

ORIGINAL COPY  
**PATENT SPECIFICATION**

**405,682**

Application Date: Aug. 10, 1932. No. 22,386/32.

Complete Left: July 29, 1933.

Complete Accepted: Feb. 12, 1934.

PROVISIONAL SPECIFICATION.



**A New or Improved Combined Cigarette or Cigar Case and Lighter.**

I, GLAISTER ALFRED JOHN CLAYTON, a Subject of the King of Great Britain, of 1, St. Leonards, Rydens Grove, Hersham, Walton-on-Thames, Surrey, do hereby declare the nature of this invention to be as follows:—

This invention relates to a combined cigarette or cigar case and lighter.

The object of the invention is to provide a combined cigarette or cigar (hereinafter termed "cigarette") case and lighter, which shall be convenient in shape and size so that it can be carried in the pocket, and which shall be capable of delivering the cigarettes ready for lighting from the lighter.

According to the invention means are provided whereby cigarettes are singly delivered or ejected from the case and simultaneously the lighter is operated and presents a flame, from which the cigarette delivered may be lit. Such means may comprise a member, which operates a trigger against the action of a spring to eject a cigarette and by the same movement of which member, the trigger acts upon the lighter to ignite it. The operation of the lighter may be carried out by a positive connection between the trigger and the lighter, whereby a catch is released and a portion of the lighter is moved to operate the same. Alternatively, the force produced by the reaction of the trigger after it has ejected a cigarette may be employed to operate the catch of the lighter.

According to one construction of the invention, the case is made shallow in depth, somewhat greater than the depth of a cigarette. An operating member is located in one face of the case and consists of a revoluble plate, formed on the outside of the case with a small handle, which can be gripped by the thumb and forefinger so as to turn it. The plate projects through the case and on the inside is integrally formed with a plurality of radiating arms which co-operate with a trigger, having a bent-over end, against which the radiating arms may contact in turn. The opposite end of the trigger is formed with a projection, which is inclined upwardly from the bottom of the

case. The trigger is arranged so as to be freely movable, being governed in its movement by two stops, arranged on either side of it; a small coil spring is wound about the trigger and abuts against the upstanding projection at one end and the stops at the other end, so that when the operating member is rotated the trigger is moved in its path within prescribed limits.

A shallow tray rests in the case above the trigger, and a slot is formed in the tray through which the projection on the trigger passes. The sides of the tray are made channel shaped so as to form grooves or guides for springs which may be of ribbon steel. Each spring bears between the end of the case and a lateral pusher which extends across the tray.

On the opposite side of the case to that near which the trigger projection is located, apertures are formed through the sides of the case and tray, and the apertures register with each other so that cigarettes may be ejected from the case through them. The pusher maintains the cigarettes against the end of the case at which the trigger projection is located, ready for the projection to eject the cigarettes separately through the apertures.

The lid is hinged to the case at its end and is fastened by means of any convenient catch.

It will be readily understood that when it is desired to eject a cigarette, the operating member is rotated, thereby moving the trigger in its arcuate path so that the projection which is located near to the flat end of a cigarette lying in the tray moves it in a lateral direction through the aperture in the tray out of the case. As the spring-pressed pusher is arranged so that it presses the cigarettes in the tray towards the end of the case near which is the projection, there is always a cigarette in position ready to be ejected at will.

The trigger projection, in addition to ejecting cigarettes, also operates the lighter which is fixed to the side of the case and is made integral therewith. This operation may be carried out by means of the trigger projection actuating a catch

[Price 1/-]

55

60

65

70

75

80

85

90

95

100

105

during its movement by the operating member, or the trigger projection may operate the catch by striking it on returning to its original position under the influence of the spring.

5 If the lighter should fail to be ignited during the operation of ejecting a cigarette, the operating member may be rotated in the reverse direction and the trigger projection on being thereby re-engaged is pressed against the lighter catch to operate the same.

10 The lighter is formed with the usual receptacle for inflammable spirit, on one end of which is the usual aperture for the wick adjacent to a flint wheel.

15 A feature of this invention is the provision of a sliding hood member which normally encloses the flint wheel and the wick and is flush with the remainder of the case so that the hood, and fuel receptacle and the cigarette case all form one integral member.

20 The hood member is normally held closed by the catch operated by the trigger projection and is attached to the end of the fuel receptacle by means of parallel guides, which are circular in cross section, sliding within closed tubular members attached to the surface of the fuel receptacle. The said guides each enclose a compression spring which abuts between the end of the hood member and a stop located in each of said tubular members.

