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D. FARMER

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POCKET LIGHTER WITH REMOVABLE MECHANICAL UNIT

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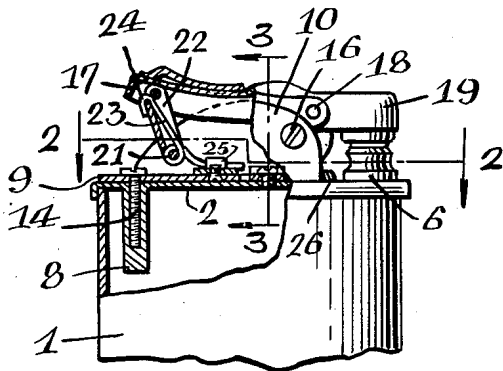


Fig. 1

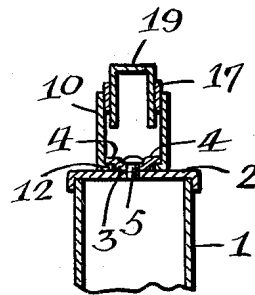


Fig. 3

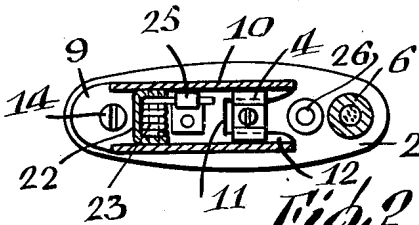


Fig. 2

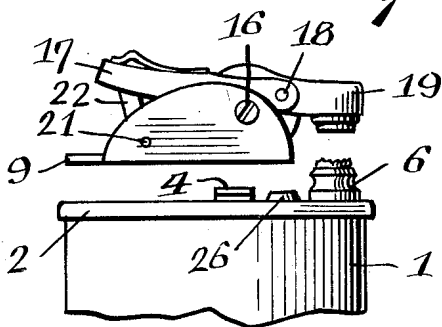


Fig. 6

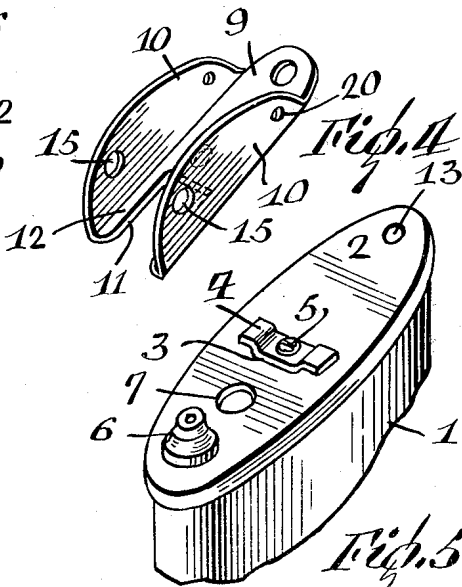


Fig. 5



Fig. 7

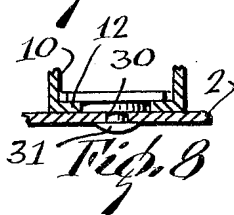


Fig. 8

Inventor:  
**Doris Farmer**

By *Albert J. ...*  
Attorney

# UNITED STATES PATENT OFFICE

2,492,471

## POCKET LIGHTER WITH REMOVABLE MECHANICAL UNIT

Doris Farmer, Montreal, Québec, Canada, assignor to Presto Lighters Limited, Montreal, Québec, Canada

Application November 8, 1948, Serial No. 58,980

2 Claims. (Cl. 67-731)

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The present invention pertains to a novel pocket lighter of the type used by smokers.

The principal object of the invention is to provide such a lighter with a removable mechanical unit comprising the sparking mechanism and the cap for the wick. The mechanical or moving parts require occasional repair or replacement, and the removability of the mechanical unit renders this operation less difficult. Also, the entire unit may be replaced, if necessary or desired, without requiring discarding of the body of the device.

In the accomplishment of these objects, the usual fuel-containing body is provided with a top piece. The mechanical unit is mounted in a U-shaped cradle adapted to be held detachably by a clip or the top piece. More specifically the bottom of the cradle has a slot that forms a pair of flanges, and these are received beneath a pair of raised wings embodied in the clip. The cradle is further held on the top piece by a screw.

