

No. 826,263.

PATENTED JULY 17, 1906.

J. McCLOSKEY.
INKSTAND.

APPLICATION FILED SEPT. 30, 1905.

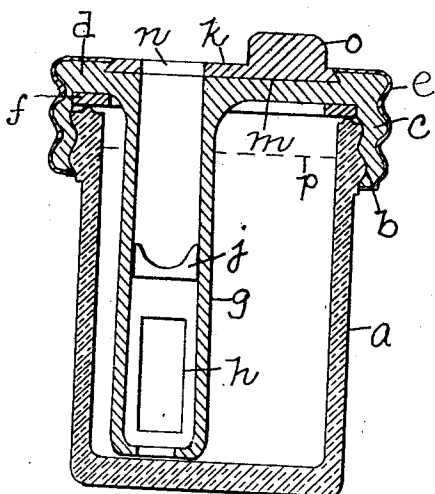


Fig. 1.

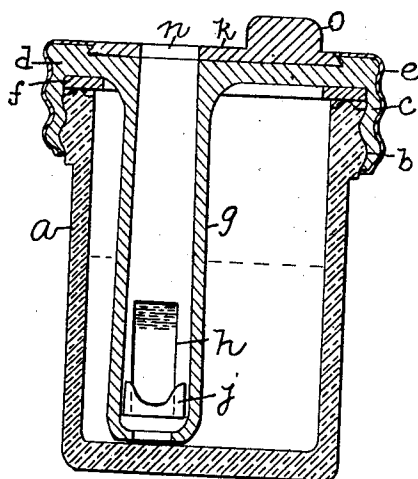


Fig. 2.

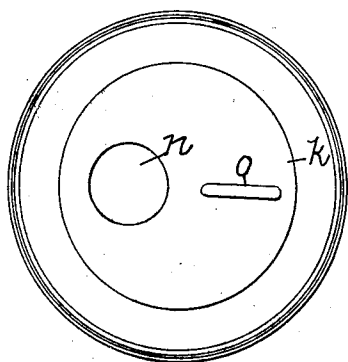


Fig. 3.

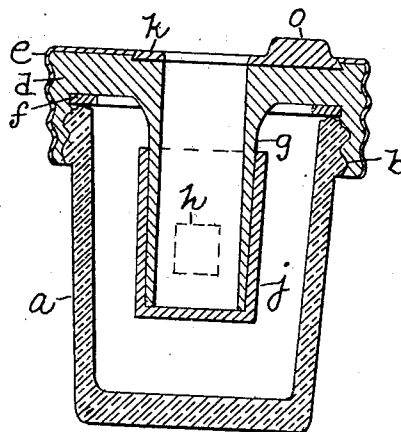


Fig. 4.

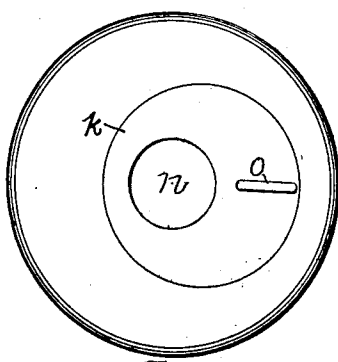


Fig. 5.

Witnesses.

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JOHN McCLOSKEY, OF BOSTON, MASSACHUSETTS.

INKSTAND.

No. 826,263.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN McCLOSKEY, a citizen of the United States, residing in Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Inkstands, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to inkstands more particularly designed and adapted, among other uses, to be employed in schools, offices, and like places, and has for its object to provide a simple and efficient inkstand, as will be described, in which a liquid-tight joint is effected between the ink-well and its cover by means of a washer which is unaffected by the ink and in which the ink-well may be sealed, until used, by a valve, as will be described. These and other features of this invention will be pointed out in the claims at the end of this specification.

Figure 1 is a vertical section of an inkstand embodying this invention, showing the valve in its closed position; Fig. 2, a like view with the valve in its open position; Fig. 3, a plan of the inkstand shown in Fig. 1; Fig. 4, a vertical section of a modification to be referred to, and Fig. 5 a plan of the inkstand shown in Fig. 4.

