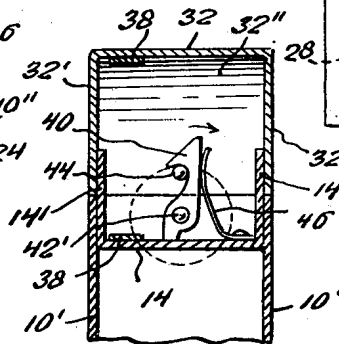
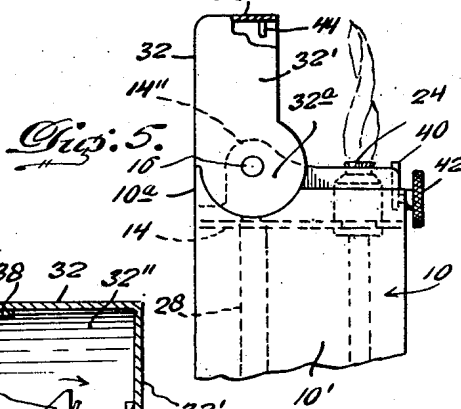
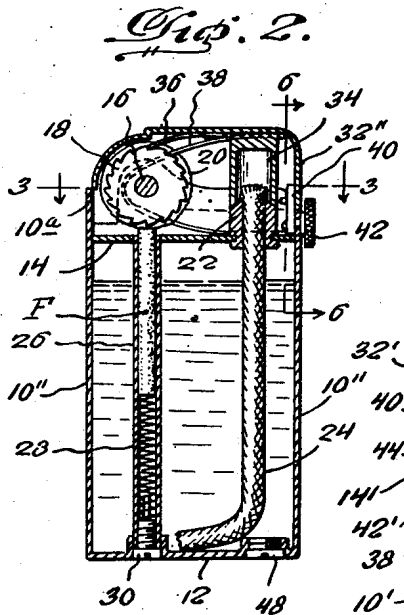
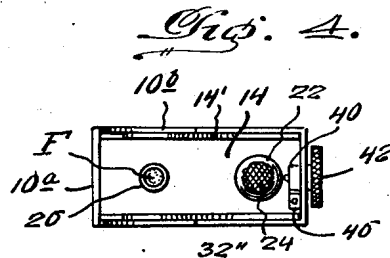
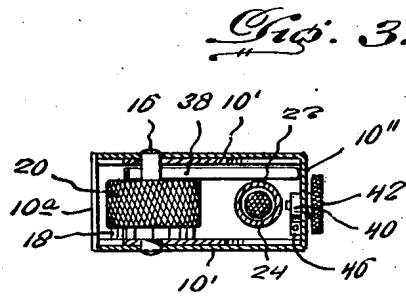
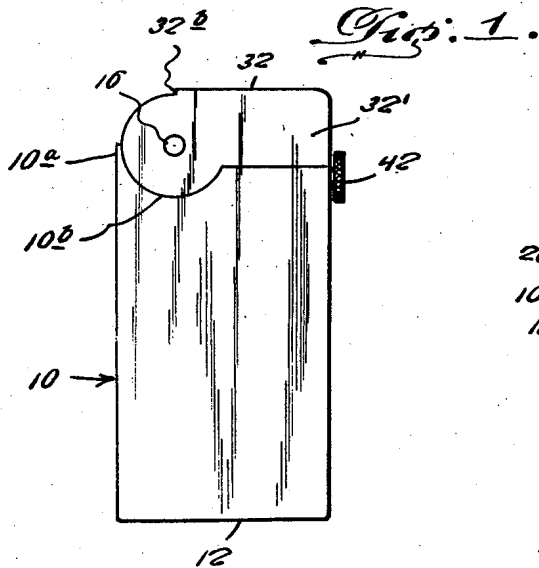


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POCKET LIGHTER

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POCKET LIGHTER

Adolph Campos, Clifton, N. J.

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3 Claims. (Cl. 67-7.1)

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This invention appertains to improvements in pocket lighters for cigarettes and the like, and has for an object to provide one that is simple in construction, attractive in design and appearance, and inexpensive to manufacture, an important feature of its construction being present in a single pivoted member to completely enclose the igniter mechanism when normally disposed and to house the pawl for actuating the spark-wheel to abrade a flint to produce sparks to ignite the wick and a snuffer cap to extinguish the flame at the wick.

Another object of the invention has to do with the provision of a lighter of this kind, wherein a novel form of latch means is provided to retain the aforesaid pivoted member at its normal position and a spring is arranged to forcibly actuate the member to lift the snuffer cup from the exposed end of the wick and to move the pawl in a direction to properly operate a ratchet, which is in unit assembly with the spark-wheel, when the latch means is manually released.

