June 6, 1939. C. W. KELSEY 2,161,060

CONTAINER

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Fig. 1

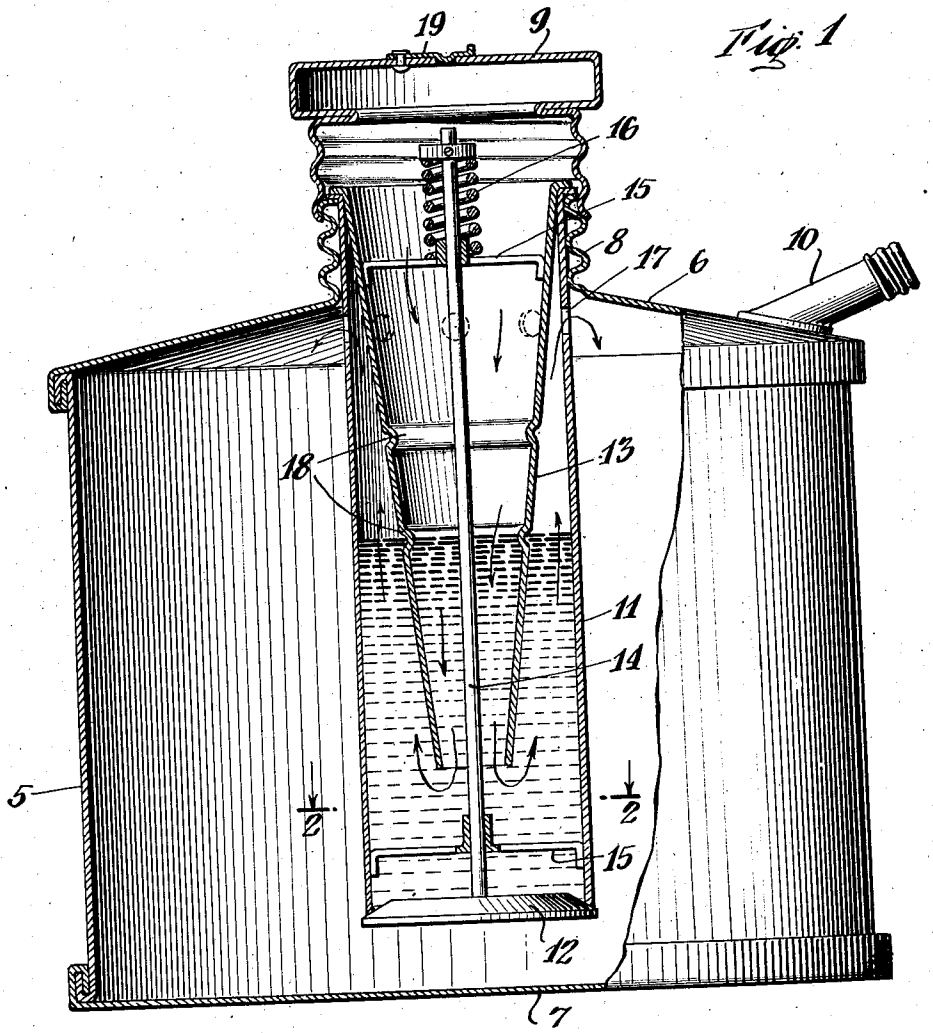
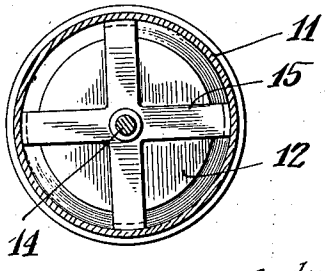


Fig. 2



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CONTAINER

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2 Claims. (Cl. 137—21)

This invention relates to a structurally and functionally improved container capable of use in numerous different associations, but of primary utility where two fluids are to be mixed and dispensed.

Viewed in one of its more specific aspects, it is an object of the invention to furnish a unit of this character which will be ideally suited for the storage and dispensing of a gasoline and oil mixture such as is commonly employed in connection with two cycle motors of the internal combustion type.

A further object is that of providing a container in which—without effort on the part of the operator and without the exercise of any forethought or skill—the two fluids will be automatically mixed in such manner that a proper dispersion of one throughout the body of the other will occur. Accordingly, difficulties heretofore encountered incident to stratification or other improper co-mingling of gasoline and oil or other fluids will be avoided.

A further object of the invention is that of providing a container by means of which an operator will have no difficulty in assuring that a proper proportion of different fluids has been provided.

Still another object is that of constructing a receptacle of this nature such that the contents thereof will be efficently protected from contamination by foreign agents such as dirt, grit, etc.; this being quite aside from the fact that a container is furnished which—when used with volatile and inflammable fluids—will comply with all fire prevention requirements.

Still another object is that of providing a unit of this type which may be constructed at nominal expense and which will include relatively few parts, each individually simple and rugged, such parts when assembled operating over long periods of time with freedom from all difficulties.

With these and other objects in mind, reference is had to the attached sheet of drawing, illustrating one practical embodiment of the invention, and in which

Fig. 1 is a partly sectional side view of a container, and

Fig. 2 is a transverse sectional view taken along the lines 2—2 and in the direction of the arrows of Fig. 1.

In these views the numeral 5 indicates the container wall with which a top 6 and base 7 are associated in any desired manner. As illustrated, the top 6 is formed with a central opening defined by an annular screw threaded flange 8 upon which a cap 9 is mounted. Moreover, a spout 10 is furnished and through this the contents of the container may be dispensed.

