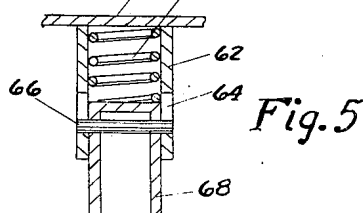
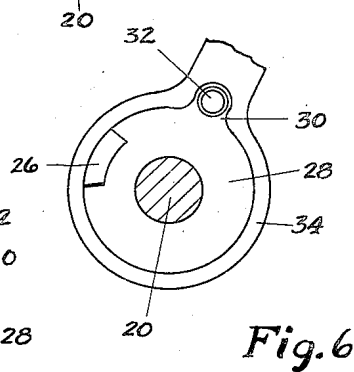
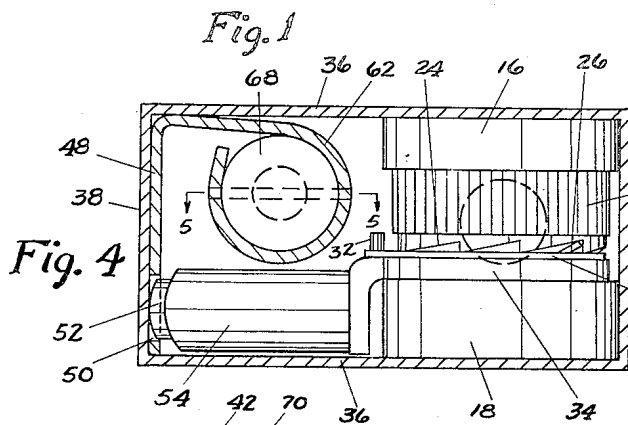
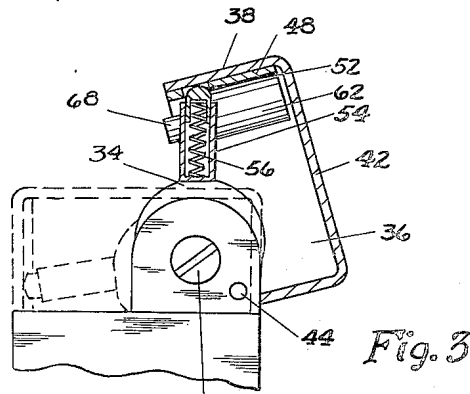
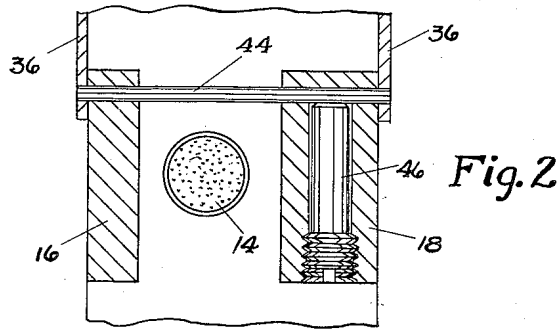
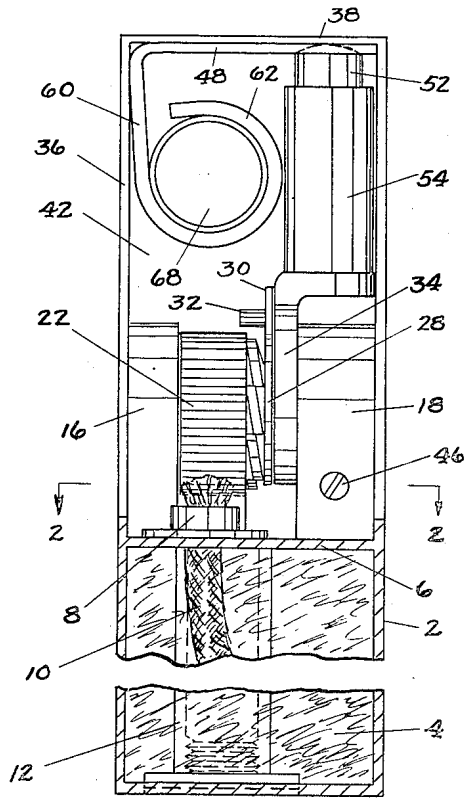


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I. FLORMAN
CIGARETTE LIGHTER
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CIGARETTE LIGHTER

Irving Florman, New York, N. Y.

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2 Claims. (Cl. 67-7.1)

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The invention relates to cigarette lighters and more particularly to cigarette lighters of the pyrophoric type.

The primary object of the invention is to provide a cigarette lighter of simple and efficient construction in which the lifting of the cover causes ignition of the lighter.

Another object of the invention is to provide a cigarette lighter in which a single mechanism serves both for connecting the cover to the igniting mechanism and for holding the cover resiliently in either open or closed position.

Another object of the invention is to provide a mechanism of this type which is simple and inexpensive.

A further object of the invention is to provide, in connection with such mechanism, a mounting for a snuffer cap, in which a single piece serves for connecting the operating mechanism to the cover and for holding the snuffer cap. Such an arrangement increases the durability of the lighter and at the same time decreases the cost of manufacture.

Still another object of the invention is to provide a lighter having a cover pivotally mounted for covering and uncovering the wick, with a simple and efficient arrangement for mounting the cover, this arrangement being such that the cover can be removed when it is in raised position; whereas the holding means are inaccessible when the cover is in closed position.

With such an arrangement, there is no danger that the lighter cover will be accidentally opened in the pocket, which might cause ignition and serious injury. On the other hand, when use of the lighter is desired, its operation is simple and effective.

