Jan. 12, 1954 W. E. JAAP 2,665,803

COMBINED CAP AND ASH RECEIVER FOR LIGHTERS

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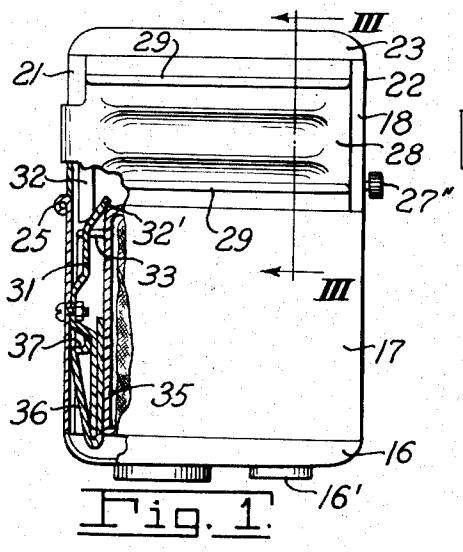


Fig. 1.

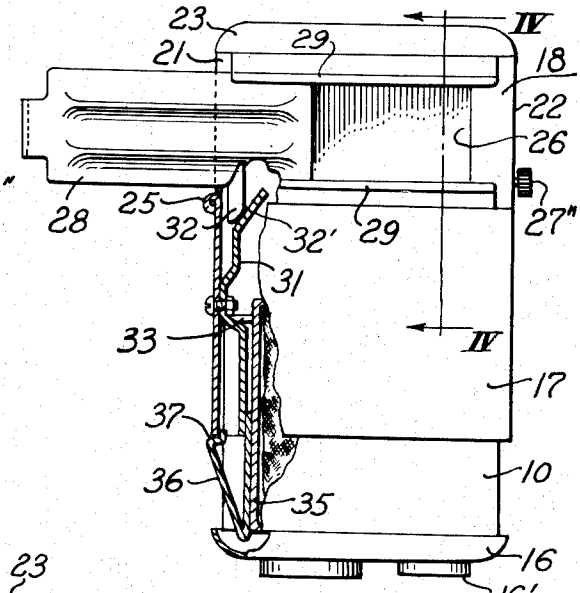


Fig. 2.

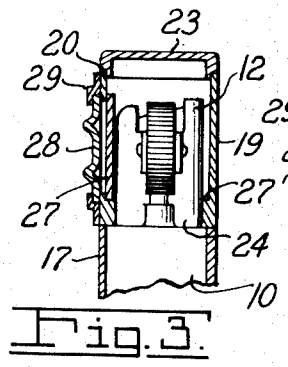


Fig. 3.

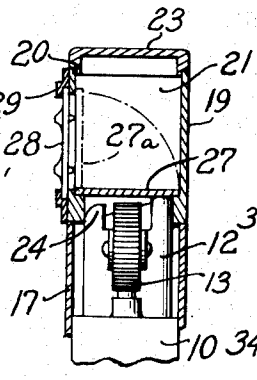


Fig. 4.

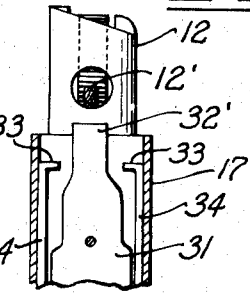


Fig. 6.

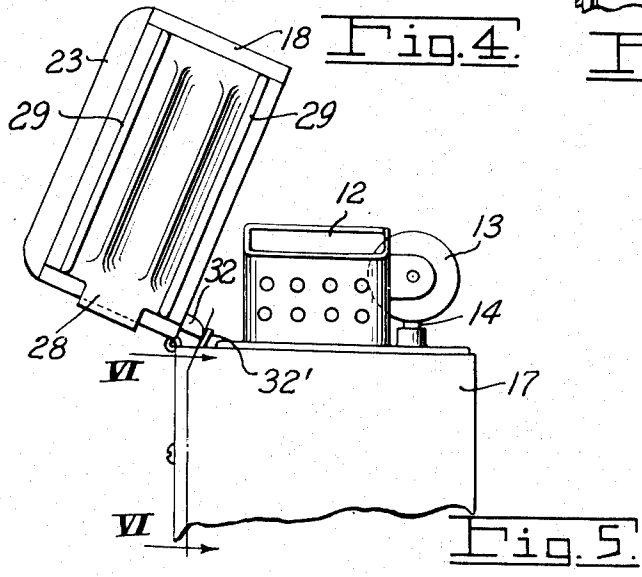


Fig. 5.

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COMBINED CAP AND ASH RECEIVER FOR LIGHTERS

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5 Claims. (Cl. 206—38)

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This invention relates to a combined lighter and ash receiver. More particularly, this invention relates to an ash receiver which is built into the lid or cap of a lighter.

This application is a continuation in part of my application Serial No. 23,701 filed April 28, 1948, now Patent No. 2,572,863, issued October 30, 1951.

An object of this invention is to provide a box-shaped ash receiver for use with a lighter which acts as a cap for the flame producing device of the lighter when not in use as an ash receiver.

