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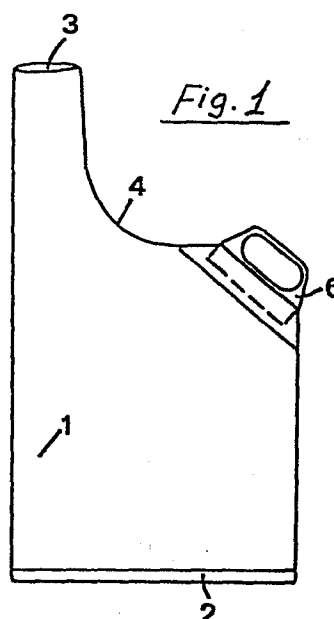
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(54) Flexible plastics material can for liquids.

(57) The flexible plastics material can comprises a bag-shaped body (1) provided, at a peripheral portion whereof, with a sleeve extension (3), effective to provide an elongated filler member, to be used as a funnel for dispensing the liquid therefrom, closure means (10) being further provided movably engageable with the sleeve extension (3).



The present invention relates to a resilient or flexible material can for liquids in general, in particular fuels.

As it is known there are many cases therein a motorist is restrained from proceeding with his vehicle because of the exhaustion of fuel, or other cases therein a user has to collect liquids, such as water and the like.

Thus a need is felt of a vessel or can for containing spare fuel or the liquid to be used.

The rigid material cans, even if they are of small size, are however bulky and they may be hardly held on a vehicle, in a proper position, for a possible use.

Also the flexible sealed bags presently commercially available are not effective to solve the problem of an occasional refuelling, both because they require the use of a funnel for pouring fuel and because they are difficult to handle in a full condition.

Thus, the task of the present invention is to solve the above mentioned problem, by providing a flexible or resilient can, for liquids in general, which is so designed as to be flexible and light as well as effective to be easily and safely used for transporting small amounts of fuel or liquids and pouring them into a tank or vessel without the need of using funnels or the

like means.

Within that task, it is a primary object of the present invention to provide such a flexible or resilient plastics material can which is provided with a handle effective to be easily engaged for safely transporting the full can without any liquid leaks.

Another object of the present invention is to provide such a flexible plastics material can which is very reliable in use and of long duration.

Yet another object of the invention is to provide such a flexible plastics material can which is construction-wise very simple and of very reduced cost.

According to one aspect of the present invention, the above task and objects, as well as yet other objects, which will become more apparent hereinafter, are achieved by a flexible material can for liquids in general and fuels in particular, characterized in that it comprises a bag-shaped body provided, at a peripheral portion whereof, with a sleeve extension, effective to provide an elongated filler member, effective to be used as a funnel for dispensing said liquid therefrom, closure means being further provided movably engageable with said sleeve extension.

Further characteristics and advantages of the resilient material can according to the present

invention will become more apparent from the following detailed description of a preferred embodiment whereof, being illustrated, by way of example, in the accompanying drawings, where:

fig.1 schematically illustrates a bag flexible or resilient can according to the present invention;

fig.2 illustrates that same can, in a full condition and during the transportation whereof;

fig.3 illustrates that same can during the pouring step of the fuel or liquid contained therein;

fig.4 illustrates an embodiment of the handle member associated to the can according to the invention;

fig.5 illustrates, by a perspective view, the closure means associated to the can according to the invention;

fig.6 is a side view illustrating the can according to the present invention as provided, at the sleeve whereof, with the above mentioned closure means;
and

fig.7 illustrates the closure means applied to the can in such a way as to close said sleeve.

With reference to the mentioned figures, the flexible material can according to the invention

comprises a bag-shaped body, indicated at 1, which, advantageously, is of flattened out configuration and is made from a flexible thermoplastic material, such as polyvinylchloride, polyethylene and the like plastics materials.

Preferably, though not necessarily, the mentioned bag-shaped body is made starting from a plastics tubular member, of predetermined thickness, produced by blowing and the like known methods, and it is closed at the bottom by a sealing line 2, made by thermosealing methods or the like.

At the top whereof, the can is so shaped as to present a sleeve extension or tubular lug 3 which is closed, along its curved extension and up to the opposite end, by a sealed portion 4, analogous to the mentioned sealing line 2.

