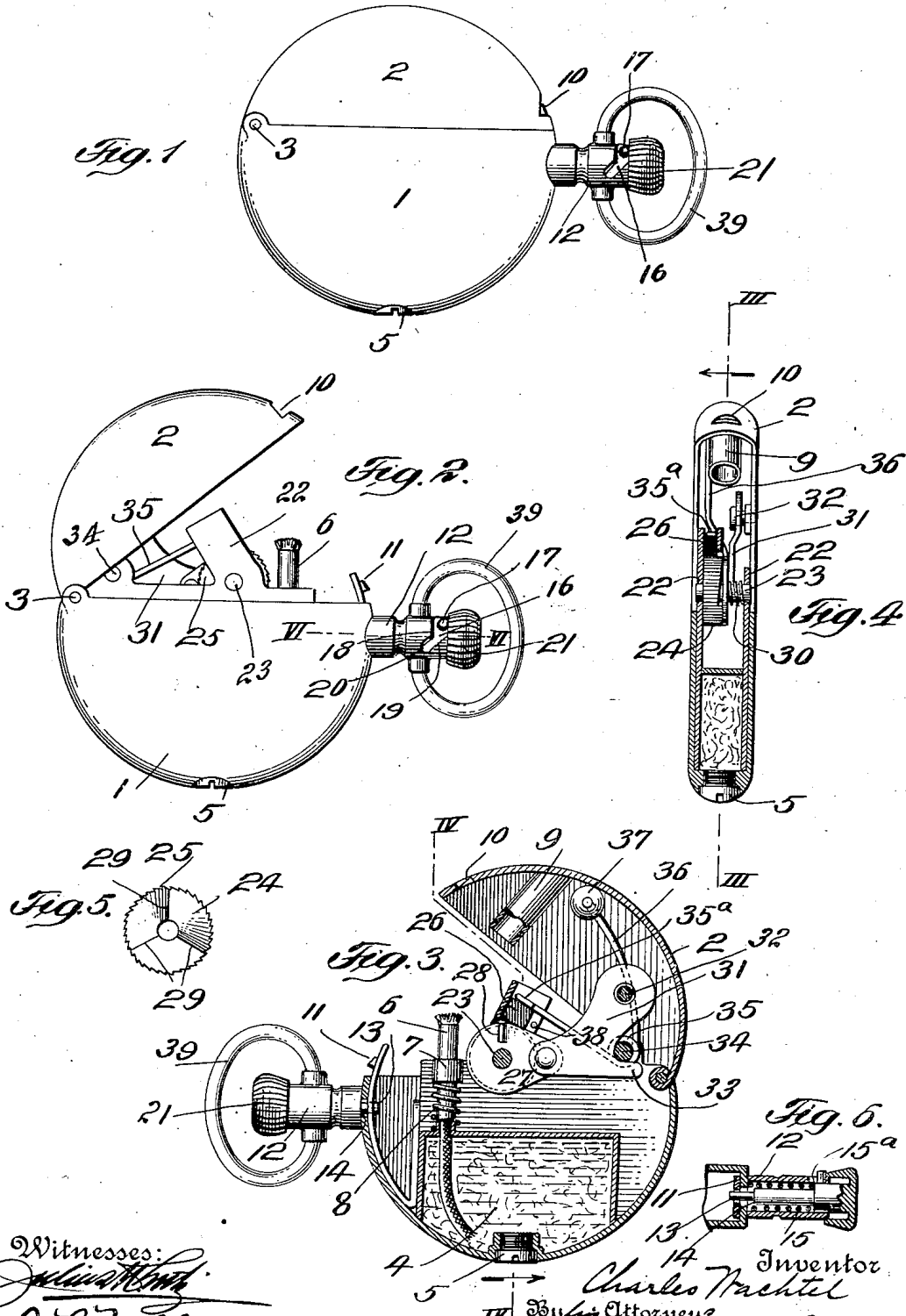


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 POCKET CIGAR LIGHTER.
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POCKET CIGAR-LIGHTER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES WACHTEL, a citizen of the United States, residing at Jamaica, county of Queens, and State of New York, have invented certain new and useful Improvements in Pocket Cigar-Lighters, of which the following is a specification.

