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(72) Inventors:
• **LIU, Huachen**
Wuhan, Hubei 430040 (CN)
• **LI, Dan**
Wuhan, Hubei 430040 (CN)
• **CHEN, Yikun**
Wuhan, Hubei 430040 (CN)
• **HUANG, Ting**
District Hubei 430040 (CN)
• **LIU, Lei**
Wuhan, Hubei 430040 (CN)

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(74) Representative: **Sarpi, Maurizio et al**
Studio Ferrario S.r.l.
Via Collina, 36
00187 Roma (IT)

(71) Applicant: **China Tobacco Hubei Industrial Corporation Limited**
Dongxihu District
Wuhan
Hubei 430040 (CN)

(54) **SMOKING DEVICE**

(57) A smoking device includes a housing (1), a receiving part (3) used for accommodating a low-temperature cigarette (2), and a heating part (4) used for heating a low-temperature cigarette (2). The receiving part (3) is provided in the housing (1), and is provided with a cavity for accommodating the low-temperature cigarette (2) inside the receiving part (3); a top of the heating part (4) penetrates a bottom of the receiving part (3) and extends inside the receiving part; wherein, when the low-temperature cigarette (2) needs to be heated, the heating part (4) is inserted inside the low-temperature cigarette (2) to heat the low-temperature cigarette (2); and when the low-temperature cigarette (2) needs to be extracted, the heating part (4) is rotated to make the heating part (4) rotate relative to the low-temperature cigarette (2), such that the heating part (4) is separated from tobacco substances (21) in the low-temperature cigarette (2). The device can reduce the adhesion and/or hardening generated between the tobacco substances (21) in the low-temperature cigarette (2) and the heating part (4), can reduce the risk of falling of the tobacco substances (21), and make it easier to separate the heating part (4)

from the tobacco substances (21).

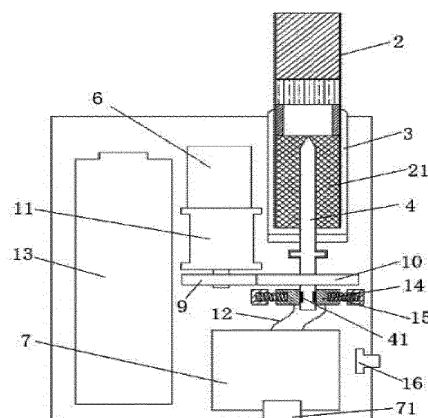


Fig. 4

Description

TECHNICAL FIELD

[0001] The present disclosure relates to a smoking device, belonging to the technical field of low-temperature cigarettes.

BACKGROUND

[0002] Low-temperature cigarettes are also called heat-not-burn tobacco products, which are different from traditional cigarettes that produce smoke by burning the tobacco itself. The tobacco of low-temperature cigarettes does not burn itself, but is heated by a heater, so that the nicotine therein is released in the form of smoke for smoking, such that a physiological sense of pleasure can be produced. Because the heating temperature of low-temperature cigarettes is lower than the burning temperature of traditional cigarettes, it can significantly reduce the large amount of harmful substances produced by the combustion of low-temperature cigarettes, and reduce the harm of passive smoking to non-smokers. Therefore, the harm of low-temperature cigarettes to the human body is much lower than the traditional direct-burn cigarettes.

[0003] Existing low-temperature cigarette electric heating devices are mainly divided into two types, central heating and peripheral heating. The central heating means that the heating device is inserted into the low-temperature cigarette, and the tobacco (shredded tobacco) is heated to produce smoke. However, after the low-temperature cigarette is heated by the heating device, the heating device and the tobacco in the low-temperature cigarette produce adhesion and compaction, so when the low-temperature cigarette is smoked, the tobacco is likely to fall off and stay in the heating device.

SUMMARY

[0004] In view of the above problems, the present disclosure is intended to provide a smoking device, such that reduce the adhesion and/or compaction between the tobacco substance in the low-temperature cigarette and the heating part, and reduce the risk of falling of the material (tobacco and/or tobacco leaf) when extracting (pulling out of) the low-temperature cigarette, making it easier to separate the heating part from the tobacco material.

[0005] In order to achieve the above-mentioned objectives, the present disclosure provides a smoking device, including a housing, a receiving part for accommodating a low-temperature cigarette, and a heating part for heating the low-temperature cigarette; the receiving part is provided in the housing, and the receiving part is provided with a cavity for accommodating the low-temperature cigarette; a top of the heating part penetrates a bottom of the receiving part and extends inside the receiving part; wherein,

when the low-temperature cigarette needs to be heated, the heating part is inserted inside the low-temperature cigarette to heat the low-temperature cigarette; and

when the low-temperature cigarette needs to be extracted, the heating part is rotated to make the heating part rotate relative to the low-temperature cigarette, such that the heating part is separated from tobacco substances in the low-temperature cigarette.

[0006] In a specific embodiment, a bottom of the heating part is connected to a first end of a handle, and a second end of the handle extends out of the housing through a window, the window is provided on a side wall of the housing.

