March 10, 1931. M. ALLAND 1,796,136

COMBINED CIGARETTE DISPENSER AND LIGHTER

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Fig. 1.

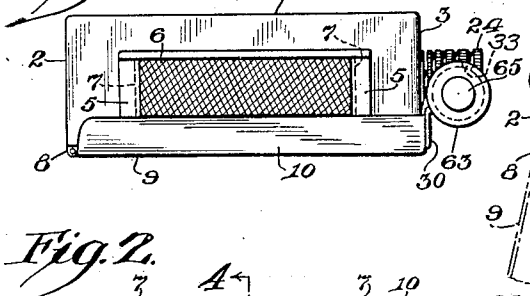


Fig. 5.

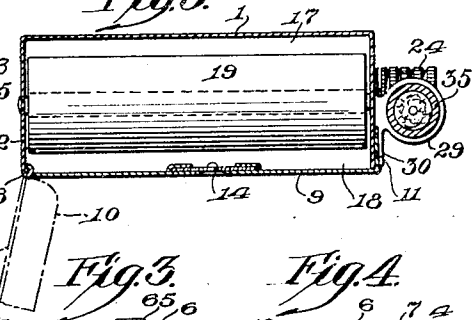


Fig. 2.

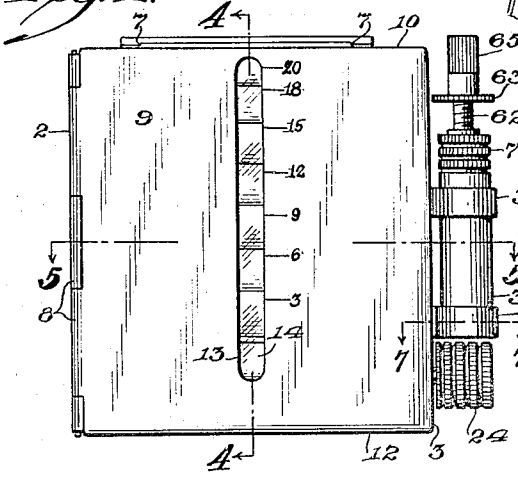


Fig. 3.

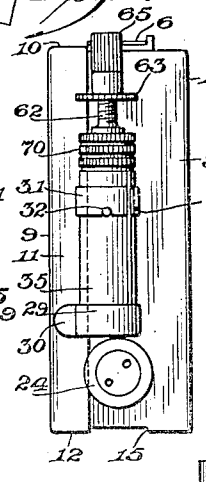


Fig. 4.

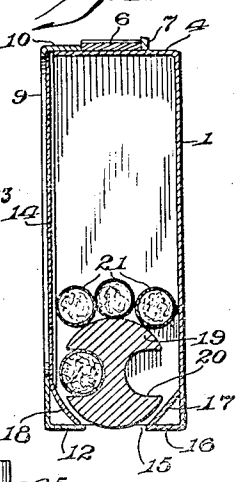
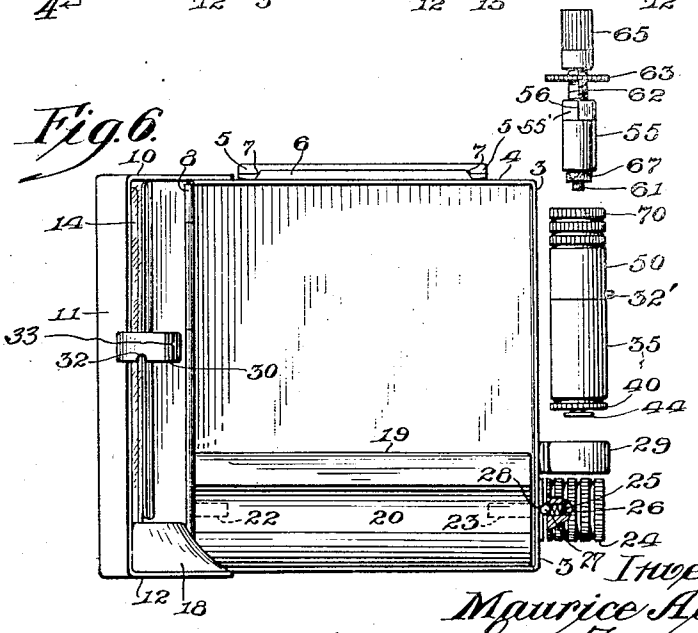


Fig. 6.



Witness:
Walter Chisny

Inventor
Maurice Alland
by J. Stuart Freeman,
Attorney.

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COMBINED CIGARETTE DISPENSER AND LIGHTER

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Fig. 10.

