July 18, 1933. C. R. WEBBER 1,918,308

CONTAINER

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Fig. 1.

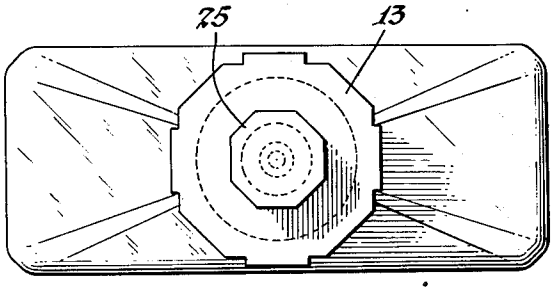
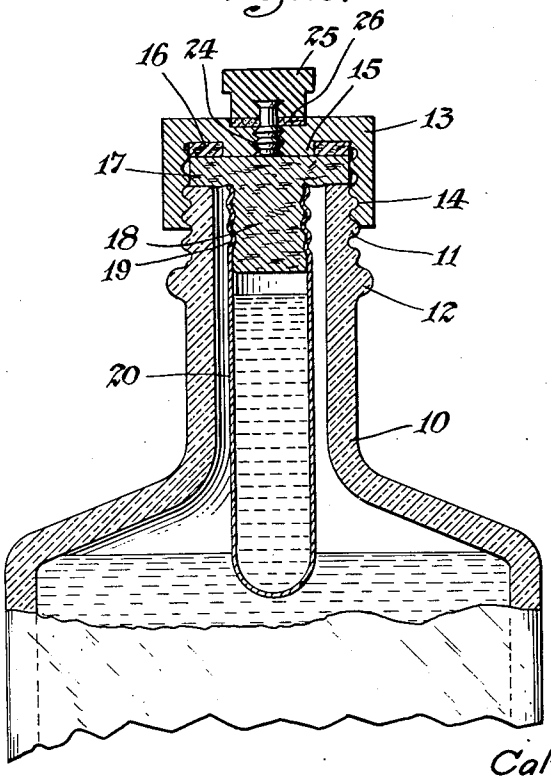


Fig. 2.



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Fig. 3.

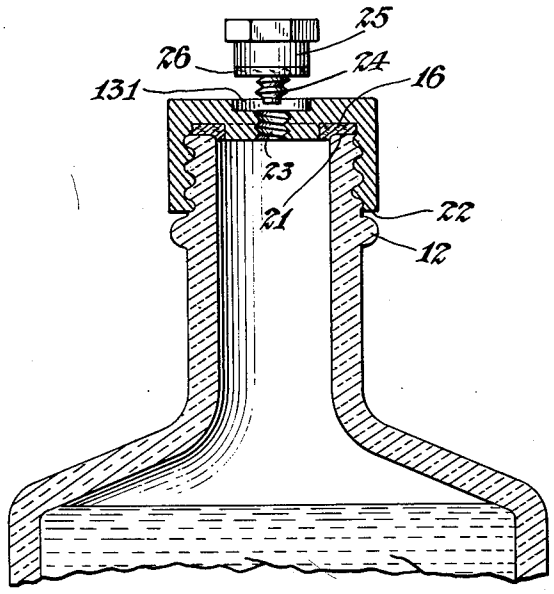


Fig. 5.

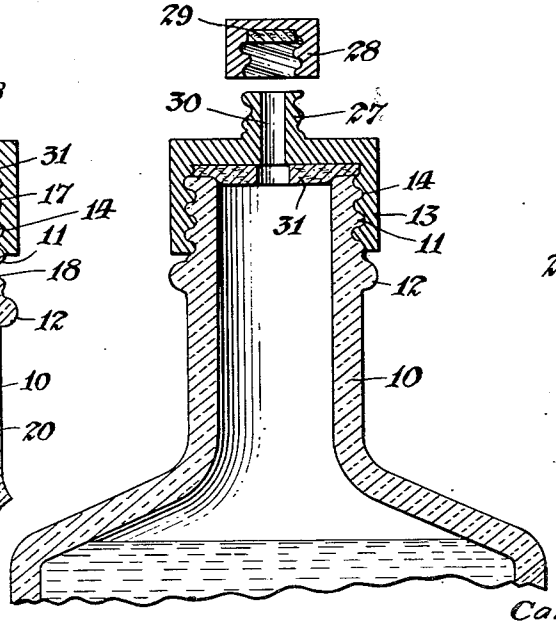


Fig. 4.

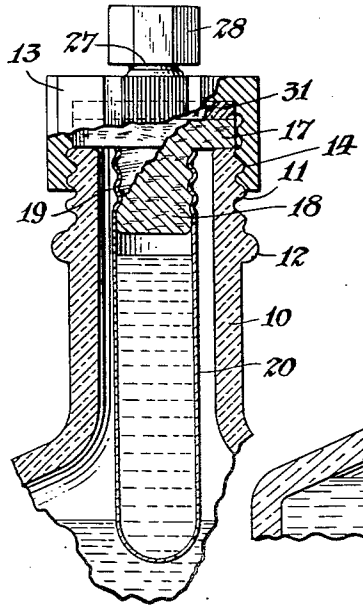
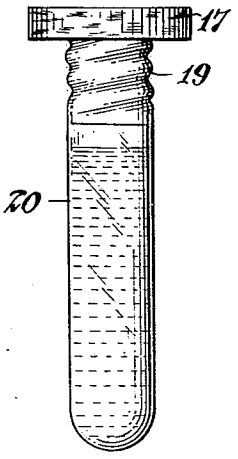


Fig. 6.



