



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
30.04.2025 Bulletin 2025/18

(51) International Patent Classification (IPC):
A24F 40/40^(2020.01) A24F 40/20^(2020.01)

(43) Date of publication A2:
26.02.2025 Bulletin 2025/09

(52) Cooperative Patent Classification (CPC):
A24F 40/40; A24F 40/20

(21) Application number: **24217533.9**

(22) Date of filing: **13.03.2020**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

(30) Priority: **22.03.2019 EP 19020153**
14.02.2020 EP 20157500

(62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC:
20715693.6 / 3 941 227

(71) Applicant: **Imperial Tobacco Limited**
Bristol BS3 2LL (GB)

(72) Inventors:
• **FERRIE, Kate**
Bristol, BS3 2LL (GB)
• **SHENTON, Edward Ross**
Bristol, BS3 2LL (GB)
• **LOMAS, Peter**
Bristol, BS3 2LL (GB)
• **AGGARWAL, Nikhil**
Bristol, BS3 2LL (GB)
• **ROEBUCK, Jason Peter**
Bristol, BS3 2LL (GB)

(74) Representative: **Mewburn Ellis LLP**
Aurora Building
Counterslip
Bristol BS1 6BX (GB)

(54) **SMOKING SUBSTITUTE SYSTEM**

(57) A heat not burn device is disclosed. The heat-not-burn (HNB) device comprises a body (209) defining a cavity (222) and an opening (221) to the cavity for receipt of a heat-not-burn consumable therein. The device further includes a closure (250) for covering the opening, and a sensor for detecting a position of the closure. A controller is configured to receive a signal from the sensor, indicative of a position of the closure, and to control a heater of the device in response to the received signal.

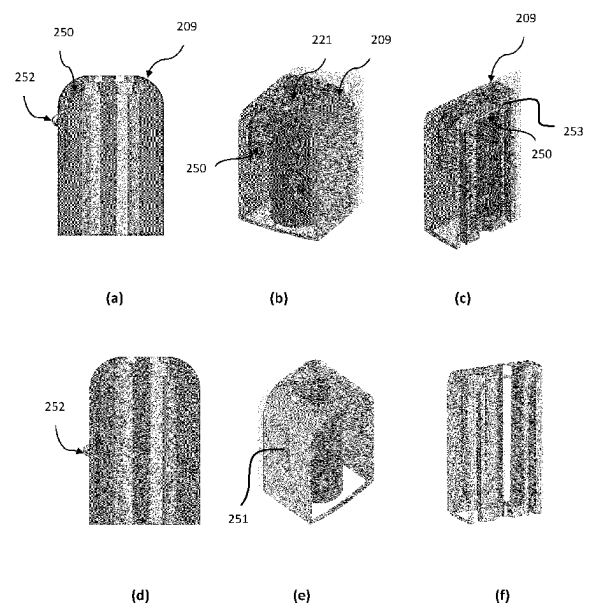


FIG 2F



EUROPEAN SEARCH REPORT

Application Number

EP 24 21 7533

DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (IPC) |
|--|--|----------------------------------|---|
| X | US 9 375 034 B2 (ALIMA YARIV [US]; ATMOS NATION LLC [US]) 28 June 2016 (2016-06-28) | 1-9, 13-15 | INV. A24F40/40 |
| A | * column 1, line 65 - column 3, line 67 * * column 5, line 26 - line 36; figures 1-10 * | 10-12 | ADD. A24F40/20 |
| X | WO 2018/216961 A1 (KT & G CORP [KR]) 29 November 2018 (2018-11-29) | 1,14,15 | |
| A | * paragraph [0131] - paragraph [0140]; figures 5-6 * | 2-13 | |
| X | US 2016/050975 A1 (WORM STEVEN L [US] ET AL) 25 February 2016 (2016-02-25) | 1-9, 12-15 | |
| A | * paragraphs [0006], [0109] * * paragraph [0123] - paragraph [0131]; figures 16-18 * | 10,11 | |
| X | CN 107 752 130 A (HUIZHOU XINHONGWEI TECH CO LTD) 6 March 2018 (2018-03-06) | 1-5,7-9, 13-15 | |
| A | * paragraph [0029] - paragraph [0031]; figures 1-9 * | 6,10-12 | |
| | | | 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 | | 20 March 2025 | Espla, Alexandre |
| 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 | | | |

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

EP 24 21 7533

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.

20-03-2025

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|---|---------------------|----------------------------|---------------------|
| US 9375034 B2 | 28-06-2016 | NONE | |
| WO 2018216961 A1 | 29-11-2018 | CN 110612034 A | 24-12-2019 |
| | | EP 3632240 A1 | 08-04-2020 |
| | | EP 4298936 A2 | 03-01-2024 |
| | | JP 6927648 B2 | 01-09-2021 |
| | | JP 2020521438 A | 27-07-2020 |
| | | KR 20180129637 A | 05-12-2018 |
| | | US 2020093185 A1 | 26-03-2020 |
| | | US 2023148663 A1 | 18-05-2023 |
| | | WO 2018216961 A1 | 29-11-2018 |
| US 2016050975 A1 | 25-02-2016 | CN 107105777 A | 29-08-2017 |
| | | EP 3182845 A1 | 28-06-2017 |
| | | EP 3403518 A1 | 21-11-2018 |
| | | ES 2689086 T3 | 08-11-2018 |
| | | ES 2795285 T3 | 23-11-2020 |
| | | HU E039919 T2 | 28-02-2019 |
| | | HU E049537 T2 | 28-10-2020 |
| | | JP 7383580 B2 | 20-11-2023 |
| | | JP 2017532009 A | 02-11-2017 |
| | | JP 2020191884 A | 03-12-2020 |
| | | JP 2022172132 A | 15-11-2022 |
| | | JP 2024116132 A | 27-08-2024 |
| | | KR 20170044158 A | 24-04-2017 |
| | | KR 20230162144 A | 28-11-2023 |
| | | PL 3182845 T3 | 30-11-2018 |
| | | PL 3403518 T3 | 10-08-2020 |
| | | RU 2017107113 A | 21-09-2018 |
| | | US 2016050975 A1 | 25-02-2016 |
| | | US 2018160741 A1 | 14-06-2018 |
| | | US 2020359680 A1 | 19-11-2020 |
| | | US 2022183395 A1 | 16-06-2022 |
| | | US 2023404172 A1 | 21-12-2023 |
| | | WO 2016028544 A1 | 25-02-2016 |
| CN 107752130 A | 06-03-2018 | CN 107752130 A | 06-03-2018 |
| | | WO 2019080746 A1 | 02-05-2019 |