

F. M. ASHLEY.

INKSTAND.

APPLICATION FILED NOV. 6, 1909.

1,040,605.

Patented Oct. 8, 1912.

Fig. 1

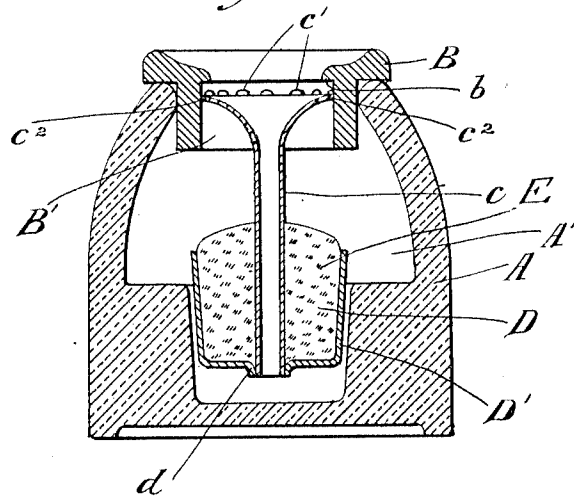


Fig. 2

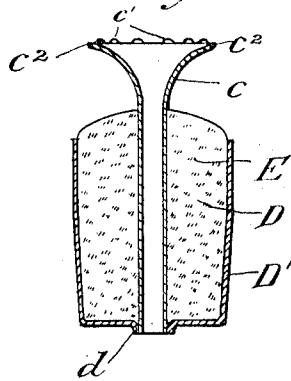


Fig. 3

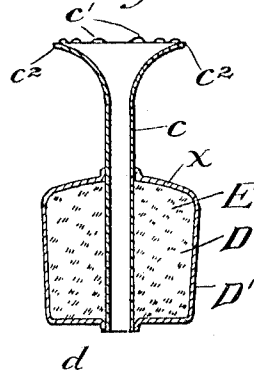
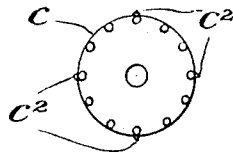


Fig. 4



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INKSTAND.

1,040,605.

Specification of Letters Patent.

Patented Oct. 8, 1912.

Application filed November 6, 1909. Serial No. 526,482.

To all whom it may concern:

Be it known that I, FRANK M. ASHLEY, citizen of the United States, and a resident of New York city, in the county of Kings and State of New York, have invented certain new and useful Improvements in Inkstands, of which the following is a specification.

My invention relates to inkstands of the automatic float type, and has special reference to the construction of the float portion thereof.

The general operation and construction of the present stand is shown in the prior art and therefore does not require to be specifically set forth herein.

The object of the present invention is to provide a float which may be constructed at a low cost and which will embody a structure that will not stick in the body of the stand by reason of the ink drying therein, and also to provide a float which will not sink to the bottom of the stand when the reservoir is filled with ink, will always maintain the proper relative position with respect to the parts of the inkstand with which it coöperates.

Most of the stands of this type heretofore used, are provided with a float made of hard rubber which must be vulcanized in form, and is usually made with an inverted cup, open on its under side, to serve as the floating element. It has been found in practice that the air in this inverted cup is gradually absorbed by the ink and permits the float to drop in the stand, thus making the stand inoperative until the float is removed and air again trapped therein.

Ink contains an acid which rapidly destroys most metals, and the metals on which the ink acts also serves to thicken the ink and render it unfit for use. It is therefore necessary to select a metal that will not be affected by the ink, if metal is used in a float, and I have found that lead and aluminum are about the only two available metals that will serve the purpose.

The cup is formed with tapering walls so as to coöperate with the tapering walls of the reservoir.

Referring to the drawings which form part of this specification,—Figure 1, is a cross sectional view through an inkstand containing a float made in accordance with my invention. Fig. 2, is a float having a

greater displacement than that shown in Fig. 1. Fig. 3, is a float in which the metal or form is spun over the top of the filling material. By reason of the rigid fastening of the cup to the bottom of the tube all expansion of the buoyant material in a downward direction is avoided. Fig. 4, is a plan view of the dip tube portion.

A, indicates an inkstand having a reservoir A', in which is fitted a guide ring B in the bore B' of which the top of the dip tube C is guided and abuts against the under side of the flange b when in the highest position. When the top of the dip tube is made with a plane surface, ink is liable to dry and stick the top of the dip tube to the under side of the flange at b, and also the outer edge is liable to stick in the bore B' from the same cause. To avoid this trouble, I provide the top of the dip tube with short projections C'—C', etc., spaced around the top as indicated, which reduces the area of contact to such an extent as to prevent the parts sticking together. I also provide a plurality of projections C² spaced around the edge of the dip to reduce the area of contact at this point, but may dispense with these if the diameter of the dip is made sufficiently less than that of the bore B' to prevent the sticking.

D, indicates the buoyant portion of the float which comprises a cup D' provided with a hole d in the center of its bottom. I prefer to make this cup of spun or drawn brass and then dip same in a lead bath, or otherwise coat with lead to obtain an acid proof surface. I can use aluminum, and also paper dipped in paraffin if desired, but it must be formed sufficiently stiff to hold its shape even though the filling material should tend to swell and distort it.

I prefer to use a cork E as the filling material and may use ground cork sealed together by heat while under compression in a form, and then dip the cork in hot paraffin to seal the pores to prevent the cork from absorbing water or moisture and also to prevent the acid of the ink from attacking the cork and destroying same. The function of the cup D' is to preserve the form of the float.

In Fig. 3, I show a modification in which the top of the metal portion is spun over the top of the filling material to still further protect the same. Any other filling material

of sufficient lightness to float properly may be used, but I have found cork to be the most available material in this vicinity.

I claim—

5 1. A float comprising a dip cup having upwardly extending projections on its top and of limited area for the purpose specified, and a tube extending from the dip cup to the bottom of the float, a cup shaped
10 buoyant portion connected to said tube having a filling material which is embraced by the outer wall of said buoyant portion and embraces the lower end of said tube.

2. In an inkstand, a dip-cup and a tube
15 extending therefrom, a float, comprising a cup opening upward and attached to the lower end of the tube, said cup being formed of impervious material, and a buoyant ponderable filling within the cup and rendered
20 non absorbent by impregnation with a non absorbent material.

3. An inkstand comprising a reservoir having a tapering wall, a dip-cup and a tube extending therefrom, and a float consisting of a cup opening upward and at- 25 tached to the lower end of the tube and a buoyant ponderable filling within the cup, said cup having a tapering exterior surface to cooperate with the tapering reservoir, said buoyant material being confined in said 30 cup and prevented from expanding downward, thus maintaining undisturbed the relation between the tapering exterior wall of the cup and the tapering interior wall of the reservoir. 35

Signed at New York city in the county of New York and State of New York this 4th day of November A. D. 1909.

FRANK M. ASHLEY.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."