

RESERVE COPY
PATENT SPECIFICATION

408,916

Convention Date (Switzerland): April 11, 1933.

Application Date (in United Kingdom): Dec. 18, 1933. No. 35,557/33.

Complete Accepted: April 19, 1934.

COMPLETE SPECIFICATION.



Improvements in Pyrophoric Lighters.

We, HERMANN THORENS SOCIÉTÉ ANONYME, a body corporate of Switzerland, of Sainte-Croix, Vaud, Switzerland, 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:—

The present invention relates to pyrophoric lighters of the type comprising a spring actuated cover, which, when being opened, actuates the friction wheel for igniting the wick.

There are known such lighters in which actuation of the friction wheel is effected by means of a traction member constituted by a spring pressed pawl pivotally carried by the spring actuated cover and having a hook-shaped end disposed adjacent to one face of the friction wheel to successively engage with equidistant pins carried by the face of the wheel.

According to the present invention the traction member is constituted by two laterally spaced spring pressed pawls rigidly connected to each other and having their hook-shaped ends disposed on opposite sides of the friction wheel to engage successively with equidistant pins carried by both faces of the friction wheel.

The accompanying drawings represent, by way of example, one form of embodiment of the subject of the present invention.

Fig. 1 is a view in elevation with part of the casing broken away, and Fig. 2 is a plan view of the lighter with the cover in section. Fig. 3 is a perspective view of the traction member for the friction wheel.

The represented lighter, of round shape, is provided with a casing 1 forming a receptacle for the petrol, wherefrom emerges a sleeve 2 containing a wick 3; opposite this latter, there is rotatably mounted on the casing a friction wheel 4 against which bears a ferro-cerium stone 5, capable of sliding in a sleeve 6. A cover 7 is rotatably mounted on the casing of the lighter at 8 and subjected to the action of a coiled spring 9, a branch 10 of which acts on the cover and constantly tends to open it, while the other

[Price 1/-]

branch 11 acts on the ferro-cerium stone and applies it against the friction wheel. Two pawls 12 are capable of turning about the axis 13 carried by the cover and are interconnected by means of a cross piece 14. A coiled spring 15 is wound about the axis 13 and one end 19 of this spring acts on the cross piece 14, so as to tend to move the pawls in the direction of the arrow *f* in Fig. 1; the pawls 12 end in two hooks 16 which are disposed on opposite sides of the friction wheel and which cooperate each with three equidistant pins 17 provided on both faces of the friction wheel.

By acting on the button 18, the cover is disengaged and, under the action of the spring 9, takes the position shown in Fig. 1; the two hooks 16 engage each with a pin 17, act by traction on these latter and make the friction wheel turn rapidly; sparks are produced between the friction wheel and the stone 5 and light the wick. In order to extinguish the flame, the cover will be closed by hand; the hooks 16 then abut with their contour 16a against the axis of the friction wheel and the pin 17 situated beneath that which they have pulled, the hooks are lowered beneath this pin and by fully closing the cover they pass beyond the pin and owing to the action of the spring 15 engage behind the pin.

It is to be understood that the invention is not limited to the form of embodiment represented in the drawing; particularly the case could have a different shape.

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

1. A pyrophoric lighter of the type comprising friction wheel coating with a pyrophoric element to throw sparks on an ignitable wick upon being rotated, rotation of the friction wheel being effected by a traction member engageable with the wheel and pivotally carried by the spring actuated cover of the lighter casing, characterized by the feature that the traction member is constituted by two laterally spaced spring pressed pawls

55
60
65
70
75
80
85
90
95
100
105

rigidly connected to each other and having their hook shaped ends disposed on opposite sides of the friction wheel to engage successively with equidistant pins carried by both faces of the friction wheel.

5 2. A pyrophoric lighter as claimed in Claim 1, characterized in that the two pawls are interconnected by means of a

cross piece on which acts one of the ends of a coiled spring mounted on the axis of rotation of the pawls. 10

3. The improved pyrophoric lighter substantially as described and as illustrated in the accompanying drawings.

Dated this 18th day of December, 1933.

MARKS & CLERK.

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

