

PATENT SPECIFICATION



328,172

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Complete Accepted : April 24, 1930.

COMPLETE SPECIFICATION.

Combined Cigarette Case and Lighter.

I, WILLIAM HENRY ROWE, of 1338, South Flower Street, Los Angeles, California, United States of America, a citizen of the United States of America, 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 combined cigarette cases and lighters of the type in which a case with a hinged closure member is divided into two compartments, one of which is adapted to contain a store of cigarettes while the other contains igniter means including a wick, a supply of fuel therefor and friction means for the production of sparks to ignite said wick.

According to the invention a combination device of the type referred to is provided with a self-contained lighter unit having trigger released mechanism for the production of the wick igniting sparks, said unit being adapted to be removably inserted in the appropriate compartment of the two compartment external case and being held therewithin in such a manner that the sparking mechanism can be actuated without removing the lighter unit from the external case, after the hinged closure of said case has been opened.

The invention also includes the providing of resilient means for positioning and holding the lighter unit within the external case; furthermore, a part of the lighter trigger mechanism may cooperate with said external case so as to constitute an automatically operating retaining latch.

A still further feature of the invention resides in a construction and disposition of parts such that closing of the hinged closure member of the external case after the the sparking mechanism of the lighter has been actuated automatically re-sets said sparking mechanism in readiness to be again released by the trigger mechanism when said closure member is again opened.

Preferably the closing of the external case is accompanied by the application to the wick of the lighter of a snuffer carried

by a part of the sparking mechanism.

Further features of the invention are disclosed in the following particular description, with reference to the accompanying drawings, in which,

Fig. 1 is a front elevation of a combined cigarette case and lighter embodying the features of my invention.

Fig. 2 is a side elevation of the same.

Fig. 3 is a front elevation, partly in section, of the lighter unit.

Fig. 4 is a side elevation of the lighter unit.

Fig. 5 is a view similar to Fig. 4 showing the parts in another position.

Fig. 6 is a central longitudinal section through the case showing the lighter in end elevation.

Fig. 7 is a transverse section through the case showing the lighter in side elevation.

Fig. 8 is a front view of the case with the closure closed.

Fig. 9 is a side elevation of the case. Fig. 10 is a sectional view of the closure plug.

Fig. 11 is a sectional view of the flint tube.

Fig. 12 is a fragmentary end view of a modification and

Fig. 13 is a fragmentary side elevation of the modification.

Referring to the drawings by reference characters I have indicated my combined cigarette case and lighter generally at 10. As shown, the device includes a case 11 having a lid 12 hingedly connected thereto as at 13. The case 11 is divided into two compartments 14 and 15 by a transverse partition 16.

The lid 12 is adapted to be retained in closed position by a spring catch 17 which is secured adjacent its lower end to the front wall of the case. The catch 17 is provided with an aperture 18 in which a pin 19 on the inside of the front wall of the lid is adapted to be positioned. Intermediate the length of the member 17 I provide a button 21 which projects through an aperture 22 in the front wall of the case a sufficient distance so that when pressure is applied thereon it will move the member 17 out of engagement with the pin 19.

[Price 1/-]

Between the hinges 13 I provide a coiled spring 23 which exerts a pressure to cause the lid 12 to move to an open position when the member 17 is moved out of engagement with the pin 19.

The compartment 14 is preferably made of a size to hold a full package of cigarettes 20. The package is opened, inserted and the cigarettes removed one at a time by the user. The compartment 15 is arranged to receive a lighter which is indicated generally at 25. As shown this lighter includes a body portion 26 which forms a fuel reservoir. The body has a spring member 27 secured thereto intermediate its length as at 28 and the lower end of the spring is doubled on itself as at 28¹ forming a portion which projects beyond the end of the body and engages the bottom of the case 11.