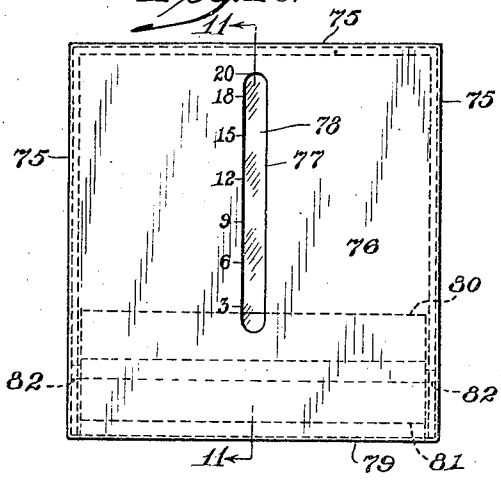


Fig. 11.

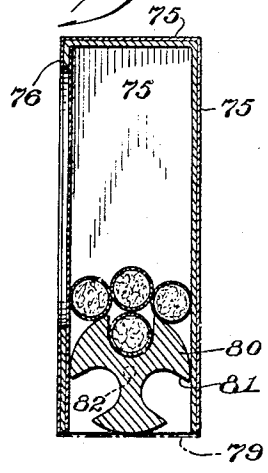


Fig. 7.

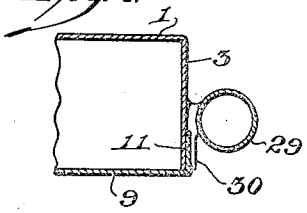


Fig. 12.

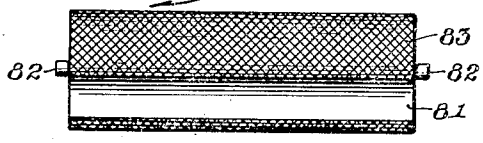


Fig. 9.

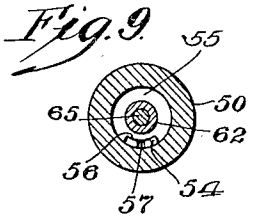
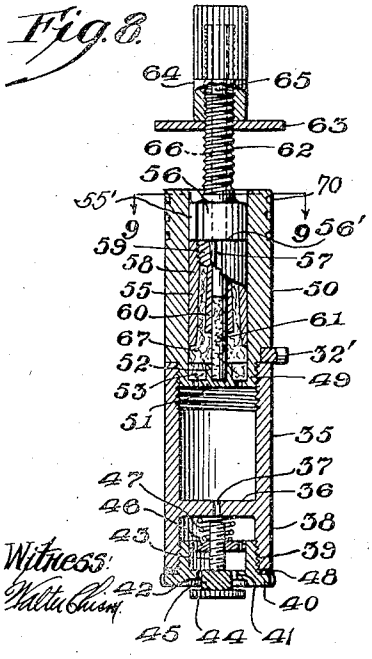


Fig. 8.



Witness:
Walter Chisholm

Inventor
Maurice Alland
by J. Stuart Framan,
Attorney.

Patented Mar. 10, 1931 1,796,136

UNITED STATES PATENT OFFICE

MAURICE ALLAND, OF ATLANTIC CITY, NEW JERSEY

COMBINED CIGARETTE DISPENSER AND LIGHTER

Application filed May 11, 1928. Serial No. 276,830.

The object of the invention broadly is to provide improvements in combined cigarette dispensers and lighters, and more particularly in an improved pocket automatic ejecting cigarette case and scratch lighter.

In the development and perfection of this invention, further and more specific objects have been:

To provide a pocket cigarette case having a discharge orifice and means to dispel cigarettes singly therethrough, with means to prevent said dispelling means from operating accidentally, and to normally maintain said last-named means in a predetermined position forming a complete and positive closure for said orifice;

To provide an aperture in a wall of a cigarette case spanned by a transparent closure, and graded indicia upon said case to indicate the number of cigarettes at any time within the case by the position of the highest cigarette visible through said aperture;

To provide a removable, invertible, and replaceable abrasive element upon the case in such location and arrangement that it is secured in operative position by the filling closure of the case when the latter is in its normal closed position;

To provide a cigarette case with a unitary portion or projection in combination with a closure also having a unitary portion or projection, and a lighting device adapted to normally engage said unitary portions or projections to secure said closure in operative position, together with a projection from the case adapted to engage said closure to retain the latter in operative position, even after the removal of the lighter to perform its primary function and until such time as it is desired to open said closure to again fill said case;