That sleeve extension provides, in actual practice, an effective funnel member for facilitating the dispensing or pouring of the contained liquid.

Moreover, the mentioned sleeve extension extends for a length which is proportional to the size of the can.

Thus, the mentioned sleeve extension 3 forms a narrower region of the tubular body 1 and is oriented perpendicularly to the bottom of the can.

It should be noted that the length of said sleeve extension is effective to allow for a full

can, as it is shown in fig. 2, to be easily transported even with a slanted orientation, without the need of closing the can itself and without the danger that the top surface 5 of the contained liquid may overflow from the mouth defined by the open end portion of said sleeve extension 3.

That mouth, as it is schematically illustrated in figs. 5 to 7 may be advantageously closed by closure means provided for being movably engaged with the sleeve extension.

The mentioned closure means (figs. 5, 6 and 7) consists advantageously of a key, indicated overallly by the reference number 10, which, on the substantially cylindrical elongated stem whereof, indicated at 11, is provided with a through slot 12; the latter, advantageously even not necessarily, has a tapering shape with a wider edge than the opposite edge, as it will be clear from fig. 6.

More specifically said elongated stem 11 extends from a butterfly member 13, provided for allowing for said key to be easily used.

In order to apply the mentioned closure means to the can, it will be sufficient to fold on itself, along a longitudinal line, the sleeve extension 3 and insert it into the slot 12, from the wide portion, and cause it to exit the narrow portion for a given length.

Then the key 10 will be turned by some revolutions in such a way as to wind a portion

of the sleeve extension 3 about the mentioned stem 11.

In order to carry out the locking operation, there is provided a resilient clamp or band 20 provided, at the end portions whereof, with through holes 21, effective to permit one end of the resilient clamp 20 to be inserted into the coupling zone of the stem 11 to the butterfly member 13 and into the other through hole 21, at the free end of the stem 11, in such a way as to prevent said sleeve extension 3 wound about the key from being unwound.

Thus a perfectly tight closure of the can is obtained and any leaks will be prevented, even in the presence of high inner pressures.

In order to provide for an easy handling of the full can, and an easy transportation whereof, the bag is provided at the top whereof, on the opposite side to the funnel shaped side, with a handle 6, made of a plastics material and shaped as an elongated slot which is anchored, by means of a welded portion 6a, between the two opposite walls of said bag.

As it is shown in fig. 4, the handle is obtained by means of a plurality of through holes 7, formed through said bag body, upon closing the can through a transversal or cross sealing line, as indicated at 8.

From the above disclosure it should be

noted that the invention fully achieves the intended task and objects.

In particular it is to be pointed out that the provision of a sleeve extension 3, made in a single piece with the bag-shaped can, affords the possibility of using said extension as an element for filling the can as well as like a funnel.

This is particularly useful as the liquid contained in the bag is to be poured into the mouth of a vehicle fuel tank or other like vessels, without any danger of causing liquid leaks.

Especially important are moreover the closure means which, while being structurally very simple, since they may be obtained by a simple shaped key member, advantageously made from a plastics material, are effective to provide a firm and safe closure of the can.

It should also be noted that, in the non use condition, the can according to the invention may be easily folded over and stored in a very reduced space.

In practicing the invention the used materials, even if the best results have been obtained by using the above mentioned materials, as well as the contingent shapes and size, may be any, according to requirements.

