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A. K. SHULTS

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BOTTLE

Filed March 15, 1932

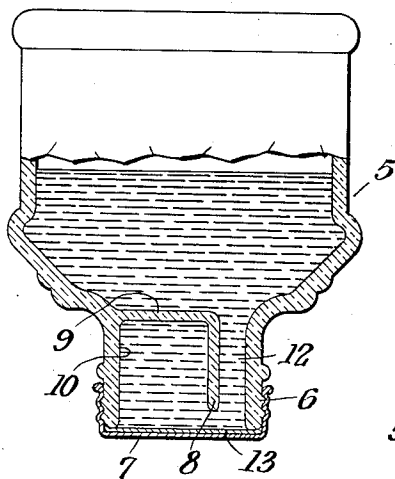


Fig. 1.

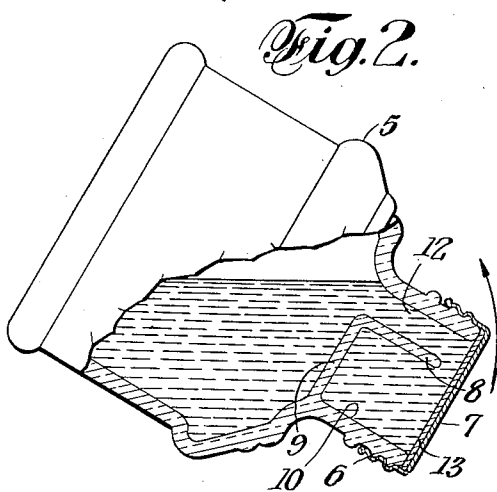


Fig. 2.

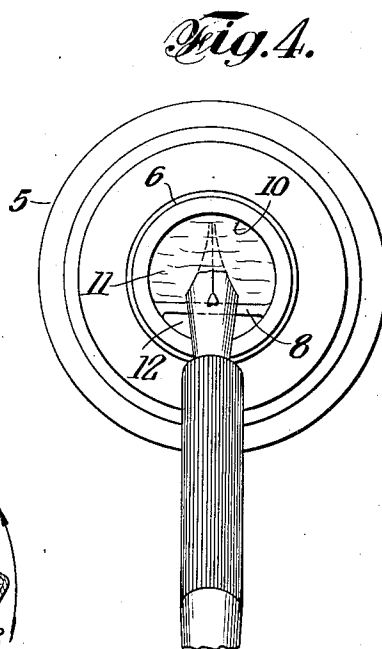


Fig. 4.

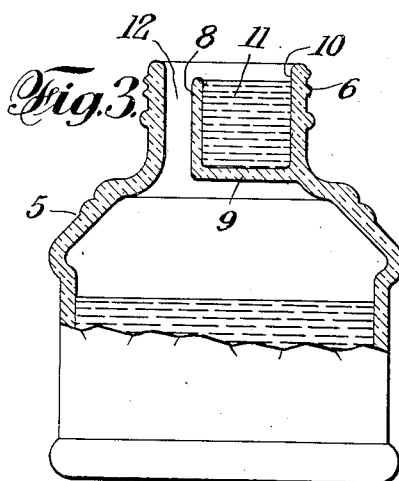


Fig. 3.

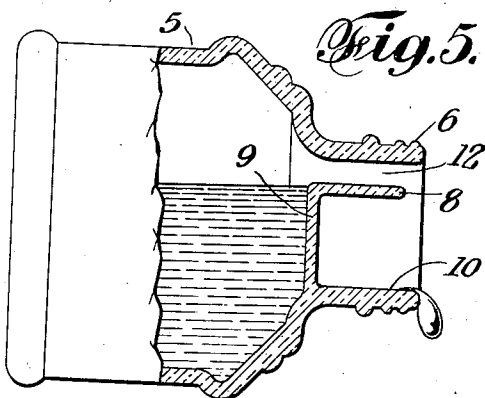


Fig. 5.

