

VOID : SEALING FEE NOT PAID.

122,718

PATENT



SPECIFICATION

*Application Date, Feb. 12, 1918. No. 2511/18.*

*Complete Left, Sept. 12, 1918.*

*Complete Accepted, Feb. 6, 1919.*

PROVISIONAL SPECIFICATION.

**Improvements in and relating to Pocket Lighters.**

I, JOHN ELDRED TAYLOR, of 296—302, High Holborn, in the County of London, Merchant, do hereby declare the nature of this invention to be as follows:—

This invention relates to lighters of the kind employing platinum which is rendered incandescent when placed in an atmosphere of hydro-carbon gas or vapour, and has for its object improvements whereby a simple, durable and efficient pocket lighter is obtained. These improvements consist in providing a chamber containing an absorbent material adapted to be saturated with alcohol or other volatile hydro-carbon fluid, and a holder provided with platinum, or other like substances preferably in the form of wire or the like and adapted to be retained when not in use in a suitable casing.

According to one construction I provide a tubular body of cylindrical, elliptical or other suitable cross section with a partition situated transversely between its extremities so as to form a chamber at one end to contain the hydro-carbon and a socket at the other to contain the holder. The walls of the aforesaid chamber may be lined with fabric such as a tubular or other wick into which the platinum held in the holder may be inserted when it is desired to obtain a light.

The holder comprises a plug or cap adapted to fit the socket at the opposite end of the tubular body and is provided with a central stem which is bent round so as to form at its extremity a hollow cage within which one or more pieces of fine platinum wire are arranged. Preferably the cage consists of three or more longitudinal wires. It will be understood that the cage around the platinum or other wires protects the same from injury and keeps them out of contact with the walls of the chamber.

The chamber at the other end is also provided with a hinged or other cap or plug. In order to obtain a light the holder is withdrawn from its socket and inserted into the chamber at the other end which is filled with hydro-carbon vapour. The action of the vapour on the platinum causes it to become incandescent as is well-known and on the withdrawal of the holder the vapour is ignited.

In some cases the hydro-carbon chamber may be separate from or connected by a link to the socket which contains the holder.

Dated this 12th day of February, 1918.

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Chartered Patent Agent,  
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Agent for the Applicant.

[Price 6d.]



## COMPLETE SPECIFICATION.

## Improvements in and relating to Pocket Lighters.

I, JOHN ELDRED TAYLOR, of 296—302, High Holborn, in the County of London, Merchant, 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 lighters of the kind in which a catalytic igniter is held in a socket formed at one end of a cylindrical part having a hydro-carbon chamber at the other and has for its object to provide an efficient pocket lighter of simple and durable construction in which the ignition material is enclosed in a protecting cage that permits the free access of the hydro-carbon vapour.

The improved lighter comprises a tubular body of cylindrical, elliptical or other suitable cross section with a partition situated transversely between its extremities so as to form a chamber at one end to contain the hydro-carbon and a socket at the other to contain the holder. The walls of the aforesaid chamber may be lined with fabric such as a tubular or other wick into which the platinum held in the holder may be inserted when it is desired to obtain a light.

The holder comprises a plug or cap adapted to fit the socket at the opposite end of the tubular body and is provided with a central stem which is bent round so as to form at its extremity a hollow cage within which one or more pieces of fine platinum wire are arranged. To form this cage the stem is bent so as to form three or more longitudinal bars. It will be understood that the cage around the platinum protects the same from injury and keeps it out of contact with the walls of the chamber.

The chamber at the other end is provided with a cap hinged thereto so as to limit the separable parts to two—one of which can be held in each hand. In order to obtain a light the holder is withdrawn from its socket and inserted into the chamber at the other end which is filled with hydro-carbon vapour. The action of the vapour on the platinum causes it to become incandescent as is well-known and on the withdrawal of the holder the vapour is ignited.

In some cases the hydro-carbon chamber may be separate from or connected by a link to the socket which contains the holder.

I will now proceed to more particularly describe my invention with the aid of the accompanying drawings in which:—

Fig. 1 is a longitudinal section through the improved pocket lighter.

Fig. 2 is a transverse section on the line A—B in Fig. 1, and

Fig. 3 illustrates a modified construction in elevation.

According to the construction illustrated by Fig. 1 I provide a tubular body *a* of cylindrical form having a partition *b* situated transversely between its extremities so as to form a chamber *c* at one end, the inner walls of which chamber are lined with absorbent material *d*, such as a tubular or other wick, which is adapted to be saturated with alcohol or other volatile hydro-carbon fluid. The chamber *c* is provided with a hinged cap *e* adapted to close said chamber and so prevent the evaporation of its volatile contents.

At the other end of the tubular body a socket *f* is formed within which the holder *g* is normally held. This holder consists of a plug *h* adapted to fit the socket *f*, a ring *i* or other equivalent part by which it may be held, and a cage *j* within which one or more platinum wires *k* are stretched. Preferably spongy platinum should be used.

The cage *j* may be formed of a single piece of wire extending from the

stopper *h* which is bent in such a manner as to form a cage as is shown in Figs. 1 and 2 of the drawings.

According to the modification illustrated in Fig. 3 of the drawings the chamber *c* is separate from the socket *f* but connected thereto by means of the rings, *l*, *m*.

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:—

1. An improved pocket lighter of the kind consisting of a chamber supplied with hydro-carbon vapour and a socket containing an igniter comprising one or more pieces of platinum said igniter being characterised by a plug having an inwardly extending stem formed into a cage having three or more longitudinal bars within which the platinum is held, so as to be heated by the hydro-carbon vapour when inserted into said chamber and to light such vapour at the mouth of said chamber where it makes contact with the air when the holder is withdrawn, substantially as described in the specification.

2. An improved pocket lighter according to Claim 1 comprising a tubular body having a transverse partition so as to form a chamber at one end, an absorbent lining within said chamber adapted to be saturated by a volatile hydro-carbon, a cap hinged to said chamber to retain said vapour, and a holder comprising a stopper adapted to be inserted into a socket formed at the other end of the tubular body and having an inwardly extending cage adapted to hold one or more pieces of platinum substantially as and for the purpose set forth in the specification.

3. A modified form of pocket lighter according to the preceding claims characterised by the hydro-carbon chamber being separate from the holder socket but connected therewith by links substantially as described in the specification.

4. The combination and arrangement of parts constituting an improved pocket lighter substantially as described in the specification and shown in the drawings.

Dated this 12th day of September, 1918:

EDGAR A. GODDIN,  
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61 & 62, Chancery Lane, London, W.C. 2,  
Agent for the Applicant.

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

FIG. 1.

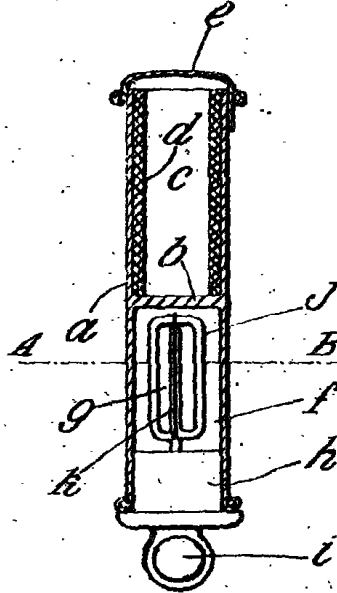


FIG. 2.



FIG. 3.