By means of this construction when the hood member is released by the catch, the springs which are held in compression before the catch is released then act upon the end of the hood member and cause it to slide along the surface of the fuel receptacle away from the case.

40 A pawl is attached to the interior of the hood member, which pawl is pressed by means of a spring against a cog-wheel mounted on the same spindle as the flint wheel with the result that when the hood member slides relatively to the case the pawl engages with the cog-wheel and rotates it, thereby rotating also the flint wheel and causing a spark which ignites the wick. Until the hood member slides across the fuel receptacle, the wick is hidden from view, but when the catch is operated, the wick is simultaneously ignited and uncovered ready for immediate use.

55 It will be appreciated that the invention provides a combined cigarette case and lighter in which no fuel nor fumes from the lighter can contaminate the cigarettes as the fuel receptacle forms a separate case from that in which the cigarettes are contained, both of which are also normally enclosed.

It will be appreciated that the invention provides a combined cigarette case and lighter in which no fuel nor fumes from the lighter can contaminate the cigarettes as the fuel receptacle forms a separate case from that in which the cigarettes are contained, both of which are also normally enclosed.

Dated this 10th day of August, 1932.

BREWER & SON,  
33, Chancery Lane, London,  
Patent Agents for the Applicant.

## COMPLETE SPECIFICATION.

### A New or Improved Combined Cigarette or Cigar Case and Lighter.

65 I, GLAISTER ALFRED JOHN CLAYTON, a Subject of the King of Great Britain, of 1, St. Leonards, Rydens Grove, Herisham, Walton-on-Thames, Surrey, 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:—

70 This invention relates to a combined cigarette case and lighter and more particularly but not exclusively to a case of such shape and size that it can be carried in the pocket.

75 Prior to the present invention it has become known to provide combined cigarette cases and lighters but generally such devices have embodied means whereby a cigarette is moved into contact with the lighter for ignition before same is ejected from the device. Such devices possess the disadvantage that it is not possible to obtain an unignited cigarette and moreover if the lighter does not ignite

considerable trouble is caused in removing the cigarette which has been moved into contact therewith.

90 A further prior proposal has contemplated the provision of a combined cigarette case and lighter having means for ejecting a cigarette which is removed from the case before ignition thereof at the lighter, the ejection of a cigarette and the ignition of the lighter being accomplished by a common operating member. In such an arrangement the device has been operated through gears which are actuated by means of a wheel projecting from the device but it will be seen that the efficiency of the apparatus is seriously impaired owing to the fact that the gears are subject to considerable wear.

105 This invention has amongst its objects to provide a generally improved combined cigarette case and lighter, and more particularly a pocket case and lighter, which overcomes the before mentioned disadvantages and with this and other ends in

view contemplates the provision of a combined cigarette case and lighter embodying common operating means for partially ejecting a cigarette from the case and for releasing a spring actuated ignition means for the lighter, and wherein the partially ejected cigarette is manually withdrawn from the case for manual ignition at the lighter.

A further feature of the invention resides in the provision of a connection between the operating member and the lighter for actuating the lighter in the event of failure of the lighter to ignite when the operating member moves forward to eject the cigarette.

In a preferred construction according to the invention the lighter comprises a hood which normally conceals the wick and flint wheel of the lighter and operative connections between the hood and the operating member which are arranged to release a spring adapted to move the hood to expose the wick on actuation of the operating member.

A particular construction of combined cigarette case and lighter according to the present invention will now be described in further detail by way of example with reference to the accompanying drawings in which:—

Fig. 1 is a sectional plan view of the device with the cigarette tray removed.

Fig. 2 is a section along the line II—II in Fig. 1.

Fig. 3 is a sectional plan view similar to that shown in Fig. 1 but showing the mechanism after ejection of a cigarette and ignition of the lighter.

Fig. 4 is a plan view of the device with the cigarette tray in position and the lid open, and with the ejecting mechanism and lighter in the same position as in Fig. 3.

Fig. 5 is a section along the line V—V in Fig. 4.

Like reference numerals indicate like parts throughout the drawings.

The device comprises a cigarette case 10 and lighter 11 which are formed integrally with one another from a single metal stamping or pressing. The cigarette case is provided with a hinged lid 12 which is normally held in position by a stud 13 co-operating with a hole in the edge of the lid.

