

## PATENT SPECIFICATION



Convention Date (Germany) : July 9, 1937.

486,178

Application Date (in United Kingdom) : Sept. 21, 1937. No. 25610/37.

Complete Specification Accepted : May 31, 1938.

### COMPLETE SPECIFICATION

#### Improvements in and relating to Pyrophoric Pocket Lighters

I, Dr. HEINRICH KELLERMANN, a Hungarian Citizen, of 90—102, Saarlandstrasse, Berlin, S.W.11, Germany, 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 invention relates to a pyrophoric lighter which is operated by the opening of a spring cover. While in the usual lighters of this kind the device is generally so arranged that the spring cover grips under a resilient press button by means of a lug or tongue, the cover according to this invention is provided with lateral notches which in closing grip under a lever that is rotatably mounted in the casing and is under spring pressure, and which is also connected with an outwardly projecting handle. This makes it possible on the one hand to form the cover in such a way that in the closed position the whole of the upper side of the lighter is completely covered and closed, and on the other hand that the handle for opening and operating the lighter can be so arranged on the side that the finger of the operator does not come in the region of the flame formed. The handle projects through an inclined or curved slot in the casing and can be actuated by finger pressure either from above or from the side.

Two constructional forms of the invention are illustrated in the accompanying drawings by way of example.

Fig. 1 shows a construction in the closed condition and in part section;

Fig. 2 shows a section through the same construction with the cover open;

Fig. 3 shows a front elevation of the opened lighter partly in section, and with certain parts removed;

Fig. 4 shows the casing of the lighter in lateral elevation after removing the mechanism;

Fig. 5 shows a detail in perspective and to an enlarged scale;

Fig. 6 shows a lateral elevation of a second constructional form of the lighter in a closed condition, and with certain parts removed;

Fig. 7 shows the same lighter in an open condition, and with certain parts removed, and,

Fig. 8 shows a detail of this lighter in perspective and to an enlarged scale.

In the constructional form according to Figs. 1—5 the lighter when regarded from the outside is substantially heart-shaped. The mechanism of the lighter with the wick tube (2) and the flint tube (3) is mounted completely on the support (1), to which the spring cover (5) is pivoted at (4). Thus the whole mechanism together with the support can be withdrawn from the heart-shaped casing (6) of the lighter.

The spring cover (5) is under the influence of a spring (9) and carries the extinguishing cap (7). The friction wheel (8) is also rotatably mounted in the usual way on the pivot axis of the cover (5). The cover (5) is provided at each side (Fig. 2) with a notch (10). The curved lever (11), Fig. 5, adapted to engage the notches 10 is rotatably mounted at 12 on the support (1) and is under the influence of a spring (22). It grips with a nose (13) into the notches (10) in the spring cover. At a suitable place on the curved lever (11) is attached a pin (14) having a knob 15 and forming an operating handle which extends beyond the support (1) and projects outwardly through a slot (16), Fig. 4, on the upper edge of the heart-shaped casing part.

To operate the lighter it is only necessary to press the knob (15) so that the curved lever (11) comes out of engagement with the notches of the cover (5) whereupon this springs up and by carrying with it the friction wheel (8), causes sparks in the usual way.

The constructional form according to Figs. 6—8 differs in the main from the first described form only in the outward shape which in this case is similar to the common rectangular flat lighter. In this case the casing (26) carries the mechanism and is inserted in an outer shell 17 (but if desired this shell could be omitted). While in the constructional form according to Figs. 1—5 the spring

- cover (5) is indented at the middle to complete the heart shape of the lighter, the cover (18) of the lighter according to Figs. 6—8 is flat on top or shaped in any other desired way. In this case also its notches 19, Fig. 7, engage a corresponding projection (20), Fig. 8, on a curved lever (21) which is formed and arranged in a way corresponding with the lever (11) according to Fig. 5 and is likewise under the action of a spring (22). The pin (14) carrying the operating knob (15) in this case projects through a curved slot (23) in the support (26).
- Many modifications of the constructional forms illustrated are possible without departing from the spirit of the invention. In particular the mechanism of the lighter may be formed in any desired way since the invention is only concerned with the particular construction and arrangement of the spring cover and its operating means.
- 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. Pyrophoric lighter which is operated by the opening of a spring cover, characterised in that the cover is provided with lateral notches which in closing grip under a spring loaded lever which is rotatably mounted in the casing and which is connected with an outwardly projecting handle.
  2. Lighter according to claim 1, characterised in that the handle of the lever is so arranged that it can be operated by pressure from above or from the side.
  3. Lighter according to claim 1, characterised in that the handle projects through an inclined or curved slot in the casing.
  4. Lighter according to claim 1, characterised in that in the closed position the cover completely closes the upper side of the lighter.
  5. Lighter according to claim 1 substantially as described and illustrated in the accompanying drawings.
- Dated this 21st day of September, 1937.  
For the Applicant:  
BARKER, BRETTELL & DUNCAN,  
Chartered Patent Agents,  
Furnival House,  
14—18, High Holborn, London, W.C.1.

