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Powell et al.

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(54) **AEROSOL GENERATOR**

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(73) Assignee: **Nicoventures Trading Limited**, London (GB)

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

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(30) **Foreign Application Priority Data**

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

(58) **Field of Classification Search**
USPC D27/100, 101, 139, 141, 148, 157, D27/161–171, 183, 185–194; D13/108, D13/144, 103, 119, 146, 168; D23/360, D23/364–366; D24/110, 110.5, 129, 113, D24/112, 215; D19/925–929, 161, 173, D19/66; D28/85, 4, 7, 88, 73–76;
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

174,884 A 3/1876 Wolff
239,198 A 3/1881 Simonds
(Continued)

FOREIGN PATENT DOCUMENTS

CN 1126425 A 7/1996
CN 1190335 A 8/1998
(Continued)

OTHER PUBLICATIONS

Glo E-cigarette, published 2016 [online], [retrieved Dec. 5, 2020], Available from Internet, URL: https://ifworlddesignguide.com/entry/235574-glo.*
(Continued)

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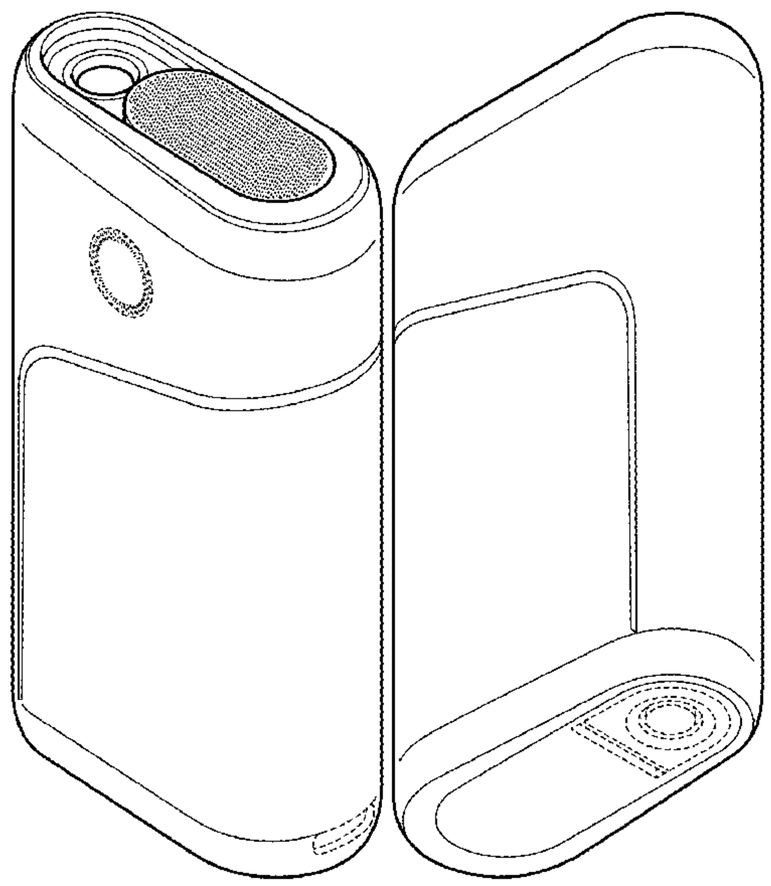
(57) **CLAIM**

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

DESCRIPTION

FIG. **1** is a top front perspective view of an aerosol generator according to an embodiment.
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 right side elevational view of the aerosol generator depicted in FIG. **1**.
FIG. **6** is a left 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.

1 Claim, 8 Drawing Sheets



(58) **Field of Classification Search**
USPC D3/201, 11, 13, 17, 273, 300; D14/434, D14/480.5, 480.1, 480.3, 483, 484.1; D9/530, 543
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.