To provide an improved scratch lighter, comprising a reservoir for a volatile fuel, a porous closure for one end of the reservoir and a yieldingly positioned closure for the opposite end and operative to permit air to enter the reservoir, and thereby permit the fuel to flow by gravity into said porous closure, all in combination with a holder operatively supporting a central flint and a surrounding wick, in such manner that when not in use, said wick is in contact with the porous closure and adapted to receive fuel directly therefrom, but when said lighter is in use, said wick being so positioned as to be encountered by sparks flying from the flint when the latter is in frictional engagement with the abrading member carried by the casing;

To provide in said flint and wick holder a storage space for one or more reserve flints and means to operatively position them progressively and in succession as worn away through repeated use;

To provide an improved box or package for the commercial handling and sale of cigarettes, said box having an aperture through which contents are visible, a transparent closure for such aperture and indicia to indicate at all times the number of cigarettes within the box, together with ejecting means adapted to be exposed only by removing one side of the box, and thereafter being manually operative to eject cigarettes from said box as desired; and

To provide other objects and details of construction and operation such as are fully brought out in the following description when read in conjunction with the accompanying drawings in which Fig. 1 is a top plan view of one embodiment of the invention; Fig. 2 is a front elevation of the same; Fig. 3 is a side elevation of the same; Fig. 4 is a vertical section on the line 4—4 of Fig. 2; Fig. 5 is a horizontal section on the line 5—5 of Fig. 2; Fig. 6 is an elevational view of the device with the filling closure swung open and with the cigarette lighter separated from the box and in extended relation; Fig. 7 is a fragmentary sectional view on the line 7—7 of Fig. 2; Fig. 8 is an enlarged vertical diametrical section taken through the cigarette lighter with the reservoir air-inlet valve in an inward position; Fig. 9 is a horizontal section on the line 9—9 of Fig. 8; Fig. 10 is a front elevation of a commercial box or package comprising a modified embodiment of the invention; Fig. 11 is a vertical section on the line 11—11 of Fig. 10; and Fig. 12 is a detail

plan view of the ejecting means shown in dotted lines in Fig. 10 and in cross section in Fig. 11.

Referring to Figs. 1 to 9 inclusive, a pocket cigarette case is shown as comprising an imperforate rear wall 1, end walls 2 and 3, and a top wall 4 to which is secured a three-sided undercut molding or beading 5, for operatively positioning a double-faced file or other form of abrasive element 6, having beveled ends 7 normally entering beneath the undercut portions of said molding. To the forward edge portion of the box end 2 there is pivotally secured at 8 a closure 9, surrounded upon its other three sides by a flange comprising sections 10, 11 and 12, and provided also with a vertically elongated aperture 13 through which the contents of the case are at all times visible, said aperture being effectively closed by a transparent medium 14 held in operative position in any suitable manner.

The lower portion of the case is provided with a discharge aperture 15 defined upon the rear by a flange 16 forming a continuation of the rear wall 1, and between which there extends diagonally a slanting wall 17. The forward portion of said discharge aperture 15 is normally defined by the lowermost flange or section 12 of the closure 9, said flange and closure being connected together with a transversely extending wall 18 corresponding to the wall 17 and between which is rotatably positioned a cylindrical ejecting member 19, provided with any desired number of parallel semi-cylindrical grooves or recesses 20 adapted when in uppermost position to receive cigarettes 21 by gravity from within the case and upon being inverted so discharge such cigarettes, one at the time, from the casing through the discharge aperture 15.

The ejecting member 19 is rotatably mounted in any suitable manner but is preferably carried by a trunnion 23 secured to said ejecting means and passing rotatably through the opposite end wall 3 thereof, said last-named trunnion having secured thereto a suitably knurled, manually engageable knob 24, in which is provided an aperture 25, normally housing a spring 26 which is operative to yieldingly force a ball 27 into one or more recesses 28 within the adjacent end wall of said case, for the purpose of yieldingly securing said ejecting member in a predetermined fixed position in which the cigarette-receiving recesses 20 are out of alignment with the discharge orifice 15.

The end wall 3 of the case is furthermore provided with a unitary cup-shaped projection or stud 29, and from which latter extends a resilient finger 30, adapted to frictionally engage the adjacent portion of the flange 11 of the closure 9 to yieldingly retain said closure in operative position. Said flange 11 is also provided with an annular extension 31 which is normally in axial alignment with the cupped projection 29 and is provided upon its normally lower edge portion with a notch 32 in addition to having a groove or longitudinally cutaway region 33.

