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(54) **HEATING ASSEMBLY AND FLAVOR INHALER PROVIDED WITH SAME**

(57) Provided is a cartridge for an inhalation device and an inhalation device which have a new structure. Provided is a heating assembly comprising a first cylindrical member provided in one end with a first opening, in which a flavor generating article can be inserted, and in the other end with a second opening that forms an air inlet; a heating member; and heat insulating material.

The heating assembly further comprises a second cylindrical member disposed to enclose the first cylindrical member A sealed region is provided between the first cylindrical member and the second cylindrical member. The heating member and the heat insulating material are accommodated in the sealed region.

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EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	US 2017/055583 A1 (BLANDINO THOMAS P [US] ET AL) 2 March 2017 (2017-03-02) * the whole document *	1-17	INV. A24F47/00 A24F40/40 A24F40/46
A	US 2008/092912 A1 (ROBINSON JOHN HOWARD [US] ET AL) 24 April 2008 (2008-04-24) * the whole document *	1-17	H05B3/04 H05B3/42
A	CN 203 618 782 U (CHINA TOBACCO ZHEJIANG IND CO) 4 June 2014 (2014-06-04) * the whole document *	1-17	
A	US 2014/270726 A1 (EGOYANTS PETR ALEXANDROVICH [RU] ET AL) 18 September 2014 (2014-09-18) * the whole document *	1-17	
			TECHNICAL FIELDS SEARCHED (IPC)
			A24F
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
Munich		26 November 2024	Paulson, Bo
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			
T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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30

35

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50

55

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2017055583 A1	02-03-2017	AR 105828 A1	15-11-2017
		AU 2016313705 A1	01-03-2018
		CA 2996342 A1	09-03-2017
		CA 3193096 A1	09-03-2017
		CL 2018000521 A1	07-12-2018
		CN 107920602 A	17-04-2018
		CN 115281389 A	04-11-2022
		CN 116711888 A	08-09-2023
		EP 3344076 A2	11-07-2018
		EP 3799741 A2	07-04-2021
		EP 3824746 A2	26-05-2021
		EP 3939446 A2	19-01-2022
		EP 4046510 A1	24-08-2022
		EP 4138515 A1	22-02-2023
		EP 4233603 A2	30-08-2023
		HK 1251416 A1	01-02-2019
		JP 6833155 B2	24-02-2021
		JP 7198442 B2	04-01-2023
		JP 7268080 B2	02-05-2023
		JP 7312155 B2	20-07-2023
		JP 7335058 B2	29-08-2023
		JP 2018529324 A	11-10-2018
		JP 2021036874 A	11-03-2021
		JP 2021048842 A	01-04-2021
		JP 2021141891 A	24-09-2021
		JP 2022062135 A	19-04-2022
		JP 2022172195 A	15-11-2022
		JP 2023036939 A	14-03-2023
		JP 2023103264 A	26-07-2023
		KR 20180034640 A	04-04-2018
		KR 20200024369 A	06-03-2020
		KR 20200026317 A	10-03-2020
		KR 20210049206 A	04-05-2021
		KR 20210084706 A	07-07-2021
		KR 20210087112 A	09-07-2021
		KR 20220116579 A	23-08-2022
		MY 186293 A	06-07-2021
		PH 12018500255 A1	13-08-2018
		RU 2687811 C1	16-05-2019
		RU 2019113858 A	13-06-2019
		RU 2020135839 A	01-02-2021
		RU 2020135854 A	14-01-2021
		RU 2021112053 A	04-05-2022
		TW 201720319 A	16-06-2017
		UA 124729 C2	10-11-2021
		US 2017055583 A1	02-03-2017