A further object of this invention is to provide an ash receiver of this type having an opening in one side for introducing ashes and the like and having a pair of lids one of which closes the opening when the ash receiver is not being used as such, the other lid closing the opening when the ash receiver is in use.

The above and other objects and features of the invention will in part be apparent and will in part be obvious from the following detailed description and the drawing, in which:

Figure 1 is a view in side elevation, partly broken away and in section, showing a lighter equipped with an ash receiver constructed in accordance with an embodiment of this invention;

Fig. 2 is a view partly in side elevation and partly in section of the lighter and ash receiver shown in Figure 1, the ash receiver being shown in extended or ash receiving position.

Fig. 3 is a view in section taken along a line III—III in Fig. 1;

Fig. 4 is a view in section taken along a line IV—IV in Fig. 2;

Fig. 5 is a view in side elevation showing the lighter with the cap in open position; and

Fig. 6 is a view in section taken along a line VI—VI in Fig. 5.

In the following detailed description, and the drawing, like reference characters indicate like parts.

As shown in Figs. 1 and 2, the lighter includes an elongated fuel case 10 of substantially rectangular cross section. At the top of the fuel case 10 is mounted a shield 12 (see Fig. 5). Shield 12 surrounds and protects a wick 12' in conventional manner. At one end of the shield is mounted a friction wheel 13. Wheel 13 engages a flint 14 and can be turned to provide a spark for lighting the wick.

The bottom of the fuel case 10 is closed by a bottom panel 16 (Figs. 1 and 2). Bottom panel 16 may be held in place on the bottom of case

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10 in any suitable manner as by means of a screw 16'. Screw 16' also serves to hold a spring (not shown) which engages the flint. As shown in Fig. 2, the edges of bottom panel 16 project outside the fuel case to form a lip or shoulder at the bottom of the fuel case.

The fuel case 10 is surrounded by a sleeve 17. Sleeve 17 is of rectangular cross section and is mounted to slide lengthwise of the fuel case.

At the upper end of sleeve 17 is mounted a combined cap and ash receiver indicated generally at 18. Receiver 18 is of substantially box shape and has side walls 19 and 20 (Fig. 4), end walls 21 and 22 (Figs. 1 and 2), and a top panel 23. The receiver has an open mouth 24 on the side facing the fuel case. One edge of the open mouth of the receiver is hinged to an edge of the sleeve by a hinge 25. Receiver 18 is of the same cross-sectional area as sleeve 17 so that, as shown in Fig. 5, receiver 18 swings on hinge 25 between an open position away from the sleeve (Fig. 5) and a closed position (Fig. 1) in which the side and end walls of the receiver are in alignment with the sleeve.

When the sleeve is in the position shown in Figs. 1 and 5, the lower edge of the sleeve engages the lip of bottom panel 16 and the receiver can act as a cap covering the flame producing device at the top of fuel case 10.

When it is desired to use the ash receiver as such, sleeve 17 is slid along the fuel case to the position shown in Figs. 2 and 4 in which the upper end of sleeve 17 surrounds the flame producing device and the receiver is free thereof. The receiver is provided with a side opening 26. Ashes and the like may be inserted into receiver 18 through this opening. When receiver 18 is in use for receiving ashes and the like, the open mouth thereof is closed by a lid 27, shown most clearly in Fig. 4. Lid 27 is hinged to side wall 20 parallel and inside the open mouth. The lid 27 is hinged immediately inside a peripheral shoulder 27' which extends around the inside of the mouth. Lid 27 swings from a closed position shown in full lines in Fig. 4, in which lid 27 engages shoulder 27' to an open position shown in dot-dash lines at 27a in Fig. 4 in which the lid engages side wall 20. When the lid is in open position, it covers and closes ash receiving opening 26 to prevent the introduction of ashes and other refuse when the mouth of the receiver 18 is open. Lid 27 is turned between closed and open positions by means of a knurled knot 27'' attached thereto. When the mouth of receiver 18 is closed, opening 26 may be closed

by means of an auxiliary lid 28. Lid 28 slides in rails 29 between an open position shown in Fig. 2 and a closed position shown in Fig. 1.

Receiver 18 is held in open and in closed positions by means of a spring 31. Spring 31 is a leaf spring and is attached to the side of the sleeve to which the receiver is hinged. Spring 31 extends upwardly to approximately the level of the upper edge of the sleeve, and the free end thereof is disposed sufficiently inwardly of the edge of the sleeve to engage a lug 32. Lug 32 is attached to the side of the receiver which is hinged to the sleeve and engages the spring to hold the receiver in open and in closed positions.

Spring 31 also acts as a stop limiting the distance which the sleeve can be advanced upwardly along fuel case 10. As shown in Fig. 6, the upper portion 32' of the spring is of reduced width and projects between a pair of stop lugs 33. Lugs 33 are adjacent the upper ends of side walls 34 of the fuel case. When sleeve 17 is at the position shown in Fig. 2, lugs 33 engage the sides of the spring to limit the distance that the sleeve and receiver can be advanced.

