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M. FANKL

2,490,121

POCKET LIGHTER

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FIG. 1

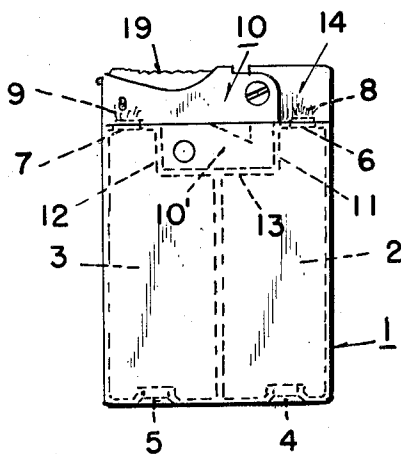


FIG. 2

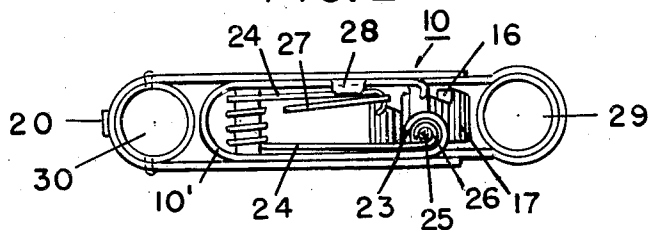
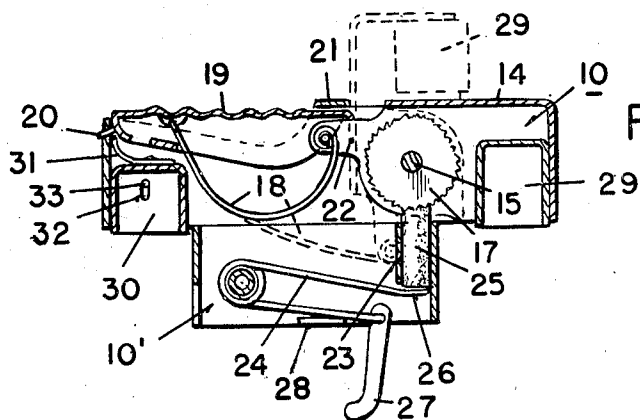


FIG. 3

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POCKET LIGHTER

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5 Claims. (Cl. 67-7.1)

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Pocket lighters are known having several liquid fuel containers independent of each other, in particular double tank lighters, having a joint ignition device for the individual ignition means (wicks) adapted to be inserted in two different positions into recesses of the fuel container by the aid of a projection which holds the means for guiding and pressing the igniting or cerium stone.

The present invention has for its object to facilitate the manipulation in exchanging the cerium stone of double tank lighters of the aforesaid kind without complicating its design, this object being attained by combining several particular measures and by providing special constructive arrangements. A pocket lighter according to the invention is characterized in that the ignition device is provided with an extension formed—in the longitudinal section—as a T-shaped body, whereby said extension protrudes into the upper part of the fuel container, and that the presser for the cerium stone consists of a plate spring of which the one end rests against the cerium stone, and further that the free end of the spring is fitted with a handle with which the other spring end may be pressed against an abutment on the extension, or may be lifted from said abutment for the purpose of exchanging the cerium stone, said handle entering between the two arms of the spring with the extension inserted into a frame or opening of the lighter casing.

The drawing shows an embodiment of the invention by way of example

Fig. 1 being a front elevation of the lighter according to the invention, whereas

Figs. 2 and 3 are a view from below of the ignition device and a vertical section through same, both being represented on an enlarged scale.

Numerals 1 designates the pocket lighter casing comprising the two fuel containers 2 and 3 whereas 4 and 5 are the filling screws coordinated to the fuel containers 2 and 3. Each of the independent fuel containers 2 and 3 has a wick frame 6 and 7 of its own in which the wicks 8, 9 are arranged. The igniting means (wicks 8, 9), coordinated to the individual fuel containers 2 and 3, are inflammable according to desire by the ignition device 10 having a projection 10' alternatively insertable in two different positions displaced by 180° in respect to each other in a frame or opening 13 formed by the recesses 11, 12 of the fuel container.

The ignition device is designed in the usual

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manner consisting of a tiltable lid 14 pivotable about the axle 15 which serves simultaneously for rotatably supporting the friction wheel 17 provided with claws 16. The extension 22 of the lid 14 is engaged by the spring 18 whose other end is fastened to the presser 19. Said presser 19 is tiltable about the pin 20 coacting at its other end 21 with the projection 22 of the lid 14 as will be explained in detail below.