Extending through and secured in a fluid tight manner to the body portion 26 I provide a tube 29 in which the flint and cushioning spring are positioned. The lower end of the tube 29 is closed by a threaded plug 30 and the upper end of the tube is formed into a yoke 31 in which is positioned a shaft 32 having an operating member 33, and a cam 34, both secured thereto against turning thereon.

The threaded plug 30 which engages the tube 29 (see Fig. 11) has a reduced inner end 30^a which engages a coiled spring 30^b. This coiled spring extends through substantially the entire length of the tube and engages a block 30^c which in turn engages the flint 30^d. The yoke 31 is preferably integral with the tube 29 as shown in Fig. 11.

The operating member 33 includes a circular spur toothed flint engaging section or steel 35 and a curved neck portion 36 which is provided adjacent its free end with a nib 37 which is adapted to engage the under side of a nib 38 provided adjacent the upper end of the spring member 27 for normally retaining the operating member 33 in a lowered position as shown in Fig. 4.

On the top of the body portion 26 I provide a hollow cone shaped wick member 39 through which a wick 39¹ extends. On the under side of the body there is provided a filling aperture which is adapted to be closed by a threaded plug 40. This plug is recessed as at 40^a and the recess closed by a plug 40^b having resilient fingers 40^c for holding it in place. A spare flint 40^d may be placed in the cavity 40^a.

The operating member 33 is provided with a hollow cylindrical member 41 which is positioned to fit over the cone 39 when the member 33 is in a lowered position and acts as a snuffer.

For moving the operating member 33 I provide a flat spring 42 which has the lower end 42¹ thereof secured to the body 26 adjacent the bottom thereof. The upper end of the spring 42 is provided with an offset enlarged portion 45 which engages one face 43¹ of the cam 34 above the axis of the shaft 32 and exerts a pressure thereon which when the nib 38 is disengaged from the nib 37 causes the cam to be turned and thereby turn the shaft 32 and move the operating member 33 to a raised position as shown in Fig. 5. As the operating member 33 is thus moved the snuffer 41 moves away from the wick and as the spur toothed section 35 moves over the flint sparks are thereby produced which ignite the wick 39¹. The spring 42 engages the face 43¹ as shown in Fig. 5 to hold the operating member raised.

When the lighter 25 is positioned in the compartment 15 of the case a button 45 on the spring 27 projects through an aperture 46 in the front wall of the case a sufficient distance so that when the button 45 is pressed the nib 38 will be moved out of engagement with the nib 37 on the operating member. The button 45 also serves to retain the lighter in position in the compartment 15.

After the wick has been lighted and the operating member 33 is in a raised position it is only necessary to move the lid 12 to a closed position to close the case, to extinguish the wick and reset the operating member 33.

In Figs. 12 and 13 I show a slight modification of my invention. In this modification the yoke 31, tube 29, wick member 39, catch 38, etc. are similar to such parts previously described. The operating member 50 in this modification is mounted on a shaft fitted in the yoke 31 and the operating member includes a shoulder 52 which engages the yoke 31 when the operating member 50 is raised to thereby limit the movement of the operating member. In order to urge the operating member to operative position I provide a coiled spring 53 which has one end 54 secured to the rear of the lighter body 26 and is wrapped about the shaft 55 on which the operating member 50 is secured. The end of the spring is secured to the shaft and as the spring is coiled the operating member when the catch 38 is released will move to operative position causing the steel portion 56 to strike the flint in the tube 29 and produce a light as will be understood.

From the foregoing description it will be apparent that I have made an improved combination cigarette case and lighter which is highly efficient and which can be economically manufactured.

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:—

5 1. A combined cigarette case and lighter of the type herein defined, characterised by the provision of a self-contained lighter unit having trigger released mechanism
10 for the production of the wick igniting sparks, said unit being adapted to be removably inserted in the appropriate compartment of the two compartment case and being held therein in such a manner
15 that the sparking mechanism can be actuated without removing the lighter unit from the external case after the hinged closure of said case has been opened.

20 2. A combination device according to claim 1, characterised by the provision of resilient means for positioning and holding the lighter unit within the external case.