[0007] In a specific embodiment, when the low-temperature cigarette needs to be extracted, the handle is rotated so that the heating part is driven by the handle to rotate.

[0008] In a specific embodiment, the bottom of the heating part is connected to an output shaft of a motor, the motor is connected to a control board, and the control board is configured to control activation and/or deactivation of the motor; the motor and the control board are both provided inside the housing.

[0009] In a specific embodiment, when the low-temperature cigarette needs to be extracted, the control board sends a driving signal to drive the motor to rotate, so that the heating part is driven by the motor to rotate.

[0010] In a specific embodiment, the output shaft of the motor is connected to the bottom of the heating part through a transmission part.

[0011] In a specific embodiment, the transmission part comprises a coupling, a driving end of the coupling is connected with the output shaft of the motor, and a driven end of the coupling is connected with the bottom of the heating part.

[0012] In a specific embodiment, the transmission part further comprises a driving gear and a driven gear engaged with the driving gear; the driving gear is connected with the output shaft of the motor, the driven gear is connected to the bottom of the heating part.

[0013] In a specific embodiment, the output shaft of the motor is connected to the driving gear through a reducer.

[0014] In a specific embodiment, the transmission part further comprises a belt transmission mechanism or a chain transmission mechanism.

[0015] In a specific embodiment, the heating part is configured as a resistance heating element or an infrared heating element.

[0016] In a specific embodiment, a plurality of electrical contact points are provided at a bottom of the resistance heating element or the infrared heating element, each electrical contact point is connected to a battery part through a wire, and the battery part is provided inside the

housing.

[0017] In a specific embodiment, the each electrical contact point is connected to the control board through the wire, the control board is electrically connected to the battery part; the control board is configured for controlling ON/OFF of a circuit heated by the resistance heating element or the infrared heating element.

[0018] In a specific embodiment, the electrical contact point is connected to a first end of the wire through an elastic electrical connection joint, and a second end of the wire is connected to the control board; wherein, a first end of the elastic electrical connection joint is in contact with the electrical contact point, and a second end of the elastic electrical connection joint is connected to the side wall of the housing through a spring.

[0019] In a specific embodiment, a first end of the spring is firmly connected to the side wall of the housing, and a second end of the spring is provided in a groove at the second end of the elastic electrical connection joint.

[0020] In a specific embodiment, the heating part is configured as an electromagnetic induction heating element; the electromagnetic induction heating element heats the low-temperature cigarette through electromagnetic induction eddy current.

[0021] In a specific embodiment, the receiving part is provided with at least one limiting portion on an inner wall; the at least one limiting portion is used to fix the low-temperature cigarette inside the receiving part, and to prevent the low-temperature cigarette from rotating.

[0022] In a specific embodiment, the at least one limiting portion comprises a protrusion and/or a limiting position.

[0023] In a specific embodiment, when the low-temperature cigarette is inserted into the receiving part, the low-temperature cigarette is deformed, and a friction is generated between the low-temperature cigarette and the receiving part, so that the low-temperature cigarette is fixed inside the receiving part and unable to rotated.

[0024] In a specific embodiment, when the heating part rotates, a friction generated between the heating part and the low-temperature cigarette is smaller than the friction generated between the low-temperature cigarette and the receiving part, causing the heating part and the low-temperature cigarette to rotate relative to each other, thereby separating the heating part from the tobacco substances in the low-temperature cigarette.

[0025] In a specific embodiment, the at least one limiting portion is provided in a strip shape, and the at least one limiting portion extends from a top of the receiving part to the bottom of the receiving part.

[0026] In a specific embodiment, a plurality of the limiting portions are provided at intervals.

[0027] In a specific embodiment, the heating part has a rotation angle of 0-360 degrees, or greater than 360 degrees.

[0028] In a specific embodiment, the heating part has a cross section in a circular shape, an oval shape or a polygon shape.

[0029] In a specific embodiment, the control board is provided with a charging interface; the charging interface is used to charge the battery part.

[0030] In a specific embodiment, the housing is provided with a control button on the side wall, and the control board is connected to the battery part through the control button.

[0031] Due to the above technical solutions, the present disclosure has the following advantages:

1. The present disclosure is provided with a heating part. Before the low-temperature cigarette is extracted, the heating part can rotate relative to the low-temperature cigarette, such that the adhesion and/or compaction between the tobacco material and the heating part can be reduced, the risk of the tobacco material falling in the receiving part can be reduced when the low-temperature cigarette is extracted, so that the heating part and the tobacco material can be separated more easily.

2. The present disclosure is provided with a handle, and the heating part can be driven to rotate by rotating the handle, and the structure is simple.

3. The present disclosure is equipped with a motor, and the heating part can be driven to rotate by driving the motor to rotate, which is convenient to use.

4. The present disclosure is equipped with a control board, such that activation and/or deactivation of the motor can be controlled, with a high degree of intelligence and flexibility.

5. The present disclosure is equipped with a coupling, such that the vibration of the mechanical transmission and the impact peak load can be reduced through the coupling transmission, and at the same time the present disclosure has a certain cushioning and shock absorption performance and overload safety protection.

