2 Sheets Sheet 1.

S. Darling,
Inkstand.

No. 68588. Patented Sep. 3. 1867

Fig 2

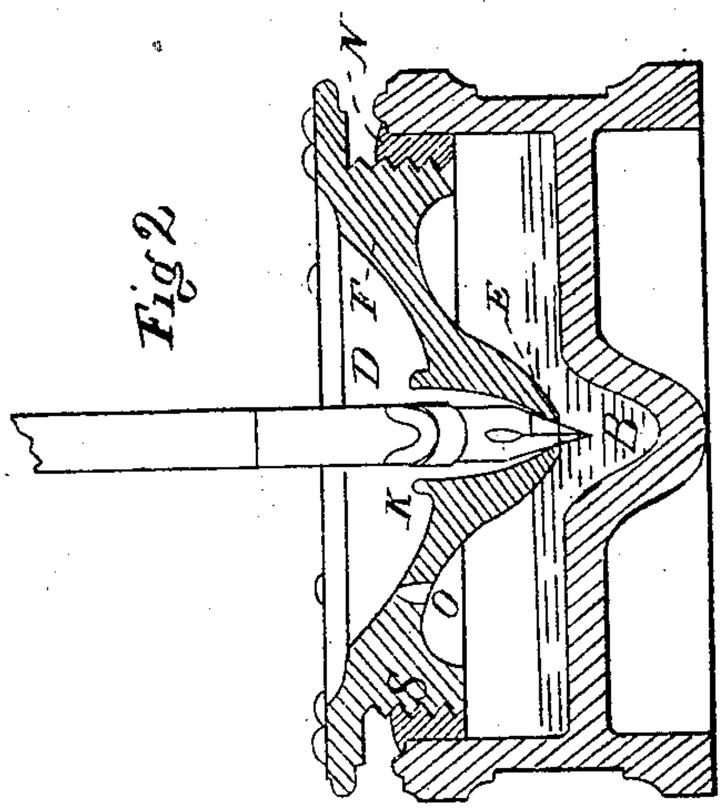
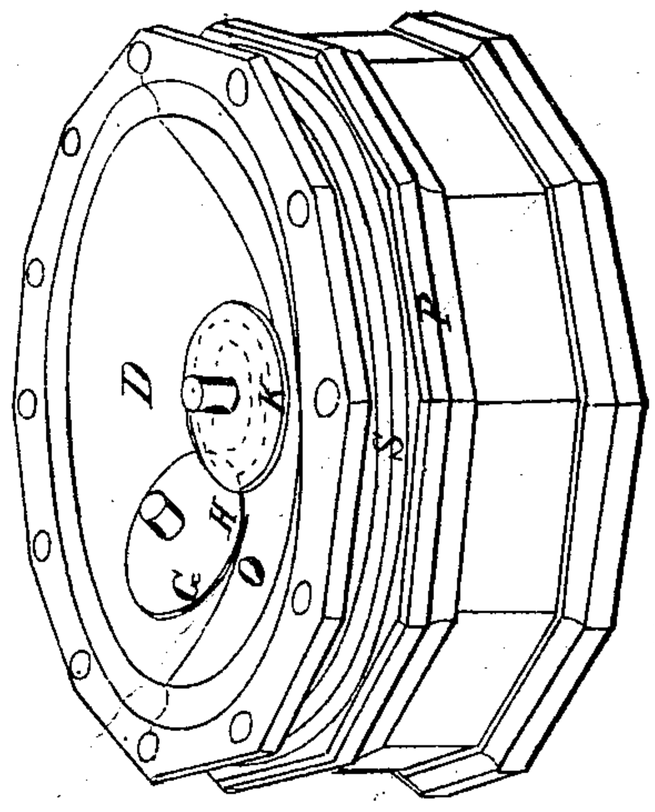


Fig 1.



Witnesses
Jno. L. Patton
Chas. E. Wilson

Samuel Darling
By Atty. Henry S. Hall

2 Sheets Sheet. 2.

S. Darling,
Inkstand.

No. 68588. Patented Sept. 3. 1867.