INVENTOR
Anthony K. Shults
BY *Philip S. McLean*
ATTORNEY

UNITED STATES PATENT OFFICE

ANTHONY K. SHULTS, OF SARANAC LAKE, NEW YORK

BOTTLE

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This invention relates to containers such as may be classed under the broad heading of "bottles".

Special objects of the invention are to provide in a bottle construction, simple, practical and efficient means for holding a well of the bottle contents up in readily accessible relation in the neck portion of the bottle where, for illustration in the case of an ink bottle, it may be used as a dipping well for a pen or as a filling well for a fountain pen; to attain these results without the use of moving parts or complications of any sort and without increasing the bulk or modifying the contour or general appearance of the bottle and to accomplish all the foregoing and other desirable objects with a structure suited to commercial production and of low manufacturing cost.

The objects are attained by the novel features of construction, combinations and relations of parts hereinafter described and broadly claimed.

The drawing accompanying and forming part of the specification illustrates one of the many possible commercial embodiments of the invention, it being realized that the structure may be modified and changed to meet particular requirements or conditions, all within the true intent and broad scope of the invention.

Fig. 1 is a broken part sectional view illustrating the invention as embodied in an "ink bottle" type of container and showing the bottle inverted in closed condition to fill the dripping well which is formed in the mouth of the bottle.

Fig. 2 is a similar view illustrating the bottle as being turned back in the act of trapping the liquid in the well.

Fig. 3 also is a part sectional view, but showing the bottle as turned back to the upright position and with the cover removed to expose the dipping well where it stands filled and ready for use up in the top of the bottle neck.

Fig. 4 is a plan view illustrating use of the dipping well and showing how the upright partition which forms a dam across the neck of the bottle, may be used as a guide

and wiping edge for a pen dipping in the well.

Fig. 5 is a broken sectional view illustrating the action in pouring the contents of the well while holding back the balance of liquid in the bottle.

The container 5, as here shown, is of the general shape and appearance of an ordinary ink bottle and, to external appearances, differs from what might be considered the standard type of such bottles by having an external screw rib 6 about the mouth of the neck portion to take the screw cap 7. This cap form of screw closure is important because it makes a seal with the lip of the bottle neck and so does not offer any restrictions as to what may be contained within the bottle neck; and further because it combines both efficient sealing and easy, quick removability.

The bottle neck being unimpeded and unobstructed by the cover structure, makes it possible to locate the dipping or filling well as it may be termed, right up in the top of the neck, as nearly as desired to a position flush with the lip of the neck, the actual top of the bottle.

The well is formed in the present illustration by simply two walls which may be and in most cases preferably are integral with the neck itself. These wall portions are designated 8 and 9, the first being a vertical partition, that is vertical in the upright position of the bottle, extending as a chord across the inside of the neck and the second, a segmental and normally horizontal partition extending from the foot of the vertical partition laterally to the adjoining side wall of the bottle, in this instance approximately at the base of the neck, or juncture of the neck and enlarged body portions of the bottle.

These joined partitions or wall portions 8 and 9 in conjunction with the opposed arcuate wall portion 10 thus form a chamber or compartment 11 of a general crescent shape as viewed in plan, Fig. 4 and therefore of a convenient form for dipping in a pen over the upright wall or dam portion 8. In such use, this wall may be uti-

lized as a guide for the pen and as a wiping edge for cleaning the pen and removing excess ink.

The size and capacity of the well may be determined by the location of the vertical partition transversely of the neck and the position of the horizontal partition vertically of the bottle. Usually the vertical partition is located to one side of the diametrical plane to give the chamber a form in excess of the semi-cylindrical, as in Fig. 4 and the horizontal partition is located substantially at the base of the neck to give the well a depth suitable for pen dipping or for fountain pen filling purposes. Such construction gives a relatively narrow segmental passage 12 from the interior of the bottle up over the lip of the vertical partition wall sufficient for pouring purposes and this is a form which can be readily molded in the glass or other material of which the bottle is constructed.