Further objects and advantages of the invention will appear more fully from the following description, particularly when taken in conjunction with the accompanying drawings which form a part thereof.

In the drawings:

Fig. 1 shows in front elevation a lighter embodying the invention with the cover in raised position;

Fig. 2 is a cross-section on the line 2-2 of Fig. 1;

Fig. 3 shows the device in side elevation with parts in section and with the cover in raised position;

Fig. 4 is a top plan view with the cover broken away;

Fig. 5 is a cross-section on the line 5-5 of Fig. 4; and

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Fig. 6 shows in side elevation certain parts of the mechanism.

The invention includes a casing 2 having therein a fuel chamber 4, a top wall 6, a wick holding member 8 in the top wall, a wick 10 arranged in the wick holding member and extending into fuel chamber 4, and a flint tube 12 extending upwardly through the fuel chamber and containing conventional means for holding in its upper end a flint 14.

Mounted on the top wall 6 are upwardly extending ears 16, 18 having a space between them. Carried in these ears is a shaft 20 on which is turnably mounted a flint wheel 22 engaging flint 14. The flint wheel has on one face ratchet teeth 24 engageable by a pawl member 26 pushed out from a disc 28 likewise turnably mounted on shaft 20. Disc 28 has an outward extension 30 provided with an opening engaged over a pin 32 rigidly carried by a spacer disc 34 also mounted on shaft 20.

A cover is provided having side walls 36, front wall 38, rear wall 40 and top wall 42. This cover is mounted to pivot on an axis different from that of shaft 20 by the arrangement shown in Figs. 1 and 2. Adjacent the lower rear corner of ears 16, 18, they are pierced by a pin 44 which extends slightly beyond the outer surfaces of the ears. Side walls 36 of the cover lie closely adjacent the ears, and have openings turnably engaging the ends of pin 44. Threaded in ear 18 is a piece 46 which at its inner end engages pin 44, so as to prevent by its friction axial movement of pin 44. The other end of piece 46 is exposed at the front of ear 18 so as to be accessible when the cover is opened.

On the inner face of front wall 38 of the cover is the flat portion 48 of a supporting and engaging member. This portion has an opening 50, in which engages the rounded nose of a hollow piston member 52. Piston member 52 is slidable within a cylinder 54 carried by spacer disc 34. Between the piston and cylinder, and resiliently urging them apart, is a coil spring 56 which extends into the hollows of both these members.

Piece 48 has an extension 60 along the side wall, this extension being further bent around as at 62 into substantially cylindrical form. Cylindrical portion 62 has slots 64 therein, in which engages a pin 66 carried in the top of a snuffer cap 68 above the wick 10. A coil spring 70 arranged above the snuffer cap urges it into wick engaging position.

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The arrangement operates as follows:

When the lighter is in closed position (broken line position, Fig. 3) the operator lifts the cap to the open position shown in solid lines. The first portion of such movement pushes piston 52 into cylinder 54 against the action of spring 56, this resistance tending to hold the cover resiliently in closed position. As the cover rises, engagement of the end of piston 52 in hole 50 causes piston 54 to swing and thus turns disc 34 carrying with it disc 28. Tooth 26 engaging ratchet teeth 24 turns flint wheel 22 to throw sparks on the wick and ignite it. When the cover reaches open position, the cylinder and piston structure has passed the common plane of the axes of pivots 20 and 44, and thus acts to hold the cover resiliently in open position. When the cover is closed, snuffer cap 68 engages over wick 10 and extinguishes the flame. The snuffer cap engages wick holder 8 resiliently, by virtue of spring 70, and thus prevents leakage of fuel from the wick.

The use of the member 48, 60 provides a simple structural improvement by which the connection between the operating means in the cover and the supporting of the snuffer cap are effectively combined in a single operation. The mounting of the cover shown particularly in Fig. 2 holds the cover pivoted on the body in an extremely effective and simple fashion while allowing ready removal if any repairs are necessary.

While I have described herein one embodiment of my invention, I wish it to be understood that I do not intend to limit myself thereby except within the scope of the claims hereto or hereinafter appended.

I claim:

1. In a cigarette lighter, a body, a wick, a cover, means pivotally mounting said cover on said body for movement between positions covering and uncovering said wick, igniting means for said wick, and means operatively connecting said cover to said igniting means to operate the same when the cover is moved to uncovering position, said connecting means including resilient means for yieldingly holding said cover in either covering or uncovering position, said cover mounting means including ears upstanding from said body and located within the cover when in covering position, said cover having side walls next to the

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outer surfaces of said ears, a pin extending through said ears and turnably engaged in said side walls, and a piece threaded in one of said ears and engaging said pin to prevent displacement thereof, said piece being accessible when said cover is in uncovering position.

2. In a cigarette lighter, a body, a wick, a cover, means pivotally mounting said cover on said body for movement between positions covering and uncovering said wick, igniting means for said wick, and means operatively connecting said cover to said igniting means to operate the same when the cover is moved to uncovering position, said connecting means including resilient means for yieldingly holding said cover in either covering or uncovering position, said igniting means comprising a flint wheel pivoted to turn about an axis spaced from and higher than the axis of said cover mounting means, said connecting means comprising a first member mounted to turn about the same axis as said flint wheel and a second member slidably carried by said first member and operatively connected to said cover, means urging said members apart, a one-way connection between said first member and said flint wheel, a piece secured on the interior of the front wall of the cover, the operative connection between the second member and the cover comprising a recess in said last piece and a rounded end on said second member engaging in said recess, said last piece having a part extending therefrom above the wick and bent into substantially cylindrical form, and a snuffer cap for the wick carried by said part.

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