(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 3 213 649 A1**

(12) **EUROPEAN PATENT APPLICATION**
published in accordance with Art. 153(4) EPC

(43) Date of publication:
06.09.2017 Bulletin 2017/36

(21) Application number: **14901025.8**

(22) Date of filing: **11.09.2014**

(51) Int Cl.:
A24F 47/00 *(2006.01)*

(86) International application number:
PCT/CN2014/086280

(87) International publication number:
WO 2016/033817 (10.03.2016 Gazette 2016/10)

(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
Designated Extension States:
BA ME

(30) Priority: **03.09.2014 CN 201410445050**

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(54) TOBACCO-CURING ELECTRONIC CIGARETTE

(57) The present invention relates to an electronic cigarette, in particular to a tobacco curing electronic cigarette. The present invention provides a tobacco curing electronic cigarette, comprising a suction nozzle component and a tobacco curing component, wherein the suction nozzle component is in rotational connection with the tobacco curing component; the suction nozzle component is provided with a smoking channel; the tobacco curing component is provided with a tobacco curing chamber; the smoking channel communicates with the tobacco curing chamber; the suction nozzle component is provided with a stirring rod; and the stirring rod is penetrated into the tobacco curing chamber. The present invention has the following beneficial effect: the suction nozzle component and the tobacco curing component can rotate relative to each other; the suction nozzle component drives the stirring rod to rotate when rotating such that the stirring rod stirs the tobacco in the tobacco curing chamber, which helps improve the utilization of the flue-cured tobacco.

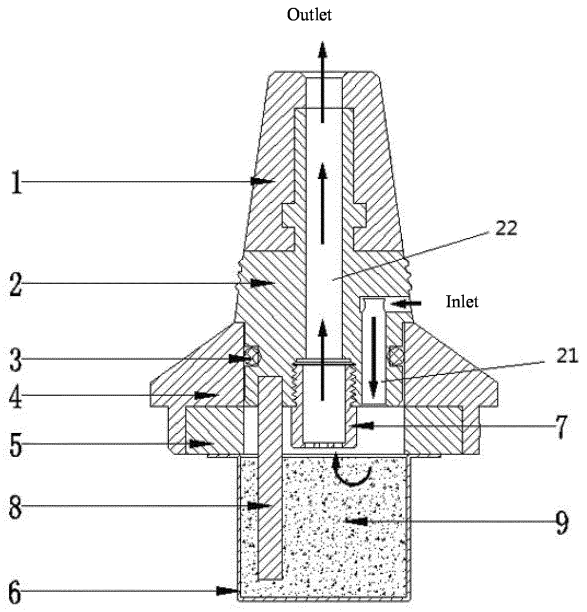


FIG. 1

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Description

BACKGROUND OF THE INVENTION

Technical Field

[0001] The present invention relates to an electronic cigarette, in particular to a tobacco curing electronic cigarette.

2. Description of Related Art

[0002] Tobacco curing electronic cigarettes are non-burning cigarettes which do not burning. By heating and baking, the tobacco curing electronic cigarette can greatly improve the fragrance of the cigarette and reduce the coke content. Existing similar flue-cured cigarette products fail to completely cure tobaccos in use, have low utilization of flue-cured tobaccos and seriously waste the flue-cured tobaccos.

BRIEF SUMMARY OF THE INVENTION

[0003] In order to solve existing technical problems, the present invention provides a tobacco curing electronic cigarette which has a high utilization of tobaccos.

[0004] The present invention provides a tobacco curing electronic cigarette, comprising a suction nozzle component and a tobacco curing component, wherein the suction nozzle component is in rotational connection with the tobacco curing component; the suction nozzle component is provided with a smoking channel; the tobacco curing component is provided with a tobacco curing chamber; the smoking channel communicates with the tobacco curing chamber; the suction nozzle component is provided with a stirring rod; and the stirring rod is penetrated into the tobacco curing chamber.

