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3,434,635

CONTAINER HAVING A SPOUT AND A HOLLOW HANDLE

Filed March 21, 1967

FIG. 1.

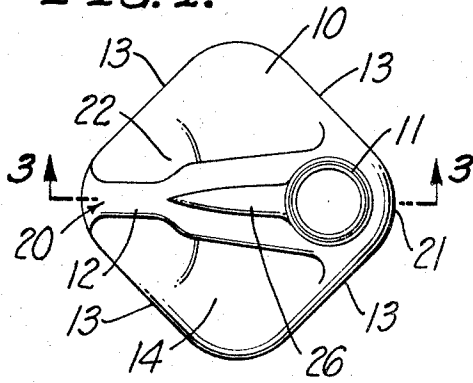


FIG. 2.

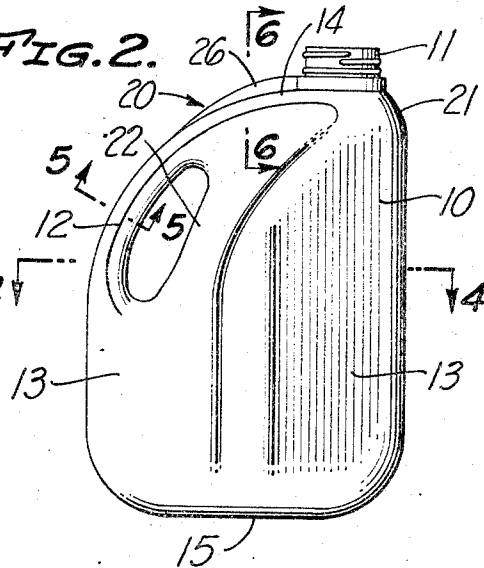


FIG. 3.

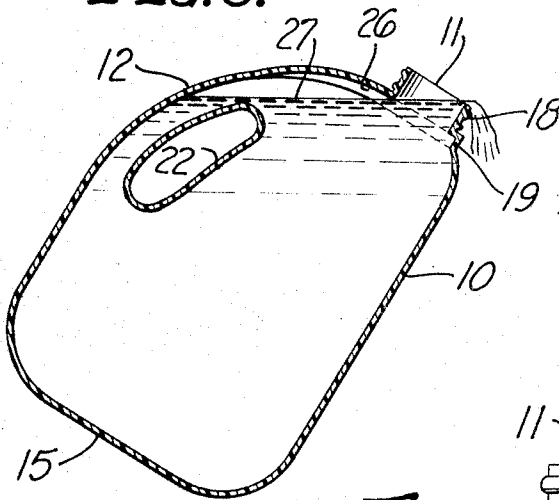


FIG. 5.

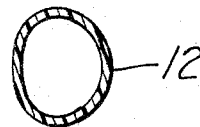


FIG. 4.

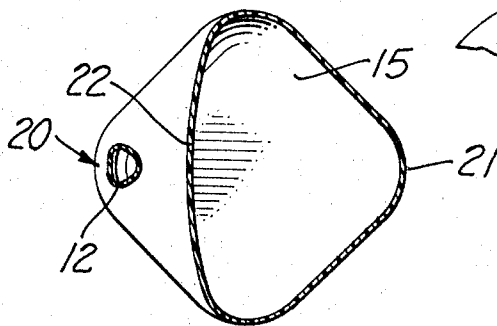
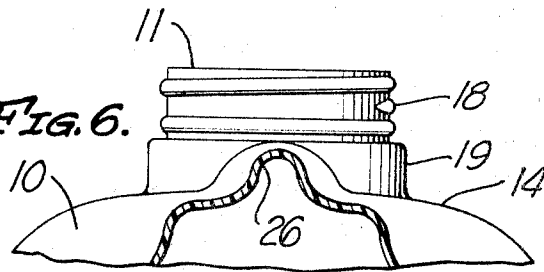


FIG. 6.



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CONTAINER HAVING A SPOUT AND A HOLLOW HANDLE

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2 Claims

ABSTRACT OF THE DISCLOSURE

A jug-type container of square cross section having the spout in the top at one corner and having a hollow handle integrally formed with the body at the opposite corner.

This invention relates to containers of the jug type and in particular, to a new and improved container construction which substantially eliminates gurgling or "glugging" during pouring. A variety of forms of containers are known and a number of them are presently in use. These various prior art containers provide for air flow into the container during pouring and some perform very well after a portion of the contents of a full container have been poured out.

It is an object of the present invention to provide a new and improved container providing a passage for incoming air during pouring to eliminate the uneven pouring rate often encountered. A further object is to provide such a container construction which will be effective during the initial pouring from a full container.

It is an object of the invention to provide a container comprising a closed chamber having sides, top and bottom with an outlet spout in the top adjacent a side, a generally vertical hollow handle formed opposite the spout with one end of the handle joining the chamber at the upper portion thereof and with the other end of the handle joining the chamber below the top, and means defining a passage along the top communicating at one end with the spout through the side thereof opposite the chamber side, with the passage having an open bottom and communicating at its other end with the handle.

A further object is to provide such a container in which the spout is cylindrical and is stepped with a smaller diameter upper portion and a larger diameter lower portion and with the passage along the top of the chamber opening into the lower portion of the spout.

