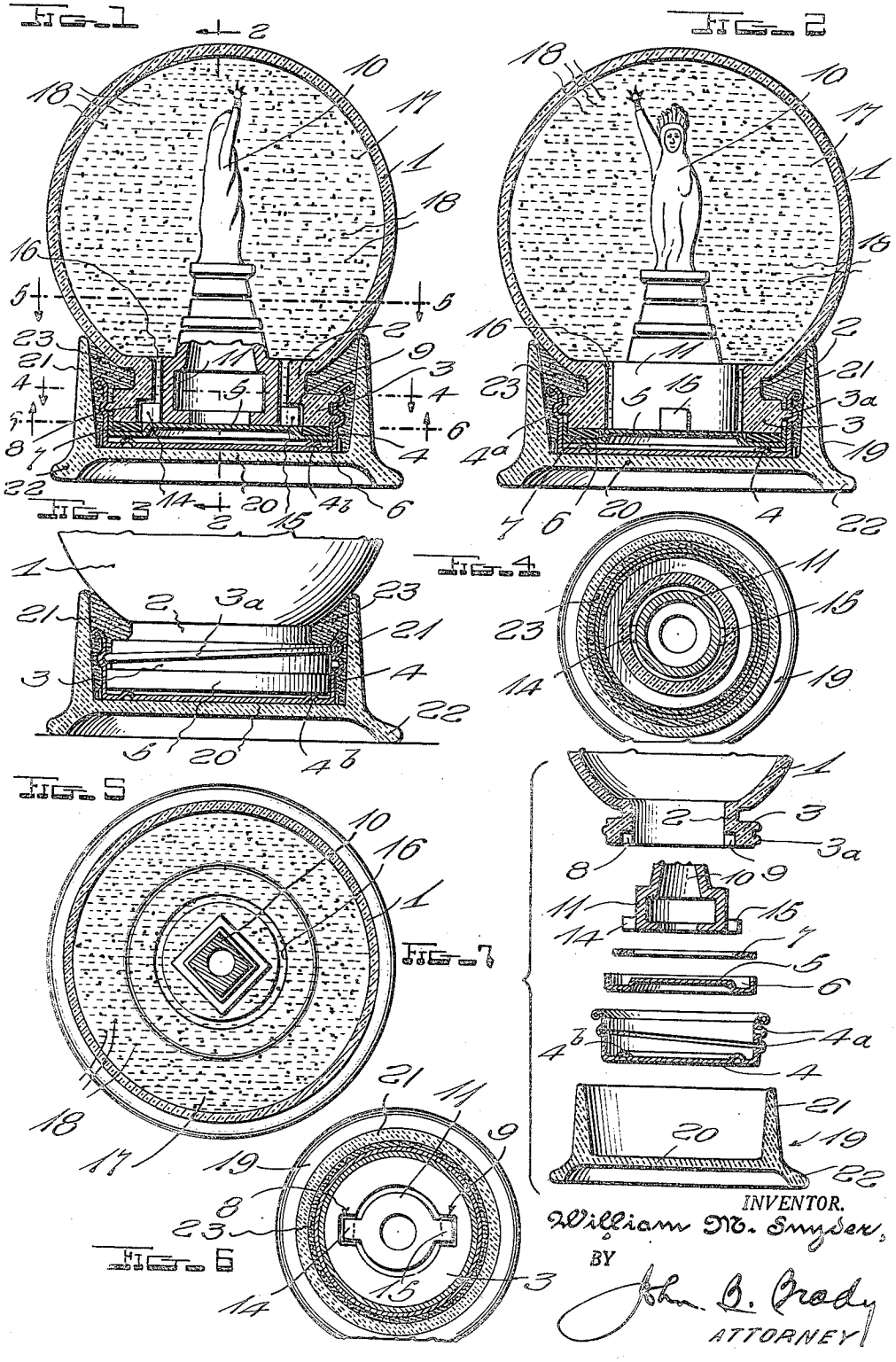
Oct. 31, 1944. W. M. SNYDER 2,361,424

CRYSTAL NOVELTY AND PAPERWEIGHT

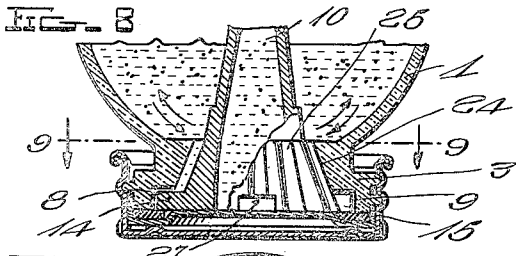
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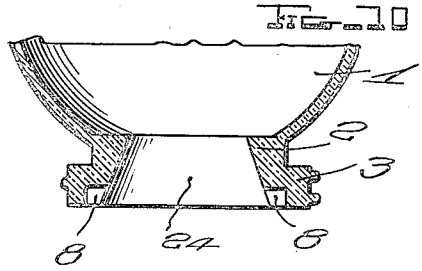