[0005] As a further improvement of the present invention, the suction nozzle component comprises a suction nozzle; the suction nozzle is provided with an inlet hole and an outlet hole; the inlet hole and the outlet hole communicate with each other to form a smoking channel; the air inlet of the inlet hole is formed on a lateral face of the suction nozzle, the air outlet of the inlet hole is disposed at the bottom of the suction nozzle; the air inlet of the outlet hole is disposed at the bottom of the suction nozzle, the air outlet of the outlet hole is disposed at the top of the suction nozzle; the tobacco curing component comprises an upper cover and a tobacco lining; the upper cover is provided with a tobacco guide channel; the bottom of the suction nozzle is penetrated into the tobacco guide channel; the upper cover is connected with the tobacco lining; the tobacco curing chamber is disposed in the tobacco lining; and the tobacco curing chamber respectively communicates with the air outlet of the inlet hole and the air inlet of the outlet hole via the tobacco guide channel.

[0006] As a further improvement of the present invention, a thermal insulation ring is disposed between the upper cover and the tobacco lining.

[0007] As a further improvement of the present invention, a filter is disposed on the air inlet of the outlet hole of the suction nozzle.

[0008] As a further improvement of the present invention, the filter is preferably a filtering nut, and the filtering nut is in threaded connection with the air inlet of the outlet hole of the suction nozzle.

[0009] As a further improvement of the present invention, a sealing ring is clamped between the bottom of the suction nozzle and the tobacco guide channel of the upper cover.

[0010] As a further improvement of the present invention, the suction nozzle component also comprises a suction nozzle sheath, and the suction nozzle sheath is sleeved on the top of the suction nozzle.

[0011] As a further improvement of the present invention, the suction nozzle and the upper cover are both revolving bodies; the revolving central axis of the suction nozzle is superposed with the revolving central axis of the upper cover; and the revolving central axis of the suction nozzle is superposed with the axis of the outlet hole.

[0012] As a further improvement of the present invention, the axis of the stirring rod is not superposed with the revolving central axis of the suction nozzle.

[0013] As a further improvement of the present invention, the air inlet of the inlet hole is vertical to the revolving central axis of the suction nozzle; the air outlet of the inlet hole is parallel to the revolving central axis of the suction nozzle; and the air inlet of the inlet hole is positioned on the upper cover.

[0014] The present invention has the following beneficial effect: the suction nozzle component and the tobacco curing component can rotate relative to each other; the suction nozzle component drives the stirring rod to rotate when rotating such that the stirring rod stirs the tobacco in the tobacco curing chamber, which helps improve the utilization of the flue-cured tobacco.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

[0015]

FIG. 1 is a schematic view of a sectional structure of a tobacco curing electronic cigarette of the present invention;

FIG. 2 is a front view of the tobacco curing electronic cigarette of the present invention;

FIG. 3 is an exploded view of the tobacco curing electronic cigarette of the present invention;

FIG. 4 is a schematic view of rotary stirring of the tobacco curing electronic cigarette of the present invention;

FIG. 5 is an assembling structural view of the tobacco curing electronic cigarette of the present invention;

and

FIG. 6 is a structural view of the tobacco curing electronic cigarette of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0016] The present invention is further described in conjunction with the attached drawings and specific implementation modes.

[0017] Marks in FIGs 1-6: suction nozzle sheath 1; suction nozzle 2; inlet hole 21; outlet hole 22; sealing ring 3; upper cover 4; thermal insulation ring 5; tobacco lining 6; filter 7; stirring rod 8; tobacco 9.

[0018] As shown in FIGs 1-6, a tobacco curing electronic cigarette includes a suction nozzle component and a tobacco curing component, wherein the suction nozzle component is in rotational connection with the tobacco curing component; the suction nozzle component is provided with a smoking channel; the tobacco curing component is provided with a tobacco curing chamber; the tobacco curing chamber is internally provided with tobacco 9; the smoking channel communicates with the tobacco curing chamber; the suction nozzle component is provided with a stirring rod 8; and the stirring rod 8 is penetrated into the tobacco curing chamber.

[0019] As shown in FIGs 1-6, the suction nozzle component includes a suction nozzle 2; the suction nozzle 2 is provided with an inlet hole 21 and an outlet hole 22; the inlet hole 21 and the outlet hole 22 communicate with each other to form the smoking channel; the air inlet of the inlet hole 21 is formed on a lateral face of the suction nozzle 2 to form top air admission. Compared with the traditional bottom air admission, the preferred top air admission of the present invention can avoid blockage of the smoking channel.