With these and other objects and advantages in view, the invention resides in the certain new and useful combination, construction, and arrangement of parts, as will be hereinafter more fully described, set forth in the appended claims, and illustrated in the accompanying drawing, in which:

Figure 1 is a side elevation of a practical embodiment of the lighter, in accordance with my invention;

Figure 2 is a vertical sectional view, partly in elevation, of the lighter as in Figure 1;

Figure 3 is a horizontal sectional view, taken through the line 3-3 on Figure 2, looking in the direction of the arrows;

Figure 4 is a plan view of the top end of the lighter, with the igniter mechanism removed;

Figure 5 is a side elevation of the upper part of the lighter, with the protective hood at its position following its release from the latch means and its movement to cause the lighting of the wick; and,

Figure 6 is an enlarged, fragmentary, vertical section, taken through the line 6-6 on Figure 2, looking in the direction of the arrows.

Referring to the drawing, wherein like characters of reference denote corresponding parts in the several views, the lighter, as it is exemplified therein, is comprised in a rectangular hollow body 10, constituting a fuel reservoir, having an integral bottom wall 12, and a top wall 14 inset from the top edges of the side and end walls 10' and 10'', respectively. The side walls 10' and one

of the end walls 10'' are of a uniform height, while the other of the end walls is made slightly higher, as at 10a; and immediately adjacent the latter wall, the side walls 10' are formed with substantially semi-circular cutouts 10b, for purposes which will presently be apparent. The top wall 14 takes the form of a plate having up-turned portions 14', extending rearwardly from its front end and terminating short of its rear end and which project upwardly above the side walls 10', of the body 10. The rear ends of the up-turned portions 14' terminate in substantially semi-circular enlargements 14'', which are centrally apertured to receive stationary axle or cross-pin 16, that lies in an axial plane representative of the center of a circle defined by the curvature of the cutouts 10b, in the side walls of the body. Mounted on the axle 16, is a ratchet-wheel 18 in unitary assembly with a spark-wheel 20.

Secured in an opening in the front end of the top wall 14, is a tabular holder 22, for a wick 24, while the upper end of a feed tube 26, for a flint F, opens through the top wall beneath the spark-wheel 20, the feed tube extending through the body 10 and has its lower end opening through the bottom wall 12. The flint F is supported in the upper end of the feed tube 26 by a coiled spring 28 which has its lower end engaged over a projection rising from the inner end of a screw closure 30, threaded into the lower end of the feed tube.

Pivotaly mounted for rocking movement on the axle 16 is a protective hood 32 for the combined ratchet and spark wheel unit and having one of its ends normally overlying and forming a cap 34 for the wick 24, the hood 32 being made of sheet metal die-stamped to inverted U-form in cross-section and has the front ends of its side walls 32' connected by an end wall 32'', while the rear ends thereof are made substantially circular in form, as at 32a, to conform to the curvature of the cutouts 10b, in the side walls 10' of the body. Forwardly of the circular portions 32a, the lower edges of the side walls 32' are straight so as to rest upon the upper edges of the side walls 10' of the body, when the protective hood is normally disposed. The rear end of the top wall of the protective hood 32 is slightly inset, as at 32b, and from this point of inset is curved in a downward direction about the rear side of the ratchet and spark wheel unit and in a manner to clear the upwardly extending portion of the rear end wall of the body 10, during the operative movements of the protective hood 32. The cap 34 is dependingly supported from the

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top wall of the protective hood 32, in line with the wick holder 22, upon which it seats to extinguish a flame, when the protective hood is normally disposed; while a pawl 36, of a flat spring metal, is also secured to the top wall of the protective hood at a position thereon to engage with the toothed periphery of the ratchet wheel 18, at all times. Interposed between the top wall 14, of the body 10, and the top wall of the protective hood 32, is a flat spring 38, which is bent medially of its ends and looped about the axle 16, at the outer side of the spark-wheel 20, with its ends directed forwardly past the cap 34 and bearing against the end wall 32'', substantially as shown in Figures 2 and 3.

To secure the protective hood 32 at its normally inoperative position, against the constant urge of the spring 38, a latch member 40, in the form of a hook, is mounted on the inner end of the stem 42', of an operating knob 42, journalled in the front end wall of the body 10, above the top wall 14, to engage with a latch pin 44, projecting from the inner side of the end wall 32'', of the protective hood. A flat spring 46 is secured to the top wall 14 and bears against the latch member 40 to hold it in latching position at all times, so that, whenever the protective hood 32 is returned to normal position, the latch pin 44 will automatically engage with the latch member.

In operation, a turning movement of the knob 42 acts to disengage the latch member 40 from the latch pin 44, releasing the protective hood 32, which is immediately acted upon by the spring 38 and forced upwardly and rearwardly to a substantially vertical position on the axle 16. With this turning movement of the snuffer arm 32, the cap 34 is lifted off of the wick holder 22, to expose the upper end of the wick 24, protruding from the wick holder, and, at the same time, the pawl 36 acts to impart a like motion to the ratchet wheel 18 and, through it, to the spark wheel 20, causing the latter to abrade the flint F, to produce the sparks necessary to ignite the wick. After making use of the flame, the protective hood 32 is returned to its normal position by finger pressure applied to its top side, at which position, the cap 34 engages over the wick end and extinguishes the flame and, at the same time, the latch pin 44 snaps into engagement with the hooked end of the latch member 40. A filling opening is provided in the bottom of the reservoir and is closed with a screw cap 48.

