Dec. 27, 1932. S. DOMINUS 1,892,450

CIGARETTE LIGHTER AND CASE COMBINED

Filed Dec. 22, 1931

FIG. 1.

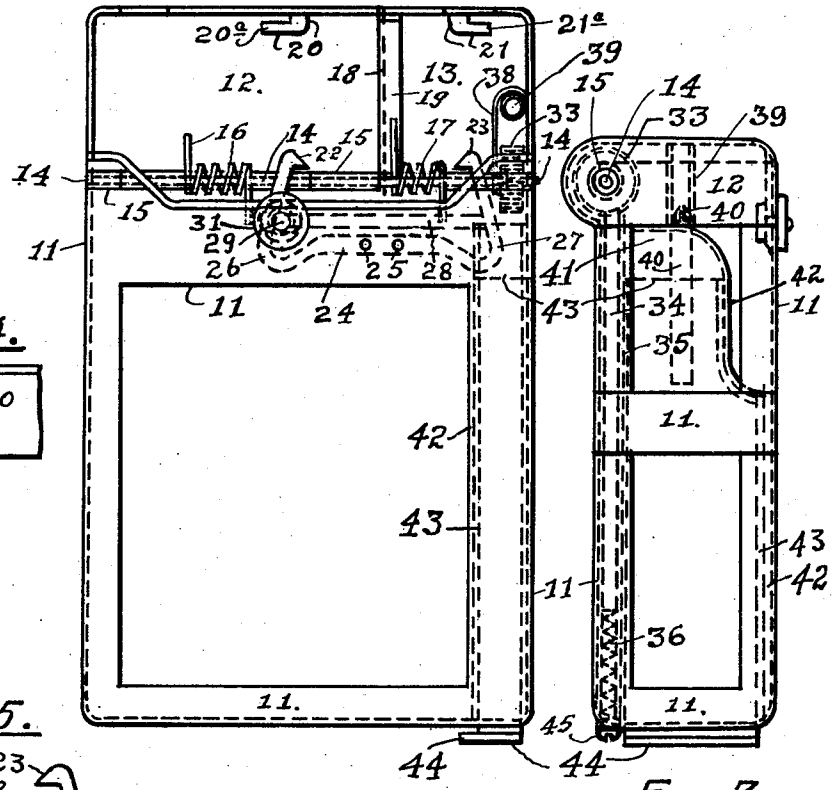


FIG. 3.

FIG. 4.

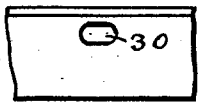
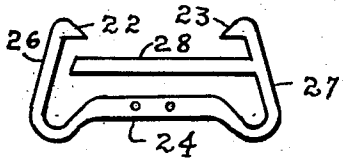


FIG. 5.



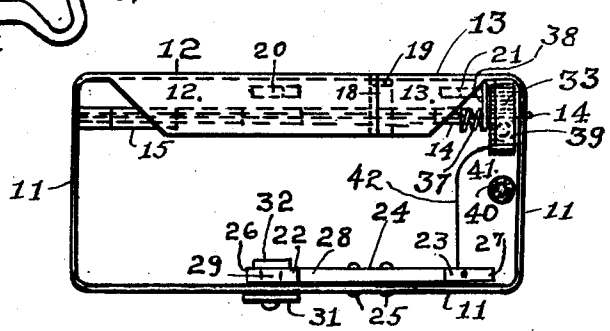


FIG. 2.

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UNITED STATES PATENT OFFICE

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CIGARETTE LIGHTER AND CASE COMBINED

Application filed December 22, 1931. Serial No. 582,563.

My invention relates to improvements in a cigarette lighter and case combined and it consists in the novel features, which are hereinafter more fully described.

One of the objects of my invention is to provide in an article of the class described a means for separately and successively opening the cigarette case and lighter.

Another object of my invention is to provide in an article of the class described a means for actuating an ignition ratchet only when snappingly opening the cover of the lighter and enable said cover to be closed without actuating said ratchet.