(56) **References Cited**

U.S. PATENT DOCUMENTS

239,776	A		4/1881	Henley
D22,270	S		3/1893	Kinney
D27,458	S		8/1897	Cameron
1,927,956	A		9/1933	Segal
2,371,557	A		3/1945	Sullivan
D164,391	S		8/1951	Wagner
D239,198	S	*	3/1976	Nau D26/46
D239,631	S		4/1976	Lauri
D239,776	S		5/1976	Kenjiro
4,214,658	A		7/1980	Crow
D284,506	S		7/1986	Gutknecht
D301,837	S		6/1989	Peterson et al.
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
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	Hacek
D558,330	S	*	12/2007	Chang D24/110
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 D9/543
7,988,660	B2		8/2011	Byland et al.
D645,757	S	*	9/2011	Milhem D9/543
D648,340	S		11/2011	Okura
D650,472	S		12/2011	Petersen
D654,160	S		2/2012	Yomtov
D657,857	S		4/2012	Choi
D663,891	S	*	7/2012	Cohen Harel D27/157
D664,709	S		7/2012	Almsberger et al.
D665,734	S		8/2012	Fitch et al.
D674,479	S	*	1/2013	Merchant D24/108
D677,623	S		3/2013	Fitch et al.
D677,774	S		3/2013	Postma
8,528,780	B2	*	9/2013	Houghton A24F 15/14 221/71
D695,396	S		12/2013	Tani et al.
D696,815	S		12/2013	Abroff
D700,397	S		2/2014	Manca et al.
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 D9/529
D715,760	S		10/2014	Kim et al.
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
D732,023	S		6/2015	Asao
D734,395	S	*	7/2015	Lir D19/123
D736,455	S		8/2015	Liu
D740,673	S	*	10/2015	Corradini D9/529
D743,099	S		11/2015	Oglesby
D743,889	S		11/2015	Lyles et al.
D745,404	S	*	12/2015	Julier D9/521
D746,771	S	*	1/2016	Perez D13/108
D758,656	S		6/2016	Freshwater et al.
D759,296	S		6/2016	Abroff et al.
D760,414	S		6/2016	Brown et al.
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 et al.
D775,762	S		1/2017	Chen
D778,831	S		2/2017	Chen
D787,657	S		5/2017	Farone et al.
D787,728	S		5/2017	Wing et al.
D788,364	S	*	5/2017	Chen D27/163
D807,575	S		1/2018	Luo
D818,637	S		5/2018	Ringel
D819,023	S		5/2018	Shim
D821,640	S		6/2018	Qiu
D828,295	S		9/2018	Li
D828,622	S		9/2018	Chen et al.
D828,912	S		9/2018	Powell et al.
D828,950	S		9/2018	Gu
D828,953	S	*	9/2018	Chen D27/167
D833,384	S		11/2018	Takayanagi
1,013,667	A1		11/2018	Shotey et al.
D835,857	S	*	12/2018	Benacquisto D30/158
D839,823	S	*	2/2019	Lemelson D13/103
1,019,469	A1		2/2019	Fernando et al.
D842,237	S		3/2019	Qiu et al.
D842,243	S	*	3/2019	Qiu D13/108
D843,052	S		3/2019	Powell et al.
D844,030	S		3/2019	You
D848,603	S		5/2019	Fujino et al.
D853,022	S		7/2019	Srour
D854,236	S		7/2019	Qiu
D861,549	S	*	10/2019	Lai D12/167
D869,086	S		12/2019	Pan
D870,367	S		12/2019	Chung et al.
D872,355	S	*	1/2020	Powell D27/141
D876,214	S		2/2020	Yu
D881,458	S	*	4/2020	Ouyang D27/162
D883,197	S		5/2020	Doucet
D883,563	S		5/2020	Pan
D884,266	S		5/2020	Wang
D884,961	S		5/2020	He
D885,332	S	*	5/2020	Han D13/108
D885,337	S	*	5/2020	Xu D13/108
D885,651	S		5/2020	Miyamoto
D888,326	S		6/2020	Qiu
D888,329	S		6/2020	Qiu
D889,740	S		7/2020	Beer et al.
D891,692	S		7/2020	Barbaric et al.
D892,124	S		8/2020	Shim
D893,009	S	*	8/2020	Choi D23/364
D894,476	S		8/2020	Miyamoto
D896,519	S		9/2020	Cooper et al.
D897,596	S	*	9/2020	Huang D27/162
D898,280	S		10/2020	Li et al.
D898,990	S	*	10/2020	Liu D27/162
D898,991	S	*	10/2020	Pan D27/162
1,079,176	A1		10/2020	Li et al.
D901,072	S		11/2020	Goradesky
D904,401	S		12/2020	Wu
D904,678	S		12/2020	Wang et al.
D905,901	S		12/2020	Kim et al.
D908,344	S		1/2021	Jones
D908,834	S		1/2021	Cho et al.
D908,952	S		1/2021	Guo
D910,231	S	*	2/2021	Liu D27/126
D910,911	S	*	2/2021	Kim D27/167
D911,181	S	*	2/2021	Lee D9/529
2004/0025865	A1		2/2004	Nichols et al.
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

