Dec. 21, 1948. A. GEIGER 2,456,694

CIGAR OR CIGARETTE LIGHTER

Filed July 23, 1947

Fig. 1

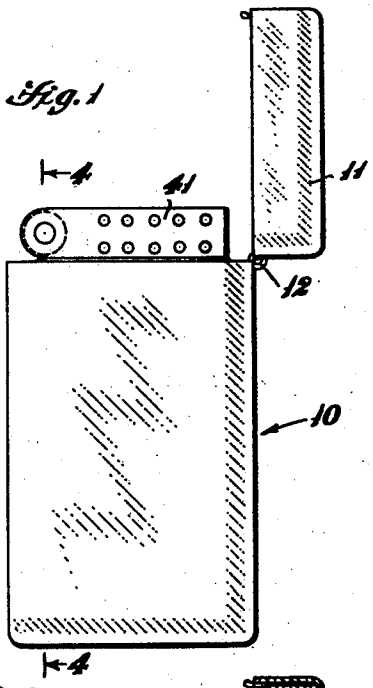


Fig. 2

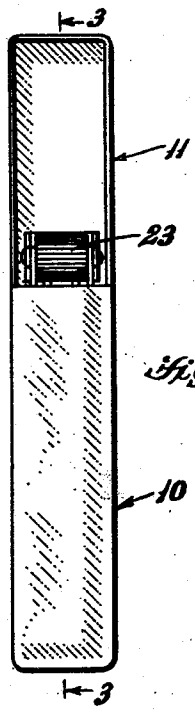


Fig. 6

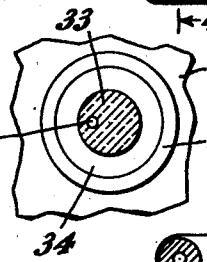
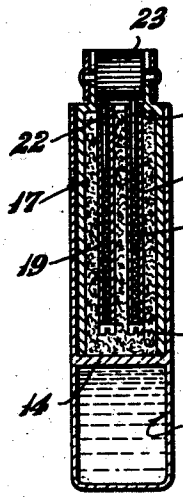


Fig. 3

Fig. 5

Fig. 4



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CIGAR OR CIGARETTE LIGHTER

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Application July 23, 1947, Serial No. 762,888

1 Claim. (Cl. 67—7.1)

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This invention relates to cigar and cigarette lighters, and aims primarily to provide a single unitary combination of a lighter and a fuel supply tank together with means for feeding fuel into the lighter as and when desired. The utility of the lighters in common use is limited because of the frequent occasions when the device is dry and efforts to ignite the wick result in failure, with the consequent nuisance of having to do without the lighter until it can be refueled. This invention by providing a reserve of fuel in the fuel tank, permits of almost instantaneous refueling of the device for immediate use.

A further object of the invention is the provision of a novel control valve which is normally closed and which is opened in a simple manner to permit liquid fuel to flow into the cotton or wick chamber.

The above and other objects will become apparent in the following description, wherein characters of reference refer to like-numbered parts in the drawing. It is to be noted that the drawing is intended for the purpose of illustration only, and that it is neither desired nor intended to limit the invention to any or all of the specific details of construction shown, excepting insofar as they may be deemed essential to the invention.

Referring briefly to the drawing,

Fig. 1 is a side elevational view of a lighter embodying this invention.

Fig. 2 is a front view of the lighter.

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2.

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 1.

Fig. 5 is a bottom plan view of the lighter.

Fig. 6 is a sectional view taken on the line 6—6 of Fig. 3.

Referring in detail to the drawings, the numeral 10 indicates the body of the lighter, to which the cap 11 is hinged at 12. The body 10 is substantially rectangular in cross-section, and is closed at the bottom 13, the top end being open. Intermediate the height of the body 10, a partition 14 is provided, dividing the interior of the body 10 into two compartments 15 and 16.

A housing 17 is of the same cross-sectional conformation as the body 10 but of smaller dimensions so that it may slide into the compartment 15 and be frictionally retained therein. The housing 17 is closed at the top and open at the bottom. One or more openings 18 are provided through the top of the housing 17, from which one or more tubes 19 extend downwardly. The lower ends of the tubes 19 are threaded to receive

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screws 20. Coiled springs 21 are mounted in these tubes, and at the tops of the tubes lengths of flint 22 are seated and urged against the sparking wheel 23 which is rotatably mounted on the top of the housing 17 in a standard manner; a wind shield is shown at 41. An opening 24 is provided through the top of the housing 17 on the other side of the wheel 23, through which the wick 25 projects from the compartment 15, the latter being filled with cotton 26.

