

PATENT SPECIFICATION

421,274

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Complete Specification Left: May 11, 1934.

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PROVISIONAL SPECIFICATION

Improvements in Pocket Lighters

We, ERNEST SPARKS, of 89, Farm Road, Edgware, Middlesex, Englishman, and MAURICE JEAN COULTER, of 70, Somerset Road, Wimbledon Park, S.W.19, Englishman, do hereby declare the nature of this invention to be as follows:—

10 For the easy manipulation of automatic pyrophoric pocket lighters, we employ a pivotted lever carrying an extinguishing cap, the spindle of the lever having its bearings in the walls of a trough or channel arranged above the chamber carrying the spirit, and the channel may have a cover arranged to enclose same.

15 The lever will have a suitable finger-piece attached thereto, or to an extension of the spindle.

20 A pinion will be attached to the spindle of the lever to mesh into a rack, a pawl or suitable projection being attached to

the rack to engage with a ratchet wheel attached to a spindle on which the sparking wheel is fixed.

25 A spring will be arranged to return the lever carrying the extinguishing cap to its rest position.

30 When the finger-piece is pressed down, the spindle forming the pivot of the lever will partially rotate and the pinion attached thereto will mesh with the rack and carry the pawl forward to operate the sparking wheel through engagement with the ratchet wheel, and upon the pressure on the finger-piece being removed, the lever with extinguishing cap attached thereto will together with the rack return to their rest position through the pressure of the spring controlling the lever.

Dated the 13th day of May, 1933.

ERNEST SPARKS,
MAURICE JEAN COULTER.

COMPLETE SPECIFICATION

Improvements in Pocket Lighters

40 We, ERNEST SPARKS, of 89, Farm Road, Edgware, Middlesex, British subject, and MAURICE JEAN COULTER, of 70, Somerset Road, Wimbledon Park, S.W.19, British subject, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

50 For the easy manipulation of automatic pyrophoric lighters we employ a pivotted lever carrying an extinguishing cap, to directly operate a rack carrying a spring pressed pawl, by means of a pinion attached to the said lever or its spindle.

55 The lever may have an extending arm projecting above and beyond the back of the lighter, or be connected with an operating arm outside the wall of the lighter, and the lever will be spring pressed, so that after depressing the extending arm and driving the rack forward, the lever and rack will automatically return to their rest position when pressure is released.

70 Intercepting the travel of the pawl attached to the rack, a spindle carrying a sparking wheel and ratchet wheel is arranged, so that a partial revolution will be given to the sparking wheel when the lever is depressed, the pawl riding idly over the ratchet wheel on its return with the rack.

75 The rack and lever preferably operate in a channel arranged above a fuel chamber sealed off by a suitable platform, and for the convenience of refinting we may employ a split tube into which the flint is inserted, the flint being pressed on to the sparking wheel by means of a spring pressed lever, controlled by a lever placed outside the walls of the lighter, so that when the outside lever is depressed, the pressure is removed from the spring pressed flint lever to enable a new flint to be readily inserted into the split tube arranged above the sparking wheel.

In the accompanying drawings:

80 Fig. 1 shews an elevation of the lighter with outside lever I, controlling inside spring pressed flinting lever J, and driv-

[Price 1/-]

Price 4s 6d

ing lever E in its rest position.

Fig. 2 shews an elevation of the lighter with one side of the casing A partly cut away shewing the rack B, pawl C, pinion D attached to driving lever E, platform F above the fuel chamber, extinguishing cap G, attached to lever, wick tube H, friction wheel C', ratchet wheel D', and flint holder K.

Fig. 3 shews side of casing A slotted at top, to permit lever E to travel.

Fig. 4 shews the lighter with the extending arm of driving lever E pressed down for lighting.

Fig. 5 shews the lever I controlling the spring pressed flinting lever J pressing flint forward in split tube K.

Fig. 6 shews a plan view of the driving lever E with pinion D attached, plate L and spring round tube through which a spindle passes through the walls of the casing A.

Fig. 7 shews a cover L' for top of lighter.

The friction wheel and ratchet wheel are mounted upon the same spindle, the

ends of which take their bearing in a hole provided on each side of the casing and held in position by cover L'.

The lighter may be made up as described in a small size as a pocket lighter, or larger as a table lighter.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A pyrophoric pocket lighter in which a spring pressed pivotted lever carrying an extinguishing cap and pinion is operated by hand to effect the engagement of a spring pressed pawl with the ratchet of a sparking wheel through the medium of a rack.

2. A pyrophoric pocket lighter as claimed in claim 1 in which a spring pressed lever controlled by a lever outside the casing is employed to feed a flint forward to the sparking wheel.

Dated the 12th day of May, 1934.

ERNEST SPARKS,
MAURICE JEAN COULTER.

[This Drawing is a reproduction of the Original on a reduced scale.]

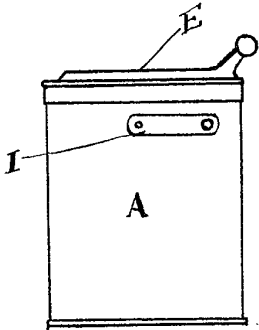


FIG. 1.

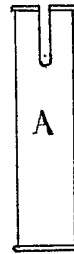


FIG. 3.

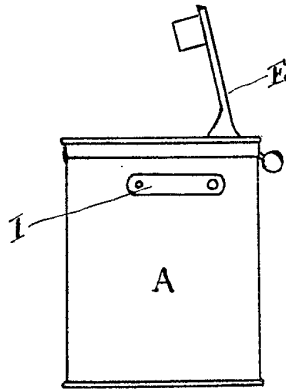


FIG. 4.

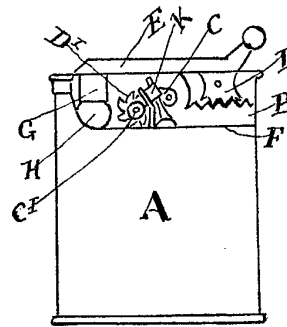


FIG. 2.

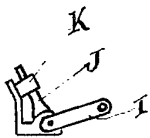


FIG. 5.

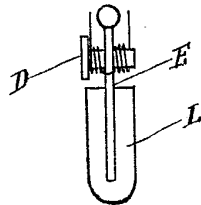


FIG. 6.

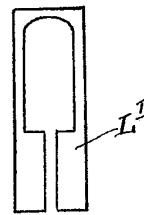


FIG. 7.