Within the cigarette case fits a tray 14 which is cut away at 15 to make room for the ejecting finger 16, the action of which will subsequently be described. By forward movement of the finger 16 through the slot 15 the cigarette 17 nearest the end of the case will be ejected through the cut away portion 18 in the side of the case. As is clearly to be seen in Fig. 4,

the cigarettes are constantly urged towards the ejector side of the case by means of a pusher 19 actuated by the spring 20, so that as soon as one cigarette is removed from the case through the aperture 18 another will take its place.

It is a characteristic feature of the device according to the present invention that the ejection of the cigarettes from the case and the ignition of the lighter are effected by means of a common operating member constituted by a pair of superimposed triggers 21, 22 (see Fig. 1). The trigger 21 is primarily effective in ejecting the cigarettes and igniting the lighter, while the trigger 22 is only employed for emergency purposes should the lighter fail on operation of the main trigger 21.

The trigger 21 is slidably mounted at the base of the case between one side of the case and an upstanding projection 23. As is clearly shown in Figs. 1 and 3, the trigger is constantly urged to the right by means of a spring 24 which is held by an upstanding projection 25 on the base of the case. The trigger 21 is formed at its right hand end with an upwardly projecting finger 16 which projects, as shown in Fig. 4, through the cut away portion 15 in the tray 14 which, when the case is assembled, rests on top of the trigger mechanism. The auxiliary trigger 22 lies loosely on top of the main trigger 21, and is caused to partake of its movements by reason of the upstanding pins 26, 27 on the trigger 21 which engage with the slots 28, 29 in the auxiliary trigger. Owing to the pin and slot connection between the two triggers it will be appreciated that a certain limited end-wise movement of the one relative to the other is possible.

The triggers are actuated by a plate 30 carried on a spindle 31 which extends through the base of the case and is formed at its lower end with a finger grip 32 which enables the spindle to be actuated from outside the case. The plate 30 carries three radial projections 33 which co-operate as the spindle is rotated, with the projections 34, 35 on the main trigger 21 and the auxiliary trigger 22 respectively.

When the spindle 31 is turned in anti-clockwise direction as seen in Fig. 1, the engagement of the right hand projection 33 and projection 34 on the trigger 21 will cause the latter to be moved towards the left. As soon as the pins 26, 27 have moved to the left hand ends of their corresponding slots, the auxiliary trigger 22 will be caused to participate in the movement of the main trigger. This movement of the main trigger towards the left

effects the ejection of a cigarette, as is clearly shown in Fig. 4. Shortly after the mechanism passes the position shown in Fig. 3, the projection 33 will become  
 5 disengaged from the corresponding projections on the triggers, with the result that the triggers will be returned by the spring 24 to their initial position.

Besides ejecting the cigarette the trigger also has the effect of actuating the lighter, the construction of which will now be described. The lighter 11 comprises a container 36 for petrol or other inflammable spirit into which dips a wick  
 10 37. Adjacent the wick are disposed a flint wheel 38 and co-operating flint 39, the position of the flint being controlled in known manner by means of a spring  
 15 40 and screw 41. The wick and flint wheel are normally concealed by means of a sliding hood 42. The hood 42 is continually urged towards the right, in Figs. 1, 3 and 4, by means of a pair of  
 20 springs 43 located in tubular recesses 44, but in the normal position of the lighter the hood is held in the closed position shown in Fig. 1 by engagement of a catch  
 25 45 on its upper surface with a notch 46 in a blade spring 47. The blade spring 47 is attached by a screw 48 to the side of the case and carries a stud 49 which projects through an aperture 50 into the  
 30 interior of the case. It will readily be appreciated that as soon as the spring 47 is lifted the catch 45 will be released and the hood will be moved to the right by the action of the springs 43, as indicated in Figs. 3 and 4. Inside the hood is pivoted a pawl 51 which, as the hood  
 35 moves towards the right, engages one of the pins 52 projecting from the side of the flint wheel 38 and causes the latter to turn, thereby producing a spark and igniting the wick 37. A spring 53 is  
 40 provided for holding the pawl 51 in contact with the pin 52. The movement of the hood 42 under the action of the springs 43 is stopped either by engagement of the pawl with its co-operating  
 45 pin, or by the engagement of an inwardly projecting pin (not shown) carried on the hood with the bracket 54 which carries the flint wheel.