One of the many objects of this invention is to provide a pocket cigar lighter in watch form so that it may be readily carried in the pocket and when closed will have the external appearance of a watch.

Another object of the invention is to provide a cigar lighter having a hinged cover with a spring for throwing it to its open position and a catch for holding it closed and means to prevent the accidental unlocking of the cover.

A further object of the invention is to provide an improved and simple means for operating the sparking device by means of which the saturated wick is lighted.

There are other important objects and advantages of the invention which will appear hereinafter.

In the drawing, Figure 1 is a side elevation of the lighter with its cover closed; Fig. 2 a similar view with the cover open; Fig. 3 a longitudinal sectional view on the line III—III of Fig. 4; Fig. 4 a vertical transverse sectional view taken on the line IV—IV of Fig. 3; and Fig. 5 a detail side elevation of the spark wheel.

Referring to the various parts by numerals, 1 designates the main body part of the lighter and 2 the cover thereof which is hinged to the body part at 3. In the body part of the lighter is the receptacle 4 containing the inflammable wick saturating material, said receptacle having a charging opening in its bottom closed by a screw plug 5. This receptacle is provided with a wick tube 6 which carries a yielding sleeve 7 of rubber or similar material which is held in its upper position by means of a spring 8 coiled around the wick tube and lying between the sleeve 7 and the top of the receptacle 4. In the cover 2 is an extinguisher tube 9 which is arranged to fit down over the wick tube and to impinge on the upper surface of the yieldable sleeve 7 so as to form a gas-tight closure therewith. It is obvious that the extinguisher 9 serves not

only to extinguish the flame but preserves the upper end of the wick in proper condition for lighting and prevents the escape of fumes from the wick.

The cover 2 is formed with a recess 10 into which a spring catch 11 is adapted to snap when the cover is closed, said catch being carried by the body part of the lighter.

The body part of the lighter is provided with a radially extending stem 12 in which is mounted a longitudinally movable rod 13, the inner end of said rod extending through the spring catch 11. This rod is provided with a shoulder 14 adapted to be brought to bear against the outer surface of the spring catch 11 to force the same inwardly when the rod 13 is forced inwardly, to thereby release the catch 11. A spring 15 surrounds the rod 13 and rests in a socket formed in the stem 12. The outer end of this spring bears against a shoulder 15^a formed on the rod 13 and normally forces the same outwardly. In the stem 12 is formed a cam slot 16 and the rod 13 is provided with a pin 17 which enters said slot, as shown clearly in Figs. 1 and 2. The cam slot is provided with a straight transverse shoulder 18 and with the inclined surface 19, and with the inwardly extending part 20. In operation the spring forces the rod 13 outwardly and causes the pin 17 to travel up the inclined wall 19 to the position shown in Figs. 1 and 2. In this position the rod 13 cannot be moved inwardly for the reason that the pin will engage the surface 18. If, however, the rod 13 be rotated slightly by means of the milled head 21 secured to its outer end (said milled head having the appearance of the winding stem of a watch) to bring the pin 17 against the wall 19 or in a position to be forced downwardly into the cam slot extension 20, the latch may be released by forcing the head and the stem inwardly. When the head is released and the rod 13 is free to move outwardly under the influence of the spring 15, pin 17 will travel up the inclined wall 19 and thereby automatically return to its position with respect to the straight surface 18. It will, therefore, be seen that I provide means for preventing the accidental opening or releasing of the cover. The releasing stem 12 must be first turned slightly before it can be forced inwardly a sufficient distance to re-

lease the spring latch 11. This is of great advantage for the reason that devices of this kind are carried in the pocket and if the cover should be accidentally released and the wick lighted, serious injury might result to the person carrying the lighter.

