S. Darling.
Inkstand.

No. 49,993. Patented Aug. 1, 1865.

Fig: 1.

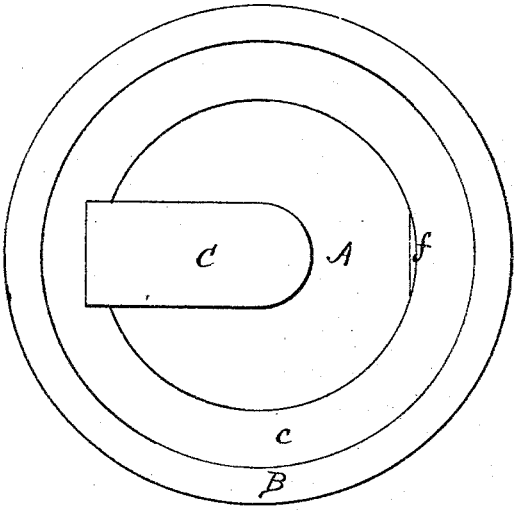


Fig: 4.

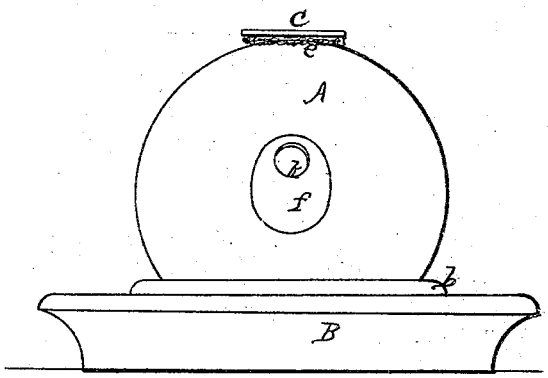


Fig: 5.

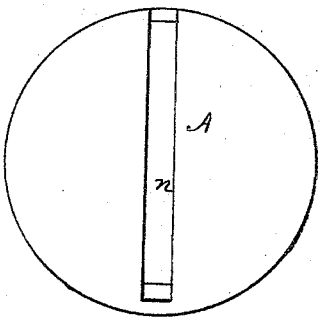


Fig: 2.

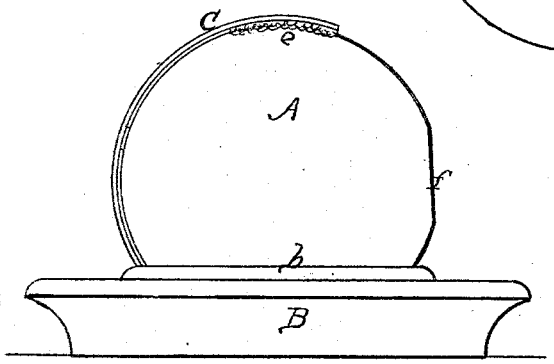
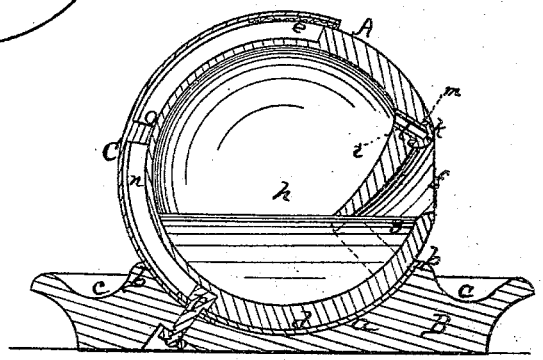


Fig: 3.



UNITED STATES PATENT OFFICE.

SAMUEL DARLING, OF BANGOR, MAINE.

IMPROVEMENT IN INKSTANDS.

Specification forming part of Letters Patent No. **49,093**, dated August 1, 1865.

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 an Improved Inkstand; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 denotes a top view, Fig. 2 a side elevation, Fig. 3 a vertical section, and Fig. 4 a front elevation, of it. Fig. 5 is a rear view of its globular ink holder or fountain.