At this time it is to be understood that the configuration of the afore described parts may be as desired consistent with the purpose for which the container is intended. Obviously, certain of these parts might be dispensed with and/or re-located if any special type of construction were involved, the particular construction illustrated being employed in that the same embodies a more or less preferred form of design.

However, it will be noted that within the container body a tube 11 is provided and this tube may conveniently have its upper end secured to the screw threaded flange or collar 8, while its lower end terminates above the inner face of base 7. The lower end of the tube is conveniently not closed and a valve 12 may cooperate with this edge portion to prevent a flow of fluid from the base of the tube. In this manner a container is furnished within the outer shell or container, as defined by surfaces 5, 6 or 7.

Within the tube or container 11 a second container is mounted, this latter or inner container conveniently taking the form of an inverted truncated cone, the lower end of which terminates at a point short of the lower end of tube 11. It will, moreover, be noted that the upper edge of container 13 preferably overlaps the upper edge of tube 11, so that any liquids poured into the receptacle and after removal of the cap will primarily enter and flow through the container 13.

Valve 12 may be mounted by securing to the same a rod 14 which has sliding bearing within spiders 15 conveniently mounted one within tube 11 and the other within shell 13. A spring 16 normally acts on rod 14 to maintain valve 12 in seated or tube-sealing position.

Finally, it is to be noted that tube 11 may be provided, at any proper and desired point, with an annular series of openings 17 affording communication between its interior and the interior of the main container body. At the same time it is to be noted that the inner container or shell 13 may be provided with indicating marks conveniently taking the form of one or more annular inwardly bulged portions 18, clearly visible to a person glancing down through shell or container 13.

In use it will be understood that an operator will remove cap 9 and will pour into the inner container 13 a quantity of oil. According to the conditions which are present (viscosity of oil, etc.) the inner container will be filled to the

lower, upper, or any other desired zone, defined for example by the indicating marks 18. Obviously, the oil will flow around the lower edge of container 13 and will reach an equal level within container or tube 11.

After this quantity of liquid has been received, the operator will simply pour in through shell 13 the required amount of gasoline or other fluid. The latter fluid will flow through the inner container 13 and outer container 11 and will finally fill the latter to a point where it flows through the openings 17. Incident to such flow, the two liquids will be intimately co-mingled and one will be evenly dispersed throughout the other. Of course, the gasoline flowing in contact with the inner and outer containers 13 will, in effect, wipe such surfaces to prevent any undue amount of oil or other fluid from adhering thereto.

When the container has been filled to the proper point, the cap 9 is applied thereto. Such cap, in reaching its fully seated position, will obviously project the stem 14. This will result in an unseating of the valve 12, thus allowing any oil remaining within the lower end of container 11 to be discharged into the body of the main container. It is, of course, obvious that any such residual oil in the base of container or tube 11 will be properly inter-mixed, incident to the surges of fluid which will occur at this point as the container is transported or raised, preparatory to having its contents discharged. In any event, however, it will be understood that the gasoline, in flowing through shell 13, forces itself downwardly through the body of oil and subsequently upwardly through such body and within container 11. In this manner the oil and gasoline are evenly mixed, it being apparent that as the fluid moves through openings 17 and downwardly over the container, any oil adhering thereto will inter-mix with the gasoline.

In conclusion it will be appreciated that as shown at 19 any suitable type of vent may be associated with cap 9 or otherwise to prevent any possibilities of an air-lock occurring.

Thus among others the several objects of the invention as aforenoted are achieved. It will be obvious that numerous changes in construction and rearrangements of the parts might be resorted to without departing from the scope of the invention as defined by the claims.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A container including a body portion formed with an upper central opening, a secondary container adapted to be positioned within said body and supporting at its upper end by contact with said body opening, the remainder of said container being spaced from the interior of said body, a valve forming the lower end of said secondary container and normally sealing the same, said secondary container being formed with a plurality of venting apertures adjacent its upper edge at a point within the confines of said body portion, and a deflecting cone positioned within said secondary container and being open at both ends, the wide end of said cone engaging the upper end of said secondary container and being supported thereby, the lower end of said cone extending to a point adjacent the lower end of said secondary container but spaced therefrom, whereby liquids poured into the upper end of said cone travel a tortuous path through said cone and up the interior of said secondary container to the venting apertures therein before entering the primary container body unless said body is rendered directly accessible by the opening of said valve.

2. A contained including a body portion formed with an upper central opening, a secondary container adapted to be positioned within said body and supported at its upper end by contact with said body opening, the remainder of said container being spaced from the interior of said body, a valve forming the lower end of said secondary container and normally sealing the same, said secondary container being formed with a plurality of venting apertures adjacent its upper edge at a point within the confines of said body portion, a deflecting cone positioned within said secondary container and being open at both ends, the wide end of said cone engaging the upper end of said secondary container and being supported thereby, the lower end of said cone extending to a point adjacent the lower end of said secondary container but spaced therefrom, whereby liquids poured into the upper end of said cone travel a tortuous path through said cone and up the interior of said secondary container to the venting apertures therein before entering the primary container body unless said body is rendered directly accessible by the opening of said valve, an actuating rod associated with said valve and extending upwardly therefrom to a point beyond and above the upper end of said cone, and a closure for engaging and sealing the central opening of said container body, said closure, when in sealing position, causing a downward displacement of said valve actuating rod to maintain said valve in unseated position.

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