Return of the sleeve from the position shown in Fig. 2 is normally prevented by a stop spring 36. Spring 36 is attached to one side wall 35 of the fuel case and extends outwardly therefrom and terminates in a step 37. Step 37 engages the lower edge of the sleeve when the sleeve is advanced to the position shown in Fig. 2, to prevent return of the sleeve to the position shown in Fig. 1. Thus, it is not possible inadvertently to push the receiver and sleeve downwardly to cause the flame producing device to engage lid 27 when the receiver is in use for receiving ashes and the like. When the receiver is not in use to hold ashes and the like, spring 36 may be pushed inwardly so that the step is released from the sleeve and the sleeve and receiver can be returned to the normal position shown in Figs. 1 and 3 in which the sleeve engages the lip at the bottom of the fuel case. When the sleeve and receiver are in this normal position and the receiver is closed, the edge of shield 12 of the flame-producing device of the lighter engages lid 27 to swing the lid to the position shown in which the receiver forms a cap for the flame-producing device.

The receiver can quickly be converted from an ash receiver to a cap by turning lid 27 from the position shown in full lines in Fig. 4, to the position shown in dot-dash lines. If ashes or other refuse have been collected in the receiver, top panel 23 may be removed to permit removal of such ashes or other refuse. As shown in Figs. 3 and 4, panel 23 is held in place by a friction grip between flanges on the edges of panel 23 and the side and end walls, respectively.

From the foregoing, it will be apparent to those skilled in this art, that various modifications and changes may be made in the illustrated embodiment of the invention without departing from either the spirit or the scope thereof.

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

1. A combined lighter, cap and ash receiver which comprises an elongated fuel case, a flame-producing device mounted at one end of the said case, a sleeve mounted on said case to slide between a normal position in which one end of the sleeve is substantially in alignment with the end of the case on which the flame-producing device is mounted, and an elevated position in which said end of the sleeve surrounds the free end of the flame-producing device, a box-shaped receiver having a top panel, side walls, and an open mouth, one side edge of said open mouth being hinged to an edge of said end of the sleeve, said receiver being of substantially the same cross section as the sleeve and swinging between a closed position in which the side walls of the receiver are in alignment with the sides of the sleeve and an open position in which the receiver is angularly disposed to the sleeve, there being a peripheral shoulder inside the mouth of the receiver, a lid hinged inside the receiver along one of the side walls and immediately inside the shoulder, said lid swinging between an ash-receiving position in which the lid engages the shoulder and closes the mouth and a cap-forming position in which the lid is flat against said one of the side walls, there being an opening in said one of the side walls, the lid covering and closing said opening when in cap-forming position, the flame-producing device engaging the lid to hold the lid in cap-forming position when the receiver is closed and the sleeve is in normal position, and means for closing said opening when the lid is in ash-receiving position.

2. A combined cap and ash receiver in accordance with claim 1, characterized by the fact that the top panel of the receiver is removably attached to the side walls, whereby the receiver may be opened.

3. A combined cap and ash receiver in accordance with claim 1, characterized by the fact that a flat spring is attached to the side of the sleeve to which the receiver is hinged, said spring extending beyond and inwardly of the hinge between the sleeve and the receiver, there being a spring engaging lug attached to the side of the receiver to which the sleeve is hinged, said lug engaging the side of the spring to urge the receiver to closed and to open positions.

4. A combined cap and ash receiver in accordance with claim 1 characterized by the fact that a flat spring is attached to the side of the sleeve to which the receiver is hinged, said spring extending inwardly of the hinge between the sleeve and the receiver, that a spring engaging lug is attached to the side of the receiver to which the sleeve is hinged, said spring engaging lug engaging the spring to urge the receiver to closed and open positions, the upper portion of said spring being of reduced width, and a stop lug attached to the case and extending opposite said upper spring portion, the stop lug engaging the edge of the spring when the sleeve is advanced to elevated position to prevent withdrawal of the sleeve from the case.

5. A smoker's article comprising in combination a sleeve member having open ends, a fuel reservoir of substantially equal length reciprocally received therein, fuel conducting means extending through one end of said reservoir to an exterior ignition zone, a perforate tubular windshield secured to said fuel reservoir and encircling said ignition zone, means for igniting fuel in the ignition zone, stop means for limiting reciprocation of said reservoir to extend and retract said windshield relative to said sleeve, latch means for securing said reservoir and sleeve in windshield retracted relation, a cap member hingedly secured to said sleeve and provided with an open end adapted to swing into and out of registry therewith, whereby flames in the ignition zone may be snuffed, said cap being provided with an annular inwardly projecting shoulder adjacent the lip thereof, there being an

aperture in the side wall of said cap, a closure member reciprocably mounted to open and close said aperture, a lid pivotally mounted in said cap and adapted to abut said shoulder for closing the mouth of said cap when said windshield is not extending into said cap and adapted to be held in a position substantially closing said aperture when said windshield extends into said cap, the edge of said windshield being adapted to engage and swing said lid from cap mouth closing relation to cap aperture closing relation as said windshield enters said cap, and said cap being provided with a removable top panel whereby foreign matter received therein may be readily discharged.

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