

June 11, 1963

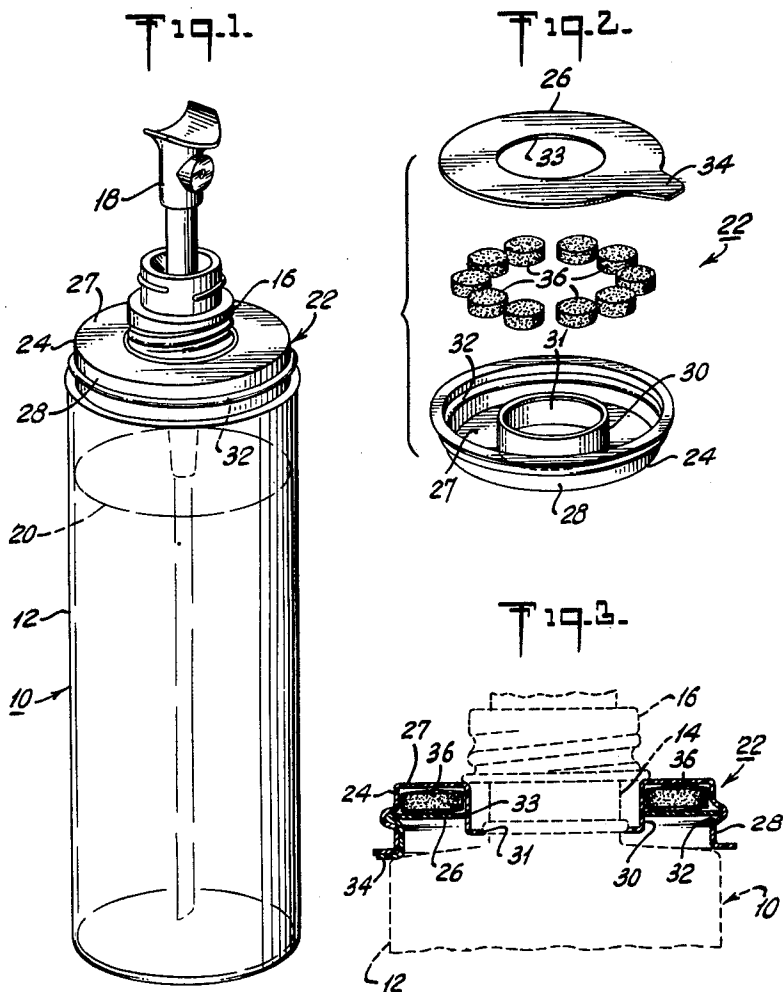
R. K. HART

3,093,239

PACKAGE

Filed July 15, 1960

2 Sheets-Sheet 1



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Fig. 4

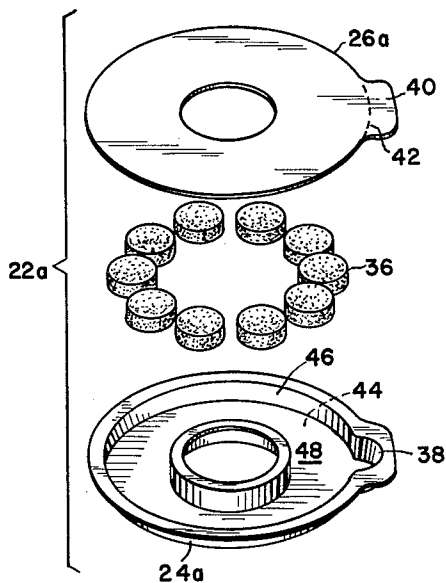


Fig. 5

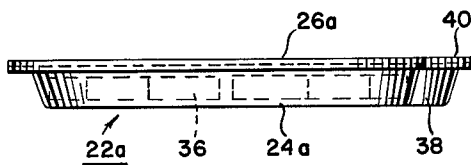


Fig. 6

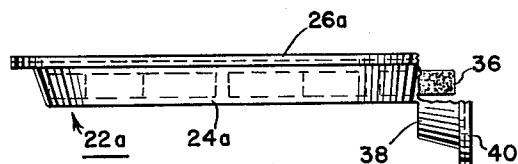
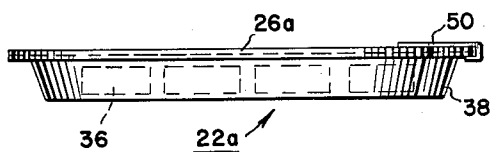


Fig. 7



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3,093,239

PACKAGE

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2 Claims. (Cl. 206—42)

This invention relates to packages and, more particularly, to a package for holding water soluble pellets.

This application is a continuation-in-part of my copending application Serial No. 827,600, filed July 16, 1959.

It has been found that water soluble pellets of a particular composition are usable when dissolved in water as an all purpose cleaner. The solution formed from a dissolved pellet is usable for cleaning windows, television screens, mirrors, windshields, tile, etc.

