

Aug. 16, 1966

J. U. STEWART

3,266,532

TRANSFER CONTAINER

Filed March 16, 1964

Fig. 1

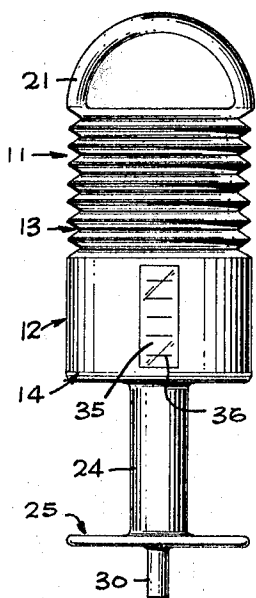


Fig. 3

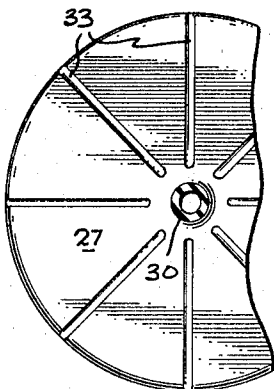


Fig. 2

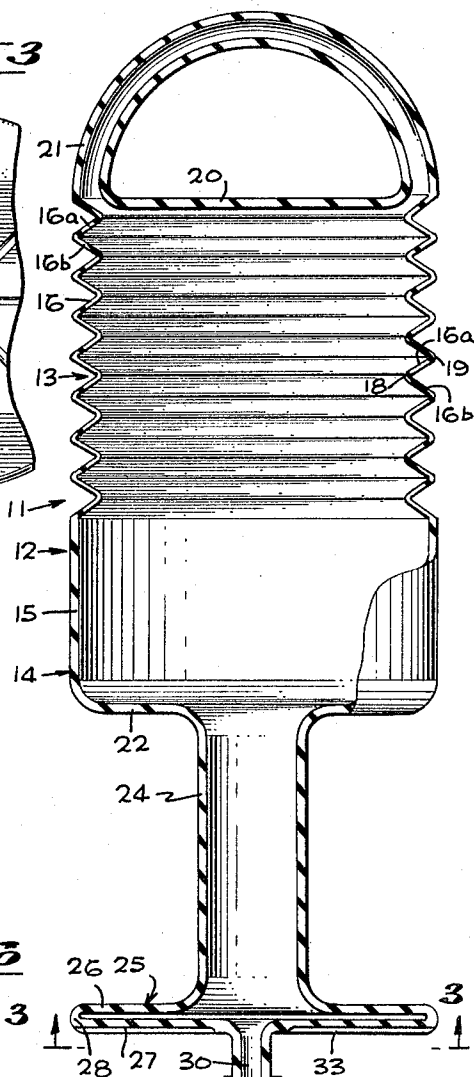


Fig. 7

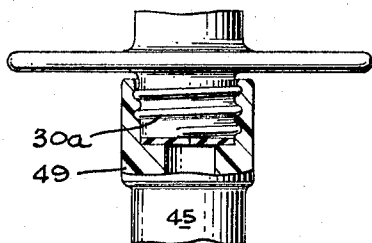


Fig. 6

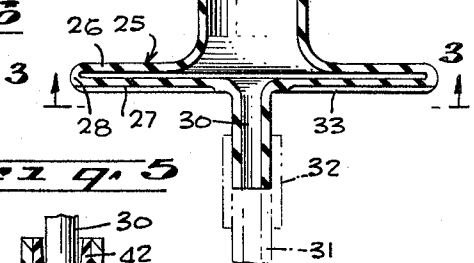


Fig. 4

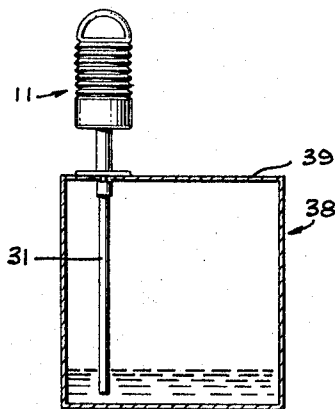
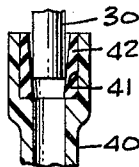
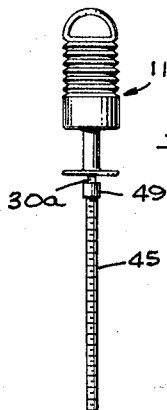


Fig. 5



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TRANSFER CONTAINER

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1 Claim. (Cl. 141—24)

This invention has to do with resiliently flexible containers and particularly with containers useful for transferring a desired limited quantity of liquid from a source such as a large container to a nearby destination where the liquid is dispensed.

An object of the invention is to provide a novel, liquid transfer and dispensing container of simple and relatively inexpensive construction.

Another object is to provide a novel container which is designed to be partially collapsed and then expanded to its original size for the purpose of drawing liquid into the container from a supply and which may be partially collapsed to expel or dispense the liquid.

