PATENT SPECIFICATION

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COMPLETE SPECIFICATION.

Electric Lighter for Pipes, Cigars and Cigarettes specially for Motor-cars.

I, KARL MANGER, of "Am Staatsbahnhof", Deisslingen on the Neckar, Germany, of German Nationality, 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 pipes, cigars and the like and more particularly to electric lighters adapted to be mounted in motor cars and the object of the invention is to provide a new or improved construction which will prevent quick cooling of the incandescent body whilst it is being applied to the pipe, cigar or the like to be lighted and yet will not interfere with the operation of bringing the incandescent body into contact with the tobacco.

It has been proposed heretofore to provide an electric incandescent lighter for pipes, cigars and the like comprising a fixed casing fitted with a removable plug carrying an incandescent body sunk into a recess in an insulating mounting which may be shaped to enter within a pipe bowl or may be formed as a cap to be placed over a pipe bowl and which is capable of longitudinal movement relatively to the plug for the purpose of applying an electric circuit when the plug is mounted in the fixed casing.

According to the present invention the electric lighter comprises a fixed casing fitted with a removable plug carrying an incandescent body which projects beyond its insulating mounting but is sunk together with the mounting in a cylindrical guide in the lower end of the plug and is longitudinally movable therein for the purpose of completing the electric circuit, when the plug is mounted in the casing.

By this arrangement the incandescent body is protected from draught by being sunk into the lower end of the plug but may be pushed out of the plug to be brought into contact with the tobacco in a pipe when the plug has been removed from the casing or to render it visible through a window when the plug is mounted in the casing.

[*Price* 1/-]

In order that the invention may be fully understood reference will now be made to the accompanying drawings in which:—

Fig. 1 is an outer front elevation of the lighter.

Fig. 2 is a cross section through the casing on line A—A of the Fig. 3.

Fig. 3 is a front elevation of the whole lighter in longitudinal section in the inoperative position.

Fig. 4 is a side elevation of the whole lighter in longitudinal section in the inoperative position.

Fig. 5 is a side elevation of the lighter in longitudinal section in the switching-in position.

Fig. 6 is a longitudinal section of the lighter plug in the position to be used as pipe-lighter.

The complete lighter consists of the casing 1 and of a metal plug 2 with the incandescent body 3.

The casing 1 is made of sheet metal and is at its rear portion of rectangular cross-section while its front wall 20 is curved forwards about semi-circular and forms, together with the casing-cover 21 cut out at 22 towards the rear semicircular a vertical cylindrical guide 4 for the plug 2, which is closed at the lower end by the bottom plate 23 of the casing. On the inner side of the rear wall of the casing two contact terminals 5 are fixed by means of which the lighter can be connected to a suitable circuit on the motor car. One of the contact-terminals 5 is electrically connected to the casing 1. The other is insulated from the casing 1 and on it is fixed a contact tongue 6 on the inner side of the rear wall of the casing behind the central axis of the plug guide 4, also insulated, and adapted to be sprung forward from the casing. In an aperture in the cylindrical front wall 20 of the casing 1 a coloured glass knob 7 is inserted approximately at the height of the contact tongue 6. The casing 1 can be fixed at any suitable point, for instance on the inner wall or on the switch board of the motor-car, by two threaded sleeves 8 fixed on the back wall of the casing.

The plug 2, which carries the incandescent body 3 consists of a lower hollow cylindrical guide piece 9, which fits into the guide 4 on the casing 1 and is spaced from the contact tongue 6 by an abutment rim on plug 2. In this guide piece 9 the incandescent body 3 and the insulating mounting of the same are guided. The latter is carried by a spindle 10 projecting in upward direction through the plug 2 into a second narrower hollow cylindrical guide piece 11, in which a pressure spring 12 is located, which bears from below against a push button 13, which is guided on the guide piece 11 and screwed on the spindle 10 of the incandescent body, whereby the incandescent body 3 is pulled back into the hollow cylindrical guide piece 9 of the plug 2.

The incandescent body 3 consists itself of a flat spiral heating wire, which rests in and projects from a heat insulating cup 14, which on its part is enclosed by a metal cap 15. The outer end of the incandescent body 3 is electrically connected to this metal cap 15, the inner end of the incandescent body traverses a bore in the cup 14 and a bore in cap 15 avoiding the heating wire and upward through the two superimposed bores of an electrically insulating disc 16 and of a metal disc 17, and is on the upper surface of this metal disc 17 electrically connected with the same by clamping screws 18. The insulating disc 16 insulates the cap 15 and the disc 17 electrically from each other and serves for the fixation of the cap 15, which with this object in view has two studs 19 engaging with the insulating disc 16, and also for the fixation of the spindle 10 of the incandescent body which is screwed into the insulating disc 16 and secures at the same time the metal disc 17 on the same.

By the inserting of the plug 2 the same is electrically connected to the casing 1. From the plug 2 the electric current flows through the metal disc 17 to the incandescent body 3 and thence to the cap 15. The opposite pole is formed by the contact tongue 6 in the casing.

