

PATENT SPECIFICATION



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COMPLETE SPECIFICATION.

Improvements in or relating to Pyrophoric Lighters.

I, GEORGES LOUIS MEYER, of 159, Boulevard Péreire, Paris, France, French citizen, 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:—

This invention relates to pyrophoric lighters of the type in which a wick is ignited by sparks from a flint urged into contact with an abrasive wheel.

Usually in such lighters the abrasive wheel is directly connected to and is rotated by the opening movement of a spring actuated hood or lid which is normally held in its closed position by a spring catch and is adapted in said closed position to seal the wick, but such lighters have the disadvantage that it is possible for the lid to be released inadvertently from its spring catch and the lid thereby opened and the wick ignited. It has also been proposed to provide a lighter of the type referred to, in which a hood adapted to seal the wick was pivotally mounted on a stirrup rotatable on the spindle of the abrasive wheel and to which was pivotally connected a roughened thumb piece adapted when it was desired to rotate the abrasive wheel to be pressed by the operator into engagement with the periphery of the said wheel.

According to the present invention, a hood or lid adapted normally to seal the wick, is directly connected to and rotatable with the abrasive wheel and is manually operable to its open position.

Preferably the arrangement is such that the hood or lid is normally maintained in its closed position by the friction between the abrasive wheel and the flint.

In order to prevent slipping of the thumb when it is desired to open the lid to produce a stream of sparks, the lid may be provided with a groove, a raised portion, a toothed or roughened portion, or any other means with which the thumb can engage.

The vertical axis of the flint carrying tube is in a manner known, per se, preferably so arranged with respect to the axis of the abrasive wheel that the stream

of sparks is directed upwardly, thus permitting the raising of the wick of the lighter to a point above the lowermost or engaging point of the abrasive wheel, whilst at the same time permitting the wick to be very near to the source of the sparks.

In the accompanying drawing, which illustrates the invention:

Figure 1 is a longitudinal sectional elevation. Figure 2 is a side elevation thereof, the lid being open, and Figure 3 is a section on the line A—B, see Figure 1. Figure 4 shows in elevation a modification of the lid.

Referring more particularly to Figures 1 to 3, 1 is the lid of the lighter and 2 is an abrasive wheel to which the lid is secured by means of a pin 3 and 4 is a pin on which the lid 1 and wheel 2 are freely mounted, the pin 4 being carried by posts 5 which are rigidly connected to a flint carrying tube 6, secured to the body 7 of the lighter. 8 is a flint pressed in the usual manner against the abrasive wheel 2 by a spring 9. 10¹ is a curved portion of a projection 10 formed on the lid 1 and in operation when the lid is opened quickly by pressure of the thumb on the portion 10¹, a stream of sparks 11 is produced which ignites a wick 12. It will be seen that the axis of the flint carrying tube 6 is displaced with respect to the axis of the abrasive wheel 2 thus causing the stream of sparks 11 to be directed from below in an upward direction, thereby enabling the wick 12 to be placed well above the lowermost or engaging point of the abrasive wheel 2.

In a modification shown in Figure 4, the smooth projection 10 of the lid is replaced by a toothed or otherwise roughened projection 13 in order to prevent the thumb from slipping when it is desired to open the lid.

It will be seen that the lid 1 is normally maintained in its closed position by the friction between the wheel 2 and the flint 8.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is

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to be performed, I declare that what I claim is:—

- 5 1. A lighter of the type referred to in which a hood or lid, adapted normally to seal the wick, is directly connected to and rotatable with the abrasive wheel and is manually operable to its open position.
- 10 2. A lighter as claimed in Claim 1, so arranged that the hood or lid is normally maintained in its closed position by the friction between the abrasive wheel and the flint.
- 15 3. A lighter as claimed in Claim 1 or 2, in which the hood or lid is connected to the abrasive wheel by a transverse pin.
4. A lighter as claimed in Claims 1 to 3, in which the hood or lid is so arranged as to provide a thumb grip.
- 20 5. A lighter as claimed in Claim 4, in which that portion of the hood or lid situated above the axis of rotation of the wheel is provided with a toothed or roughened surface.
6. A lighter as claimed in Claim 4, in which the thumb grip comprises a projection formed on or carried by the hood or lid.
7. A lighter as claimed in any of the preceding claims in which the contacting portion of the flint is oblique whereby the stream of sparks is directed upwardly towards the wick.
8. A lighter as claimed in Claim 7, in which the axis of the flint is so displaced relatively to a line parallel with the said axis and passing through the axis of rotation of the abrasive wheel so as to produce a stream of sparks directed upwardly towards the wick.
9. A lighter substantially as described with reference to the accompanying drawings.

Dated the 1st day of September, 1927.
 CARPMAELS & RANSFORD,
 Agents for Applicant,
 24, Southampton Buildings, London,
 W.C. 2.

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

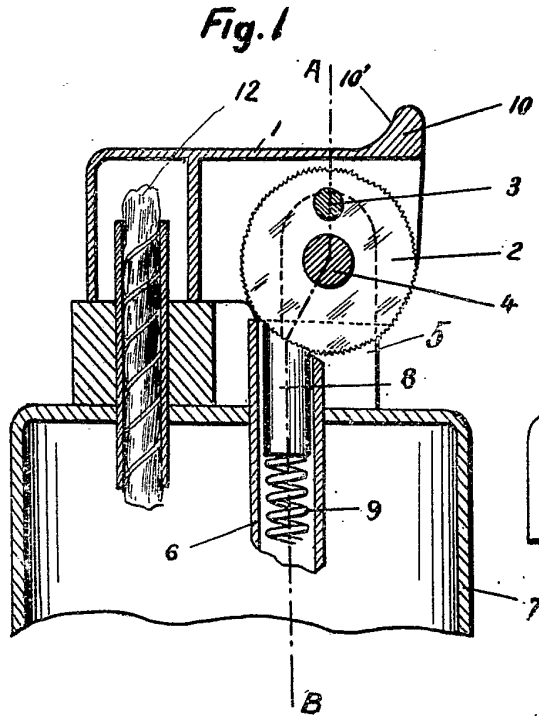


Fig. 4

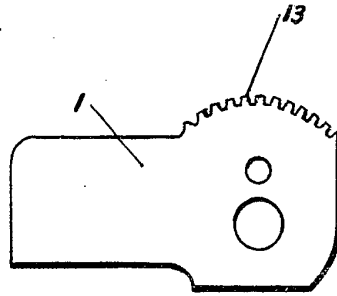


Fig. 3

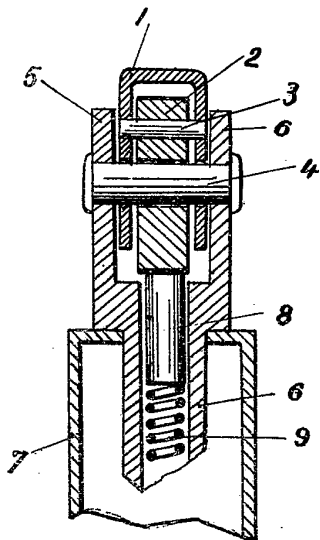


Fig. 2