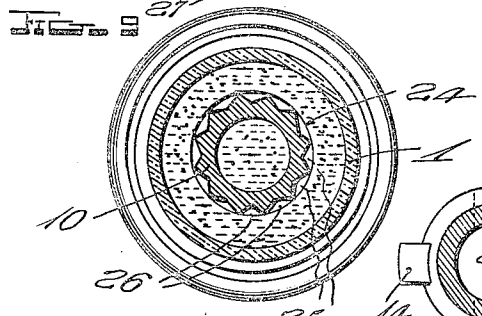
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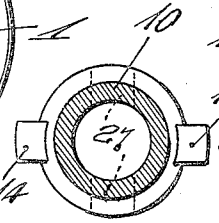
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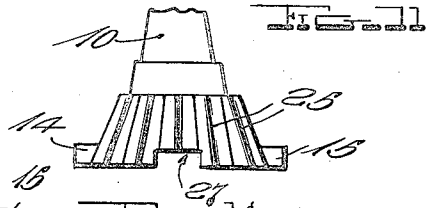
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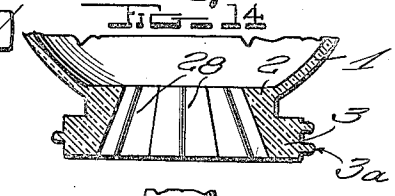


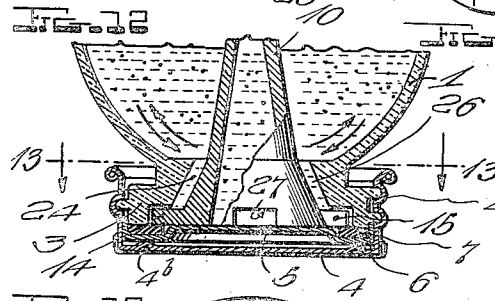


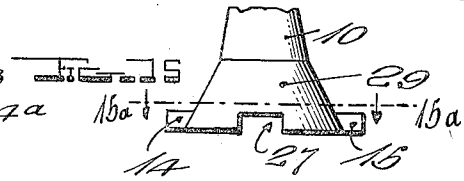


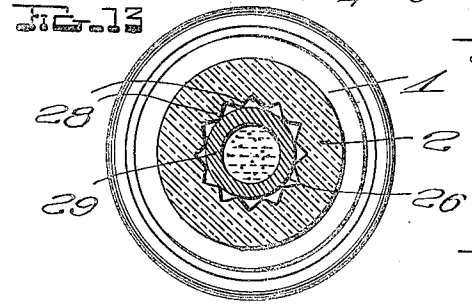


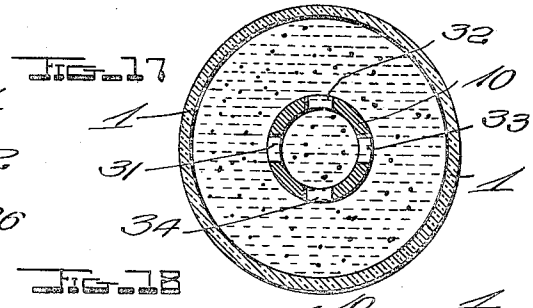


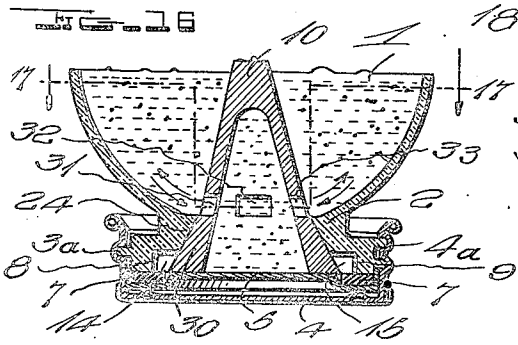


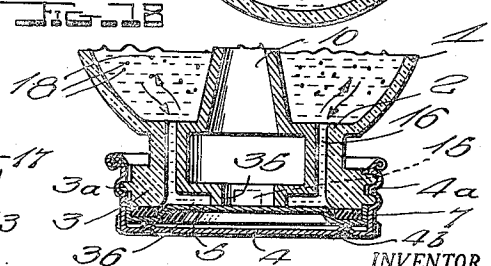












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Patented Oct. 31, 1944 2,361,424

UNITED STATES PATENT OFFICE

2,361,424

CRYSTAL NOVELTY AND PAPERWEIGHT

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Application March 19, 1942, Serial No. 435,411

4 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.

