March 20, 1951 R. D. LLOYD 2,546,128

SNUFFER STRUCTURE FOR CIGARETTE LIGHTERS

Filed Jan. 7, 1948

Fig. 1.

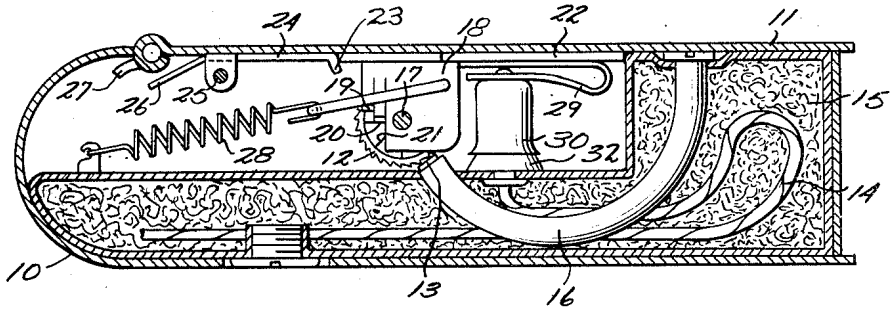


Fig. 4.

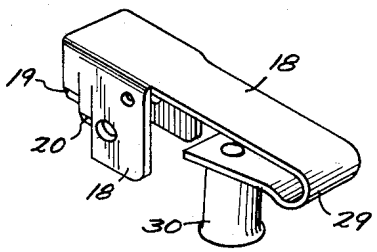


Fig. 2.

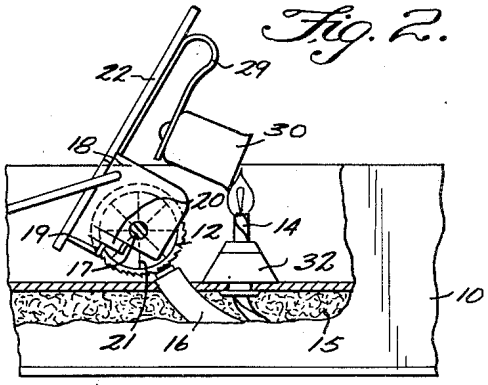


Fig. 3.

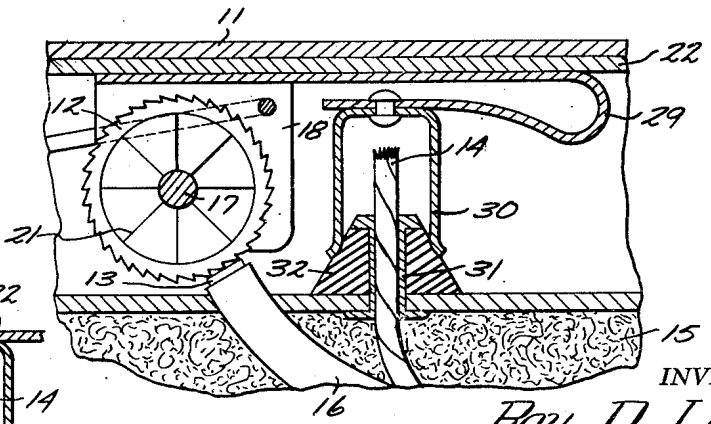
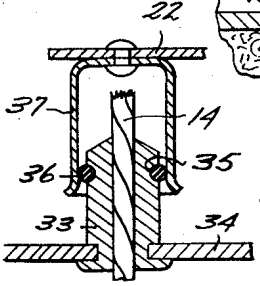


Fig. 5.



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SNUFFER STRUCTURE FOR CIGARETTE LIGHTERS

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1 Claim. (Cl. 67—7.1)

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This invention relates to lighters for cigarettes, cigars, and the like of the type having a fuel tank with a wick, flint, and an abrading element, and in particular an improved type of snuffer whereby the wick is snuffed out and the snuffing element seals the area around the wick to prevent leakage of fumes and any possibility of fire.

The purpose of this invention is to improve the construction of lighters for cigarettes and the like by providing a cup-shaped snuffing element with sealing means so that the fumes will be confined to the snuffing element and will not escape to contaminate cigarettes and the like in the lighter.

The usual type of lighter for cigarettes and the like is provided with a snuffer that extinguishes the light thereof but the snuffer is not completely sealed and fumes thereof escape to the interior of the lighter case and when cigarettes and the like are stored therein they have a foreign taste resulting from the fumes of the lighter. With this thought in mind this invention contemplates a lighter having a cup or bell-shaped snuffer and a conical-shaped washer of rubber or the like around the wick which coacts with the rim of the snuffer to completely seal the immediate area around the wick as the light thereof is extinguished.

The object of this invention is to provide sealing means for a snuffer of lighters for cigarettes and the like that may be used with lighters of different designs.