(56) **References Cited**

U.S. PATENT DOCUMENTS

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	
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 et al.	
2019/0246693	A1	8/2019	Nettenstrom	
2019/0387799	A1	12/2019	Reevell	
2020/0187555	A1	6/2020	Lee	
2020/0221782	A1*	7/2020	Lim, II	A24F 40/40
2020/0245681	A1	8/2020	An	
2020/0253280	A1	8/2020	Thorsen	
2020/0345075	A1	11/2020	Hepworth	
2020/0345960	A1*	11/2020	Begin	A61M 15/06
2020/0359706	A1	11/2020	Liu	
2021/0000169	A1	1/2021	Hepworth	
2021/0007401	A1	1/2021	Moloney et al.	
2021/0015160	A1*	1/2021	Moloney	A24F 40/50
2021/0015161	A1*	1/2021	Moloney	A24F 40/40
2021/0015162	A1*	1/2021	Moloney	G06K 7/10366

FOREIGN PATENT DOCUMENTS

CN	133657	A	1/2002
CN	1333657	A	1/2002
CN	304691359	*	10/2017
CN	304659647		6/2018
CN	304659654		6/2018
CN	304691359		6/2018
CN	304696494		6/2018
CN	304724787	*	7/2018
CN	304840668	*	10/2018
CN	304854337		10/2018
CN	304935891		12/2018
CN	305060127		3/2019
CN	305162683		5/2019
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	2316286	A1	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	2009509521		3/2009
JP	2013509160		3/2013
JP	2014524313		9/2014
JP	2014525251	A	9/2014
JP	2014533513	A	12/2014
JP	2015521847		8/2015
KR	100178388	B1	2/1999
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-2007039794	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. 29/557,914, filed Mar. 14, 2016 inventors Powell et al.

Design U.S. Appl. No. 29/676,726, filed Jan. 14, 2019 inventors Powell et al.

Design U.S. Appl. No. 29/687,464, 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. 20, 2018.

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.

(56) **References Cited**

OTHER PUBLICATIONS

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.
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. 18, 2020.
U.S. Appl. No. 29/687,461, filed Apr. 12, 2019, 214 pages, inventor(s): Powell et al.
"QOQ 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).

