

March 11, 1952

S. G. LIPIC ET AL

2,589,011

CLOSURE FOR TABLE CIGARETTE LIGHTERS

Filed Oct. 12, 1949

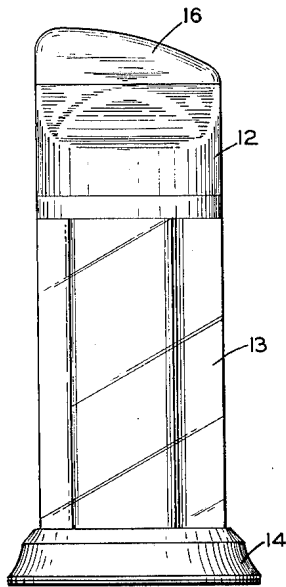


FIG. 1

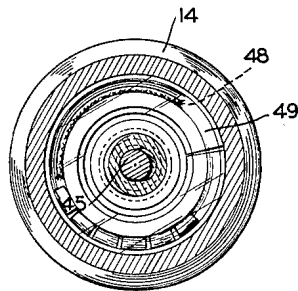


FIG. 3

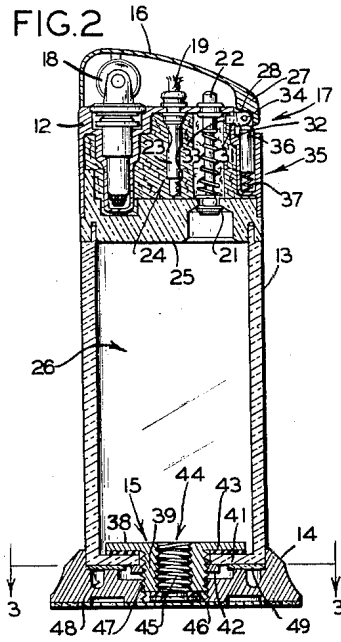


FIG. 2

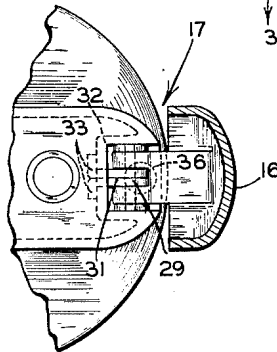


FIG. 6

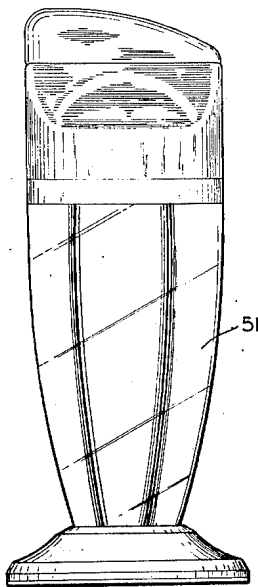


FIG. 4

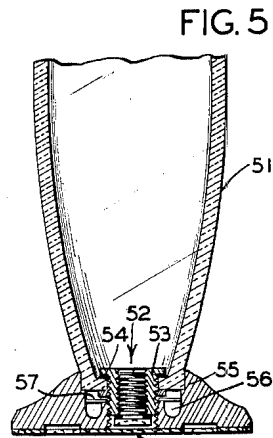


FIG. 5

INVENTORS
SYLVESTER G. LIPIC
FARNHAM F. BOYLE
LUTHER S. LYON

BY *John H. Cassidy*
ATTORNEY

UNITED STATES PATENT OFFICE

2,589,011

CLOSURE FOR TABLE CIGARETTE LIGHTERS

Sylvester G. Lipic, Sappington, Farnham F. Boyle, St. Louis, and Luther S. Lyon, Webster Groves, Mo., assignors to Ritepoint Co., St. Louis, Mo., a corporation of Missouri