As the trigger 21 moves to the left to  
 55 eject a cigarette (as shown in Fig. 3) a cam surface 55 formed on it comes into engagement with the stud 49, thus lifting the blade spring 47 and freeing the catch 45 so that the hood 42 of the lighter  
 60 will move to the right and ignite the wick. The cigarette may then be grasped by its projecting portion, shown clearly in Fig. 4, and lit at the flame of the lighter. The apparatus is then returned  
 65 to its initial position by slight further

rotation of the finger grip 32 to clear the projections 34, 35 on the triggers and cause the latter to be returned to their normal position by the spring 24, and finally pressing the hood 42 inwardly by  
 70 the finger or thumb so that its catch 45 once more engages with the blade spring 47.

If for any reason the lighter should fail to ignite when the catch is released by  
 75 the forward movement of the trigger 21 to eject the cigarette, mechanism is provided for effecting further release of the hood 42 without at the same time ejecting another cigarette from the container. The operation of this auxiliary mechanism is as follows:—  
 80

Supposing the lighter fails to become ignited when the cigarette is ejected, the  
 85 finger grip 32 is turned further to an extent sufficient to free the trigger from the projection 33 and allow it in turn to free the stud 49 from the cam face 55, and the hood is pressed back so that its catch 45 engages with the spring 47. The  
 90 finger grip 32 is then turned in the reverse direction so that the projection 33 acts on the stud 35 associated with the auxiliary trigger 22. The auxiliary trigger will then execute a limited movement towards the right relative to the  
 95 main trigger 21—which movement is permitted owing to the pin and slot connections between the two triggers—with the result that the cam face 56 on the  
 100 auxiliary trigger will act on the stud 49, thus raising the blade spring 47, releasing the catch 45 and giving the lighter another opportunity to light.

Owing to the fact that the cigarette  
 105 case and lighter constitute entirely separate compartments, both of which are normally enclosed, of a single casing, no fuel or fumes from the lighter can contaminate the cigarettes.  
 110

It will be understood that in this Specification the term "cigarettes" is intended to cover not only cigarettes but also cigars, cheroots and the like.

Having now particularly described and  
 115 ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A combined cigarette case and  
 120 lighter embodying common operating means for partially ejecting a cigarette from the case and for releasing a spring actuated ignition means for the lighter, and wherein the partially ejected  
 125 cigarette is manually withdrawn from the case for manual ignition at the lighter.

2. A combined cigarette case and  
 130 lighter according to claim 1 wherein

means are provided for igniting the lighter without partially ejecting a cigarette in the event of failure of the lighter to ignite when the operating mechanism is first actuated.

5 3. A combined cigarette case and lighter according to Claim 2 wherein the subsequent ignition of the lighter is effected by reverse movement of the common operating means.

10 4. A combined cigarette case and lighter embodying an operating member for partially ejecting a cigarette and for releasing a spring actuated ignition means for the lighter and wherein the said lighter is provided with a hood which normally conceals the wick and flint wheel of the lighter, and operative connections between the hood and the operating member which are arranged to release a spring adapted to move the hood to expose the wick on actuation of the operating member.

15 5. A combined cigarette case and lighter according to the last preceding claim wherein the hood is operatively connected with the flint wheel (e.g. by means of a pawl engaging with pins on the flint wheel) in such a manner as to rotate the latter when the hood moves to expose the wick.

20 6. Apparatus according to any of the preceding claims wherein the lighter comprises a spring, a catch which normally constrains a hood to remain in its closed position over the wick and flint wheel against the action of the spring, and an operative connection between the catch and the operating member arranged to release the catch on actuation of the operating member.

25 7. Apparatus according to any of the preceding claims wherein the operating member comprises a trigger which is mounted for sliding movement with respect to the cigarette case and carries an ejector finger which projects into the

compartament containing the cigarettes.

8. Apparatus according to Claim 7 comprising a retaining spring for retaining the catch in position to hold the lighter hood closed, and wherein the trigger is formed with a cam face which co-operates with the spring to free the catch on forward movement of the operating member to eject the cigarette.

9. Apparatus according to Claim 3 and Claim 8 wherein the trigger is formed with a second cam face which co-operates with the retaining spring to release the catch on reverse movement of the operating member.

10. Apparatus according to Claim 7 wherein the movement of the trigger is controlled by a spindle mounted in the wall of the cigarette case and provided on the outside with a finger grip and on the inside with a projection co-operating with a corresponding projection on the trigger to cause the latter to slide when the spindle is rotated.

11. Apparatus according to Claim 10 wherein the trigger is provided with a return spring to return it to its normal position when the co-operating projections on the trigger and spindle become disengaged by further rotation of the spindle beyond the amount required to eject the cigarette.