* cited by examiner

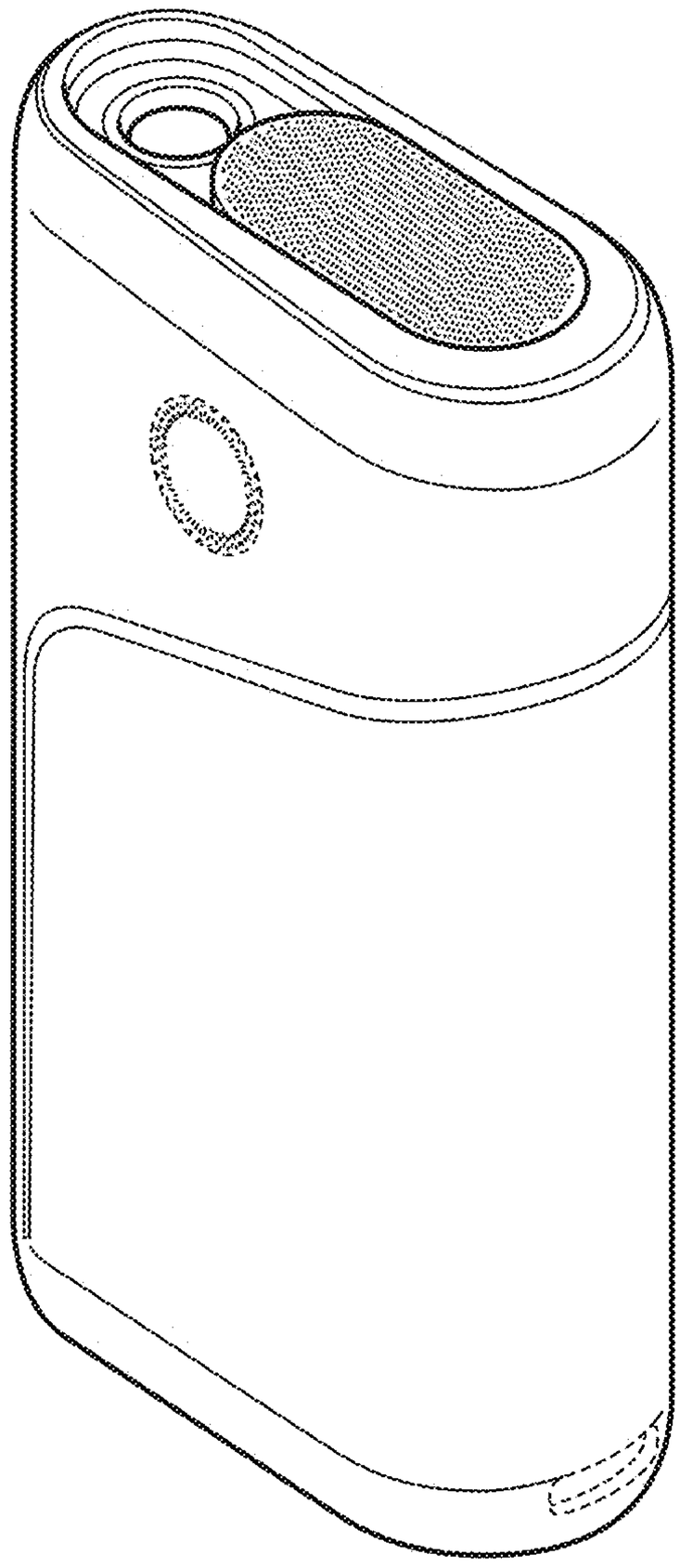


FIG. 1