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UNITED STATES PATENT OFFICE

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CONTAINER

Application filed December 3, 1930. Serial No. 499,620.

This invention relates to improvements in the construction of containers, such as bottles, adapted to retain two ingredients of a product in separate compartments until the product is to be used; it also has reference to the provision of improved means for sealing the separate compartments during shipment of the container and in the course of use of its contents.

A container of the type contemplated is particularly useful in the packaging of hair tonics and similar commodities. The requirements of different users of the tonic may vary as to the quantity of oil which it is desirable to introduce into the product. For this reason it is advantageous to provide a separate or auxiliary compartment or receptacle within the main container for retaining an extra supply of oil which may or may not be introduced, by the purchaser of the tonic, into the main contents. While the improved container of the present invention is capable of application to a wide variety of uses, it will be described herein in connection with the particular use mentioned.

It has been a primary object of the present invention to provide a bottle or similar container of the type mentioned which is simple of construction, easy to open and put into use, and one which affords a tight seal for both the main and auxiliary compartments.

Other objects and advantages of the invention will appear from the detailed description of several embodiments of the same which will now be given in conjunction with the accompanying drawings, in which:

Figure 1 is a top view of an illustrative form of the improved container.

Figure 2 is a vertical sectional view through the main container, showing the auxiliary container therein.

Figure 3 is a similar vertical sectional view through the upper portion of the bottle, with the auxiliary container removed.

Figure 4 is a detail view largely in section illustrating a modified form of construction at the top of the container.

Figure 5 is a vertical sectional view through the upper portion of the modified form of container shown in Figure 4, with the auxiliary container removed, and

Figure 6 is a detail view of the auxiliary container.

Referring now to the drawings, the composite container may comprise an outer or main container or bottle 10 which may be formed of glass or any other suitable material, and which preferably has a relatively slender neck constituting a discharge outlet for the contents of the bottle. The upper end of this neck may be provided with external threads 11 which terminate at their lower end adjacent an annular bead 12. A cap 13 formed of any suitable material, such as bakelite, for example, is provided with internal threads 14 adapted to cooperate with the threads 11 on the bottle neck.

Within an annular recess formed between the outer flange of the cap and a concentric interior projection 15 within the cap there may be provided a gasket 16 formed of any suitable material, such as cork composition. Between the under surface of the projection 15 and the mouth of the bottle there is provided a disc 17 formed of any suitable material adapted to form a good seal, such as cork, carrying, preferably integral therewith, a downward, substantially cylindrical extension 18. This extension is of somewhat smaller diameter than the internal diameter of the bottle neck and is preferably provided with screw threads 19 adapted to receive corresponding threads at the upper end of a small auxiliary container 20. The latter may suitably be formed of celluloid or similar material, or if desired it may be formed of glass.

In the particular illustrative use of the bottle previously mentioned, the main container 10 is adapted to hold a suitable quantity of hair tonic and the auxiliary container 20 is adapted to separately retain a small quantity of oil. This oil may be dumped into the main container 10 by the purchaser of the tonic if he should consider the addition of oil to the tonic desirable. In the event that no additional oil is desired, the container 20 may simply be discarded or any desired portion of the oil contained therein may be introduced into the main bottle. In

the normal shipment and handling of the bottle the parts will be assembled in the manner indicated in Figure 2, in which the extension 15 is shown as forcing the sealing disc or stopper 17 against the upper edge 21 of the bottle neck. The element 17 with its integral extension 18 serves not only to seal the main container against leakage, but also provides an effective seal for the contents of the auxiliary container.

Now, when the contents of the bottle are to be put into use, the cap 13 is simply unscrewed and the disc 17, together with the depending container 20, may be removed from the neck of the bottle. If the contents of the auxiliary receptacle 20 are to be added to the contents of the main bottle, the stopper 17 is unscrewed from the upper end of the auxiliary container, and all or any part of its contents are then dumped into the bottle. The cap 13 is then re-applied to the upper end of the neck of the bottle and is screwed down tightly until its lower edge 22 is brought adjacent the bead 12. In tightly applying the cap in this manner the gasket 16 will be squeezed into the form indicated in Figure 3 by the mouth or upper end 21 of the bottle. This will effectively prevent leakage of the contents around the edges of the cap. At the center of the top of the cap the latter is preferably provided with an internally threaded opening 23 adapted to receive a screw-threaded plug 24 carried by a small, removable stopper 25. A gasket 26 surrounding the plug 24 is adapted to fit into a recess or depression 131 in the upper surface of the cap 13. When the bottle is not in use the stopper 25 is applied in the manner indicated in Figure 2, to prevent leakage and evaporation of the contents of the bottle. When the contents are to be discharged, however, the stopper 25 is simply unscrewed and the tonic, or the like, may then be sprinkled through the opening 23, in a suitable manner.

