

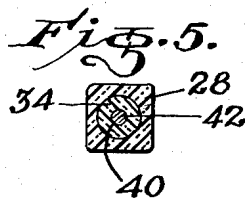
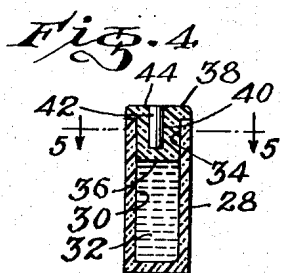
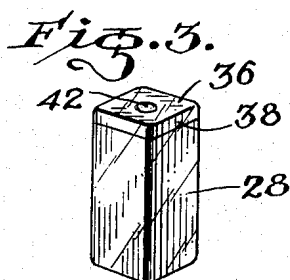
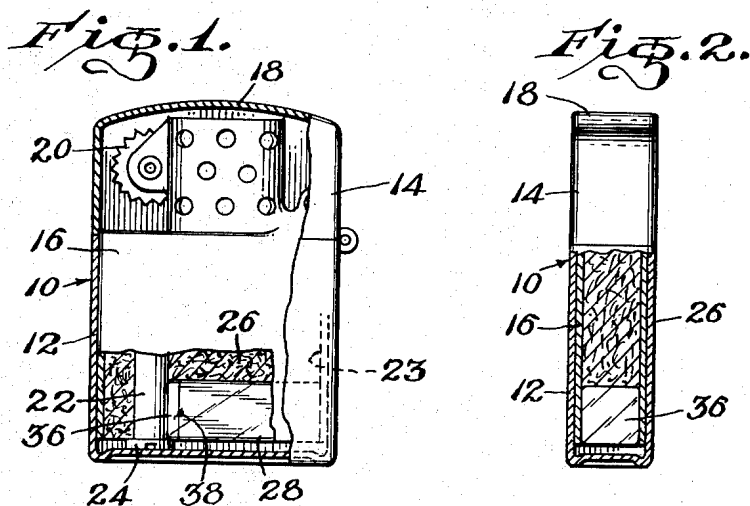
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RESERVE FLINT AND FUEL CONTAINER FOR POCKET LIGHTERS

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## RESERVE FLINT AND FUEL CONTAINER FOR POCKET LIGHTERS

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3 Claims. (Cl. 67-7.1)

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This invention relates to cigar or cigarette lighters, and more particularly, has reference to a reserve container for lighter fuel and a replacement flint, adapted to be stored within the casing of such a lighter.

It is well appreciated among users of pocket lighters that in many instances, the lighter will be found to be out of fuel at times when a supply of lighter fuel is not readily accessible. Further, one often finds it necessary to replace the flint of the lighter, only to discover that a supply of flints is unavailable at the moment.

In view of the above, the main object of the invention is to provide a reserve container for flint and fuel, which will be mounted removably directly within the lighter, so as to be readily accessible whenever need for the same arises.

A more specific object is to provide a container as described, which will not interfere with normal use of the lighter, and will not require that the lighter with which it is to be associated be modified or redesigned in any way.

Another object of importance is to provide a reserve container of the type referred to that will be capable of manufacture at a minimum of cost, as an accessory separate and apart from the lighter itself, thus to permit its being merchandised as a product that can be purchased by one already possessing a lighter of the type with which the reserve container is particularly adapted to be associated.

Still another object is to provide a reserve container of the type stated wherein the reserve flint can be removed without opening or disturbing the reserve fuel container and wherein, also, the fuel can be removed without disturbance of the reserve flint.

A further object is to provide a reserve container of the character referred to that is so designed as to be held in place within the wad casing of the lighter by engagement of said container, at opposite ends thereof, between the flint tube and one wall of the casing, the conventional screw cap of the flint tube being so disposed as to hold the reserve container against movement from its proper position.

Other objects will appear from the following description, the claims appended thereto, and from the annexed drawing, in which like reference characters designate like parts throughout the several views, and wherein:

Figure 1 is a view partly in side elevation and partly in longitudinal section, of a lighter with which the reserve container may be readily associated, the container constituting the present invention being illustrated in side elevation;

Figure 2 is a longitudinal sectional view through the lighter, parts remaining in elevation, taken at right angles to the cutting plane of Figure 1, showing the container in end elevation;

Figure 3 is a perspective view of the reserve container per se;

Figure 4 is a longitudinal sectional view through the container; and

Figure 5 is a transverse sectional view through the container, taken on line 5-5 of Figure 4.

The reference numeral 10 has been applied generally to designate a conventional lighter of a particular, well-known type, with which the reserve container constituting the invention is adapted to be associated. The lighter 10, in this connection, is provided with a box-like receptacle 12 of rectangular outer and cross-sectional configuration, closed at its lower end and along its sides, but formed open at its upper end.

Hinged to the upper end of the receptacle 12 is a lid 14, and removably inserted in the receptacle is a wad casing 16, having at its upper end a wind guard 18 on which is mounted the usual flint wheel 20. A flint tube 22 extends downwardly within the wad casing, in spaced, parallel relation to one side wall 23 of the casing, and threadedly engaged in the lower end of the flint tube is a screw cap 24 formed to a diameter substantially greater than the outer diameter of the flint tube, thus to define on the lower end of the flint tube a shoulder extending circumferentially thereof. Surrounding the flint tube, and substantially filling the wad casing, is absorbent material 26.