[0020] As shown in FIGs 1-6, the air outlet of the inlet hole 21 is disposed at the bottom of the suction nozzle 2; the air inlet of the outlet hole 22 is disposed at the bottom of the suction nozzle 2, and the air outlet of the outlet hole 22 is disposed at the top of the suction nozzle 2; the tobacco curing component includes an upper cover 4 and a tobacco lining 6; the upper cover 4 is provided with a tobacco guide channel; the bottom of the suction nozzle 2 is penetrated into the tobacco guide channel, which means that the suction nozzle 2 is in rotational connection with the upper cover 4; the upper cover 4 is connected with the tobacco lining 6; the tobacco curing chamber is disposed in the tobacco lining 6; and the tobacco curing chamber respectively communicates with the air outlet of the inlet hole 21 and the air inlet of the outlet hole 22 via the tobacco guide channel.

[0021] As shown in FIGs 1-6, a thermal insulation ring 5 is disposed between the upper cover 4 and the tobacco lining 6, and the heat of the tobacco lining 6 can be blocked by the thermal insulation ring 5 to prevent the heat of the tobacco lining 6 from passing onto the upper cover 4.

[0022] As shown in FIGs 1-6, a filter 7 is disposed on the air inlet of the outlet hole 22 of the suction nozzle 2.

[0023] As shown in FIGs 1-6, the filter 7 is preferably a filtering nut; the filtering nut is in threaded connection with the air inlet of the outlet hole of the suction nozzle 2; and the filter 7 can further prevent blockage of the tobacco guide channel.

[0024] As shown in FIGs 1-6, a sealing ring 3 is clamped between the bottom of the suction nozzle 2 and the tobacco guide channel of the upper cover 4. On the one hand, the suction nozzle 2 and the upper cover 4 can perform sealing connection through the sealing ring 3, and on the other hand, the sealing ring 3 can generate a damping effect when the suction nozzle 2 and the upper cover 4 rotate.

[0025] As shown in FIGs 1-6, the suction nozzle component also includes a suction nozzle sheath 1, and the suction nozzle sheath 1 is sleeved on the top of the suction nozzle 2.

[0026] As shown in FIGs 1-6, the suction nozzle 2 and the upper cover 4 are both revolving bodies; the revolving central axis of the suction nozzle 2 is superposed with the revolving central axis of the upper cover 4; and the revolving central axis of the suction nozzle 2 is superposed with the axis of the outlet hole 22.

[0027] As shown in FIGs 1-6, the axis of the stirring rod 8 is not superposed with the revolving central axis of the suction nozzle 2.

[0028] As shown in FIGs 1-6, the air inlet of the inlet hole 21 is vertical to the revolving central axis of the suction nozzle 2; the air outlet of the inlet hole 21 is parallel to the revolving central axis of the suction nozzle 2; and the air inlet of the inlet hole 21 is positioned on the upper cover 4.

[0029] For the tobacco curing electronic cigarette provided by the present invention, the suction nozzle 2 and the upper cover 4 can rotate relative to each other by 360 DEG; the suction nozzle 2 drives the stirring rod 8 to rotate when rotating such that the stirring rod 8 stirs the tobacco 9 in the tobacco curing chamber of the tobacco lining 6, so the tobacco is completely cured, which helps improve the utilization of the flue-cured tobacco. Moreover, the air inlet of the inlet hole 21 disposed on the lateral face of the suction nozzle 2 can realize top air admission. Compared with the traditional bottom air admission, the preferred top air admission of the present invention can avoid blockage of the smoking channel.

[0030] The specific preferred embodiments are used to describe the present invention in further detail above, but cannot be regarded as the limit to the present invention. For those ordinarily skilled in the art, various simple modifications and replacements can be made on the basis of the concept of the present invention, which should all fall within the protective scope of the present invention.

Claims

1. A tobacco curing electronic cigarette, **characterized**

by comprising a suction nozzle component and a tobacco curing component, wherein the suction nozzle component is in rotational connection with the tobacco curing component; the suction nozzle component is provided with a smoking channel; the tobacco curing component is provided with a tobacco curing chamber; the smoking channel communicates with the tobacco curing chamber; the suction nozzle component is provided with a stirring rod; and the stirring rod is penetrated into the tobacco curing chamber.