A further object of my invention is to provide a two section cover for my improved cigarette lighter and case combined, whereby a cigarette may be removed from the case without actuating the igniter mechanism of the device.

A still other object of my invention is to provide my cigarette lighter and case with a readily removable tank for the combustion fluid such as alcohol or gasoline.

Another object of my improved cigarette lighter and case is to provide means for holding in position the sundry mechanisms employed therein and to prevent the accidental displacement of any part thereof.

A further object of my invention is to provide in my above described cigarette lighter and case a single actuating means for successively opening both of said sections of the cover thereof.

Other objects and advantages will hereinafter appear.

I attain these objects by the cigarette lighter and case combined, one form of which is illustrated in the accompanying drawing, or by any mechanical equivalent or obvious modification of the same.

In the drawing Fig. 1 is a front elevation of my cigarette lighter and case combined showing the cover sections of the same as open.

Fig. 2 is a top plan view of the device as shown in Fig. 1.

Fig. 3 is an end elevation looking from left to right in Fig. 1 and with the cover sections thereof closed.

Fig. 4 is a fragmentary detail in elevation showing the slot in the front part of the case which is hereinafter described.

Fig. 5 is a detail in elevation of the escapement which is hereinafter described.

Similar numerals refer to similar parts throughout the several views.

11 designates the body of my cigarette lighter and case, which is shown as made in skeleton form.

Cover sections 12 and 13 are shown as pivotally connected to the rear part of said body 11 by means of a spindle 14 and sockets 15, which are integral with said case and each of said cover sections 12 and 13.

A torsional spring 16 is employed to open the cover section 12 and a similar spring 17 is provided for opening the cover section 13.

The cover section 12 overlaps the cover section 13 at their common edge as at 18 by means of a suitable lip or extension 19 provided on the underside of said cover section 13, to receive thereon the adjacent edge of the cover section 12.

The extension 19 may be made of a strip of metal which may be soldered to the under side of the cover section 13, if desired, and positioned as shown in Fig. 1.

The springs 16 and 17 normally tend to keep said cover sections 12 and 13 open; to close said cover sections and to keep them closed on the said body 11 I provide on said cover sections 12 and 13 on the inner side thereof catches 20 and 21 to interlock with hooks 22 and 23 of an escapement 24, which is shown as secured to the front part of said body 11 interiorly thereof by means of a pair of rivets 25.

The escapement 24 is shown in Fig. 5 as having thereon a pair of resilient arms 26 and 27, terminating at their upper ends in said hooks 22 and 23, and said arm 27 is shown as having integral therewith a finger 28 extending to within a short distance of said arm 26, leaving a space therebetween.

A transverse bar or pin 29 passes through a horizontal slot 30 in the front part of said body 11 transversely thereto and extends rearwardly through the space between said finger 28 and arm 26 to be brought to bear

alternately on said finger 28 and said arm 26.

Said bar or pin 29 terminates at the front of said body 11 in a manipulating button 31 for moving said bar 29 to either side in said slot 30, thereby bending said resilient arms 26 and 27, whereby said hooks 22 and 23, or either of them may be disengaged from said catches 20 and 21 respectively thereby releasing said cover sections 12 and 13, which are then opened with a snap by means of said springs 16 and 17 respectively.

The hooks 22 and 23 of the escapement 24 terminate at their upper ends each in a bevel as shown, whereby said catches 20 and 21 in descending on said bevels are causing said arms 26 and 27 to be sprung in their plane with said hooks 22 and 23 out of their paths to permit said catches 20 and 21 to be engaged with the horizontal underside of said hooks 22 and 23.

Said catches 20 and 21 have therein extensions 20*a* and 21*a* which serve as guards to keep said arms 26 and 27 with said hooks thereon from being deflected transversely to their plane, thereby retaining said catches in engagement with said hooks.

