

# RESERVE COPY PATENT SPECIFICATION

357,020

Application Date: Nov. 29, 1930. No. 36,002/30.

Complete Accepted: Sept. 17, 1931.

COMPLETE SPECIFICATION.



## Improvements in Electric Cigarette and like Lighters.

I, FELIX KALLAL, of 21, Arbesbachgasse, Vienna XIX, Austria, an Austrian citizen, 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 an electric device, particularly for use in motor vehicles, for lighting cigars, cigarettes and the like, and of the kind wherein the lighting element is combined with a support and with a cover which is hinged to the support and which is fitted with means for closing the normally open circuit of the lighting element on the opening of the cover.

The invention consists essentially in connecting one terminal of the heating element to the electric source through the hinge pin of the cover and through a spring which, when the cover is open, makes contact with a stud connected to the hinge pin.

The invention also consists in various other details of construction of the lighter as hereinafter set forth and claimed.

Fig. 1 of the accompanying drawings represents a sectional view of the lighter, and

Fig. 2 is an enlarged sectional view of the lighting element.

The lighter comprises an insulating base 1 provided with fastening apertures 20 whereby it may be connected to a suitable support, for instance the dashboard of a motor vehicle. The lighting element is mounted on said base through the medium of a holder comprising an outer, annular terminal 11 and an inner, central terminal 10, the two terminals being separated by an insulation 12. A blade spring 9 is connected to the terminal 11 and bears with its free end against a U-shaped hinge element 5 the members of which are brought up through slots in the base for the reception of the hinge pin 3 of a cover 2 whereby the lighting element is normally protected. The spring 9 acts on the hinge element 5 so as to force the cover against the base and the cover is provided with bearing sur-

{Price 1/-}

faces whereby it is maintained under the influence of the spring, either in the closed position shown by full lines or in the open position shown by dotted lines.

The hinge element 5 is connected by a lead 7 to one pole of the electric source and it is normally insulated from the spring 9 and from the terminal 11 by an insulation 23. A bracket 6 mounted on the spring 9 bears resiliently against the cover 2 which is made of insulating material. A stud 4, fitted in the cover 2, is connected to the hinge pin 3 and is arranged so as to take the thrust of the bracket 6 on the cover being turned into open position, thereby connecting the terminal 11 with the electric source and closing the lighting circuit. From this arrangement it follows that the circuit will only be closed when the cover is open.

The lighting element, which is illustrated in Fig. 2, comprises a cap 13 of insulating material which encloses a metal ring 14. The resistance coil 19 has its outer end connected to a supporting plate 18 which is clamped between the cap 13 and the ring 14. The latter has a circumferential groove wherein it accommodates, between it and the cap 13, a spring coil 16 which passes through and controls a plurality of metal balls 15. The ring is formed with apertures through which the balls are forced by the spring coil towards the centre of the ring. The terminal 11 of the holder is adapted to enter the ring 14 and it is formed with an outwardly projecting rim 21 adapted to engage over the balls 15 for securing the lighting element in position on the holder and for forming a good electric connection between the outer terminal of the holder and the outer end of the resistance coil. When the lighting element is placed on the holder, the central terminal 17 of the resistance coil engages the central terminal 10 of the holder, said latter terminal being connected by means of a lead 8 to the electric source.

The cap 13 is rounded off and extended to form a head which can easily be gripped for the removal of the lighting element from the holder. The removal can be effected by one hand if the fingers

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be pressed into the gap 22 between the cap and the base 1.

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. An electric cigarette or like lighter of the kind referred to wherein one terminal of the lighting element is connected to the electric source through the hinge pin of the cover and through a spring which, when the cover is open, makes contact with a stud connected to the hinge pin.

2. A lighter according to claim 1 wherein the spring controls the hinge of the cover and forces the latter against the base, the cover being provided with bearing surfaces which, under the action of the spring, maintain the cover either in the open or in the closed position.

3. A lighter according to claim 1 or 2 wherein the lighting element is mounted on a holder comprising two concentric terminals separated by an insulation and arranged so as to contact with different ends of the resistance coil of the lighting element, the outer terminal being connected to the spring.

4. A lighter according to claim 3 wherein the lighting element comprises an insulating cap enclosing a metal ring between which and the cap the resistance coil is clamped, the ring being adapted to embrace the outer terminal of the holder and to be clamped thereto by means of circumferentially disposed metal balls controlled by a spring coil.

5. A device according to claim 4 wherein the spring coil is accommodated between the cap and the ring.

6. A device according to claim 5 wherein the outer terminal of the holder is formed with an outwardly projecting rim adapted to interengage with the balls.

7. A lighter according to any of claims 4 to 6 wherein the inner end of the resistance coil is arranged so as to contact with the central electrode of the holder.

8. A device according to claim 4 wherein the cap forms a head on the holder and is adapted to be easily gripped for removing the heating element from the holder.

Dated the 27th day of November, 1930.

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[This Drawing is a full-size reproduction of the Original.]

