May 7, 1935. D. E. WADE 2,000,501

INK WELL AND PEN FILLING DEVICE

Filed April 26, 1934

Fig. 1.

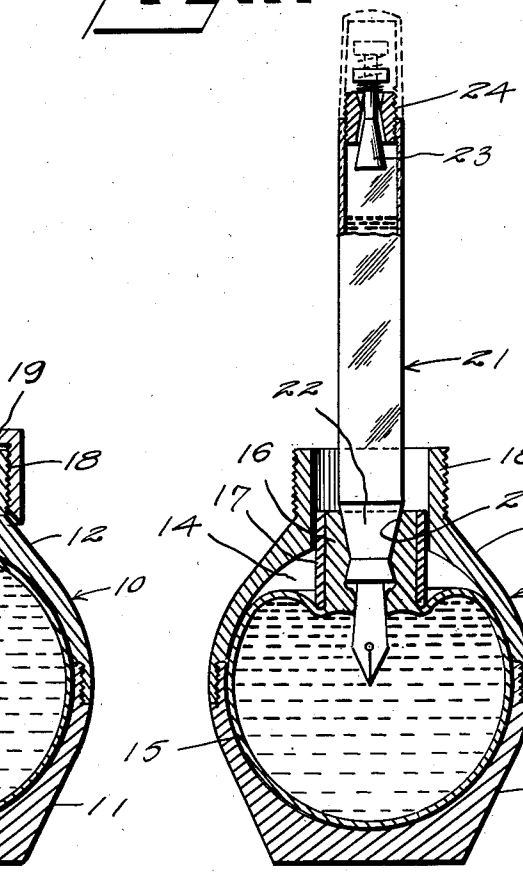


Fig. 2.

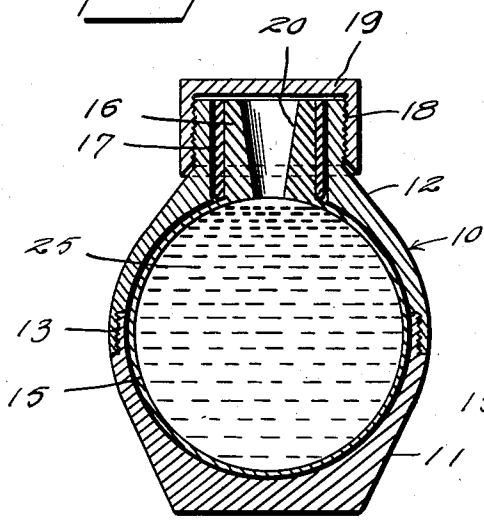
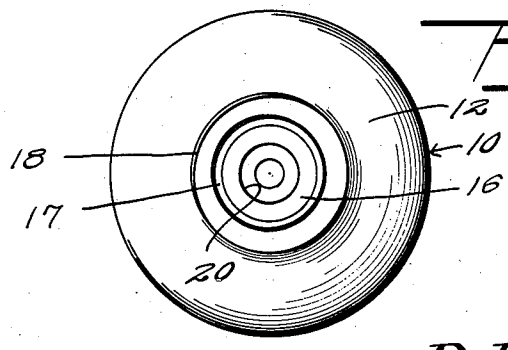


Fig. 3.



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INK WELL AND PEN FILLING DEVICE

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Application April 26, 1934, Serial No. 722,579

3 Claims. (Cl. 120—64)

This invention relates to ink wells and more particularly to a pen filling ink well.

An object of this invention is to provide an improved type of ink well which is adapted to be used in combination with the fountain pen structure embodied in my application, Serial Number 722,578, filed of even date herewith.

Another object of this invention is to provide a pen filling ink well which is so constructed that an end of a fountain pen is adapted to be received in a portion of the well and the well placed under such pressure as to force the ink in the well to pass into the interior of the barrel of the pen.

A further object of this invention is to provide an improved type of well wherein the end of the pen will be sealed in the well so that no ink in the well will pass about the outside of the pen when the well is placed under pressure to force the ink in the well to flow up into the barrel of the pen.

A still further object of this invention is to provide an ink well of this type wherein the collapsible portion of the well may be easily and quickly removed for replacement or repair.

