Sept. 5, 1933. H. PY 1,925,933

PYROPHORIC LIGHTER

Filed July 27, 1931 2 Sheets-Sheet 1

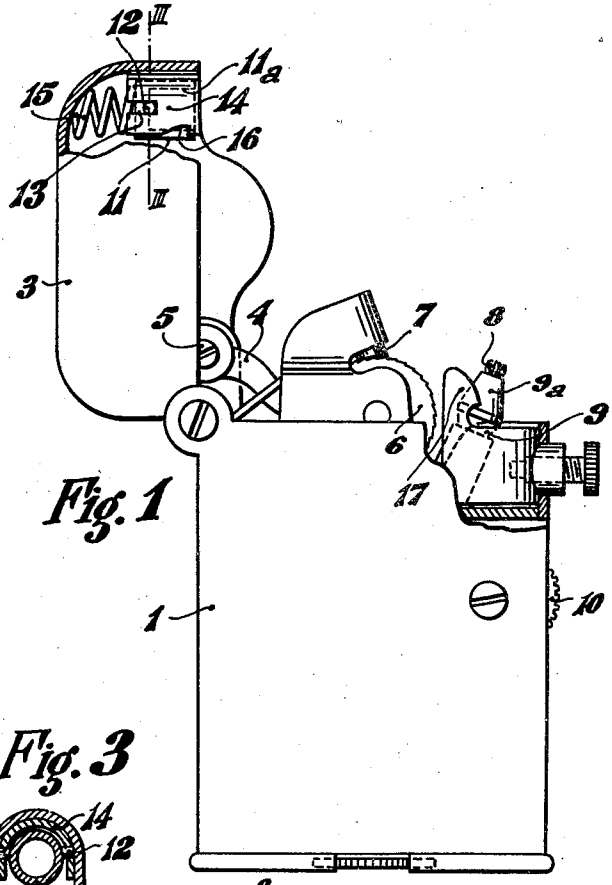


Fig. 1

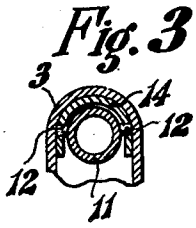


Fig. 3

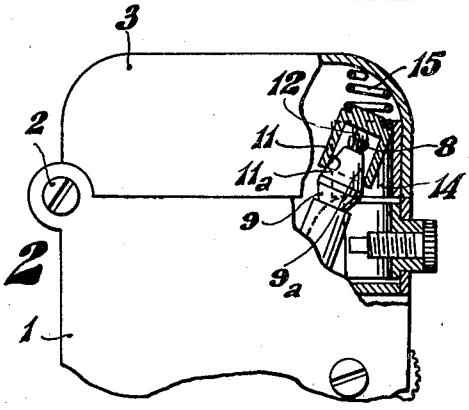


Fig. 2

H. Py
INVENTOR

By: Mark & Clark
Attys.

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PYROPHORIC LIGHTER

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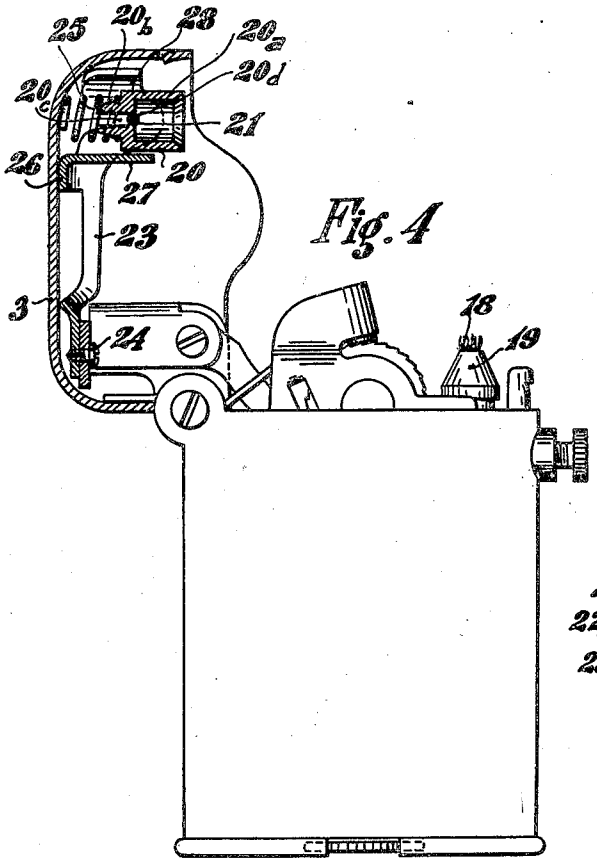


Fig. 4

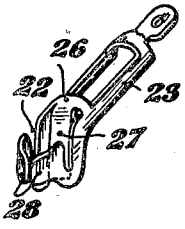


Fig. 8

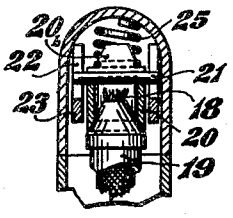


Fig. 6

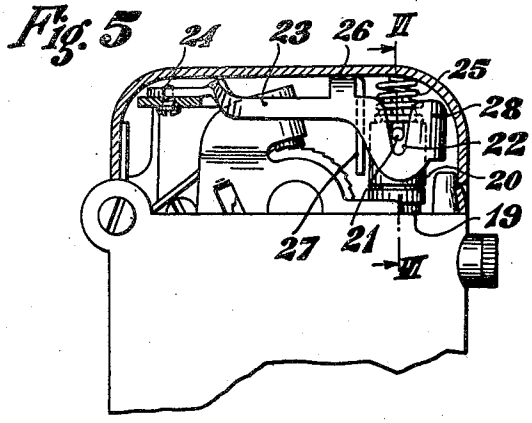


Fig. 5

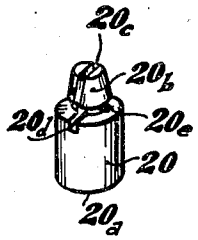


Fig. 7

H. Py INVENTOR

By: Marks & Clerk Attys.

