PATENT SPECIFICATION

570,949

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COMPLETE SPECIFICATION

Improvements in or relating to Electrically Heated Cigar and Cigarette Lighters

I, CHARLES WILLIAM EELES, British Nationality, of 10, Marnell Way, Hounslow West, Middlesex, 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 electrically heated cigar and cigarette lighters, its object being to provide a simple and novel construction of the kind which, after the lighter is connected to a source of electric supply can be lifted or picked up and held in any position to thereupon be immediately and positively switched on and remain so until set down again in normal position, no loose ball or chain being employed.

The invention is shown diagrammatically by way of simple illustration in the accompanying drawing in which:

Fig. 1 is a vertical sectional elevation.
Fig. 2 is a plan, and
Fig. 3 an underside plan.
Fig. 4 shows a modified detail.

In the construction depicted the body or casing 1 is closed at top by a detachable cover or cap 2 secured thereto in any suitable manner by a push on fit or by screwing it in place or again by screws or the like. It is to be understood, of course, that although a lighter of circular cross section is shown in the example the body could be rectangular or of any desired form.

The bottom 3 of the body or casing 1 is generally weighted to prevent unintentional upsetting. Advantageously it is detachable similarly to the cover or cap 2 and is provided with a passage 4 for a longitudinally movable rod 5 of round or other suitable cross-section which in normal upright position of the lighter protrudes through the passage 4 and rests on the surface on which the lighter is stood and in this position interrupts the electrical circuit as hereinafter explained.

The cover or cap 2 contains a suitable electric element or coiled resistance 6 carried or supported on or in a suitable fireproof former 7 protected if desired by a thin mica sheet. The element 6 is wired to terminals 8 or the like carried by the former 7 and from these terminals 8 are respectively taken connecting wires 9 and 10.

Wire 9 is connected to a block 11 secured to the body 1 whilst wire 10 connects with one supply lead, the other supply lead being connected by a wire 10a to a block 11a similarly mounted on the body 1 to block 11. Where the body or casing 1 is made of metal the blocks 11, 11a are made of insulating material.

In addition from each of said blocks is a resilient contact 12 in electrical contact with the wires 9, 10a and so arranged or shaped that it can contact with a contact ring or surface 13 provided on the rod 5.

It will therefore be clear that when the lighter is lifted no matter at what angle, the rod 5 will move downwardly and its contact ring 13 will come into engagement with the resilient contacts 12 so completing the electrical circuit between the mains at A and the element 6. Replacement of the lighter on a table in its normal upright position will cause rod 5 to rise and take the ring 13 out of engagement with the resilient contacts 12.

To enhance the effect and provide positive movement the rod 5 may be further provided with a fixed ring, flange or the like 14 and a loose disc or the like 15 with a coiled spring 16 there-between and a projection or transverse strip or plate 17 against which the loose disc or the like 15 is pressed by the spring 16 when the latter is compressed as the rod 5 is moved in upward direction. So that a quick break of the circuit may be obtained especially for direct current circuits or when used on a motor car, ring 13 could be loose on rod 5 with a limiting stop 13a and a lifting spring 13b mounted above a stop, ring or the like 13c as shown in Fig. 4.

Furthermore the rod 5 has a disc, pin or the like 18 serving to limit the downward movement of the said rod 5.

A spring clip, not shown, can be provided so that the lighter can be fitted on a motor or other vehicle.

The new lighter has the particular advantage in that it switches on automatically as soon as lifted, has no loose contacts which tend to cause sparking and so

[Price 1/-]

become quickly ineffective but provides a positive rubbing contact which always remains clean and effective.

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:—

1. Electric cigar and cigarette lighter comprising a body having a detachable cover or cap secured to one end thereof and a weighted detachable base secured to the other end thereof, the cover containing a suitable electric heater element supported in or on a fireproof former, one end of said element being connected to a resilient contact and the other to a connection for the supply mains from which connection is a lead secured to another resilient contact, and a contact disposed on a longitudinally sliding member to engage said resilient contacts for automatically completing the electric circuit between the supply mains and the heater element when the lighter is lifted.