The said bar 29 terminates at the inner end thereof in a guard plate or button 32, which is in contact with the inner side of said arm 26 and said finger 28 and serves to keep said escapement from being deflected transversely to its plane when said cover sections 12 and 13 are open.

The spindle 14 has connected thereto at one end thereof an ignition or sparking ratchet 33 of hardened steel, which has thereon a toothed or serrated surface in contact with a flint bar 34 which is shown in Fig. 3 as enclosed in the upper part of a suitable receptacle or sleeve 35 and is being pressed into contact with said ratchet 33 by means of a spring 36, which is shown as positioned in the lower end of said sleeve 35. A plug 45 is provided for closing an opening in the lower end of said sleeve 35, where through said flint bar 34 and spring 36 may be introduced into said sleeve 35.

Said ratchet 33 is shown as connected to said cover section 13 by means of a one way clutch 37 on said spindle 14 and an extension 38 thereof, which is shown in Fig. 1 as terminating at the upper end thereof in a coil which is hooked on to a thimble 39 on the inner side of said cover section 13. Said extension 38 may be connected to any other permanent part of said cover section 13, if desired.

The thimble 39 serves to extinguish a flame on a wick 40 when said cover section 13 is closed. Said wick 40 is positioned in proximity to said ratchet 33 and the upper end of said flint rod 34 and serves to be ignited by a spark produced by said ratchet and flint and to continue to burn as long as may be desired when said cover section 13 is kept open.

The one way clutch 37 is shown in Fig. 2 as consisting of a wire coil which is wound on to said spindle 14 and is disposed to be tightened on to said spindle by the turning of said cover section 13, with said extension 38 thereon, in a direction to open the cover section and to be loosened on said spindle by the turning of said cover section 13 with said extension 38 thereon in a direction to close said cover section 13. Said spindle 14 then turns said ratchet 33, which is secured thereto, when said cover section 13 is opened.

Said clutch may be made to act on a part of said ratchet such as a hub, if desired, and said ratchet may then be loose on said spindle 14, if desired.

The clutch 37 may also be replaced by a permanent connection of said ratchet 33 to said cover section 13, if desired; but the one way clutch acts in a more perfect manner.

The wick 40 extends through the top end 41 of a hood 42 into a tank 43, which may contain alcohol or gasoline preferably in a state of absorption or semiabsorption by some fibrous material such as absorbent cotton.

The tank 43 is removably positioned in said hood 42 and is provided at the lower end thereof with a lip or thumb plate 44, whereby it may readily be removed from said hood 42.

Alcohol or gasoline is being fed by means of capilarity to said wick 40, to render the latter readily combustile.

The overlap 18 of said cover sections 12 and 13 causes the cover section 13 to be closed by the closing of said cover section 12; but said cover section 12 may be opened first without opening said cover section 13 by moving said button 31 to the left in Fig. 1, whereby a cigarette may become accessible without unnecessarily lighting the wick, and, when the cigarette is placed into position to be lit and it becomes desirable to light the cigarette, then the cover section 13 may be opened with a snap by moving the button 31 to the right in Fig. 1.

Many changes may be made in the details of my cigarette holder and lighter combined without departing from the main scope of my invention and parts of my invention may be used without other parts.

I do not, therefore, restrict myself to the details as shown in the drawings; but I intend to include also all mechanical equivalents and obvious modifications of the same within the scope of my invention.

I claim as my invention and desire to secure the Letters Patent:

1. In a cigarette lighter and case combined a main body for enclosing therein cigarettes, an ignition means on said body for lighting a cigarette, a cover on said body for closing the same, comprising multiple sections, one of said sections being disposed over said ignition means, another of said sections being disposed over a part of said body which is

outside of said ignition means, a means for locking said one section when said ignition means is not used, a means for locking said other section, a manual means for successively disengaging each of said locking means, adapted to be actuated by one hand of the operator holding said case, thereby releasing said sections, and an automatic means for imparting a rapid motion to said one section when the locking means thereof is released, thereby actuating said ignition means.

