March 2, 1965 M. BERNEY 3,171,573

STORAGE, TRANSPORTING AND DISPENSING FLASK FOR LIQUIDS AND POWDERS

Filed Nov. 28, 1962

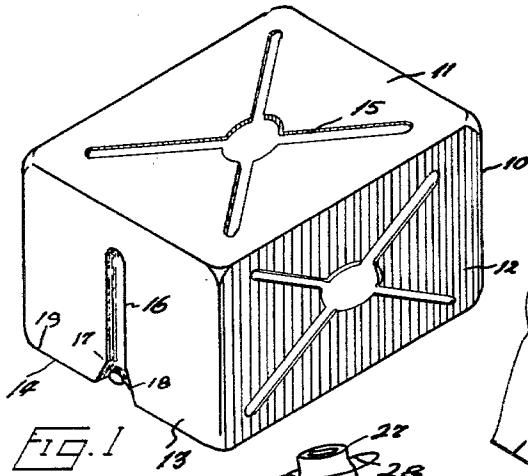
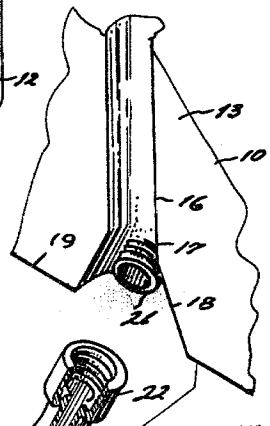


FIG. 1



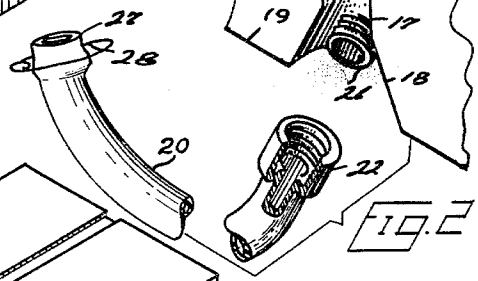


FIG. 2

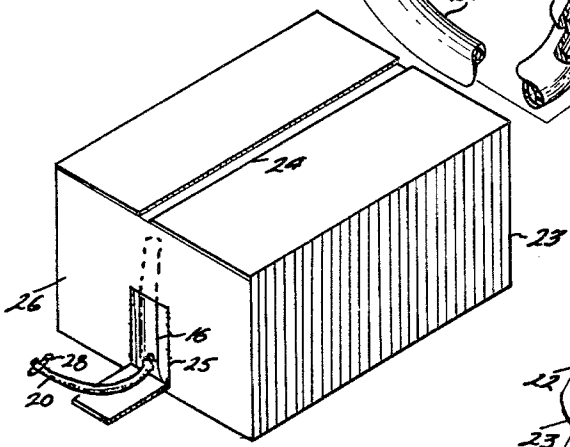


FIG. 3

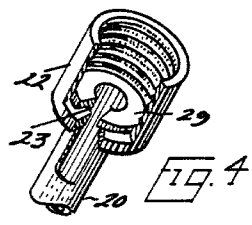


FIG. 4

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STORAGE, TRANSPORTING AND DISPENSING FLASK FOR LIQUIDS AND POWDERS

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5 Claims. (Cl. 222—183)

My invention relates to new and useful improvements in cubical plastic flasks for the transporting, storage and dispensing of fluids or powders.

These plastic flasks are well known for the purpose hereinabove mentioned, but normally said flasks are formed from two pieces with a welded line adjoining the two halves. Alternatively the flasks are cylindrical and are formed by a process known as blow moulding.

Furthermore, the dispensing tube is usually separate and has to be attached to the neck in order to dispense the contents thereof.

I have overcome these disadvantages by providing a cubical one piece blow moulded flask having, in the one instance, a permanently attached dispensing tube and in the other a screw cap having a permanently attached dispensing tube. Alternatively, an apertured screw cap is provided, together with a dispensing tube having a planar sealing washer secured thereto, the attachment of the screw cap over the washer after filling the container, sealing the container for shipment and storage purposes. Furthermore, these dispensing tubes are contained within a recess formed in the wall of the flask and between this wall and the surrounding corrugated cardboard container in which they are shipped and stored.

The principal object and essence of my invention is therefore to provide a device of the character herewithin described which eliminates the necessity of attaching the dispensing tube when it is desired to dispense the contents of the flask.

Another object of my invention is to provide a device of the character herewithin described in which the attached dispensing tube is stored within a recess formed in one wall of the flask during transportation and storage.

Yet another object of my invention is to provide a device of the character herewithin described which includes a break-away portion in the protecting container permitting access to the dispensing tube.

Still another object of my invention is to provide a device of the character herewithin described which, particularly with the permanently attached dispensing tube, eliminates any possibility of leakage occurring during transportation and storage.

A yet further object of my invention is to provide a device of the character herewithin described which is simple in construction, economical in manufacture, and otherwise well suited to the purpose for which it is designed.