In the projection 10' used for changing over the ignition device 10 the guiding and pressing means 23 and 24 for the cerium stone 25 are provided. The pressing means for the cerium stone 25 consist of a wire spring 24, the one end of which bears against the cerium stone whereas the other end can be applied against an abutment 28 if it is desired to release the cerium stone 25. The ignition device 10 carries two wick caps 29 and 30 provided for the two wicks 8 and 9 of the two fuel containers 2 and 3 whereas the cap 29 is connected to the lid 14 elastically supported by the spring 18, which has the effect of elastically and yieldingly supporting, in the ignition device casing, the second wick cap 30 intended for the wick actually not in use. The elasticity and yieldability of the cap 30 necessary for a tight closure of the wick, not used, can be brought about by the arrangement of a plate spring 31 whereby the oblong hole 32 provided in the casing, into which a guide pin 33 of the cap 30 is made to engage, warrants an appropriate mobility of the cap.

The pocket lighter according to the present invention is operated as follows: In the position of the individual parts represented in Fig. 1 the ignition device 10 is applied for inflaming the wick 8 of the fuel container 2 on the right hand side. The inflammation is effected, in a manner known, by depressing the presser 19 whereby the extension 22 of the lid 14 is pushed downwards overcoming the effect of the spring 18 whereby said spring 18 is moved into its dead center and finally shoots out jerkily in the other direction (position indicated by a dash-dot-line in Fig. 3) in consequence whereof the friction wheel 17 driven by the lid in a manner known acts on the cerium stone 25 so as to form sparks. During the process the second cap 30 acted upon by the plate spring 31 tightly closes the second wick 9 (Fig. 1).

If the fuel container 2 does not hold any fuel anymore or if the inflammation miscarries, the ignition device is simply withdrawn from the frame or opening 13, is turned by 180° and is then reinserted into the frame in its new posi-

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tion so that the ignition device will then occupy the position required for inflaming the second wick 9. The outer contours of the pocket lighter are not altered by this change-over of the ignition device. Contemplated in the same direction the contours of the lighter in the new position are equal to those of the old position as reflected by a mirror.

The exchange of the cerium stone 25 is carried out by means of the handle 27 which permits of lifting from the abutment 28 the part of the wire spring 24 resting on same. This relieves the spring 24 of its tension so that its extremity 26 moves away from the cerium stone 25. For pressing against the friction wheel 17 the newly inserted cerium stone, the reverse operation is necessary. The handle 27 nestles between the two branches of the wire spring 24 when the projection 10' is inserted into the frame or opening 13.

What I claim is:

1. A pocket lighter comprising an outer casing, two separate fuel containers arranged in said casing in side-by-side relationship and each having a wick inserted therein, each said container having a recess in an upper corner thereof, said recesses being in abutting relationship and forming a rectangular shaped pocket, an ignition head for said lighter, said ignition head comprising a casing having equal dimensions with an end of said outer casing, a rectangular projection on said head casing extending therebelow into said rectangular pocket, sparking means in said ignition head including a friction wheel and a flint for igniting a wick, said ignition head being removable and reversible for igniting one or the other of said wicks separably.

2. In a pocket lighter as claimed in claim 1, said ignition head casing being hollow and having a pin therethrough, a tiltable lid pivotally secured on said pin and forming an end of said lid, a pressure responsive member tiltably secured to said casing at the end remote from said lid and forming a second portion of said casing, a spring secured to said member and to said projection on said lid, said spring being biased to hold said member and said lid in inoperative position, said friction wheel comprising a portion of said sparking means being secured on said pin and being rotatable therewith, said pressure responsive member being actuatable against the action of said biased spring to pivot said lid around said pin for exposing a wick and to turn said friction wheel against said flint.

3. In a pocket lighter as claimed in claim 2, a wick cap secured to said tiltable lid for covering one said wick, a second wick cap movably

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mounted in said ignition head casing at an end remote from said first wick cap for covering the second of said wicks, the mounting means comprising a guide pin on said second wick cap, said guide pin being inserted in an oblong slot in said ignition head casing and a plate spring in said casing pressing against said second wick cap.

4. In a pocket lighter as claimed in claim 3, an elongated tube in said projection carrying said flint, a pin in said projection, an abutment on the lower edge of said projection, a spring coiled on said pin and having extending ends thereon, an end of said spring contacting the underside of said flint in said tube and pressing the same against said friction wheel, a handle pivotally secured to the other end of said spring, said end of said spring having said handle resting on said abutment when in operative position and said handle being insertable between said spring ends in said projection, said handle being operable to remove said spring from said abutment thereby releasing tension against said flint for replacement thereof, said handle being held in inoperative position upon insertion of said projection in said pocket.

5. In a pocket lighter as claimed in claim 1, an elongated tube in said projection carrying said flint, a pin in said projection, an abutment on the lever edge of said projection, a spring coiled on said pin and having extending ends thereon, an end of said spring contacting the underside of said flint in said tube and pressing the same against said friction wheel, a handle pivotally secured to the other end of said spring, said end of said spring having said handle resting on said abutment when in operative position and said handle being insertable between said spring ends in said projection, said handle being operable to remove said spring from said abutment thereby releasing tension against said flint for replacement thereof, said handle being held in inoperative position upon insertion of said projection in said pocket.

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