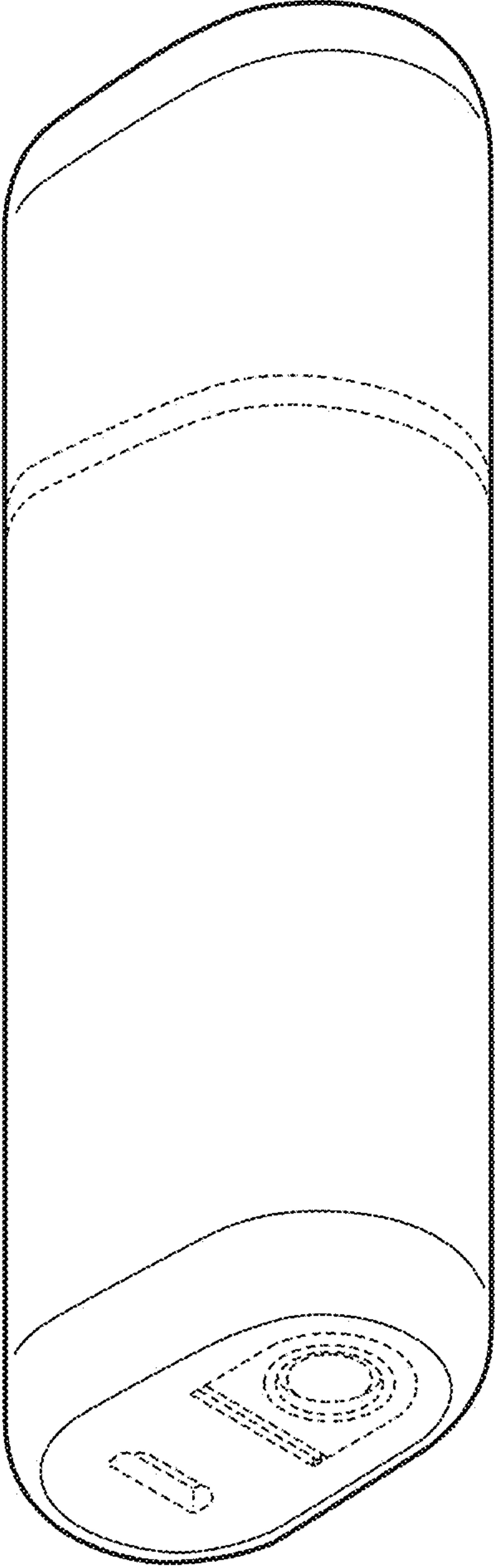


FIG. 2

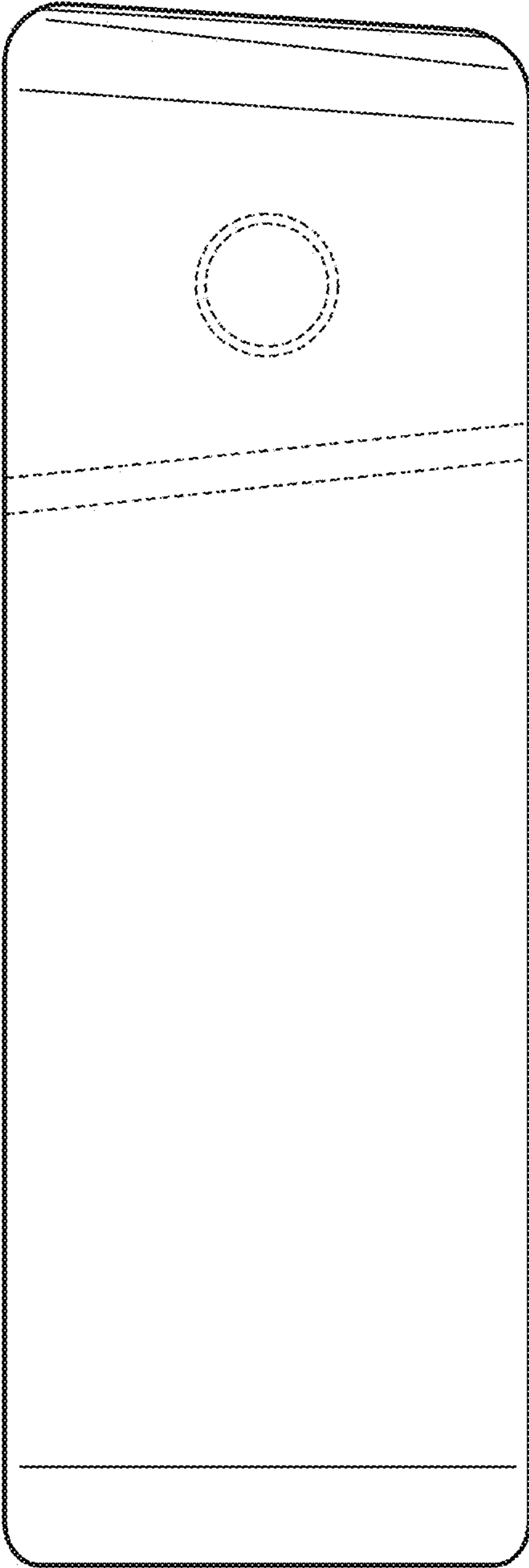