In order to normally maintain the closure 9 in operative position, an improved form of scratch lighter or the like extends through the ring 31 and rests within the cupped member 29 with a projecting lug 32′ positioned in the notch 32. This lighter comprises a cylindrical reservoir 35, preferably formed of transparent material, such as Bakelite, and is partly closed at its lower end by a transversely extending partition 36, having a central aperture 37, beyond which partition said reservoir comprises a downwardly extending flange 38, internally threaded at 39 and adapted to removably receive a threaded plug 40, having a central aperture 41, surrounded upon its outer surface by an enlarged recess 42. A pin 43 extends through said plug and terminates downwardly in a head 44 which is adapted in one position to lie within said recess 42 and adjacent to which head, said pin is provided with a shoulder 45 of polygonal or other shape so as to permit the passage of slight quantities of air inwardly through the aperture 41.

The inner end of said plug is substantially spanned by an apertured partition 46, carried in threaded or other engagement by and movable with said pin, the inner free end portion of which latter is surrounded by a conical compression spring 47 which extends between the fixed reservoir partition 36 and said last-named partition 46, carried by the pin and normally operates to maintain said pin with its head 44 in its outer or extended position, an inward position being shown in Fig. 8. The plug 40 is in leak proof association with the reservoir flange 38 by means of an interposed washer 48.

The opposite and normally upper end of the reservoir 35 is internally threaded to receive the reduced end portion 49 of a cylindrical extension 50. Said reduced end 49 is substantially closed by a transversely extending apertured wall 51 from which extends axially a cylindrical projection 52, surrounded by an annular element of porous material 53, adapted to receive fuel through the apertures in the end wall 51, the opposite open end portion of the cylindrical extension 50 being provided with a radially inwardly extending lug 54.

The scratch lighter proper comprises a cylindrical member 55 and closure 55′ normally in slidable engagement within the cylindrical extension 50 and provided upon their aligned outer surfaces with a T-shaped cutaway portion, comprising a transversely enlarged head section 56 in the closure 55′ and a depending restricted channel or slot in the member 55, adapted to receive slidably the lug 54 for operatively securing said lighter within the

supporting cylinder 50 when not in use and to permit its ready removal therefrom when desired.

This member 55 and closure 55′ are separable substantially in alignment with the line of union between the head and depending portions of the T-shaped cutaway portion or recess so that the sleeve portion 58 of said member may be detachably mounted in threaded engagement with the reduced portion 59 of said closure, the inner surface of the sleeve 58 being spaced radially free from a depending reduced cylindrical portion 60 of the threaded portion 59, through which extend any number of so-called flints 61, the bore containing said flints extending also upwardly through a threaded extension 62 upon which is mounted a lock nut 63 and in communication with which is an internally threaded cylindrical head 64, from the center of the innermost end portion of which there extends a preferably solid core 65 which projects through a bore 66 in the threaded portion 62 and abuts against the inner end of the flints 61 to prevent their recession into the reduced portion 60.

Surrounding said reduced portion 60 and within the radially spaced sleeve 58 is a cylindrical wick 67, which, when the device is not in use, is in direct contact with the porous material 53 adjacent to the perforated end wall 51 and from which porous material said wick receives the fluid fuel.

In the operation of this device and with the parts as shown in Fig. 8, but assembled with the cigarette case as shown in Figs. 1, 2 and 3, the case is inverted and the knurled portion 70 of the cylinder 50 is pressed inwardly with the result that the combined reservoir 35 and cylinder 50 are shifted towards and further into the cupped projection 29, so that the head 44 in contact with said projection is forced inwardly against the tension of the spring 47 (in the position shown in Fig. 8) and thereby permits a slight quantity of air to pass through the aperture 37 into the then upper portion of the reservoir 35, permitting the volatile fuel to pass by gravity through the apertured end 51 of the cylinder 50 and well moisten the porous material 53, whence the fuel is partially absorbed by that portion of the wick 67 which extends freely beyond the limit of the sleeve 58. As the pressure upon the knurled portion of the sleeve 50 is but momentary, only a relatively small portion of the fuel flows into the wick 67, but this is sufficient, so that when the knurled head 64 is rotated angularly to disengage the retaining lug 54 from the shoulder 56′ of the head 56 of the T-shaped slot, the lighter itself is readily removed from within the cylinder 50 and the then exposed end portion of the normally lowermost flint 61 is adapted to be scraped upon the abrasive member 6 with the result that sparks from said flint encounter the surrounding cylindrical wick 67, instantly igniting the fuel with which the latter is impregnated.

This flaming wick is then used to light a cigarette which has been obtained from within the case by manually rotating the knob 24 as hereinbefore described, after which the lighter is reinserted into the cylinder 50 and turned angularly so that the lug 54 again cooperates with one side of the shoulder 56′ to prevent the accidental withdrawal of the lighter therefrom.