It is an object of the invention to provide a container which is particularly adapted for manufacture by present day plastic molding techniques and one which achieves optimum balance between strength and capacity.

It is a particular object of the invention to provide a container comprising a main body chamber of substantially square cross section with an outlet spout in the top adjacent one corner and with a recessed zone at the opposite upper corner formed by a substantially flat oblique wall of the chamber, and a generally vertical hollow handle formed at the opposite corner in the recessed zone, with one end of the handle joining the chamber at the upper portion thereof and with the other end of the handle joining the chamber at the lower end of the recessed zone.

The invention also comprises novel details of arrangement and construction which will more fully appear in the course of the following description. The drawing merely shows and the description merely describes a preferred embodiment of the present invention which is given by way of illustration or example.

In the drawing:

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FIG. 1 is a top view of a preferred embodiment of the container of the invention;

FIG. 2 is a side view of the container of FIG. 1;

FIG. 3 is a sectional view taken along the line 3—3 of FIG. 1, showing the container tilted in the pouring position;

FIG. 4 is a sectional view taken along the line 4—4 of FIG. 2;

FIG. 5 is an enlarged sectional view taken along the line 5—5 of FIG. 2; and

FIG. 6 is an enlarged partial sectional view taken along the line 6—6 of FIG. 2.

The illustrated container comprises a main body chamber 10, a spout 11 and a handle 12. Various known techniques may be utilized for making the container and the plastic blow molding process is presently preferred. The main chamber 10 has sides 13, a top 14, and a bottom 15, with the spout 11 positioned in the top adjacent a side. In the preferred form illustrated, the chamber is of square cross section with the spout positioned at one corner.

The spout 11 preferably is cylindrical and is threaded to receive a screw-on cap. Also, the spout preferably has a stepped design with an outer portion 18 of a smaller diameter and an inner portion 19 of a larger diameter.

The handle 12 is hollow and is disposed in a generally vertical position, with the upper end of the handle joining the main chamber 10 at the upper portion of the chamber and with the lower end of the handle joining the main chamber intermediate the top and bottom of the chamber. The hollow handle provides additional container capacity and also provides for by-pass air flow between the upper and lower portions of the main chamber during filling and emptying.

The preferred form of the main body chamber illustrated has a recessed zone at the upper corner 20 opposite the corner 21 carrying the spout 11. A substantially flat oblique wall 22 of the chamber 10 defines this recessed zone. The zone provides a space for the handle 12 within the outline of the chamber, permitting the containers to be packed side by side without wasting storage space for projecting handles. At the same time, the hollow handle which is flared into the chamber at the upper and lower boundaries of the recessed zone provides an adequate grip for ease in handling while holding the lost capacity to a minimum. This arrangement provides an optimum balance between container capacity, container storage space requirements and container strength. At the same time the arrangement of handle and pouring spout at opposite corners provides improved handling and pouring performance.

A small passage 26 is provided by a downwardly open narrow channel in the top 14 of the chamber 10. The passage or channel 26 has an open bottom, as best seen in FIG. 6. One end of the passage 26 opens directly into the spout 11, preferably into the inner portion 19, while the other end of the passage tapers to a point as it communicates with the handle 12, as best seen in FIG. 3.

When liquid is poured through a relatively small spout of a closed container, the body of liquid tends to fill the spout and close the exit opening. Steady flow cannot continue under these conditions since there must be air flow into the container to replace the fluid pouring out. The usual result is an irregular or pulsating flow accompanied by a sound sometimes referred to as a "glug." The sound effects are not objectionable but the irregular flow causes spilling and overflowing and adversely affects the pourer's control of the container and its contents. These adverse effects are particularly encountered when the container is full, at its heaviest, and capable of providing a projected flow from the spout.

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The small passage 26 opens directly into the spout and provides for air flow from the exterior through the passage 26 into the handle and upper portion of the main chamber and substantially eliminates the glugging problem with the full container. The initial pouring operation is illustrated in FIG. 3 with the fluid level indicated at 27. The rib forming the passage 26 provides strength and rigidity to the structure and permits the use of thinner walls.

I claim:

1. A container comprising:

a closed chamber having sides, top and bottom, with a portion of said top disposed parallel to said bottom and with an upwardly opening outlet spout in said top portion adjacent a side;

a generally vertical hollow handle formed opposite said spout with one end of said handle joining said chamber at the upper portion thereof and with the other end of said handle joining said chamber at a lower portion thereof; and

means defining a passage in the form of a downwardly open narrow channel along said top and communicating at one end thereof with said spout through one side thereof above said top, with said passage communicating at the other end thereof with said handle.

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2. A container as defined in claim 1 in which said channel has its maximum width and depth at its junction with said spout, with said passage tapering substantially to a point at said handle.

References Cited

UNITED STATES PATENTS

1,343,921	6/1920	Klingman	222—475
3,232,495	2/1966	Schneider.	
1,599,967	9/1926	Johnson	222—465
1,621,252	3/1927	Hillyard	222—465 XR
2,895,654	7/1959	Rieke	222—465 XR
2,978,131	4/1961	Garvey.	
3,251,514	5/1966	Speicher	222—468

FOREIGN PATENTS

560,104	9/1957	Belgium.
50,124	12/1889	Germany.

20 WALTER SOBIN, *Primary Examiner*.

U.S. Cl. X.R.

215—1; 222—564