March 10, 1942. J. R. REYBURN 2,275,922

CIGAR LIGHTER

Filed Oct. 12, 1939

Fig. 1.

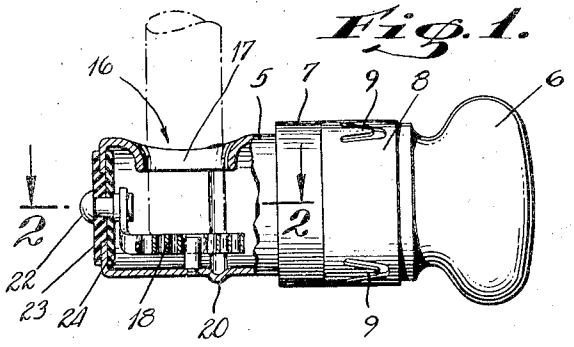


Fig. 2.

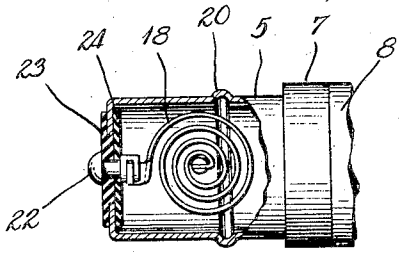
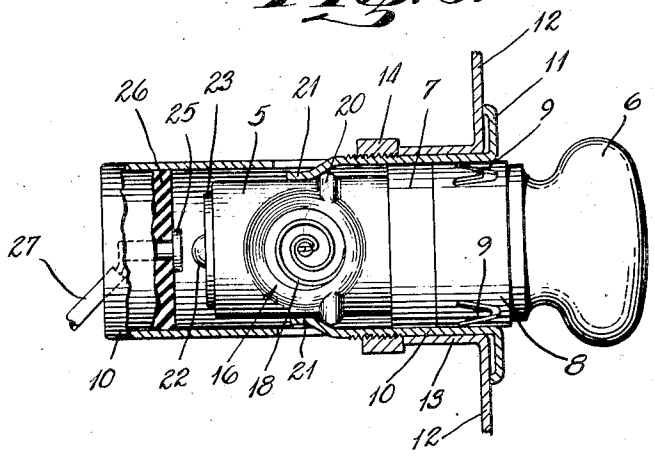


Fig. 3.



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CIGAR LIGHTER

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Application October 12, 1939, Serial No. 299,046

1 Claim. (Cl. 219—32)

This invention relates to electrically operated detachable cigar and cigarette lighters for use in automobiles and other convenient places.

Among the objects of this invention is the provision of means more particularly in a "side" lighter to guard against the falling of hot ashes on the clothing of the user, or on the upholstery of an automobile, or on the floor, etc., acting to trap the hot ashes and to retain them within the casing of the lighter regardless of the position in which the lighter is held after it has been used, and to locate and associate said means and the heating element of the lighter so as to prevent the creation of air currents which would prematurely cool the heating element or carry hot ashes away from the heating element.

Other objects of this invention will appear from the following description taken in connection with the drawing showing the invention on an enlarged scale, in which—

Fig. 1 is a side view of a detachable lighter constructed in accordance with my invention showing a part broken away and in longitudinal diametral section;

Fig. 2 shows the improved detachable lighter broken away and partly in section on the line 2—2 of Fig. 1; and

Fig. 3 shows the lighter in its normal position within the lighter receptacle, showing the receptacle partly broken away and in longitudinal diametral section.