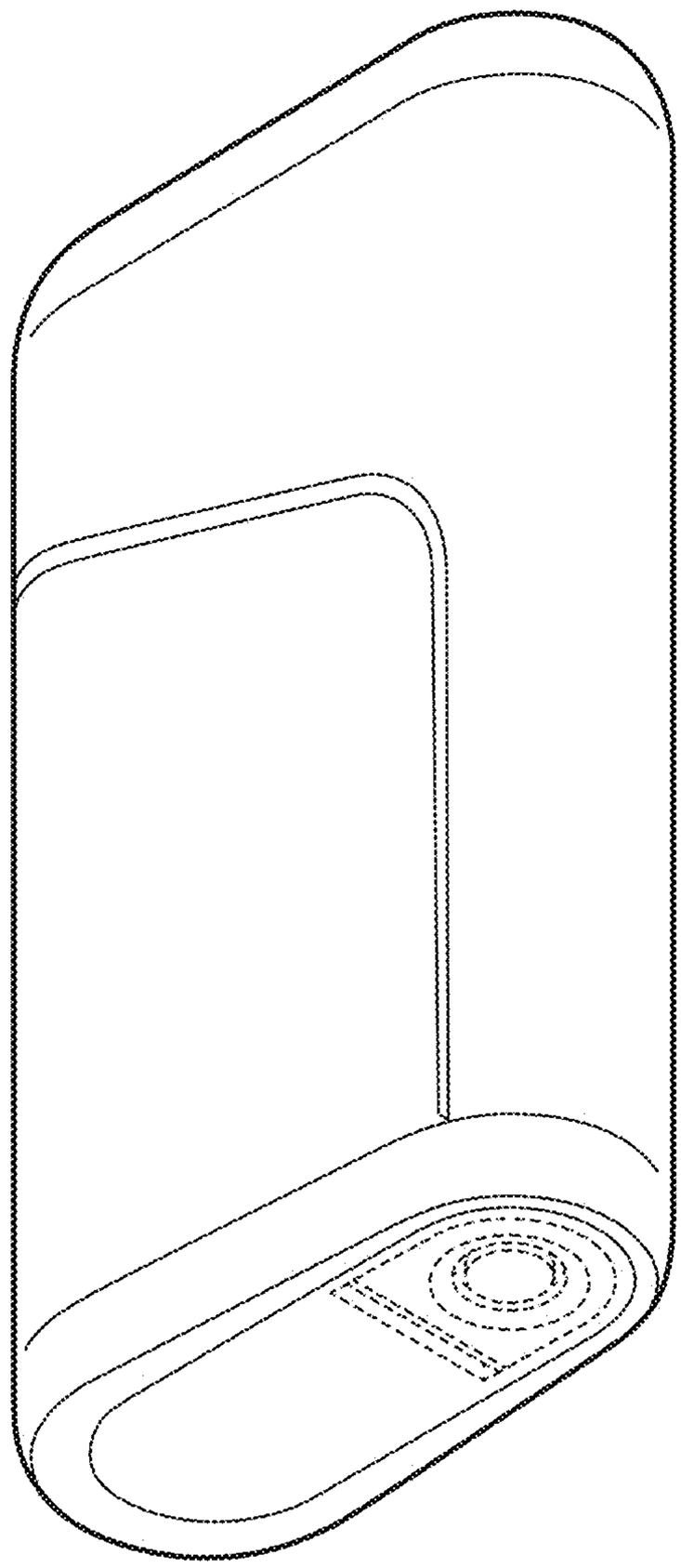


FIG. 2

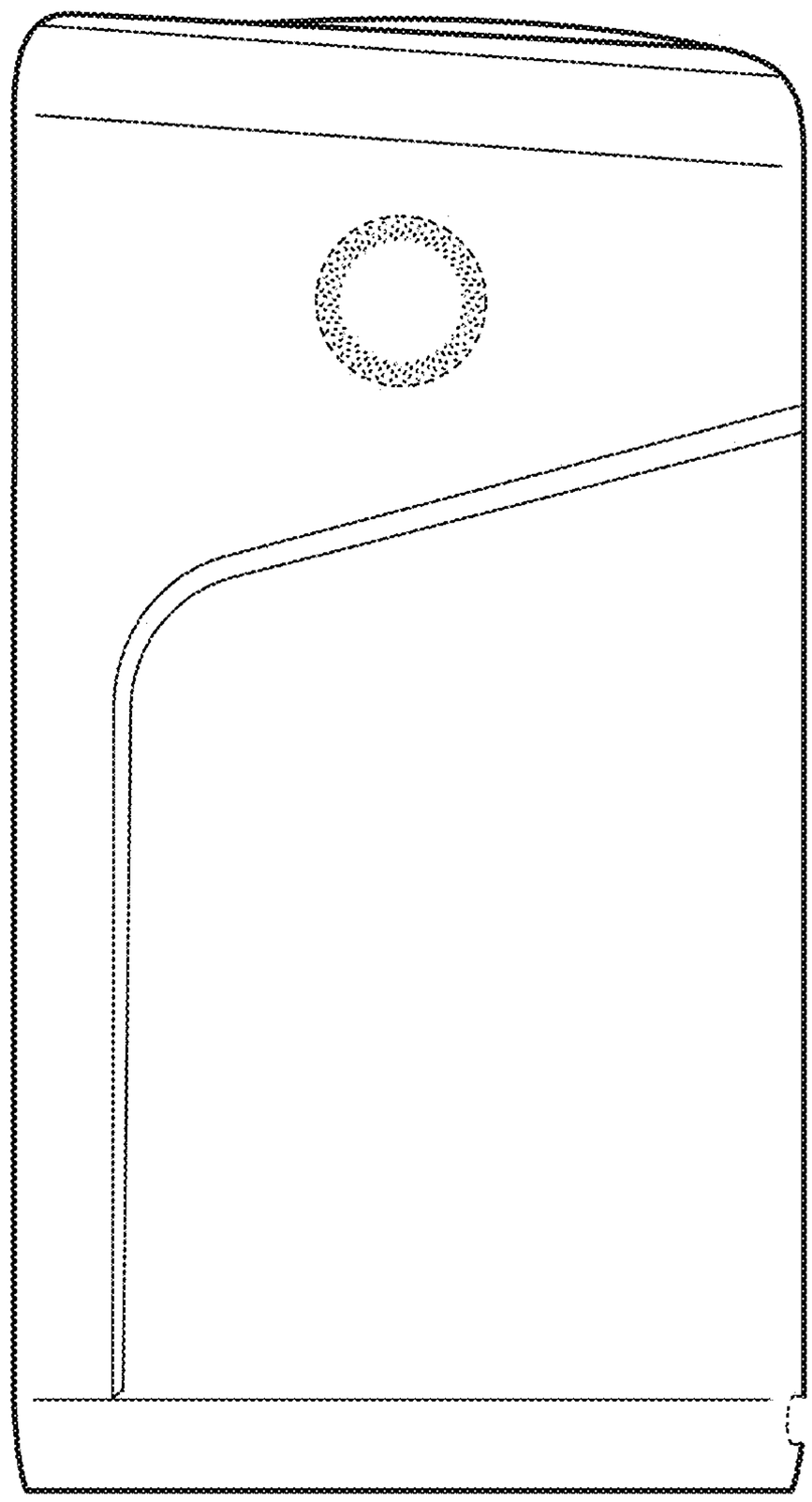


FIG. 3