6. The present disclosure is provided with a driving gear and a driven gear engaged with the driving gear, such that deceleration or acceleration are facilitated through gear transmission, it has high carrying capacity, high transmission efficiency, and good stability.

7. The rotation mode of the heating part of the present disclosure is set to forward and reverse cyclic rotation, which has good flexibility.

8. The heating part of the present disclosure is set as a resistance heating element or an infrared heating element, such that the temperature can quickly raised and it has good controllability.

9. The heating part of the present disclosure is set as an electromagnetic induction heating element, which can quickly heat up, and make the heat concentrate inside the electromagnetic induction heating element, the external heat dissipation is extremely small, the thermal efficiency is high, so the energy saving effect is significant.

10. The present disclosure is equipped with a reducer, such that the rotation speed of the motor can be effectively reduced, thereby improving the stability of the rotation of the heating part.

11. The present disclosure is provided with an elastic electrical connection joint. The first end of the elastic electrical connection joint is in contact with the electrical contact point, and the second end of the elastic electrical connection joint is connected to the side wall of the housing through a spring. When the heating part rotates, the bending degree of the wire is reduced, the service life of the wire is prolonged, and the connection between the heating part and the control board is more reliable.

12. The present disclosure is provided with at least one limiting portion, such that the low-temperature cigarette can be effectively fixed inside the receiving part, effectively preventing the low-temperature cigarette from rotating freely.

13. The number of limiting portions of the present disclosure is multiple, and the plurality of limiting portions are provided at intervals, such that it can produce uniform deformation of low-temperature cigarettes and has good stability.

14. The present disclosure is provided with a charging interface, so that the battery part can be used continuously.

[0032] Other features and advantages of the present disclosure will be described in the following description, and part of them becomes obvious from the description, or understood by implementing the present disclosure. The objectives and other advantages of the present disclosure can be realized and obtained through the structures specifically pointed out in the specification, claims and drawings.

BRIEF DESCRIPTION OF DRAWINGS

[0033] In order to more clearly describe the technical solutions in the embodiments of the present disclosure, the following will briefly introduce the drawings required in the description of the embodiments:

FIG. 1 is a schematic structural view illustrating a smoking device according to a specific embodiment

of the present disclosure;

FIG. 2 is a schematic structural view illustrating a smoking device according to another specific embodiment of the present disclosure;

FIG. 3 is a schematic structural view illustrating a smoking device according to yet another specific embodiment of the present disclosure;

FIG. 4 is a schematic structural view illustrating a smoking device according to a further specific embodiment of the present disclosure;

FIG. 5 is a schematic cross-sectional structure diagram illustrating a smoking device according to a specific embodiment of the present disclosure when the low-temperature cigarette is inserted into the receiving part.

DESCRIPTION OF EMBODIMENTS

[0034] The implementation of the present disclosure will be described in detail below with reference to the accompanying drawings and embodiments, so as to fully understand how the present disclosure applies technical means to solve technical problems and achieve the realization process of technical effects and implement them accordingly. It should be noted that, as long as there is no conflict, each embodiment of the present disclosure and each feature in each embodiment can be combined with one another, and the technical solutions formed are all within the protection scope of the present disclosure. The directional terms mentioned in the present disclosure, such as "top", "bottom", "inner", "outer", "left", "right", etc., are only a way of referring to the attached drawings. Therefore, the directional terms used are used to describe and understand the present disclosure, rather than to limit the present disclosure.

[0035] As shown in FIGS. 1 to 4, the smoking device provided by the present disclosure may include a housing 1, a receiving part 3 for accommodating low-temperature cigarette 2 and a heating part 4 for heating the low-temperature cigarette 2. The receiving part 3 is provided in the housing 1, and a cavity for accommodating low-temperature cigarette is provided in the receiving part 3. The top of the heating part 4 penetrates the bottom of the receiving part 3 and extends into the interior of the receiving part 3. Wherein, when the low-temperature cigarette 2 needs to be heated, the heating part 4 is inserted inside the low-temperature cigarette 2 to heat the low-temperature cigarette 2. When the low-temperature cigarette 2 needs to be extracted, the heating part 4 is rotated to make the heating part 4 and the low-temperature cigarette 2 rotate relative to each other, so that the heating part 4 can be separated from the tobacco material 21 (tobacco and/or tobacco leaves) in the low-temperature cigarette 2. It should be noted that separation includes

the relative change of the position of the low-temperature cigarette 2 and the heating part 4, or the removal of the adhesion and/or compaction state between the low-temperature cigarette 2 and the heating part 4 due to heating and carbonization. The relative movement of the heating part 4 and the low-temperature cigarette 2 before the extraction of the low-temperature cigarette 2 can reduce the adhesion and/or compaction between the tobacco material 21 and the heating part 4, and reduce the risk of tobacco material 21 falling on the receiving part 3 when the low-temperature cigarette 2 is extracted, and can make the heating part 4 and the tobacco substance 21 easy to separate.

