(No Model.)

W. E. LEWIS.

INK WELL OR HOLDER.

No. 542,482. Patented July 9, 1895.

Fig. 1.

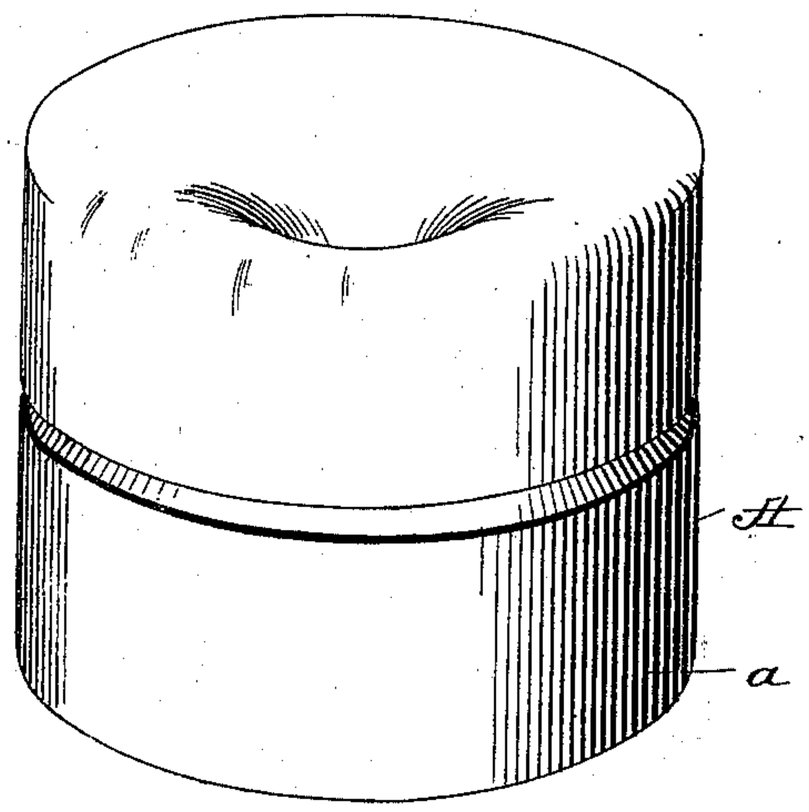
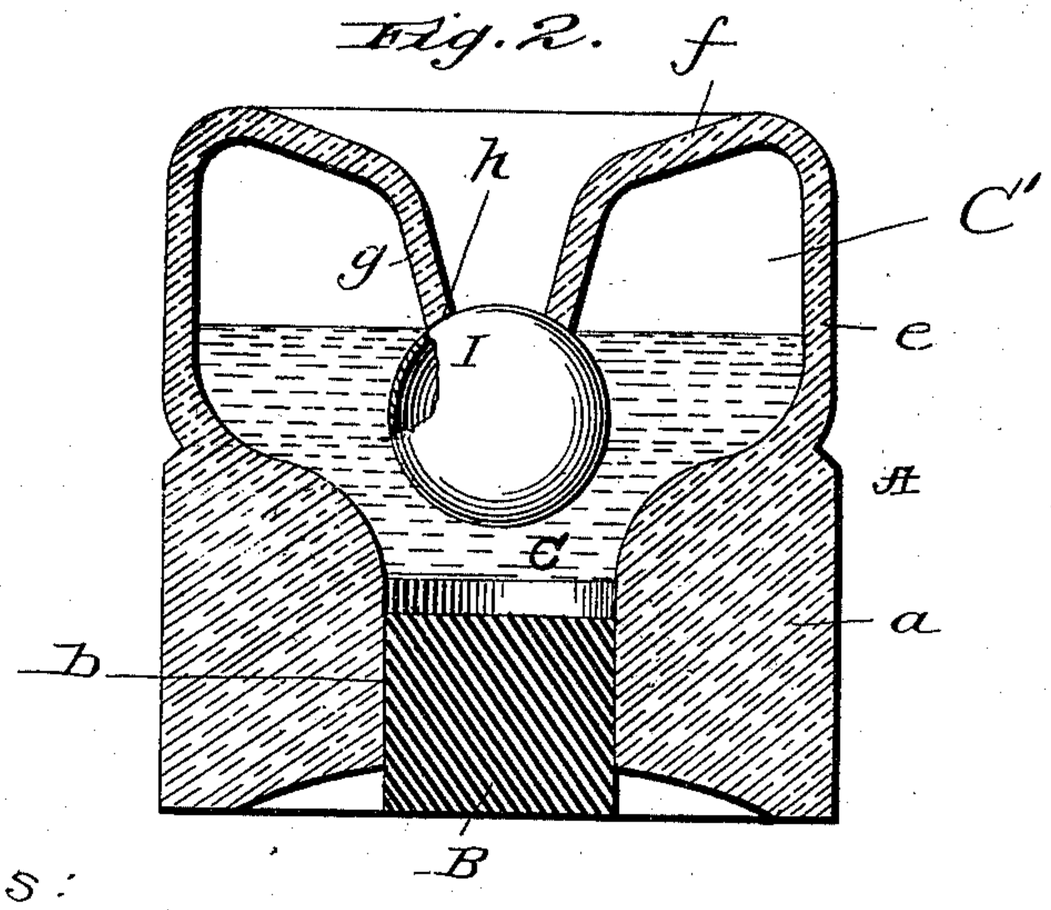


Fig. 2.



