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PATENT SPECIFICATION



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COMPLETE SPECIFICATION.

Pocket Lighter.

I, MARTHA OTT, née Käser, of No. 22, Durlacherstrasse, Pforzheim, Germany, of German Nationality, 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 a pocket lighter of the kind in which the benzine vapours are ignited by means of sparks produced by a friction wheel from a cerium stone.

The known pocket lighters with friction wheel ignition are open to the objection that the voluminous lighter case and particularly the wick cap, swung up in proximity to the burning wick, and finally the friction wheel are in the way when using the lighter for lighting pipes. It also often happens that, when employing the known friction wheel lighters for lighting pipes, tobacco fibres get into the friction wheel mechanism and thus soil the friction wheel, which becomes sooted and useless for spark production. The invention first solves the problem of preserving the igniting property of the friction wheel by removing it from the flame as soon as possible after the ignition of the wick, in order to protect the wheel not only from tobacco ash and from soot, but also from the tobacco and the flame. Finally, it is possible according to the invention to easily reach the aperture of the pipe bowl, so that the flame can be brought as near as possible to the tobacco.

This objection is overcome according to the invention in that the benzine container carrying the wick is pivotally mounted in a case which carries the friction wheel ignition device.

An embodiment of the invention is illustrated in the accompanying drawing in which:—

Fig. 1 is a central longitudinal section of the lighter in closed condition with the wick cap, flap and part of the carrier in elevation.

Fig. 2 is a rear elevation of the lighter in closed condition.

Fig. 3 shows in side elevation the lighter in open condition.

Fig. 4 is a front elevation of Fig. 3.

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Fig. 5 is a top plan view of Fig. 3.

The lighter consists substantially of an outer sleeve *a* which forms a case for a benzine container *b* pivoted therein, from which container a wick tube *d* accommodating a wick *c* projects and is fixed on an inclined wall *e* thereof. In the case *a* an ignition stone guide tube *f* is fixed over which a friction wheel *g* is arranged. On the axle *h* of this wheel a wick cap carrier *i* is oscillatably mounted and acted upon by a spring *k* in such a manner that it always tends to jump into the open position shown in Figs. 3 to 5. A wick cap *m* is movably suspended in small slots *o* by means of a yoke *n* and acted upon by a spring *p* in such a manner that in closed position it always bears against the inclined wall *e* of the benzine container with a certain packing pressure so that evaporation of the benzine is effectively prevented.

In closed position the wick cap carrier *i* engages by means of a flap *q* over the benzine container *b* in such a manner that the container, although it always tends to swing into the position shown in Figs. 3 to 5 under the action of a spring *r*, is maintained in closed position in the case *a* (Fig. 1).

The wick cap carrier *i* is locked in the closed position with the aid of a two-armed lever *s* which is held in the position indicated in Fig. 1 by the spring *k*, upon pressure being exerted on a projection *t* the wick cap carrier *i* is released owing to the lever *s* being rocked into the position shown in Fig. 3. The carrier performs approximately a quarter of a revolution during which it rotates the friction wheel, thereby producing sparks which ignite the benzine vapours. However, owing to the oscillation of the wick cap carrier *i*, the benzine container *b* becomes free and upon the removal of the finger previously surrounding the lighter the container *b* swings more or less out of the case *a* so that it is much easier for use for lighting purposes than in the known lighters. The lighter according to the invention is particularly suitable for lighting pipes.

In strong wind the container *b* can also

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be kept in the case *a* when this latter will form an efficient wind shield.

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.—A pocket lighter of the kind described, characterized in that the benzine container (*b*) carrying the wick (*c*) is pivoted in a case *a* which carries the ignition device.

2.—A pocket lighter as claimed in claim 1 with a wick cap carrier pivoted on the case, characterized in that the benzine container (*b*) is held normally in the case (*a*) by means of a flap (*g*) on the wick cap carrier (*h*).

3.—A pocket lighter as claimed in claims 1 and 2, characterized in that the benzine container (*b*) is acted upon by a spring (*r*) which tends to swing the container out of the case (*a*).

4.—A pocket lighter as claimed in claims 1 to 3, characterized in that the wall (*e*) of the benzine container (*b*) carrying the wick tube (*d*) is downwardly

inclined towards the middle of the case (*a*).

5.—A pocket lighter as claimed in claims 1 to 4, characterized in that the wick cap carrier mounted on an axle (*h*) with the friction wheel (*g*) and rotating therewith during the opening of the lighter is held in closed position by means of a two-armed lever (*s*) but upon this lever being rocked springs into its open position under the action of a spring (*k*) thereby rotating the axle (*h*) with the friction wheel (*g*) and producing ignition sparks.

6.—A pocket lighter as claimed in claims 1 to 5, characterized in that the wick cap (*m*) is suspended in two slots (*o*) in the wick cap carrier (*i*) by means of a yoke (*n*) and acted upon by a spring (*p*) in such a manner that it tightly encloses the wick (*c*).

Dated this 11th day of November, 1932.
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Agent for Applicant,
181, Queen Victoria Street, London,
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[This Drawing is a reproduction of the Original on a reduced scale.]