Patented Sept. 5, 1933 1,925,933

UNITED STATES PATENT OFFICE

1,925,933

PYROPHORIC LIGHTER

Henri Py, La Sagne, near Ste. Croix, Switzerland, assignor to the firm Hermann Thorens, Société Anonyme, Ste. Croix, Switzerland

Application July 27, 1931, Serial No. 553,392, and in Switzerland August 1, 1930

1 Claim. (Cl. 67—7.1)

This invention relates to a pyrophoric lighter and more particularly to a lighter of the pocket type in which a fuel supplied wick is ignited by means of cooperating abrading wheel and pyrophoric element.

The object of the invention is the provision of an improved cap for covering the wick tube, the cap being pivotally mounted in the cover of the lighter casing so as to be capable of exactly fitting the wick tube and to form a tight closure for the tube.

In the accompanying drawings, showing two embodiments of the invention,

Figure 1 is an elevation, partly drawn in section, of a lighter according to the invention, showing the cover in open position.

Figure 2 is a fractional elevation of the lighter, partly drawn in section, and showing the cover in closed position.

Figure 3 is a section along the line III—III of Fig. 1.

Figures 4 and 5 are elevations of a modified form of a lighter according to the invention, showing the cover in open and in closed position respectively.

Figure 6 is a section along the line VI—VI of Fig. 5.

Figures 7 and 8 are detail parts shown in perspective view.

The embodiment shown in Figures 1 to 3 comprises a lighter body 1 upon which there is rotatably mounted, at 2, a cover 3 which, by the intermediary of a hook 4, articulated in 5, causes rotation, in known manner, of the friction wheel 6 cooperating with the pyrophoric stone 7. The wick 8 is contained in an inclined sliding tube 9, capable of being raised by actuating a toothed wheel 10. The cover 3 carries a cap 11, destined to exactly cover, in closed position of the cover 3, the conical end 9*a* of the tube 9. This cap carries two journals 12 capable of turning and sliding in two slots 13 of a U-shaped member 14 fixed to the cover. A spring 15 has one end fixed to the top of the cap 11 while the other end abuts against the bottom of the cover 3. The cap 11 can therefore turn about the axis of the journals 12 which can slide along the slot 13 against the action of the spring 15. The U-shaped member 14 presents a shoulder 16 which cooperates with the hook 17 for maintaining the cover in closed position.

When the cover 3 is closed, the interior edge 11*a* of the cap fits exactly on the conical part 9*a* of the tube 9, while inclining slightly, as shown in Fig. 2. In this position, the spring 15 is compressed, whereby a perfect tightness is maintained between the cap 11 and the tube 9. In order to place the cap 11 into the cover 3, it suffices, after having fixed the piece 14 in the latter, to compress the spring in the bottom of the cover by pressing strongly on the cap and by introducing the journals 12 into the slots 13.

In the lighter according to Figs. 4 to 7 the wick 18 is mounted in a vertical stationary tube 19. The cap 20 comprises a sleeve 20*a* provided on its top end with a frusto-conical member 20*b*. This member is provided with a vertical slot 20*c* extending until the end 20*d* of the sleeve 20. A pin 21 forming two journals for pivotally mounting the cap is engaged in the lower end of the slot 20*c* and soldered to the sleeve 20. The two ends of the pin 21 are supported in bearings 22 formed in a bracket 23 (Fig. 8) fixed to the cover 3 by means of a screw 24. The spring 25 has one of its ends engaged in a circular groove 20*e* provided between the sleeve 20*a* and the frusto-conical member 20*b* and is wound around the frusto-conical member which, owing to the slot 20*c*, is slightly resilient. The upper end of the spring abuts against the cover 3. The bracket 23 is provided with a transverse wall 26 carrying a vertical tongue 27 for guiding the spring 25 and limiting the rotation of the cap 20 in one direction, the rounded end walls 28 of the bracket limiting rotation of the cap in the other direction.

I claim:—

In a pyrophoric lighter having a lighter body and a wick tube projecting therefrom, a cover member hingedly connected to the lighter body, a wick cap detachably secured to the cover member and adapted to register against the end of the wick tube when the cover member is in closed position, a supporting member for the wick cap carried by the cover member and shaped to surround the side wall of the cap, said cap being provided with two laterally projecting aligned journal pins, the supporting member being provided with two upwardly opening slots adapted to receive said pins and permitting free insertion and removal of the cap into and out of the supporting member and a coiled spring inserted between the cap and the cover member and acting on the cap to urge the pins downwards in the slots and apply the cap on the wick tube.

HENRI PY.