Referring to Fig 1, the body portion or ink-well *a*, of glass or other suitable material, is provided at its upper end on the outer side thereof with screw-threads *b*, with which co-operate an internally-threaded flange *c* of a cover *d*, of non-metallic material—such as indurated fiber, porcelain, or like material—having a protecting shield or outer covering *e*, of metal. Between the cover *d* and the well *a* is interposed a washer *f* of a character which is unaffected by the ink and which forms a liquid and air tight joint between the cover and ink-well. The washer *f* may and preferably will be made of blotting-paper or like fibrous material impregnated or saturated with paraffin or like waxy material, which I have demonstrated to be of especial value to prevent the ink passing from the inside to the outside of the ink-well and between the latter and the threaded flange of the cover, thereby preventing the cover being cemented or fastened to the ink-well so firmly as to render it difficult to remove the cover when it is desired to clean out the ink-well, and thus avoiding injury to

the person cleaning the ink-wells by being cut by breaking of the glass well in the attempt to remove the cover, which has occurred with ink-wells in which a liquid and air tight joint between the cover and the well has not been effected. The washer, of fibrous material, saturated with paraffin or like waxy material, also prevents loss of wells by breakage of the same in removing the covers. The cover *d* is provided on its under side with a depending air-inlet tube or pipe *g*, which communicates at its upper end with the atmosphere and at its lower end with the ink-well. As shown in Fig. 1, the tube *g* is provided with a port or opening *h* near its lower end, through which the ink from the well may pass into the tube, and the latter is made tapering on its inner side, the interior of the tube being smaller at the top than at the bottom. Within the tube is located a sliding plug or valve *j*, which is of such size as to form a liquid and air tight joint with the tapering walls of the tube above the port or opening therein, as represented in Fig. 1. The valve *j* is designed to be pushed down in the tube below the port or opening *h* when it is desired to use the ink-well. The open upper end or mouth of the tube *g* has coöperating with it a dust guard or shield which consists of a circular disk or plate *k* of suitable material and which is set into a circular recess or socket *m* in the upper surface of the cover *d*. The shield or guard *k* is provided with an opening *n*, which coöperates with the upper mouth of the tube *g* and registers therewith when it is desired to use the ink-well, and by turning the guard or shield in its socket the opening *n* may be moved out of line with the tube and a solid part of the guard or shield brought into line therewith to close the upper mouth of the tube and prevent the entrance of dust into the tube when it is not desired to use the ink-well. The guard or shield may be provided with a projection *o*, which forms a handle to facilitate turning the guard or shield.

In Fig. 1 the valve *j* is located within the tube; but I do not desire to limit my invention in this respect, as the valve may be located on the outside of the tube, as represented in Fig. 4, wherein the valve *j* is made in the form of a cup or thimble having downwardly-tapering inner walls which coöperate with correspondingly-tapering outer walls of the tube *g*. The valve *j* in Fig. 4 normally

covers the bottom of the tube *g* and also the port or opening *h* therein, and when it is desired to use the ink-well the thimble-valve may be pushed down and rest upon the bottom of the well, in which position the port *h* is uncovered to allow the ink to flow into the tube.

In Fig. 4 the tube *g* is shown substantially central with relation to the cover and well, and the guard or shield is arranged eccentrically thereto, as clearly shown in Fig. 5, whereas in Fig. 1 the guard or shield is arranged concentrically with relation to the cover and well, as clearly illustrated by Fig. 3. These arrangements of the guard or shield are especially useful as object-lessons when the ink-wells are used in schools, as the terms "concentric" and "eccentric" may be illustrated thereby.

