

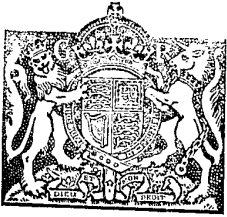
PATENT SPECIFICATION

331,316

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PROVISIONAL SPECIFICATION.

Improvements in Electric Lighters for Cigarettes or Cigars.

I, NEVILLE ALLDAY, a Subject of the King of Great Britain, of "The Nest," Streetly Lane, Four Oaks, in the County of Warwick, do hereby declare the nature of this invention to be as follows:—

This invention relates to Electric lighters for cigarettes or cigars and refers more particularly to that type of device which includes a resistance element which can be made to glow by passing an electric current therethrough the current being controlled by a switch which includes two fixed contacts and a moving contact which moves when the device is tilted or lifted, the moving contact moving into a position in which it connects the stationary contacts electrically.

One of the features of the present invention is to employ a moving contact which is definitely secured to a part of the apparatus but is capable of moving in relation thereto.

The moving contact may for instance be in the form of a hanging or dependent member mounted for swinging movement.

If required the moving contact member may be flexible and may consist of a short length of link or chain structure fastened at its upper end to a convenient part of the apparatus and hanging so that it can swing freely in any direction.

In one construction the apparatus may include an outer case having a base portion so that it will conveniently stand upon a table the upper part of the case being of hollow cup like form.

Within this case is placed an insulating member having a recess at its upper end and a hole extending downwardly from one side of the recess.

In the lower part of the hole is fixed a metal cup forming one of the stationary contacts and this cup is electrically connected by a pin extending through the base of the insulator to a terminal.

Mounted in a second hole in the insulator, which hole may be placed vertically and may extend downwardly from the base of the recess at the upper part of the insulator is a contact pin extending through the base of the insulator where it is provided with a terminal.

[Price 1/-]

Mounted within the recess at the upper part of the insulator is an insulating plate which may consist of two or more thicknesses of mica. This plate carries the moving contact member which consists of a short length of chain suspended by attaching its upper end to the shank of a small plate which projects through the mica and has a flattened portion extending above the mica.

The upper end of the fixed contact pin in the insulator projects through a hole or slot in the mica member.

The resistance consists of a suitable winding of resistance material carried in a small insulator which is shaped to fit in the recess at the upper part of the insulator carried by the casing.

The resistance winding is located in recesses in the upper surface of its insulator and is protected by a thin mica covering which however is perforated so that when the resistance material glows it will light a cigarette or cigar held against the perforations.

The ends of the resistance material extend through to the underside of the insulator upon which it is mounted and engage one with the fixed pin in the insulator carried by the casing and the other with the plate associated with the chain which forms the moving contact.

The parts may be retained in their proper relative position by inner and outer caps of ring form engaging the upper part of the insulator and engaging over the edges of the insulator carrying the resistance material.

The electric circuit is completed whenever the structure is lifted or moved or tilted by reason of the fact that the chain swings to one side and touches the metal cup which is beneath it.

Dated this 25th day of April, 1929.

FORRESTER, KETLEY & Co.,
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Jessel Chambers, 88/90, Chancery Lane,
London, W.C. 2.

COMPLETE SPECIFICATION.

Improvements in Electric Lighters for Cigarettes or Cigars.

I, NEVILLE ALLDAY, a Subject of the King of Great Britain, of "The Nest," Streetly Lane, Four Oaks, in the County of Warwick, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to electric lighters for cigarettes or cigars and refers more particularly to that type of device which includes a resistance element which can be made to glow by passing an electric current therethrough; the device including a switch for controlling the passage of the current which is automatically closed upon the device being tilted.

In one such arrangement the switch included two spaced fixed contacts and a movable contact in the form of a metal ball.

One of the features of the present invention is to employ a moving contact which is definitely secured to a part of the apparatus but is capable of moving in relation thereto.

The moving contact may for instance be in the form of a hanging or dependent member mounted for swinging movement.

If required the moving contact member may be flexible and may consist of a short length of link or chain structure fastened at its upper end to a convenient part of the apparatus and hanging so that it can swing freely in any direction.

In order that my invention may be clearly understood and more readily carried into practice I have appended hereunto one sheet of drawings illustrating the same, wherein:—

Figure 1 is a perspective view of a cigarette or cigar lighter constructed in accordance with my invention.

Figure 2 is a vertical section of same.

Figure 3 is a fragmental perspective view of the inner insulating member.

Figure 4 is a perspective view of the insulating member carrying the heating coil.

Figure 5 is a similar view but illustrating the underside of same.

In the construction illustrated by the accompanying drawings, the apparatus includes an outer case 1 having a base portion 2 so that it will conveniently stand upon a table the upper part of the case being of hollow cup like form.