[0036] In a specific embodiment, as shown in FIG. 1, the bottom of the heating part 4 is connected to the first end of the handle 5, and the second end of the handle 5 extends to the outside of the housing 1 through a window, and the window is provided on the side wall of the housing 1. Wherein, the size of the window defines the rotation angle of the handle 5, thereby indirectly restricts the rotation angle of the heating part 4.

[0037] In a specific embodiment, as shown in FIG. 1, when the low-temperature cigarette 2 needs to be extracted, the handle 5 is rotated, and the handle 5 drives the heating part 4 to rotate, so that the heating part 4 and the low-temperature cigarette 2 rotate relative to each other, thereby making the heating part 4 separated from the tobacco substance 21 in the low-temperature cigarette 2. By rotating the handle 5 to drive the heating part 4 to rotate, the structure is simple.

[0038] In a specific embodiment, as shown in FIGS. 2 to 4, the bottom of the heating part 4 is connected to the output shaft of the motor 6, the motor 6 is electrically connected to the control board 7, and the control board 7 can control activation (rotation) and/or deactivation (stop) of the motor 6. It has high degree of intelligence, good flexibility. Both the motor 6 and the control board 7 are provided inside the housing 1.

[0039] In a specific embodiment, as shown in FIGS. 2 to 4, when the low-temperature cigarette 2 needs to be extracted, the control board 7 sends a drive signal to drive the motor 6 to rotate, and the motor 6 drives the heating part 4 to rotate, so that the heating part 4 and the low-temperature cigarette 2 rotates relative to each other, thereby separating the heating part 4 from the tobacco substance 21 in the low-temperature cigarette 2. The heating part 4 is driven to rotate by driving the motor 6, which is convenient to use.

[0040] In a specific embodiment, as shown in FIGS. 2 to 4, the output shaft of the motor 6 is connected to the bottom of the heating part 4 through a transmission part.

[0041] In a specific embodiment, as shown in FIG. 2, the transmission part includes a coupling 8. The driving end of the coupling 8 is connected to the output shaft of the motor 6, and the driven end of the coupling 8 is connected to the bottom of the heating part 4, enabling the heating part 4 and the motor 6 to rotate synchronously. The transmission by the coupling can reduce the vibra-

tion of the mechanical transmission and reduce the impact peak load. At the same time, it has a certain degree of cushioning and shock absorption performance and overload safety protection.

[0042] In a specific embodiment, as shown in FIGS. 2 and 3, the transmission part further includes a driving gear 9 and a driven gear 10 engaged with the driving gear 9. The driving gear 9 is connected to the output shaft of the motor 6, and the driven gear 10 is connected to the bottom of the heating part 4. Gear transmission can facilitate deceleration or acceleration, it has a high carrying capacity, high transmission efficiency, and good stability.

[0043] In a preferred embodiment, as shown in FIGS. 2 and 3, the output shaft of the motor 6 is connected to the driving gear 9 through a reducer 11. The reducer 11 can effectively reduce the rotation speed of the motor 6, thereby increasing the stability of rotation by heating part 4.

[0044] In a specific embodiment, the transmission part further includes a belt transmission mechanism or a chain transmission mechanism. Wherein, the belt transmission mechanism includes a first pulley and a second pulley, and the first pulley and the second pulley are connected by a belt. The first pulley is connected to the output shaft of the motor 6, and the second pulley is connected to the bottom of the heating part 4. The belt transmission has the advantages of cushioning impact, absorbing vibration, low noise, low cost and convenient maintenance.

The chain transmission mechanism includes a first sprocket and a second sprocket, and the first sprocket and the second sprocket are connected by a chain. The first sprocket is connected with the output shaft of the motor 6, and the second sprocket is connected with the bottom of the heating part 4. The chain transmission has no elastic sliding and slipping phenomenon, the average transmission ratio is accurate, the work is reliable, the efficiency is high, and the overload capacity is strong.

[0045] In a specific embodiment, the rotation angle of the heating part 4 is 0 to 360 degrees, or the rotation angle of the heating part 4 is greater than 360 degrees. Preferably, the rotation mode of the heating part 4 is set to be forward and reverse cyclic rotation, and the rotation angle of the heating part 4 is greater than 0 degrees and less than 360 degrees.

[0046] In a specific embodiment, the heating part 4 is configured as a resistance heating element or an infrared heating element, such that the temperature can be quickly risen, it has good controllability.

[0047] In a specific embodiment, as shown in FIGS. 1 and 4, the bottom of the resistance heating element or the infrared heating element is provided with a plurality of electrical contact points 41, and each of the electrical contact points 41 is connected to the battery part 13 through a wire 12. The battery part 13 is provided inside the housing 1. Preferably, the wire 12 is a flexible wire that can be bent. The flexible wire is made of a material that has high toughness and can be repeatedly bent.

When the heating part 4 rotates in the forward direction, the flexible wire deforms, and when it rotates in the reverse direction, the flexible wire returns to the original state.

