

Aug. 16, 1949.

L. M. LOGAN, III

2,479,244

CIGARETTE LIGHTER

Filed Jan. 26, 1948

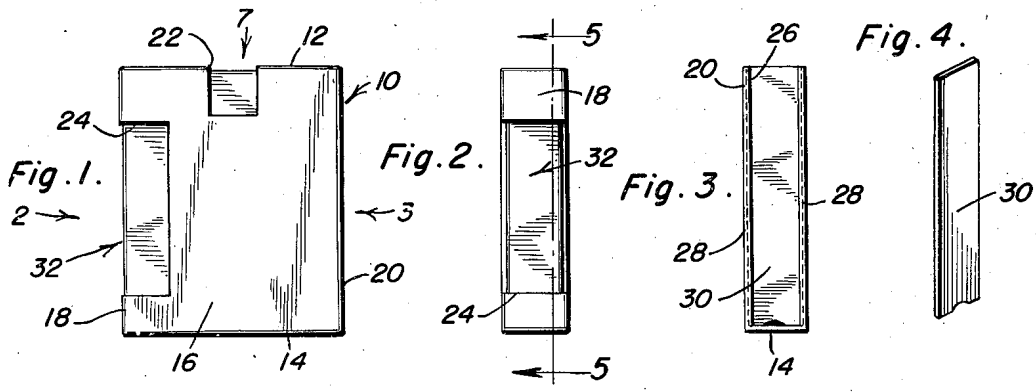


Fig. 5.

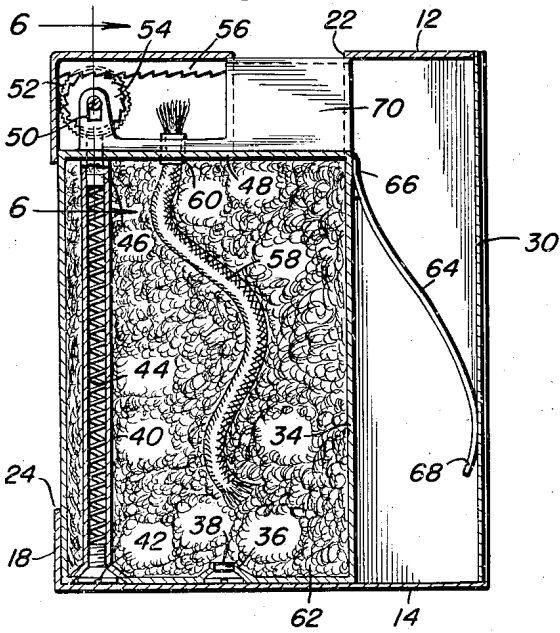


Fig. 6.

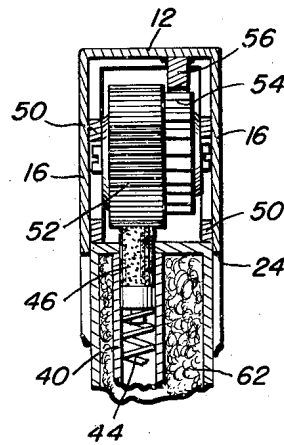


Fig. 8.

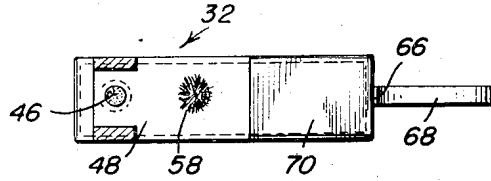
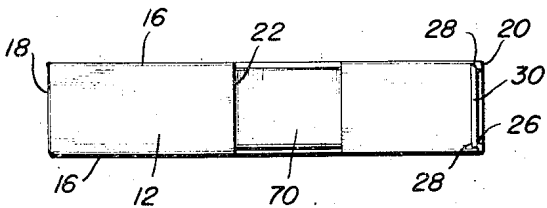


Fig. 7.



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UNITED STATES PATENT OFFICE

2,479,244

CIGARETTE LIGHTER

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Application January 26, 1948; Serial No. 4,260

1 Claim. (Cl. 67—7.1)

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This invention relates to new and useful improvements in cigarette lighters and the primary object of the present invention is to provide a cigarette lighter including an outer element and a slidable wick and igniter supporting element mounted within the outer element that will cause an igniting of the wick as the slidable element is conveniently pushed toward one end of the outer element.

Another important object of the present invention is to provide a cigarette lighter including an outer casing and a slidable inner casing supporting a wick and an igniter and embodying novel and improved means for actuating said igniter upon inward sliding movement of said inner casing relative to said outer casing.

