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CIGARETTE LIGHTER

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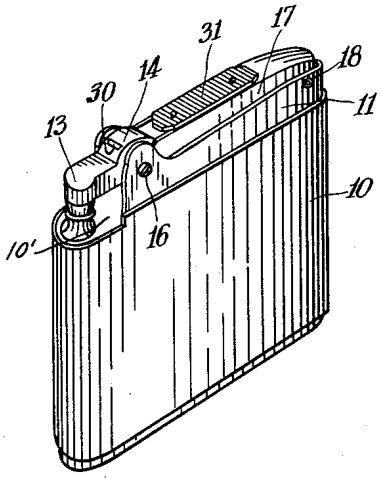

Fig. 1

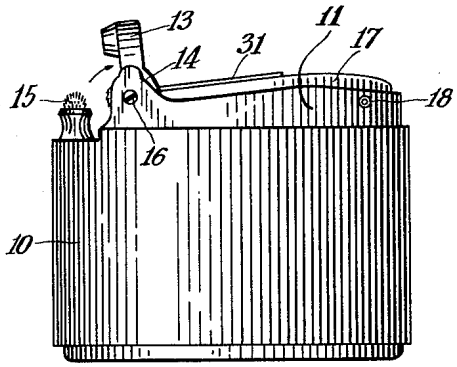

Fig. 2

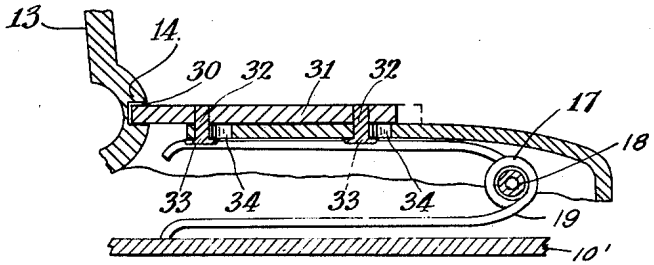

Fig. 3

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CIGARETTE LIGHTER

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This invention relates to cigarette lighters, and more particularly, of the type having an operating lever which is pressed against a return spring, to turn the normally closed snuffer cap to open position and at the same time turning the flint wheel to ignite the exposed wick. When finger pressure is released from the operating lever, the snuffer cap is returned (by the said return spring) to closed position, extinguishing the flame.

Cigarette lighters of the type described are commonly designed for one-hand operation. One of the objections to this type of lighter is that finger pressure must be exerted on the operating lever, and maintained exerted, as long as it is desired that the flame remain unextinguished. Cigarette lighters of this type are awkward to handle in instances where it is desired to pass the lighter with its flame unextinguished and accessible, to another person. The person who has lighted the flame must continue to exert finger pressure on the operating lever while he attempts to pass the lighter to another person, who must also place his fingers in position to continue the pressure on the operating lever, otherwise the flame will be extinguished.

It has been heretofore sought to overcome this objection to "spring-return" lighters of the type described, by providing separate latching means for holding the operating lever in pressed-down position, the snuffer-cap thus remaining in turned position away from the wick. Such latching means were required to be operated—by a separate manipulation—after the operating lever had been pressed down and operated again when it was desired to extinguish the flame.

The prime object of this invention is to provide means for conditioning a "spring-return" lighter so that its operating lever will remain depressed and the snuffer-cap away from the ignited wick for the time desired: The conditioning means of this invention are not difficult to operate, but, on the contrary, may be easily manipulated both in conditioning the lighter to "open" or flame-condition and in conditioning it to normal operation, extinguishing the flame upon release of finger pressure; the improved conditioning means may, in fact, be easily manipulated by a single hand (the hand customarily used in manipulating this type of cigarette lighter); the improved conditioning means may be simultaneously operated with the act of exerting downward pressure on the operating lever so that simultaneously with the ignition of the wick, the lever is conditioned to maintain the snuffer-cap in open position.

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Further objects of the invention are to provide a conditioning means for "spring-return" lighters which will not in the least encumber the lighter; conditioning means which require no separate parts in addition to those already present; conditioning means which comprise but a single manipulator means which, moreover, is associated with, and carried by, the operating lever of the lighter.

For the attainment of the foregoing and such other objects as may appear or be pointed out herein I have shown a preferred embodiment of my invention in the accompanying drawing, wherein:

Fig. 1 is a perspective view of a "spring-return" lighter having the improved conditioning means of this invention;

Fig. 2 is a side elevational view of said lighter; and

Fig. 3 is a fragmentary detail in section and on an enlarged scale, longitudinal through the operating lever.

The lighter comprises a casing 10, having a top closure wall 10', and above which is a narrow wall 11 which is U-shaped in shape and extends peripherally about the casing top except for an unwalled portion at the front of the lighter (at the left, Figs. 1 and 2). Top wall 11 serves to pivotally support the operating lever 17, at pin 18 which is located near the rear of the lighter (at the right, Figs. 1 and 2). The distal (front or left) end of operating lever 17 is articulated to a snuffer-cap lever 13 which is likewise pivoted to top wall 11, at a pin 16 at the front (left) end of the top wall 11.