[0048] In a specific embodiment, as shown in FIGS. 1 and 4, the electrical contact point 41 is connected to the control board 7 through the wire 12, and the control board 7 is electrically connected to the battery part 13. The control board 7 can control the connection (ON) or disconnection (OFF) of the circuit heated by the resistance heating element or by the infrared heating element. It has a high degree of intelligence and flexibility. When the circuit heated by the resistance heating element or the infrared heating element is connected, the resistance heating element or the infrared heating element generates heat and can heat the low-temperature cigarette 2. When the circuit heated by the resistance heating element or the infrared heating element is disconnected, the resistance heating element or the infrared heating element does not generate heat.

[0049] In a specific embodiment, as shown in FIG. 4, the electrical contact point 41 is connected to the first end of the wire 12 through the elastic electrical connection joint 14, and the second end of the wire 12 is connected to the control board 7. Wherein, the first end of the elastic electrical connection joint 14 is in contact with the electrical contact point 41, and the second end of the elastic electrical connection joint 14 is connected to the side wall of the housing 1 through the spring 15. When the heating part 4 rotates, within a specific angle range, the elastic electrical connection joint 14 and the electrical contact point 41 always maintain electrical connection. By controlling the rotation angle of the heating unit 4, the heating unit 4 can be maintained within a specific angle range, that is, the heating unit 4 and the control board 7 can be maintained in a reliable electrical connection. At this time, the degree of bending of the wire 12 is small and the service life is longer, so that the connection between the heating part 4 and the control board 7 is more reliable.

[0050] In a specific embodiment, as shown in FIG. 4, the first end of the spring 15 is firmly connected to the side wall of the housing 1, and the second end of the spring 15 is provided in the groove at the second end of the elastic electrical connection joint 14.

[0051] In a specific embodiment, the heating part 4 is configured as an electromagnetic induction heating element, such that it can quickly heat up, and cause heat to be concentrated inside the electromagnetic induction heating element, with minimal external heat dissipation, high thermal efficiency, and significant energy-saving effects.

[0052] In a specific embodiment, electromagnetic induction heating uses electromagnetic induction eddy currents to heat low-temperature cigarettes.

[0053] In a specific embodiment, as shown in FIG. 5, a limiting portion 31 is provided on the inner wall of the receiving part 3 for fixing the low-temperature cigarette

2 inside the receiving part 3 and for preventing the low-temperature cigarette 2 from rotating.

[0054] In a specific embodiment, the limiting portion 31 includes at least one protrusion and/or at least one limiting position.

[0055] In a specific embodiment, as shown in FIG. 5, when the low-temperature cigarette 2 is inserted into the receiving part 3, the low-temperature cigarette 2 is deformed, and a friction is generated between the low-temperature cigarette 2 and the receiving part 3. The low-temperature cigarette 2 can be fixed inside the receiving part 3 and cannot be rotated.

[0056] In a specific embodiment, when the heating part 4 rotates, the friction force generated between the heating part 4 and the low-temperature cigarette 2 is less than the friction force generated between the low-temperature cigarette 2 and the receiving part 3, so that the heating part 4 and the low-temperature cigarette 2 can rotate relative to each other, thereby separating the heating part 4 from the tobacco substance 21 in the low-temperature cigarette 2.

[0057] In a preferred embodiment, the limiting portion 31 is provided in a strip shape, and the limiting portion 31 extends from the top of the receiving part 3 to the bottom of the receiving part 3.

[0058] In a preferred embodiment, as shown in FIG. 5, a plurality of the limiting portions 31 are provided at intervals, making the low-temperature cigarette 2 uniformly deform, and good stability can be achieved.

[0059] In a specific embodiment, the cross section of the heating part 4 is set to be circular, oval or polygonal.

[0060] In a specific embodiment, as shown in FIGS. 1 to 4, a charging interface 71 is provided on the control board 7 for charging the battery part 13, so that the battery part 13 can be used continuously.

[0061] In a specific embodiment, as shown in FIGS. 1 to 4, a control button 16 is provided on the side wall of the housing 1, and the control board 7 is connected to the battery part 13 through the control button 16. Specifically, when the control button 16 is turned on, the battery part 13 supplies power to the heating unit 4. When the control button 16 is turned off, the battery part 13 stops supplying power to the heating unit 4.

[0062] In a specific embodiment, as shown in FIGS. 1 to 4, the heating part 4 heats the tobacco section of the low-temperature cigarette 2.

[0063] When the present disclosure is used, and when the low-temperature cigarette 2 needs to be heated, the heating part 4 is inserted inside the tobacco section of the low-temperature cigarette 2 to heat the tobacco substance 21. When the low-temperature cigarette 2 needs to be extracted, the heating part 4 is driven to rotate by rotating the handle 5 (as shown in FIG. 1) or by driving the motor 6 (as shown in FIGS. 2 to 4) to rotate, so that the heating part 4 can rotate relative to the low-temperature cigarette 2, making the heating part 4 separated from the tobacco substance 21 in the low-temperature cigarette 2.

