

No. 876,225.

PATENTED JAN. 7, 1908.

E. J. OSGOOD.
INKSTAND.

APPLICATION FILED MAY 3, 1907.

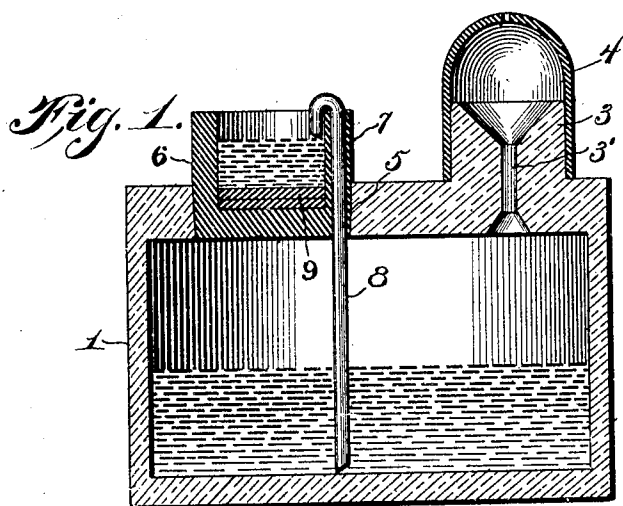


Fig. 2.

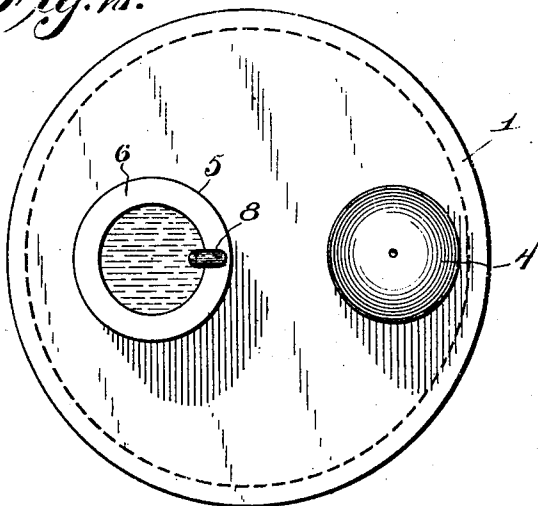
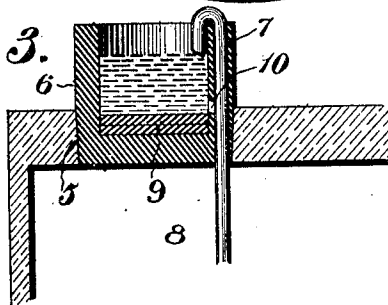


Fig. 3.



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ERNEST J. OSGOOD, OF OAKLAND, CALIFORNIA.

INKSTAND.

No. 876,225.

Specification of Letters Patent.

Patented Jan. 7, 1908.

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To all whom it may concern:

Be it known that I, ERNEST J. OSGOOD, a citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented new and useful Improvements in Inkstands, of which the following is a specification.

This invention relates to inkstands of that type wherein the ink is supplied from time time from a reservoir to a comparatively small well, by compressing a bulb connected with the reservoir for increasing the air pressure therein and expel a certain quantity of ink, and it relates more particularly to improvements in an inkstand of that form disclosed in the United States Letters Patent, No. 811,430, granted to me on January 30, 1906.

The invention has for one of its objects to improve and simplify the construction and operation of devices of this character so as to be comparatively easy and inexpensive to manufacture, thoroughly reliable and efficient in use and composed of comparatively few parts.

A further object of the invention is the provision of a supply tube between the reservoir and well which is in the form of a siphon whereby the surplus ink supplied to the well is siphoned back into the reservoir immediately upon removal of pressure from the bulb.

A still further object is the employment of a well having a removable siphon tube that constitutes a stopper or valve for a drain port at the bottom of the well whereby the ink in the well can be permitted to flow back into the reservoir of the inkstand, should occasion require.

With these objects in view and others, as will appear as the description proceeds, the invention comprises various novel features of construction and arrangement of parts which will be more fully described herein-after and set forth with particularity in the claims appended hereto.

In the accompanying drawings, which illustrate one of the embodiments of the invention: Figure 1 is a central vertical section of the inkstand. Fig. 2 is a plan view thereof. Fig. 3 is a detail sectional view of a modification.

Similar reference characters are employed to designate similar parts throughout the several views.