12. Apparatus according to Claim 9 wherein the trigger is formed in two parts, each carrying one of the cam faces, which are capable of limited sliding movement relative to one another in the direction of movement of the trigger.

13. A combined cigarette case and lighter substantially as hereinbefore described and illustrated in the accompanying drawings.

Dated this 29th day of July, 1933.

ERIC POTTER,

Chartered Patent Agent,  
3, Staple Inn, London, W.C.1.

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

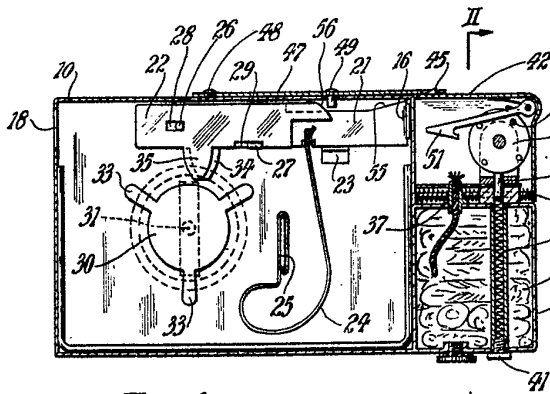


Fig. 1.

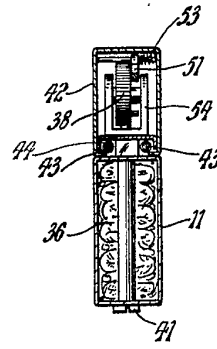


Fig. 2.

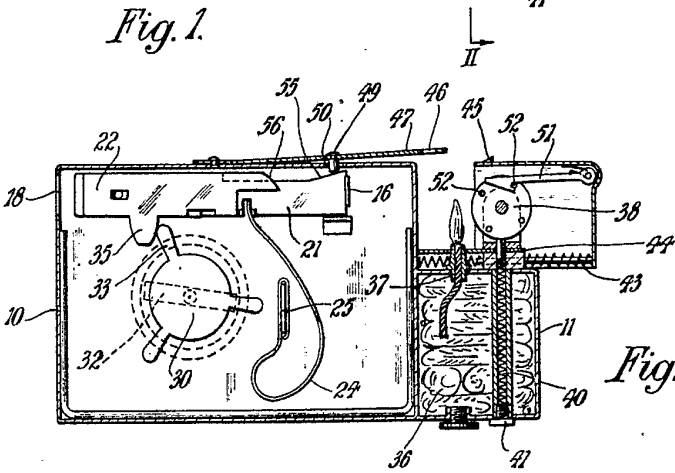


Fig. 3.

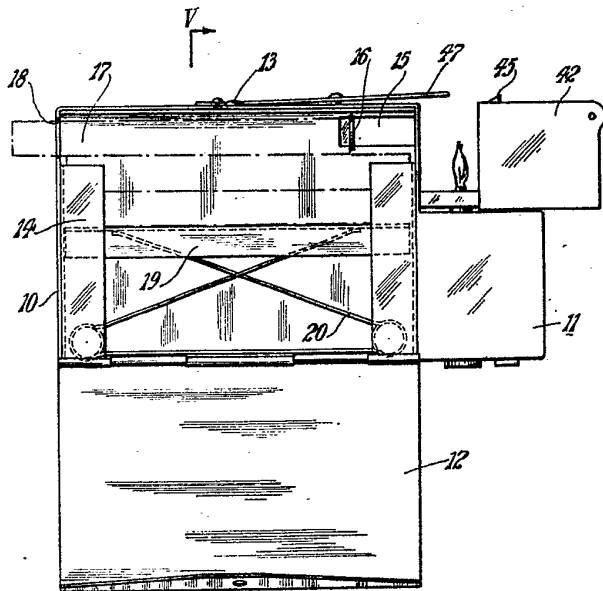


Fig. 4.

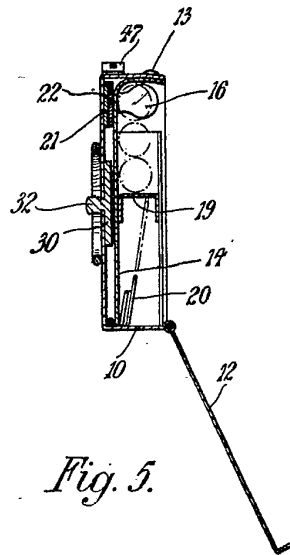


Fig. 5.