I have shown my improved lighter, for purposes of disclosure only, as operated by a one way electric circuit and for use on the dashboard of an automobile. The lighter illustrated includes a metallic casing 5 of cylindrical form and a handle or knob 6 of low heat conductivity which may abut the outer end of the casing. A ring of electric and heat insulation material 7 may surround the outer end of the casing 5 and the inner reduced end of the handle or knob 6 and a metallic ring 8 may be secured upon the ring of insulation. The ring 8 may be provided with spring fingers 9 to frictionally engage the inside face of the wall of a housing or receptacle 10 to hold the detachable lighter in the position shown in Fig. 3. This housing may be of generally cylindrical form as indicated and provided with a flange 11 at its outer end abutting against a dashboard 12 which may be provided with a flange 13 receiving and in engagement with the receptacle 10, the end of which may be engaged by a nut 14 threaded on the receptacle 10 by means of which the receptacle is held in position. The construction so far described is not novel and may be varied as desired.

The casing 5 of the lighter is provided with a cigarette receiving "side" opening 16 surrounded by an inwardly projecting flange 17, the opening when the lighter is constructed for lighting cigarettes only being preferably just slightly larger than the diameter of the cigarette. This flange and the ends of the casing constitutes a receptacle in which live ashes dropping from a heating element 18 may be trapped. I prefer to locate the heating element 18 as far from the opening 16 as possible in order that the flange 17 may function more effectively to catch hot ashes and to reduce circulating air currents about the heating element to a minimum and for this purpose I locate the opening and heating elements on opposite sides of the axis of the lighter casing and the heating element as close as feasible to the adjacent wall of the casing. The heating element 18 is preferably of the flat type so as to light the entire face of the end of the cigarette, and it may be in the form of a flat spiral as illustrated, the inner end of which is connected to the casing 5 by a metallic stud and grounded through the casing 5 and the receptacle 10 and the dashboard 12. For the purpose of insuring a good ground connection between the casing and the receptacle, the casing may be provided with a rib 20 cooperating with contact fingers 21 struck inwardly from the side of the casing. The other end of the flat spiral is bent inwardly into line with the axis of the casing where it is secured to a contact member 22 which is mounted in a disk of insulation material which as disclosed may comprise two disks 23 and 24 held together between the shoulder and the head of said contact member. The lighter is held in the position shown in Fig. 3 by the spring fingers 9 and is prevented from moving inwardly by means of the spring contact fingers 21. However, when pressure is applied to the outer end of the knob the resistance of the spring contact fingers is overcome and the contact member 22 is moved into contact with a live terminal contact 25 supported on a disk of insulation material 26 suitably secured in the receptacle 10, said live contact being connected by a wire 27 to a source of electrical energy such as the battery of the automobile.

By making the opening 16 just slightly larger in diameter than a cigarette, the flange surrounding the opening is more effective to catch the hot ashes which may drop from the cigarette or may drop from the heating element after the cigarette

has been removed from the lighter or as the lighter is placed back into the receptacle. The function of this flange is rendered more effective as the distance between the edge of the flange and the heating element is increased and this is accomplished in my lighter by locating the heating element on the side of the axis of the casing opposite from that on which the flange is located. Furthermore by so spacing the heating element and flange, air currents such as are set up in casing of lighters as they are withdrawn from their receptacles and passed to the user, are greatly reduced and are substantially prevented from circulating about the heating element. These air currents in ordinary forms of lighters cool the heating element and furthermore carry off burning hot ashes from the heating element as the lighter is placed back into the receptacle. By the combination of elements disclosed, I have provided a lighter which is effective to catch and trap hot ashes and in which the heating element will not be unduly cooled as the lighter is withdrawn from the receptacle and applied to the cigarette or handed to a user.

While I have disclosed one form of my invention it is to be understood that I reserve the right to all such changes and modifications as fall within the principles of my invention and the scope of the appended claim.

I claim:

A detachable lighter comprising a hollow casing provided with an opening in its side wall at one side of the axis of the casing through which an article to be lighted may be passed into contact with a heating element, a heating element within the casing located opposite said opening on the opposite side of the axis of the casing, and an inwardly directed flange surrounding said opening, said flange being conical with its wall converging inwardly, the diameter of the inner end of said flange being just slightly larger than the article to be lighted, the said heating element being in the form of a disk and the inner end of said flange and said heating element being arranged in parallel planes.

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