2. Electric cigar and cigarette lighter as claimed in claim 1 in which the weighted base is perforated for the free movement of the sliding member.

3. Electric cigar and cigarette lighter as claimed in claims 1 and 2 in which the resilient contacts consist of spring arms fixed to the body or to blocks mounted therein.

4. Electric cigar and cigarette lighter as claimed in claims 1 to 3 in which the sliding member has a disc, pin or the like fast thereon supporting a coil spring on which rests a disc or the like which will be pressed against a transverse strip or plate in the body, so as to give a positive movement.

5. Electric cigar and cigarette lighter as claimed in claims 1 to 4 wherein the sliding member is provided with a disc, pin or the like to limit its downward movement.

6. Electric cigar and cigarette lighter as claimed in claims 1 and 3 wherein the contact on the sliding member is loose thereon and limited by an abutment and is further acted on by a lifting spring mounted above a stop on said sliding member to provide a quick break and prevent sparking.

7. Electric cigar and cigarette lighter as claimed in claims 1 to 6 constructed and arranged substantially as shown in the accompanying drawing.

Dated this 1st day of June, 1944.

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Fig. 1

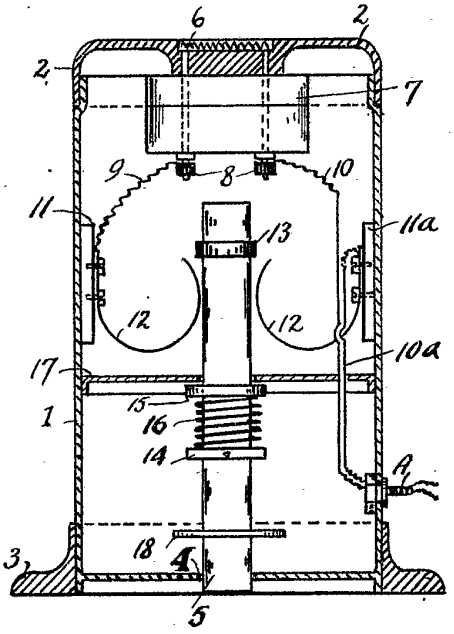


Fig. 4.

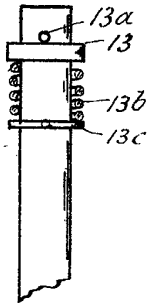


Fig. 2

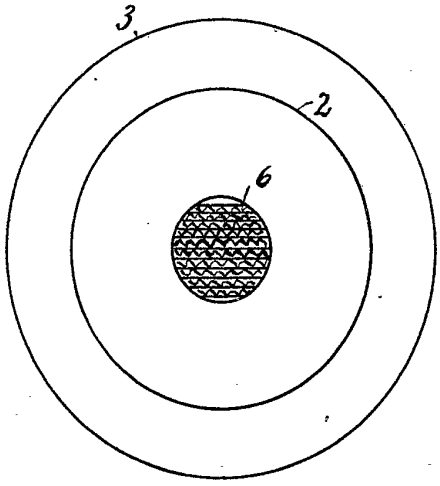
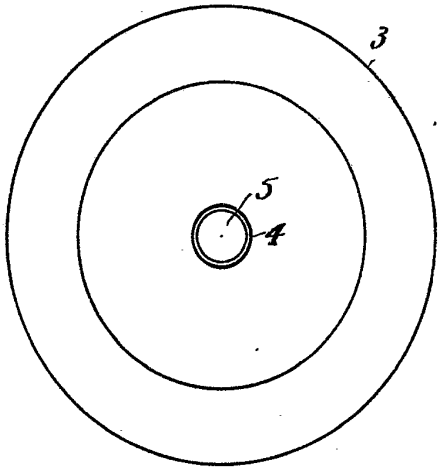


Fig. 3.



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