

PATENT SPECIFICATION

Convention Date (Austria): Feb. 7, 1935.

454,828

Application Date (in United Kingdom): Feb. 7, 1936. No. 3766/36.

Complete Specification Accepted: Oct. 8, 1936.



COMPLETE SPECIFICATION

Pocket Lighter with Friction Wheel

I, JOSEF EDENBURG, formerly of No. 10/5, Dampfgasse, Vienna X, and now of No. 22, Kärchergasse, Vienna III, Austria, of Austrian 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:—

10 Pocket lighters with friction wheel are known which are constructed so that the wick is lighted by merely pulling out the wick carrier from the casing of the pocket lighter. These constructions possess 15 defects which prevented general adoption of the pocket lighters of this type. In most of the pocket lighters of this type the lighting of the wick had to be effected by rapid pulling out of a rod-shaped wick carrier, with the result that 20 the sparks are produced too late to encounter the wick or that, the wick having been accidentally lighted, it will be extinguished by the draft due to the jerk-like rapid movement of the wick carrier. 25 The connection from the rod-shaped wick carrier to the friction wheel is effected by a rack or lever such mechanisms possessing so many inconveniences that these 30 pocket lighters in which the wick is automatically lighted by the pulling out of the wick carrier could not find favour with the public. The wick carrier is generally of rod-shape and the wick has 35 first to dip into a benzine reservoir to suck in the necessary quantity of benzine, the flame of this wick being only of short duration for this reason.

To obviate these inconveniences it has 40 been proposed to construct the wick carrier itself as benzine reservoir.

The invention relates to a pocket lighter in which the wick is securely 45 lighted by pulling out the benzine reservoir. The pulling out can be done very slowly and it does not require special force so that it cannot happen that the wick which has just been lighted is 50 extinguished again by draft. The flame is extinguished if the benzine reservoir is pushed back into the casing of the pocket lighter and the latter is ready for the next operation. This result is

attained by the special construction which is illustrated in the accompanying drawing in which:— 55

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

Fig. 2 is a section at right angles to the section shown in Fig. 1. 60

Fig. 3 shows on the left the cam disc in vertical section and on the right a part sectional view of the ratchet coupling.

The pocket lighter consists of an outer 65 casing 1, a sheet metal piece 2 serving as carrier for the lighting mechanism, and a benzine reservoir and wick carrier 13. The sheet metal piece 2 is pushed 70 from below into the open lower end of casing 1 and secured in position by screws or pins. In this sheet metal piece 2 a transverse bolt 3 is fixed on which a friction wheel 15 and a cam disc 5 connected 75 with pawl plate 4 are rotatably mounted. The pawl plate 4 co-operates with ratchet teeth on the side of the friction wheel 15. Disc 5 has a projecting cam 6 and 80 a milled out slot 11. On a transverse bolt 8 in slot 11 a lever with hook 7 at its upper end is pivotally mounted. On 85 a second transverse bolt 10 mounted in slot 11 the lower end of a spiral spring 9 is attached, the upper end of this spring being attached to a transverse bolt 12 90 fixed in the sheet metal piece 2. The right hand side wall of the benzine reservoir 13 adapted to be inserted from below into the casing 1, is bent inward at 14 95 so that at the upper end of the reservoir a projection is formed adapted to act upon the lever with hook 7 at its upper end so that the lever is pushed back during the inserting of the reservoir and 100 rotates the cam disc 5, whereby spring 9 is stretched as the bolt 10, to which the lower end of the spring is attached is so arranged that by the rotation of cam disc 5 this bolt 10 is turned so far beyond the 105 dead centre (which is determined by the arrangement of the suspension points of spring 9 relative to the bolt 3 around which the disc 5 rotates) that the disc 5 cannot be rotated back by the action of spring 9 unless an impulse is exerted upon it.

[Price 1/-]

If the benzine reservoir 13 is pulled out of casing 1, the projection at its upper end strikes against the cam 6 and a slight rotating movement is imparted to disc 5 which is sufficient to push back bolt 10 with the lower end of spring 9 to the other side of the dead centre, so that the spring 9 is released and rapidly rotates the friction wheel 15 through pawl plate 4. The friction wheel rubs against a cerium stone (not shown) and sparks are produced which light the wick projecting from the benzine reservoir. The arrangement of the friction wheel 15 relative to the cerium stone is as usual. Very little force is required to actuate the igniting mechanism. The sheet metal piece 2 may be pivotally mounted on a transverse axle 16 so that it can be oscillated through an aperture (not shown) in the corresponding side wall of casing 1. The benzine reservoir 13 is filled with cotton wool and carries a wick.

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 with friction wheel of the type in which the wick is automatically lighted when the fuel reservoir is pulled out of the casing, characterized in that a cam disc (5) connected with a pawl plate (4) for the fric-

tion wheel (15) carries two transverse bolts (8, 10) one of these bolts (bolt 10) being connected by a pull spring (9) to a bolt (12) mounted in a shaped metal piece (2) inserted in the casing (1) whereas the other bolt (8) carries a lever having a hook (7) at its upper end, the hook on this lever resting upon the fuel reservoir (13), the spring (9) being normally held stressed independently of the lever (7) by the fact that the bolt (10) is located beyond the dead centre.

2.—A pocket lighter as claimed in claim 1, characterized in that the benzine reservoir (13) filled with cotton wool and carrying a wick has an indenture (14) on a side wall designed to accommodate the cam (6) of disc (5).

3.—A pocket lighter as claimed in claims 1 and 2, characterized in that the shaped sheet metal piece (2), which carries the whole lighting mechanism, can be oscillated in lateral direction around a bolt (16) through an aperture in the adjacent side wall of the casing (1).

Dated this 5th day of February, 1936.

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

FIG. 1

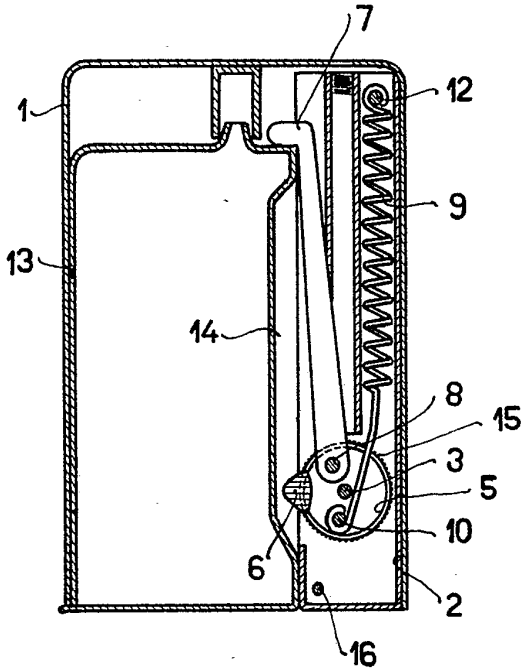


FIG. 2

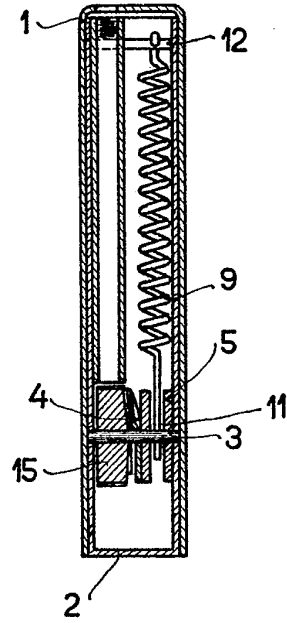


FIG. 3