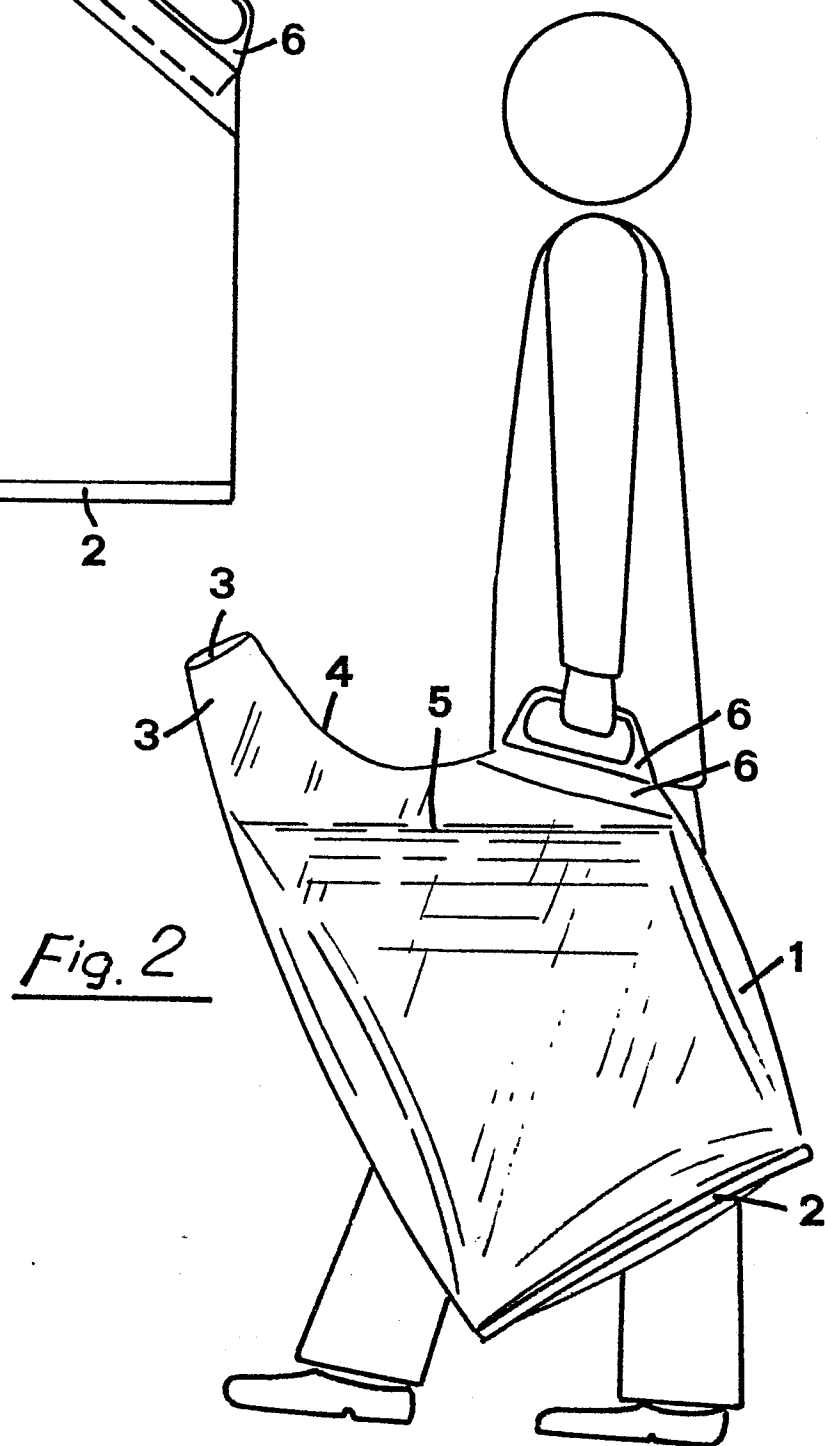
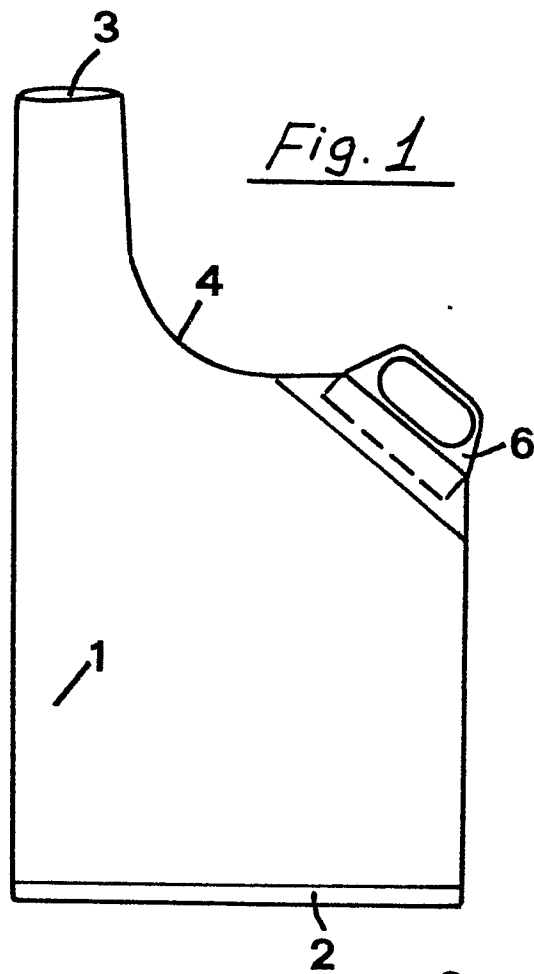
C L A I M S