FIG. 3



FIG. 4

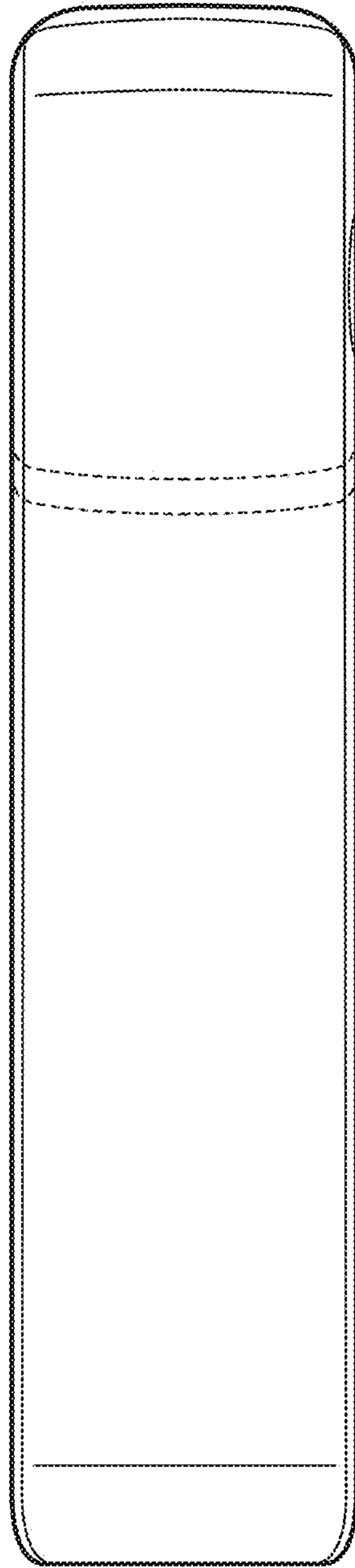