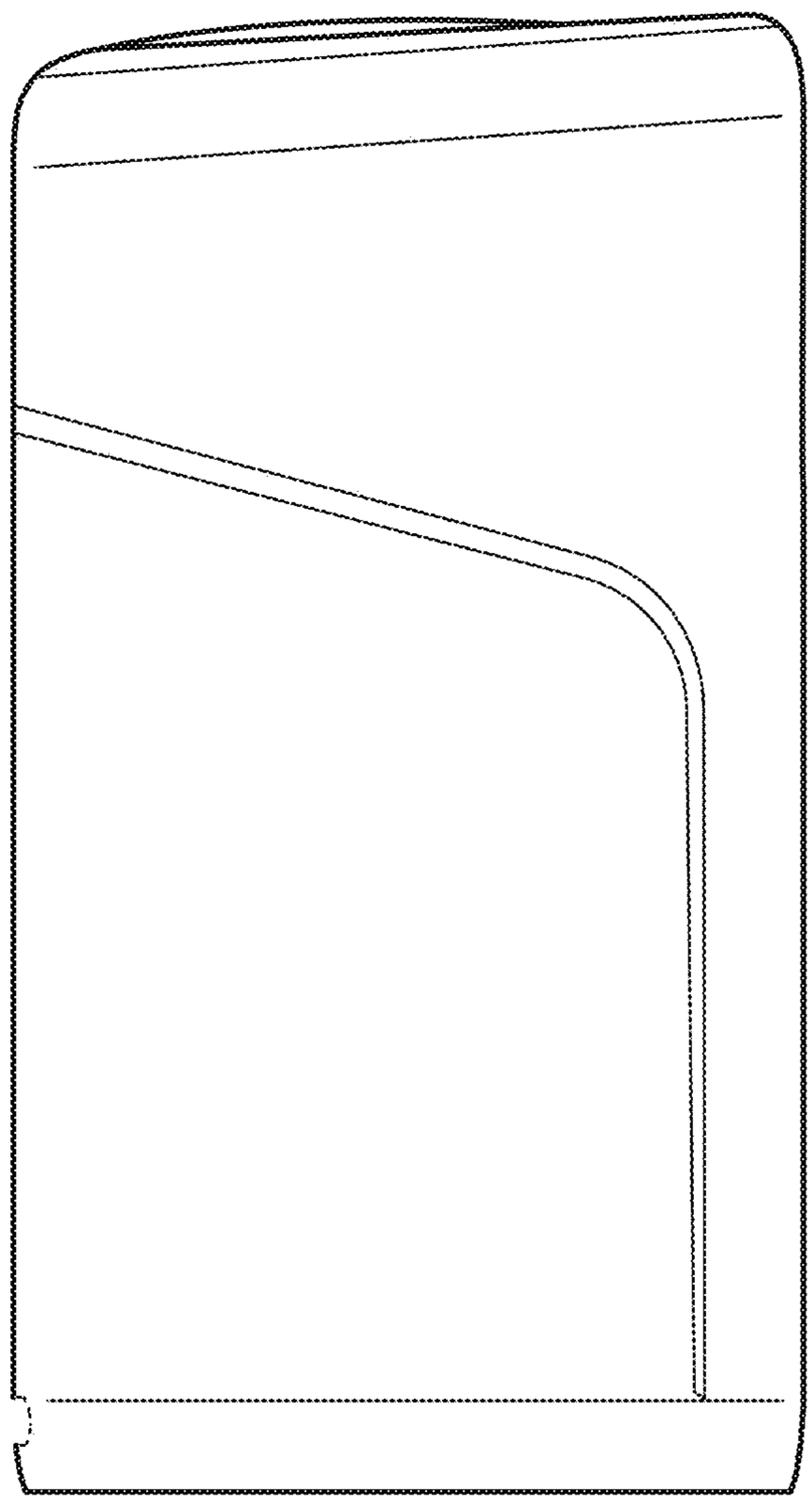


FIG. 4

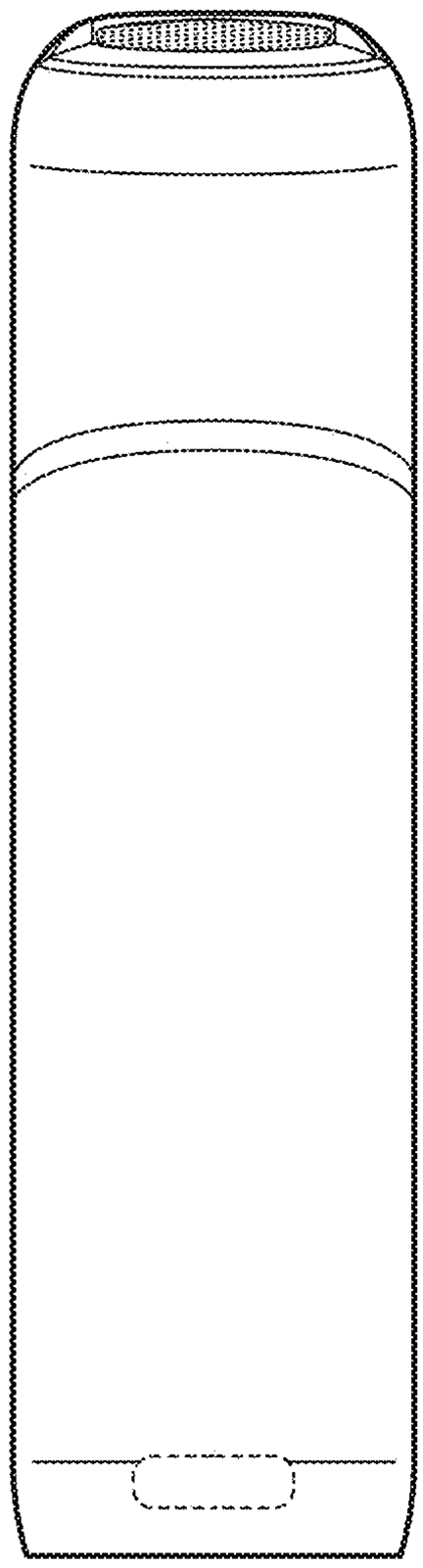