The cap, like the bottle, may be constructed of any desirable material and, for tight sealing purposes, may carry within it a compressible gasket or washer 13 of material suitable for proper engagement with the lip of the bottle neck.

The method of filling the well will be understood from Figs. 1 and 2, the first showing that by upending the bottle with the cap tightly closed, the well in this inverted relation is filled with liquid and the second view showing how if the bottle is then rotated left-handedly, with the passage 12 and partition 8 toward the top, the liquid in the well will be trapped behind such partition and be so confined, in the upright of the bottle, Fig. 3. The partition 8 need not and usually does not extend fully to the top of the bottle. This locates the highest possible level of the liquid in the dipping well below the rim of the bottle neck, a distance determined by the height of the partition. Thus the well of liquid is protected by the surrounding rim and accidental splashing over is guarded against. At the same time the well is so near the absolute top of the bottle that a pen or the like may be readily dipped therein without getting any ink on the handle portion of the pen.

The contents of the well may be readily poured without emptying the bottle by simply turning the bottle right-handedly from the Fig. 3 to the Fig. 5 position so as to spill the liquid out of the well before the liquid in the bottle can flow out through the passage 12 which at such time is at the top. The normally horizontal portion 9 which then serves as a dam holding back the contents of the bottle, may be extended over quite close to the opposing wall of the bottle neck to increase this holding back effect as much as considered necessary or desirable.

The invention is of particular utility for ink bottles used in travelling, where it is necessary that a tight seal be assured and the cover should at the same time be easily removable and where it is especially convenient to be able to have when desired a small supply of ink in readily accessible position for dipping in a writing pen or for filling a fountain pen. The invention may be utilized if desired for measuring purposes or the like, the well structure making it possible to separate by each reversal process a measured amount from the bulk quantity in the bottle. The structure is of such form as to be readily molded or otherwise incorporated in the bottle in commercial manufacture and at but slight if any additional expense. The construction actually reinforces the bottle and thus may in some instances enable the use of less material and hence effect certain savings in cost of construction. The use of the invention need not change the external appearance of the bottle or add to its weight or bulk. While ordinarily it may be preferable to form the two extra walls of the well as integral with the bottle neck, it should be understood that these may be set in with separate parts or that the well may be made up as a separate special unit of metal or the like seated in the bottle neck. The invention is adaptable to many different uses.

What is claimed is:

An ink bottle having a circular neck portion open at the top the full internal diameter of the neck and having a lip at the rim of said full-open top portion for sealing engagement by an overstanding cap, a partition wall extending, in the upright position of the bottle, substantially vertically across the interior of the bottle neck, below the full-open rim of the neck and dividing that portion of the interior of the neck below the rim into segmental spaces, one defined by a segmental portion of the internal wall of the neck and the opposing partition wall and clear and unobstructed to form a segmental pouring passage between the interior and the exterior of the bottle and located in one side of the bottle neck with part of the wall of the bottle neck forming a trough-like pouring spout, a generally horizontally extending and imperforate wall connected with the lower end of the generally vertical partition and projecting therefrom away from said pouring passage of the neck toward that segmental portion of the neck opposite thereto, there being a wall portion in the bottle neck connected with said generally horizontally extending wall, forming in conjunction therewith and with the partition wall, a raised well located within the bottle neck and entirely below the rim of the neck and protected by the surrounding rim of the neck.

above the same, with the upper edge of the partition providing a fully accessible pen wiping edge below and guarded by the surrounding rim of the bottle neck and a
5 tight fitting circular cap removably secured in sealing engagement over the lip of the bottle neck, said cap having direct connection with the bottle structure and without obstructing either the well in the one side
10 of the bottle neck or the straight through pouring passage in the other side of the bottle neck.

In testimony whereof I affix my signature.

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ANTHONY K. SHULTS.

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