[0064] Although the disclosed embodiments of the present disclosure are as described above, the content described is only the embodiments used to facilitate the understanding of the present disclosure, and is not intended to limit the present disclosure. Any person skilled in the technical field of the present disclosure can make any modifications and changes in the form and details of the implementation without departing from the spirit and scope of the present disclosure. However, the patent protection scope of the present disclosure is still subject to the scope defined by the appended claims.

Claims

1. A smoking device, comprising a housing, a receiving part for accommodating a low-temperature cigarette, and a heating part for heating the low-temperature cigarette;

the receiving part is provided in the housing, and the receiving part is provided with a cavity for accommodating the low-temperature cigarette inside the receiving part;

a top of the heating part penetrates a bottom of the receiving part and extends inside the receiving part; wherein,

when the low-temperature cigarette needs to be heated, the heating part is inserted inside the low-temperature cigarette to heat the low-temperature cigarette; and

when the low-temperature cigarette needs to be extracted, the heating part is rotated to make the heating part rotate relative to the low-temperature cigarette, such that the heating part is separated from tobacco substances in the low-temperature cigarette.

2. The smoking device according to claim 1, wherein a bottom of the heating part is connected to a first end of a handle, and a second end of the handle extends out of the housing through a window, the window is provided on a side wall of the housing.

3. The smoking device according to claim 2, wherein when the low-temperature cigarette needs to be extracted, the handle is rotated so that the heating part is driven by the handle to rotate.

4. The smoking device according to claim 1, wherein the bottom of the heating part is connected to an output shaft of a motor, the motor is connected to a control board, and the control board is configured to control activation and/or deactivation of the motor; the motor and the control board are both provided inside the housing.

5. The smoking device according to claim 4, wherein

when the low-temperature cigarette needs to be extracted, the control board sends a driving signal to drive the motor to rotate, so that the heating part is driven by the motor to rotate.

6. The smoking device according to claim 4, wherein the output shaft of the motor is connected to the bottom of the heating part through a transmission part.

7. The smoking device according to claim 6, wherein the transmission part comprises a coupling, a driving end of the coupling is connected with the output shaft of the motor, and a driven end of the coupling is connected with the bottom of the heating part.

8. The smoking device according to claim 6, wherein the transmission part further comprises a driving gear and a driven gear engaged with the driving gear; the driving gear is connected with the output shaft of the motor, the driven gear is connected to the bottom of the heating part.

9. The smoking device according to claim 8, wherein the output shaft of the motor is connected to the driving gear through a reducer.

10. The smoking device according to claim 6, wherein the transmission part further comprises a belt transmission mechanism or a chain transmission mechanism.

11. The smoking device according to claim 4, wherein the heating part is configured as a resistance heating element or an infrared heating element.

12. The smoking device according to claim 11, wherein a plurality of electrical contact points are provided at a bottom of the resistance heating element or the infrared heating element, each electrical contact point is connected to a battery part through a wire, and the battery part is provided inside the housing.

13. The smoking device according to claim 12, wherein the each electrical contact point is connected to the control board through the wire, the control board is electrically connected to the battery part; the control board is configured for controlling ON/OFF of a circuit heated by the resistance heating element or the infrared heating element.

14. The smoking device according to claim 13, wherein the electrical contact point is connected to a first end of the wire through an elastic electrical connection joint, and a second end of the wire is connected to the control board; wherein, a first end of the elastic electrical connection joint is in contact with the electrical contact point, and a second end of the elastic electrical connection joint is connected to the side

wall of the housing through a spring.

15. The smoking device according to claim 14, wherein a first end of the spring is firmly connected to the side wall of the housing, and a second end of the spring is provided in a groove at the second end of the elastic electrical connection joint.
16. The smoking device according to claim 4, wherein the heating part is configured as an electromagnetic induction heating element; the electromagnetic induction heating element heats the low-temperature cigarette through electromagnetic induction eddy current.
17. The smoking device according to claim 1, wherein the receiving part is provided with at least one limiting portion on an inner wall; the at least one limiting portion is used to fix the low-temperature cigarette inside the receiving part, and to prevent the low-temperature cigarette from rotating.
18. The smoking device according to claim 17, wherein the at least one limiting portion comprises a protrusion and/or a limiting position.
19. The smoking device according to claim 17, wherein when the low-temperature cigarette is inserted into the receiving part, the low-temperature cigarette is deformed, and a friction is generated between the low-temperature cigarette and the receiving part, so that the low-temperature cigarette is fixed inside the receiving part and unable to rotated.
20. The smoking device according to claim 19, wherein when the heating part rotates, a friction generated between the heating part and the low-temperature cigarette is smaller than the friction generated between the low-temperature cigarette and the receiving part, causing the heating part and the low-temperature cigarette to rotate relative to each other, thereby separating the heating part from the tobacco substances in the low-temperature cigarette.
21. The smoking device according to claim 17, wherein the at least one limiting portion is provided in a strip shape, and the at least one limiting portion extends from a top of the receiving part to the bottom of the receiving part.
22. The smoking device according to claim 21, wherein a plurality of the limiting portions are provided at intervals.
23. The smoking device according to claim 1, wherein the heating part has a rotation angle of 0-360 degrees, or greater than 360 degrees.
24. The smoking device according to claim 1, wherein the heating part has a cross section in a circular shape, an oval shape or a polygon shape.
25. The smoking device according to claim 12, wherein the control board is provided with a charging interface; the charging interface is used to charge the battery part.
26. The smoking device according to claim 12, wherein the housing is provided with a control button on the side wall, and the control board is connected to the battery part through the control button.