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WILLIAM E. LEWIS, OF CORRY, PENNSYLVANIA.

INK WELL OR HOLDER.

SPECIFICATION forming part of Letters Patent No. 542,482, dated July 9, 1895.

Application filed December 8, 1893. Serial No. 493,119. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. LEWIS, a citizen of the United States, residing at Corry, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Ink Wells or Holders; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in invertible ink wells or holders; and it contemplates the improvement of that class of wells or holders formed from glass with a central conical depending flange in its top, having a corresponding-shaped pen-aperture through it, as it is well known that this form of holder is very desirable in that it will permit of being inverted so as to prevent any unnecessary waste of ink by evaporation when the bottle is not in use, and will also prevent in a measure the forming of sediment and the like in the bottom of the well below the pen-aperture. A bottle of the character referred to has been patented, but has been found objectionable, first, in that it is difficult to fill; secondly, it will only prevent loss by evaporation when inverted, and it is very rarely that the user thinks of inverting the bottle or holder, and, thirdly, it is difficult to clean of the sediment and other matter which forms in the bottom when not regularly inverted after use, and which sediment takes to the pen when inserted.

In Letters Patent granted to me under date of December 5, 1893, No. 509,917, I have disclosed a construction of ink-well which, although not invertible, employs a buoyant valve or ball which will at all times, as long as there is ink in the well, keep the pen-aperture closed. A well thus constructed is expensive to manufacture, as the body only can be made of one piece and the top must be made of a a separate piece, and the top must be removable in order to insert the ball. I find in manufacturing such a well that the tops should be secured very tightly on the body, so much so as to prevent a user from removing the top, and this makes it objectionable in cleaning, as in some ink the sediment will form very quickly.

I have illustrated my improvements by a perspective view of the well, in Figure 1 of the drawings, and a vertical central sectional view in Fig. 2.

The body, which is molded or otherwise formed from glass, is indicated by A and has a lower thickened base *a*, the comparatively thin side walls *e* rising from the base, and the top *f*, which slopes gradually from the upper edge of the wall *e* toward the center and thence extends into the body with a conical or approximately-conical depending flange *g*, with a pen-aperture *h* through it of a corresponding shape. This much of the construction is of the type heretofore used and patented, and I improve this form by providing the thickened base with a vertical central aperture *b*, which is disposed directly below the pen-aperture and of a much greater diameter than the latter, for a purpose which will presently appear. The top walls of this central base aperture are beveled or rounded, as shown, and form an inclosure C, the ink-chamber C′ being formed above the thickened base. Within this base aperture is a removable stopper B, which is preferably composed of rubber, although it may be of other suitable material.

I indicates a hollow ball. This ball is made of hard rubber, or the like, and is designed to close the pen-aperture at all times, whether the well is in a position for use or it has been inverted when not in use. The ball must of course be of a greater diameter than the pen-aperture, and the base aperture *b* must be of a slightly-greater diameter than that of the ball to allow the said ball to be inserted, and by disposing the inserting-aperture *b* directly below the pen-aperture and beveling the upper walls, as shown, the ball may be driven down by the pen when inserted, when the beveled walls below will serve to guide the ball and insure its proper return against the lower edge of the conical pen-aperture.

A bottle or well of the construction illustrated can be very cheaply manufactured, as the body can be molded or otherwise formed from glass, and by the employment of the stopper in the base and the buoyant ball or valve I get all of the advantages of the bottles heretofore formed from glass and adapted to be inverted without the disadvantages of such bottles or wells, and I furthermore get the benefits of allowing the bottle or well to be

easily filled, quickly and thoroughly cleaned with but little exertion, and I absolutely avoid any loss of the ink by evaporation, whether the well is in a position for use or in an inverted position.

I am well aware that it is old, as shown in the patent of one Shenston, No. 144,929, to exclude air from an ink-well when it is inverted by providing a receptacle containing quicksilver to receive the pen-tube of the well when the same is turned upside down, and I therefore make no claim to the same; but

What I claim, and desire to secure by Letters Patent, is—

An invertible ink well formed from glass and having its entire body composed of a single piece with its top having a central depending conical flange and its bottom a central, vertical aperture disposed below the pen aperture which extends through the conical flange of a much greater diameter than said pen aperture and adapted to serve as an inclosure for the buoyant ball stopper, a stopper removably placed in the base aperture, and the aforesaid buoyant stopper limited in its movements by the wall of the base aperture and adapted, by reason of its buoyancy to automatically close the pen aperture when the well is in its operative position and also adapted by reason of gravity to automatically seat over and close the pen aperture when the well is inverted, whereby the well is automatically rendered air tight at all times, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM E. LEWIS.

Witnesses:
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D. M. SULLIVAN.