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 coacting figure in which the figure is provided with a frusto-conical base coacting with a frusto-conical shaped internal neck of the container in such spacial 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 simultating 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 channelways 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 central vertical longitudinal sectional view of the crystal novelty; Fig. 2 is a sectional view taken at right angles to Fig. 1 and on the lines 2—2 of Fig. 1; Fig. 3 is a fragmentary sectional view, the crystal proper being shown in elevation; Figs. 4, 5 and 6 are horizontal sectional views taken on their respective lines 4—4, 5—5 and 6—6 of Fig. 1; Fig. 7 is a sectional view showing the component parts of the crystal novelty; Fig. 8 is a sectional view of the lower portion of a modified form of crystal novelty embodying my invention; Fig. 9 is a horizontal sectional view taken on line 9—9 of Fig. 8; Fig. 10 is a sectional view of a portion of the fluid container; Fig. 11 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. 12 is a fragmentary sectional view illustrating another modified form of support for the figure within the fluid container; Fig. 13 is a transverse sectional view taken on line 13—13 of Figure 12; Fig. 14 is a fragmentary vertical sectional view taken through the base of the fluid container illustrated in Figs. 12 and 13; Fig. 15 is a side elevational view of the base of the figure employed in the arrangement of Figs. 12, 13 and 14; Fig. 15*a* is a transverse sectional view taken on line 15*a*—15*a* of Fig. 15 and indicating the securing lugs for supporting the figure and the circulatory passages through the base of the figure; Fig. 16 is a fragmentary vertical sectional view of a further modified form of my invention; Fig. 17 is a transverse sectional view taken on line 17—17 of Fig. 16; and Fig. 18 is a fragmentary vertical sectional view of a further modified form of support for the figure within the fluid container.

My invention is directed to a construction of crystal novelty of the general type set forth in my copending application Serial No. 411,729, filed September 20, 1941. 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 may be 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 whirling snow 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 position while permitting circulation of the precipitate within the fluid. The figure may be of solid 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 copending application Serial No. 411,729 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 thereon 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 4*a* on the skirt of the closure cap 4 engage the screw threads 3*a* 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 instruck portion 4*b* of 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.

The figure is shown generally at 10 terminating in a base portion 11. The figure and base, or the figure or base alone may be either of solid or hollow construction. The base 11 is provided with projecting lugs 14 and 15. These lugs are shaped to conform with the shape of the pockets or recesses 8 and 9 in the interior wall of the neck portion 2 and to support and space the figure with respect to the interior wall of the neck portion 2 and the interior of the container 1. The lugs 14 and 15 are bar-like and of polygonal section conforming to the contour of the pockets or recesses 8 and 9 so that the figure is mounted with substantial rigidity within the container 1 in spaced relation to the interior walls of the container. The disc-like member 5 bears directly against the end of the base 11 of the figure 10 for thereby supporting the base 11 in position within the neck portion 2. The depth of the pockets or recesses 8 and 9 is such that when the bar-like lugs 14 and 15 are seated therein, the extremity of the base of the figure 10 directly abuts against the central portion of the disc-like member 5 when the disc-like member is forced to its limiting position when the closure cap 4 is screwed into position. The base 11 is spaced away from the interior of the interior wall of the neck portion 2 to provide a gap or opening 16 forming a circulatory path for the liquid 17 within the container and allowing free movement of the particles of precipitate above the base 11 for simulating whirling snow. In other words there is no solid junction between the interior of the cylindrical neck portion 2 and the cylindrical base portion 11 of the figure, but a positive gap is provided around which circulatory movement of the fluid and precipitate may be induced upon shaking or agitating the container thereby improving the simulated snow by movement of the particles of precipitate within the container. A base for the crystal novelty is provided as represented at 19. This base is ornamental in contour and includes a horizontally extending central portion indicated at 20, an upwardly extending tapered portion indicated at 21 and a downwardly extended supporting portion 22. The horizontally extending plate portion 20 serves as a shelf-like support for the closure cap 4 when the sealed container is not inverted and inserted through the open upwardly extending tapered end of the base 19. A plastic material 23 is provided in the upper portion of the hollow base for receiving the closed end of the container 1 and supporting the container 1 rigidly in the base.