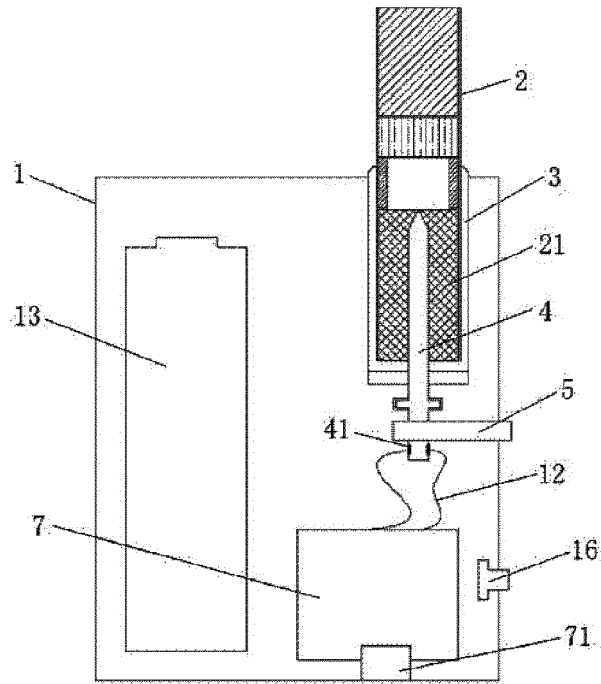


Fig. 1

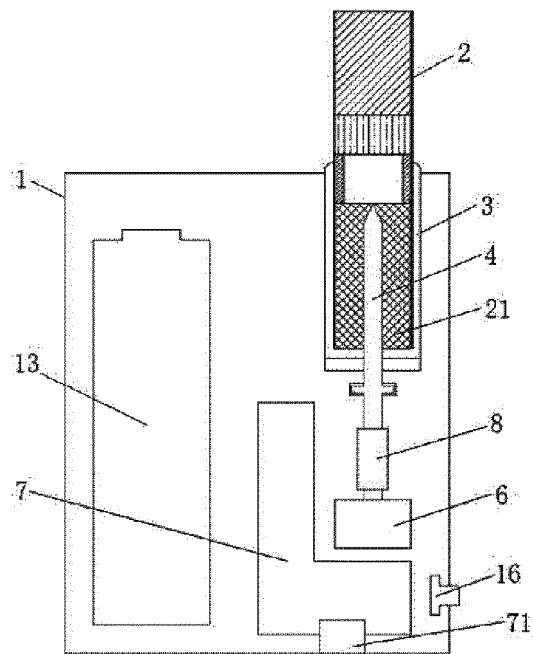


Fig. 2

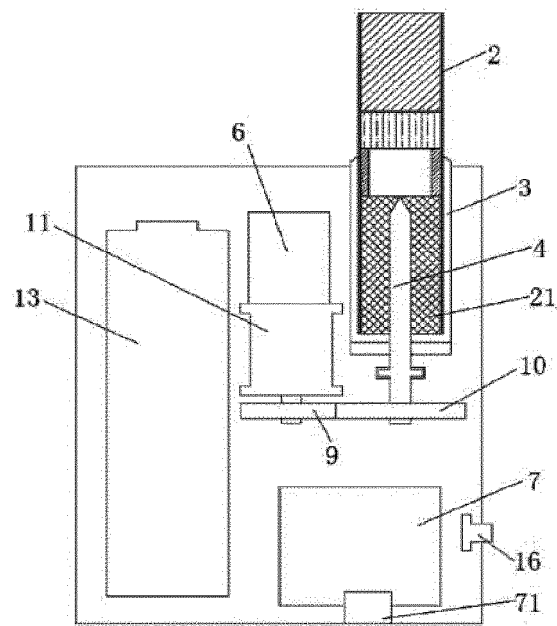


Fig. 3

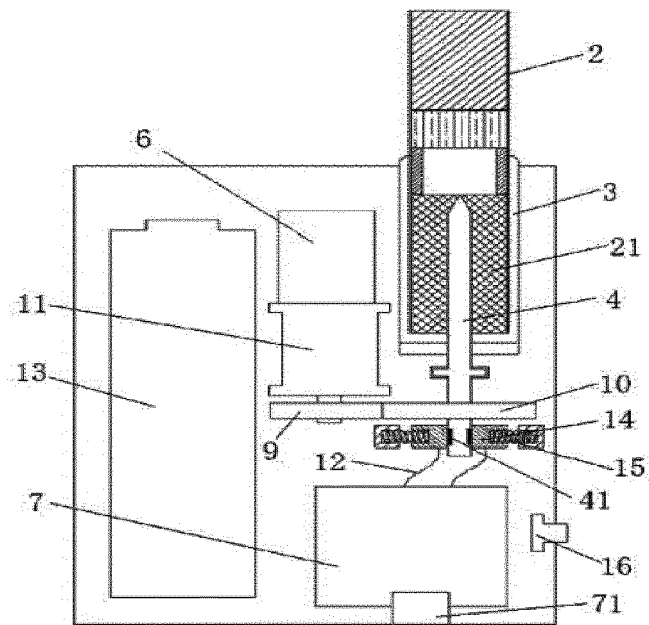


Fig. 4

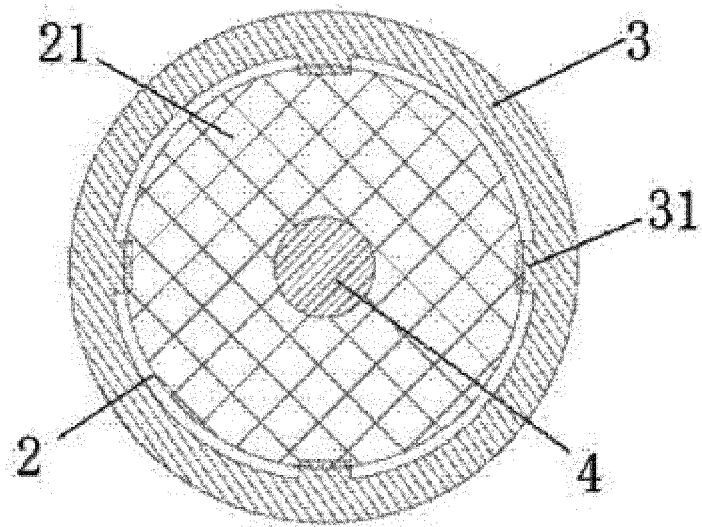


Fig. 5

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2020/123680

5	A. CLASSIFICATION OF SUBJECT MATTER A24F 47/00(2020.01)i According to International Patent Classification (IPC) or to both national classification and IPC		
10	B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) A24F47/+; ; A61M15/+ Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
15	Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) CNTXT; CNABS; VEN; WEB OF KNOWLEDGE: 壳体, 低温卷烟, 容纳部, 加热部, 腔体, 电子烟, 转动, 分离; Shell, low temperature cigarette, receiving part, heating part, cavity, electronic cigarette, rotat+, separate+		
20	C. DOCUMENTS CONSIDERED TO BE RELEVANT		
25	Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	X	CN 208863591 U (CHINA TOBACCO HUNAN INDUSTRIAL CO., LTD.) 17 May 2019 (2019-05-17) descriptions 0014, 0033-0038, figure 1	1-26
	X	CN 208957014 U (CHINA TOBACCO HUNAN INDUSTRIAL CO., LTD.) 11 June 2019 (2019-06-11) description, paragraphs 0042-0051, figure 1	1-26
	X	CN 208863592 U (CHINA TOBACCO HUNAN INDUSTRIAL CO., LTD.) 17 May 2019 (2019-05-17) description, paragraphs 0050-0063, figure 1	1-26
30	A	WO 2019162818 A1 (G.D. S.P.A.) 29 August 2019 (2019-08-29) entire document	1-26
	A	CN 111031819 A (PHILIP MORRIS PRODUCTS S.A.) 17 April 2020 (2020-04-17) entire document	1-26
35	A	CN 109965353 A (CHINA TOBACCO HUNAN INDUSTRIAL CO., LTD.) 05 July 2019 (2019-07-05) entire document	1-26
