CRYSTAL NOVELTY AND PAPERWEIGHT

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3 Claims. (Cl. 41—10)

My invention relates broadly to crystal novelties and more particularly to an improved structural arrangement for mounting a figure within a fluid container for facilitating production and improving the circulation of fluid and precipitate therein for simulating whirling snow about the figure.

This application is a division of my application Serial No. 435,411, filed March 19, 1942 now Patent Number 2,361,434, issued October 31, 1944, for Crystal novelty and paperweight.

One of the objects of my invention is to provide a structural arrangement for mounting a figure within a liquid filled container where the figure and base thereof are substantially spaced from the interior of the container to facilitate circulation of liquid and suspended precipitate within the container and improving the simulating of whirling snow.

Another object of my invention is to provide an arrangement of recesses or pockets in the interior walls of the neck of a container with radially extending lugs formed on the figure and fitting within the pockets or recesses for supporting the figure in spaced relation to the interior walls of the container for allowing substantially unobstructed circulation of fluid about the figure.

Still another object of my invention is to provide a construction of support for a figure within a liquid filled container wherein the interior of the neck of the container and the base of the figure are mutually shaped to permit both rigid support of the figure and circulation of fluid about the figure within the container.

A further object of my invention is to provide a construction of figure enclosed container and coating figure in which the figure is provided with a frusto-conical base coating with a frusto-conical shaped internal neck of the container in such special relation thereto as will allow circulation of the fluid and floatingly suspend precipitate freely about the figure.

A still further object of my invention is to improve the structure of support for a figure within a fluid container and facilitate the circulation of fluid about the figure by forming circulatory passages for the fluid through the figure or around the base thereof to permit a whirling action of precipitate within the fluid simulating falling snow.

Another object of my invention is to provide an arrangement of crystal novelty including a fluid submerged figure where the figure is provided with channels extending either longitudinally or transversely of the container or both for facilitating circulation of fluid with suspended precipitate therein for thereby simulating the action of whirling snow.

Other and further objects of my invention reside in a construction of crystal novelty designed for mass production on an inexpensive basis as set forth more fully in the following specification by reference to the accompanying drawings, in which:

Figure 1 is a sectional view of the lower portion of crystal novelty embodying my invention; Fig. 2 is a horizontal sectional view taken on line 2—2 of Fig. 1, the base being omitted for the sake of clarity; Fig. 3 is a sectional view of a portion of the fluid container; Fig. 4 is a side elevation of the lower portion of the figure showing its frusto-conical shaped base and the channels formed on its sides; Fig. 5 is a fragmentary sectional view illustrating another modified form of support for the figure within the fluid container; Fig. 6 is a transverse sectional view taken on line 5—6 of Fig. 5; Fig. 7 is a fragmentary vertical sectional view taken through the base of the fluid container illustrated in Figs. 5 and 6; Fig. 8 is a side elevation view of the base of the figure employed in the arrangement of Figs. 5, 6 and 7; Fig. 8a is a transverse sectional view taken on line 8a—8a of Fig. 8 and indicating the securing lugs for supporting the figure and the circulatory passages through the base of the figure; Fig. 9 is a fragmentary vertical sectional view of a further modified form of my invention; and Fig. 10 is a transverse sectional view taken on line 10—10 of Fig. 9.