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 24 19 2283

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

26-11-2024

10	Patent document cited in search report	Publication date	Patent family member(s)	Publication date
			US 2020054069 A1	20-02-2020
			US 2022394824 A1	08-12-2022
			WO 2017036955 A2	09-03-2017
15	-----			
	US 2008092912 A1	24-04-2008	CN 101557728 A	14-10-2009
			CY 1122411 T1	27-01-2021
			CY 1123276 T1	31-12-2021
			DK 3398460 T3	22-07-2019
20			DK 3491944 T3	08-06-2020
			EP 2083643 A1	05-08-2009
			EP 3260002 A1	27-12-2017
			EP 3266322 A1	10-01-2018
			EP 3345496 A1	11-07-2018
25			EP 3398460 A1	07-11-2018
			EP 3491944 A1	05-06-2019
			EP 3494819 A1	12-06-2019
			EP 3508076 A1	10-07-2019
			EP 3677129 A1	08-07-2020
			EP 3831225 A1	09-06-2021
30			ES 2646180 T3	12-12-2017
			ES 2735215 T3	17-12-2019
			ES 2795364 T3	23-11-2020
			ES 2862174 T3	07-10-2021
			ES 2862208 T3	07-10-2021
35			ES 2982274 T3	15-10-2024
			HK 1248477 A1	19-10-2018
			HK 1249373 A1	02-11-2018
			HK 1258137 A1	08-11-2019
			HU E044786 T2	28-11-2019
			HU E049177 T2	28-09-2020
40			HU E054098 T2	30-08-2021
			HU E054433 T2	28-09-2021
			JP 5247711 B2	24-07-2013
			JP 2010506594 A	04-03-2010
			LT 3398460 T	10-09-2019
45			LT 3491944 T	25-06-2020
			PL 3260002 T3	26-07-2021
			PL 3266322 T3	10-06-2024
			PL 3345496 T3	27-09-2021
			PL 3398460 T3	30-09-2019
			PL 3491944 T3	05-10-2020
50			PT 3398460 T	18-07-2019
			PT 3491944 T	02-06-2020
			SI 3398460 T1	30-10-2019
			SI 3491944 T1	30-09-2020
55			TR 201910343 T4	22-07-2019

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 24 19 2283

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

26-11-2024

10	Patent document cited in search report	Publication date	Patent family member(s)	Publication date
			US 2008092912 A1	24-04-2008
			US 2010200006 A1	12-08-2010
15			US 2012060853 A1	15-03-2012
			US 2015040930 A1	12-02-2015
			US 2015047656 A1	19-02-2015
			US 2017020200 A1	26-01-2017
			US 2018146713 A1	31-05-2018
			US 2018235285 A1	23-08-2018
20			US 2018235286 A1	23-08-2018
			US 2019142070 A1	16-05-2019
			US 2019166916 A1	06-06-2019
			US 2019166917 A1	06-06-2019
			US 2021352954 A1	18-11-2021
25			US 2022167656 A1	02-06-2022
			US 2022256907 A1	18-08-2022
			US 2023232886 A1	27-07-2023
			US 2024000129 A1	04-01-2024
			US 2024206521 A1	27-06-2024
30			WO 2008108889 A1	12-09-2008

	CN 203618782	U	04-06-2014	NONE

	US 2014270726	A1	18-09-2014	AR 088435 A1
			AU 2012306503 A1	11-06-2014
35			BR 112013032671 A2	16-01-2014
			BR 122016030996 A2	24-01-2017
			CA 2839806 A1	27-08-2019
			CL 2013003637 A1	14-03-2013
			CN 103826482 A	25-07-2014
			CN 106213591 A	28-05-2014
40			CN 106307620 A	14-12-2016
			CN 106418701 A	11-01-2017
			EP 2753204 A1	22-02-2017
			EP 3033954 A1	16-07-2014
			EP 4242508 A2	22-06-2016
45			ES 2570931 T3	13-09-2023
			ES 2962257 T3	23-05-2016
			HK 1194629 A1	18-03-2024
			HU E027407 T2	24-10-2014
			HU E065301 T2	28-10-2016
50			JP 6014132 B2	28-05-2024
			JP 6736608 B2	25-10-2016
			JP 7452821 B2	05-08-2020
			JP 7577106 B2	19-03-2024
			JP 2014520542 A	01-11-2024
55			JP 2016178937 A	25-08-2014
				13-10-2016

EPO FORM P0459

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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 24 19 2283

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

26-11-2024

10	Patent document cited in search report	Publication date	Patent family member(s)	Publication date
			JP 2018166513 A	01-11-2018
			JP 2020184998 A	19-11-2020
			JP 2022132557 A	08-09-2022
15			JP 2023024672 A	16-02-2023
			JP 2023184570 A	28-12-2023
			KR 20140068808 A	09-06-2014
			KR 20190040079 A	16-04-2019
			KR 20200004440 A	13-01-2020
20			KR 20200128182 A	11-11-2020
			LT 3033954 T	11-12-2023
			MX 355927 B	27-04-2018
			MY 168756 A	04-12-2018
			MY 194229 A	23-11-2022
25			PL 2753204 T3	31-08-2016
			PL 3033954 T3	19-02-2024
			PT 3033954 T	23-11-2023
			RU 2640438 C1	09-01-2018
			RU 2675712 C1	24-12-2018
			RU 2013156469 A	20-10-2015
30			RU 2018135854 A	10-04-2020
			RU 2020135861 A	05-04-2021
			UA 111846 C2	24-06-2016
			UA 117923 C2	25-10-2018
			UA 122162 C2	25-09-2020
35			US 2014270726 A1	18-09-2014
			US 2016088875 A1	31-03-2016
			US 2017095006 A1	06-04-2017
			WO 2013034458 A1	14-03-2013
40				
45				
50				
55				

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82