The above and various other objects and advantages of this invention will in part be described and in part be understood from the following detailed description of the present preferred embodiment, the same being illustrated in the accompanying drawing wherein:

Figure 1 is a longitudinal section taken substantially through the center of an ink well constructed according to the embodiment of this invention, showing the well with a pen engaged therewith, this pen being similar to the pen structure more specifically described in my application filed on even date herewith.

Figure 2 is a vertical section taken substantially through the center of the device with the closure or cap mounted thereon.

Figure 3 is a top plan view of the device with the closure or cap removed therefrom.

Referring to the drawing wherein like numerals of reference designate corresponding parts throughout the several views, the numeral 10 designates generally a relatively rigid housing comprising a bottom structure 11 and a top structure 12. These two structures 11 and 12 have threaded connection with each other in substantially the center thereof, as at 13, so that the two parts of the housing 10 may be separated. Preferably the chamber 14 in the housing 10 is round or globular so as to receive a substantially spherical hollow and collapsible well or liquid holding member 15.

This collapsing well 15 is preferably constructed of rubber or other yieldable material and is provided with a yieldable neck 16 surrounded by a relatively rigid or metallic sleeve 17. The body or housing 10 has a substantially cylindrical neck 18 provided with exterior threads and the sleeve 17 is slidable on the inside of this neck 18. A cap 19 provided with interior threads is adapted to threadably engage the exterior threads of the neck 18 so as to close the tapered opening 20 in the yieldable neck 16.

A fountain pen, generally designated as 21, having a pen holding lower end 22, is adapted to engage in the tapered opening 20 of the yieldable neck or plug 16. This pen 21 has a manually operable air venting valve 23 movable through a plug 24 in the upper end of the barrel of the pen 21.

In the use and operation of the ink well hereinbefore described, ink or other fluid 25 is inserted in the collapsible body 15 through the opening 20. In order to fill the barrel of the pen 21, the pen point with the pen holding member 22 is inserted in the opening 20, and this opening 20 is of such a size as to permit the point of the pen to project interiorly of the bladder or collapsible member 15, while the pen holding member 22 is sealed by reason of the tapering construction of the opening 20, the neck or yieldable plug 16, when the fountain pen 21 is inserted therein, assumes substantially the configuration shown in Figure 2, that is, closely engaging about the periphery of the pen holding portion 22 thereof. In order to fill the pen 21, the air venting valve 23 is moved into venting or released position, as shown in Figure 1, and the pen 21 is then forced inwardly of the housing 10, which action will collapse the upper portion of the ink well member 15 and as this member 15 collapses, the ink 25 therein will, under the pressure applied to the pen 21, flow upwardly into the barrel of the pen. Preferably, this barrel 21 is transparent to a degree so that it will be possible to see when the barrel has been sufficiently filled with ink without permitting the ink to flow outwardly through the air venting opening in the plug 24. Due to the metallic sleeve 17 about the neck 16, the neck 16 will not expand circumferentially when the lower end of the pen 21 is inserted in the opening 20 so that the neck 16 will at all times be slidable in the neck 18 of the outer housing 10.

What is claimed is:—

1. An ink well, comprising a rigid body having a chamber therein, a neck carried by the body communicating with the chamber, a collapsible

ink holding member in the chamber, a yieldable pen engaging member carried by the ink holding member for sealing an end of a pen therein while permitting collapsing of the ink holding member, and means for slidably mounting said pen engaging member in the neck of the body, said latter means being non-yieldable in construction.

2. An ink well, comprising a hollow casing, a neck carried by the casing having a cylindrical opening therethrough, a collapsible ink holding member in the casing, a yieldable pen engaging member carried by the ink holding member, said pen engaging member having a substantially cylindrical outer surface slidable within the neck of the casing, said pen engaging member having a tapering opening therein to snugly engage about the end of the pen for sealing said end of the pen therein and a non-yieldable sleeve secured to said pen engaging member and slidable in said neck.

3. An ink well, comprising a casing including complementary upper and lower members, means for releasably securing the members together, a threaded neck carried by the upper member, a collapsible ink holding member in the casing, a yieldable neck integral with the ink holding member, said yieldable neck having a tapering bore therethrough, a relatively rigid sleeve secured to said yieldable neck and slidably engaging in the neck of the casing, and a cap threadably engaging the neck of the casing said sleeve holding said yieldable neck against distortion.

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