Fig 3

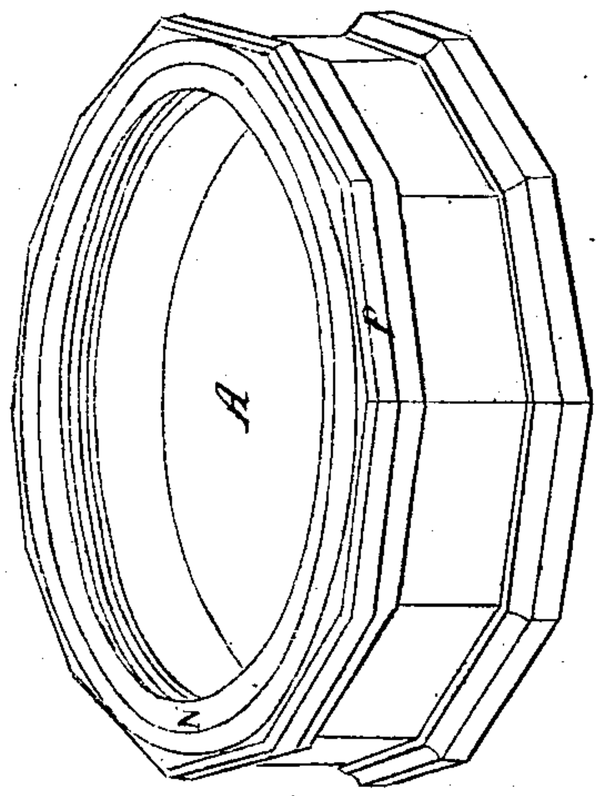


Fig 4

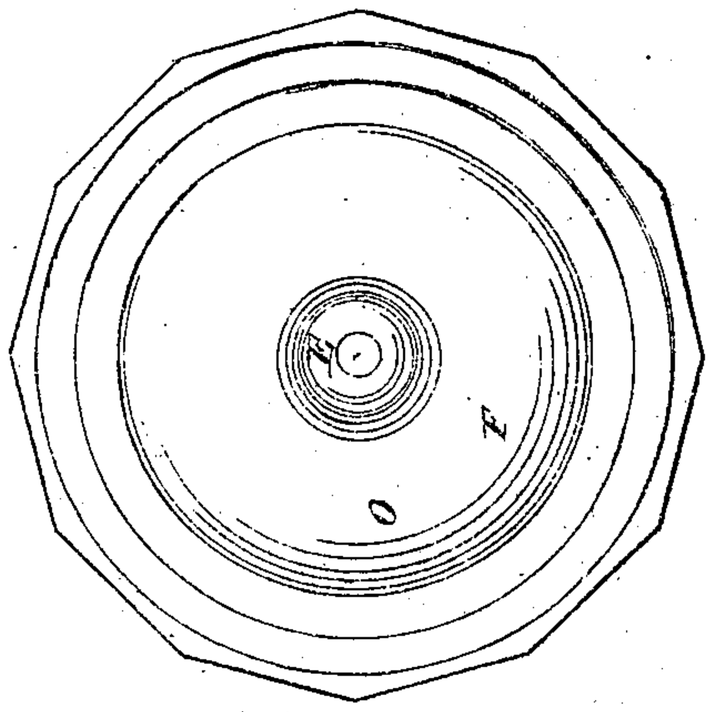


Fig 5

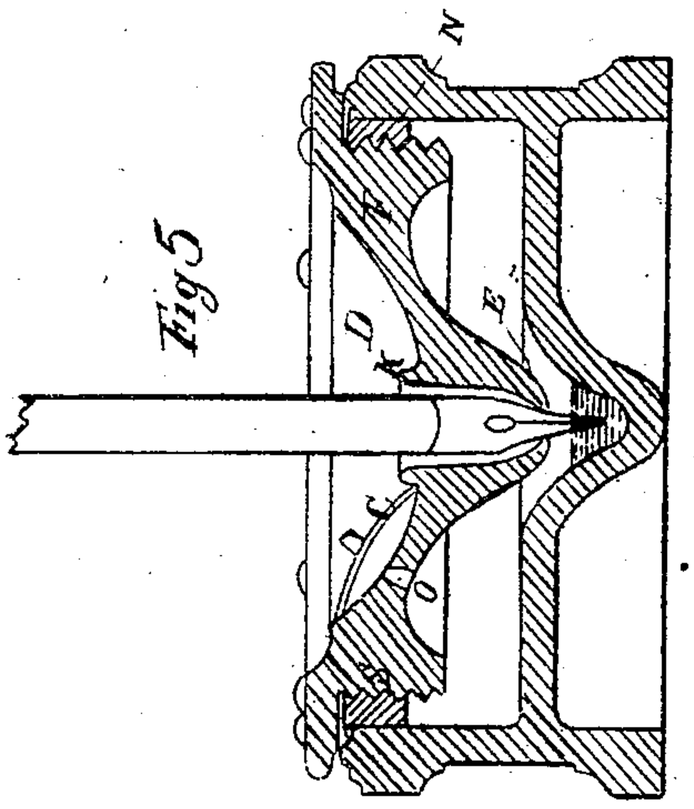


Fig 6

Witnesses: Jno. D. Patterson, Chas. C. Wilson

Samuel S. Darling, By atty. Henry E. Hall

United States Patent Office.

SAMUEL DARLING, OF BANGOR, MAINE.

Letters Patent No. 68,588, *dated September* 3, 1867.

INKSTAND.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, SAMUEL DARLING, of Bangor, in the county of Penobscot, and State of Maine, have invented certain new and useful improvements in Inkstands, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 represents a view in perspective of an inkstand embracing my improvements.

Figure 2 represents a vertical section through the middle of the same, with a pen inserted.

Figure 3 represents a perspective view of the reservoir, with the follower removed.

Figure 4 represents the under side of the follower.

Figure 5 represents a vertical section through the middle of the stand when the follower is at its lowest position, and the ink too low for use, with a pen inserted.

Figure 6 represents a perspective view of the cover.

There are three important qualities that should be combined in every inkstand. The first is a form that can be conveniently supplied with ink, and cleansed when it becomes foul; another is to expose no more ink to the deleterious action of the open atmosphere than is necessary for the insertion of the pen; and the third is to have a gauge that will practically insure a uniform supply of ink to the pen.

In nearly all of the stands heretofore made there is a large surface of ink exposed to the open air, by which it is evaporated rapidly, and otherwise injured. Doubtless there is more ink lost in that way than there is used in writing, and in the great variety of inkstands in use there are none, except one, which is not adapted to general use, that have a reliable gauge to regulate the depth of dip, and writers have to use too much care in supplying their pens with ink, or resort to the common but disagreeable practice of throwing off the surplus ink, which wastes more than is used, and defaces whatever it may fall upon.