Fig. 1.

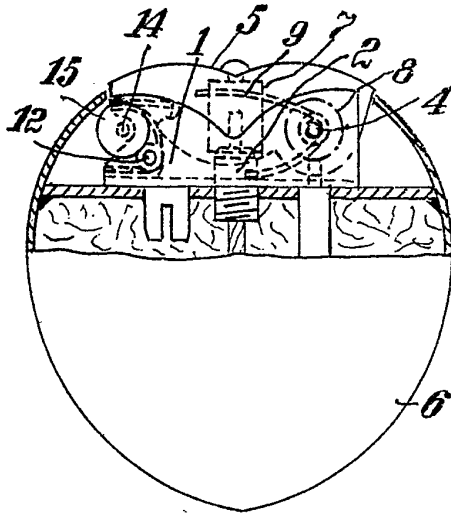


Fig. 2.

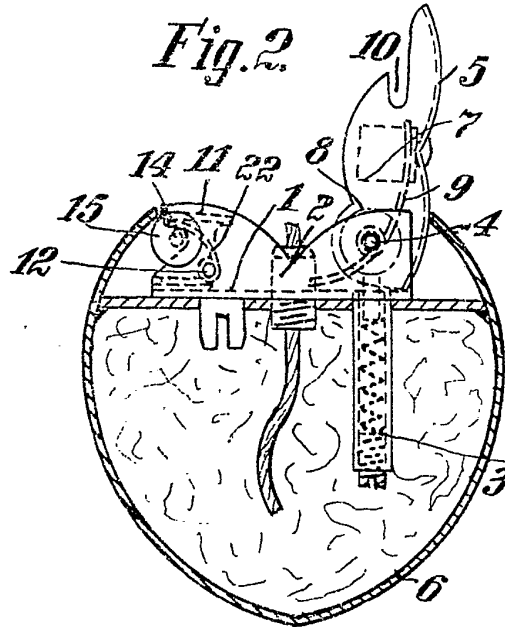


Fig. 3.

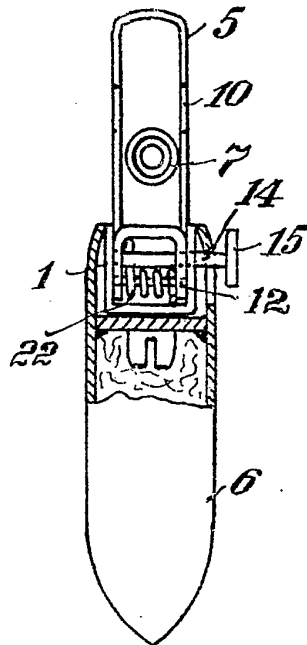
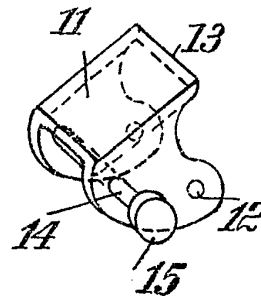


Fig. 5.



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

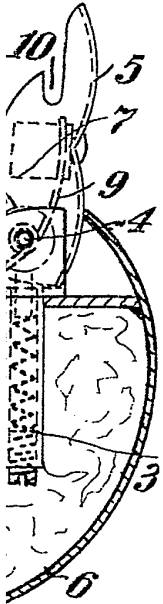


Fig. 6.

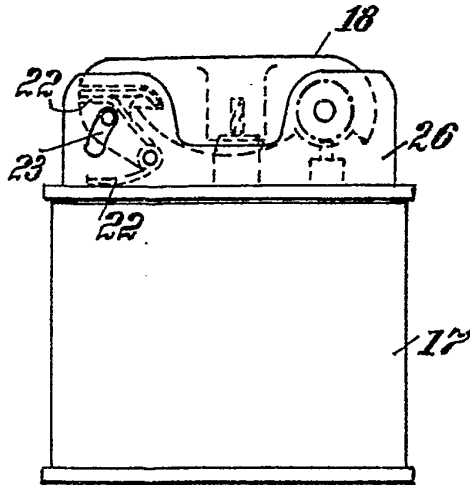


Fig. 4.