Referring now to Figs. 10, 11 and 12, there is shown any convenient shape of box, comprising top and end walls 75, and a front wall 76 provided with a vertically elongated aperture 77, spanned by a transparent medium 78 through which the contents of the box are at all times visible. The relatively stiff material of the walls of this box extend throughout the latter except over the lower end portion which when handled commercially is closed temporarily by means of a paper or other similar web-like closure 79, which is easily removable by being torn or cut away as by scoring with one's finger nail.

Mounted rotatably in the normally lower portion of said box is a cylindrical ejecting member 80, having any desired number of longitudinally extending cigarette-receiving recesses 81 and carried by trunnions 82 which pass through the opposite end walls 75 and are bridged by the usual artistic paper covering with which the box is bound. The surface 83 of the ejecting member 80 between the recesses 81 is preferably knurled and is adapted to be manually engaged by frictional contact with one's fingers after the removal of the lower closure 79 so as to rotate the member 80 and thereby move each recess with its cigarette, received from the internal contents of the box, into a lowermost position in which such cigarette is discharged by gravity into the waiting hand of the user.

It is an object of this embodiment of the invention to provide the same in such inexpensive form and construction as to permit its application to the well-known inexpensive forms of boxes in which cigarettes are commercially held, instead of requiring the removal of such cigarettes from the boxes of commerce and placing them in a case as described in the preferred embodiment of the invention.

Having thus described my invention, what I claim and desire to protect by Letters Patent of the United States is:—

1. A lighter, comprising a reservoir having an apertured closure for one end and also an air-inlet, spring-pressed means to effectively close said air-inlet, a porous medium carried by said closure and adapted to receive fuel from said reservoir through said closure upon the operation of said spring-pressed means, a holder removably carried by said closure, a

flint carried by said holder, and a wick also carried by said holder and when not in use being in direct contact with said porous medium.

2. A lighter, comprising a reservoir having an apertured closure for one end and also an air-inlet, spring-pressed means to effectively close said air-inlet, a porous medium surrounding a cylindrical extension of said closure and adapted to receive fuel from said reservoir through said closure upon the operation of said spring-pressed means, a holder removably carried by said closure, a flint carried by said holder and when inoperative extending into said cylindrical extension, and a wick also carried by said holder surrounding said flint and when not in use being in direct contact with said porous medium.

3. A lighter, comprising a reservoir having an apertured closure for one end and an air-inlet, said reservoir comprising a cylindrical extension surrounding said air-inlet to form a housing, a closure for said housing having an aperture, a spring-pressed element carried by said last-named closure and normally effectively closing the adjacent aperture, a porous medium surrounding a cylindrical extension of said first-named closure and adapted to receive fuel from said reservoir through said first-named closure upon the operation of said spring-pressed means, a holder removably carried by said first closure, a flint carried by said holder and when inoperative extending into the cylindrical extension of said first closure, and a wick also carried by said holder surrounding said flint and when not in use being in direct contact with said porous medium.

4. The combination of a box having a hollow extension, with a lid also having a hollow extension transversed by a wall, and a reservoir extending through one extension and into said second extension, to secure said lid in operative position, said reservoir having an air-inlet, spring-pressed means normally effectively closing said inlet and engageable with said wall, when said reservoir is moved in one position, to permit air to enter said reservoir and facilitate its flow therefrom.

5. The combination of a box having a hollow extension, with a lid also having a hollow extension transversed by a wall, a reservoir extending through one extension and into said second extension, to secure said lid in operative position, said reservoir having an air-inlet, spring-pressed means normally effectively closing said inlet and engageable with said wall, when said reservoir is moved in one position, to permit air to enter said reservoir and facilitate its flow therefrom, said reservoir having an open end, an apertured closure for said end, a holder removably supported by said last-named closure, a flint adjustably carried by said holder, and a wick adjacent to the exposed end of said flint and adapted to be encountered by sparks therefrom.

6. The combination of a box having a hollow extension, with a lid also having a hollow extension transversed by a wall, a reservoir extending through one extension and into said second extension, to secure said lid in operative position, said reservoir having an air-inlet, spring-pressed means normally effectively closing said inlet and engageable with said wall, when said reservoir is moved in one position, to permit air to enter said reservoir and facilitate its flow therefrom, said reservoir having an open end, an apertured closure for said end, a holder removably supported by said last-named closure, means to operatively yet removably connect said holder to said supporting closure, a bayonet engagement to operatively secure said reservoir in said extensions, a plurality of flints adjustably carried by said holder, and a wick adjacent to the exposed end of said flint and adapted to be encountered by sparks therefrom.

In testimony whereof I have affixed my signature.

MAURICE ALLAND.