

PATENT SPECIFICATION

302,843

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COMPLETE SPECIFICATION.



Improvements in and relating to Pyrophoric Pocket Lighters.

I, JANVIER QUERCLA, Manufacturer, a French citizen, of 176, rue Saint-Martin, Paris, France, 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 pocket lighters of the type in which the automatic ignition is effected from the cover for the wick, which rises under the action of a spring when a pivoted hook is manipulated, which hook holds the cover closed when the pyrophoric lighter is not being used.

The invention has for its object to construct a pyrophoric lighter of the type described so that it includes various improved features.

According to the primary feature of the invention the closing hook is adapted to be manipulated or operated by means of a head or button integral with a screw the lower extremity of which may butt against the casing when screwed through an arm in connection with the hook so as to render its oscillation impossible, thus locking the pyrophoric lighter and preventing its unintentional opening, for instance in the pocket, and obviating the drawbacks which would result such as burning of the clothes or evaporation of the fuel.

According to a secondary feature of the invention the device is provided with a gallery or rim for protecting the flame, which gallery or rim may in some cases be combined with the support for the pivot of the wick cover, which is itself integral with or fixed to a cover adapted to come over the rim or gallery.

According to a further feature the wick holder is screwed into position so that it can be easily removed for facilitating the changing of the wick.

The accompanying drawing shows by way of example a construction of a pyrophoric lighter according to the invention.

Fig. 1 is an elevation of the device with the lighter closed and locked, and with parts in vertical section.

Fig. 2 is an elevation of the lighter open.

[Price 1/-]

As will be seen from the drawing, the upper portion of the body of the lighter is provided with an open gallery 2 or rim which is extended at the back into two cheeks 3 in which is mounted the pivotal axis 4 of the wick cover 5. This latter is in the present case integral with the cover 6 which is adapted to come down upon the gallery or rim and which when rising under the action of a spring 7 operates in a well known manner the rotation of the striker 8, causing the spark to fly.

The cover 6 is engaged at the front, in the closed position, by the point of a hook 9 carried by a rod 10, which, in a known manner, is hinged at 12 and subject to the stress of a spring 13, which, in the rest position gives it a certain inclination for hooking purposes.

According to the present invention, the enlarged end of this rod which as a general rule serves to operate or control the oscillation is replaced by an arm 14 having associated therewith an enlarged end furnished with an inner screw thread through which screws a screw threaded rod furnished with a milled head 15. When the rod is screwed down, which is done when the lighter is closed, the extremity of the screw butts in the bottom of a small cup-like recess 16 provided in the body 1, all oscillation of the lever is thus prevented and as a consequence the cover is locked. To make use of the lighter again, it is sufficient partially to unscrew the screw 15, the total withdrawal of the said screw being preferably prevented by any suitable means for instance by roughening the lower threads. After this loosening pressure is applied to the head so as to cause the hook to oscillate or swing over. The cover 6 then springs up automatically and the spark is projected on to the wick which it ignites.

The wick is carried in a wick holder 30, provided with a screw threaded lower portion for screwing it into the body of the lighter. The wick tube is provided with two cross slots 31, which facilitates ignition and allows for the introduction of a screw driver for unscrewing the

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holder when it is desired to change the wick.

The adjustment of the pyrophoric stone is effected in a known manner without removing any parts, by means of a screw with a manipulating head or button which only appears on the exterior and does not move in an axial direction. This button is in rigid connection with a plug or rod 21 split at 22 and fitting resiliently into the wall of its housing which prevents it falling out. One of the slots 22 may have slidable therein a pin 23 attached to the screw proper 24 which pushes in the well known manner a spring 25 against the underside of the stone 26, or the pin 23 might be replaced by a cross piece passing through the screw and entering the two slots 22. It will be easily seen that by rotating the button without any axial movement, the screw is rotated in the inner screw threads 27 of the tubular guide 28—whence the regulation or adjustment of the stone.

It will be understood that the constructional details of the present improvements may be varied without departing from the principles or characteristic features of the invention. For instance the closing means might be modified in order to enable leaf or blade springs to be employed.