All this is conventional construction in a well-known type of lighter, and does not per se constitute part of the present invention.

The invention adapted for association with a lighter of the character illustrated and described includes a container 28, which can be readily molded integrally from plastic or the like. The container 28 is rectangular in cross section from end to end thereof, one end of said container being closed and the other end being formed open to provide a fuel chamber 30 to receive a reserve supply 32 of lighter fluid.

At the open end thereof, the fuel chamber has its wall flared to form an inwardly tapering mouth 34, and wedgeably engaged in said mouth is a complementarily tapered plug 36 that normally seals the container tightly, said plug having on its outer end a peripheral flange 38 providing a shoulder engaging the adjacent end edge of the container.

The plug 36 is adapted to hold a reserve flint, and to this end, is molded with a longitudinally

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and centrally disposed flint socket 40 which socket terminates at its inner end short of the inner end of the plug, and has its outer end opening upon the outer end of the plug. A flint 42 can be deposited within said socket, and will be readily removable therefrom whenever it is needed to provide a replacement for the flint already in use in the lighter. To facilitate removal of the flint from the socket, the outer end of the socket may be flared as at 44.

The container formed as illustrated and described is mounted within the wad casing of the lighter in the position shown in Figure 1. In this position of the container, the closed end wall of the container is engaged against the wall 23 of the wad casing, while the plug 36 is engaged against the wall of the flint tube, the container extending the full distance between said wall 23 and the flint tube. The container will thus be frictionally engaged at its opposite ends by the wall 23 and the flint tube, and will also be engaged, as shown in Figure 2, along its sides, by the opposite sides of the lighter between which the side wall 23 thereof extends.

It will be noted that the arrangement is one which will insure that the plug will be held firmly seated within the fuel chamber mouth 34, there being no possibility of the plug accidentally falling out or loosening within said mouth.

Further the flint tube wall serves to provide a closure for one end of the flint socket 40, thus to prevent accidental loss of the reserve flint.

It is also thought to be an important characteristic of the invention that the flanged cap 24 of the flint tube serves as a stop shoulder engaging the plug of the reserve container, thus to hold the container within the wad casing whenever the wad casing is removed from the receptacle 12.

If it is desired to remove the container to obtain access to the reserve flint or to refuel the lighter, one need only unscrew the cap 24 until it is almost fully disconnected from the flint tube. This permits the container to be readily removed, by moving the container downwardly out of the wad casing to a predetermined extent, and then swinging the same outwardly to accomplish its complete removal.

It is also thought to be of importance that the invention involves no modification or redesigning of the lighter in any way, and can be used as an accessory capable of purchase at low cost by one already having a lighter of the illustrated type.

It is believed clear that the invention is not necessarily confined to the specific use or uses thereof described above, since it may be utilized for any purpose to which it may be suited. Nor is the invention to be necessarily limited to the specific construction illustrated and described, since such construction is only intended to be illustrative of the principles of operation and the means presently devised to carry out said principles, it being considered that the invention comprehends any minor change in construction that may be permitted within the scope of the appended claims.

What is claimed is:

1. In a lighter, a receptacle having a closed bottom and an open top, a wad casing removably telescoped into said receptacle and removable through the open top of the receptacle, said wad casing having a closed top and an open bottom, and a reserve fuel container removably positioned in said wad casing at the open bottom of

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the wad casing, said reserve container being accessible through the open bottom of the wad casing only while the wad casing is removed from said receptacle, said wad casing having a flint tube laterally spaced from one side of the wad casing, said flint tube having an open end located in the region of the open bottom of the wad casing, a screw closing the open end of the flint tube, said screw having a head having a flange projecting laterally beyond a side of the flint tube, said flange being engaged with an underpart of an end portion of said reserve container so as to retain the reserve container within the wad casing.

2. A reserve flint and fuel container for pocket lighters, comprising, in combination with a wad casing and with a flint tube, said flint tube having a flanged cap at one end defining a circumferential shoulder on the flint tube, a receptacle portion of rectangular cross section adapted to contain a quantity of liquid fuel and engageable at one end against one wall of the casing, opposite sides of said receptacle portion being proportioned for engaging opposite side walls of the casing adjacent said one wall thereof; and a plug removably closing said receptacle portion and having a socket opening upon the outer end of the plug for holding a quantity of flints, said outer end of the plug being engaged against the flint tube and said flint tube constituting a closure for said socket, said shoulder of the flint tube engaging the periphery of the plug to normally hold the container against movement outwardly of the wad casing.

3. In a lighter, a receptacle having a closed bottom and an open top, a wad casing removably telescoped into said receptacle and removable through the open top of the receptacle, said wad casing having a closed top and an open bottom, and a reserve fuel container removably positioned in said wad casing at the open bottom of the wad casing, said reserve container being accessible through the open bottom of the wad casing only while the wad casing is removed from said receptacle, said fuel reserve container having a closed end and an open end, and a reserve flint carrying plug removably closing the open end of the reserve container, said wad casing having a flint tube laterally spaced from one side of the wad casing, said flint tube having an open end located in the region of the open bottom of the wad casing, a screw closing the open end of the flint tube, said screw having a head having a flange projecting laterally beyond a side of the flint tube, said flange being engaged with an underpart of an end portion of said reserve container so as to retain the reserve container within the wad casing, said reserve container being arranged within said wad casing with one end thereof engaged with the mentioned side of the wad casing and its other end engaged with said flint tube.

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