My invention is directed to a construction of crystal novelty of the general type set forth in my co-pending application Serial No. 417,729, filed September 20, 1941, now Patent Number 2,361,432, issued October 31, 1944. In my present invention I have provided means for positively supporting the figure within the container in spaced relation to the walls of the container with paths so arranged that circulation of the liquid within the container and movement of the precipitate suspended in the liquid may be facilitated. I provide pockets or recesses in the interior surface of the neck of the container for receiving lugs which extend from the figure which is inserted into the container. The figure is thus positively spaced from the interior of the container permitting free circulation of the fluid and precipitate suspended in the fluid for simulating whirling snow. The base of the figure is frusto-conical, conforming with the shape of the
interior of the neck of the container and spaced therefrom to allow circulation of the fluid. Passages may be provided through the base of the figure for facilitating circulation for thereby improving the simulated whirl ing of the fluid resulting from the agitation of the precipitate in the fluid. Various shapes may be imparted to the base of the figure complementary to the internal shape of the neck of the container for securing the figure in place while permitting circulation of the precipitate within the fluid. The figure may be of molded construction as well as of hollow construction with provision made for the passage of the circulating fluid through the base of the figure. Various constructions of closure caps may be employed as set forth more fully in my co-pending application Serial No. 411,728, supra.

Referring to the drawings in detail, reference character 1 designates the glass container of the crystal novelty of the invention having a cylindrical neck portion 2 terminating in an offset annular screw threaded portion shown at 3. The screw threads on the offset annular portion 3 are molded therein to receive a screw threaded closure cap 4 adapted to secure the disc-like member 5 in position against the peripheral edge of the annular portion 3. The disc-like member 5 has an annular recess 6 formed therein for receiving the ring-like gasket 7 which is pressed in intimate contact against the peripheral edge of the annular portion 3 for establishing a vacuum type seal. The screw threads 4a on the skirt of the closure cap 4 engage the screw threads 3a on the exterior of the annular portion 3 for insuring a tight closure between the closure cap 4 and the neck of the container 1. The annular shoulder 4b of the closure cap 4 bears directly against the disc-like member 5 for forcing the gasket 7 which is carried by disc-like member 5 into sealing relation with the peripheral edge of the annular screw threaded portion 3.

The interior annular wall of the cylindrical neck portion 2 is provided with pockets or recesses at 8 and 9 therein. These pockets or recesses are formed in the interior wall of the cylindrical neck 2 during the blowing and molding of the container. While I have shown but two diametrically opposed pockets or recesses 8 and 9, it will be realized that a multiplicity of pockets or recesses may be provided and distributed around the interior wall of the cylindrical neck portion 2 in order to insure proper support and spacing for the figure.

I have represented the container by reference character 1 which may have the interior wall of the cylindrical neck thereof shaped on a taper thus providing a frusto-conical interior surface as represented at 24. The pockets or recesses 8 and 9 are formed as heretofore explained in the interior of the annular screw threaded portion 3 to receive the bar-like lugs 14 and 15 which project from the base of the figure represented generally at 16. The interior wall of the cylindrical neck portion 2 is frusto-conical as shown at 24 and correspondingly, the base of the figure 16 is frusto-conical shaped and provided with corrugations or flutings represented at 28 and shown more clearly in Fig. 4. The frusto-conical base of the figure is therefore spaced from the frusto-conical interior wall 24 of the container by means of a plurality of annular channels 28 which terminate at their upper ends in an annular pocket in the container 1 and are interconnected at their lower ends through transversely extending passages 27. The transversely extending passages 27 are formed by diametrically disposed slots which are molded into the base of the figure and allow the free circulation of fluid with the precipitate particles therein between the base of the figure and the central portion of the disc-like member 5 that seals the container. Thus the fluid and precipitate are free to circulate around the base of the figure and beneath the base returning in a whirling movement to the body of liquid in container 1, thus simulating the falling of snow.

Instead of forming the fluting or corrugations at 28 within the base of the figure, I may form the corrugations or flutings on the transverse wall of the neck of the container 1 as shown at 29 in Fig. 7. With this arrangement the figure 10 is provided with a smooth frusto-conical base 29 as shown in Fig. 8. The base 29 includes transversely extending passages 27 therein through which the fluid and suspended precipitate are free to circulate. Substantially rigid support may be imparted to the figure 10 by the contacting relation between the tapered fluting or corrugations 28 and the tapered base 29 while leaving the circulation of the fluid and precipitate. Thus the fluid and precipitate may freely move from the main body of the liquid along the passages 27 and diametrically across the passages 27 for inducing whirling movement in the fluid body.

