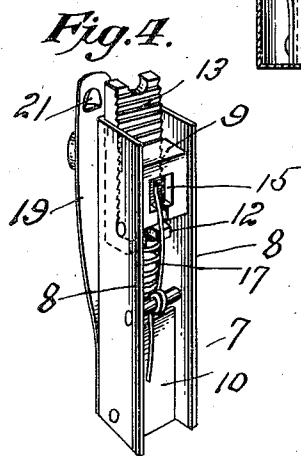
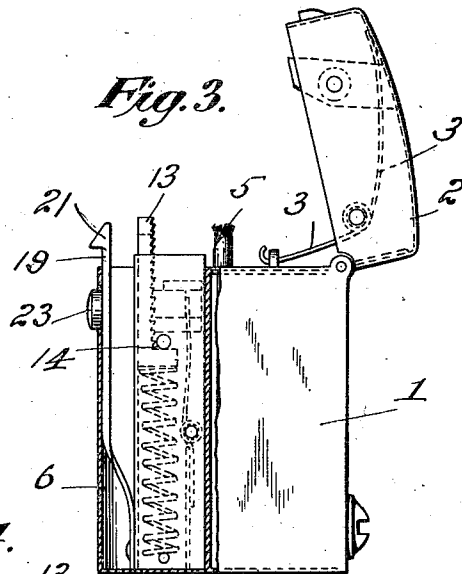
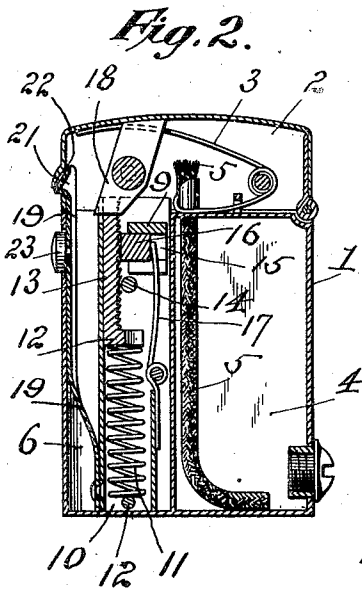
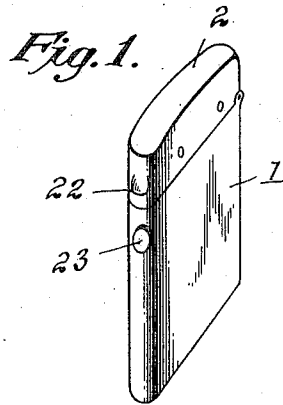


C. WACHTEL.
POCKET CIGAR LIGHTER.
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1,006,152.

Patented Oct. 17, 1911.



Attest:
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UNITED STATES PATENT OFFICE.

CHARLES WACHTEL, OF JAMAICA, NEW YORK.

POCKET CIGAR-LIGHTER.

1,006,152.

Specification of Letters Patent. Patented Oct. 17, 1911.

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To all whom it may concern:

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

This invention relates to that type of lighting devices which are adapted to be carried in the pocket and which are designed for use mainly as cigar lighters.

One of the principal objects of the invention is to provide a lighting device of simple construction and compact form, wherein by simply releasing the cover, said cover will automatically open, and a simple automatic sparking device be operated to set fire to a suitable wick.

Another object of the invention is to so construct the sparking mechanism that it may be removed as an entirety from the box or holder, for the purpose of cleaning and repair.

Another object of the invention is to provide a device of the kind described wherein the closing of the cover will force the movable sparking member into position for its sparking movement.

Another object of the invention is to provide a simple reciprocating friction device operating with a suitable sparking material such as flint or a sparking composition which is now commonly used in lighters of this character.

A further object of the invention is to produce a simple and improved construction of lighter of this kind, to the end that a cheap and efficient device may be provided.

In the drawings: Figure 1 is a perspective view of the lighter showing the cover closed; Fig. 2 a vertical longitudinal sectional view thereof; Fig. 3 a side elevation, a portion of the box or casing being in sectional view to show the removable sparking device in side elevation and in the casing; and Fig. 4 a perspective view of the sparking device removable from the box or casing.

Referring to the various parts by numerals, 1 designates the box or case; 2 the cover thereof which is suitably hinged, as shown, and is provided with an opening-spring 3. This spring may be arranged as desired, and any suitable form of spring may be employed.

The main body of the box is divided into a closed compartment 4 which is designed to receive the wick 5 and lighting fluid such as benzine or alcohol; and the open compartment 6, adapted to receive the sparking device, this compartment being open at its upper end to permit of the insertion therein and the ready removal therefrom, of the sparking device. The wick 5 extends through a suitable opening in the top of the wick compartment, its upper exposed end being arranged adjacent to the sparking device so that it may be readily lighted from said device.

The sparking device consists of a main member 7 formed with the two longitudinal side flanges 8; the cross guide bar 9 near the upper end thereof and the spring socket 10 at its lower end. In the socket 10 is an expansion spring 11, a suitable stop 12 being provided at the bottom of said compartment on which stop the compression spring rests. Resting on the top of this spring is a plunger 12 which carries an upwardly projecting friction member 13, said friction member being rectangular and guided in its vertical movements by the sides of the main body 7 of the sparking device and the cross guide bar 9. The face of this friction device is ribbed in a saw-tooth fashion, as shown clearly in Figs. 2, 3 and 4 of the drawings, said teeth being so disposed that in the upward movement of said friction member it will engage the sparking material or other member of the sparking device while in its downward movement it will slip over said device without producing any appreciable friction thereon. A stop 14 is arranged just below the cross-bar 9 and against which the spring 11 holds the plunger 12 when the cover of the lighter is open.