Heretofore, it has been the practice to package such pellets in a separate vial type container and attach this vial to a larger container which is used to hold the solution containing a dissolved pellet. After the solution is prepared by dissolving a pellet, the formed solution is spray pumped from the container as required by means of hand operated suction pump. When all the formed solution in the container has been used, a fresh batch may be made by merely adding water to the container and dropping another of the pellets into the water. Thus, a supply of say ten pellets and a container gives the consumer the equivalent of ten bottles of prepared cleaning solution.

The packaging of the pellets in a separate vial has many shortcomings. A separate pellet vial when taped to the side of a solution container increases the space required for packaging the combination and reduces the number of units which may be shipped in a standard carton. The loss of valuable shipping space due to the odd shape overcomes some of the saving in shipping expense which is gained by shipping only the pellets and the container and not liquid as is the practice with many other well known cleaners.

Further, in retail marketing the combination, the container and the attached pellet vial take up more shelf space than a container without the protruding vial.

There is still another shortcoming in this attached vial type of packaging. The vials must be capable of being easily stripped from the solution container in order to be merchantable. However, these vials may also be just as easily removed by unscrupulous and pilfering persons. Such pilfering causes a loss to the retailer and makes him reluctant to stock such an item.

Accordingly, it is an object of the present invention to provide a new and unique package for holding water soluble pellets. It is another object to provide a package for holding pellets which may be affixed to a bottle or other container and not increase the amount of space required for shipping the composite unit.

It is a further object of the present invention to provide a package for pellets which is not easily pilfered. Still another object of the present invention is to provide a package for pellets which is waterproof so that the pellets are not affected by any moisture which may accumulate on the surface of the package.

Although in the accompanying drawings, preferred embodiments of the present invention are shown and the same is described in detail in the specification, it is to be understood that these embodiments are not intended to be either exhaustive or limiting of the invention, but, on the contrary, it is chosen for the purpose of illustrating the invention in order that others skilled in the art may so fully understand the invention, its principles and the application thereof, that they may embody it and adapt it in numerous forms, each as may be best suited to the requirements of the particular use.

In the drawings:

FIGURE 1 is a perspective view of an embodiment of

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the present invention wherein a package of pellets is shown attached to a solution bottle;

FIGURE 2 is an exploded perspective view of a pellet package;

FIGURE 3 is a cross sectional view of the pellet package of FIGURE 2 with the lid pressed into the pan portion;

FIGURE 4 is an exploded perspective view of another embodiment of the pellet package;

FIGURE 5 is a side view of the pellet package of FIGURE 4;

FIGURE 6 is a side view of the package of FIGURE 5 with the pellet outlet cut open; and

FIGURE 7 is a side view of the package of FIGURE 6 with the pellet outlet resealed.

Referring to the drawings and to FIGURE 1 in particular, a container 10 suitable for holding a cleaning solution is shown. The illustrated container 10 has a large body portion 12 and a narrow neck portion 14. The neck 14 is of the screw type in order to receive a cap 16 which is fitted over the open top neck.

In the illustrated embodiment of FIGURE 1, the cap 16 has a spray pump 18 extending therethrough and into the body portion 12 of the container. The spray pump 18 is hand activated and it sprays the solution 20 by pushing the pump rod down and letting it rise by spring means, thus causing a suction effect.

About the neck 14 a collar like package 22 is fitted. This collar 22, as shown in greater detail in FIGURE 2, contains a supply of water soluble pellets which are used in making the cleaning solution 20 as discussed hereinbefore.

The collar 22 is comprised of a pan portion 24 and a lid 26; the pan 24 being comprised of a bottom wall 27, a side wall 23, and an annular center wall 30, the center wall 30 forming an opening 31 through the pan. The side wall 23 is formed with an annular groove 32 near its top portion 29 and this top portion 29 is flared outwardly to permit the lid 26 to fit easily into the pan 24. When the lid 26 is pressed into the pan 24 it snaps into the groove 32 to form a tightly closed package. An opening 33 is provided in the lid 26 and this opening 33 registers with the opening 31 through the pan 24.

The pan 24 and the lid 26 are advantageously manufactured from a flexible material so that the lid 26 may be more easily fitted into the groove 32.

A tab 34 is provided on the lid 26 and this tab provides quick means for removing the lid 26 from the pan 24.

In preparing the combined unit shown in FIGURE 1, a supply of pellets 36 is deposited in ring fashion in the pan 24 and the lid 26 is then snapped into place. The collar 22 is next fitted about the neck 14 of the container 10; preferably with the lid 26 adjacent the body 12, thus increasing the waterproofing characteristics of the package. The cap 16 is screwed on to the neck 14 and since the diameter of the cap 16 is slightly greater than that of the pan opening 31, the collar 22 can not be removed without first removing the cap 16. Thus, pilfering of the collar 22 with its supply of pellets 36 is discouraged as most pilferers will not expose themselves to the added risk of unscrewing the cap in order to obtain the pellets.

