Sept. 2, 1952 F. A. B. JONES 2,608,848

CIGARETTE LIGHTER

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Fig. 1.

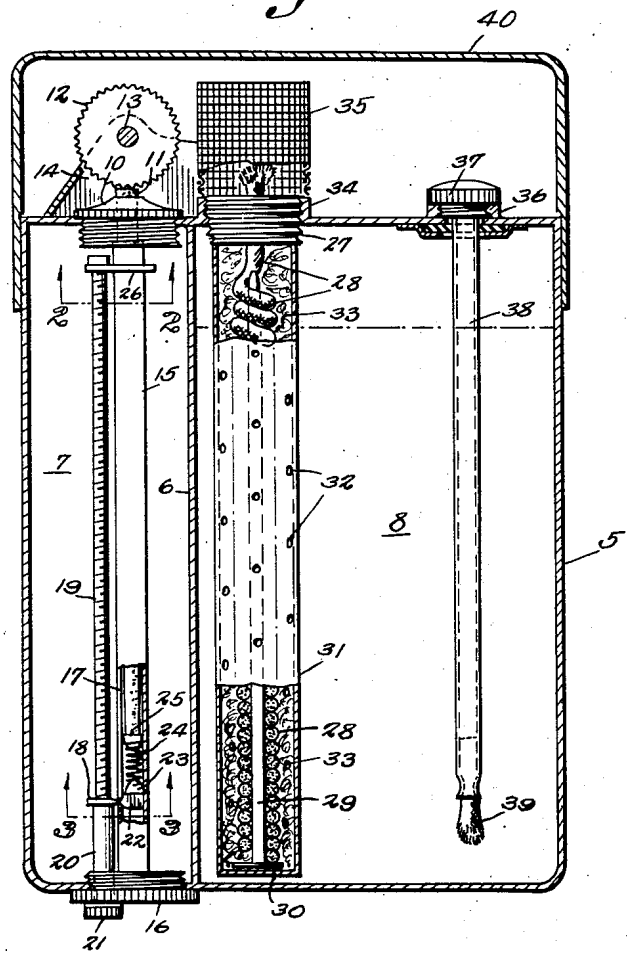


Fig. 2.

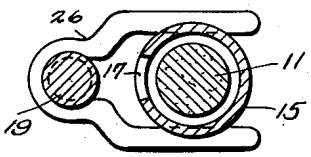


Fig. 3.

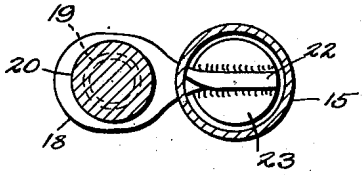
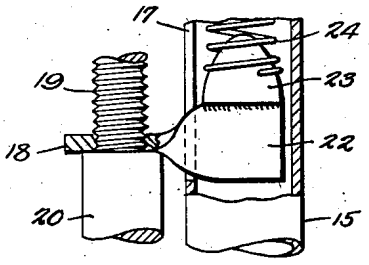


Fig. 4.



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CIGARETTE LIGHTER

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Application February 21, 1950, Serial No. 145,555

1 Claim. (Cl. 67—7.1)

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This invention relates to cigarette lighter construction, the primary object of the invention being to provide a lighter wherein a long flint or a plurality of substantially short lengths of flint may be used and fed to the flint-engaging wheel of the lighter, by a short spring contained in the lower end of the tube in which the flint operates.

Another object of the invention is to provide a cigarette lighter including a cylindrical container open at its upper end, which container holds a bobbin around which a wick is wrapped, the wick being held within an opening of the screw cap at the top of the container, which screw cap is threaded into a threaded opening of the upper end of the body portion holding the wick in place to be ignited by sparks from the flint adjacent thereto.

Another object of the invention is to provide a container with openings in the wall thereof through which lighting fluid from the tank of the lighter, may pass into the container saturating the cotton which is packed around the wick in the cylindrical container.

A still further object of the invention is to provide a guard in the form of a screen case surrounding the upper end of the wick, the screen providing a wind breaker and at the same time providing means to permit a cigarette to be placed thereagainst during the lighting of the cigarette, thereby insuring an even lighting of the cigarette without danger of burning the face.

Still another object of the invention is to provide a filler cap for the main fuel chamber of the lighter, which fuel cap is supplied with an extension in which a wick is secured, the wick and extension being submerged in the liquid fuel contained in the fuel chamber so that the extension with its wick may be removed from the fuel chamber and held before the flint and wheel to be lit by the sparks from the flint, thereby providing means for holding in the bowl of a pipe to light the tobacco of the pipe.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claim, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

Referring to the drawing

Figure 1 is a vertical sectional view through a cigarette lighter, constructed in accordance with the invention.

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Fig. 2 is a sectional view taken on line 2—2 of Fig. 1.

Fig. 3 is a sectional view taken on line 3—3 of Fig. 1.

Fig. 4 is a fragmental elevational view, partly in section, illustrating the lower end of the flint tube, showing one of the movable tips on which the coiled spring which operates in the flint tube, is positioned.

Referring to the drawing in detail, the body portion of the lighter is indicated generally by the reference character 5, and as shown is divided longitudinally, by means of the partition 6, dividing the body portion into a flint chamber 7 and a fuel tank 8.