My improved inkstand differs from all others in having a broad open reservoir, and a concave follower that can be readily adjusted to any depth of ink in the reservoir; and this follower is so constructed that when in the proper position relative to the ink, it protects it from the action of the open atmosphere, and makes a perfect gauge to regulate the supply of ink to the pen, while the ink practically remains at its natural level.

The stand, or at least those portions of it that come in contact with the fluid, may be made of any suitable material which does not have an injurious effect upon ink. Glass is one of the best materials, and probably the cheapest to manufacture this stand of.

The cavity A, fig. 3, forms the ink reservoir, which is depressed in the centre, as shown at B, fig. 2, to clear the point of the pen when the follower F is at its lowest position, and to serve as a receptacle for any deposit that may take place from the ink. I make the pen gauge E, figs. 2 and 5, a little smaller at the lower end than a pen, in order that such portion only of the nib of the pen as is desirable shall be permitted to pass beyond the lowest point of the gauge; this enables the writer to regulate the supply of ink to his pen with facility and accuracy, by lowering or raising the follower F, which contains the pen-gauge E.

I make the reservoir A quite large, say from three to four inches in diameter, for the following purposes: first, that the ink may be used a sufficient length of time without the need of adjusting the pen-gauge; and secondly, that the upper portion of the follower may be lowered to carry the pen-gauge down sufficiently to enter the ink at a proper depth, whatever the existing supply may be, without ever bringing the screw in contact with the ink, and at the same time have the top of the gauge-cup in plain sight of the writer when the stand is used on high desks, and without having to make the gauge-cup too deep for convenience. The concave follower F may be held in position in the reservoir A, and raised and lowered by means of a screw or its equivalent, or by being inserted in a tight packing, or otherwise, so as to admit of a gradual lowering or raising at will. It is cheaper to make the screw-nut N, which is on the inside of the reservoir, of soft metal, and to attach it to the glass by means of plaster of Paris, cement, or any of the known methods of doing such work, than it is to make it in the glass.

