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J. QUERCIA

POCKET OR PYROPHORIC LIGHTER

Filed May 2, 1927

Fig. 1

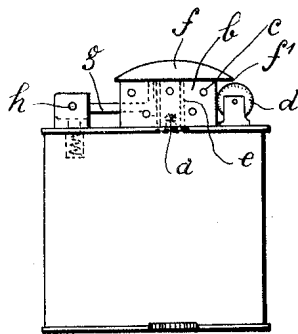


Fig. 2

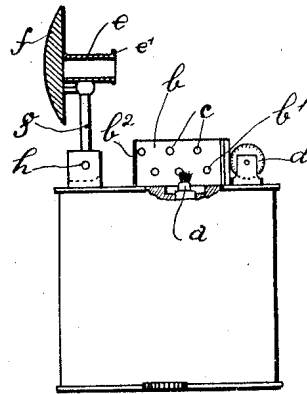


Fig. 3

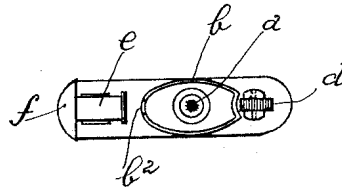


Fig. 4

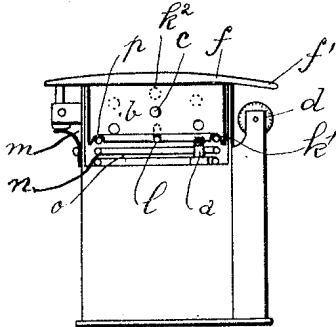
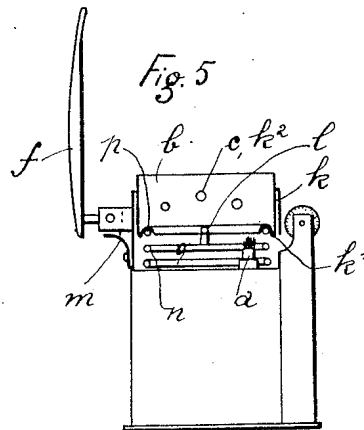


Fig. 5



Inventor,  
James Quercia  
By *[Signature]* atty

## UNITED STATES PATENT OFFICE.

JANVIER QUERCIA, OF PARIS, FRANCE.

POCKET OR PYROPHORIC LIGHTER.

Application filed May 2, 1927, Serial No. 188,331, and in France October 5, 1926.

My invention relates to a pocket or pyrophoric lighter which may be manipulated with one hand only and which is substantially characterized by the fact that it comprises a heading piece acting as a wind shield which allows of the device being used in all places against the wind. The lighter according to the present invention is also provided with a device designed to seal hermetically the case when closed either by operating as a valve to cover positively the holes in the heading piece or, according to a different mode of execution by hermetically surrounding the wick holder in the manner of a cap.

In the accompanying drawing which illustrates by way of example both constructional arrangements.

Fig. 1 shows the lighter in its closed position.

Fig. 2 is a part sectional view of the lighter when opened.

Fig. 3 is a corresponding plan view of same.

Figs. 4 and 5 are sectional views of a second mode of construction showing the pocket lighter in both positions.

In the drawings and referring first to the construction shown in Figs. 1 to 3, the pocket or pyrophoric lighter comprises at its upper part a heading piece *b* of suitable height made of thin sheet metal. This heading piece is for example egg-shaped and surrounds the wick holder, it is provided with air holes *c* and on the side nearer the striker *d* with an opening *b*<sup>1</sup> for the passage of the spark. The hermetical closing of the pocket lighter is obtained by means of a small tube *e* provided at its lower end with a collar *e*<sup>1</sup> which is normally applied upon the wick holder and is closed by a disc *f* of suitable dimensions to cover also the heading piece, the disc *f* is provided in front with an edge *f*<sup>1</sup> which may be lifted by the thumb of the hand holding the lighter; the device consisting of the tube *e* and the cap *f* is made in one with a lever *g* pivoted in the usual way upon a spindle *h* and acted upon by a spring piston. A slit *b*<sup>2</sup> formed at the back of the heading piece *b* allows the movement of the arm *g*.

In the mode of construction shown in Figs. 4 and 5 in which the striker *d* is placed on one side, the case *k* of the lighter carries at a suitable point an opening *k*<sup>1</sup> to allow the passage of the spark said opening being closed

when the lighter is closed by the heading piece *b* which in the present case is placed inside and is of the same shape as the tube *k* in which it may slide with a slight friction, a lug *l* serving as guide. The heading piece *b* and the tube *k* are provided with similar holes *c* and *k*<sup>2</sup> arranged on the same vertical plane, they are all covered over when the lighter is closed by the cover *f* which is kept in its position by a strong lateral spring *m*, the heading piece being then in its lower position. A spring *n* placed inside between the plate *o* of the lighter and a groove *p* suitably formed at the lower part of the heading piece causes the sudden upward movement of the latter when the cover *f* is lifted. When the spring *n* is slack, the heading piece being in its highest position, its perforations *c* correspond with the perforations *k*<sup>2</sup> of the case and the opening *k*<sup>1</sup> is free. The pocket lighter may then be ignited without any risk of being blown out, however strong the wind may be.

Having now described my invention, I declare that what I claim and desire to secure by Letters Patent of the United States is:

1. A pyrophoric pocket lighter, having a wick, a perforated depressible gallery surrounding the wick and a pyrophoric wheel for lighting the wick, in combination with a spring-urged, pivoted arm, a disc secured to said arm and forming the cover of the gallery, and a snuffer tube secured to the underside of the disc, said disc depressing the gallery when closing thereon and projecting beyond the gallery to form a thumb-engaging edge for raising the disc by the thumb of the hand in which the lighter is held.

2. A pyrophoric lighter having a wick, a perforated, depressible gallery surrounding the wick, a pyrophoric wheel for lighting the wick, and a case; in combination with an extension of the case surrounding the gallery and having perforations that register with the perforations of the gallery when the latter is extended, a disc, a spring hinge therefor, said disc engaging the gallery to depress and cover it, and projecting beyond the gallery and extension to form a thumb-engaging edge to raise the disc by the thumb of the hand in which the lighter is held.

In testimony that I claim the foregoing as my invention, I have signed my name.

JANVIER QUERCIA.