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PYROPHORIC LIGHTER WITH AUXILIARY DIVIDED CHAMBER

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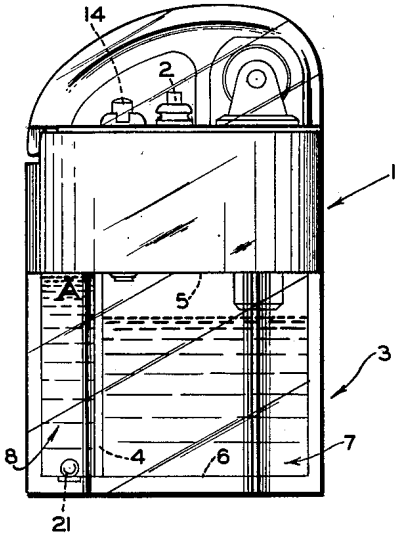


FIG. 2

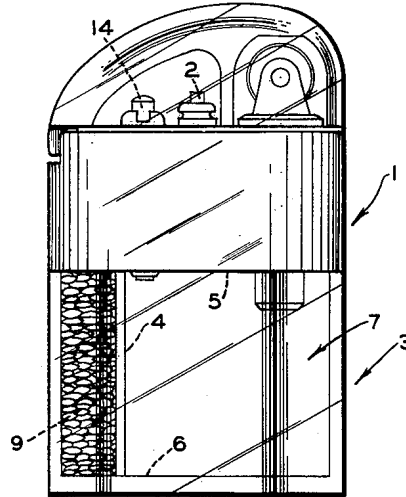


FIG. 1

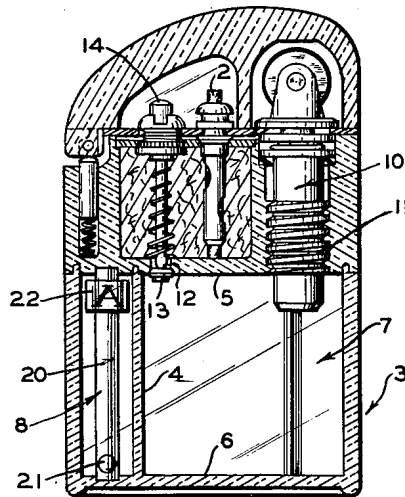


FIG. 3

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PYROPHORIC LIGHTER WITH AUXILIARY DIVIDED CHAMBER

Sylvester George Lipic, Sappington, Mo.

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2 Claims. (Cl. 41-10)

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This invention relates to an improvement in a pyrophoric lighter which has a service fuel chamber, a wick extending into said chamber and a transparent auxiliary closure with a port thereof communicating with the service chamber.

The improvement forms an eye-catching device and may form an attractive advertising medium. In accordance with the present invention, a partition wall extends from side wall to side wall of the auxiliary closure and from a top wall of said closure to the bottom wall thereof, thereby dividing the auxiliary closure into an auxiliary fuel chamber and a display chamber. The auxiliary fuel chamber communicates with the service fuel chamber by a port in the wall dividing them. The display chamber may be used to display any object or objects, single or plural, which can be placed therein.

An effective display comprises an object placed within the display chamber and surrounded by transparent liquid. Such an object may be heavier or lighter than the liquid so that it will float or sink therein as desired.

An especially effective and novel embodiment includes a tube extending from top to bottom in the display chamber with liquid in the chamber and said tube, a solid body unsupported within the tube and a solid body, such as an annulus, slidably positioned about the tube. One of the solid bodies may have a specific gravity less than the liquid and the other having a specific gravity greater than the liquid, whereby when the lighter is upended the solid bodies will pass each other, one through the other.

An understanding of the invention may be obtained from the following detailed description taken in connection with the accompanying drawings, which illustrate an embodiment of the invention and a modification thereof.

Fig. 1 is an elevational view showing a lighter embodying the invention;

Fig. 2 is an elevational view showing a lighter embodying a modification of the invention; and

Fig. 3 is a vertical section through the lighter as illustrated in Fig. 2.

The pyrophoric lighter illustrated in the accompanying drawing has a service fuel chamber 1, into which extends a wick 2, and a closure 3 below the fuel chamber 1 having transparent side walls.