A further object of the present invention is to provide a cigarette lighter so designed as to eliminate the necessity of having to include hinge lid means or levers and which includes an igniter activator that is operable without the user having to engage the igniter with his finger.

A still further aim of the present invention is to provide a lighting device the parts of which are quickly and readily assembled or disassembled facilitating the convenient cleaning or repairing of the same, and such a lighter that is small and compact in structure, simple and practical in construction, strong and reliable in use, relatively inexpensive to manufacture, neat and attractive in appearance, and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a side elevational view of the cigarette lighter constructed in accordance with the present invention;

Figure 2 is an end view of Figure 1 taken substantially in the direction of arrow numbered 2 in Figure 1;

Figure 3 is an end view of the present lighter taken substantially in the direction of arrow numbered 3 in Figure 1;

Figure 4 is a perspective view of the removable end wall used in conjunction with the present invention;

Figure 5 is an enlarged longitudinal vertical sectional view taken substantially on the plane of section line 5—5 of Figure 2;

Figure 6 is an enlarged fragmentary longitu-

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dinal vertical sectional view taken substantially on the plane of section line 6—6 of Figure 5;

Figure 7 is an enlarged top plan view of the present lighter taken substantially in the direction of arrow numbered 7 in Figure 1; and,

Figure 8 is a top plan view of the inner casing used in conjunction with the present invention.

Referring now to the drawings in detail, wherein for the purpose of illustration, there is disclosed a preferred embodiment of the present invention, the numeral 10 represents the outer casing of the present lighter generally, comprising an upper wall 12, a lower wall 14, spaced side walls 16, and end walls 18 and 20. The upper wall 12 and the upper portions of the side walls 16 are provided with a flame opening 22, the end wall 18 and the adjacent portions of the side walls 16 are provided with an access opening 24, and the end wall 20 is provided with a longitudinal opening 26 having channeled edges 28 that slidably engage a removable closure strip 30 one edge of which normally bears upon the lower wall 14.

The numeral 32 represents the inner or slidable casing used in conjunction with the present invention generally, comprising a fuel holding chamber 34 having an inlet opening 36 and closure 38, and a tubular guide 40 having an adjusting plug 42 for positioning a coil spring 44 against a flint 46 that projects or is urged outwardly from the upper wall 48 of the casing 32.

Fixed in the upper wall 48 of the inner casing 32, is a pair of support ears 50 that rotatably support a knurled surfaced flint engaging wheel or igniter 52. Rigidly secured to one face of the wheel 52 is a gear wheel 54 that engages a rack bar 56 fixed to the inner face of the upper wall 12 of the outer casing 10. A wick 58 positioned in the chamber 34 extends through a sleeve 60 carried by the upper wall 48 and is disposed adjacent the igniter 52. Cotton or the like 62 is disposed in the chamber 34 and retains a quantity of fuel for supplying the same to the wick 58.

In order to retain the inner casing 32 at one end of the outer casing 10 and in frictional engagement with the end wall 18, there is provided an arcuate spring 64 having one end 66 fixed to the inner casing. The free end 68 of this spring frictionally engages strip 30.

In practical use of the device, as the inner casing 32 is pushed toward the closure strip 30, the gear wheel 54 will engage the rack bar 56 thus imparting a rotation to the wheel 52 which will strike the flint and light the wick 58 as the wick registers with the flame opening 22. Upon release of the inner casing 32, the spring 64 will return

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the inner casing to its normal position and the flame will be extinguished as the projecting lug 70 carried by the upper wall 48 of the casing 32 will seal the flame opening 22 thus preventing air to be transmitted to the flame.

In view of the foregoing description taken in conjunction with the accompanying drawings it is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claim.

Having described the invention, what is claimed as new is:

An automatic lighter comprising an outer casing including a pair of spaced side walls, a fixed end wall, a removable end wall and upper and lower walls, said upper wall and said side walls having a flame opening therein, an inner wick supporting casing slidably mounted in said outer casing, said fixed end wall having a finger receiving opening, a spring arm fixed to said inner casing and interposed between said inner casing and said removable end wall and normally urging

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said inner casing against the fixed end wall, a wick carried by said inner casing spaced from the upper wall of said outer casing and normally spaced from said flame opening, said inner casing having a top wall, a lug carried by and projecting outwardly from the top wall of said inner casing and normally closing the flame opening to prevent the entrance of air into said inner casing, an igniter mounted on the top wall of said inner casing, and means carried by the upper wall of said outer casing for actuating said igniter upon sliding movement of said inner casing relative to said outer casing, said last mentioned means including a rack bar fixed to the upper wall of said outer casing adjacent said flame opening.

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