FIG. 5

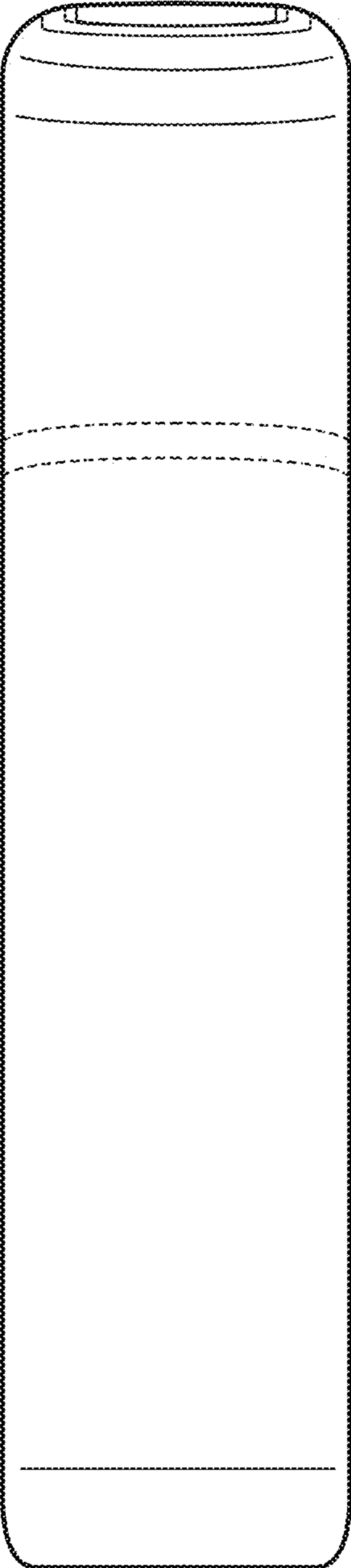


FIG. 6

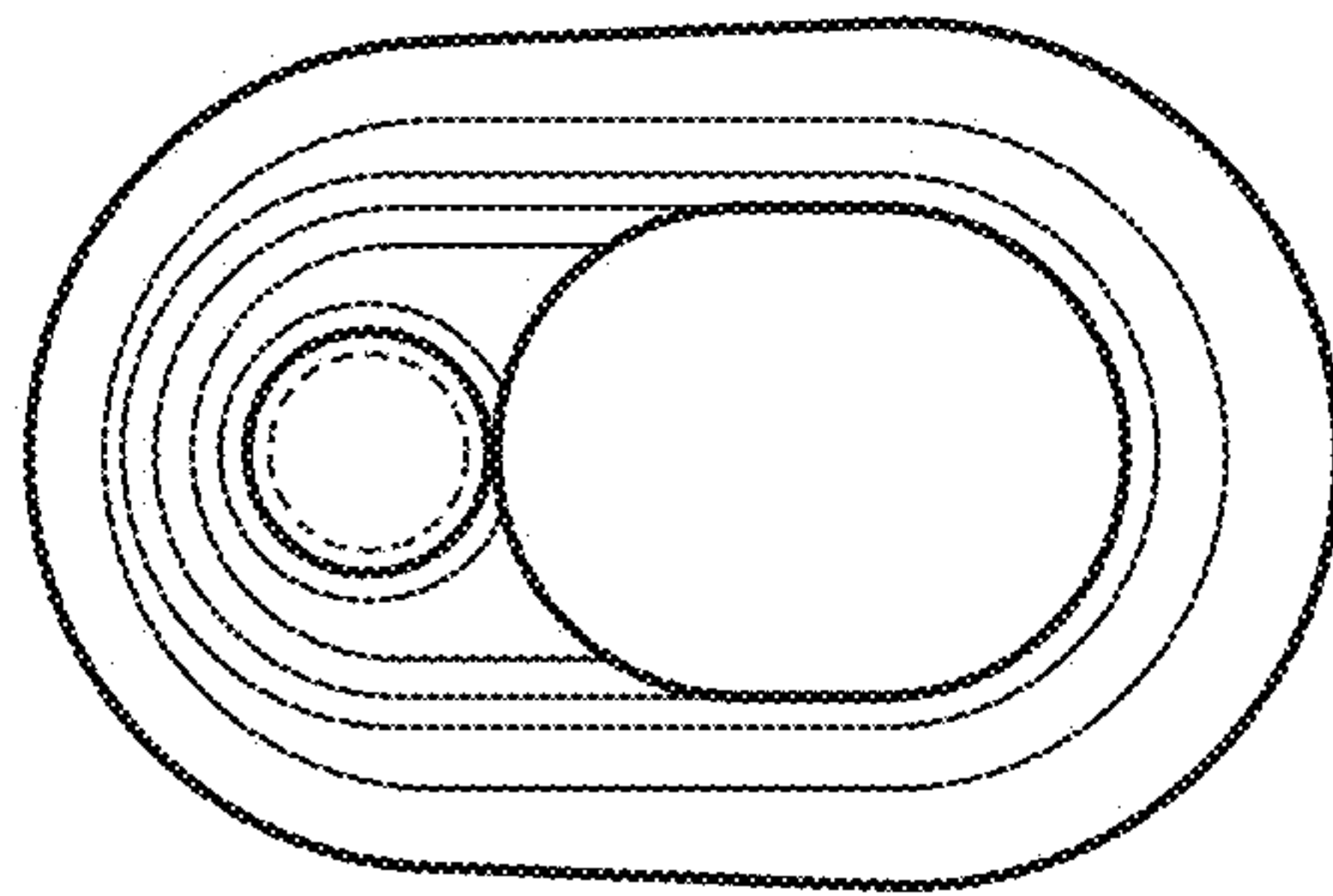