The cross-bar 9 is horizontally recessed as shown clearly in Figs. 2 and 4, for the reception of the stationary sparking member 16, said member being any suitable sparking material. A spring 17 mounted within the sparking device bears against the under side of the stationary sparking member and forces it against the ribbed surface of the reciprocating friction member.

The cover is provided with a plunger-engaging lug 18 which is adapted to contact with the upper edge of the reciprocating friction member to force said member downwardly against the tension of the spring 11.

when the cover is closed, and to hold said plunger depressed and within the sparking device until the cover is released. To hold the cover in its closed position, and thereby maintain the reciprocating friction member in its inner position, a spring catch 19 is secured to the main member of the sparking device and extends upwardly to a point slightly above said main member. This spring at its upper end is provided with a catch 21 which is adapted to snap into a recess 22 in the cover and to thereby hold said cover closed. The spring 19 is provided with a button 23 which extends outwardly through a suitable opening in the main case 1, as shown clearly in Figs. 1 and 3, and by means of which the latch spring 19 may be forced inwardly sufficiently to release the latch 21 from the cover. This button not only serves as a means by means of which the latch spring may be forced inwardly to release the cover, but it also forms a locking means for holding the sparking device within the sparking chamber in the main casing or box. By forcing this button inwardly sufficiently to release it from the side of the casing, the entire sparking mechanism may be removed from the sparking chamber. It will therefore be seen that the latching-spring has two functions, first, to serve as a means for holding the cover closed; and second, as a means for holding the sparking device within the sparking chamber.

It is thought that the operation of this invention will be manifest from the foregoing when taken in connection with the drawings, but said operation may be briefly described as follows:—The wick chamber 4 may be packed with wicking if desired and said wicking saturated with benzine or a similar fluid. By closing the cover, as previously described, the reciprocating friction member will be forced inwardly, and when the cover is closed said friction member will be held in its inner position by the latch 21. By forcing inwardly the button 23, the latch 21 will be released from the cover 2, and said cover will then fly open under the impulse of the opening spring, and also under the impulse of the spring 11 imparted to the cover through the reciprocating plunger and friction member and the lug 18. As the reciprocating friction member flies outwardly the teeth thereof engage the sparking material and operate thereon in such a manner as to produce sparks which ignite the wick.

The stationary sparking member, as heretofore stated may be of any suitable sparking material which is pressed against the reciprocating toothed friction member by means of the spring 17. I prefer to use a sparking composition which is now sold under the name of "Auer Metal" manufactured by the Treibacher Chemical Company

of New York City and patented November 27, 1906. It is manifest that when this sparking material becomes worn it may be readily removed by forcing outwardly the spring 17 to relieve the sparking material of the tension thereof, whereupon the said sparking material may be removed from the recess in the cross-bar and a new piece inserted therein. The lower portion of the cross-bar, that is to say below the recess in which is arranged the sparking material, is slotted to permit the spring 17 to engage said sparking material and force it against the reciprocating friction device.

Having now fully described my invention what I claim as new, and desire to secure by Letters Patent is:—

1. A sparking device comprising a main casing or box, a detachable and removable sparking device carrying a reciprocating member and a stationary member, a spring carried by said sparking device and serving to lock the said device within the main casing, a cover for the main casing, means carried by said cover to force the reciprocating sparking member inwardly when the cover is closed.

2. A pocket lighter comprising a main casing or box and a detachable and removable sparking device fitted within said box and comprising a reciprocating member and a stationary member of sparking material, a spring carried by said sparking device and serving to lock said device within the main casing, a cover pivoted to the main casing and means whereby the locking spring will also serve to hold the cover closed.

3. A pocket lighter comprising a main casing or box, a detachable and removable sparking device mounted therein and comprising a reciprocating friction member, and a stationary member of sparking material, means for locking said sparking device within the main casing, a spring for forcing outwardly the reciprocating friction member of the sparking device, a cover for the main casing, and means carried by said cover to force the reciprocating friction member inwardly when the cover is closed and permitting said member to fly outwardly when the cover is opened.

4. A pocket lighter comprising a main member or box, a sparking device therein comprising a reciprocating friction member and a stationary member of sparking material, a spring normally forcing the reciprocating member outwardly, means to limit the outward movement of the reciprocating member, means to force the stationary member of sparking material against the reciprocating member, a cover hinged to the main member, a projection carried by said cover arranged to engage the outer end of the reciprocating member and force said member inwardly when the cover is closed and

permitting said member to fly outwardly when the cover is released, and means for latching the cover in its closed position.

5 5. A pocket lighter comprising a main casing or box, a detachable and removable sparking device carrying a reciprocating member and a stationary member, a spring carried by said sparking device and serving to lock the said device within the main casing, a cover hinged to the main casing, 10 means carried by said cover and adapted to engage the reciprocating friction member and force it inwardly when the cover is closed, and means carried by the locking spring to latch the cover closed. 15

6. A pocket lighter comprising a main casing or box, a detachable and removable sparking device carrying a reciprocating member and a stationary member of sparking material, a spring to force outwardly the reciprocating member, a locking spring car-

ried by the sparking device, a locking button carried by said locking spring and extending outwardly through an aperture in the main casing to lock the sparking device within the 25 main member and to serve as a finger-piece by which said locking spring may be forced inwardly, a cover hinged to the main casing, means carried by said cover to force the reciprocating friction member inwardly when 30 the cover is closed, and permit it to fly outwardly when the cover is opened, and means carried by the locking spring to latch the cover closed, said means releasing the cover when the locking spring is forced inwardly. 35

In testimony whereof I hereunto affix my signature in the presence of two witnesses this 2 day of November 1910.

CHARLES WACHTEL.

Witnesses:

F. R. MILLER,

A. E. PETTERSON.