In my improved inkstand as constructed in the manner represented in the drawings, the fountain or reservoir A for holding the ink is exhibited as a hollow sphere resting in a concavity or socket, *a*, formed concentrically within a dish or stand, B, and in a projection, *b*, surrounded by an annular trough, *c*. A cushion or piece of leather, cloth, india-rubber, or other suitable substance, *d*, serves as a lining to the socket, and for supporting the fountain A. From the said socket a curved spring, C, is extended upward and partially circumscribes the spherical fountain A, and has a cushion, *e*, which, by the elastic power of the spring, is borne upon the upper surface of the said fountain. Furthermore, there is a niche, *f*, made within the fountain, and from its outer surface. A pen-passage, *g*, leads out of the bottom of the niche and into the ink chamber or space *h* of the fountain A. There is also another hole, *i*, leading out of the space *h* of the said fountain and into the upper part of the niche *f*, such hole *i* being provided with a stopper, *k*, which is constructed with a bore or air-passage, *l*, of about a hundredth of an inch in diameter at its outer end. A small annular washer, *m*, surrounds the stopper *k*, and is interposed between its head and the upper surface of the niche. A long groove, *n*, is made in the back of the spherical fountain A, and receives two studs, *o p*, projecting from the spring C, the object of such groove and studs being not only to guide the fountain in a vertical plane while it may be in the act of being revolved on its seat, but to arrest its motion when the niche may be at either of the extremes of movement of the fountain, the extent of upward movement of the fountain being so limited as to cause the spring C to extend entirely over and cover the niche when the stud *o* may be in contact with the upper extremity of the groove *n*.

Preparatory to supplying the fountain with ink the plug or stopper *k* should be drawn out of the hole *i*, and such fountain should be revolved so as to bring its niche nearly up to the spring. This having been done, the ink should be poured into the niche so as to run into the pen-hole or mouth *g*, and thence into the space *h*. In the meantime air will escape from the said space *h* and through the hole *i*. Next the stopper *k* should be inserted in the said hole and the fountain be revolved until the ink may rise within the pen-hole *g*. Afterward, as the ink may be diminished in quantity the fountain may be turned so as to maintain the ink at or about at the same level in the pen-hole.

While the air-hole *i* is essential for the proper escape of air during the operation of supplying ink to the fountain, the smaller air-hole—that is, the one in the plug—is for the purpose of preventing much of the evaporation of the ink, which would otherwise be likely to take place—that is, were the hole *i* left open. The smaller hole also allows the escape of air during any expansion of the air occasioned by any increase of temperature. Were it not for the said air-vent *l*, the ink by such expansion of the air would be liable to be forced out of the niche. The air-hole *l*, being so very small, will also operate to prevent ink from being discharged or thrown out of the inkstand by any sudden motion of the latter, and, besides, in consequence of the arrangement of the air-hole *i*—that is, within the upper part of the niche—any ink which may be accidentally blown out of such hole during escape of air will be discharged or will run into the niche, and from thence back into the reservoir *h*. Again, by having the hollow plug, the niche-hole *i* for its reception will by it be kept clear of deposits of ink, and the smaller vent-hole in the plug may be easily cleaned out at any time should it become obstructed.

The peculiar construction of the fountain—viz., with a niche arranged in it, as described—is preferable on some accounts to making it with a projecting spout or nose, which, it will readily be seen, would not pass underneath the spring, and would require the spring to be

provided with a cover projecting from it. By means of the seat and the spring the fountain will be preserved in its place in the stand or dish without requiring any journals and bearings, as do most, if not all, other ink-fountains which revolve, in order to keep the ink at the proper level in the pen-passage.

What I claim as my invention is as follows—that is to say:

1. The combination of the concave socket *a* and the friction-spring C with the ink-fountain A and its stand B, such ink-fountain being capable of being revolved within the said socket, as and for the purpose hereinbefore explained.

2. The combination of the niche *f*, the fountain A, the stand B, and the spring C, whereby the spring is made to answer the twofold purpose of a cover to the niche and a means of holding the fountain in its seat under circumstances as above specified.

3. The combination of the groove *n* and the studs *o p*, or their mechanical equivalents, with the pressure-spring C and the fountain A, so applied to the stand as to be capable of being revolved therein, substantially as specified.

4. The arrangement of the ventilating-stopper *k* and the vent-hole *i* for its reception with the niche *f* and the fountain A, the whole being substantially as set forth.

SAMUEL DARLING.

Witnesses:
R. H. EDDY,
F. P. HALE, Jr.