Application October 12, 1949, Serial No. 121,017

2 Claims. (Cl. 220—39)

1

The table cigarette lighter of the instant invention embodies improvements in a base for the lighter and in the hinge mechanism by means of which the lighter cap is hinged to the lighter mechanism body. The first of these improvements resides in a combination filling tube and base member attaching means which is passed through a hole in the flat bottom of the lighter reservoir. The element which performs these dual functions comprises a sealing plate into which an internally-externally threaded filling tube is merged. The latter element has a nut screwed externally thereon which draws the sealing plate toward the bottom of the reservoir to clamp a sealing disc between the same and the reservoir bottom. A plug threaded internally of the filling tube closes the projecting end thereof, the tube itself communicating with the reservoir. Additionally, the externally threaded filling tube receives a base member which is threaded thereon to cover the entire bottom of the lighter. Further, a compartment or compartments are channelled in the base member to provide a suitable storage space for extra flints and wicks for the lighter. This compartment is preferably covered by a ring of transparent material which holds the stored material in place when the base member is removed for the purpose of gaining access to the filling tube to refill the reservoir.

The improved hinge mechanism, previously mentioned, includes a channelled boss which is formed as part of the cap. Into this boss, which forms the hinge knuckle, two abutting hinge leaves are inserted through which a hinge pin is passed to complete the hinge. The hinge is attached to the lighter by passing two extensions, or ears, forming a part of the leaves, through a wall of a recess in the lighter mechanism body. These ears are adapted to be turned against, and secured to, the outer wall of the recess. A separate compartment in the lighter mechanism body, situated below the recess therein, houses a spring pressed plunger which acts against the channelled boss to hold the cap in either its open or closed position.

In the drawing,

Fig. 1 is a side elevational view of a table cigarette lighter embodying the instant invention;

Fig. 2 is a vertical sectional view of the same illustrating the parts thereof in detail;

Fig. 3 is a cross sectional view of the lighter's base member taken along the line 3—3 of Fig. 2.

Fig. 4 is a side elevational view of a modification of the lighter illustrated in Figs. 1-3;

2

Fig. 5 is a partial vertical sectional view of the lighter illustrated in Fig. 4; and

Fig. 6 is a detail partly in section with the lid open and showing the hinge construction.

The lighter of the instant invention, as illustrated in Figs. 1 to 3, comprises a lighter mechanism, which is housed in a lighter mechanism body 12. This body, in turn, is supported on a transparent fluid cylinder 13 to which there is secured a base member 14 by means of a combination attaching mechanism and filling tube 15. The lighter mechanism 11 is covered by a cap or cover 16 which is hinged to the body 12 by means of an improved hinge mechanism 17.

Included in the lighter mechanism is a flint wheel 18, a wick 19 and a fluid valve 21 which latter element is actuated by means of a valve plunger 22 accessible at the top of the lighter mechanism body 12. A slotted wick tube 23 is provided to insure the constant retention of the wick 19 near the bottom of a fluid well 24 in the lighter mechanism body 12. A partition 25 separates the fluid well 24 from a fluid reservoir 26, fluid being admitted into the well from the reservoir through the valve 21.

The improved hinge mechanism 17 provides a recessed hinge which is easy to assemble and is not subject to the common fault of weakness at this point in lighter structures. This mechanism (Fig. 2) includes a boss 27 channelled at 28 to receive a pair of abutting hinge leaves 29. The hinge leaves 29 have extensions, or ears, 31 which are passed through a front wall 32 of a three-wall recess in the lighter mechanism body 12. Here, an end 33 of each extension 31 is bent to lie against the wall 32 and is secured thereto. A hinge pin 34 is passed through the hinge leaves 29 and the boss 27 to complete the hinge assembly prior to its connection to the body 12. With this arrangement of the parts, the hinge is contained within the recess in the body 12 leaving the trim lines of the lighter unbroken.

Formed in the body 12 externally of the well 24 is a compartment 35 in which is housed a spring pressed plunger or sleeve 36, the latter being urged by a spring 37 against the boss 27 to hold the cover 16 in either its open or closed position.