The cradle carries the operating lever and the sparking mechanism and wick cap operated thereby. The sparking mechanism, being shown in my copending application, now Patent No. 2,474,973, is not illustrated herein.

In a modified form of the invention the cradle is obtained from a transverse plate spaced from the top piece and held to the latter by a rivet.

The invention is fully disclosed by way of example in the following description and in the accompanying drawings in which:

Figure 1 is a side elevation of the device; partly in section;

Figure 2 is a section on the line 2—2 of Figure 1;

Figure 3 is a section on the line 3—3 of Figure 2;

Figure 4 is a perspective view of the supporting cradle;

Figure 5 is a perspective view of the lighter body with the cradle.

Figure 6 is a side elevation of the device showing the body and sparking mechanism separated.

Figure 7 is a perspective view of a modified form; and

Figure 8 is a cross section showing the use of the modified form.

References to these views will now be made by use of like characters which are employed to designate corresponding parts throughout.

The device includes a hollow body 1 having a fixed top 2 and an inlet (not shown) for filling the body with liquid fuel in the usual manner. The moving parts, known as the sparking mechanism, are provided as a separable unit in ac-

cordance with the invention. For this purpose there is provided on the top 2 a clip comprising a strip of metal shaped to form a base 3 having its ends bent upward as raised wings 4. The base 3 is secured to the top 2 by a screw 5. The top is formed at one end with a wick boss 6 adjacent to which is a hole 7 for the usual flint tube. At the other end of the top 2 is a suspended, tapped boss 8 for a purpose that will presently be described.

The mechanical unit is carried in a U-shaped cradle comprising a base 9 and segmental sides 10. The base is formed with a slot 11 from one end leaving a pair of flanges 12. These flanges are spaced to ride under the wings 4 while the slot 11 receives the base 3 of the clip. The opposite end of the base 9 has an aperture 13 through which a screw 14 is passed and threaded into the tapped boss 8, as shown in Figure 1.

The sides 10 of the cradle have aligned apertures 15 to receive a stud 16 on which an operating lever 17 is rotatably mounted. To the lever is pivotally attached, at 18, a cap 19 for the wick boss 6, as described in detail in my copending application. Additional apertures 20 in the sides 10 support 2 pin 21 connected to the lever by a link 22. A spring 23 is wound on the pin 21, hooked on the link at 24 and having its opposite end slidable in a boss 25 on the top 2. The spring maintains the lever 17 in a raised position and the cap 19 downward.

It is now apparent that, on removing the screw 14, the mechanical unit is readily removable with the cradle 10, 11. The working parts are thus more easily accessible for repair or replacement or the entire unit may be replaced if desired.

The sparking apparatus, not shown in detail herein, is also operated by downward movement of the lever 17 as shown in my copending application. The flint is designated by the numeral 26 in Figure 1.

In the modified form of the invention, as illustrated in Figures 7 and 8 of the drawings, the cradle is obtained from a transverse plate 27 having a disk like boss 28 and an integral stem 29. The latter is entered in the hole 30 punched in top 2 and then pressed so a head 31 is formed constituting a rivet. Flanges 12 of the cradle engages the plate 27 in the manner described above.

Although specific embodiments of the invention have been illustrated and described, it will be understood that various alterations in the details of construction may be made without de-

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parting from the scope of the invention as indicated by the appended claims.

What I claim as my invention is:

1. In a pocket lighter, a hollow body having a top piece, a clip mounted on said top piece and having raised wings a wick boss on said top piece, a cradle having a base with a slot formed from one end thereof, said slot providing opposed flanges adapted to slide beneath said wings, an operating lever pivotally mounted in said cradle, and a cap for said boss operable by said lever. 5 10

2. In a pocket lighter, a hollow body having a top piece, a clip mounted on said top piece and having raised wings a wick boss on said top piece, a cradle having a base with a slot formed from one end thereof, said slot providing opposed flanges adapted to slide beneath said wings, a screw adapted to pass through said base and thread into said top piece, an operating lever pivotally mounted in said cradle, and a cap for said boss operable by said lever. 15 20

DORIS FARMER.

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