FIG. 5

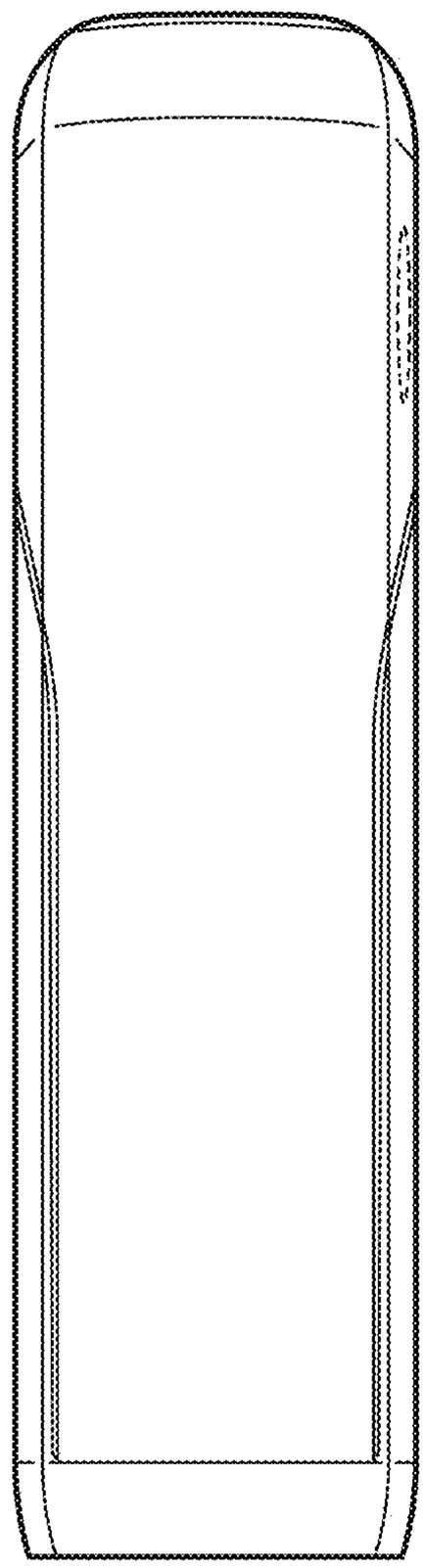


FIG. 6

