

PATENT SPECIFICATION



Application Date: March 7, 1932. No. 6788/32.

395,809

Complete Left: April 6, 1933.

Complete Accepted: July 27, 1933.

PROVISIONAL SPECIFICATION.

Improvements in Pocket Lighters.

I, ERNEST SPARKS, 89, Farm Road, Edgware, Middlesex, Englishman, do hereby declare the nature of this invention to be as follows:—

5 To facilitate the easy manipulation of a pocket lighter, I employ preferably a rectangular tube, the lower portion of which is sealed off as a container for inflammable spirit or the like, and the top portion carrying the abrasive wheel extinguishing cap and wick tube within the rectangular top, and covered with a horizontal slide.

15 Between the walls of the rectangular tube above the sealed portion I suitably arrange an abrasive wheel with a ratchet wheel attached directly or indirectly to it, also a lever or the like carrying an extinguishing cap, the wick protruding through a tube connected with the sealed chamber in the usual manner.

20 Above the abrasive wheel I arrange a slide suitably guided, and carrying a pawl or the like to engage the ratchet wheel operating in conjunction with the abrasive wheel, and also carrying a lug

or the like to engage with a suitable projection attached directly or indirectly to the lever of the extinguishing cap, the slide being cut away to permit the lever of the extinguishing cap to lift up when the slide is pressed and remain above the slide while the pressure on the slide is maintained.

A suitably arranged spring will return the slide to its normal position when the pressure is removed, so that with the exception of the portion of the slide cut away to permit the extinguishing cap to lift, and the necessary ventilation holes the operating parts of the lighter are entirely enclosed, the cap being lifted and the abrasive wheel operated simultaneously with the pressure on the slide and the cap closing automatically when the pressure is released.

If desired a gear may be arranged so that a faster movement may be imparted to the abrasive wheel, or a double pawl may be employed.

Dated the 3rd day of March, 1932.

ERNEST SPARKS.

COMPLETE SPECIFICATION.

Improvements in Pocket Lighters.

I, ERNEST SPARKS, 89, Farm Road, Edgware, Middlesex, Englishman, 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:—

55 To facilitate the easy manipulation of a pocket lighter I employ a preferably rectangular tube, the lower portion of which is sealed off as a container for inflammable spirit or the like, the top portion carrying the abrasive wheel, extinguishing cap and wick tube within the rectangular top and a horizontal slide.

60 Between the walls of the rectangular tube above the sealed portion I arrange an abrasive wheel with a ratchet wheel mounted on the same spindle, also a lever carrying a self-adjusting extinguishing

cap carried by suitable plates attached to the lever, the lever being mounted on a spindle parallel to the spindle carrying the abrasive wheel and ratchet wheel.

75 In the top portion of the rectangular tube I arrange a slide having two parallel side members and a button or projection attached thereto, the said slide carrying a pawl to engage with the ratchet wheel during its travel and a cross pin to engage with the lever carrying the extinguishing cap, so lifting same during its travel and engagement with the ratchet wheel, so that with its forward travel the wick is ignited and remains so until the pressure on the button attached to the slide is removed, when the slide is returned to its rest position by the influence of a spring attached to the spindle on which the lever carrying the extinguishing cap is

mounted, the said lever pressing against the pin attached to the slide.

The spindles take their bearings in holes arranged in the walls of the rectangular tube and are kept in position by a cover pierced at the top to permit the lever and plates attached thereto to lift when the button is pressed.

In the accompanying drawings:

10 Fig. 1 shews an elevation of the lighter when in its rest position.

15 Fig. 2 shews an elevation of the lighter in its rest position with one side of the rectangular tube A partly cut away, shewing the slide B, with pawl C, attached thereto, ratchet wheel D and abrasive wheel E, platform F sealing off the lower portion of the container, wick-tube G and flint tube H. The button I is shewn 20 attached to the slide B.

25 Fig. 3 shews a plan view of the slide B with spindle J on which the abrasive wheel E and ratchet wheel D are mounted and spindle J¹ which carries the lever M, also fixed pin K which operates the lever M.

Fig. 4 shews the cover L.

30 Fig. 5 shews the lever M, with two plates M¹ attached thereto with extinguishing cap M² loosely mounted in a countersunk hole in the lower plate M¹.

Fig. 6 shews the extinguishing cap M².

Fig. 7 shews the lighter with button pressed and lever lifted.

35 Fig. 8 shews a plan view of the lever M, with spindle J¹ attached thereto, having a spring wound round the spindle J¹ for the purpose of returning the slide to

its rest position.

40 Fig. 9 shews the slide B with button I attached thereto, the forward portion of the slide being arranged to run on top of the spindles J and J¹.

45 Holes for ventilation may be arranged as shewn at N.

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

50 (1) A pyrophoric lighter having a spring pressed lever with extinguishing cap attached thereto, pivotally mounted and operated by a button attached to a horizontal slide having two parallel side members provided with a cross-pin for 55 engaging said lever and a pawl for simultaneously operating a friction wheel for igniting the wick substantially as described.

60 (2) A pyrophoric lighter as claimed in Claim 1 in which the horizontal slide, friction wheel, wick tube and extinguishing cap are arranged within the upper end of a tube above a fuel container, and covered by a cover, a push button on 65 the slide projecting through the wall of the tube, substantially as described.

70 (3) A pyrophoric lighter as claimed in Claim 1 in which the extinguishing cap is loosely mounted in a countersunk hole in a plate on the lever, so as to be self-adjusting on the wick tube.

Dated the 6th day of April, 1933.
ERNEST SPARKS.

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

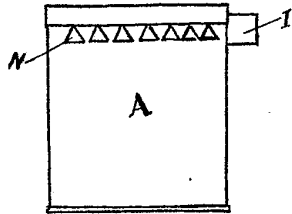


FIG. 1.

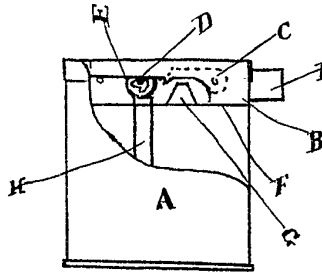


FIG. 2.

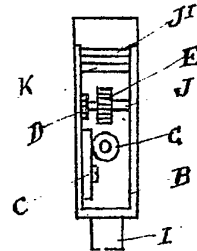


FIG. 3.

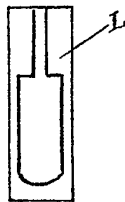


FIG. 4.

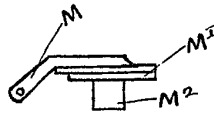


FIG. 5.

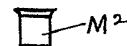


FIG. 6.

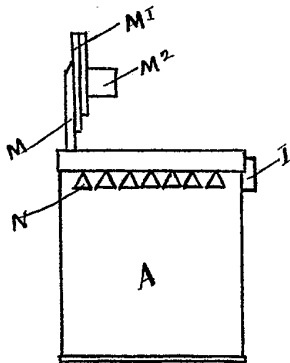


FIG. 7.

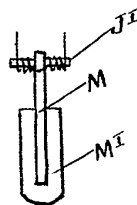


FIG. 8.



FIG. 9.