As previously stated, the base of the lighter has for its principal parts the combined filling tube and base member attaching mechanism 15 and base member 14. The former element includes a sealing plate 38 which has as a part thereof an internally-externally threaded tubular shank 39, the latter element being passed through a hole

3

disposed centrally in a bottom 41 of the reservoir 26. A round nut 42 is threaded on the shank 39 against the bottom 41 to cause the sealing plate 38 to clamp a sealing disc 43 between the plate and bottom. A bore 44 in the tubular shank 39 communicates with the reservoir 26 and provides a fluid entry to the reservoir, the bore itself being closed by means of a plug 45. The head of this plug carries a washer 46 and is of a diameter somewhat less than the external diameter of the shank 39.

The base member 14 is drilled and tapped centrally thereof at 47 for threaded engagement with the external threads of the shank 39 by means of which it is attached to the lighter. An annular compartment 48 is channeled in the base member 14 to provide a storage space for extra flints and wicks. This compartment is covered by a transparent ring 49 of a suitable material which is removable for access in the compartment but which in its normal position closes the same when the base member 14 is removed to fill the reservoir 26. It will be understood that the compartment 48, which provides a magazine for extra flints and wicks may be single or plural and, while preferable of annular form, may be of a convenient shape and conformation.

In the modification of the invention illustrated in Figs. 4 and 5 the same is made adaptable to a lighter of somewhat different design employing a tapered transparent reservoir housing 51. Here, a combined filling tube and base member attaching mechanism 52 is employed which is identical with that of the aforescribed embodiment with the exception that its sealing plate 53 and sealing disc 54 are somewhat smaller in diameter. Obviously, a base member 55 of somewhat different proportions is necessary. In all other respects, its storage compartment 56, a cover 57 therefor, and its drilled and tapped opening 58 are the same as for the previous embodiment.

From the foregoing description, it will be observed that by locating the filling tube in the lighter's base it is possible to utilize the same as a base attaching means and at the same time provide additional space at the top of the lighter for its lighting mechanism. Further, it is to be pointed out that the use of a round nut 42, rather than a hexagonal nut, removes the possibility of confusion of this element with the plug

4

45 and prevents the breaking of the seal in the bottom of the reservoir.

Various changes may be made in the details of construction, within the scope of the appended claims, without departing from the spirit of this invention. Parts of the invention may be used without the whole and improvements may be added while retaining some or all of the advantages of the invention.

What is claimed is:

1. In a table cigarette lighter having a fluid reservoir including a flat bottom therefor, an improved base for said lighter comprising a sealing plate adapted to fit inside of and rest above the bottom of said reservoir, a tubular shank formed as a part of said plate, threaded internally and externally, said shank being passed through an opening in the bottom of said reservoir and having its internal bore communicating with said reservoir, a sealing disc interposed between said plate and a bottom of said reservoir, a plug threaded into an end of said shank to close the same, a nut threadable on said shank adapted to be drawn against the bottom of the reservoir and clamp said sealing disc between the same and said plate, a base member adapted to be treated onto said shank and a compartment channelled in said base member adapted to receive and store extra wicks and flints for said lighter.

2. In a table lighter the improvement claimed in claim 1 including a removable transparent cover for said compartment.

SYLVESTER G. LIPIC.
FARNHAM F. BOYLE.
LUTHER S. LYON.

REFERENCES CITED

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

UNITED STATES PATENTS

Number	Name	Date
1,509,137	Gottlieb	Sept. 23, 1924
1,751,315	Fox	Mar. 18, 1930
1,903,012	Rosenblueth	Mar. 28, 1933
2,037,347	Shoop	Apr. 14, 1936
2,125,372	Fox	Aug. 2, 1938
2,258,086	Bolle	Oct. 7, 1941
2,463,981	Lee	Mar. 8, 1949
2,497,137	Rodanet	Feb. 14, 1950