The top of the body portion is indicated by the reference character 9 and is provided with a threaded opening in which the cap 10 is positioned, the cap 10 being provided with an opening, through which the flint 11 moves, the flint 11 being engaged by the teeth of the wheel 12 mounted on the bearing 13 that in turn is mounted in openings formed in the support 14.

The reference character 15 indicates the flint tube which is secured to the cap 16, at the lower end of the tube 15, the tube 15 being provided with a longitudinal slot 17 through which the arm 18 extends, the arm 18 having a threaded bore through which the threaded rod 19 extends, the rod 19 being secured to the upper end of the member 20 that carries the thumb piece 21 on its lower end, by means of which the member 20 and threaded rod 19 are rotated.

The arm 18 is formed with an end 22 that extends into the flint tube 15, where it is provided with the tip 23 on which one end of the coiled spring 24 rests, the opposite end of the coiled spring 24 engaging the supporting tip 25 on which the lower end of the flint 11, rests. Thus it will be seen that due to this construction, when the threaded rod 19 is rotated, the arm 18 will be moved longitudinally of the flint tube, elevating the flint tube to force it into contact with the teeth of the wheel 12. At the upper end of the threaded rod 19, is the yoke 26 within which the threaded rod 19 is mounted for rotation, the yoke being secured to the flint tube 15, holding the yoke and threaded rod 19 in their operative positions.

The top 9 is also formed with a threaded opening in which the threaded plug 27 is mounted, the plug 27 being formed with an opening through which the wick 28 extends, the wick 28 being wrapped around the bobbin 29 which is formed with a head 30 at its lower end, the head

30 resting on the bottom of the wick chamber 31, in which the wick 28 is positioned.

The wall of the wick chamber is formed with a series of openings 32 which establish communication between the fuel tank 8 and wick chamber 31, allowing the fuel in the fuel tank 8 to pass into the wick chamber, saturating the cotton which is indicated by the reference character 33 and which is placed around the wick 28.

Disposed at the upper end of the wick chamber 31, and secured to the upstanding flange 34 formed on the top 9 of the body portion, is a chamber formed of the wire mesh material indicated at 35 which houses the upper end of the wick and provides a wind breaker or guard, protecting the flame of the wick, against being extinguished by the wind. This wire mesh member also affords means whereby a cigarette or cigar may be placed against the wire mesh material to insure an even lighting of the cigarette or cigar held thereagainst.

The top 9 of the body portion is also formed with an opening that is surrounded by the flange 36, the flange being internally threaded to receive the threaded cap 37 to which the stem 38 is secured, the stem being of a length to extend a substantial distance into the tank. The lower end of the stem 38 is provided with a wick 39 which will become saturated with the lighting fluid, and when it is desired to light a pipe, this cap 37 may be unscrewed and the stem with its wick removed. The wick may now be held over the wheel 12, or in a position where sparks from the flint may ignite the fluid on the wick 39. After the wick has been lighted, it may be positioned in the bowl of a pipe to ignite the tobacco therein.

The reference character 40 indicates the cover which is placed over the upper end of the body portion 5 to close the upper end of the body portion. While the closure in this invention is shown as being of the type which fits over the upper end of the body portion, it is to be understood that the closure may be of the hinged type to spring open when it is desired to use the lighter, without departing from the spirit of the invention.

In the operation of the device, the wheel 12 is rotated against the flint, and the sparks caused by such rotation cause the lighting of the wick, which may be used in the usual way in lighting a cigarette or cigar.

Having thus described the invention, what is claimed is:

In a pocket lighter a hollow substantially rectangular body having top, bottom, end and side walls and a partition wall separating said body into a flint chamber and a fuel chamber, said top and bottom walls having aligned internal screw threaded openings extending therethrough and opening into the flint chamber, said top wall having an internally screw threaded wick cartridge receiving opening extending therethrough adjacent the partition wall and a filling opening extending therethrough remote from the partition wall, said last mentioned openings communicating with the fuel chamber, a closure for the filling opening, a plug having a central aperture extending therethrough threadedly engaging the threads of the wick cartridge receiving opening and closing said opening, a wind guard carried by the plug in concentric spaced relation to the aperture, said wind guard extending longitudinally from the plug on the side thereof remote from the fuel chamber, an elongated perforated cylinder carried by the plug and extending into the fuel chamber, an elongated bobbin carried by the cylinder and extending longitudinally therein in concentric spaced relation therewith, a wick encircling the bobbin in a series of convolutions and extending through the aperture in the plug, a filling of fibrous fuel absorbent material within the perforated cylinder and surrounding the convolutions of the wick in contact therewith, a flint guide threadedly engaging the threads of the opening in the top wall which communicates with the flint chamber, said flint guide having an axial flint receiving and guiding opening extending therethrough, a sparking wheel carried by the flint guide and intersecting the axis of the flint guiding opening on the side of the plug remote from the flint chamber, a plug threadedly engaging the threads of the opening in the bottom wall, a tubular flint magazine carried by the last named plug and extending into the flint chamber in axial alignment with the flint receiving opening, a threaded stem mounted for rotation in the last named plug and extending into the flint chamber in spaced parallel relation to the flint magazine, and a follower threadedly engaged with the threaded stem and extending into the flint magazine for engaging flint in said magazine and advancing it through the axial opening in the flint guide and into contact with the sparking wheel.

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