25 3. A combination device according to claim 1 or claim 2, characterised by the fact that a part of the trigger mechanism for releasing the spark producing mechanism of the lighter cooperates with the
30 external case to latch the lighter unit to said case.

4. A combination device according to claim 1 wherein the trigger actuated sparking mechanism, after having been
35 actuated is re-set automatically by the hinged closure member of the external case when said closure member is moved to the closing position.

40 5. A combination device according to claim 1, wherein the closing of the external case by the hinged closure member is accompanied by the application to the wick of a snuffer carried by a part of the sparking mechanism.

45 6. A combination device according to claim 1 having in its external case, a cigarette compartment adapted to hold a full package of cigarettes.

7. A combination device according to claim 1, wherein the spark producing
50 mechanism comprises, in conjunction with the usual spring urged flint, a pivoted operating member consisting of a lever which is normally engaged by the trigger
55 mechanism and held thereby in opposition to a spring and which embodies a roughened flint contacting surface substantially concentric with its pivot, the arrangement being such that when said
60 operating member is released by trigger action, it rotates rapidly under the influence of its spring to a limiting position between which and the position of trigger engagement the necessary sparking is set
65 up.

8. An arrangement according to claim 7, wherein the operating member carries the snuffer referred to in claim 5.

9. An arrangement according to claim 7, wherein the pivoted operating member
70 carries a cam rotating with it about its pivotal axis, said cam having a face which, in the trigger retained position of the operating member engages a spring,
75 said cam face and said spring coacting so as to tend to rotate said operating member in opposition to the restraining action of the trigger, while another face on said
80 cam is arranged to coact with said spring after said operating member has been released and permitted to rotate, said last mentioned cam face determining, in conjunction with said spring the limit of rotary
85 movement of said operating member.

10. A combined cigarette case and lighter constructed substantially as herein described with reference to the accompanying drawings.

Dated this 29th day of July, 1929.

For the Applicant,
LLOYD WISE & Co.,
10, New Court, Lincoln's Inn, London,
W.C. 2,
Chartered Patent Agents.

POOR QUALITY

328,172 COMPLETE SPECIFICATION

SHEET 1

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



Fig. 3

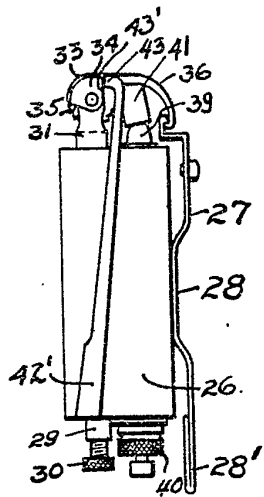


Fig. 4

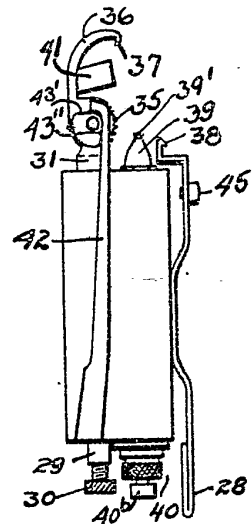


Fig. 5

Fig. 10

40'

