F. Draper.

Inkstand.

No. 7,885. Patented Jan. 7, 1851.

Fig. 2.

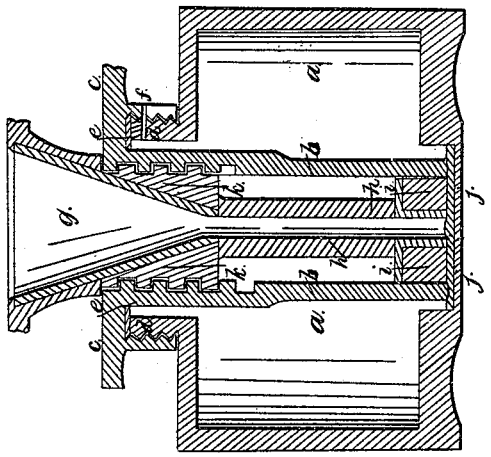
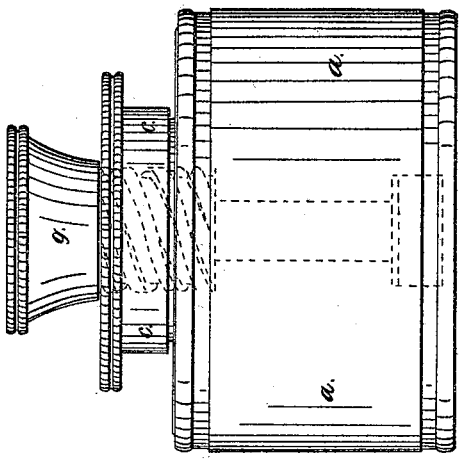


Fig. 1.



UNITED STATES PATENT OFFICE.

FRANCIS DRAPER, OF EAST CAMBRIDGE, MASSACHUSETTS.

FOUNTAIN-INKSTAND.

Specification forming part of Letters Patent No. 7,885, dated January 7, 1851; Reissued April 2, 1861, No. 1,164.

To all whom it may concern:

Be it known that I, FRANCIS DRAPER, of East Cambridge, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Inkstands, and that the following description, taken in connection with the accompanying drawings hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements by which my invention may be distinguished from others of a similar class, together with such parts as I claim and desire to have secured to me by Letters Patent.

The figures of the accompanying plate of drawings represent my improvements.

Figure 1 is a side elevation of my improved inkstand with some of the hidden parts shown by dotted lines and Fig. 2 is a vertical section of the same taken through the center.

In the construction of modern inkstands, various devices have been used to keep the air from the large body of ink in the fountain, so as to prevent the evaporation of the acid ingredients, which evaporation makes the ink too thick for use; also to prevent the liability of the ink in the cup to overflow by reason of the expansion of the air in the fountain when the inkstand is left exposed to the sun or the atmosphere of a very warm room. All the various contrivances which have been used to secure these ends, have either worked very imperfectly or been attended with other inconveniences which more than compensated their advantages.

By my improvements I shut off the main portion of the ink in the fountain from that in the tube by having the tube through which the ink is flowed or pressed into the cup, extended down, (sometimes through a cylinder and sometimes not) to the bottom of the inkstand, and having a piece of cork or other similar substance fitted on its end which bears against a similar piece of cork fitted in the bottom of the inkstand and by screwing the tube (and cylinder when it is used) down so as to have the cylinder or cork on the end of the tube pressed against the cork in the bottom of the fountain the main body of ink in the fountain is entirely cut off from that in the tube.

In the drawings *a a* represents the main fountain or cylinder, which may be made of any substance which ink will not corrode. A circular space at the center of this fountain is countersunk as shown in Fig. 2 and a washer or circular layer of cork *j j* fitted therein. *b b* is the inner cylinder of much less diameter which is open at the bottom and is cast in one piece with the screw cap *c c* which screws on to the neck *d d* of the cylinder *a a* as shown in Fig. 2 and has a proper ring washer at *e e* which fits on the top of said neck and makes it air tight. There is a small hole at *f* in the screw cap *c c* through which the air is admitted to the main fountain when desired.

The tunnel shaped cup *g* has the tube *h h* extending from its bottom to the bottom of the inkstand, and the lower end of said tube is fitted with the cork *i i* which bears against the layer of cork *j j* fitted in the bottom of the inkstand as above described; and this cork *i i* operates as a piston in the cylinder *b b*. The cup *g* is formed with a proper double threaded male screw *k k* which works in a corresponding female screw cut on the interior of the upper part of the tube *b b*, as shown in Fig. 2.

In order to get the ink into the cup it will be necessary to raise the same a little first by turning the screw *k k* a little, then unscrew the cap *c c* a little so as to let the air into the main fountain through the hole *f*, (then by turning the screw *k k* of the cup down again) (after the cap *c c* is screwed down) the ink will be pressed up into said cup, while at the same time, the communication with that in the fountain will be cut off.

It will be evident, that the essential feature of my improvement may be availed of, and yet the use of the cylinder *b b* may be dispensed with altogether or not be extended to the bottom of the fountain, but the arrangement will not be so good as that I have described. The said essential feature is the device by which the small portion of ink wanted for use in the cup and its tube, is shut off from that in the main fountain, and the air prevented from entering the latter to evaporate it &c. It is well to suggest also that the cork or stopper on the bottom of the cup tube may be dispensed with and said bottom pressed directly against the layer of cork in the bot-

tom of the fountain and so cut off the communication with the ink in said fountain. By adopting either of these several similar modes of cutting off the communication of the cup with the fountain it will be apparent, that one great advantage is secured over all other modes of breaking the said communication, and that is, that in my arrangement, the heat of the room or from the sun will not cause the ink in the cup to overflow as in all other cases it does.

Having thus described my improvements I shall state my claim as follows.

What I claim as my invention and desire to have secured to me by Letters Patent is—

1. The arrangement for cutting off the communication between the cup and the main fountain of ink by means of a layer of cork or other similar substance in the bottom of said fountain and a cork or other similar stopper fitted on the bottom of the cup tube or the lower end of said extended cup tube pressing against said layer as set forth.

2. In combination with the above specified arrangement, the inner cylinder in which said stopper moves as a piston, by which the air is more effectually excluded from the main fountain of ink.

FRANCIS DRAPER.

Witnesses:
ESRA LINCOLN,
JOSEPH GAVETT.

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