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D. W. PENNINGTON ET AL

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MULTI-PURPOSE CONTAINER

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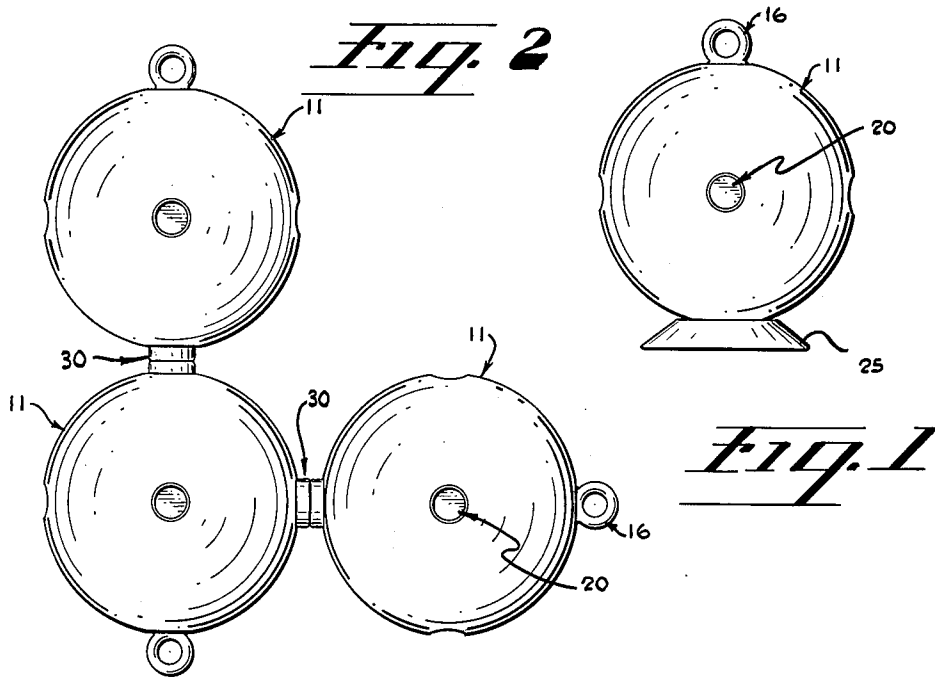


Fig. 4

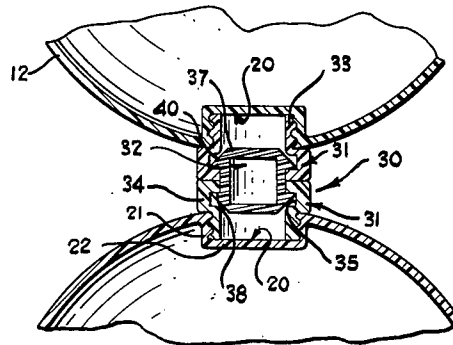
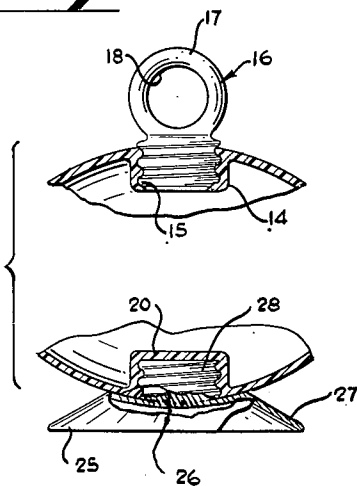


Fig. 3

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MULTI-PURPOSE CONTAINER

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3 Claims. (Cl. 220—23.4)

This invention relates generally to containers and more particularly to special containers which may be converted or adapted for other uses after serving as containers.

There are many instances where the consumer, over a period of time, uses considerable quantities of liquids and other goods sold in containers which have no useful purpose once they are emptied. For example, in the maintenance of home swimming pools, the water is circulated through a filter and chemicals added from time to time to inhibit plant growth. Chlorine solutions are commonly used, being sold in bottles. Over a period of several months many bottles of the solution are required. It therefore is a particular object of the invention to provide a novel container suitable for use initially in the sale and distribution of goods, which, once it has been emptied has a variety of other possible uses.

More particularly it is an object of the invention to provide a novel container constructed for use in conjunction with one or more similar containers, after the same have been emptied of their original contents for creating novel designs of a three-dimensional character useful as ornamental and utilitarian structures and useful as floats.

A further object is to provide a novel means for readily connecting two containers of the type indicated hereinabove.