With the construction shown in Fig. 1 the ink in the well *a* is prevented from passing up into the tube *g* beyond the valve *j*, and the ink is forced up in the well according to the amount displaced by the tube *g*. In Fig. 1 the ink in the well is represented by the dotted line *p*, while the height of the ink in the tube *g* is represented by the bottom of the valve *j*. The cover is screwed down until a liquid-tight joint is made by the washer between said cover and well. The ink-well is now in condition to be used, and the valve *j* is pushed down in the tube *g* into the position represented in Fig. 2. When the valve *j* is pushed into its inoperative position, the ink does not rise in the tube *g*, owing to the fact that the air-pressure in the tube is equal to the air-pressure in the ink-well above the liquid, and the ink-well is sealed against the admission of air at the cover by the washer *f* and at the opening *h* by the ink. As the ink is used it is lowered in the tube *g* until the port *h* is uncovered at its upper end, whereupon air passes from the tube into the ink-well until the level of the ink in the tube *g* is raised sufficiently to seal the port *h*, whereupon further admission of air is cut off by the ink until the column in the tube *g* is again lowered by use, so as to uncover the port *h* and admit a fresh amount of air sufficient to again seal the said port. In this manner the level of the ink in the well *a* is gradually lowered, as represented by the lower dotted line in Fig. 2. The operation is the same in Fig. 4.

The inkstand herein shown is especially adapted for use in schools, as a very material saving in time is effected in cleaning the well, which result is accomplished without danger of cutting or injuring the hand and also without breaking the ink-wells, because the paraffined washer prevents the ink getting between the well and the flange *c* on the cover, which in time would practically cement the same together, rendering it very difficult to remove the cover from the well.

The cover of non-metallic material may be

made of fibrous material saturated with paraffin or like waxy material, in which case the washer may be omitted.

I claim—

1. In an inkstand, in combination, an ink-well provided with screw-threads on its exterior, a cover for said well having a screw-threaded flange to engage the screw-threads on the well and provided with a tube extended into said well and with a recess on its upper surface, said tube having a port or opening communicating with said well, a valve cooperating with said port or opening to seal the same, a washer of fibrous material impregnated with paraffin interposed between said well and cover to form a fluid-tight joint unaffected by the ink, and a circular dust-guard or shield cooperating with the upper end of said tube and rotatable in the recess in said cover, substantially as described.

2. In an inkstand, in combination, an ink-well, a cover therefor having a tube attached thereto and extended into said well, said tube having its upper end in communication with the atmosphere, means to secure said cover in fixed relation to said well, and a valve in frictional air-tight engagement with the walls of said tube below its upper end prior to the insertion of said tube in said well, said valve being capable of being displaced from outside of said well, substantially as described.

3. In an inkstand, in combination, an ink-well, a cover therefor having a tube attached thereto and extended into said well and having a port or opening below its upper end, said tube having its upper end in communication with the atmosphere, means to secure said cover in fixed relation to said well, and a valve located in said tube above the said port or opening and in frictional air-tight engagement with the walls of the said tube prior to its insertion into said well, said valve being capable of being displaced from outside of said well, substantially as described.

4. In an inkstand, in combination, an ink-well, a cover therefor, means to form a liquid-tight joint between said cover and well, a tube attached to said cover and extended into said well, means to secure said cover in fixed relation to said well, and means detachably secured to said tube to mechanically seal it against the passage of air through said tube prior to the insertion of said tube into said well, said means also acting to seal the tube against the passage of ink up into said tube above a point below its upper end while said cover is being placed on said well, substantially as described.

5. In an inkstand, in combination, an ink-well, a cover therefor, means unaffected by ink to form a liquid-tight joint between said cover and well, a tube attached to said cover and extended into said well, means to secure said cover in fixed relation to said well, and means to mechanically seal said tube against

the passage of the ink into said tube beyond a predetermined point while said cover is being placed on said well, substantially as described.

6. In an inkstand, in combination, an ink-well provided with screw-threads on its exterior, a cover for said well having a screw-threaded flange to engage the screw-threads on the well and provided with a tube extended into said well, a washer unaffected by ink interposed between said cover and well to form a fluid-tight joint between said cover and well, and a valve in frictional, air-tight engagement with the walls of said tube prior to its insertion into said well, said valve being capable of being displaced from outside said well, substantially as described.

7. In an inkstand, in combination, an ink-well, a cover therefor having a fixed relation thereto when in its closed position and provided with a tube extended into said well, means to form a fluid-tight joint between said cover and well when said cover is in its closed position, and a valve to mechanically seal said tube prior to its insertion into said well and capable of being displaced from outside of said well, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN McCLOSKEY.

Witnesses:

JAS. H. CHURCHILL,
J. MURPHY.