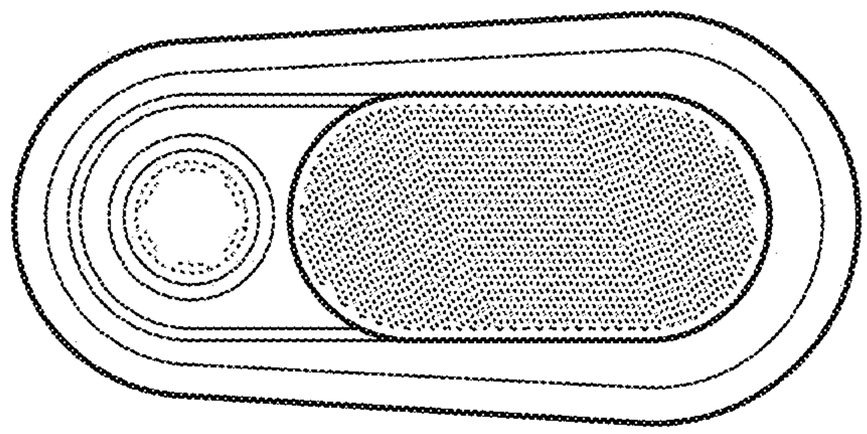


FIG. 7

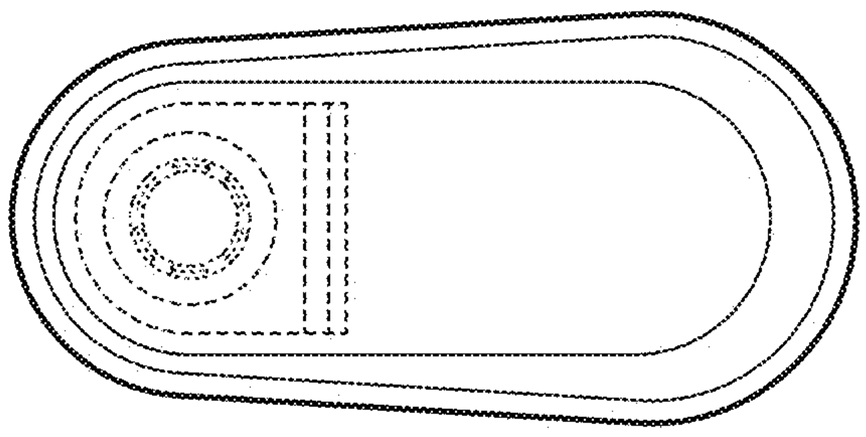


FIG. 8