2. The tobacco curing electronic cigarette according to Claim 1, **characterized in that** the suction nozzle component comprises a suction nozzle; the suction nozzle is provided with an inlet hole and an outlet hole; the inlet hole and the outlet hole communicate with each other to form a smoking channel; the air inlet of the inlet hole is formed on a lateral face of the suction nozzle, the air outlet of the inlet hole is disposed at the bottom of the suction nozzle; the air inlet of the outlet hole is disposed at the bottom of the suction nozzle, the air outlet of the outlet hole is disposed at the top of the suction nozzle; the tobacco curing component comprises an upper cover and a tobacco lining; the upper cover is provided with a tobacco guide channel; the bottom of the suction nozzle is penetrated into the tobacco guide channel; the upper cover is connected with the tobacco lining; the tobacco curing chamber is disposed in the tobacco lining; and the tobacco curing chamber respectively communicates with the air outlet of the inlet hole and the air inlet of the outlet hole via the tobacco guide channel.

3. The tobacco curing electronic cigarette according to Claim 2, **characterized in that** a thermal insulation ring is disposed between the upper cover and the tobacco lining.

4. The tobacco curing electronic cigarette according to Claim 2, **characterized in that** a filter is disposed on the air inlet of the outlet hole of the suction nozzle.

5. The tobacco curing electronic cigarette according to Claim 4, **characterized in that** the filter is preferably a filtering nut, and the filtering nut is in threaded connection with the air inlet of the outlet hole of the suction nozzle.

6. The tobacco curing electronic cigarette according to Claim 2, **characterized in that** a sealing ring is clamped between the bottom of the suction nozzle and the tobacco guide channel of the upper cover.

7. The tobacco curing electronic cigarette according to Claim 2, **characterized in that** the suction nozzle component also comprises a suction nozzle sheath, and the suction nozzle sheath is sleeved on the top of the suction nozzle.

8. The tobacco curing electronic cigarette according to Claim 2, **characterized in that** the suction nozzle and the upper cover are both revolving bodies; the revolving central axis of the suction nozzle is superposed with the revolving central axis of the upper cover; and the revolving central axis of the suction nozzle is superposed with the axis of the outlet hole.

9. The tobacco curing electronic cigarette according to Claim 8, **characterized in that** the axis of the stirring rod is not superposed with the revolving central axis of the suction nozzle.

10. The tobacco curing electronic cigarette according to Claim 8, **characterized in that** the air inlet of the inlet hole is vertical to the revolving central axis of the suction nozzle; the air outlet of the inlet hole is parallel to the revolving central axis of the suction nozzle; and the air inlet of the inlet hole is positioned on the upper cover.

