PATENT SPECIFICATION

651,309

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PROVISIONAL SPECIFICATION

Improvements in or relating to Frictional Igniters

I, JACK LEVER, a British Subject, of 129, Adelaide Road, London, N.W.3, do hereby declare the nature of this invention to be as follows:—

This invention relates to frictional igniters for cigars and cigarettes and is particularly, although not exclusively, concerned with igniters for table use. It is the object of the invention to provide an improved igniter in which the automatic actuation thereof is effected in a simple and effective manner.

According to the present invention, a frictional igniter for cigars or cigarettes is characterised by the provision of a pair of plunger members independently operable to effect the igniting and extinguishing thereof respectively.

In one embodiment by way of example, the igniter comprises a body which houses a removable fuel reservoir of known form. The body is provided at its upper end with a pair of lugs located approximately centrally. A lever member having a pair of radial arms and a curved upper portion is mounted between the said lugs by means of a pivot passing therethrough. Each arm of the lever is attached to a plunger member carrying a finger knob while the upper curved portion of the lever is pivotally attached on opposite sides to a pair of links which latter are in turn pivotally connected to the wick-cap. The arm of the lever nearest to the wick-cap has attached thereto on each side the ends of a pair of coil springs, the other ends whereof are fixed to the body of the igniter. The mechanism is enclosed in a removable cover plate having two apertures therein which afford guides for the plungers, an elongated opening also being provided in the cover plate to permit of the opening and closing movements of the wick-cap. The friction wheel is mounted on the same pivot as the wick-cap and is provided with circumferential ratchet teeth adapted to be engaged by a spring pawl.

The arrangement is such that upon depressing one plunger the lever will be rocked in one direction and, by reason of its connection to the lever by the link mechanism, the wick-cap will be opened and, at the same time, the friction wheel will be rotated against the flint causing the wick to ignite. Since the actuating plunger is attached to the aforesaid coil springs, the latter will be placed under tension thereby maintaining the wick-cap in the open position. To extinguish the igniter, the other plunger is depressed causing the lever to be rocked in the opposite direction, releasing the tension on the coil springs and consequently effecting closure of the wick-cap.

Preferably the finger knobs on the plungers are differently coloured so that they may readily be distinguished from each other.

Dated this 1st day of June, 1948.
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Agents for the Applicant.

COMPLETE SPECIFICATION

Improvements in or relating to Frictional Igniters

I, JACK LEVER, a British Subject, of 129, Adelaide Road, London, N.W.3, 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 frictional igniters for cigars and cigarettes and is particularly, although not exclusively concerned with igniters for table use. It is the object of the invention to provide an improved igniter in which the automatic actuation thereof is effected in a simple and effective manner.

According to the present invention, a

frictional igniter for cigars or cigarettes includes a pair of depressible plunger members for effecting ignition and extinction of the lighter, a lever member to which said plungers are coupled, said member being so formed and mounted that on depression of one of said members the second will be projected into an operative position for subsequent depression, a wick cap also coupled through the medium of a linkage mechanism to said lever member in such a manner that opening and closing movements thereof will be effected by said plunger members and a friction or flint wheel to which a rotary motion is imparted on moving the wick cap to the open position, the arrangement being such that on depression of one of said plunger members the wick cap will be opened and the friction or flint wheel rotated to cause ignition of the lighter while on depression of the second plunger member said cap will be closed, said friction or flint wheel remaining inoperative during such latter movement.

In order that the said invention may be clearly understood and readily carried into effect the same will now be more fully described with reference to the accompanying drawings in which:—

Figure 1 is a side elevation of the igniter showing it in the inoperative position;

Figure 2 is a part-sectional view of Figure 1;

Figure 3 is a plan view;

Figure 4 is a fragmentary part-sectional view showing the igniter in the operative position.

Referring to the drawings, the igniter comprises a body 1 which houses a removable fuel reservoir 2 of known form. The body 1 is provided at its upper part with a pair of lugs 3 which are adapted to support a pin 4 serving as a pivot for a lever member 5. The member 5 includes a pair of radially directed arms 6 and third arm or projecting portion 7. Each of the arms 6 of the member 5 is pivotally attached at its outer end to a plunger 8 carrying a suitable finger knob or the like while the portion 7 has pivotally attached thereto at opposite sides thereof a pair of links 10 which are in turn pivotally connected to a pair of arms 11 fixedly mounted on a pivot pin on which latter a wick-cap 12 is fixedly mounted to move angularly therewith. The wick-cap 12 is adapted when in its operative or closed position to shroud a wick led upwardly from the body of the igniter through a convenient guide channel. That arm 6 of the member 5 nearest to the wick-cap 12 has attached thereto at opposite sides thereof the ends of a pair of coil springs 13, the other ends of said springs being anchored to fixed pegs or the like 14 rigidly mounted on the body 1. The mechanism above described is enclosed by means of a removable cover plate 15 having two apertures in the upper surface thereof which afford guides for the plungers 8, an elongated opening 16 also being provided in said cover plate 15 to permit of the opening and closing movements of the wick-cap 12. Also mounted on the same pivot as the wick-cap 12 is a friction or so called flint wheel 17 which is provided with a ring of ratchet teeth adapted to be engaged by a spring pawl (not shown) associated with said wick-cap or with the pivot the arrangement being such that on movement of the cap into its open position a rotary movement will be imparted to said wheel while on closure of said cap the wheel will remain stationary. The wheel 17 is adapted to co-operate in known manner with a flint 18 which is inserted into a guide channel 19 in the body 1 and is maintained pressed against the periphery of the wheel 17 by means of a spring indicated at 20.

