

P. A. ADAMIAN & A. M. DAHAN.

LIGHTER.

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1,060,150.

Patented Apr. 29, 1913.

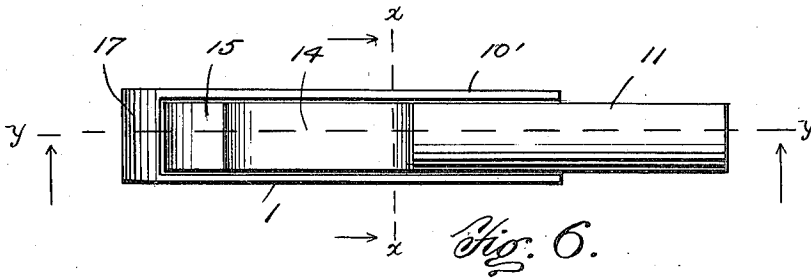


Fig. 6.

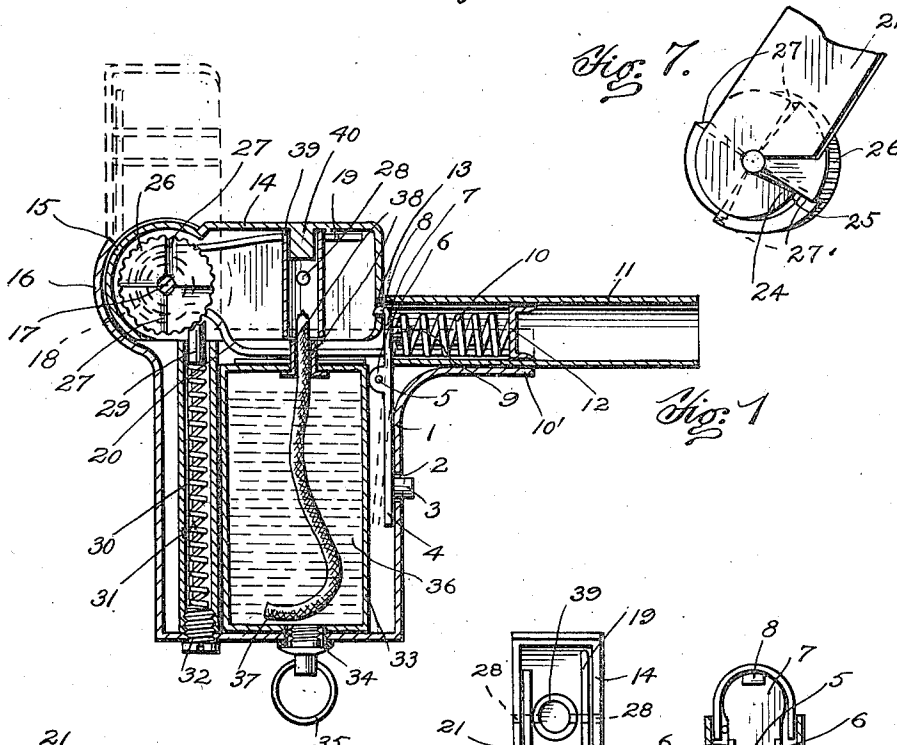


Fig. 7.

Fig. 7.

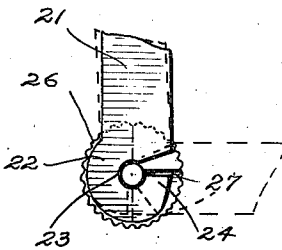


Fig. 4.

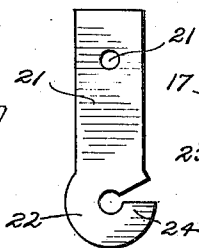


Fig. 5.

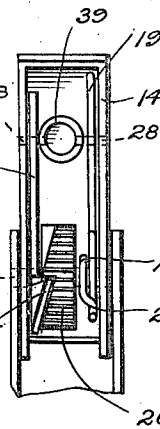


Fig. 8.