Another object is to provide a container of the type indicated which is suitable for use with various attachments.

These and other objects will be apparent from the drawing and the following description. Referring to the drawing:

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

FIG. 2 is a central sectional view of the container of FIG. 1, but on a larger scale;

FIG. 3 is an inverted plan view on line 3—3 of FIG. 2;

FIG. 4 is an elevational view, partly in section, showing the container withdrawing liquid from a large supply container;

FIG. 5 is a sectional view of a joint means;

FIG. 6 is an elevational view of the device of the invention with a graduated tube attached thereto; and

FIG. 7 is an enlarged sectional view of the joint between the device and tube shown in FIG. 6.

More particularly describing the invention, numeral 11 generally indicates what has been termed a transfer container. This article is preferably a unitary, one-piece structure and may be formed of a stiff, flexibly resilient, synthetic plastic material, such as polyethylene. The container may be blow-molded or otherwise formed so that all parts thereof are hollow. The article has a container body 12 which comprises what will be termed an outer section 13 and an inner section 14. The body as a whole is preferably circular in cross section and has been shown as generally cylindrical although this is not essential. A semi-rigid cylindrical wall 15 forms the side of the inner section 14, while a bellows-like wall 16 forms the side of the outer section 13. Wall 16 has a series of alternately oppositely directed wall sections 16a and 16b of frusto-conical shape joined by inner ring sections 18 and outer ring sections 19.

The outer end of the outer section is closed by an end wall 20 and while it is not essential, I prefer to form the body so as to provide an outwardly curved, integral tubular handle 21.

The inner section 14 terminates in an annular end wall 22 beyond which is a tubular neck 24 of a cylindrical shape. At the outer end of the neck there is formed a flange 25 comprised of an inner wall 26, an outer wall 27 and an annular return bend peripheral connecting wall 28. Beyond the flange is an inlet-outlet tube 30 which may be of any suitable size and shape. If it is made short as shown, a desired type of tubular extension 31 may be provided and attached by any suitable coupling 32 depending upon the use to which the particular device may be put.

The wall 27 of the flange is provided with channels or

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grooves 33 in its outer surface which extend from the periphery inwardly toward the inlet-outlet tube 30. These channels or grooves provide for the entrance of air into a container against which the flange may be placed in withdrawing liquid from a container through an opening therein of smaller diameter than the flange.

If desired, the material forming the inner section 16 of the container body may be transparent or translucent or, a transparent or translucent window area 35 may be provided for convenience. Also, the body may have indicia or gradation marks 36.

In the use of the device it is apparent that the upper or outer portion 13 of the container body can readily be collapsed to foreshorten the container body and when it is returned to its original position liquid will be drawn into the container through the inlet-outlet tube 30 if the latter is immersed in liquid. In some cases it may be necessary to provide an extension 31 on the inlet-outlet tube, as, for instance, for use in withdrawing liquid from a large container 38, as shown in FIG. 4. The channels 33 permit air to enter the large container as the liquid is drawn out when the flange is pressed tightly against the top 39 of the large container. The liquid is dispensed by partially collapsing the bellows-like wall of the body.

Other types of connections or joints may be used between the device and an auxiliary tube and thus in FIG. 5 I show an auxiliary tube 40 provided with a socket 41 containing a tapered resilient washer 42 into which the inlet-outlet tube 30 is thrust and held to effect a seal.

As shown in FIGS. 6 and 7, the device may be used for accurately measuring a quantity of liquid in a graduate tube 45 which is connected to the device by a suitable joint 49. The latter can take any suitable form, however, by way of illustration I show an inlet-outlet tube here designated 30a as having a threaded exterior to screw into the threaded upper end of graduate tube 45.

Although I have illustrated and described a preferred form of my invention, I contemplate that various changes and modifications can be made therein without departing from the invention, the scope of which is indicated by the following claim.

I claim:

A unitary, continuous-walled transfer container formed of a stiff, flexibly resilient synthetic plastic material and comprising a generally cylindrical container body closed at its outer end and having an outer end section with a bellows-like side wall and an inner end section with a semi-rigid side wall, a hollow handle formed as a continuation of the outer end section with the interior of the handle open to the interior of the container body, a neck of substantially smaller diameter than said container body extending axially from said inner end section, a radial flange at the end of said neck, said flange being formed of two contiguous walls connected by a return bend peripheral wall section, and an inlet-outlet tube beyond said flange and of smaller diameter than said neck, said neck and tube providing an open passage from the interior of said container body to the exterior thereof.

References Cited by the Examiner

UNITED STATES PATENTS

2,047,580	7/1936	Dewey	141—285
2,489,035	11/1949	Jones	141—26 X
3,124,171	3/1964	Mitchell	141—26
3,171,466	3/1965	Koch	222—209 X

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