FIG. 7

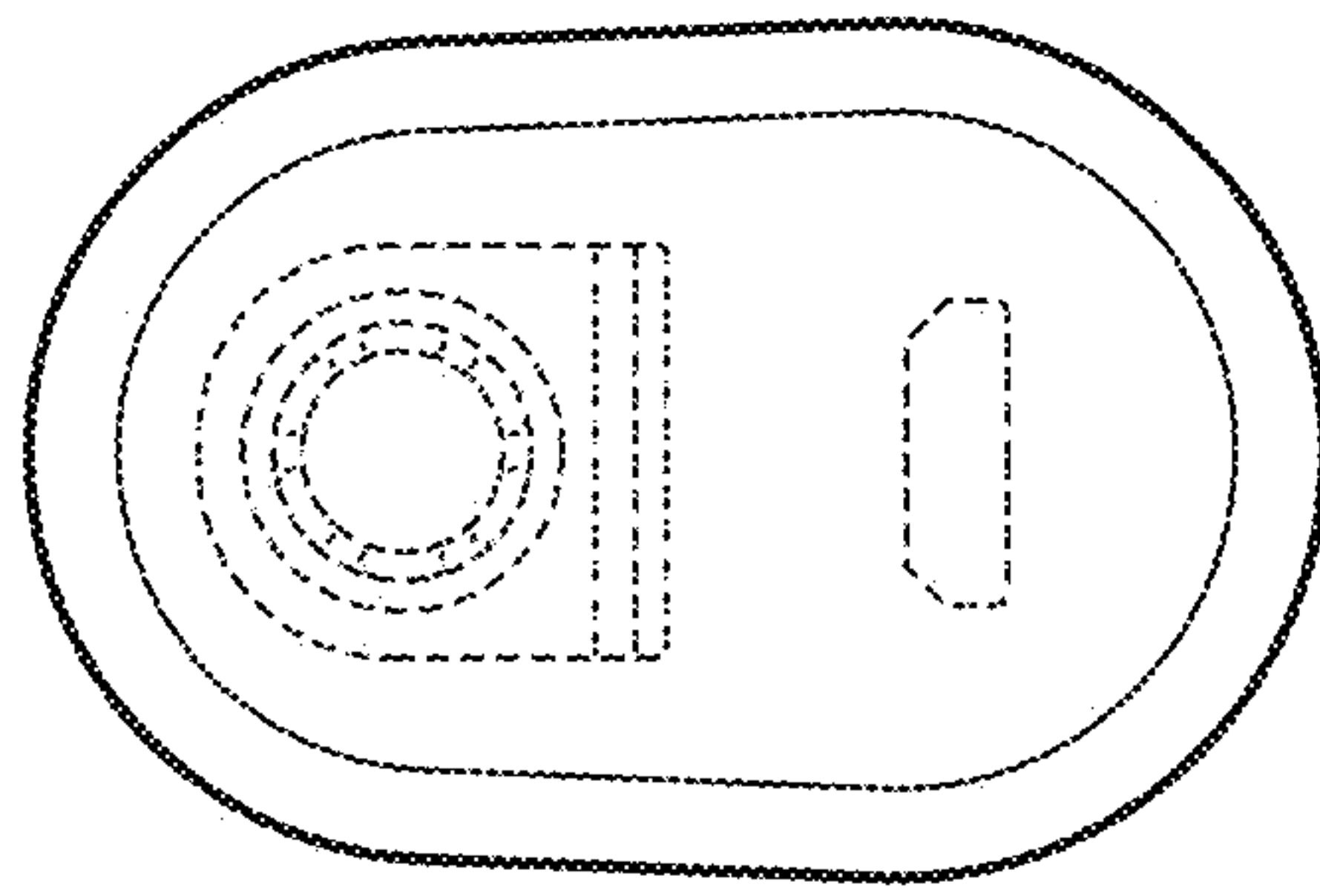


FIG. 8