Another object of the invention is to provide a snuffer for lighters for cigarettes and the like which is incorporated around the end of the wick extending through the wall of the fuel tank which prevents leakage of fuel and also seals the area around the end of the wick.

A further object of the invention is to provide a combination snuffer and seal for wicks of lighters for cigarettes and the like which is of a simple and economical construction.

With these and other objects and advantages in view the invention consists of the new and novel combination, construction, and arrangement of parts as hereinafter more fully described, set forth in the claim appended hereto, and disclosed in the accompanying drawings forming part hereof, wherein:

Figure 1 is a longitudinal section through the lighter showing the relative positions of the parts.

Figure 2 is a detail showing an end view of the lighter case with parts broken away and part in section illustrating the snuffer and sealing washer around the wick.

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Figure 3 is a detail showing a section through the snuffer cup and sealing washer with parts broken away.

Figure 4 is a detail showing the snuffer cup actuator with the cup mounted thereon and with other parts omitted.

Figure 5 is a section showing a sealing washer of an alternate design.

Referring now to the drawings wherein like reference characters indicate corresponing parts the sealing snuffer of this invention includes a lighter case 10 having a hinged cover 11, an abrading wheel 12, a flint 13, and a wick 14.

The case 10 is provided with a fuel tank 15 and the flint 13 is held in a tube 16 so that it engages the surface of the abrading wheel 12. The abrading wheel is mounted on a shaft 17 and an actuator 18 with pawls 19 and 20 in the sides thereof is pivotally mounted on the shaft and positioned with the pawls adapted to engage ratchet teeth 21 in the ends of the abrading wheel. The actuator is provided with a bar 22 that is held in the closed position, as shown in Figure 1, by a flange 23 on an operating lever 24, and the lever is pivotally mounted on a pin 25. The lever is provided with an end 26 which is positioned to be engaged by a projection 27 on the cover 11, and as the cover is opened, the projection operates the lever 24 which releases the bar 22 of the actuator 18, and a spring 28 moves the actuator to the position shown in Figure 2. As the actuator moves from the position shown in Figure 1 to that shown in Figure 2 the pawls turn the abrading wheel in a counter-clockwise direction and this produces a spark which ignites the wick.

The actuator 18 is also provided with a U-shaped spring 29 that carries a cup or bell-shaped snuffer 30 that is positioned to cover the end of the wick and the wick is mounted in a ferrule 31 in a conical-shaped washer 32 of rubber or the like, as shown in Figure 3. When the cover 11 is closed it engages the bar 22 and forces the actuator and snuffer downward over the end of the wick and as it arrives at the closed position the rim of the snuffer presses into the washer 32 thereby providing a seal so that the fumes resulting from snuffing out the wick will be confined in the snuffer or cup. The washer around the wick may be of any suitable shape or design and may be mounted on the fuel tank or any part of the lighter desired, and the snuffer may also be of any suitable shape or design to correspond with the washer.

In the design shown in Figure 5 the wick 14 is

positioned in a socket 33 that is secured in the upper surface 34 of the tank and the upper end of the socket is provided with an annular recess 35 in which a ring 36, of rubber or the like is positioned and as the case is closed the snuffer cup 37 engages the ring to form a seal, as shown.

With the parts arranged in this manner the actuator will operate the abrading wheel to light the wick as the cover is opened, and as the cover is closed the snuffer cup will be pressed downward over the rubber ring or washer to form a seal which prevents the fumes passing into the adjoining parts of the casing.

It will be understood that other modifications may be made in the design or arrangement of the parts without departing from the spirit of the invention.

What is claimed is:

In a cigarette lighter, the combination which comprises a lighter case substantially rectangular shaped in section and having an arcuate side with extended edges at the opposite side, said case representing a book, means hinging one of the sides of the case to the case at a spaced point spaced from the arcuate edge, a substantially flat fuel tank in the case with an upwardly extended section along the side of the case having extended edges whereby cavity is provided from the said extended section from the tank to the arcuate side of the case, a ferrule having flanged ends positioned in the upper surface of the tank and located in the cavity, a conical shaped resilient washer positioned around the ferrule and secured in position by a flange at the upper end

of the ferrule, a snuffer cap carried by a U-shaped spring on a plate positioned below the cover of the case and pivotally mounted in the cavity thereof, and positioned to register with the wick with lower outwardly flared edges of the snuffer cap engaging the conical shaped surfaces of the resilient washer, an arcuate flint tube extending from the upper surface of the extended section of the tank around the wick and opening into the cavity in the case at a point spaced from the wick, an abrading wheel rotatably mounted in the cavity of the case and positioned to engage a flint extended from the said flint tube, and means actuating said abrading wheel as the cover is opened.

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