- 1- A flexible material can for liquids in general and fuels in particular, characterized in that it comprises a bag-shaped body (1) provided, at a peripheral portion whereof, with a sleeve extension (3), effective to provide an elongated filler member, effective to be used as a funnel for dispensing said liquid therefrom, closure means (10) being further provided movably engageable with said sleeve extension (3).
- 2- A can according to the preceding claims, characterized in that said bag-shaped body is of substantially quadrangular shape and in that said sleeve extension (3) is defined at a corner whereof.
- 3- A can, according to one or more of the preceding claims, characterized in that said bag-shaped body is made starting from a thermoplastics material extruded tubular member closed at the opposite end portions whereof by means of sealing lines.
- 4- A can, according to one or more of the preceding claims, characterized in that said sleeve extension (3) is made in a single piece with said bag-shaped body (1) and extends substantially perpendicularly with respect to the bottom of said can.
- 5- A can, according to one or more of the preceding claims, characterized in that it comprises a handle member (6) provided at a region adjoining said sleeve extension (3) and opposite to said bottom of said can.

- 6- A can, according to one or more of the preceding claims, characterized in that said handle member (6) consists of a plurality of through holes (7) formed through said bag-shaped body, in a region delimited by the containing zone, by means of a sealing line or bead.
- 7- A can, according to one or more of the preceding claims, characterized in that said closure means (10) consist of a key member (10) provided, on the stem (11) whereof, with an elongated slot therein said sleeve extension (3) may be engaged.
- 8- A can, according to one or more of the preceding claims, characterized in that said sleeve extension (3) may be folded on itself along an intermediate line with respect to the longitudinal extension whereof and may be introduced into said slot, said closure being formed by winding a portion of said extension sleeve (3) about said key stem (11).
- 9- A can according to one or more of the preceding claims, characterized in that said slot is provided, in its cross-section, with a tapering profile starting from a wider edge to a smaller edge whereof.
- 10-A can according to one or more of the preceding claims, characterized in that it comprises a resilient clamp or band provided, at the end portions whereof, with through holes (21) one whereof is effective to be engaged at the coupling zone of said stem (11) to the key driving butterfly member (13), the other hole (21) being engageable with the free end of

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said stem (11), by arranging said clamp or band (20) transversely of said extension sleeve (3), as wound or coiled on said stem (11).