In Figs. 9 and 10 I have shown a modified form of my invention in which the interior wall of the cylindrical neck portion is tapered at 24 as in the arrangement illustrated in Figs. 1 and 2, but wherein the figure 10 has a frusto-conical base portion 30 which forms a substantially liquid tight junction with the tapered wall of the container 1. The base of the figure is provided with lugs 14 and 15 which fit into pockets or recesses 8 and 9 in the interior of the neck of the container, but in which support for the figure is also obtained by the tapered junction of the base 30 with the tapered interior wall of the neck 24 of the container 1. In this structure the hollow figure 10 is perforated adjacent the base thereof as shown at 31, 32, 33 and 34 in a position above the junction of the figure with the tapered neck of the container. The closure cap 4 when screwed into position as shown between the figure 10 rigidly in this position, the liquid and precipitate therein being free to circulate through the figure for inducing a whirling motion through the container.

I have shown but one method of securing the closure cap 4 to the neck of the container 1, that is, through screw threads 3a but it will be understood that the seal may be established in other ways, that is, by a cramped cap or friction or positive closure device and my invention is not limited to the screw threaded closure.

While I have described my invention in certain of its preferred embodiments, I realize that modifications may be made and that other forms of construction embodying my invention may be employed and I desire that it be understood that no limitation is intended other than may be embodied by the scope of the appended claims.

What I claim as new and desire to secure by Letters Patent of the United States is as follows:

1. A crystal novelty comprising, a fluid container having an annular neck portion at one side thereof, the interior wall of said neck portion being inwardly inclined toward the interior of said container and having diametrically opposite pockets formed therein, a figure insertable...
through said neck portion, said figure having a substantially frusto-conical shaped base with diametrically opposite lugs projecting therefrom, said lugs being engageable in the pockets in said neck portion for maintaining said frusto-conical shaped base on spacial relation to the inwardly inclined interior wall of said annular portion, means engageable with the exterior of said neck portion, and means interposed between the base of said figure and the aforesaid means for maintaining said figure in a substantially vertically erect position within said fluid container.

2. A crystal novelty comprising, a fluid container having an annular neck portion at one side thereof, the interior wall of said neck portion being inwardly inclined toward the interior of said container and having diametrically opposite pockets formed therein, a figure insertable through said neck portion, said figure having a substantially frusto-conical shaped base with diametrically opposite lugs extending therefrom, said lugs being engageable in the pockets in said neck portion for maintaining said frusto-conical shaped base in spacial relation to said interior inwardly inclined wall of said annular neck portion, passages extending through said base in substantially 90° relation to the lugs thereon for the circulation of fluid therethrough, means engageable with the exterior of said neck portion of said base, and means interposed between the base of said figure and the aforesaid means for maintaining said figure in a substantially vertically erect position within said fluid container.

3. A crystal novelty comprising, a fluid container having an annular neck portion at one side thereof, the interior wall of said neck portion being angularly inclined inwardly from the periphery of said neck portion toward the interior of said container and having diametrically opposite pockets formed therein, a figure insertable through said neck portion, said figure having a substantially frusto-conical shaped base, alternately disposed shaped peaks and valleys extending longitudinally of the inclined surface of said frusto-conical shaped base with said peaks extending substantially in surface contact with the angularly disposed interior wall surface of the neck of said container for forming passages through said alternately disposed valleys for circulating fluid between the angularly disposed interior wall of said neck portion and the frusto-conical shaped base of said figure, lugs extending from diametrically opposite sides of said base and engageable in the pockets in said neck portion for locating said figure in position with respect to said container, passages extending through said base for the circulation of fluid therethrough, means engageable with the exterior of said neck portion and said base, and means interposed between the base of said figure and the aforesaid means for maintaining said figure in a substantially vertically erect position within said container.

WILLIAM M. SNYDER.

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