The assembled container 10 with the cap 16 and the collar 22 presents a compact and attractive combination package. The pellets, which are arranged in ring like fashion in the collar 22, give a daisy like appearance and enhance the attractiveness of the combination package. The pan and the lid are preferably of transparent material so that the user may be easily aware of the number of pellets remaining in the collar.

Another embodiment of the collar or package for holding pellets 36 is shown in FIGURES 4-7. In this embodiment the collar 22a is comprised of a pan portion

24a and a lid 26a, which are preferably made of transparent plastic and heat-sealable material, such as polyvinyl chloride. In assembling the collar package 22a the pellets 36 are placed in the pan 24a in circular arrangement. The lid 26a is placed on top of the pan 24a and by heat sealing means the lid and pan are fused into a sealed composite package which is moistureproof and air tight, such as shown in FIGURE 5.

Protruding from the pan portion 24a is a pellet outlet 38. The pellet outlet 38 is of sufficient extent to permit easy removal of one pellet 36, but not large enough to permit the side by side removal of two pellets.

The lid 26a has a tab 40 extending from it, and this tab 40 overlies and is sealed against the open upper portion of the pellet outlet 38.

A printed or other suitably marked indication line 42 is provided along the tab 40 and it corresponds substantially to the periphery of the open area 44 of the pan 24a.

As shown in FIGURE 6 in particular, when it is desired to open the collar 22a in order to remove a pellet 36, the tab 40 is slit along the line 42. The side wall 46 of the pan 24a is also cut away at the point of intersection of the pellet outlet 38 with the side wall 46.

The bottom wall 48 of the pan 24a is not cut and it acts as a hinge for the pellet outlet and the tab 40 which are sealed together. With the pellet outlet 38 cut away, a single pellet may be quickly and easily removed as shown in FIGURE 6. After the pellet has been removed and used as discussed hereinbefore, the collar or package may be resealed by merely placing a small piece of pressure sensitive adhesive tape 50 over the tab 40 and the lid 26a so that they are repositioned substantially in the condition they were before the tab was cut away.

The pan 24a is so constructed that the side wall 46 flares outwardly from the bottom wall 48. This results in the pellets being retained in position on the bottom wall but permits easy and quick removal through the pellet outlet 38. By so retaining the pellets in position movement is limited and danger of breakage reduced.

It will be seen that the sealed collar 22a provides a positive protection for the pellets 36 and insures a long and useful shelf life. The arrangement, wherein a pellet outlet of reduced opening is utilized, insures that only one pellet will be available at a time and that the danger of loss by spillage is reduced.

The collar 22a is placed about the neck of the container 10 as described heretofore in reference to the collar 22. However, with the collar 22a the lid 26a is positioned upwardly above the pan 24a.

It will be seen that applicant has provided a unique package for pellets which may be used to form a supply of cleaning solution by merely dropping a pellet into a container of water. When the solution in the container is exhausted a fresh batch may be made by using one of the readily available pellets found in the collar 22. Thus, the pellets are always there when needed and in dry condition due to the tight construction of the collar.

It is to be understood that while the present invention may be constructed in accordance with the embodiment as set forth herein and as defined in the accompanying claims, it is to be anticipated that embodiments other than that set forth herein may be constructed, but not without being within the spirit and scope of the accompanying claims.

I claim:

1. A package for holding pellets and the like in air tight and moisture proof condition and adapted to be fitted about the neck of a container, said package comprising a pan portion having a central opening defined by an inner side wall, a second side wall concentrically positioned relative to said first wall, a bottom wall joined to said first and second walls and forming therewith a circular depository for said pellets, a lid sealed to said pan portion, said second side wall having an outward protrusion and said lid having a tab overlying and sealed to said protrusion, said protrusion being of greater lateral extent than the width of one pellet within said pan but less than twice the width of said pellet, said tab having an indicator marking thereon whereby said tab and the portion of the protrusion near the juncture with the side walls may be severed and hinged about the attachment of the protrusion to the bottom wall so that one pellet may be removed at a time and the tab and protrusion thereafter swung back to their original position before severance.

2. A package for holding pellets and the like and adapted to be fitted about the neck of a container; said package comprising a pan portion having a side wall and a bottom wall, and a central opening through said pan portion, a severable outward protrusion serving as a pellet outlet in said side wall, a lip portion having a central opening therein, said lid tightly sealed to said pan portion with the respective openings in alignment whereby a closed package is obtained and pellets may be sealed within the pan portion and the package may be fitted about the neck of a container by means of the aligned openings said lip having a tab portion which is sealed to the outward protrusion in said side wall and said tab has an indicator line thereon whereby a severance of the tab along said line and the side wall portions therebelow permits the protrusion to be bent away from the side wall about the hinge formed by the unsevered bottom wall.

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