I have represented in Figs. 8–11 inclusive the container 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 10. However, in the form of my invention shown in Figs. 8, 9, 10 and 11, the interior wall of the cylindrical neck portion 2 is frusto-conical as shown at 24 and correspondingly the base of the figure 10 is frusto-conical shaped and provided with corrugations or flutings represented at 25 and shown more clearly in Fig. 11. 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 angularly disposed channels 26 which terminate at their upper ends 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 flutings or corrugations at 25 on the base of the figure, I may form the

corrugations or flutings on the tapered interior wall of the neck of the container 1 as shown at 28 in Fig. 14. With this arrangement the figure 10 is provided with a smooth frusto-conical base 29 as shown in Fig. 15. 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 flutings or corrugations 28 and the tapered base 29 while leaving the passages 26 between the flutings open for 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 26 and diametrically across the passages 27 for inducing whirling movement in the fluid body.

In Figs. 16 and 17 I have shown a modified form of my invention in which the interior of the cylindrical neck portion is tapered at 24 as in the arrangement illustrated in Figs. 8 and 9, 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 serves to anchor 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.

In Fig. 18 I have shown a further modified form of circulatory arrangement for the crystal novelty in which the base 11 of the figure 10 is provided with a depending annular extension 35 thereon adapted to abut with the central portion of the disc-like member 5. Lugs 14 and 15 on the base of the figure seat in pockets or recesses 8 and 9 in the interior annular face of the neck 3 as heretofore explained. In addition however, the base of the figure is spaced from the disc-like member 5 providing an annular circulatory passage for fluid and precipitate indicated at 36. The annular passage 36 is in addition to the annular passage 16 around the base of the figure and serves to reinforce the circulatory currents which may be induced in the fluid within the container.

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 limitations upon my invention are 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 in combination a container for fluid having a fillable neck, a figure insertable into said container through the neck thereof, said figure including a base spaced from said container and means extending from said base and secured in said fillable neck for maintaining said base in spaced relation to said container for effecting free circulation of fluid and precipitate contained therein around said figure and around said base.

2. A crystal novelty comprising in combination with a container for fluid, a fillable neck on said container comprising a cylindrical portion having screw threads on the external periphery thereof and having diametrically opposite pockets formed in the interior surface thereof, a figure insertable through said neck, a base connected with said figure having projecting lugs thereon adaptable to extend into the pockets in said neck for spacing said base from the interior walls of said container for allowing free circulation of fluid therearound, a disc-like member engageable with a peripheral edge of the said neck and adapted to abut against the base of said figure for maintaining said base in spaced position within said container, and a screw cap engageable with the screw threads on said neck for securing said disc-like member in position.

3. A crystal novelty comprising in combination with a fluid container having a substantially cylindrical neck portion thereon with screw threads formed on the exterior of said substantially cylindrical neck portion, pockets formed in the interior of said substantially cylindrical neck portion, a figure insertable into said container, said figure having a base portion extending through the interior of said substantially cylindrical portion of said container and spaced from the walls thereof and terminating in a plane substantially in the plane of the terminus of said substantially cylindrical neck portion, lugs projecting from said base and engageable in the pockets in said substantially cylindrical neck portion, said pockets and said lugs having such a depth that the end of said base may be maintained substantially in the plane of the terminus of the peripheral edge of said substantially cylindrical neck portion, a disc-like member extending transversely of said substantially cylindrical neck portion, sealing means disposed between said disc-like member and the peripheral edge of the terminus of said substantially cylindrical neck portion, and a closure cap engaging the screw threads on said substantially cylindrical neck portion for maintaining said substantially disc-like member in position.

4. A crystal novelty comprising in combination with a fluid container having a neck portion at one side thereof, said neck portion having a substantially circular internal section, a figure having a substantially circular base insertable through said neck portion in spacial relation thereto, lugs projecting from said base portion, pockets formed in the interior walls of said neck portion and engageable by said lugs, a stepped support for offsetting said base from the terminus of said neck portion, and means engageable with said neck portion and said stepped support for maintaining the base of said figure in spacial relation with respect to the terminus of said neck portion for facilitating the circulation of fluid around said base and in the container around said figure.

WILLIAM M. SNYDER.