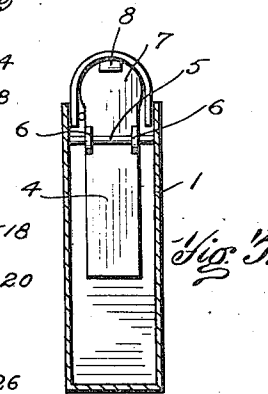


Fig. 3.

Inventors

Witnesses

M. P. Miller
L. E. Bohys

P. A. Adamian

A. M. Dahan

Alex. J. Hedderburn, Jr.

Attorney

UNITED STATES PATENT OFFICE.

PARNAG A. ADAMIAN AND ANTON M. DAHAN, OF BOSTON, MASSACHUSETTS.

LIGHTER.

1,060,150.

Specification of Letters Patent.

Patented Apr. 29, 1913.

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To all whom it may concern:

Be it known that we, PARNAG A. ADAMIAN and ANTON M. DAHAN, citizens of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Lighters, of which the following is a specification.

This invention relates to improvements in sparking lighters and has for its object to provide an automatic lighter operated by means of a spring controlled cover.

With the above and other objects in view our invention consists in the combination, arrangement and details of construction shown in the drawings and then more particularly pointed out in the appended claims.

Similar reference characters designate similar parts in the several views of the drawings in which

Figure 1 is a sectional elevation of the device taken on line Y—Y of Fig. 6 looking in the direction of the arrows, Fig. 2 is a detail front elevation of the closure for the device, Fig. 3 is a cross sectional view thereof on the line X—X of Fig. 6 looking in the direction of the arrows, Fig. 4 is a fragmental detail view of the igniter, Fig. 5 is a detail view of a follower member, Fig. 6 is a top plan view of the device, and Fig. 7 is a detail view in perspective of the igniter wheel.

In a preferably rectangular casing 1 and opening 2 is formed at one end, through which projects a push button 3 secured at the lower end of a latch member 4 which is formed with oppositely arranged lugs 6 through which the transversely extending pintle 5 passes mounted in the casing 1, the top of the latch 4 being rounded at 7, and carried at a suitable point on its edge is a tongue or click 8 normally held in an opening 13 in a cover 14 which closes the casing 1. A lug 9 projects at the rear upper end of the latch 4 upon which one end of a coil spring 10 is wound which bears against the latch, the spring being mounted in the tubular member 11 disposed horizontally of the casing but preferably mounted in projecting relation upon the horizontally disposed concave bearing 10' formed upon the casing 1, the rear end of the spring 10 retained in the tube 11 by means of the wall 12 in the latter. The closure 14 is formed with a segmental portion 15 concentric with the

shaft 17 upon which the cover turns, said segmental portion being also concentric with the upper segmental portion 16 of the casing 1, from which it is slightly spaced. The shaft 17 passes through the opposed walls of the casing and the cover 14 and upon said shaft is coiled a resilient wire spring 18 one of whose ends 19 inclines against the back of the cover 14 while the opposite end 20 of said spring is bent horizontally and extends into the tubular member 11.

21 designates a follower which is designed to actuate the friction wheel 26 by means of its lower hook shaped portion 24 which has a portion 25 bent at an angle with respect thereto, said follower having an opening 21' through which the pin 28 extends which has its bearing in one side of the cover 14 by which said follower is turned radially as the cover 14 is moved to closed position. The inclined offset 25 of the follower 21 is normally arranged to take in a correspondingly inclined recess formed by one of the four shoulders 27 formed upon the steel tooth wheel 26 mounted on the shaft 17 whereby said wheel may be moved, the follower 21 acting as a pawl actuated by the cover 14. The follower 21 has a rounded bottom including the hook 24 the edge of which is adapted to depress a sparking material 29 having a beveled top which rests upon a vertically disposed coil spring 30 contained in the vertical tube or casing 31, said spring resting upon the top of a plug 32 screwed to the bottom of said casing. The oil tank 33 contains oil 36 and is mounted between the tube 31 and the latch member 4 in the casing and has an opening in its bottom normally closed by a screw threaded plug 34 carrying a ring 35. A wick 37 is disposed in the oil tank 33 and projects slightly above the tubular member 38 mounted at the top of said tank. Disposed in the cover 14 and preferably embracing at one end a lug 40 integral with the back of the cover is a tube 39 supported at diametrically opposite points by the pins 28, said tube serving as a flame extinguisher when the cover is in closed position as shown in Fig. 1.