40	☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.		
45	* Special categories of cited documents: “A” document defining the general state of the art which is not considered to be of particular relevance “E” earlier application or patent but published on or after the international filing date “L” document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) “O” document referring to an oral disclosure, use, exhibition or other means “P” document published prior to the international filing date but later than the priority date claimed “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		
50	Date of the actual completion of the international search 25 January 2021		Date of mailing of the international search report 29 January 2021
55	Name and mailing address of the ISA/CN China National Intellectual Property Administration (ISA/CN) No. 6, Xitucheng Road, Jimenqiao, Haidian District, Beijing 100088 China		Authorized officer
	Facsimile No. (86-10)62019451		Telephone No.

Form PCT/ISA/210 (second sheet) (January 2015)

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/CN2020/123680

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CN	208863591	U	17 May 2019		None				
CN	208957014	U	11 June 2019		None				
CN	208863592	U	17 May 2019		None				
WO	2019162818	A1	29 August 2019		IT	201800002849	A1	20 August 2019	
CN	111031819	A	17 April 2020		KR	20200035027	A	01 April 2020	
					BR	112020001464	A2	28 July 2020	
					WO	2019030360	A1	14 February 2019	
					JP	2020529852	A	15 October 2020	
					US	2020163385	A1	28 May 2020	
					EP	3664641	A1	17 June 2020	
CN	109965353	A	05 July 2019		None				

Form PCT/ISA/210 (patent family annex) (January 2015)