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

1. In a pyrophoric pocket lighter of the type described, a construction in which the hook for retaining the cover in the closed position has co-operating therewith a screw adapted to be screwed down against some fixed portion of the casing and when so screwed down to hold

the hook with the cover in the closed and locked position. 45

2. In a pyrophoric pocket lighter of the type described and as claimed in Claim 1, a construction in which the hook is carried by one arm of a bent lever the other arm of which carries a perforated head screw threaded on the inside and having a screw threaded rod adapted to screw therethrough and operable by means of a head, such rod being adapted to come into contact with a suitable portion, for instance a cup-like portion of the casing for the purposes set forth. 50 55

3. In a pyrophoric pocket lighter of the type described and as claimed in Claim 1, a construction in which a gallery or rim is provided for protecting the flame which gallery or rim may be integral with the support for the hinge of the cover for the wick, preferably with a principal cover for covering the said gallery or rim which may be integral with the cap or cover for the wick. 60 65

4. In a pyrophoric pocket lighter of the type described and as claimed in Claim 1, a construction including a wick holder adapted to be screwed into the casing and having slots in the wick tube or the like, allowing for the insertion of a screw driver or equivalent tool for loosening or screwing up the same, substantially as described. 70 75

5. A pyrophoric pocket lighter constructed, arranged and operating substantially as herein described and shown on the accompanying drawing for the purposes set forth. 80

Dated this 16th day of March, 1928.

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

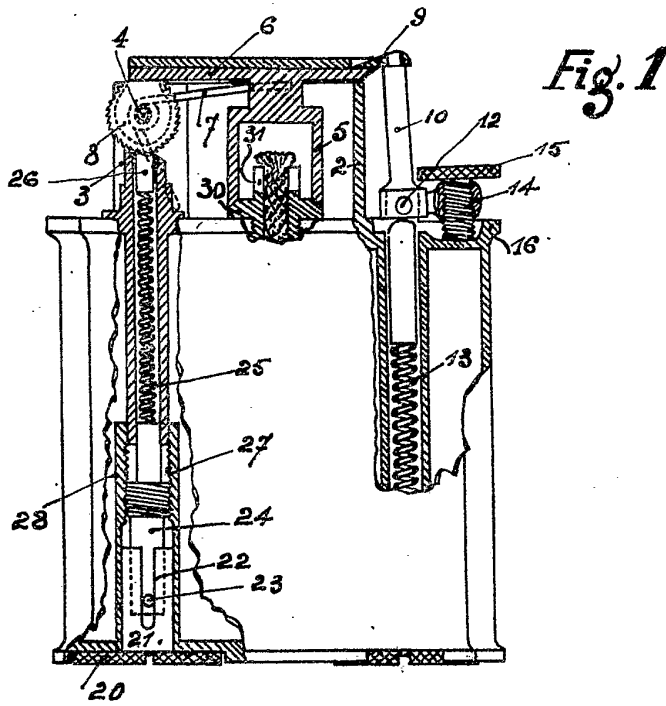


Fig. 1

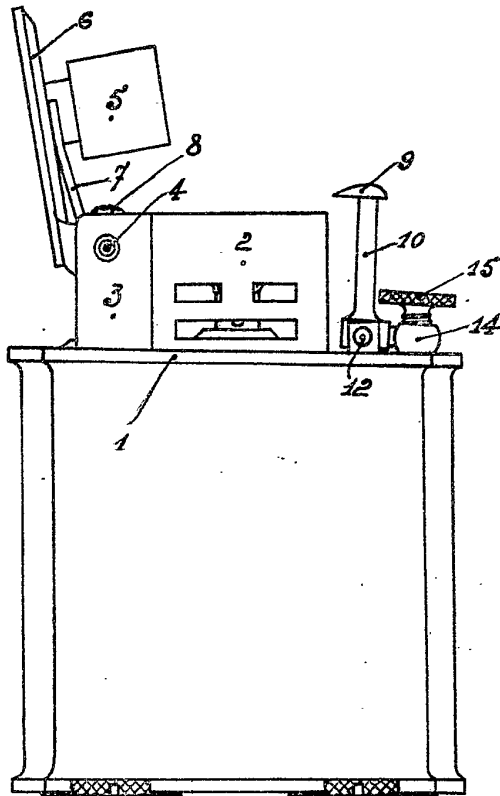


Fig. 2