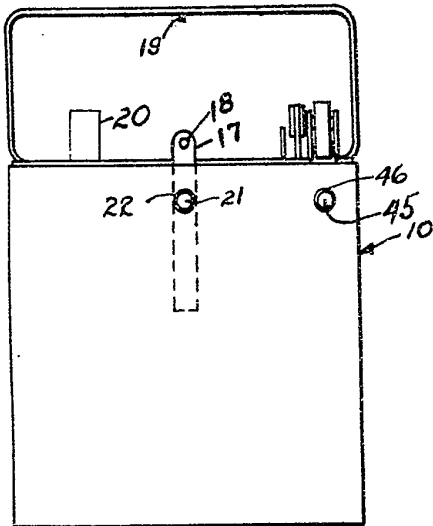


Fig. 1

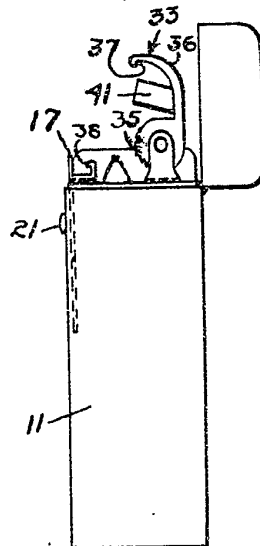
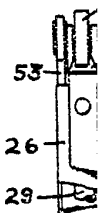


Fig. 2

14

Fig. 12



POOR
QUALITY

2 SHEETS

SHEET 2

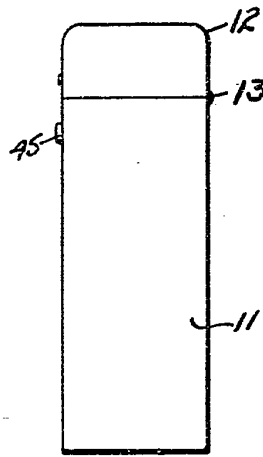
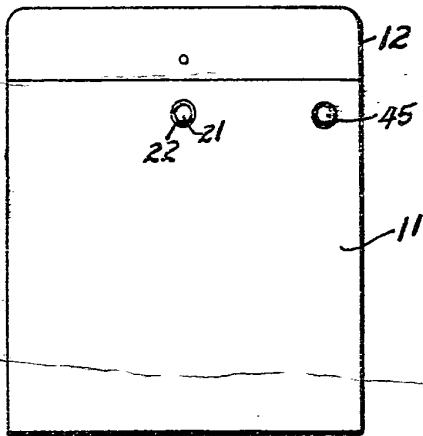
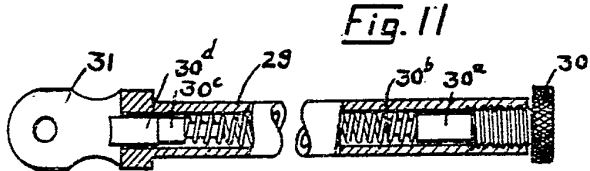
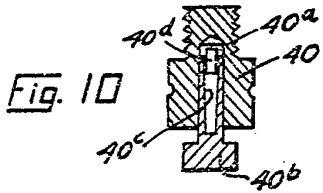


Fig. 8

Fig. 9

Fig. 6

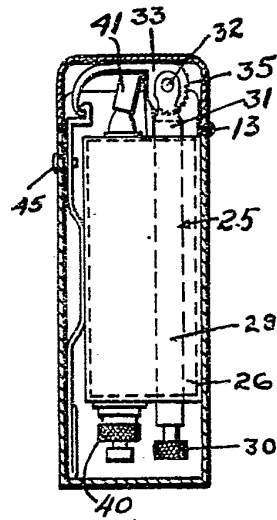
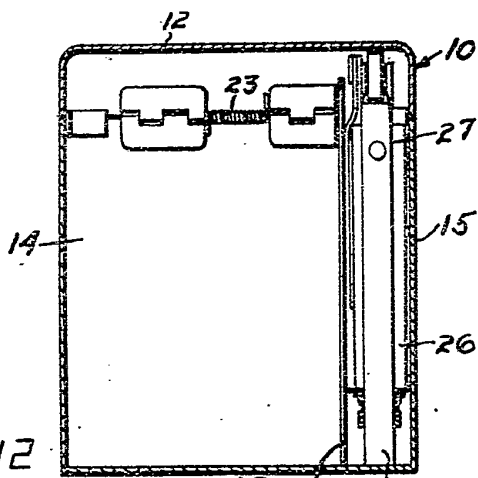


