PATENT SPECIFICATION

Application Date: Nov. 19, 1931. No. 12,739/31. 372,932

Complete Accepted: May 19, 1932.

COMPLETE SPECIFICATION.

Improvements relating to Automatic Lighters.

I, ALEXANDER LIBIN, a British Subject, of 58, Vittoria Street, in the City of Birmingham, 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 automatic lighters and comprises an improved lighter of the type in which a wick saturated with inflammable liquid is ignited by the rotation of an abrasive against a piece of pyrophoric material when the wick is uncovered by a hinged and spring controlled cover piece which is normally retained in a closed position by a locking slide adapted to be manually actuated against the action of a spring in order to release the cover piece.

In a lighter of this type, wherein the cover piece is secured to the abrader, it has been proposed to provide the free end of the cover piece with a projection which is engageable by the slide.

In another lighter of the type specified, wherein the cover piece is hingedly connected to the abrader, it has been proposed to prevent unintentional actuation and ignition by forming the slide as an axially movable bolt mounted transversely in a bearing frame and provided with an actuating head in the form of a nut which is adjustably arranged on a screw threaded portion of the bolt and is capable of being tightened against the bearing frame to prevent axial movement of the bolt.

According to the present invention the slide is adapted to engage a gapped claw on the adjacent end of the cover piece and is formed with a screw threaded extension which passes through the gap in the claw and carries an adjustable nut adapted to be advanced into engagement with the claw for securing the cover piece and slide against accidental movement.

In the accompanying sheet of explanatory drawings:—

Figure 1 is a side elevation and Figure 2 a plan of a lighter constructed in accordance with this invention.

Figure 3 is an elevation of the finger piece, and Figure 4 is a cross section through the abrader.

In carrying the invention into effect, as shown, I pivot on the hollow body part *a* containing the volatile liquid, a cover piece *b* which is suitably shaped to cover the projecting wick *c*. At the pivot *d* of the cover I secure to the cover a disc *e* or other suitable piece of abrasive material, this being arranged in contact with a piece of pyrophoric material *f* in the usual way. Associated with the pivoted cover is a spring *g* made from wire. One convenient form of spring consists, as shown, of a helix surrounding the pivot *d* and located within the central aperture of the disc. The ends of the spring engage the cover and body respectively. The spring is stressed when the cover is closed, and is such that on release of the cover it opens the cover and thereby rotates the abrader for igniting the wick.

The control of the cover is obtained by means of a slide *h* mounted in a guide *i* on the upper end of the body. The slide is urged in the operative direction by a spring *j* contained within the slide and guide. The slide is adapted as shown to engage a gapped claw *k* on the adjacent end of the cover and so hold the cover in the closed position. An extension *l* of the slide passes through the gap in the claw and serves as a thumb piece for actuating the slide. The extension is screw threaded externally and on it is placed a nut *m* which can be advanced into engagement with the claw as shown in Figure 1 for securing the cover and slide against accidental movement. When the nut is withdrawn to the position shown by dotted lines in Figure 1 the slide is free to be actuated.

To open the cover the slide is pressed back against its spring, thereby releasing the cover and allowing it to be opened by its spring for uncovering the wick and operating the abrader.

The cover is closed by pressing it down about its pivot. In this action the cover spring is stressed, and also the claw on the cover re-engages the slide.

The invention is not limited to the example above described and subordinate

details can be varied to suit different requirements.

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 automatic lighter of the type specified, in which the slide is adapted to engage a gapped claw on the adjacent end of the cover piece and is formed with a screw threaded extension which passes through the gap in the claw and carries an adjustable nut adapted to be advanced into engagement with the claw for securing the cover piece and slide against accidental movement.

2. An automatic lighter having the feature claimed in claim 1, and comprising the combination and arrangement of parts, substantially as described and as illustrated.

Dated this 12th day of November, 1931.

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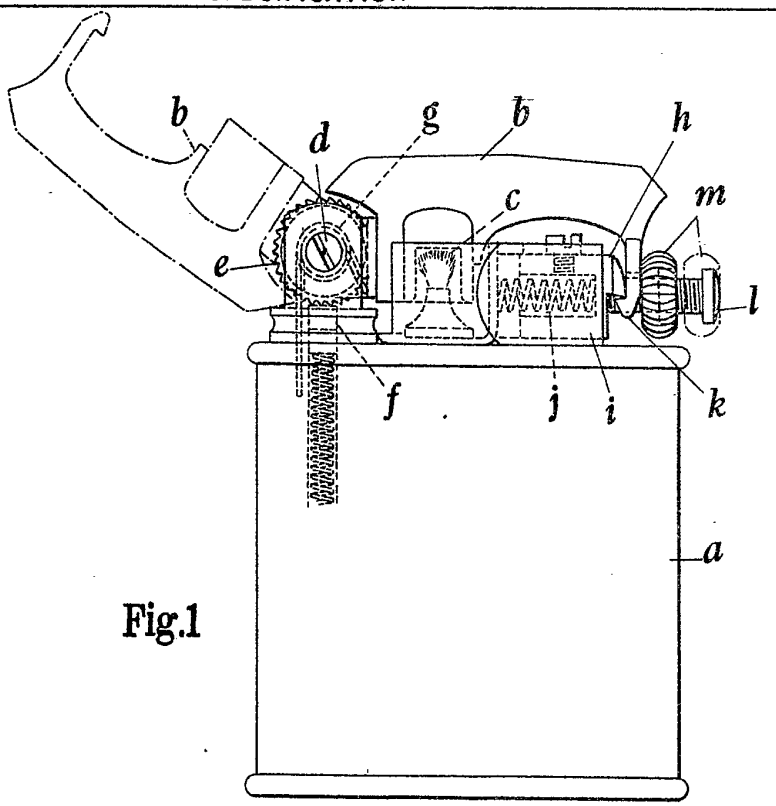

Fig.1

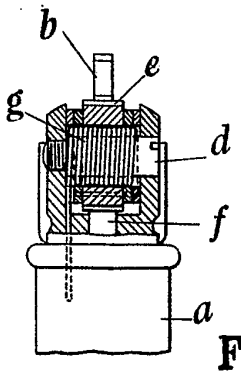

Fig.4

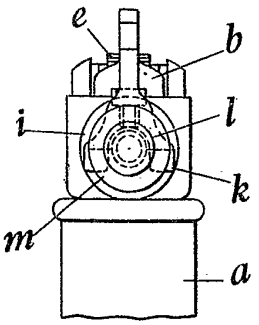

Fig.3

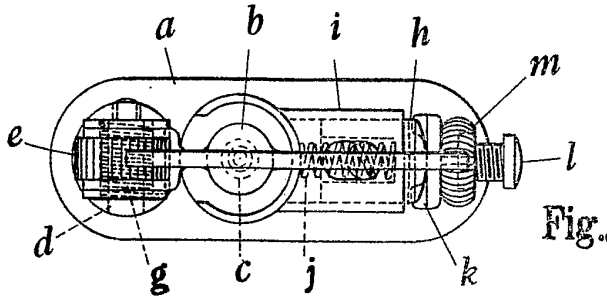

Fig.2

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