In Figures 4 and 5 a slightly modified form of construction is illustrated. The main container 10 may be of the same construction as in Figures 1, 2 and 3. The cap 13, however, in lieu of being provided with a downward extension, such as 15 in Figure 2, may be formed with an upward extension 27 which is externally threaded and adapted to cooperate with the internal threads of a small cap 28. A small insert 29, of cork or similar sealing material, provided at the bottom of the recess in the cap 28, may normally cooperate with the upper end of the extension 27 to seal the same against leakage or evaporation of the contents of the bottle after the auxiliary container 20 has been removed. When it is desired to discharge some of the contents of the bottle, the cap 28 is simply unscrewed and the tonic or the like may be sprinkled through the small opening 30, passing through the cap 13 and extension 27. In this form of construction the gasket or sealing member 31 between the upper end of the bottle and the inner surface of the cap 13 is of slightly modified form, as shown in Figure 5.

In either of the forms of construction described, the periphery of the cap 13 is preferably knurled in the manner indicated in Figure 4, to permit it to be more readily removed. In lieu of providing the upper end of the auxiliary container 20 with the screw threads as indicated, it may be formed with a smooth interior surface adjacent its mouth adapted to retain the downward extension 18 of the stopper solely by friction. The extension should preferably, in this case, be tapered slightly to more readily receive the mouth of the auxiliary container.

Various other changes may be made in the details of construction of the container and the sealing devices employed without departing from the general spirit and scope of the invention. The terms and expressions employed herein have been used simply to describe the illustrated embodiments of the invention and are not intended to impose any limitations on its scope.

What I claim is:

1. A container comprising a main compartment having an externally threaded neck, a cap having internal threads adapted to fit over the end of said neck and form a tight seal therewith, a sealing disc of yielding material fitting loosely within said cap and held between the interior surface of said cap and the end of said neck, said disc having a downwardly extending stopper portion, and an auxiliary container adapted to be inserted in said neck and detachably carried by said stopper portion.

2. A main container having a neck, an auxiliary container adapted to fit into said neck, a stopper of yielding material for said auxiliary container adapted to detachably suspend the same, a laterally extending flange on said stopper adapted to engage the mouth of said neck to support said auxiliary container, and a cap freely receiving said flange adapted to fit over the end of said neck and force said flange against the same to seal said main container, said cap having a discharge opening therethrough normally closed off by said stopper.

3. A main container having a neck, an auxiliary container adapted to fit into said neck, a stopper of yielding material for said auxiliary container adapted to detachably suspend the same, a laterally extending flange on said stopper adapted to engage the mouth of said neck to support said auxiliary container, a cap freely receiving said flange adapted to fit over the end of said neck and force said flange against the same to seal said main container, said cap having a discharge opening therethrough normally

closed off by said stopper, and a second cap further closing said opening.

4. A main container having a neck, an auxiliary container adapted to fit into said neck, a stopper of yielding material for said auxiliary container adapted to detachably suspend the same, a laterally extending flange on said stopper adapted to engage the mouth of said neck to support said auxiliary container, a cap freely receiving said flange adapted to fit over the end of said neck and force said flange against the same to seal said main container, said cap having a discharge opening therethrough normally closed off by said stopper, and a second cap having screw threaded engagement with said first mentioned cap for further closing said opening.

5. A main container having a neck, an auxiliary container adapted to fit into said neck, a stopper of yielding material for said auxiliary container adapted to detachably suspend the same, a laterally extending flange on said stopper adapted to engage the mouth of said neck to support said auxiliary container, a cap freely receiving said flange adapted to fit over the end of said neck and force said flange against the same to seal said main container, and a gasket within said cap adapted to be forced against the end of said neck upon removal of said stopper.

6. A main container having a neck, an auxiliary container adapted to fit into said neck, a stopper of yielding material for said auxiliary container adapted to detachably suspend the same, a laterally extending flange on said stopper adapted to engage the mouth of said neck to support said auxiliary container, a cap freely separable from said stopper adapted to fit over the end of said neck and force said flange against the same to seal said main container, said cap having a discharge opening therethrough normally closed off by said stopper, a gasket within said cap having an opening alined with said cap opening adapted to be forced against the end of said neck upon removal of said stopper, and a second cap having screw threaded engagement with said first mentioned cap for further closing said opening.

7. A main container having a screw threaded neck, a threaded cap cooperating with the threads on said neck, said cap having a discharge opening therethrough, readily separable means formed of yielding material between said cap and the end of said neck for normally closing off said opening, and an auxiliary container detachably connected to said means and suspended within said neck.

8. A main container having a screw threaded neck, a threaded cap cooperating with the threads on said neck, said cap having a discharge opening therethrough, readily separable means formed of yielding material between said cap and the end of said neck for normally closing off said opening, an auxiliary container detachably connected to said means and suspended within said neck, said means serving to seal both said main and auxiliary containers, and separate means for sealing said main container when said auxiliary container is removed.

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