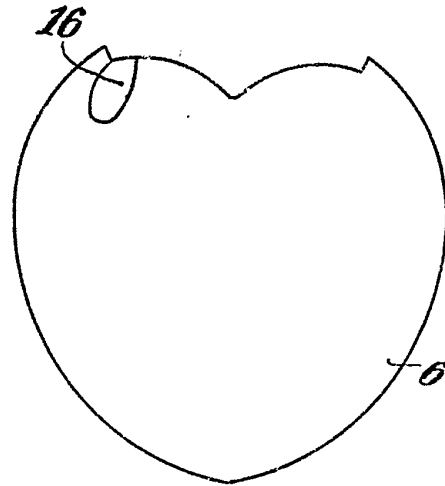


Fig. 7.

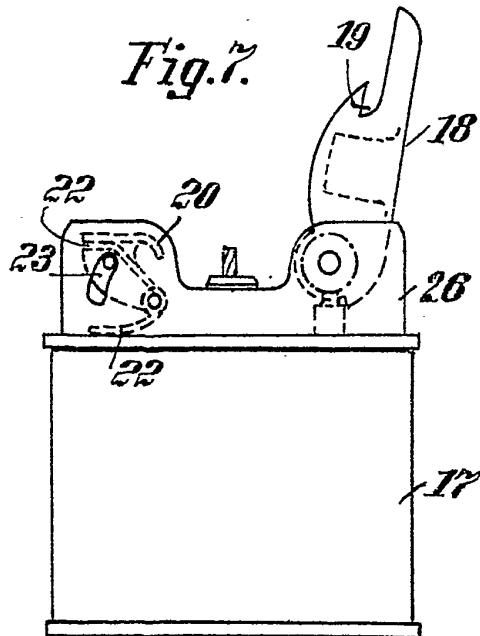


Fig. 8.

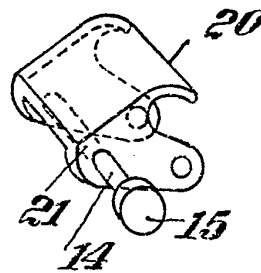


Fig. 1.

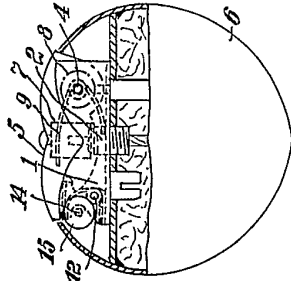


Fig. 2.

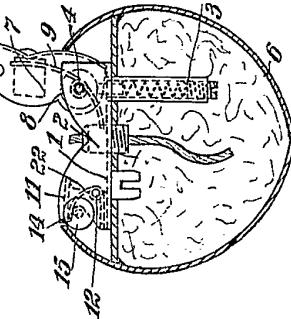


Fig. 6.

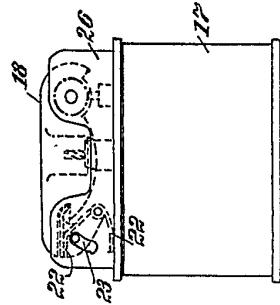


Fig. 4.

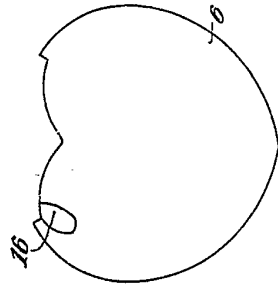


Fig. 3.

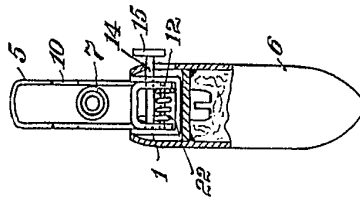


Fig. 5.

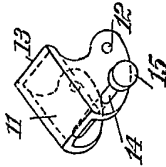


Fig. 7.

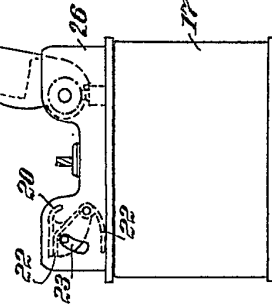
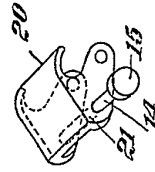


Fig. 8.



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