2. The elements of claim 1, the other of said sections being disposed over said body adjacent to said one section, and overlapping the latter, the means for locking said other section being adapted to be actuated subsequently to the means for locking said one section and said manual means being adapted to successively release first said other section and then said one section, thereby enhancing the safety of the device.

3. The elements of claim 1, combined with a spindle for pivotally connecting said cover to said body, said ignition means including a pivotally mounted serrated member on said spindle and a flint in contact therewith, and said automatic means including a one way clutch connected to said one section and to said member in a way to cause said member to be engaged by said one section and to rotate therewith when the latter is being opened.

4. The elements of claim 1, combined with a spindle for pivotally connecting said cover to said body, said ignition means including a pivotally mounted serrated member on said spindle and a flint in contact therewith and said automatic means including a one way clutch consisting of a coiled spring connected to said one section and to said member and disposed to be uncoiled by the motion of said one section when the latter is being closed and to be tightened by the motion of said one section when the latter is being opened.

5. In a cigarette lighter and case combined a main body for enclosing therein cigarettes, an ignition means on said body for lighting a cigarette, a cover on said body for closing the same, comprising multiple sections, one of said sections being disposed over said ignition means, another of said sections being disposed over a part of said body which is outside of said ignition means, a means for locking said one section when said ignition means is not used, a means for locking said other section, a manually operated means for successively disengaging each of said locking means, slidably connected to the front part of said body and disposed in a way to prevent accidental release of said locking means, and an automatic means for imparting a rapid motion to said one section when the locking means thereof is released, thereby actuating said ignition means.

6. The elements of claim 5, the other of said sections being disposed over said body adjacent to said one section and overlapping the latter, the means for locking said other section being adapted to be actuated subsequently to the means for locking said one section, and said disengaging means being adapted to successively release first said other section and then said one section, thereby enhancing the safety of the device.

7. The elements of claim 5, combined with a spindle for pivotally connecting said cover to said body, said ignition means including a pivotally mounted serrated member on said spindle and a flint in contact therewith, and said automatic means including a one way clutch connected to said one section and to said member in a way to cause said member to be engaged by said one section and to rotate therewith when the latter is being opened.

8. The elements of claim 5, combined with a spindle for pivotally connecting said cover to said body, said ignition means including a pivotally mounted serrated member on said spindle and a flint in contact therewith, and said automatic means including a one way clutch consisting of a coiled spring connected to said one section and to said member and disposed to be uncoiled by the motion of said one section when the latter is being closed and to be tightened by the motion of said one section when the latter is being opened.

9. The elements of claim 5, one of said locking means including a resilient arm secured to said body at the inner end thereof and terminating at the outer end thereof in a beveled hook, a catch on the corresponding section of the cover, disposed to be intercepted by said bevel when said section is being closed and adapted to react on said bevel, thereby deflecting said arm with said hook thereon in the plane thereof, out of its path, to engage the inner side of said hook after passing the latter and allowing said arm to return to its original position, and an extension on said catch disposed to keep said arm with said hook thereon from being deflected transversely to the plane thereof, thereby retaining said catch in engagement with said hook.

10. The elements of claim 5, said locking means including an escapement for engaging a part on each of said sections, a resilient arm at each end of said escapement, and said manual means being adapted to successively deflect said arms whereby to release each of said sections.

11. The elements of claim 5, said locking means including an escapement having thereon a pair of resilient arms terminating in hooks, for engaging a catch on each of said sections, said body having therein a suitably disposed oblong slot, and said manual means

including a sliding member disposed in said slot and having thereon a portion disposed to be brought alternately to bear on each of said arms, thereby deflecting the same, whereby the said catches may be successively released from said hooks, and a gripping means on said sliding member, whereby to move the latter in said slot from end to end thereof, thereby actuating said sliding member.

SAMUEL DOMINUS.