

Nov. 14, 1950

R. WIESSNER

2,529,857

FLINT TENSIONING MEANS FOR LIGHTERS

Filed Feb. 19, 1948

Fig. 1

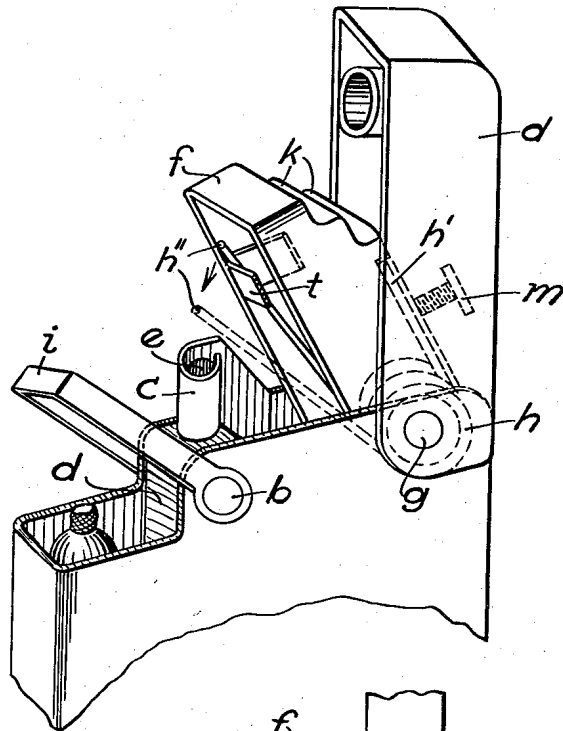
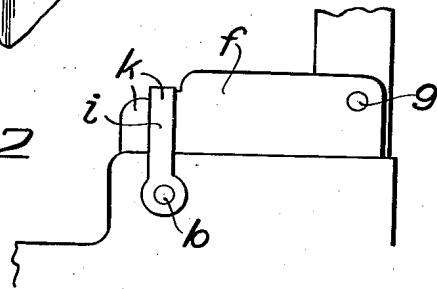


Fig. 2



INVENTOR
ROBERT WIESSNER
BY *Haseltine Lake & Co*
AGENTS

UNITED STATES PATENT OFFICE

2,529,857

FLINT TENSIONING MEANS FOR LIGHTERS

Robert Wiessner, Vienna, Austria, assignor to
Arthur Dubsky, Elmhurst, N. Y.Application February 19, 1948, Serial No. 9,427
In Germany April 19, 1939Section 1, Public Law 690, August 8, 1946
Patent expires April 19, 1959

3 Claims. (Cl. 67-7.1)

1

In the known pyrophore lighters the spring provided for pressing down the flint is destined at the same time for opening wick-cap of the lighter. Also two springs have been provided for that purpose, both of them being arranged in the same cap and simultaneously causing the cap to fly open when the lock is released. Such a construction is subjected to the drawback that lifting of the main spring or of the special spring too is necessary for replacing the flint, which manipulation is complicated and often fails due to the smallness of the parts. Furthermore the pressure exerted by the spring to the flint varies, for in case of the wick-cap being closed the pressure is strong very much influencing the rotation of the serrated wheel, whereas in case of the wick-cap being in the opening position, the pressure is correspondingly reduced, resulting in the risk that a short time before the wick-cap is completely opened, no sparks at all arise, if one does not wish to use a very strong spring.

The object of the invention is to overcome all these difficulties by arranging the spring for pressing the flint to the wheel completely apart from the spring for opening the wick-cap and for rotating the wheel. The said compression spring is disposed in a special cap hinged to the casing and forming the abutment of the spring, that is of both the shanks of the spring. In the closing position the cap is kept by a pivoted clip which is adjustable to the various rests of the cap for the purpose of adjusting the tension of the spring.

In order to enable the tension of the spring to be changed to a greater extent, a set screw is provided in the cap acting upon one of the shanks of the spring.

An embodiment of the invention is illustrated by way of example in the accompanying drawing, in which:

Fig. 1 is a perspective view of the upper portion of a pyrophore lighter with the lid carrying the wick-cap open, showing the cap of the compression spring in the opening position for the purpose of replacing the flint, and

Fig. 2 is a side elevation of the upper portion of the lighter with the cap of the compression spring closed, but the lid open.

The usual lid of the lighter is denominated *d*.

The serrated wheel *a* is rotatably mounted on an axle *b*. Above the serrated wheel *a* there is provided an open sleeve *c*, which is for instance formed by bending a portion of the wall of the lighter casing, and which sleeve is adapted to receive the flint *e*. A cap *f* is pivotally mounted on

2

the axle *g* of the lighter casing. A spring *h* is coiled on the axle *g*, one shank *h'* of the spring acting upon the inside of the cap *f*; in case of moving down, that is closing the cap in the direction of the arrow, the free lower shank *h''* of the spring *h* (see representation by dotted lines of Fig. 1 gets through the open sleeve *c* to the top side of the flint *e* and presses the latter fast to the serrated wheel *a*. In the closed position the cap *f* is secured by a clip *i* (Figs. 1 and 2) pivotally mounted on the axle *b*, the shank *h''* of the spring exerting at the same time a pressure to the flint *e*.

In order to enable inserting of a fresh flint *e* into the open sleeve *c* without meeting any obstacle, that is to keep the space between the sleeve *c* and the cap *f* free, stop *t* may be provided for the lower shank *h''* of the spring as shown in Fig. 1, whereby that shank is pre-stressed at the same time.

Furthermore the side of the cap *f* directed towards the clip *i* is provided with rests *k*. These rests enable in a simple way adjusting of the pressure exerted by the spring shank *h''* to the flint *e* when the cap *f* is closed. The pressure may also be adjusted by means of a set screw *m* or the like provided on the cap, increasing or decreasing the tension of the shank *h'* of the spring.

What I claim is:

1. In a pocket lighter, a device for pressing the flint against the rubbing wheel, comprising a cap pivotally mounted at the lighter casing within the lighter lid, releasable means for holding said cap in its closed position, a spring and a stop arranged in said cap, one end of said spring adapted to engage with the flint when said cap is closed and with said stop when it is opened, the other end of said spring bearing against said cap.

2. In a pocket lighter, a device for pressing the flint against the rubbing wheel, comprising a cap pivotally mounted at the lighter casing within the lighter lid, said cap being provided with steps, a bow pivotally mounted at the lighter casing and adapted to engage with any of said steps, a spring and a stop arranged in said cap, one end of said spring adapted to engage with the flint when said cap is closed and with said stop when it is opened, the other end of said spring bearing against said cap.

3. In a pocket lighter, a device for pressing the flint against the rubbing wheel, comprising a cap pivotally mounted at the lighter casing within the lighter lid, releasable means for holding said cap in its closed position, a stop arranged at the lower edge of said cap, a set screw

2,529,857

3

on the top of said cap and an expanding spring mounted on the pivot pin of said cap, one leg of said spring being in adjustable engagement with said set screw, the other leg being adapted to engage the flint when the cap is closed and to engage said stop when the cap is opened.

ROBERT WIESSNER.

2,529,857

4

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,069,207	Wachtel	Aug. 5, 1913
1,584,258	Thorens	May 11, 1926