Lead and antimony make a very good composition for such a screw, when ten parts of lead to one of antimony are used. The screw on the follower may be easily made in the glass. I extend the pen-gauge E below the screw S, to prevent the screw or other parts of the follower from coming in contact with the ink.

A vent-hole, O, is made in the follower, that the ink in the reservoir may always stand practically at its natural level. Without a vent, the air contained between the follower and the ink would operate the same as a

solid plunger, and force the ink up into the gauge-cup E, above the level of the ink in the reservoir, which would be contrary to the principle upon which this inkstand is to operate, which principle is, that the follower F, which contains the pen-gauge E, is to be so arranged as to follow the ink in its descent by use, without coming in contact therewith, or practically raising it above its natural level.

The area of the ink-fountain A is so large that when the ink stands at its natural level, it is lowered very slowly by common writing, and but a very small surface of ink in the gauge-cup is exposed to the action of the open atmosphere; but when, as in some inkstands of different construction, the ink in the gauge-cup is forcibly raised above the level of the ink in the fountain, the writer is in such case obliged to adjust the gauge-cup very frequently, or raise the ink higher in the cup, because the drain or consumption of ink is then entirely from the small quantity only which is contained within the cup, and not, as in my inkstand, from the whole contents of the reservoir; and when the ink is thus raised in the cup a larger surface than necessary is liable to evaporation by exposure to the air; the pen would dip too deep, and the valuable results flowing from my peculiar construction could not be attained.

The vent O may be made quite small; one-twentieth of an inch in diameter is sufficiently large. To prevent ink or other liquids from being held in the vent-hole by capillary attraction, I make the part through which it passes very thin, by countersinking the under side. When the vent is of the size above described, the evaporation of the ink through it is not sufficient to injure the ink to any perceptible degree for a long time.

I make a circular rib at the top of the gauge-cup, as shown at K, first, for the purpose of making the cup more easily seen by the writer, secondly, for the purpose of preventing the dust that gathers upon the upper concave surface of the follower from sliding into the gauge-cup; and thirdly, for holding the inverted saucer-shaped cover C, fig. 1, when removed from the gauge-cup, as shown at H.

By means of rib K, and the dishing upper surface of the follower F, shown at D, figs. 1, 2, and 5, the cover can be opened with great convenience, when the pen is taken up, by a light touch of the pen upon it or its centre knob, and closed with a light touch of the pen-holder or hand when the pen is laid down upon the stand. The gravitation of the cover C, when thus relieved from its detention by the rib, causing it to settle towards the centre of the dish, to rise over one side of the rib, and be by it so guided and restrained as to assume with unerring certainty a central position, and so cover the opening. There are other modes of operating the cover with the pen-holder, when it is taken up and laid down, one of which is to provide the cover with upright pieces, between which the pen-holder may be laid, and the cover moved either way by side motion of the hand, when the pen is laid down and when it is taken up; but I do not consider this so practical as the former.

The cover may be made of any suitable material. The reservoir may be supplied with ink through the gauge-cup E, or by removing the follower, and pouring it directly into it.

To prevent the plaster of Paris or other material with which the nut N is fastened into the reservoir from showing through the glass, I color or paint, in any desirable color, an opaque belt or ring upon the inner surface of the reservoir, as shown at P, figs. 1 and 3, and then burn the same in upon the glass, in any of the modes well known to glass manufacturers. The nut N being now inserted, this belt not only prevents the material which fastens the nut from injuring the appearance of, but becomes itself an ornament to the stand.

I do not claim an inkstand having a central dipping-cup in a follower that is capable of being lowered as the ink is used, when said follower acts as a plunger, by forcing the ink up into the cup above the level of the ink in the reservoir, and when the ink-fountain has no recess at the bottom, substantially like the one in mine, and for the purpose herein set forth; neither do I claim broadly the invention of a pen-gauge and recess under it, for that I have secured in a former patent, but—

I claim an ink reservoir, having a central recess or depression, in combination with a follower, having a gauge-cup projecting so much below the body of the follower as to admit of being inserted sufficiently into the ink, whilst the body of the follower is always above the ink.

I also claim the rib K, as arranged in cavity D, in combination with the cover C, substantially as and for the purposes described.

I also claim the opaque belt or band on the interior of the reservoir, in combination with the plaster of Paris or its equivalent, as and for the purposes specified.

SAMUEL DARLING.

Witnesses:
JOHN E. HALL,
A. W. PAINE.