A still further object is to provide a novel stand which can be used in conjunction with the container.

These and other objects will be apparent from the drawing and the following description. Referring to the drawing, which is for illustrative purposes only:

Fig. 1 is an elevational view of a container embodying the invention;

Fig. 2 is an elevational view of three empty containers joined together to form a unitary element suitable for use as a float and for other purposes;

Fig. 3 is an enlarged fragmentary sectional view of the adjacent portions of any two of the containers of Fig. 1, illustrating the connection means of the invention which serves to secure the containers together; and

Fig. 4 is a fragmentary sectional view on an enlarged scale of the upper and lower ends of one of the containers.

More particularly describing the invention, we provide a hollow container 11 which is preferably spherical in form. The container has a body 12 in the form of a wall of a suitable plastics material of a type which is not attacked by the substance to be held in the container and a type which will not readily fracture should the container be dropped. By way of example polyethylene may be used. The container body 12 is provided with an annular inwardly projecting neck 14 which is formed to provide relatively rounded internal threads 15. The container is shown closed by a cap or plug 16 which is threaded into the neck. The particular cap shown is provided with a ring-like handle portion 17 which is preferably of a size to accommodate one or more fingers in the hole 18 thereof. Such a cap is also useful for stringing several of the containers on a line. If desired, a flat-topped cap or plug may be used initially and the ring

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type substituted after the container has served its original purpose, or vice versa.

The container is provided with a plurality of sockets 20 each of which is formed by an inwardly extending internally threaded annular wall section 21 and an end wall section 22. Several of these sockets may be provided in any desired pattern. However, we prefer to provide five such sockets spaced 90° apart, and one being spaced 180° with reference to the neck 14. During shipment, and during its period of life as a container, it may be desirable to utilize a stand or base for supporting the container in upright position. Thus we show a detachable base 25 having a body characterized by a concave wall section 26 of the same general curvature as the body of the container and a conical outwardly flaring marginal wall 27. A hollow externally threaded stud portion 28 projects from the center of the wall 26 and is adapted to be threaded into one of the sockets 20 in the container, preferably the one which is diametrically opposite the neck 14.

As previously indicated, one of the features of the invention is to provide a construction whereby a plurality of containers, after they have been emptied of their original contents, can be connected together in various patterns and designs for various purposes, one being to act as a multi-unit float for use in a swimming pool or the like. Thus we provide a plurality of connector assemblies 30, each of which comprises a pair of end couplings 31 and a center coupling 32. Each element 31 has a threaded portion 33 adapted to be mounted in a socket 20 of a container and a knurled or roughened bell end portion 34 providing an internal groove 35.

The center element 32 is provided with a pair of axially spaced peripheral flanges 37 bounded on their inner sides by shoulders 38 disposed normal to the axis of the element and by tapered outer end walls 40. The latter facilitates insertion of the center element 32 into the elements 31 and in this connection it is contemplated that the means 30 would be formed of a plastics material having sufficient resiliency to permit of the assembly of the parts by application of pressure. The element 32 is preferably hollow so that it will float in a swimming pool.

It will be apparent that a plurality of containers may be connected readily by utilizing the coupling means 30 to form various-shaped composite devices having various uses. Although we have illustrated and described a preferred form of our invention, we contemplate that various changes and modifications can be made therein without departing from the invention, the scope of which is indicated by the following claims.

We claim:

1. In a composite structure having at least a pair of hollow container bodies each provided with wall means forming a socket, a connector assembly joining said bodies, comprising a pair of end couplings received in the sockets of the pair of hollow bodies, interengaging means on said couplings and the socket wall means of said bodies securing said couplings in said sockets, a connecting coupling element received in said end couplings, and interengaging means on said end couplings and said connecting coupling detachably securing the same together.

2. A composite structure as set forth in claim 1 in which the interengaging means on said end couplings and said socket wall means comprises screw threads, and in which said interengaging means on said end couplings and said connecting coupling comprises a flexible flange on one of said couplings received in a groove in the other coupling.

3. In a composite structure including a pair of spherical, hollow bodies each formed to provide a recessed threaded socket, a connector assembly joining said bodies,

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comprising a pair of end couplings each having a threaded end section received in a socket of one of said hollow bodies and a bell end section having an internal groove, and a connecting coupling of stiffly flexible material in the bell end sections of said end couplings, said connecting coupling having a pair of axially spaced flanges received in the grooves of said end couplings, respectively.

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