A boss 27 is formed on the partition 14 and has an opening 28 therethrough, whose lower end is conical to provide a valve seat 29. An opening 30 is provided through the bottom wall 13 of the body 10, which is surrounded by an internally threaded wall 31. A valve 32 comprising a stem 33 and a head 34, has the latter threadably registering in the wall 31. The stem has its extremity conical complementarily to the seat 29, and the length of the valve 32 is such that when its extremity seats in the seat 29 the outer surface of its head is flush with the bottom wall 13. A slot 35 is provided in the head 34 so that the valve may be rotated by means of a coin or screw driver. A longitudinal passage 36 extends partway through the valve from the conical extremity thereof into the head 34, and a second transverse passage 37 extends into the side of the head 34 until it meets and communicates with the passage 36. The compartment 16 is filled with liquid fuel through an opening 38 through the wall 13, normally closed by a screw plug 39 having a slot 40 in its head, also adapted to be worked by a coin or screw driver. However, for reasons which will presently be apparent, refueling of the chamber 16 from without will be a relatively infrequent occurrence compared with the frequency of refueling the chamber 15 from the fuel in the chamber 16.

With the valve 32 in the position shown in Fig. 3, it is obvious that both openings 30 and 28 are sealed. In order to permit some of the fuel from the compartment 16 to flow into the compartment 15 and hence to soak the cotton 27 with fuel, with the lighter held bottom side up the head 34 of the valve is rotated through an arc sufficient to expose the outer end of the passage 37 to the air. As soon as this rotation begins the valve stem will move off its seat and thus open the passage 28; when the said rotation ends, and as a result of exposure to the air of the passage 37, fuel will flow down through the passage 28 into the compartment 15. When a sufficient amount of fuel has thus passed into the cotton 26, the valve 32 is again closed.

The body 10 including the partition 14, as well as the housing 17, are well adapted to be made of a transparent plastic material such as, for example, Lucite, so that the level of a liquid fuel in the chamber 16 may always be visible, and so that the flow of fuel into the chamber 15 as above described may be watched. Or any part of combination of parts of the lighter may be made of such a plastic material or any other suitable plastic materials, either transparent or in colors.

Obviously, modifications in form and structure may be made without departing from the spirit and scope of the invention.

I claim:

An article of the class described comprising an upright housing having a roof closing the top thereof and a wall closing the bottom thereof, said housing having a partition therein intermediate the height thereof dividing the interior into an upper and a lower compartment, said upper compartment being adapted to have a mass of cotton therein, said roof having an opening therethrough, a wick extending through said opening and having the lower portion thereof positioned in said upper compartment, means for igniting said wick above said roof, said lower compartment being adapted to have liquid fuel therein, said partition and said bottom wall having openings therethrough, valve means mounted in said last-named openings for simultaneously opening or closing said last-named openings, said last-named openings being aligned, said opening in said partition being countersunk on the underside thereof to provide a valve seat, said valve means comprising a stem having the upper end

thereof tapered complementarily to said valve seat and adapted to register in said seat, said stem extending downward through said lower compartment and having the lower end thereof longitudinally movably mounted in said opening in said bottom wall, said stem having a non-axial longitudinal passage therein extending from said tapered end thereof to a point adjacent the lower extremity thereof, said stem having a lateral passage therein extending from the side thereof to and communicating with the lower end of said longitudinal passage, said bottom wall having a circumferential upright wall surrounding said opening therethrough, said circumferential wall normally closing the outer free end of said lateral passage and said seat normally closing the upper free end of said longitudinal passage, and means for releasably retaining said stem in normal position whence the free ends of said passages are closed as aforesaid.

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REFERENCES CITED

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

UNITED STATES PATENTS

Number	Name	Date
1,748,323	Aronson	Feb. 25, 1930
2,045,457	Gabritsch	June 23, 1936
2,211,500	Gabritsch	Aug. 13, 1940

FOREIGN PATENTS

Number	Country	Date
526,095	France	June 24, 1921