When the push button 13 is being depressed the incandescent body 3 together with its fitting is lowered in opposition to the pressure of the spring 12 and the edge of the cap 15 comes into touch with the contact tongue 6, whereby the circuit is closed and the incandescent body 3 begins to glow. As soon as the incandescent body 3 has become red hot, this is indicated by the lighting up of the coloured glass knob 7 in the front wall of the casing. The plug 2 can be removed from the casing 1, the incandescent body 3 being still pushed forward, and the incandescent body can be inserted into the pipe bowl and the pipe lighted. To better hold the plug 2 when the push button is depressed the circumference of the plug is strongly milled. For lighting cigars or cigarettes it is not necessary to push forward the incandescent body, but the end of the cigar or cigarette can be placed on the pulled back incandescent body 3. After use the plug 2 is reinserted into its casing 1.

This lighter may be evidently used, besides for motor-cars, everywhere, where electric current is at disposal.

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 lighter for pipes, cigars, and the like comprising a fixed casing fitted with a removable plug carrying an incandescent body which projects from its insulating mounting but is sunk together with said mounting in a cylindrical guide in the lower end of the plug and is longitudinally movable therein for the purpose of completing the electric circuit when the plug is mounted in the casing.

2. An electric lighter for pipes, cigars and the like according to claim 1 wherein the said casing is provided with a window through which the incandescent body is visible when the plug has been inserted into the casing and the incandescent body moved into position to complete the circuit.

3. An electric lighter for pipes, cigars and the like constructed and adapted for use substantially as described with reference to the accompanying drawings.

Dated this 25th day of December, 1928.

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Fig. 3.

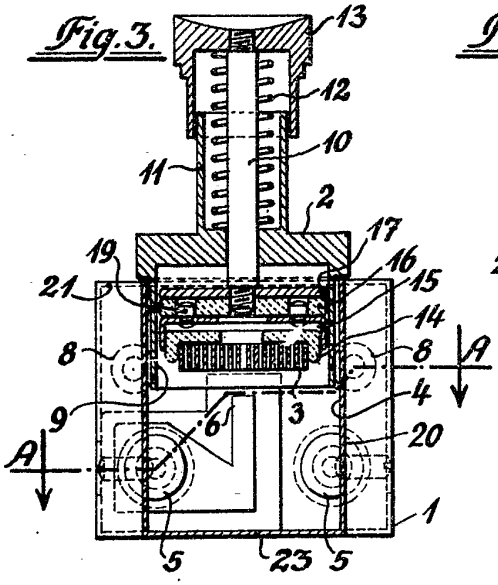
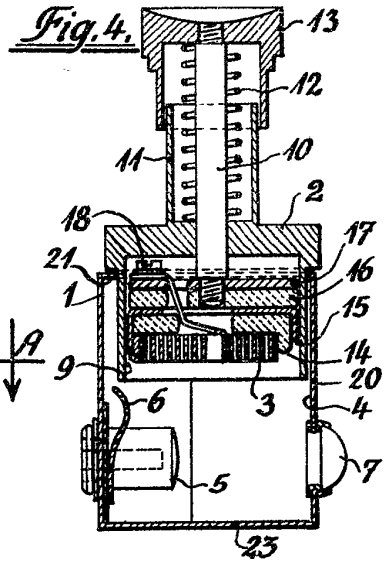


Fig. 4.



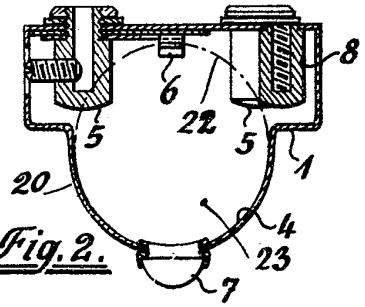


Fig. 2.

Fig. 5.

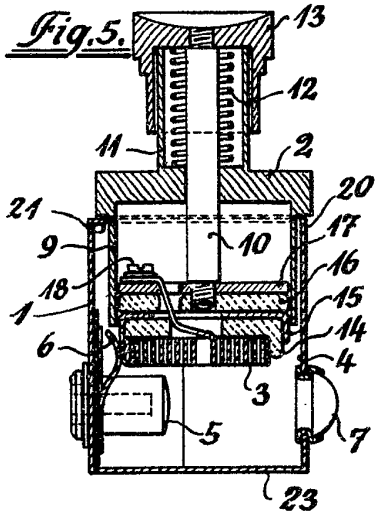


Fig. 1.

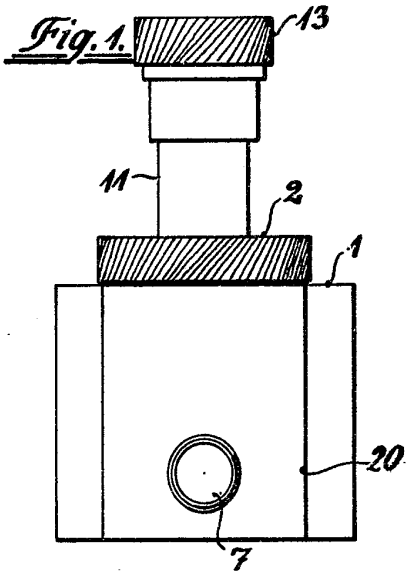
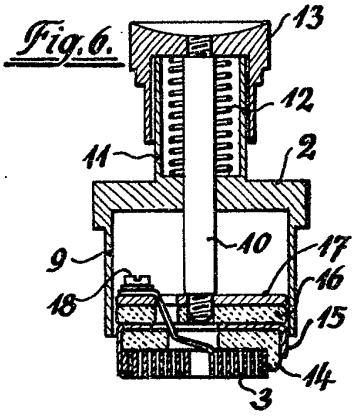


Fig. 6.



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