Fig. 12

Fig. 7

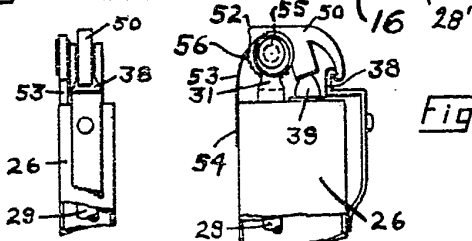


Fig. 13

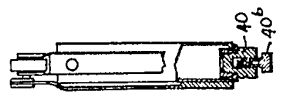


Fig. 3

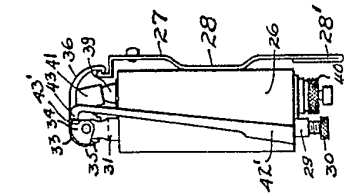


Fig. 4

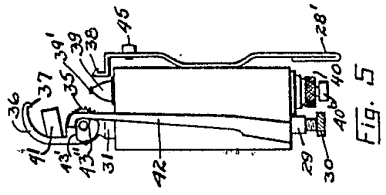


Fig. 5

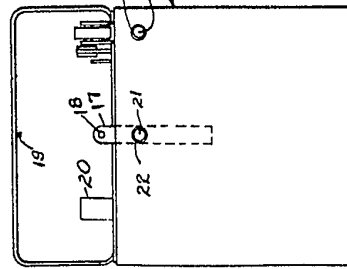


Fig. 1

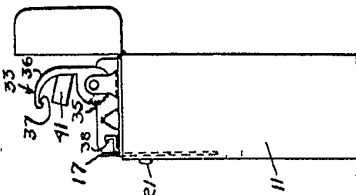


Fig. 2

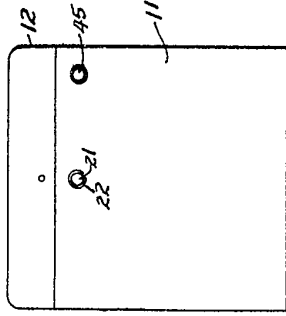


Fig. 8

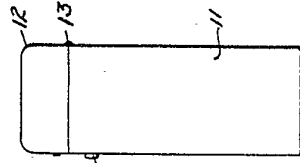


Fig. 9

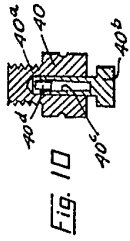


Fig. 10

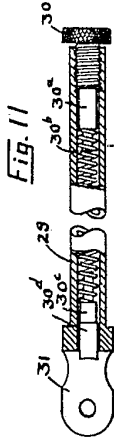


Fig. 11

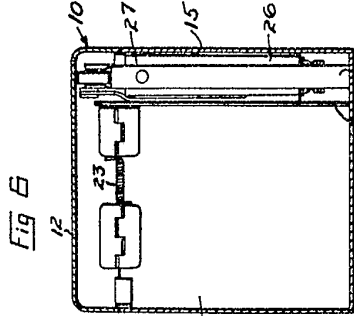


Fig. 6

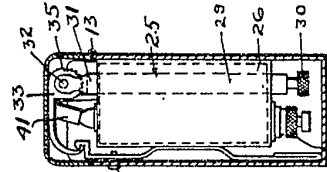


Fig. 7

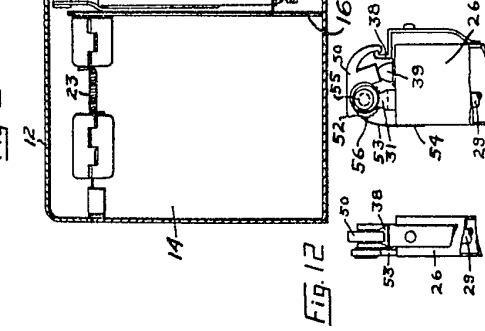


Fig. 12

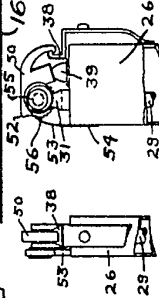


Fig. 13

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