The cover 14 will normally be held closed, the click 8 of the latch 4 engaging the opening 13 therein. In moving from the vertical position shown in dotted lines in Fig. 1 to the horizontal closed position the cover

will simultaneously move the follower 21, and as said follower is radially moved its integral inclined and bent offset 25 will move from the position shown in Fig. 4 by the numeral 24 away from the shoulder 27 and thence over another shoulder 27' of the wheel 26 until it comes to rest at the back of the last named shoulder when the cover is held closed. The follower is thus moved out of engagement with the horizontal shoulder to overlie the vertical shoulder and as it moves it will depress the sparking material 29 against the tension of the spring 30 and hold it depressed as long as said cover 14 is closed. When the stud or push button 3 is moved inwardly in the opening 2 of the casing 1 the latch 4 will have its lower end tilted on its pivot 5 as shown in dotted lines in Fig. 1 while the upper end 7 thereof will cause the stud 9 to compress the spring 10 in the tube 11 and release the click 8 from the opening 13 in the cover 14, whereupon said cover will fly open. The spring 18 coiled upon the shaft 17 has been put under compression as the cover 14 is moved to closed position and will be under tension as long as cover 14 is engaged by said click 8, and when the click is released by retraction of push button 3 the spring 18 will recoil and thereby throw the cover 14 back to its normal position. As the cover returns the sparking material 29 will be urged by the recoil of spring 30 into instantaneous contact with the friction steel wheel 26 the teeth of which will rub against the top of said sparking material due to the partial movement of said wheel by the inclined offset 25 of the follower 21 which will have moved the vertical shoulder 27 against which it bears to a horizontal position because of the return movement of the cover 14 actuating said follower.

In Fig. 7 the hook 24 carrying an inclined offset 25 is shown in the act of operating the normally vertically disposed shoulder 27 to its eventual horizontal position. The rubbing of the teeth of the wheel 26 against the sparking material 29 generates an instantaneous spark which will jump across the interspace to set aflame the projecting end of the wick 37 in the oil tank 33. The flame being thus generated by the spark a light is produced which may be extinguished by closing the cover 14 so that the tube 39 carried by said cover will surround the flame

and by shutting out the oxygen of the air will extinguish it.

The tank may be filled with oil by unscrewing the plug 34 and the tension of the spring 30 may be adjusted by means of the screw plug 32 in order that the abrasion of the steel wheel 26 against the flint rod 29 may be controlled.

We claim and desire to secure by Letters Patent:

1. A cigar lighter consisting of a casing having a lamp therein, a wick projecting from said lamp, a vertical tube in the casing outside of said lamp, a spring in said tube, a pyrophorous stick seated on said spring and projecting from said tube, a friction wheel having a roughened edge against which said stick abuts, means for rotating said wheel, a hinged top on said casing, said means consisting of a hook adapted to engage the side of said wheel whereby it is revolved, a pivoted lever in said casing having a hook on one end adapted to engage said top and a pin on the other end thereof projecting through an opening in said casing whereby said top may be released from said top and a spring adapted to raise said top when released.

2. A cigar lighter consisting of a casing having a lamp therein, a wick projecting from said lamp, a vertical tube in the casing outside of said lamp, a spring in said tube, a pyrophorous stick seated on said spring and projecting from said tube, a friction wheel having a roughened edge against which said stick abuts, means for rotating said wheel, a hinged top on said casing, said means consisting of a hook adapted to engage the side of said wheel whereby it is revolved, a pivoted lever in said casing having a hook on one end adapted to engage said top and a pin on the other end thereof projecting through an opening in said casing whereby said top may be released from said top and a spring adapted to raise said top when released, and a spring abutting said lever and a tube for said lever spring projecting outwardly of said casing.

In testimony whereof we affix our signatures in presence of two witnesses.

PARNAG A. ADAMIAN.
ANTON M. DAHAN.

Witnesses:

GRACE H. CUNNINGHAM,
HENRY E. WHITTEMORE.