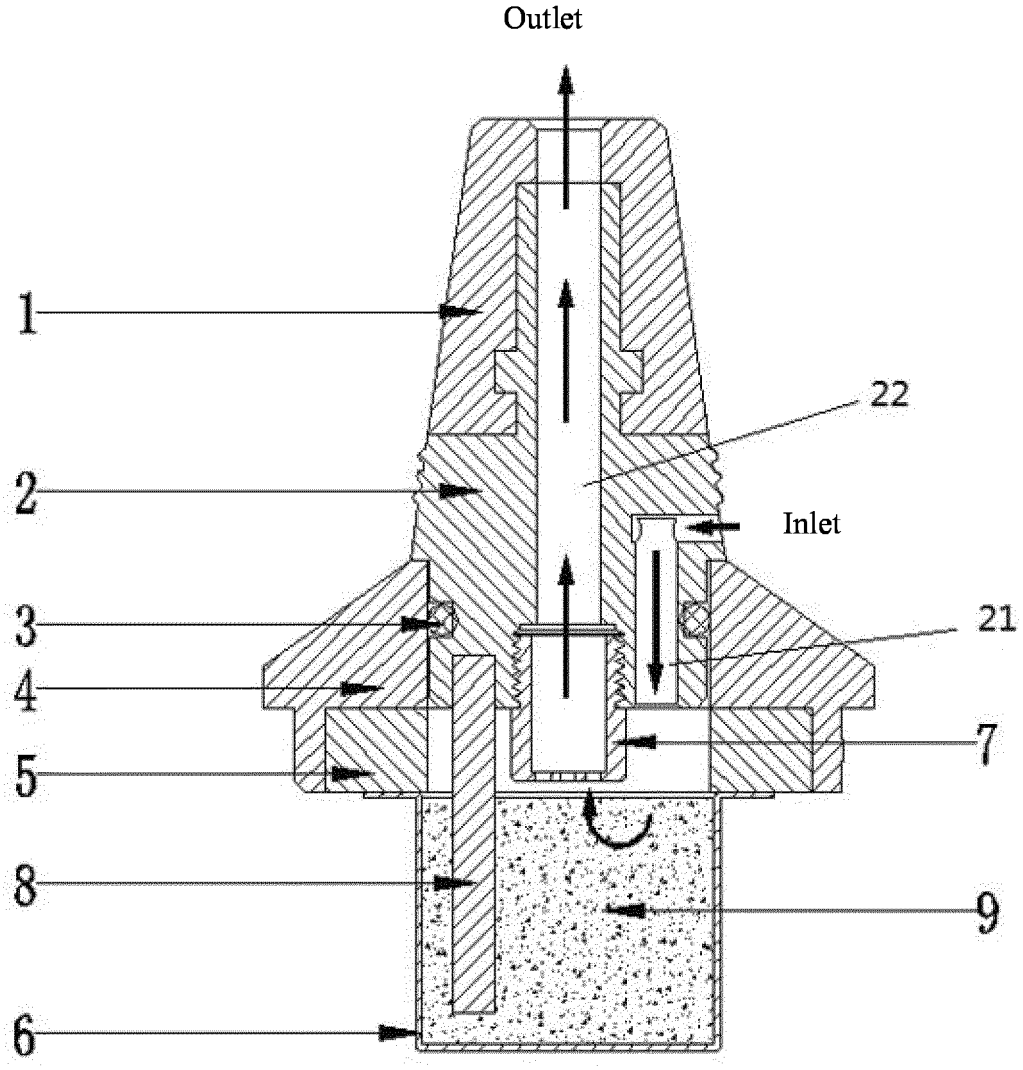


FIG. 1

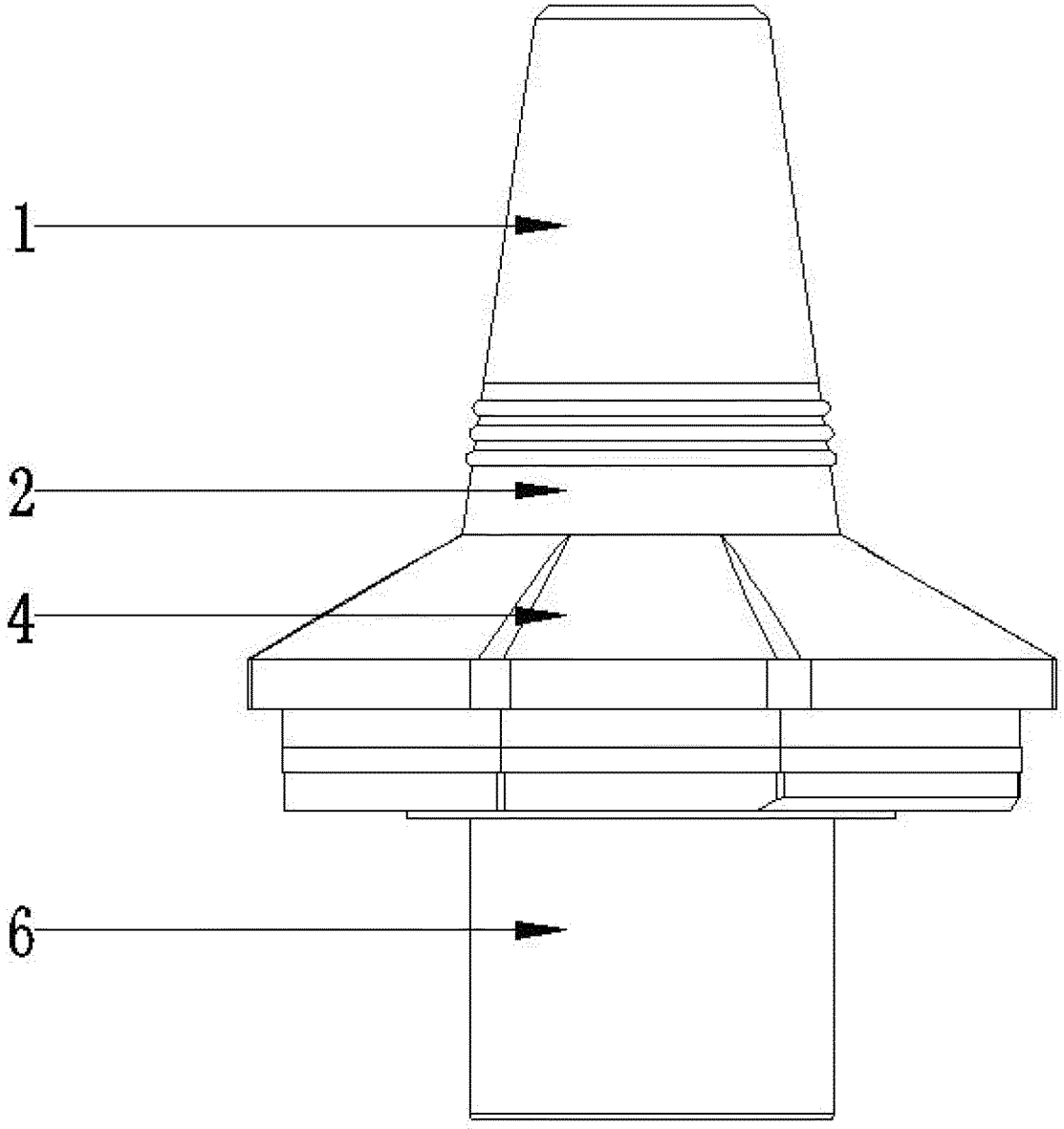


FIG. 2

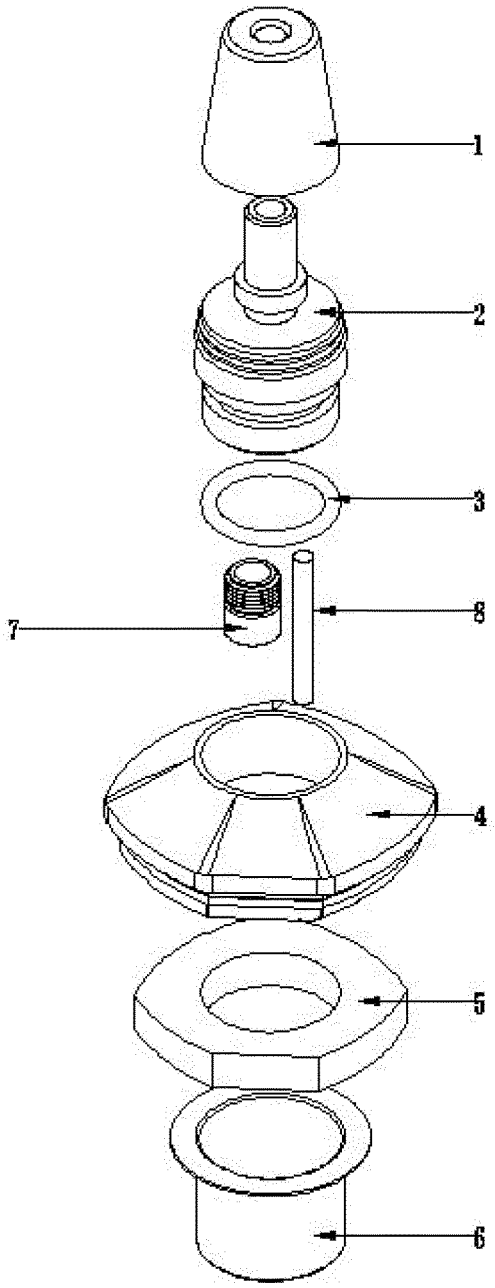


FIG. 3

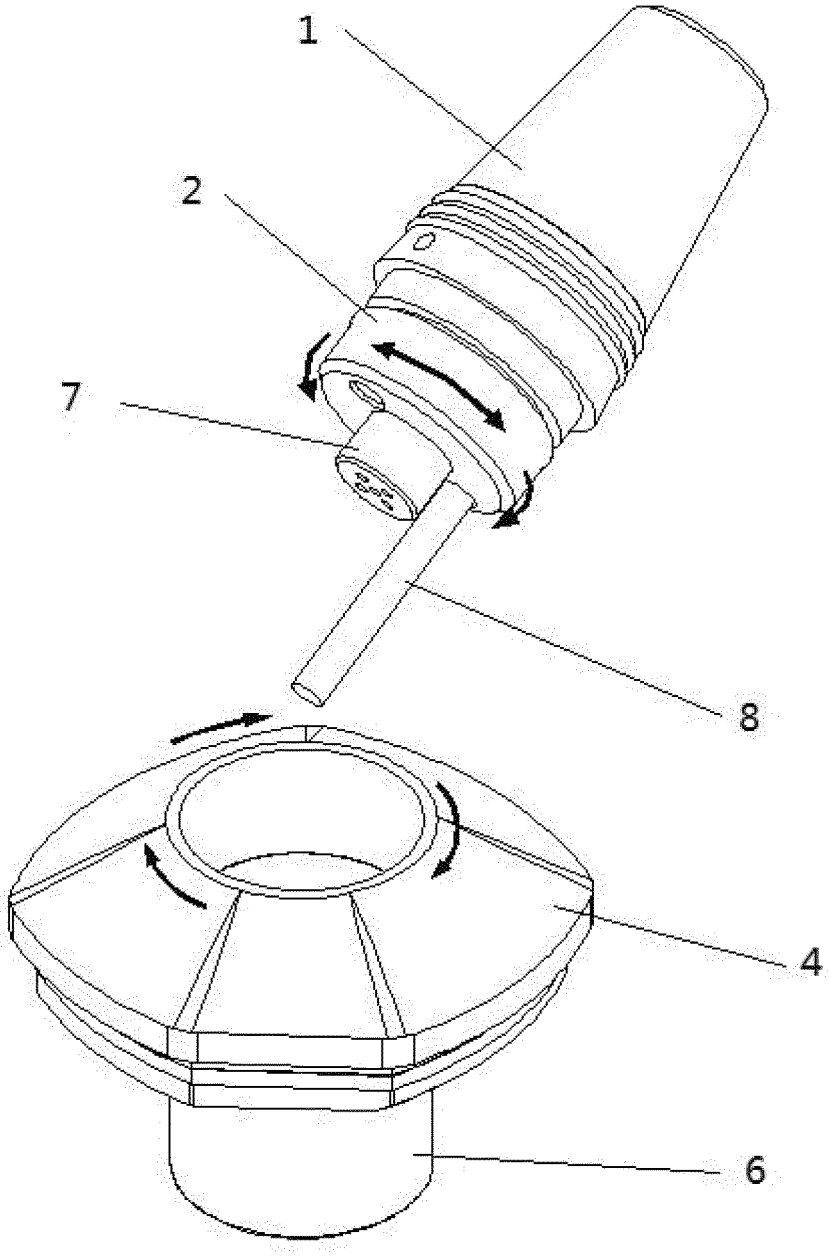


FIG. 4

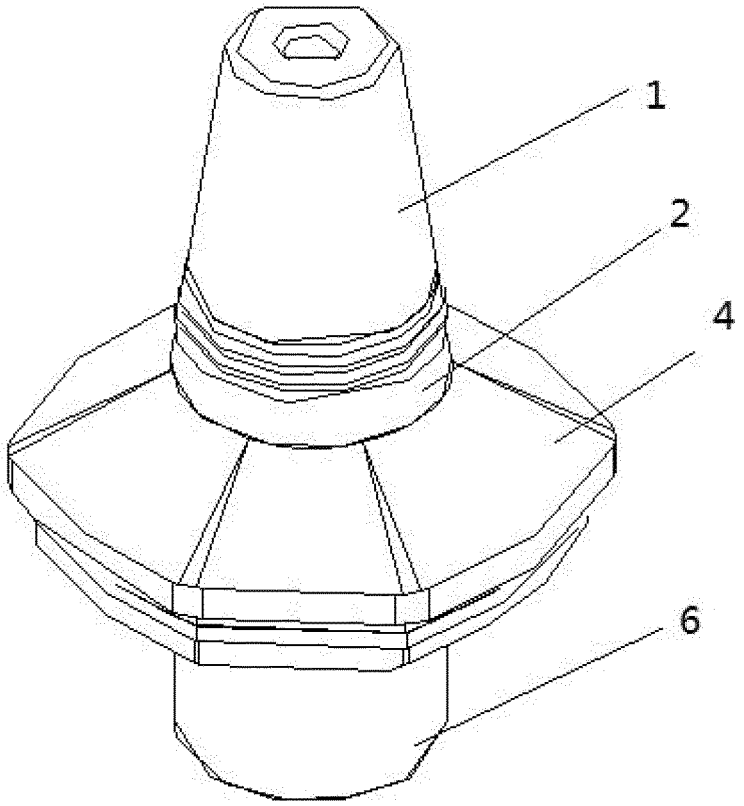


FIG. 5

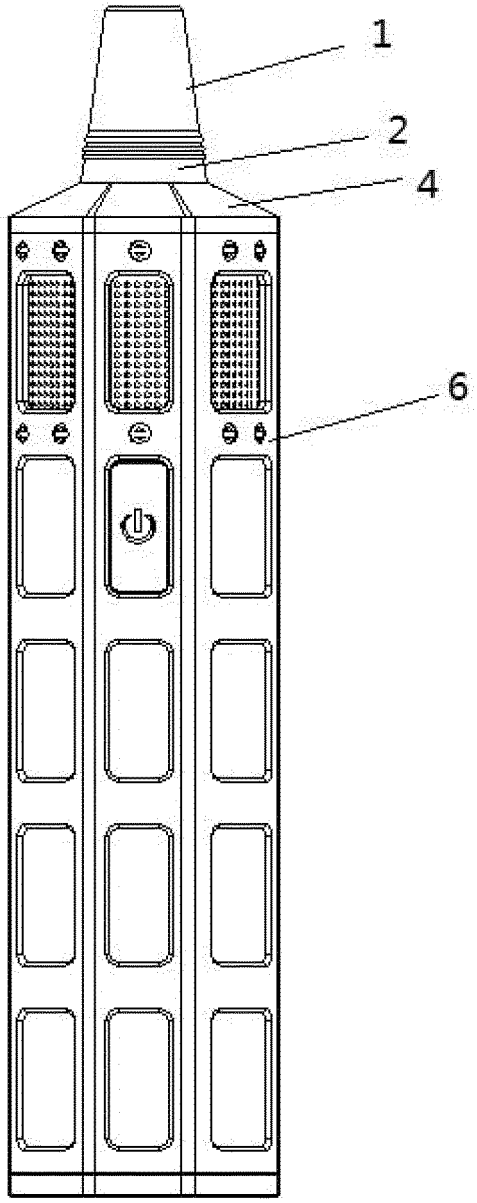


FIG. 6

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CN2014/086280

A. CLASSIFICATION OF SUBJECT MATTER

A24F 47/00 (2006.01) i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A24F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CNKI, CNPAT, WPI, EPODOC: electronic cigarette + electronic flue-cured