Downward finger pressure on operating lever 17 causes a depression thereof to turn snuffer lever 13 in a clockwise direction from the closed position of Fig. 1 to the open position of Fig. 2. At the same time, operating lever 17 also turns a flint wheel (not shown) to ignite the wick 15, Fig. 2, exposed by said turning of snuffer lever 13. A spring 19 urges operating lever 17 in an upward direction (clockwise in Fig. 2), so that as soon as finger pressure is withdrawn from the operating lever it returns to its normal raised position, to turn snuffer lever 13 counterclockwise to closed position, thus extinguishing the lighted wick 15.

If it is desired to pass the lighter from one person, who has applied finger pressure to operating lever 17 to ignite wick 15, in its lighted condition, to another person, said finger pressure must be constantly exerted on the lever 17, otherwise the flame will be immediately extinguished.

The purpose of the novel conditioning means of this invention is, as already explained in the statement of invention, to maintain operating lever 17 in its said depressed condition, with the snuffer in open position, Fig. 2, away from the wick. The novel conditioning means comprises essentially a small slide 31 which is mounted on the operating lever for a slight extent of longitudinal movement thereon (left and right, as shown in the figures, including Fig. 3).

Referring to the latter figure, it will be seen that slide 31 has two downwardly directed pins 32, 32, which clear in slots 34, 34 in operating lever 17; the lower ends of pins 32, 32 are headed over at 33, 33 to lock slide 31 to the lever yet permitting an extent of left and right or longitudinal movement relative to the lever, as limited by the slots 34, 34. The pivoted end of snuffer lever 13 has an arcuate portion 14, which is adjacent to the distal end of operating lever 17. In this arcuate portion 14 of the snuffer lever is cut a small notch 30, somewhat wider than the thickness of slide 31, Fig. 3, and substantially as long as the width of the slide (Fig. 1). That is, the dimensions of notch 30 are such that the leading end (left end in the figures) of slide 31 may enter therein.

It will thus be seen that the conditioning means of this invention, that is, the slide 31, is so disposed that it may be readily moved by the same finger (or thumb) that depresses operating lever 17. The top surface of conditioning slide 31 is knurled or otherwise roughened—as shown in Fig. 1—to enable the thumb or finger to move or slide it readily without exerting any appreciable pressure as would be the case were a smooth surface presented along which the thumb or finger would slip. Having depressed operating lever 17 to ignite the wick, which downward movement of 17 turns snuffer lever 13 to present its notch 30 opposite the slide 31 (as shown in Fig. 3). If it is desired that the wick remain lit, the slide 31 is simply slid forward (to the left) to enter notch 30 and hold the snuffer lever 13 in open position. To extinguish the wick, the slide is moved (to the right) to withdraw its tip from notch 30.

Having described my invention what I claim as new and desire to secure by Letters Patent, is:

1. A cigarette lighter comprising, a fuel tank casing, igniting means, a snuffer cap pivoted on an axis disposed on the upper surface of said casing, a wick tube opening upwardly from the fuel tank with its mouth at one side of said axis, an operating member positioned on the opposite side of said axis for receiving downwardly directed finger pressure on its upper surface to cause the snuffer cap to turn to open position and expose the mouth of the wick tube while actuating said igniting means, a spring opposing the finger pressure on said operating member and for returning the snuffer cap to close the wick tube mouth and extinguish a flame, and conditioning means including a slide and a receiving notch therefor, said slide being mounted on the upper surface of the operating member for limited forward movement toward said snuffer cap, and said notch being located in the snuffer cap so as to register with the forward end of said slide when the snuffer cap has been moved to its open position by downward movement of a finger exerting downwardly directed pressure on said slide and operating member, whereby a change in direction of movement of the finger, to exert pressure forwardly on said slide, will cause the slide to move into engagement with the notch to hold the snuffer cap in open position against the urgency of said spring.

2. A lighter as described in claim 1, wherein said operating member is an elongated lever pivoted about an axis positioned on the opposite side of said snuffer cap axis from the wick tube mouth, and the slide is roughened on its upper surface for receipt of finger pressure, said slide moving forward longitudinally of the operating lever to engage the notch and lock the snuffer in open position, and rearwardly toward the axis of the lever to disengage the notch and release the snuffer cap.

3. A cigarette lighter comprising; a fuel tank, igniting means, a snuffer cap pivotally mounted about an axis disposed on an exterior surface of the fuel tank, a wick tube opening through said surface at one side of said axis, an operating member mounted on the opposite side of said axis for receipt of finger pressure toward said fuel tank to cause the snuffer cap to turn to open position exposing the wick tube opening and to actuate said igniting means, a spring engaging the operating member to oppose said finger pressure and return the snuffer cap to extinguish a wick flame, and conditioning means including a slide and a notch for the receipt thereof, said slide being mounted on the finger pressure receiving surface of said operating member for limited movement toward and away from said snuffer cap, said notch being disposed on said snuffer cap so as to register with one end of said slide when the snuffer cap has been moved to its open position by pressure of a finger exerted on the slide and operating member in the direction of said fuel tank, whereby pressure of a finger exerted on said slide in the direction of the snuffer cap will cause the slide to engage the notch to hold the snuffer cap in open position against the urgency of said spring.

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