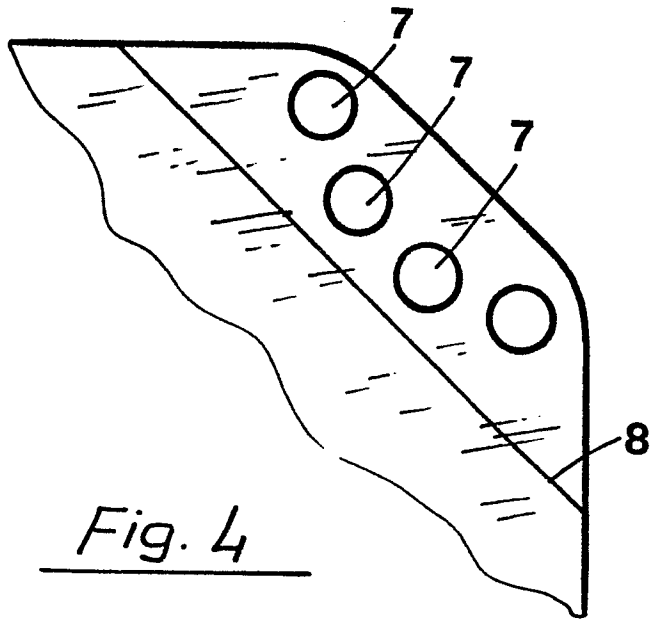


Fig. 4

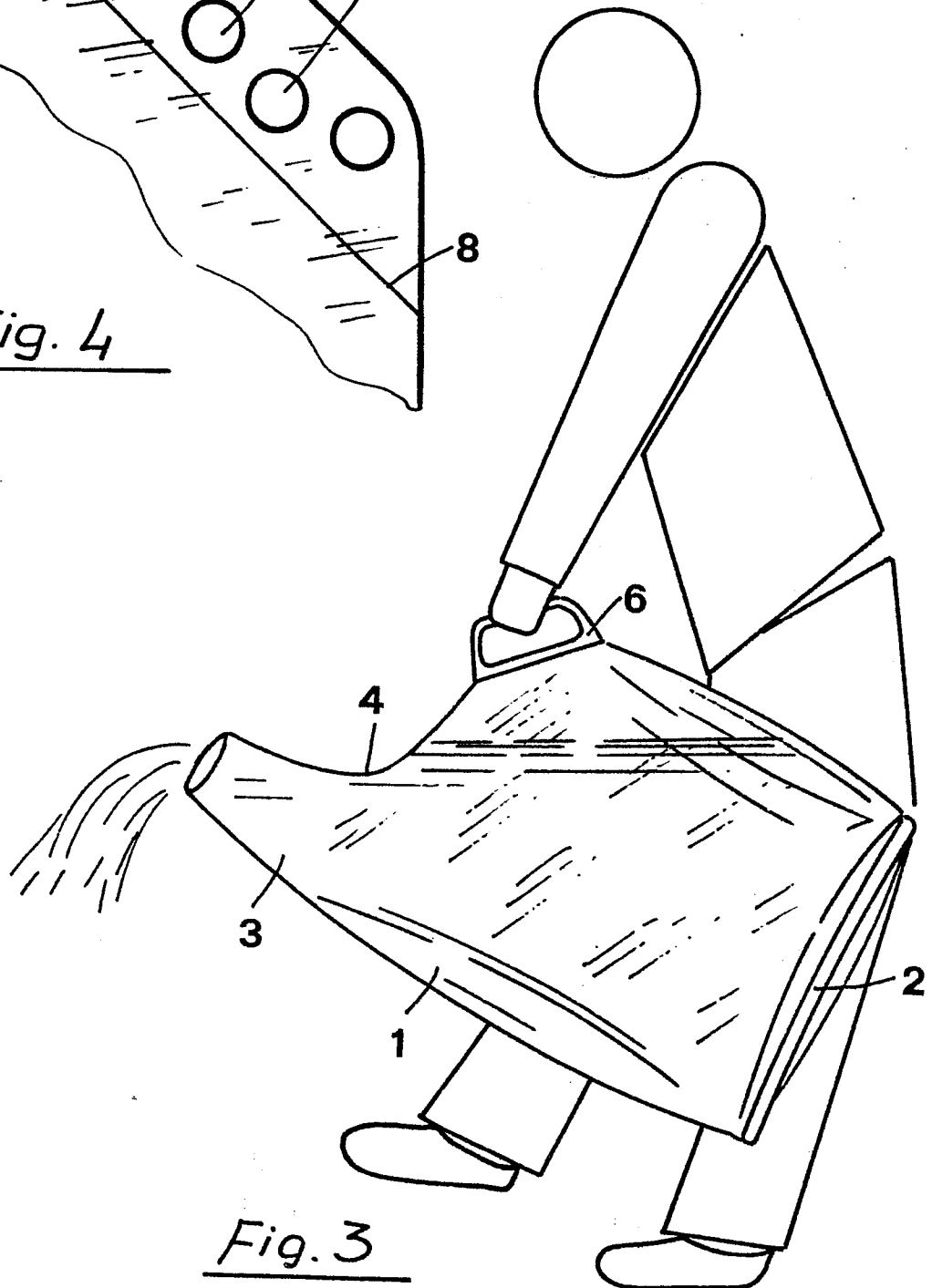


Fig. 3