The receptacle 4 is provided at its upper edge with two upstanding lugs 22 between which is mounted a transverse shaft or stud 23 on which is loosely mounted the spark wheel 24, said spark wheel being serrated on its periphery to form the saw teeth 25. The lug 22 adjoining the spark wheel is extended somewhat and a portion thereof is bent around to form a pocket for the spark producing material 26 directly over the spark wheel so that said sparking material may be forced downwardly into engagement with the serrated surface of the spark wheel. Mounted on the shaft 23 is a ratchet arm 27 provided with the pawl 28. The inner side of the spark wheel 24 is formed with three ratchet teeth 29 spaced equal distances apart around the wheel, said teeth being adapted to be engaged by the pawl 28 on the ratchet arm 27, to rotate the spark wheel. A spring 30 surrounding the shaft 23 maintains the ratchet arm in engagement with the toothed side of the spark wheel, as shown clearly in Fig. 4. Pivotaly connected to the rear end of the ratchet arm 27 is a link 31, said link being pivoted within the cover at 32. This link is provided with the rearwardly extending finger 33 which is adapted to engage a transverse pin or stud 34 carried by upwardly extending lugs formed on the sides of the main body part of the lighter, shown clearly in Fig. 3. Coiled about this stud is a stout spring 35, one end of which is carried forward to form the arm 35^a which engages the upper surface of the sparking block 26. The other end of the spring is extended upwardly into the cover to form the arm 36, on the outer end of which is secured a small roller 37, said roller bearing against the convex inner surface of the cover. It is, therefore, manifest that this spring has the double function of forcing the sparking block down on the spark wheel and throwing the cover upwardly to its open position when the catch 11 is released. The object of the rearwardly extending finger 33 on the link 31 is to stop the outward swinging movement of the cover. In order to secure this result, however, it is necessary to bring the said finger into engagement with the said stud before the point of connection between link 31 and the ratchet arm 27 is raised above a line passing through the centers of the studs 23 and 34. This line is shown dotted in Fig. 3 and it is manifest that further outwardly swinging movement of the cover is prevented by the link 31 and its finger 33 engaging the stud 34. The link 31 and the ratchet arm 27 are so arranged and proportioned

that when the cover is closed the ratchet arm is rotated sufficiently on the stud 23 to bring the pawl into engagement with one of the teeth 29 of the spark wheel. The device is then in position for a sparking operation. Upon the release of the cover the spring 35 throws it to its open position and in doing so lifts the link 31 and with it the ratchet arm 27, thereby rotating the spark wheel under the sparking block and producing sufficient sparks to ignite the wick.

Adjacent the sparking block and in the path of the arm 35^a is a stop pin 38 against which the said arm 35^a will contact when the sparking block is worn. This stop pin prevents the spring arm from contacting with the spark wheel. It is manifest that without the stop pin the spark wheel might be seriously damaged by contact with the spring arm.

It is manifest that any of the sparking materials now so largely used in pocket cigar lighters may be used as the sparking block 26.

The ring 39 connected to the stem 12 serves as a convenient handle for the device; protects and guards the milled head 21 of the rod 13, and aids in giving to the device the appearance of a watch.

What I claim is:

1. A pocket cigar lighter comprising a body part, a cover hinged thereto, a spring for throwing the cover to its open position, a spring latch to hold said cover closed, a sparking means, means connected to the cover to operate said sparking means when the cover is thrown to its open position, inwardly movable means to release said spring latch, locking means to prevent the direct inward movement of said releasing means, and means to permit the rotation of the releasing means to release it from the locking means.
2. A pocket cigar lighter comprising a body part, a cover hinged thereto, a spring for throwing the cover to its open position, a spring latch to hold said cover closed, a sparking means, means connected to the cover to operate said sparking means when the cover is thrown to its open position, inwardly movable means to release said spring latch, locking means to prevent the direct inward movement of said releasing means, and means to permit the rotation of the releasing means to release it from the locking means, and a spring to return the releasing means to its normally locked position.
3. A pocket cigar lighter comprising a body part, a cover hinged thereto, a spring latch to lock said cover closed, a latch releasing means carried by the body part, a receptacle, a wick carried by the body part, a spark wheel, ratchet teeth on one side thereof, a ratchet arm carrying a pawl adapted to engage said ratchet teeth, a link pivotaly connected to the cover and to the ratchet arm, a finger formed on said link

adapted to engage a stud carried by the
body part, a spring bearing on the cover and
adapted to throw it to its open position, a
sparkling block and means forcing said
5 sparking block down on the spark wheel, the
said link and the ratchet arm forming means
to limit the outward movement of the cover.

In testimony whereof I hereunto affix my
signature in the presence of two witnesses.

CHARLES WACHTEL.

Witnesses:

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