Referring to the drawing, 1 designates the

reservoir of the inkstand which may be of any suitable form and material and preferably, although not necessarily constructed in one piece. In the present instance the reservoir is represented as glass and molded with a boss tube 3 having an air opening or passage 3' and serving to receive a bulb or air compressor 4. In the top of the reservoir at one side of the bulb is an opening 5 which is preferably ground and receives a stopper 6 that constitutes the well proper. This well which may be made of hard rubber or other suitable material is in the shape of a cup and snugly fits the opening 5 so that the reservoir will be comparatively air tight.

Extending vertically through the cylindrical wall of the well 6 is an opening or passage 7 bored therein and snugly fitting in the opening 7 to make an air tight joint is a supply tube 8 for conducting ink from the reservoir to the well. The supply tube or duct is made of any suitable material and has its lower end beveled and in contact with the bottom of the reservoir so as to effectively supply the ink when the latter is at a very low level, while the upper end projects above the well and is bent inwardly and downwardly therein to constitute a siphon for automatically lowering the level of the ink in the well should too much be accidentally pumped thereto. The tube is removable with the well when the latter is taken out for filling or emptying and cleaning the reservoir and if desired the supply tube or siphon can be removed from the well if such is found desirable. Since the upper end of the supply tube is curved downwardly there is no danger of the pen being accidentally injured by striking on the same and furthermore, to protect the point of the pen from the comparatively hard bottom of the well a protecting disk 9 of rubber or the like may be placed in the bottom of the well, and by inserting one or more of these disks the depth of ink in the well and, hence, the amount taken up by the pen can be adjusted to suit the users taste.

By reference to Fig. 3, it will be seen that the well 6 is provided with a drain port 10, which leads into the passage 7 that receives the siphon or supply tube and this port is normally closed by the siphon which constitutes a valve. When the siphon or supply pipe is in normal position the port is closed so that ink will be contained in the well and when it is desired to empty the well

the siphon is removed, thereby opening the drain port to permit the ink to pass back into the reservoir.

In practice the combined well and stopper is removed from the filling and emptying opening 5 so that a charge of ink can be supplied to the reservoir and after which the well is tightly inserted in the opening, the ground joint serving to prevent the escape of air. In order now to supply ink to the well, the bulb 4 is compressed and expanded successively the desired number of times so as to increase the air pressure in the reservoir and thereby displace a certain quantity of ink into the well through the supply pipe or siphon. Should the quantity of ink be excessive, the pumping action is stopped and the superfluous ink will siphon back to the reservoir. It will thus be seen that the ink can automatically return to the reservoir by the action of the siphon, the effective depth of ink in the well being that between the top surface of the protecting disk 9 and the upper turned down end of the siphon.

From the foregoing description, taken in connection with the accompanying drawing, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains and while I have described the principle of operation of the invention together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative and that such changes may be made when desired as are within the scope of the claims.

Having thus described the invention, what is claimed as new, is:—

1. In a device of the class described, the combination of a well, a reservoir provided with an opening into which the well fits, and a tube on the well in the form of a siphon for permitting any superfluous ink to pass back to the reservoir from the well, with a device for creating an air pressure in the

reservoir to supply ink to the well through the siphon.

2. In a device of the class described, the combination of a reservoir, a well thereon, a removable supply tube or siphon between the well and reservoir, and a device on the reservoir for controlling the air pressure therein to effect the supply of ink to the well and the return of the superfluous ink from the well to the reservoir through the siphon.

3. In a device of the class described, the combination of a reservoir having an opening for permitting the same to be filled or emptied, a well fitted therein, a siphon on the well having its lower end communicating with the bottom of the reservoir and its upper end extending into the well, and means communicating with the reservoir to change the air pressure therein for effecting the flow of ink to the well or the return of the excessive ink thereof through the siphon.

4. In a device of the class described, the combination of a reservoir having an air passage and an opening, a bulb connected with the passage to change the pressure of air in the reservoir, a stopper for the opening in the form of a well, a siphon communicating with the well and reservoir, and one or more members in the well for regulating the depth of ink in the well and to serve as a protector for the pen during insertion into the well.

5. In a device of the class described, the combination of a reservoir, a well carried thereby, a siphon between the well and reservoir and removably mounted, and a drain port between the well and reservoir and normally closed by the siphon.

In testimony whereof, I affix my signature in presence of two witnesses.

ERNEST J. OSGOOD.

Witnesses:

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