The present invention comprises an improvement upon a lighter specifically illustrated in an application of Sylvester G. Lipic, Farnam F. Boyle and Luther S. Lyon, Ser. No. 121,016, filed October 12, 1949. That application may be

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referred to for a more detailed description of the construction and mechanism of the lighter.

The present invention relates to an improvement or modification of the transparent closure below the fuel chamber 1. A partition wall 4 extends from side wall to side wall of the closure 3 and from a top wall 5, which also forms a bottom wall of the service fuel chamber 1, to a bottom wall 6 of the auxiliary fuel chamber. Thereby the auxiliary closure is divided into an auxiliary fuel chamber 7 and a display chamber 8.

The chamber 8 may be used to display any object or objects, single or plural, which may be placed therein. For example, it may be used to display granular material, such as grain or wheat 9, as specifically shown in Fig. 1. It may be used for displaying a liquid, or a specimen, or a miniature of a device too large to be placed within the display chamber.

A spark wheel assembly 10 is threaded in a bore 11 through a body which forms a part of the service fuel chamber 1, and which opens into the auxiliary fuel chamber 7. Thus, there is provided means for filling the auxiliary fuel chamber. This chamber 7 communicates with the service fuel chamber 1 through a port 12 which is opened and closed by a valve 13, having a stem 14 extending through the top wall of the service chamber 1.

The object placed within the display chamber may be unsupported or it may be attached to any of the walls of that chamber. It may be placed in the chamber alone, or placed in the chamber and surrounded by a liquid which in some cases may give an eye-catching effect.

Figs. 2 and 3 illustrate a particularly novel and eye-catching embodiment. A tube 20 extends from top to bottom of the chamber 8, that is, from the top wall 5 to the bottom wall 6. A solid, such as a shot 21, is placed within the tube and a solid 22 is placed about the tube. The solid 22 is in sliding engagement to the tube and is preferable in the form of an annulus. It may have any advertising copy or trade-mark indicated by the symbol A thereon and movable through the transparent walls of the display chamber 8. A liquid is placed in the chamber 8 and within the tube 20. This liquid may be the same or may be different if different specific gravities are desired. The shot 21 may be of a specific gravity greater than the liquid and the annulus 22 may be of a specific gravity less than the liquid. Thus, if the lighter is upended, the solids 21 and 22 will tend to change their position and pass each other with the shot passing inside the annulus. It may

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be understood, of course, that advertising matter may be placed upon any convenient surface of the lighter.

The drawings and description do not attempt to exhaust the possibilities of applications of the invention. On the other hand, it may be emphasized that those illustrated and described are merely illustrative and emphasize the wide application to which the invention may be put, this making it particularly adapted for advertising and eye-catching purposes.

It may be understood that 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, that parts of the invention may be used without the whole and improvements may be added while retaining the benefits of this invention.

I claim:

1. In a pyrophoric lighter having a service fuel chamber, a wick extending into said chamber, and an auxiliary closure below the fuel chamber having transparent side walls and a bottom wall, and with the wall of said service chamber forming the top wall of the auxiliary closure, the improvement comprising a partition wall extending from side wall to side wall of the auxiliary closure and from said top wall to said bottom wall, thereby dividing said auxiliary closure into an auxiliary fuel chamber and a display chamber, liquid within said display chamber, a solid object within the chamber having a specific gravity greater than the liquid, and a solid object within the chamber having a specific gravity less than the liquid, whereby the objects will pass each other in the liquid when the lighter is upended.

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2. In a pyrophoric lighter having a service fuel chamber, a wick extending into said chamber, and an auxiliary closure below the fuel chamber having transparent side walls and a bottom wall, and with the wall of said service chamber forming the top wall of the auxiliary closure, the improvement comprising a partition wall extending from side wall to side wall of the auxiliary closure and from said top wall to said bottom wall, thereby dividing said auxiliary closure into an auxiliary fuel chamber and a display chamber, a tube extending from top to bottom in said display chamber, liquid within said chamber and said tube, a solid body unsupported within the tube, and a solid body slidably positioned about the tube, one of said solid bodies having a specific gravity less than the liquid, the other having a specific gravity greater than the liquid, whereby when the lighter is upended the solid bodies will pass each other, one through the other.

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