With the foregoing objects in view, and such other objects and advantages as will become apparent to those skilled in the art to which this invention relates as this specification proceeds, my invention consists essentially in the arrangement and construction of parts all as hereinafter more particularly described, reference being had to the accompanying drawings in which:

FIGURE 1 is a perspective view of the flask showing the embodiment which is the dispensing tube permanently attached.

FIGURE 2 is an enlarged fragmentary view showing an alternative type of dispensing tube.

FIGURE 3 is a perspective view of the protective casing or container with the flask situated therein and the break-away portion in the open position.

FIGURE 4 is an enlarged fragmentary view showing an alternative type of dispensing tube.

In the drawings like characters of reference indicate corresponding parts in the different figures.

Proceeding therefore to describe my invention in detail, reference character 10 illustrates the flask which is relatively cubical in configuration and is formed from flexible plastic by a blow moulding process.

This flask includes upper wall 11, side walls 12, front wall 13 and base (not illustrated) 14.

Strengthening ribs 15 are formed during the moulding process on all of the walls or sides with the exception of the front wall 13 and give additional rigidity and strength to the flask.

On the front wall 13 and extending upwardly from the junction thereof with the base 14, is an elongated vertical recess 16 formed during the moulding process, the purpose of which will hereinafter be explained.

Base 17 of this recess joins a V-shaped recess 18 formed at the junction 19 of the front wall 13 and the base 14 and a flexible plastic dispensing tube 20 is secured to the junction within this V-recess and communicates with the interior of the flask.

An alternative construction is shown in FIGURE 2 in which a screw threaded neck 21 is provided with the V-recess 18 and also communicates with the interior of the flask.

A plastic screw threaded cap 22 having a flexible dispensing tube 20 permanently moulded and secured to the center of the cap, is screwthreadably engageable with the neck 21, and once screwed into position, need not be removed.

The flask 10 is adapted to be contained within a container or enclosure 23 having a configuration similar to the flask 10 and being formed preferably of corrugated cardboard or the like, sealed in the usual way along the line 24.

A break-away panel 25 is provided within the front wall 26 of the container adjacent the dispenser of the flask and this break-away portion 25 can be folded downwardly as illustrated in FIGURE 3 when it is desired to utilize the contents of the flask.

Prior to shipping, the flask is filled with the desired liquid or powder, either through the neck 21 or through the tube 20, whereupon the distal or free end 27 of the tube may be heat sealed in order to enclose the contents, and a spring clip 28 is engaged around the tube near the distal end 27 thereof.

During shipping and storage this dispensing tube 20 is doubled over and lodged within the aforementioned recess 16 between the wall 13 of the flask and the wall 26 of the container 23.

However, when it is desired to dispense the contents, the break-away panel 25 is opened as hereinbefore described, and the dispensing tube is pulled downwardly from the recess 16. The end 27 may be cut off to open the tube and the contents dispensed by gravity controlled by the opening of the spring clip 28. When it is desired to close the tube, the conventional spring clip 28, around the end of the tube, is allowed to close it being unnecessary to reverse the position of the flask and container for temporary storage purposes.

FIGURE 4 shows a yet further embodiment in which the cap 22 is apertured centrally as at 23 and the dispensing tube 20 is provided with a planar, circular washer 29 upon the inner end thereof and preferably formed integrally with the tube. The washer 29 is also centrally apertured thereby communicating with the tube 20.

The washer 29 is placed on the inside of the cap with the tube 20 extending through the central aperture 23 of the cap. This cap is then screwed into place so that the end of the neck 21 bears against the washer 29 thus form-

ing an effective seal around the aperture 23 and preventing leakage of the contents at this point.

Since various modifications can be made in my invention as hereinabove described, and many apparently widely different embodiments of same made within the spirit and scope of the claims without departing from such spirit and scope, it is intended that all matter contained in the accompanying specification shall be interpreted as illustrative only and not in a limiting sense.

What I claim as my invention is:

1. A storage, transporting and dispensing flask for liquids and powders comprising in combination a blow moulded, one piece flexible plastic flask, strengthening ribs formed in the walls thereof, a substantially V-shaped recess formed at the junction of two of said walls, dispensing and filling means situated in said V-shaped recess, said dispensing and filling means comprising an elongated flexible tube communicating with the interior of said flask, and an elongated recess formed in one of the walls adjacent said dispensing means and communicating with said V-shaped recess, for storing said dispensing means in a recessed position with respect to the outer surface of said one wall.

2. The device according to claim 1 which includes a relatively rigid protecting and strengthening container surrounding said flask, and break-away means through one wall of said container adjacent said dispensing means.

3. The device according to claim 1 in which said dispensing and filling means is permanently secured to said junction within said V-shaped recess.

4. The device according to claim 1 in which said dispensing means includes a screw threaded neck formed at said junction within said V-shaped recess, a screw threaded cap adapted to engage said neck, said flexible dispensing tube being permanently formed to and extending from said cap.

5. The device according to claim 1 in which said dispensing means includes a screw threaded neck formed at said junction within said V-shaped recess, a centrally apertured screw threaded cap adapted to engage said neck, a flexible tube having a planar washer formed on one end thereof and engageable between said neck and the inner surface of said cap, said dispensing tube passing through the said aperture in said cap.

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