The arrangement above described and illustrated is such that upon depressing that plunger 8 which is projecting through the cover 15, the member 5 will be rocked in one direction, i.e. anti-clockwise, and, by reason of its connection to said member 5 by the link mechanism 10, 11, the wick cap 12 will be opened as shown in Figure 4. At the same time the friction wheel 17 will be rotated against the flint 18 to produce a spark which will cause ignition of the wick. The coil springs 13 associated with the member 5 will serve to maintain the wick cap 12 in the open position. To extinguish the igniter, the other plunger 8 which was projected upwardly on actuation of the igniter is depressed causing the member 5 to be rocked in the opposite direction, thereby to effect closure of the wick cap.

Preferably the finger knobs or the like on the plungers 8 are differently coloured so that they may readily be distinguished from each other.

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. A frictional igniter for cigars or cigarettes including a pair of depressible plunger members for effecting ignition and extinction of the lighter, a lever member to which said plungers are coupled said member being so formed and mounted that on depression of one of said members the second will be projected into an operative position for subsequent depression, a wick cap also coupled

through the medium of a linkage mechanism to said lever member in such a manner that opening and closing movements thereof will be effected by said plunger members and a friction or flint wheel to which a rotary motion is imparted on moving the wick cap to the open position, the arrangement being such that on depression of one of said plunger members the wick cap will be opened and the friction or flint wheel rotated to cause ignition of the lighter while on depression of the second plunger member said cap will be closed, said friction or flint wheel remaining inoperative during such latter movement.

2. A frictional igniter as in Claim 1 in which the friction or flint wheel is operated through the medium of a pawl and ratchet mechanism, said wheel having a rotational movement imparted thereto on opening of the cap but remaining stationary on closure of the latter.

3. A frictional igniter substantially as hereinbefore described with reference to the accompanying drawings.

Dated this 30th day of May, 1949.
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London, England, and
19—25, West 44th Street, New York,
U.S.A.,
Agents for the Applicant.

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FIG. 1.

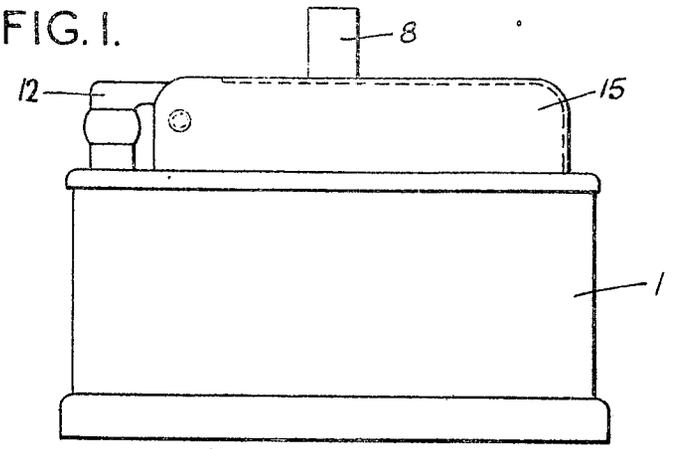


FIG. 2.

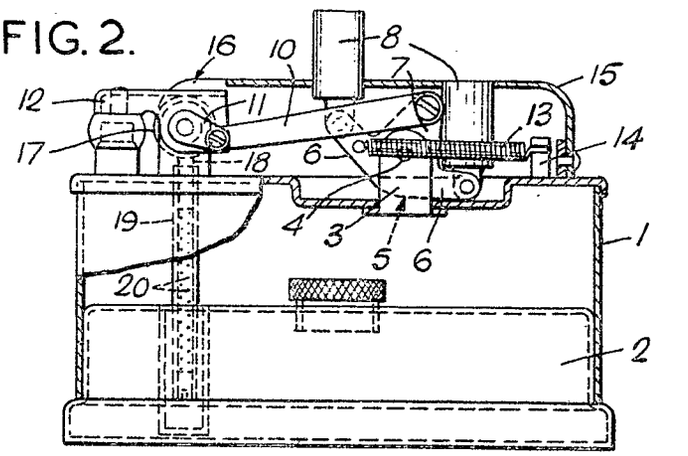


FIG. 3.

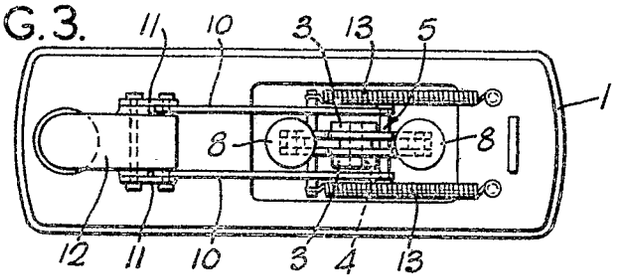
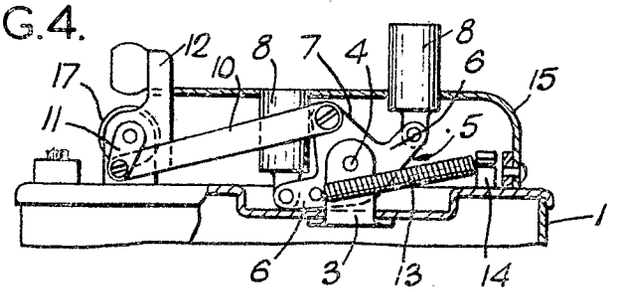


FIG. 4.



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

H.M.S.O.(Ty. P.)