tobacco, bake+roast+ tobacco leaf + tobacco, stir, rotate+turn; electronic, cigarette, tobacco, +cured, Stir+, Rotat+

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E	CN 204132394 U (SHENZHEN BAUWAY TECHNOLOGY LIMITED), 04 February 2015 (04.02.2015), claims 1-10	1-10
A	CN 102754924 A (LONG, Gongyun), 31 October 2012 (31.10.2012), description, paragraphs 26 and 36, and figure 2	1-10
A	CN 102356930 A (LIU, Qiuming), 22 February 2012 (22.02.2012), the whole document	1-10
A	CN 103859608 A (ZHOU, Xuewu), 18 June 2014 (18.06.2014), the whole document	1-10
A	CN 203676127 U (SHENZHEN RELAXO TECHNOLOGY CO., LTD.), 02 July 2014 (02.07.2014), the whole document	1-10
A	WO 2013171206 A1 (BRITISH AMERICAN TOBACCO NC LIMITED), 21 November 2013 (21.11.2013), the whole document	1-10

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents:

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"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
30 April 2015 (30.04.2015)	**28 May 2015 (28.05.2015)**
Name and mailing address of the ISA/CN: State Intellectual Property Office of the P. R. China No. 6, Xitucheng Road, Jimenqiao Haidian District, Beijing 100088, China Facsimile No.: (86-10) 62019451	Authorized officer **YIN, Huayu** Telephone No.: (86-10) **61648429**

Form PCT/ISA/210 (second sheet) (July 2009)

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/CN2014/086280

Patent Documents referred in the Report	Publication Date	Patent Family	Publication Date
CN 204132394 U	04 February 2015	None	
CN 102754924 A	31 October 2012	CN 102754924 B	10 September 2014
CN 102356930 A	22 February 2012	CN 102356930 B	13 November 2013
CN 103859608 A	18 June 2014	None	
CN 203676127 U	02 July 2014	None	
WO 2013171206 A1	21 November 2013	GB 2502052 A	20 November 2013

Form PCT/ISA/210 (patent family annex) (July 2009)