While in the foregoing, I have described a preferred and practical embodiment of my lighter, it is to be understood that the words which I have used are words of description rather than of limitation, and that changes within the purview of the appended claims may be made without departing from the true scope and spirit of my invention in its broader aspects.

What I claim is:

1. In a lighter, a rectangular hollow body constituting a fuel reservoir, said body including a top wall, side walls, and an end wall of a height greater than said side walls, said side walls adjacent said end wall being each provided with a substantially semi-circular cut-out, said top wall being a plate having up-turned portions projecting above the side walls of said body, said upturned portions being arranged between the extremities of the plate, the ends of the upturned portions terminating in substantially semi-circular enlargements, each of said enlargements having a centrally-disposed aperture extending

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therethrough, a pin extending through the apertures in said enlargements and supported by the latter, a combined ratchet-and-spark-wheel unit rotatably mounted on said pin, a wick projecting from the top wall of said hollow body, a protective hood for said ratchet-and-spark-wheel unit mounted for rocking movement on said pin and having one of its ends normally overlying and forming a cap for said wick, the other end of said hood having side walls each substantially circular in form to conform to the curvature of the contour of the cut-outs of the side walls of said hollow body and in engagement with said cut-outs, and an operative connection between said hood and said combined ratchet-and-spark-wheel unit to rotate the latter in response to the rocking movement of said hood.

2. In a lighter, a rectangular hollow body constituting a fuel reservoir, said body having side walls, end walls connecting the side walls together, and a top wall inset with respect to said side and end walls, the side walls and one end wall being of uniform height and the other end wall being of a height higher than said side walls and said one end wall, the side walls adjacent said other end wall being each provided with a substantially semi-circular cut-out, said top wall being a plate having up-turned portions projecting above the side walls of said body, said upturned portions being arranged between the extremities of the plate, the ends of the upturned portions terminating in substantially semi-circular enlargements, each of said enlargements having a centrally-disposed aperture extending therethrough, a pin extending through the apertures in said enlargements and supported by the latter, a combined ratchet-and-spark-wheel unit rotatably mounted on said pin, a wick projecting from the top wall of said hollow body, a protective hood for said ratchet-and-spark-wheel unit mounted for rocking movement on said pin and having one of its ends normally overlying and forming a cap for said wick, the other end of said hood having side walls each substantially circular in form to conform to the curvature of the cut-outs of the side walls of said hollow body and in engagement with said cut-out, said hood being provided with an inset adjacent its circular side walls so as to provide a rest for said hood upon completion of its rocking movement, an operative connection between said hood and said combined ratchet-and-spark-wheel unit to rotate the latter in response to the rocking movement of said hood, and latch means on the end wall of said body contiguous to the end of said hood having said cap and operatively connected to said hood for releasably holding said hood in its normal position.

3. In a lighter, a rectangular hollow body constituting a fuel reservoir, said body having side walls, end walls connecting the side walls together, and a top wall inset with respect to said side and end walls, the side walls and one end wall being of uniform height and the other end wall being of a height higher than said side walls and said one end wall, the side walls adjacent said other end wall being each provided with a substantially semi-circular cut-out, said top wall being a plate having up-turned portions projecting above the side walls of said body, said upturned portions being arranged between the extremities of the plate, the ends of the upturned portions terminating in substantially semi-circular enlargements, each of said enlargements having a centrally-disposed aperture extending therethrough, a pin extend-

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ing through the apertures in said enlargements and supported by the latter, a combined ratchet-and-spark-wheel unit rotatably mounted on said pin, a wick projecting from the top wall of said hollow body, a protective hood for said ratchet-and-spark-wheel unit mounted for rocking movement on said pin and having one of its ends normally overlying and forming a cap for said wick, the other end of said hood having side walls each substantially circular in form to conform to the curvature of the cut-outs of the side walls of said hollow body and in engagement with said cut-outs, said hood being provided with an inset adjacent its circular side walls so as to provide a rest for said hood upon completion of its rocking movement, and operative connection between said hood and said combined ratchet-and-spark-wheel unit to rotate the latter in response to the rocking movement of said hood, spring means interposed between the top wall of said body and said hood and operatively connected to said pin for effecting rocking move-

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ment of said hood about said pin, and latch means on the end wall of said body contiguous to the end of said hood having said cap and operatively connected to said hood for releasably holding said hood in its normal position.

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REFERENCES CITED

10 The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,060,150	Adamian -----	Apr. 29, 1913
15 1,822,505	Rogers -----	Sept. 8, 1931

FOREIGN PATENTS

Number	Country	Date
263,808	Germany -----	Sept. 11, 1913
20 431,985	France -----	Sept. 25, 1911
486,178	Great Britain -----	May 31, 1938
537,397	France -----	Mar. 3, 1922