Within this case is placed an insulating member 3 having a recess 4 at its upper

end and a hole 5 extending downwardly from one side of the recess.

In the lower part of the hole is fixed a metal cup 6 forming one of the stationary contacts and this cup is electrically connected by a pin 7 extending through the base of the insulator to a terminal 8.

The chain or other member forming the moving contact of the switch is preferably arranged substantially centrally of the cup 6 in order that it may make contact with the interior thereof when the device is tilted in any direction.

Mounted in a second hole 9 in the insulator, which hole may be placed vertically and may extend downwardly from the base of the recess at the upper part of the insulator is a contact pin 10 extending through the base of the insulator where it is provided with a terminal 11.

Mounted within the recess at the upper part of the insulator is an insulating plate 12 which consists of one or more thicknesses of mica. This plate carries the moving contact member which consists of a short length of chain 13 suspended by attaching its upper end to the shank of a small metal plate 14 which projects through the mica and has a flattened portion extending above the mica.

The upper end of the fixed contact pin in the insulator projects through a hole or slot 15 in the mica member.

The resistance 16 consists of a suitable winding of resistance material carried in a small insulator 17 which is shaped to fit in the recess at the upper part of the insulator carried by the casing.

The resistance winding 16 is located in recesses 18 in the upper surface of its insulator and is protected by a thin mica covering 19 which however is perforated at 20 so that when the resistance material glows it will light a cigarette or cigar held against the perforations.

The ends of the resistance material extend through to the underside of the insulator upon which it is mounted and are anchored to pins 21 which pass through the covering layer of mica 19 and serve to hold it firmly in position, the pins 21 engaging one with the fixed pin 10 in the insulator carried by the casing and the other with the plate 14 associated with the chain which forms the moving contact.

The parts are adapted to be retained in their proper relative positions by means of inner and outer sheet metal caps, the lower part of the inner cap 22 being of

- cylindrical form and provided on its inner surface with a pair of pressed out projections 23 adapted to engage helical bayonet slots 24 in the insulator 3, the upper part of the cap being of somewhat conical form and provided with a relatively large central opening through which the end of a cigar or cigarette can be passed.
- 10 Surrounding the cap 22 is a further cap 25 of ring like form, the periphery of which is slit at 26 to cause it to grip the inner surface of the outer case 1 so as to hold it firmly in position, the upper end of the cap 25 being flanged inwardly into engagement with the upper surface of the cap 22.
- 15 The outer case 1 is recessed at 27 at its lower end to allow of the passage of the flexible conducting wires 28.
- 20 The electric circuit is completed whenever the structure is tilted by reason of the fact that the chain swings to one side and touches the metal cup which is beneath it.
- 25 Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—
- 30 1. An electric lighter for cigarettes or cigars of the kind referred to characterised in that the moving contact of the switch is definitely secured to a part of the apparatus but is capable of moving in relation thereto.
- 35 2. An electric lighter for cigarettes or cigars according to Claim 1 wherein the moving contact of the switch is in the form of a downwardly depending member pivotally connected at its upper end to a fixed part of the apparatus and adapted to make contact with a suitable fixed contact upon the device being tilted.
- 40 3. An electric lighter for cigarettes or cigars according to Claim 1 or 2 wherein the moving contact is of a flexible nature.
- 45 4. An electric lighter for cigarettes or cigars according to any of the preceding Claims wherein the moving contact of the switch consists of a length of chain hung from a fixed part of the apparatus and adapted to make contact with a fixed contact upon the apparatus being tilted. 55
5. An electric lighter for cigarettes or cigars according to any of the preceding Claims including a fixed contact in the form of a metal cup with the sides of which the moving contact member is adapted to engage upon the apparatus being tilted. 60
6. An electric lighter for cigarettes or cigars according to any of the preceding Claims wherein the chain or other member constituting the moving contact of the switch is suspended by a metal plate or member from an insulating plate formed of one or more layers of mica. 65
7. An electric lighter for cigarettes or cigars according to any of the preceding Claims wherein the resistance winding is carried by a member of insulating material which is detachable from the outer casing. 70
8. An electric lighter for cigarettes or cigars according to Claim 7 wherein the insulating member carrying the resistance winding is supported within a recess formed in the upper end of an insulating member mounted within the outer casing. 75
9. An electric lighter for cigarettes or cigars according to any of the preceding Claims wherein the component parts are held in position within the outer casing by means of inner and outer resilient metal caps, the outer one of which is sprung into the upper end of the outer casing. 80
10. An electric cigar or cigarette lighter substantially as described with reference to the accompanying drawings. 85
- Dated the 3rd day of March, 1930.
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[This Drawing is a reproduction of the Original on a reduced scale.]

